

Compilation of Changes to the CPC Scheme Between 2023.05 and 2023.08

Presentation Details

- Entries for new symbols and headings: *Black text in italics*
- Entries for existing symbols and headings
- text insertions: *Green text in italics*
 - text deletions: ~~Red strikethrough text with grey background~~
- Entries for deleted symbols and headings: ~~Black strikethrough text~~
- Entries arranged by project.
 - In cases when the originating project cannot be found, "Unknown" is given for the Project information.
 - Projects ending in "-F" indicate finalisation after reclassification was completed.

Project: MP10336 (C07K)

- M C07K 19/00** **Hybrid peptides *{, i.e. peptides covalently bound to nucleic acids, or non-covalently bound protein-protein complexes}***

Project: MP11749 (B23B)

- U B23B 31/00** **Chucks *{(allowing axial oscillation of percussion tool bits B25D 17/08)}*; Expansion mandrels; Adaptations thereof for remote control (faceplates B23Q 1/50; rotary devices holding by magnetic and/or electrical force acting directly on work B23Q 3/152)**
- U B23B 31/02 • Chucks
- U B23B 31/10 • characterised by the retaining or gripping devices or their immediate operating means
- NOTE
- Group [B23B 31/12](#) takes precedence over groups [{B23B 31/101, B23B 31/102,}B23B 31/103 - B23B 31/117](#)
- U B23B 31/107 • • Retention by laterally-acting detents, e.g. pins, screws, wedges; Retention by loose elements, e.g. balls
- M B23B 31/1072 • • • {Retention by axially or circumferentially oriented cylindrical elements (cylindrical elements acting as jaws ~~B23B 31/22~~[B23B 31/223](#))}
- M B23B 31/1073 • • • {Retention by conical elements (conical elements acting as jaws ~~B23B 31/22~~[B23B 31/226](#))}
- U B23B 31/12 • • Chucks with simultaneously-acting jaws, whether or not also individually adjustable
- M B23B 31/22 • • • Jaws in the form of balls ~~{(retention by balls B23B 31/1071)}~~
- M B23B 31/223 • • • • {Jaws in the form of cylindrical elements ~~(retention by cylindrical elements B23B 31/1072)}~~
- M B23B 31/226 • • • • {Jaws in the form of conical elements ~~(retention by conical elements B23B 31/1073)}~~

Project: MP11965 (B41J)

- M B41J** **TYPEWRITERS; SELECTIVE PRINTING MECHANISMS, i.e. MECHANISMS PRINTING OTHERWISE THAN FROM A FORME; CORRECTION OF TYPOGRAPHICAL ERRORS**

NOTES

1. This subclass covers:
 - manually controlled power-operated apparatus or apparatus of this type with additional control by input of recorded information, e.g. on punched cards or tapes;

- the "print-out" features of apparatus controlled by record carriers or electric signals in so far as these are of general interest, e.g. impression, inking, line-spacing mechanisms, printing heads.
2. This subclass does not cover:
 - electrical features of apparatus controlled by record carriers or electric signals and of interest apart from the "print-out" features of said apparatus;
 - apparatus controlled by record carriers or electric signals, as a whole.
 3. In this subclass, the following term is used with the meaning indicated:
 - "paper" covers also similar flexible copy material;
 - "printing material" covers both paper and temporary record carriers from which records are transferred to a paper, but does not cover printing masters, e.g. formes.

WARNING

{In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

U B41J 2/00

Typewriters or selective printing mechanisms characterised by the printing or marking process for which they are designed (mounting, arrangement or disposition of types or dies [B41J 1/00](#))

NOTES

1. This group covers devices reproducing only a discrete number of tones, whereas group [H04N 1/00](#) covers devices used for the reproduction of documents or the like, which devices are capable of reproducing continuous tone value scales.
2. In this group, the following expressions are used with the meanings indicated:
 - "ink jet" involves the projection of ink on to the printing material, e.g. paper, through a nozzle as a stream of droplets or particles of colouring matter
 - "continuous ink jet" means a jet of ink transformed into a continuous stream of droplets or particles of colouring matter after having left the nozzle
 - "ink spray" means a spray of ink transported by a stream of charged particles or air on to the printing material

U B41J 2/005

• characterised by bringing liquid or particles selectively into contact with a printing material (printing by selective application of impact or pressure on a printing or impression-transfer material [B41J 2/22](#))

U B41J 2/01

• • Ink jet

U B41J 2/07

• • • characterised by jet control ([B41J 2/205](#) takes precedence)

M B41J 2/125

• • • • Sensors, e.g. deflection sensors *{(nozzle clogging detection for cleaning reasons [B41J 2/16579](#); detection for compensation for failed nozzles [B41J 2/2139](#))}*

U B41J 2/135

• • • Nozzles

U B41J 2/14

• • • • Structure thereof {only for on-demand ink jet heads}

M B41J 2002/14193

• • • • • {movable member in the ink chamber ~~{for bubble jet [B41J 2/14048](#)}~~}

M B41J 2002/14338

• • • • • {Multiple pressure elements per ink chamber ~~{for bubble jet [B41J 2/14056](#)}~~}

M B41J 2002/14419

• • • • • {Manifold ~~{for bubble jet [B41J 2/14145](#)}~~}

M B41J 2002/14483

• • • • • {Separated pressure chamber ~~{for bubble jet [B41J 2/14064](#)}~~}

M B41J 2002/14491

• • • • • {Electrical connection ~~{for bubble jet [B41J 2/14072](#)}~~}

U B41J 2/16

• • • • • Production of nozzles

M B41J 2/1621

• • • • • {~~manufacturing~~ *Manufacturing* processes}

U B41J 2/165

• • • • • Preventing {or detecting} of nozzle clogging, e.g. cleaning, capping or moistening for nozzles

- M B41J 2/16517 {Cleaning of print head nozzles ([B41J 2/16505](#), [B41J 2/1707](#); ~~[B41J 2/1714](#)~~ take precedence)}
- M B41J 2/17 . . . characterised by ink handling *{(cleaning by driving a fluid through the nozzles to the outside thereof [B41J 2/1652](#); for treating before, during or after printing or for uniform coating or laminating the copy material before or after printing [B41J 11/0015](#))}*
- U B41J 2/21 . . . for multi-colour printing
- M B41J 2/2107 {characterised by the ink properties *(supplying ink in a solid state [B41J 2/17593](#))*}
- U B41J 2/2121 {characterised by dot size, e.g. combinations of printed dots of different diameter}
- M B41J 2/2128 {by means of energy modulation *(control methods or devices therefor, e.g. driver circuits or control circuits [B41J 2/04501](#))*}
- U B41J 2/2132 {Print quality control characterised by dot disposition, e.g. for reducing white stripes or banding (methods for local corrections by dot omission, image edge enhancement, or multi-pass mask selection [G06K 15/102](#); colour conversion [H04N 1/40](#))}
- M B41J 2/2135 {Alignment of dots ~~(adjustments by bodily moving print heads or carriages [B41J 25/001](#))~~}
- M B41J 2/2139 {Compensation for malfunctioning nozzles creating dot place or dot size errors *(generating single droplets or particles on demand by pressure, e.g. electromechanical transducers [B41J 2/045](#))*}
- M B41J 2/2142 {Detection of malfunctioning nozzles ~~(for cleaning purposes [B41J 2/16579](#); generating single droplets or particles on demand by pressure, e.g. electromechanical transducers [B41J 2/045](#), [B41J 2/05](#); jet deflection sensors [B41J 2/125](#); for cleaning purposes [B41J 2/16579](#))~~}
- U B41J 2/485 . characterised by the process of building-up characters {or image elements} applicable to two or more kinds of printing or marking processes
- M B41J 2/505 . . from an assembly of identical printing elements ~~{(printers with two or more sets of printing elements [B41J 3/54](#); arrangements for producing a permanent visual presentation of the digital output data using matrix printers, e.g. individual print element control for printing letters [G06K 15/10](#))}~~}
- M B41J 2/5056 . . . {using dot arrays providing selective dot disposition modes, e.g. different dot densities for high speed and high-quality printing, array line selections for multi-pass printing, or dot shifts for character inclination ([B41J 2/2132](#) takes precedence; ~~providing dot disposition modes by bodily changing the angle of a print head [B41J 25/003](#)~~)}
- U B41J 3/00** **Typewriters or selective printing or marking mechanisms characterised by the purpose for which they are constructed**
- M B41J 3/36 . . for portability {, i.e. hand-held printers or laptop printers ([B41J 3/4075](#) takes precedence; ~~printers with reduced dimensions [B41J 29/023](#); stackable printers [B41J 29/026](#))}~~}
- M B41J 3/407 . . for marking on special material ~~{(apparatus or processes for manufacturing printed circuits by printing or dispensing a conductive paste or ink [H05K 3/1241](#))}~~}
- M B41J 3/4075 . . {Tape printers; Label printers ~~(tape cartridges [B41J 15/044](#))~~}
- M B41J 3/4076 . . {printing on rewritable, bistable "electronic paper" by a focused electric or magnetic field ~~(displays in which the positions of movable elements are controlled by the application of an electric field [G09F 9/372](#), of a magnetic field [G09F 9/375](#))~~}

- M B41J 3/4078
- {Printing on textile (~~ink-jet dyeing or printing processes for textile D06P 5/30; conversion of colour signals for textile printing H04N 1/54~~)}
- U B41J 5/00** **Devices or arrangements for controlling character selection (methods or arrangements for sensing record carriers [G06K 7/00](#))**
- U B41J 5/08
- Character or syllable selected by means of keys or keyboards of the typewriter type
- WARNING
- Groups [B41J 5/08](#) - [B41J 5/28](#) are no longer used for the classification of new documents. See [G06F 3/00](#)
- U B41J 5/10
- Arrangements of keyboards {, e.g. key button disposition}
- M B41J 5/102
- {Keyboard overlays (~~for computer use G06F 3/023~~)}
- U B41J 7/00** **Type-selecting or type-actuating mechanisms (index setting [B41J 5/02](#))**
- M B41J 7/005
- {Type-selecting actions or mechanisms by unusual means, e.g. for use by physically disabled persons (~~control means for physically disabled persons in general A61F 4/00~~)}
- U B41J 11/00** **Devices or arrangements {of selective printing mechanisms, e.g. ink-jet printers or thermal printers,} for supporting or handling copy material in sheet or web form (script supports connected to the typewriter or printer [B41J 29/15](#))**
- M B41J 11/0035
- {Handling copy materials differing in thickness ([B41J 11/20](#) ~~and~~ *takes* [B41J 25/308](#) *take* precedence)}
- M B41J 11/009
- {Detecting type of paper, e.g. by automatic reading of a code that is printed on a paper package or on a paper roll or by sensing the grade of translucency of the paper (~~selecting type of paper B41J 11/485; investigating or analysing materials by the use of optical means G01N 21/00; investigating moving sheets G01N 21/86~~)}
- U B41J 11/48
- Apparatus for condensed record, tally strip, or like work using two or more papers, or sets of papers {, e.g. devices for switching over from handling of copy material in sheet form to handling of copy material in continuous form and *vice versa* or point-of-sale printers comprising means for printing on continuous copy material, e.g. journal for tills, and on single sheets, e.g. cheques or receipts ([B41J 15/042](#) takes precedence)}
- M B41J 11/485
- {Means for selecting a type of copy material amongst different types of copy material in the printing apparatus (~~detecting type of paper B41J 11/009~~)}
- U B41J 13/00** **Devices or arrangements {of selective printing mechanisms, e.g. ink-jet printers or thermal printers,} specially adapted for supporting or handling copy material in short lengths, e.g. sheets**
- U B41J 13/0009
- {control of the transport of the copy material}
- M B41J 13/0018
- {in the sheet input section of automatic paper handling systems (~~guides therefor B41J 13/103~~)}
- M B41J 13/0027
- {in the printing section of automatic paper handling systems (~~rollers B41J 13/02; guides therefor B41J 13/14~~)}
- M B41J 13/0036
- {in the output section of automatic paper handling systems (~~rollers B41J 13/02; guides B41J 13/106~~)}
- M B41J 13/0045
- {concerning sheet refeed sections of automatic paper handling systems, e.g. intermediate stackers, ~~reversing units~~ (printing on both faces [B41J 3/60](#))}

- M B41J 13/0063 · {Handling thick cut sheets ~~larger than credit cards~~, e.g. greeting cards; ~~postcards; or postcards~~, *larger than credit cards*, e.g. using means for enabling or facilitating the conveyance of thick sheets ([B41J 11/20](#), [B41J 13/12](#) and [B41J 25/308](#) take precedence)}
- M B41J 19/00 Character- or line-spacing mechanisms ~~{{superimposed movements for serial printing B41J 25/005}}~~**
- U B41J 25/00 Actions or mechanisms not otherwise provided for**
- M B41J 25/001 · {Mechanisms for bodily moving print heads or carriages parallel to the paper surface ~~(character- or line-spacing mechanisms B41J 19/00)}~~
- M B41J 25/003 · · {for changing the angle between a print element array axis and the printing line, e.g. for dot density changes ~~(dot arrays providing selective dot disposition modes B41J 2/5056)}~~
- M B41J 25/304 · Bodily-movable mechanisms for print heads or carriages movable towards or from paper surface ~~{{line print heads movable towards a cleaning unit B41J 2/16588}}~~
- U B41J 29/00 Details of, or accessories for, typewriters or selective printing mechanisms not otherwise provided for**
- U B41J 29/02 · Framework
- M B41J 29/023 · · {with reduced dimensions ~~(for portability B41J 3/36)}~~
- U B41J 33/00 Apparatus or arrangements for feeding ink ribbons or like character-size impression-transfer material**
- M B41J 33/003 · {Ribbon spools ~~(spools in general B65H 75/00)}~~
- U B41J 2202/00 Embodiments of or processes related to ink-jet or thermal heads**
- U B41J 2202/01 · Embodiments of or processes related to ink-jet heads
- M B41J 2202/15 · · Moving nozzle or nozzle plate ~~(for moving nozzle or nozzle plate made of thermal bend actuator B41J 2002/14435)~~

Project: MP12032 (A61B)

- U A61B 5/72 · {Signal processing specially adapted for physiological signals or for diagnostic purposes (character recognition, recognising digital ink, document-oriented image-based pattern recognition [G06V 30/00](#); recognition or understanding of postal images [G06V 30/424](#))}
- U A61B 5/7235 · · {Details of waveform analysis ([A61B 5/349](#) takes precedence)}
- M A61B 5/7264 · · · {Classification of physiological signals or data, e.g. using neural networks, statistical classifiers, expert systems or fuzzy systems (~~neural networks per se G01N 3/00; neural networks per se G06N 3/00~~; expert systems per se [G06N 5/00](#))}

Project: MP12032 (F03G)

- U F03G 7/00 Mechanical-power-producing mechanisms, not otherwise provided for or using energy sources not otherwise provided for**
- WARNING
- Group [F03G 7/00](#) is impacted by reclassification into groups [F03G 7/003](#), [F03G 7/004](#), [F03G 7/008](#), [F03G 7/009](#), [F03G 7/011](#), [F03G 7/012](#), [F03G 7/0121](#), [F03G 7/015](#), [F03G 7/016](#), [F03G 7/017](#), [F03G 7/025](#), [F03G 7/0252](#), [F03G 7/0254](#), [F03G 7/027](#), [F03G 7/028](#), [F03G 7/029](#) and [F03G 7/092](#).
- All groups listed in this Warning should be considered in order to perform a complete search.

- U F03G 7/10
- Alleged perpetua mobilia (using hydrostatic thrust [F03B 17/04](#))
- WARNING**
 Group [F03G 7/10](#) is impacted by reclassification into groups [F03G 7/104](#), [F03G 7/107](#), [F03G 7/111](#), [F03G 7/115](#), [F03G 7/119](#), [F03G 7/122](#), [F03G 7/125](#), [F03G 7/129](#) and [F03G 7/135](#).
 All groups listed in this Warning should be considered in order to perform a complete search.

- M F03G 7/119
- · · {amplifying power, torque or energy}

Project: MP12032 (F25B)

- U F25B 2700/00 **Sensing or detecting of parameters; Sensors therefor**
- U F25B 2700/21 · Temperatures
- U F25B 2700/2116 · · of a condenser
- M F25B 2700/21161 · · · ~~the fluid-cooled~~ *of the fluid heated* by the condenser

Project: MP12037 (B60S)

- U B60S 1/00 **Cleaning of vehicles (by apparatus not integral with vehicle [B60S 3/00](#); cleaning in general [B08B](#); de-icing of aircraft [B64D](#); heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#))**
- U B60S 1/02 · Cleaning windscreens, windows or optical devices {(wind deflectors specially adapted for preventing soiling of windows or windscreens [B60J 1/2002](#))}
- U B60S 1/04 · · Wipers or the like, e.g. scrapers
- U B60S 1/0452 · · · {Position of the wipers relative to the vehicle}
- U B60S 1/0458 · · · · {Arrangement wherein the windscreen frame cooperates with the wipers}
- M B60S 1/0463 · · · · · {Arrangement of the ~~cow~~*cowl*}
- U B60S 1/0475 · · · {Cleaning of wiper blades}
- M B60S 1/0483 · · · · {the cleaning device being ~~separated~~*separate* from the vehicle (~~renovating blade rubbers~~ [B60S 2001/3846](#))}
- U B60S 1/46 · · using liquid; Windscreen washers
- U B60S 1/48 · · · Liquid supply therefor
- U B60S 1/481 · · · · {the operation of at least part of the liquid supply being controlled by electric means (electrical washing liquid warming-up means [B60S 1/488](#))}
- M B60S 1/485 · · · · · · {including control systems responsive to external conditions, e.g. by detection of moisture, dirt or the like}
- M B60S 1/486 · · · · · · {including control systems responsive to a vehicle driving condition, e.g. speed}
- U B60S 1/54 · · using gas, e.g. hot air
- M B60S 1/548 · · · · {according to vehicle movement characteristics, e.g. speed, or climatic conditions, e.g. wind}

- M B60S 5/00 Servicing, maintaining, repairing, or refitting of vehicles (~~{collecting or removing exhaust gases in workshops B08B 15/002; straightening vehicle body parts B21D 1/12, B21D 1/14}~~; vehicles adapted to carry a workshop for servicing or maintenance [B60P 3/14](#); servicing rail locomotives [B61K](#); ~~{registering or indicating the working of vehicles G07C 5/00; testing of vehicles G01M 17/00; arrangements for electrical testing G01R 31/00; devices for monitoring or checking brake systems B60T 17/22; filling or draining lubricant F01M 11/04; means for collecting, retaining, or draining off lubricant F16N 31/00; draining of lubricant from gearing F16H 57/0406; assembly or repair of springs or dampers F16F 9/3271; tool, instrument or work supports or storage means used in association with vehicles B25H 5/00}~~)
- M B60S 9/00 Ground-engaging vehicle fittings for supporting, lifting, or manoeuvring the vehicle, wholly or in part, e.g. built-in jacks (~~{props for vehicle draw bars B60D 1/66; anti-theft devices acting on vehicle jacking means B60R 25/001}~~; lifting devices in general [B66F](#); ~~supports in general F16M~~; [supports in general F16M](#))

Project: MP12101 (G06V)

M G06V IMAGE OR VIDEO RECOGNITION OR UNDERSTANDING

NOTES

- This subclass covers:
 - methods or arrangements for pattern recognition or machine learning specially adapted for images or video.
- In this subclass, the following terms or expressions are used with the meaning indicated:
 - "pattern recognition" means detection, categorisation, authentication and identification of patterns for explanatory purposes or to derive a certain meaning in images or video, by acquiring, preprocessing or extracting distinctive features and matching, clustering or classifying these features or representations thereof;
 - "feature extraction" means deriving descriptive or quantitative measures from images or video;
 - "clustering" means grouping or separating patterns according to their ~~(dis)similarity or closeness~~ [closeness or dissimilarity](#);
 - "classification" means the identification of an object/feature as belonging to a class of objects/features by assigning of a label.
- In this subclass, subject matter classified in groups [G06V 20/00](#) - [G06V 40/00](#) is also classified in groups [G06V 10/10](#) or [G06V 10/20](#) respectively, if recognition relies on specific processing at the stages of acquisition or preprocessing.

Project: RP0291-F (E04H)

- M E04H 17/00 Fencing, e.g. fences, enclosures, corrals (features peculiar to electrified fences [A01K 3/00](#), [H05C](#); means for allowing passage through fences, barriers, or the like [E06B 11/00](#))

WARNING

Group E04H 17/00 is impacted by reclassification into groups E04H 17/004, E04H 17/006, E04H 17/009, E04H 17/013, and E04H 17/017.
All groups listed in this Warning should be considered in order to perform a complete search.

- M E04H 17/003
- {Anti-climbing devices, e.g. fixed spikes}
- WARNING
Group E04H 17/003 is impacted by reclassification into group E04H 17/004. Groups E04H 17/003 and E04H 17/004 should be considered in order to perform a complete search.
- M E04H 17/004
- {Unstable, e.g. rotatory or resiliently mounted fence panels, spikes}
- WARNING
Group E04H 17/004 is incomplete pending reclassification of documents from groups E04H 17/00 and E04H 17/003. Groups E04H 17/00, E04H 17/003, and E04H 17/004 should be considered in order to perform a complete search.
- M E04H 17/006
- {Caps or covers for posts}
- WARNING
Group E04H 17/006 is incomplete pending reclassification of documents from group E04H 17/00. Groups E04H 17/00 and E04H 17/006 should be considered in order to perform a complete search.
- M E04H 17/009
- {Footing elements for fence posts or fence sections}
- WARNING
Group E04H 17/009 is incomplete pending reclassification of documents from groups E04H 17/00 and E04H 17/22. Groups E04H 17/00, E04H 17/22, and E04H 17/009 should be considered in order to perform a complete search.
- M E04H 17/013
- {in combination with gates}
- WARNING
Group E04H 17/013 is incomplete pending reclassification of documents from group E04H 17/00. Groups E04H 17/00 and E04H 17/013 should be considered in order to perform a complete search.
- M E04H 17/017
- {Fencing provided with electric elements or components, e.g. fencing member or component, such as fence strands, post, panel or rail, provided with electric elements or components}
- NOTE
{When classifying in this group, aspects of electrified wire fencing for animal pasturing should also be classified in group [A01K 3/005](#)}
- WARNING
Group E04H 17/017 is incomplete pending reclassification of documents from group E04H 17/00. Groups E04H 17/00 and E04H 17/017 should be considered in order to perform a complete search.
- M E04H 17/02
- Wire fencing, e.g. made of wire mesh ([E04H 17/14](#) takes precedence)
- WARNING
Group E04H 17/02 is impacted by reclassification into groups E04H 17/045, E04H 17/05, and E04H 17/055. All groups listed in this Warning should be considered in order to perform a complete search.

- M E04H 17/04
- • characterised by the use of specially adapted wire, e.g. barbed wire {, wire mesh, toothed strip or the like; Coupling means therefor}
- WARNING**
Group E04H 17/04 is impacted by reclassification into groups E04H 17/045, E04H 17/05, and E04H 17/055.
All groups listed in this Warning should be considered in order to perform a complete search.
- M E04H 17/045
- • • {Barbed wire or toothed strip}
- WARNING**
Group E04H 17/045 is incomplete pending reclassification of documents from groups E04H 17/02 and E04H 17/04.
Groups E04H 17/02, E04H 17/04, and E04H 17/045 should be considered in order to perform a complete search.
- M E04H 17/05
- • • {Wire mesh or wire fabric}
- WARNING**
Group E04H 17/05 is incomplete pending reclassification of documents from groups E04H 17/02 and E04H 17/04.
Groups E04H 17/02, E04H 17/04, and E04H 17/05 should be considered in order to perform a complete search.
- M E04H 17/055
- • {Pickets for wire fencing}
- WARNING**
Group E04H 17/055 is incomplete pending reclassification of documents from groups E04H 17/02 and E04H 17/04.
Groups E04H 17/02, E04H 17/04, and E04H 17/055 should be considered in order to perform a complete search.
- M E04H 17/06
- • Parts for wire fences
- WARNING**
Group E04H 17/06 is impacted by reclassification into groups E04H 17/127, E04H 17/131, E04H 17/133, E04H 17/135, and E04H 17/139.
All groups listed in this Warning should be considered in order to perform a complete search.
- M E04H 17/10
- • characterised by the way of connecting wire to posts; Droppers
- WARNING**
Group E04H 17/10 is impacted by reclassification into groups E04H 17/124, E04H 17/127, E04H 17/131, E04H 17/133, E04H 17/135, and E04H 17/139.
All groups listed in this Warning should be considered in order to perform a complete search.
- M E04H 17/124
- • • {connecting by one or more clamps, clips, screws, wedges or ties}
- WARNING**
Group E04H 17/124 is incomplete pending reclassification of documents from group E04H 17/10.
Groups E04H 17/10 and E04H 17/124 should be considered in order to perform a complete search.
- M E04H 17/127
- • {Stretcher-type wire fencing; Tensioning devices for wire fencing}
- WARNING**
Group E04H 17/127 is incomplete pending reclassification of documents from groups E04H 17/06, E04H 17/10, and E04H 17/266.

~~Groups E04H 17/06, E04H 17/266, and E04H 17/127 should be considered in order to perform a complete search.~~

- M E04H 17/131
- • • {the wire being tensioned by one or more springs}

WARNING

~~Group E04H 17/131 is incomplete pending reclassification of documents from groups E04H 17/06 and E04H 17/10.~~

~~Groups E04H 17/06, E04H 17/10, and E04H 17/131 should be considered in order to perform a complete search.~~

- M E04H 17/133
- • • {the wire being tensioned by one or more winders}

WARNING

~~Groups E04H 17/133, E04H 17/135, and E04H 17/139 are incomplete pending reclassification of documents from groups E04H 17/06 and E04H 17/10.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M E04H 17/14
- Fences constructed of rigid elements, e.g. with additional wire fillings or with posts

WARNING

~~Group E04H 17/14 is impacted by reclassification into groups E04H 17/21 and E04H 17/23.~~

~~Groups E04H 17/14, E04H 17/21, and E04H 17/23 should be considered in order to perform a complete search.~~

- U E04H 17/1413
- • {Post-and-rail fences, e.g. without vertical cross-members}

- M E04H 17/1447
- • • {Details of connections between rails and posts}

WARNING

~~Group E04H 17/1447 is impacted by reclassification into groups E04H 17/1448, E04H 17/145, and E04H 17/1488.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M E04H 17/1448
- • • • {Adjustable, angled or hinged connections}

WARNING

~~Group E04H 17/1448 is incomplete pending reclassification of documents from group E04H 17/1447.~~

~~Groups E04H 17/1447 and E04H 17/1448 should be considered in order to perform a complete search.~~

- M E04H 17/145
- • • • {being welded, bonded or deformed in-situ}

WARNING

~~Group E04H 17/145 is incomplete pending reclassification of documents from group E04H 17/1447.~~

~~Groups E04H 17/1447 and E04H 17/145 should be considered in order to perform a complete search.~~

- M E04H 17/1488
- • • • {Brackets for connections between rails and posts ([E04H 17/1448](#)-[E04H 17/1486](#) take precedence)}

WARNING

~~Group E04H 17/1488 is incomplete pending reclassification of documents from group E04H 17/1447.~~

Groups E04H 17/1447 and E04H 17/1488 should be considered in order to perform a complete search.

- M E04H 17/16
 - • using prefabricated panel-like elements, e.g. wired frames

WARNING
Group E04H 17/16 is impacted by reclassification into groups E04H 17/1602, E04H 17/17, and E04H 17/185.
All groups listed in this Warning should be considered in order to perform a complete search.
- M E04H 17/1602
 - • • {Using wooden, plastic or composite-material panel-like elements}

WARNING
Group E04H 17/1602 is incomplete pending reclassification of documents from group E04H 17/16.
Groups E04H 17/16 and E04H 17/1602 should be considered in order to perform a complete search.
- M E04H 17/161
 - • • {using wire panels}

WARNING
Group E04H 17/161 is impacted by reclassification into group E04H 17/164.
Groups E04H 17/161 and E04H 17/164 should be considered in order to perform a complete search.
- M E04H 17/163
 - • • • {using wired panels with frame}

WARNING
Group E04H 17/163 is impacted by reclassification into group E04H 17/164.
Groups E04H 17/163 and E04H 17/164 should be considered in order to perform a complete search.
- M E04H 17/164
 - • • • {occultation devices therefor, e.g. slats, fence liners or panels blocking view therethrough}

WARNING
Group E04H 17/164 is incomplete pending reclassification of documents from groups E04H 17/161 and E04H 17/163.
Groups E04H 17/161, E04H 17/163, and E04H 17/164 should be considered in order to perform a complete search.
- M E04H 17/168
 - • • {using panels fitted in grooves of posts}

WARNING
Group E04H 17/168 is incomplete pending reclassification of documents from groups E04H 17/163, E04H 17/165 and E04H 17/166.
All groups listed in this Warning should be considered in order to perform a complete search.
- M E04H 17/17
 - • • {brackets for the connection between panels and posts}

WARNING
Group E04H 17/17 is incomplete pending reclassification of documents from group E04H 17/16.
Groups E04H 17/16 and E04H 17/17 should be considered in order to perform a complete search.
- U E04H 17/18
 - • • Corrals, i.e. easily transportable or demountable enclosures

- M E04H 17/185
- • • {hinged or tied prefabricated panel-like elements}
- WARNING
Group E04H 17/185 is incomplete pending reclassification of documents from group E04H 17/16.
Groups E04H 17/16 and E04H 17/185 should be considered in order to perform a complete search.
- M E04H 17/20
- • Posts therefor
- WARNING
Group E04H 17/20 is impacted by reclassification into group E04H 17/21.
Groups E04H 17/20 and E04H 17/21 should be considered in order to perform a complete search.
- M E04H 17/21
- • • {with hollow cross sections}
- WARNING
Group E04H 17/21 is incomplete pending reclassification of documents from groups E04H 17/14 and E04H 17/20.
Groups E04H 17/14, E04H 17/20, and E04H 17/21 should be considered in order to perform a complete search.
- M E04H 17/22
- • Anchoring means therefor, e.g. specially-shaped parts entering the ground; Struts or the like
- NOTE
Parts entering the ground are classified in [E04H 12/22](#)
- WARNING
Group E04H 17/22 is impacted by reclassification into group E04H 17/009.
Groups E04H 17/22 and E04H 17/009 should be considered in order to perform a complete search.
- M E04H 17/23
- • • {lateral supporting elements, e.g. braces, tie downs, or cables}
- WARNING
Group E04H 17/23 is incomplete pending reclassification of documents from group E04H 17/14.
Groups E04H 17/14 and E04H 17/23 should be considered in order to perform a complete search.
- U E04H 17/26
- Devices for erecting or removing fences
- U E04H 17/261
- • {for post and wire handling}
- M E04H 17/266
- • • {for stretching or winding wire or wire mesh (stretcher-type wire fencing or tensioning devices for wire fencing [E04H 17/127](#))}
- WARNING
Group E04H 17/266 is impacted by reclassification into group E04H 17/127.
Groups E04H 17/266 and E04H 17/127 should be considered in order to perform a complete search.

Project: RP0331-F (G01C)

M G01C 21/00 Navigation; Navigational instruments not provided for in groups [G01C 1/00](#) - [G01C 19/00](#) (measuring distance traversed on the ground by a vehicle [G01C 22/00](#); control of position, course, altitude or attitude of vehicles [G05D 1/00](#); traffic control systems for road vehicles involving transmission of navigation instructions to the vehicle [G08G 1/0968](#))

WARNING

Group G01C 21/00 is impacted by reclassification into groups G01C 21/38-
G01C 21/3896.-

All groups listed in this Warning should be considered in order to perform a complete search.

M G01C 21/165 . . . {combined with non-inertial navigation instruments}

WARNING

Group G01C 21/165 is impacted by reclassification into groups
G01C 21/1652, G01C 21/1654, and G01C 21/1656.-

Groups G01C 21/165, G01C 21/1652, G01C 21/1654, and G01C 21/1656
should be considered in order to perform a complete search.

M G01C 21/1652 . . . {with ranging devices, e.g. LIDAR or RADAR}

WARNING

Group G01C 21/1652 is incomplete pending reclassification of
documents from group G01C 21/165.-

Groups G01C 21/165 and G01C 21/1652 should be considered in order
to perform a complete search.

M G01C 21/1654 . . . {with electromagnetic compass}

WARNING

Group G01C 21/1654 is incomplete pending reclassification of
documents from group G01C 21/165.-

Groups G01C 21/165 and G01C 21/1654 should be considered in order
to perform a complete search.

M G01C 21/1656 . . . {with passive imaging devices, e.g. cameras}

WARNING

Group G01C 21/1656 is incomplete pending reclassification of
documents from group G01C 21/165.-

Groups G01C 21/165 and G01C 21/1656 should be considered in order
to perform a complete search.

M G01C 21/166 . . . {Mechanical, construction or arrangement details of inertial navigation systems}

WARNING

Group G01C 21/166 is incomplete pending reclassification of documents
from group G01C 21/16.-

Groups G01C 21/16 and G01C 21/166 should be considered in order to
perform a complete search.

M G01C 21/183 . . . {Compensation of inertial measurements, e.g. for temperature effects}

WARNING

Group G01C 21/183 is incomplete pending reclassification of documents
from groups G01C 21/16.-

Groups G01C 21/16 and G01C 21/183 should be considered in order to
perform a complete search.

- M G01C 21/185 · · · · {for gravity}
- WARNING
Group G01C 21/185 is incomplete pending reclassification of documents from groups G01C 21/16.
Groups G01C 21/16 and G01C 21/185 should be considered in order to perform a complete search.
- M G01C 21/188 · · · · {for accumulated errors, e.g. by coupling inertial systems with absolute positioning systems}
- WARNING
Group G01C 21/188 is incomplete pending reclassification of documents from groups G01C 21/16.
Groups G01C 21/16 and G01C 21/188 should be considered in order to perform a complete search.
- U G01C 21/26 · specially adapted for navigation in a road network
- U G01C 21/28 · · with correlation of data from several navigational instruments
- U G01C 21/30 · · · Map- or contour-matching
- M G01C 21/32 · · · · Structuring or formatting of map data
- WARNING
Group G01C 21/32 is impacted by reclassification into groups G01C 21/38 – G01C 21/3896.
Groups G01C 21/32 and G01C 21/38 – G01C 21/3896 should be considered in order to perform a complete search.
- M G01C 21/38 · {Electronic maps specially adapted for navigation; Updating thereof}
- WARNING
Groups G01C 21/38 – G01C 21/3896 are incomplete pending reclassification of documents from groups G01C 21/00 and G01C 21/32.
Groups G01C 21/00, G01C 21/32, and G01C 21/38 – G01C 21/3896 should be considered in order to perform a complete search.

Project: RP0386-F (H02J)

- M H02J 1/00 **Circuit arrangements for dc mains or dc distribution networks**
- WARNING
Group H02J 1/00 is incomplete pending reclassification of documents from group H02J 13/0003.
Group H02J 1/00 is also impacted by reclassification into group H02J 1/001.
Groups H02J 13/0003, H02J 1/00, and H02J 1/001 should be considered in order to perform a complete search.
- M H02J 1/001 · {Hot plugging or unplugging of load or power modules to or from power distribution networks}
- WARNING
Group H02J 1/001 is incomplete pending reclassification of documents from groups H02J 1/00 and H02J 13/0003.
Groups H02J 1/00, H02J 13/0003, and H02J 1/001 should be considered in order to perform a complete search.
- M H02J 1/002 · {Intermediate AC, e.g. DC supply with intermediated AC distribution}
- WARNING
Group H02J 1/002 is incomplete pending reclassification of documents from group H02J 13/0003.

~~Groups H02J 13/0003 and H02J 1/002 should be considered in order to perform a complete search.~~

- M H02J 1/02
- Arrangements for reducing harmonics or ripples

WARNING

~~Group H02J 1/02 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/02 should be considered in order to perform a complete search.~~

- M H02J 1/04
- Constant-current supply systems

WARNING

~~Group H02J 1/04 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/04 should be considered in order to perform a complete search.~~

- M H02J 1/06
- Two-wire systems

WARNING

~~Group H02J 1/06 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/06 should be considered in order to perform a complete search.~~

- M H02J 1/08
- Three-wire systems; Systems having more than three wires

WARNING

~~Group H02J 1/08 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/08 should be considered in order to perform a complete search.~~

- M H02J 1/082
- • {Plural DC voltage, e.g. DC supply voltage with at least two different DC voltage levels}

WARNING

~~Group H02J 1/082 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/082 should be considered in order to perform a complete search.~~

- M H02J 1/084
- • {for selectively connecting the load or loads to one or several among a plurality of power lines or power sources}

WARNING

~~Group H02J 1/084 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/084 should be considered in order to perform a complete search.~~

- M H02J 1/086
- • • {for providing alternative feeding paths between load or loads and source or sources when the main path fails}

WARNING

~~Group H02J 1/086 is incomplete pending reclassification of documents from group H02J 13/0003.~~

~~Groups H02J 13/0003 and H02J 1/086 should be considered in order to perform a complete search.~~

- M H02J 1/10
- Parallel operation of dc sources
- WARNING**
Group H02J 1/10 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/10 should be considered in order to perform a complete search.
- M H02J 1/102
- {being switching converters ([H02J 1/108](#), [H02J 1/12](#) take precedence)}
- WARNING**
Group H02J 1/102 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/102 should be considered in order to perform a complete search.
- D H02J 2001/104
—(Frozen)
- • {for synchronisation}
- WARNING**
Group H02J 2001/104 is no longer used for the classification of documents as of January 1, 2020. The content of this group is being reclassified into groups H02J 1/10, H02J 1/102, H02J 1/106, H02J 1/108, H02J 1/109, H02J 1/12, and H02J 1/122. Groups H02J 2001/104, H02J 1/10, H02J 1/102, H02J 1/106, H02J 1/108, H02J 1/109, H02J 1/12, and H02J 1/122 should be considered in order to perform a complete search.
- M H02J 1/106
- {for load balancing, symmetrisation, or sharing}
- WARNING**
Group H02J 1/106 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/106 should be considered in order to perform a complete search.
- M H02J 1/108
- {using diodes blocking reverse current flow ([H02J 1/12](#) takes precedence)}
- WARNING**
Group H02J 1/108 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/108 should be considered in order to perform a complete search.
- M H02J 1/109
- {Scheduling or re-scheduling the operation of the DC sources in a particular order, e.g. connecting or disconnecting the sources in sequential, alternating or in subsets, to meet a given demand}
- WARNING**
Group H02J 1/109 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/109 should be considered in order to perform a complete search.
- M H02J 1/12
- Parallel operation of dc generators with converters, e.g. with mercury-arc rectifier
- WARNING**
Group H02J 1/12 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/12 should be considered in order to perform a complete search.

- M H02J 1/122
- {Provisions for temporary connection of DC sources of essentially the same voltage, e.g. jumpstart cables}
- WARNING**
Group H02J 1/122 is incomplete pending reclassification of documents from groups H02J 2001/104 and H02J 13/0003. Groups H02J 2001/104, H02J 13/0003, and H02J 1/122 should be considered in order to perform a complete search.
- M H02J 1/14
- Balancing the load in a network
- WARNING**
Group H02J 1/14 is incomplete pending reclassification of documents from group H02J 13/0003. Groups H02J 13/0003 and H02J 1/14 should be considered in order to perform a complete search.
- M H02J 1/16
- using dynamo-electric machines coupled to flywheels
- WARNING**
Group H02J 1/16 is incomplete pending reclassification of documents from group H02J 13/0003. Groups H02J 13/0003 and H02J 1/16 should be considered in order to perform a complete search.
- M H02J 3/00**
- Circuit arrangements for ac mains or ac distribution networks**
- WARNING**
Group H02J 3/00 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 3/00 should be considered in order to perform a complete search.
- M H02J 3/001
- {Methods to deal with contingencies, e.g. abnormalities, faults or failures}
- WARNING**
Group H02J 3/001 is impacted by reclassification into groups H02J 3/0012 and H02J 3/00125. Groups H02J 3/001, H02J 3/0012, and H02J 3/00125 should be considered in order to perform a complete search.
- M H02J 3/0012
- {Contingency detection}
- WARNING**
Group H02J 3/0012 is incomplete pending reclassification of documents from groups H02J 3/001 and H02J 13/0006. Groups H02J 3/001, H02J 13/0006, and H02J 3/0012 should be considered in order to perform a complete search.
- M H02J 3/00125
- {Transmission line or load transient problems, e.g. overvoltage, resonance or self-excitation of inductive loads ([H02J 3/01](#) takes precedence)}
- WARNING**
Group H02J 3/00125 is incomplete pending reclassification of documents from groups H02J 3/001 and H02J 13/0006. Groups H02J 3/001, H02J 13/0006, and H02J 3/00125 should be considered in order to perform a complete search.

- M H02J 3/002
- {Flicker reduction, e.g. compensation of flicker introduced by non-linear load}
- WARNING
 Group H02J 3/002 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/002 should be considered in order to perform a complete search.
- M H02J 3/003
- {Load forecast, e.g. methods or systems for forecasting future load demand}
- WARNING
 Group H02J 3/003 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/003 should be considered in order to perform a complete search.
- M H02J 3/004
- {Generation forecast, e.g. methods or systems for forecasting future energy generation}
- WARNING
 Group H02J 3/004 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/004 should be considered in order to perform a complete search.
- D H02J 3/005
 —(Frozen)
- {Arrangements for selectively connecting the load to one among a plurality of power lines or power sources (for providing uninterruptable power supply H02J 9/00)}
- WARNING
 Group H02J 3/005 is no longer used for the classification of documents as of January 1, 2020.
 The content of this group is being reclassified into groups H02J 3/007 and H02J 3/0075.
 Groups H02J 3/005, H02J 3/007, and H02J 3/0075 should be considered in order to perform a complete search.
- M H02J 3/007
- {Arrangements for selectively connecting the load or loads to one or several among a plurality of power lines or power sources (for providing uninterruptable power supply [H02J 9/00](#))}
- WARNING
 Group H02J 3/007 is incomplete pending reclassification of documents from groups H02J 3/005 and H02J 13/0006.
 Groups H02J 3/005, H02J 13/0006, and H02J 3/007 should be considered in order to perform a complete search.
- M H02J 3/0073
- {for providing alternative feeding paths between load and source when the main path fails, e.g. transformers, busbars}
- WARNING
 Group H02J 3/0073 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/0073 should be considered in order to perform a complete search.
- M H02J 3/0075
- {for providing alternative feeding paths between load and source according to economic or energy efficiency considerations, e.g. economic dispatch}
- WARNING
 Group H02J 3/0075 is incomplete pending reclassification of documents from groups H02J 3/005 and H02J 13/0006.

Groups H02J 3/005, H02J 13/0006, and H02J 3/0075 should be considered in order to perform a complete search.

M H02J 3/008

- {involving trading of energy or energy transmission rights}

WARNING

Group H02J 3/008 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/008 should be considered in order to perform a complete search.

M H02J 3/01

- Arrangements for reducing harmonics or ripples

WARNING

Group H02J 3/01 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/01 should be considered in order to perform a complete search.

M H02J 3/02

- using a single network for simultaneous distribution of power at different frequencies; using a single network for simultaneous distribution of ac power and of dc power

WARNING

Group H02J 3/02 is incomplete pending reclassification of documents from groups H02J 13/0006, H02J 13/0093, and H02J 13/0096.
Groups H02J 3/02, H02J 13/0006, H02J 13/0093, and H02J 13/0096 should be considered in order to perform a complete search.

M H02J 3/04

- for connecting networks of the same frequency but supplied from different sources

WARNING

Group H02J 3/04 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/04 should be considered in order to perform a complete search.

M H02J 3/06

- Controlling transfer of power between connected networks; Controlling sharing of load between connected networks

WARNING

Group H02J 3/06 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/06 should be considered in order to perform a complete search.

M H02J 3/08

- Synchronising of networks

WARNING

Group H02J 3/08 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/08 should be considered in order to perform a complete search.

M H02J 3/10

- Constant-current supply systems

WARNING

Group H02J 3/10 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/10 should be considered in order to perform a complete search.

- M H02J 3/12
- for adjusting voltage in ac networks by changing a characteristic of the network load
- WARNING
Group H02J 3/12 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/12 should be considered in order to perform a complete search.
- M H02J 3/14
- • by switching loads on to, or off from, network, e.g. progressively balanced loading
- WARNING
Group H02J 3/14 is incomplete pending reclassification of documents from group H02J 13/0006.
Group H02J 3/14 is also impacted by reclassification into group H02J 3/144.
Groups H02J 13/0006, H02J 3/14, and H02J 3/144 should be considered in order to perform a complete search.
- M H02J 3/144
- • • {Demand-response operation of the power transmission or distribution network}
- WARNING
Group H02J 3/144 is incomplete pending reclassification of documents from groups H02J 3/14 and H02J 13/0006.
Groups H02J 3/14, H02J 13/0006, and H02J 3/144 should be considered in order to perform a complete search.
- M H02J 3/16
- • by adjustment of reactive power
- WARNING
Group H02J 3/16 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/16 should be considered in order to perform a complete search.
- M H02J 3/18
- Arrangements for adjusting, eliminating or compensating reactive power in networks (for adjustment of voltage [H02J 3/16](#))
- WARNING
Group H02J 3/18 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/18 should be considered in order to perform a complete search.
- M H02J 3/1807
- • {using series compensators}
- WARNING
Group H02J 3/1807 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1807 should be considered in order to perform a complete search.
- M H02J 3/1814
- • • {wherein at least one reactive element is actively controlled by a bridge converter, e.g. unified power flow controllers [UPFC]}
- WARNING
Group H02J 3/1814 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1814 should be considered in order to perform a complete search.

- M H02J 3/1821
- • {using shunt compensators ([H02J 3/1807](#), [H02J 3/1878](#) take precedence)}
- WARNING
 Group H02J 3/1821 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1821 should be considered in order to perform a complete search.
- M H02J 3/1828
- • • {with stepwise control, the possibility of switching in or out the entire compensating arrangement not being considered as stepwise control}
- WARNING
 Group H02J 3/1828 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1828 should be considered in order to perform a complete search.
- M H02J 3/1835
- • • {with stepless control}
- WARNING
 Group H02J 3/1835 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1835 should be considered in order to perform a complete search.
- M H02J 3/1842
- • • • {wherein at least one reactive element is actively controlled by a bridge converter, e.g. active filters}
- WARNING
 Group H02J 3/1842 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1842 should be considered in order to perform a complete search.
- M H02J 3/185
- • • • • {wherein such reactive element is purely inductive, e.g. superconductive magnetic energy storage systems [SMES]}
- WARNING
 Group H02J 3/185 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/185 should be considered in order to perform a complete search.
- M H02J 3/1857
- • • • • {wherein such bridge converter is a multilevel converter}
- WARNING
 Group H02J 3/1857 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1857 should be considered in order to perform a complete search.
- M H02J 3/1864
- • • • • {wherein the stepless control of reactive power is obtained by at least one reactive element connected in series with a semiconductor switch}
- WARNING
 Group H02J 3/1864 is incomplete pending reclassification of documents from group H02J 13/0006.
 Groups H02J 13/0006 and H02J 3/1864 should be considered in order to perform a complete search.

- M H02J 3/1871
- • {Methods for planning installation of shunt reactive power compensators}
- WARNING
Group H02J 3/1871 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1871 should be considered in order to perform a complete search.
- M H02J 3/1878
- • {using tap changing or phase shifting transformers}
- WARNING
Group H02J 3/1878 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1878 should be considered in order to perform a complete search.
- M H02J 3/1885
- • {using rotating means, e.g. synchronous generators}
- WARNING
Group H02J 3/1885 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1885 should be considered in order to perform a complete search.
- M H02J 3/1892
- • {the arrangements being an integral part of the load, e.g. a motor, or of its control circuit}
- WARNING
Group H02J 3/1892 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/1892 should be considered in order to perform a complete search.
- M H02J 3/20
- • in long overhead lines
- WARNING
Group H02J 3/20 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/20 should be considered in order to perform a complete search.
- M H02J 3/22
- • in cables
- WARNING
Group H02J 3/22 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/22 should be considered in order to perform a complete search.
- M H02J 3/24
- Arrangements for preventing or reducing oscillations of power in networks (by control effected upon a single generator [H02P 9/00](#))
- WARNING
Group H02J 3/24 is incomplete pending reclassification of documents from group H02J 13/0006.
Group H02J 3/24 is also impacted by reclassification into groups H02J 3/241 and H02J 3/242.
Groups H02J 3/24, H02J 13/0006, H02J 3/241 and H02J 3/242 should be considered in order to perform a complete search.

- M H02J 3/241
- {The oscillation concerning frequency}
- WARNING**
Group H02J 3/241 is incomplete pending reclassification of documents from groups H02J 3/24 and H02J 13/0006. Groups H02J 3/24, H02J 13/0006, and H02J 3/241 should be considered in order to perform a complete search.
- M H02J 3/242
- {using phasor measuring units [PMU] }
- WARNING**
Group H02J 3/242 is incomplete pending reclassification of documents from groups H02J 3/24 and H02J 13/0006. Groups H02J 3/24, H02J 13/0006, and H02J 3/242 should be considered in order to perform a complete search.
- M H02J 3/26
- Arrangements for eliminating or reducing asymmetry in polyphase networks
- WARNING**
Group H02J 3/26 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 3/26 should be considered in order to perform a complete search.
- M H02J 3/28
- Arrangements for balancing of the load in a network by storage of energy
- WARNING**
Group H02J 3/28 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 3/28 should be considered in order to perform a complete search.
- M H02J 3/30
- using dynamo-electric machines coupled to flywheels
- WARNING**
Group H02J 3/30 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 3/30 should be considered in order to perform a complete search.
- M H02J 3/32
- using batteries with converting means
- WARNING**
Group H02J 3/32 is incomplete pending reclassification of documents from group H02J 13/0006. Group H02J 3/32 is also impacted by reclassification into group H02J 3/322. Groups H02J 13/0006, H02J 3/32, and H02J 3/322 should be considered in order to perform a complete search.
- M H02J 3/322
- • {the battery being on-board an electric or hybrid vehicle, e.g. vehicle to grid arrangements [V2G], power aggregation, use of the battery for network load balancing, coordinated or cooperative battery charging}
- WARNING**
Group H02J 3/322 is incomplete pending reclassification of documents from groups H02J 3/32, H02J 7/0027, and H02J 13/0006. Groups H02J 3/322, H02J 3/32, H02J 7/0027, and H02J 13/0006 should be considered in order to perform a complete search.

- M H02J 3/34
- Arrangements for transfer of electric power between networks of substantially different frequency
- WARNING
Group H02J 3/34 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/34 should be considered in order to perform a complete search.
- M H02J 3/36
- Arrangements for transfer of electric power between ac networks via a high-tension dc link
- WARNING
Group H02J 3/36 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/36 should be considered in order to perform a complete search.
- M H02J 3/38
- Arrangements for parallelly feeding a single network by two or more generators, converters or transformers
- WARNING
Group H02J 3/38 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/38 should be considered in order to perform a complete search.
- M H02J 3/381
- • {Dispersed generators}
- WARNING
Group H02J 3/381 is incomplete pending reclassification of documents from group H02J 13/0006.
Groups H02J 13/0006 and H02J 3/381 should be considered in order to perform a complete search.
- D H02J 3/382
—(Frozen)
- • • {the generators exploiting renewable energy}
- WARNING
Group H02J 3/382 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2300/20, H02J 2300/22, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50.
Groups H02J 3/382, H02J 2300/20, H02J 2300/22, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50 should be considered in order to perform a complete search.
- D H02J 3/383
—(Frozen)
- • • • {Solar energy, e.g. photovoltaic energy (generation of electric power by conversion of light H02S)}
- WARNING
Group H02J 3/383 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2300/24, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50.
Groups H02J 3/383, H02J 2300/24, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50 should be considered in order to perform a complete search.

- D H02J 3/385
—(Frozen)
- • • • {Maximum power point tracking control for photovoltaic sources}
- WARNING**
Group H02J 3/385 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2300/26, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50.
Groups H02J 3/385, H02J 2300/26, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50 should be considered in order to perform a complete search.
- D H02J 3/386
—(Frozen)
- • • • {Wind energy (wind motors F03D)}
- WARNING**
Group H02J 3/386 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2300/28, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50.
Groups H02J 3/386, H02J 2300/28, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50 should be considered in order to perform a complete search.
- D H02J 3/387
—(Frozen)
- • • {using fuel cells (fuel cells per se H01M 8/00)}
- WARNING**
Group H02J 3/387 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2300/30, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50.
Groups H02J 3/387, H02J 2300/30, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/466, H02J 3/472, H02J 3/48, and H02J 3/50 should be considered in order to perform a complete search.
- M H02J 3/388
- • {Islanding, i.e. disconnection of local power supply from the network}
- WARNING**
Group H02J 3/388 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.
Groups H02J 3/388, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.
- M H02J 3/40
- • Synchronising a generator for connection to a network or to another generator
- WARNING**
Group H02J 3/40 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.
Groups H02J 3/40, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.

- M H02J 3/42
- • • with automatic parallel connection when synchronisation is achieved
- WARNING
Group H02J 3/42 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.
Groups H02J 3/42, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.
- M H02J 3/44
- • • with means for ensuring correct phase sequence
- WARNING
Group H02J 3/44 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.
Groups H02J 3/44, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.
- M H02J 3/46
- • Controlling of the sharing of output between the generators, converters, or transformers
- WARNING
Group H02J 3/46 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.
Group H02J 3/46 is also impacted by reclassification into groups H02J 3/466 and H02J 3/472.
Groups H02J 3/46, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, H02J 13/0006, H02J 3/466 and H02J 3/472 should be considered in order to perform a complete search.
- M H02J 3/466
- • • {Scheduling the operation of the generators, e.g. connecting or disconnecting generators to meet a given demand}
- WARNING
Group H02J 3/466 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 3/46.
Groups H02J 3/466, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 3/46 should be considered in order to perform a complete search.
- M H02J 3/472
- • • • {For selectively connecting the AC sources in a particular order, e.g. sequential, alternating or subsets of sources}
- WARNING
Group H02J 3/472 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, H02J 3/46, and H02J 13/0006.
Groups H02J 3/472, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, H02J 3/46, and H02J 13/0006 should be considered in order to perform a complete search.
- M H02J 3/48
- • • Controlling the sharing of the in-phase component
- WARNING
Group H02J 3/48 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.

~~Groups H02J 3/48, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.~~

M H02J 3/50

- • Controlling the sharing of the out-of-phase component

WARNING

~~Group H02J 3/50 is incomplete pending reclassification of documents from groups H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006.~~

~~Groups H02J 3/50, H02J 3/382, H02J 3/383, H02J 3/385, H02J 3/386, H02J 3/387, and H02J 13/0006 should be considered in order to perform a complete search.~~

M H02J 4/00

Circuit arrangements for mains or distribution networks not specified as ac or dc

WARNING

~~Group H02J 4/00 is incomplete pending reclassification of documents from group H02J 13/0096.~~

~~Groups H02J 13/0096 and H02J 4/00 should be considered in order to perform a complete search.~~

M H02J 5/00

Circuit arrangements for transfer of electric power between ac networks and dc networks ([H02J 3/36](#) takes precedence)

WARNING

~~Group H02J 5/00 is incomplete pending reclassification of documents from group H02J 5/005.~~

~~Groups H02J 5/005 and H02J 5/00 should be considered in order to perform a complete search.~~

D H02J 5/005
—(Frozen)

- {with inductive power transfer (for charging H02J 7/025)}

WARNING

~~Group H02J 5/005 is no longer used for the classification of documents as of January 1, 2020.~~

~~The content of this group is being reclassified into groups H02J 5/00, H02J 50/001, H02J 50/005, H02J 50/10, H02J 50/12, H02J 50/30, H02J 50/40, H02J 50/402, H02J 50/50, H02J 50/502, H02J 50/60, H02J 50/70, H02J 50/80, and H02J 50/90.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M H02J 7/00

Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries

WARNING

~~Group H02J 7/00 is incomplete pending reclassification of documents from groups H02J 7/0077, H02J 7/0085, H02J 7/0088, and H02J 7/025.~~

~~Groups H02J 7/00, H02J 7/0077, H02J 7/0085, H02J 7/0088, and H02J 7/025 should be considered in order to perform a complete search.~~

D H02J 7/0003
—(Frozen)

- {with provision for charging different types of batteries}

WARNING

~~Group H02J 7/0003 is no longer used for the classification of documents as of January 1, 2020.~~

~~The content of this group is being reclassified into groups H02J 7/00032, H02J 7/00034, H02J 7/00045, and H02J 7/00047.~~

H02J 7/0003

(Frozen)

(continued)

Groups H02J 7/0003, H02J 7/00032, H02J 7/00034, H02J 7/00045, and H02J 7/00047 should be considered in order to perform a complete search.

M H02J 7/00032

- {characterised by data exchange}

WARNING

Group H02J 7/00032 is incomplete pending reclassification of documents from group H02J 7/0003.

Groups H02J 7/0003 and H02J 7/00032 should be considered in order to perform a complete search.

M H02J 7/00034

- {Charger exchanging data with an electronic device, i.e. telephone, whose internal battery is under charge}

WARNING

Group H02J 7/00034 is incomplete pending reclassification of documents from group H02J 7/0003.

Groups H02J 7/0003 and H02J 7/00034 should be considered in order to perform a complete search.

M H02J 7/00045

- {Authentication, i.e. circuits for checking compatibility between one component, e.g. a battery or a battery charger, and another component, e.g. a power source}

WARNING

Group H02J 7/00045 is incomplete pending reclassification of documents from group H02J 7/0003.

Groups H02J 7/0003 and H02J 7/00045 should be considered in order to perform a complete search.

M H02J 7/00047

- {with provisions for charging different types of batteries}

WARNING

Group H02J 7/00047 is incomplete pending reclassification of documents from group H02J 7/0003.

Groups H02J 7/0003 and H02J 7/00047 should be considered in order to perform a complete search.

M H02J 7/0013

- {acting upon several batteries simultaneously or sequentially ([H02J 7/1423](#) takes precedence)}

WARNING

Group H02J 7/0013 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027.

Groups H02J 7/0013, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.

M H02J 7/0014

- {Circuits for equalisation of charge between batteries}

WARNING

Group H02J 7/0014 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027.

Groups H02J 7/0014, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.

M H02J 7/0016

- {using shunting, discharge or bypass circuits}

WARNING

Group H02J 7/0016 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027.

Groups H02J 7/0016, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.

- M H02J 7/0018
- • • {using separate charge circuits}
- WARNING**
Group H02J 7/0018 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027. Groups H02J 7/0018, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.
- M H02J 7/0019
- • • {using switched or multiplexed charge circuits}
- WARNING**
Group H02J 7/0019 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027. Groups H02J 7/0019, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.
- D H02J 7/0021
—(Frozen)
- • {Monitoring or indicating circuits (H02J 7/0026 takes precedence)}
- WARNING**
Group H02J 7/0021 is no longer used for the classification of documents as of January 1, 2020. The content of this group is being reclassified into groups H02J 7/0047, H02J 7/0048, H02J 7/0049, H02J 7/005, H02J 7/0013, H02J 7/0014, H02J 7/0016, H02J 7/0018, H02J 7/0019, H02J 7/0024, and H02J 7/0025. All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 7/0022
—(Frozen)
- • {Management of charging with batteries permanently connected to charge circuit (H02J 7/0014 takes precedence)}
- WARNING**
Group H02J 7/0022 is no longer used for the classification of documents as of January 1, 2020. The content of this group is being reclassified into groups H02J 7/0013, H02J 7/0014, H02J 7/0016, H02J 7/0018, H02J 7/0019, H02J 7/0024, and H02J 7/0025. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/0024
- • {Parallel/serial switching of connection of batteries to charge or load circuit}
- WARNING**
Group H02J 7/0024 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, and H02J 7/0027. Groups H02J 7/0024, H02J 7/0021, H02J 7/0022, and H02J 7/0027 should be considered in order to perform a complete search.
- M H02J 7/0025
- • {Sequential battery discharge in systems with a plurality of batteries}
- WARNING**
Group H02J 7/0025 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0022, H02J 7/0027, H02J 7/0063, and H02J 2007/0067. Groups H02J 7/0025, H02J 7/0021, H02J 7/0022, H02J 7/0027, H02J 7/0063, and H02J 2007/0067 should be considered in order to perform a complete search.
- D H02J 7/0026
—(Frozen)
- • {using safety or protection circuits, e.g. overcharge/discharge disconnection}
- WARNING**
Group H02J 7/0026 is no longer used for the classification of documents as of January 1, 2020.

H02J 7/0026

(Frozen)

(continued)

The content of this group is being reclassified into groups H02J 7/0029, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, and H02J 7/00309.—

Groups H02J 7/0026, H02J 7/0029, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, and H02J 7/00309 should be considered in order to perform a complete search.

D H02J 7/0027
—(Frozen)

- {Stations for charging mobile units, e.g. of electric vehicles, of mobile telephones (H02J 7/0021, H02J 7/0026 take precedence)}

WARNING

Group H02J 7/0027 is no longer used for the classification of documents as of January 1, 2020.

The content of this group is being reclassified into groups H02J 3/322, H02J 7/0013, H02J 7/0014, H02J 7/0016, H02J 7/0018, H02J 7/0019, H02J 7/0024, H02J 7/0025, H02J 7/0042, H02J 7/0044, H02J 7/0045, H02J 2310/22, H02J 2310/40, H02J 2310/42, H02J 2310/44, H02J 2310/46, and H02J 2310/48.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 7/0029

- {with safety or protection devices or circuits}

WARNING

Group H02J 7/0029 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/027, H02J 7/1461, and H02J 7/166.

Group H02J 7/0029 is also impacted by reclassification into groups H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, and H02J 7/00309.

Groups H02J 7/0029, H02J 7/0026, H02J 7/027, H02J 7/1461, and H02J 7/166, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, and H02J 7/00309 should be considered in order to perform a complete search.

M H02J 7/00302

- {Overcharge protection}

WARNING

Group H02J 7/00302 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166.

Groups H02J 7/00302, H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.

M H02J 7/00304

- {Overcurrent protection}

WARNING

Group H02J 7/00304 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166.

Groups H02J 7/00304, H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.

M H02J 7/00306

- {Overdischarge protection}

WARNING

Group H02J 7/00306 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166.

~~Groups H02J 7/00306, H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.~~

- M H02J 7/00308
- {Overvoltage protection}

WARNING

~~Group H02J 7/00308 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166.~~

~~Groups H02J 7/00308, H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.~~

- M H02J 7/00309
- {Overheat or overtemperature protection}

WARNING

~~Group H02J 7/00309 is incomplete pending reclassification of documents from groups H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166.~~

~~Groups H02J 7/00309, H02J 7/0026, H02J 7/0029, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.~~

- M H02J 7/0042
- {characterised by the mechanical construction}

WARNING

~~Group H02J 7/0042 is incomplete pending reclassification of documents from groups H02J 7/0027 and H02J 7/025.~~

~~Groups H02J 7/0027, H02J 7/025, and H02J 7/0042 should be considered in order to perform a complete search.~~

- M H02J 7/0044
- {specially adapted for holding portable devices containing batteries ([H02J 7/0045](#) takes precedence)}

WARNING

~~Group H02J 7/0044 is incomplete pending reclassification of documents from groups H02J 7/0027 and H02J 7/025.~~

~~Groups H02J 7/0027, H02J 7/025, and H02J 7/0044 should be considered in order to perform a complete search.~~

- M H02J 7/0045
- {concerning the insertion or the connection of the batteries}

WARNING

~~Group H02J 7/0045 is incomplete pending reclassification of documents from groups H02J 7/0027 and H02J 7/025.~~

~~Groups H02J 7/0027, H02J 7/025, and H02J 7/0045 should be considered in order to perform a complete search.~~

- M H02J 7/0047
- {with monitoring or indicating devices or circuits}

WARNING

~~Group H02J 7/0047 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/027, H02J 7/1461, and H02J 7/166.~~

~~Group H02J 7/0047 is also impacted by reclassification into groups H02J 7/0048 and H02J 7/005.~~

~~Groups H02J 7/0047, H02J 7/0021, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.~~

- M H02J 7/0048
- {Detection of remaining charge capacity or state of charge [SOC]}

WARNING
Group H02J 7/0048 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0047, H02J 7/027, H02J 7/1461, and H02J 7/166.
Groups H02J 7/0048, H02J 7/0021, H02J 7/0047, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.
- M H02J 7/0049
- {Detection of fully charged condition}

WARNING
Group H02J 7/0049 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/027, H02J 7/1461, and H02J 7/166.
Groups H02J 7/0049, H02J 7/0021, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.
- M H02J 7/005
- {Detection of state of health [SOH]}

WARNING
Group H02J 7/005 is incomplete pending reclassification of documents from groups H02J 7/0021, H02J 7/0047, H02J 7/027, H02J 7/1461, and H02J 7/166.
Groups H02J 7/005, H02J 7/0021, H02J 7/0047, H02J 7/027, H02J 7/1461, and H02J 7/166 should be considered in order to perform a complete search.
- M H02J 7/0063
- {with circuits adapted for supplying loads from the battery}

WARNING
Group H02J 7/0063 is impacted by reclassification into groups H02J 7/0025, H02J 7/007, H02J 7/0071, H02J 7/00711, H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 2007/0067
— (Frozen)
- {Discharge management, i.e. discharge current reduction at low state of charge, sequential battery discharge in systems with a plurality of battery}

WARNING
Group H02J 2007/0067 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/0025, H02J 7/007, H02J 7/0071, H02J 7/00711, H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/007
- {Regulation of charging or discharging current or voltage}

WARNING
Group H02J 7/007 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/042, H02J 2007/10, and H02J 7/125.
Group H02J 7/007 is also impacted by reclassification into groups H02J 7/00712 and H02J 7/007188.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/0071 • • {with a programmable schedule}
- WARNING**
Group H02J 7/0071 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/042, H02J 2007/10, and H02J 7/125. Groups H02J 7/0071, H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/042, H02J 2007/10, and H02J 7/125 should be considered in order to perform a complete search.
- M H02J 7/00711 • • {with introduction of pulses during the charging process}
- WARNING**
Group H02J 7/00711 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/042, H02J 2007/10, and H02J 7/125. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/00712 • • {the cycle being controlled or terminated in response to electric parameters}
- WARNING**
Group H02J 7/00712 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/007, H02J 7/0077, H02J 7/008, H02J 7/042, H02J 7/085, H02J 2007/10, and H02J 7/125. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/00714 • • • {in response to battery charging or discharging current}
- WARNING**
Group H02J 7/00714 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/0078, H02J 7/008, H02J 7/042, H02J 7/045, H02J 7/085, H02J 2007/10, and H02J 7/125. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/00716 • • • • {in response to integrated charge or discharge current}
- WARNING**
Group H02J 7/00716 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/0078, H02J 7/008, H02J 7/042, H02J 7/085, H02J 2007/10, and H02J 7/125. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/00718 • • • • {in response to charge current gradient}
- WARNING**
Group H02J 7/00718 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/0078, H02J 7/008, H02J 7/042, H02J 7/045, H02J 7/085, H02J 2007/10, and H02J 7/125. All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 7/007182 • • • {in response to battery voltage}
- WARNING**
Group H02J 7/007182 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/008,

H02J 7/0086, H02J 7/042, H02J 7/045, H02J 7/085, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/007184 . . . {in response to battery voltage gradient}

WARNING

Group H02J 7/007184 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/008, H02J 7/0086, H02J 7/042, H02J 7/045, H02J 7/085, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/007186 . . . {obtained with the battery disconnected from the charge or discharge circuit}

WARNING

Group H02J 7/007186 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/0085, H02J 7/042, H02J 7/045, H02J 7/085, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/007188 . . {the charge cycle being controlled or terminated in response to non-electric parameters}

WARNING

Group H02J 7/007188 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/007, H02J 7/0072, H02J 7/0088, H02J 7/042, H02J 7/087, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/00719 . . . {in response to degree of gas development in the battery}

WARNING

Group H02J 7/00719 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/042, H02J 7/087, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/007192 . . . {in response to temperature}

WARNING

Group H02J 7/007192 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/0072, H02J 7/0091, H02J 7/042, H02J 7/087, H02J 2007/10, and H02J 7/125.

Group H02J 7/007192 is also impacted by reclassification into group H02J 7/007194.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 7/007194 . . . {of the battery}

WARNING

Group H02J 7/007194 is incomplete pending reclassification of documents from groups H02J 7/0063, H02J 2007/0067, H02J 7/007192,

H02J 7/0072, H02J 7/0091, H02J 7/042, H02J 7/087, H02J 2007/10, and H02J 7/125.

All groups listed in this Warning should be considered in order to perform a complete search.

- D H02J 7/0072
—(Frozen)
- {using semiconductor devices only}
- WARNING
Group H02J 7/0072 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/0071, H02J 7/00711, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 7/0077
—(Frozen)
- • {the charge cycle being terminated in response to electric parameters (H02J7/0093 takes precedence)}
- WARNING
Group H02J 7/0077 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00 and H02J 7/00712.
Groups H02J 7/0077, H02J 7/00, and H02J 7/00712 should be considered in order to perform a complete search.
- D H02J 7/0078
—(Frozen)
- • • {in response to discharge current, e.g. using a coulometer, pilot cell}
- WARNING
Group H02J 7/0078 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00714, H02J 7/00716, and H02J 7/00718.
Groups H02J 7/0078, H02J 7/00714, H02J 7/00716, and H02J 7/00718 should be considered in order to perform a complete search.
- D H02J 7/008
—(Frozen)
- • • {with the battery connected to the charge circuit}
- WARNING
Group H02J 7/008 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, and H02J 7/007184.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 7/0085
—(Frozen)
- • • {with the battery disconnected from the charge circuit}
- WARNING
Group H02J 7/0085 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00 and H02J 7/007186.
Groups H02J 7/0085, H02J 7/00, and H02J 7/007186 should be considered in order to perform a complete search.

- D H02J 7/0086
—(Frozen)
- {and in response to battery voltage}
- WARNING
Group H02J 7/0086 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007182 and H02J 7/007184.
Groups H02J 7/0086, H02J 7/007182, and H02J 7/007184 should be considered in order to perform a complete search.
- D H02J 7/0088
—(Frozen)
- . . . {the charge cycle being terminated in response to non-electric parameters (H02J7/0093 takes precedence)}
- WARNING
Group H02J 7/0088 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00 and H02J 7/007188.
Groups H02J 7/0088, H02J 7/00, and H02J 7/007188 should be considered in order to perform a complete search.
- D H02J 7/0091
—(Frozen)
- {in response to temperature of the battery}
- WARNING
Group H02J 7/0091 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007192 and H02J 7/007194.
Groups H02J 7/0091, H02J 7/007192, and H02J 7/007194 should be considered in order to perform a complete search.
- M H02J 7/02
- . for charging batteries from ac mains by converters
- WARNING
Group H02J 7/02 is incomplete pending reclassification of documents from group H02J 7/022.
Groups H02J 7/022 and H02J 7/02 should be considered in order to perform a complete search.
- D H02J 7/022
—(Frozen)
- . . {characterised by the type of converter}
- WARNING
Group H02J 7/022 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/02 and H02J 2207/20.
Groups H02J 7/022, H02J 7/02, and H02J 2207/20 should be considered in order to perform a complete search.
- D H02J 7/025
—(Frozen)
- . . . {using non-contact coupling, e.g. inductive, capacitive}
- WARNING
Group H02J 7/025 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 50/001, H02J 50/005, H02J 50/10, H02J 50/12, H02J 50/30, H02J 50/40, H02J 50/402, H02J 50/50, H02J 50/502, H02J 50/60, H02J 50/70, H02J 50/80, H02J 50/90, H02J 7/00, H02J 7/0042, H02J 7/0044, and H02J 7/0045.
All groups listed in this Warning should be considered in order to perform a complete search.

- D H02J 7/027
—(Frozen)
- • {with safety or indicating device}
- WARNING
Group H02J 7/027 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/0029, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, H02J 7/00309, H02J 7/0047, H02J 7/0048, H02J 7/0049, and H02J 7/005.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H02J 7/04
- D H02J 7/042
—(Frozen)
- • Regulation of charging current or voltage
 - • • {the charge cycle being controlled in response to a measured parameter}
- WARNING
Group H02J 7/042 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007, H02J 7/0071, H02J 7/00711, H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 7/045
—(Frozen)
- • • • {in response to voltage or current}
- WARNING
Group H02J 7/045 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00714, H02J 7/00718, H02J 7/007182, H02J 7/007184, and H02J 7/007186.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H02J 7/06
- U H02J 7/08
- D H02J 7/085
—(Frozen)
- • • • • {the charge cycle being terminated in response to electric parameters}
- WARNING
Group H02J 7/085 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, and H02J 7/007186.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 7/087
—(Frozen)
- • • • • {the charge cycle being terminated in response to non-electric parameters}
- WARNING
Group H02J 7/087 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.

- D H02J 2007/10
—(Frozen)
- • • {using semiconductor devices only}
- WARNING
Group H02J 2007/10 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007, H02J 7/0071, H02J 7/00711, H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H02J 7/12
- • • using magnetic devices having controllable degree of saturation, i.e. transducers
- D H02J 7/125
—(Frozen)
- • • {in combination with discharge tubes or semiconductor devices}
- WARNING
Group H02J 7/125 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/007, H02J 7/0071, H02J 7/00711, H02J 7/00712, H02J 7/00714, H02J 7/00716, H02J 7/00718, H02J 7/007182, H02J 7/007184, H02J 7/007186, H02J 7/007188, H02J 7/00719, H02J 7/007192, and H02J 7/007194.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H02J 7/14
- for charging batteries from dynamo-electric generators driven at varying speed, e.g. on vehicle
- D H02J 7/1461
—(Frozen)
- • {with safety or indicating devices}
- WARNING
Group H02J 7/1461 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/0029, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, H02J 7/00309, H02J 7/0047, H02J 7/0048, H02J 7/0049, and H02J 7/005.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H02J 7/16
- • Regulation of the charging current or voltage by variation of field
- D H02J 7/166
—(Frozen)
- • • {with safety or indicating devices}
- WARNING
Group H02J 7/166 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 7/0029, H02J 7/00302, H02J 7/00304, H02J 7/00306, H02J 7/00308, H02J 7/00309, H02J 7/0047, H02J 7/0048, H02J 7/0049, and H02J 7/005.
All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 13/00 **Circuit arrangements for providing remote indication of network conditions, e.g. an instantaneous record of the open or closed condition of each circuitbreaker in the network; Circuit arrangements for providing remote control of switching means in a power distribution network, e.g. switching in and out of current consumers by using a pulse code signal carried by the network**

WARNING

Group H02J 13/00 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0013, H02J 13/0079, and H02J 13/0086.

Groups H02J 13/00, H02J 13/0003, H02J 13/0006, H02J 13/0013, H02J 13/0079, and H02J 13/0086 should be considered in order to perform a complete search.

M H02J 13/00001 • {characterised by the display of information or by user interaction, e.g. supervisory control and data acquisition systems [SCADA] or graphical user interfaces [GUI]}

WARNING

Group H02J 13/00001 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 13/00002 • {characterised by monitoring}

WARNING

Group H02J 13/00002 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 13/00004 • {characterised by the power network being locally controlled}

WARNING

Group H02J 13/00004 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 13/00006 • {characterised by information or instructions transport means between the monitoring, controlling or managing units and monitored, controlled or operated power network element or electrical equipment}

WARNING

Group H02J 13/00006 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0013, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 13/00007 • {using the power network as support for the transmission}

WARNING

Group H02J 13/00007 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079,

H02J 13/0082, H02J 13/0086, H02J 13/0089, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00009
 - • • {using pulsed signals}

WARNING

Group H02J 13/00009 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0082, H02J 13/0086, H02J 13/0089, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/0001
 - • • {using modification of a parameter of the network power signal}

WARNING

Group H02J 13/0001 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0082, H02J 13/0086, H02J 13/0089, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00012
 - • {using an auxiliary transmission line}

WARNING

Group H02J 13/00012 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00014
 - • • {carrying signals having the network frequency or DC signals}

WARNING

Group H02J 13/00014 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00016
 - • {using a wired telecommunication network or a data transmission bus}

WARNING

Group H02J 13/00016 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0062, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00017
 - • • {using optical fiber}

WARNING

Group H02J 13/00017 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0062, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/00018
- • • {using phone lines}
- WARNING
Group H02J 13/00018 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00019
- • {using optical means}
- WARNING
Group H02J 13/00019 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/0002
- • {using ultrasonic means}
- WARNING
Group H02J 13/0002 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00022
- • {using wireless data transmission}
- WARNING
Group H02J 13/00022 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0075, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00024
- • • {by means of mobile telephony}
- WARNING
Group H02J 13/00024 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0075, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00026
- • • {involving a local wireless network, e.g. Wi-Fi, ZigBee or Bluetooth}
- WARNING
Group H02J 13/00026 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0075, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00028
- • {involving the use of Internet protocols}
- WARNING
Group H02J 13/00028 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.

- D H02J 13/0003
—(Frozen)
- {for DC networks}
- WARNING
Group H02J 13/0003 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 1/00, H02J 1/001, H02J 1/002, H02J 1/02, H02J 1/04, H02J 1/06, H02J 1/08, H02J 1/082, H02J 1/084, H02J 1/086, H02J 1/10, H02J 1/102, H02J 1/106, H02J 1/108, H02J 1/109, H02J 1/12, H02J 1/122, H02J 1/14, H02J 1/16, H02J 13/00, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00032
- {Systems characterised by the controlled or operated power network elements or equipment, the power network elements or equipment not otherwise provided for (circuits specially adapted for remote switching of lighting via the power line [H05B 47/185](#))}
- WARNING
Group H02J 13/00032 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00034
- {the elements or equipment being or involving an electric power substation}
- WARNING
Group H02J 13/00034 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/00036
- {the elements or equipment being or involving switches, relays or circuit breakers (circuits for indication of single switches [H01H 9/167](#))}
- WARNING
Group H02J 13/00036 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H02J 13/0004
- • {involved in a protection system}
- WARNING
Group H02J 13/0004 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H02J 13/0005
- {the elements or equipment being or involving power plugs or sockets}
- WARNING**
Group H02J 13/0005 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0086, H02J 13/0093, and H02J 13/0096.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 13/0006
—(Frozen)
- {for single frequency AC networks}
- WARNING**
Group H02J 13/0006 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 3/00, H02J 3/0012, H02J 3/00125, H02J 3/002, H02J 3/003, H02J 3/004, H02J 2203/10, H02J 2203/20, H02J 3/007, H02J 3/0073, H02J 3/0075, H02J 3/008, H02J 3/01, H02J 3/02, H02J 3/04, H02J 3/06, H02J 3/08, H02J 3/10, H02J 3/12, H02J 3/14, H02J 3/144, H02J 3/16, H02J 3/18, H02J 3/1807, H02J 3/1814, H02J 3/1821, H02J 3/1828, H02J 3/1835, H02J 3/1842, H02J 3/185, H02J 3/1857, H02J 3/1864, H02J 3/1871, H02J 3/1878, H02J 3/1885, H02J 3/1892, H02J 3/20, H02J 3/22, H02J 3/24, H02J 3/241, H02J 3/242, H02J 3/26, H02J 3/28, H02J 3/30, H02J 3/32, H02J 3/322, H02J 3/34, H02J 3/36, H02J 3/38, H02J 3/381, H02J 3/472, H02J 3/388, H02J 3/40, H02J 3/42, H02J 3/44, H02J 3/46, H02J 3/48, H02J 3/50, H02J 13/00, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 13/0013
—(Frozen)
- {characterised by transmission structure between the control or monitoring unit and the controlled or monitored unit}
- WARNING**
Group H02J 13/0013 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00 and H02J 13/00006.
Groups H02J 13/0013, H02J 13/00, and H02J 13/00006 should be considered in order to perform a complete search.
- D H02J 13/0017
—(Frozen)
- • {with direct transmission between the control or monitoring unit and the controlled or monitored unit}
- WARNING**
Group H02J 13/0017 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.
All groups listed in this Warning should be considered in order to perform a complete search.

- D H02J 13/0062
—(Frozen)
- • • {using a data transmission bus}
- WARNING
Group H02J 13/0062 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00016 and H02J 13/00017.
Groups H02J 13/0062, H02J 13/00016, and H02J 13/00017 should be considered in order to perform a complete search.
- D H02J 13/0075
—(Frozen)
- • • {using radio means}
- WARNING
Group H02J 13/0075 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00022, H02J 13/00024, and H02J 13/00026.
Groups H02J 13/0075, H02J 13/00022, H02J 13/00024, and H02J 13/00026 should be considered in order to perform a complete search.
- D H02J 13/0079
—(Frozen)
- • • {with transmission using an intermediate treatment level between the control or monitoring unit and the controlled or monitored unit}
- WARNING
Group H02J 13/0079 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- D H02J 13/0082
—(Frozen)
- • • {using the power network as transmission support}
- WARNING
Group H02J 13/0082 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 2213/10, H02J 13/00007, H02J 13/00009, and H02J 13/0001.
Groups H02J 13/0082, H02J 2213/10, H02J 13/00007, H02J 13/00009, and H02J 13/0001 should be considered in order to perform a complete search.
- D H02J 13/0086
—(Frozen)
- • • {with transmission using plurality of intermediate treatment level between the control or monitoring unit and the controlled or monitored unit}
- WARNING
Group H02J 13/0086 is no longer used for the classification of documents as of January 1, 2020.
The content of this group is being reclassified into groups H02J 13/00, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.

H02J 13/0086

(Frozen)

(continued)

All groups listed in this Warning should be considered in order to perform a complete search.

D H02J 13/0089
—(Frozen)

- • • {using the power network as transmission support}

WARNING

Group H02J 13/0089 is no longer used for the classification of documents as of January 1, 2020.

The content of this group is being reclassified into groups H02J 2213/10, H02J 13/00007, H02J 13/00009, and H02J 13/0001.

Groups H02J 13/0089, H02J 2213/10, H02J 13/00007, H02J 13/00009, and H02J 13/0001 should be considered in order to perform a complete search.

D H02J 13/0093
—(Frozen)

- {for AC networks with plurality frequencies}

WARNING

Group H02J 13/0093 is no longer used for the classification of documents as of January 1, 2020.

The content of this group is being reclassified into groups H02J 3/02, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.

All groups listed in this Warning should be considered in order to perform a complete search.

D H02J 13/0096
—(Frozen)

- {for networks combining AC and DC power}

WARNING

Group H02J 13/0096 is no longer used for the classification of documents as of January 1, 2020.

The content of this group is being reclassified into groups H02J 3/02, H02J 4/00, H02J 13/00001, H02J 13/00002, H02J 13/00004, H02J 13/00006, H02J 13/00007, H02J 13/00009, H02J 13/0001, H02J 13/00012, H02J 13/00014, H02J 13/00016, H02J 13/00017, H02J 13/00018, H02J 13/00019, H02J 13/0002, H02J 13/00022, H02J 13/00024, H02J 13/00026, H02J 13/00028, H02J 13/00032, H02J 13/00034, H02J 13/00036, H02J 13/0004, H02J 13/0005, and H02J 2213/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M H02J 15/00

Systems for storing electric energy (mechanical systems therefor [F01-F04](#); in chemical form [H01M](#))

WARNING

Group H02J 15/00 is impacted by reclassification into groups H02J 15/007 and H02J 15/008.

Groups H02J 15/00, H02J 15/007, and H02J 15/008 should be considered in order to perform a complete search.

M H02J 15/007

- {involving storage in the form of mechanical energy, e.g. fly-wheels}

WARNING

Group H02J 15/007 is incomplete pending reclassification of documents from group H02J 15/00.

Groups H02J 15/00 and H02J 15/007 should be considered in order to perform a complete search.

- M H02J 15/008
- {using hydrogen as energy vector}
- WARNING**
Group H02J 15/008 is incomplete pending reclassification of documents from group H02J 15/00. Groups H02J 15/00 and H02J 15/008 should be considered in order to perform a complete search.
- M H02J 50/00
- Circuit arrangements or systems for wireless supply or distribution of electric power**
- NOTE**
In this main group, the specific types of wireless technology used for the power transmission are covered in groups [H02J 50/05-H02J 50/30](#), while aspects relevant to the circuit arrangements or systems thereof are covered in groups [H02J 50/40-H02J 50/90](#).
- WARNING**
Group H02J 50/00 is impacted by reclassification into groups H02J 50/001 and H02J 50/005. Groups H02J 50/00, H02J 50/001, and H02J 50/005 should be considered in order to perform a complete search.
- M H02J 50/001
- {Energy harvesting or scavenging}
- WARNING**
Group H02J 50/001 is incomplete pending reclassification of documents from groups H02J 5/005, H02J 7/025, and H02J 50/00. Groups H02J 50/001, H02J 5/005, H02J 7/025, and H02J 50/00 should be considered in order to perform a complete search.
- M H02J 50/005
- {Mechanical details of housing or structure aiming to accommodate the power transfer means, e.g. mechanical integration of coils, antennas or transducers into emitting or receiving devices}
- WARNING**
Group H02J 50/005 is incomplete pending reclassification of documents from groups H02J 5/005, H02J 7/025, and H02J 50/00. Groups H02J 50/005, H02J 5/005, H02J 7/025, and H02J 50/00 should be considered in order to perform a complete search.
- M H02J 50/10
- using inductive coupling
- WARNING**
Group H02J 50/10 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025. Groups H02J 5/005, H02J 7/025, and H02J 50/10 should be considered in order to perform a complete search.
- M H02J 50/12
- of the resonant type
- WARNING**
Group H02J 50/12 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025. Groups H02J 5/005, H02J 7/025, and H02J 50/12 should be considered in order to perform a complete search.
- M H02J 50/30
- using light, e.g. lasers
- WARNING**
Group H02J 50/30 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025.

Groups H02J 5/005, H02J 7/025, and H02J 50/30 should be considered in order to perform a complete search.

- M H02J 50/40
- using two or more transmitting or receiving devices ([H02J 50/50](#) takes precedence)

WARNING

Group H02J 50/40 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025.
Group H02J 50/40 is also impacted by reclassification into group H02J 50/402.
Groups H02J 50/40, H02J 5/005 and H02J 7/025 and H02J 50/402 should be considered in order to perform a complete search.

- M H02J 50/402
- {the two or more transmitting or the two or more receiving devices being integrated in the same unit, e.g. power mats with several coils or antennas with several sub-antennas}

WARNING

Group H02J 50/402 is incomplete pending reclassification of documents from groups H02J 5/005, H02J 7/025, and H02J 50/40.
Groups H02J 50/402, H02J 5/005, H02J 7/025, and H02J 50/40 should be considered in order to perform a complete search.

- M H02J 50/50
- using additional energy repeaters between transmitting devices and receiving devices

WARNING

Group H02J 50/50 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025.
Group H02J 50/50 is also impacted by reclassification into group H02J 50/502.
Groups H02J 50/50, H02J 5/005 and H02J 7/025 should be considered in order to perform a complete search.

- M H02J 50/502
- {the energy repeater being integrated together with the emitter or the receiver}

WARNING

Group H02J 50/502 is incomplete pending reclassification of documents from groups H02J 5/005, H02J 7/025, and H02J 50/50.
Groups H02J 50/502, H02J 5/005, H02J 7/025, and H02J 50/50 should be considered in order to perform a complete search.

- M H02J 50/60
- responsive to the presence of foreign objects, e.g. detection of living beings

WARNING

Group H02J 50/60 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025.
Groups H02J 5/005, H02J 7/025, and H02J 50/60 should be considered in order to perform a complete search.

- M H02J 50/70
- involving the reduction of electric, magnetic or electromagnetic leakage fields

WARNING

Group H02J 50/70 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025.
Groups H02J 5/005, H02J 7/025, and H02J 50/70 should be considered in order to perform a complete search.

M	H02J 50/80	<ul style="list-style-type: none"> · involving the exchange of data, concerning supply or distribution of electric power, between transmitting devices and receiving devices <p><u>WARNING</u> Group H02J 50/80 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025. Groups H02J 5/005, H02J 7/025, and H02J 50/80 should be considered in order to perform a complete search.</p>
M	H02J 50/90	<ul style="list-style-type: none"> · involving detection or optimisation of position, e.g. alignment <p><u>WARNING</u> Group H02J 50/90 is incomplete pending reclassification of documents from groups H02J 5/005 and H02J 7/025. Groups H02J 5/005, H02J 7/025, and H02J 50/90 should be considered in order to perform a complete search.</p>
U	H02J 2203/00	Indexing scheme relating to details of circuit arrangements for AC mains or AC distribution networks
M	H02J 2203/10	<ul style="list-style-type: none"> · Power transmission or distribution systems management focussing at grid-level, e.g. load flow analysis, node profile computation, meshed network optimisation, active network management or spinning reserve management <p><u>WARNING</u> Group H02J 2203/10 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 2203/10 should be considered in order to perform a complete search.</p>
M	H02J 2203/20	<ul style="list-style-type: none"> · Simulating, e.g. planning, reliability check, modelling or computer assisted design [CAD] <p><u>WARNING</u> Group H02J 2203/20 is incomplete pending reclassification of documents from group H02J 13/0006. Groups H02J 13/0006 and H02J 2203/20 should be considered in order to perform a complete search.</p>
U	H02J 2207/00	Indexing scheme relating to details of circuit arrangements for charging or depolarising batteries or for supplying loads from batteries
M	H02J 2207/20	<ul style="list-style-type: none"> · Charging or discharging characterised by the power electronics converter <p><u>WARNING</u> Group H02J 2207/20 is incomplete pending reclassification of documents from group H02J 7/022. Groups H02J 7/022 and H02J 2207/20 should be considered in order to perform a complete search.</p>
U	H02J 2213/00	Indexing scheme relating to details of circuit arrangements for providing remote indication of network conditions of for circuit arrangements for providing remote control of switching means in a power distribution network
M	H02J 2213/10	<ul style="list-style-type: none"> · using simultaneously two or more different transmission means <p><u>WARNING</u> Group H02J 2213/10 is incomplete pending reclassification of documents from groups H02J 13/0003, H02J 13/0006, H02J 13/0017, H02J 13/0079, H02J 13/0082, H02J 13/0086, H02J 13/0089, H02J 13/0093, and H02J 13/0096.</p>

All groups listed in this Warning should be considered in order to perform a complete search.

- U H02J 2300/00** **Systems for supplying or distributing electric power characterised by decentralized, dispersed, or local generation**
- M H02J 2300/20
- The dispersed energy generation being of renewable origin
- WARNING**
Group H02J 2300/20 is incomplete pending reclassification of documents from group H02J 3/382.
Groups H02J 3/382 and H02J 2300/20 should be considered in order to perform a complete search.
- M H02J 2300/22
- • The renewable source being solar energy
- WARNING**
Group H02J 2300/22 is incomplete pending reclassification of documents from group H02J 3/382.
Groups H02J 3/382 and H02J 2300/22 should be considered in order to perform a complete search.
- M H02J 2300/24
- • • of photovoltaic origin
- WARNING**
Group H02J 2300/24 is incomplete pending reclassification of documents from group H02J 3/383.
Groups H02J 3/383 and H02J 2300/24 should be considered in order to perform a complete search.
- M H02J 2300/26
- • • involving maximum power point tracking control for photovoltaic sources (maximum power point systems in particular [G05F 1/67](#))
- WARNING**
Group H02J 2300/26 is incomplete pending reclassification of documents from group H02J 3/385.
Groups H02J 3/385 and H02J 2300/26 should be considered in order to perform a complete search.
- M H02J 2300/28
- • The renewable source being wind energy (wind motors [F03D](#))
- WARNING**
Group H02J 2300/28 is incomplete pending reclassification of documents from group H02J 3/386.
Groups H02J 3/386 and H02J 2300/28 should be considered in order to perform a complete search.
- M H02J 2300/30
- The power source being a fuel cell
- WARNING**
Group H02J 2300/30 is incomplete pending reclassification of documents from group H02J 3/387.
Groups H02J 3/387 and H02J 2300/30 should be considered in order to perform a complete search.
- U H02J 2310/00** **The network for supplying or distributing electric power characterised by its spatial reach or by the load**
- U H02J 2310/10
- The network having a local or delimited stationary reach
- U H02J 2310/20
- • The network being internal to a load

- M H02J 2310/22
- • The load being a portable electronic device
- WARNING**
Group H02J 2310/22 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/22 should be considered in order to perform a complete search.
- M H02J 2310/40
- The network being an on-board power network, i.e. within a vehicle
- WARNING**
Group H02J 2310/40 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/40 should be considered in order to perform a complete search.
- M H02J 2310/42
- • for ships or vessels
- WARNING**
Group H02J 2310/42 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/42 should be considered in order to perform a complete search.
- M H02J 2310/44
- • for aircrafts
- WARNING**
Group H02J 2310/44 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/44 should be considered in order to perform a complete search.
- M H02J 2310/46
- • for ICE-powered road vehicles
- WARNING**
Group H02J 2310/46 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/46 should be considered in order to perform a complete search.
- M H02J 2310/48
- • for electric vehicles [EV] or hybrid vehicles [HEV]
- WARNING**
Group H02J 2310/48 is incomplete pending reclassification of documents from group H02J 7/0027.
Groups H02J 7/0027 and H02J 2310/48 should be considered in order to perform a complete search.

Project: RP0389-F (C22B)**U C22B 3/00****Extraction of metal compounds from ores or concentrates by wet processes****NOTES**

1. When classifying in this group, the nature of any metal which is considered to represent information of interest for search may also be classified in the main groups only of [C22B 11/00](#) - [C22B 25/00](#), in group [C22B 19/34](#) or in any of groups [C22B 26/00](#) - [C22B 61/00](#). This can for example, be the case when it is considered of interest to enable searching for extraction of specific metals or their

compounds. Such non-obligatory classification should be given as "additional information".

2. {This group covers methods directed to the extraction of three or more metals. For the recovery of one or two metals, see the other groups of this subclass concerning these metals}

- U C22B 3/20
- Treatment or purification of solutions, e.g. obtained by leaching ([C22B 3/18](#) takes precedence)
- U C22B 3/22
- • by physical processes, e.g. by filtration, by magnetic means {, or by thermal decomposition} (treatment or purification of solutions by liquid-liquid extraction [C22B 3/26](#))
- M C22B 3/24
- • • by adsorption on solid substances, e.g. by extraction with solid resins
- WARNING**
Group C22B 3/24 is impacted by reclassification into group C22B 3/42. Groups C22B 3/24 and C22B 3/42 should be considered in order to perform a complete search.
- M C22B 3/26
- • by liquid-liquid extraction using organic compounds
- NOTE**
In groups {[C22B 3/262](#) - [C22B 3/41](#):}
a. the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, compounds are classified in the last appropriate place;
b. when two or more compounds are used successively, each compound is classified as such;
c. mixtures containing two or more compounds covered individually by the same one of groups {[C22B 3/262](#) - [C22B 3/387](#),} are classified only in that group.
- WARNING**
Group C22B 3/26 is impacted by reclassification into group C22B 3/40. Groups C22B 3/26 and C22B 3/40 should be considered in order to perform a complete search.
- M C22B 3/40
- • • Mixtures
- WARNING**
Group C22B 3/40 is incomplete pending reclassification of documents from group C22B 3/26. Groups C22B 3/26 and C22B 3/40 should be considered in order to perform a complete search.
- M C22B 3/42
- • by ion-exchange extraction
- WARNING**
Group C22B 3/42 is incomplete pending reclassification of documents from group C22B 3/24. Groups C22B 3/24 and C22B 3/42 should be considered in order to perform a complete search.

Project: RP0598-F (H01G)

- U H01G 9/00 **Electrolytic capacitors, rectifiers, detectors, switching devices, light-sensitive or temperature-sensitive devices; Processes of their manufacture**
- U H01G 9/004
- Details
- U H01G 9/022
- • Electrolytes; Absorbents

- D H01G 9/038
—(Frozen)
- • {Electrolytes specially adapted for double-layer capacitors}
- WARNING
Group H01G 9/038 is no longer used for the classification of documents as of January 1, 2021.
The content of this group is being reclassified into groups H01G 11/54 - H01G 11/64. Groups H01G 9/038 and H01G 11/54 - H01G 11/64 should be considered in order to perform a complete search.
- D H01G 9/155
—(Frozen)
- {Double-layer capacitors}
- WARNING
Group H01G 9/155 is no longer used for the classification of documents as of January 1, 2021. The content of this group is being reclassified into groups H01G 11/00 - H01G 11/86. All groups listed in this Warning should be considered in order to perform a complete search.
- M H01G 11/00**
- Hybrid capacitors, i.e. capacitors having different positive and negative electrodes; Electric double-layer [EDL] capacitors; Processes for the manufacture thereof or of parts thereof**
- NOTE
Group [H01G 11/02](#) takes precedence over groups [H01G 11/04](#) - [H01G 11/14](#)
- WARNING
Group H01G 11/00 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/00 should be considered in order to perform a complete search.
- M H01G 11/02
- using combined reduction-oxidation reactions, e.g. redox arrangement or solion
- WARNING
Group H01G 11/02 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/02 should be considered in order to perform a complete search.
- M H01G 11/04
- Hybrid capacitors
- WARNING
Group H01G 11/04 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/04 should be considered in order to perform a complete search.
- M H01G 11/06
- • with one of the electrodes allowing ions to be reversibly doped therein, e.g. lithium ion capacitors [LIC]
- WARNING
Group H01G 11/06 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/06 should be considered in order to perform a complete search.
- M H01G 11/08
- Structural combinations, e.g. assembly or connection, of hybrid or EDL capacitors with other electric components, at least one hybrid or EDL capacitor being the main component
- WARNING
Group H01G 11/08 is incomplete pending reclassification of documents from group H01G 9/155.

Groups H01G 9/155 and H01G 11/08 should be considered in order to perform a complete search.

- M H01G 11/10
- Multiple hybrid or EDL capacitors, e.g. arrays or modules (housings, cases, encapsulations or mountings thereof [H01G 11/78](#))

WARNING

Group H01G 11/10 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/10 should be considered in order to perform a complete search.

- M H01G 11/12
- Stacked hybrid or EDL capacitors

WARNING

Group H01G 11/12 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/12 should be considered in order to perform a complete search.

- M H01G 11/14
- Arrangements or processes for adjusting or protecting hybrid or EDL capacitors (emergency protective circuit arrangements specially adapted for capacitors, and effecting automatic switching in the event of an undesired change from normal working conditions [H02H 7/16](#); emergency protective circuit arrangements for limiting excess current or voltages without disconnection [H02H 9/00](#))

WARNING

Group H01G 11/14 – H01G 11/20 are incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/14 – H01G 11/20 should be considered in order to perform a complete search.

- M H01G 11/22
- Electrodes

WARNING

Group H01G 11/22 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/22 should be considered in order to perform a complete search.

- M H01G 11/24
- characterised by structural features of the materials making up or comprised in the electrodes, e.g. form, surface area or porosity; characterised by the structural features of powders or particles used therefor

WARNING

Group H01G 11/24 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/24 should be considered in order to perform a complete search.

- M H01G 11/26
- characterised by their structure, e.g. multi-layered, porosity or surface features

WARNING

Groups H01G 11/26 – H01G 11/28 are incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/26 – H01G 11/28 should be considered in order to perform a complete search.

- M H01G 11/30
- characterised by their material
- WARNING
Group H01G 11/30 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/30 should be considered in order to perform a complete search.
- M H01G 11/32
- • Carbon-based
- WARNING
Groups H01G 11/32 – H01G 11/44 are incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/32 – H01G 11/44 should be considered in order to perform a complete search.
- M H01G 11/46
- • Metal oxides
- WARNING
Group H01G 11/46 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/46 should be considered in order to perform a complete search.
- M H01G 11/48
- • Conductive polymers
- WARNING
Group H01G 11/48 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/48 should be considered in order to perform a complete search.
- M H01G 11/50
- • specially adapted for lithium-ion capacitors, e.g. for lithium-doping or for intercalation
- WARNING
Group H01G 11/50 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/50 should be considered in order to perform a complete search.
- M H01G 11/52
- Separators
- WARNING
Group H01G 11/52 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/52 should be considered in order to perform a complete search.
- M H01G 11/54
- Electrolytes
- WARNING
Group H01G 11/54 is incomplete pending reclassification of documents from groups H01G 9/038 and H01G 9/155.
Groups H01G 9/038, H01G 9/155, and H01G 11/54 should be considered in order to perform a complete search.
- M H01G 11/56
- Solid electrolytes, e.g. gels; Additives therein
- WARNING
Group H01G 11/56 is incomplete pending reclassification of documents from groups H01G 9/038 and H01G 9/155.

Groups H01G 9/038, H01G 9/155, and H01G 11/56 should be considered in order to perform a complete search.

M H01G 11/58

- Liquid electrolytes

WARNING

Groups H01G 11/58 – H01G 11/64 are incomplete pending reclassification of documents from groups H01G 9/038 and H01G 9/155.
Groups H01G 9/038, H01G 9/155, and H01G 11/58 – H01G 11/64 should be considered in order to perform a complete search.

M H01G 11/66

- Current collectors

WARNING

Group H01G 11/66 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/66 should be considered in order to perform a complete search.

M H01G 11/68

- characterised by their material

WARNING

Group H01G 11/68 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/68 should be considered in order to perform a complete search.

M H01G 11/70

- characterised by their structure

WARNING

Group H01G 11/70 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/70 should be considered in order to perform a complete search.

M H01G 11/72

- specially adapted for integration in multiple or stacked hybrid or EDL capacitors

WARNING

Group H01G 11/72 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/72 should be considered in order to perform a complete search.

M H01G 11/74

- Terminals, e.g. extensions of current collectors

WARNING

Group H01G 11/74 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/74 should be considered in order to perform a complete search.

M H01G 11/76

- specially adapted for integration in multiple or stacked hybrid or EDL capacitors

WARNING

Group H01G 11/76 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/76 should be considered in order to perform a complete search.

- M H01G 11/78
- Cases; Housings; Encapsulations; Mountings
- WARNING
Group H01G 11/78 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/78 should be considered in order to perform a complete search.
- M H01G 11/80
- Gaskets; Sealings
- WARNING
Group H01G 11/80 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/80 should be considered in order to perform a complete search.
- M H01G 11/82
- Fixing or assembling a capacitive element in a housing, e.g. mounting electrodes, current collectors or terminals in containers or encapsulations
- WARNING
Group H01G 11/82 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/82 should be considered in order to perform a complete search.
- M H01G 11/84
- Processes for the manufacture of hybrid or EDL capacitors, or components thereof
- WARNING
Group H01G 11/84 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/84 should be considered in order to perform a complete search.
- M H01G 11/86
- specially adapted for electrodes (carbonisation or activation of carbon for the manufacture of electrodes [H01G 11/34](#))
- WARNING
Group H01G 11/86 is incomplete pending reclassification of documents from group H01G 9/155.
Groups H01G 9/155 and H01G 11/86 should be considered in order to perform a complete search.

Project: RP0599-F (H05H)

- M H05H 1/00
- Generating plasma; Handling plasma**
- WARNING
Group H05H 1/00 is impacted by reclassification into group H05H 1/01.
Groups H05H 1/00 and H05H 1/01 should be considered in order to perform a complete search.
- M H05H 1/01
- {Handling plasma, e.g. of subatomic particles}
- WARNING
Group H05H 1/01 is incomplete pending reclassification of documents from group H05H 1/00.
Groups H05H 1/00 and H05H 1/01 should be considered in order to perform a complete search.

- M H05H 1/24
- Generating plasma {(nuclear fusion reactors [G21B 1/00](#); gas-filled discharge reactors [H01J 37/32](#))}
- WARNING**
Group H05H 1/24 is impacted by reclassification into groups H05H 1/247 and H05H 1/4697.
Groups H05H 1/24, H05H 1/247 and H05H 1/4697 should be considered in order to perform a complete search.
- M H05H 1/2406
- • {using dielectric barrier discharges, i.e. with a dielectric interposed between the electrodes}
- WARNING**
Group H05H 1/2406 is impacted by reclassification into groups H05H 1/2439 and H05H 1/2441.
Groups H05H 1/2406, H05H 1/2439 and H05H 1/2441 should be considered in order to perform a complete search.
- M H05H 1/2439
- • • {Surface discharges, e.g. air flow control}
- WARNING**
Group H05H 1/2439 is incomplete pending reclassification of documents from group H05H 1/2406.
Groups H05H 1/2406 and H05H 1/2439 should be considered in order to perform a complete search.
- M H05H 1/2441
- • • {characterised by the physical-chemical properties of the dielectric, e.g. porous dielectric}
- WARNING**
Group H05H 1/2441 is incomplete pending reclassification of documents from group H05H 1/2406.
Groups H05H 1/2406 and H05H 1/2441 should be considered in order to perform a complete search.
- M H05H 1/247
- • {using discharges in liquid media}
- WARNING**
Group H05H 1/247 is incomplete pending reclassification of documents from group H05H 1/24.
Groups H05H 1/24 and H05H 1/247 should be considered in order to perform a complete search.
- U H05H 1/26
- • Plasma torches
- U H05H 1/32
- • • using an arc ([H05H 1/28](#) takes precedence)
- M H05H 1/34
- • • • Details, e.g. electrodes, nozzles
- WARNING**
Group H05H 1/34 is impacted by reclassification into groups H05H 1/3423 and H05H 1/3425.
Groups H05H 1/34, H05H 1/3423 and H05H 1/3425 should be considered in order to perform a complete search.
- M H05H 1/3423
- • • • • {Connecting means, e.g. electrical connecting means or fluid connections}
- WARNING**
Group H05H 1/3423 is incomplete pending reclassification of documents from group H05H 1/34.
Groups H05H 1/34 and H05H 1/3423 should be considered in order to perform a complete search.

- M H05H 1/3425
- • • • {Melting or consuming electrodes}
- WARNING
Group H05H 1/3425 is incomplete pending reclassification of documents from group H05H 1/34.
Groups H05H 1/34 and H05H 1/3425 should be considered in order to perform a complete search.
- M H05H 1/4697
- • {using glow discharges}
- WARNING
Group H05H 1/4697 is incomplete pending reclassification of documents from group H05H 1/24.
Groups H05H 1/24 and H05H 1/4697 should be considered in order to perform a complete search.
- M H05H 1/48
- • using an arc ([H05H 1/26](#) takes precedence)
- WARNING
Group H05H 1/48 is impacted by reclassification into groups H05H 1/481, H05H 1/482, H05H 1/484, H05H 1/486 and H05H 1/488.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H05H 1/481
- • • {Hollow cathodes}
- WARNING
Group H05H 1/481 is incomplete pending reclassification of documents from group H05H 1/48.
Groups H05H 1/48 and H05H 1/481 should be considered in order to perform a complete search.
- M H05H 1/482
- • • {Arrangements to provide gliding arc discharges}
- WARNING
Group H05H 1/482 is incomplete pending reclassification of documents from group H05H 1/48.
Groups H05H 1/48 and H05H 1/482 should be considered in order to perform a complete search.
- M H05H 1/484
- • • {Arrangements to provide plasma curtains or plasma showers}
- WARNING
Group H05H 1/484 is incomplete pending reclassification of documents from group H05H 1/48.
Groups H05H 1/48 and H05H 1/484 should be considered in order to perform a complete search.
- M H05H 1/486
- • • {Arrangements to provide capillary discharges}
- WARNING
Group H05H 1/486 is incomplete pending reclassification of documents from group H05H 1/48.
Groups H05H 1/48 and H05H 1/486 should be considered in order to perform a complete search.
- M H05H 1/488
- • • {Liquid electrodes}
- WARNING
Group H05H 1/488 is incomplete pending reclassification of documents from group H05H 1/48.

Groups H05H 1/48 and H05H 1/488 should be considered in order to perform a complete search.

U H05H 2242/00

Auxiliary systems

M H05H 2242/20

- Power circuits

WARNING

Group H05H 2242/20 is impacted by reclassification into groups H05H 2242/22, H05H 2242/24 and H05H 2242/26.

All groups listed in this Warning should be considered in order to perform a complete search.

M H05H 2242/22

- DC, AC or pulsed generators

WARNING

Group H05H 2242/22 is incomplete pending reclassification of documents from group H05H 2242/20.

Groups H05H 2242/20 and H05H 2242/22 should be considered in order to perform a complete search.

M H05H 2242/24

- Radiofrequency or microwave generators

WARNING

Group H05H 2242/24 is incomplete pending reclassification of documents from group H05H 2242/20.

Groups H05H 2242/20 and H05H 2242/24 should be considered in order to perform a complete search.

M H05H 2242/26

- Matching networks

WARNING

Group H05H 2242/26 is incomplete pending reclassification of documents from group H05H 2242/20.

Groups H05H 2242/20 and H05H 2242/26 should be considered in order to perform a complete search.

U H05H 2245/00

Applications of plasma devices

M H05H 2245/30

- Medical applications

WARNING

Group H05H 2245/30 is impacted by reclassification into groups H05H 2245/32 and H05H 2245/34.

Groups H05H 2245/30, H05H 2245/32 and H05H 2245/34 should be considered in order to perform a complete search.

M H05H 2245/32

- Surgery, e.g. scalpels, blades or bistoury; Treatments inside the body

WARNING

Group H05H 2245/32 is incomplete pending reclassification of documents from group H05H 2245/30.

Groups H05H 2245/30 and H05H 2245/32 should be considered in order to perform a complete search.

M H05H 2245/34

- Skin treatments, e.g. disinfection or wound treatment

WARNING

Group H05H 2245/34 is incomplete pending reclassification of documents from group H05H 2245/30.

Groups H05H 2245/30 and H05H 2245/34 should be considered in order to perform a complete search.

Project: RP0685-F (H02K)

- U H02K 9/00** Arrangements for cooling or ventilating (channels or ducts in parts of the magnetic circuit [H02K 1/20](#), [H02K 1/32](#); channels or ducts in or between conductors [H02K 3/22](#), [H02K 3/24](#))
- M H02K 9/19
- for machines with closed casing and closed-circuit cooling using a liquid cooling medium, e.g. oil
- WARNING**
Group H02K 9/19 is impacted by reclassification into group H02K 9/197.-
Groups H02K 9/19 and H02K 9/197 should be considered in order to perform a complete search.
- M H02K 9/197
- in which the rotor or stator space is fluid-tight, e.g. to provide for different cooling media for rotor and stator
- WARNING**
Group H02K 9/197 is incomplete pending reclassification of documents from group H02K 9/19.-
Groups H02K 9/19 and H02K 9/197 should be considered in order to perform a complete search.
- U H02K 11/00** Structural association of dynamo-electric machines with electric components or with devices for shielding, monitoring or protection (casings, enclosures or supports [H02K 5/00](#))
- U H02K 11/04
- for rectification
- D H02K 11/044
—(Frozen)
- (in motors (H02K 11/042 takes precedence))
- WARNING**
Group H02K 11/044 is no longer used for the classification of documents as of August 1, 2021.-
The content of this group is being reclassified into groups H02K 11/049 and H02K 11/05.-
Groups H02K 11/044, H02K 11/049 and H02K 11/05 should be considered in order to perform a complete search.
- D H02K 11/046
—(Frozen)
- (in generators (H02K 11/042 takes precedence))
- WARNING**
Group H02K 11/046 is no longer used for the classification of documents as of August 1, 2021.-
The content of this group is being reclassified into groups H02K 11/049 and H02K 11/05.-
Groups H02K 11/046, H02K 11/049 and H02K 11/05 should be considered in order to perform a complete search.
- D H02K 11/048
—(Frozen)
- {Rectifiers combined with drive circuits in starter-generators}
- WARNING**
Group H02K 11/048 is no longer used for the classification of documents as of August 1, 2021.-
The content of this group is being reclassified into groups H02K 11/049 and H02K 11/05.-
Groups H02K 11/048, H02K 11/049 and H02K 11/05 should be considered in order to perform a complete search.
- M H02K 11/049
- Rectifiers associated with stationary parts, e.g. stator cores
- WARNING**
Groups H02K 11/049 and H02K 11/05 are incomplete pending reclassification of documents from groups H02K 11/044, H02K 11/046 and H02K 11/048.

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0695-F (B60L)

- U B60L 50/00** Electric propulsion with power supplied within the vehicle (with power supply from force of nature, e.g. sun or wind, [B60L 8/00](#); for monorail vehicles, suspension vehicles or rack railways [B60L 13/00](#))
- U B60L 50/50 · using propulsion power supplied by batteries or fuel cells
- U B60L 50/60 · · using power supplied by batteries (in combination with fuel cells [B60L 50/75](#))
- M B60L 50/64 · · · Constructional details of batteries specially adapted for electric vehicles

NOTE

This group covers adaptation of battery structures of electric vehicles, e.g. integration into control or safety systems, crash-resistant casings or vibration-damping means.

WARNING

Group B60L 50/64 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and B60L 50/64 should be considered in order to perform a complete search.

Project: RP0695-F (H01M)

- U H01M 6/00** Primary cells; Manufacture thereof

NOTE

In this group, primary cells are electrochemical generators in which the cell energy is present in chemical form and is not regenerated.

- M H01M 6/50 · Methods or arrangements for servicing or maintenance, e.g. for maintaining operating temperature (constructional details of current conducting connections for detecting conditions inside cells or batteries, e.g. details of voltage sensing terminals, [H01M 50/569](#))

WARNING

Group H01M 6/50 is impacted by reclassification into group H01M 50/569.
Groups H01M 6/50 and H01M 50/569 should be considered in order to perform a complete search.

- M H01M 6/5044 · · {Cells or batteries structurally combined with cell condition indicating means}

WARNING

Group H01M 6/5044 is incomplete pending reclassification of documents from group H01M 50/572.
Group H01M 6/5044 is also impacted by reclassification into group H01M 50/569.
Groups H01M 50/572, H01M 6/5044, and H01M 50/569 should be considered in order to perform a complete search.

- M H01M 6/505 · · · {Cells combined with indicating means for external visualization of the condition, e.g. by change of colour or of light intensity}

WARNING

Group H01M 6/505 is impacted by reclassification into group H01M 50/569.
Groups H01M 6/505 and H01M 50/569 should be considered in order to perform a complete search.

M	H01M 6/5055	<ul style="list-style-type: none"> • • • {End of discharge indicated by a voltage step} <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 6/5055 is impacted by reclassification into group H01M 50/569. Groups H01M 6/5055 and H01M 50/569 should be considered in order to perform a complete search.</p>
M	H01M 6/5061	<ul style="list-style-type: none"> • • • {Cells combined with sound indicating means} <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 6/5061 is impacted by reclassification into group H01M 50/569. Groups H01M 6/5061 and H01M 50/569 should be considered in order to perform a complete search.</p>
U	H01M 10/00	<p>Secondary cells; Manufacture thereof</p> <p><u>NOTE</u></p> <p>In this group, secondary cells are accumulators receiving and supplying electrical energy by means of reversible electrochemical reactions.</p>
U	H01M 10/42	<ul style="list-style-type: none"> • Methods or arrangements for servicing or maintenance of secondary cells or secondary half-cells (H01M 10/60 takes precedence)
M	H01M 10/48	<ul style="list-style-type: none"> • • Accumulators combined with arrangements for measuring, testing or indicating the condition of cells, e.g. the level or density of the electrolyte (constructional details of current conducting connections for detecting conditions inside cells or batteries, e.g. details of voltage sensing terminals, H01M 50/569) <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 10/48 is impacted by reclassification into group H01M 50/569. Groups H01M 10/48 and H01M 50/569 should be considered in order to perform a complete search.</p>
M	H01M 10/482	<ul style="list-style-type: none"> • • • {for several batteries or cells simultaneously or sequentially} <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 10/482 is impacted by reclassification into group H01M 50/569. Groups H01M 10/482 and H01M 50/569 should be considered in order to perform a complete search.</p>
M	H01M 10/484	<ul style="list-style-type: none"> • • • {for measuring electrolyte level, electrolyte density or electrolyte conductivity} <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 10/484 is impacted by reclassification into group H01M 50/569. Groups H01M 10/484 and H01M 50/569 should be considered in order to perform a complete search.</p>
M	H01M 10/486	<ul style="list-style-type: none"> • • • {for measuring temperature} <p style="color: red; margin-top: 10px;"><u>WARNING</u> Group H01M 10/486 is impacted by reclassification into group H01M 50/569. Groups H01M 10/486 and H01M 50/569 should be considered in order to perform a complete search.</p>

- M H01M 10/488
- • • {Cells or batteries combined with indicating means for external visualization of the condition, e.g. by change of colour or of light density}
- WARNING
Group H01M 10/488 is impacted by reclassification into group H01M 50/569.
Groups H01M 10/488 and H01M 50/569 should be considered in order to perform a complete search.
- U H01M 50/00**
- Constructional details or processes of manufacture of the non-active parts of electrochemical cells other than fuel cells, e.g. hybrid cells**
- M H01M 50/10
- Primary casings, jackets or wrappings of a single cell or a single battery
- WARNING
Group H01M 50/10 is impacted by reclassification into groups H01M 50/102, H01M 50/103, H01M 50/105, H01M 50/107, H01M 50/109, H01M 50/11, H01M 50/14, H01M 50/141, H01M 50/143, and H01M 50/145.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/102
- • characterised by their shape or physical structure
- WARNING
Groups H01M 50/102, H01M 50/103, H01M 50/105, H01M 50/107, H01M 50/109, and H01M 50/11 are incomplete pending reclassification of documents from group H01M 50/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/112
- • • Monobloc comprising multiple compartments
- WARNING
Group H01M 50/112 is impacted by reclassification into group H01M 50/114.
Groups H01M 50/112 and H01M 50/114 should be considered in order to perform a complete search.
- M H01M 50/114
- • • specially adapted for lead-acid cells
- WARNING
Group H01M 50/114 is incomplete pending reclassification of documents from group H01M 50/112.
Groups H01M 50/112 and H01M 50/114 should be considered in order to perform a complete search.
- M H01M 50/116
- • characterised by the material
- WARNING
Group H01M 50/116 is impacted by reclassification into groups H01M 50/117, H01M 50/119, H01M 50/121, H01M 50/122, H01M 50/124, H01M 50/126, H01M 50/128, H01M 50/129, H01M 50/131, H01M 50/133, H01M 50/134, H01M 50/136, H01M 50/14, H01M 50/141, H01M 50/143, and H01M 50/145.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/117
- • • Inorganic material
- WARNING
Groups H01M 50/117 and H01M 50/119 are incomplete pending reclassification of documents from group H01M 50/116.

Groups H01M 50/116, H01M 50/117, and H01M 50/119 should be considered in order to perform a complete search.

M H01M 50/121

- • • Organic material

WARNING

Group H01M 50/121 is incomplete pending reclassification of documents from group H01M 50/116.
Groups H01M 50/116 and H01M 50/121 should be considered in order to perform a complete search.

M H01M 50/122

- • • Composite material consisting of a mixture of organic and inorganic materials

WARNING

Group H01M 50/122 is incomplete pending reclassification of documents from group H01M 50/116.
Groups H01M 50/116 and H01M 50/122 should be considered in order to perform a complete search.

M H01M 50/124

- • • having a layered structure

WARNING

Groups H01M 50/124, H01M 50/126, H01M 50/128, and H01M 50/129 are incomplete pending reclassification of documents from group H01M 50/116.
All groups listed in this Warning should be considered in order to perform a complete search.

M H01M 50/131

- • characterised by physical properties, e.g. gas-permeability or size

WARNING

Groups H01M 50/131 - H01M 50/136 are incomplete pending reclassification of documents from group H01M 50/116.
All groups listed in this Warning should be considered in order to perform a complete search.

M H01M 50/14

- • for protecting against damage caused by external factors

WARNING

Groups H01M 50/14 - H01M 50/145 are incomplete pending reclassification of documents from groups H01M 50/10 and H01M 50/116.
All groups listed in this Warning should be considered in order to perform a complete search.

M H01M 50/147

- • Lids or covers

WARNING

Group H01M 50/147 is impacted by reclassification into groups H01M 50/591 and H01M 50/593.
Groups H01M 50/147, H01M 50/591, and H01M 50/593 should be considered in order to perform a complete search.

M H01M 50/148

- • characterised by their shape

WARNING

Group H01M 50/148 is impacted by reclassification into groups H01M 50/15, H01M 50/152, and H01M 50/153.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/15
- • • for prismatic or rectangular cells ([H01M 50/153](#) takes precedence)
- WARNING
Group H01M 50/15 is incomplete pending reclassification of documents from group H01M 50/148.
Groups H01M 50/148 and H01M 50/15 should be considered in order to perform a complete search.
- M H01M 50/152
- • • for cells having curved cross-section, e.g. round or elliptic ([H01M 50/15](#), [H01M 50/153](#) take precedence)
- WARNING
Group H01M 50/152 is incomplete pending reclassification of documents from group H01M 50/148.
Groups H01M 50/148 and H01M 50/152 should be considered in order to perform a complete search.
- M H01M 50/153
- • • for button or coin cells
- WARNING
Group H01M 50/153 is incomplete pending reclassification of documents from group H01M 50/148.
Groups H01M 50/148 and H01M 50/153 should be considered in order to perform a complete search.
- M H01M 50/155
- • • characterised by the material
- WARNING
Group H01M 50/155 is impacted by reclassification into groups H01M 50/157, H01M 50/159, H01M 50/16, H01M 50/162, H01M 50/164, H01M 50/591, and H01M 50/593.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/157
- • • Inorganic material
- WARNING
Groups H01M 50/157 and H01M 50/159 are incomplete pending reclassification of documents from group H01M 50/155.
Groups H01M 50/155, H01M 50/157, and H01M 50/159 should be considered in order to perform a complete search.
- M H01M 50/16
- • • Organic material
- WARNING
Group H01M 50/16 is incomplete pending reclassification of documents from group H01M 50/155.
Groups H01M 50/155 and H01M 50/16 should be considered in order to perform a complete search.
- M H01M 50/162
- • • Composite material consisting of a mixture of organic and inorganic materials
- WARNING
Group H01M 50/162 is incomplete pending reclassification of documents from group H01M 50/155.
Groups H01M 50/155 and H01M 50/162 should be considered in order to perform a complete search.

- M H01M 50/164
- • • having a layered structure
- WARNING
Group H01M 50/164 is incomplete pending reclassification of documents from group H01M 50/155.
Groups H01M 50/155 and H01M 50/164 should be considered in order to perform a complete search.
- M H01M 50/166
- • • characterised by the methods of assembling casings with lids
- WARNING
Group H01M 50/166 is impacted by reclassification into groups H01M 50/167, H01M 50/169, and H01M 50/171.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/167
- • • by crimping
- WARNING
Group H01M 50/167 is incomplete pending reclassification of documents from group H01M 50/166.
Groups H01M 50/166 and H01M 50/167 should be considered in order to perform a complete search.
- M H01M 50/169
- • • by welding, brazing or soldering
- WARNING
Group H01M 50/169 is incomplete pending reclassification of documents from group H01M 50/166.
Groups H01M 50/166 and H01M 50/169 should be considered in order to perform a complete search.
- M H01M 50/171
- • • using adhesives or sealing agents
- WARNING
Group H01M 50/171 is incomplete pending reclassification of documents from group H01M 50/166.
Groups H01M 50/166 and H01M 50/171 should be considered in order to perform a complete search.
- M H01M 50/172
- • Arrangements of electric connectors penetrating the casing
- WARNING
Group H01M 50/172 is impacted by reclassification into groups H01M 50/174, H01M 50/176, H01M 50/178, H01M 50/179, and H01M 50/181.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/174
- • • adapted for the shape of the cells
- WARNING
Groups H01M 50/174, H01M 50/176, H01M 50/178, H01M 50/179, and H01M 50/181 are incomplete pending reclassification of documents from group H01M 50/172.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/183
- • Sealing members
- WARNING
Group H01M 50/183 is impacted by reclassification into groups H01M 50/184, H01M 50/186, H01M 50/188, H01M 50/19, H01M 50/191, H01M 50/193, H01M 50/195, H01M 50/197, and H01M 50/198.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/184
- • characterised by their shape or structure

WARNING

Group H01M 50/184 is incomplete pending reclassification of documents from group H01M 50/183.
Groups H01M 50/183 and H01M 50/184 should be considered in order to perform a complete search.

- M H01M 50/186
- • characterised by the disposition of the sealing members

WARNING

Groups H01M 50/186 and H01M 50/188 are incomplete pending reclassification of documents from group H01M 50/183.
Groups H01M 50/183, H01M 50/186, and H01M 50/188 should be considered in order to perform a complete search.

- M H01M 50/19
- • characterised by the material

WARNING

Groups H01M 50/19 – H01M 50/198 are incomplete pending reclassification of documents from group H01M 50/183.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/20
- Mountings; Secondary casings or frames; Racks, modules or packs; Suspension devices; Shock absorbers; Transport or carrying devices; Holders (structural combination of accumulators with charging apparatus [H01M 10/46](#))

WARNING

Group H01M 50/20 is impacted by reclassification into groups H01M 50/202, H01M 50/204, H01M 50/207, H01M 50/209, H01M 50/211, H01M 50/213, H01M 50/216, H01M 50/218, H01M 50/22, H01M 50/222, H01M 50/224, H01M 50/227, H01M 50/229, H01M 50/231, H01M 50/233, H01M 50/236, H01M 50/238, H01M 50/24, H01M 50/242, H01M 50/244, H01M 50/247, H01M 50/249, H01M 50/251, H01M 50/253, H01M 50/262, H01M 50/264, H01M 50/267, H01M 50/269, H01M 50/271, H01M 50/273, H01M 50/276, H01M 50/278, H01M 50/28, H01M 50/282, H01M 50/284, H01M 50/287, H01M 50/289, H01M 50/291, H01M 50/293, H01M 50/296, H01M 50/298, and B60L 50/64.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/202
- • Casings or frames around the primary casing of a single cell or a single battery

WARNING

Group H01M 50/202 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/202 should be considered in order to perform a complete search.

- M H01M 50/204
- • Racks, modules or packs for multiple batteries or multiple cells

WARNING

Group H01M 50/204 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/204 should be considered in order to perform a complete search.

- M H01M 50/207
- • • characterised by their shape
- WARNING
Group H01M 50/207 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/207 should be considered in order to perform a complete search.
- M H01M 50/209
- • • adapted for prismatic or rectangular cells ([H01M 50/216](#) takes precedence)
- WARNING
Group H01M 50/209 is incomplete pending reclassification of documents from group H01M 50/20.
Group H01M 50/209 is also impacted by reclassification into group H01M 50/211.
Groups H01M 50/20, H01M 50/209, and H01M 50/211 should be considered in order to perform a complete search.
- M H01M 50/211
- • • adapted for pouch cells
- WARNING
Group H01M 50/211 is incomplete pending reclassification of documents from groups H01M 50/20 and H01M 50/209.
Groups H01M 50/20, H01M 50/209, and H01M 50/211 should be considered in order to perform a complete search.
- M H01M 50/213
- • • adapted for cells having curved cross-section, e.g. round or elliptic ([H01M 50/209](#), [H01M 50/216](#) take precedence)
- WARNING
Group H01M 50/213 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/213 should be considered in order to perform a complete search.
- M H01M 50/216
- • • adapted for button or coin cells
- WARNING
Group H01M 50/216 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/216 should be considered in order to perform a complete search.
- M H01M 50/218
- • characterised by the material
- WARNING
Groups H01M 50/218 - H01M 50/231 are incomplete pending reclassification of documents from group H01M 50/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/233
- • characterised by physical properties of casings or racks, e.g. dimensions
- WARNING
Groups H01M 50/233 - H01M 50/242 are incomplete pending reclassification of documents from group H01M 50/20.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/244
- Secondary casings; Racks; Suspension devices; Carrying devices; Holders characterised by their mounting method
- WARNING
Group H01M 50/244 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/244 should be considered in order to perform a complete search.
- M H01M 50/247
- specially adapted for portable devices, e.g. mobile phones, computers, hand tools or pacemakers
- WARNING
Group H01M 50/247 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/247 should be considered in order to perform a complete search.
- M H01M 50/249
- specially adapted for aircraft or vehicles, e.g. cars or trains (constructional details of batteries specially adapted for electric vehicles [B60L 50/64](#))
- WARNING
Group H01M 50/249 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/249 should be considered in order to perform a complete search.
- M H01M 50/251
- specially adapted for stationary devices, e.g. power plant buffering or backup power supplies
- WARNING
Group H01M 50/251 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/251 should be considered in order to perform a complete search.
- M H01M 50/253
- adapted for specific cells, e.g. electrochemical cells operating at high temperature
- WARNING
Group H01M 50/253 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/253 should be considered in order to perform a complete search.
- M H01M 50/262
- with fastening means, e.g. locks
- WARNING
Groups H01M 50/262 and H01M 50/264 are incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20, H01M 50/262, and H01M 50/264 should be considered in order to perform a complete search.
- M H01M 50/267
- having means for adapting to batteries or cells of different types or different sizes
- WARNING
Group H01M 50/267 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/267 should be considered in order to perform a complete search.

- M H01M 50/269
- Mechanical means for varying the arrangement of batteries or cells for different uses, e.g. for changing the number of batteries or for switching between series and parallel wiring (methods or arrangements for servicing or maintenance [H01M 6/50](#), [H01M 10/42](#))
- WARNING**
Group H01M 50/269 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/269 should be considered in order to perform a complete search.
- M H01M 50/271
- Lids or covers for the racks or secondary casings
- WARNING**
Groups H01M 50/271 – H01M 50/282 are incomplete pending reclassification of documents from group H01M 50/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/284
- with incorporated circuit boards, e.g. printed circuit boards [PCB]
- WARNING**
Groups H01M 50/284 and H01M 50/287 are incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20, H01M 50/284, and H01M 50/287 should be considered in order to perform a complete search.
- M H01M 50/289
- characterised by spacing elements or positioning means within frames, racks or packs (spacing elements inside cells other than separators, membranes or diaphragms [H01M 50/471](#))
- WARNING**
Groups H01M 50/289 – H01M 50/293 are incomplete pending reclassification of documents from group H01M 50/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/296
- characterised by terminals of battery packs (terminals of batteries [H01M 50/543](#))
- WARNING**
Group H01M 50/296 is incomplete pending reclassification of documents from groups H01M 50/20 and H01M 50/543.
Groups H01M 50/20, H01M 50/543, and H01M 50/296 should be considered in order to perform a complete search.
- M H01M 50/298
- characterised by the wiring of battery packs
- WARNING**
Group H01M 50/298 is incomplete pending reclassification of documents from group H01M 50/20.
Groups H01M 50/20 and H01M 50/298 should be considered in order to perform a complete search.
- U H01M 50/30
- Arrangements for facilitating escape of gases
- M H01M 50/35
- Gas exhaust passages comprising elongated, tortuous or labyrinth-shaped exhaust passages
- WARNING**
Group H01M 50/35 is impacted by reclassification into groups H01M 50/358 and H01M 50/367.

Groups H01M 50/35, H01M 50/358, and H01M 50/367 should be considered in order to perform a complete search.

- M H01M 50/358
- External gas exhaust passages located on the battery cover or case

WARNING

Group H01M 50/358 is incomplete pending reclassification of documents from group H01M 50/35.
Groups H01M 50/35 and H01M 50/358 should be considered in order to perform a complete search.

- M H01M 50/367
- Internal gas exhaust passages forming part of the battery cover or case; Double cover vent systems

WARNING

Group H01M 50/367 is incomplete pending reclassification of documents from group H01M 50/35.
Groups H01M 50/35 and H01M 50/367 should be considered in order to perform a complete search.

- M H01M 50/40
- Separators; Membranes; Diaphragms; Spacing elements inside cells

WARNING

Group H01M 50/40 is impacted by reclassification into groups H01M 50/471, H01M 50/474, H01M 50/477, H01M 50/48, H01M 50/483, H01M 50/486, H01M 50/489, H01M 50/491, H01M 50/494, and H01M 50/497.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/403
- Manufacturing processes of separators, membranes or diaphragms

WARNING

Group H01M 50/403 is impacted by reclassification into group H01M 50/406.
Groups H01M 50/403 and H01M 50/406 should be considered in order to perform a complete search.

- M H01M 50/406
- Moulding; Embossing; Cutting

WARNING

Group H01M 50/406 is incomplete pending reclassification of documents from group H01M 50/403.
Groups H01M 50/403 and H01M 50/406 should be considered in order to perform a complete search.

- M H01M 50/409
- Separators, membranes or diaphragms characterised by the material

WARNING

Group H01M 50/409 is impacted by reclassification into groups H01M 50/443, H01M 50/489, H01M 50/491, H01M 50/494, and H01M 50/497.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/411
- Organic material

WARNING

Group H01M 50/411 is impacted by reclassification into groups H01M 50/414, H01M 50/417, H01M 50/42, H01M 50/423, H01M 50/426, H01M 50/429, H01M 50/489, H01M 50/491, H01M 50/494, and H01M 50/497.
All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/414
- • • Synthetic resins, e.g. thermoplastics or thermosetting resins
- WARNING
Groups H01M 50/414 -- H01M 50/426 are incomplete pending reclassification of documents from group H01M 50/411.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/429
- • • Natural polymers
- WARNING
Group H01M 50/429 is incomplete pending reclassification of documents from group H01M 50/411.
Groups H01M 50/411 and H01M 50/429 should be considered in order to perform a complete search.
- M H01M 50/431
- • • Inorganic material
- WARNING
Group H01M 50/431 is impacted by reclassification into groups H01M 50/434, H01M 50/437, H01M 50/489, H01M 50/491, H01M 50/494, and H01M 50/497.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/434
- • • Ceramics
- WARNING
Groups H01M 50/434 and H01M 50/437 are incomplete pending reclassification of documents from group H01M 50/431.
Groups H01M 50/431, H01M 50/434, and H01M 50/437 should be considered in order to perform a complete search.
- M H01M 50/443
- • • Particulate material
- WARNING
Group H01M 50/443 is incomplete pending reclassification of documents from group H01M 50/409.
Groups H01M 50/409 and H01M 50/443 should be considered in order to perform a complete search.
- M H01M 50/449
- • • having a layered structure
- WARNING
Group H01M 50/449 is impacted by reclassification into groups H01M 50/451, H01M 50/454, H01M 50/457, H01M 50/489, H01M 50/491, H01M 50/494, and H01M 50/497.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/451
- • • comprising layers of only organic material and layers containing inorganic material
- WARNING
Group H01M 50/451 is incomplete pending reclassification of documents from group H01M 50/449.
Groups H01M 50/449 and H01M 50/451 should be considered in order to perform a complete search.

- M H01M 50/454
- • • comprising a non-fibrous layer and a fibrous layer superimposed on one another
- WARNING
Group H01M 50/454 is incomplete pending reclassification of documents from group H01M 50/449.
Groups H01M 50/449 and H01M 50/454 should be considered in order to perform a complete search.
- M H01M 50/457
- • • comprising three or more layers
- WARNING
Group H01M 50/457 is incomplete pending reclassification of documents from group H01M 50/449.
Groups H01M 50/449 and H01M 50/457 should be considered in order to perform a complete search.
- M H01M 50/463
- Separators, membranes or diaphragms characterised by their shape
- WARNING
Group H01M 50/463 is impacted by reclassification into groups H01M 50/466 and H01M 50/469.
Groups H01M 50/463, H01M 50/466, and H01M 50/469 should be considered in order to perform a complete search.
- M H01M 50/466
- • U-shaped, bag-shaped or folded
- WARNING
Group H01M 50/466 is incomplete pending reclassification of documents from group H01M 50/463.
Groups H01M 50/463 and H01M 50/466 should be considered in order to perform a complete search.
- M H01M 50/469
- • tubular or cylindrical
- WARNING
Group H01M 50/469 is incomplete pending reclassification of documents from group H01M 50/463.
Groups H01M 50/463 and H01M 50/469 should be considered in order to perform a complete search.
- M H01M 50/471
- Spacing elements inside cells other than separators, membranes or diaphragms (for preventing incorrect contact inside or outside batteries [H01M 50/584](#)); Manufacturing processes thereof
- WARNING
Groups H01M 50/471 - H01M 50/486 are incomplete pending reclassification of documents from group H01M 50/40.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/489
- Separators, membranes, diaphragms or spacing elements inside the cells, characterised by their physical properties, e.g. swelling degree, hydrophilicity or shut down properties
- WARNING
Groups H01M 50/489 - H01M 50/497 are incomplete pending reclassification of documents from groups H01M 50/40, H01M 50/409, H01M 50/411, H01M 50/431, and H01M 50/449.
All groups listed in this Warning should be considered in order to perform a complete search.

M	H01M 50/50	<ul style="list-style-type: none"> • Current conducting connections for cells or batteries <p><u>WARNING</u> Group H01M 50/50 is impacted by reclassification into group H01M 50/569. Groups H01M 50/50 and H01M 50/569 should be considered in order to perform a complete search.</p>
M	H01M 50/502	<ul style="list-style-type: none"> • Interconnectors for connecting terminals of adjacent batteries; • Interconnectors for connecting cells outside a battery casing <p><u>WARNING</u> Group H01M 50/502 is impacted by reclassification into groups H01M 50/503, H01M 50/505, H01M 50/507, H01M 50/509, H01M 50/51, H01M 50/512, H01M 50/514, H01M 50/516, H01M 50/517, H01M 50/519, H01M 50/521, H01M 50/522, H01M 50/524, H01M 50/526, and H01M 50/569. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	H01M 50/503	<ul style="list-style-type: none"> • • characterised by the shape of the interconnectors <p><u>WARNING</u> Group H01M 50/503 is incomplete pending reclassification of documents from group H01M 50/502. Groups H01M 50/502 and H01M 50/503 should be considered in order to perform a complete search.</p>
M	H01M 50/505	<ul style="list-style-type: none"> • • comprising a single busbar <p><u>WARNING</u> Group H01M 50/505 is incomplete pending reclassification of documents from group H01M 50/502. Groups H01M 50/502 and H01M 50/505 should be considered in order to perform a complete search.</p>
M	H01M 50/507	<ul style="list-style-type: none"> • • comprising an arrangement of two or more busbars within a container structure, e.g. busbar modules <p><u>WARNING</u> Group H01M 50/507 is incomplete pending reclassification of documents from group H01M 50/502. Groups H01M 50/502 and H01M 50/507 should be considered in order to perform a complete search.</p>
M	H01M 50/509	<ul style="list-style-type: none"> • • characterised by the type of connection, e.g. mixed connections <p><u>WARNING</u> Groups H01M 50/509 – H01M 50/512 are incomplete pending reclassification of documents from group H01M 50/502. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	H01M 50/514	<ul style="list-style-type: none"> • • Methods for interconnecting adjacent batteries or cells <p><u>WARNING</u> Groups H01M 50/514 – H01M 50/517 are incomplete pending reclassification of documents from group H01M 50/502. All groups listed in this Warning should be considered in order to perform a complete search.</p>

- M H01M 50/519
- • comprising printed circuit boards [PCB]
- WARNING
Group H01M 50/519 is incomplete pending reclassification of documents from group H01M 50/502.
Groups H01M 50/502 and H01M 50/519 should be considered in order to perform a complete search.
- M H01M 50/521
- • characterised by the material
- WARNING
Groups H01M 50/521 – H01M 50/526 are incomplete pending reclassification of documents from group H01M 50/502.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/531
- • Electrode connections inside a battery casing
- WARNING
Group H01M 50/531 is impacted by reclassification into groups H01M 50/533, H01M 50/534, and H01M 50/536.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/533
- • characterised by the shape of the leads or tabs
- WARNING
Group H01M 50/533 is incomplete pending reclassification of documents from groups H01M 50/531, H01M 50/538, H01M 50/54, and H01M 50/541.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/534
- • characterised by the material of the leads or tabs
- WARNING
Group H01M 50/534 is incomplete pending reclassification of documents from groups H01M 50/531, H01M 50/538, H01M 50/54, and H01M 50/541.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/536
- • characterised by the method of fixing the leads to the electrodes, e.g. by welding
- WARNING
Group H01M 50/536 is incomplete pending reclassification of documents from groups H01M 50/531, H01M 50/538, H01M 50/54, and H01M 50/541.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/538
- • Connection of several leads or tabs of wound or folded electrode stacks
- WARNING
Group H01M 50/538 is impacted by reclassification into groups H01M 50/533, H01M 50/534, and H01M 50/536.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/54
- • Connection of several leads or tabs of plate-like electrode stacks, e.g. electrode pole straps or bridges
- WARNING
Group H01M 50/54 is impacted by reclassification into groups H01M 50/533, H01M 50/534, and H01M 50/536.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/541
 - • • • for lead-acid accumulators

WARNING

Group H01M 50/541 is impacted by reclassification into groups H01M 50/533, H01M 50/534, and H01M 50/536.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/543
 - • Terminals

WARNING

Group H01M 50/543 is impacted by reclassification into groups H01M 50/547, H01M 50/548, H01M 50/55, H01M 50/552, H01M 50/553, H01M 50/559, H01M 50/562, H01M 50/564, H01M 50/566, H01M 50/567, H01M 50/569, and H01M 50/296.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/547
 - • • characterised by the disposition of the terminals on the cells

WARNING

Groups H01M 50/547 – H01M 50/55 are incomplete pending reclassification of documents from groups H01M 50/543, H01M 50/555, and H01M 50/557.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/552
 - • • characterised by their shape

WARNING

Groups H01M 50/552, H01M 50/553, and H01M 50/559 are incomplete pending reclassification of documents from group H01M 50/543.

All groups listed in this Warning should be considered in order to perform a complete search.

- U H01M 50/553
 - • • • Terminals adapted for prismatic, pouch or rectangular cells

- M H01M 50/555
 - • • • • Window-shaped terminals

WARNING

Group H01M 50/555 is impacted by reclassification into groups H01M 50/547, H01M 50/548, H01M 50/55, H01M 50/562, H01M 50/564, H01M 50/566, and H01M 50/567.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/557
 - • • • • Plate-shaped terminals

WARNING

Group H01M 50/557 is impacted by reclassification into groups H01M 50/547, H01M 50/548, H01M 50/55, H01M 50/562, H01M 50/564, H01M 50/566, and H01M 50/567.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/562
 - • • characterised by the material

WARNING

Group H01M 50/562 is incomplete pending reclassification of documents from groups H01M 50/543, H01M 50/555, and H01M 50/557.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/564
 - • characterised by their manufacturing process

WARNING

Groups H01M 50/564 – H01M 50/567 are incomplete pending reclassification of documents from groups H01M 50/543, H01M 50/555, and H01M 50/557.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/569
 - • Constructional details of current conducting connections for detecting conditions inside cells or batteries, e.g. details of voltage sensing terminals (battery terminal connectors with integrated measuring arrangements [G01R 31/364](#))

WARNING

Group H01M 50/569 is incomplete pending reclassification of documents from groups H01M 6/50, H01M 6/5044, H01M 6/505, H01M 6/5055, H01M 6/5061, H01M 10/48, H01M 10/482, H01M 10/484, H01M 10/486, H01M 10/488, H01M 50/50, H01M 50/502, and H01M 50/543.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/572
 - • Means for preventing undesired use or discharge

WARNING

Group H01M 50/572 is impacted by reclassification into groups H01M 6/5044, H01M 50/574, H01M 50/583, H01M 50/584, H01M 50/586, H01M 50/588, H01M 50/59, H01M 50/591, H01M 50/593, H01M 50/595, and H01M 50/597.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/574
 - • Devices or arrangements for the interruption of current

WARNING

Groups H01M 50/574 and H01M 50/583 are incomplete pending reclassification of documents from group H01M 50/572.

Groups H01M 50/572, H01M 50/574, and H01M 50/583 should be considered in order to perform a complete search.

- M H01M 50/584
 - • for preventing incorrect connections inside or outside the batteries

WARNING

Groups H01M 50/584, H01M 50/586, H01M 50/588, H01M 50/59, H01M 50/595, and H01M 50/597 are incomplete pending reclassification of documents from group H01M 50/572.

All groups listed in this Warning should be considered in order to perform a complete search.

- U H01M 50/59
 - • • characterised by the protection means

- M H01M 50/591
 - • • • Covers

WARNING

Group H01M 50/591 is incomplete pending reclassification of documents from groups H01M 50/147, H01M 50/155, and H01M 50/572.

All groups listed in this Warning should be considered in order to perform a complete search.

- M H01M 50/593
- • • • Spacers; Insulating plates
- WARNING
Group H01M 50/593 is incomplete pending reclassification of documents from groups H01M 50/147, H01M 50/155, and H01M 50/572.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/60
- Arrangements or processes for filling or topping-up with liquids; Arrangements or processes for draining liquids from casings
- WARNING
Group H01M 50/60 is impacted by reclassification into groups H01M 50/609, H01M 50/618, H01M 50/627, H01M 50/673, and H01M 50/682.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/609
- • Arrangements or processes for filling with liquid, e.g. electrolytes
- WARNING
Groups H01M 50/609, H01M 50/618, and H01M 50/627 are incomplete pending reclassification of documents from group H01M 50/60.
All groups listed in this Warning should be considered in order to perform a complete search.
- U H01M 50/627
- • • Filling ports
- M H01M 50/636
- • • • Closing or sealing filling ports, e.g. using lids
- WARNING
Group H01M 50/636 is impacted by reclassification into groups H01M 50/645, H01M 50/655, H01M 50/664, and H01M 50/668.
All groups listed in this Warning should be considered in order to perform a complete search.
- M H01M 50/645
- • • • Plugs
- WARNING
Groups H01M 50/645 and H01M 50/655 are incomplete pending reclassification of documents from group H01M 50/636.
Groups H01M 50/636, H01M 50/645, and H01M 50/655 should be considered in order to perform a complete search.
- M H01M 50/664
- • • • Temporary seals, e.g. for storage of instant batteries or seawater batteries
- WARNING
Group H01M 50/664 is incomplete pending reclassification of documents from group H01M 50/636.
Groups H01M 50/636 and H01M 50/664 should be considered in order to perform a complete search.
- M H01M 50/668
- • {Means for preventing spilling of liquid or electrolyte, e.g. when the battery is tilted or turned over}
- WARNING
Group H01M 50/668 is incomplete pending reclassification of documents from group H01M 50/636.
Groups H01M 50/636 and H01M 50/668 should be considered in order to perform a complete search.

- M H01M 50/673
- Containers for storing liquids; Delivery conduits therefor

WARNING

Groups H01M 50/673 and H01M 50/682 are incomplete pending reclassification of documents from group H01M 50/60. Groups H01M 50/60, H01M 50/673, and H01M 50/682 should be considered in order to perform a complete search.

Project: RP0696-F (F24F)

- U F24F 3/00
- Air-conditioning systems in which conditioned primary air is supplied from one or more central stations to distributing units in the rooms or spaces where it may receive secondary treatment; Apparatus specially designed for such systems (room units F24F 1/00)**

- U F24F 3/12
- characterised by the treatment of the air otherwise than by heating and cooling

- M F24F 3/16
- by purification, e.g. by filtering; by sterilisation; by ozonisation

WARNING

Group F24F 3/16 is impacted by reclassification into groups F24F 8/00, F24F 8/20, F24F 8/22, F24F 8/24, F24F 8/26, F24F 8/28, F24F 8/30, F24F 8/40, F24F 8/50, F24F 8/60, F24F 8/70, F24F 8/80, and F24F 8/95. All groups listed in this Warning should be considered in order to perform a complete search.

- M F24F 7/00
- Ventilation**

WARNING

Group F24F 7/00 is impacted by reclassification into group F24F 7/003. Groups F24F 7/00 and F24F 7/003 should be considered in order to perform a complete search.

- M F24F 2007/001
- {with exhausting air ducts}

WARNING

Group F24F 2007/001 is impacted by reclassification into group F24F 7/003. Groups F24F 2007/001 and F24F 7/003 should be considered in order to perform a complete search.

- M F24F 2007/002
- {Junction box, e.g. for ducts from kitchen, toilet or bathroom}

WARNING

Group F24F 2007/002 is impacted by reclassification into group F24F 7/003. Groups F24F 2007/002 and F24F 7/003 should be considered in order to perform a complete search.

- M F24F 2007/0025
- {using vent ports in a wall}

WARNING

Group F24F 2007/0025 is impacted by reclassification into group F24F 7/003. Groups F24F 2007/0025 and F24F 7/003 should be considered in order to perform a complete search.

- M F24F 7/003
- in combination with air cleaning

WARNING

Group F24F 7/003 is incomplete pending reclassification of documents from groups F24F 7/00, F24F 2007/001, F24F 2007/002, F24F 2007/0025, F24F 2007/004, and F24F 2007/005. All groups listed in this Warning should be considered in order to perform a complete search.

- M F24F 2007/004
- {Natural ventilation using convection}
- WARNING
Group F24F 2007/004 is impacted by reclassification into group F24F 7/003. Groups F24F 2007/004 and F24F 7/003 should be considered in order to perform a complete search.
- M F24F 2007/005
- {Cyclic ventilation, e.g. alternating air supply volume or reversing flow direction}
- WARNING
Group F24F 2007/005 is impacted by reclassification into group F24F 7/003. Groups F24F 2007/005 and F24F 7/003 should be considered in order to perform a complete search.
- M F24F 8/00**
- Treatment, e.g. purification, of air supplied to human living or working spaces otherwise than by heating, cooling, humidifying or drying**
- WARNING
Groups F24F 8/00, F24F 8/20, F24F 8/22, F24F 8/24, F24F 8/26, F24F 8/28, F24F 8/30, F24F 8/40, F24F 8/50, F24F 8/60, F24F 8/70, F24F 8/80, and F24F 8/95 are incomplete pending reclassification of documents from group F24F 3/16.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24F 8/10
- by separation, e.g. by filtering
- WARNING
Group F24F 8/10 is impacted by reclassification into groups F24F 8/108, F24F 8/117, F24F 8/125, F24F 8/133, F24F 8/142, F24F 8/15, F24F 8/158, F24F 8/167, F24F 8/175, F24F 8/183, F24F 8/90, F24F 8/96, F24F 8/97, F24F 8/98, and F24F 8/99.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24F 8/108
- • using dry filter elements
- WARNING
Group F24F 8/108 is incomplete pending reclassification of documents from group F24F 8/10.
Groups F24F 8/10 and F24F 8/108 should be considered in order to perform a complete search.
- M F24F 8/117
- • using wet filtering
- WARNING
Group F24F 8/117 is incomplete pending reclassification of documents from group F24F 8/10.
Group F24F 8/117 is also impacted by reclassification into groups F24F 8/125, F24F 8/133, and F24F 8/142.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24F 8/125
- • • using wet filter elements
- WARNING
Group F24F 8/125 is incomplete pending reclassification of documents from groups F24F 8/10 and F24F 8/117.
Groups F24F 8/10, F24F 8/117, and F24F 8/125 should be considered in order to perform a complete search.

- M F24F 8/133
- • by direct contact with liquid, e.g. with sprayed liquid
- WARNING
Group F24F 8/133 is incomplete pending reclassification of documents from groups F24F 8/10 and F24F 8/117. Groups F24F 8/10, F24F 8/117, and F24F 8/133 should be considered in order to perform a complete search.
- M F24F 8/142
- • Treatment of used liquid, e.g. cleaning for recycling
- WARNING
Group F24F 8/142 is incomplete pending reclassification of documents from groups F24F 8/10 and F24F 8/117. Groups F24F 8/10, F24F 8/117, and F24F 8/142 should be considered in order to perform a complete search.
- M F24F 8/15
- • by chemical means
- WARNING
Groups F24F 8/15 – F24F 8/167 are incomplete pending reclassification of documents from group F24F 8/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M F24F 8/175
- • using biological materials, plants or microorganisms
- WARNING
Group F24F 8/175 is incomplete pending reclassification of documents from group F24F 8/10. Groups F24F 8/10 and F24F 8/175 should be considered in order to perform a complete search.
- M F24F 8/183
- • by centrifugal separation, e.g. using vortices
- WARNING
Group F24F 8/183 is incomplete pending reclassification of documents from group F24F 8/10. Groups F24F 8/10 and F24F 8/183 should be considered in order to perform a complete search.
- M F24F 8/90
- Cleaning of purification apparatus
- WARNING
Group F24F 8/90 is incomplete pending reclassification of documents from group F24F 8/10. Groups F24F 8/10 and F24F 8/90 should be considered in order to perform a complete search.
- U F24F 8/95
- specially adapted for specific purposes
- M F24F 8/96
- • for removing pollen
- WARNING
Group F24F 8/96 is incomplete pending reclassification of documents from group F24F 8/10. Groups F24F 8/10 and F24F 8/96 should be considered in order to perform a complete search.
- M F24F 8/97
- • for removing tobacco smoke
- WARNING
Group F24F 8/97 is incomplete pending reclassification of documents from group F24F 8/10.

Groups F24F 8/10 and F24F 8/97 should be considered in order to perform a complete search.

- M F24F 8/98
- for removing ozone

WARNING

Group F24F 8/98 is incomplete pending reclassification of documents from group F24F 8/10.

Groups F24F 8/10 and F24F 8/98 should be considered in order to perform a complete search.

- M F24F 8/99
- for treating air sourced from urban areas, e.g. from streets

WARNING

Group F24F 8/99 is incomplete pending reclassification of documents from group F24F 8/10.

Groups F24F 8/10 and F24F 8/99 should be considered in order to perform a complete search.

Project: RP0701-F (H01S)

- U H01S 5/00 **Semiconductor lasers (superluminescent diodes [H01L 33/00](#))**

NOTE

Attention is drawn to Special Rules of classification at [C07F](#), which Special Rules indicate to which version of the periodic table of chemical elements CPC refers. In this group, the Periodic System used is the 8 group system indicated by Roman numerals in the Periodic Table thereunder.

- U H01S 5/02
- Structural details or components not essential to laser action

- M H01S 5/022
- Mountings; Housings

WARNING

Group H01S 5/022 is impacted by reclassification into groups H01S 5/02218 and H01S 5/0239.

Groups H01S 5/022, H01S 5/02218, and H01S 5/0239 should be considered in order to perform a complete search.

- M H01S 5/02218
- Material of the housings; Filling of the housings

WARNING

Group H01S 5/02218 is incomplete pending reclassification of documents from group H01S 5/022.

Groups H01S 5/022 and H01S 5/02218 should be considered in order to perform a complete search.

- M H01S 5/023
- Mount members, e.g. sub-mount members

WARNING

Group H01S 5/023 is impacted by reclassification into group H01S 5/02315.

Groups H01S 5/023 and H01S 5/02315 should be considered in order to perform a complete search.

- M H01S 5/0231
- Stems

WARNING

Group H01S 5/0231 is impacted by reclassification into group H01S 5/0232.

Groups H01S 5/0231 and H01S 5/0232 should be considered in order to perform a complete search.

- M H01S 5/02315 . . . Support members, e.g. bases or carriers
- WARNING
Group H01S 5/02315 is incomplete pending reclassification of documents from group H01S 5/023. Groups H01S 5/023 and H01S 5/02315 should be considered in order to perform a complete search.
- M H01S 5/0232 . . . Lead-frames
- WARNING
Group H01S 5/0232 is incomplete pending reclassification of documents from group H01S 5/0231. Groups H01S 5/0231 and H01S 5/0232 should be considered in order to perform a complete search.
- M H01S 5/0233 . . . Mounting configuration of laser chips
- WARNING
Group H01S 5/0233 is impacted by reclassification into group H01S 5/02335. Groups H01S 5/0233 and H01S 5/02335 should be considered in order to perform a complete search.
- M H01S 5/02335 . . . Up-side up mountings, e.g. epi-side up mountings or junction up mountings
- WARNING
Group H01S 5/02335 is incomplete pending reclassification of documents from group H01S 5/0233. Groups H01S 5/0233 and H01S 5/02335 should be considered in order to perform a complete search.
- U H01S 5/0235 . . . Method for mounting laser chips
- M H01S 5/02375 . . . Positioning of the laser chips
- WARNING
Group H01S 5/02375 is impacted by reclassification into groups H01S 5/0238 and H01S 5/02385. Groups H01S 5/02375, H01S 5/0238, and H01S 5/02385 should be considered in order to perform a complete search.
- M H01S 5/0238 using marks
- WARNING
Group H01S 5/0238 is incomplete pending reclassification of documents from group H01S 5/02375. Groups H01S 5/02375 and H01S 5/0238 should be considered in order to perform a complete search.
- M H01S 5/02385 using laser light as reference
- WARNING
Group H01S 5/02385 is incomplete pending reclassification of documents from group H01S 5/02375. Groups H01S 5/02375 and H01S 5/02385 should be considered in order to perform a complete search.

- M H01S 5/0239
- • Combinations of electrical or optical elements
- WARNING
Group H01S 5/0239 is incomplete pending reclassification of documents from group H01S 5/022.
Groups H01S 5/022 and H01S 5/0239 should be considered in order to perform a complete search.
- U H01S 5/10
- Construction or shape of the optical resonator {, e.g. extended or external cavity, coupled cavities, bent-guide, varying width, thickness or composition of the active region ([H01S 5/20](#) takes precedence)}
- M H01S 5/11
- • Comprising a photonic bandgap structure
- WARNING
Group H01S 5/11 is incomplete pending reclassification of documents from group H01S 5/12.
Groups H01S 5/12 and H01S 5/11 should be considered in order to perform a complete search.
- M H01S 5/12
- • the resonator having a periodic structure, e.g. in distributed feedback [DFB] lasers (comprising a photonic bandgap structure [H01S 5/11](#); surface-emitting lasers [H01S 5/18](#))
- WARNING
Group H01S 5/12 is impacted by reclassification into group H01S 5/11.
Groups H01S 5/12 and H01S 5/11 should be considered in order to perform a complete search.
- M H01S 5/18
- • Surface-emitting [SE] lasers, e.g. having both horizontal and vertical cavities
- WARNING
Group H01S 5/18 is impacted by reclassification into group H01S 5/185.
Groups H01S 5/18 and H01S 5/185 should be considered in order to perform a complete search.
- M H01S 5/185
- • • having only horizontal cavities, e.g. horizontal cavity surface-emitting lasers [HCSEL] (comprising a photonic bandgap structure [H01S 5/11](#))
- WARNING
Group H01S 5/185 is incomplete pending reclassification of documents from group H01S 5/18.
Groups H01S 5/18 and H01S 5/185 should be considered in order to perform a complete search.

Project: RP0709-F (F24B)

- U F24B 1/00 **Stoves or ranges**
- U F24B 1/02
- Closed stoves
- M F24B 1/04
- • built-up from glazed tiles
- WARNING
Groups F24B 1/04 and F24B 1/06 are incomplete pending reclassification of documents from groups F24B 1/08, F24B 1/10, F24B 1/14, and F24B 1/16.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24B 1/08
- • with fuel storage in a single undivided hopper within stove or range
- WARNING
Group F24B 1/08 is impacted by reclassification into groups F24B 1/04 and F24B 1/06.

Groups F24B 1/08, F24B 1/04, and F24B 1/06 should be considered in order to perform a complete search.

- M F24B 1/10
 - with combustion in horizontal direction (with predistillation in the hopper [F24B 1/14](#))

WARNING

Group F24B 1/10 is impacted by reclassification into groups F24B 1/04 and F24B 1/06.
Groups F24B 1/10, F24B 1/04, and F24B 1/06 should be considered in order to perform a complete search.

- M F24B 1/14
 - with predistillation in the hopper

WARNING

Group F24B 1/14 is impacted by reclassification into groups F24B 1/04 and F24B 1/06.
Groups F24B 1/14, F24B 1/04, and F24B 1/06 should be considered in order to perform a complete search.

- M F24B 1/16
 - with fuel storage in multiple or divided hoppers within the stove or range

WARNING

Group F24B 1/16 is impacted by reclassification into groups F24B 1/04 and F24B 1/06.
Groups F24B 1/16, F24B 1/04, and F24B 1/06 should be considered in order to perform a complete search.

- U F24B 1/18
 - Stoves with open fires, e.g. fireplaces

- M F24B 1/191
 - Component parts; Accessories

WARNING

Group F24B 1/191 is incomplete pending reclassification of documents from groups F24B 13/00 and F24B 13/002.
Groups F24B 13/00, F24B 13/002, and F24B 1/191 should be considered in order to perform a complete search.

- M F24B 13/00
 - **Details solely applicable to stoves or ranges burning solid fuels (component parts or accessories for stoves with open-fires [F24B 1/191](#))**

WARNING

Group F24B 13/00 is impacted by reclassification into group F24B 1/191.
Groups F24B 13/00 and F24B 1/191 should be considered in order to perform a complete search.

- M F24B 13/002
 - {Surrounds}

WARNING

Group F24B 13/002 is impacted by reclassification into group F24B 1/191.
Groups F24B 13/002 and F24B 1/191 should be considered in order to perform a complete search.

Project: RP0710-F (F24C)

- U F24C 1/00
 - **Stoves or ranges in which the fuel or energy supply is not restricted to solid fuel or to a type covered by a single one of the following groups [F24C 3/00](#) - [F24C 9/00](#); Stoves or ranges in which the type of fuel or energy supply is not specified**

- M F24C 1/02
- adapted for the use of two or more kinds of fuel or energy supply (combinations of two or more stoves or ranges each having a different kind of fuel or energy supply [F24C 11/00](#))
- WARNING**
Group F24C 1/02 is incomplete pending reclassification of documents from groups F24C 1/16, F24C 3/00, and F24C 5/00.
Group F24C 1/02 is also impacted by reclassification into group F24C 1/14.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24C 1/04
- simultaneously
- WARNING**
Group F24C 1/04 is incomplete pending reclassification of documents from group F24C 1/16.
Group F24C 1/04 is also impacted by reclassification into group F24C 1/14.
Groups F24C 1/16, F24C 1/04, and F24C 1/14 should be considered in order to perform a complete search.
- M F24C 1/06
- by replacing parts, e.g. replacing burners by electric heaters
- WARNING**
Group F24C 1/06 is incomplete pending reclassification of documents from group F24C 1/16.
Group F24C 1/06 is also impacted by reclassification into group F24C 1/14.
Groups F24C 1/16, F24C 1/06, and F24C 1/14 should be considered in order to perform a complete search.
- M F24C 1/08
- solely adapted for radiation heating
- WARNING**
Group F24C 1/08 is incomplete pending reclassification of documents from group F24C 1/16.
Groups F24C 1/16 and F24C 1/08 should be considered in order to perform a complete search.
- M F24C 1/14
- Radiation heating stoves and ranges, with additional provision for convection heating
- WARNING**
Group F24C 1/14 is incomplete pending reclassification of documents from groups F24C 1/02, F24C 1/04, F24C 1/06, F24C 1/16, and F24C 3/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24C 1/16
- with special adaptation for travelling, e.g. collapsible
- WARNING**
Group F24C 1/16 is impacted by reclassification into groups F24C 1/02, F24C 1/04, F24C 1/06, F24C 1/08, and F24C 1/14.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24C 3/00
- Stoves or ranges for gaseous fuels (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply [F24C 1/02](#))**
- WARNING**
Group F24C 3/00 is impacted by reclassification into groups F24C 1/02 and F24C 1/14.

Groups F24C 3/00, F24C 1/02, and F24C 1/14 should be considered in order to perform a complete search.

M F24C 3/02

- with heat produced solely by flame

WARNING

Groups F24C 3/02, F24C 3/022, F24C 3/025, and F24C 3/027 are incomplete pending reclassification of documents from group F24C 3/14. All groups listed in this Warning should be considered in order to perform a complete search.

M F24C 3/04

- with heat produced wholly or partly by a radiant body, e.g. by a perforated plate

WARNING

Groups F24C 3/04, F24C 3/042, F24C 3/045, F24C 3/047, and F24C 3/06 are incomplete pending reclassification of documents from group F24C 3/14. All groups listed in this Warning should be considered in order to perform a complete search.

M F24C 3/14

- with special adaptation for travelling, e.g. collapsible

WARNING

Group F24C 3/14 is impacted by reclassification into groups F24C 3/02, F24C 3/022, F24C 3/025, F24C 3/027, F24C 3/04, F24C 3/042, F24C 3/045, F24C 3/047, and F24C 3/06. All groups listed in this Warning should be considered in order to perform a complete search.

M F24C 5/00

Stoves or ranges for liquid fuels (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply [F24C 1/02](#))

WARNING

Group F24C 5/00 is impacted by reclassification into group F24C 1/02. Groups F24C 5/00 and F24C 1/02 should be considered in order to perform a complete search.

M F24C 5/02

- with evaporation burners, e.g. dish type

WARNING

Groups F24C 5/02, F24C 5/04, F24C 5/06, and F24C 5/08 are incomplete pending reclassification of documents from group F24C 5/20. All groups listed in this Warning should be considered in order to perform a complete search.

M F24C 5/10

- with atomising burners

WARNING

Group F24C 5/10 is incomplete pending reclassification of documents from group F24C 5/20. Groups F24C 5/20 and F24C 5/10 should be considered in order to perform a complete search.

M F24C 5/20

- with special adaptation for travelling, e.g. collapsible

WARNING

Group F24C 5/20 is impacted by reclassification into groups F24C 5/02, F24C 5/04, F24C 5/06, F24C 5/08, and F24C 5/10. All groups listed in this Warning should be considered in order to perform a complete search.

- U F24C 7/00** **Stoves or ranges heated by electric energy (stoves or ranges specially adapted for the use of two or more kinds of fuel or energy supply [F24C 1/02](#))**
- M F24C 7/04** **· with heat radiated directly from the heating element**
- WARNING**
Group F24C 7/04 is incomplete pending reclassification of documents from group F24C 7/10.
Group F24C 7/04 is also impacted by reclassification into groups F24C 7/043 and F24C 7/046.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F24C 7/043** **· · {Stoves}**
- WARNING**
Group F24C 7/043 is incomplete pending reclassification of documents from group F24C 7/04.
Groups F24C 7/04 and F24C 7/043 should be considered in order to perform a complete search.
- M F24C 7/046** **· · {Ranges}**
- WARNING**
Group F24C 7/046 is incomplete pending reclassification of documents from group F24C 7/04.
Groups F24C 7/04 and F24C 7/046 should be considered in order to perform a complete search.
- M F24C 7/10** **· with special adaptation for travelling, e.g. collapsible**
- WARNING**
Group F24C 7/10 is impacted by reclassification into groups F24C 7/04 and F24C 7/105.
Groups F24C 7/04, F24C 7/10, and F24C 7/105 should be considered in order to perform a complete search.
- M F24C 7/105** **· · {Stoves}**
- WARNING**
Group F24C 7/105 is incomplete pending reclassification of documents from group F24C 7/10.
Groups F24C 7/10 and F24C 7/105 should be considered in order to perform a complete search.

Project: RP0713-F (G01C)

- U G01C 19/00** **Gyroscopes; Turn-sensitive devices using vibrating masses; Turn-sensitive devices without moving masses; Measuring angular rate using gyroscopic effects**
- M G01C 19/005** **· {Measuring angular rate using gyroscopic effects}**
- WARNING**
Group G01C 19/005 is incomplete pending reclassification of documents from groups G01P 9/00, G01P 9/02 and G01P 9/04.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G01C 19/02
- Rotary gyroscopes
- WARNING**
Groups G01C 19/02, G01C 19/025, G01C 19/04, G01C 19/06, G01C 19/08, G01C 19/10, G01C 19/12, G01C 19/14, G01C 19/16, G01C 19/18, G01C 19/20, G01C 19/22, G01C 19/24, G01C 19/26, G01C 19/28, G01C 19/30, G01C 19/32, G01C 19/34, G01C 19/36, G01C 19/38, G01C 19/40, G01C 19/42, G01C 19/44, G01C 19/46, G01C 19/48, G01C 19/50, G01C 19/52 and G01C 19/54 are incomplete pending reclassification of documents from group G01P 9/02. All groups listed in this Warning should be considered in order to perform a complete search.
- U G01C 19/04
- • Details
- U G01C 19/06
- • • Rotors
- M G01C 19/065
- • • • {Means for measuring or controlling of rotors' angular velocity}
- WARNING**
Group G01C 19/065 is incomplete pending reclassification of documents from groups G01P 9/00 and G01P 9/02. Groups G01P 9/00, G01P 9/02 and G01C 19/065 should be considered in order to perform a complete search.
- M G01C 19/56
- Turn-sensitive devices using vibrating masses, e.g. vibratory angular rate sensors based on Coriolis forces
- WARNING**
Groups G01C 19/56 - G01C 19/5783 are incomplete pending reclassification of documents from group G01P 9/04. All groups listed in this Warning should be considered in order to perform a complete search.
- U G01C 21/10
- by using measurements of speed or acceleration ([G01C 21/24](#), [G01C 21/26](#) take precedence)
- U G01C 21/12
- • executed aboard the object being navigated; Dead reckoning
- M G01C 21/16
- • • by integrating acceleration or speed, i.e. inertial navigation
- WARNING**
Groups G01C 21/16 - G01C 21/188 are incomplete pending reclassification of documents from groups G01P 9/00, G01P 9/02 and G01P 9/04. All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0713-F (G01P)

- D G01P 9/00
—(Frozen)
- ~~{Measuring speed by using gyroscopic effect, e.g. using gas, using electron beam (gyroscopes or turn-sensitive devices per se G01C 19/00)}~~

NOTE

~~Absolute angular speed sensors are classified under G01C 19/00 and s.gr.~~

WARNING

~~Group G01P 9/00 is no longer used for the classification of documents as of January 1, 2022. The content of this group is being reclassified into groups G01C 19/005, G01C 19/065, G01C 21/16, G01C 21/165, G01C 21/1652, G01C 21/1654, G01C 21/1656, G01C 21/166, G01C 21/18, G01C 21/183, G01C 21/185 and G01C 21/188.~~

G01P 9/00

(Frozen)

(continued)

All groups listed in this Warning should be considered in order to perform a complete search.

D G01P 9/02
—(Frozen)

- {using rotary gyroscopes}

WARNING

Group G01P 9/02 is no longer used for the classification of documents as of January 1, 2022. The content of this group is being reclassified into groups G01C 19/005, G01C 19/02, G01C 19/025, G01C 19/04, G01C 19/06, G01C 19/065, G01C 19/08, G01C 19/10, G01C 19/12, G01C 19/14, G01C 19/16, G01C 19/18, G01C 19/20, G01C 19/22, G01C 19/24, G01C 19/26, G01C 19/28, G01C 19/30, G01C 19/32, G01C 19/34, G01C 19/36, G01C 19/38, G01C 19/40, G01C 19/42, G01C 19/44, G01C 19/46, G01C 19/48, G01C 19/50, G01C 19/52, G01C 19/54, G01C 21/16, G01C 21/165, G01C 21/1652, G01C 21/1654, G01C 21/1656, G01C 21/166, G01C 21/18, G01C 21/183, G01C 21/185 and G01C 21/188. All groups listed in this Warning should be considered in order to perform a complete search.

D G01P 9/04
—(Frozen)

- {using turn-sensitive devices with vibrating masses, e.g. tuning-fork}

WARNING

Group G01P 9/04 is no longer used for the classification of documents as of January 1, 2022. The content of this group is being reclassified into groups G01C 19/005, G01C 19/56, G01C 19/5607, G01C 19/5614, G01C 19/5621, G01C 19/5628, G01C 19/5635, G01C 19/5642, G01C 19/5649, G01C 19/5656, G01C 19/5663, G01C 19/567, G01C 19/5677, G01C 19/5684, G01C 19/5691, G01C 19/5698, G01C 19/5705, G01C 19/5712, G01C 19/5719, G01C 19/5726, G01C 19/5733, G01C 19/574, G01C 19/5747, G01C 19/5755, G01C 19/5762, G01C 19/5769, G01C 19/5776, G01C 19/5783, G01C 21/16, G01C 21/165, G01C 21/1652, G01C 21/1654, G01C 21/1656, G01C 21/166, G01C 21/18, G01C 21/183, G01C 21/185 and G01C 21/188. All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0717-F (H04N)

U H04N 2201/32

- Circuits or arrangements for control or supervision between transmitter and receiver or between image input and image output device, e.g. between a still-image camera and its memory or between a still-image camera and a printer device

U H04N 2201/3201

- • Display, printing, storage or transmission of additional information, e.g. ID code, date and time or title

U H04N 2201/3225

- • • of data relating to an image, a page or a document

M H04N 2201/325

- • • Modified version of the image, e.g. part of the image, image reduced in size or resolution, thumbnail or scrennail

WARNING

Group H04N 2201/325 is impacted by reclassification into group H04N 2201/3251.

Groups H04N 2201/325 and H04N 2201/3251 should be considered in order to perform a complete search.

M H04N 2201/3251

- • • • where the modified version of the image is relating to a person or face

WARNING

Group H04N 2201/3251 is incomplete pending reclassification of documents from group H04N 2201/325.

~~Groups H04N 2201/325 and H04N 2201/3251 should be considered in order to perform a complete search.~~

Project: RP0726-F (B22F)

M B22F 3/00 **Manufacture of workpieces or articles from metallic powder characterised by the manner of compacting or sintering; Apparatus specially adapted therefor {; Presses and furnaces}**

WARNING

~~Group B22F 3/00 is impacted by reclassification into groups B22F 10/00–B22F 12/90.~~

~~Groups B22F 3/00 and B22F 10/00–B22F 12/90 should be considered in order to perform a complete search.~~

M B22F 10/00 **Additive manufacturing of workpieces or articles from metallic powder (apparatus or devices therefor [B22F 12/00](#))**

WARNING

~~Group B22F 10/00 is incomplete pending reclassification of documents from group B22F 3/00.~~

~~Groups B22F 3/00 and B22F 10/00 should be considered in order to perform a complete search.~~

M B22F 10/10 • Formation of a green body

WARNING

~~Group B22F 10/10 is incomplete pending reclassification of documents from group B22F 3/00.~~

~~Group B22F 10/10 is also impacted by reclassification into groups B22F 10/12–B22F 10/18.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M B22F 10/12 • • by photopolymerisation, e.g. stereolithography [SLA] or digital light processing [DLP]

WARNING

~~Group B22F 10/12 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/10.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M B22F 10/14 • • by jetting of binder onto a bed of metal powder

WARNING

~~Group B22F 10/14 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/10.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M B22F 10/16 • • by embedding the binder within the powder bed

WARNING

~~Group B22F 10/16 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/10.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

- M B22F 10/18
- by mixing binder with metal in filament form, e.g. fused filament fabrication [FFF]
- WARNING
 Group B22F 10/18 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/10.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/20
- Direct sintering or melting
- WARNING
 Group B22F 10/20 is incomplete pending reclassification of documents from group B22F 3/00.
 Group B22F 10/20 is also impacted by reclassification into groups B22F 10/22–B22F 10/28.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/22
- Direct deposition of molten metal
- WARNING
 Group B22F 10/22 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/20.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/25
- Direct deposition of metal particles, e.g. direct metal deposition [DMD] or laser engineered net shaping [LENS]
- WARNING
 Group B22F 10/25 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/20.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/28
- Powder bed fusion, e.g. selective laser melting [SLM] or electron beam melting [EBM]
- WARNING
 Group B22F 10/28 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/20.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/30
- Process control
- WARNING
 Group B22F 10/30 is incomplete pending reclassification of documents from group B22F 3/00.
 Group B22F 10/30 is also impacted by reclassification into groups B22F 10/31–B22F 10/39, B22F 10/80 and B22F 10/85.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/31
- Calibration of process steps or apparatus settings, e.g. before or during manufacturing
- WARNING
 Group B22F 10/31 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30.

		<p>All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/32	<ul style="list-style-type: none">• of the atmosphere, e.g. composition or pressure in a building chamber <p>WARNING Groups B22F 10/32 and B22F 10/322 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/34	<ul style="list-style-type: none">• of powder characteristics, e.g. density, oxidation or flowability <p>WARNING Group B22F 10/34 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/36	<ul style="list-style-type: none">• of energy beam parameters <p>WARNING Groups B22F 10/36, B22F 10/362, B22F 10/364, B22F 10/366 and B22F 10/368 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/37	<ul style="list-style-type: none">• of powder bed aspects, e.g. density <p>WARNING Group B22F 10/37 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/38	<ul style="list-style-type: none">• to achieve specific product aspects, e.g. surface smoothness, density, porosity or hollow structures <p>WARNING Groups B22F 10/38 and B22F 10/385 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 10/39	<ul style="list-style-type: none">• Traceability, e.g. incorporating identifier into a workpiece or article <p>WARNING Group B22F 10/39 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30. Groups B22F 3/00, B22F 10/30 and B22F 10/39 should be considered in order to perform a complete search.</p>
M	B22F 10/40	<ul style="list-style-type: none">• Structures for supporting workpieces or articles during manufacture and removed afterwards <p>WARNING Group B22F 10/40 is incomplete pending reclassification of documents from group B22F 3/00. Group B22F 10/40 is also impacted by reclassification into groups B22F 10/43 and B22F 10/47.</p>

All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/43

- characterised by material

WARNING

Group B22F 10/43 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/40.
All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/47

- characterised by structural features

WARNING

Group B22F 10/47 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/40.
All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/50

- Treatment of workpieces or articles during build-up, e.g. treatments applied to fused layers during build-up

WARNING

Group B22F 10/50 is incomplete pending reclassification of documents from group B22F 3/00.
Groups B22F 3/00 and B22F 10/50 should be considered in order to perform a complete search.

M B22F 10/60

- Treatment of workpieces or articles after build-up

WARNING

Groups B22F 10/60, B22F 10/62, B22F 10/64 and B22F 10/66 are incomplete pending reclassification of documents from group B22F 3/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/68

- Cleaning or washing

WARNING

Group B22F 10/68 is incomplete pending to reclassification of documents from groups B22F 3/00 and B22F 10/70.
All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/70

- Recycling

WARNING

Group B22F 10/70 is incomplete pending to reclassification of documents from group B22F 3/00.
Group B22F 10/70 is also impacted by reclassification into groups B22F 10/68, B22F 10/73 and B22F 10/77.
All groups listed in this Warning should be considered in order to perform a complete search.

M B22F 10/73

- of powder

WARNING

Group B22F 10/73 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/70.
All groups listed in this Warning should be considered in order to perform a complete search.

- M B22F 10/77
- of gas
- WARNING**
Group B22F 10/77 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/70.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 10/80
- Data acquisition or data processing
- WARNING**
Groups B22F 10/80 and B22F 10/85 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 10/30.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/00**
- Apparatus or devices specially adapted for additive manufacturing; Auxiliary means for additive manufacturing; Combinations of additive manufacturing apparatus or devices with other processing apparatus or devices**
- WARNING**
Group B22F 12/00 is incomplete pending to reclassification of documents from group B22F 3/00.
Group B22F 12/00 is also impacted by reclassification into groups B22F 12/10 - B22F 12/90.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/10
- Auxiliary heating means
- WARNING**
Groups B22F 12/10, B22F 12/13 and B22F 12/17 are incomplete pending to reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/20
- Cooling means
- WARNING**
Group B22F 12/20 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/22
- {Driving means}
- WARNING**
Groups B22F 12/22 - B22F 12/226 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/30
- Platforms or substrates
- WARNING**
Groups B22F 12/30 - B22F 12/37 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.

- M B22F 12/38
- {Housings, e.g. machine housings}
- WARNING
Group B22F 12/38 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/40
- Radiation means
- WARNING
Groups B22F 12/40 – B22F 12/49 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/50
- Means for feeding of material, e.g. heads
- WARNING
Groups B22F 12/50 – B22F 12/58 are incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/60
- Planarisation devices; Compression devices
- WARNING
Groups B22F 12/60, B22F 12/63 and B22F 12/67 are incomplete pending to reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/70
- Gas flow means
- WARNING
Group B22F 12/70 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/80
- Plants, production lines or modules
- WARNING
Groups B22F 12/80 – B22F 12/88 are incomplete pending to reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 12/90
- Means for process control, e.g. cameras or sensors
- WARNING
Group B22F 12/90 is incomplete pending reclassification of documents from groups B22F 3/00 and B22F 12/00.
All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0730-F (B22F)

M	B22F 1/00	<p>Metallic powder; Treatment of metallic powder, e.g. to facilitate working or to improve properties</p> <p><u>WARNING</u> Group B22F 1/00 is incomplete pending reclassification of documents from group B22F 1/0003. Group B22F 1/00 is also impacted by reclassification into groups B22F 1/08 and B22F 1/12. All groups listed in this Warning should be considered in order to perform a complete search.</p>
D	B22F 1/0003 —(Frozen)	<ul style="list-style-type: none"> • {Metallic powders per se; Mixtures of metallic powders; Metallic powders mixed with a lubricating or binding agent (making ferrous alloys using a mixture of prealloyed powders C22C 33/0207)} <p><u>WARNING</u> Group B22F 1/0003 is no longer used for the classification of documents as of January 1, 2022. The content of this group is being reclassified into groups B22F 1/00, B22F 1/08, B22F 1/09 and B22F 1/12. All groups listed in this Warning should be considered in order to perform a complete search.</p>
D	B22F 1/0007 —(Frozen)	<ul style="list-style-type: none"> • {Metallic powder characterised by its shape or structure, e.g. fibre structure} <p><u>WARNING</u> Group B22F 1/0007 is no longer used for the classification of documents as of January 1, 2022. The content of this group is being reclassified into groups B22F 1/06, B22F 1/07 and B22F 1/08. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	B22F 1/05	<ul style="list-style-type: none"> • Metallic powder characterised by the size or surface area of the particles <p><u>WARNING</u> Group B22F 1/05 is impacted by reclassification into group B22F 1/08. Groups B22F 1/05 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/052	<ul style="list-style-type: none"> • characterised by a mixture of particles of different sizes or by the particle size distribution <p><u>WARNING</u> Group B22F 1/052 is impacted by reclassification into group B22F 1/08. Groups B22F 1/052 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/054	<ul style="list-style-type: none"> • Nanosized particles <p><u>WARNING</u> Group B22F 1/054 is impacted by reclassification into groups B22F 1/056 and B22F 1/08. Groups B22F 1/054, B22F 1/056 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/0545	<ul style="list-style-type: none"> • • Dispersions or suspensions of nanosized particles <p><u>WARNING</u> Group B22F 1/0545 is impacted by reclassification into group B22F 1/08.</p>

		<p>Groups B22F 1/0545 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/0547	<ul style="list-style-type: none">• • • {Nanofibres or nanotubes} <p><u>WARNING</u> Group B22F 1/0547 is impacted by reclassification into group B22F 1/08. Groups B22F 1/0547 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/0549	<ul style="list-style-type: none">• • • {Hollow particles, including tubes and shells} <p><u>WARNING</u> Group B22F 1/0549 is impacted by reclassification into group B22F 1/08. Groups B22F 1/0549 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/0551	<ul style="list-style-type: none">• • • {Flake form nanoparticles} <p><u>WARNING</u> Group B22F 1/0551 is impacted by reclassification into group B22F 1/08. Groups B22F 1/0551 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/0553	<ul style="list-style-type: none">• • • {Complex form nanoparticles, e.g. prism, pyramid, octahedron} <p><u>WARNING</u> Group B22F 1/0553 is impacted by reclassification into group B22F 1/08. Groups B22F 1/0553 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/056	<ul style="list-style-type: none">• • • {Submicron particles having a size above 100 nm up to 300 nm} <p><u>WARNING</u> Group B22F 1/056 is incomplete pending reclassification of documents from group B22F 1/054. Groups B22F 1/054 and B22F 1/056 should be considered in order to perform a complete search.</p>
M	B22F 1/06	<ul style="list-style-type: none">• Metallic powder characterised by the shape of the particles (nanosized particles B22F 1/054) <p><u>WARNING</u> Group B22F 1/06 is incomplete pending reclassification of documents from group B22F 1/0007. Groups B22F 1/0007 and B22F 1/06 should be considered in order to perform a complete search.</p>
M	B22F 1/062	<ul style="list-style-type: none">• Fibrous particles <p><u>WARNING</u> Group B22F 1/062 is impacted by reclassification into group B22F 1/08. Groups B22F 1/062 and B22F 1/08 should be considered in order to perform a complete search.</p>
M	B22F 1/065	<ul style="list-style-type: none">• Spherical particles <p><u>WARNING</u> Group B22F 1/065 is impacted by reclassification into group B22F 1/08. Groups B22F 1/065 and B22F 1/08 should be considered in order to perform a complete search.</p>

- M B22F 1/0655
- • • Hollow particles
- WARNING
Group B22F 1/0655 is impacted by reclassification into group B22F 1/08. Groups B22F 1/0655 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/068
- • Flake-like particles
- WARNING
Group B22F 1/068 is impacted by reclassification into group B22F 1/08. Groups B22F 1/068 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/07
- Metallic powder characterised by particles having a nanoscale microstructure (nanosized particles [B22F 1/054](#))
- WARNING
Group B22F 1/07 is incomplete pending reclassification of documents from group B22F 1/0007. Groups B22F 1/0007 and B22F 1/07 should be considered in order to perform a complete search.
- M B22F 1/08
- Metallic powder characterised by particles having an amorphous microstructure
- WARNING
Group B22F 1/08 is incomplete pending reclassification of documents from groups B22F 1/00, B22F 1/0003, B22F 1/0007, B22F 1/05, B22F 1/052, B22F 1/054, B22F 1/0545, B22F 1/0547, B22F 1/0549, B22F 1/0551, B22F 1/0553, B22F 1/062, B22F 1/065, B22F 1/0655, B22F 1/068, B22F 1/10, B22F 1/102, B22F 1/103, B22F 1/105, B22F 1/107, B22F 1/108, B22F 1/14, B22F 1/142, B22F 1/145, B22F 1/147, B22F 1/148, B22F 1/16 and B22F 1/17. All groups listed in this Warning should be considered in order to perform a complete search.
- M B22F 1/09
- {Mixtures of metallic powders}
- WARNING
Group B22F 1/09 is incomplete pending reclassification of documents from group B22F 1/0003. Groups B22F 1/0003 and B22F 1/09 should be considered in order to perform a complete search.
- M B22F 1/10
- Metallic powder containing lubricating or binding agents; Metallic powder containing organic material
- WARNING
Group B22F 1/10 is impacted by reclassification into group B22F 1/08. Groups B22F 1/10 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/102
- • Metallic powder coated with organic material
- WARNING
Group B22F 1/102 is impacted by reclassification into group B22F 1/08. Groups B22F 1/102 and B22F 1/08 should be considered in order to perform a complete search.

- M B22F 1/103
- containing an organic binding agent comprising a mixture of, or obtained by reaction of, two or more components other than a solvent or a lubricating agent
- WARNING**
Group B22F 1/103 is impacted by reclassification into group B22F 1/08. Groups B22F 1/103 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/105
- containing inorganic lubricating or binding agents, e.g. metal salts
- WARNING**
Group B22F 1/105 is impacted by reclassification into group B22F 1/08. Groups B22F 1/105 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/107
- containing organic material comprising solvents, e.g. for slip casting
- WARNING**
Group B22F 1/107 is impacted by reclassification into group B22F 1/08. Groups B22F 1/107 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/108
- {Mixtures obtained by warm mixing}
- WARNING**
Group B22F 1/108 is impacted by reclassification into group B22F 1/08. Groups B22F 1/108 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/12
- Metallic powder containing non-metallic particles (containing lubricating or binding agents or organic material [B22F 1/10](#))
- WARNING**
Group B22F 1/12 is incomplete pending reclassification of documents from groups B22F 1/00 and B22F 1/0003. Groups B22F 1/00, B22F 1/0003 and B22F 1/12 should be considered in order to perform a complete search.
- M B22F 1/14
- Treatment of metallic powder (mixing with lubricating or binding agents or with organic material [B22F 1/10](#))
- WARNING**
Group B22F 1/14 is impacted by reclassification into group B22F 1/08. Groups B22F 1/14 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/142
- Thermal or thermo-mechanical treatment
- WARNING**
Group B22F 1/142 is impacted by reclassification into group B22F 1/08. Groups B22F 1/142 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/145
- Chemical treatment, e.g. passivation or decarburisation
- WARNING**
Group B22F 1/145 is impacted by reclassification into group B22F 1/08. Groups B22F 1/145 and B22F 1/08 should be considered in order to perform a complete search.

- M B22F 1/147
- • {Making a dispersion}
- WARNING**
Group B22F 1/147 is impacted by reclassification into group B22F 1/08. Groups B22F 1/147 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/148
- • Agglomerating
- WARNING**
Group B22F 1/148 is impacted by reclassification into group B22F 1/08. Groups B22F 1/148 and B22F 1/08 should be considered in order to perform a complete search.
- M B22F 1/16
- Metallic particles coated with a non-metal (coated with lubricating or binding agents or with organic material [B22F 1/10](#))
- WARNING**
Group B22F 1/16 is impacted by reclassification into groups B22F 1/08 and B22F 1/18. Groups B22F 1/16, B22F 1/08 and B22F 1/18 should be considered in order to perform a complete search.
- M B22F 1/17
- Metallic particles coated with metal
- WARNING**
Group B22F 1/17 is impacted by reclassification into groups B22F 1/08 and B22F 1/18. Groups B22F 1/17, B22F 1/08 and B22F 1/18 should be considered in order to perform a complete search.
- M B22F 1/18
- Non-metallic particles coated with metal
- WARNING**
Group B22F 1/18 is incomplete pending reclassification of documents from groups B22F 1/16 and B22F 1/17. Groups B22F 1/16, B22F 1/17 and B22F 1/18 should be considered in order to perform a complete search.

Project: RP0734-F (C01F)

- U C01F 7/00** **Compounds of aluminium**
- U C01F 7/48
- Halides, with or without other cations besides aluminium
- M C01F 7/56
- • Chlorides (containing fluorine [C01F 7/52](#))
- WARNING**
Group C01F 7/56 is impacted by reclassification into group C01F 7/57. Groups C01F 7/56 and C01F 7/57 should be considered in order to perform a complete search.
- M C01F 7/57
- • Basic aluminium chlorides, e.g. polyaluminium chlorides
- WARNING**
Group C01F 7/57 is incomplete pending reclassification of documents from group C01F 7/56. Groups C01F 7/56 and C01F 7/57 should be considered in order to perform a complete search.

- M C01F 7/78
- Compounds containing aluminium and two or more other elements, with the exception of oxygen and hydrogen (aluminates [C01F 7/02](#); compounds containing aluminium, fluorine and alkali or alkaline earth metals [C01F 7/54](#); nitrates containing other cations besides aluminium [C01F 7/66](#); sulfides, sulfites or sulfates containing other cations besides aluminium [C01F 7/70](#) - [C01F 7/74](#))
- WARNING**
Group C01F 7/78 is impacted by reclassification into group C01F 7/784. Groups C01F 7/78 and C01F 7/784 should be considered in order to perform a complete search.
- M C01F 7/782
- containing carbonate ions, e.g. dawsonite
- WARNING**
Group C01F 7/782 is impacted by reclassification into group C01F 7/784. Groups C01F 7/782 and C01F 7/784 should be considered in order to perform a complete search.
- M C01F 7/784
- Layered double hydroxide, e.g. comprising nitrate, sulfate or carbonate ions as intercalating anions
- WARNING**
Group C01F 7/784 is incomplete pending reclassification of documents from groups C01F 7/78 and C01F 7/782. Groups C01F 7/78, C01F 7/782 and C01F 7/784 should be considered in order to perform a complete search.

Project: RP0738-F (A47J)

- U A47J 36/00
- Parts, details or accessories of cooking-vessels ([A47J 27/00](#) - [A47J 33/00](#) take precedence insofar as these parts, details or accessories are restricted to a particular kind of cooking-vessel provided for in a single one of these groups)**
- M A47J 36/06
- Lids or covers for cooking-vessels (specially adapted for pressure-cookers [A47J 27/08](#))
- WARNING**
Group A47J 36/06 is impacted by reclassification into groups A47J 36/062, A47J 36/064 and A47J 36/066. All groups listed in this Warning should be considered in order to perform a complete search.
- M A47J 36/062
- {non-integrated lids or covers specially adapted for deep fat fryers}
- WARNING**
Group A47J 36/062 is incomplete pending reclassification of documents from groups A47J 36/06 and A47J 37/128. Groups A47J 36/06, A47J 37/128 and A47J 36/062 should be considered in order to perform a complete search.
- M A47J 36/064
- {non-integrated lids or covers specially adapted for frying-pans}
- WARNING**
Group A47J 36/064 is incomplete pending reclassification of documents from groups A47J 36/06 and A47J 37/101. Groups A47J 36/06, A47J 37/101 and A47J 36/064 should be considered in order to perform a complete search.

- M A47J 36/066
- • • {Broiling- or heating-lids}
- WARNING**
Group A47J 36/066 is incomplete pending reclassification of documents from groups A47J 36/06 and A47J 37/103. Groups A47J 36/06, A47J 37/103 and A47J 36/066 should be considered in order to perform a complete search.
- U A47J 37/00
- Baking; Roasting; Grilling; Frying (bakers' ovens, non-domestic baking apparatus or equipment [A21B](#); domestic stoves or ranges [F24B](#), [F24C](#))**
- U A47J 37/10
- Frying pans, e.g. frying pans with integrated lids or basting devices
- M A47J 37/101
- • {Integrated lids}
- WARNING**
Group A47J 37/101 is impacted by reclassification into group A47J 36/064. Groups A47J 37/101 and A47J 36/064 should be considered in order to perform a complete search.
- M A47J 37/103
- • • {Broiling- or heating-lids}
- WARNING**
Group A47J 37/103 is impacted by reclassification into group A47J 36/066. Groups A47J 37/103 and A47J 36/066 should be considered in order to perform a complete search.
- M A47J 37/106
- • {Integrated basting devices}
- WARNING**
Group A47J 37/106 is impacted by reclassification into group A47J 43/005. Groups A47J 37/106 and A47J 43/005 should be considered in order to perform a complete search.
- U A47J 37/12
- Deep fat fryers, e.g. for frying fish or chips
- U A47J 37/1276
- • {Constructional details ([A47J 37/1247](#) and [A47J 37/1261](#) take precedence)}
- M A47J 37/128
- • • {Integrated lids or covers}
- WARNING**
Group A47J 37/128 is impacted by reclassification into group A47J 36/062. Groups A47J 37/128 and A47J 36/062 should be considered in order to perform a complete search.
- M A47J 43/00
- Implements for preparing or holding food, not provided for in other groups of this subclass**
- WARNING**
Group A47J 43/00 is impacted by reclassification into group A47J 43/005. Groups A47J 43/00 and A47J 43/005 should be considered in order to perform a complete search.
- M A47J 43/005
- {Basting devices (basting devices integrated in frying pans [A47J 37/106](#))}
- WARNING**
Group A47J 43/005 is incomplete pending reclassification of documents from groups A47J 37/106 and A47J 43/00. Groups A47J 37/106, A47J 43/00 and A47J 43/005 should be considered in order to perform a complete search.

Project: RP0753-F (H05B)

- U H05B 45/00
- Circuit arrangements for operating light-emitting diodes [LED]**

- M H05B 45/50
- responsive to malfunctions or undesirable behaviour of LEDs; responsive to LED life; Protective circuits
- WARNING
Group H05B 45/50 is impacted by reclassification into group H05B 45/59.-
Groups H05B 45/50 and H05B 45/59 should be considered in order to perform a complete search.
- M H05B 45/59
- for reducing or suppressing flicker or glow effects
- WARNING
Group H05B 45/59 is incomplete pending reclassification of documents from groups H05B 45/00 and H05B 45/50.-
Groups H05B 45/00, H05B 45/50 and H05B 45/59 should be considered in order to perform a complete search.

Project: RP0760-F (G06V)

- M G06V 10/00
- Arrangements for image or video recognition or understanding (character recognition in images or video [G06V 30/10](#))**
- WARNING
Groups G06V 10/00, G06V 10/74, G06V 10/77, G06V 10/7792, G06V 10/82 and G06V 10/86 are incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/10
- Image acquisition (document image scanning and transmission [H04N 1/00](#); control of digital cameras [H04N 23/60](#))
- WARNING
Group G06V 10/10 is incomplete pending reclassification of documents from group G06F 18/00.-
Group G06V 10/10 is also impacted by reclassification into groups G06V 10/00, G06V 10/70 - G06V 10/87, G06V 10/88 - G06V 10/92, G06V 30/14 - G06V 30/158, G06V 30/199 and G06V 30/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/12
- Details of acquisition arrangements; Constructional details thereof
- WARNING
Group G06V 10/12 is incomplete pending reclassification of documents from group G06F 18/00.-
Group G06V 10/12 is also impacted by reclassification into groups G06V 10/14 and G06V 30/142.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/14
- Optical characteristics of the device performing the acquisition or on the illumination arrangements
- WARNING
Group G06V 10/14 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 10/12.-
Groups G06F 18/00, G06V 10/12 and G06V 10/14 should be considered in order to perform a complete search.

- M G06V 10/141 • • • Control of illumination
- WARNING
 Group G06V 10/141 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/141 is also impacted by reclassification into group G06V 30/1431.
 Groups G06F 18/00, G06V 10/141 and G06V 30/1431 should be considered in order to perform a complete search.
- M G06V 10/143 • • • Sensing or illuminating at different wavelengths
- WARNING
 Group G06V 10/143 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/143 is also impacted by reclassification into group G06V 30/1429.
 Groups G06F 18/00, G06V 10/143 and G06V 30/1429 should be considered in order to perform a complete search.
- M G06V 10/145 • • • Illumination specially adapted for pattern recognition, e.g. using gratings
- WARNING
 Group G06V 10/145 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/145 is also impacted by reclassification into group G06V 30/1434.
 Groups G06F 18/00, G06V 10/145 and G06V 30/1434 should be considered in order to perform a complete search.
- M G06V 10/147 • • • Details of sensors, e.g. sensor lenses (fingerprint or palmprint sensors [G06V 40/13](#); vascular sensors [G06V 40/145](#); eye sensors [G06V 40/19](#))
- WARNING
 Group G06V 10/147 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/147 is also impacted by reclassification into groups G06V 30/1429 and G06V 30/1437.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/16 • • {using multiple overlapping images; Image stitching}
- WARNING
 Group G06V 10/16 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/16 is also impacted by reclassification into group G06V 30/141.
 Groups G06F 18/00, G06V 10/16 and G06V 30/141 should be considered in order to perform a complete search.
- M G06V 10/17 • • {using hand-held instruments}
- WARNING
 Group G06V 10/17 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/17 is also impacted by reclassification into group G06V 30/142.
 Groups G06F 18/00, G06V 10/17 and G06V 30/142 should be considered in order to perform a complete search.

- M G06V 10/19
- {by sensing codes defining pattern positions}
- WARNING
 Group G06V 10/19 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/19 is also impacted by reclassification into group G06V 30/1426.
 Groups G06F 18/00, G06V 10/19 and G06V 30/1426 should be considered in order to perform a complete search.
- M G06V 10/20
- Image preprocessing
- WARNING
 Group G06V 10/20 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/20 is also impacted by reclassification into groups G06V 10/00, G06V 10/70 - G06V 10/87, G06V 10/88 - G06V 10/92, G06V 30/16 - G06V 30/168, G06V 30/199 and G06V 30/20.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/22
- • by selection of a specific region containing or referencing a pattern; Locating or processing of specific regions to guide the detection or recognition
- WARNING
 Group G06V 10/22 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/22 is also impacted by reclassification into group G06V 30/1444.
 Groups G06F 18/00, G06V 10/22 and G06V 30/1444 should be considered in order to perform a complete search.
- M G06V 10/225
- • {based on a marking or identifier characterising the area}
- WARNING
 Group G06V 10/225 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/225 is also impacted by reclassification into group G06V 30/1448.
 Groups G06F 18/00, G06V 10/225 and G06V 30/1448 should be considered in order to perform a complete search.
- M G06V 10/23
- • {based on positionally close patterns or neighbourhood relationships}
- WARNING
 Group G06V 10/23 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/23 is also impacted by reclassification into group G06V 30/1452.
 Groups G06F 18/00, G06V 10/23 and G06V 30/1452 should be considered in order to perform a complete search.
- M G06V 10/235
- • {based on user input or interaction}
- WARNING
 Group G06V 10/235 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/235 is also impacted by reclassification into group G06V 30/1456.
 Groups G06F 18/00, G06V 10/235 and G06V 30/1456 should be considered in order to perform a complete search.

- M G06V 10/24
- • Aligning, centring, orientation detection or correction of the image
- WARNING
 Group G06V 10/24 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/24 is also impacted by reclassification into group G06V 30/146.
 Groups G06F 18/00, G06V 10/24 and G06V 30/146 should be considered in order to perform a complete search.
- M G06V 10/242
- • {by image rotation, e.g. by 90 degrees}
- WARNING
 Group G06V 10/242 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/242 is also impacted by reclassification into group G06V 30/1463.
 Groups G06F 18/00, G06V 10/242 and G06V 30/1463 should be considered in order to perform a complete search.
- M G06V 10/243
- • {by compensating for image skew or non-uniform image deformations}
- WARNING
 Group G06V 10/243 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/243 is also impacted by reclassification into group G06V 30/1475.
 Groups G06F 18/00, G06V 10/243 and G06V 30/1475 should be considered in order to perform a complete search.
- M G06V 10/245
- • {by locating a pattern; Special marks for positioning}
- WARNING
 Group G06V 10/245 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/245 is also impacted by reclassification into groups G06V 30/1448, G06V 30/1465, G06V 30/1468, G06V 30/1475 and G06V 30/1478.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/247
- • {by affine transforms, e.g. correction due to perspective effects; Quadrilaterals, e.g. trapezoids}
- WARNING
 Group G06V 10/247 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/247 is also impacted by reclassification into group G06V 30/1607.
 Groups G06F 18/00, G06V 10/247 and G06V 30/1607 should be considered in order to perform a complete search.
- M G06V 10/248
- • {by interactive preprocessing or interactive shape modelling, e.g. feature points assigned by a user}
- WARNING
 Group G06V 10/248 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/248 is also impacted by reclassification into group G06V 30/1613.

Groups G06F 18/00, G06V 10/248 and G06V 30/1613 should be considered in order to perform a complete search.

- M G06V 10/25
- Determination of region of interest [ROI] or a volume of interest [VOI]

WARNING

Group G06V 10/25 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/25 is also impacted by reclassification into group G06V 30/147.

Groups G06F 18/00, G06V 10/25 and G06V 30/147 should be considered in order to perform a complete search.

- M G06V 10/255
- {Detecting or recognising potential candidate objects based on visual cues, e.g. shapes}

WARNING

Group G06V 10/255 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/255 is also impacted by reclassification into group G06V 30/1473.

Groups G06F 18/00, G06V 10/255 and G06V 30/1473 should be considered in order to perform a complete search.

- M G06V 10/26
- Segmentation of patterns in the image field; Cutting or merging of image elements to establish the pattern region, e.g. clustering-based techniques; Detection of occlusion

WARNING

Group G06V 10/26 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/26 is also impacted by reclassification into group G06V 30/148.

Groups G06F 18/00, G06V 10/26 and G06V 30/148 should be considered in order to perform a complete search.

- M G06V 10/267
- {by performing operations on regions, e.g. growing, shrinking or watersheds}

WARNING

Group G06V 10/267 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/267 is also impacted by reclassification into group G06V 30/15.

Groups G06F 18/00, G06V 10/267 and G06V 30/15 should be considered in order to perform a complete search.

- M G06V 10/273
- {removing elements interfering with the pattern to be recognised}

WARNING

Group G06V 10/273 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/273 is also impacted by reclassification into group G06V 30/155.

Groups G06F 18/00, G06V 10/273 and G06V 30/155 should be considered in order to perform a complete search.

- M G06V 10/28
- Quantising the image, e.g. histogram thresholding for discrimination between background and foreground patterns
- WARNING
~~Group G06V 10/28 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/28 is also impacted by reclassification into group G06V 30/162.~~
~~Groups G06F 18/00, G06V 10/28 and G06V 30/162 should be considered in order to perform a complete search.~~
- M G06V 10/30
- Noise filtering
- WARNING
~~Group G06V 10/30 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/30 is also impacted by reclassification into group G06V 30/164.~~
~~Groups G06F 18/00, G06V 10/30 and G06V 30/164 should be considered in order to perform a complete search.~~
- M G06V 10/32
- Normalisation of the pattern dimensions
- WARNING
~~Group G06V 10/32 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/32 is also impacted by reclassification into group G06V 30/166.~~
~~Groups G06F 18/00, G06V 10/32 and G06V 30/166 should be considered in order to perform a complete search.~~
- M G06V 10/34
- Smoothing or thinning of the pattern; Morphological operations; Skeletonisation
- WARNING
~~Group G06V 10/34 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/34 is also impacted by reclassification into group G06V 30/168.~~
~~Groups G06F 18/00, G06V 10/34 and G06V 30/168 should be considered in order to perform a complete search.~~
- M G06V 10/36
- Applying a local operator, i.e. means to operate on image points situated in the vicinity of a given point; Non-linear local filtering operations, e.g. median filtering
- WARNING
~~Group G06V 10/36 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/36 is also impacted by reclassification into group G06V 30/20.~~
~~Groups G06F 18/00, G06V 10/36 and G06V 30/20 should be considered in order to perform a complete search.~~
- M G06V 10/40
- Extraction of image or video features
- WARNING
~~Group G06V 10/40 is incomplete pending reclassification of documents from group G06F 18/00.~~
~~Group G06V 10/40 is also impacted by reclassification into group s G06V 10/54 and G06V 30/18.~~

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/42
- Global feature extraction by analysis of the whole pattern, e.g. using frequency domain transformations or autocorrelation

WARNING

Group G06V 10/42 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/42 is also impacted by reclassification into group G06V 30/186.

Groups G06F 18/00, G06V 10/42 and G06V 30/186 should be considered in order to perform a complete search.

- M G06V 10/421
- • {by analysing segments intersecting the pattern}

WARNING

Group G06V 10/421 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/421 is also impacted by reclassification into group G06V 30/184.

Groups G06F 18/00, G06V 10/421 and G06V 30/184 should be considered in order to perform a complete search.

- M G06V 10/422
- • for representing the structure of the pattern or shape of an object therefor

WARNING

Group G06V 10/422 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/422 is also impacted by reclassification into group G06V 30/18162.

Groups G06F 18/00, G06V 10/422 and G06V 30/18162 should be considered in order to perform a complete search.

- M G06V 10/424
- • • Syntactic representation, e.g. by using alphabets or grammars

WARNING

Group G06V 10/424 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/424 is also impacted by reclassification into group G06V 30/18171.

Groups G06F 18/00, G06V 10/424 and G06V 30/18171 should be considered in order to perform a complete search.

- M G06V 10/426
- • • Graphical representations

WARNING

Group G06V 10/426 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/426 is also impacted by reclassification into group G06V 30/18181.

Groups G06F 18/00, G06V 10/426 and G06V 30/18181 should be considered in order to perform a complete search.

- M G06V 10/431
- • {Frequency domain transformation; Autocorrelation}

WARNING

Group G06V 10/431 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/431 is also impacted by reclassification into group G06V 30/187.

Groups G06F 18/00, G06V 10/431 and G06V 30/187 should be considered in order to perform a complete search.

- M G06V 10/435 . . . {Computation of moments}

WARNING

Group G06V 10/435 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/435 is also impacted by reclassification into group G06V 30/188.

Groups G06F 18/00, G06V 10/435 and G06V 30/188 should be considered in order to perform a complete search.

- M G06V 10/44 . . Local feature extraction by analysis of parts of the pattern, e.g. by detecting edges, contours, loops, corners, strokes or intersections; Connectivity analysis, e.g. of connected components

WARNING

Group G06V 10/44 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/44 is also impacted by reclassification into groups G06V 30/1801, G06V 30/182, G06V 30/1823, G06V 30/1826, G06V 30/1829, G06V 30/1831, G06V 30/1834 and G06V 30/1837.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/443 . . . {by matching or filtering}

WARNING

Group G06V 10/443 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/443 is also impacted by reclassification into group G06V 30/18019.

Groups G06F 18/00, G06V 10/443 and G06V 30/18019 should be considered in order to perform a complete search.

- M G06V 10/446 . . . {using Haar-like filters, e.g. using integral image techniques}

WARNING

Group G06V 10/446 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/446 is also impacted by reclassification into group G06V 30/18029.

Groups G06F 18/00, G06V 10/446 and G06V 30/18029 should be considered in order to perform a complete search.

- M G06V 10/449 . . . {Biologically inspired filters, e.g. difference of Gaussians [DoG] or Gabor filters}

WARNING

Group G06V 10/449 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/449 is also impacted by reclassification into group G06V 30/18038.

Groups G06F 18/00, G06V 10/449 and G06V 30/18038 should be considered in order to perform a complete search.

- M G06V 10/451
- • • • {with interaction between the filter responses, e.g. cortical complex cells}
- WARNING
 Group G06V 10/451 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/451 is also impacted by reclassification into group G06V 30/18048.
 Groups G06F 18/00, G06V 10/451 and G06V 30/18048 should be considered in order to perform a complete search.
- M G06V 10/454
- • • • • {Integrating the filters into a hierarchical structure, e.g. convolutional neural networks [CNN]}
- WARNING
 Group G06V 10/454 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/454 is also impacted by reclassification into group G06V 30/18057.
 Groups G06F 18/00, G06V 10/454 and G06V 30/18057 should be considered in order to perform a complete search.
- M G06V 10/457
- • • {by analysing connectivity, e.g. edge linking, connected component analysis or slices}
- WARNING
 Group G06V 10/457 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/457 is also impacted by reclassification into group G06V 30/18076.
 Groups G06F 18/00, G06V 10/457 and G06V 30/18076 should be considered in order to perform a complete search.
- M G06V 10/46
- • Descriptors for shape, contour or point-related descriptors, e.g. scale invariant feature transform [SIFT] or bags of words [BoW]; Salient regional features (colour feature extraction [G06V 10/56](#))
- WARNING
 Group G06V 10/46 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/46 is also impacted by reclassification into group G06V 30/182.
 Groups G06F 18/00, G06V 10/46 and G06V 30/182 should be considered in order to perform a complete search.
- M G06V 10/462
- • • {Salient features, e.g. scale invariant feature transforms [SIFT]}
- WARNING
 Group G06V 10/462 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/462 is also impacted by reclassification into group G06V 30/18143.
 Groups G06F 18/00, G06V 10/462 and G06V 30/18143 should be considered in order to perform a complete search.
- M G06V 10/464
- • • • {using a plurality of salient features, e.g. bag-of-words [BoW] representations}
- WARNING
 Group G06V 10/464 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/464 is also impacted by reclassification into group G06V 30/18152.
Groups G06F 18/00, G06V 10/464 and G06V 30/18152 should be considered in order to perform a complete search.

- M G06V 10/467 . . . {Encoded features or binary features, e.g. local binary patterns [LBP]}

WARNING

Group G06V 10/467 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/467 is also impacted by reclassification into group G06V 30/18133.
Groups G06F 18/00, G06V 10/467 and G06V 30/18133 should be considered in order to perform a complete search.

- M G06V 10/469 . . . {Contour-based spatial representations, e.g. vector-coding}

WARNING

Group G06V 10/469 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/469 is also impacted by reclassification into group G06V 30/1823.
Groups G06F 18/00, G06V 10/469 and G06V 30/1823 should be considered in order to perform a complete search.

- M G06V 10/471 . . . {using approximation functions}

WARNING

Group G06V 10/471 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/471 is also impacted by reclassification into group G06V 30/1829.
Groups G06F 18/00, G06V 10/471 and G06V 30/1829 should be considered in order to perform a complete search.

- M G06V 10/473 . . . {using gradient analysis}

WARNING

Group G06V 10/473 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/473 is also impacted by reclassification into group G06V 30/1831.
Groups G06F 18/00, G06V 10/473 and G06V 30/1831 should be considered in order to perform a complete search.

- M G06V 10/476 . . . {using statistical shape modelling, e.g. point distribution models}

WARNING

Group G06V 10/476 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/476 is also impacted by reclassification into group G06V 30/1834.
Groups G06F 18/00, G06V 10/476 and G06V 30/1834 should be considered in order to perform a complete search.

- M G06V 10/478 . . . {Contour-based spectral representations or scale-space representations, e.g. by Fourier analysis, wavelet analysis or curvature scale-space [CSS]}

WARNING

Group G06V 10/478 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 10/478 is also impacted by reclassification into groups G06V 30/1826 and G06V 30/1837.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/48
 - by mapping characteristic values of the pattern into a parameter space, e.g. Hough transformation

WARNING

Group G06V 10/48 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/48 is also impacted by reclassification into group G06V 30/18067.
Groups G06F 18/00, G06V 10/48 and G06V 30/18067 should be considered in order to perform a complete search.

- M G06V 10/50
 - by performing operations within image blocks; by using histograms, e.g. histogram of oriented gradients [HoG]; by summing image-intensity values; Projection analysis

WARNING

Group G06V 10/50 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/50 is also impacted by reclassification into group G06V 30/18086.
Groups G06F 18/00, G06V 10/50 and G06V 30/18086 should be considered in order to perform a complete search.

- M G06V 10/507
 - {Summing image-intensity values; Histogram projection analysis}

WARNING

Group G06V 10/507 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/507 is also impacted by reclassification into group G06V 30/18095.
Groups G06F 18/00, G06V 10/507 and G06V 30/18095 should be considered in order to perform a complete search.

- M G06V 10/513
 - {Sparse representations}

WARNING

Group G06V 10/513 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/513 is also impacted by reclassification into group G06V 30/1819.
Groups G06F 18/00, G06V 10/513 and G06V 30/1819 should be considered in order to perform a complete search.

- M G06V 10/52
 - Scale-space analysis, e.g. wavelet analysis (multi-scale boundary representations [G06V 10/42](#))

WARNING

Group G06V 10/52 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 10/52 is also impacted by reclassification into group G06V 30/189.
Groups G06F 18/00, G06V 10/52 and G06V 30/189 should be considered in order to perform a complete search.

- M G06V 10/54
- relating to texture
- WARNING**
 Group G06V 10/54 is incomplete pending reclassification of documents from group G06V 10/40.
 Groups G06V 10/40 and G06V 10/54 should be considered in order to perform a complete search.
- M G06V 10/56
- relating to colour
- WARNING**
 Group G06V 10/56 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/56 is also impacted by reclassification into group G06V 30/18105.
 Groups G06F 18/00, G06V 10/56 and G06V 30/18105 should be considered in order to perform a complete search.
- M G06V 10/58
- relating to hyperspectral data
- WARNING**
 Group G06V 10/58 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/58 is also impacted by reclassification into group G06V 30/18114.
 Groups G06F 18/00, G06V 10/58 and G06V 30/18114 should be considered in order to perform a complete search.
- M G06V 10/60
- relating to illumination properties, e.g. using a reflectance or lighting model
- WARNING**
 Group G06V 10/60 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/60 is also impacted by reclassification into group G06V 30/18124.
 Groups G06F 18/00, G06V 10/60 and G06V 30/18124 should be considered in order to perform a complete search.
- M G06V 10/62
- relating to a temporal dimension, e.g. time-based feature extraction; Pattern tracking
- WARNING**
 Group G06V 10/62 is incomplete pending reclassification of documents from group G06F 18/00.
 Groups G06F 18/00 and G06V 10/62 should be considered in order to perform a complete search.
- M G06V 10/70
- using pattern recognition or machine learning (optical pattern recognition or electronic computations therefor [G06V 10/88](#))
- WARNING**
 Groups G06V 10/70 and G06V 10/766 are incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/00, G06F 18/21, G06V 10/10, G06V 10/20 and G06V 30/194.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/72
- Data preparation, e.g. statistical preprocessing of image or video features
- WARNING**
 Group G06V 10/72 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/10, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

- U G06V 10/74
 - M G06V 10/75
- Image or video pattern matching; Proximity measures in feature spaces
 - • Organisation of the matching processes, e.g. simultaneous or sequential comparisons of image or video features; Coarse-fine approaches, e.g. multi-scale approaches; using context analysis; Selection of dictionaries

WARNING

Group G06V 10/75 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/22, G06V 10/10 and G06V 10/20. Group G06V 10/75 is also impacted by reclassification into groups G06V 30/19007, G06V 30/192, G06V 30/196 and G06V 30/198. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/751
- • • {Comparing pixel values or logical combinations thereof, or feature values having positional relevance, e.g. template matching}

WARNING

Group G06V 10/751 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/751 is also impacted by reclassification into group G06V 30/19013. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/7515
- • • • {Shifting the patterns to accommodate for positional errors}

WARNING

Group G06V 10/7515 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/7515 is also impacted by reclassification into group G06V 30/1902. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/752
- • • • {Contour matching}

WARNING

Group G06V 10/752 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/752 is also impacted by reclassification into group G06V 30/19027. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/753
- • • • {Transform-based matching, e.g. Hough transform}

WARNING

Group G06V 10/753 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/753 is also impacted by reclassification into group G06V 30/19033. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/754 . . . {involving a deformation of the sample pattern or of the reference pattern; Elastic matching}
- WARNING
 Group G06V 10/754 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/754 is also impacted by reclassification into group G06V 30/1904.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/755 . . . {Deformable models or variational models, e.g. snakes or active contours}
- WARNING
 Group G06V 10/755 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/755 is also impacted by reclassification into group G06V 30/19047.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/7553 . . . {based on shape, e.g. active shape models [ASM]}
- WARNING
 Group G06V 10/7553 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/7553 is also impacted by reclassification into group G06V 30/19053.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/7557 . . . {based on appearance, e.g. active appearance models [AAM]}
- WARNING
 Group G06V 10/7557 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/7557 is also impacted by reclassification into group G06V 30/1906.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/757 . . . {Matching configurations of points or features}
- WARNING
 Group G06V 10/757 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/757 is also impacted by reclassification into group G06V 30/19067.
 All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/758 . . . {Involving statistics of pixels or of feature values, e.g. histogram matching}
- WARNING
 Group G06V 10/758 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
 Group G06V 10/758 is also impacted by reclassification into group G06V 30/19073.
 All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/759
- • • {Region-based matching}
- WARNING
Group G06V 10/759 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
Group G06V 10/759 is also impacted by reclassification into group G06V 30/1908.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/76
- • • {based on eigen-space representations, e.g. from pose or different illumination conditions; Shape manifolds}
- WARNING
Group G06V 10/76 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.
Group G06V 10/76 is also impacted by reclassification into group G06V 30/1908.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/761
- • • {Proximity, similarity or dissimilarity measures}
- WARNING
Group G06V 10/761 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/22, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/762
- • using clustering, e.g. of similar faces in social networks
- WARNING
Group G06V 10/762 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/23, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/7625
- • • {Hierarchical techniques, i.e. dividing or merging patterns to obtain a tree-like representation; Dendograms}
- WARNING
Group G06V 10/7625 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/231, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/763
- • • {Non-hierarchical techniques, e.g. based on statistics of modelling distributions}
- WARNING
Group G06V 10/763 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/232, G06F 18/2321, G06F 18/23211, G06F 18/23213, G06F 18/2321, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/7635
- • • {based on graphs, e.g. graph cuts or spectral clustering}
- WARNING
Group G06V 10/7635 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/2323, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/764

- using classification, e.g. of video objects

WARNING

Group G06V 10/764 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/24, G06F 18/241, G06F 18/2411, G06F 18/2413, G06F 18/24133, G06F 18/24137, G06F 18/2414, G06F 18/24143, G06F 18/24147, G06F 18/2415, G06F 18/24155, G06F 18/243, G06F 18/2431, G06F 18/24317, G06F 18/24323, G06F 18/2433, G06F 18/245, G06F 18/2451, G06F 18/2453, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/765

- {using rules for classification or partitioning the feature space}

WARNING

Group G06V 10/765 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/24765, G06F 18/2163, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/768

- {using context analysis, e.g. recognition aided by known co-occurring patterns}

WARNING

Group G06V 10/768 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.

Group G06V 10/768 is also impacted by reclassification into group G06V 30/262.

All groups listed in this Warning should be considered in order to perform a complete search.

U G06V 10/77

- Processing image or video features in feature spaces; using data integration or data reduction, e.g. principal component analysis [PCA] or independent component analysis [ICA] or self-organising maps [SOM]; Blind source separation

M G06V 10/771

- Feature selection, e.g. selecting representative features from a multi-dimensional feature space

WARNING

Group G06V 10/771 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/211, G06F 18/2111, G06F 18/2113, G06F 18/2115, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/7715

- {Feature extraction, e.g. by transforming the feature space, e.g. multi-dimensional scaling [MDS]; Mappings, e.g. subspace methods}

WARNING

Group G06V 10/7715 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/213, G06F 18/2132, G06F 18/21322, G06F 18/21324, G06F 18/21326, G06F 18/21328, G06F 18/2133, G06F 18/2134, G06F 18/21342, G06F 18/21343, G06F 18/21345, G06F 18/21347, G06F 18/21348, G06F 18/2135, G06F 18/21355, G06F 18/2136, G06F 18/2137, G06F 18/21375, G06V 10/10 and G06V 10/20.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/772
- • Determining representative reference patterns, e.g. averaging or distorting patterns; Generating dictionaries

WARNING

Group G06V 10/772 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/28, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/774
- • Generating sets of training patterns; Bootstrap methods, e.g. bagging or boosting

WARNING

Group G06V 10/774 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/214, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/7747
- • • {Organisation of the process, e.g. bagging or boosting}

WARNING

Group G06V 10/7747 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/2148, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/7753
- • • {Incorporation of unlabelled data, e.g. multiple instance learning [MIL]}

WARNING

Group G06V 10/7753 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/2155, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/776
- • Validation; Performance evaluation

WARNING

Group G06V 10/776 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/217, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/778
- • Active pattern-learning, e.g. online learning of image or video features

WARNING

Group G06V 10/778 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/217, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/7784
- • • {based on feedback from supervisors}

WARNING

Group G06V 10/7784 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/2178, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/7788 {the supervisor being a human, e.g. interactive learning with a human teacher}
- WARNING
Group G06V 10/7788 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/41, G06F 18/2185, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/7796 {based on specific statistical tests}
- WARNING
Group G06V 10/7796 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/2193, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/80 Fusion, i.e. combining data from various sources at the sensor level, preprocessing level, feature extraction level or classification level (multimodal speaker identification or verification [G10L 17/10](#))
- WARNING
Group G06V 10/80 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/25, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/803 {of input or preprocessed data}
- WARNING
Group G06V 10/803 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/251, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/806 {of extracted features}
- WARNING
Group G06V 10/806 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/253, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/809 {of classification results, e.g. where the classifiers operate on the same input data}
- WARNING
Group G06V 10/809 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/254, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/811 {the classifiers operating on different input data, e.g. multi-modal recognition}
- WARNING
Group G06V 10/811 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/256, G06V 10/10 and G06V 10/20.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 10/814
- • • {using belief theory, e.g. Dempster-Shafer}
- WARNING
Group G06V 10/814 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/257, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/817
- • • {by voting}
- WARNING
Group G06V 10/817 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/259, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/84
- • using probabilistic graphical models from image or video features, e.g. Markov models or Bayesian networks
- WARNING
Group G06V 10/84 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/29, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/85
- • • {Markov-related models; Markov random fields}
- WARNING
Group G06V 10/85 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/295, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/87
- • {using selection of the recognition techniques, e.g. of a classifier in a multiple classifier system}
- WARNING
Group G06V 10/87 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/285, G06V 10/10 and G06V 10/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/88
- Image or video recognition using optical means, e.g. reference filters, holographic masks, frequency domain filters or spatial domain filters
- WARNING
Group G06V 10/88 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/88 is also impacted by reclassification into groups G06V 30/199 and G06V 30/20. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 10/89
- • {using frequency domain filters, e.g. Fourier masks implemented on spatial light modulators}
- WARNING
Group G06V 10/89 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20. Group G06V 10/89 is also impacted by reclassification into group G06V 30/199.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/893

- • • {characterised by the kind of filter}

WARNING

Group G06V 10/893 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.

Group G06V 10/893 is also impacted by reclassification into group G06V 30/199.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/895

- • • • {the filter being related to phase processing, e.g. phase-only filters}

WARNING

Group G06V 10/895 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.

Group G06V 10/895 is also impacted by reclassification into group G06V 30/199.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/898

- • • • {combination of filters, e.g. phase-only filters}

WARNING

Group G06V 10/898 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.

Group G06V 10/898 is also impacted by reclassification into group G06V 30/199.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/92

- • {using spatial domain filters, e.g. joint transform correlators}

WARNING

Group G06V 10/92 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 10/20.

Group G06V 10/92 is also impacted by reclassification into group G06V 30/199.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/94

- Hardware or software architectures specially adapted for image or video understanding

WARNING

Groups G06V 10/94, G06V 10/95 and G06V 10/955 are incomplete pending reclassification of documents from group G06F 18/00.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 10/945

- • {User interactive design; Environments; Toolboxes}

WARNING

Group G06V 10/945 is incomplete pending reclassification of documents from groups G06F 18/00 and G06F 18/40.

Groups G06F 18/00, G06F 18/40 and G06V 10/945 should be considered in order to perform a complete search.

- M G06V 10/96
- Management of image or video recognition tasks
- WARNING
~~Group G06V 10/96 is incomplete pending reclassification of documents from group G06F 18/00.
 Groups G06F 18/00 and G06V 10/96 should be considered in order to perform a complete search.~~
- M G06V 10/98
- Detection or correction of errors, e.g. by rescanning the pattern or by human intervention; Evaluation of the quality of the acquired patterns
- WARNING
~~Group G06V 10/98 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 10/98 is also impacted by reclassification into group G06V 30/12.
 Groups G06F 18/00, G06V 10/98 and G06V 30/12 should be considered in order to perform a complete search.~~
- M G06V 10/987
- {with the intervention of an operator}
- WARNING
~~Group G06V 10/987 is impacted by reclassification into group G06V 30/127.
 Groups G06V 10/987 and G06V 30/127 should be considered in order to perform a complete search.~~
- M G06V 10/993
- {Evaluation of the quality of the acquired pattern}
- WARNING
~~Group G06V 10/993 is impacted by reclassification into group G06V 30/133.
 Groups G06V 10/993 and G06V 30/133 should be considered in order to perform a complete search.~~
- M G06V 20/00**
- Scenes; Scene-specific elements (control of digital cameras [H04N 23/60](#))**
- NOTE
- In this group, the following term is used with the meaning indicated:
- "scene" is a visual representation of the world or of some elements of it, as captured by a sensor or generated by a computer.
- WARNING
~~Group G06V 20/00 is incomplete pending reclassification of documents from group G06F 18/00.
 Group G06V 20/00 is also impacted by reclassification into groups G06V 20/05, G06V 20/50, G06V 20/60, G06V 20/66, G06V 20/69, G06V 20/693, G06V 20/695, G06V 20/698 and G06V 20/70.
 All groups listed in this Warning should be considered in order to perform a complete search.~~
- M G06V 20/05
- Underwater scenes
- WARNING
~~Group G06V 20/05 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 20/00.
 Groups G06F 18/00, G06V 20/00 and G06V 20/05 should be considered in order to perform a complete search.~~

- M G06V 20/10
- Terrestrial scenes (scenes under surveillance with static cameras [G06V 20/52](#); scenes perceived from the exterior of a vehicle [G06V 20/56](#); scenes perceived from the interior of a vehicle [G06V 20/59](#))
- WARNING**
Groups G06V 20/10, G06V 20/176, G06V 20/182, G06V 20/188 and G06V 20/194 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 20/13
- • Satellite images
- WARNING**
Group G06V 20/13 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 20/13 is also impacted by reclassification into group G06V 20/17.
Groups G06F 18/00, G06V 20/13 and G06V 20/17 should be considered in order to perform a complete search.
- M G06V 20/17
- • taken from planes or by drones
- WARNING**
Group G06V 20/17 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 20/13.
Groups G06F 18/00, G06V 20/13 and G06V 20/17 should be considered in order to perform a complete search.
- M G06V 20/20
- in augmented reality scenes
- WARNING**
Group G06V 20/20 is incomplete pending reclassification of documents from group G06F 18/00.
Groups G06F 18/00 and G06V 20/20 should be considered in order to perform a complete search.
- M G06V 20/30
- in albums, collections or shared content, e.g. social network photos or video
- WARNING**
Group G06V 20/30 is incomplete pending reclassification of documents from group G06F 18/00.
Groups G06F 18/00 and G06V 20/30 should be considered in order to perform a complete search.
- M G06V 20/35
- {Categorising the entire scene, e.g. birthday party or wedding scene}
- WARNING**
Groups G06V 20/35, G06V 20/36, G06V 20/38 and G06V 20/39 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 20/40
- in video content (extracting overlay text [G06V 20/62](#); video retrieval [G06F 16/70](#); processing of video elementary streams in video servers [H04N 21/234](#); processing of video elementary streams in video clients [H04N 21/44](#))
- WARNING**
Groups G06V 20/40, G06V 20/41, G06V 20/42, G06V 20/43, G06V 20/44, G06V 20/46, G06V 20/47, G06V 20/48 and G06V 20/49 are incomplete pending reclassification of documents from group G06F 18/00.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/50

- Context or environment of the image

WARNING

Group G06V 20/50 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 20/00.
Groups G06F 18/00, G06V 20/00 and G06V 20/50 should be considered in order to perform a complete search.

M G06V 20/52

- Surveillance or monitoring of activities, e.g. for recognising suspicious objects (recognising microscopic objects [G06V 20/69](#))

WARNING

Groups G06V 20/52, G06V 20/53 and G06V 20/54 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/56

- exterior to a vehicle by using sensors mounted on the vehicle

WARNING

Groups G06V 20/56, G06V 20/58, G06V 20/582, G06V 20/584, G06V 20/586 and G06V 20/588 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/59

- inside of a vehicle, e.g. relating to seat occupancy, driver state or inner lighting conditions

WARNING

Groups G06V 20/59, G06V 20/593 and G06V 20/597 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/60

- Type of objects

WARNING

Groups G06V 20/60, G06V 20/66, G06V 20/69, G06V 20/693, G06V 20/695 and G06V 20/698 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 20/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/62

- Text, e.g. of license plates, overlay texts or captions on TV images

WARNING

Groups G06V 20/62, G06V 20/625, G06V 20/63 and G06V 20/635 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 20/64

- Three-dimensional objects

WARNING

Groups G06V 20/64, G06V 20/647 and G06V 20/653 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 20/68
- Food, e.g. fruit or vegetables
- WARNING**
Group G06V 20/68 is incomplete pending reclassification of documents from group G06F 18/00.
Groups G06F 18/00 and G06V 20/68 should be considered in order to perform a complete search.
- M G06V 20/70
- Labelling scene content, e.g. deriving syntactic or semantic representations
- WARNING**
Group G06V 20/70 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 20/00.
Groups G06F 18/00, G06V 20/00 and G06V 20/70 should be considered in order to perform a complete search.
- M G06V 20/80
- Recognising image objects characterised by unique random patterns
- WARNING**
Group G06V 20/80 is incomplete pending reclassification of documents from group G06F 18/00.
Groups G06F 18/00 and G06V 20/80 should be considered in order to perform a complete search.
- M G06V 20/90
- Identifying an image sensor based on its output data
- WARNING**
Group G06V 20/90 is incomplete pending reclassification of documents from group G06F 18/00.
Groups G06F 18/00 and G06V 20/90 should be considered in order to perform a complete search.
- M G06V 30/00**
- Character recognition; Recognising digital ink; Document-oriented image-based pattern recognition (scanning, transmission or reproduction of documents or the like [H04N 1/00](#))**
- NOTE**
This group covers recognition of characters or digital ink, where the characters or the digital ink can include representations in three dimensions, e.g. as written by performing gestures in the air.
- WARNING**
Groups G06V 30/00, G06V 30/412, G06V 30/413, G06V 30/414, G06V 30/416, G06V 30/418, G06V 30/42, G06V 30/422 and G06V 30/424 are incomplete pending reclassification of documents from group G06F 18/00.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/10
- Character recognition
- WARNING**
Group G06V 30/10 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 30/10 is also impacted by reclassification into groups G06V 30/12, G06V 30/127, G06V 30/133, G06V 30/14, G06V 30/141, G06V 30/142, G06V 30/1423, G06V 30/1426, G06V 30/1429, G06V 30/1431, G06V 30/1434, G06V 30/1437, G06V 30/144, G06V 30/1444, G06V 30/1448, G06V 30/1452, G06V 30/1456, G06V 30/146, G06V 30/1463, G06V 30/1465, G06V 30/1468, G06V 30/147, G06V 30/1473, G06V 30/1475, G06V 30/1478, G06V 30/148, G06V 30/15, G06V 30/153, G06V 30/155, G06V 30/158, G06V 30/16, G06V 30/1607, G06V 30/1613, G06V 30/162, G06V 30/164, G06V 30/166, G06V 30/168, G06V 30/18, G06V 30/1801, G06V 30/18019, G06V 30/18029,

G06V 30/18038, G06V 30/18048, G06V 30/18057, G06V 30/18067, G06V 30/18076, G06V 30/18086, G06V 30/18095, G06V 30/18105, G06V 30/18114, G06V 30/18124, G06V 30/18133, G06V 30/18143, G06V 30/18152, G06V 30/18162, G06V 30/18171, G06V 30/18181, G06V 30/1819, G06V 30/182, G06V 30/1823, G06V 30/1826, G06V 30/1829, G06V 30/1831, G06V 30/1834, G06V 30/1837, G06V 30/184, G06V 30/186, G06V 30/187, G06V 30/188, G06V 30/189, G06V 30/19, G06V 30/19007, G06V 30/19013, G06V 30/1902, G06V 30/19027, G06V 30/19033, G06V 30/1904, G06V 30/19047, G06V 30/19053, G06V 30/1906, G06V 30/19067, G06V 30/19073, G06V 30/1908, G06V 30/19087, G06V 30/19093, G06V 30/191, G06V 30/19107, G06V 30/19113, G06V 30/1912, G06V 30/19127, G06V 30/19133, G06V 30/1914, G06V 30/19147, G06V 30/19153, G06V 30/1916, G06V 30/19167, G06V 30/19173, G06V 30/1918, G06V 30/19187, G06V 30/19193, G06V 30/192, G06V 30/194, G06V 30/195, G06V 30/196, G06V 30/198, G06V 30/1983, G06V 30/1985, G06V 30/1988, G06V 30/199, G06V 30/20, G06V 30/22, G06V 30/222, G06V 30/224, G06V 30/2247, G06V 30/2253, G06V 30/226, G06V 30/2264, G06V 30/2268, G06V 30/2272, G06V 30/2276, G06V 30/228, G06V 30/24, G06V 30/242, G06V 30/244, G06V 30/2445, G06V 30/245, G06V 30/2455, G06V 30/246, G06V 30/248, G06V 30/2504, G06V 30/2528, G06V 30/2552, G06V 30/26, G06V 30/262, G06V 30/268, G06V 30/274, G06V 30/28, G06V 30/287, G06V 30/293, G06V 30/30, G06V 30/302, G06V 30/304, G06V 30/32, G06V 30/333, G06V 30/347, G06V 30/36, G06V 30/373 and G06V 30/387.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 30/12

- • Detection or correction of errors, e.g. by rescanning the pattern

WARNING

Group G06V 30/12 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/98 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 30/127

- • • {with the intervention of an operator}

WARNING

Group G06V 30/127 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/987 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 30/133

- • • {Evaluation of quality of the acquired characters}

WARNING

Group G06V 30/133 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/993 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M G06V 30/14

- • Image acquisition

WARNING

Groups G06V 30/14, G06V 30/1423, G06V 30/144, G06V 30/153 and G06V 30/158 are incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/141
- • • {using multiple overlapping images; Image stitching}
- WARNING
Group G06V 30/141 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/16 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/142
- • • using hand-held instruments; Constructional details of the instruments
- WARNING
Group G06V 30/142 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/12, G06V 10/17 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1426
- • • • {by sensing position defining codes on a support}
- WARNING
Group G06V 30/1426 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/19 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1429
- • • • {Identifying or ignoring parts by sensing at different wavelengths}
- WARNING
Group G06V 30/1429 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/143, G06V 10/147 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1431
- • • • {Illumination control}
- WARNING
Group G06V 30/1431 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/141 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1434
- • • • {Special illumination such as grating, reflections or deflections, e.g. for characters with relief}
- WARNING
Group G06V 30/1434 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/145 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1437
- • • • {Sensor details, e.g. position, configuration or special lenses ([G06V 30/1429](#) takes precedence)}
- WARNING
Group G06V 30/1437 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/147 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/1444
- • • {Selective acquisition, locating or processing of specific regions, e.g. highlighted text, fiducial marks or predetermined fields}
- WARNING
Group G06V 30/1444 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/22 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1448
- • • {based on markings or identifiers characterising the document or the area}
- WARNING
Group G06V 30/1448 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/225, G06V 10/245 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1452
- • • {based on positionally close symbols, e.g. amount sign or URL-specific characters}
- WARNING
Group G06V 30/1452 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/23 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1456
- • • {based on user interactions}
- WARNING
Group G06V 30/1456 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/235 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/146
- • • Aligning or centring of the image pick-up or image-field
- WARNING
Group G06V 30/146 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/24 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1463
- • • {Orientation detection or correction, e.g. rotation of multiples of 90 degrees}
- WARNING
Group G06V 30/1463 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/242 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1465
- • • {by locating a pattern ([G06V 30/1475](#) takes precedence; centring within a document with a marking [G06V 30/1448](#))}
- WARNING
Groups G06V 30/1465 and G06V 30/1468 are incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/245 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/147 . . . {Determination of region of interest}
- WARNING
Group G06V 30/147 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/25 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1473 . . . {Recognising objects as potential recognition candidates based on visual cues, e.g. shapes}
- WARNING
Group G06V 30/1473 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/255 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1475 . . . {Inclination or skew detection or correction of characters or of image to be recognised}
- WARNING
Group G06V 30/1475 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/243, G06V 10/245 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1478 . . . {of characters or characters lines}
- WARNING
Group G06V 30/1478 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/245 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/148 . . . Segmentation of character regions
- WARNING
Group G06V 30/148 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/26 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/15 . . . {Cutting or merging image elements, e.g. region growing, watershed or clustering-based techniques}
- WARNING
Group G06V 30/15 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/267 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/155 . . . {Removing patterns interfering with the pattern to be recognised, such as ruled lines or underlines}
- WARNING
Group G06V 30/155 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/273 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/16
- • Image preprocessing
- WARNING
Group G06V 30/16 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1607
- • {Correcting image deformation, e.g. trapezoidal deformation caused by perspective}
- WARNING
Group G06V 30/1607 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/247 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1613
- • {Interactive preprocessing or shape modelling, e.g. assignment of feature points by a user}
- WARNING
Group G06V 30/1613 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/248 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/162
- • Quantising the image signal
- WARNING
Group G06V 30/162 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/28 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/164
- • Noise filtering
- WARNING
Group G06V 30/164 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/30 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/166
- • Normalisation of pattern dimensions
- WARNING
Group G06V 30/166 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/32 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/168
- • Smoothing or thinning of the pattern; Skeletonisation
- WARNING
Group G06V 30/168 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/20, G06V 10/34 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18
- • Extraction of features or characteristics of the image
- WARNING
Group G06V 30/18 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/40 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/1801
 - • • {Detecting partial patterns, e.g. edges or contours, or configurations, e.g. loops, corners, strokes or intersections (extracting features by contour coding [G06V 30/182](#))}

WARNING

Group G06V 30/1801 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/18019
 - • • • {by matching or filtering}

WARNING

Group G06V 30/18019 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/443 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/18029
 - • • • • {filtering with Haar-like subimages, e.g. computation thereof with the integral image technique}

WARNING

Group G06V 30/18029 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/446 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/18038
 - • • • • {Biologically-inspired filters, e.g. difference of Gaussians [DoG], Gabor filters}

WARNING

Group G06V 30/18038 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/449 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/18048
 - • • • • • {with interaction between the responses of different filters, e.g. cortical complex cells}

WARNING

Group G06V 30/18048 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/451 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/18057
 - • • • • • • {Integrating the filters into a hierarchical structure, e.g. convolutional neural networks [CNN]}

WARNING

Group G06V 30/18057 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/454 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

M	G06V 30/18067	<ul style="list-style-type: none"> • • • {by mapping characteristic values of the pattern into a parameter space, e.g. Hough transformation} <p><u>WARNING</u> Group G06V 30/18067 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/48 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18076	<ul style="list-style-type: none"> • • • {by analysing connectivity, e.g. edge linking, connected component analysis or slices} <p><u>WARNING</u> Group G06V 30/18076 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/457 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18086	<ul style="list-style-type: none"> • • • {by performing operations within image blocks or by using histograms} <p><u>WARNING</u> Group G06V 30/18086 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/50 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18095	<ul style="list-style-type: none"> • • • {Summing image-intensity values; Projection and histogram analysis} <p><u>WARNING</u> Group G06V 30/18095 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/507 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18105	<ul style="list-style-type: none"> • • • {related to colour} <p><u>WARNING</u> Group G06V 30/18105 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/56 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18114	<ul style="list-style-type: none"> • • • {involving specific hyperspectral computations of features} <p><u>WARNING</u> Group G06V 30/18114 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/58 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	G06V 30/18124	<ul style="list-style-type: none"> • • • {related to illumination properties, e.g. according to a reflectance or lighting model} <p><u>WARNING</u> Group G06V 30/18124 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/60 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.</p>

- M G06V 30/18133 • • • {regional/local feature not essentially salient, e.g. local binary pattern}
- WARNING
Group G06V 30/18133 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/467 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18143 • • • {Extracting features based on salient regional features, e.g. scale invariant feature transform [SIFT] keypoints}
- WARNING
Group G06V 30/18143 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/462 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18152 • • • • {Extracting features based on a plurality of salient regional features, e.g. "bag of words"}
- WARNING
Group G06V 30/18152 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/464 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18162 • • • • {related to a structural representation of the pattern}
- WARNING
Group G06V 30/18162 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/422 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18171 • • • • {Syntactic representation, e.g. using a grammatical approach}
- WARNING
Group G06V 30/18171 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/424 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/18181 • • • • {Graphical representation, e.g. directed attributed graph}
- WARNING
Group G06V 30/18181 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/426 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1819 • • • • {sparse representations}
- WARNING
Group G06V 30/1819 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/513 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/182 • • • • by coding the contour of the pattern
- WARNING
Group G06V 30/182 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/46 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/1823
 - • • {using vector-coding}

WARNING
Group G06V 30/1823 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/469 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1826
 - • • {analysing the spectrum of the contour, e.g. Fourier expansion}

WARNING
Group G06V 30/1826 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/478 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1829
 - • • {using an approximation function}

WARNING
Group G06V 30/1829 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/471 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1831
 - • • {using gradient analysis}

WARNING
Group G06V 30/1831 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/473 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1834
 - • • {using statistical shape modelling, e.g. point distribution model}

WARNING
Group G06V 30/1834 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/476 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1837
 - • • {using wavelet analysis}

WARNING
Group G06V 30/1837 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/44, G06V 10/478 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/184
 - • • by analysing segments intersecting the pattern

WARNING
Group G06V 30/184 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/421 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/186
- • • by deriving mathematical or geometrical properties from the whole image
- WARNING
Group G06V 30/186 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/42 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/187
- • • {Frequency domain transformation; Autocorrelation}
- WARNING
Group G06V 30/187 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/431 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/188
- • • {Computation of moments}
- WARNING
Group G06V 30/188 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/435 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/189
- • • {Scale-space domain transformation, e.g. with wavelet analysis}
- WARNING
Group G06V 30/189 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/52 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19
- • Recognition using electronic means
- WARNING
Group G06V 30/19 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19007
- • • {Matching; Proximity measures}
- WARNING
Group G06V 30/19007 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/22, G06V 10/75 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19013
- • • • {Comparing pixel values or logical combinations thereof, or feature values having positional relevance, e.g. template matching (specially adapted for image segmentation [G06T 7/10](#); specially adapted for the analysis of motion [G06T 7/20](#); specially adapted for image alignment [G06T 7/30](#); specially adapted for the calculation of depth from stereo images [G06T 7/50](#); specially adapted for position determination [G06T 7/70](#))}
- WARNING
Group G06V 30/19013 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/751 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/1902 {Shifting or otherwise transforming the patterns to accommodate for positional errors}
- WARNING
Group G06V 30/1902 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/7515 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19027 {Matching of contours}
- WARNING
Group G06V 30/19027 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/752 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19033 {by mapping curve parameters onto an accumulator array, e.g. generalised Hough Transform}
- WARNING
Group G06V 30/19033 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/753 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1904 {involving a deformation of the sample or reference pattern; Elastic matching}
- WARNING
Group G06V 30/1904 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/754 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19047 {based on a local optimisation criterion, e.g. "snakes", i.e. active contour models of the pattern to be recognised}
- WARNING
Group G06V 30/19047 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/755 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19053 {based on shape statistics, e.g. active shape models of the pattern to be recognised}
- WARNING
Group G06V 30/19053 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/7553 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/1906 {based also on statistics of image patches, e.g. active appearance models of the pattern to be recognised}
- WARNING
Group G06V 30/1906 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/7557 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19067 {Matching configurations of points or features, e.g. constellation matching}
- WARNING
Group G06V 30/19067 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/757 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19073 {Comparing statistics of pixel or of feature values, e.g. histogram matching}
- WARNING
Group G06V 30/19073 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/758 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1908 {Region based matching}
- WARNING
Group G06V 30/1908 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/759 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19087 {based on parametric eigenspace representations, e.g. eigenspace representations using pose or illumination parameters; Shape manifold}
- WARNING
Group G06V 30/19087 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/76 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19093 {Proximity measures, i.e. similarity or distance measures}
- WARNING
Group G06V 30/19093 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/22 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/191 {Design or setup of recognition systems or techniques; Extraction of features in feature space; Clustering techniques; Blind source separation}
- WARNING
Group G06V 30/191 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/21 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/19107 . . . {Clustering techniques}
- WARNING
Group G06V 30/19107 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/23, G06F 18/231, G06F 18/232, G06F 18/2321, G06F 18/23211, G06F 18/23213, G06F 18/2323, G06F 18/2321 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19113 . . . {Selection of pattern recognition techniques, e.g. of classifiers in a multi-classifier system}
- WARNING
Group G06V 30/19113 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/285 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1912 . . . {Selecting the most significant subset of features ([G06V 30/19127](#) takes precedence)}
- WARNING
Group G06V 30/1912 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/211, G06F 18/2111, G06F 18/2113, G06F 18/2115 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19127 . . . {Extracting features by transforming the feature space, e.g. multidimensional scaling; Mappings, e.g. subspace methods}
- WARNING
Group G06V 30/19127 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/213, G06F 18/2132, G06F 18/21322, G06F 18/21324, G06F 18/21326, G06F 18/21328, G06F 18/2133, G06F 18/2134, G06F 18/21342, G06F 18/21343, G06F 18/21345, G06F 18/21347, G06F 18/21348, G06F 18/2135, G06F 18/21355, G06F 18/2136, G06F 18/2137, G06F 18/21375 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19133 . . . {Interactive pattern learning with a human teacher}
- WARNING
Group G06V 30/19133 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/41 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1914 . . . {Determining representative reference patterns, e.g. averaging or distorting patterns; Generating dictionaries, e.g. user dictionaries}
- WARNING
Group G06V 30/1914 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/28 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/19147 {Obtaining sets of training patterns; Bootstrap methods, e.g. bagging or boosting}
- WARNING
Group G06V 30/19147 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/214, G06F 18/2148, G06F 18/2155 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19153 {using rules for classification or partitioning the feature space}
- WARNING
Group G06V 30/19153 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/24765, G06F 18/2163 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1916 {Validation; Performance evaluation}
- WARNING
Group G06V 30/1916 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/217 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19167 {Active pattern learning}
- WARNING
Group G06V 30/19167 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/217, G06F 18/2178, G06F 18/2185, G06F 18/2193 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19173 {Classification techniques}
- WARNING
Group G06V 30/19173 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/24, G06F 18/241, G06F 18/2411, G06F 18/2413, G06F 18/24133, G06F 18/24137, G06F 18/2414, G06F 18/24143, G06F 18/24147, G06F 18/2415, G06F 18/24155, G06F 18/243, G06F 18/2431, G06F 18/24317, G06F 18/24323, G06F 18/2433, G06F 18/245, G06F 18/2451, G06F 18/2453 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1918 {Fusion techniques, i.e. combining data from various sources, e.g. sensor fusion}
- WARNING
Group G06V 30/1918 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/25, G06F 18/251, G06F 18/253, G06F 18/254, G06F 18/256, G06F 18/257, G06F 18/259 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/19187 . . . {Graphical models, e.g. Bayesian networks or Markov models}
- WARNING
Group G06V 30/19187 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/29, G06F 18/295 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/19193 . . . {Statistical pre-processing, e.g. techniques for normalisation or restoring missing data}
- WARNING
Group G06V 30/19193 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/10 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/192 . . . using simultaneous comparisons or correlations of the image signals with a plurality of references
- WARNING
Group G06V 30/192 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/75 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/194 . . . References adjustable by an adaptive method, e.g. learning
- WARNING
Group G06V 30/194 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10.
Group G06V 30/194 is also impacted by reclassification into groups G06V 10/70 and G06V 10/766.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/195 . . . {using a resistor matrix}
- WARNING
Group G06V 30/195 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10.
Groups G06F 18/00, G06V 30/10 and G06V 30/195 should be considered in order to perform a complete search.
- M G06V 30/196 . . . using sequential comparisons of the image signals with a plurality of references
- WARNING
Groups G06V 30/196 and G06V 30/198 are incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/75 and G06V 30/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/1983 . . . {Syntactic or structural pattern recognition, e.g. symbolic string recognition}
- WARNING
Groups G06V 30/1983, G06V 30/1985 and G06V 30/1988 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10.

All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/199
- Arrangements for recognition using optical reference masks, e.g. holographic masks
- WARNING
Group G06V 30/199 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/20, G06V 10/88, G06V 10/89, G06V 10/893, G06V 10/895, G06V 10/898, G06V 10/92 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/20
- Combination of acquisition, preprocessing or recognition functions
- WARNING
Group G06V 30/20 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/10, G06V 10/20, G06V 10/36, G06V 10/88 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/22
- characterised by the type of writing
- WARNING
Groups G06V 30/22, G06V 30/222, G06V 30/226, G06V 30/2264, G06V 30/2268, G06V 30/2272, G06V 30/2276 and G06V 30/228 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/224
- of printed characters having additional code marks or containing code marks
- WARNING
Groups G06V 30/224, G06V 30/2247 and G06V 30/2253 are incomplete pending reclassification of documents from groups G06F 18/00, G06V 30/10 and G06V 30/40. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/24
- characterised by the processing or recognition method (segmentation of character regions [G06V 30/148](#))
- WARNING
Groups G06V 30/24, G06V 30/242, G06V 30/244, G06V 30/2445, G06V 30/245, G06V 30/2455, G06V 30/246, G06V 30/248, G06V 30/2504, G06V 30/2528 and G06V 30/2552 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/26
- Techniques for post-processing, e.g. correcting the recognition result
- WARNING
Groups G06V 30/26, G06V 30/268 and G06V 30/274 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.

- M G06V 30/262
- • using context analysis, e.g. lexical, syntactic or semantic context
- WARNING
Group G06V 30/262 is incomplete pending reclassification of documents from groups G06F 18/00, G06V 10/768 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/28
- • specially adapted to the type of the alphabet, e.g. Latin alphabet
- WARNING
Groups G06V 30/28, G06V 30/287 and G06V 30/293 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/30
- • based on the type of data
- WARNING
Groups G06V 30/30 and G06V 30/304 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/302
- • Images containing characters for discriminating human versus automated computer access
- WARNING
Group G06V 30/302 is incomplete pending reclassification of documents from groups G06F 18/00, G06F 18/217 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/32
- • Digital ink
- WARNING
Groups G06V 30/32, G06V 30/333, G06V 30/347, G06V 30/36, G06V 30/373 and G06V 30/387 are incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/40
- Document-oriented image-based pattern recognition
- WARNING
Group G06V 30/40 is incomplete pending reclassification of documents from group G06F 18/00.
Group G06V 30/40 is also impacted by reclassification into groups G06V 30/224, G06V 30/2247, G06V 30/2253 and G06V 30/41. All groups listed in this Warning should be considered in order to perform a complete search.
- M G06V 30/41
- • Analysis of document content (recognition of printed characters based on code marks [G06V 30/224](#))
- WARNING
Group G06V 30/41 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 30/40. Groups G06F 18/00, G06V 30/40 and G06V 30/41 should be considered in order to perform a complete search.

M G06V 40/00 Recognition of biometric, human-related or animal-related patterns in image or video data**WARNING**

Groups G06V 40/00, G06V 40/10, G06V 40/103, G06V 40/107, G06V 40/11, G06V 40/113, G06V 40/117, G06V 40/12, G06V 40/1306, G06V 40/1312, G06V 40/1318, G06V 40/1324, G06V 40/1329, G06V 40/1335, G06V 40/1341, G06V 40/1347, G06V 40/1353, G06V 40/1359, G06V 40/1365, G06V 40/1371, G06V 40/1376, G06V 40/1382, G06V 40/1388, G06V 40/1394, G06V 40/14, G06V 40/15, G06V 40/155, G06V 40/16, G06V 40/161, G06V 40/162, G06V 40/164, G06V 40/165, G06V 40/166, G06V 40/167, G06V 40/168, G06V 40/169, G06V 40/171, G06V 40/172, G06V 40/173, G06V 40/174, G06V 40/175, G06V 40/176, G06V 40/178, G06V 40/179, G06V 40/18, G06V 40/19, G06V 40/193, G06V 40/197, G06V 40/20, G06V 40/23, G06V 40/25, G06V 40/28, G06V 40/30, G06V 40/33, G06V 40/37, G06V 40/376, G06V 40/382, G06V 40/388, G06V 40/394, G06V 40/40, G06V 40/45, G06V 40/50, G06V 40/53, G06V 40/55, G06V 40/58, G06V 40/60, G06V 40/63, G06V 40/67 and G06V 40/70 are incomplete pending reclassification of documents from group G06F 18/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- U G06V 40/10
 - Human or animal bodies, e.g. vehicle occupants or pedestrians; Body parts, e.g. hands
- U G06V 40/12
 - • Fingerprints or palmprints
- M G06V 40/13
 - • • Sensors therefor

WARNING

Group G06V 40/13 is incomplete pending reclassification of documents from group G06F 18/00.

Group G06V 40/13 is also impacted by reclassification into group G06V 40/145.

Groups G06F 18/00, G06V 40/13 and G06V 40/145 should be considered in order to perform a complete search.

- U G06V 40/14
 - • Vascular patterns
- M G06V 40/145
 - • • Sensors therefor

WARNING

Group G06V 40/145 is incomplete pending reclassification of documents from groups G06F 18/00 and G06V 40/13.

Groups G06F 18/00, G06V 40/13 and G06V 40/145 should be considered in order to perform a complete search.

Project: RP10459-F (A63B)**U A63B 69/00 Training appliances or apparatus for special sports (training of parachutists [B64D 23/00](#))**

- D A63B 69/004
 - {for the martial arts, e.g. karate, judo (A63B 69/20, A63B 69/34 take precedence)}

WARNING

Group A63B 69/004 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/20, A63B 69/215, A63B 69/22, A63B 69/222, A63B 69/224, A63B 69/24, A63B 69/244, A63B 69/26, A63B 69/28, A63B 69/30, A63B 69/305, A63B 69/32, A63B 69/322, A63B 69/34, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108.

A63B 69/004

(Frozen)

(continued)

All groups listed in this Warning should be considered in order to perform a complete search.

M A63B 69/20

- Punching balls {, e.g. for boxing; Other devices for striking used during training of combat sports, e.g. bags}

WARNING

Group A63B 69/20 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/203, A63B 69/34 and A63B 2244/10. Group A63B 69/20 is also impacted by reclassification into groups A63B 69/22, A63B 69/222, A63B 69/24, A63B 69/244, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108.

All groups listed in this Warning should be considered in order to perform a complete search.

D A63B 69/203
—*(Frozen)*

- {Punching balls, i.e. mainly designed to be hit at resonant frequency}

WARNING

Group A63B 69/203 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/20, A63B 69/22, A63B 69/222, A63B 69/24, A63B 69/244, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108.

All groups listed in this Warning should be considered in order to perform a complete search.

D A63B 69/205
—*(Frozen)*

- • {hanging downwards}

WARNING

Group A63B 69/205 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/222 and A63B 69/244.

Groups A63B 69/205, A63B 69/222 and A63B 69/244 should be considered in order to perform a complete search.

D A63B 69/206
—*(Frozen)*

- • {mounted by using attachments at opposite points}

WARNING

Group A63B 69/206 is no longer used for the classification of documents as of August 1, 2022. The content of this group is being reclassified into groups A63B 69/28 and A63B 69/30.

Groups A63B 69/206, A63B 69/28 and A63B 69/30 should be considered in order to perform a complete search.

M A63B 69/215

- {Anthropomorphic devices}

WARNING

Group A63B 69/215 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M A63B 69/22

- • mounted on, or suspended from, a fixed support

WARNING

Group A63B 69/22 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A63B 69/222
- • • {suspended from a fixed support}
- WARNING
Group A63B 69/222 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/205, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/224
- • • {mounted on a resilient foot}
- WARNING
Group A63B 69/224 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/24
- • • mounted on, or suspended from, a movable support
- WARNING
Group A63B 69/24 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10. Group A63B 69/24 is also impacted by reclassification into group A63B 69/244.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/244
- • • {suspended from a movable support}
- WARNING
Group A63B 69/244 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/205, A63B 69/24, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/26
- • • attached to the human body
- WARNING
Group A63B 69/26 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/28
- • • Attachments located on the balls {or other training devices} at opposite points
- WARNING
Group A63B 69/28 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/206, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/30
- • • Resilient attachments
- WARNING
Group A63B 69/30 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/206, A63B 69/34 and A63B 2244/10.
All groups listed in this Warning should be considered in order to perform a complete search.

- M A63B 69/305
- {Hanging heavy punching bags}
- WARNING**
Group A63B 69/305 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/34 and A63B 2244/10. Group A63B 69/305 is also impacted by reclassification into group A63B 69/322. All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/32
- with indicating devices
- WARNING**
Group A63B 69/32 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/34 and A63B 2244/10. Group A63B 69/32 is also impacted by reclassification into group A63B 69/322. All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/322
- • {to instruct user where to strike}
- WARNING**
Group A63B 69/322 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/32, A63B 69/34 and A63B 2244/10. All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 69/34
- {Tackling, blocking or grappling dummies, e.g.} boxing or {wrestling or American-} football dummies
- WARNING**
Group A63B 69/34 is incomplete pending reclassification of documents from groups A63B 69/004 and A63B 2244/10. Group A63B 69/34 is also impacted by reclassification into groups A63B 69/20, A63B 69/215, A63B 69/22, A63B 69/222, A63B 69/224, A63B 69/24, A63B 69/244, A63B 69/26, A63B 69/28, A63B 69/30, A63B 69/305, A63B 69/32, A63B 69/322, A63B 2244/10, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108. All groups listed in this Warning should be considered in order to perform a complete search.
- U A63B 2244/00**
- Sports without balls**
- M A63B 2244/10
- Combat sports
- WARNING**
Group A63B 2244/10 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203 and A63B 69/34. Group A63B 2244/10 is also impacted by reclassification into groups A63B 69/20, A63B 69/215, A63B 69/22, A63B 69/222, A63B 69/224, A63B 69/24, A63B 69/244, A63B 69/26, A63B 69/28, A63B 69/30, A63B 69/305, A63B 69/32, A63B 69/322, A63B 69/34, A63B 2244/102, A63B 2244/104, A63B 2244/106 and A63B 2244/108. All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 2244/102
- • Boxing
- WARNING**
Group A63B 2244/102 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M A63B 2244/104

- • Judo

WARNING

Group A63B 2244/104 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M A63B 2244/106

- • Karate

WARNING

Group A63B 2244/106 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

M A63B 2244/108

- • Wrestling

WARNING

Group A63B 2244/108 is incomplete pending reclassification of documents from groups A63B 69/004, A63B 69/20, A63B 69/203, A63B 69/34 and A63B 2244/10.

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP10466 (G06F)

U G06F 9/00

Arrangements for program control, e.g. control units (program control for peripheral devices [G06F 13/10](#))

U G06F 9/06

- using stored programs, i.e. using an internal store of processing equipment to receive or retain programs

U G06F 9/30

- • Arrangements for executing machine instructions, e.g. instruction decode (for executing microinstructions [G06F 9/22](#))

U G06F 9/30003

- • • {Arrangements for executing specific machine instructions}

U G06F 9/30007

- • • • {to perform operations on data operands}

C G06F 9/30018

- • • • • {Bit or string instructions}; ~~instructions using a mask~~

WARNING

Group [G06F 9/30018](#) is impacted by reclassification into group [G06F 9/30038](#).

Groups [G06F 9/30018](#) and [G06F 9/30038](#) should be considered in order to perform a complete search.

C G06F 9/30036

- • • • • {Instructions to perform operations on packed data, e.g. vector, *tile or matrix* operations}

WARNING

Group [G06F 9/30036](#) is impacted by reclassification into group [G06F 9/30038](#).

Groups [G06F 9/30036](#) and [G06F 9/30038](#) should be considered in order to perform a complete search.

- N G06F 9/30038 {using a mask}
- WARNING
Group [G06F 9/30038](#) is incomplete pending reclassification of documents from groups [G06F 9/30018](#) and [G06F 9/30036](#). Groups [G06F 9/30018](#), [G06F 9/30036](#) and [G06F 9/30038](#) should be considered in order to perform a complete search.
- C G06F 9/3005 {to perform operations for flow control}
- WARNING
Group [G06F 9/3005](#) is impacted by reclassification into group [G06F 9/323](#). Groups [G06F 9/3005](#) and [G06F 9/323](#) should be considered in order to perform a complete search.
- C G06F 9/30054 {Unconditional branch instructions}
- WARNING
Group [G06F 9/30054](#) is incomplete pending reclassification of documents from group [G06F 9/30061](#). Group [G06F 9/30054](#) is also impacted by reclassification into group [G06F 9/323](#). Groups [G06F 9/30054](#), [G06F 9/30061](#) and [G06F 9/323](#) should be considered in order to perform a complete search.
- C G06F 9/30058 {Conditional branch instructions}
- WARNING
Group [G06F 9/30058](#) is impacted by reclassification into group [G06F 9/323](#). Groups [G06F 9/30058](#) and [G06F 9/323](#) should be considered in order to perform a complete search.
- C G06F 9/30061 {Multi-way branch instructions, e.g. CASE}
- WARNING
Group [G06F 9/30061](#) is impacted by reclassification into groups [G06F 9/30054](#) and [G06F 9/323](#). Groups [G06F 9/30061](#), [G06F 9/30054](#) and [G06F 9/323](#) should be considered in order to perform a complete search.
- M G06F 9/30072 {to perform conditional operations, e.g. using **guard predicates or guards**}
- U G06F 9/30076 {to perform miscellaneous control operations, e.g. NOP}
- M G06F 9/30079 {Pipeline control instructions, e.g. **multicycle NOP**}
- U G06F 9/30098 {Register arrangements}
- U G06F 9/30105 {Register structure}
- M G06F 9/30112 {~~for variable length data, e.g. single or double registers~~ **comprising data of variable length**}
- U G06F 9/32 Address formation of the next instruction, e.g. by incrementing the instruction counter ([G06F 9/38](#) takes precedence)
- C G06F 9/322 {for non-sequential address}
- WARNING
Group [G06F 9/322](#) is impacted by reclassification into group [G06F 9/323](#). Groups [G06F 9/322](#) and [G06F 9/323](#) should be considered in order to perform a complete search.

- N G06F 9/323 {for indirect branch instructions}
- WARNING
Group [G06F 9/323](#) is incomplete pending reclassification of documents from groups [G06F 9/3005](#), [G06F 9/30054](#), [G06F 9/30058](#), [G06F 9/30061](#) and [G06F 9/322](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- M G06F 9/325 {for loops, e.g. loop detection; *or* loop counter}
- U G06F 9/34 . . . Addressing or accessing the instruction operand or the result {; Formation of operand address; Addressing modes (address translation [G06F 12/00](#))}
- M G06F 9/35 Indirect addressing ~~{; i.e. using single address operand; e.g. address register}~~
- M G06F 9/355 Indexed addressing ~~{; i.e. using more than one address operand}~~
- C G06F 9/38 . . . Concurrent instruction execution, e.g. pipeline, look ahead
- WARNING
Group [G06F 9/38](#) is impacted by reclassification into group [G06F 9/3854](#).
Groups [G06F 9/38](#) and [G06F 9/3854](#) should be considered in order to perform a complete search.
- U G06F 9/3824 {Operand accessing}
- M G06F 9/3826 {~~Data result bypassing~~ *Bypassing or forwarding of data results*, e.g. locally between pipeline stages; *or* within a pipeline stage}
- M G06F 9/3834 {Maintaining memory consistency ~~(cache consistency protocols G06F 12/0815)~~}
- M G06F 9/3836 {Instruction issuing, e.g. dynamic instruction scheduling; *or* out of order instruction execution}
- U G06F 9/3842 {Speculative instruction execution}
- M G06F 9/3844 {using dynamic *branch* prediction, e.g. ~~branch history table~~ *using branch history tables*}
- C G06F 9/3851 {from multiple instruction streams, e.g. multistreaming ~~(initiation or dispatching of multiple tasks or threads G06F 9/48)~~}
- WARNING
Group [G06F 9/3851](#) is impacted by reclassification into group [G06F 9/3888](#).
Groups [G06F 9/3851](#) and [G06F 9/3888](#) should be considered in order to perform a complete search.
- U G06F 9/3853 {of compound instructions}
- N G06F 9/3854 {Instruction completion, e.g. retiring, committing or graduating}
- WARNING
Group [G06F 9/3854](#) is incomplete pending reclassification of documents from groups [G06F 9/38](#) and [G06F 9/3858](#).
Groups [G06F 9/38](#), [G06F 9/3858](#) and [G06F 9/3854](#) should be considered in order to perform a complete search.
- D G06F 9/3855 {Reordering, e.g. using a queue, age tags}
<administratively transferred to [G06F 9/3856](#)>
- N G06F 9/3856 {Reordering of instructions, e.g. using queues or age tags}
- D G06F 9/3857 {Result writeback, i.e. updating the architectural state}
<administratively transferred to [G06F 9/3858](#)>

- Q G06F 9/3858 {Result writeback, i.e. updating the architectural state or memory}
WARNING
 Group [G06F 9/3858](#) is impacted by reclassification into group [G06F 9/3854](#).
 Groups [G06F 9/3858](#) and [G06F 9/3854](#) should be considered in order to perform a complete search.
- N G06F 9/38585 {with result invalidation, e.g. nullification}
- D G06F 9/3859 {with result invalidation, e.g. nullification}
 <administratively transferred to [G06F 9/38585](#)>
- U G06F 9/3885 {using a plurality of independent parallel functional units}
- C G06F 9/3887 {controlled by a single instruction, e.g. SIMD for multiple data lanes [SIMD]}
WARNING
 Group [G06F 9/3887](#) is impacted by reclassification into groups [G06F 9/38873](#), [G06F 9/38875](#), [G06F 9/3888](#) and [G06F 9/38885](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 9/38873 {Iterative single instructions for multiple data lanes [SIMD]}
WARNING
 Groups [G06F 9/38873](#) and [G06F 9/38875](#) are incomplete pending reclassification of documents from group [G06F 9/3887](#).
 Groups [G06F 9/3887](#), [G06F 9/38873](#) and [G06F 9/38875](#) should be considered in order to perform a complete search.
- N G06F 9/38875 {for adaptable or variable architectural vector length}
- N G06F 9/3888 {controlled by a single instruction for multiple threads [SIMT] in parallel}
WARNING
 Group [G06F 9/3888](#) is incomplete pending reclassification of documents from groups [G06F 9/3851](#) and [G06F 9/3887](#).
 Groups [G06F 9/3851](#), [G06F 9/3887](#) and [G06F 9/3888](#) should be considered in order to perform a complete search.
- N G06F 9/38885 {Divergence aspects}
WARNING
 Group [G06F 9/38885](#) is incomplete pending reclassification of documents from group [G06F 9/3887](#).
 Groups [G06F 9/3887](#) and [G06F 9/38885](#) should be considered in order to perform a complete search.

Project: RP10471 (B60N)

- M B60N SEATS SPECIALLY ADAPTED FOR VEHICLES; VEHICLE PASSENGER ACCOMMODATION NOT OTHERWISE PROVIDED FOR
- NOTES
1. Attention is drawn to the ~~Explanatory~~ Note following the class title [B60](#)
 2. {In this subclass the following term is used with the meaning indicated:
 - "cushion": seating part of a seat distinguished from the back-rest
 }
 3. {In this subclass, it is desirable to add the indexing codes [B60N 2210/00](#) - [B60N 2210/50](#), [B60N 2220/00](#) - [B60N 2220/30](#) and [B60N 2230/00](#) - [B60N 2230/30](#) with the exception of groups [B60N 2/0021](#) and [B60N 2/0035](#),

where the allocation of the indexing codes is mandatory in accordance with their note}

- U B60N 2/00** Seats specially adapted for vehicles; Arrangement or mounting of seats in vehicles (railway seats [B61D 33/00](#); cycle seats [B62J 1/00](#); aircraft seats [B64D 11/06](#), [B64D 25/04](#), [B64D 25/10](#))
- C B60N 2/002** • ~~{Passenger detection systems}~~ Seats provided with an occupancy detection means mounted therein or thereon (detection means responsive to presence or absence of children [B60N 2/266](#))
- WARNING**
Group [B60N 2/002](#) is impacted by reclassification into groups [B60N 2/002 1](#) - [B60N 2/0035](#), [B60N 2/266](#) - [B60N 2/272](#), [B60N 2210/00](#) - [B60N 2210/50](#), [B60N 2220/00](#) - [B60N 2220/30](#), and [B60N 2230/00](#) - [B60N 2230/30](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/002 1** • • {characterised by the type of sensor or measurement}
- NOTE**
{In this group, it is mandatory to add the indexing codes of groups [B60N 2210/00](#) - [B60N 2210/50](#)}
- WARNING**
Groups [B60N 2/002 1](#) - [B60N 2/0035](#) are incomplete pending reclassification of documents from group [B60N 2/002](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/002 2** • • • {for sensing anthropometric parameters, e.g. heart rate or body temperature}
- N B60N 2/002 3** • • • {for detection of driver fatigue}
- N B60N 2/002 4** • • • {for identifying, categorising or investigation of the occupant or object on the seat}
- N B60N 2/002 5** • • • • {by using weight measurement}
- N B60N 2/002 6** • • • • {for distinguishing between humans, animals or objects}
- N B60N 2/002 7** • • • • {for detecting the position of the occupant or of occupant's body part}
- N B60N 2/002 8** • • • • • {of a body part, e.g. of an arm or a leg}
- N B60N 2/002 9** • • • • • {for detecting the motion of the occupant}
- N B60N 2/003** • • • {characterised by the sensor mounting location in or on the seat}
- N B60N 2/003 1** • • • • {mounted on the frame}
- N B60N 2/003 2** • • • • {mounted on springs}
- N B60N 2/003 3** • • • • {mounted on or in the foam cushion}
- N B60N 2/003 4** • • • • {in, under or on the seat cover}
- N B60N 2/003 5** • • • {characterised by the sensor data transmission, e.g. wired connections or wireless transmitters therefor; characterised by the sensor data processing, e.g. seat sensor signal amplification or electric circuits for providing seat sensor information}
- NOTE**
{In this group, it is mandatory to add the indexing codes of groups [B60N 2220/00](#) - [B60N 2220/30](#) and [B60N 2230/00](#) - [B60N 2230/30](#)}
- U B60N 2/02** • the seat or part thereof being movable, e.g. adjustable (adjustable arm-rests [B60N 2/75](#); adjustable head-rests [B60N 2/806](#))

- C B60N 2/0224
- • {Non-manual **adjustment***adjustments*, e.g. with electrical operation}
- WARNING**
 Group [B60N 2/0224](#) is impacted by reclassification into groups [B60N 2/0226](#), [B60N 2/0229](#), [B60N 2/0231](#), [B60N 2/0233](#), [B60N 2/0235](#), [B60N 2/0237](#), [B60N 2/0239](#), [B60N 2/0241](#), [B60N 2/0273](#), [B60N 2/0274](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/02246
- • • {Electric motors therefor}
- N B60N 2/02253
- • • {characterised by the transmission between the electric motor and the seat or seat parts}
- N B60N 2/02258
- • • {characterised by the mounting of the electric motor for adjusting the seat}
- N B60N 2/0226
- • • {User interfaces specially adapted for seat adjustment}
- WARNING**
 Group [B60N 2/0226](#) is incomplete pending reclassification of documents from group [B60N 2/0224](#).
 Groups [B60N 2/0224](#) and [B60N 2/0226](#) should be considered in order to perform a complete search.
- C B60N 2/0228
- • • {Hand-activated **switches***mechanical switches* ([B60N 2/0229](#) takes precedence)}
- WARNING**
 Group [B60N 2/0228](#) is impacted by reclassification into groups [B60N 2/0229](#), [B60N 2/0231](#), [B60N 2/0233](#), [B60N 2/0235](#), [B60N 2/0237](#), [B60N 2/0239](#), [B60N 2/0241](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/0229
- • • {characterised by the shape, e.g. switches having cushion or backrest shape}
- WARNING**
 Group [B60N 2/0229](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
 Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0229](#) should be considered in order to perform a complete search.
- N B60N 2/0231
- • • {concealed interfaces, e.g. hidden below seat cover}
- WARNING**
 Group [B60N 2/0231](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
 Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0231](#) should be considered in order to perform a complete search.
- D B60N 2/0232
- • • {electric motors}
- <administratively transferred to [B60N 2/02246](#)>
- N B60N 2/0233
- • • {Touchscreens}
- WARNING**
 Group [B60N 2/0233](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#).
 Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0233](#) should be considered in order to perform a complete search.

- N B60N 2/0235 . . . {Joysticks}
WARNING
 Group [B60N 2/0235](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#). Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0235](#) should be considered in order to perform a complete search.
- D B60N 2002/0236 . . . {characterised by details of the transmission between the electric motor and the seat or seat parts}
 <administratively transferred to [B60N 2/02253](#) INV>
- N B60N 2/0237 . . . {using portable terminals, e.g. smartphones}
WARNING
 Group [B60N 2/0237](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#). Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0237](#) should be considered in order to perform a complete search.
- N B60N 2/0239 . . . {using movement detection or gesture recognition}
WARNING
 Group [B60N 2/0239](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#). Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0239](#) should be considered in order to perform a complete search.
- D B60N 2002/024 . . . {characterised by details of the mounting of the electric motor}
 <administratively transferred to [B60N 2/02258](#) INV>
- N B60N 2/0241 . . . {using augmented or virtual reality}
WARNING
 Group [B60N 2/0241](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0228](#). Groups [B60N 2/0224](#), [B60N 2/0228](#), and [B60N 2/0241](#) should be considered in order to perform a complete search.
- C B60N 2/0244 . . . {with logic circuits}
WARNING
 Group [B60N 2/0244](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0274](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60N 2/0248 . . . {with memory of positions}
WARNING
 Group [B60N 2/0248](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60N 2/0252 . . . {with relations between different adjustments, e.g. height of headrest following longitudinal position of seat}
WARNING
 Group [B60N 2/0252](#) is impacted by reclassification into groups [B60N 2/0273](#), [B60N 2/0277](#), and [B60N 2/0278 - B60N 2/0279](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- D B60N 2002/0256 {Arrangements helping the passenger to get in or out}
<administratively transferred to [B60N 2/0256](#) INV>
- N B60N 2/0256 {Arrangements for facilitating the occupant to get in or out of the vehicle, e.g. stowing a seat forward}
- D B60N 2002/026 {varying hardness or support of upholstery, e.g. when driving curved roads}
<administratively transferred to [B60N 2/026](#) INV>
- N B60N 2/026 {varying hardness or support of upholstery, e.g. for tuning seat comfort when driving curved roads}
- D B60N 2002/0264 {characterised by the type of electrical connection, e.g. wiring, plugs or USB}
<administratively transferred to [B60N 2/0264](#) INV>
- N B60N 2/0264 {characterised by the type of electrical connection, e.g. wiring, plugs or USB}
- D B60N 2002/0268 {using sensors or detectors for adapting the seat or seat part, e.g. to the position of a passenger}
<administratively transferred to [B60N 2/0268](#) INV>
- N B60N 2/0268 {using sensors or detectors for adapting the seat or seat part, e.g. to the position of an occupant}
- D B60N 2002/0272 {using sensors or detectors for detecting the position of seat parts}
<administratively transferred to [B60N 2/0272](#) INV>
- N B60N 2/0272 {using sensors or detectors for detecting the position of seat parts}
- N B60N 2/0273 {taking into account user data, e.g. knee height or physical state}
- WARNING
Group [B60N 2/0273](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#), [B60N 2/0244](#), [B60N 2/0248](#), and [B60N 2/0252](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/0274 {movement of the seat following a virtual reality simulation}
- WARNING
Group [B60N 2/0274](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#) and [B60N 2/0244](#).
Groups [B60N 2/0224](#), [B60N 2/0244](#), and [B60N 2/0274](#) should be considered in order to perform a complete search.
- U B60N 2/0276 {reaction to emergency situations, e.g. crash}
- N B60N 2/0277 {characterised by the calculation method or calculation flow chart of sensor data for adjusting the seat}
- WARNING
Group [B60N 2/0277](#) is incomplete pending reclassification of documents from groups [B60N 2/0224](#), [B60N 2/0228](#), [B60N 2/0244](#), [B60N 2/0248](#), and [B60N 2/0252](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- N B60N 2/0278
- • • {using sensors external to the seat for measurements in relation to the seat adjustment, e.g. for identifying the presence of obstacles or the appropriateness of the occupants position}
- WARNING
Groups [B60N 2/0278](#) and [B60N 2/0279](#) are incomplete pending reclassification of documents from groups [B60N 2/0224](#), [B60N 2/0228](#), [B60N 2/0244](#), [B60N 2/0248](#), and [B60N 2/0252](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/0279
- • • • {for detecting objects outside the vehicle, e.g. for user identification}
- U B60N 2/24
- for particular purposes or particular vehicles
- C B60N 2/26
- • for children ([B60N 2/30](#) takes precedence)
- WARNING
Group [B60N 2/26](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- U B60N 2/265
- • • {Adaptations for seat belts}
- N B60N 2/266
- • • {with detection or alerting means responsive to presence or absence of children; with detection or alerting means responsive to improper locking or installation of the child seats or parts thereof}
- WARNING
Groups [B60N 2/266](#) - [B60N 2/272](#) are incomplete pending reclassification of documents from groups [B60N 2/002](#), [B60N 2/26](#), [B60N 2/28](#), [B60N 2/2803](#), [B60N 2/2806](#), [B60N 2/2809](#), [B60N 2/2812](#), and [B60N 2002/2815](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/267
- • • • {alerting means responsive to presence or absence of children}
- N B60N 2/268
- • • • {detecting or alerting means responsive to the installation of the child seats in the vehicle}
- N B60N 2/269
- • • • • {detecting or alerting means responsive to the Isofix locking on the child seat or vehicle}
- N B60N 2/271
- • • • • {detecting or alerting means responsive to securing the child in the seat}
- N B60N 2/272
- • • • • {Buckle lock sensors for child seat safety belts}
- N B60N 2/273
- • • {with detection or alerting means responsive to crashes}
- WARNING
Group [B60N 2/273](#) is incomplete pending reclassification of documents from groups [B60N 2/26](#), [B60N 2/28](#), [B60N 2/2803](#), [B60N 2/2806](#), [B60N 2/2809](#), [B60N 2/2812](#), and [B60N 2002/2815](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60N 2/274
- • • {characterised by the communication means between the child seat and another entity, e.g. vehicle or portable device}
- WARNING
Group [B60N 2/274](#) is incomplete pending reclassification of documents from groups [B60N 2/26](#), [B60N 2/28](#), [B60N 2/2803](#), [B60N 2/2806](#), [B60N 2/2809](#), [B60N 2/2812](#), and [B60N 2002/2815](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- C B60N 2/28
 - • • Seats readily mountable on, and dismountable from, existing seats {or other parts} of the vehicle

WARNING

*Group [B60N 2/28](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- C B60N 2/2803
 - • • • {Adaptations for seat belts}

WARNING

*Group [B60N 2/2803](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- C B60N 2/2806
 - • • • • {for securing the child seat to the vehicle}

WARNING

*Group [B60N 2/2806](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- C B60N 2/2809
 - • • • • • {with additional tether connected to the top of the child seat and passing above the top of the back-rest}

WARNING

*Group [B60N 2/2809](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- C B60N 2/2812
 - • • • • • {for securing the child to the child seat}

WARNING

*Group [B60N 2/2812](#) is impacted by reclassification into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), and [B60N 2/274](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- F B60N 2002/2815
(Frozen)
 - • • • • • {with **seat additional** belt accessories, e.g. a belt tension detector}

WARNING

*Group [B60N 2002/2815](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [B60N 2/266](#) - [B60N 2/272](#), [B60N 2/273](#), [B60N 2/274](#), and [B60N 2/2816](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- N B60N 2/2816
 - • • • • • {with additional belt accessories, e.g. belt tension detectors}

WARNING

*Group [B60N 2/2816](#) is incomplete pending reclassification of documents from group [B60N 2002/2815](#).
Groups [B60N 2002/2815](#) and [B60N 2/2816](#) should be considered in order to perform a complete search.*

- D B60N 2002/2818 {characterised by guiding means for children belts}
<administratively transferred to [B60N 2/2818](#) INV>
- N B60N 2/2818 {characterised by guiding means for children belts}
- U B60N 2/58 . Seat coverings
- M B60N 2/5891 . . {~~Manufacturing methods specially adapted therefor~~ characterised by the
manufacturing process; manufacturing seat coverings not otherwise provided
for}
- U B60N 2/70 . Upholstery springs {; Upholstery}
- M B60N 2/7017 . . {~~Manufacturing methods specially adapted therefor~~ characterised by the
manufacturing process; manufacturing upholstery or upholstery springs not
otherwise provided for}
- N B60N 2205/00 - B60N 2205/00** **Indexing scheme associated with groups [B60N 2/00](#) - [B60N 99/00](#) relating to
general mechanical or structural details**
- N B60N 2210/00 - B60N 2230/00** **Indexing scheme associated with groups [B60N 2/00](#) - [B60N 99/00](#), relating
to aspects of seats specially adapted for vehicles or vehicle passenger
accommodation not otherwise provided for**
- N B60N 2210/00** **Sensor types, e.g. for passenger detection systems or for controlling seats**
WARNING
Groups [B60N 2210/00](#) - [B60N 2210/50](#) are incomplete pending reclassification of
documents from group [B60N 2/002](#).
All groups listed in this Warning should be considered in order to perform a
complete search.
- N B60N 2210/10 . Field detection presence sensors
- N B60N 2210/12 . . Capacitive; Electric field
- N B60N 2210/14 . . Inductive; Magnetic field
- N B60N 2210/16 . . Electromagnetic waves
- N B60N 2210/18 . . . Infrared
- N B60N 2210/20 . . . Radar
- N B60N 2210/22 . . . Optical; Photoelectric; Lidar [Light Detection and Ranging]
- N B60N 2210/24 Cameras
- N B60N 2210/26 . . Ultrasonic, e.g. sonar
- N B60N 2210/30 . Temperature sensors
- N B60N 2210/40 . Force or pressure sensors
- N B60N 2210/42 . . Strain gauges
- N B60N 2210/44 . . using fluids
- N B60N 2210/46 . . Electric switches
- N B60N 2210/48 . . Piezoelectric
- N B60N 2210/50 . Inertial sensors
- N B60N 2220/00** **Computerised treatment of data for controlling of seats**
WARNING
Groups [B60N 2220/00](#) - [B60N 2220/30](#) are incomplete pending reclassification of
documents from group [B60N 2/002](#).
All groups listed in this Warning should be considered in order to perform a
complete search.
- N B60N 2220/10 . using a database
- N B60N 2220/20 . using a deterministic algorithm

N B60N 2220/30 · using a neural network

N B60N 2230/00 **Communication or electronic aspects**

WARNING

Groups [B60N 2230/00](#) - [B60N 2230/30](#) are incomplete pending reclassification of documents from group [B60N 2/002](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B60N 2230/10 · Wired data transmission

N B60N 2230/20 · Wireless data transmission

N B60N 2230/30 · Signal processing of sensor data

Project: RP10474 (H01R)

U H01R 4/00 **Electrically-conductive connections between two or more conductive members in direct contact, i.e. touching one another; Means for effecting or maintaining such contact; Electrically-conductive connections having two or more spaced connecting locations for conductors and using contact members penetrating insulation**

U H01R 4/28 · Clamped connections, spring connections (made by means of terminals specially adapted for contact with, or insertion into, printed circuits [H01R 12/00](#))

U H01R 4/48 · · utilising a spring, clip, or other resilient member ([H01R 4/52](#) takes precedence)

C H01R 4/4809 · · · {using a leaf spring *to bias the conductor toward the busbar*}

WARNING

Group [H01R 4/4809](#) is impacted by reclassification into groups [H01R 4/4811](#), [H01R 4/4814](#), [H01R 4/4816](#), [H01R 4/4819](#), [H01R 4/4821](#), [H01R 4/4823](#), [H01R 4/4826](#), [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#), [H01R 4/4837](#), [H01R 4/484](#), [H01R 4/4842](#), [H01R 4/4844](#), [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N H01R 4/4811 · · · · {Spring details}

WARNING

Groups [H01R 4/4811](#) and [H01R 4/4814](#) are incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N H01R 4/4814 · · · · · {Self-latching arrangements}

N H01R 4/4816 · · · · · {the spring shape preventing insertion of the conductor end when the spring is unbiased}

WARNING

Group [H01R 4/4816](#) is incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).

All groups listed in this Warning should be considered in order to perform a complete search.

D H01R 4/4818 · · · · · {adapted for axial insertion of a wire end}

<administratively transferred to [H01R 4/48185](#)>

- Q H01R 4/48185 {adapted for axial insertion of a wire end}
- WARNING
Group [H01R 4/48185](#) is impacted by reclassification into groups [H01R 4/4811](#), [H01R 4/4814](#), [H01R 4/4819](#), [H01R 4/4821](#), [H01R 4/4823](#), [H01R 4/4826](#), [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#), [H01R 4/4837](#), [H01R 4/484](#), [H01R 4/4842](#), [H01R 4/4844](#), [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4819 {the spring shape allowing insertion of the conductor end when the spring is unbiased}
- WARNING
Group [H01R 4/4819](#) is incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#) and [H01R 4/48365](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4821 {Single-blade spring}
- WARNING
Group [H01R 4/4821](#) is incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4823 {Multiblade spring}
- WARNING
Group [H01R 4/4823](#) is incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4826 {and having a hole for the conductor, e.g. a wire, passing through}
- WARNING
Group [H01R 4/4826](#) is incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D H01R 4/4827 {with an opening in the housing for insertion of a release tool}
<administratively transferred to [H01R 4/48275](#)>
- Q H01R 4/48275 {with an opening in the housing for insertion of a release tool}
- WARNING
Group [H01R 4/48275](#) is impacted by reclassification into groups [H01R 4/4811](#), [H01R 4/4814](#), [H01R 4/4816](#), [H01R 4/4819](#), [H01R 4/4821](#), [H01R 4/4823](#), [H01R 4/4826](#), [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#), [H01R 4/4837](#), [H01R 4/484](#), [H01R 4/4842](#), [H01R 4/4844](#), [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N H01R 4/4828 {Spring-activating arrangements mounted on or integrally formed with the spring housing}
WARNING
Groups [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#) and [H01R 4/4837](#) are incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/483 {Pivoting arrangements, e.g. lever pushing on the spring}
- N H01R 4/4833 {Sliding arrangements, e.g. sliding button}
- N H01R 4/4835 {Mechanically bistable arrangements, e.g. locked by the housing when the spring is biased}
- D H01R 4/4836 {with integral release means}
<administratively transferred to [H01R 4/48365](#)>
- Q H01R 4/48365 {with integral release means}
WARNING
Group [H01R 4/48365](#) is impacted by reclassification into groups [H01R 4/4811](#), [H01R 4/4814](#), [H01R 4/4816](#), [H01R 4/4819](#), [H01R 4/4821](#), [H01R 4/4823](#), [H01R 4/4826](#), [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#), [H01R 4/4837](#), [H01R 4/484](#), [H01R 4/4842](#), [H01R 4/4844](#), [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4837 {Single arrangement activating multiple springs}
- N H01R 4/484 {Spring housing details}
WARNING
Groups [H01R 4/484](#), [H01R 4/4842](#) and [H01R 4/4844](#) are incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01R 4/4842 {the spring housing being provided with a single opening for insertion of a spring-activating tool}
- N H01R 4/4844 {the spring housing being provided with multiple openings for insertion of a spring-activating tool}
- D H01R 4/4845 {insertion of a wire only possible by pressing on the spring}
<administratively transferred to [H01R 4/48455](#)>
- Q H01R 4/48455 {insertion of a wire only possible by pressing on the spring}
WARNING
Group [H01R 4/48455](#) is impacted by reclassification into groups [H01R 4/4811](#), [H01R 4/4814](#), [H01R 4/4816](#), [H01R 4/4821](#), [H01R 4/4823](#), [H01R 4/4826](#), [H01R 4/4828](#), [H01R 4/483](#), [H01R 4/4833](#), [H01R 4/4835](#), [H01R 4/4837](#), [H01R 4/484](#), [H01R 4/4842](#), [H01R 4/4844](#), [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N H01R 4/4846

. . . . {Busbar details}

WARNING

Groups [H01R 4/4846](#), [H01R 4/4848](#), [H01R 4/485](#) and [H01R 4/4852](#) are incomplete pending reclassification of documents from groups [H01R 4/4809](#), [H01R 4/48185](#), [H01R 4/48275](#), [H01R 4/48365](#) and [H01R 4/48455](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N H01R 4/4848

. {Busbar integrally formed with the spring}

N H01R 4/485

. {Single busbar common to multiple springs}

N H01R 4/4852

. {Means for improving the contact with the conductor, e.g. uneven wire-receiving surface}

Project: RP10483 (E04B)

U E04B 1/00

Constructions in general; Structures which are not restricted either to walls, e.g. partitions, or floors or ceilings or roofs (scaffolds, shutterings [E04G](#); structures specially adapted for buildings for special purposes, general layout of buildings, e.g. modular co-ordination, [E04H](#); the particular parts of buildings, see the relevant groups for those parts)

M E04B 1/0023

. {Building characterised by incorporated canalisation ([E04B 1/34869](#); [E03C 1/01](#); ~~takes~~ [E04C 2/52](#), [E04F 17/00](#) take precedence; canalisation per se [F16L](#); ~~conducts for ventilation, heating systems or air-conditioning F24~~)}

U E04B 1/18

. Structures comprising elongated load-supporting parts, e.g. columns, girders, skeletons ([E04B 1/32](#) - [E04B 1/36](#) take precedence; elongated load-supporting parts as elements, trusses, truss-like structures [E04C 3/00](#))

NOTE

Group [E04B 1/19](#) takes precedence over groups [E04B 1/20](#) - [E04B 1/30](#). {This Note corresponds to IPC Note (1) relating to [E04B 1/19](#), [E04B 1/20](#) - [E04B 1/30](#).}

M E04B 1/19

. . Three-dimensional framework structures ~~{{folded structures and grid-like formations acting as shell structures [E04B 7/10](#)}~~

U E04B 1/26

. . the supporting parts consisting of wood

U E04B 1/2604

. . . {Connections specially adapted therefor (shear dowels [E04B 1/486](#), [E04B 1/49](#))}

M E04B 2001/2644

. . . . {Brackets, gussets or joining plates ~~([E04B 2001/2628](#) takes precedence)}~~

M E04B 2001/2676

. . . . {Connector nodes ~~([E04B 2001/262](#) takes precedence)}~~

M E04B 1/32

. Arched structures; Vaulted structures; Folded structures (~~{[E04B 1/34378](#) [E04B 1/345](#) takes precedence;~~} vaulted roofs [E04B 7/08](#))

C E04B 1/343

. Structures characterised by movable, separable, or collapsible parts, e.g. for transport (movable roof parts [E04B 7/16](#); floatable buildings [B63B](#); small prefabricated buildings, transportable as a whole, [E04H 1/12](#); small garages [E04H 6/02](#); tents or canopies, in general [E04H 15/00](#) ~~(; containers [B65G](#))~~)

WARNING

Group [E04B 1/343](#) is impacted by reclassification into groups [E04B 1/34305](#), [E04B 1/3431](#), [E04B 1/34312](#), [E04B 1/34315](#), [E04B 1/34317](#), [E04B 1/34321](#), [E04B 1/34326](#), [E04B 1/34331](#), [E04B 1/34384](#), [E04B 1/344](#), [E04B 1/3441](#), [E04B 1/3442](#) - [E04B 1/3444](#), [E04B 1/3445](#), [E04B 1/3447](#), [E04B 1/3448](#), [E04B 1/3449](#), [E04B 1/345](#) and [E04B 1/3455](#).

All groups listed in this Warning should be considered in order to perform a complete search.

T E04B 1/34305

- • {telescopic}

WARNING

*Groups [E04B 1/34305](#) - [E04B 1/34312](#) are incomplete pending reclassification of documents from group [E04B 1/343](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

T E04B 1/3431

- • • {with only one level of nesting}

N E04B 1/34312

- • • {Vertical telescopic structures}

T E04B 1/34315

- • {characterised by separable parts}

WARNING

*Groups [E04B 1/34315](#) - [E04B 1/34331](#) are incomplete pending reclassification of documents from group [E04B 1/343](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

N E04B 1/34317

- • • {Set of building elements forming a self-contained package for transport before assembly}

T E04B 1/34321

- • • {mainly constituted by panels}

T E04B 1/34326

- • • {mainly constituted by longitudinal elements}

T E04B 1/34331

- • • {mainly constituted by ~~threedimensional~~*three-dimensional* elements}

M E04B 1/34336

- • {Structures movable as a whole}, e.g. *mobile home structures (vehicles comprising living accommodation for people, e.g. caravans, camping or like vehicles [B60P 3/32](#))*

D E04B 1/34357

- • {Foldable or retractable structures}

<administratively transferred to [E04B 1/343](#)>

M E04B 1/34363

- • • {with provisions to raise or lower the whole structure}

D E04B 1/34368

- • • {Wheeled arch-type structures}

<administratively transferred to [E04B 1/3455](#)>

D E04B 1/34373

- • • • {collapsible}

<administratively transferred to [E04B 1/3455](#)>

D E04B 1/34378

- • • {Structures deriving their rigidity from concertina folds}

<administratively transferred to [E04B 1/3449](#)>

T E04B 1/34384

- • {Assembling details for foldable, separable, collapsible or retractable structures}

WARNING

*Group [E04B 1/34384](#) is incomplete pending reclassification of documents from group [E04B 1/343](#).
Groups [E04B 1/343](#) and [E04B 1/34384](#) should be considered in order to perform a complete search.*

D E04B 2001/34389

- • {Set of building elements forming a self-contained package for transport before assembly}

<administratively transferred to [E04B 1/34317](#)>

D E04B 2001/34394

- • {Vertical telescopic structures}

<administratively transferred to [E04B 1/34312](#)>

- C E04B 1/344 • • {with hinged parts}
- WARNING
*Group E04B 1/344 is incomplete pending reclassification of documents from group E04B 1/343.
 Group E04B 1/344 is also impacted by reclassification into group E04B 1/3449.
 Groups E04B 1/343, E04B 1/344 and E04B 1/3449 should be considered in order to perform a complete search.*
- T E04B 1/3441 • • • {with articulated bar-shaped elements}
- WARNING
*Group E04B 1/3441 is incomplete pending reclassification of documents from group E04B 1/343.
 Groups E04B 1/343 and E04B 1/3441 should be considered in order to perform a complete search.*
- C E04B 1/3442 • • • {folding out from a core cell}
- WARNING
*Group E04B 1/3442 is incomplete pending reclassification of documents from group E04B 1/343.
 Group E04B 1/3442 is also impacted by reclassification into group E04B 1/3449.
 Groups E04B 1/343, E04B 1/3442 and E04B 1/3449 should be considered in order to perform a complete search.*
- C E04B 1/3444 • • • • {with only lateral unfolding}
- WARNING
*Group E04B 1/3444 is incomplete pending reclassification of documents from group E04B 1/343.
 Group E04B 1/3444 is also impacted by reclassification into group E04B 1/3449.
 Groups E04B 1/343, E04B 1/3444 and E04B 1/3449 should be considered in order to perform a complete search.*
- C E04B 1/3445 • • • {foldable in a flat stack of parallel panels}
- WARNING
*Group E04B 1/3445 is incomplete pending reclassification of documents from group E04B 1/343.
 Group E04B 1/3445 is also impacted by reclassification into group E04B 1/3449.
 Groups E04B 1/343, E04B 1/3445 and E04B 1/3449 should be considered in order to perform a complete search.*
- T E04B 1/3447 • • • • {Portal- or saddle-shaped structures}
- WARNING
*Group E04B 1/3447 is incomplete pending reclassification of documents from group E04B 1/343.
 Groups E04B 1/343 and E04B 1/3447 should be considered in order to perform a complete search.*
- T E04B 1/3448 • • • {with rotating shell-forming segments}
- WARNING
Group E04B 1/3448 is incomplete pending reclassification of documents from group E04B 1/343.

Groups [E04B 1/343](#) and [E04B 1/3448](#) should be considered in order to perform a complete search.

- Q [E04B 1/3449](#) . . . {with living hinge ([E04B 1/345](#) takes precedence)}
- WARNING
Group [E04B 1/3449](#) is incomplete pending reclassification of documents from groups [E04B 1/343](#), [E04B 1/344](#), [E04B 1/3442](#), [E04B 1/3444](#) and [E04B 1/3445](#).
Group [E04B 1/3449](#) is also impacted by reclassification into group [E04B 1/345](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N [E04B 1/345](#) . . . {Structures deriving their rigidity from concertina folds}
- WARNING
Group [E04B 1/345](#) is incomplete pending reclassification of documents from groups [E04B 1/343](#) and [E04B 1/3449](#).
Groups [E04B 1/343](#), [E04B 1/3449](#) and [E04B 1/345](#) should be considered in order to perform a complete search.
- N [E04B 1/3455](#) . . {Wheeled arch-type structures}
- WARNING
Group [E04B 1/3455](#) is incomplete pending reclassification of documents from group [E04B 1/343](#).
Groups [E04B 1/343](#) and [E04B 1/3455](#) should be considered in order to perform a complete search.
- U [E04B 1/348](#) . Structures composed of units comprising at least considerable parts of two sides of a room, e.g. box-like or cell-like units closed or in skeleton form
- M [E04B 1/34869](#) . . {Elements for special technical purposes, e.g. with a sanitary equipment (~~combination of baths, douches, sinks, wash-basins, closets or urinals A47K 4/00; plumbing installations for baths, douches, or the like, E03C 1/01; panels serving for locating conduits E04C 2/521; ducts for receiving installation lines E04F 17/08~~)}
- U [E04B 1/38](#) . Connections for building structures in general
- NOTE
Connections specially adapted for particular building parts or for particular building structures are classified in the groups for those parts or structures, e.g. in groups [E04B 1/21](#), [E04B 2/00](#), [E04B 5/00](#), [E04B 7/00](#) or [E04B 9/00](#). Joints not specially adapted for building construction, or of more general application, are classified in the appropriate subclasses, e.g. [F16B](#).
- U [E04B 2001/386](#) . . {Nailable or screwable inserts for foam panels}
- N [E04B 1/388](#) . . {Separate connecting elements (Connecting devices specially adapted for embedding in concrete [E04B 1/41](#); Dowels, i.e. members adapted to penetrate the surfaces of two parts and to take the shear stresses [E04B 1/48](#))}
- N [E04B 2001/389](#) . . . {Brackets}
- D [E04B 1/40](#) . . {Separate connecting elements (for forms, falsework, or shutterings [E04G 17/00](#); releasable clips or clamps, hooks, wedges, wall-dowels, nails, bolts, rivets, screws, wood-screws [F16B](#))}
- <administratively transferred to [E04B 1/388](#)>
- D [E04B 2001/405](#) . . . {Brackets}
- <administratively transferred to [E04B 2001/389](#) ADD>

- M E04B 1/41
 - • ▾ Connecting devices specially adapted for embedding in concrete *or masonry* ({joist hangers [E04B 1/2612](#); shear dowels [E04B 1/483](#)};) spacers {other than masonry wall ties} for cavity walls [E04B 2/30](#), [E04B 2/44](#); connectors for reinforcing elements [E04C 5/16](#); ~~supporting devices for connector reinforcing rods for concrete walls~~ [E04G 21/125](#); fastening frames to the border of openings [E06B 1/56](#))
- M E04B 1/4107
 - • • ▾ {Longitudinal elements having an open profile, with the opening parallel to the concrete or masonry surface, i.e. anchoring rails}
- M E04B 1/4114
 - • • ▾ {Elements with sockets ([E04B 1/4107](#) takes precedence)}
- M E04B 1/4121
 - • • • ▾ {with internal threads or non-adjustable captive nuts}
- M E04B 1/4128
 - • • • ▾ {receiving adjustable or removal nuts}
- M E04B 1/4135
 - • • • ▾ {receiving removal bolt heads ([E04B 1/415](#) takes precedence)}
- M E04B 1/4142
 - • • • ▾ {with transverse hook- or loop-receiving parts ([E04B 1/415](#) takes precedence)}
- M E04B 1/415
 - • • • ▾ {with captive and extendable anchoring parts, e.g. spring-loaded bolts, hanging rings}
- M E04B 1/4157
 - • • ▾ {Longitudinally-externally threaded elements extending from the concrete or masonry, e.g. anchoring bolt with embedded head}
- M E04B 1/4164
 - • • • ▾ {with an adjustment sleeve}
- M E04B 1/4171
 - • • ▾ {Nailable or non-threaded screwable elements (dowels [F16B 13/00](#))}
- M E04B 1/4178
 - • • ▾ {Masonry wall ties (with insulation-layer locating devices [E04B 1/7616](#); replacing or adding wall ties [E04G 23/0222](#))}
- M E04B 1/4185
 - • • • ▾ {for cavity walls with both wall leaves made of masonry (spacers for permanent forms [E04B 2/86](#))}
- M E04B 2001/4192
 - • • ▾ {attached to concrete reinforcing elements, e.g. rods or wires}
- M E04B 1/48
 - • ▾ Dowels, i.e. members adapted to penetrate the surfaces of two parts and to take the shear stresses
- M E04B 1/483
 - • • ▾ {Shear dowels to be embedded in concrete}
- M E04B 1/486
 - • • ▾ {Shear dowels for wood ([E04B 1/49](#) takes precedence)}
- M E04B 1/49
 - • • ▾ with self-penetrating parts, e.g. claw dowels ~~{(nail plates [F16B 15/0023](#))}~~
- D E04B 1/54
 - • {Joints substantially without separate connecting elements, e.g. jointing by inter-engagement (welded, glued, or the like joints, in general [F16B](#))}
 - <administratively transferred to [E04B 1/541](#)>
- N E04B 1/541
 - • {Joints substantially without separate connecting elements, e.g. jointing by inter-engagement}
- U E04B 1/61
 - • of slab-shaped building elements with each other
- U E04B 1/6108
 - • • {the frontal surfaces of the slabs connected together}
- U E04B 1/612
 - • • • {by means between frontal surfaces}
- M E04B 1/6183
 - • • • ▾ {with rotatable locking means co-operating with a recess ~~(similar devices for sliding doors [E05B 65/0817](#))}~~
- U E04B 1/62
 - Insulation or other protection; Elements or use of specified material therefor (chemical compositions [C01](#) - [C11](#); implements for applying insulation or sealings [E04F 21/00](#); buildings to withstand or to provide protection against external undesired influences [E04H 9/00](#); sealing pipes in walls or partitions [F16L 5/02](#); shielding against dangerous radiation [G21F](#); constructions of particular parts of buildings, see the relevant groups for those parts)

- M E04B 1/74
- *Heat, sound or noise insulation, absorption, or reflection (forms of, or arrangements in, rooms for influencing or directing sound E04B 1/99); Heat, sound or noise insulation, absorption, or reflection (forms of, or arrangements in, rooms for influencing or directing sound E04B 1/99)*. Other building methods affording favourable thermal or acoustical conditions, e.g. accumulating of heat within walls (fire protection E04B 1/94; elements chiefly adapted for structural purposes E04C 1/00 - E04C 3/00; chiefly adapted for surface coverings E04F 13/00; as underlayers for floor coverings E04F 15/18; closures for wall or like openings E06B)
- M E04B 1/82
- • specifically with respect to sound only ({of floors or ceilings E04B 9/001; of flooring E04F 15/20};) noise damping in ducts or channels E04F 17/00; {sound damping devices for pipes F16L 55/033}; noise damping in general G10K 11/00 G10K 11/16)
- U E04B 2/00
- Walls, e.g. partitions, for buildings; Wall construction with regard to insulation; Connections specially adapted to walls (connections for building structures in general E04B 1/38; insulation for buildings in general E04B 1/62; building elements of relatively thin form for parts of buildings E04C 2/00)**
- M E04B 2/74
- Removable non-load-bearing partitions; Partitions with a free upper edge (framed panels E04C 2/38) *{modular coordination}*
- U E04B 2/76
- • with framework or posts of metal {(details of connections, thresholds or skirtings E04B 2/82)}
- M E04B 2/78
- • characterised by special cross-section of the frame- members {as far as important for securing wall panels to a framework with or without the help of cover-strips *{separate connecting means, e.g. clip E04B 2/74; connections between uprights and cross-members E04B 2/76}*}
- U E04B 5/00
- Floors; Floor construction with regard to insulation; Connections specially adapted therefor (elements for floors, e.g. bricks, stones, filling bodies, girders, E04C; flooring as finishing work, insulation of flooring, sectional false floors, e.g. for computers E04F 15/00)**
- U E04B 5/02
- Load-carrying floor structures formed substantially of prefabricated units (E04B 5/43 - E04B 5/48 take precedence)
- M E04B 5/12
- • with wooden beams (E04B 5/14 takes precedence) *{also means for supporting beams; {shores or struts E04G 25/00}*}
- M E04B 7/00
- Roofs; Roof construction with regard to insulation (structures for roofs as well as for floors E04B 5/00; ceilings E04B 9/00; greenhouses A01G 9/14; large containers having floating covers B65D 88/34; roof trusses, *trusslike truss-like* structures, joists E04C 3/02; *roof covering E04D; roof coverings E04D*)**
- M E04B 7/02
- with plane sloping surfaces, e.g. saddle roofs (*{canopies E04F 10/00;}* E04B 7/12 takes precedence)
- U E04B 9/00
- Ceilings; Construction of ceilings, e.g. false ceilings; Ceiling construction with regard to insulation (ceilings used as forms for making floors E04B 5/00; coverings or linings for ceilings E04F 13/00)**
- M E04B 9/32
- Translucent ceilings, i.e. permitting both the transmission and diffusion of light ({E04B 9/303 and} E04B 9/34 *take takes* precedence; *details of lighting devices; of general application F21V; screens F21V 11/00; lighting F21*)
- M E04B 9/34
- {Grid-like or} open-work ceilings, e.g. lattice type *{boxlike box-like* modules, acoustic baffles} (E04B 9/30 takes precedence; *grids for lighting devices F21V*)

N E04B 2103/00 - INDEXING SCHEME ASSOCIATED WITH E04B 1/00 - E04B 9/00, RELATING TO MATERIAL CONSTITUTION OF SLABS, SHEETS OR THE LIKE
E04B 2103/00

Project: RP10483 (E05B)

U E05B 65/00 **Locks {or fastenings} for special use**
U E05B 65/08 · for sliding wings
U E05B 65/0811 · · {the bolts pivoting about an axis perpendicular to the wings}
M E05B 65/0817 · · · {with additional movement, e.g. toggle, overcenter, excentric (~~toggle fasteners in general E05C 19/14; similar fasteners for building slabs E04B 1/6183~~)}

Project: RP10483 (F16B)

U F16B 15/00 **Nails; Staples (surgical staples A61B 17/064; manufacture of nails or staples B21G {; drawing-pins, thumb-tacks B43M 15/00}; railway spikes E01B 9/06)**
M F16B 15/0023 · {Nail plates (~~claw dowels for building structures E04B 1/49; machines for driving in nail plates B27F 7/15~~)}

Project: RP11508 (A23V)

M A23V **INDEXING SCHEME RELATING TO FOODS, FOODSTUFFS OR NON-ALCOHOLIC BEVERAGES AND LACTIC OR PROPIONIC ACID BACTERIA USED IN FOODSTUFFS OR FOOD PREPARATION**

NOTE

~~This subclass constitutes an internal scheme for indexing only.~~

In this subclass, combination sets (C-Sets) are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of A23V.

M A23V 2002/00 **Food compositions, function of food ingredients or processes for food or foodstuffs**

NOTE

~~1. Indexing codes of main groups A23V 2200/00, A23V 2250/00 and A23V 2300/00 are used in combination as C-sets with the base symbol A23V 2002/00 to indicate the composition, function of ingredients or processes.~~

1. In this group, C-Sets are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of A23V.

~~2-~~

~~The indexing codes of this group are used in combination with the ingredients compositions codes~~

M A23V 2200/00 **Function of food ingredients**

NOTE

~~The indexing codes under this group are used in combination with the codes for ingredients compositions~~

In this group, C-Sets are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of A23V.

M A23V 2250/00**Food ingredients**NOTE

In this group, C-Sets are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of [A23V](#).

- U A23V 2250/02 · Acid
- U A23V 2250/06 · · Amino acid
- M A23V 2250/0652 · · · **Tyrosin** Tyrosine
- U A23V 2250/15 · Inorganic Compounds
- U A23V 2250/156 · · Mineral combination (undefined extract [A23V 2250/1638](#))
- M A23V 2250/1572 · · · **Bere** Boron
- M A23V 2250/1574 · · · **Brome** Bromine
- M A23V 2250/159 · · · **Fluor** Fluorine
- U A23V 2250/50 · Polysaccharides, gums
- U A23V 2250/502 · · Gums
- M A23V 2250/5058 · · · **Glucmannan** Glucmannan

M A23V 2300/00**Processes**NOTE

In this group, C-Sets are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of [A23V](#).

N A23V 2400/00**Lactic or propionic acid bacteria**NOTE

In this group, C-Sets are used. Detailed information about C-Sets construction and the associated syntax rules can be found in the definitions of [A23V](#).

- N A23V 2400/11 · Lactobacillus
- N A23V 2400/113 · · Acidophilus
- N A23V 2400/115 · · Amylovorus
- N A23V 2400/117 · · Animalis
- N A23V 2400/119 · · Bifermentans
- N A23V 2400/121 · · Brevis
- N A23V 2400/123 · · Bulgaricus
- N A23V 2400/125 · · Casei
- N A23V 2400/127 · · Clearans
- N A23V 2400/129 · · Cornyiformis
- N A23V 2400/131 · · Cremoris
- N A23V 2400/133 · · Curvatus
- N A23V 2400/135 · · Danicus
- N A23V 2400/137 · · Delbrueckii
- N A23V 2400/139 · · Diacetyllactis
- N A23V 2400/141 · · Farciminis
- N A23V 2400/143 · · Fermentum
- N A23V 2400/145 · · Gasseri
- N A23V 2400/147 · · Helveticus
- N A23V 2400/149 · · Jensenii

N	A23V 2400/151	. . <i>Johnsonii</i>
N	A23V 2400/153	. . <i>Jugurti</i>
N	A23V 2400/155	. . <i>Kefiri</i>
N	A23V 2400/157	. . <i>Lactis</i>
N	A23V 2400/159	. . <i>Leichmannii</i>
N	A23V 2400/161	. . <i>Mesenteroides</i>
N	A23V 2400/163	. . <i>Oris</i>
N	A23V 2400/165	. . <i>Paracasei</i>
N	A23V 2400/167	. . <i>Pentosus</i>
N	A23V 2400/169	. . <i>Plantarum</i>
N	A23V 2400/171	. . <i>Pontis</i>
N	A23V 2400/173	. . <i>Reuteri</i>
N	A23V 2400/175	. . <i>Rhamnosus</i>
N	A23V 2400/177	. . <i>Ruminis</i>
N	A23V 2400/179	. . <i>Sakei</i>
N	A23V 2400/181	. . <i>Salivarius</i>
N	A23V 2400/183	. . <i>Sanfranciscensis</i>
N	A23V 2400/185	. . <i>Sulfurica</i>
N	A23V 2400/187	. . <i>Zeeae</i>
N	A23V 2400/21	. <i>Streptococcus, lactococcus</i>
N	A23V 2400/213	. . <i>Acidominimus</i>
N	A23V 2400/215	. . <i>Cremoris</i>
N	A23V 2400/217	. . <i>Cricetus</i>
N	A23V 2400/219	. . <i>Diacetilactis</i>
N	A23V 2400/221	. . <i>Downeii</i>
N	A23V 2400/223	. . <i>Durans</i>
N	A23V 2400/225	. . <i>Faecalis</i>
N	A23V 2400/227	. . <i>Ferrus</i>
N	A23V 2400/229	. . <i>Kefiri</i>
N	A23V 2400/231	. . <i>Lactis</i>
N	A23V 2400/233	. . <i>Macedonius</i>
N	A23V 2400/235	. . <i>Macacae</i>
N	A23V 2400/237	. . <i>Mutans</i>
N	A23V 2400/239	. . <i>Oralis</i>
N	A23V 2400/241	. . <i>Paracitroorarius</i>
N	A23V 2400/243	. . <i>Rattus</i>
N	A23V 2400/245	. . <i>Salivarius</i>
N	A23V 2400/247	. . <i>Sobrinus</i>
N	A23V 2400/249	. . <i>Thermophilus</i>
N	A23V 2400/251	. . <i>Uberis</i>
N	A23V 2400/31	. <i>Leuconostoc</i>
N	A23V 2400/313	. . <i>Carnosum</i>
N	A23V 2400/315	. . <i>Citreum</i>
N	A23V 2400/317	. . <i>Cremoris</i>

N	A23V 2400/319	. . <i>Dextranicum</i>
N	A23V 2400/321	. . <i>Mesenteroides</i>
N	A23V 2400/323	. . <i>Paramesenteroides</i>
N	A23V 2400/325	. . <i>Pseudomesenteroides</i>
N	A23V 2400/41	. <i>Pediococcus</i>
N	A23V 2400/413	. . <i>Acidilactici</i>
N	A23V 2400/415	. . <i>Cellicola</i>
N	A23V 2400/417	. . <i>Damnosus</i>
N	A23V 2400/419	. . <i>Dextrinicus</i>
N	A23V 2400/421	. . <i>Halophilus</i>
N	A23V 2400/423	. . <i>Inopinatus</i>
N	A23V 2400/425	. . <i>Paravulus</i>
N	A23V 2400/427	. . <i>Pentosaceus</i>
N	A23V 2400/429	. . <i>Urinaeequi</i>
N	A23V 2400/51	. <i>Bifidobacterium</i>
N	A23V 2400/513	. . <i>Adolescentes</i>
N	A23V 2400/515	. . <i>Animalis</i>
N	A23V 2400/517	. . <i>Bifidum</i>
N	A23V 2400/519	. . <i>Breve</i>
N	A23V 2400/521	. . <i>Catenulatum</i>
N	A23V 2400/523	. . <i>Coryneforme</i>
N	A23V 2400/525	. . <i>Dentium</i>
N	A23V 2400/527	. . <i>Gallicum</i>
N	A23V 2400/529	. . <i>Infantis</i>
N	A23V 2400/531	. . <i>Lactis</i>
N	A23V 2400/533	. . <i>Longum</i>
N	A23V 2400/535	. . <i>Pseudocatenulatum</i>
N	A23V 2400/537	. . <i>Thermacidophilum</i>
N	A23V 2400/61	. <i>Propionibacterium</i>
N	A23V 2400/613	. . <i>Acidipropionici</i>
N	A23V 2400/615	. . <i>Avidum</i>
N	A23V 2400/617	. . <i>Freudenreichii</i>
N	A23V 2400/619	. . <i>Jensenii</i>
N	A23V 2400/621	. . <i>Propionicum</i>
N	A23V 2400/623	. . <i>Shermanii</i>

Project: RP11508 (A23Y)**D A23Y****INDEXING SCHEME RELATING TO LACTIC OR PROPIONIC ACID BACTERIA USED IN FOODSTUFFS OR FOOD PREPARATION**NOTE

This subclass constitutes an internal scheme for indexing only. The indexing codes of A23Y are used when classifying technical subjects in the food-related subclasses A23B-A23L.

D	A23Y 2220/00	Lactobacillus
		<administratively transferred to A23V 2400/11 ADD>
D	A23Y 2220/03	• Acidophilus <administratively transferred to A23V 2400/113 ADD>
D	A23Y 2220/05	• Amylovorus <administratively transferred to A23V 2400/115 ADD>
D	A23Y 2220/07	• Animalis <administratively transferred to A23V 2400/117 ADD>
D	A23Y 2220/09	• Bifermentans <administratively transferred to A23V 2400/119 ADD>
D	A23Y 2220/13	• Brevis <administratively transferred to A23V 2400/121 ADD>
D	A23Y 2220/15	• Bulgaricus <administratively transferred to A23V 2400/123 ADD>
D	A23Y 2220/17	• Casei <administratively transferred to A23V 2400/125 ADD>
D	A23Y 2220/19	• Clearans <administratively transferred to A23V 2400/127 ADD>
D	A23Y 2220/21	• Coryniformis <administratively transferred to A23V 2400/129 ADD>
D	A23Y 2220/23	• Cremonis <administratively transferred to A23V 2400/131 ADD>
D	A23Y 2220/25	• Curvatus <administratively transferred to A23V 2400/133 ADD>
D	A23Y 2220/27	• Danicus <administratively transferred to A23V 2400/135 ADD>
D	A23Y 2220/29	• Delbrueckii <administratively transferred to A23V 2400/137 ADD>
D	A23Y 2220/31	• Diacetylactis <administratively transferred to A23V 2400/139 ADD>
D	A23Y 2220/33	• Farciminis <administratively transferred to A23V 2400/141 ADD>
D	A23Y 2220/35	• Fermentum <administratively transferred to A23V 2400/143 ADD>
D	A23Y 2220/37	• Gasseri <administratively transferred to A23V 2400/145 ADD>
D	A23Y 2220/39	• Helveticus <administratively transferred to A23V 2400/147 ADD>
D	A23Y 2220/41	• Jensenii <administratively transferred to A23V 2400/149 ADD>
D	A23Y 2220/43	• Johnsonii <administratively transferred to A23V 2400/151 ADD>

- D A23Y 2220/45 • Jugurti
 <administratively transferred to [A23V 2400/153](#) ADD>
- D A23Y 2220/47 • Kefiri
 <administratively transferred to [A23V 2400/155](#) ADD>
- D A23Y 2220/49 • Lactis
 <administratively transferred to [A23V 2400/157](#) ADD>
- D A23Y 2220/51 • Leichmanii
 <administratively transferred to [A23V 2400/159](#) ADD>
- D A23Y 2220/53 • Mesenteroides
 <administratively transferred to [A23V 2400/161](#) ADD>
- D A23Y 2220/61 • Oris
 <administratively transferred to [A23V 2400/163](#) ADD>
- D A23Y 2220/63 • Paracasei
 <administratively transferred to [A23V 2400/165](#) ADD>
- D A23Y 2220/65 • Pentosus
 <administratively transferred to [A23V 2400/167](#) ADD>
- D A23Y 2220/67 • Plantarum
 <administratively transferred to [A23V 2400/169](#) ADD>
- D A23Y 2220/69 • Pontis
 <administratively transferred to [A23V 2400/171](#) ADD>
- D A23Y 2220/71 • Reuteri
 <administratively transferred to [A23V 2400/173](#) ADD>
- D A23Y 2220/73 • Rhamnosus
 <administratively transferred to [A23V 2400/175](#) ADD>
- D A23Y 2220/75 • Ruminis
 <administratively transferred to [A23V 2400/177](#) ADD>
- D A23Y 2220/77 • Sakei
 <administratively transferred to [A23V 2400/179](#) ADD>
- D A23Y 2220/79 • Salivarius
 <administratively transferred to [A23V 2400/181](#) ADD>
- D A23Y 2220/81 • Sanfranciscensis
 <administratively transferred to [A23V 2400/183](#) ADD>
- D A23Y 2220/83 • Sulfurica
 <administratively transferred to [A23V 2400/185](#) ADD>
- D A23Y 2220/85 • Zeae
 <administratively transferred to [A23V 2400/187](#) ADD>
- D A23Y 2240/00 ~~Streptococcus, lactococcus~~**
 <administratively transferred to [A23V 2400/21](#) ADD>
- D A23Y 2240/15 • Acidominimus
 <administratively transferred to [A23V 2400/213](#) ADD>
- D A23Y 2240/21 • Cremoris
 <administratively transferred to [A23V 2400/215](#) ADD>

D	A23Y 2240/23	• <i>Gricetus</i> <administratively transferred to A23V 2400/217 ADD>
D	A23Y 2240/25	• <i>Diacetilactis</i> <administratively transferred to A23V 2400/219 ADD>
D	A23Y 2240/27	• <i>Downeii</i> <administratively transferred to A23V 2400/221 ADD>
D	A23Y 2240/29	• <i>Durans</i> <administratively transferred to A23V 2400/223 ADD>
D	A23Y 2240/33	• <i>Faecalis</i> <administratively transferred to A23V 2400/225 ADD>
D	A23Y 2240/35	• <i>Ferrus</i> <administratively transferred to A23V 2400/227 ADD>
D	A23Y 2240/37	• <i>Kefir</i> <administratively transferred to A23V 2400/229 ADD>
D	A23Y 2240/41	• <i>Lactis</i> <administratively transferred to A23V 2400/231 ADD>
D	A23Y 2240/45	• <i>Macedonius</i> <administratively transferred to A23V 2400/233 ADD>
D	A23Y 2240/47	• <i>Macacae</i> <administratively transferred to A23V 2400/235 ADD>
D	A23Y 2240/49	• <i>Mutans</i> <administratively transferred to A23V 2400/237 ADD>
D	A23Y 2240/53	• <i>Oralis</i> <administratively transferred to A23V 2400/239 ADD>
D	A23Y 2240/55	• <i>Paracitroorarus</i> <administratively transferred to A23V 2400/241 ADD>
D	A23Y 2240/61	• <i>Rattus</i> <administratively transferred to A23V 2400/243 ADD>
D	A23Y 2240/65	• <i>Salivarius</i> <administratively transferred to A23V 2400/245 ADD>
D	A23Y 2240/71	• <i>Sobrinus</i> <administratively transferred to A23V 2400/247 ADD>
D	A23Y 2240/75	• <i>Thermophilus</i> <administratively transferred to A23V 2400/249 ADD>
D	A23Y 2240/81	• <i>Uberis</i> <administratively transferred to A23V 2400/251 ADD>
D	A23Y 2260/00	Leuconostoc <administratively transferred to A23V 2400/31 ADD>
D	A23Y 2260/15	• <i>Carnosum</i> <administratively transferred to A23V 2400/313 ADD>
D	A23Y 2260/21	• <i>Citreum</i> <administratively transferred to A23V 2400/315 ADD>

- D A23Y 2260/25 · *Cremoris*
<administratively transferred to [A23V 2400/317](#) ADD>
- D A23Y 2260/31 · *Dextranicum*
<administratively transferred to [A23V 2400/319](#) ADD>
- D A23Y 2260/35 · *Mesenteroides*
<administratively transferred to [A23V 2400/321](#) ADD>
- D A23Y 2260/41 · *Paramesenteroides*
<administratively transferred to [A23V 2400/323](#) ADD>
- D A23Y 2260/45 · *Pseudomesenteroides*
<administratively transferred to [A23V 2400/325](#) ADD>
- D A23Y 2280/00 *Pediococcus***
<administratively transferred to [A23V 2400/41](#) ADD>
- D A23Y 2280/15 · *Acidilactici*
<administratively transferred to [A23V 2400/413](#) ADD>
- D A23Y 2280/21 · *Gellicola*
<administratively transferred to [A23V 2400/415](#) ADD>
- D A23Y 2280/25 · *Damnosus*
<administratively transferred to [A23V 2400/417](#) ADD>
- D A23Y 2280/31 · *Dextrinicus*
<administratively transferred to [A23V 2400/419](#) ADD>
- D A23Y 2280/35 · *Halophilus*
<administratively transferred to [A23V 2400/421](#) ADD>
- D A23Y 2280/41 · *Inopinatus*
<administratively transferred to [A23V 2400/423](#) ADD>
- D A23Y 2280/51 · *Paravulus*
<administratively transferred to [A23V 2400/425](#) ADD>
- D A23Y 2280/55 · *Pentosaceus*
<administratively transferred to [A23V 2400/427](#) ADD>
- D A23Y 2280/61 · *Urinaeequi*
<administratively transferred to [A23V 2400/429](#) ADD>
- D A23Y 2300/00 *Bifidobacterium***
<administratively transferred to [A23V 2400/51](#) ADD>
- D A23Y 2300/19 · *Adolescentis*
<administratively transferred to [A23V 2400/513](#) ADD>
- D A23Y 2300/21 · *Animalis*
<administratively transferred to [A23V 2400/515](#) ADD>
- D A23Y 2300/25 · *Bifidum*
<administratively transferred to [A23V 2400/517](#) ADD>
- D A23Y 2300/29 · *Breve*
<administratively transferred to [A23V 2400/519](#) ADD>
- D A23Y 2300/31 · *Catenulatum*
<administratively transferred to [A23V 2400/521](#) ADD>

- D A23Y 2300/35 · *Goryneforme*
<administratively transferred to [A23V 2400/523](#) ADD>
- D A23Y 2300/39 · *Dentium*
<administratively transferred to [A23V 2400/525](#) ADD>
- D A23Y 2300/41 · *Gallicum*
<administratively transferred to [A23V 2400/527](#) ADD>
- D A23Y 2300/45 · *Infantis*
<administratively transferred to [A23V 2400/529](#) ADD>
- D A23Y 2300/49 · *Lactis*
<administratively transferred to [A23V 2400/531](#) ADD>
- D A23Y 2300/55 · *Longum*
<administratively transferred to [A23V 2400/533](#) ADD>
- D A23Y 2300/59 · *Pseudocatenulatum*
<administratively transferred to [A23V 2400/535](#) ADD>
- D A23Y 2300/65 · *Thermacidophilum*
<administratively transferred to [A23V 2400/537](#) ADD>
- D A23Y 2320/00 *Propionibacterium***
<administratively transferred to [A23V 2400/61](#) ADD>
- D A23Y 2320/15 · *Acidopropionici*
<administratively transferred to [A23V 2400/613](#) ADD>
- D A23Y 2320/19 · *Avidum*
<administratively transferred to [A23V 2400/615](#) ADD>
- D A23Y 2320/25 · *Freudenreichii*
<administratively transferred to [A23V 2400/617](#) ADD>
- D A23Y 2320/29 · *Jensenii*
<administratively transferred to [A23V 2400/619](#) ADD>
- D A23Y 2320/35 · *Propionicum*
<administratively transferred to [A23V 2400/621](#) ADD>
- D A23Y 2320/39 · *Shermanii*
<administratively transferred to [A23V 2400/623](#) ADD>

Project: RP11515 (A61K)

- U A61K 47/00 Medicinal preparations characterised by the non-active ingredients used, e.g. carriers or inert additives; Targeting or modifying agents chemically bound to the active ingredient**
- U A61K 47/50 · the non-active ingredient being chemically bound to the active ingredient, e.g. polymer-drug conjugates
- U A61K 47/51 · · the non-active ingredient being a modifying agent
- U A61K 47/68 · · · the modifying agent being an antibody, an immunoglobulin or a fragment thereof, e.g. an Fc-fragment
- U A61K 47/6801 · · · · {Drug-antibody or immunoglobulin conjugates defined by the pharmacologically or therapeutically active agent}

- C A61K 47/6803 {Drugs conjugated to an antibody or immunoglobulin, e.g. cisplatin-antibody conjugates}

WARNING

Group [A61K 47/6803](#) is impacted by reclassification into groups [A61K 47/68035](#), [A61K 47/68033](#) and [A61K 47/68031](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N A61K 47/68031 {the drug being an auristatin}

WARNING

Group [A61K 47/68031](#) is incomplete pending reclassification of documents from group [A61K 47/6803](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N A61K 47/68033 {the drug being a maytansine}

WARNING

Group [A61K 47/68033](#) is incomplete pending reclassification of documents from group [A61K 47/6803](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N A61K 47/68035 {the drug being a pyrrolbenzodiazepine}

WARNING

Group [A61K 47/68035](#) is incomplete pending reclassification of documents from group [A61K 47/6803](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N A61K 47/68037 {the drug being a camptothecin [CPT] or derivatives}

WARNING

Group [A61K 47/68037](#) is incomplete pending reclassification of documents from group [A61K 47/6803](#). All groups listed in this Warning should be considered in order to perform a complete search.

U A61K 49/00**Preparations for testing in vivo**

- U A61K 49/001 . {Preparation for luminescence or biological staining}
- U A61K 49/0013 . . {Luminescence}
- U A61K 49/0017 . . . {Fluorescence in vivo}
- M A61K 49/0019 {characterised by the fluorescent group, e.g. *oligomeric, polymeric or dendritic molecules*}

NOTE

{If this fluorescent group is complexed or covalently linked to a carrier, classification is also made according to the nature of the carrier in the appropriate [A61K 49/005](#) subgroup.}

- M A61K 49/0021 {the fluorescent group being a small organic molecule (~~oligomeric, polymeric, dendritic molecules: [A61K 49/0019](#)~~)}

NOTE

if this fluorescent group is complexed or covalently linked to a carrier, classification is also made according to the nature of the carrier in the appropriate [A61K 49/005](#) subgroup

- M A61K 49/22 · Echographic preparations; *Ultrasound imaging preparations* {;*Ultrasound imaging preparation*} { Optoacoustic imaging preparations}
- U A61K 51/00 **Preparations containing radioactive substances for use in therapy or testing in vivo**
- U A61K 51/02 · characterised by the carrier {, i.e. characterised by the agent or material covalently linked or complexing the radioactive nucleus}
- U A61K 51/04 · · Organic compounds
NOTE
 Organic compounds used as carriers
- U A61K 51/041 · · · {Heterocyclic compounds}
NOTE
 Under this group, the last place rule is followed
- U A61K 51/0429 · · · · {having sulfur as a ring hetero atom}
- M A61K 51/0434 · · · · · {having six-membered rings, e.g. thioxanthenes (*thiotixene* A61K 51/0459*thiothixene* A61K 51/0459)}

Project: RP11516 (H04J)

- C H04J 14/00 **Optical multiplex systems (~~optical coupling, mixing or splitting, per se G02B~~)**
WARNING
*Group H04J 14/00 is impacted by reclassification into groups H04J 14/05 and H04J 14/07.
 All groups listed in this Warning should be considered in order to perform a complete search.*
- C H04J 14/02 · Wavelength-division multiplex systems
WARNING
*Group H04J 14/02 is impacted by reclassification into groups H04J 14/03, H04J 14/0305 and H04J 14/0307.
 All groups listed in this Warning should be considered in order to perform a complete search.*
- U H04J 14/0201 · · {Add-and-drop multiplexing}
- U H04J 14/0202 · · · {Arrangements therefor}
- C H04J 14/021 · · · · {Reconfigurable arrangements, e.g. reconfigurable optical add/drop multiplexers [ROADM] or tunable optical add/drop multiplexers [TOADM]}
WARNING
*Group H04J 14/021 is impacted by reclassification into groups H04J 14/02122 and H04J 14/02126.
 Groups H04J 14/021, H04J 14/02122 and H04J 14/02126 should be considered in order to perform a complete search.*
- C H04J 14/0212 · · · · · {using optical switches or wavelength selective switches [WSS]}
WARNING
*Group H04J 14/0212 is impacted by reclassification into groups H04J 14/02122 and H04J 14/02126.
 Groups H04J 14/0212, H04J 14/02122 and H04J 14/02126 should be considered in order to perform a complete search.*

- N H04J 14/02122 {Colourless, directionless or contentionless [CDC] arrangements}
WARNING
 Group [H04J 14/02122](#) is incomplete pending reclassification of documents from groups [H04J 14/021](#) and [H04J 14/0212](#). Groups [H04J 14/021](#), [H04J 14/0212](#) and [H04J 14/02122](#) should be considered in order to perform a complete search.
- N H04J 14/02126 {Multicast switch arrangements}
WARNING
 Group [H04J 14/02126](#) is incomplete pending reclassification of documents from groups [H04J 14/021](#) and [H04J 14/0212](#). Groups [H04J 14/021](#), [H04J 14/0212](#) and [H04J 14/02126](#) should be considered in order to perform a complete search.
- C H04J 14/0221 . . {Power control, e.g. to keep the total optical power constant}
WARNING
 Group [H04J 14/0221](#) is impacted by reclassification into groups [H04J 14/02212](#), [H04J 14/02214](#), [H04J 14/02216](#), [H04J 14/02218](#) and [H04J 14/02219](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N H04J 14/02212 . . . {by addition of a dummy signal}
WARNING
 Group [H04J 14/02212](#) is incomplete pending reclassification of documents from group [H04J 14/0221](#). Groups [H04J 14/0221](#) and [H04J 14/02212](#) should be considered in order to perform a complete search.
- N H04J 14/02214 . . . {by re-allocation of data channels}
WARNING
 Group [H04J 14/02214](#) is incomplete pending reclassification of documents from group [H04J 14/0221](#). Groups [H04J 14/0221](#) and [H04J 14/02214](#) should be considered in order to perform a complete search.
- N H04J 14/02216 . . . {by gain equalization}
WARNING
 Group [H04J 14/02216](#) is incomplete pending reclassification of documents from group [H04J 14/0221](#). Groups [H04J 14/0221](#) and [H04J 14/02216](#) should be considered in order to perform a complete search.
- N H04J 14/02218 . . . {Centralized control}
WARNING
 Group [H04J 14/02218](#) is incomplete pending reclassification of documents from group [H04J 14/0221](#). Groups [H04J 14/0221](#) and [H04J 14/02218](#) should be considered in order to perform a complete search.
- N H04J 14/02219 . . . {Distributed control}
WARNING
 Group [H04J 14/02219](#) is incomplete pending reclassification of documents from group [H04J 14/0221](#).

Groups [H04J 14/0221](#) and [H04J 14/02219](#) should be considered in order to perform a complete search.

- U H04J 14/0227 . . {Operation, administration, maintenance or provisioning [OAMP] of WDM networks, e.g. media access, routing or wavelength allocation}
- U H04J 14/0241 . . . {Wavelength allocation for communications one-to-one, e.g. unicasting wavelengths}
- U H04J 14/0242 {in WDM-PON}
- M H04J 2014/0253 {Allocation of downstream wavelengths for upstream transmission ~~(optical transmission using a single light source for multiple stations H04B 10/2587)~~}
- C H04J 14/0254 . . . {Optical medium access}

WARNING

Group [H04J 14/0254](#) is impacted by reclassification into groups [H04J 14/02762](#) and [H04J 14/02764](#).

Groups [H04J 14/0254](#), [H04J 14/02762](#) and [H04J 14/02764](#) should be considered in order to perform a complete search.

- M H04J 14/0267 {Optical signaling or routing ~~(routing or path finding of packets in data switching networks H04L 45/00)~~}
- M H04J 14/0268 {Restoration of optical paths, e.g. p-cycles ~~(route fault recovery of packets in data switching networks H04L 45/28)~~}
- M H04J 14/0269 {using tables for routing ~~(organization of routing tables of packets in data switching networks H04L 45/54)~~}
- M H04J 14/0272 {Transmission of OAMP information ~~(using a supervisory or additional signal for monitoring of optical transmission parameters in general H04B 10/077)~~}
- U H04J 14/0276 {using pilot tones}
- N [H04J 14/02762](#) {Spectrum slot allocation}

WARNING

Group [H04J 14/02762](#) is incomplete pending reclassification of documents from group [H04J 14/0254](#).

Groups [H04J 14/0254](#) and [H04J 14/02762](#) should be considered in order to perform a complete search.

- N [H04J 14/02764](#) {Multiplex arrangements for radio-frequency networks access; policies therefor (radio over fibre arrangement [H04B 10/2575](#))}

WARNING

Group [H04J 14/02764](#) is incomplete pending reclassification of documents from group [H04J 14/0254](#).

Groups [H04J 14/0254](#) and [H04J 14/02764](#) should be considered in order to perform a complete search.

- C H04J 14/0278 . . {WDM optical network architectures}

WARNING

Group [H04J 14/0278](#) is impacted by reclassification into group [H04J 14/02862](#).

Groups [H04J 14/0278](#) and [H04J 14/02862](#) should be considered in order to perform a complete search.

- U H04J 14/0286 . . . {WDM hierarchical architectures}

- N H04J 14/02862
- • • {WDM data centre network [DCN] architectures}
- WARNING
Group [H04J 14/02862](#) is incomplete pending reclassification of documents from group [H04J 14/0278](#).
Groups [H04J 14/0278](#) and [H04J 14/02862](#) should be considered in order to perform a complete search.
- U H04J 14/0298
- {with sub-carrier multiplexing [SCM]}
- N H04J 14/03
- • {WDM arrangements (ADM arrangements [H04J 14/0202](#); WDM network architectures [H04J 14/0278](#))}
- WARNING
Groups [H04J 14/03](#), [H04J 14/0305](#) and [H04J 14/0307](#) are incomplete pending reclassification of documents from group [H04J 14/02](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H04J 14/0305
- • • {in end terminals}
- N H04J 14/0307
- • • {Multiplexers; Demultiplexers}
- C H04J 14/04
- Mode multiplex systems
- WARNING
Group [H04J 14/04](#) is impacted by reclassification into group [H04J 14/052](#).
Groups [H04J 14/04](#) and [H04J 14/052](#) should be considered in order to perform a complete search.
- N H04J 14/05
- {Spatial multiplexing systems}
- WARNING
Group [H04J 14/05](#) is incomplete pending reclassification of documents from group [H04J 14/00](#).
Groups [H04J 14/00](#) and [H04J 14/05](#) should be considered in order to perform a complete search.
- N H04J 14/052
- • {using multicore fibre (mode multiplex systems [H04J 14/04](#))}
- WARNING
Group [H04J 14/052](#) is incomplete pending reclassification of documents from group [H04J 14/04](#).
Groups [H04J 14/04](#) and [H04J 14/052](#) should be considered in order to perform a complete search.
- U H04J 14/06
- Polarisation multiplex systems
- N H04J 14/07
- {Orbital angular momentum [OAM] multiplex systems}
- WARNING
Group [H04J 14/07](#) is incomplete pending reclassification of documents from group [H04J 14/00](#).
Groups [H04J 14/00](#) and [H04J 14/07](#) should be considered in order to perform a complete search.
- M H04J 2203/00
- Aspects of optical multiplex systems other than those covered by [H04J 14/00](#), [H04J 14/05](#) and [H04J 14/07](#)**

Project: RP11516 (H04L)

- U H04L 9/00** **{Cryptographic mechanisms or cryptographic} arrangements for secret or secure communications; Network security protocols**
- NOTES
1. This group covers:
 - 1.1 Cryptographic mechanisms including cryptographic protocols and cryptographic algorithms, whereby a cryptographic protocol is a distributed cryptographic algorithm defined by a sequence of steps precisely specifying the actions required of two or more entities to achieve specific security objectives (e.g. cryptographic protocol for key agreement), and whereby a cryptographic algorithm is specifying the steps followed by a single entity to achieve specific security objectives (e.g. cryptographic algorithm for symmetric key encryption).
 - 1.2 [H04L 9/00](#) focuses on cryptographic mechanisms such as encryption schemes, digital signatures, hash functions, random number generation, key management, said cryptographic mechanisms providing information security such as privacy or confidentiality, data integrity, message authentication, entity authentication, authorization, validation, certification, time-stamping, anonymity, revocation, non-repudiation.
 - 1.3 [H04L 9/00](#) covers also countermeasures against attacks on cryptographic mechanisms.
 2. This group does not cover:
 - 2.1 Networking architectures or network communication protocols for securing the traffic flowing through data packet networks and providing secure exchanges among applications communicating through data packet networks, which are covered by [H04L 63/00](#). Attention is drawn to the Note 1. after group [H04L 63/00](#)
 - 2.2 Security arrangements for protecting computers or computer systems against unauthorised activity, which are covered by [G06F 21/00](#)
 3. In subgroups [H04L 9/001](#) - [H04L 9/38](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
- U H04L 9/08** • Key distribution {or management, e.g. generation, sharing or updating, of cryptographic keys or passwords (network architectures or network communication protocols for supporting key management in a packet data network [H04L 63/06](#))}
- U H04L 9/0816** • • {Key establishment, i.e. cryptographic processes or cryptographic protocols whereby a shared secret becomes available to two or more parties, for subsequent use}
- M H04L 9/0852** • • • {Quantum cryptography (transmission systems employing electromagnetic waves other than radio waves, e.g. light, ~~infra-red~~*infrared* [H04B 10/00](#); wavelength-division multiplex systems [H04J 14/02](#); *WDM arrangements* [H04J 14/03](#))}
- U H04L 12/00** **Data switching networks (interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units [G06F 13/00](#))**
- U H04L 12/28** • characterised by path configuration, e.g. LAN [Local Area Networks] or WAN [Wide Area Networks] (wireless communication networks [H04W](#) ; arrangements for dividing the transmission path [H04W 40/00](#))}
- U H04L 12/2854** • • {Wide area networks, e.g. public data networks}

- U H04L 12/2856 . . . {Access arrangements, e.g. Internet access (asynchronous transfer mode networks [H04L 12/5601](#); broadband local area networks [H04L 12/2801](#); optical access or distribution networks [H04Q 11/0067](#); access to open networks [H04L 12/5691](#); digital subscriber line end-user equipment and bit-level processing of data on a PSTN-based network [H04M 11/00](#); home network gateways [H04L 12/2834](#); wireless access networks [H04W](#))}

NOTES

1. This group covers:

- access to a public data network, such as an IP network, for subscribers, i.e. customers of a network service provider, over a wired network.
- communication of generic types of data between end-user equipments, located typically at the subscriber premises, and an access server, which acts as interface between the access network and the public data network.

2. This group does not cover:

- wireless access networks, which are covered by [H04W](#)
- optical distribution networks, which are covered by [H04Q 11/0067](#)
- bit-level, or PHY layer, processing of data between digital subscriber line equipments, which is covered by [H04M 11/06](#)
- design of DSL, digital subscriber line, modems, which is covered by [H04M 11/06](#)
- exchange of data related to functionalities of home network appliances between a home network and an external network, which is covered by [H04L 12/2803](#)
- management of WDM parameters in optical multiplex systems, which is covered by [H04J 14/02](#)
- circuit-switched access networks, which are covered by [H04M 7/1205](#)
- access arrangements for providing telephone service in networks other than PSTN/ISDN, which are covered by [H04M 7/0066](#)

3. In this group the following terms or expressions are used with the meaning indicated:

- ATM means Asynchronous Transfer Mode
- LAN means Local Area Network
- BRAS means Broadband Remote Access Server
- DSLAM means Digital Subscriber Line Access Multiplexer
- MSAN means MultiService Access Node
- DSL means Digital Subscriber Line
- IP means Internet Protocol
- WDM means Wavelength Division Multiplexing
- SDH means Synchronous Digital Hierarchy
- OTN means Optical Transport Network
- PSTN means Public Switched Telephone Network
- ISDN means Integrated Services Digital Network
- TDM means Time-Division Multiplexing
- TDMA means Time Division Multiple Access

- U H04L 12/2869 {Operational details of access network equipments (admission control or resource allocation in access networks [H04L 12/5692](#))}
- U H04L 12/2878 {Access multiplexer, e.g. DSLAM (generic distributed time multiplexers, e.g. TDM/TDMA [H04J 3/1694](#))}
- U H04L 12/2879 {characterised by the network type on the uplink side, i.e. towards the service provider network}
- M H04L 12/2885 {Arrangements interfacing with optical systems (optical network equipment [H04B 10/00](#); optical multiplexers [H04J 14/00](#)[H04J 14/05](#) and [H04J 14/07](#))}

Project: RP11517 (G06F)

- U G06F 21/00 Security arrangements for protecting computers, components thereof, programs or data against unauthorised activity**
- C G06F 21/10** · Protecting distributed programs or content, e.g. vending or licensing of copyrighted material (*protection in video systems or pay television H04N 7/16*)
{; *Digital rights management [DRM]*}
- NOTE**
{In this group, the following terms or expressions are used with the meaning indicated:
 - "content" means any intellectually created work whose copyright is to be safeguarded.
}
- WARNING**
Group [G06F 21/10](#) is impacted by reclassification into groups [G06F 21/101 - G06F 21/1015](#), [G06F 21/106 - G06F 21/1066](#), [G06F 21/107 - G06F 21/1079](#), [G06F 21/108 - G06F 21/1088](#) and [G06F 21/109](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 21/101** · {by binding digital rights to specific entities}
WARNING
Groups [G06F 21/101](#) - [G06F 21/1015](#) are incomplete pending reclassification of documents from group [G06F 21/10](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 21/1011** · · · {to devices}
- N G06F 21/1012** · · · {to domains}
- N G06F 21/1013** · · · {to locations}
- N G06F 21/1014** · · · {to tokens}
- N G06F 21/1015** · · · {to users}
- M G06F 21/105** · · {**Tools Arrangements** for software license management or administration, e.g. **for** managing licenses at corporate level}
- N G06F 21/106** · · {Enforcing content protection by specific content processing}
WARNING
Groups [G06F 21/106](#) - [G06F 21/1066](#) are incomplete pending reclassification of documents from group [G06F 21/10](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 21/1062** · · · {Editing}
- N G06F 21/1063** · · · {Personalisation}
- N G06F 21/1064** · · · {Restricting content processing at operating system level}
- N G06F 21/1065** · · · {Generating enhanced content}
- N G06F 21/1066** · · · {Hiding content}
- N G06F 21/107** · · {License processing; Key processing}
WARNING
Groups [G06F 21/107](#) - [G06F 21/1079](#) are incomplete pending reclassification of documents from group [G06F 21/10](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- N G06F 21/1073 . . . {Conversion}
- N G06F 21/1074 . . . {Definition}
- N G06F 21/1075 . . . {Editing}
- N G06F 21/1076 . . . {Revocation}
- N G06F 21/1077 . . . {Recurrent authorisation}
- N G06F 21/1078 . . . {Logging; Metering}
- N G06F 21/1079 . . . {Return}
- N G06F 21/108 . . {Transfer of content, software, digital rights or licenses}

WARNING

Groups [G06F 21/108](#) - [G06F 21/1088](#) are incomplete pending reclassification of documents from group [G06F 21/10](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N G06F 21/1082 . . . {Backup or restore}
- N G06F 21/1083 . . . {Partial license transfers}
- N G06F 21/1084 . . . {via third party}
- N G06F 21/1085 . . . {Content sharing, e.g. peer-to-peer [P2P]}
- N G06F 21/1086 . . . {Superdistribution}
- N G06F 21/1087 . . . {Synchronisation}
- N G06F 21/1088 . . . {by using transactions with atomicity, consistency, or isolation and durability [ACID] properties}
- N G06F 21/109 . . {by using specially-adapted hardware at the client}

WARNING

Group [G06F 21/109](#) is incomplete pending reclassification of documents from group [G06F 21/10](#).

Groups [G06F 21/10](#) and [G06F 21/109](#) should be considered in order to perform a complete search.

- T G06F 21/16 . . Program or content traceability, e.g. by watermarking

U G06F 2221/00 Indexing scheme relating to security arrangements for protecting computers, components thereof, programs or data against unauthorised activity

- D G06F 2221/07 . . Indexing scheme relating to G06F 21/10, protecting distributed programs or content
<administratively transferred to [G06F 21/10](#) INV>
- D G06F 2221/0702 . . Binding
<administratively transferred to [G06F 21/101](#) INV>
- D G06F 2221/0704 . . . Device
<administratively transferred to [G06F 21/1011](#) INV>
- D G06F 2221/0706 Domain
<administratively transferred to [G06F 21/1012](#) INV>
- D G06F 2221/0708 . . . Location
<administratively transferred to [G06F 21/1013](#) INV>
- D G06F 2221/0711 . . . Token
<administratively transferred to [G06F 21/1014](#) INV>

- D G06F 2221/0713 . . . User
<administratively transferred to [G06F 21/1015](#) INV>
- D G06F 2221/0715 . . . Characteristics
<administratively transferred to [G06F 21/1015](#) INV>
- D G06F 2221/0717 . . . Domain
<administratively transferred to [G06F 21/1012](#) INV and
[G06F 21/1015](#) INV>
- D G06F 2221/072 . . . Knowledge
<administratively transferred to [G06F 21/1015](#) INV>
- D G06F 2221/0722 . . Content
<administratively transferred to [G06F 21/106](#) INV>
- D G06F 2221/0724 . . . Editing
<administratively transferred to [G06F 21/1062](#) INV>
- D G06F 2221/0726 . . . Personalisation
<administratively transferred to [G06F 21/1063](#) INV>
- D G06F 2221/0728 . . . Conversion
<administratively transferred to [G06F 21/1063](#) INV>
- D G06F 2221/0731 . . . On user or administrative requirements
<administratively transferred to [G06F 21/1063](#) INV>
- D G06F 2221/0733 . . . Watermark
<administratively transferred to [G06F 21/1063](#) INV>
- D G06F 2221/0735 . . . Restriction at operating system level
<administratively transferred to [G06F 21/1064](#) INV>
- D G06F 2221/0737 . . . Traceability
<administratively transferred to [G06F 21/16](#) INV>
- D G06F 2221/074 . . . Tracing pattern recognition
<administratively transferred to [G06F 21/16](#) INV>
- D G06F 2221/0742 . . . Enhanced product
<administratively transferred to [G06F 21/1063](#) INV>
- D G06F 2221/0744 . . . Unique instance (G06F 2221/0702 takes precedence)
<administratively transferred to [G06F 21/101](#) INV>
- D G06F 2221/0746 . . Emerging technologies
<administratively transferred to [G06F 21/10](#) INV>
- D G06F 2221/0748 . . Hiding
<administratively transferred to [G06F 21/1066](#) INV>
- D G06F 2221/0751 . . Key
<administratively transferred to [G06F 21/107](#) INV>
- D G06F 2221/0753 . . . Distribution
<administratively transferred to [G06F 21/107](#) INV>
- D G06F 2221/0755 . . . Generation
<administratively transferred to [G06F 21/107](#) INV>
- D G06F 2221/0757 . . Licence
<administratively transferred to [G06F 21/107](#) INV>

- D G06F 2221/0759 . . . Conversion
 <administratively transferred to [G06F 21/1073 INV](#)>
- D G06F 2221/0762 . . . Definition
 <administratively transferred to [G06F 21/1074 INV](#)>
- D G06F 2221/0764 Grace period
 <administratively transferred to [G06F 21/1073 INV](#)>
- D G06F 2221/0766 Language
 <administratively transferred to [G06F 21/1073 INV](#)>
- D G06F 2221/0768 . . . Editing
 <administratively transferred to [G06F 21/1075 INV](#)>
- D G06F 2221/0771 . . . Revocation
 <administratively transferred to [G06F 21/1076 INV](#)>
- D G06F 2221/0773 . . . Recurrent authorisation
 <administratively transferred to [G06F 21/1077 INV](#)>
- D G06F 2221/0775 . . Logging
 <administratively transferred to [G06F 21/1078 INV](#)>
- D G06F 2221/0777 . . Return
 <administratively transferred to [G06F 21/1079 INV](#)>
- D G06F 2221/0779 . . Transfer
 <administratively transferred to [G06F 21/108 INV](#)>
- D G06F 2221/0782 . . . Backup or restore
 <administratively transferred to [G06F 21/1082 INV](#)>
- D G06F 2221/0784 . . . Fragments
 <administratively transferred to [G06F 21/1083 INV](#)>
- D G06F 2221/0786 . . . Indirect via third party
 <administratively transferred to [G06F 21/1084 INV](#)>
- D G06F 2221/0788 . . . Peer-to-Peer [P2P]
 <administratively transferred to [G06F 21/1085 INV](#)>
- D G06F 2221/0791 . . . Superdistribution
 <administratively transferred to [G06F 21/1086 INV](#)>
- D G06F 2221/0793 . . . Synchronisation
 <administratively transferred to [G06F 21/1087 INV](#)>
- D G06F 2221/0795 . . . Transaction with ACID [Atomicity, Consistency, Isolation and Durability]
 properties
 <administratively transferred to [G06F 21/1088 INV](#)>
- D G06F 2221/0797 . . using dedicated hardware at the client
 <administratively transferred to [G06F 21/109 INV](#)>

Project: RP11519 (B01D)

- D B01D 23/00 **{Gravity filters}**
 <administratively transferred to [B01D 24/00](#)>
- D B01D 23/005 . {making filtering elements, not provided for elsewhere (see also B01D 25/001,
 B01D 27/005, B01D 29/0093)}
 <administratively transferred to [B01D 24/001](#)>

- D B01D 23/02 · {with fixed filter bodies}
<administratively transferred to [B01D 29/00](#)>
- D B01D 23/04 · · {with filter bags filtering from the inside}
<administratively transferred to [B01D 29/27](#)>
- D B01D 23/06 · · {with rigid tubular bodies}
<administratively transferred to [B01D 29/31](#)>
- D B01D 23/08 · · {with saucer-shaped filtering elements}
<administratively transferred to [B01D 29/01](#)>
- D B01D 23/10 · {with loose filter material}
<administratively transferred to [B01D 24/00](#)>
- D B01D 23/12 · · {with filtering material supported on louvred sides}
<administratively transferred to [B01D 24/06](#)>
- D B01D 23/14 · · {carbon filters}
<administratively transferred to [B01D 24/00](#) and [B01D 2101/02](#) ADD>
- D B01D 23/16 · · {Sand or gravel filters (filterbed-basin filters, small bed filters, e.g. in closed housing B01D 23/10)}
<administratively transferred to [B01D 24/00](#) and [B01D 2101/04](#) ADD>
- D B01D 23/18 · · {Bottoms of filter beds}
<administratively transferred to [B01D 24/12](#)>
- D B01D 23/20 · {Feed or discharge devices (nozzles B05B)}
<administratively transferred to [B01D 24/38](#)>
- D B01D 23/205 · · {Special adaptation of spray heads therefor}
<administratively transferred to [B01D 24/38](#)>
- D B01D 23/24 · {Regeneration of the filter material in the filter}
<administratively transferred to [B01D 24/46](#) and [B01D 29/62](#)>
- D B01D 23/26 · {integrally combined with devices for controlling the filtration (shutting-off elements, changing over from one element to another B01D 35/12; B01D 35/14; control of filtration processes B01D 37/04)}
<administratively transferred to [B01D 24/48](#) and [B01D 29/60](#)>
- D B01D 23/28 · {Filter funnels; Holders therefor (funnels in general B67C; funnels for laboratory use B01L; coffee or tea strainers or apparatus A47J 31/00 - A47J 31/06)}
<administratively transferred to [B01D 29/085](#)>
- T B01D 29/00** **Other filters** **Filters** with filtering elements stationary during filtration, e.g. pressure or suction filters, **or filtering elements therefor (not covered by groups [B01D 24/00](#) - [B01D 27/00](#) ([B01D 24/00](#), [B01D 25/00](#) and [B01D 27/00](#) take precedence)); Filtering elements therefor**
- D B01D 29/0002 · {Aspects of other filters with filtering elements stationary during filtration, or of filtering elements thereof}
<administratively transferred to [B01D 29/00](#)>
- D B01D 29/0004 · · {Filters with flat filtering elements}
<administratively transferred to [B01D 29/01](#)>
- D B01D 29/0006 · · · {Making filtering elements}
<administratively transferred to [B01D 29/012](#)>
- D B01D 29/0009 · · · {with curved filtering elements}
<administratively transferred to [B01D 29/014](#)>

- D B01D 29/0011 . . . {ring-shaped}
<administratively transferred to [B01D 29/018](#)>
- D B01D 29/0013 . . {Filters in which the filtering elements are moved between filtering operations; Means specially adapted for removing the filtering elements or introducing new ones; Transport systems specially adapted for the filtering elements}
<administratively transferred to [B01D 29/96](#)>
- D B01D 29/0015 . . . {Filtering bands}
<administratively transferred to [B01D 29/09](#)>
- D B01D 29/0018 . . {Filters with screens or sheets, e.g. cloth, paper}
<administratively transferred to [B01D 29/00](#)>
- D B01D 29/002 . . . {with rigid, self-supporting filtering elements, e.g. of ceramic material}
<administratively transferred to [B01D 29/00](#)>
- D B01D 29/0022 . . . {Filters with corrugated, folded, or wound sheets}
<administratively transferred to [B01D 29/016](#)>
- D B01D 29/0025 {allowing a coaxial stream through the filtering element (for cartridge filters B01D 27/07)}
<administratively transferred to [B01D 29/016](#)>
- D B01D 29/0027 . . {Filters with loose, granular, or fibrous filtering material}
<administratively transferred to [B01D 24/10](#) and [B01D 27/02](#)>
- D B01D 29/0029 . . {Bag, cage, hose, tube, sleeve, or like filters}
<administratively transferred to [B01D 29/11](#)>
- D B01D 29/0031 . . . {Pressing-out operation after filtration, e.g. by means of membranes (filter presses per se B01D 25/12)}
<administratively transferred to [B01D 29/82](#)>
- D B01D 29/0034 . . . {Filters having flexible filtering material}
<administratively transferred to [B01D 29/11](#)>
- D B01D 29/0036 {which is supported}
<administratively transferred to [B01D 29/13](#)>
- D B01D 29/0038 {on solid frames with surface grooves and the like}
<administratively transferred to [B01D 29/21](#) and [B01D 29/232](#)>
- D B01D 29/004 {to take up a concertina shape during filtration}
<administratively transferred to [B01D 29/213](#) and [B01D 29/235](#)>
- D B01D 29/0043 . . . {having rigid self-supporting filtering material (B01D 29/0068 takes precedence)}
<administratively transferred to [B01D 29/31](#)>
- D B01D 29/0045 {Edge filtering elements}
<administratively transferred to [B01D 29/44](#)>
- D B01D 29/0047 . . . {with multiple filtering units}
<administratively transferred to [B01D 29/50](#)>
- D B01D 29/005 {connected in parallel (B01D 29/0056 takes precedence)}
<administratively transferred to [B01D 29/52](#)>
- D B01D 29/0052 {connected in series (B01D 29/0059 takes precedence)}
<administratively transferred to [B01D 29/56](#)>

- D B01D 29/0054 {arranged concentrically or coaxially}
<administratively transferred to [B01D 29/54](#) and [B01D 29/58](#)>
- D B01D 29/0056 {connected in parallel}
<administratively transferred to [B01D 29/54](#)>
- D B01D 29/0059 {connected in series}
<administratively transferred to [B01D 29/58](#)>
- D B01D 29/0061 . . . {which are vibrated}
<administratively transferred to [B01D 29/00](#)>
- D B01D 29/0063 . . . {which are open-ended}
<administratively transferred to [B01D 29/115](#) and [B01D 29/118](#)>
- D B01D 29/0065 . . . {Filter candles}
<administratively transferred to [B01D 29/15](#)>
- D B01D 29/0068 . . {Filters with hollow discs side-by-side on or around one or more tubes}
<administratively transferred to [B01D 29/39](#)>
- D B01D 29/007 . . . {having filtrate discharge tubes fixed non-perpendicularly to the filtering surfaces}
<administratively transferred to [B01D 29/395](#)>
- D B01D 29/0072 . . {Filters integrally combined with devices for controlling the filtration (for shutting-off elements or changing over from one element to another B01D 35/12, B01D 35/14; controlling filtration processes B01D 37/04)}
<administratively transferred to [B01D 29/60](#)>
- D B01D 29/0075 . . {Regeneration of the filtering material in the filter (for two separate filter elements placed in different units B01D 35/12)}
<administratively transferred to [B01D 29/62](#)>
- D B01D 29/0077 . . . {by scrapers, brushes, nozzles or the like placed on the cake-side of the filters (B01D 29/0084 takes precedence)}
<administratively transferred to [B01D 29/64](#)>
- D B01D 29/0079 . . . {Counter-current flushing, e.g. by air bumps}
<administratively transferred to [B01D 29/66](#)>
- D B01D 29/0081 {with backwash shoes; with nozzles}
<administratively transferred to [B01D 29/68](#)>
- D B01D 29/0084 . . . {by moving the filter element (B01D 29/0088 takes precedence)}
<administratively transferred to [B01D 29/70](#)>
- D B01D 29/0086 {by vibration}
<administratively transferred to [B01D 29/72](#)>
- D B01D 29/0088 . . . {by centrifugal force}
<administratively transferred to [B01D 29/74](#)>
- D B01D 29/009 . . {Filters having feed or discharge devices}
<administratively transferred to [B01D 29/88](#)>
- M B01D 29/0093 . {Making filtering elements *not provided for elsewhere* (not provided for elsewhere)(see also B01D 23/005, B01D 25/001, B01D 27/005)}
- M B01D 29/0095 . {Flat filtering elements ([B01D 25/12](#), [B01D 25/26](#), [B01D 29/0015](#), [B01D 29/0068](#) take precedence)}

- U B01D 33/00** **Filters with filtering elements which move during the filtering operation (filters comprising loose filtering material moving or fluidised during filtration [B01D 24/28](#) - [B01D 24/36](#); centrifuges [B04B](#))**
- U B01D 33/06 · with rotary cylindrical filtering surfaces, e.g. hollow drums ([B01D 33/044](#) takes precedence {; rotating drums for paper-making [D21B](#)})
- D B01D 2033/07 · · {arranged for inward flow filtration}
<administratively transferred to [B01D 33/073](#)>
- M B01D 35/00** **~~Other filtering devices~~ *Filtering devices having features not specifically covered by groups [B01D 24/00](#) - [B01D 33/00](#), or for applications not specifically covered by groups [B01D 24/00](#) - [B01D 33/00](#); Auxiliary devices for filtration; Filter housing constructions***
- M B01D 35/005 · {Filters specially adapted for use in internal-combustion engine lubrication or fuel systems, ~~not of special interest for [B01D 23/00](#) - [B01D 33/00](#) (internal-combustion engine lubricating systems [F02M](#); lubrication in general [F16N](#))~~}
- D B01D 35/08 · {Filters with tipping buckets or trays}
<administratively transferred to [B01D 33/327](#)>

Project: RP11519 (B67C)

- M B67C 11/00** **Funnels, e.g. for liquids (filter funnels ~~[B01D 23/28](#)~~ [B01D 29/085](#); volume flow-meters [G01F](#))**

Project: RP11519 (C12M)

- M C12M 47/00** **{Means for after-treatment of the produced biomass or of the fermentation or metabolic products, e.g. storage of biomass (filters in general ~~[B01D 23/00](#)~~ [B01D 24/00](#) - [B01D 41/00](#))}**

Project: RP11531 (C07K)

- U C07K 16/00** **Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies ~~{(antibodies with enzymatic activity, e.g. abzymes [C12N 9/0002](#))}~~**

NOTES

1. Documents characterised by the technical aspects of the construction of an antibody or fragment thereof, should be classified in [C07K 16/00](#) - [C07K 16/065](#) or [C07K 16/46](#) - [C07K 16/468](#)
2. Documents not characterised by the technical aspects of the construction of an antibody or fragment thereof, should be classified only according to their specificity, where necessary accompanied by one or more appropriate indexing codes

- U C07K 16/08 · against material from viruses
- U C07K 16/081 · · {from DNA viruses}
- U C07K 16/085 · · · {Herpetoviridae, e.g. pseudorabies virus, Epstein-Barr virus}
- C C07K 16/088 · · · · {Varicella-zoster virus, ~~e.g. cytomegalovirus~~}

WARNING

Group [C07K 16/088](#) is impacted by reclassification into group [C07K 16/089](#).

Groups [C07K 16/088](#) and [C07K 16/089](#) should be considered in order to perform a complete search.

- N C07K 16/089 . . . {Cytomegalovirus}
WARNING
 Group [C07K 16/089](#) is incomplete pending reclassification of documents from group [C07K 16/088](#).
 Groups [C07K 16/088](#) and [C07K 16/089](#) should be considered in order to perform a complete search.
- C C07K 16/10 . . from RNA viruses ~~{, e.g. hepatitis E virus}~~
WARNING
 Group [C07K 16/10](#) is impacted by reclassification into groups [C07K 16/1002](#) and [C07K 16/1003](#).
 Groups [C07K 16/10](#), [C07K 16/1002](#) and [C07K 16/1003](#) should be considered in order to perform a complete search.
- N C07K 16/1002 . . . {Coronaviridae}
WARNING
 Groups [C07K 16/1002](#) and [C07K 16/1003](#) are incomplete pending reclassification of documents from group [C07K 16/10](#).
 Groups [C07K 16/10](#), [C07K 16/1002](#) and [C07K 16/1003](#) should be considered in order to perform a complete search.
- N C07K 16/1003 . . . {Severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2 or Covid-19]}
- U C07K 16/12 . against material from bacteria
- U C07K 16/1203 . . {from Gram-negative bacteria}
- C C07K 16/1217 . . . {from Neisseriaceae (F), ~~e.g. Acinetobacter~~}
WARNING
 Group [C07K 16/1217](#) is impacted by reclassification into group [C07K 16/1218](#).
 Groups [C07K 16/1217](#) and [C07K 16/1218](#) should be considered in order to perform a complete search.
- N C07K 16/1218 . . . {from Acinetobacter}
WARNING
 Group [C07K 16/1218](#) is incomplete pending reclassification of documents from group [C07K 16/1217](#).
 Groups [C07K 16/1217](#) and [C07K 16/1218](#) should be considered in order to perform a complete search.

Project: RP11672 (C21D)

- U C21D 8/00 **Modifying the physical properties by deformation combined with, or followed by, heat treatment (hardening articles or materials formed by forging or rolling with no further heating beyond that required for the formation [C21D 1/02](#))**
- M C21D 8/02 . during manufacturing of plates or strips ([C21D 8/12](#) takes precedence)
NOTE
 In this group classification is made according to the most important feature in one subgroup only; for other features indexing codes of C21D are added

- M C21D 8/04
- to produce plates or strips for deep-drawing
- NOTE**
In this group classification is made according to the most important feature in one subgroup only; for other features indexing codes of C21D are added
- M C21D 8/12
- during manufacturing of articles with special electromagnetic properties
- NOTE**
In this group classification is made according to the most important feature in one subgroup only; for other features indexing codes of C21D are added

Project: RP11777 (B64G)

- U B64G 1/00** **Cosmonautic vehicles**
- C B64G 1/002
- {Launch systems}
- WARNING**
Group [B64G 1/002](#) is impacted by reclassification into groups [B64G 1/006](#) and [B64G 1/008](#).
Groups [B64G 1/002](#), [B64G 1/006](#) and [B64G 1/008](#) should be considered in order to perform a complete search.
- U B64G 1/005
- {Air launch}
- N B64G 1/006
- {Reusable launch rockets or boosters}
- WARNING**
Group [B64G 1/006](#) is incomplete pending reclassification of documents from group [B64G 1/002](#).
Groups [B64G 1/002](#) and [B64G 1/006](#) should be considered in order to perform a complete search.
- D B64G 1/007
- {Orbit transfer}
- <administratively transferred to [B64G 1/2427](#)>
- N B64G 1/008
- {Arrangement of launch rockets or boosters}
- WARNING**
Group [B64G 1/008](#) is incomplete pending reclassification of documents from group [B64G 1/002](#).
Groups [B64G 1/002](#) and [B64G 1/008](#) should be considered in order to perform a complete search.
- U B64G 1/10
- Artificial satellites; Systems of such satellites; Interplanetary vehicles (space shuttles [B64G 1/14](#); radio transmission systems using satellites [H04B 7/185](#))
- U B64G 1/1021
- {Earth observation satellites}
- D B64G 2001/1028
- • {using optical means for mapping, surveying or detection, e.g. of intelligence}
- <administratively transferred to [B64G 1/1028](#) INV>
- N B64G 1/1028
- • {using optical means for mapping, surveying or detection, e.g. of intelligence}
- D B64G 2001/1035
- • {using radar for mapping, surveying or detection, e.g. of intelligence}
- <administratively transferred to [B64G 1/1035](#) INV>
- N B64G 1/1035
- • {using radar for mapping, surveying or detection, e.g. of intelligence}
- D B64G 2001/1042
- • {specifically adapted for meteorology}
- <administratively transferred to [B64G 1/1042](#) INV>
- N B64G 1/1042
- • {specifically adapted for meteorology}

- U B64G 1/105 . . {Space science}
- D B64G 2001/1057 . . . {specifically adapted for astronomy}
<administratively transferred to [B64G 1/1057](#) INV>
- N B64G 1/1057 . . . {specifically adapted for astronomy}
- D B64G 2001/1064 . . . {specifically adapted for interplanetary, solar or interstellar exploration}
<administratively transferred to [B64G 1/1064](#) INV>
- N B64G 1/1064 . . . {specifically adapted for interplanetary, solar or interstellar exploration}
- D B64G 2001/1071 {Planetary landers intended for the exploration of the surface of planets, moons or comets}
<administratively transferred to [B64G 1/1071](#) INV>
- N B64G 1/1071 {Planetary landers intended for the exploration of the surface of planets, moons or comets}
- C B64G 1/1078 . . {Maintenance satellites (*refueling in space [B64G 1/4024](#)*)}
- WARNING**
Group [B64G 1/1078](#) is impacted by reclassification into group [B64G 1/1081](#). Groups [B64G 1/1078](#) and [B64G 1/1081](#) should be considered in order to perform a complete search.
- N B64G 1/1081 . . . {for debris removal}
- WARNING**
Group [B64G 1/1081](#) is incomplete pending reclassification of documents from group [B64G 1/1078](#). Groups [B64G 1/1078](#) and [B64G 1/1081](#) should be considered in order to perform a complete search.
- U B64G 1/1085 . . {Swarms and constellations}
- D B64G 2001/1092 . . {Special features of modular spacecraft systems}
<administratively transferred to [B64G 1/223](#) INV>
- M B64G 1/14 . . Space shuttles (*reusable launch rockets [B64G 1/006](#)*)
- U B64G 1/22 . . Parts of, or equipment specially adapted for fitting in or to, cosmonautic vehicles
- C B64G 1/222 . . {~~Appendage deployment mechanisms~~ *for deploying structures between a stowed and deployed state*}
- WARNING**
Group [B64G 1/222](#) is impacted by reclassification into groups [B64G 1/2221](#), [B64G 1/2222](#), [B64G 1/2223](#), [B64G 1/2224](#), [B64G 1/2225](#), [B64G 1/2226](#), [B64G 1/2227](#), [B64G 1/2228](#) and [B64G 1/2229](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/2221 . . . {characterised by the manner of deployment}
- WARNING**
Groups [B64G 1/2221](#) - [B64G 1/2227](#) are incomplete pending reclassification of documents from group [B64G 1/222](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/2222 {Folding}
- N B64G 1/2223 {via scissor linkage}
- N B64G 1/2224 {about multiple axes}

- N B64G 1/2225 {Rolling or unfurling ([B64G 1/2227](#) takes precedence)}
- N B64G 1/2226 {Telescoping}
- N B64G 1/2227 {Inflating}
- N B64G 1/2228 . . . {characterised by the hold-down or release mechanisms}
- WARNING
Group [B64G 1/2228](#) is incomplete pending reclassification of documents from group [B64G 1/222](#).
Groups [B64G 1/222](#) and [B64G 1/2228](#) should be considered in order to perform a complete search.
- N B64G 1/2229 . . . {characterised by the deployment actuating mechanism (inflating [B64G 1/2227](#))}
- WARNING
Group [B64G 1/2229](#) is incomplete pending reclassification of documents from group [B64G 1/222](#).
Groups [B64G 1/222](#) and [B64G 1/2229](#) should be considered in order to perform a complete search.
- N B64G 1/223 . . {Modular spacecraft systems}
- D B64G 2001/224 . . {Inflatable space structures}
- <administratively transferred to [B64G 1/2227](#) INV>
- U B64G 1/226 . . {Special coatings for spacecraft}
- D B64G 2001/228 . . {Damping of high-frequency vibration effects on spacecraft elements, e.g. by using acoustic vibration dampers}
- <administratively transferred to [B64G 1/228](#) INV>
- N B64G 1/228 . . {Damping of high-frequency vibration effects on spacecraft elements, e.g. by using acoustic vibration dampers}
- M B64G 1/24 . . Guiding or controlling apparatus, e.g. for attitude control (jet-propulsion plants [F02K](#); navigation or navigational instruments, [see the relevant subclass see the relevant subclasses](#), e.g. [G01C](#); automatic pilots [G05D 1/00](#))
- C B64G 1/242 . . . {Orbits and trajectories}
- WARNING
Group [B64G 1/242](#) is impacted by reclassification into groups [B64G 1/2421](#), [B64G 1/2422](#), [B64G 1/2423](#), [B64G 1/2425](#), [B64G 1/2427](#), [B64G 1/2429](#) and [B64G 1/244](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/2421 {Aerobraking}
- WARNING
Group [B64G 1/2421](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2421](#) should be considered in order to perform a complete search.
- N B64G 1/2422 {using Lagrange points, e.g. halo orbits}
- WARNING
Group [B64G 1/2422](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2422](#) should be considered in order to perform a complete search.

- N B64G 1/2423 . . . {Sun-synchronous orbits}
- WARNING
Group [B64G 1/2423](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2423](#) should be considered in order to perform a complete search.
- N B64G 1/2425 . . . {Geosynchronous orbits}
- WARNING
Group [B64G 1/2425](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2425](#) should be considered in order to perform a complete search.
- N B64G 1/2427 . . . {Transfer orbits}
- WARNING
Group [B64G 1/2427](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2427](#) should be considered in order to perform a complete search.
- N B64G 1/2429 . . . {Station keeping}
- WARNING
Group [B64G 1/2429](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/2429](#) should be considered in order to perform a complete search.
- T B64G 1/244 . . . {~~Attitude control~~Spacecraft control systems}
- WARNING
Group [B64G 1/244](#) is incomplete pending reclassification of documents from group [B64G 1/242](#).
Groups [B64G 1/242](#) and [B64G 1/244](#) should be considered in order to perform a complete search.
- D B64G 2001/245 . . . {Attitude control algorithms for spacecraft attitude control}
- <administratively transferred to [B64G 1/245](#) INV>
- N B64G 1/245 . . . {Attitude control algorithms for spacecraft attitude control}
- D B64G 2001/247 . . . {Advanced control concepts for autonomous, robotic spacecraft, e.g. by using artificial intelligence, neural networks or autonomous agents}
- <administratively transferred to [B64G 1/247](#) INV>
- N B64G 1/247 . . . {Advanced control concepts for autonomous, robotic spacecraft, e.g. by using artificial intelligence, neural networks or autonomous agents}
- C B64G 1/26 . . . using jets
- WARNING
Group [B64G 1/26](#) is impacted by reclassification into groups [B64G 1/262](#) and [B64G 1/264](#).
Groups [B64G 1/26](#), [B64G 1/262](#) and [B64G 1/264](#) should be considered in order to perform a complete search.

- N B64G 1/262 {having adjustable angles, e.g. gimbaled thrusters}
- WARNING
Groups [B64G 1/262](#) and [B64G 1/264](#) are incomplete pending reclassification of documents from group [B64G 1/26](#).
Groups [B64G 1/26](#), [B64G 1/262](#) and [B64G 1/264](#) should be considered in order to perform a complete search.
- N B64G 1/264 {mounted on adjustable booms or the like}
- U B64G 1/28 using inertia or gyro effect
- D B64G 1/288 {using gyroscopes as attitude sensors}
- <administratively transferred to [B64G 1/369](#)>
- U B64G 1/36 using sensors, e.g. sun-sensors, horizon sensors
- U B64G 1/368 {using gravimeters}
- N B64G 1/369 {using gyroscopes as attitude sensors}
- C B64G 1/40 Arrangements or adaptations of propulsion systems (propulsion plants per se, see see the relevant subclasses, e.g. [F02K](#), [F03H](#))
- WARNING
Group [B64G 1/40](#) is impacted by reclassification into group [B64G 1/4005](#).
Groups [B64G 1/40](#) and [B64G 1/4005](#) should be considered in order to perform a complete search.
- N B64G 1/4005 {Air-breathing propulsion}
- WARNING
Group [B64G 1/4005](#) is incomplete pending reclassification of documents from groups [B64G 1/40](#) and [B64G 1/401](#).
Groups [B64G 1/40](#), [B64G 1/401](#) and [B64G 1/4005](#) should be considered in order to perform a complete search.
- C B64G 1/401 {Liquid propellant rocket engines (per se [F02K 9/42](#) Ion or plasma engines [B64G 1/413](#); Arcjets and other resistojets [B64G 1/415](#))}
- WARNING
Group [B64G 1/401](#) is impacted by reclassification into group [B64G 1/4005](#).
Groups [B64G 1/401](#) and [B64G 1/4005](#) should be considered in order to perform a complete search.
- C B64G 1/402 {Propellant tanks; Feeding propellants (in general [F02K 9/44](#))}
- WARNING
Group [B64G 1/402](#) is impacted by reclassification into groups [B64G 1/4021](#), [B64G 1/4022](#), [B64G 1/4024](#) and [B64G 1/4026](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/4021 {Tank construction; Details thereof}
- WARNING
Group [B64G 1/4021](#) is incomplete pending reclassification of documents from group [B64G 1/402](#).
Groups [B64G 1/402](#) and [B64G 1/4021](#) should be considered in order to perform a complete search.
- N B64G 1/4022 {Arrangements of tanks in or on spacecraft}
- WARNING
Group [B64G 1/4022](#) is incomplete pending reclassification of documents from group [B64G 1/402](#).

Groups [B64G 1/402](#) and [B64G 1/4022](#) should be considered in order to perform a complete search.

- N B64G 1/4024 {Refueling in space}
WARNING
Group [B64G 1/4024](#) is incomplete pending reclassification of documents from group [B64G 1/402](#).
Groups [B64G 1/402](#) and [B64G 1/4024](#) should be considered in order to perform a complete search.
- N B64G 1/4026 {providing propellant to propulsion systems of differing type}
WARNING
Group [B64G 1/4026](#) is incomplete pending reclassification of documents from group [B64G 1/402](#).
Groups [B64G 1/402](#) and [B64G 1/4026](#) should be considered in order to perform a complete search.
- M B64G 1/403 . . . {Solid propellant rocket engines (~~per se F02K 9/08~~)}
- M B64G 1/404 {Hybrid rocket engines (~~per se F02K 9/72~~)}
- F B64G 1/405 . . . {Ion or plasma engines (per se [F03H 1/00](#))}
(Frozen)
WARNING
Group [B64G 1/405](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [B64G 1/411](#) and [B64G 1/413](#).
Groups [B64G 1/405](#), [B64G 1/411](#) and [B64G 1/413](#) should be considered in order to perform a complete search.
- D B64G 1/406 . . . {Arcjets and other resistojets}
<administratively transferred to [B64G 1/415](#)>
- M B64G 1/407 . . . {Solar sailing (~~includes also attitude control using solar sailing~~)}
- C B64G 1/409 . . . {Unconventional spacecraft propulsion systems}
WARNING
Group [B64G 1/409](#) is impacted by reclassification into groups [B64G 1/411](#) and [B64G 1/417](#).
Groups [B64G 1/409](#), [B64G 1/411](#) and [B64G 1/417](#) should be considered in order to perform a complete search.
- N B64G 1/411 . . . {Electric propulsion}
WARNING
Group [B64G 1/411](#) is incomplete pending reclassification of documents from groups [B64G 1/405](#) and [B64G 1/409](#).
Groups [B64G 1/405](#), [B64G 1/409](#) and [B64G 1/411](#) should be considered in order to perform a complete search.
- N B64G 1/413 {Ion or plasma engines}
WARNING
Group [B64G 1/413](#) is incomplete pending reclassification of documents from group [B64G 1/405](#).
Groups [B64G 1/405](#) and [B64G 1/413](#) should be considered in order to perform a complete search.
- N B64G 1/415 {Arcjets or resistojets}

- N B64G 1/417 . . . {Electromagnetic fields or flux without mass expulsion}
- WARNING
Group [B64G 1/417](#) is incomplete pending reclassification of documents from group [B64G 1/409](#).
Groups [B64G 1/409](#) and [B64G 1/417](#) should be considered in order to perform a complete search.
- U B64G 1/42 . . Arrangements or adaptations of power supply systems (power supply systems per se, see the relevant subclasses)
- C B64G 1/428 . . . {Power distribution and management}
- WARNING
Group [B64G 1/428](#) is impacted by reclassification into group [B64G 1/4282](#).
Groups [B64G 1/428](#) and [B64G 1/4282](#) should be considered in order to perform a complete search.
- N B64G 1/4282 . . . {for transmitting power to earth or other spacecraft}
- WARNING
Group [B64G 1/4282](#) is incomplete pending reclassification of documents from group [B64G 1/428](#).
Groups [B64G 1/428](#) and [B64G 1/4282](#) should be considered in order to perform a complete search.
- C B64G 1/46 . . Arrangements or adaptations of devices for control of environment or living conditions (space suits [B64G 6/00](#))
- WARNING
Group [B64G 1/46](#) is impacted by reclassification into group [B64G 1/465](#).
Groups [B64G 1/46](#) and [B64G 1/465](#) should be considered in order to perform a complete search.
- N B64G 1/465 . . . {for controlling gravity}
- WARNING
Group [B64G 1/465](#) is incomplete pending reclassification of documents from groups [B64G 1/46](#) and [B64G 1/60](#).
Groups [B64G 1/46](#), [B64G 1/465](#) and [B64G 1/60](#) should be considered in order to perform a complete search.
- U B64G 1/52 . . Protection, safety or emergency devices; Survival aids (life-saving in general [A62](#))
- D B64G 2001/525 . . . {Survival aids}
<administratively transferred to [B64G 1/525](#) INV>
- N B64G 1/525 . . . {Survival aids}
- C B64G 1/60 . . Crew or passenger accommodations
- WARNING
Group [B64G 1/60](#) is impacted by reclassification into group [B64G 1/465](#).
Groups [B64G 1/465](#) and [B64G 1/60](#) should be considered in order to perform a complete search.
- C B64G 1/62 . . Systems for re-entry into the earth's atmosphere; Retarding or landing devices
- WARNING
Group [B64G 1/62](#) is impacted by reclassification into groups [B64G 1/623](#) and [B64G 1/625](#).

Groups [B64G 1/62](#), [B64G 1/623](#) and [B64G 1/625](#) should be considered in order to perform a complete search.

- N B64G 1/623
- • {Retarding devices, e.g. retrorockets}
- WARNING
Group [B64G 1/623](#) is incomplete pending reclassification of documents from group [B64G 1/62](#).
Groups [B64G 1/62](#) and [B64G 1/623](#) should be considered in order to perform a complete search.
- N B64G 1/625
- • {Landing devices; Undercarriages}
- WARNING
Group [B64G 1/625](#) is incomplete pending reclassification of documents from group [B64G 1/62](#).
Groups [B64G 1/62](#) and [B64G 1/625](#) should be considered in order to perform a complete search.
- U B64G 1/64
- • Systems for coupling or separating cosmonautic vehicles or parts thereof, e.g. docking arrangements
- C B64G 1/641
- • {Interstage or payload connectors (*docking systems [B64G 1/646](#)*)}
- WARNING
Group [B64G 1/641](#) is impacted by reclassification into groups [B64G 1/642](#), [B64G 1/6425](#) and [B64G 1/643](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/642
- • • {Clamps, e.g. Marman clamps}
- WARNING
Group [B64G 1/642](#) is incomplete pending reclassification of documents from group [B64G 1/641](#).
Groups [B64G 1/641](#) and [B64G 1/642](#) should be considered in order to perform a complete search.
- N B64G 1/6425
- • • {arrangements for damping vibrations}
- WARNING
Group [B64G 1/6425](#) is incomplete pending reclassification of documents from group [B64G 1/641](#).
Groups [B64G 1/641](#) and [B64G 1/6425](#) should be considered in order to perform a complete search.
- D B64G 2001/643
- • • {Dispensers for arranging multiple satellites in a single launcher}
- <administratively transferred to [B64G 1/643](#) INV>
- Q B64G 1/643
- • • {for arranging multiple satellites in a single launcher}
- WARNING
Group [B64G 1/643](#) is incomplete pending reclassification of documents from group [B64G 1/641](#).
Group [B64G 1/643](#) is also impacted by reclassification into group [B64G 1/644](#).
Groups [B64G 1/641](#), [B64G 1/643](#) and [B64G 1/644](#) should be considered in order to perform a complete search.

- N B64G 1/644 {arranged for independent deployment}
WARNING
 Group [B64G 1/644](#) is incomplete pending reclassification of documents from group [B64G 1/643](#).
 Groups [B64G 1/643](#) and [B64G 1/644](#) should be considered in order to perform a complete search.
- C B64G 1/645 . . . {Separators}
WARNING
 Group [B64G 1/645](#) is impacted by reclassification into groups [B64G 1/6455](#), [B64G 1/6457](#) and [B64G 1/6459](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B64G 1/6455 {Pyrotechnics; Using heat}
WARNING
 Group [B64G 1/6455](#) is incomplete pending reclassification of documents from group [B64G 1/645](#).
 Groups [B64G 1/645](#) and [B64G 1/6455](#) should be considered in order to perform a complete search.
- N B64G 1/6457 {Springs; Shape memory actuators}
WARNING
 Group [B64G 1/6457](#) is incomplete pending reclassification of documents from group [B64G 1/645](#).
 Groups [B64G 1/645](#) and [B64G 1/6457](#) should be considered in order to perform a complete search.
- N B64G 1/6459 {Fluid-actuated}
WARNING
 Group [B64G 1/6459](#) is incomplete pending reclassification of documents from group [B64G 1/645](#).
 Groups [B64G 1/645](#) and [B64G 1/6459](#) should be considered in order to perform a complete search.
- C B64G 1/646 . . . {Docking or ~~rendez-vous systems~~}rendezvous systems (refueling in space [B64G 1/4024](#))
WARNING
 Group [B64G 1/646](#) is impacted by reclassification into groups [B64G 1/6462](#) and [B64G 1/6464](#).
 Groups [B64G 1/646](#), [B64G 1/6462](#) and [B64G 1/6464](#) should be considered in order to perform a complete search.
- N B64G 1/6462 {characterised by the means for engaging other vehicles}
WARNING
 Groups [B64G 1/6462](#) and [B64G 1/6464](#) are incomplete pending reclassification of documents from group [B64G 1/646](#).
 Groups [B64G 1/646](#), [B64G 1/6462](#) and [B64G 1/6464](#) should be considered in order to perform a complete search.
- N B64G 1/6464 {Docking probes and receivers}
- M B64G 3/00 Observing or tracking cosmonautic vehicles (radio or other waves systems for ~~navigating~~[navigation](#) or tracking [G01S](#))

Project: RP11777 (F03H)

- U F03H 1/00** Using plasma to produce a reactive propulsive thrust (generating plasma [H05H 1/00](#)){{(ion sources per se [H01J 27/02](#), ion sources for plasma processing or ion beams [H01J 37/08](#))}}
- M F03H 1/0006** • {Details applicable to different types of plasma thrusters (arrangements specially adapted for fitting plasma engines in or to cosmonautic vehicles [B64G 1/405](#)[B64G 1/413](#))}
- M F03H 1/0093** • {Electro-thermal plasma thrusters, i.e. thrusters heating the particles in a plasma (resistojets per se [B64G 1/406](#)[B64G 1/415](#))}

Project: RP11800 (F03D)

- C F03D 1/00** Wind motors with rotation axis substantially parallel to the air flow entering the rotor (controlling thereof [F03D 7/02](#))

WARNING

Group F03D 1/00 is impacted by reclassification into groups [F03D 1/101](#), [F03D 1/125](#), [F03D 1/141](#), [F03D 1/165](#), [F03D 1/181](#) and [F03D 1/188](#). All groups listed in this Warning should be considered in order to perform a complete search.

- C F03D 1/04** • having stationary wind-guiding means, e.g. with shrouds or channels ([F03D 9/35](#) takes precedence)

WARNING

Group [F03D 1/04](#) is impacted by reclassification into groups [F03D 1/041](#), [F03D 1/042](#), [F03D 1/044](#), [F03D 1/046](#), [F03D 1/048](#), [F03D 1/051](#) and [F03D 1/053](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 1/041** • • {Convergent inlets, i.e. the inlet section is greater than the rotor section ([F03D 1/044](#) takes precedence)}

WARNING

Group [F03D 1/041](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#), [F05B 2240/123](#), [F05B 2240/1231](#), [F05B 2240/13](#) and [F05B 2250/5011](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 1/042** • • {Divergent outlets, e.g. diffusers or ejectors ([F03D 1/044](#) takes precedence)}

WARNING

Group [F03D 1/042](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#) and [F05B 2240/13](#). Groups [F03D 1/04](#), [F05B 2240/13](#) and [F03D 1/042](#) should be considered in order to perform a complete search.

- N F03D 1/044** • • {Convergent divergent structures, e.g. venturis}

WARNING

Group [F03D 1/044](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#), [F05B 2240/133](#) and [F05B 2250/5012](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 1/046
- • {comprising additional flow modifying means, e.g. vanes or turbulators}
- WARNING
Group [F03D 1/046](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#), [F05B 2240/12](#), [F05B 2240/121](#) and [F05B 2240/122](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/048
- • • {for changing the flow direction, e.g. a horizontal inlet and a vertical outlet}
- WARNING
Group [F03D 1/048](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#), [F03D 9/35](#), [F03D 9/37](#), [F03D 9/39](#) and [F03D 9/41](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/051
- • {Multiple shrouds, e.g. in series or in parallel}
- WARNING
Group [F03D 1/051](#) is incomplete pending reclassification of documents from groups [F03D 1/04](#) and [F05B 2240/124](#). Groups [F03D 1/04](#), [F05B 2240/124](#) and [F03D 1/051](#) should be considered in order to perform a complete search.
- N F03D 1/053
- • {comprising controllable elements, e.g. inlet valves or shutters}
- WARNING
Group [F03D 1/053](#) is incomplete pending reclassification of documents from group [F03D 1/04](#). Groups [F03D 1/04](#) and [F03D 1/053](#) should be considered in order to perform a complete search.
- C F03D 1/06
- Rotors
- WARNING
Group [F03D 1/06](#) is incomplete pending reclassification of documents from group [F03D 1/0625](#). Group [F03D 1/06](#) is also impacted by reclassification into groups [F03D 1/0602](#), [F03D 1/0606](#) and [F03D 1/0608](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0601
- • {using the Magnus effect}
- N F03D 1/0602
- • {having rotating wind-guiding means, e.g. associated with the hub}
- WARNING
Group [F03D 1/0602](#) is incomplete pending reclassification of documents from groups [F03D 1/06](#), [F03D 1/0608](#) and [F03D 1/0625](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0606
- • • {Shrouds}
- WARNING
Group [F03D 1/0606](#) is incomplete pending reclassification of documents from groups [F03D 1/06](#), [F03D 1/0625](#) and [F05B 2240/33](#). All groups listed in this Warning should be considered in order to perform a complete search.

- C F03D 1/0608 . . . {characterised by their ~~form~~ aerodynamic shape}
- WARNING
 Group F03D 1/0608 is incomplete pending reclassification of documents from groups F03D 1/06 and F03D 1/0625.
 Group F03D 1/0608 is also impacted by reclassification into group F03D 1/0602.
 All groups listed in this Warning should be considered in order to perform a complete search.
- D F03D 1/0616 . . . {using the Magnus-effect}
 <administratively transferred to [F03D 1/0601](#)>
- F F03D 1/0625 (Frozen) . . . {of the whole rotor, i.e. form features of the rotor unit}
- WARNING
 Group F03D 1/0625 is no longer used for the classification of documents as of August 1, 2023.
 The content of this group is being reclassified into groups F03D 1/06, F03D 1/0602, F03D 1/0606 and F03D 1/0608.
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 1/0633 . . . {of the blades}
- WARNING
 Group F03D 1/0633 is impacted by reclassification into groups F03D 1/0642, F03D 1/0643, F03D 1/0645, F03D 1/0647, F03D 1/0648, F03D 1/0649 and F03D 1/06495.
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 1/0641 {of the section profile of the blades, i.e. aerofoil profile}
- WARNING
 Group F03D 1/0641 is incomplete pending reclassification of documents from group F05B 2240/30.
 Group F03D 1/0641 is also impacted by reclassification into groups F03D 1/0642, F03D 1/0643, F03D 1/0645, F03D 1/0647, F03D 1/0648, F03D 1/0649 and F03D 1/06495.
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0642 {of the blade tip region}
- WARNING
 Group [F03D 1/0642](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F05B 2240/301](#) and [F05B 2240/307](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0643 {of the leading edge region}
- WARNING
 Group [F03D 1/0643](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F05B 2240/301](#) and [F05B 2240/303](#).
 All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 1/0645 {of the trailing edge region}
- WARNING
Group [F03D 1/0645](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F05B 2240/301](#), [F05B 2240/304](#) and [F05B 2240/3042](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0647 {of the root or transition region}
- WARNING
Group [F03D 1/0647](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#) and [F05B 2240/301](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0648 {of changeable form, e.g. comprising inflatable elements}
- WARNING
Group [F03D 1/0648](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F05B 2240/301](#), [F05B 2240/31](#), [F05B 2240/311](#), [F05B 2240/312](#), [F05B 2240/3121](#) and [F05B 2240/313](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0649 {of the blade surfaces, e.g. roughened}
- WARNING
Group [F03D 1/0649](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F05B 2240/301](#), [F05B 2240/306](#), [F05B 2240/3062](#) and [F05B 2240/32](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/06495 {Aerodynamic elements attached to or formed with the blade, e.g. flaps, vortex generators or noise reducers}
- WARNING
Group [F03D 1/06495](#) is incomplete pending reclassification of documents from groups [F03D 1/0633](#), [F03D 1/0641](#), [F03D 7/0232](#), [F05B 2240/301](#), [F05B 2240/305](#), [F05B 2240/3052](#), [F05B 2240/306](#) and [F05B 2240/3062](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 1/065 {characterised by their construction, ~~i.e. structural design details~~ elements ([F03D 13/10](#) takes precedence)}
- WARNING
Group [F03D 1/065](#) is incomplete pending reclassification of documents from group [F03D 1/0658](#).
Groups [F03D 1/0658](#) and [F03D 1/065](#) should be considered in order to perform a complete search.
- C F03D 1/0658 {~~Fixing~~ Arrangements for fixing wind-engaging parts to ~~rotor~~ a hub}
- WARNING
Group [F03D 1/0658](#) is impacted by reclassification into groups [F03D 1/065](#), [F03D 1/066](#), [F03D 1/0662](#), [F03D 1/0664](#), [F03D 1/0667](#), [F03D 1/0669](#) and [F03D 1/0671](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 1/066 {Connection means therefor, e.g. bushings or adapters}
- WARNING
Group [F03D 1/066](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F05B 2260/30](#), [F05B 2260/301](#) and [F05B 2260/3011](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0662 {using kinematic linkage, e.g. tilt (bearing arrangements, pitch bearings [F03D 80/70](#))}
- WARNING
Group [F03D 1/0662](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F05B 2260/50](#), [F05B 2260/502](#), [F05B 2260/503](#), [F05B 2260/5032](#), [F05B 2260/504](#), [F05B 2260/505](#), [F05B 2260/506](#) and [F05B 2260/507](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0664 {Pitch arrangements (controlling blade pitch [F03D 7/0224](#))}
- WARNING
Group [F03D 1/0664](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F03D 7/0224](#), [F05B 2260/50](#), [F05B 2260/502](#), [F05B 2260/503](#), [F05B 2260/5032](#), [F05B 2260/504](#), [F05B 2260/505](#), [F05B 2260/506](#), [F05B 2260/507](#), [F05B 2260/70](#), [F05B 2260/75](#), [F05B 2260/76](#), [F05B 2260/77](#), [F05B 2260/78](#) and [F05B 2260/79](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D F03D 1/0666 . . . {of the whole rotor}
- <administratively transferred to [F03D 1/0658](#)>
- N F03D 1/0667 {characterized by the actuator arrangements}
- WARNING
Group [F03D 1/0667](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F03D 7/0224](#), [F05B 2260/70](#), [F05B 2260/75](#), [F05B 2260/76](#), [F05B 2260/77](#), [F05B 2260/78](#), [F05B 2260/79](#), [F05B 2270/605](#) and [F05B 2270/606](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0669 {Hydraulic actuators}
- WARNING
Group [F03D 1/0669](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F03D 7/0224](#), [F05B 2260/76](#), [F05B 2260/79](#) and [F05B 2270/604](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0671 {Electric actuators, e.g. motors}
- WARNING
Group [F03D 1/0671](#) is incomplete pending reclassification of documents from groups [F03D 1/0658](#), [F03D 7/0224](#), [F05B 2260/76](#), [F05B 2260/79](#) and [F05B 2270/602](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- C F03D 1/0675 . . . {of the blades}
- WARNING**
Group [F03D 1/0675](#) is impacted by reclassification into groups [F03D 1/0677](#), [F03D 1/0679](#), [F03D 1/0681](#), [F03D 1/0682](#), [F03D 1/0684](#), [F03D 1/0685](#), [F03D 1/0687](#), [F03D 1/0688](#), [F03D 1/069](#) and [F03D 80/301](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0677 {Longitudinally segmented blades; Connectors therefor}
- WARNING**
Group [F03D 1/0677](#) is incomplete pending reclassification of documents from groups [F03D 1/0675](#) and [F05B 2240/302](#). Groups [F03D 1/0675](#), [F05B 2240/302](#) and [F03D 1/0677](#) should be considered in order to perform a complete search.
- N F03D 1/0679 {Load carrying structures, e.g. beams}
- WARNING**
Groups [F03D 1/0679](#), [F03D 1/0681](#), [F03D 1/0682](#) and [F03D 1/0684](#) are incomplete pending reclassification of documents from groups [F03D 1/0675](#) and [F05B 2280/702](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0681 {Spar caps}
- N F03D 1/0682 {incorporated into the shell structure}
- D F03D 1/0683 {of the section profile of the blades}
- <administratively transferred to [F03D 1/0675](#)>
- N F03D 1/0684 {Shear webs}
- N F03D 1/0685 {Actuation arrangements for elements attached to or incorporated with the blade (controlling flaps or slats [F03D 7/0232](#))}
- WARNING**
Group [F03D 1/0685](#) is incomplete pending reclassification of documents from groups [F03D 1/0675](#), [F03D 7/0232](#), [F05B 2240/30](#), [F05B 2240/305](#) and [F05B 2240/3052](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/0687 {of the blade tip region}
- WARNING**
Group [F03D 1/0687](#) is incomplete pending reclassification of documents from groups [F03D 1/0675](#) and [F05B 2240/307](#). Groups [F03D 1/0675](#), [F05B 2240/307](#) and [F03D 1/0687](#) should be considered in order to perform a complete search.
- N F03D 1/0688 {of the leading edge region, e.g. reinforcements}
- WARNING**
Group [F03D 1/0688](#) is incomplete pending reclassification of documents from group [F03D 1/0675](#). Groups [F03D 1/0675](#) and [F03D 1/0688](#) should be considered in order to perform a complete search.

- N F03D 1/069
- • • {of the trailing edge region}
- WARNING
Group [F03D 1/069](#) is incomplete pending reclassification of documents from group [F03D 1/0675](#).
Groups [F03D 1/0675](#) and [F03D 1/069](#) should be considered in order to perform a complete search.
- U F03D 1/0691
- • • {of the hub}
- N F03D 1/101
- {Nacelles (arrangement of components within nacelles [F03D 80/80](#))}
- WARNING
Groups [F03D 1/101](#), [F03D 1/125](#), [F03D 1/141](#), [F03D 1/165](#) and [F03D 1/188](#) are incomplete pending reclassification of documents from groups [F03D 1/00](#), [F05B 2240/14](#) and [F05B 2240/142](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/125
- • {Access thereto, e.g. doors or platforms}
- N F03D 1/141
- • {Supporting structures, i.e. load carrying structures}
- N F03D 1/165
- • {Fairings, i.e. elements defining or supporting the outer surface}
- N F03D 1/181
- • {characterised by the connection to the tower, e.g. yaw systems (controlling the orientation in relation to wind direction [F03D 7/0204](#))}
- WARNING
Group [F03D 1/181](#) is incomplete pending reclassification of documents from groups [F03D 1/00](#), [F03D 7/0204](#), [F05B 2240/14](#) and [F05B 2240/142](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 1/188
- • {made of several pieces and assembled on-site (assembly of wind motors [F03D 13/10](#))}
- U F03D 3/00** **Wind motors with rotation axis substantially perpendicular to the air flow entering the rotor (controlling thereof [F03D 7/06](#))**
- M F03D 3/002
- {**axis**the axis being horizontal}
- C F03D 3/005
- {**axis**the axis being vertical}
- WARNING
Group [F03D 3/005](#) is impacted by reclassification into groups [F03D 3/009](#) and [F03D 3/011](#).
Groups [F03D 3/005](#), [F03D 3/009](#) and [F03D 3/011](#) should be considered in order to perform a complete search.
- U F03D 3/007
- • {using the Magnus effect}
- N F03D 3/009
- • {of the drag type, e.g. Savonius}
- WARNING
Group [F03D 3/009](#) is incomplete pending reclassification of documents from groups [F03D 3/005](#), [F05B 2240/213](#), [F05B 2240/215](#) and [F05B 2240/216](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 3/011
- • {of the lift type, e.g. Darrieus or Musgrove}
- WARNING
Group [F03D 3/011](#) is incomplete pending reclassification of documents from groups [F03D 3/005](#), [F05B 2240/212](#) and [F05B 2240/214](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- U F03D 3/04
 - having stationary wind-guiding means, e.g. with shrouds or channels ([F03D 9/35](#) takes precedence)
- M F03D 3/0409
 - • {~~having stationary guiding vanes~~ surrounding the rotor ([F03D 3/0427](#) takes precedence)}
- M F03D 3/0418
 - • • {~~the vanes being adjustable~~*comprising controllable elements*}
- M F03D 3/0427
 - • {with ~~augmenting action~~*converging inlets*, i.e. the guiding means intercepting an area greater than the effective rotor area ([F03D 3/0463](#), [F03D 3/049](#) take precedence)}
- M F03D 3/0436
 - • {~~having shield means on~~*for shielding* one side of the rotor}
- M F03D 3/0445
 - • • {~~the shield being~~ fixed with respect to ~~rotor, orientable together~~*the wind motor*}
- M F03D 3/0454
 - • • • {and only with concentrating action, i.e. only increasing the airflow speed into the rotor, *e.g. divergent outlets* ([F03D 3/0463](#) takes precedence)}
- M F03D 3/0463
 - • • • {with ~~augmenting action~~*converging inlets*, i.e. the shield ~~means~~ intercepting an area greater than the effective rotor area}
- M F03D 3/0472
 - • • • {~~orientable with respect to the rotor~~*the shield orientation being adaptable to the wind motor*}
- M F03D 3/0481
 - • • • {and only with concentrating action, i.e. only increasing the airflow speed into the rotor, *e.g. divergent outlets* ([F03D 3/049](#) takes precedence)}
- M F03D 3/049
 - • • • {with ~~augmenting action~~*converging inlets*, i.e. the shield ~~means~~ intercepting an area greater than the effective rotor area}
- U F03D 3/06
 - Rotors
- M F03D 3/061
 - • {~~Form~~*characterised by their aerodynamic shape, e.g. aerofoil profiles*}
- C F03D 3/062
 - • {~~Construction~~*characterised by their construction elements*}

WARNING

Group [F03D 3/062](#) is impacted by reclassification into groups [F03D 3/063](#) and [F03D 3/066](#).

Groups [F03D 3/062](#), [F03D 3/063](#) and [F03D 3/066](#) should be considered in order to perform a complete search.

- N F03D 3/063
 - • • {*Telescoping or folding wind engaging parts*}
 - WARNING**
*Group [F03D 3/063](#) is incomplete pending reclassification of documents from groups [F03D 3/062](#) and [F05B 2240/2021](#).
Groups [F03D 3/062](#), [F05B 2240/2021](#) and [F03D 3/063](#) should be considered in order to perform a complete search.*
- U F03D 3/064
 - • • {Fixing wind engaging parts to rest of rotor}
- D F03D 3/065
 - • • {~~the wind engaging parts having no movement relative to the rotor during its rotation~~}
 - <administratively transferred to [F03D 3/062](#)>
- N F03D 3/066
 - • • {~~the wind engaging parts being movable relative to the rotor~~}
 - WARNING**
*Group [F03D 3/066](#) is incomplete pending reclassification of documents from groups [F03D 3/062](#), [F03D 3/068](#) and [F05B 2240/218](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

- T F03D 3/067
- • • • {the wind engaging parts having a cyclic movement relative to the rotor during its rotation *Cyclic movements*}
- WARNING**
Group *F03D 3/067* is incomplete pending reclassification of documents from groups *F03D 3/068* and *F05B 2240/218*.
Groups *F03D 3/068*, *F05B 2240/218* and *F03D 3/067* should be considered in order to perform a complete search.
- C F03D 3/068
- • • • {the cyclic relative movement being coupled to the movement of rotation *mechanically controlled by the rotor structure*}; Controlling same, e.g. according to wind direction or force}
- WARNING**
Group *F03D 3/068* is incomplete pending reclassification of documents from group *F05B 2240/218*.
Group *F03D 3/068* is also impacted by reclassification into groups *F03D 3/066* and *F03D 3/067*.
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 5/00
- Other wind motors (controlling thereof [F03D 7/00](#))**
- WARNING**
Group *F03D 5/00* is impacted by reclassification into groups *F03D 5/015*, *F03D 9/322* and *F03D 9/324*.
All groups listed in this Warning should be considered in order to perform a complete search.
- U F03D 5/005
- {Wind motors having a single vane which axis generate a conus or like surface}
- N F03D 5/015
- {of the tethered aircraft type, e.g. kites, with traction and retraction of the tether (controlling thereof [F03D 7/051](#))}
- WARNING**
Group [F03D 5/015](#) is incomplete pending reclassification of documents from groups [F03D 5/00](#) and [F05B 2240/9172](#).
Groups [F03D 5/00](#), [F05B 2240/9172](#) and [F03D 5/015](#) should be considered in order to perform a complete search.
- C F03D 7/00
- Controlling wind motors (supplying or distributing electrical power [H02J](#), e.g. arrangements for adjusting, eliminating or compensating reactive power in networks [H02J 3/18](#); controlling electric generators [H02P](#), e.g. arrangements for controlling electric generators for the purpose of obtaining a desired output [H02P 9/00](#))**
- WARNING**
Group *F03D 7/00* is impacted by reclassification into group *F03D 7/051*.
Groups *F03D 7/00* and *F03D 7/051* should be considered in order to perform a complete search.
- C F03D 7/02
- the wind motors having rotation axis substantially parallel to the air flow entering the rotor
- WARNING**
Group *F03D 7/02* is impacted by reclassification into group *F03D 7/0202*.
Groups *F03D 7/02* and *F03D 7/0202* should be considered in order to perform a complete search.

- N F03D 7/0202
- • {controlling floating wind motors}
- WARNING
 Group [F03D 7/0202](#) is incomplete pending reclassification of documents from groups [F03D 7/02](#), [F03D 7/0204](#), [F03D 7/0224](#), [F03D 7/0236](#), [F05B 2240/93](#), [F05B 2240/931](#), [F05B 2240/932](#) and [F05B 2270/18](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 7/0204
- • {for orientation in relation to wind direction}
- WARNING
 Group [F03D 7/0204](#) is impacted by reclassification into groups [F03D 7/0202](#) and [F03D 1/181](#).
 Groups [F03D 7/0204](#), [F03D 7/0202](#) and [F03D 1/181](#) should be considered in order to perform a complete search.
- U F03D 7/022
- • {Adjusting aerodynamic properties of the blades}
- C F03D 7/0224
- • • {Adjusting blade pitch}
- WARNING
 Group [F03D 7/0224](#) is impacted by reclassification into groups [F03D 1/0664](#), [F03D 1/0667](#), [F03D 1/0669](#), [F03D 1/0671](#), [F03D 7/0202](#), [F03D 17/029](#) and [F03D 80/701](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 7/0232
- • • {with flaps or slats (with aerodynamic drag devices on the blades for braking [F03D 7/0252](#))}
- WARNING
 Group [F03D 7/0232](#) is impacted by reclassification into groups [F03D 1/06495](#) and [F03D 1/0685](#).
 Groups [F03D 7/0232](#), [F03D 1/06495](#) and [F03D 1/0685](#) should be considered in order to perform a complete search.
- C F03D 7/0236
- • • {by changing the active surface of the wind engaging parts, e.g. reefing; ~~telescoping, furling or coning~~ or furling}
- WARNING
 Group [F03D 7/0236](#) is impacted by reclassification into groups [F03D 7/0202](#), [F03D 7/0237](#) and [F03D 7/0239](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 7/0237
- • • • {by means of telescoping blades}
- WARNING
 Group [F03D 7/0237](#) is incomplete pending reclassification of documents from groups [F03D 7/0236](#) and [F05B 2240/2021](#).
 Groups [F03D 7/0236](#), [F05B 2240/2021](#) and [F03D 7/0237](#) should be considered in order to perform a complete search.
- N F03D 7/0239
- • • • {by means of teetering or coning blades}
- WARNING
 Group [F03D 7/0239](#) is incomplete pending reclassification of documents from groups [F03D 7/0236](#) and [F05B 2240/2022](#).
 Groups [F03D 7/0236](#), [F05B 2240/2022](#) and [F03D 7/0239](#) should be considered in order to perform a complete search.

- M F03D 7/0264
- • {~~for stopping; for stopping or in emergency situation~~ *controlling in emergency situations* (orientating out of wind [F03D 7/0208](#))}
- M F03D 7/0272
- • {by measures acting on the electrical generator (~~controlling electric generator per se H02P~~)}
- M F03D 7/0276
- • {~~Controlling~~ *controlling* rotor speed, e.g. variable speed}
- T F03D 7/028
- • {~~Controlling~~ *controlling* wind motor output power}
- WARNING**
Group [F03D 7/028](#) is incomplete pending reclassification of documents from group [F03D 7/0288](#).
Groups [F03D 7/0288](#) and [F03D 7/028](#) should be considered in order to perform a complete search.
- M F03D 7/0284
- • {in relation to the state of the electric grid (~~supplying or distributing electric power H02J~~)}
- C F03D 7/0288
- • • {~~to prevent instantaneous damage to any part of the motor~~ *in relation to clearance between the blade and the tower, i.e. preventing tower strike*}
- WARNING**
Group [F03D 7/0288](#) is impacted by reclassification into group [F03D 7/028](#).
Groups [F03D 7/0288](#) and [F03D 7/028](#) should be considered in order to perform a complete search.
- M F03D 7/0292
- • • {to ~~increase fatigue life~~ *reduce fatigue*}
- C F03D 7/0296
- • {to prevent, counteract or reduce ~~vibration or noise~~ *noise emissions*}
- WARNING**
Group [F03D 7/0296](#) is incomplete pending reclassification of documents from group [F05B 2270/333](#).
Group [F03D 7/0296](#) is also impacted by reclassification into groups [F03D 7/0298](#), [F03D 7/0302](#), [F03D 17/015](#), [F03D 17/016](#) and [F03D 17/017](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 7/0298
- • {to prevent, counteract or reduce vibrations}
- WARNING**
Groups [F03D 7/0298](#) and [F03D 7/0302](#) are incomplete pending reclassification of documents from groups [F03D 7/0296](#) and [F05B 2270/334](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 7/0302
- • • {of the tower}
- U F03D 7/04
- • Automatic control; Regulation
- U F03D 7/042
- • • {by means of an electrical or electronic controller}
- C F03D 7/048
- • • • {~~Controlling~~ *controlling* wind farms}
- WARNING**
Group [F03D 7/048](#) is impacted by reclassification into group [F03D 7/049](#).
Groups [F03D 7/048](#) and [F03D 7/049](#) should be considered in order to perform a complete search.
- N F03D 7/049
- • • • {in relation to the wake effect}
- WARNING**
Group [F03D 7/049](#) is incomplete pending reclassification of documents from groups [F03D 7/048](#) and [F05B 2270/204](#).

Groups [F03D 7/048](#), [F05B 2270/204](#) and [F03D 7/049](#) should be considered in order to perform a complete search.

- N F03D 7/051
- {the wind motors being supported in air by airborne structures; of the tethered aircraft type}
- WARNING
Group [F03D 7/051](#) is incomplete pending reclassification of documents from groups [F03D 7/00](#) and [F05B 2270/18](#).
Groups [F03D 7/00](#), [F05B 2270/18](#) and [F03D 7/051](#) should be considered in order to perform a complete search.
- C F03D 7/06
- the wind motors having rotation axis substantially perpendicular to the air flow entering the rotor
- WARNING
Group [F03D 7/06](#) is impacted by reclassification into group [F03D 7/065](#).
Groups [F03D 7/06](#) and [F03D 7/065](#) should be considered in order to perform a complete search.
- N F03D 7/065
- {controlling rotor speed}
- WARNING
Group [F03D 7/065](#) is incomplete pending reclassification of documents from groups [F03D 7/06](#), [F05B 2270/101](#), [F05B 2270/1011](#), [F05B 2270/1012](#) and [F05B 2270/1014](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- U F03D 9/00 Adaptations of wind motors for special use; Combinations of wind motors with apparatus driven thereby; Wind motors specially adapted for installation in particular locations (hybrid wind-photovoltaic energy systems for the generation of electric power [H02S 10/12](#))**
- U F03D 9/20
- Wind motors characterised by the driven apparatus ([F03D 9/10](#) takes precedence)
- C F03D 9/25
- the apparatus being an electrical generator ([F03D 9/22](#) takes precedence)
- WARNING
Group [F03D 9/25](#) is impacted by reclassification into groups [F03D 15/205](#) and [F03D 15/207](#).
Groups [F03D 9/25](#), [F03D 15/205](#) and [F03D 15/207](#) should be considered in order to perform a complete search.
- M F03D 9/255
- {connected to ~~an electrical general supply grid~~ electrical distribution networks; Arrangements therefor}
- C F03D 9/30
- Wind motors specially adapted for installation in particular locations (means for mounting or supporting wind motors [F03D 13/20](#))
- WARNING
Group [F03D 9/30](#) is impacted by reclassification into groups [F03D 9/322](#) and [F03D 9/324](#).
Groups [F03D 9/30](#), [F03D 9/322](#) and [F03D 9/324](#) should be considered in order to perform a complete search.
- C F03D 9/32
- on moving objects, e.g. vehicles
- WARNING
Group [F03D 9/32](#) is impacted by reclassification into groups [F03D 9/322](#) and [F03D 9/324](#).

Groups F03D 9/32, F03D 9/322 and F03D 9/324 should be considered in order to perform a complete search.

- N F03D 9/322
- • {the wind motors being supported in air by airborne structures, e.g. by kites (controlling thereof [F03D 7/051](#))}

WARNING

Group [F03D 9/322](#) is incomplete pending reclassification of documents from groups [F03D 5/00](#), [F03D 9/30](#), [F03D 9/32](#), [F05B 2240/917](#), [F05B 2240/9176](#), [F05B 2240/92](#), [F05B 2240/921](#), [F05B 2240/922](#) and [F05B 2240/923](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 9/324
- • • {following a flying pattern}

WARNING

Group [F03D 9/324](#) is incomplete pending reclassification of documents from groups [F03D 5/00](#), [F03D 9/30](#), [F03D 9/32](#) and [F05B 2240/9174](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- U F03D 9/34
- • on stationary objects or on stationary man-made structures

- C F03D 9/35
- • • within towers, e.g. using chimney effects

WARNING

Group [F03D 9/35](#) is impacted by reclassification into group [F03D 1/048](#). Groups [F03D 9/35](#) and [F03D 1/048](#) should be considered in order to perform a complete search.

- C F03D 9/37
- • • with means for enhancing the air flow within the tower, e.g. by heating

WARNING

Group [F03D 9/37](#) is impacted by reclassification into group [F03D 1/048](#). Groups [F03D 9/37](#) and [F03D 1/048](#) should be considered in order to perform a complete search.

- C F03D 9/39
- • • • by circulation or vortex formation

WARNING

Group [F03D 9/39](#) is impacted by reclassification into group [F03D 1/048](#). Groups [F03D 9/39](#) and [F03D 1/048](#) should be considered in order to perform a complete search.

- C F03D 9/41
- • • • by using the wind outside the tower, e.g. using ejectors

WARNING

Group [F03D 9/41](#) is impacted by reclassification into group [F03D 1/048](#). Groups [F03D 9/41](#) and [F03D 1/048](#) should be considered in order to perform a complete search.

- U F03D 13/00** **Assembly, mounting or commissioning of wind motors; Arrangements specially adapted for transporting wind motor components**

- C F03D 13/10
- Assembly of wind motors; Arrangements for erecting wind motors

WARNING

Group [F03D 13/10](#) is impacted by reclassification into groups [F03D 13/104](#), [F03D 13/108](#), [F03D 13/112](#), [F03D 13/116](#), [F03D 13/122](#), [F03D 13/126](#), [F03D 13/135](#) and [F03D 13/139](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 13/104
- • {Rotor installation, e.g. installation of blades}
- WARNING
 Group [F03D 13/104](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/104](#) should be considered in order to perform a complete search.
- N F03D 13/108
- • • {Alignment, e.g. of blades to rotor hub}
- WARNING
 Group [F03D 13/108](#) is incomplete pending reclassification of documents from groups [F03D 13/10](#) and [F05B 2230/604](#).
 Groups [F03D 13/10](#), [F05B 2230/604](#) and [F03D 13/108](#) should be considered in order to perform a complete search.
- N F03D 13/112
- • {of towers; of masts}
- WARNING
 Group [F03D 13/112](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/112](#) should be considered in order to perform a complete search.
- N F03D 13/116
- • {of nacelles}
- WARNING
 Group [F03D 13/116](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/116](#) should be considered in order to perform a complete search.
- N F03D 13/122
- • {of auxiliary arrangements inside tower or nacelle, e.g. generators or transmission}
- WARNING
 Group [F03D 13/122](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/122](#) should be considered in order to perform a complete search.
- N F03D 13/126
- • {Offshore}
- WARNING
 Group [F03D 13/126](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/126](#) should be considered in order to perform a complete search.
- N F03D 13/135
- • {Pre-assembling, i.e. partially or completely assembling the wind motor before transport to the installation site}
- WARNING
 Group [F03D 13/135](#) is incomplete pending reclassification of documents from group [F03D 13/10](#).
 Groups [F03D 13/10](#) and [F03D 13/135](#) should be considered in order to perform a complete search.
- N F03D 13/139
- • {Assembling or erecting wind motors by using lifting means}
- WARNING
 Group [F03D 13/139](#) is incomplete pending reclassification of documents from groups [F03D 13/10](#), [F05B 2230/61](#) and [F05B 2230/6102](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- C F03D 13/20
- Arrangements for mounting or supporting wind motors; Masts or towers for wind motors
- WARNING
Group [F03D 13/20](#) is incomplete pending reclassification of documents from group [F03D 13/22](#).
Group [F03D 13/20](#) is also impacted by reclassification into groups [F03D 13/2005](#), [F03D 13/201](#), [F03D 13/202](#), [F03D 13/203](#), [F03D 13/204](#), [F03D 13/205](#) and [F03D 13/206](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/2005
- • {Masts or poles}
- WARNING
Group [F03D 13/2005](#) is incomplete pending reclassification of documents from groups [F03D 13/20](#), [F03D 80/00](#) and [F05B 2240/913](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/201
- • {Towers}
- WARNING
Groups [F03D 13/201](#) and [F03D 13/202](#) are incomplete pending reclassification of documents from groups [F03D 13/20](#), [F03D 80/00](#) and [F05B 2240/912](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/202
- • • {Access thereto}
- N F03D 13/203
- • • {Lattice truss}
- WARNING
Group [F03D 13/203](#) is incomplete pending reclassification of documents from groups [F03D 13/20](#), [F03D 80/00](#) and [F05B 2240/912](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/204
- • • {Circumferentially segmented}
- WARNING
Group [F03D 13/204](#) is incomplete pending reclassification of documents from groups [F03D 13/20](#) and [F03D 80/00](#).
Groups [F03D 13/20](#), [F03D 80/00](#) and [F03D 13/204](#) should be considered in order to perform a complete search.
- N F03D 13/205
- • • {Connection means, e.g. joints between segments}
- WARNING
Groups [F03D 13/205](#) and [F03D 13/206](#) are incomplete pending reclassification of documents from groups [F03D 13/20](#), [F03D 13/22](#) and [F03D 80/00](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/206
- • • • {between the tower and the foundation}

- F F03D 13/22
(Frozen)
- {Foundations specially adapted for wind motors}
- WARNING**
Group [F03D 13/22](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [F03D 13/20](#), [F03D 13/205](#), [F03D 13/206](#) and [F03D 13/256](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 13/25
- specially adapted for offshore installation
- WARNING**
Group [F03D 13/25](#) is impacted by reclassification into group [F03D 13/256](#).
Groups [F03D 13/25](#) and [F03D 13/256](#) should be considered in order to perform a complete search.
- N F03D 13/256
- • {on a floating support, i.e. floating wind motors}
- WARNING**
Group [F03D 13/256](#) is incomplete pending reclassification of documents from groups [F03D 13/22](#), [F03D 13/25](#), [F05B 2240/93](#), [F05B 2240/931](#) and [F05B 2240/932](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 13/30
- Commissioning, e.g. inspection, testing or final adjustment before releasing for production
- WARNING**
Group [F03D 13/30](#) is impacted by reclassification into groups [F03D 80/002](#) and [F03D 80/011](#).
Groups [F03D 13/30](#), [F03D 80/002](#) and [F03D 80/011](#) should be considered in order to perform a complete search.
- C F03D 13/40
- Arrangements or methods specially adapted for transporting wind motor components
- WARNING**
Group [F03D 13/40](#) is impacted by reclassification into groups [F03D 13/401](#), [F03D 13/402](#) and [F03D 13/403](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 13/401
- • {for transporting or storing blades}
- WARNING**
Group [F03D 13/401](#) is incomplete pending reclassification of documents from group [F03D 13/40](#).
Groups [F03D 13/40](#) and [F03D 13/401](#) should be considered in order to perform a complete search.
- N F03D 13/402
- • {for transporting or storing towers}
- WARNING**
Group [F03D 13/402](#) is incomplete pending reclassification of documents from group [F03D 13/40](#).
Groups [F03D 13/40](#) and [F03D 13/402](#) should be considered in order to perform a complete search.

- N F03D 13/403
- {for transporting or storing nacelles}
- WARNING
Group [F03D 13/403](#) is incomplete pending reclassification of documents from group [F03D 13/40](#).
Groups [F03D 13/40](#) and [F03D 13/403](#) should be considered in order to perform a complete search.
- C F03D 15/00** **Transmission of mechanical power**
- WARNING
Group [F03D 15/00](#) is impacted by reclassification into groups [F03D 15/10](#), [F03D 15/101](#), [F03D 15/201](#), [F03D 15/202](#), [F03D 15/205](#) and [F03D 15/207](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 15/10
- using gearing not limited to rotary motion, e.g. with oscillating or reciprocating members
- WARNING
Group [F03D 15/10](#) is incomplete pending reclassification of documents from group [F03D 15/00](#).
Group [F03D 15/10](#) is also impacted by reclassification into groups [F03D 15/101](#), [F03D 80/701](#), [F03D 80/703](#), [F03D 80/705](#), [F03D 80/707](#) and [F03D 80/709](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 15/101
- {of the epicyclic or planetary type}
- WARNING
Group [F03D 15/101](#) is incomplete pending reclassification of documents from groups [F03D 15/00](#), [F03D 15/10](#) and [F05B 2260/40311](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- U F03D 15/20
- Gearless transmission, i.e. direct-drive
- N F03D 15/201
- {using friction drives, e.g. belts}
- WARNING
Group [F03D 15/201](#) is incomplete pending reclassification of documents from groups [F03D 15/00](#), [F05B 2260/402](#), [F05B 2260/4021](#), [F05B 2260/4022](#) and [F05B 2260/4023](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 15/202
- {using hydraulic transmission}
- WARNING
Group [F03D 15/202](#) is incomplete pending reclassification of documents from groups [F03D 15/00](#) and [F05B 2260/406](#).
Groups [F03D 15/00](#), [F05B 2260/406](#) and [F03D 15/202](#) should be considered in order to perform a complete search.
- N F03D 15/205
- {to the generator located at the tower bottom}
- WARNING
Group [F03D 15/205](#) is incomplete pending reclassification of documents from groups [F03D 9/25](#) and [F03D 15/00](#).
Groups [F03D 9/25](#), [F03D 15/00](#) and [F03D 15/205](#) should be considered in order to perform a complete search.

- N F03D 15/207
- {to multiple generators, e.g. in series}
- WARNING
Group [F03D 15/207](#) is incomplete pending reclassification of documents from groups [F03D 9/25](#) and [F03D 15/00](#).
Groups [F03D 9/25](#), [F03D 15/00](#) and [F03D 15/207](#) should be considered in order to perform a complete search.
- C F03D 17/00
- Monitoring or testing of wind motors, e.g. diagnostics (testing during commissioning of wind motors [F03D 13/30](#))**
- WARNING
Group [F03D 17/00](#) is impacted by reclassification into groups [F03D 17/001](#), [F03D 17/002](#), [F03D 17/003](#), [F03D 17/004](#), [F03D 17/005](#), [F03D 17/006](#), [F03D 17/0065](#), [F03D 17/007](#), [F03D 17/008](#), [F03D 17/009](#), [F03D 17/011](#), [F03D 17/012](#), [F03D 17/013](#), [F03D 17/014](#), [F03D 17/015](#), [F03D 17/016](#), [F03D 17/017](#), [F03D 17/018](#), [F03D 17/021](#), [F03D 17/022](#), [F03D 17/024](#), [F03D 17/025](#), [F03D 17/026](#), [F03D 17/027](#), [F03D 17/028](#), [F03D 17/0285](#), [F03D 17/029](#), [F03D 17/031](#), [F03D 17/032](#), [F03D 17/033](#), [F03D 17/034](#) and [F03D 17/036](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/001
- {Inspection}
- WARNING
Groups [F03D 17/001](#) and [F03D 17/004](#) are incomplete pending reclassification of documents from groups [F03D 17/00](#), [F03D 80/50](#), [F05B 2260/80](#) and [F05B 2260/83](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/002
- • {by testing or performing a safety check}
- WARNING
Group [F03D 17/002](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F03D 80/50](#) and [F05B 2260/83](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/003
- • {characterised by using optical devices, e.g. lidar or cameras}
- WARNING
Group [F03D 17/003](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F03D 80/50](#), [F05B 2260/83](#), [F05B 2270/804](#), [F05B 2270/8041](#) and [F05B 2270/8042](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/004
- • {by using remote inspection vehicles, e.g. robots or drones}
- N F03D 17/005
- {using computation methods, e.g. neural networks}
- WARNING
Groups [F03D 17/005](#), [F03D 17/006](#) and [F03D 17/0065](#) are incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2260/82](#), [F05B 2260/821](#), [F05B 2260/8211](#) and [F05B 2260/84](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/006
- • {Estimation methods}
- N F03D 17/0065
- • {for diagnostics}

- N F03D 17/007 • {Wind farm monitoring}
- WARNING
Group [F03D 17/007](#) is incomplete pending reclassification of documents from group [F03D 17/00](#).
Groups [F03D 17/00](#) and [F03D 17/007](#) should be considered in order to perform a complete search.
- N F03D 17/008 • • {through wake analysis}
- WARNING
Group [F03D 17/008](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#) and [F05B 2270/204](#).
Groups [F03D 17/00](#), [F05B 2270/204](#) and [F03D 17/008](#) should be considered in order to perform a complete search.
- N F03D 17/009 • {characterised by the purpose}
- WARNING
Groups [F03D 17/009](#) and [F03D 17/014](#) are incomplete pending reclassification of documents from groups [F03D 17/00](#) and [F05B 2260/80](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/011 • • {for monitoring mechanical loads or assessing fatigue; for monitoring structural integrity}
- WARNING
Group [F03D 17/011](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2270/331](#) and [F05B 2270/332](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/012 • • {for monitoring wear or clearance}
- WARNING
Group [F03D 17/012](#) is incomplete pending reclassification of documents from group [F03D 17/00](#).
Groups [F03D 17/00](#) and [F03D 17/012](#) should be considered in order to perform a complete search.
- N F03D 17/013 • • {for detecting abnormalities or damage}
- WARNING
Group [F03D 17/013](#) is incomplete pending reclassification of documents from group [F03D 17/00](#).
Groups [F03D 17/00](#) and [F03D 17/013](#) should be considered in order to perform a complete search.
- N F03D 17/014 • • • {indicative of a fault or failure}
- N F03D 17/015 • • {for monitoring vibrations}
- WARNING
Group [F03D 17/015](#) is incomplete pending reclassification of documents from groups [F03D 7/0296](#), [F03D 17/00](#), [F05B 2260/80](#) and [F05B 2270/334](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 17/016
- • • {indicative of rotor imbalance}
- WARNING
Group [F03D 17/016](#) is incomplete pending reclassification of documents from groups [F03D 7/0296](#) and [F03D 17/00](#).
Groups [F03D 7/0296](#), [F03D 17/00](#) and [F03D 17/016](#) should be considered in order to perform a complete search.
- N F03D 17/017
- • • {Natural frequencies or oscillations}
- WARNING
Group [F03D 17/017](#) is incomplete pending reclassification of documents from groups [F03D 7/0296](#) and [F03D 17/00](#).
Groups [F03D 7/0296](#), [F03D 17/00](#) and [F03D 17/017](#) should be considered in order to perform a complete search.
- N F03D 17/018
- • {for monitoring temperature}
- WARNING
Group [F03D 17/018](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2270/303](#) and [F05B 2270/3032](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/021
- • {for monitoring power or current}
- WARNING
Group [F03D 17/021](#) is incomplete pending reclassification of documents from group [F03D 17/00](#).
Groups [F03D 17/00](#) and [F03D 17/021](#) should be considered in order to perform a complete search.
- N F03D 17/022
- • {for monitoring displacement}
- WARNING
Group [F03D 17/022](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#) and [F05B 2270/821](#).
Groups [F03D 17/00](#), [F05B 2270/821](#) and [F03D 17/022](#) should be considered in order to perform a complete search.
- N F03D 17/024
- • {for monitoring sound or acoustic signals}
- WARNING
Group [F03D 17/024](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2270/333](#) and [F05B 2270/81](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/025
- • {for calibrating}
- WARNING
Group [F03D 17/025](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#) and [F05B 2270/802](#).
Groups [F03D 17/00](#), [F05B 2270/802](#) and [F03D 17/025](#) should be considered in order to perform a complete search.
- N F03D 17/026
- • {for assessing power production capabilities}
- WARNING
Group [F03D 17/026](#) is incomplete pending reclassification of documents from group [F03D 17/00](#).

Groups [F03D 17/00](#) and [F03D 17/026](#) should be considered in order to perform a complete search.

N F03D 17/027

- {characterised by the component being monitored or tested}

WARNING

Group [F03D 17/027](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#) and [F05B 2260/80](#).

Groups [F03D 17/00](#), [F05B 2260/80](#) and [F03D 17/027](#) should be considered in order to perform a complete search.

N F03D 17/028

- • {Blades}

WARNING

Group [F03D 17/028](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2270/17](#), [F05B 2270/33](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 17/0285

- • • {Surfaces thereof}

WARNING

Group [F03D 17/0285](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 17/029

- • {Blade pitch or yaw drive systems, e.g. pitch or yaw angle}

WARNING

Group [F03D 17/029](#) is incomplete pending reclassification of documents from groups [F03D 7/0224](#), [F03D 17/00](#), [F05B 2270/328](#), [F05B 2270/329](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 17/031

- • {Shafts}

WARNING

Group [F03D 17/031](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 17/032

- • {Bearings}

WARNING

Group [F03D 17/032](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 17/033

- • {Gearboxes}

WARNING

Group [F03D 17/033](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 17/034
- • {Towers}
- WARNING
 Group [F03D 17/034](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2270/17](#), [F05B 2270/33](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 17/036
- • {Generators}
- WARNING
 Group [F03D 17/036](#) is incomplete pending reclassification of documents from groups [F03D 17/00](#), [F05B 2260/80](#), [F05B 2270/3032](#), [F05B 2270/332](#), [F05B 2270/333](#) and [F05B 2270/334](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 80/00
- Details, components or accessories not provided for in groups [F03D 1/00](#) - [F03D 17/00](#)**
- WARNING
 Group [F03D 80/00](#) is impacted by reclassification into groups [F03D 13/2005](#), [F03D 13/201](#), [F03D 13/202](#), [F03D 13/203](#), [F03D 13/204](#), [F03D 13/205](#), [F03D 13/206](#), [F03D 80/001](#), [F03D 80/002](#), [F03D 80/003](#), [F03D 80/004](#), [F03D 80/005](#) and [F03D 80/011](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/001
- {Human safety arrangements, e.g. evacuation or emergency}
- WARNING
 Group [F03D 80/001](#) is incomplete pending reclassification of documents from groups [F03D 80/00](#) and [F03D 80/50](#).
 Groups [F03D 80/00](#), [F03D 80/50](#) and [F03D 80/001](#) should be considered in order to perform a complete search.
- N F03D 80/002
- {Micro-siting, i.e. process through which the specific location or arrangement of wind turbine is determined}
- WARNING
 Group [F03D 80/002](#) is incomplete pending reclassification of documents from groups [F03D 13/30](#), [F03D 80/00](#), [F05B 2270/20](#) and [F05B 2270/204](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/003
- {Power-supply to auxiliary components, e.g. to pitch drives or cooling fans}
- WARNING
 Group [F03D 80/003](#) is incomplete pending reclassification of documents from groups [F03D 80/00](#), [F03D 80/82](#), [F03D 80/85](#), [F05B 2270/502](#), [F05B 2270/504](#), [F05B 2270/506](#) and [F05B 2270/508](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/004
- {for reducing adverse effects on animals, e.g. preventing avian collisions; Detection of animals}
- WARNING
 Group [F03D 80/004](#) is incomplete pending reclassification of documents from groups [F03D 80/00](#) and [F03D 80/10](#).

Groups [F03D 80/00](#), [F03D 80/10](#) and [F03D 80/004](#) should be considered in order to perform a complete search.

- N F03D 80/005
- {for reducing noise pollution}
- WARNING
Group [F03D 80/005](#) is incomplete pending reclassification of documents from groups [F03D 80/00](#), [F05B 2260/96](#), [F05B 2260/962](#), [F05B 2260/964](#), [F05B 2260/966](#) and [F05B 2270/333](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/011
- {Decommissioning}
- WARNING
Group [F03D 80/011](#) is incomplete pending reclassification of documents from groups [F03D 13/30](#), [F03D 80/00](#) and [F05B 2230/70](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 80/10
- Arrangements for warning air traffic
- WARNING
Group [F03D 80/10](#) is impacted by reclassification into group [F03D 80/004](#).
Groups [F03D 80/10](#) and [F03D 80/004](#) should be considered in order to perform a complete search.
- C F03D 80/30
- Lightning protection
- WARNING
Group [F03D 80/30](#) is impacted by reclassification into group [F03D 80/301](#).
Groups [F03D 80/30](#) and [F03D 80/301](#) should be considered in order to perform a complete search.
- N F03D 80/301
- {Lightning receptor and down conductor systems in or on blades}
- WARNING
Group [F03D 80/301](#) is incomplete pending reclassification of documents from groups [F03D 1/0675](#), [F03D 80/30](#) and [F05B 2240/85](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 80/40
- Ice detection; De-icing means
- WARNING
Group [F03D 80/40](#) is impacted by reclassification into groups [F03D 80/401](#), [F03D 80/402](#), [F03D 80/403](#) and [F03D 80/405](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/401
- {De-icing by electrical resistance heating}
- WARNING
Group [F03D 80/401](#) is incomplete pending reclassification of documents from group [F03D 80/40](#).
Groups [F03D 80/40](#) and [F03D 80/401](#) should be considered in order to perform a complete search.
- N F03D 80/402
- {De-icing by convective heating}
- WARNING
Group [F03D 80/402](#) is incomplete pending reclassification of documents from group [F03D 80/40](#).

Groups [F03D 80/40](#) and [F03D 80/402](#) should be considered in order to perform a complete search.

N F03D 80/403

- {Inducing vibrations for de-icing; De-icing by shaking}

WARNING

Group [F03D 80/403](#) is incomplete pending reclassification of documents from group [F03D 80/40](#).

Groups [F03D 80/40](#) and [F03D 80/403](#) should be considered in order to perform a complete search.

N F03D 80/405

- {Ice detection}

WARNING

Group [F03D 80/405](#) is incomplete pending reclassification of documents from group [F03D 80/40](#).

Groups [F03D 80/40](#) and [F03D 80/405](#) should be considered in order to perform a complete search.

C F03D 80/50

- Maintenance or repair

WARNING

Group [F03D 80/50](#) is impacted by reclassification into groups [F03D 17/001](#), [F03D 17/002](#), [F03D 17/003](#), [F03D 17/004](#), [F03D 80/001](#), [F03D 80/501](#), [F03D 80/502](#), [F03D 80/504](#), [F03D 80/505](#), [F03D 80/507](#) and [F03D 80/509](#). All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 80/501

- {by using platforms}

WARNING

Group [F03D 80/501](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#), [F03D 80/55](#) and [F05B 2230/80](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N F03D 80/502

- {of rotors or blades}

WARNING

Group [F03D 80/502](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#) and [F05B 2230/80](#).

Groups [F03D 80/50](#), [F05B 2230/80](#) and [F03D 80/502](#) should be considered in order to perform a complete search.

N F03D 80/504

- {of powertrains, e.g. main shafts or generators}

WARNING

Group [F03D 80/504](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#) and [F05B 2230/80](#).

Groups [F03D 80/50](#), [F05B 2230/80](#) and [F03D 80/504](#) should be considered in order to perform a complete search.

N F03D 80/505

- {Locking rotors in position}

WARNING

Group [F03D 80/505](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#), [F05B 2230/80](#) and [F05B 2260/31](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 80/507
- {Retrofitting; Repurposing, i.e. reusing of wind motor parts for different purposes; Upgrading, i.e. replacing parts for improving the wind turbine performance}
- WARNING
Group [F03D 80/507](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#) and [F05B 2230/80](#). Groups [F03D 80/50](#), [F05B 2230/80](#) and [F03D 80/507](#) should be considered in order to perform a complete search.
- N F03D 80/509
- {Maintenance scheduling}
- WARNING
Group [F03D 80/509](#) is incomplete pending reclassification of documents from groups [F03D 80/50](#) and [F05B 2230/80](#). Groups [F03D 80/50](#), [F05B 2230/80](#) and [F03D 80/509](#) should be considered in order to perform a complete search.
- C F03D 80/55
- Cleaning ([F03D 80/40](#) takes precedence)
- WARNING
Group [F03D 80/55](#) is impacted by reclassification into group [F03D 80/501](#). Groups [F03D 80/55](#) and [F03D 80/501](#) should be considered in order to perform a complete search.
- C F03D 80/60
- Cooling or heating of wind motors
- WARNING
Group [F03D 80/60](#) is impacted by reclassification into groups [F03D 80/601](#) and [F03D 80/602](#). Groups [F03D 80/60](#), [F03D 80/601](#) and [F03D 80/602](#) should be considered in order to perform a complete search.
- N F03D 80/601
- {using ambient airflow; Convective cooling of components}
- WARNING
Group [F03D 80/601](#) is incomplete pending reclassification of documents from groups [F03D 80/60](#), [F05B 2240/14](#), [F05B 2260/20](#), [F05B 2260/221](#), [F05B 2260/222](#), [F05B 2260/224](#) and [F05B 2260/2241](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/602
- {Heat transfer circuits; Refrigeration circuits}
- WARNING
Group [F03D 80/602](#) is incomplete pending reclassification of documents from groups [F03D 80/60](#), [F05B 2240/14](#), [F05B 2260/20](#), [F05B 2260/205](#), [F05B 2260/207](#), [F05B 2260/221](#), [F05B 2260/222](#), [F05B 2260/224](#) and [F05B 2260/2241](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C F03D 80/70
- Bearing or lubricating arrangements
- WARNING
Group [F03D 80/70](#) is impacted by reclassification into groups [F03D 80/701](#), [F03D 80/703](#), [F03D 80/705](#), [F03D 80/707](#) and [F03D 80/709](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N F03D 80/701
- • {Pitch or yaw bearings}
- WARNING
Group [F03D 80/701](#) is incomplete pending reclassification of documents from groups [F03D 7/0224](#), [F03D 15/10](#), [F03D 80/70](#), [F05B 2240/50](#), [F05B 2240/51](#), [F05B 2240/511](#), [F05B 2240/515](#), [F05B 2240/52](#), [F05B 2240/53](#), [F05B 2240/54](#) and [F05B 2260/79](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/703
- • {Shaft bearings}
- WARNING
Group [F03D 80/703](#) is incomplete pending reclassification of documents from groups [F03D 15/10](#), [F03D 80/70](#), [F05B 2240/50](#), [F05B 2240/51](#), [F05B 2240/511](#), [F05B 2240/515](#), [F05B 2240/52](#), [F05B 2240/53](#) and [F05B 2240/54](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/705
- • {Lubrication circuits; Lubrication delivery means}
- WARNING
Groups [F03D 80/705](#), [F03D 80/707](#) and [F03D 80/709](#) are incomplete pending reclassification of documents from groups [F03D 15/10](#), [F03D 80/70](#) and [F05B 2260/98](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N F03D 80/707
- • • {Gearing lubrication, e.g. gear boxes}
- N F03D 80/709
- • • {Bearing lubrication}
- U F03D 80/80
- Arrangement of components within nacelles or towers
- C F03D 80/82
- • {of electrical components}
- WARNING
Group [F03D 80/82](#) is impacted by reclassification into groups [F03D 80/003](#) and [F03D 80/821](#).
Groups [F03D 80/82](#), [F03D 80/003](#) and [F03D 80/821](#) should be considered in order to perform a complete search.
- N F03D 80/821
- • • {within nacelles}
- WARNING
Group [F03D 80/821](#) is incomplete pending reclassification of documents from groups [F03D 80/82](#) and [F03D 80/85](#).
Groups [F03D 80/82](#), [F03D 80/85](#) and [F03D 80/821](#) should be considered in order to perform a complete search.
- C F03D 80/85
- • • {Cabling}
- WARNING
Group [F03D 80/85](#) is impacted by reclassification into groups [F03D 80/003](#) and [F03D 80/821](#).
Groups [F03D 80/85](#), [F03D 80/003](#) and [F03D 80/821](#) should be considered in order to perform a complete search.
- C F03D 80/88
- • {of mechanical components}
- WARNING
Group [F03D 80/88](#) is impacted by reclassification into group [F03D 80/881](#).

Groups [F03D 80/88](#) and [F03D 80/881](#) should be considered in order to perform a complete search.

N F03D 80/881

- • • {within nacelles}

WARNING

Group [F03D 80/881](#) is incomplete pending reclassification of documents from group [F03D 80/88](#).

Groups [F03D 80/88](#) and [F03D 80/881](#) should be considered in order to perform a complete search.

Project: RP11800 (F05B)

U F05B 2230/00

Manufacture

NOTE

Manufacture comprises also treatment, assembly or disassembly methods, repairing, handling or the like.

U F05B 2230/60

- Assembly methods

C F05B 2230/604

- • using positioning or alignment devices for aligning or centering, e.g. pins

WARNING

Group [F05B 2230/604](#) is impacted by reclassification into group [F03D 13/108](#).

Groups [F05B 2230/604](#) and [F03D 13/108](#) should be considered in order to perform a complete search.

C F05B 2230/61

- • using auxiliary equipment for lifting or holding ~~(hoisting on to a stationary structure with provisions on the structure itself [F05B 2240/916](#))~~

WARNING

Group [F05B 2230/61](#) is impacted by reclassification into group [F03D 13/139](#). Groups [F05B 2230/61](#) and [F03D 13/139](#) should be considered in order to perform a complete search.

C F05B 2230/6102

- • • carried on a floating platform

WARNING

Group [F05B 2230/6102](#) is impacted by reclassification into group [F03D 13/139](#).

Groups [F05B 2230/6102](#) and [F03D 13/139](#) should be considered in order to perform a complete search.

C F05B 2230/70

- Disassembly methods

WARNING

Group [F05B 2230/70](#) is impacted by reclassification into group [F03D 80/011](#). Groups [F05B 2230/70](#) and [F03D 80/011](#) should be considered in order to perform a complete search.

C F05B 2230/80

- Repairing, retrofitting or upgrading methods

WARNING

Group [F05B 2230/80](#) is impacted by reclassification into groups [F03D 80/501](#), [F03D 80/502](#), [F03D 80/504](#), [F03D 80/505](#), [F03D 80/507](#) and [F03D 80/509](#). All groups listed in this Warning should be considered in order to perform a complete search.

U	F05B 2240/00	Components
		<u>NOTE</u> Components are the basic elements of construction.
U	F05B 2240/10	• Stators
C	F05B 2240/12	• • Fluid guiding means, e.g. vanes
		<u>WARNING</u> Group <u>F05B 2240/12</u> is impacted by reclassification into group <u>F03D 1/046</u> . Groups <u>F05B 2240/12</u> and <u>F03D 1/046</u> should be considered in order to perform a complete search.
C	F05B 2240/121	• • • Baffles or ribs
		<u>WARNING</u> Group <u>F05B 2240/121</u> is impacted by reclassification into group <u>F03D 1/046</u> . Groups <u>F05B 2240/121</u> and <u>F03D 1/046</u> should be considered in order to perform a complete search.
C	F05B 2240/122	• • • Vortex generators, turbulators, or the like, for mixing (by creating turbulence F05B 2260/222)
		<u>WARNING</u> Group <u>F05B 2240/122</u> is impacted by reclassification into group <u>F03D 1/046</u> . Groups <u>F05B 2240/122</u> and <u>F03D 1/046</u> should be considered in order to perform a complete search.
C	F05B 2240/123	• • • Nozzles
		<u>WARNING</u> Group <u>F05B 2240/123</u> is impacted by reclassification into group <u>F03D 1/041</u> . Groups <u>F05B 2240/123</u> and <u>F03D 1/041</u> should be considered in order to perform a complete search.
C	F05B 2240/1231	• • • • Plug nozzles
		<u>WARNING</u> Group <u>F05B 2240/1231</u> is impacted by reclassification into group <u>F03D 1/041</u> . Groups <u>F05B 2240/1231</u> and <u>F03D 1/041</u> should be considered in order to perform a complete search.
C	F05B 2240/124	• • • Cascades, i.e. assemblies of similar profiles acting in parallel
		<u>WARNING</u> Group <u>F05B 2240/124</u> is impacted by reclassification into group <u>F03D 1/051</u> . Groups <u>F05B 2240/124</u> and <u>F03D 1/051</u> should be considered in order to perform a complete search.
C	F05B 2240/13	• • to collect or cause flow towards or away from turbines
		<u>WARNING</u> Group <u>F05B 2240/13</u> is impacted by reclassification into groups <u>F03D 1/041</u> and <u>F03D 1/042</u> . Groups <u>F05B 2240/13</u> , <u>F03D 1/041</u> and <u>F03D 1/042</u> should be considered in order to perform a complete search.

- C F05B 2240/133
- • • with a convergent-divergent guiding structure, e.g. a Venturi conduit
- WARNING**
 Group F05B 2240/133 is impacted by reclassification into group F03D 1/044.
 Groups F05B 2240/133 and F03D 1/044 should be considered in order to perform a complete search.
- C F05B 2240/14
- • Casings, housings, nacelles, gondels or the like, protecting or supporting assemblies *there* within
- WARNING**
 Group F05B 2240/14 is impacted by reclassification into groups F03D 1/101, F03D 1/125, F03D 1/141, F03D 1/165, F03D 1/181, F03D 1/188, F03D 80/601 and F03D 80/602.
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F05B 2240/142
- • • in the form of a standard ISO container
- WARNING**
 Group F05B 2240/142 is impacted by reclassification into groups F03D 1/101, F03D 1/125, F03D 1/141, F03D 1/165, F03D 1/181 and F03D 1/188.
 All groups listed in this Warning should be considered in order to perform a complete search.
- U F05B 2240/20
- Rotors
- U F05B 2240/202
- • with adjustable area of intercepted fluid
- C F05B 2240/2021
- • • by means of telescoping blades
- WARNING**
 Group F05B 2240/2021 is impacted by reclassification into groups F03D 3/063 and F03D 7/0237.
 Groups F05B 2240/2021, F03D 3/063 and F03D 7/0237 should be considered in order to perform a complete search.
- C F05B 2240/2022
- • • by means of ~~tethering~~teetering or coning blades
- WARNING**
 Group F05B 2240/2022 is impacted by reclassification into group F03D 7/0239.
 Groups F05B 2240/2022 and F03D 7/0239 should be considered in order to perform a complete search.
- U F05B 2240/21
- • for wind turbines
- U F05B 2240/211
- • • with vertical axis
- C F05B 2240/212
- • • • of the Darrieus type
- WARNING**
 Group F05B 2240/212 is impacted by reclassification into group F03D 3/011.
 Groups F05B 2240/212 and F03D 3/011 should be considered in order to perform a complete search.
- C F05B 2240/213
- • • • of the Savonius type
- WARNING**
 Group F05B 2240/213 is impacted by reclassification into group F03D 3/009.

- Groups F05B 2240/213 and F03D 3/009 should be considered in order to perform a complete search.*
- C F05B 2240/214 of the Musgrove or "H"-type
- WARNING
Group F05B 2240/214 is impacted by reclassification into group F03D 3/011.
Groups F05B 2240/214 and F03D 3/011 should be considered in order to perform a complete search.*
- C F05B 2240/215 of the panemone or "vehicle ventilator" type
- WARNING
Group F05B 2240/215 is impacted by reclassification into group F03D 3/009.
Groups F05B 2240/215 and F03D 3/009 should be considered in order to perform a complete search.*
- C F05B 2240/216 of the anemometer type
- WARNING
Group F05B 2240/216 is impacted by reclassification into group F03D 3/009.
Groups F05B 2240/216 and F03D 3/009 should be considered in order to perform a complete search.*
- C F05B 2240/218 with horizontally hinged vanes
- WARNING
Group F05B 2240/218 is impacted by reclassification into groups F03D 3/066, F03D 3/067 and F03D 3/068.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2240/30 . . Characteristics of rotor blades, i.e. of any element transforming dynamic fluid energy to or from rotational energy and being attached to a rotor
- WARNING
Group F05B 2240/30 is impacted by reclassification into groups F03D 1/0641 and F03D 1/0685.
Groups F05B 2240/30, F03D 1/0641 and F03D 1/0685 should be considered in order to perform a complete search.*
- C F05B 2240/301 . . . Cross-section characteristics
- WARNING
Group F05B 2240/301 is impacted by reclassification into groups F03D 1/0642, F03D 1/0643, F03D 1/0645, F03D 1/0647, F03D 1/0648, F03D 1/0649 and F03D 1/06495.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2240/302 . . Segmented or sectional blades
- WARNING
Group F05B 2240/302 is impacted by reclassification into group F03D 1/0677.
Groups F05B 2240/302 and F03D 1/0677 should be considered in order to perform a complete search.*

- C F05B 2240/303 . . . Details of the leading edge
- WARNING*
*Group F05B 2240/303 is impacted by reclassification into group F03D 1/0643.
 Groups F05B 2240/303 and F03D 1/0643 should be considered in order to perform a complete search.*
- C F05B 2240/304 . . . Details of the trailing edge
- WARNING*
*Group F05B 2240/304 is impacted by reclassification into group F03D 1/0645.
 Groups F05B 2240/304 and F03D 1/0645 should be considered in order to perform a complete search.*
- C F05B 2240/3042 . . . Serrated trailing edge
- WARNING*
*Group F05B 2240/3042 is impacted by reclassification into group F03D 1/0645.
 Groups F05B 2240/3042 and F03D 1/0645 should be considered in order to perform a complete search.*
- C F05B 2240/305 . . . Flaps, slats or spoilers
- WARNING*
*Group F05B 2240/305 is impacted by reclassification into groups F03D 1/06495 and F03D 1/0685.
 Groups F05B 2240/305, F03D 1/06495 and F03D 1/0685 should be considered in order to perform a complete search.*
- C F05B 2240/3052 . . . adjustable
- WARNING*
*Group F05B 2240/3052 is impacted by reclassification into groups F03D 1/06495 and F03D 1/0685.
 Groups F05B 2240/3052, F03D 1/06495 and F03D 1/0685 should be considered in order to perform a complete search.*
- C F05B 2240/306 . . . Surface measures
- WARNING*
*Group F05B 2240/306 is impacted by reclassification into groups F03D 1/0649 and F03D 1/06495.
 Groups F05B 2240/306, F03D 1/0649 and F03D 1/06495 should be considered in order to perform a complete search.*
- C F05B 2240/3062 . . . Vortex generators
- WARNING*
*Group F05B 2240/3062 is impacted by reclassification into groups F03D 1/0649 and F03D 1/06495.
 Groups F05B 2240/3062, F03D 1/0649 and F03D 1/06495 should be considered in order to perform a complete search.*
- C F05B 2240/307 . . . Blade tip, e.g. winglets
- WARNING*
Group F05B 2240/307 is impacted by reclassification into groups F03D 1/0642 and F03D 1/0687.

Groups F05B 2240/307, F03D 1/0642 and F03D 1/0687 should be considered in order to perform a complete search.

- C F05B 2240/31
 - • • of changeable form or shape

WARNING

Group F05B 2240/31 is impacted by reclassification into group F03D 1/0648.

Groups F05B 2240/31 and F03D 1/0648 should be considered in order to perform a complete search.

- C F05B 2240/311
 - • • • flexible or elastic

WARNING

Group F05B 2240/311 is impacted by reclassification into group F03D 1/0648.

Groups F05B 2240/311 and F03D 1/0648 should be considered in order to perform a complete search.

- C F05B 2240/312
 - • • • capable of being reefed

WARNING

Group F05B 2240/312 is impacted by reclassification into group F03D 1/0648.

Groups F05B 2240/312 and F03D 1/0648 should be considered in order to perform a complete search.

- C F05B 2240/3121
 - • • • • around an axis orthogonal to rotor rotational axis

WARNING

Group F05B 2240/3121 is impacted by reclassification into group F03D 1/0648.

Groups F05B 2240/3121 and F03D 1/0648 should be considered in order to perform a complete search.

- C F05B 2240/313
 - • • • with adjustable flow intercepting area ([F05B 2240/312](#) takes precedence)

WARNING

Group F05B 2240/313 is impacted by reclassification into group F03D 1/0648.

Groups F05B 2240/313 and F03D 1/0648 should be considered in order to perform a complete search.

- C F05B 2240/32
 - • • with roughened ~~surfaces~~ surface

WARNING

Group F05B 2240/32 is impacted by reclassification into group F03D 1/0649.

Groups F05B 2240/32 and F03D 1/0649 should be considered in order to perform a complete search.

- C F05B 2240/33
 - • Shrouds which are part of or which are rotating with the rotor

WARNING

Group F05B 2240/33 is impacted by reclassification into group F03D 1/0606.

Groups F05B 2240/33 and F03D 1/0606 should be considered in order to perform a complete search.

- C F05B 2240/50
 - Bearings

WARNING

Group F05B 2240/50 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/50, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/51

- • magnetic

WARNING

Group F05B 2240/51 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/51, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/511

- • • with permanent magnets

WARNING

Group F05B 2240/511 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/511, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/515

- • • electromagnetic

WARNING

Group F05B 2240/515 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/515, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/52

- • Axial thrust bearings

WARNING

Group F05B 2240/52 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/52, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/53

- • Hydrodynamic or hydrostatic bearings

WARNING

Group F05B 2240/53 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/53, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/54

- • Radial bearings

WARNING

Group F05B 2240/54 is impacted by reclassification into groups F03D 80/701 and F03D 80/703.

Groups F05B 2240/54, F03D 80/701 and F03D 80/703 should be considered in order to perform a complete search.

C F05B 2240/85

- Electrical connection arrangements

WARNING

Group F05B 2240/85 is impacted by reclassification into group F03D 80/301.

Groups F05B 2240/85 and F03D 80/301 should be considered in order to perform a complete search.

U F05B 2240/90

- Mounting on supporting structures or systems

U F05B 2240/91

- • on a stationary structure

- C F05B 2240/912 . . . on a tower
- WARNING
 Group F05B 2240/912 is impacted by reclassification into groups F03D 13/201 and F03D 13/202.
 Groups F05B 2240/912, F03D 13/201 and F03D 13/202 should be considered in order to perform a complete search.
- C F05B 2240/9121 . . . on a lattice tower
- WARNING
 Group F05B 2240/9121 is impacted by reclassification into group F03D 13/203.
 Groups F05B 2240/9121 and F03D 13/203 should be considered in order to perform a complete search.
- C F05B 2240/913 . . . on a mast
- WARNING
 Group F05B 2240/913 is impacted by reclassification into group F03D 13/2005.
 Groups F05B 2240/913 and F03D 13/2005 should be considered in order to perform a complete search.
- C F05B 2240/917 . . . attached to cables
- WARNING
 Group F05B 2240/917 is impacted by reclassification into group F03D 9/322.
 Groups F05B 2240/917 and F03D 9/322 should be considered in order to perform a complete search.
- C F05B 2240/9172 . . . of kite type with traction and retraction
- WARNING
 Group F05B 2240/9172 is impacted by reclassification into group F03D 5/015.
 Groups F05B 2240/9172 and F03D 5/015 should be considered in order to perform a complete search.
- C F05B 2240/9174 . . . of kite type with a turbine and a flying pattern
- WARNING
 Group F05B 2240/9174 is impacted by reclassification into group F03D 9/324.
 Groups F05B 2240/9174 and F03D 9/324 should be considered in order to perform a complete search.
- C F05B 2240/9176 . . . Wing, kites or buoyant bodies with a turbine attached without flying pattern
- WARNING
 Group F05B 2240/9176 is impacted by reclassification into group F03D 9/322.
 Groups F05B 2240/9176 and F03D 9/322 should be considered in order to perform a complete search.
- C F05B 2240/92 . . . on an ~~airborne~~airbourne structure
- WARNING
 Group F05B 2240/92 is impacted by reclassification into group F03D 9/322.

Groups F05B 2240/92 and F03D 9/322 should be considered in order to perform a complete search.

- C F05B 2240/921
 - • • kept aloft due to aerodynamic effects

WARNING

Group F05B 2240/921 is impacted by reclassification into group F03D 9/322.

Groups F05B 2240/921 and F03D 9/322 should be considered in order to perform a complete search.

- C F05B 2240/922
 - • • kept aloft due to buoyancy effects

WARNING

Group F05B 2240/922 is impacted by reclassification into group F03D 9/322.

Groups F05B 2240/922 and F03D 9/322 should be considered in order to perform a complete search.

- C F05B 2240/923
 - • • which is a vehicle

WARNING

Group F05B 2240/923 is impacted by reclassification into group F03D 9/322.

Groups F05B 2240/923 and F03D 9/322 should be considered in order to perform a complete search.

- C F05B 2240/93
 - • on a structure floating on a liquid surface

WARNING

Group F05B 2240/93 is impacted by reclassification into groups F03D 13/256 and F03D 7/0202.

Groups F05B 2240/93, F03D 13/256 and F03D 7/0202 should be considered in order to perform a complete search.

- C F05B 2240/931
 - • • which is a vehicle

WARNING

Group F05B 2240/931 is impacted by reclassification into groups F03D 13/256 and F03D 7/0202.

Groups F05B 2240/931, F03D 13/256 and F03D 7/0202 should be considered in order to perform a complete search.

- C F05B 2240/932
 - • • which is a catamaran-like structure

WARNING

Group F05B 2240/932 is impacted by reclassification into groups F03D 13/256 and F03D 7/0202.

Groups F05B 2240/932, F03D 13/256 and F03D 7/0202 should be considered in order to perform a complete search.

U F05B 2250/00 Geometry

NOTE

Geometry indicates the shape or form of a component or the configuration or arrangement of components in a machine or in a plant.

- U F05B 2250/50
 - Inlet or outlet

- U F05B 2250/501
 - • Inlet

- C F05B 2250/5011
- • • augmenting, i.e. with intercepting fluid flow cross sectional area greater than the rest of the machine behind the inlet
- WARNING**
*Group F05B 2250/5011 is impacted by reclassification into group F03D 1/041.
 Groups F05B 2250/5011 and F03D 1/041 should be considered in order to perform a complete search.*
- C F05B 2250/5012
- • • concentrating only, i.e. with intercepting fluid flow cross sectional area not greater than the rest of the machine behind the inlet
- WARNING**
*Group F05B 2250/5012 is impacted by reclassification into group F03D 1/044.
 Groups F05B 2250/5012 and F03D 1/044 should be considered in order to perform a complete search.*
- U F05B 2260/00** **Function**
- C F05B 2260/20
- Heat transfer, e.g. cooling
- WARNING**
*Group F05B 2260/20 is impacted by reclassification into groups F03D 80/601 and F03D 80/602.
 Groups F05B 2260/20, F03D 80/601 and F03D 80/602 should be considered in order to perform a complete search.*
- C F05B 2260/205
- • Cooling fluid recirculation, i.e. after having cooled one or more components the cooling fluid is recovered and used elsewhere for other purposes
- WARNING**
*Group F05B 2260/205 is impacted by reclassification into group F03D 80/602.
 Groups F05B 2260/205 and F03D 80/602 should be considered in order to perform a complete search.*
- C F05B 2260/207
- • using a phase changing mass, (e.g. heat absorbing by melting or boiling)
- WARNING**
*Group F05B 2260/207 is impacted by reclassification into group F03D 80/602.
 Groups F05B 2260/207 and F03D 80/602 should be considered in order to perform a complete search.*
- C F05B 2260/221
- • Improvement of heat transfer
- WARNING**
*Group F05B 2260/221 is impacted by reclassification into groups F03D 80/601 and F03D 80/602.
 Groups F05B 2260/221, F03D 80/601 and F03D 80/602 should be considered in order to perform a complete search.*
- C F05B 2260/222
- • • by creating turbulence (~~vortex generators, turbulators or the like for mixing F05B 2240/122~~)
- WARNING**
*Group F05B 2260/222 is impacted by reclassification into groups F03D 80/601 and F03D 80/602.
 Groups F05B 2260/222, F03D 80/601 and F03D 80/602 should be considered in order to perform a complete search.*

- C F05B 2260/224 • • • by increasing the heat transfer surface
- WARNING*
Group F05B 2260/224 is impacted by reclassification into groups F03D 80/601 and F03D 80/602.
Groups F05B 2260/224, F03D 80/601 and F03D 80/602 should be considered in order to perform a complete search.
- C F05B 2260/2241 • • • using fins or ribs
- WARNING*
Group F05B 2260/2241 is impacted by reclassification into groups F03D 80/601 and F03D 80/602.
Groups F05B 2260/2241, F03D 80/601 and F03D 80/602 should be considered in order to perform a complete search.
- C F05B 2260/30 • Retaining components in desired mutual position
- WARNING*
Group F05B 2260/30 is impacted by reclassification into group F03D 1/066.
Groups F05B 2260/30 and F03D 1/066 should be considered in order to perform a complete search.
- C F05B 2260/301 • Retaining bolts or nuts
- WARNING*
Group F05B 2260/301 is impacted by reclassification into group F03D 1/066.
Groups F05B 2260/301 and F03D 1/066 should be considered in order to perform a complete search.
- C F05B 2260/3011 • • • of the frangible or shear type
- WARNING*
Group F05B 2260/3011 is impacted by reclassification into group F03D 1/066.
Groups F05B 2260/3011 and F03D 1/066 should be considered in order to perform a complete search.
- C F05B 2260/31 • Locking rotor in position
- WARNING*
Group F05B 2260/31 is impacted by reclassification into group F03D 80/505.
Groups F05B 2260/31 and F03D 80/505 should be considered in order to perform a complete search.
- U F05B 2260/40 • Transmission of power
- C F05B 2260/402 • • through friction drives
- WARNING*
Group F05B 2260/402 is impacted by reclassification into group F03D 15/201.
Groups F05B 2260/402 and F03D 15/201 should be considered in order to perform a complete search.
- C F05B 2260/4021 • • • through belt drives
- WARNING*
Group F05B 2260/4021 is impacted by reclassification into group F03D 15/201.
Groups F05B 2260/4021 and F03D 15/201 should be considered in order to perform a complete search.

- C F05B 2260/4022 . . . through endless chains
- WARNING**
 Group F05B 2260/4022 is impacted by reclassification into group F03D 15/201.
 Groups F05B 2260/4022 and F03D 15/201 should be considered in order to perform a complete search.
- C F05B 2260/4023 . . . through a friction clutch
- WARNING**
 Group F05B 2260/4023 is impacted by reclassification into group F03D 15/201.
 Groups F05B 2260/4023 and F03D 15/201 should be considered in order to perform a complete search.
- U F05B 2260/403 . . through the shape of the drive components
- U F05B 2260/4031 . . . as in toothed gearing
- C F05B 2260/40311 . . . of the epicyclic, planetary or differential type
- WARNING**
 Group F05B 2260/40311 is impacted by reclassification into group F03D 15/101.
 Groups F05B 2260/40311 and F03D 15/101 should be considered in order to perform a complete search.
- C F05B 2260/406 . . through hydraulic systems
- WARNING**
 Group F05B 2260/406 is impacted by reclassification into group F03D 15/202.
 Groups F05B 2260/406 and F03D 15/202 should be considered in order to perform a complete search.
- C F05B 2260/50 . Kinematic linkage, i.e. transmission of position
- WARNING**
 Group F05B 2260/50 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
 Groups F05B 2260/50, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/502 . . involving springs
- WARNING**
 Group F05B 2260/502 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
 Groups F05B 2260/502, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/503 . . using gears
- WARNING**
 Group F05B 2260/503 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
 Groups F05B 2260/503, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.

- C F05B 2260/5032
- • of the bevel or angled type
- WARNING**
Group F05B 2260/5032 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
Groups F05B 2260/5032, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/504
- • using flat or V-belts and pulleys
- WARNING**
Group F05B 2260/504 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
Groups F05B 2260/504, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/505
- • using chains and sprockets; using toothed belts
- WARNING**
Group F05B 2260/505 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
Groups F05B 2260/505, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/506
- • using cams or eccentrics
- WARNING**
Group F05B 2260/506 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
Groups F05B 2260/506, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/507
- • using servos, independent actuators, etc.
- WARNING**
Group F05B 2260/507 is impacted by reclassification into groups F03D 1/0662 and F03D 1/0664.
Groups F05B 2260/507, F03D 1/0662 and F03D 1/0664 should be considered in order to perform a complete search.
- C F05B 2260/70
- Adjusting of angle of incidence or attack of rotating blades
- WARNING**
Group F05B 2260/70 is impacted by reclassification into groups F03D 1/0664 and F03D 1/0667.
Groups F05B 2260/70, F03D 1/0664 and F03D 1/0667 should be considered in order to perform a complete search.
- C F05B 2260/75
- • the adjusting mechanism not using auxiliary power sources ("~~servos~~"), e.g. servos
- WARNING**
Group F05B 2260/75 is impacted by reclassification into groups F03D 1/0664 and F03D 1/0667.
Groups F05B 2260/75, F03D 1/0664 and F03D 1/0667 should be considered in order to perform a complete search.
- C F05B 2260/76
- • the adjusting mechanism using auxiliary power sources
- WARNING**
Group F05B 2260/76 is impacted by reclassification into groups F03D 1/0664, F03D 1/0667, F03D 1/0669 and F03D 1/0671.

All groups listed in this Warning should be considered in order to perform a complete search.

- C F05B 2260/77
 - the adjusting mechanism driven or triggered by centrifugal forces

WARNING
*Group F05B 2260/77 is impacted by reclassification into groups F03D 1/0664 and F03D 1/0667.
Groups F05B 2260/77, F03D 1/0664 and F03D 1/0667 should be considered in order to perform a complete search.*
- C F05B 2260/78
 - the adjusting mechanism driven or triggered by aerodynamic forces

WARNING
*Group F05B 2260/78 is impacted by reclassification into groups F03D 1/0664 and F03D 1/0667.
Groups F05B 2260/78, F03D 1/0664 and F03D 1/0667 should be considered in order to perform a complete search.*
- C F05B 2260/79
 - Bearing, support or actuation arrangements therefor

WARNING
*Group F05B 2260/79 is impacted by reclassification into groups F03D 1/0664, F03D 1/0667, F03D 1/0669, F03D 1/0671 and F03D 80/701.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/80
 - Diagnostics

WARNING
*Group F05B 2260/80 is impacted by reclassification into groups F03D 17/001, F03D 17/004, F03D 17/005, F03D 17/006, F03D 17/0065, F03D 17/009, F03D 17/011, F03D 17/014, F03D 17/015, F03D 17/027, F03D 17/028, F03D 17/032, F03D 17/034 and F03D 17/036.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/82
 - Forecasts

WARNING
*Group F05B 2260/82 is impacted by reclassification into groups F03D 17/005, F03D 17/006 and F03D 17/0065.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/821
 - Parameter estimation or prediction

WARNING
*Group F05B 2260/821 is impacted by reclassification into groups F03D 17/005, F03D 17/006 and F03D 17/0065.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/8211
 - of the weather

WARNING
*Group F05B 2260/8211 is impacted by reclassification into groups F03D 17/005, F03D 17/006 and F03D 17/0065.
All groups listed in this Warning should be considered in order to perform a complete search.*

- C F05B 2260/83
- Testing, e.g. methods, components or tools therefor
- WARNING**
*Group F05B 2260/83 is impacted by reclassification into groups F03D 17/001, F03D 17/002, F03D 17/003 and F03D 17/004.
 All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/84
- Modelling or simulation
- WARNING**
*Group F05B 2260/84 is impacted by reclassification into groups F03D 17/005, F03D 17/006 and F03D 17/0065.
 All groups listed in this Warning should be considered in order to perform a complete search.*
- C F05B 2260/96
- Preventing, counteracting or reducing vibration or noise
- WARNING**
*Group F05B 2260/96 is impacted by reclassification into group F03D 80/005.
 Groups F05B 2260/96 and F03D 80/005 should be considered in order to perform a complete search.*
- C F05B 2260/962
- • **my**by means creating "anti-noise"
- WARNING**
*Group F05B 2260/962 is impacted by reclassification into group F03D 80/005.
 Groups F05B 2260/962 and F03D 80/005 should be considered in order to perform a complete search.*
- C F05B 2260/964
- • by damping means
- WARNING**
*Group F05B 2260/964 is impacted by reclassification into group F03D 80/005.
 Groups F05B 2260/964 and F03D 80/005 should be considered in order to perform a complete search.*
- C F05B 2260/966
- • by correcting static or dynamic imbalance
- WARNING**
*Group F05B 2260/966 is impacted by reclassification into group F03D 80/005.
 Groups F05B 2260/966 and F03D 80/005 should be considered in order to perform a complete search.*
- C F05B 2260/98
- Lubrication
- WARNING**
*Group F05B 2260/98 is impacted by reclassification into groups F03D 80/705, F03D 80/707 and F03D 80/709.
 All groups listed in this Warning should be considered in order to perform a complete search.*
- U F05B 2270/00 Control**
- U F05B 2270/10
- Purpose of the control system
- C F05B 2270/101
- • to control rotational speed (n)
- WARNING**
Group F05B 2270/101 is impacted by reclassification into group F03D 7/065.

Groups F05B 2270/101 and F03D 7/065 should be considered in order to perform a complete search.

C F05B 2270/1011

- • • to prevent overspeed

WARNING

Group F05B 2270/1011 is impacted by reclassification into group F03D 7/065.

Groups F05B 2270/1011 and F03D 7/065 should be considered in order to perform a complete search.

C F05B 2270/1012

- • • to prevent underspeed

WARNING

Group F05B 2270/1012 is impacted by reclassification into group F03D 7/065.

Groups F05B 2270/1012 and F03D 7/065 should be considered in order to perform a complete search.

C F05B 2270/1014

- • • to keep rotational speed constant

WARNING

Group F05B 2270/1014 is impacted by reclassification into group F03D 7/065.

Groups F05B 2270/1014 and F03D 7/065 should be considered in order to perform a complete search.

C F05B 2270/17

- • to avoid excessive deflection of the blades

WARNING

Group F05B 2270/17 is impacted by reclassification into groups F03D 17/028 and F03D 17/034.

Groups F05B 2270/17, F03D 17/028 and F03D 17/034 should be considered in order to perform a complete search.

C F05B 2270/18

- • to control buoyancy

WARNING

Group F05B 2270/18 is impacted by reclassification into groups F03D 7/0202 and F03D 7/051.

Groups F05B 2270/18, F03D 7/0202 and F03D 7/051 should be considered in order to perform a complete search.

C F05B 2270/20

- • to optimise the performance of a machine

WARNING

Group F05B 2270/20 is impacted by reclassification into group F03D 80/002.

Groups F05B 2270/20 and F03D 80/002 should be considered in order to perform a complete search.

C F05B 2270/204

- • • taking into account the wake effect

WARNING

Group F05B 2270/204 is impacted by reclassification into groups F03D 17/008, F03D 80/002 and F03D 7/049.

All groups listed in this Warning should be considered in order to perform a complete search.

U F05B 2270/30

- Control parameters, e.g. input parameters

- C F05B 2270/303
- Temperature
- WARNING**
 Group F05B 2270/303 is impacted by reclassification into group F03D 17/018.
 Groups F05B 2270/303 and F03D 17/018 should be considered in order to perform a complete search.
- C F05B 2270/3032
- excessive temperatures, e.g. caused by overheating
- WARNING**
 Group F05B 2270/3032 is impacted by reclassification into groups F03D 17/018 and F03D 17/036.
 Groups F05B 2270/3032, F03D 17/018 and F03D 17/036 should be considered in order to perform a complete search.
- C F05B 2270/328
- Blade pitch angle
- WARNING**
 Group F05B 2270/328 is impacted by reclassification into group F03D 17/029.
 Groups F05B 2270/328 and F03D 17/029 should be considered in order to perform a complete search.
- C F05B 2270/329
- Azimuth or yaw angle
- WARNING**
 Group F05B 2270/329 is impacted by reclassification into group F03D 17/029.
 Groups F05B 2270/329 and F03D 17/029 should be considered in order to perform a complete search.
- C F05B 2270/33
- Proximity of blade to tower
- WARNING**
 Group F05B 2270/33 is impacted by reclassification into groups F03D 17/028 and F03D 17/034.
 Groups F05B 2270/33, F03D 17/028 and F03D 17/034 should be considered in order to perform a complete search.
- C F05B 2270/331
- Mechanical loads
- WARNING**
 Group F05B 2270/331 is impacted by reclassification into group F03D 17/011.
 Groups F05B 2270/331 and F03D 17/011 should be considered in order to perform a complete search.
- C F05B 2270/332
- Maximum loads or fatigue criteria
- WARNING**
 Group F05B 2270/332 is impacted by reclassification into groups F03D 17/011, F03D 17/028, F03D 17/0285, F03D 17/029, F03D 17/031, F03D 17/032, F03D 17/033, F03D 17/034 and F03D 17/036.
 All groups listed in this Warning should be considered in order to perform a complete search.
- C F05B 2270/333
- Noise or sound levels
- WARNING**
 Group F05B 2270/333 is impacted by reclassification into groups F03D 7/0296, F03D 17/024, F03D 17/028, F03D 17/0285, F03D 17/029,

F03D 17/031, F03D 17/032, F03D 17/033, F03D 17/034, F03D 17/036 and F03D 80/005.

All groups listed in this Warning should be considered in order to perform a complete search.

- C F05B 2270/334 • • Vibration measurements

WARNING

Group F05B 2270/334 is impacted by reclassification into groups F03D 7/0298, F03D 7/0302, F03D 17/015, F03D 17/028, F03D 17/0285, F03D 17/029, F03D 17/031, F03D 17/032, F03D 17/033, F03D 17/034 and F03D 17/036.

All groups listed in this Warning should be considered in order to perform a complete search.

- U F05B 2270/50 • Control logic embodiment by

- C F05B 2270/502 • • electrical means, e.g. relays or switches

WARNING

Group F05B 2270/502 is impacted by reclassification into group F03D 80/003.

Groups F05B 2270/502 and F03D 80/003 should be considered in order to perform a complete search.

- C F05B 2270/504 • • electronic means, e.g. electronic tubes, transistors or IC's within an electronic circuit

WARNING

Group F05B 2270/504 is impacted by reclassification into group F03D 80/003.

Groups F05B 2270/504 and F03D 80/003 should be considered in order to perform a complete search.

- C F05B 2270/506 • • hydraulic means, e.g. hydraulic valves within a hydraulic circuit

WARNING

Group F05B 2270/506 is impacted by reclassification into group F03D 80/003.

Groups F05B 2270/506 and F03D 80/003 should be considered in order to perform a complete search.

- C F05B 2270/508 • • mechanical means, e.g. levers, gears or cams

WARNING

Group F05B 2270/508 is impacted by reclassification into group F03D 80/003.

Groups F05B 2270/508 and F03D 80/003 should be considered in order to perform a complete search.

- U F05B 2270/60 • Control system actuates through

- C F05B 2270/602 • • electrical actuators

WARNING

Group F05B 2270/602 is impacted by reclassification into group F03D 1/0671.

Groups F05B 2270/602 and F03D 1/0671 should be considered in order to perform a complete search.

- C F05B 2270/604
- hydraulic actuators
- WARNING**
Group F05B 2270/604 is impacted by reclassification into group F03D 1/0669.
Groups F05B 2270/604 and F03D 1/0669 should be considered in order to perform a complete search.
- C F05B 2270/605
- ~~Pneumatic~~*pneumatic* actuators
- WARNING**
Group F05B 2270/605 is impacted by reclassification into group F03D 1/0667.
Groups F05B 2270/605 and F03D 1/0667 should be considered in order to perform a complete search.
- C F05B 2270/606
- mechanical actuators (F05B 2270/602 takes precedence)
- WARNING**
Group F05B 2270/606 is impacted by reclassification into group F03D 1/0667.
Groups F05B 2270/606 and F03D 1/0667 should be considered in order to perform a complete search.
- U F05B 2270/80
- Devices generating input signals, e.g. transducers, sensors, cameras or strain gauges
- C F05B 2270/802
- Calibration thereof
- WARNING**
Group F05B 2270/802 is impacted by reclassification into group F03D 17/025.
Groups F05B 2270/802 and F03D 17/025 should be considered in order to perform a complete search.
- C F05B 2270/804
- Optical devices
- WARNING**
Group F05B 2270/804 is impacted by reclassification into group F03D 17/003.
Groups F05B 2270/804 and F03D 17/003 should be considered in order to perform a complete search.
- C F05B 2270/8041
- Cameras
- WARNING**
Group F05B 2270/8041 is impacted by reclassification into group F03D 17/003.
Groups F05B 2270/8041 and F03D 17/003 should be considered in order to perform a complete search.
- C F05B 2270/8042
- Lidar systems
- WARNING**
Group F05B 2270/8042 is impacted by reclassification into group F03D 17/003.
Groups F05B 2270/8042 and F03D 17/003 should be considered in order to perform a complete search.
- C F05B 2270/81
- Microphones
- WARNING**
Group F05B 2270/81 is impacted by reclassification into group F03D 17/024.

Groups [F05B 2270/81](#) and [F03D 17/024](#) should be considered in order to perform a complete search.

- C F05B 2270/821
- Displacement measuring means, e.g. inductive

WARNING

Group [F05B 2270/821](#) is impacted by reclassification into group [F03D 17/022](#).

Groups [F05B 2270/821](#) and [F03D 17/022](#) should be considered in order to perform a complete search.

U F05B 2280/00

Materials; Properties thereof

- U F05B 2280/70

- Treatments or modification of materials

- C F05B 2280/702

- Reinforcements

WARNING

Group [F05B 2280/702](#) is impacted by reclassification into groups [F03D 1/0679](#), [F03D 1/0681](#), [F03D 1/0682](#) and [F03D 1/0684](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP11801-C (H10K)

- U H10K 39/00**

Integrated devices, or assemblies of multiple devices, comprising at least one organic radiation-sensitive element covered by group [H10K 30/00](#)

NOTE

This group only covers devices that are sensitive to infrared radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation.

- M H10K 39/10

- Organic photovoltaic [PV] modules; Arrays of single organic PV cells

WARNING

Group [H10K 39/10](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and, [H01L 25/18](#) and [H10K 39/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Group [H10K 39/10](#) is also impacted by reclassification into groups [H10K 39/12](#), [H10K 39/15](#) and [H10K 39/18](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- M H10K 39/12

- Electrical configurations of PV cells, e.g. series connections or parallel connections

WARNING

Group [H10K 39/12](#) is incomplete pending reclassification of documents from ~~group~~ groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#), [H01L 25/18](#), [H10K 39/10](#) and [H10K 39/601](#).

~~Groups~~ *All [H10K 39/10](#) and groups listed [H10K 39/12](#) in this Warning should be considered in order to perform a complete search.*

- M H10K 39/15

- comprising both organic PV cells and inorganic PV cells

WARNING

Group [H10K 39/15](#) is incomplete pending reclassification of documents from ~~group~~ groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#),

[H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#), [H01L 25/18](#),
[H10K 39/10](#) and [H10K 39/601](#).

Groups [All H10K 39/10](#) and groups listed [H10K 39/15](#) in this Warning should be considered in order to perform a complete search.

M H10K 39/18

- Interconnections, e.g. terminals

WARNING

Group [H10K 39/18](#) is incomplete pending reclassification of documents from ~~group~~ groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#), [H01L 25/18](#), [H10K 39/10](#) and [H10K 39/601](#).

Groups [All H10K 39/10](#) and groups listed [H10K 39/18](#) in this Warning should be considered in order to perform a complete search.

C H10K 39/601

- {Assemblies of multiple devices comprising at least one organic radiation-sensitive element}

WARNING

Group [H10K 39/601](#) is impacted by reclassification into group [H10K 39/621](#). Groups [H10K 39/601](#) and [H10K 39/621](#) should be considered in order to perform a complete search.

Groups [H10K 39/601](#) is incomplete pending reclassification of documents from groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#). All groups listed in this Warning should be considered in order to perform a complete search.

Group [H10K 39/601](#) is also impacted by reclassification into groups [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#) and [H10K 39/621](#). All groups listed in this Warning should be considered in order to perform a complete search.

M H10K 39/621

- {comprising only organic radiation-sensitive elements}

WARNING

Group Groups [H10K 39/621](#) is incomplete pending reclassification of documents from ~~group~~ groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#), [H01L 25/18](#) and [H10K 39/601](#).

Groups [All H10K 39/601](#) and groups listed [H10K 39/621](#) in this Warning should be considered in order to perform a complete search.

Project: RP11944-C (H01L)

U H01L 25/00

Assemblies consisting of a plurality of individual semiconductor or other solid state devices {; Multistep manufacturing processes thereof} (devices consisting of a plurality of solid state components formed in or on a common substrate [H01L 27/00](#); photovoltaic modules or arrays of photovoltaic cells [H01L 31/042](#) {; panels or arrays of photo electrochemical cells [H01G 9/2068](#)})

NOTE

{This group does not cover:

- assemblies of electronic memory devices only, which are covered by [H10B 80/00](#);
- assemblies of organic devices only, which are covered by groups [H10K 19/00](#), [H10K 39/00](#), [H10K 59/00](#) or [H10K 65/00](#);
- assemblies of electric solid-state devices only, which are covered by groups [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) or [H10N 89/00](#).

}

- U H01L 25/03
 - all the devices being of a type provided for in the same subgroup of groups [H01K 27/00](#) - [H01L 33/00](#), or in a single subclass of [H10K](#), [H10N](#), e.g. assemblies of rectifier diodes
- C H01L 25/04
 - • the devices not having separate containers
 - WARNING
Group [H01L 25/04](#) is impacted by reclassification into groups [H10K 19/00](#)[H10N 19/00](#), [H10K 39/10](#)[H10N 39/00](#), [H10K 59/90](#)[H10N 59/00](#), [H10K 59/95](#)[H10N 69/00](#), [H10N 79/00](#) and [H10K 65/00](#)[H10N 89/00](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C H01L 25/065
 - • • the devices being of a type provided for in group [H01L 27/00](#)
 - NOTE
Group [H01L 25/0652](#) takes precedence over groups [H01L 25/0655](#) and [H01L 25/0657](#)
 - WARNING
Group [H01L 25/065](#) is impacted by reclassification into **group**groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
GroupsAll [H01L 25/065](#) and groups listed [H10B 80/00](#) in this Warning should be considered in order to perform a complete search.
- C H01L 25/0652
 - • • {the devices being arranged next and on each other, i.e. mixed assemblies}
 - WARNING
Group [H01L 25/0652](#) is impacted by reclassification into **group**groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
GroupsAll [H01L 25/0652](#) and groups listed [H10B 80/00](#) in this Warning should be considered in order to perform a complete search.
- C H01L 25/0655
 - • • {the devices being arranged next to each other}
 - WARNING
Group [H01L 25/0655](#) is impacted by reclassification into **group**groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
GroupsAll [H01L 25/0655](#) and groups listed [H10B 80/00](#) in this Warning should be considered in order to perform a complete search.
- C H01L 25/0657
 - • • {Stacked arrangements of devices}
 - WARNING
Group [H01L 25/0657](#) is impacted by reclassification into **group**groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
GroupsAll [H01L 25/0657](#) and groups listed [H10B 80/00](#) in this Warning should be considered in order to perform a complete search.

- C H01L 25/16
- the devices being of types provided for in two or more different main groups of groups [H01L 27/00](#) - [H01L 33/00](#), or in a single subclass of [H10K](#), [H10N](#), e.g. forming hybrid circuits
- WARNING**
 Groups ~~Group H01L 25/16~~, ~~H01L 25/162~~, ~~is H01L 25/165~~ and ~~H01L 25/167~~ are impacted by reclassification into groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C H01L 25/162
- {the devices being mounted on two or more different substrates}
- WARNING**
 Group [H01L 25/162](#) is impacted by reclassification into groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C H01L 25/165
- {Containers}
- WARNING**
 Group [H01L 25/165](#) is impacted by reclassification into groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C H01L 25/167
- {comprising optoelectronic devices, e.g. LED, photodiodes}
- WARNING**
 Group [H01L 25/167](#) is impacted by reclassification into groups [H10B 80/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- C H01L 25/18
- the devices being of types provided for in two or more different subgroups of the same main group of groups [H01L 27/00](#) - [H01L 33/00](#), or in a single subclass of [H10K](#), [H10N](#)
- WARNING**
 Group [H01L 25/18](#) is impacted by reclassification into groups [H10B 80/00](#), [H10K 19/00](#), [H10K 39/10](#), [H10K 39/12](#), [H10K 39/15](#), [H10K 39/18](#), [H10K 39/601](#), [H10K 39/621](#), [H10K 59/90](#), [H10K 59/95](#), [H10K 65/00](#), [H10N 19/00](#), [H10N 39/00](#), [H10N 59/00](#), [H10N 69/00](#), [H10N 79/00](#) and [H10N 89/00](#).
 All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP11944-C (H10B)

M H10B 80/00 Assemblies of multiple devices comprising at least one memory device covered by this subclass

WARNING

Group [H10B 80/00](#) is incomplete pending reclassification of documents from groups [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP11944-C (H10K)

M H10K 19/00 Integrated devices, or assemblies of multiple devices, comprising at least one organic element specially adapted for rectifying, amplifying, oscillating or switching, covered by group [H10K 10/00](#)

WARNING

Group [H10K 19/00](#) is incomplete pending reclassification of documents from ~~groups~~group ~~H01L 25/04~~ and [H01L 25/18](#). *Groups [H01L 25/18](#) and [H10K 19/00](#) should be considered in order to perform a complete search.*

Group [H10K 19/00](#) is also impacted by reclassification into group [H10K 19/80](#). Groups [H10K 19/00](#) and [H10K 19/80](#) should be considered in order to perform a complete search.

U H10K 59/00 Integrated devices, or assemblies of multiple devices, comprising at least one organic light-emitting element covered by group [H10K 50/00](#)

WARNING

Group [H10K 59/00](#) is impacted by reclassification into groups [H10K 59/70](#) and [H10K 59/80](#) - [H10K 59/88](#).

Groups [H10K 59/00](#), [H10K 59/70](#) and [H10K 59/80](#) - [H10K 59/88](#) should be considered in order to perform a complete search.

M H10K 59/90 - Assemblies of multiple devices comprising at least one organic light-emitting element

WARNING

~~Group~~Groups [H10K 59/90](#) ~~is~~and [H10K 59/95](#) ~~are~~ incomplete pending reclassification of documents from groups ~~H01L 25/04~~[H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Group [H10K 59/90](#) is also impacted by reclassification into group [H10K 59/95](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP11944-C (H10N)

M H10N 19/00 Integrated devices, or assemblies of multiple devices, comprising at least one thermoelectric or thermomagnetic element covered by groups [H10N 10/00](#) - [H10N 15/00](#)

WARNING

Group [H10N 19/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- M H10N 39/00** **Integrated devices, or assemblies of multiple devices, comprising at least one piezoelectric, electrostrictive or magnetostrictive element covered by groups [H10N 30/00](#) – [H10N 35/00](#)**
- WARNING
- Group [H10N 39/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- M H10N 59/00** **Integrated devices, or assemblies of multiple devices, comprising at least one galvanomagnetic or Hall-effect element covered by groups [H10N 50/00](#) - [H10N 52/00](#) (MRAM devices [H10B 61/00](#))**
- WARNING
- Group [H10N 59/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).
All groups listed in this Warning should be considered in order to perform a complete search.
Group [H10N 59/00](#) is also impacted by reclassification into group [H10B 61/00](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- M H10N 69/00** **Integrated devices, or assemblies of multiple devices, comprising at least one superconducting element covered by group [H10N 60/00](#)**
- WARNING
- Group [H10N 69/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- M H10N 79/00** **Integrated devices, or assemblies of multiple devices, comprising at least one solid-state element covered by group [H10N 70/00](#) (ReRAM devices [H10B 63/00](#); PCRAM devices [H10B 63/10](#))**
- WARNING
- Group [H10N 79/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#), [H01L 25/18](#) and [H10B 63/00](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- M H10N 89/00** **Integrated devices, or assemblies of multiple devices, comprising at least one bulk negative resistance effect element covered by group [H10N 80/00](#)**
- WARNING
- Group [H10N 89/00](#) is incomplete pending reclassification of documents from groups [H01L 25/04](#), [H01L 25/065](#), [H01L 25/0652](#), [H01L 25/0655](#), [H01L 25/0657](#), [H01L 25/16](#), [H01L 25/162](#), [H01L 25/165](#), [H01L 25/167](#) and [H01L 25/18](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP11977 (G06T)

- U G06T 11/00 2D [Two Dimensional] image generation**
- M G06T 11/001 · {Texturing; Colouring; Generation of texture or colour (*inpainting G06T 5/005*)}
- U G06T 2211/00 Image generation**
- C G06T 2211/40 · Computed tomography
- WARNING**
Group G06T 2211/40 is impacted by reclassification into groups G06T 2211/441, G06T 2211/444, G06T 2211/448, G06T 2211/452, G06T 2211/456, G06T 2211/461 and G06T 2211/464. All groups listed in this Warning should be considered in order to perform a complete search.
- U G06T 2211/436 · · Limited angle
- N G06T 2211/441 · · AI-based methods, deep learning or artificial neural networks
- WARNING**
Group G06T 2211/441 is incomplete pending reclassification of documents from group G06T 2211/40. Groups G06T 2211/40 and G06T 2211/441 should be considered in order to perform a complete search.
- N G06T 2211/444 · · Low dose acquisition or reduction of radiation dose
- WARNING**
Group G06T 2211/444 is incomplete pending reclassification of documents from group G06T 2211/40. Groups G06T 2211/40 and G06T 2211/444 should be considered in order to perform a complete search.
- N G06T 2211/448 · · involving metal artefacts, streaking artefacts, beam hardening or photon starvation
- WARNING**
Group G06T 2211/448 is incomplete pending reclassification of documents from group G06T 2211/40. Groups G06T 2211/40 and G06T 2211/448 should be considered in order to perform a complete search.
- N G06T 2211/452 · · involving suppression of scattered radiation or scatter correction
- WARNING**
Group G06T 2211/452 is incomplete pending reclassification of documents from group G06T 2211/40. Groups G06T 2211/40 and G06T 2211/452 should be considered in order to perform a complete search.
- N G06T 2211/456 · · Optical coherence tomography [OCT]
- WARNING**
Group G06T 2211/456 is incomplete pending reclassification of documents from group G06T 2211/40. Groups G06T 2211/40 and G06T 2211/456 should be considered in order to perform a complete search.

- N G06T 2211/461
- • Phase contrast imaging or dark field imaging
- WARNING
Group [G06T 2211/461](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).
Groups [G06T 2211/40](#) and [G06T 2211/461](#) should be considered in order to perform a complete search.
- N G06T 2211/464
- • Dual or multimodal imaging, i.e. combining two or more imaging modalities
- WARNING
Group [G06T 2211/464](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).
Groups [G06T 2211/40](#) and [G06T 2211/464](#) should be considered in order to perform a complete search.

Project: RP11979 (H01L)

- U H01L 27/144
- • Devices controlled by radiation
- U H01L 27/146
- • • Imager structures
- U H01L 27/14601
- • • • {Structural or functional details thereof}
- M H01L 27/14609
- • • • • {Pixel-elements with integrated switching, control, storage or amplification elements (scanning details of imagers [H04N 3/15](#) (circuitry of solid-state image sensors [H04N 25/00](#)); circuitry of imagers [H04N 25/70](#))}

Project: RP11979 (H04N)

- U H04N 3/10
- by means not exclusively optical-mechanical ([H04N 3/36](#) takes precedence)
- U H04N 3/14
- • by means of electrically scanned solid-state devices (for picture generation [H04N 25/00](#))
- F H04N 3/15
(Frozen)
- • • {for picture signal generation}
- WARNING
~~This group~~ Group [H04N 3/15](#) is no longer used for ~~the~~ classification of ~~new documents as from December 1st, 2009~~ documents as of August 1, 2023. The ~~backlog is continuously reclassified into group~~ content of this group is being reclassified into groups [H04N 25/00](#), [H04N 25/10](#), [H04N 25/11](#), [H04N 25/13](#), [H04N 25/131](#), [H04N 25/133](#), [H04N 25/134](#), [H04N 25/135](#), [H04N 25/136](#), [H04N 25/17](#), [H04N 25/20](#), [H04N 25/21](#), [H04N 25/30](#), [H04N 25/70](#), [H04N 25/701](#), [H04N 25/7013](#), [H04N 25/702](#), [H04N 25/703](#), [H04N 25/704](#), [H04N 25/705](#), [H04N 25/706](#), [H04N 25/707](#), [H04N 25/708](#), [H04N 25/709](#) and ~~subgroups~~ [H04N 25/79](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F H04N 3/1506
(Frozen)
- • • • {with addressing of the image-sensor elements ([H04N 3/1575](#) takes precedence)}
- WARNING
Group [H04N 3/1506](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [H04N 25/76](#), [H04N 25/766](#), [H04N 25/767](#), [H04N 25/768](#), [H04N 25/77](#), [H04N 25/771](#), [H04N 25/772](#), [H04N 25/773](#), [H04N 25/778](#), [H04N 25/779](#), [H04N 25/7795](#) and [H04N 25/78](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- F H04N 3/1512
(Frozen) {for MOS image-sensors, e.g. MOS-CCD ([H04N 3/1581](#) takes precedence)}
- WARNING**
Group [H04N 3/1512](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [H04N 25/76](#), [H04N 25/766](#), [H04N 25/767](#), [H04N 25/768](#), [H04N 25/77](#), [H04N 25/771](#), [H04N 25/772](#), [H04N 25/773](#), [H04N 25/778](#), [H04N 25/779](#), [H04N 25/7795](#) and [H04N 25/78](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D H04N 3/1518 {using charge injection within the image-sensor}
<administratively transferred to [H04N 25/76](#)>
- F H04N 3/1525
(Frozen) {with charge transfer within the image-sensor, e.g. time delay and integration ([H04N 3/1575](#) takes precedence)}
- WARNING**
Group [H04N 3/1525](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [H04N 25/71](#), [H04N 25/711](#) and [H04N 25/713](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D H04N 3/1531 {using frame-interline transfer}
<administratively transferred to [H04N 25/715](#)>
- D H04N 3/1537 {using interline transfer}
<administratively transferred to [H04N 25/73](#)>
- D H04N 3/1543 {using frame-transfer}
<administratively transferred to [H04N 25/72](#)>
- F H04N 3/155
(Frozen) {Control of the image-sensor operation, e.g. image processing within the image-sensor}
- WARNING**
Group [H04N 3/155](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [H04N 25/40](#), [H04N 25/41](#), [H04N 25/42](#), [H04N 25/44](#), [H04N 25/441](#), [H04N 25/443](#), [H04N 25/445](#), [H04N 25/447](#), [H04N 25/46](#), [H04N 25/47](#), [H04N 25/48](#), [H04N 25/50](#), [H04N 25/51](#), [H04N 25/53](#), [H04N 25/531](#), [H04N 25/532](#), [H04N 25/533](#), [H04N 25/534](#), [H04N 25/535](#), [H04N 25/57](#), [H04N 25/571](#), [H04N 25/573](#), [H04N 25/575](#), [H04N 25/58](#), [H04N 25/581](#), [H04N 25/583](#), [H04N 25/585](#), [H04N 25/587](#), [H04N 25/589](#) and [H04N 25/59](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F H04N 3/1556
(Frozen) {for variable integration time}
- WARNING**
Group [H04N 3/1556](#) is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups [H04N 25/53](#), [H04N 25/531](#), [H04N 25/532](#), [H04N 25/533](#), [H04N 25/534](#) and [H04N 25/535](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F H04N 3/1562
(Frozen) {for selective scanning, e.g. windowing, zooming}
- WARNING**
*Group H04N 3/1562 is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups H04N 25/40, H04N 25/41, H04N 25/42, H04N 25/44, H04N 25/441, H04N 25/443, H04N 25/445, H04N 25/447 and H04N 25/46.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F H04N 3/1568
(Frozen) {for disturbance correction or prevention within the image-sensor, e.g. biasing, blooming, smearing (correction circuits [H04N 25/62](#))}
- WARNING**
*Group H04N 3/1568 is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups H04N 25/60, H04N 25/61, H04N 25/611, H04N 25/615, H04N 25/6153, H04N 25/616, H04N 25/617, H04N 25/618, H04N 25/62, H04N 25/621, H04N 25/622, H04N 25/623, H04N 25/625, H04N 25/626, H04N 25/627, H04N 25/628, H04N 25/63, H04N 25/633, H04N 25/65, H04N 25/67, H04N 25/671, H04N 25/672, H04N 25/673, H04N 25/674, H04N 25/677, H04N 25/68, H04N 25/683 and H04N 25/69.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F H04N 3/1575
(Frozen) {Picture signal readout register, e.g. shift registers, interline shift registers}
- WARNING**
*Group H04N 3/1575 is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups H04N 25/713 and H04N 25/767.
Groups H04N 3/1575, H04N 25/713 and H04N 25/767 should be considered in order to perform a complete search.*
- F H04N 3/1581
(Frozen) {using linear image-sensor ~~(time delay and integration H04N 3/1525)~~}
- WARNING**
*Group H04N 3/1581 is no longer used for the classification of documents as of August 1, 2023.
The content of this group is being reclassified into groups H04N 25/701 and H04N 25/7013.
Groups H04N 3/1581, H04N 25/701 and H04N 25/7013 should be considered in order to perform a complete search.*
- D H04N 3/1587 {the image being sequentially picked-up by one device at different imaging positions, e.g. by shifting the image-sensor}
- <administratively transferred to [H04N 25/48](#)>
- D H04N 3/1593 {the image being simultaneously picked-up by more than one device, e.g. the scene being partitioned into subimages}
- <administratively transferred to [H04N 25/41](#)>

M H04N 25/00

Circuitry of solid-state image sensors [SSIS]; Control thereofWARNING

1. Group [H04N 25/00](#) is incomplete pending reclassification of documents from group [H04N 5/30](#).

Groups [H04N 5/30](#) and [H04N 25/00](#) should be considered in order to perform a complete search.

2. Groups [H04N 25/00](#), [H04N 25/10](#), [H04N 25/11](#), [H04N 25/13](#), [H04N 25/131](#), [H04N 25/133](#), [H04N 25/134](#), [H04N 25/135](#), [H04N 25/136](#), [H04N 25/17](#), [H04N 25/20](#), [H04N 25/21](#), [H04N 25/30](#), [H04N 25/70](#), [H04N 25/702](#), [H04N 25/703](#), [H04N 25/704](#), [H04N 25/705](#), [H04N 25/706](#), [H04N 25/707](#), [H04N 25/708](#), [H04N 25/709](#) and [H04N 25/79](#) are incomplete pending reclassification of documents from group [H04N 3/15](#).

All groups listed in this Warning should be considered in order to perform a complete search.

M H04N 25/40

- Extracting pixel data from image sensors by controlling scanning circuits, e.g. by modifying the number of pixels sampled or to be sampled

WARNING

1. Group [H04N 25/40](#) is impacted by reclassification into group [H04N 25/47](#).

Groups [H04N 25/40](#) and [H04N 25/47](#) should be considered in order to perform a complete search.

2. Groups [H04N 25/40](#), [H04N 25/41](#), [H04N 25/42](#), [H04N 25/44](#), [H04N 25/441](#), [H04N 25/443](#), [H04N 25/445](#), [H04N 25/447](#) and [H04N 25/46](#) are incomplete pending reclassification of documents from groups [H04N 3/155](#) and [H04N 3/1562](#).

All groups listed in this Warning should be considered in order to perform a complete search.

M H04N 25/47

- Image sensors with pixel address output; Event-driven image sensors; Selection of pixels to be read out based on image data

WARNING

Group [H04N 25/47](#) is incomplete pending reclassification of documents from ~~group~~ groups [H04N 3/155](#) and [H04N 25/40](#).

Groups [H04N 3/155](#), [H04N 25/40](#) and [H04N 25/47](#) should be considered in order to perform a complete search.

M H04N 25/48

- Increasing resolution by shifting the sensor relative to the scene

WARNING

Group [H04N 25/48](#) is incomplete pending reclassification of documents from group [H04N 3/155](#).

Groups [H04N 3/155](#) and [H04N 25/48](#) should be considered in order to perform a complete search.

M H04N 25/50

- Control of the SSIS exposure

WARNING

1. Group [H04N 25/50](#) is impacted by reclassification into group [H04N 25/51](#).

Groups [H04N 25/50](#) and [H04N 25/51](#) should be considered in order to perform a complete search.

2. Groups [H04N 25/50](#), [H04N 25/51](#), [H04N 25/53](#), [H04N 25/531](#), [H04N 25/532](#), [H04N 25/533](#), [H04N 25/534](#), [H04N 25/535](#), [H04N 25/57](#), [H04N 25/571](#), [H04N 25/573](#), [H04N 25/575](#), [H04N 25/58](#), [H04N 25/581](#), [H04N 25/583](#), [H04N 25/585](#), [H04N 25/587](#), [H04N 25/589](#) and [H04N 25/59](#) are incomplete pending reclassification of documents from groups [H04N 3/155](#) and [H04N 3/1556](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- M H04N 25/60
- Noise processing, e.g. detecting, correcting, reducing or removing noise
- WARNING
1. Group [H04N 25/60](#) is impacted by reclassification into groups [H04N 25/61](#) - [H04N 25/69](#).
All groups listed in this Warning should be considered in order to perform a complete search.
 2. Groups [H04N 25/60](#) - [H04N 25/69](#) are incomplete pending reclassification of documents from group [H04N 3/1568](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- U H04N 25/70
- SSIS architectures; Circuits associated therewith
- M H04N 25/701
- • Line sensors
- WARNING
- Groups [H04N 25/701](#) and [H04N 25/7013](#) are incomplete pending reclassification of documents from groups [H04N 3/15](#) and [H04N 3/1581](#). Groups [H04N 3/15](#), [H04N 3/1581](#), [H04N 25/701](#) and [H04N 25/7013](#) should be considered in order to perform a complete search.*
- M H04N 25/71
- • Charge-coupled device [CCD] sensors; Charge-transfer registers specially adapted for CCD sensors
- WARNING
- Group [H04N 25/71](#) is incomplete pending reclassification of documents from group [H04N 3/1525](#). Groups [H04N 3/1525](#) and [H04N 25/71](#) should be considered in order to perform a complete search.*
- M H04N 25/711
- • • Time delay and integration [TDI] registers; TDI shift registers
- WARNING
- Group [H04N 25/711](#) is incomplete pending reclassification of documents from group [H04N 3/1525](#). Groups [H04N 3/1525](#) and [H04N 25/711](#) should be considered in order to perform a complete search.*
- M H04N 25/713
- • • Transfer or readout registers; Split readout registers or multiple readout registers
- WARNING
- Group [H04N 25/713](#) is incomplete pending reclassification of documents from groups [H04N 3/1525](#) and [H04N 3/1575](#). Groups [H04N 3/1525](#), [H04N 3/1575](#) and [H04N 25/713](#) should be considered in order to perform a complete search.*
- M H04N 25/76
- • Addressed sensors, e.g. MOS or CMOS sensors
- WARNING
- Groups [H04N 25/76](#), [H04N 25/766](#), [H04N 25/767](#), [H04N 25/768](#), [H04N 25/77](#), [H04N 25/771](#), [H04N 25/772](#), [H04N 25/773](#), [H04N 25/778](#), [H04N 25/779](#), [H04N 25/7795](#) and [H04N 25/78](#) are incomplete pending reclassification of documents from groups [H04N 3/1506](#) and [H04N 3/1512](#). All groups listed in this Warning should be considered in order to perform a complete search.*

M H04N 25/767

- • • Horizontal readout lines, multiplexers or registers

WARNING

Group [H04N 25/767](#) is incomplete pending reclassification of documents from group [H04N 3/1575](#).

Groups [H04N 3/1575](#) and [H04N 25/767](#) should be considered in order to perform a complete search.

Project: RP12078 (F16B)

M F16B

DEVICES FOR FASTENING OR SECURING CONSTRUCTIONAL ELEMENTS OR MACHINE PARTS TOGETHER, e.g. NAILS, BOLTS, CIRCLIPS, CLAMPS, CLIPS, ~~WEDGES, JOINTS OR JOINTING OR WEDGES~~(couplings for transmitting rotation F16D); ~~JOINTS OR JOINTING~~ (couplings for transmitting rotation F16D)

NOTES

1. Attention is drawn to:

- the Note following group [E04B 1/38](#);
- the following places:

A44B	Buckles, slide fasteners
A47G 3/00	Ornamental heads for nails, screws, or the like
B42F 3/00	Means, not using staples, for attaching sheets temporarily together
{ C14B 17/08 }	{Fastening devices, e.g. clips for leather-stretching used in apparatus or machines for manufacturing or treating skins, hides, leathers or furs}
E01B 9/10	Screws or bolts for railway sleepers
E01B 11/00	Rail joints
E04	Connections for building
E04D 13/08	Clamping means for down pipes for roof drainage
E04G 5/04	Fastening scaffolds against buildings
E04G 7/00	Scaffolding couplings
E05C	Bolts for fasteners for wings, specially for doors or windows
F16C 29/10	Locking bearings for parts moving only linearly
F16G 17/00	Hooks as integral parts of chains
F16L	Pipe joints
F16L 3/00	Supports for pipes, cables or protective tubing, e.g. hangers, holders, clamps, cleats, clips, brackets
F16L 33/02	Clips for connecting hoses to rigid members
H01F 7/00	Magnetic holding devices
H02N 13/00	Electrostatic holding devices.

2. Groups [F16B 2/00](#) - [F16B 47/00](#) take precedence over group [F16B 1/00](#).

3. {In this main group, it is desirable to add the indexing codes of [F16B 2200/00](#)}

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

F16B 7/08	covered by	F16B 5/12 , F16B 7/04 , F16L 3/00
F16B 7/12	covered by	F16B 7/105
F16B 13/13	covered by	F16B 13/002 , F16B 13/12
F16B 25/02	covered by	F16B 25/103
F16B 25/04	covered by	F16B 25/00 , F16B 25/106

F16B 25/06 covered by [F16B 25/00](#), [F16B 25/106](#)
F16B 25/08 covered by [F16B 25/00](#), [F16B 25/106](#)
F16B 37/10 covered by [F16B 37/0842](#), [F16B 37/0871](#)

2. {In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

- U F16B 1/00** **Devices for securing together, or preventing relative movement between, constructional elements or machine parts**
- D F16B 2001/0007 · {Fasteners made by sintering powders}
<administratively transferred to [F16B 2200/75](#) ADD>
- D F16B 1/0014 · {by the use of a shape-memory material}
<administratively transferred to [F16B 2200/77](#) ADD>
- D F16B 2001/0021 · {Friction-reducing coatings}
<administratively transferred to [F16B 2200/79](#) ADD>
- D F16B 2001/0028 · {by the use of a material of the hooks-and-loops type}
<administratively transferred to [F16B 2200/81](#) ADD>
- D F16B 2001/0035 · {by the use of a magnetic material}
<administratively transferred to [F16B 2200/83](#) ADD>
- D F16B 2001/0042 · {by the use of an explosive charge (F16B 19/125, F16B 31/005 take precedence)}
- D F16B 1/0005 · {by the use of a hydraulic action}
<administratively transferred to [F16B 2200/89](#) ADD>
- D F16B 1/0057 · {by the use of a pneumatic action}
<administratively transferred to [F16B 2200/91](#) ADD>
- D F16B 2001/0064 · {and establishing a good electrical connection}
<administratively transferred to [F16B 2200/93](#) ADD>
- D F16B 1/0071 · {with markings, colours, indicators or the like (for indicating tensile load F16B 31/02)}
<administratively transferred to [F16B 2200/95](#) ADD>
- D F16B 2001/0078 · {having differing thermal expansion coefficients}
<administratively transferred to [F16B 2200/97](#) ADD>
- D F16B 2001/0085 · {Ceramic-to-metal-connections}
<administratively transferred to [F16B 2200/85](#) ADD>
- D F16B 2001/0092 · {with means for avoiding incorrect assembly or positioning}
<administratively transferred to [F16B 2200/99](#) ADD>
- M F16B 4/00** **Shrinkage connections, e.g. assembled with the parts at different temperature; Force fits (restricted to metal parts or objects [B23P 11/02](#)); Non-releasable friction-grip fastenings ([F16B 2/00](#) takes precedence; ~~using members with a shape-memory material F16B 1/0014~~)**
- U F16B 2200/00** **Constructional details of connections not covered for in other groups of this subclass**
- U F16B 2200/50 · Flanged connections
- U F16B 2200/509 · · clamped
- N F16B 2200/60 · Coupler sealing means
- N F16B 2200/63 · Frangible connections

- N F16B 2200/65 · Miter joints
- N F16B 2200/67 · Rigid angle couplings
- N F16B 2200/69 · Redundant disconnection blocking means
- N F16B 2200/71 · · Blocking disengagement of catches or keys
- N F16B 2200/73 · · Cam locks or thread locks
- N F16B 2200/75 · Fasteners made by sintering powders
- N F16B 2200/77 · Use of a shape-memory material
- N F16B 2200/79 · Friction-reducing coatings
- N F16B 2200/81 · Use of a material of the hooks-and-loops type
- N F16B 2200/83 · Use of a magnetic material
- N F16B 2200/85 · Ceramic-to-metal-connections
- N F16B 2200/89 · Use of a hydraulic action
- N F16B 2200/91 · Use of a pneumatic action
- N F16B 2200/93 · Fastener comprising feature for establishing a good electrical connection, e.g. electrostatic discharge or insulation feature
- N F16B 2200/95 · with markings, colours, indicators or the like
- N F16B 2200/97 · having differing thermal expansion coefficients
- N F16B 2200/99 · Fasteners with means for avoiding incorrect assembly or positioning

Project: RP12078 (Y10T)

- U Y10T 403/00 Joints and connections**
- D Y10T 403/11 · including frangible component
 <administratively transferred to [F16B 2200/63](#) ADD>
- D Y10T 403/12 · Selectively assembled, e.g., convertible, etc.
- D Y10T 403/125 · · Selective orientation
- D Y10T 403/13 · Inflatable connector
- D Y10T 403/14 · with opening for access to connector or operator
- D Y10T 403/142 · · to threaded component
- D Y10T 403/145 · · · Transverse to thread axis
- D Y10T 403/148 · · to biased component
- D Y10T 403/15 · Closure or plug spaced from joint
- U Y10T 403/16 · with adjunctive protector, broken parts retainer, repair, assembly or disassembly feature
- D Y10T 403/1641 · · Back-off means, e.g., separator, etc.
- D Y10T 403/1649 · · Handle or handwheel
- D Y10T 403/1658 · · · Actuates retainer or blocker
- D Y10T 403/1666 · · tool-engaging or accommodating means or with tool
- D Y10T 403/1674 · · · for latch or retainer
- D Y10T 403/1683 · · Releasably captive nut or bolt
- D Y10T 403/1691 · · Means to lock bolt or nut when other is turned
- D Y10T 403/17 · with adjunctive shield
- D Y10T 403/18 · Structurally installed in diverse art device
- D Y10T 403/185 · · Head or base
- D Y10T 403/19 · Coupling supported by independent bearing
- D Y10T 403/23 · with ambient condition responsive control means

- D Y10T 403/24 • with independent handle or operator
- D Y10T 403/25 • with distinct fluid or article handling or directing feature
- D Y10T 403/251 • • External reservoir
- D Y10T 403/253 • • Pressure fitting
- D Y10T 403/255 • • including port or reservoir communicating with joint
- D Y10T 403/257 • • • Articulated member
- D Y10T 403/259 • • • • At joint interface
- D Y10T 403/26 • Non-adhering fluent material at joint
- D Y10T 403/27 • with strain-limiting means
- D Y10T 403/28 • Combined
- D Y10T 403/31 • Flexible diaphragm or bellows
- D Y10T 403/315 • • with additional connection or packing
- U Y10T 403/32 • Articulated members
- D Y10T 403/32098 • • Branched
- D Y10T 403/32106 • • Member pivoted at rigid corner
- D Y10T 403/32237 • • including operator
- D Y10T 403/32245 • • Arcuate shank moves in complementary guide
- D Y10T 403/32598 • • Threaded interface
- D Y10T 403/32991 • • Axially spring-biased coaxial members
- D Y10T 403/35 • Diverse material coupling member
- D Y10T 403/37 • Joint involving plural layers of single rod
- D Y10T 403/41 • Coacting connection between inner member and plural parts of outer member
- D Y10T 403/42 • Rigid angle coupling, e.g., elbow or u, etc.
 <administratively transferred to [F16B 2200/67](#) ADD>
- D Y10T 403/43 • Axially curved or bent portion of rod is joint component
- D Y10T 403/4309 • • Interfitted crossing rods
- D Y10T 403/4318 • • Joined to laterally related transverse surface at axially spaced points
- D Y10T 403/4327 • • Reversely bent portion
- D Y10T 403/4336 • • • Around eye-forming thimble
- D Y10T 403/4345 • • • with wedge clamp
- D Y10T 403/4354 • • • Held by crimped collar
- D Y10T 403/4363 • • • Open U
- D Y10T 403/4372 • • Intertwisted ends
- D Y10T 403/4381 • • End of rod is deflected laterally within connector
- D Y10T 403/4391 • • Plural rods distorted by single component
- U Y10T 403/47 • Molded joint
- D Y10T 403/475 • • Member cast in situ
- U Y10T 403/477 • • Fusion bond, e.g., weld, etc.
- D Y10T 403/478 • • • Metallic fusion material
- D Y10T 403/479 • • • • Added bonding material, e.g., solder, braze, etc.
- U Y10T 403/49 • Member deformed in situ
- D Y10T 403/4908 • • Separating element between strands of member
- D Y10T 403/52 • including distinct packing
 <administratively transferred to [F16B 2200/60](#) ADD>

- D Y10T 403/56 • Thread adaptor
- D Y10T 403/58 • including ancillary means blocking disconnection of joint
 <administratively transferred to [F16B 2200/69](#) ADD>
- D Y10T 403/581 • • Blocker for assembled joint retainer
 <administratively transferred to [F16B 2200/69](#) ADD>
- D Y10T 403/583 • • • Blocker-keeper
 <administratively transferred to [F16B 2200/69](#) ADD>
- D Y10T 403/585 • • • Blocked key
 <administratively transferred to [F16B 2200/69](#) ADD>
- D Y10T 403/587 • • Blocker is catch or key
 <administratively transferred to [F16B 2200/71](#) ADD>
- D Y10T 403/589 • • Cam or thread lock
 <administratively transferred to [F16B 2200/73](#) ADD>
- D Y10T 403/62 • Annular recess is joint component
- D Y10T 403/63 • Convergent interface
- D Y10T 403/635 • • Tapered
- D Y10T 403/68 • Screw or cam
- D Y10T 403/69 • Axially split or separable member
- U Y10T 403/70 • Interfitted members
- D Y10T 403/7015 • • Assembled by plural manipulations of member
- D Y10T 403/7037 • • Externally shouldered or headed rod
- D Y10T 403/7043 • • Interfitted angle or channel bars
- D Y10T 403/7073 • • Peripheral enlargement, depression, or slot on one member is joint
 component
- U Y10T 403/7075 • • including discrete retainer
- D Y10T 403/7092 • • • for interfitted side faces
- D Y10T 403/7096 • • Rigid angle
 <administratively transferred to [F16B 2200/67](#) ADD>
- D Y10T 403/72 • Miter joint
 <administratively transferred to [F16B 2200/65](#) ADD>
- D Y10T 403/725 • • Connector bridges inner or outer periphery
 <administratively transferred to [F16B 2200/65](#) ADD>
- D Y10T 403/73 • Rigid angle
 <administratively transferred to [F16B 2200/67](#) ADD>
- D Y10T 403/74 • Particular configuration or material of member
- D Y10T 403/77 • Miscellaneous

Project: Unknown (A21B)

M A21B 2/00 Baking apparatus employing high-frequency or ~~infra-red~~infrared heating

Project: Unknown (A23L)

- U A23L 3/00 Preservation of foods or foodstuffs, in general, e.g. pasteurising, sterilising, specially adapted for foods or foodstuffs (preserving foods or foodstuffs in association with packaging [B65B 55/00](#))

NOTE

In groups [A23L 3/3472](#) - [A23L 3/3562](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place. {This Note corresponds to IPC Note (1) relating to [A23L 3/3472](#) - [A23L 3/3562](#)}

- U A23L 3/005 · by heating using irradiation or electric treatment (drying or kilning [A23L 3/40](#))
- M A23L 3/0055 · · {with ~~infra-red~~*infrared* rays}
- U A23L 3/26 · by irradiation without heating
- M A23L 3/28 · · with ~~ultra-violet~~*ultraviolet* light

Project: Unknown (A23N)

- M A23N 1/00 Machines or apparatus for extracting juice (preparation of non-alcoholic beverages, e.g. by adding ingredients to fruit or vegetable juices, [A23L 2/00](#); apparatus for making beverages [A47J 31/00](#) {~~centrifuges B04B~~; *centrifuges B04B*}; extracting presses [B30B](#))

Project: Unknown (A45D)

- U A45D 20/00 Hair drying devices; Accessories therefor ([A45D 2/00](#) takes precedence)
- U A45D 20/22 · Helmets with hot air supply or ventilating means, e.g. electrically heated air current
- U A45D 20/38 · · Arrangement of the electric heating means
- M A45D 20/40 · · · for use of ~~infra-red~~*infrared* rays

Project: Unknown (A47C)

- M A47C 9/00 Stools for specified purposes (with rotatable seats [A47C 3/18](#); with vertically adjustable seats [A47C 3/20](#) {; *other seating furniture for specified purposes A47C 15/004*}; footstools [A47C 16/02](#); prayer stools [A47C 16/04](#); platforms or seat-boxes specially adapted for angling [A01K 97/22](#) {~~other seating furniture for specified purposes A47C 15/004~~})

Project: Unknown (A47G)

- U A47G 33/00 Religious or ritual equipment in dwelling or for general use
- M A47G 33/04 · Christmas trees (lighting devices therefor [F21S](#) {~~electric candles F21S 10/04~~; ~~string lighting systems F21S 4/00~~; ~~candle holders F21V 35/00~~; {~~light guides for lighting systems G02B 6/00~~}; *string lighting F21S 4/00*; *electric candles F21S 10/04*}; *candle holders F21V 35/00* {; *light guides for lighting systems G02B 6/00*})

Project: Unknown (A61B)

- U A61B 5/00 Measuring for diagnostic purposes (radiation diagnosis [A61B 6/00](#); diagnosis by ultrasonic, sonic or infrasonic waves [A61B 8/00](#)); Identification of persons

NOTE

In this group, the following term is used with the meaning indicated: "measuring" covers also detecting or recording.

- U A61B 5/0059 · {using light, e.g. diagnosis by transillumination, diascopy, fluorescence ([A61B 5/0093](#), [A61B 5/1455](#), [A61B 5/02416](#) and [A61B 5/0261](#) take precedence)}
- U A61B 5/0082 · · {adapted for particular medical purposes}
- U A61B 5/0084 · · · {for introduction into the body, e.g. by catheters ([A61B 5/1459](#) takes precedence)}
- M A61B 5/0086 · · · · {using **infra-redinfrared** radiation}
- U A61B 5/02 · Detecting, measuring or recording pulse, heart rate, blood pressure or blood flow; Combined pulse/heart-rate/blood pressure determination; Evaluating a cardiovascular condition not otherwise provided for, e.g. using combinations of techniques provided for in this group with electrocardiography or electroauscultation; Heart catheters for measuring blood pressure
- U A61B 5/024 · · Detecting, measuring or recording pulse rate or heart rate ([A61B 5/0205](#), [A61B 5/021](#) take precedence)
- M A61B 5/02416 · · · {using photoplethysmograph signals, e.g. generated by **infra-redinfrared** radiation ([A61B 5/14552](#) takes precedence)}
- U A61B 5/02427 · · · · {Details of sensor}
- M A61B 5/02433 · · · · · {for **infra-redinfrared** radiation}
- U A61B 5/026 · · Measuring blood flow {([A61B 3/1233](#), [A61B 3/1241](#) take precedence)}
- M A61B 5/0261 · · · {using optical means, e.g. **infra-redinfrared** light}
- U A61B 5/7271 · · {Specific aspects of physiological measurement analysis ([A61B 5/316](#), [A61B 5/349](#) and [A61B 5/374](#) take precedence)}
- M A61B 5/7275 · · · {Determining trends in physiological measurement data}; Predicting development of a medical condition based on physiological measurements, e.g. determining a risk factor}
- U A61B 17/00 Surgical instruments, devices or methods, e.g. tourniquets ([A61B 18/00](#) takes precedence; contraceptive devices, pessaries, or applicators therefor [A61F 6/00](#); eye surgery [A61F 9/007](#); ear surgery [A61F 11/00](#))**
- U A61B 2017/00017 · {Electrical control of surgical instruments}
- U A61B 2017/00022 · · {Sensing or detecting at the treatment site}
- U A61B 2017/00106 · · · {ultrasonic}
- M A61B 2017/0011 · · · · {**piezo-electricpiezoelectric**}

Project: Unknown (A61F)

- U A61F 13/00 Bandages or dressings (suspensory bandages [A61F 5/40](#); {contact-avoiding wound protectors [A61F 15/008](#); bandages or dressings with incorporated medicaments [A61L 15/44](#), [A61M 35/006](#); radioactive dressings [A61N 5/1029](#)); Absorbent pads (chemical aspects of, or use of materials for, bandages, dressings or absorbent pads [A61L 15/00](#); {absorbent pads for tracheostomy [A61M 16/047](#))**
- U A61F 2013/00089 · {Wound bandages ([A61F 2013/00361](#) takes precedence;}}
- U A61F 2013/00187 · · {insulating; warmth or cold applying}
- U A61F 2013/00204 · · · {insulating}
- M A61F 2013/00212 · · · · {**infra-redinfrared** absorbing or reflecting}
- U A61F 13/15 · Absorbent pads, e.g. sanitary towels, swabs or tampons for external or internal application to the body (non-absorbent catamenial receptacles [A61F 5/44](#)); Supporting or fastening means therefor; Tampon applicators
- U A61F 13/15577 · · {Apparatus or processes for manufacturing}
- U A61F 2013/15821 · · · {characterized by the apparatus for manufacturing}

- U A61F 2013/15861 {for bonding}
- U A61F 2013/15878 {by thermal bonding}
- M A61F 2013/15894 {by ~~infra-red~~*infrared* radiation}

Project: Unknown (A61H)

- U A61H 23/00** Percussion or vibration massage, e.g. using supersonic vibration; Suction-vibration massage; Massage with moving diaphragms {(apparatus for passive exercising [A61H 1/00](#); generating or transmitting mechanical vibrations in general [B06B](#))}
- U A61H 23/02 . with electric or magnetic drive
- M A61H 23/0245 . . {with ultrasonic transducers, e.g. ~~piezo-electric~~*piezoelectric*}
- U A61H 33/00** Bathing devices for special therapeutic or hygienic purposes ([A61H 35/00](#) takes precedence; {sprays acting on a body or body part not immersed in water [A61H 9/00](#); means for washing bed-ridden persons [A61G 7/0005](#);} for sub aquatic intestinal cleaning [A61M 9/00](#); {isolation chambers [A61M 21/0094](#); } electric or magnetic baths, applying ionised fluids [A61N 1/44](#) {; heater for bath tubs [F24H 1/54](#))}
- U A61H 33/005 . {Electrical circuits therefor}
- U A61H 2033/0058 . . {controlled by the user}
- M A61H 2033/0079 . . . {using remote control signal transmission devices, e.g. ultrasonic, ~~infra-red~~*infrared*}
- U A61H 2201/00** Characteristics of apparatus not provided for in the preceding codes
- M A61H 2201/10 . with further special therapeutic means, e.g. electrotherapy, magneto therapy or radiation therapy, chromo therapy, ~~infra-red~~*infrared* or ultraviolet therapy

Project: Unknown (A61K)

- U A61K 31/00** Medicinal preparations containing organic active ingredients
- NOTES
1. {When classifying in groups [A61K 31/00](#) - [A61K 41/00](#) the symbol [A61K 2300/00](#) may be added, using Combination Sets, to indicate a mixture of active ingredients.}
 2. {In the preparation of new organic compounds and their use in medicinal preparations, classification is only made in the relevant subclasses [C07C](#) - [C07J](#) according to the type of compound. However, the inventions dealing with medicinal preparations containing at least two active organic ingredients are always classified in this group in addition to the classification for the type of compounds in [C07C](#) - [C07J](#).}
 3. {Attention is drawn to the notes in class [C07](#), particularly to the definition of steroids given in Note (1) following the title of [C07J](#) and to the definition of carbohydrates and sugars given in the notes following the title of [C07H](#).}
 4. {According to the last place rule, organic active compounds forming salts with heavy metals should be classified in [A61K 33/24](#) - [A61K 33/38](#) and not in subgroups [A61K 31/28](#) - [A61K 31/32](#), [A61K 31/555](#) or [A61K 31/714](#). This does not apply to complexes, as apparent from the [A61K 31/00](#) scheme, wherein the complexes hemin and hematin are classified in [A61K 31/555](#) and cyanocobalamin in [A61K 31/714](#). If a complex is formed between two or more active compounds, then they are classified according to all compounds forming the complexes followed by the symbol [A61K 2300/00](#) (i.e. as a mixture of active organic compounds).}

- U A61K 31/185 · Acids; Anhydrides, halides or salts thereof, e.g. sulfur acids, imidic, hydrazonic or hydroxamic acids (hydroxamic acids [A61K 31/16](#); peroxy acids [A61K 31/327](#))

NOTE

Cyclic anhydrides are considered to be heterocyclic rings

- U A61K 31/19 · · Carboxylic acids, e.g. valproic acid (salicylic acid [A61K 31/60](#))
- U A61K 31/20 · · · having a carboxyl group bound to a chain of seven or more carbon atoms, e.g. stearic, palmitic, arachidic acids
- M A61K 31/203 · · · · Retinoic acids {~~Salts thereof~~; *Salts thereof*}

- U **A61K 38/00** **Medicinal preparations containing peptides (peptides containing beta-lactam rings [A61K 31/00](#); cyclic dipeptides not having in their molecule any other peptide link than those which form their ring, e.g. piperazine-2,5-diones, [A61K 31/00](#); ergot alkaloids of the cyclic peptide type [A61K 31/48](#); containing macromolecular compounds having statistically distributed amino acid units [A61K 31/74](#); medicinal preparations containing antigens or antibodies [A61K 39/00](#); medicinal preparations characterised by the non-active ingredients, e.g. peptides as drug carriers, [A61K 47/00](#))**

NOTES

1. The terms or expressions used in this group follow exactly the definitions given in Note (1) following the title of subclass [C07K](#).
2. Preparations containing fragments of peptides or peptides modified by removal or addition of amino acids, by substitution of amino acids by others, or by combination of these modifications are classified as the preparations containing parent peptides. However, preparations containing fragments of peptides having only four or less amino acids are also classified in groups [A61K 38/05](#) - [A61K 38/07](#).
3. Preparations containing peptides prepared by recombinant DNA technology are not classified according to the host, but according to the original peptide expressed, e.g. preparations containing HIV peptide expressed in E. coli are classified with the preparations containing HIV peptides.
4. This group covers also medicinal preparation containing DNA or RNA encoding for peptides as active ingredient.
5. Documents relating to new peptides, e.g. enzymes, or new DNA or RNA encoding for peptides and their use in medicinal preparations are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their medical uses.

- M A61K 38/04 · Peptides having up to 20 amino acids in a fully defined sequence; Derivatives thereof ({enzyme inhibitors [A61K 38/005](#)};) gastrins {[A61K 38/2207](#)}, somatostatins [A61K 38/31](#), melanotropins [A61K 38/34](#) {; {protease inhibitors [A61K 38/55](#)})

Project: Unknown (A61M)

- U **A61M 60/00** **Blood pumps; Devices for mechanical circulatory actuation; Balloon pumps for circulatory assistance (heart stimulation [A61H 31/00](#); heart stimulators for electrotherapy [A61N 1/362](#))**

NOTE

In this main group, it is obligatory to classify all aspects of location, type, medical purpose, driving details, control details, and constructional details other than driving details that are represented in groups [A61M 60/10](#), [A61M 60/20](#), [A61M 60/30](#), [A61M 60/40](#), [A61M 60/50](#) and [A61M 60/80](#). This obligation extends to information that would normally only be considered as additional information.

- U A61M 60/40 · Details relating to driving

- U A61M 60/424 · · for positive displacement blood pumps
- U A61M 60/438 · · · the force acting on the blood contacting member being mechanical
- M A61M 60/454 · · · · generated by electro-active actuators, e.g. using electro-active polymers
or ~~piezo-electric~~*piezoelectric* elements
- U A61M 60/465 · · for devices for mechanical circulatory actuation
- U A61M 60/47 · · · the force acting on the actuation means being mechanical, e.g.
mechanically driven members clamping a blood vessel
- M A61M 60/486 · · · · generated by electro-active actuators, e.g. using electro-active polymers
or ~~piezo-electric~~*piezoelectric* elements

- U A61M 2205/00 General characteristics of the apparatus**
- U A61M 2205/05 · combined with other kinds of therapy
- U A61M 2205/051 · · with radiation therapy
- M A61M 2205/052 · · · ~~infra-red~~*infrared*
- M A61M 2205/053 · · · ~~ultra-violet~~*ultraviolet*

Project: Unknown (A61N)

- M A61N ELECTROTHERAPY; MAGNETOTHERAPY; RADIATION THERAPY;
ULTRASOUND THERAPY (measurement of bioelectric currents [A61B](#);
surgical instruments, devices or methods for transferring non-mechanical
forms of energy to or from the body [A61B 18/00](#); anaesthetic apparatus in
general [A61M](#); incandescent lamps [H01K](#); ~~infra-red~~*infrared* radiators for
heating [H05B](#))**

NOTE

In this subclass, the following term is used with the meaning indicated: In this subclass, the following term is used with the meaning indicated:

- "therapy" implies that the treatment, when it aims at destroying sick or abnormal cells, is performed within the limits of healthy cell life, the destruction thereof being undesired, contrary to that which takes place with instruments, devices or methods covered by group [A61B 18/00](#).

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

- | | | |
|----------------------------|------------|--|
| A61N 1/34 | covered by | A61N 1/36021 ,
A61N 1/36071 |
| A61N 2/04 | covered by | A61N 2/02 |
| A61N 2/08 | covered by | A61N 2/06 |
| A61N 2/10 | covered by | A61N 2/06 |
| A61N 5/073 | covered by | A61N 5/06 , A61N 2005/073 |
| A61N 5/08 | covered by | A61N 5/06 |

2. {In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.}

- U A61N 5/00 Radiation therapy (ultrasound therapy [A61N 7/00](#); devices or apparatus
applicable to both therapy and diagnosis [A61B 6/00](#))**
- U A61N 5/06 · using light
- U A61N 2005/0658 · · {characterised by the wavelength of light used}
- M A61N 2005/0659 · · · {~~infra-red~~*infrared*}
- M A61N 2005/0661 · · · {~~ultra-violet~~*ultraviolet*}

Project: Unknown (B01D)

- D B01D 23/00 - Filtration; Filtering material, regeneration thereof
B01D 43/00
- N B01D 24/00 - Filtration; Filtering material, regeneration thereof
B01D 43/00
- M B01D 35/10 · *Brush filters* {; ~~Brush filters~~ { Rotary brush filters}

Project: Unknown (B01J)

- M B01J 6/00 {Heat treatments such as} Calcining; *Fusing* {; ~~Fusing~~ { Pyrolysis (furnaces [F27D](#))}

Project: Unknown (B01L)

- U B01L 3/00 Containers or dishes for laboratory use, e.g. laboratory glassware; Droppers
NOTE
Petri dishes for enzymology or microbiology are classified in group [C12M 1/22](#).
- U B01L 3/50 · {Containers for the purpose of retaining a material to be analysed, e.g. test tubes (devices for taking samples of blood [A61B 5/15](#))}
- U B01L 3/502 · · {with fluid transport, e.g. in multi-compartment structures (centrifugal-type cuvettes [G01N 21/07](#); analysis by separation into components [G01N 30/00](#); automatic analysers [G01N 35/00](#))}
- U B01L 3/5027 · · · {by integrated microfluidic structures, i.e. dimensions of channels and chambers are such that surface tension forces are important, e.g. lab-on-a-chip ([B01L 3/5023](#) takes precedence; micromixers [B01F 33/30](#); microreactors for synthesis [B01J 19/0093](#); microcapillary devices in general [B81B 1/00](#))}
- M B01L 3/502707 · · · · {characterised by the manufacture of the container or its components (~~manufacture of microstructural devices in general B81C~~; by shaping or joining plastic parts [B29C 59/00](#), [B29C 65/00](#); ~~by laminating B32B 37/00~~; *by laminating B32B 37/00*; *manufacture of microstructural devices in general B81C*)}

Project: Unknown (B03C)

- U B03C 3/00 Separating dispersed particles from gases or vapour, e.g. air, by electrostatic effect
- U B03C 3/01 · Pretreatment of the gases prior to electrostatic precipitation
- M B03C 3/016 · · by acoustic or electromagnetic energy, e.g. ~~ultra-violet~~*ultraviolet* light

Project: Unknown (B04C)

- M B04C 3/00 *Apparatus in which the axial direction of the vortex {flow following a screw-thread type line} remains unchanged* {; ~~Apparatus in which the axial direction of the vortex {(flow following a screw-thread type line)} remains unchanged~~ {Also devices *Devices* in which one of the two discharge ducts returns centrally through the vortex chamber, a reverse-flow vortex being prevented by bulkheads in the central discharge duct (combined with other devices [B04C 9/00](#))}

Project: Unknown (B06B)

- U B06B 1/00 Methods or apparatus for generating mechanical vibrations of infrasonic, sonic, or ultrasonic frequency

- U B06B 1/02 · making use of electrical energy ([B06B 1/18](#), [B06B 1/20](#) take precedence)
- M B06B 1/06 · · operating with ~~piezo-electric~~*piezoelectric* effect or with electrostriction (~~piezo-electric~~*piezoelectric* or electrostrictive devices per se [H10N 30/00](#))
- M B06B 1/0603 · · · {using a ~~piezo-electric~~*piezoelectric* bender, e.g. bimorph}
- U B06B 1/0607 · · · {using multiple elements ([B06B 1/064](#) and [B06B 1/0688](#) take precedence)}
- U B06B 1/0611 · · · · {in a pile}
- M B06B 1/0618 · · · · · {of piezo- and non-~~piezo-electric~~*piezoelectric* elements, e.g. 'Tonpilz'}
- M B06B 1/0644 · · · {using a single ~~piezo-electric~~*piezoelectric* element ([B06B 1/0688](#) takes precedence)}
- U B06B 1/0662 · · · · {with an electrode on the sensitive surface}
- U B06B 1/0681 · · · · · {and a damping structure}
- M B06B 1/0685 · · · · · · {on the back only of ~~piezo-electric~~*piezoelectric* elements}
- M B06B 1/0688 · · · {with foil-type ~~piezo-electric~~*piezoelectric* elements, e.g. PVDF}

Project: Unknown (B07C)

- U B07C 1/00 Measures preceding sorting according to destination**
- U B07C 1/02 · Forming articles into a stream; Arranging articles in a stream, e.g. spacing, orientating {(transport of sheets [B65H](#))}
- M B07C 1/06 · · Orientating; ~~Aligning~~ {*Aligning* { Aligning to one edge}

Project: Unknown (B21B)

- U B21B 1/00 Metal-rolling methods or mills for making semi-finished products of solid or profiled cross-section ([B21B 17/00](#) - [B21B 23/00](#) take precedence; with respect to composition of material to be rolled [B21B 3/00](#); extending closed shapes of metal bands by simultaneous rolling at two or more zones [B21B 5/00](#); metal-rolling stands as units [B21B 13/00](#); continuous casting into moulds having walls formed by moving rolls [B22D 11/06](#)); Sequence of operations in milling trains; Layout of rolling-mill plant, e.g. grouping of stands; Succession of passes or of sectional pass alternations**
- M B21B 1/02 · for rolling heavy work, e.g. ingots, slabs ~~{, blooms, {blooms, or}}~~ billets, in which the cross-sectional form is unimportant {~~Rolling combined with forging or pressing~~; *Rolling combined with forging or pressing*}
- M B21B 3/00 *Rolling materials of special alloys so far as the composition of the alloy requires or permits special rolling methods or sequences* {; ~~Rolling materials of special alloys so far as the composition of the alloy requires or permits special rolling methods or sequences~~ { Rolling of aluminium, copper, zinc or other non-ferrous metals}{altering special metallurgical properties of alloys, other than structure consolidation or mechanical properties resulting therefrom [C21D](#), [C22F](#)}**
- U B21B 19/00 Tube-rolling by rollers arranged outside the work and having their axes not perpendicular to the axis of the work (straightening by rollers [B21D](#))**
- M B21B 19/02 · the axes of the rollers being arranged essentially diagonally to the axis of the work, e.g. "cross" tube-rolling {~~Diescher mills, Stiefel disc piercers, Stiefel rotary piercers~~; *Diescher mills, Stiefel disc piercers or Stiefel rotary piercers*}

Project: Unknown (B22F)

- U B22F 3/10 · Sintering only
- M B22F 3/105 · · by using electric current {other than for ~~infra-red~~*infrared* radiant energy}, laser radiation or plasma ([B22F 3/11](#) takes precedence){; by ultrasonic bonding ([B22F 3/115](#) takes precedence)}

Project: Unknown (B23Q)

- U B23Q 1/00 Members which are comprised in the general build-up of a form of machine, particularly relatively large fixed members ([B23Q 37/00](#) takes precedence {; positioning supports for measuring arrangements [G01B 5/0004](#); motorised alignment for optical elements [G02B 7/005](#); handling of mask or wafer [G03F 7/70691](#); adjusting or compensating devices for optical apparatuses [G12B 5/00](#); piezoelectric or electrostrictive positioners [H10N 30/20](#))
- U B23Q 1/25 · Movable or adjustable work or tool supports
- U B23Q 1/26 · · characterised by constructional features relating to the co-operation of relatively movable members; Means for preventing relative movement of such members {(bearings for linearly moving parts [F16C 29/00](#))}
- M B23Q 1/34 · · · Relative movement obtained by use of deformable elements, e.g. ~~piezo-electric~~*piezoelectric*, magnetostrictive, elastic or thermally-dilatable elements (sensitive elements capable of producing movement or displacement for purposes not limited to measurement [G12B 1/00](#))

Project: Unknown (B26D)

- U B26D 5/00 Arrangements for operating and controlling machines or devices for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting
- U B26D 5/08 · Means for actuating the cutting member to effect the cut
- M B26D 5/086 · · {Electric, magnetic, ~~piezo-electric~~*piezoelectric*, electro-magnetic means}

Project: Unknown (B27K)

- U B27K 5/00 Treating of wood not provided for in groups [B27K 1/00](#), [B27K 3/00](#)
- M B27K 5/003 · {by using electromagnetic radiation or mechanical waves (~~infra-red~~*infrared* heating of wood [B27K 5/001](#))}

Project: Unknown (B28B)

- M B28B 15/00 General arrangement or layout of plant {~~Industrial-outlines, plant installations~~; *Industrial outlines or plant installations*}

Project: Unknown (B28C)

- M B28C 5/00 Apparatus or methods for producing mixtures of cement with other substances, e.g. slurries, mortars, porous or fibrous compositions (controlling the mixing apparatus and supplying the ingredients [B28C 7/00](#) {~~separating cement from waste concrete B03B 9/063~~; *separating cement from waste concrete B03B 9/063*})

Project: Unknown (B29C)

- U B29C 45/00 Injection moulding, i.e. forcing the required volume of moulding material through a nozzle into a closed mould; Apparatus therefor (injection blow-moulding [B29C 49/06](#))
- U B29C 45/17 · Component parts, details or accessories; Auxiliary operations
- U B29C 45/26 · · Moulds
- M B29C 45/27 · · · *Sprue channels* {; ~~Sprue channels~~{ Runner channels or runner nozzles}
- U B29C 59/00 Surface shaping {of articles}, e.g. embossing; Apparatus therefor {(in-mould printing [B29C 37/0025](#); by using liquids [B29C 71/0009](#); by using gases without chemical reaction [B29C 71/009](#); for decorating in general [B44](#); abrasive blasting [B24C](#); chemical aspects [C08J 7/00](#))}

- M B29C 59/16 · by wave energy or particle radiation {, e.g. ~~infra-red~~*infrared* heating ([B29C 59/007](#) takes precedence)}
- U B29C 2945/00 Indexing scheme relating to injection moulding, i.e. forcing the required volume of moulding material through a nozzle into a closed mould**
- U B29C 2945/76 · Measuring, controlling or regulating
- U B29C 2945/76451 · · Measurement means
- U B29C 2945/76454 · · · Electrical, e.g. thermocouples
- M B29C 2945/76458 · · · · ~~piezo-electric~~*piezoelectric*

Project: Unknown (B29K)

- M B29K 2033/00 Use of polymers of unsaturated acids or derivatives thereof as moulding material {~~B29K 2035/00 takes precedence~~}([B29K 2035/00 takes precedence](#))}**

Project: Unknown (B41F)

- U B41F 23/00 Devices for treating the surfaces of sheets, webs, or other articles in connection with printing**
- U B41F 23/04 · by heat drying, by cooling, by applying powders {([B41F 23/005](#) takes precedence)}
- U B41F 23/044 · · {Drying sheets, e.g. between two printing stations ([B41F 23/0486](#) takes precedence)}
- U B41F 23/045 · · · {by radiation}
- M B41F 23/0453 · · · · {by ~~ultra-violet~~*ultraviolet* dryers}

Project: Unknown (B41J)

- U B41J 2/22 · characterised by selective application of impact or pressure on a printing material or impression-transfer material
- U B41J 2/23 · · using print wires
- U B41J 2/27 · · · Actuators for print wires
- M B41J 2/295 · · · · using ~~piezo-electric~~*piezoelectric* elements

Project: Unknown (B41M)

- U B41M 5/00 Duplicating or marking methods; Sheet materials for use therein (by using light-sensitive materials [G03](#); electrography, magnetography [G03G](#) {; repeatedly usable boards or tablets for writing or drawing [B43L 1/00](#))}**
- U B41M 5/26 · Thermography ([B41M 5/20](#), [B41M 5/24](#) take precedence); {Marking by high energetic means, e.g. laser otherwise than by burning, and characterised by the material used ([B23K](#) takes precedence; thermographic or photothermographic systems using noble metal compounds [G03C 1/494](#))}
- U B41M 5/382 · · Contact thermal transfer or sublimation processes (sublistatic printing using a pre-formed image [B41M 5/035](#); ink-, dye- or pigment-receptive coatings [B41M 5/52](#))
- M B41M 5/385 · · · characterised by the transferable dyes or pigments {(~~infra-red~~*infrared* absorbing dyes [B41M 5/465](#))}

Project: Unknown (B42D)

- M B42D 19/00 Movable-strip writing or reading apparatus (manifolding apparatus [B41L](#) {; *drawing board with moving strip* [B43L 5/025](#)); adapted for, or incorporated in, cash registers [G07G](#) {~~drawing board with moving strip~~ [B43L 5/025](#))}**

- U B42D 25/00** Information-bearing cards or sheet-like structures characterised by identification or security features; Manufacture thereof (printing processes to produce identification or security features [B41M 3/14](#))
- U B42D 25/30 · Identification or security features, e.g. for preventing forgery
 - U B42D 25/36 · · comprising special materials
 - U B42D 25/378 · · · Special inks
 - M B42D 25/382 · · · · absorbing or reflecting ~~infra-red~~*infrared* light
 - M B42D 25/387 · · · · absorbing or reflecting ~~ultra-violet~~*ultraviolet* light

Project: Unknown (B60B)

- M B60B 25/00** ~~Rims built-up of several main parts~~ {; ~~Rims built-up of several main parts~~ { Locking means for the rim parts}(tools for assembling divided rims [B60B 31/04](#))

Project: Unknown (B60C)

- U B60C 23/00** Devices for measuring, signalling, controlling, or distributing tyre pressure or temperature, specially adapted for mounting on vehicles; Arrangement of tyre inflating devices on vehicles, e.g. of pumps or of tanks; Tyre cooling arrangements
- U B60C 23/02 · Signalling devices actuated by tyre pressure {(hand-held tyre pressure gauges [G01L 17/00](#))}
 - U B60C 23/04 · · mounted on the wheel or tyre
 - U B60C 23/0408 · · · {transmitting the signals by non-mechanical means from the wheel or tyre to a vehicle body mounted receiver}
 - U B60C 23/0422 · · · · {characterised by the type of signal transmission means}
 - M B60C 23/0423 · · · · · {Photo-electric, ~~infra-red~~*infrared* or visible light means}

Project: Unknown (B60G)

- U B60G 17/00** Resilient suspensions having means for adjusting the spring or vibration-damper characteristics, for regulating the distance between a supporting surface and a sprung part of vehicle or for locking suspension during use to meet varying vehicular or surface conditions, e.g. due to speed or load {(levelling or stabilising systems for tippers [B60P 1/045](#))}
- U B60G 17/015 · the regulating means comprising electric or electronic elements ({[B60G 17/002](#)}, [B60G 17/005](#) take precedence)
 - U B60G 17/019 · · characterised by the type of sensor or the arrangement thereof ({[B60G 17/01941](#) takes precedence})
 - M B60G 17/01941 · · · {characterised by the use of ~~piezo-electric~~*piezoelectric* elements, e.g. sensors or actuators}

Project: Unknown (B60Q)

- U B60Q 3/00** Arrangement of lighting devices for vehicle interiors; Lighting devices specially adapted for vehicle interiors
- U B60Q 3/60 · characterised by optical aspects
 - M B60Q 3/68 · · using ~~ultra-violet~~*ultraviolet* light

Project: Unknown (B60R)

- U B60R 22/00** Safety belts or body harnesses in vehicles (safety belts or body harnesses in general [A62B 35/00](#))

- U B60R 22/34 · Belt retractors, e.g. reels (anchoring devices {, e.g. guide loops} , with means to tension the belt in an emergency [B60R 22/195](#))
- M B60R 22/46 · · {Reels} with means to tension the belt in an emergency {by forced winding up} (electrical circuits for triggering safety arrangements [B60R 21/01](#) {~~tensioners using reels only guiding the belt during normal use, e.g. splitted reels B60R 22/195~~; *tensioners using reels only guiding the belt during normal use, e.g. splitted reels [B60R 22/195](#)*})

Project: Unknown (B60T)

- U B60T 8/00 **Arrangements for adjusting wheel-braking force to meet varying vehicular or ground-surface conditions, e.g. limiting or varying distribution of braking force (by changing number of effective brake cylinders in power brake systems [B60T 17/10](#))**
- U B60T 8/32 · responsive to a speed condition, e.g. acceleration or deceleration ({using electrical circuitry or regulation means [B60T 8/17](#) ; [B60T 8/28](#) takes precedence; electric devices on electrically propelled vehicles indicating the wheel slip [B60L 3/10](#); measuring linear or angular speed per se [G01P 3/00](#))
- U B60T 8/34 · · having a fluid pressure regulator responsive to a speed condition
- U B60T 8/36 · · · including a pilot valve responding to an electromagnetic force
- U B60T 8/3615 · · · · {Electromagnetic valves specially adapted for anti-lock brake and traction control systems (electromagnetic valves in general [F16K 31/06](#))}
- M B60T 8/369 · · · · {Valves using ~~piezo-electric~~*piezoelectric* elements (in general [F16K 31/004](#))}

Project: Unknown (B61L)

- U B61L 1/00 **Devices along the route controlled by interaction with the vehicle or vehicle train, {e.g. pedals}(detonators [B61L 5/20](#); operation of points or signals by passage of the vehicle [B61L 11/00](#), [B61L 13/00](#); central traffic control systems controlled by train [B61L 27/04](#); operation of gates, or gates and signals, by approaching vehicle [B61L 29/18](#))**
- U B61L 1/02 · Electric devices associated with track {, e.g. rail contacts}
- M B61L 1/025 · · {actuated by variation of resistance or by ~~piezo-electricity~~*piezoelectricity*}

Project: Unknown (B62D)

- U B62D 33/00 **Superstructures for load-carrying vehicles ({having impact absorbing means [B62D 21/15](#); } in which a load-carrying element is movable [B60P](#); liners [B60R 13/00](#) {; joining sheets or plates to one another or to strips or bars parallel to them [F16B 5/00](#))}**
- M B62D 33/04 · *Enclosed load compartments* {; ~~Enclosed load compartments~~ { Frameworks for movable panels, tarpaulins or side curtains (~~tarpaulins per se [B60J 7/00](#); [B60P 7/04](#)~~; side curtains per se [B60J 5/065](#); *tarpaulins per se [B60J 7/00](#), [B60P 7/04](#)*})}

Project: Unknown (B63C)

- U B63C 9/00 **Life-saving in water (life-saving in general [A62B](#); arrangement or adaptation of signalling or lighting devices for ships, other waterborne vessels or for equipment for shipping [B63B 45/00](#); rescue equipment specially adapted for submarine personnel [B63G 8/40](#))**
- U B63C 9/08 · Life-buoys, e.g. rings; Life-belts, jackets, suits, or the like ({non-sinkable swimsuits, drawers or trunks [A41D 7/001](#) } ; equipment for swimming [A63B](#), e.g. swimming aids {other than life-buoys or life-belts} [A63B 31/00](#), {teaching frames for swimming, swimming boards [A63B 69/14](#)})

- M B63C 9/087
- *Body suits, i.e. substantially covering the user's body* {; ~~Body suits, i.e. substantially covering the user's body~~ { Immersion suits, i.e. substantially completely covering the user}({~~Professional, industrial, or sporting protective garments A41D 13/00 for aquatic activities, e.g. with buoyancy aids A41D 13/012~~ diving suits B63C 11/04, B63C 11/10 {~~B63C 9/081~~ takes precedence};} *diving suits B63C 11/04, B63C 11/10* {; *Professional, industrial, or sporting protective garments A41D 13/00; for aquatic activities, e.g. with buoyancy aids A41D 13/012*})

Project: Unknown (B65H)

- U B65H 63/00 **Warning or safety devices, e.g. automatic fault detectors, stop-motions (safety devices in general F16P; indicating devices in general G08B)**; **Quality control of the package**
- U B65H 63/02
- responsive to reduction in material tension, failure of supply, or breakage, of material
- U B65H 63/024
- responsive to breakage of materials
- U B65H 63/028
- characterised by the detecting or sensing element
- U B65H 63/032
- electrical or pneumatic
- U B65H 63/0321
- {using electronic actuators}
- M B65H 63/0327
- {using ~~piezo-electric~~*piezoelectric* sensing means}
- U B65H 63/06
- responsive to presence of irregularities in running material, e.g. for severing the material at irregularities {; Control of the correct working of the yarn cleaner}
- U B65H 63/062
- {Electronic slub detector}
- M B65H 63/068
- {using ~~piezo-electric~~*piezoelectric* sensing means}
- U B65H 2553/00 **Sensing or detecting means**
- U B65H 2553/20
- using electric elements
- M B65H 2553/26
- ~~Piëzo-electric~~*Piezoelectric* sensors
- U B65H 2557/00 **Means for control not provided for in groups B65H 2551/00 - B65H 2555/00**
- U B65H 2557/50
- Use of particular electromagnetic waves, e.g. light, radiowaves or microwaves
- M B65H 2557/512
- ~~infra-red~~*infrared*

Project: Unknown (B66F)

- M B66F **HOISTING, LIFTING, HAULING OR PUSHING, NOT OTHERWISE PROVIDED FOR, e.g. DEVICES WHICH APPLY A LIFTING OR PUSHING FORCE DIRECTLY TO THE SURFACE OF A LOAD** ({invalid lifting devices [A61G 7/10](#); } mounting artificial islands on piles or like supports ~~[E02B 17/00](#) : ~~scaffolding combined with lifting devices E04G 1/22~~; *scaffolding combined with lifting devices E04G 1/22*; lifting devices for sliding forms [E04G 11/24](#); lifting of buildings [E04G 23/06](#); shores or struts [E04G 25/00](#); lifts or other hoisting devices on ladders [E06C 7/12](#); props for mining [E21D 15/00](#))~~

WARNINGS

1.

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

[B66F 19/02](#) covered by [B66F 19/00](#)

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Project: Unknown (B81B)

M B81B

MICROSTRUCTURAL DEVICES OR SYSTEMS, e.g. MICROMECHANICAL DEVICES (piezo-electric piezoelectric, electrostrictive or magnetostrictive elements per se H10N 30/00)

NOTES

1. This subclass does not cover:

- purely electrical or electronic devices per se which are covered by section [H](#), e.g. subclass [H01L](#) or class [H10](#);
- purely optical devices per se which are covered by subclasses [G02B](#) or [G02F](#);
- essentially two-dimensional structures, e.g. layered products which are covered by subclass [B32B](#);
- chemical or biological structures per se which are covered by section [C](#);
- structures in atomic scale produced by manipulation of single atoms or molecules, which are covered by group [B82B 1/00](#).

2. Devices or systems classified in this subclass are also classified in appropriate subclasses providing for their structural or functional features, if such features are of interest.

3. Attention is drawn to the following places:

A61K 9/50	Microcapsules for medicinal preparations
B25J 7/00	Micromanipulators
G02B 21/32	Micromanipulators combined with microscopes
G11B 5/127	Magnetic heads
H01P 3/08	Waveguide microstrips.

4. In this subclass, local "residual" subgroups, e.g. [B81B 7/0077](#), are used with the following purpose:

When classifying a document which does not fit in any of a set of subgroups with the same dot-level, the document should be classified in the residual group, if present, and not in the group at the hierarchical level one dot above.

In the example, the document shall be classified in [B81B 7/0077](#) and not in [B81B 7/0032](#) as [B81B 7/0077](#) is "residual" to [B81B 7/0035-B81B 7/0074](#)

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

U B81B 3/00

Devices comprising flexible or deformable elements, e.g. comprising elastic tongues or membranes ([B81B 5/00](#) takes precedence)

U B81B 3/0018

• {Structures acting upon the moving or flexible element for transforming energy into mechanical movement or vice versa, i.e. actuators, sensors, generators}

M B81B 3/0021

• - {Transducers for transforming electrical into mechanical energy or vice versa (dynamo-electric machines [H02K 99/00](#); electrostatic machines [H02N 1/00](#); **piezo-electric piezoelectric** devices [H10N 30/00](#))}

Project: Unknown (B81C)

M B81C PROCESSES OR APPARATUS SPECIALLY ADAPTED FOR THE MANUFACTURE OR TREATMENT OF MICROSTRUCTURAL DEVICES OR SYSTEMS (making microcapsules or microballoons [B01J 13/02](#); processes or apparatus peculiar to the manufacture or treatment of ~~piezo-~~~~electric~~~~piezoelectric~~, electrostrictive or magnetostrictive element per se [H10N 30/01](#))

NOTES

1. This subclass does not cover:

- processes or apparatus for the manufacture or treatment of purely electrical or electronic devices, which are covered by section [H](#), e.g. group [H01L 21/00](#);
- processes or apparatus involving the manipulation of single atoms or molecules, which are covered by group [B82B 3/00](#).

2. In this subclass, local "residual" subgroups, e.g. [B81C 1/00126](#), are used with the following purpose.

When classifying a document which does not fit in any of a set of subgroups with the same dot-level, the document should be classified in the residual group, if present, and not in the group at the hierarchical level one dot above.

In the example, the document shall be classified in [B81C 1/00126](#) and not in [B81C 1/00023](#) as [B81C 1/00126](#) is "residual" to [B81C 1/00031](#)-[B81C 1/00119](#)

Project: Unknown (C02F)

U C02F 1/00 Treatment of water, waste water, or sewage ([C02F 3/00](#) - [C02F 9/00](#) take precedence)

U C02F 1/30 · by irradiation

M C02F 1/32 · · with ~~ultra-violet~~~~ultraviolet~~ light

U C02F 2101/00 Nature of the contaminant

U C02F 2101/30 · Organic compounds

M C02F 2101/40 · · {containing sulfur}

Project: Unknown (C03B)

U C03B 35/00 Transporting of glass products during their manufacture, {e.g. hot glass lenses, prisms}(conveying systems for fragile sheets, e.g. glass [B65G 49/06](#))

U C03B 35/14 · Transporting hot glass sheets {or ribbons, e.g. by heat-resistant conveyor belts or bands}

U C03B 35/16 · · by roller conveyors

M C03B 35/18 · · · ~~Construction of the conveyor rollers~~ {; ~~Construction of the conveyor rollers~~ { Materials, coatings or coverings thereof}

Project: Unknown (C03C)

U C03C 4/00 Compositions for glass with special properties

NOTE

When classifying in group [C03C 4/00](#), classification is also made in the appropriate groups of group [C03C 3/00](#) according to the glass composition.

U C03C 4/08 · for glass selectively absorbing radiation of specified wave lengths

M C03C 4/082 · · {for ~~infra-red~~~~infrared~~ absorbing glass}

M C03C 4/085 · · {for ~~ultra-violet~~~~ultraviolet~~ absorbing glass}

- M C03C 4/10 · for ~~infra-red~~*infrared* transmitting glass
- U C03C 23/00 Other surface treatment of glass not in the form of fibres or filaments**
- U C03C 23/0005 · {by irradiation}
- M C03C 23/001 · · {by ~~infra-red~~*infrared* light}
- M C03C 23/002 · · {by ~~ultra-violet~~*ultraviolet* light}

Project: Unknown (C04B)

- M C04B 5/00 Treatment of {metallurgical} slag (manufacture of slag wool [C03B](#); in, or for, the production of metals [C21B](#), [C22B](#)); Artificial stone from molten {metallurgical} slag ~~{(other cast stone [C04B 32/005](#); mechanical aspects [B28B 1/54](#) {other cast stone [C04B 32/005](#)})}~~**
- U C04B 12/00 Cements not provided for in groups [C04B 7/00](#) - [C04B 11/00](#)**
- M C04B 12/04 · Alkali metal or ammonium silicate cements ~~{[Alkyl silicate cements](#); *Alkyl silicate cements*; Silica sol cements; Soluble silicate cements}~~ (alkali metal silicates per se, their preparation [C01B 33/32](#); ammonium silicates per se, their preparation [C01C 1/00](#))}
- U C04B 41/00 After-treatment of mortars, concrete, artificial stone or ceramics; Treatment of natural stone (conditioning of the materials prior to shaping [C04B 40/00](#); applying liquids or other fluent materials to surfaces, in general [B05](#); grinding or polishing [B24](#); apparatus or processes for treating or working shaped articles of clay or other ceramic compositions, slag or mixtures containing cementitious material [B28B 11/00](#); working stone or stone-like materials [B28D](#); glazes, other than cold glazes, [C03C 8/00](#); etching, surface-brightening or pickling compositions [C09K 13/00](#))**

NOTES

- In this group, the following terms or expressions are used with the meanings indicated:
 - "mortars", "concrete" and "artificial stone" cover materials after primary shaping.
- Treating, e.g. coating or impregnating, a material with the same material or with a substance that ultimately is transformed into the same material is not considered aftertreatment for this group but is classified as preparation of the material, e.g. a carbon body impregnated with a carbonisable substance is classified in [C04B 35/52](#).
- In groups [C04B 41/45](#) - [C04B 41/80](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
- {In this group, multiple classification is made according to the following rules:
 - when the substrate to be treated is of the artificial stone type, e.g. concrete, classification is made in the range [C04B 41/00](#) - [C04B 41/5392](#) as well as in the range [C04B 41/60](#) - [C04B 41/72](#)
 - when the substrate to be treated is of the ceramic type, classification is made in the range [C04B 41/00](#) - [C04B 41/5392](#) as well as in the range [C04B 41/80](#) - [C04B 41/91](#)
 - when the substrate to be treated is aspecific, classification is made only in the range [C04B 41/00](#) - [C04B 41/5392](#)

}

5. {In groups [C04B 41/0018](#) - [C04B 41/53](#), in the absence of an indication to the contrary, classification is made in the last appropriate place.}
6. {In groups [C04B 41/00](#) - [C04B 41/53](#), it is desirable to add the indexing codes relating to the nature of the substrate being treated. The indexing codes that are chosen from groups [C04B 26/00](#) - [C04B 38/00](#) should be unlinked.}
7. {In groups [C04B 41/00](#) - [C04B 41/53](#), it is desirable to add the indexing codes relating to aspects of the coating composition or to the method of application. The indexing codes that are chosen from groups [C04B 41/00](#) - [C04B 41/5392](#) should be unlinked.}
8. {Attention is drawn to internal Note (2) following the title of subclass [C04B](#).}

U C04B 41/45

- Coating or impregnating (paints [C09D](#)), {e.g. injection in masonry, partial coating of green or fired ceramics, organic coating compositions for adhering together two concrete elements (ion-implantation [C04B 41/0027](#))}

NOTES

1. In group [C04B 41/45](#) and sub-groups, as a general rule, classification is made according to the end products, rather than according to the starting materials, in the coating or impregnating compositions.
2. In groups [C04B 41/45](#) - [C04B 41/528](#) the following term is used with the meaning indicated:
 - "coating" covers material applied to the substrates as powdery material or applied from the gas or liquid phase, e.g. as a slurry; it only covers the use of preformed sheet-like elements in so far as the thickness of these sheets is small compared with the thickness of the substrate and so far as the resulting product is not exclusively one of the type classifiable in [B32B](#)

U C04B 41/46

- • with organic materials

M C04B 41/49

- • • Compounds having one or more carbon-to-metal or carbon-to-silicon linkages {[Organo-clay compounds](#); [Organo-clay compounds](#); Organosilicates, i.e. ortho- or polysilicic acid esters (to obtain [SiO₂-C04B 41/5089](#), [C04B 41/5035](#)); Organo-phosphorus compounds; Organo-inorganic complexes}

NOTE

As distinct from the general practice in [C04B 41/00](#), classification in [C04B 41/49](#) and sub-groups is done according to the nature of the starting products, not according to the nature of the end products

Project: Unknown (C07C)

U C07C 2/00

Preparation of hydrocarbons from hydrocarbons containing a smaller number of carbon atoms (redistribution reactions involving splitting [C07C 6/00](#))

U C07C 2/02

- by addition between unsaturated hydrocarbons

U C07C 2/04

- • by oligomerisation of well-defined unsaturated hydrocarbons without ring formation

U C07C 2/06

- • • of alkenes, i.e. acyclic hydrocarbons having only one carbon-to-carbon double bond

U C07C 2/08

- • • • Catalytic processes

U C07C 2/14

- • • • • with inorganic acids; with salts or anhydrides of acids

M C07C 2/20

- • • • • Acids of halogen; [Salts thereof](#); [Salts thereof](#) { Complexes thereof with organic compounds}

U C07C 309/00

Sulfonic acids; Halides, esters, or anhydrides thereof

- U C07C 309/01 · Sulfonic acids
- M C07C 309/62 · · Sulfonated fats, oils or waxes of undetermined constitution *{(bituminosulfonic acid C07G 9/00; chemical modification of petroleum waxes C10G 73/38 {Bituminosulfonic acid C07G 9/00})}*
- M C07C 405/00 **Compounds containing a five-membered ring having two side-chains in ortho position to each other, and having oxygen atoms directly attached to the ring in ortho position to one of the side-chains, one side-chain containing, not directly attached to the ring, a carbon atom having three bonds to hetero atoms with at the most one *bond* to halogen, and the other side-chain having oxygen atoms attached in gamma-position to the ring, e.g. prostaglandins *{Analogues or derivatives thereof}; Analogues or derivatives thereof}***

Project: Unknown (C07K)

- U C07K 11/00 **Depsipeptides having up to 20 amino acids in a fully defined sequence; Derivatives thereof**
- M C07K 11/02 · cyclic, e.g. valinomycins *{Derivatives thereof}; Derivatives thereof}*

Project: Unknown (C08F)

- U C08F 2/00 **Processes of polymerisation**
NOTE
{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F.](#)}
- U C08F 2/46 · Polymerisation initiated by wave energy or particle radiation
- M C08F 2/48 · · by *ultra-violetultraviolet* or visible light
- U C08F 299/00 **Macromolecular compounds obtained by interreacting polymers involving only carbon-to-carbon unsaturated bond reactions, in the absence of non-macromolecular monomers**
NOTE
{In this group, C-Sets are used. The detailed information about the C-Sets construction and the associated syntax rules is present in the Definitions of [C08F.](#)}
- U C08F 299/02 · from unsaturated polycondensates
- U C08F 299/04 · · from polyesters
- U C08F 299/0407 · · · {Processes of polymerisation}
- U C08F 299/0421 · · · · {Polymerisation initiated by wave energy or particle radiation}
- M C08F 299/0428 · · · · · {by *ultra-violetultraviolet* or visible light}

Project: Unknown (C09B)

- U C09B 44/00 **Azo dyes containing onium groups**
- U C09B 44/10 · containing cyclammonium groups attached to an azo group by a carbon atom of the ring system
- M C09B 44/14 · · *1,2*1,2-Diazoles or hydrogenated 1,2-diazoles *{Pyrazolium; Pyrazolium; Indazolium}*
- M C09B 44/16 · · *1,3*1,3-Diazoles or hydrogenated 1,3-diazoles *{(Benz)imidazolium}; (Benz)imidazolium}*

Project: Unknown (C09D)

- U C09D 123/00** **Coating compositions based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Coating compositions based on derivatives of such polymers**
- NOTE
{In this group, C-Sets are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Definitions of [C09D](#)}
- U C09D 123/02 · not modified by chemical after-treatment
- U C09D 123/18 · · Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
- U C09D 123/20 · · · having four to nine carbon atoms
- M C09D 123/22 · · · · Copolymers of isobutene; *Butyl rubber* {; *Butyl-rubber* { Homo- or copolymers of other iso-olefines}

Project: Unknown (C09J)

- U C09J 123/00** **Adhesives based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Adhesives based on derivatives of such polymers**
- NOTE
{In this group, C-Sets are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Definitions of [C09J](#)}
- U C09J 123/02 · not modified by chemical after-treatment
- U C09J 123/18 · · Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
- U C09J 123/20 · · · having four to nine carbon atoms
- M C09J 123/22 · · · · Copolymers of isobutene; *Butyl rubber* {; *Butyl-rubber* { Homo- or copolymers of other iso-olefines}

Project: Unknown (C25D)

- U C25D 5/00** **Electroplating characterised by the process; Pretreatment or after-treatment of workpieces**
- U C25D 5/011 · {Electroplating using electromagnetic wave irradiation (using locally applied electromagnetic radiation [C25D 5/024](#))}
- M C25D 5/013 · · {Wavelengths other than *ultra-violet* *ultraviolet* [UV], visible or *infra-red* *infrared* [IR], e.g. X-rays or microwaves}

Project: Unknown (D01F)

- U D01F 11/00** **Chemical after-treatment of artificial filaments or the like during manufacture**
- U D01F 11/10 · of carbon
- M D01F 11/12 · · with inorganic substances {*Intercalation*}; *Intercalation*}

Project: Unknown (D01H)

- U D01H 1/00 Spinning or twisting machines in which the product is wound-up continuously (open-end spinning machines [D01H 4/00](#) {; doubling of yarns [B65H 54/00+T](#); doubled, plied or cabled threads [D02G 3/28](#), e.g. using hollow spindles [D02G 3/283](#); spin-twisting [D02G 3/281](#); threads with alternately "S" and "Z" direction of twist, e.g. self-twist process, [D02G 3/286](#); wrapping strands of filaments or staple fibres by a binder yarn [D02G 3/38](#)})
- U D01H 1/14 · Details (drafting arrangements [D01H 5/00](#); twisting arrangements [D01H 7/00](#))
- M D01H 1/16 · · Framework; Casings; *Coverings* {; *Coverings* { Removal of heat; Means for generating overpressure of air against infiltration of dust; Ducts for electric cables}
- U D01H 7/00 Spinning or twisting arrangements (for open-end spinning [D01H 4/00](#))
- U D01H 7/02 · for imparting permanent twist
- M D01H 7/86 · · Multiple-twist arrangements, e.g. two-for-one twisting devices {*Threading of yarn*; *Threading of yarn*; Devices in hollow spindles for imparting false twist}

Project: Unknown (D05C)

- U D05C 15/00 Making pile fabrics or articles having similar surface features by inserting loops into a base material (layered products [B32B](#); non-woven pile fabrics [D04H 11/00](#))
- U D05C 15/04 · Tufting
- M D05C 15/06 · · *Hand tufting needles* {; *Hand tufting needles* { Hand-held tufting apparatus}

Project: Unknown (D06F)

- U D06F 75/00 Hand irons
- U D06F 75/08 · Hand irons internally heated by electricity
- U D06F 75/24 · · Arrangements of the heating means within the iron; Arrangements for distributing, conducting or storing the heat
- M D06F 75/246 · · · {using *infra-red* *infrared* lamps}

Project: Unknown (D06M)

- U D06M 10/00 Physical treatment of fibres, threads, yarns, fabrics, or fibrous goods made from such materials, e.g. ultrasonic, corona discharge, irradiation, electric currents, or magnetic fields; Physical treatment combined with treatment with chemical compounds or elements
- M D06M 10/001 · {Treatment with visible light, *infra-red or ultra-violet* *infrared or ultraviolet*, X-rays}
- U D06M 13/00 Treating fibres, threads, yarns, fabrics or fibrous goods made from such materials, with non-macromolecular organic compounds ([D06M 10/00](#), [D06M 14/00](#) take precedence; treatment with complexes of organic amines with inorganic substances [D06M 11/59](#)); Such treatment combined with mechanical treatment

NOTE

In this group the following term is used with the meaning indicated:

- "treatment" means, in the absence of an indication to the contrary, the treatment which leads to the end product, e.g. treatment with chloroacetic acid can mean treatment with chloroacetylchloride and saponification in two separate steps
- U D06M 13/322 · with compounds containing nitrogen

- M D06M 13/372 · · containing etherified or esterified hydroxy groups {~~Polyethers of low molecular weight~~; *Polyethers of low molecular weight*}

Project: Unknown (D21C)

- U D21C 11/00 **Regeneration of pulp liquors {or effluent waste waters}**
- U D21C 11/06 · Treatment of pulp gases; Recovery of the heat content of the gases; {Treatment of gases arising from various sources in pulp and paper mills; Regeneration of gaseous SO₂, e.g. arising from liquors containing sulfur compounds}
- M D21C 11/08 · · *Deodorisation*; ~~Deodorisation~~ { Elimination of malodorous compounds, e.g. sulfur compounds such as hydrogen sulfide ~~and/or~~ mercaptans, from gas streams (oxidation of liquors [D21C 11/0057](#); post-combustion of gases [D21C 11/127](#))}

Project: Unknown (D21F)

- U D21F 5/00 **Dryer section of machines for making continuous webs of paper**
- U D21F 5/001 · {Drying webs by radiant heating}
- M D21F 5/002 · · {from ~~infra-red~~-*infrared*-emitting elements}

Project: Unknown (E01D)

- U E01D 19/00 **Structural or constructional details of bridges**
- M E01D 19/08 · Damp-proof or other insulating layers; *Drainage arrangements or devices* {;~~Drainage arrangements or devices~~ { Bridge deck surfacings (bridge decks per se [E01D 19/125](#))}

Project: Unknown (E01H)

- U E01H 1/00 **Removing undesirable matter from roads or like surfaces, with or without moistening of the surface (for snow or ice [E01H 5/00](#); cleaning tramway rails [E01H 8/00](#); obstruction removers on vehicles [B60R 19/00](#); in combination with application of bitumen or the like [E01C 19/16](#); in combination with application of traffic line [E01C 23/16](#) {; Sweeping apparatus, particularly for lawns [A01G 20/30](#), [A01G 20/40](#); removing undesirable matter from floors and similar surfaces [A47L 5/00](#) - [A47L 13/00](#))}**
- U E01H 1/08 · Pneumatically dislodging or taking-up undesirable matter {or small objects} ({[E01H 1/006](#) and [E01H 1/005](#) take precedence; } suction cleaners in general [A47L 5/00](#) - [A47L 9/00](#); {sucking-off liquids or semi-liquids [E01H 1/108](#)}); Drying by heat only or by streams of gas (permanently-installed heating or blowing devices [E01C 11/26](#); heating or drying for road- building or repairing [E01C 23/14](#); {devices for melting snow or ice in situ [E01H 5/10](#), [E01H 8/08](#); for scorching undesirable vegetation [E01H 11/00](#)}); Cleaning by projecting abrasive particles (sand-blasting in general [B24C](#); {roughening of road surfaces [E01C 23/08](#); cleaning of road joints [E01C 23/0906](#))}
- M E01H 1/0809 · · {Loosening or dislodging by blowing (*combined with suction* [E01H 1/0863](#); with steam [E01H 1/10](#) ~~combined with suction~~ [E01H 1/0863](#); removing snow by blowing [E01H 5/106](#); ~~removing fog by blowing~~ [E01H 13/00](#); cleaning rails by blowing [E01H 8/105](#), [E01H 8/125](#); *removing fog by blowing* [E01H 13/00](#); cleaning joints in road construction by blowing [E01C 23/0906](#)); Drying by means of gas streams (by heat only [E01H 1/08](#); combined with snow or ice melting [E01H 5/10](#), [E01H 5/106](#), [E01H 5/108](#))}

- U E01H 3/00** Applying liquids to roads or like surfaces, e.g. for dust control; Stationary flushing devices (combined with removal of undesirable matter [E01H 1/00](#); spray heads, other outlets [B05B](#) {; applying hot water for melting snow [E01H 5/10](#); applicators for melting liquids [E01H 10/00](#); weed destruction [E01H 11/00](#)})
- M E01H 3/02** • Mobile apparatus, e.g. watering-vehicles (~~vehicle features [B60P 3/22](#);~~ {moistening combined with the removal of undesirable matter [E01H 1/00](#); mobile flushing or washing installations [E01H 1/101](#)} ~~applying liquid materials for road paving materials [E01C 19/16](#) {;~~ *mobile apparatus specially adapted for applying liquid or semi-liquid thawing materials [E01H 10/007](#); road moistening devices in cleaning machines per se;* ~~vehicle features [B60P 3/22](#);~~ *applying liquid materials for road paving materials [E01C 19/16](#) {;* applying curing agents on concrete roads [E01C 23/03](#); applying marking-out agents [E01C 23/16](#)}; ~~road moistening devices in cleaning machines per se;~~ *mobile apparatus specially adapted for applying liquid or semi-liquid thawing materials [E01H 10/007](#)})*
- U E01H 8/00** Removing undesirable matter from the permanent way of railways; Removing undesirable matter from tramway rails ([E01H 1/00](#) - [E01H 6/00](#) take precedence; {controlling vegetation [E01H 11/00](#); removing ballast from rails or sleepers [E01B 27/023](#); removing, cleaning the ballast itself [E01B 27/04](#), [E01B 27/06](#)})
- M E01H 8/02** • *Methods or apparatus for removing ice or snow from railway tracks, e.g. using snow-ploughs {;* ~~Methods or apparatus for removing ice or snow from railway tracks, e.g. using snow-ploughs {~~ Devices for dislodging snow or ice which are carried or propelled by tramway vehicles) (operating only on rails or flange grooves [E01H 8/10](#)); ~~{Moving or removing ballast;~~ *Moving or removing ballast ([E01B 27/02](#), [E01B 27/04](#) take precedence; removing snow or ice in general [E01H 5/00](#)})*
- M E01H 8/04** • *essentially by non-driven elements {;* ~~essentially by non-driven elements {~~ Clearing instruments, e.g. scraping blades; *or* scoop plates (with oscillating or vibrating tools [E01H 8/06](#); with heated instruments or combined with melting [E01H 8/10](#); ~~ballast ploughs [E01B 27/025](#);~~ track clearing ~~devices~~ *deices [B61F 19/06](#); ballast ploughs [E01B 27/025](#)})*
- M E01H 10/00** Improving gripping of ice-bound or other slippery traffic surfaces, e.g. using gritting or thawing materials ~~{Roadside storage of gritting or solid thawing materials;~~ *Roadside storage of gritting or solid thawing materials;* Permanently installed devices for applying gritting or thawing materials; Mobile apparatus specially adapted for treating wintry roads by applying liquid, semi-liquid or granular materials) ~~{treatment of dispersed oil or similar pollution on roads [E01H 1/001](#);~~ roughening ice by means of tools [E01H 5/12](#); applying de-icing agents to rails [E01H 8/10](#); thawing materials [C09K 3/18](#); by constructional features [E01C 11/24](#) {; {apparatus for distributing granular materials for road building purposes [E01C 19/20](#)}; ~~treatment of dispersed oil or similar pollution on roads [E01H 1/001](#)})~~

Project: Unknown (E02B)

- U E02B 3/00** Engineering works in connection with control or use of streams, rivers, coasts, or other marine sites (barrages or weirs [E02B 7/00](#)); Sealings or joints for engineering works in general
- U E02B 3/04** • Structures or apparatus for, or methods of, protecting banks, coasts, or harbours ({{[E02B 1/003](#) takes precedence; } sealing or joints [E02B 3/16](#))
- M E02B 3/06** • *Moles; Piers; Quays; Quay walls; Groyne; Breakwaters {;* ~~Breakwaters {~~ Wave dissipating walls; Quay equipment}

Project: Unknown (E02C)

- M E02C 3/00 ***Inclined-plane ship-lifting mechanisms*** {; ***Inclined-plane ship-lifting mechanisms*** { Systems for conveying barges or lighters over land, e.g. by railway}

Project: Unknown (E02D)

- U E02D 5/00 **Bulkheads, piles, or other structural elements specially adapted to foundation engineering (engineering elements in general [F16](#))**
- U E02D 5/22
 - Piles (sheet piles, {i.e. elements shaped to mutually lock or mate} [E02D 5/02](#); {pile shoes [E02D 5/72](#); foundations on piles [E02D 27/12](#), [E02D 27/20](#)})
- M E02D 5/52
 - • Piles composed of separable parts, e.g. telescopic tubes {~~Piles composed of segments~~; *Piles composed of segments*}

Project: Unknown (E02F)

- U E02F 3/00 **Dredgers; Soil-shifting machines (for special purposes [E02F 5/00](#); other machines or apparatus for mining [E21C](#); tunnelling [E21D](#))**
- U E02F 3/04
 - mechanically-driven
- U E02F 3/28
 - • with digging tools mounted on a dipper- or bucket-arm {, i.e. there is either one arm or a pair of arms}, e.g. dippers, buckets
- U E02F 3/36
 - • • Component parts
- M E02F 3/40
 - • • • Dippers; *Buckets* {; ~~Buckets~~ {*Grab device* *Grab devices*, e.g. manufacturing processes for buckets, form, geometry; or material of buckets (devices to connect tools to arms or booms [E02F 3/3604](#); teeth therefor [E02F 9/28](#))}

Project: Unknown (E03D)

- U E03D 11/00 **Other component parts of water-closets (pipe-joints or couplings in general [F16L](#))**{, e.g. noise-reducing means in the flushing system (noise-reducing means in combination with flushing valves [E03D 9/14](#)), flushing pipes mounted in the bowl, seals for the bowl outlet, devices preventing overflow of the bowl contents; devices forming a water seal in the bowl after flushing, devices eliminating obstructions in the bowl outlet or preventing backflow of water and excrements from the waterpipe}
- U E03D 11/02
 - Water-closet bowls (auxiliary chambers with connections to flushing water for bowl-cleaning utensils [E03D 9/06](#); modified for using upwardly-directed sprays [E03D 9/08](#); seats or covers [A47K 13/00](#)){; Bowls with a double odour seal optionally with provisions for a good siphonic action; siphons as part of the bowl (parts or details of bowls [E03D 11/13](#))}
- M E03D 11/04
 - • Bowls of flat shape with only slightly inclined bottom {~~Squat-type closets~~; *Squat-type closets*}
- U E03D 13/00 **Urinals (without flushing devices [A47K 11/00](#))**{; Means for connecting the urinal to the flushing pipe and the wastepipe; Splashing shields for urinals}
- M E03D 13/007
 - {Waterless or low-flush urinals}; Accessories therefor (siphons [E03C 1/281](#))}

Project: Unknown (E04C)

- M E04C 1/00 Building elements of block or other shape for the construction of parts of buildings (of relatively thin form [E04C 2/00](#); structural elongated elements designed for load-supporting [E04C 3/00](#), e.g. columns or pillars [E04C 3/30](#); manufacture or material of building bricks, stones, or the like [B28](#), [C03](#), [C04](#); paving elements [E01C](#); general building constructions [E04B](#), e.g. walls [E04B 2/00](#), floors [E04B 5/00](#), roofs [E04B 7/00](#), ceilings [E04B 9/00](#); {roof coverings [E04D](#); coverings for walls or ceilings [E04F 13/00](#); floorings [E04F 15/00](#)}; ~~structural elements specially designed for built-in conduit shafts [E04F 17/00](#)~~; ~~structural elements specially designed for built-in conduit shafts [E04F 17/00](#)~~; {elements for buildings for particular purposes [E04H 7/00](#)}; special elements for building ovens or furnaces [F24B](#), [F27D](#))

Project: Unknown (E05B)

- U E05B 15/00 Other details of locks; Parts for engagement by bolts of fastening devices
- M E05B 15/08 · Key guides; Key pins {~~Keyholes~~; ~~Keyholes~~; Keyhole finders ([E05B 17/10](#) takes precedence)}
- U E05B 47/00 Operating or controlling locks or other fastening devices by electric or magnetic means (electric permutation locks [E05B 49/00](#))
- U E05B 47/0001 · {with electric actuators; Constructional features thereof (for vehicles [E05B 81/04](#))}
- M E05B 47/0011 · · {with ~~piezo-electric~~*piezoelectric* actuators (~~piezo-electric~~*piezoelectric* devices per se [H10N 30/00](#))}
- M E05B 75/00 Handcuffs {~~Finger cuffs~~; ~~Finger cuffs~~; Leg irons; Handcuff holsters; Means for locking prisoners in automobiles (retaining devices for the body or body parts [A61F 5/37](#))}

Project: Unknown (E06C)

- U E06C 5/00 Ladders characterised by being mounted on undercarriages or vehicles
Securing ladders on vehicles (ladders having wheels, rollers, or runners [E06C 1/397](#) {; ladders on boats [B63B 27/14](#))
- U E06C 5/02 · with rigid longitudinal members
- M E06C 5/04 · · ~~capable of being elevated or extended~~ {; ~~capable of being elevated or extended~~ { Fastening means during transport, e.g. mechanical, hydraulic}
- U E06C 5/32 · Accessories {, e.g. brakes on ladders}
- M E06C 5/42 · · Devices for altering inclination; Latching devices therefor {~~Balancing arrangements~~; ~~Balancing arrangements~~}

Project: Unknown (F01D)

- U F01D 25/00 Component parts, details, or accessories, not provided for in, or of interest apart from, other groups
- M F01D 25/32 · Collecting of condensation water; ~~Drainage~~ {; ~~Drainage~~ { Removing solid particles}

Project: Unknown (F02D)

- U F02D 41/00 Electrical control of supply of combustible mixture or its constituents ([F02D 43/00](#) takes precedence {; control of engine starters [F02N 11/08](#), electrical control of engine ignition timing [F02P 5/145](#))
- U F02D 41/20 · Output circuits, e.g. for controlling currents in command coils
- M F02D 41/2096 · · {for controlling ~~piezo-electric~~*piezoelectric* injectors (drive and control circuit for ~~piezo-electric~~*piezoelectric* devices in general [H10N 30/802](#))}

Project: Unknown (F02M)

- U F02M 17/00** Carburettors having pertinent characteristics not provided for in, or of interest apart from, the apparatus of preceding main groups [F02M 1/00](#) - [F02M 15/00](#) (apparatus for treating combustion-air, fuel, or fuel-air mixture by catalysts, electric means, magnetism, rays, sonic waves, or the like [F02M 27/00](#); combinations of carburettors and low-pressure fuel-injection apparatus [F02M 71/00](#))
- M F02M 17/14** · Carburettors with fuel-supply parts opened and closed in synchronism with engine stroke {~~Valve carburettors~~; *Valve carburettors*}
- U F02M 27/00** Apparatus for treating combustion-air, fuel, or fuel-air mixture, by catalysts, electric means, magnetism, rays, sound waves, or the like
- M F02M 27/06** · by rays {, e.g. ~~infra-red and ultra-violet~~*infrared and ultraviolet*}
- U F02M 35/00** Combustion-air cleaners, air intakes, intake silencers, or induction systems specially adapted for, or arranged on, internal-combustion engines
- M F02M 35/12** · *Intake silencers* {; ~~Intake silencers~~ { Sound modulation, transmission or amplification (intake silencers also used as exhaust silencer [F01N 13/007](#); filters for compressors [F04B 39/16](#))}
- U F02M 51/00** Fuel-injection apparatus characterised by being operated electrically
- U F02M 51/06** · Injectors peculiar thereto {with means directly operating the valve needle}
- M F02M 51/0603** · · {using ~~piezo-electric~~*piezoelectric* or magnetostrictive operating means}
- U F02M 59/00** Pumps specially adapted for fuel-injection and not provided for in groups [F02M 39/00](#) -[F02M 57/00](#) {, e.g. rotary cylinder-block type of pumps}
- U F02M 59/44** · Details, components parts, or accessories not provided for in, or of interest apart from, the apparatus of groups [F02M 59/02](#) - [F02M 59/42](#); {Pumps having transducers, e.g. to measure displacement of pump rack or piston}
- U F02M 59/46** · · Valves
- M F02M 59/466** · · · {Electrically operated valves, e.g. using electromagnetic or ~~piezo-~~*electric piezoelectric* operating means}
- M F02M 59/468** · · · · {using ~~piezo-electric~~*piezoelectric* operating means}
- U F02M 2200/00** Details of fuel-injection apparatus, not otherwise provided for
- M F02M 2200/21** · Fuel-injection apparatus with ~~piezo-electric~~*piezoelectric* or magnetostrictive elements
- M F02M 2200/215** · · ~~Piezo-electric~~*Piezoelectric* or magnetostrictive elements being able to tilt in its housing

Project: Unknown (F02P)

- U F02P 3/00** Other installations
- M F02P 3/01** · Electric spark ignition installations without subsequent energy storage, i.e. energy supplied by an electrical oscillator (with magneto- or dynamo-electric generators [F02P 1/00](#); ~~piezo-electric~~*piezoelectric* ignition [F02P 3/12](#); with continuous electric spark [F02P 15/10](#))
- M F02P 3/06** · having capacitive energy storage (~~piezo-electric~~*piezoelectric* or electrostatic ignition [F02P 3/12](#))
- M F02P 3/12** · ~~Piezo-electric~~*Piezoelectric* ignition; Electrostatic ignition

Project: Unknown (F04B)

- U F04B 17/00** Pumps characterised by combination with, or adaptation to, specific driving engines or motors

- M F04B 17/003 · {driven by ~~piezo-electric~~*piezoelectric* means ([F04B 43/046](#) and [F04B 43/095](#) take precedence)}
- U F04B 43/00 **Machines, pumps, or pumping installations having flexible working members (pumps or pumping installations specially adapted for elastic fluids [F04B 45/00](#))**
- U F04B 43/02 · having plate-like flexible members, e.g. diaphragms ([F04B 43/14](#) takes precedence)
- U F04B 43/04 · · Pumps having electric drive
- U F04B 43/043 · · · {Micropumps}
- M F04B 43/046 · · · · {with ~~piezo-electric~~*piezoelectric* drive}

Project: Unknown (F04D)

- U F04D 25/00 **Pumping installations or systems (controlling [F04D 27/00](#))**
- M F04D 25/16 · *Combinations of two or more pumps* {; ~~Combinations of two or more pumps~~ { Producing two or more separate gas flows}

Project: Unknown (F15C)

- U F15C 1/00 **Circuit elements having no moving parts**
NOTE
Group [F15C 1/22](#) takes precedence over groups [F15C 1/08](#) - [F15C 1/20](#).
{This Note corresponds to IPC Note (1) relating to [F15C 1/08](#) - [F15C 1/20](#).}
- U F15C 1/02 · Details {, e.g. special constructional devices for circuits with fluid elements, such as resistances, capacitive circuit elements; devices preventing reaction coupling in composite elements (servomotor systems adapted for maintaining constant speed [F15B 11/05](#)); Switch boards; Programme devices (hydraulic programme control [F15B 21/02](#))}
- M F15C 1/06 · · Constructional details; *Selection of specified materials* {; ~~Selection of specified materials~~ { Constructional realisation of one single element; Canal shapes; Jet nozzles; Assembling an element with other devices, only if the element forms the main part ([F15C 5/00](#) takes precedence)}

Project: Unknown (F16D)

- U F16D 13/00 **Friction clutches (arrangements for synchronisation [F16D 23/02](#))**
- U F16D 13/22 · with axially-movable clutching members (similar brakes [F16D 55/00](#))
- U F16D 13/38 · · with flat clutching surfaces, e.g. discs
- M F16D 13/52 · · · *Clutches with multiple lamellae* {; ~~Clutches with multiple lamellae~~ { Clutches in which three or more axially moveable members are fixed alternately to the shafts to be coupled and are pressed from one side towards an axially-located member ([F16D 13/385](#) takes precedence)}

Project: Unknown (F16F)

- U F16F 15/00 **Suppression of vibrations in systems ({damping of non-rotary systems using inertia effect [F16F 7/10](#); prevention or isolation of vibrations in machine tools [B23Q 11/0032](#); suppression of driveline vibrations in hybrid vehicle transmissions [B60W 30/20](#)}; vehicle seat suspension devices [B60N 2/50](#); {methods or devices for protecting against, or damping of, acoustic waves, e.g. sound [G10K 11/16](#)}); Means or arrangements for avoiding or reducing out-of-balance forces, e.g. due to motion ({vibration absorbing or balancing means for aircraft propellers [B64C 11/008](#), for rotorcraft rotors [B64C 27/001](#)}; testing static and dynamic balance of machines or structures [G01M 1/00](#))**

- M F16F 15/005
- {using electro- or magnetostrictive actuation means (generating of mechanical vibrations operating with electrostriction [B06B 1/06](#), with magnetostriction [B06B 1/08](#); vehicle suspension arrangements characterised by use of ~~piezo-electric~~*piezoelectric* elements [B60G 17/01941](#); ~~piezo-electric~~*piezoelectric*, electrostrictive and magnetostrictive devices per se [H10N 30/00](#))}

Project: Unknown (F16G)

- U F16G 1/00 Driving-belts (V-belts [F16G 5/00](#); conveyor belt [B65G](#))
- M F16G 1/06
- made of rubber ([F16G 1/28](#) takes precedence *{; consisting of several parts F16G 1/22}*; making thereof [B29D 29/00](#) *{consisting of several parts F16G 1/22}*)
- M F16G 1/14
- made of plastics ([F16G 1/28](#) takes precedence *{; consisting of several parts F16G 1/22}*; making thereof [B29D 29/00](#) *{consisting of several parts F16G 1/22}*)

Project: Unknown (F16K)

- U F16K 31/00 {Actuating devices;} Operating means; Releasing devices {(regulating means [G05D](#))}
- M F16K 31/004
- {actuated by ~~piezo-electric~~*piezoelectric* means}

Project: Unknown (F16L)

- M F16L 17/00 Joints with packing adapted to sealing by fluid pressure (~~{for hoses [F16L 33/16](#)}~~~~compensating devices F16L 51/00;~~ *compensating devices [F16L 51/00](#)*)

Project: Unknown (F21K)

- U F21K 2/00 Non-electric light sources using luminescence (using excitation by radioactivity [G21H 3/02](#), [H01J 65/06](#), [H01J 65/08](#); using excitation by an external electromagnetic field or by external corpuscular radiation [H01J 65/04](#)); Light sources using electrochemiluminescence
- M F21K 2/005
- {excited by ~~infra-red~~*infrared* radiation using up-conversion}

Project: Unknown (F21V)

- U F21V 9/00 Elements for modifying spectral properties, polarisation or intensity of the light emitted, e.g. filters (coloured shades [F21V 1/00](#); elements characterised by cooling arrangements [F21V 29/502](#))
- M F21V 9/06
- for filtering out ~~ultra-violet~~*ultraviolet* radiation
- U F21V 15/00 Protecting lighting devices from damage (protection from thermal damage [F21V 29/00](#); gas-tight or water-tight arrangements [F21V 31/00](#))
- M F21V 15/04
- Resilient mountings, e.g. shock absorbers *{(shock absorbing devices of vehicle headlamp housings [B60Q 1/0491](#); in general [F16F 15/04](#) ~~{shock absorbing devices of vehicle headlamp housings [B60Q 1/0491}](#)~~)}*
- M F21V 27/00 Cable-stowing arrangements structurally associated with lighting devices, e.g. reels *{(storing lengths of cable in general [B65H](#) ~~{the lighting devices being vehicle headlamps [F21S 41/192](#); the lighting devices being vehicle lights [headlamps \[F21S 43/195}\]\(#\)](#)~~ [F21S 41/192](#); *the lighting devices being vehicle lights [F21S 43/195}](#)*)}*

Project: Unknown (F23Q)

- U F23Q 2/00 Lighters containing fuel, e.g. for cigarettes

- U F23Q 2/28 · Lighters characterised by electrical ignition of the fuel (lighter with electrically-produced sparks but without fuel [F23Q 3/00](#))
- U F23Q 2/285 · · {with spark ignition}
- M F23Q 2/287 · · · {~~piezo-electric~~*piezoelectric*}
- U F23Q 3/00 Igniters using electrically-produced sparks (sparking-plugs [H01T 13/00](#))**
- M F23Q 3/002 · {using ~~piezo-electric~~*piezoelectric* elements}

Project: Unknown (F24C)

- U F24C 15/00 Details**
- M F24C 15/24 · Radiant bodies or panels for radiation heaters (gas burners for producing ~~infra-red~~*infrared* radiation [F23D 14/12](#))

Project: Unknown (F24D)

- U F24D 3/00 Hot-water central heating systems (district heating systems [F24D 10/00](#); central heating systems using heat accumulated in storage masses [F24D 11/00](#))**
- M F24D 3/10 · Feed-line arrangements, e.g. providing for heat-accumulator tanks, expansion tanks {~~Hydraulic components of a central heating system~~; *Hydraulic components of a central heating system*}

Project: Unknown (F25B)

- U F25B 41/00 Fluid-circulation arrangements**
- U F25B 41/30 · Expansion means; Dispositions thereof
- U F25B 41/31 · · Expansion valves
- M F25B 41/34 · · · with the valve member being actuated by electric means, e.g. by ~~piezo-electric~~*piezoelectric* actuators

Project: Unknown (F25D)

- M F25D 19/00 Arrangement or mounting of refrigeration units with respect to devices {or objects to be refrigerated, e.g. ~~infra-red~~*infrared* detectors}**

Project: Unknown (F25J)

- U F25J 1/00 Processes or apparatus for liquefying or solidifying gases or gaseous mixtures {(recovering volatile solvents by condensation [B01D 5/00](#); vapor recovery systems combined with filling nozzles [B67D 7/54](#); solidification of carbonic acid [C01B 32/55](#); for ammonia in general [C01C 1/00](#))}**
- M F25J 1/02 · requiring the use of refrigeration, e.g. of helium or hydrogen {~~Details and kind of the refrigeration system used~~; *Details and kind of the refrigeration system used*; Integration with other units or processes; Controlling aspects of the process}

Project: Unknown (F26B)

- U F26B 3/00 Drying solid materials or objects by processes involving the application of heat (in specific machines or apparatus [F26B 9/00](#) - [F26B 19/00](#))**
- U F26B 3/28 · by radiation, e.g. from the sun
- M F26B 3/30 · · from ~~infra-red~~*infrared*-emitting elements {(by radiation emanating from passages containing heated fluids other than combustion gases [F26B 23/10](#))}
- M F26B 3/305 · · · {the ~~infra-red~~*infrared* radiation being generated by combustion or combustion gases}

- M F26B 23/00 Heating arrangements ({by radiation, e.g. ~~infra-red, ultra-violet~~*infrared, ultraviolet*, solar [F26B 3/28](#) and [F26B 3/30](#)}; using heated air or gases [F26B 21/00](#))

Project: Unknown (F41A)

- U F41A 9/00 Feeding or loading of ammunition ({conveying ammunition through pipes by the action of flowing gases [B65G 51/025](#)}; adaptations for feeding or loading missiles from magazines in air guns [F41B 11/50](#)); Magazines; Guiding means for the extracting of cartridges (cartridge extractors or ejectors [F41A 15/00](#))
- U F41A 9/61 · Magazines
- U F41A 9/64 · · for unbelted ammunition
- U F41A 9/65 · · · Box magazines having a cartridge follower
- M F41A 9/68 · · · · *Plural magazines, e.g. tandem magazines* {; ~~Plural magazines, e.g. tandem magazines~~ { Arrangements of cartridges in two or more independent rows or channels which are selectively or sequentially brought into operative position}

Project: Unknown (F41C)

- U F41C 27/00 Accessories; Details or attachments not otherwise provided for
- M F41C 27/04 · Arrangements for mounting spades or shields (spades per se [A01B 1/02](#) ~~shields per se~~ [F41H 5/06](#); *shields per se* [F41H 5/06](#))

Project: Unknown (F41G)

- U F41G 1/00 Sighting devices (for indirect laying of fire [F41G 3/16](#); bombsights [F41G 3/24](#) {; structurally associated with laser telemeters [F41G 3/065](#); mounting tubular or beam shaped aiming devices on firearms [F41G 11/001](#))
- U F41G 1/32 · Night sights, e.g. luminescent ({optical aspects of sighting devices [G02B 23/00](#), [G02B 27/00](#))}
- U F41G 1/34 · · combined with light source, e.g. spot light
- M F41G 1/36 · · · with ~~infra-red~~*infrared* light source
- U F41G 7/00 Direction control systems for self-propelled missiles (flight control [B64C](#), [G05D 1/00](#) {; counter-measures against guided missiles [F41H 11/02](#); spin-stabilised missiles [F42B 10/26](#)); self-propelled or guided missiles having direction control systems only installed aboard [F42B 15/01](#); rocket torpedoes [F42B 17/00](#); marine torpedoes or sea-mines having self-propulsion means [F42B 19/00](#); locating by use of radio or other waves [G01S](#); computing aspects [G06](#))
- U F41G 7/001 · {Devices or systems for testing or checking}
- U F41G 7/002 · · {target simulators}
- M F41G 7/004 · · · {for ~~infra-red~~*infrared* seekers}

Project: Unknown (F41H)

- U F41H 5/00 Armour; Armour plates (processes for manufacturing or treating [B21](#), [C21](#), {heat treatment [C21D 9/42](#); wall or panel structure for safes [E05G 1/024](#))
- M F41H 5/24 · *for stationary use, e.g. fortifications* {; *Shelters*; ~~for stationary use, e.g. fortifications~~ {*Shelters*; Guard Booths (air-raid shelters [E04H 9/04](#))}

- U F41H 11/00 Defence installations; Defence devices (constructional aspects see Section E, e.g. {air-raid shelters} [E04H 9/04](#); {protective arrangements for buildings} [E04B 1/92](#); extinguishing or preventing the spread of fire from, incendiary bombs [A62C 3/06](#); dynamic armour [F41H 5/007](#); ballistically deployed systems for restraining persons or animals [F41H 13/0006](#); electronic countermeasures [G01S](#))
- M F41H 11/02 · Anti-aircraft or anti-guided missile (or anti-torpedo) defence installations or systems (cartridges or missiles for producing smoke or for dispensing radar chaff or ~~infra-red~~*infrared* material [F42B 5/15](#), [F42B 12/48](#), [F42B 12/70](#); {informative reference: details of radar or sonar systems [G01S 7/00](#); jamming or electronic countermeasures [G01S 7/38](#), [G01S 7/495](#), [H04K 3/00](#)})

Project: Unknown (F41J)

- U F41J 2/00 Reflecting targets, e.g. radar-reflector targets; Active targets transmitting electromagnetic {or acoustic} waves
- M F41J 2/02 · Active targets transmitting ~~infra-red~~*infrared* radiation

Project: Unknown (F42B)

- U F42B 5/00 Cartridge ammunition, e.g. separately-loaded propellant charges (shotgun ammunition [F42B 7/00](#); practice or training ammunition [F42B 8/00](#); missiles therefor [F42B 12/00](#), [F42B 14/00](#), [F42B 15/00](#))
- U F42B 5/02 · Cartridges, i.e. cases with charge and missile
- U F42B 5/145 · · for dispensing gases, vapours, powders, particles or chemically-reactive substances (from projectiles [F42B 12/46](#))
- M F42B 5/15 · · · for creating a screening or decoy effect, e.g. using radar chaff or ~~infra-red~~*infrared* material (~~infra-red~~*infrared* flares [F42B 4/26](#))
- U F42B 12/00 Projectiles, missiles or mines characterised by the warhead, the intended effect, or the material ([F42B 6/00](#), [F42B 10/00](#), [F42B 14/00](#) take precedence; for practice or training [F42B 8/12](#), [F42B 8/28](#); self-propulsion or guidance aspects [F42B 15/00](#))
- U F42B 12/02 · characterised by the warhead or the intended effect
- U F42B 12/36 · · for dispensing materials; for producing chemical or physical reaction; for signalling {; for transmitting information}
- U F42B 12/38 · · · of tracer type
- M F42B 12/382 · · · · {emitting an electromagnetic radiation, e.g. laser beam or ~~infra-red~~*infrared* emission}
- U F42B 12/56 · · · for dispensing discrete solid bodies ([F42B 12/70](#) takes precedence)
- M F42B 12/70 · · · · for dispensing radar chaff or ~~infra-red~~*infrared* material (radar-reflector targets, active targets transmitting ~~infra-red~~*infrared* radiation [F41J 2/00](#); radar-reflecting surfaces [H01Q 15/14](#))
- M F42B 15/00 Self-propelled projectiles or missiles, e.g. rockets; Guided missiles ([F42B 10/00](#), [F42B 12/00](#), [F42B 14/00](#) take precedence: ~~for practice or training~~ [F42B 8/12](#): ~~rocket torpedoes~~ [F42B 17/00](#); ~~for practice or training~~ [F42B 8/12](#); ~~rocket torpedoes~~ [F42B 17/00](#); marine torpedoes [F42B 19/00](#); cosmonautic vehicles [B64G](#); jet-propulsion plants [F02K](#))
- U F42B 39/00 Packaging or storage of ammunition or explosive charges; Safety features thereof; Cartridge belts or bags

- M F42B 39/20
- Packages or ammunition having valves for pressure-equalising; Packages or ammunition having plugs for pressure release, e.g. meltable **{Blow-out panels; Blow-out panels}**; Venting arrangements (ventilating arrangements on packages formed from foldable or erectable blanks [B65D 5/4295](#); packages with pressure-relief valves incorporated in a container wall [B65D 77/225](#))

Project: Unknown (G01B)

- U G01B 7/00 Measuring arrangements characterised by the use of electric or magnetic techniques**
- U G01B 7/02
- for measuring length, width or thickness ([G01B 7/004](#), [G01B 7/12](#) take precedence)
- U G01B 7/06
- • for measuring thickness {(measuring during the manufacture of coatings [C23C 14/54](#))}
- M G01B 7/063
- • • {using **piezo-electric piezoelectric** resonators}
- M G01B 7/066
- • • • {for measuring thickness of coating (apparatus or processes for the manufacture of **piezo-electric piezoelectric** or electrostrictive resonators for obtaining desired frequency [H03H 3/04](#))}

Project: Unknown (G01D)

- U G01D 5/00 Mechanical means for transferring the output of a sensing member; Means for converting the output of a sensing member to another variable where the form or nature of the sensing member does not constrain the means for converting; Transducers not specially adapted for a specific variable ([G01D 3/00](#) takes precedence; specially adapted for apparatus giving results other than momentary value of variable [G01D 1/00](#))**

NOTE

The subgroups of this main group are distinguished by the means which is of major importance. Thus the mere application of other means for giving a final indication does not affect the classification.

- M G01D 5/26
- characterised by optical transfer means, i.e. using **infra-red infrared**, visible, or **ultra-violet ultraviolet** light
- M G01D 5/40
- • specially adapted for use with **infra-red infrared** light {(mechanical adjustment [G01D 5/264](#))}
- U G01D 5/54
- using means specified in two or more of groups [G01D 5/02](#), [G01D 5/12](#), [G01D 5/26](#), [G01D 5/42](#), and [G01D 5/48](#)

NOTES

1. For a combination of two or more of the means specified, the first applicable one of the subgroups below takes precedence over any others of these groups.
2. Classification is made in this group only if no other group can be selected as being predominantly applicable.

- M G01D 5/58
- • using optical means, i.e. using **infra-red infrared**, visible or **ultra-violet ultraviolet** light

Project: Unknown (G01F)

- U G01F 23/00 Indicating or measuring liquid level or level of fluent solid material, e.g. indicating in terms of volume or indicating by means of an alarm**
- U G01F 23/22
- by measuring physical variables, other than linear dimensions, pressure or weight, dependent on the level to be measured, e.g. by difference of heat transfer of steam or water (involving the use of floats [G01F 23/30](#))
- U G01F 23/28
- • by measuring the variations of parameters of electromagnetic or acoustic waves applied directly to the liquid or fluent solid material

- U G01F 23/284 · · · Electromagnetic waves
- M G01F 23/292 · · · · Light {, e.g. ~~infra-red or ultra-violet~~*infrared or ultraviolet*}

Project: Unknown (G01G)

- U G01G 3/00 Weighing apparatus characterised by the use of elastically-deformable members, e.g. spring balances**
- U G01G 3/12 · wherein the weighing element is in the form of a solid body stressed by pressure or tension during weighing
- M G01G 3/13 · · having ~~piezo-electric or piezo-resistive~~*piezoelectric or piezoresistive* properties

Project: Unknown (G01H)

- U G01H 11/00 Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by detecting changes in electric or magnetic properties**
- U G01H 11/06 · by electric means
- M G01H 11/08 · · using ~~piezo-electric~~*piezoelectric* devices

Project: Unknown (G01J)

- M G01J MEASUREMENT OF INTENSITY, VELOCITY, SPECTRAL CONTENT, POLARISATION, PHASE OR PULSE CHARACTERISTICS OF ~~INFRA-RED~~*INFRARED*, VISIBLE OR ~~ULTRA-VIOLET~~*ULTRAVIOLET* LIGHT; COLORIMETRY; RADIATION PYROMETRY (light sources [F21](#), [H01J](#), [H01K](#), [H05B](#); investigating properties of materials by optical means [G01N](#))**

NOTES

1. This subclass covers the detection of the presence or absence of ~~infra-red~~*infrared*, visible, or ~~ultra-violet~~*ultraviolet* light, not otherwise provided for.
2. Attention is drawn to the Notes following the title of class [G01](#).

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

- U G01J 3/00 Spectrometry; Spectrophotometry; Monochromators; Measuring colours**
- U G01J 3/02 · Details
- U G01J 3/10 · · Arrangements of light sources specially adapted for spectrometry or colorimetry
- M G01J 3/108 · · · {for measurement in the ~~infra-red~~*infrared* range}

- U G01J 5/00 Radiation pyrometry, e.g. infrared or optical thermometry**

WARNING

Group [G01J 5/00](#) is impacted by reclassification into group [G01J 5/90](#). Groups [G01J 5/00](#) and [G01J 5/90](#) should be considered in order to perform a complete search.

- U G01J 5/38 · using extension or expansion of solids or fluids
- M G01J 5/44 · · using change of resonant frequency, e.g. of ~~piezo-electric~~*piezoelectric* crystals

Project: Unknown (G01L)

- U G01L 1/00 Measuring force or stress, in general (measuring force due to impact [G01L 5/00](#))**

- M G01L 1/16 · using properties of ~~piezo-electric~~*piezoelectric* devices
- M G01L 1/162 · · {using ~~piezo-electric~~*piezoelectric* resonators}
- M G01L 1/24 · by measuring variations of optical properties of material when it is stressed, e.g. by photoelastic stress analysis {using ~~infra-red~~*infrared*, visible light, ~~ultra-violet~~*ultraviolet*}
- M G01L 1/248 · · {using ~~infra-red~~*infrared* ([G01L 1/241](#), [G01L 1/242](#) take precedence)}
- U G01L 5/00** **Apparatus for, or methods of, measuring force, work, mechanical power, or torque, specially adapted for specific purposes**
- U G01L 5/0009 · {Force sensors associated with a bearing (testing of bearings [G01M 13/04](#))}
- M G01L 5/0019 · · {by using strain gages, ~~piezo-electric~~*piezoelectric*, piezo-resistive or other ohmic-resistance based sensors}
- U G01L 5/16 · for measuring several components of force
- M G01L 5/167 · · using ~~piezo-electric~~*piezoelectric* means
- U G01L 9/00** **Measuring steady or quasi-steady pressure of fluid or fluent solid material by electric or magnetic pressure-sensitive elements {([G01L 11/004](#) takes precedence)}; Transmitting or indicating the displacement of mechanical pressure-sensitive elements, used to measure the steady or quasi-steady pressure of a fluid or fluent solid material, by electric or magnetic means (measuring differences of two or more pressure values [G01L 13/00](#); measuring two or more pressure values simultaneously [G01L 15/00](#))**
- M G01L 9/08 · by making use of ~~piezo-electric~~*piezoelectric* devices {, i.e. electric circuits therefor}
- U G01L 23/00** **Devices or apparatus for measuring or indicating or recording rapid changes, such as oscillations, in the pressure of steam, gas, or liquid; Indicators for determining work or energy of steam, internal-combustion, or other fluid-pressure engines from the condition of the working fluid**
- U G01L 23/08 · operated electrically {([G01L 23/22](#) takes precedence)}
- M G01L 23/10 · · by pressure-sensitive members of the ~~piezo-electric~~*piezoelectric* type

Project: Unknown (G01M)

- U G01M 17/00** **Testing of vehicles (testing fluid tightness [G01M 3/00](#); testing elastic properties of bodies or chassis, e.g. torsion-testing, [G01M 5/00](#); testing alignment of vehicle headlight devices [G01M 11/06](#); testing of engines [G01M 15/00](#))**
- U G01M 17/007 · Wheeled or endless-tracked vehicles ([G01M 17/08](#) takes precedence)
- U G01M 17/02 · · Tyres
- M G01M 17/027 · · · {using light, e.g. ~~infra-red~~, ~~ultra-violet~~*infrared*, *ultraviolet* or holographic techniques}

Project: Unknown (G01N)

- U G01N 1/00** **Sampling; Preparing specimens for investigation**
- U G01N 1/28 · Preparing specimens for investigation {including physical details of (bio-)chemical methods covered elsewhere, e.g. [G01N 33/50](#), [C12Q](#)} {mounting specimens on microscopic slides [G02B 21/34](#); means for supporting the objects or the materials to be analysed in electron microscopes [H01J 37/20](#) {; laboratory gas handling apparatus [B01L 5/00](#)}
- M G01N 1/30 · · Staining; Impregnating {~~Fixation~~, *Fixation*; Dehydration; Multistep processes for preparing samples of tissue, cell or nucleic acid material and the like for analysis}

- U G01N 21/00** Investigating or analysing materials by the use of optical means, i.e. using sub-millimetre waves, infrared, visible or ultraviolet light ([G01N 3/00](#) - [G01N 19/00](#) take precedence)
- NOTE
This group does not cover the investigation of spectral properties of light per se, or measurements of the properties of materials where spectral properties of light are sensed and primary emphasis is placed on creating, detecting or analysing the spectrum providing that the properties of the materials to be investigated are of minor importance. Those subjects are covered by group [G01J 3/00](#).
- U G01N 21/17 · Systems in which incident light is modified in accordance with the properties of the material investigated (where the material investigated is optically excited causing a change in wavelength of the incident light [G01N 21/63](#))
- U G01N 21/25 · · Colour; Spectral properties, i.e. comparison of effect of material on the light at two or more different wavelengths or wavelength bands
- U G01N 21/31 · · · Investigating relative effect of material at wavelengths characteristic of specific elements or molecules, e.g. atomic absorption spectrometry {([G01N 21/72](#) takes precedence)}
- M G01N 21/33 · · · · using ~~ultra-violet~~*ultraviolet* light ([G01N 21/39](#) takes precedence)
- M G01N 21/35 · · · · using ~~infra-red~~*infrared* light ([G01N 21/39](#) takes precedence)
- U G01N 21/3504 · · · · · for analysing gases, e.g. multi-gas analysis
- G01N 21/3518 · · · · · Devices using gas filter correlation techniques; Devices using gas pressure modulation techniques
- NOTE
This group also covers devices without instrumental sources, e.g. radiometric-type devices using ambient ~~infra-red~~*infrared* light.
- M G01N 21/3581 · · · · · using far ~~infra-red~~*infrared* light; using Terahertz radiation
- M G01N 21/359 · · · · · using near ~~infra-red~~*infrared* light
- U G01N 21/84 · Systems specially adapted for particular applications
- U G01N 21/88 · · Investigating the presence of flaws or contamination
- U G01N 21/95 · · · characterised by the material or shape of the object to be examined ([G01N 21/89](#) - [G01N 21/91](#), [G01N 21/94](#) take precedence)
- M G01N 21/956 · · · · Inspecting patterns on the surface of objects {(contactless testing of electronic circuits [G01R 31/308](#); testing currency [G07D](#) ~~manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10~~; *manufacturing processes per se of semiconductor devices implementing a measuring step H01L 22/10*)}
- U G01N 27/00** Investigating or analysing materials by the use of electric, electrochemical, or magnetic means ([G01N 3/00](#) – [G01N 25/00](#) take precedence; measurement or testing of electric or magnetic variables or of electric or magnetic properties of materials [G01R](#))
- M G01N 27/007 · {by investigating the electric dipolar moment (measuring ~~piezo-~~*piezoelectric* properties [G01R 29/22](#))}

U G01N 30/00 Investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography {or field flow fractionation} ([G01N 3/00](#), [G01N 5/00](#), [G01N 7/00](#), [G01N 9/00](#), [G01N 11/00](#), [G01N 13/00](#), [G01N 15/00](#), [G01N 17/00](#), [G01N 19/00](#), [G01N 21/00](#), [G01N 22/00](#), [G01N 23/00](#), [G01N 24/00](#), [G01N 25/00](#), [G01N 27/00](#), [G01N 29/00](#) take precedence)

NOTE

In this group, the following term is used with the meaning indicated:

- "conditioning" refers to the adjustment or control of environmental parameters, e.g. temperature or pressure.

U G01N 30/02 · Column chromatography
 U G01N 30/62 · · Detectors specially adapted therefor
 M G01N 30/74 · · · Optical detectors {(measurement of intensity, velocity, spectral content, polarisation, or phase of ~~infra-red~~*infrared*, visible or ~~ultra-violet~~*ultraviolet* light [G01J](#))}

U G01N 2203/00 Investigating strength properties of solid materials by application of mechanical stress

U G01N 2203/02 · Details not specific for a particular testing method
 U G01N 2203/06 · · Indicating or recording means; Sensing means
 U G01N 2203/0617 · · · Electrical or magnetic indicating, recording or sensing means
 M G01N 2203/0623 · · · · using ~~piezo-electric~~*piezoelectric* gauges
 M G01N 2203/0641 · · · using optical, X-ray, ~~ultra-violet~~*ultraviolet*, infrared or similar detectors

U G01N 2223/00 Investigating materials by wave or particle radiation

U G01N 2223/50 · Detectors
 M G01N 2223/509 · · ~~infra-red~~*infrared*

Project: Unknown (G01P)

U G01P 3/00 Measuring linear or angular speed; Measuring differences of linear or angular speeds ([G01P 5/00](#) - [G01P 11/00](#) take precedence; {direction and speed indication [G01P 13/045](#)}; counting mechanisms [G06M](#))

NOTE

The sub-groups of this group are distinguished by the method of measurement which is of major importance. Thus the mere application of other methods for giving a final indication does not affect the classification.

M G01P 3/36 · Devices characterised by the use of optical means, e.g. using ~~infra-red~~*infrared*, visible, or ~~ultra-violet~~*ultraviolet* light ([G01P 3/68](#) takes precedence; gyrometers using the Sagnac effect, i.e. rotation-induced shifts between counter-rotating electromagnetic beams [G01C 19/64](#))
 U G01P 3/64 · Devices characterised by the determination of the time taken to traverse a fixed distance
 M G01P 3/68 · · using optical means, i.e. using ~~infra-red~~*infrared*, visible, or ~~ultra-violet~~*ultraviolet* light ([G01P 3/80](#) takes precedence {; by reflection of waves [G01S 17/58](#))
U G01P 15/00 Measuring acceleration; Measuring deceleration; Measuring shock, i.e. sudden change of acceleration
 U G01P 15/02 · by making use of inertia forces {using solid seismic masses}([G01P 15/14](#) takes precedence)
 U G01P 15/08 · · with conversion into electric or magnetic values

- M G01P 15/09 . . . by ~~piezo-electric~~*piezoelectric* pick-up
- U G01P 15/13 . . . by measuring the force required to restore a proofmass subjected to inertial forces to a null position
- M G01P 15/133 . . . {with ~~piezo-electric~~*piezoelectric* counterbalancing means}

Project: Unknown (G01Q)

- U G01Q 20/00 Monitoring the movement or position of the probe**
- M G01Q 20/04 . Self-detecting probes, i.e. wherein the probe itself generates a signal representative of its position, e.g. ~~piezo-electric~~*piezoelectric* gauge

Project: Unknown (G01R)

- U G01R 9/00 Instruments employing mechanical resonance**
- U G01R 9/04 . using vibrating reeds, e.g. for measuring frequency
- M G01R 9/08 . . ~~piezo-electrically~~*piezoelectrically* driven
- U G01R 29/00 Arrangements for measuring or indicating electric quantities not covered by groups [G01R 19/00](#) - [G01R 27/00](#)**
- M G01R 29/22 . Measuring ~~piezo-electric~~*piezoelectric* properties

Project: Unknown (G01V)**G01V 8/00 Prospecting or detecting by optical means**NOTE

This group covers the use of {millimetre waves,} ~~infra-red~~*infrared*, visible or ~~ultra-violet~~*ultraviolet* light.

Project: Unknown (G02B)

- U G02B 5/00 Optical elements other than lenses (light guides [G02B 6/00](#); optical logic elements [G02F 3/00](#))**
- U G02B 5/20 . Filters (polarising elements [G02B 5/30](#))
- M G02B 5/204 . . {in which spectral selection is performed by means of a conductive grid or array, e.g. frequency selective surfaces (for use with wavelengths longer than the ~~infra-red~~*infrared* light [H01Q 15/0006](#))}
- M G02B 5/208 . . {for use with ~~infra-red~~*infrared* or ultraviolet radiation, e.g. for separating visible light from ~~infra-red~~*infrared* and/or ultraviolet radiation}
- U G02B 5/28 . . Interference filters
- M G02B 5/281 . . . {designed for the ~~infra-red~~*infrared* light}
- M G02B 5/282 . . . {reflecting for ~~infra-red~~*infrared* and transparent for visible light, e.g. heat reflectors, laser protection}
- U G02B 6/00 Light guides; Structural details of arrangements comprising light guides and other optical elements, e.g. couplings**
- U G02B 6/10 . of the optical waveguide type ([G02B 6/02](#), [G02B 6/24](#) take precedence; devices or arrangements for the control of light by electric, magnetic, electro-magnetic or acoustic means [G02F 1/00](#); transferring the modulation of modulated light [G02F 2/00](#); optical logic elements [G02F 3/00](#); optical analogue/digital converters [G02F 7/00](#))
- M G02B 6/102 . . {for ~~infra-red and ultra-violet~~*infrared and ultraviolet* radiation}

U G02B 13/00 **Optical objectives specially designed for the purposes specified below (with variable magnification {in general} [G02B 15/00](#))**

NOTE

Unless specified in the title of the subgroups, this group and its subgroups do not cover objectives comprising reflecting surfaces, which are covered by [G02B 17/06](#), [G02B 17/08](#) and their subgroups

- M G02B 13/14 · for use with ~~infra-red or ultra-violet~~*infrared or ultraviolet* radiation ({[G02B 13/008](#), } [G02B 13/16](#) take precedence)
- M G02B 13/143 · · {for use with ~~ultra-violet~~*ultraviolet* radiation}
- M G02B 13/146 · · {with corrections for use in multiple wavelength bands, such as ~~infra-red~~*infrared* and visible light, e.g. FLIR systems}

U G02B 19/00 **Condensers, {e.g. light collectors or similar non-imaging optics}{for microscopes [G02B 21/08](#)}**

- U G02B 19/0033 · {characterised by the use}
- M G02B 19/009 · · {for use with ~~infra-red~~*infrared* radiation}
- M G02B 19/0095 · · {for use with ~~ultra-violet~~*ultraviolet* radiation}

U G02B 21/00 **Microscopes**

- M G02B 21/16 · adapted for ~~ultra-violet~~*ultraviolet* illumination {; Fluorescence microscopes ([G02B 21/0076](#) takes precedence)}

U G02B 27/00 **Optical systems or apparatus not provided for by any of the groups [G02B 1/00](#) - [G02B 26/00](#), [G02B 30/00](#)**

- U G02B 27/01 · Head-up displays

NOTE

Details of head-up displays covered by [G02B 27/01](#) but not provided for in this group are also to be classified under [G02B 27/01](#) and subgroups

- U G02B 27/017 · · {Head mounted}
- M G02B 2027/0178 · · · {Eyeglass type, ~~eyeglass details G02C~~ (*eyeglass details [G02C](#)*)}

Project: Unknown (G02F)

U G02F 1/00 **Devices or arrangements for the control of the intensity, colour, phase, polarisation or direction of light arriving from an independent light source, e.g. switching, gating or modulating; Non-linear optics**

NOTE

This group covers only :

- devices or arrangements, e.g. cells, the optical operation of which is modified by changing the optical properties of the medium of the devices or arrangements by the influence or control of physical parameters, e.g. electric fields, electric current, magnetic fields, sound or mechanical vibrations, stress or thermal effects;
 - devices or arrangements in which the electric or magnetic field component of the light beams influences the optical properties of the medium, i.e. non-linear optics;
 - control of light by electromagnetic waves, e.g. radio waves, or by electrons or other elementary particles.
- U G02F 1/01 · for the control of the intensity, phase, polarisation or colour ([G02F 1/29](#), [G02F 1/35](#) take precedence)
 - U G02F 1/13 · · based on liquid crystals, e.g. single liquid crystal display cells

- U G02F 1/133 · · · Constructional arrangements; Operation of liquid crystal cells; Circuit arrangements (arrangements or circuits for control of liquid crystal elements in a matrix, not structurally associated with these elements [G09G 3/36](#))
- U G02F 1/1333 · · · · Constructional arrangements; {Manufacturing methods}([G02F 1/135](#), [G02F 1/136](#) take precedence)
- U G02F 1/1335 · · · · · Structural association of cells with optical devices, e.g. polarisers or reflectors
- U G02F 1/1336 · · · · · · {Illuminating devices}
- M G02F 1/133617 · · · · · · · {Illumination with ~~ultra-violet~~*ultraviolet* light; Luminescent elements or materials associated to the cell}
- U G02F 1/35 · Non-linear optics
- M G02F 1/39 · · for parametric generation or amplification of light, ~~infra-red or ultra-violet~~*infrared or ultraviolet* waves

- U G02F 2201/00 **Constructional arrangements not provided for in groups****
[G02F 1/00](#) - [G02F 7/00](#)
- U G02F 2201/08 · light absorbing layer
- M G02F 2201/083 · · ~~infra-red~~*infrared* absorbing

Project: Unknown (G03)**G03****PHOTOGRAPHY; CINEMATOGRAPHY; ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES; ELECTROGRAPHY; HOLOGRAPHY****NOTE**

1. This class does not cover reproduction of pictures or patterns by scanning and converting into electrical signals, which is covered by subclass H04N.

1-2. In this class, the following terms are used with the meaning indicated:

- ~~This class does not cover reproduction of pictures or patterns by scanning and converting into electrical signals, which is covered by subclass H04N.~~
- *"records" means photographs or any other kind of latent, directly-visible or permanent storage of pictorial information, which consist of an imagewise distribution of a quantity, e.g. an electric charge pattern, recorded on a carrier member; In this class, the following terms are used with the meaning indicated:*
 - ~~"records" means photographs or any other kind of latent, directly-visible or permanent storage of pictorial information, which consist of an imagewise distribution of a quantity, e.g. an electric charge pattern, recorded on a carrier member;~~
 - ~~"optical" applies not only to visible light but also to ultra-violet or infra-red radiations.~~
- *"optical" applies not only to visible light but also to ultraviolet or infrared radiations.*

Project: Unknown (G03B)

- U G03B 27/00 **Photographic printing apparatus****
- U G03B 27/32 · Projection printing apparatus, e.g. enlarger, copying camera
- U G03B 27/52 · · Details
- M G03B 27/56 · · · Mounting enlarger head on column {~~Mounting reproduction camera on column~~; *Mounting reproduction camera on column*}

Project: Unknown (G03C)

- U G03C 1/00** **Photosensitive materials (photosensitive materials for multicolour processes [G03C 7/00](#); for diffusion transfer processes [G03C 8/00](#); photosensitive glass [C03C 4/04](#))**
- M G03C 1/494 · Silver salt compositions other than silver halide emulsions; *Photothermographic systems* {*Photothermographic systems* { Thermographic systems using noble metal compounds}
- U G03C 5/00** **Photographic processes or agents therefor; Regeneration of such processing agents (multicolour processes or agents therefor [G03C 7/00](#); diffusion-transfer processes or agents therefor [G03C 8/00](#); stereo-photographic processes [G03C 9/00](#); photomechanical processes [G03F](#))**
- M G03C 5/16 · X-ray, ~~infra-red, or ultra-violet~~*infrared, or ultraviolet* ray processes
- U G03C 7/00** **Multicolour photographic processes or agents therefor; Regeneration of such processing agents; Photosensitive materials for multicolour processes (diffusion transfer processes [G03C 8/00](#))**
- U G03C 7/30 · Colour processes using colour-coupling substances; Materials therefor; Preparing or processing such materials
- M G03C 7/42 · · Bleach-fixing or agents therefor {~~Desilvering processes~~; *Desilvering processes*}
- U G03C 8/00** **Diffusion transfer processes or agents therefor; Photosensitive materials for such processes**
- M G03C 8/40 · *Development by heat* {~~Development by heat~~ { Photo-thermographic processes}
- U G03C 11/00** **Auxiliary processes in photography (characterised by the apparatus used [G03D 15/00](#))**
- U G03C 11/08 · Varnishing, e.g. application of protective layers on finished photographic prints
- M G03C 11/10 · · for protection from ~~ultra-violet~~*ultraviolet* light

Project: Unknown (G03D)

- U G03D 13/00** **Processing apparatus or accessories therefor, not covered by groups [G11B 3/00](#) - [G11B 11/00](#)**
- U G03D 13/02 · Containers; Holding-devices
- M G03D 13/04 · · Trays; Dishes; Tanks {~~Drums~~; *Drums*}

Project: Unknown (G03F)

- U G03F 1/00** **Originals for photomechanical production of textured or patterned surfaces, e.g., masks, photo-masks, reticles; Mask blanks or pellicles therefor; Containers specially adapted therefor; Preparation thereof**
- NOTE
- In this group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.
- M G03F 1/22 · Masks or mask blanks for imaging by radiation of 100nm or shorter wavelength, e.g. X-ray masks, extreme ~~ultra-violet~~*ultraviolet* [EUV] masks; Preparation thereof

Project: Unknown (G03G)

- U G03G 15/00** Apparatus for electrographic processes using a charge pattern (**G03G 16/00**, **G03G 17/00** take precedence {; xerographic printers for data processors *per se* **G06K 15/14**})
- U G03G 15/20 · for fixing, e.g. by using heat
- U G03G 15/2003 · · {using heat}
- M G03G 15/2007 · · · {using radiant heat, e.g. ~~infra-red~~*infrared* lamps, microwave heaters}
- U G03G 2215/00** Apparatus for electrophotographic processes
- U G03G 2215/00362 · relating to the copy medium handling
- U G03G 2215/00535 · · Stable handling of copy medium
- U G03G 2215/00611 · · · Detector details, e.g. optical detector
- U G03G 2215/00616 · · · · Optical detector
- M G03G 2215/0062 · · · · · ~~infra-red~~*infrared*

Project: Unknown (G03H)

- M G03H 1/00** Holographic processes or apparatus using light, ~~infra-red or ultra-violet~~*infrared or ultraviolet* waves for obtaining holograms or for obtaining an image from them; Details peculiar thereto

Project: Unknown (G04B)

- U G04B 23/00** Arrangements producing acoustic signals at preselected times {(indicating the time by optical means **G04B 19/00**, **G04C 17/00**; indicating the time by acoustic means **G04B 21/00**; indicating the time by means other than acoustic or optical, or by a combination of means **G04B 25/00**; acoustic time signals produced electrically **G04C 21/00**; coin-free alarm clocks **G07F 17/0007**; acoustic signalling means **G08B 3/00**)}
- M G04B 23/02 · Alarm clocks {(~~electrically released alarm signals G04C 21/00~~ {waking up by ~~electric lamps G04C 19/02~~; by other means **G04B 25/005**; *waking up by electric lamps G04C 19/02*; *electrically released alarm signals G04C 21/00*; alarm clocks with electric contacts **G04C 23/06**;)}

Project: Unknown (G04C)

- U G04C 3/00** Electromechanical clocks or watches independent of other time-pieces and in which the movement is maintained by electric means {(synchronisation **G04C 11/00**)}
- U G04C 3/08 · wherein movement is regulated by a mechanical oscillator other than a pendulum or balance, e.g. by a tuning fork {, e.g. electrostatically}
- M G04C 3/12 · · driven by ~~piezo-electric~~*piezoelectric* means; driven by magneto-strictive means

Project: Unknown (G04F)

- U G04F 5/00** Apparatus for producing preselected time intervals for use as timing standards (generating clock signals for electric digital computers **G06F 1/04**)
- U G04F 5/04 · using oscillators with electromechanical resonators {producing electric oscillations or timing pulses}
- M G04F 5/06 · · using ~~piezo-electric~~*piezoelectric* resonators
- U G04F 8/00** Apparatus for measuring unknown time intervals by electromechanical means

- U G04F 8/02 · using an electromechanical oscillator {(G04F 5/00, G04F 10/00 take precedence)}
- M G04F 8/04 · · using a ~~piezo-electric~~piezoelectric oscillator

Project: Unknown (G05D)

- U G05D 16/00 Control of fluid pressure**
- U G05D 16/20 · characterised by the use of electric means
- U G05D 16/2006 · · {with direct action of electric energy on controlling means (combination of electric and non-electric auxiliary G05D 16/2093)}
- M G05D 16/208 · · · {using a combination of controlling means as defined in G05D 16/2013 and G05D 16/2066 (G05D 16/2073 takes precedence)}

Project: Unknown (G06F)

- U G06F 7/00 Methods or arrangements for processing data by operating upon the order or content of the data handled (logic circuits H03K 19/00)**
- U G06F 7/38 · Methods or arrangements for performing computations using exclusively denominational number representation, e.g. using binary, ternary, decimal representation
- U G06F 7/48 · · using non-contact-making devices, e.g. tube, solid state device; using unspecified devices
- U G06F 7/50 · · · Adding; Subtracting (G06F 7/483 - G06F 7/491, G06F 7/544 - G06F 7/556 take precedence)
- U G06F 7/505 · · · · in bit-parallel fashion, i.e. having a different digit-handling circuit for each denomination
- M G06F 7/5057 · · · · · {using table look-up}; using programmable logic arrays (G06F 7/509 takes precedence)}
- M G06F 13/00 Interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units (interface circuits for specific input/output devices G06F 3/00 {; multiprogram control therefor G06F 9/46}; multiprocessor systems G06F 15/16 {multiprogram control therefor G06F 9/46})**
- U G06F 16/00 Information retrieval; Database structures therefor; File system structures therefor**
- U G06F 16/90 · Details of database functions independent of the retrieved data types

NOTE
 In groups G06F 16/90, G06F 16/901, G06F 16/9014, G06F 16/9017, G06F 16/902, G06F 16/9024, G06F 16/9027, G06F 16/903, G06F 16/9032, G06F 16/90324, G06F 16/90328, G06F 16/90332, G06F 16/90335, G06F 16/90339, G06F 16/90344, G06F 16/90348, G06F 16/9035, G06F 16/9038, G06F 16/904, and G06F 16/906, subject matter relevant to retrieval characterised by using metadata, when it is determined to be novel and non-obvious, must also be classified in groups G06F 16/907, G06F 16/907, and G06F 16/909.

WARNING
 Group G06F 16/90 is impacted by reclassification into group G06F 16/906. Groups G06F 16/90 and G06F 16/906 should be considered in order to perform a complete search.
- U G06F 16/93 · · Document management systems
- M G06F 16/94 · · · ~~Hyperlinking~~{Hypermedia G06F 40/134(Hyperlinking G06F 40/134)}

Project: Unknown (G06G)

- U G06G 7/00** **Devices in which the computing operation is performed by varying electric or magnetic quantities**
- U G06G 7/12 · Arrangements for performing computing operations, e.g. operational amplifiers (amplifiers in general [H03F](#); {adapted for telemeasuring or for indicating or recording the results of the measurement [G01D 1/10](#), [G01D 1/16](#); for fuzzy computing [G06N 7/02](#)})
- M G06G 7/14 · · for addition or subtraction (of vector quantities [G06G 7/22](#) {~~computing the average by addition~~; *computing the average by addition*; differential amplifiers [H03F 3/45](#)})

Project: Unknown (G07D)

- U G07D 7/00** **Testing specially adapted to determine the identity or genuineness of valuable papers or for segregating those which are unacceptable, e.g. banknotes that are alien to a currency**

NOTE

In this group, groups [G07D 7/16](#) - [G07D 7/20](#) take precedence over groups [G07D 7/02](#) - [G07D 7/14](#).

- U G07D 7/06 · using wave or particle radiation
- M G07D 7/12 · · Visible light, ~~infra-red~~*infrared* or ultraviolet radiation

Project: Unknown (G08B)

- U G08B 13/00** **Burglar, theft or intruder alarms**
- U G08B 13/16 · Actuation by interference with mechanical vibrations in air or other fluid
- U G08B 13/1609 · · {using active vibration detection systems}
- M G08B 13/1645 · · · {using ultrasonic detection means and other detection means, e.g. microwave or ~~infra-red~~*infrared* radiation}
- U G08B 13/18 · Actuation by interference with heat, light, or radiation of shorter wavelength; Actuation by intruding sources of heat, light, or radiation of shorter wavelength
- U G08B 13/189 · · using passive radiation detection systems
- M G08B 13/19 · · · using ~~infra-red~~*infrared*-radiation detection systems {([G08B 13/194](#) takes precedence)}
- U G08B 17/00** **Fire alarms; Alarms responsive to explosion**
- M G08B 17/12 · Actuation by presence of radiation or particles, e.g. of ~~infra-red~~*infrared* radiation or of ions

Project: Unknown (G08C)

- U G08C 23/00** **Non-electrical signal transmission systems, e.g. optical systems**
- M G08C 23/04 · using light waves, e.g. ~~infra-red~~*infrared*

Project: Unknown (G09G)

- U G09G 1/00** **Control arrangements or circuits, of interest only in connection with cathode-ray tube indicators; {General aspects or details, e.g. selection emphasis on particular characters, dashed line or dotted line generation; Preprocessing of data}(cathode-ray oscilloscopes [G01R 13/20](#); {radar display arrangements [G01S 7/04](#); display of digital non-picture data in television systems [H04N 7/0255](#)})**

- M G09G 1/04 · *Deflection circuits* {; ~~Deflection-circuits~~ { Constructional details not otherwise provided for (electron-optical arrangements [H01J 29/46](#), [H01J 37/04](#), [H01J 37/302](#))}

Project: Unknown (G10H)

- U G10H 1/00** **Details of electrophonic musical instruments**
- U G10H 1/02 · Means for controlling the tone frequencies, e.g. attack or decay; Means for producing special musical effects, e.g. vibratos or glissandos
- U G10H 1/04 · · by additional modulation
- U G10H 1/053 · · · during execution only {(voice controlled instruments [G10H 5/005](#))}
- U G10H 1/055 · · · · by switches with variable impedance elements
- M G10H 1/0556 · · · · · {using ~~piezo-electric~~*piezoelectric* means}
- U G10H 3/00** **Instruments in which the tones are generated by electromechanical means**
- U G10H 3/12 · using mechanical resonant generators, e.g. strings or percussive instruments, the tones of which are picked up by electromechanical transducers, the electrical signals being further manipulated or amplified and subsequently converted to sound by a loudspeaker or equivalent instrument
- U G10H 3/14 · · using mechanically actuated vibrators with pick-up means ([G10H 3/24](#) takes precedence)
- M G10H 3/143 · · · {characterised by the use of a ~~piezo-electric~~*piezoelectric* or magnetostrictive transducer}

Project: Unknown (G10K)

- U G10K 9/00** **Devices in which sound is produced by vibrating a diaphragm or analogous element, e.g. fog horns, vehicle hooters or buzzers (loudspeakers or like acoustic electromechanical transducers [H04R](#))**
- U G10K 9/12 · electrically operated
- NOTE
This group does not cover the construction of, or circuits for, broadband-transducers such as loudspeakers or microphones, which are covered by subclass [H04R](#).
- M G10K 9/122 · · using ~~piezo-electric~~*piezoelectric* driving means {([G10K 9/121](#) takes precedence)}
- U G10K 2210/00** **Details of active noise control [ANC] covered by [G10K 11/178](#) but not provided for in any of its subgroups**
- U G10K 2210/30 · Means
- U G10K 2210/321 · · Physical
- U G10K 2210/3229 · · · Transducers
- M G10K 2210/32291 · · · · Plates or thin films, e.g. PVDF (foil-type ~~piezo-electric~~*piezoelectric* elements [B06B 1/0688](#))

Project: Unknown (G11B)

- U G11B 3/00** **Recording by mechanical cutting, deforming or pressing, e.g. of grooves or pits; Reproducing by mechanical sensing; Record carriers therefor ([G11B 11/00](#), {[G11B 13/00](#)} take precedence)**
- U G11B 3/44 · Styli, e.g. sapphire, diamond
- M G11B 3/46 · · *Constructions or forms* {; ~~Constructions or forms~~ {~~Disposition or mounting~~*Dispositions or mountings*}, e.g. attachment of point to shank {(attachment of stylus directly to transducer [H04R 1/16](#))}

- U G11B 5/00** Recording by magnetisation or demagnetisation of a record carrier; Reproducing by magnetic means; Record carriers therefor ([G11B 11/00](#) {and [G11B 13/00](#)} take precedence)
- NOTE
Subgroups [G11B 5/02](#) - [G11B 5/86](#) take precedence over subgroups [G11B 5/004](#) - [G11B 5/016](#)
- M G11B 5/40** • Protective measures on heads, e.g. against excessive temperature ([G11B 5/31](#) takes precedence; protection against wear [G11B 5/255](#) {~~protective structure of the head: see under structures, e.g. G11B 5/3106~~; *protective structure of the head: see under structures, e.g. G11B 5/3106*})
- U G11B 21/00** Head arrangements not specific to the method of recording or reproducing
- U G11B 21/02** • Driving or moving of heads
- M G11B 21/10** • • *Track finding or aligning by moving the head* {; ~~Track finding or aligning by moving the head~~ { Provisions for maintaining alignment of the head relative to the track during transducing operation, i.e. track following (characterised by the track access method [G11B 21/08](#))}
- M G11B 23/00** Record carriers not specific to the method of recording or reproducing; Accessories, e.g. containers, specially adapted for co-operation with the recording or reproducing apparatus {~~Intermediate mediums~~; *Intermediate mediums*; Apparatus or processes specially adapted for their manufacture (processes involving a single technical art and for which provision exists elsewhere, see the relevant class, e.g. [B29](#), [B41M](#), [B05D](#), [C08L](#), [F16N](#))}
- NOTE
In group [G11B 23/00](#), recording or reproducing apparatus does not include the record carriers.
- U G11B 27/00** Editing; Indexing; Addressing; Timing or synchronising; Monitoring; Measuring tape travel
- U G11B 27/10** • Indexing; Addressing; Timing or synchronising; Measuring tape travel
- M G11B 27/34** • • Indicating arrangements {(*indicating means incorporated in magazine or cassette G11B 23/046 and G11B 23/0875*; indicating measured values in general [G01D](#) {~~indicating means incorporated in magazine or cassette G11B 23/046 and G11B 23/0875~~})}

Project: Unknown (G11C)

- U G11C 21/00** Digital stores in which the information circulates {continuously}(stepwise [G11C 19/00](#))
- U G11C 21/02** • using electromechanical delay lines, e.g. using a mercury tank
- M G11C 21/023** • • {using ~~piezo-electric~~*piezoelectric* transducers, e.g. mercury tank}

Project: Unknown (G12B)

- U G12B 17/00** Screening (insulation or other protection of buildings [E04B](#); emergency protection of apparatus in general [F16P 7/00](#); in connection with acoustic waves [G10K 11/00](#); in connection with nuclear radiation [G21F](#))
- NOTE
This group covers:
- the protection of instruments or other apparatus from external radiation or other influences;
 - the prevention of the emission of undesirable radiation or other influences by instruments or other apparatus.

- M G12B 17/04 · from visible, ~~ultra-violet, or infra-red~~ *ultraviolet, or infrared* light (screening of lighting devices [F21V](#); optical filters [G02B 5/20](#))

Project: Unknown (G21C)

- U G21C 9/00 **Emergency protection arrangements structurally associated with the reactor {, e.g. safety valves provided with pressure equalisation devices} (emergency cooling arrangements [G21C 15/18](#))**
- M G21C 9/04 · Means for suppressing fires {~~Earthquake protection~~; *Earthquake protection*}
- U G21C 11/00 **Shielding structurally associated with the reactor**
- M G21C 11/08 · Thermal shields; Thermal linings, i.e. for dissipating heat from gamma radiation which would otherwise heat an outer biological shield {~~Thermal insulation~~; *Thermal insulation*}

Project: Unknown (H01F)

- M H01F 17/00 **Fixed inductances of the signal type {(coils in general [H01F 5/00](#) {~~inductors without a potential-jump or surface barrier specially adapted for integrated circuits, details thereof and multistep manufacturing processes therefor [H01L 28/40](#)~~; *inductors without a potential-jump or surface barrier specially adapted for integrated circuits, details thereof and multistep manufacturing processes therefor [H01L 28/10](#)*}**

Project: Unknown (H01G)

- U H01G 4/00 **Fixed capacitors; Processes of their manufacture (electrolytic capacitors [H01G 9/00](#))**
- M H01G 4/33 · Thin- or thick-film capacitors {(thin- or thick-film circuits [H01L 27/00](#) {~~capacitors without a potential-jump or surface barrier specially adapted for integrated circuits, details thereof, multistep manufacturing processes therefor [H01L 28/40](#)~~; *capacitors without a potential-jump or surface barrier specially adapted for integrated circuits, details thereof, multistep manufacturing processes therefor [H01L 28/40](#)*}

Project: Unknown (H01J)

H01J **ELECTRIC DISCHARGE TUBES OR DISCHARGE LAMPS (spark-gaps [H01T](#); arc lamps with consumable electrodes [H05B](#); particle accelerators [H05H](#))**

NOTES

1. This subclass covers only devices for producing, influencing, or using a flow of electrons or ions, e.g. for controlling, indicating, or switching of electric current, counting electric pulses, producing light or other electromagnetic oscillations, such as X-rays, or for separating or analysing radiation or particles, and having a closed or substantially closed casing containing a chosen gas, vapour, or vacuum, upon the pressure and nature of which the characteristics of the device depend. Light sources using a combination (other than covered by group [H01J 61/96](#) of this subclass) of discharge and other kinds of light generation are dealt with in [H05B 35/00](#).
2. In this subclass, groups [H01J 1/00](#) - [H01J 7/00](#) relate only to:
 - i. details of an unspecified kind of discharge tube or lamp, or
 - ii. details mentioned in a specification as applicable to two or more kinds of tubes or lamps as defined by groups [H01J 11/00](#), [H01J 13/00](#), [H01J 15/00](#), [H01J 17/00](#), [H01J 21/00](#), [H01J 25/00](#), [H01J 27/00](#), [H01J 31/00](#), [H01J 33/00](#), [H01J 35/00](#), [H01J 37/00](#), [H01J 40/00](#), [H01J 41/00](#), [H01J 47/00](#), [H01J 49/00](#), [H01J 61/00](#), [H01J 63/00](#) or [H01J 65/00](#), hereinafter called basic kinds. A detail only described with reference to, or clearly only applicable to, tubes or lamps of a single basic kind is classified

in the detail group appropriate to tubes or lamps of that basic kind, e.g. [H01J 17/04](#).

3. In this subclass, the following term is used with the meaning indicated:
 - "lamp" includes tubes emitting ~~ultra-violet or infra-red~~ *ultraviolet or infrared* light.
4. Attention is drawn to the definition of the expression "spark gaps" given in the Note following the title of subclass [H01T](#).
5. Apparatus or processes specially adapted for the manufacture of electric discharge tubes, discharge lamps, or parts thereof are classified in group [H01J 9/00](#).

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

- | | | |
|----------|-------------------|---|
| U | H01J 29/00 | Details of cathode-ray tubes or of electron-beam tubes of the types covered by group H01J 31/00 |
| U | H01J 29/02 | • Electrodes; Screens; Mounting, supporting, spacing or insulating thereof |
| U | H01J 29/10 | • • Screens on or from which an image or pattern is formed, picked up, converted or stored |
| U | H01J 29/36 | • • • Photoelectric screens; Charge-storage screens |
| U | H01J 29/39 | • • • • Charge-storage screens |
| U | H01J 29/45 | • • • • • exhibiting internal electric effects caused by electromagnetic radiation, e.g. photoconductive screen, photodielectric screen, photovoltaic screen {(photoconductive layers for electrography G03G 5/00)} |
| M | H01J 29/458 | • • • • • {pyroelectrical targets; targets for infra-red or ultra-violet <i>infrared or ultraviolet</i> or X-ray radiations} |
| U | H01J 31/00 | Cathode ray tubes; Electron beam tubes (H01J 25/00, H01J 33/00, H01J 35/00, H01J 37/00 take precedence; details of cathode ray tubes or of electron beam tubes H01J 29/00) |
| U | H01J 31/08 | • having a screen on or from which an image or pattern is formed, picked up, converted, or stored |
| M | H01J 31/49 | • • Pick-up adapted for an input of electromagnetic radiation other than visible light and having an electric output, e.g. for an input of X-rays, for an input of infra-red <i>infrared</i> radiation |

Project: Unknown (H01K)

H01K **ELECTRIC INCANDESCENT LAMPS (details, apparatus or processes for manufacture applicable to both discharge devices and incandescent lamps [H01J](#); light sources using a combination of incandescent and other types of light generation [H01J 61/96](#), [H05B 35/00](#))**

NOTE

In this subclass, the following term is used with the meaning indicated:

- "lamp" includes tubes emitting ~~ultra-violet or infra-red~~ *ultraviolet or infrared* light.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Project: Unknown (H01L)

U H01L 27/00 Devices consisting of a plurality of semiconductor or other solid-state components formed in or on a common substrate (details thereof [H01L 23/00](#), [H01L 29/00](#) - [H10K 10/00](#); assemblies consisting of a plurality of individual solid state devices [H01L 25/00](#))

NOTE

In this group the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

M H01L 27/14 . including semiconductor components sensitive to **infra-redinfrared** radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation and specially adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation (radiation-sensitive components structurally associated with one or more electric light sources only [H01L 31/14](#); couplings of light guides with optoelectronic elements [G02B 6/42](#))

U H01L 27/14643 {Photodiode arrays; MOS imagers}

M H01L 27/14649 {**Infra-redInfrared** imagers}

M H01L 27/14652 {Multispectral **infra-redinfrared** imagers, having a stacked pixel-element structure, e.g. npn, npnpn or MQW structures}

U H01L 27/14665 {Imagers using a photoconductor layer}

M H01L 27/14669 {**Infra-redInfrared** imagers}

U H01L 27/148 Charge coupled imagers {(individual charge coupled devices [H01L 29/765](#))}

M H01L 27/14875 {**Infra-redInfrared** CCD or CID imagers}

M H01L 29/00 Semiconductor devices adapted for rectifying, amplifying, oscillating or switching, or capacitors or resistors with at least one potential-jump barrier or surface barrier, e.g. PN junction depletion layer or carrier concentration layer; Details of semiconductor bodies or of electrodes thereof {; Multistep manufacturing processes therefor} ([H01L 31/00](#) - [H01L 33/00](#), [H10K 10/00](#), [H10N](#) take precedence; details other than of semiconductor bodies or of electrodes thereof [H01L 23/00](#); devices consisting of a plurality of solid state components formed in or on a common substrate [H01L 27/00](#) {; passive two-terminal components without a potential-jump or surface barrier for integrated circuits, details thereof and multistep manufacturing processes therefor [H01L 28/00](#) **resistors in general H01C**; **resistors in general H01C**; capacitors in general [H01G](#), e.g. ceramic barrier-layer capacitors [H01G 4/1272](#))}

NOTE

In this main group, classification is made both in groups [H01L 29/02](#) - [H01L 29/51](#) and in groups [H01L 29/66](#) - [H01L 29/94](#) if both of these sets of groups are relevant.

M H01L 31/00 Semiconductor devices sensitive to **infra-redinfrared** radiation, light, electromagnetic radiation of shorter wavelength or corpuscular radiation and specially adapted either for the conversion of the energy of such radiation into electrical energy or for the control of electrical energy by such radiation; Processes or apparatus specially adapted for the manufacture or treatment thereof or of parts thereof; Details thereof ([H10K 30/00](#) takes precedence; devices consisting of a plurality of solid state components formed in, or on, a common substrate, other than combinations of radiation-sensitive components with one or more electric light sources, [H01L 27/00](#))

- U H01L 31/02 · Details
- U H01L 31/0216 · · Coatings ([H01L 31/041](#) takes precedence)
- U H01L 31/02161 · · · {for devices characterised by at least one potential jump barrier or surface barrier}
- U H01L 31/02162 · · · · {for filtering or shielding light, e.g. multicolour filters for photodetectors}
- M H01L 31/02164 · · · · · {for shielding light, e.g. light blocking layers, cold shields for ~~infra-red~~*infrared* detectors}
- U H01L 31/08 · in which radiation controls flow of current through the device, e.g. photoresistors
- M H01L 31/09 · · Devices sensitive to ~~infra-red~~*infrared*, visible or ultraviolet radiation ([H01L 31/101](#) takes precedence)
- U H01L 31/10 · · characterised by at least one potential-jump barrier or surface barrier, e.g. phototransistors
- M H01L 31/101 · · · Devices sensitive to ~~infra-red~~*infrared*, visible or ~~ultra-violet~~*ultraviolet* radiation

Project: Unknown (H01Q)

- U H01Q 21/00 **Antenna arrays or systems (arrangements for changing or varying the orientation or the shape of the directional pattern of the waves radiated from an antenna or antenna system [H01Q 3/00](#))**
NOTE
This group includes:
 - arrays comprising two or more individually energised similar active aerial units spaced apart;
 - combinations of different types of active aerials or arrays;
 - combinations of substantially independant non-interacting active aerials or arrays.
- U H01Q 21/24 · Combinations of antenna units polarised in different directions for transmitting or receiving circularly and elliptically polarised waves or waves linearly polarised in any direction {(circularly polarised patch antennas [H01Q 9/0428](#); circularly polarised horns [H01Q 13/0241](#); cross-polarised horns [H01Q 13/0258](#); polarisation converters [H01Q 15/242](#); cross-polarised rear feeds [H01Q 19/136](#); crossed polarisation dual antenna [H01Q 25/001](#))}
- M H01Q 21/245 · · {provided with means for varying the polarisation (polarising devices [H01Q 15/24](#); tracking by comparing linear polarisation compounds [G01S 3/146](#); reducing depolarisation effects ~~H04B 7/00~~*polarisation diversity H04B 7/10*; ~~polarisation diversity H04B 7/10~~*polarisation diversity H04B 7/10*)}

Project: Unknown (H02N)

- M H02N 2/00 **Electric machines in general using ~~piezo-electric~~*piezoelectric* effect, electrostriction or magnetostriction (generating mechanical vibrations in general [B06B](#); ~~piezo-electric~~*piezoelectric*, electrostrictive or magnetostrictive devices in general [H10N 30/00](#))**

Project: Unknown (H02S)

- M H02S **GENERATION OF ELECTRIC POWER BY CONVERSION OF ~~INFRA-RED~~*INFRARED* RADIATION, VISIBLE LIGHT OR ULTRAVIOLET LIGHT, e.g. USING PHOTOVOLTAIC [PV] MODULES (obtaining electrical energy from radioactive sources [G21H 1/12](#); light sensitive inorganic semiconductor devices [H01L 31/00](#); light sensitive organic semiconductor devices [H10K 30/00](#); thermoelectric devices [H10N 10/00](#); pyroelectric devices [H10N 15/00](#))**

- U H02S 10/00** **PV power plants; Combinations of PV energy systems with other systems for the generation of electric power**
- M H02S 10/30 · Thermophotovoltaic systems (photovoltaic cells specially adapted for conversion or sensing of ~~infra-red~~*infrared* [IR] radiation [H01L 31/00](#); thermoelectric devices [H10N 10/00](#))

Project: Unknown (H03B)

- U H03B 5/00** **Generation of oscillations using amplifier with regenerative feedback from output to input ([H03B 9/00](#), [H03B 15/00](#) take precedence)**
- U H03B 5/30 · with frequency-determining element being electromechanical resonator
- M H03B 5/32 · · being a ~~piezo-electric~~*piezoelectric* resonator (selection of ~~piezo-electric~~*piezoelectric* material [H10N 30/00](#))

Project: Unknown (H03F)

- M H03F 7/00** **Parametric amplifiers ([H03F 19/00](#) takes precedence); devices or arrangements for the parametric generation or amplification of light, ~~infra-red or ultra-violet~~*infrared or ultraviolet* waves [G02F 1/39](#))**

Project: Unknown (H03H)

- U H03H 3/00** **Apparatus or processes specially adapted for the manufacture of impedance networks, resonating circuits, resonators**
- U H03H 3/007 · for the manufacture of electromechanical resonators or networks
- M H03H 3/02 · · for the manufacture of ~~piezo-electric~~*piezoelectric* or electrostrictive resonators or networks ([H03H 3/08](#) takes precedence)
- M H03H 9/00** **Networks comprising electromechanical or electro-acoustic devices; Electromechanical resonators (making single crystals [C30B](#); selection of materials thereof [H01L](#); electromechanical transducers [H04R](#); ~~piezo-electric~~*piezoelectric*, electrostrictive or magnetostrictive devices *per se* [H10N 30/00](#))**
- U H03H 9/02 · Details
- U H03H 9/02535 · · {of surface acoustic wave devices}
- U H03H 9/02543 · · · {Characteristics of substrate, e.g. cutting angles}
- M H03H 9/02574 · · · · {of combined substrates, multilayered substrates, ~~piezo-electrical~~*piezoelectrical* layers on not-~~piezo-electrical~~*piezoelectrical* substrate}
- U H03H 9/125 · · Driving means, e.g. electrodes, coils
- M H03H 9/13 · · · for networks consisting of ~~piezo-electric~~*piezoelectric* or electrostrictive materials ([H03H 9/145](#) takes precedence)
- M H03H 9/15 · Constructional features of resonators consisting of ~~piezo-electric~~*piezoelectric* or electrostrictive material ([H03H 9/25](#) takes precedence)
- M H03H 9/24 · Constructional features of resonators of material which is not ~~piezo-electric~~*piezoelectric*, electrostrictive, or magnetostrictive

Project: Unknown (H03K)

- U H03K 7/00** **Modulating pulses with a continuously-variable modulating signal**
- M H03K 7/08 · Duration or width modulation {~~Duty cycle modulation~~; *Duty cycle modulation*}

Project: Unknown (H03L)

- U H03L 1/00 **Stabilisation of generator output against variations of physical values, e.g. power supply (automatic control [H03L 5/00](#), [H03L 7/00](#))**
- U H03L 1/02 · against variations of temperature only
- M H03L 1/028 · · {of generators comprising ~~piezo-electric~~*piezoelectric* resonators ([H03L 1/021](#) and [H03L 1/022](#) take precedence; oscillation generators with a ~~piezo-electric~~*piezoelectric* resonator per se [H03B 5/32](#))}

Project: Unknown (H03M)

- M H03M 13/00 **Coding, decoding or code conversion, for error detection or error correction; Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes (error detection or error correction for analogue/digital, digital/ analogue or code conversion [H03M 1/00](#) – [H03M 11/00](#) ~~specifically adapted for digital computers G06F 11/08, for information storage based on relative movement between record carrier and transducer G11B, e.g. G11B 20/18, for static stores G11C; specially adapted for digital computers G06F 11/08; for information storage based on relative movement between record carrier and transducer G11B, e.g. G11B 20/18; for static stores G11C~~)**

Project: Unknown (H04)

H04

ELECTRIC COMMUNICATION TECHNIQUENOTE

This class covers electrical communication systems with propagation paths employing light (optical communication), ~~infra-red~~*infrared*, ultrasonic, sonic, or infrasonic waves.

Project: Unknown (H04J)

- U H04J 1/00 **Frequency-division multiplex systems ([H04J 14/00](#) takes precedence)**
- U H04J 1/02 · Details
- M H04J 1/06 · · *Arrangements for supplying the carrier waves* {; ~~Arrangements for supplying the carrier waves~~ { Arrangements for supplying synchronisation signals (~~carrier supply H04L 5/10; synchronisation in general H03B~~; frequency multiplication [H03B 19/00](#), [H03B 21/00](#); mixing [H03D 7/00](#), [H03D 9/00](#); ~~synchronisation in general H03B~~; *carrier supply H04L 5/10*)}

Project: Unknown (H04L)

- U H04L 25/00 **Baseband systems**
- U H04L 25/02 · Details {; arrangements for supplying electrical power along data transmission lines (systems for transmitting signals via power distribution lines [H04B 3/54](#))}
- U H04L 25/0264 · · {Arrangements for coupling to transmission lines (duplexing arrangements [H04L 5/14](#); line equalisers, line build-out devices [H04L 25/03878](#))}
- U H04L 25/0266 · · · {Arrangements for providing Galvanic isolation, e.g. by means of magnetic or capacitive coupling}
- M H04L 25/027 · · · · {specifically for telegraph signals (induction coil interrupters [H01H 51/34](#) ~~dynamo-electric generators H02K~~; *dynamo-electric generators H02K*)}

Project: Unknown (H04M)

- U H04M 1/00 **Substation equipment, e.g. for use by subscribers (subscriber services or facilities provided at exchanges [H04M 3/00](#); prepayment telephone coin boxes [H04M 17/00](#); current supply arrangements [H04M 19/08](#))**

- U H04M 1/72 · Mobile telephones; Cordless telephones, i.e. devices for establishing wireless links to base stations without route selection
- U H04M 1/725 · · Cordless telephones (user interfaces specially adapted therefor [H04M 1/724](#))
- M H04M 1/737 · · · Characterised by transmission of electromagnetic waves other than radio waves, e.g. [infra-red](#)[infrared](#) waves

Project: Unknown (H04N)

- U H04N 3/00 Scanning details of television systems; Combination thereof with generation of supply voltages**
- U H04N 3/02 · by optical-mechanical means only ([H04N 3/36](#) takes precedence)
- U H04N 3/08 · · having a moving reflector
- M H04N 3/09 · · · for electromagnetic radiation in the invisible region, e.g. [infra-red](#)[infrared](#)
- U H04N 2201/00 Indexing scheme relating to scanning, transmission or reproduction of documents or the like, and to details thereof**
- U H04N 2201/0008 · Connection or combination of a still picture apparatus with another apparatus
- U H04N 2201/0034 · · Details of the connection, e.g. connector, interface
- U H04N 2201/0048 · · · Type of connection
- M H04N 2201/0053 · · · · Optical, e.g. using an [infra-red](#)[infrared](#) link

Project: Unknown (H04R)

- U H04R 1/00 Details of transducers, {loudspeakers or microphones}**
- U H04R 1/20 · Arrangements for obtaining desired frequency or directional characteristics (for stereophonic purpose [H04R 5/00](#))
- M H04R 1/22 · · for obtaining desired frequency characteristic only {(circuit for combining transducers having different responses [H04R 3/00](#) {for hearing aids [H04R 25/407](#)}; for hearing aids [H04R 25/407](#))}
- M H04R 17/00 Piezo-electricPiezoelectric transducers; Electrostrictive transducers (piezo-electricpiezoelectric or electrostrictive elements in general [H10N 30/00](#); details of piezo-electricpiezoelectric or electrostrictive motors, generators or positioners {[H10N 30/00](#)})**
- M H04R 17/005 · {using a [piezo-electric](#)[piezoelectric](#) polymer}
- U H04R 17/02 · Microphones
- M H04R 17/025 · · {using a [piezo-electric](#)[piezoelectric](#) polymer}
- M H04R 2217/00 Details of magnetostrictive, piezo-electricpiezoelectric, or electrostrictive transducers covered by [H04R 15/00](#) or [H04R 17/00](#) but not provided for in any of their subgroups**
- M H04R 2217/01 · Non-planar magnetostrictive, [piezo-electric](#)[piezoelectric](#) or electrostrictive benders

Project: Unknown (H05B)

- U H05B 6/00 Heating by electric, magnetic or electromagnetic fields**
- U H05B 6/64 · Heating using microwaves {(containers, packaging elements or packages specially adapted to be heated by microwaves [B65D 81/3446](#))}
- U H05B 6/6447 · · {Method of operation or details of the microwave heating apparatus related to the use of detectors or sensors}
- U H05B 6/645 · · · {using temperature sensors}
- M H05B 6/6455 · · · · {the sensors being [infra-red](#)[infrared](#) detectors}

- U H05B 6/647 . . {Aspects related to microwave heating combined with other heating techniques}
- M H05B 6/6482 . . . {combined with radiant heating, e.g. ~~infra-red~~*infrared* heating}
- U H05B 39/00** **Circuit arrangements or apparatus for operating incandescent light sources (structurally associated with the incandescent lamps [H01K 1/62](#))**
- U H05B 39/04 . Controlling
- U H05B 39/08 . . by shifting phase of trigger voltage applied to gas-filled controlling tubes {also in controlled semiconductor devices (in converters [H02M 5/00](#); with regulation [G05F 1/44](#))}
- U H05B 39/083 . . . {by the variation-rate of light intensity}
- U H05B 39/085 {by touch control}
- U H05B 39/086 {with possibility of remote control}
- M H05B 39/088 {by wireless means, e.g. ~~infra-red~~*infrared* transmitting means}
- U H05B 41/00** **Circuit arrangements or apparatus for igniting or operating discharge lamps (structurally associated with the discharge lamps [H01J 61/54](#), [H01J 61/56](#))**
- U H05B 41/14 . Circuit arrangements
- U H05B 41/26 . . in which the lamp is fed by power derived from dc by means of a converter, e.g. by high-voltage dc
- U H05B 41/28 . . . using static converters
- U H05B 41/282 with semiconductor devices ([H05B 41/2806](#), [H05B 41/288](#), [H05B 41/295](#) take precedence)
- U H05B 41/2821 {by means of a single-switch converter or a parallel push-pull converter in the final stage ([H05B 41/285](#) takes precedence)}
- M H05B 41/2822 {using specially adapted components in the load circuit, e.g. feedback transformers, ~~piezo-electric~~*piezoelectric* transformers; using specially adapted load circuit configurations}
- U H05B 41/2825 {by means of a bridge converter in the final stage ([H05B 41/285](#) takes precedence)}
- M H05B 41/2827 {using specially adapted components in the load circuit, e.g. feedback transformers, ~~piezo-electric~~*piezoelectric* transformers; using specially adapted load circuit configurations}

Project: Unknown (H05H)

- U H05H 1/0006 . {Investigating plasma, e.g. measuring the degree of ionisation or the electron temperature}
- U H05H 1/0012 . . {using electromagnetic or particle radiation, e.g. interferometry}
- M H05H 1/0043 . . . {by using ~~infra-red or ultra-violet~~*infrared or ultraviolet* radiation}
- M H05H 1/42 with provisions for introducing materials into the plasma, e.g. powder, liquid (~~electrostatic spraying, spraying apparatus with means for charging the spray electrically B05B 5/00~~ {cf. [B23K 9/324](#), [B05B 7/22](#); {arc stabilising or constricting arrangements [H05H 1/3405](#); coaxial protecting fluids [H05H 1/341](#)};} *electrostatic spraying, spraying apparatus with means for charging the spray electrically B05B 5/00* {; cf. [B23K 9/324](#), [B05B 7/22](#)})

Project: Unknown (H05K)

- U H05K 1/00** **Printed circuits**
- U H05K 1/02 . Details

- U H05K 1/03
 - • Use of materials for the substrate
- U H05K 1/0313
 - • • {Organic insulating material}
- H05K 1/032
 - • • • {consisting of one material}

NOTE

{In this group, in the absence of an indication to the contrary, a material is classified in the last appropriate place.}