

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

ENGINES OR PUMPS

F03 MACHINES OR ENGINES FOR LIQUIDS; WIND, SPRING, OR WEIGHT MOTORS; PRODUCING MECHANICAL POWER OR A REACTIVE PROPULSIVE THRUST, NOT OTHERWISE PROVIDED FOR

F03G SPRING, WEIGHT, INERTIA OR LIKE MOTORS; MECHANICAL-POWER PRODUCING DEVICES OR MECHANISMS, NOT OTHERWISE PROVIDED FOR OR USING ENERGY SOURCES NOT OTHERWISE PROVIDED FOR (arrangements in connection with power supply in vehicles from force of nature [B60K 16/00](#); electric propulsion with power supply in vehicles from force of nature [B60L 8/00](#))

NOTE

In this subclass, the following term is used with the meaning indicated:

- "motors" means mechanisms for producing mechanical power from potential energy of solid bodies.

1/00	Spring motors (spring-driven toys A63H ; springs in general F16F ; precision time mechanisms, e.g. for clocks or watches, G04B)	1/026	. . {using torsion springs}
1/02	• characterised by shape or material of spring, e.g. helical, spiral, coil WARNING Group F03G 1/02 is impacted by reclassification into groups F03G 1/022 , F03G 1/024 , F03G 1/026 , F03G 1/028 , F03G 1/029 and F03G 1/032 . All groups listed in this Warning should be considered in order to perform a complete search.		WARNING Group F03G 1/026 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/026 should be considered in order to perform a complete search.
1/022	. . {using spiral springs} WARNING Group F03G 1/022 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/022 should be considered in order to perform a complete search.	1/028	. . {using leaf springs} WARNING Group F03G 1/028 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/028 should be considered in order to perform a complete search.
1/024	. . {using helical springs} WARNING Group F03G 1/024 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/024 should be considered in order to perform a complete search.	1/029	. . {using two or more springs} WARNING Group F03G 1/029 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/029 should be considered in order to perform a complete search.
		1/032	. . {using bimetals} WARNING Group F03G 1/032 is incomplete pending reclassification of documents from group F03G 1/02 . Groups F03G 1/02 and F03G 1/032 should be considered in order to perform a complete search.

- 1/04 . . using rubber springs
- 1/06 . Other parts or details
- 1/08 . . for winding
- 1/10 . . for producing output movement other than rotary, e.g. vibratory

3/00 Other motors, e.g. gravity or inertia motors

WARNING

Group [F03G 3/00](#) is impacted by reclassification into groups [F03G 3/087](#), [F03G 3/091](#), [F03G 3/094](#), [F03G 3/096](#) and [F03G 3/097](#).

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

- 3/02 . using wheels with circumferentially-arranged compartments co-operating with solid falling bodies ([F03G 3/04](#) takes precedence)
- 3/04 . driven by sand or like fluent solid material
- 3/06 . using pendulums
- 3/08 . using flywheels

WARNING

Group [F03G 3/08](#) is impacted by reclassification into group [F03G 3/083](#).

Groups [F03G 3/08](#) and [F03G 3/083](#) should be considered in order to perform a complete search.

- 3/083 . . {deviating the flywheel axis, e.g. using gyroscopic effects like precession or nutation}

WARNING

Group [F03G 3/083](#) is incomplete pending reclassification of documents from group [F03G 3/08](#).

Groups [F03G 3/08](#) and [F03G 3/083](#) should be considered in order to perform a complete search.

- 3/087 . {Gravity or weight motors (using solid falling bodies [F03G 3/02](#); using sand or the like [F03G 3/04](#))}

WARNING

Groups [F03G 3/087](#), [F03G 3/091](#) and [F03G 3/094](#) are incomplete pending reclassification of documents from group [F03G 3/00](#).

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

- 3/091 . . {using unbalanced wheels}
- 3/094 . . {specially adapted for potential energy power storage stations; combinations of gravity or weight motors with electric motors or generators}
- 3/096 . {adapted for pumping or conveying fluids}

WARNING

Group [F03G 3/096](#) is incomplete pending reclassification of documents from group [F03G 3/00](#).

Groups [F03G 3/00](#) and [F03G 3/096](#) should be considered in order to perform a complete search.

- 3/097 . {Motors specially adapted for creating a reciprocating movement, e.g. by rotating eccentric masses}

WARNING

Group [F03G 3/097](#) is incomplete pending reclassification of documents from group [F03G 3/00](#).

Groups [F03G 3/00](#) and [F03G 3/097](#) should be considered in order to perform a complete search.

4/00 Devices for producing mechanical power from geothermal energy

WARNING

Groups [F03G 4/00](#), [F03G 4/001](#), [F03G 4/02](#), [F03G 4/023](#), [F03G 4/026](#), [F03G 4/029](#), [F03G 4/031](#), [F03G 4/033](#), [F03G 4/035](#), [F03G 4/037](#), [F03G 4/04](#), [F03G 4/045](#), [F03G 4/06](#), [F03G 4/063](#), [F03G 4/066](#), [F03G 4/069](#), [F03G 4/072](#) and [F03G 4/074](#) are incomplete pending reclassification of documents from group [F03G 7/04](#).

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

- 4/001 . {Binary cycle plants where the source fluid from the geothermal collector heats the working fluid via a heat exchanger}
- 4/02 . with direct {working} fluid contact
- 4/023 . {characterised by the geothermal collectors}
- 4/026 . . {open loop geothermal collectors}
- 4/029 . . {closed loop geothermal collectors, i.e. the fluid is pumped through a closed loop in heat exchange with the geothermal source, e.g. via a heat exchanger}
- 4/031 . {using waste heat from a primary power cycle to produce mechanical power in a second cycle}
- 4/033 . {having a Rankine cycle}
- 4/035 . . {of the Organic Rankine Cycle [ORC] type or the Kalina Cycle type}
- 4/037 . {having other power cycles, e.g. Stirling, transcritical or supercritical cycles; combined with other power sources, e.g. wind, gas or nuclear}
- 4/04 . with deep-well turbo pump
- 4/045 . {with heat pumps}
- 4/06 . with fluid flashing
- 4/063 . {with energy storage devices}
- 4/066 . . {of the non-thermal type, e.g. springs or batteries}
- 4/069 . {characterised by the brine or scale treatment, e.g. brine desalination, scale deposit prevention or corrosion-proofing}
- 4/072 . {Controlling or monitoring}
- 4/074 . {Safety arrangements}

5/00 Devices for producing mechanical power from muscle energy (driving cycles [B62M](#))

WARNING

Group [F03G 5/00](#) is impacted by reclassification into groups [F03G 5/086](#), [F03G 5/089](#), [F03G 5/092](#), [F03G 5/095](#), [F03G 5/098](#) and [F03G 5/103](#).

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

- 5/02 . of endless-walk type, e.g. treadmills
- 5/025 . . {Treadmills (for animals [F03G 5/04](#))}
- 5/04 . . Horsemills or the like
- 5/042 . . . {Traction devices, shock absorbers or whipping devices for horsemills}
- 5/045 . . . {Security devices for horsemills}
- 5/047 . . . {Transmissions or couplings for horsemills}
- 5/06 . other than of endless-walk type

WARNING

Group [F03G 5/06](#) is impacted by reclassification into groups [F03G 5/061](#), [F03G 5/062](#), [F03G 5/063](#), [F03G 5/064](#), [F03G 5/065](#) and [F03G 5/066](#).

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

- 5/061 . . {driven by animals}

WARNING

Group [F03G 5/061](#) is incomplete pending reclassification of documents from group [F03G 5/06](#).

Groups [F03G 5/06](#) and [F03G 5/061](#) should be considered in order to perform a complete search.

- 5/062 . . {driven by humans}

WARNING

Groups [F03G 5/062](#), [F03G 5/063](#), [F03G 5/064](#), [F03G 5/065](#) and [F03G 5/066](#) are incomplete pending reclassification of documents from group [F03G 5/06](#).

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

- 5/063 . . . {operated by the leg or foot}
- 5/064 {using a bicycle or a bicycle pedal, e.g. pedal generators}
- 5/065 . . . {operated by the hand}
- 5/066 . . . {of the motor-generator type, e.g. the generator is also usable as an electric motor}
- 5/08 . . for combined actuation by different limbs, e.g. hand and leg

- 5/086 . {using flywheels}

WARNING

Group [F03G 5/086](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/086](#) should be considered in order to perform a complete search.

- 5/089 . {using pendulums}

WARNING

Group [F03G 5/089](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/089](#) should be considered in order to perform a complete search.

- 5/092 . {using centrifugal or centripetal forces}

WARNING

Group [F03G 5/092](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/092](#) should be considered in order to perform a complete search.

- 5/095 . {with potential energy storage}

WARNING

Group [F03G 5/095](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/095](#) should be considered in order to perform a complete search.

- 5/098 . {for pumping}

WARNING

Group [F03G 5/098](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/098](#) should be considered in order to perform a complete search.

- 5/103 . {using springs}

WARNING

Group [F03G 5/103](#) is incomplete pending reclassification of documents from group [F03G 5/00](#).

Groups [F03G 5/00](#) and [F03G 5/103](#) should be considered in order to perform a complete search.

6/00 Devices for producing mechanical power from solar energy (solar boilers [F24](#))

WARNING

Group [F03G 6/00](#) is impacted by reclassification into groups [F03G 6/002](#), [F03G 6/0055](#), [F03G 6/071](#), [F03G 6/074](#), [F03G 6/083](#), [F03G 6/089](#), [F03G 6/092](#), [F03G 6/098](#), [F03G 6/108](#), [F03G 6/111](#), [F03G 6/114](#), [F03G 6/117](#), [F03G 6/121](#), [F03G 6/124](#), [F03G 6/127](#) and [F03G 6/129](#).

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

- 6/001 . {having photovoltaic cells}
- 6/002 . {with expansion and contraction elements}

WARNING

Group [F03G 6/002](#) is incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#) and [F03G 6/002](#) should be considered in order to perform a complete search.

- 6/003 . {having a Rankine cycle ([F03G 6/065](#) takes precedence)}

WARNING

Group [F03G 6/003](#) is impacted by reclassification into group [F03G 6/004](#).

Groups [F03G 6/003](#) and [F03G 6/004](#) should be considered in order to perform a complete search.

- 6/004 . . {of the Organic Rankine Cycle [ORC] type or the Kalina Cycle type}

WARNING

Group [F03G 6/004](#) is incomplete pending reclassification of documents from group [F03G 6/003](#).

Groups [F03G 6/003](#) and [F03G 6/004](#) should be considered in order to perform a complete search.

- 6/005 . . {Binary cycle plants where the fluid from the solar collector heats the working fluid via a heat exchanger}
- 6/0055 . {having other power cycles, e.g. Stirling or transcritical, supercritical cycles; combined with other power sources, e.g. wind, gas or nuclear}

WARNING

Group [F03G 6/0055](#) is incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#) and [F03G 6/0055](#) should be considered in order to perform a complete search.

- 6/02 . using a single state working fluid
- 6/04 . . gaseous {([F03G 6/064](#), [F03G 6/068](#) take precedence)}
- 6/045 . . . {by producing an updraft of heated gas or a downdraft of cooled gas, e.g. air driving an engine}

- 6/06 . with solar energy concentrating means

WARNING

Group [F03G 6/06](#) is impacted by reclassification into groups [F03G 6/061](#), [F03G 6/062](#), [F03G 6/063](#) and [F03G 6/068](#).

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

- 6/061 . . {Parabolic linear or through concentrators}

WARNING

Group [F03G 6/061](#) is incomplete pending reclassification of documents from group [F03G 6/06](#).

Groups [F03G 6/06](#) and [F03G 6/061](#) should be considered in order to perform a complete search.

- 6/062 . . {Parabolic point or dish concentrators}

WARNING

Group [F03G 6/062](#) is incomplete pending reclassification of documents from group [F03G 6/06](#).

Groups [F03G 6/06](#) and [F03G 6/062](#) should be considered in order to perform a complete search.

- 6/063 . . {Tower concentrators}

WARNING

Group [F03G 6/063](#) is incomplete pending reclassification of documents from group [F03G 6/06](#).

Groups [F03G 6/06](#) and [F03G 6/063](#) should be considered in order to perform a complete search.

- 6/064 . . {having a gas turbine cycle, i.e. compressor and gas turbine combination}
- 6/065 . . {having a Rankine cycle}

WARNING

Group [F03G 6/065](#) is impacted by reclassification into group [F03G 6/066](#).

Groups [F03G 6/065](#) and [F03G 6/066](#) should be considered in order to perform a complete search.

- 6/066 . . . {of the Organic Rankine Cycle [ORC] type or the Kalina Cycle type}

WARNING

Group [F03G 6/066](#) is incomplete pending reclassification of documents from group [F03G 6/065](#).

Groups [F03G 6/065](#) and [F03G 6/066](#) should be considered in order to perform a complete search.

- 6/067 . . . {Binary cycle plants where the fluid from the solar collector heats the working fluid via a heat exchanger}

- 6/068 . . {having other power cycles, e.g. Stirling or transcritical, supercritical cycles; combined with other power sources, e.g. wind, gas or nuclear}

WARNING

Group [F03G 6/068](#) is incomplete pending reclassification of documents from group [F03G 6/06](#).

Groups [F03G 6/06](#) and [F03G 6/068](#) should be considered in order to perform a complete search.

- 6/071 . {with energy storage devices}

WARNING

Groups [F03G 6/071](#) and [F03G 6/074](#) are incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#), [F03G 6/071](#) and [F03G 6/074](#) should be considered in order to perform a complete search.

- 6/074 . . {of the non-thermal type, e.g. springs or batteries}

- 6/083 . {with solar ponds}

WARNING

Group [F03G 6/083](#) is incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#) and [F03G 6/083](#) should be considered in order to perform a complete search.

- 6/089 . {for pumping}

WARNING

Group [F03G 6/089](#) is incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#) and [F03G 6/089](#) should be considered in order to perform a complete search.

- 6/092 . {using heat pumps, e.g. solar assisted heat pumps}

WARNING

Group [F03G 6/092](#) is incomplete pending reclassification of documents from groups [F03G 6/00](#) and [F03G 2007/007](#).

Groups [F03G 6/00](#), [F03G 2007/007](#) and [F03G 6/092](#) should be considered in order to perform a complete search.

- 6/098 . {Components, parts or details}

WARNING

Groups [F03G 6/098](#), [F03G 6/108](#), [F03G 6/111](#), [F03G 6/114](#) and [F03G 6/117](#) are incomplete pending reclassification of documents from group [F03G 6/00](#).

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

- 6/108 . . {of the heat transfer system}

- 6/111 . . . {Heat transfer fluids}

- 6/114 {Molten salts}

- 6/117 {Solid-liquid phase change of the heat transfer fluid}

- 6/121 . {Controlling or monitoring}

WARNING

Groups [F03G 6/121](#), [F03G 6/124](#) and [F03G 6/127](#) are incomplete pending reclassification of documents from group [F03G 6/00](#).

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

- 6/124 . . {Start-up control}

- 6/127 . . {Over-night operation}

- 6/129 . {Safety arrangements}

WARNING

Group [F03G 6/129](#) is incomplete pending reclassification of documents from group [F03G 6/00](#).

Groups [F03G 6/00](#) and [F03G 6/129](#) should be considered in order to perform a complete search.

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.

- 7/002 . {using the energy of vibration of fluid columns}

- 7/003 . {Motors driven by thermophoresis or thermodiffusion}

WARNING

Group [F03G 7/003](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).

Groups [F03G 7/00](#) and [F03G 7/003](#) should be considered in order to perform a complete search.

- 7/004 . {Thermo-magnetic motors, e.g. using the Curie effect}

WARNING

Group [F03G 7/004](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).

Groups [F03G 7/00](#) and [F03G 7/004](#) should be considered in order to perform a complete search.

- 7/005 . {Electro-chemical actuators; Actuators having a material for absorbing or desorbing gas, e.g. a metal hydride; Actuators using the difference in osmotic pressure between fluids; Actuators with elements stretchable when contacted with liquid rich in ions, with UV light, with a salt solution}

WARNING

Group [F03G 7/005](#) is no longer used for the classification of documents as of August 1, 2021.

The content of this group is being reclassified into groups [F03G 7/009](#), [F03G 7/011](#), [F03G 7/012](#), [F03G 7/0121](#), [F03G 7/015](#), [F03G 7/016](#) and [F03G 7/017](#).

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

- 2007/007 . {using heat pumps}
(Frozen)

WARNING

Group [F03G 2007/007](#) is no longer used for the classification of documents as of August 1, 2021.

The content of this group is being reclassified into groups [F03G 7/047](#) and [F03G 6/092](#).

Groups [F03G 2007/007](#), [F03G 7/047](#) and [F03G 6/092](#) should be considered in order to perform a complete search.

- 7/008 . {characterised by the actuating element (actuating elements for mechanical power producing mechanism using expansion or contraction of bodies due to heating, cooling, moistening, drying or the like [F03G 7/061](#))}

WARNING

Group [F03G 7/008](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).

Groups [F03G 7/00](#) and [F03G 7/008](#) should be considered in order to perform a complete search.

- 7/009 . . {Actuators with elements stretchable when contacted with liquid rich in ions, with UV light or with a salt solution}

WARNING

Group [F03G 7/009](#) is incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

Groups [F03G 7/00](#), [F03G 7/005](#) and [F03G 7/009](#) should be considered in order to perform a complete search.

- 7/011 . . {Actuators having a material for absorbing or desorbing a gas, e.g. with a fuel cell reaction or a metal hydride}

WARNING

Group [F03G 7/011](#) is incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

Groups [F03G 7/00](#), [F03G 7/005](#) and [F03G 7/011](#) should be considered in order to perform a complete search.

- 7/012 . . {Electro-chemical actuators}

WARNING

Groups [F03G 7/012](#) and [F03G 7/0121](#) are incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

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

- 7/0121 . . . {Electroactive polymers}

- 7/015 . . {Actuators using the difference in osmotic pressure between fluids}

WARNING

Group [F03G 7/015](#) is incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

Groups [F03G 7/00](#), [F03G 7/005](#) and [F03G 7/015](#) should be considered in order to perform a complete search.

- 7/016 . . {Photosensitive actuators, e.g. using the principle of Crookes radiometer}

WARNING

Group [F03G 7/016](#) is incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

Groups [F03G 7/00](#), [F03G 7/005](#) and [F03G 7/016](#) should be considered in order to perform a complete search.

- 7/017 . . {Actuators comprising biological materials}

WARNING

Group [F03G 7/017](#) is incomplete pending reclassification of documents from groups [F03G 7/00](#) and [F03G 7/005](#).

Groups [F03G 7/00](#), [F03G 7/005](#) and [F03G 7/017](#) should be considered in order to perform a complete search.

- 7/025 . {characterised by its use}

WARNING

Groups [F03G 7/025](#), [F03G 7/0252](#) and [F03G 7/0254](#) are incomplete pending reclassification of documents from group [F03G 7/00](#).

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

- 7/0252 . . {Motors; Energy harvesting or waste energy recovery}

- 7/0254 . . {pumping or compressing fluids, e.g. microfluidic devices}

- 7/027 . {Control or monitoring}
- WARNING**
- Group [F03G 7/027](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).
- Groups [F03G 7/00](#) and [F03G 7/027](#) should be considered in order to perform a complete search.
- 7/028 . {Safety arrangements}
- WARNING**
- Group [F03G 7/028](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).
- Groups [F03G 7/00](#) and [F03G 7/028](#) should be considered in order to perform a complete search.
- 7/029 . {characterised by the material or the manufacturing process, e.g. the assembly}
- WARNING**
- Group [F03G 7/029](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).
- Groups [F03G 7/00](#) and [F03G 7/029](#) should be considered in order to perform a complete search.
- 7/04 . using pressure differences or thermal differences occurring in nature ([F03G 7/06](#) takes precedence)
- WARNING**
- Group [F03G 7/04](#) is impacted by reclassification into groups [F03G 4/00](#), [F03G 4/001](#), [F03G 4/02](#), [F03G 4/023](#), [F03G 4/026](#), [F03G 4/029](#), [F03G 4/031](#), [F03G 4/033](#), [F03G 4/035](#), [F03G 4/037](#), [F03G 4/04](#), [F03G 4/045](#), [F03G 4/06](#), [F03G 4/063](#), [F03G 4/066](#), [F03G 4/069](#), [F03G 4/072](#), [F03G 4/074](#), [F03G 7/045](#) and [F03G 7/047](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 7/045 . . {Environmental heat plants or OTEC plants using an Organic Rankine Cycle [ORC] or a Kalina Cycle}
- WARNING**
- Group [F03G 7/045](#) is incomplete pending reclassification of documents from group [F03G 7/04](#).
- Groups [F03G 7/04](#) and [F03G 7/045](#) should be considered in order to perform a complete search.
- 7/047 . . {Environmental heat plants or OTEC plants using heat pumps}
- WARNING**
- Group [F03G 7/047](#) is incomplete pending reclassification of documents from groups [F03G 2007/007](#) and [F03G 7/04](#).
- Groups [F03G 2007/007](#), [F03G 7/04](#) and [F03G 7/047](#) should be considered in order to perform a complete search.
- 7/05 . . Ocean thermal energy conversion, i.e. OTEC
- 7/06 . using expansion or contraction of bodies due to heating, cooling, moistening, drying or the like (using thermal expansion of non-vaporising liquids [F01K](#))
- WARNING**
- Group [F03G 7/06](#) is impacted by reclassification into groups [F03G 7/061](#), [F03G 7/06112](#), [F03G 7/06113](#), [F03G 7/06114](#), [F03G 7/06115](#), [F03G 7/0612](#), [F03G 7/0613](#), [F03G 7/0614](#), [F03G 7/06143](#), [F03G 7/06145](#), [F03G 7/06146](#), [F03G 7/06147](#), [F03G 7/0615](#), [F03G 7/0616](#), [F03G 7/0618](#), [F03G 7/062](#), [F03G 7/063](#), [F03G 7/0631](#), [F03G 7/06324](#), [F03G 7/0633](#), [F03G 7/0634](#), [F03G 7/0635](#), [F03G 7/0636](#), [F03G 7/064](#), [F03G 7/0641](#), [F03G 7/0645](#), [F03G 7/0646](#), [F03G 7/066](#), [F03G 7/0665](#) and [F03G 7/067](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 7/061 . . {characterised by the actuating element}
- WARNING**
- Groups [F03G 7/061](#), [F03G 7/06112](#), [F03G 7/06113](#), [F03G 7/06114](#), [F03G 7/06115](#), [F03G 7/0612](#), [F03G 7/0613](#), [F03G 7/0616](#) and [F03G 7/0618](#) are incomplete pending reclassification of documents from group [F03G 7/06](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 7/06112 . . . {using the thermal expansion or contraction of enclosed fluids}
- 7/06113 {the fluids subjected to phase change}
- 7/06114 . . . {using the thermal expansion or contraction of solid materials}
- 7/06115 . . . {using materials changing their chemical composition}
- 7/0612 . . . {using polymers}
- 7/0613 . . . {using layers of different materials joined together, e.g. bimetals}

7/0614 . . . {using shape memory elements}

WARNING

Groups [F03G 7/0614](#), [F03G 7/06143](#), [F03G 7/06145](#), [F03G 7/06146](#), [F03G 7/06147](#) and [F03G 7/0615](#) are incomplete pending reclassification of documents from groups [F03G 7/06](#) and [F03G 7/065](#).

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

7/06143 {Wires}

7/06145 {Springs}

7/06146 {Torque tubes or torsion bars}

7/06147 {Magnetic shape memory alloys, e.g. ferro-magnetic alloys}

7/0615 {Training, i.e. setting or adjusting the elongation characteristics of the material}

7/0616 . . . {characterised by the material or the manufacturing process, e.g. the assembly (magnetic shape memory alloys [F03G 7/06147](#))}

7/0618 {comprising biological materials}

7/062 . . {characterised by the activation arrangement}

WARNING

Group [F03G 7/062](#) is incomplete pending reclassification of documents from group [F03G 7/06](#).

Groups [F03G 7/06](#) and [F03G 7/062](#) should be considered in order to perform a complete search.

7/063 . . {characterised by the mechanic interaction}

WARNING

Groups [F03G 7/063](#), [F03G 7/0631](#), [F03G 7/06324](#), [F03G 7/0633](#), [F03G 7/0634](#), [F03G 7/0635](#) and [F03G 7/0636](#) are incomplete pending reclassification of documents from group [F03G 7/06](#).

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

7/0631 . . . {One-way operation, e.g. release mechanism}

7/06324 . . . {increasing or decreasing in volume}

7/0633 . . . {performing a rotary movement}

7/0634 . . . {using cam gearings}

7/0635 . . . {with several elements connected in series}

7/0636 . . . {with several elements connected in parallel}

7/064 . . {characterised by its use}

WARNING

Groups [F03G 7/064](#), [F03G 7/0641](#), [F03G 7/0645](#) and [F03G 7/0646](#) are incomplete pending reclassification of documents from group [F03G 7/06](#).

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

7/0641 . . . {Motors; Energy harvesting or waste energy recovery}

7/0645 . . . {Clamping, fixing or crimping parts}

7/0646 . . . {for pumping or compressing fluids}

7/065 . . {using a shape memory element}

(Frozen)

WARNING

Group [F03G 7/065](#) is no longer used for the classification of documents as of August 1, 2021.

The content of this group is being reclassified into groups [F03G 7/0614](#), [F03G 7/06143](#), [F03G 7/06145](#), [F03G 7/06146](#), [F03G 7/06147](#) and [F03G 7/0615](#).

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

7/066 . . {Actuator control or monitoring}

WARNING

Groups [F03G 7/066](#) and [F03G 7/0665](#) are incomplete pending reclassification of documents from group [F03G 7/06](#).

Groups [F03G 7/06](#), [F03G 7/066](#) and [F03G 7/0665](#) should be considered in order to perform a complete search.

7/0665 . . . {controlled displacement, e.g. by using a lens positioning actuator}

7/067 . . {Safety arrangements}

WARNING

Group [F03G 7/067](#) is incomplete pending reclassification of documents from group [F03G 7/06](#).

Groups [F03G 7/06](#) and [F03G 7/067](#) should be considered in order to perform a complete search.

7/08 . . recovering energy derived from swinging, rolling, pitching or like movements, e.g. from the vibrations of a machine

WARNING

Group [F03G 7/08](#) is impacted by reclassification into groups [F03G 7/081](#), [F03G 7/083](#), [F03G 7/085](#) and [F03G 7/087](#).

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

7/081 . . {recovering energy from moving road or rail vehicles, e.g. collecting vehicle vibrations in the vehicle tyres or shock absorbers}

WARNING

Groups [F03G 7/081](#), [F03G 7/083](#), [F03G 7/085](#) and [F03G 7/087](#) are incomplete pending reclassification of documents from group [F03G 7/08](#).

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

7/083 . . . {using devices on streets or on rails}

7/085 {hydraulic or pneumatic devices}

7/087 {magnetic or electromagnetic devices, e.g. linear electric generators}

- 7/092 . {Motors following new scientific theories not otherwise provide for, e.g. using quantum field effects like zero-point energy, Casimir effect}

WARNING

Group [F03G 7/092](#) is incomplete pending reclassification of documents from group [F03G 7/00](#).

Groups [F03G 7/00](#) and [F03G 7/092](#) should be considered in order to perform a complete search.

- 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.

- 7/104 . . {continuously converting gravity into usable power}

WARNING

Groups [F03G 7/104](#), [F03G 7/107](#) and [F03G 7/111](#) are incomplete pending reclassification of documents from group [F03G 7/10](#).

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

- 7/107 . . . {using an unbalance for increasing torque or saving energy}
7/111 . . . {using magnets, e.g. gravo-magnetic motors}
7/115 . . {harvesting energy from inertia forces}

WARNING

Groups [F03G 7/115](#) and [F03G 7/119](#) are incomplete pending reclassification of documents from group [F03G 7/10](#).

Groups [F03G 7/10](#), [F03G 7/115](#) and [F03G 7/119](#) should be considered in order to perform a complete search.

- 7/119 . . {amplifying power, torque or energy}
7/122 . . {of closed energy loops}

WARNING

Group [F03G 7/122](#) is incomplete pending reclassification of documents from group [F03G 7/10](#).

Groups [F03G 7/10](#) and [F03G 7/122](#) should be considered in order to perform a complete search.

- 7/125 . . {creating a thrust by violating the principle of momentum conservation}

WARNING

Group [F03G 7/125](#) is incomplete pending reclassification of documents from group [F03G 7/10](#).

Groups [F03G 7/10](#) and [F03G 7/125](#) should be considered in order to perform a complete search.

- 7/129 . . {Thermodynamic processes}

WARNING

Group [F03G 7/129](#) is incomplete pending reclassification of documents from group [F03G 7/10](#).

Groups [F03G 7/10](#) and [F03G 7/129](#) should be considered in order to perform a complete search.

- 7/135 . . {following unproven scientific theories; Theories about perpetual motion}

WARNING

Group [F03G 7/135](#) is incomplete pending reclassification of documents from group [F03G 7/10](#).

Groups [F03G 7/10](#) and [F03G 7/135](#) should be considered in order to perform a complete search.