

CPC COOPERATIVE PATENT CLASSIFICATION

H ELECTRICITY

(NOTE omitted)

H02 GENERATION; CONVERSION OR DISTRIBUTION OF ELECTRIC POWER

H02N ELECTRIC MACHINES NOT OTHERWISE PROVIDED FOR

NOTES

1. This subclass covers:
 - electrostatic generators, motors, clutches, or holding devices;
 - other non-dynamo-electric generators or motors;
 - holding or levitation devices using magnetic attraction or repulsion;
 - arrangements for starting, regulating, braking, or otherwise controlling such machines unless in conjoint operation with a second machine.
2. Specific provision for generators, motors, or other means for converting between electric and other forms of energy also exists in other subclasses, e.g. in subclasses [H01L](#), [H01M](#), [H02K](#), [H04R](#).

1/00	Electrostatic generators or motors using a solid moving electrostatic charge carrier	2/0055	. . . { Supports for driving or driven bodies; Means for pressing driving body against driven body }
1/002	. { Electrostatic motors }	2/006	. . . . { Elastic elements, e.g. springs (in general F16F 1/00) }
1/004	. . { in which a body is moved along a path due to interaction with an electric field travelling along the path }	2/0065	. . . { Friction interface (friction linings F16D 69/00) }
1/006	. . { of the gap-closing type (H02N 1/004 takes precedence) }	2/007	. . . . { Materials }
1/008	. . . { Laterally driven motors, e.g. of the comb-drive type }	2/0075	. . { Electrical details, e.g. drive or control circuits or methods }
1/04	. Friction generators	2/008	. . . { Means for controlling vibration frequency or phase, e.g. for resonance tracking }
1/06	. Influence generators	2/0085	. . . { Leads; Wiring arrangements }
1/08	. . with conductive charge carrier, i.e. capacitor machines	2/009	. . { Thermal details, e.g. cooling means }
1/10	. . with non-conductive charge carrier	2/0095	. { producing combined linear and rotary motion, e.g. multi-direction positioners }
1/12	. . . in the form of a conveyor belt, e.g. van de Graaff machine	2/02	. producing linear motion, e.g. actuators; Linear positioners {; Linear motors }
2/00	Electric machines in general using piezo-electric effect, electrostriction or magnetostriction (generating mechanical vibrations in general B06B; piezo-electric, electrostrictive or magnetostrictive devices in general H01L 41/00)	2/021	. . { using intermittent driving, e.g. step motors, piezoelectric motors }
	WARNING	2/023	. . . { Inchworm motors }
	This group is not complete pending reorganisation; see provisionally also H01L 41/00	2/025	. . . { Inertial sliding motors }
2/0005	. { producing non-specific motion; Details common to machines covered by H02N 2/02 - H02N 2/16 }	2/026	. . { by pressing one or more vibrators against the driven body }
2/001	. . { Driving devices, e.g. vibrators }	2/028	. . { along multiple or arbitrary translation directions, e.g. XYZ stages }
2/0015	. . . { using only bending modes }	2/04	. . Constructional details
2/002	. . . { using only longitudinal or radial modes }	2/043	. . . { Mechanical transmission means, e.g. for stroke amplification }
2/0025	. . . . { using combined longitudinal modes }	2/046	. . . . { for conversion into rotary motion }
2/003	. . . { using longitudinal or radial modes combined with bending modes }	2/06	. . Drive circuits; Control arrangements { or methods }
2/0035	. . . . { Cylindrical vibrators }	2/062	. . . { Small signal circuits; Means for controlling position or derived quantities, e.g. for removing hysteresis }
2/004	. . . . { Rectangular vibrators }	2/065	. . . { Large signal circuits, e.g. final stages }
2/0045	. . . { using longitudinal or radial modes combined with torsion or shear modes }	2/067	. . . . { generating drive pulses }
2/005	. . { Mechanical details, e.g. housings (casings for dynamo-electric machines H02K 5/00) }	2/08	. . using travelling waves {, i.e. Rayleigh surface waves }
		2/10	. producing rotary motion, e.g. rotary motors
		2/101	. . { using intermittent driving, e.g. step motors }

- 2/103 . . {by pressing one or more vibrators against the rotor}
- 2/105 . . {Cycloid or wobble motors; Harmonic traction motors}
- 2/106 . . {Langevin motors}
- 2/108 . . {around multiple axes of rotation, e.g. spherical rotor motors}
- 2/12 . . Constructional details
- 2/123 . . . {Mechanical transmission means, e.g. for gearing}
- 2/126 {for conversion into linear motion}
- 2/14 . . Drive circuits; Control arrangements {or methods}
- 2/142 . . . {Small signal circuits; Means for controlling position or derived quantities, e.g. speed, torque, starting, stopping, reversing}
- 2/145 . . . {Large signal circuits, e.g. final stages}
- 2/147 {Multi-phase circuits}
- 2/16 . . using travelling waves {, i.e. Rayleigh surface waves}
- 2/163 . . . {Motors with ring stator}
- 2/166 . . . {Motors with disc stator}
- 2/18 . . producing electrical output from mechanical input, e.g. generators (for measurement devices [G01](#))
- 2/181 . . {Circuits; Control arrangements or methods}
- 2/183 . . {using impacting bodies (high voltage generators in spark lighters [F23Q](#))}
- 2/185 . . {using fluid streams}
- 2/186 . . {Vibration harvesters}
- 2/188 . . . {adapted for resonant operation}
- 2/22 . {Methods relating to manufacturing, e.g. assembling, calibration}
- 3/00 Generators in which thermal or kinetic energy is converted into electrical energy by ionisation of a fluid and removal of the charge therefrom (discharge tubes functioning as thermionic generators [H01J 45/00](#))**
- 10/00 Electric motors using thermal effects {(motors using expansion or contraction of bodies due to heating or cooling [F03G 7/06](#))}**
- 11/00 Generators or motors not provided for elsewhere; Alleged perpetua mobilia obtained by electric or magnetic means (by hydrostatic pressure [F03B 17/04](#); {by mechanical means [F03G 7/10](#);} by dynamo-electric means, {including arrangements of permanent magnets interacting with other permanent magnets,} [H02K 53/00](#))**
- 11/002 . {Generators}
- 11/004 . . {adapted for producing a desired non-sinusoidal waveform}
- 11/006 . {Motors}
- 11/008 . {Alleged electric or magnetic perpetua mobilia}
- 13/00 Clutches or holding devices using electrostatic attraction, e.g. using Johnson-Rahbek effect**

15/00

Holding or levitation devices using magnetic attraction or repulsion, not otherwise provided for (electric or magnetic devices for holding work on machine tools [B23Q 3/15](#) {; monorail vehicle propulsion or suspension [B60L 13/00](#)}; sliding or levitation devices for railway systems [B61B 13/08](#); material handling devices associated with conveyors incorporating devices with electrostatic or magnetic grippers [B65G 47/92](#); separating thin or filamentary articles from piles using magnetic force [B65H 3/16](#); delivering thin or filamentary articles from magnetic holders by air blast or suction [B65H 29/24](#); bearings using magnetic or electric supporting means [F16C 32/04](#); relieving bearing loads using magnetic means [F16C 39/06](#); magnets [H01F 7/00](#); dynamo-electric clutches or brakes [H02K 49/00](#) {; electric furnaces with simultaneous levitation and heating [H05B 6/32](#)})

15/02

- . by Foucault currents

15/04

- . Repulsion by the Meissner effect (superconductors or hyperconductors in general [H01L 39/00](#))

99/00

Subject matter not provided for in other groups of this subclass