

SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING

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

F03D WIND MOTORS

Note(s)

1. This subclass covers wind motors, i.e. mechanisms for converting the energy of wind into useful mechanical power, and the transmission of such power to its point of use.
2. This subclass does not cover electrical power generation or distribution aspects of wind-power plants, which are covered by section H, e.g. H02J or H02P.
3. In this subclass, the following terms or expressions are used with the meanings indicated:
 - "rotor" means the wind-engaging parts of the wind motor and the rotary member carrying them;
 - "rotation axis" means the axis of rotation of the rotor.

1/00 Wind motors with rotation axis substantially parallel to the air flow entering the rotor (controlling thereof F03D 7/02) [1, 2006.01]

- 1/02 • having a plurality of rotors [1, 2006.01]
- 1/04 • having stationary wind-guiding means, e.g. with shrouds or channels (F03D 9/35 takes precedence) [1, 2006.01]
- 1/06 • Rotors [1, 2006.01]

3/00 Wind motors with rotation axis substantially perpendicular to the air flow entering the rotor (controlling thereof F03D 7/06) [1, 2006.01]

- 3/02 • having a plurality of rotors [1, 2006.01]
- 3/04 • having stationary wind-guiding means, e.g. with shrouds or channels (F03D 9/35 takes precedence) [1, 2006.01]
- 3/06 • Rotors [1, 2006.01]

5/00 Other wind motors (controlling thereof F03D 7/00) [1, 2006.01]

- 5/02 • the wind-engaging parts being attached to endless chains or the like [1, 2006.01]
- 5/04 • the wind-engaging parts being attached to carriages running on tracks or the like [1, 2006.01]
- 5/06 • the wind-engaging parts swinging to-and-fro and not rotating [1, 2006.01]

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) [1, 2006.01]

- 7/02 • the wind motors having rotation axis substantially parallel to the air flow entering the rotor [1, 2006.01]
- 7/04 • • Automatic control; Regulation [1, 2006.01]
- 7/06 • the wind motors having rotation axis substantially perpendicular to the air flow entering the rotor [1, 2006.01]

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) [1, 2006.01, 2016.01]

- 9/10 • Combinations of wind motors with apparatus storing energy [2016.01]
- 9/11 • • storing electrical energy [2016.01]
- 9/12 • • storing kinetic energy, e.g. using flywheels [2016.01]
- 9/13 • • storing gravitational potential energy [2016.01]
- 9/14 • • • using liquids [2016.01]
- 9/16 • • • using weights [2016.01]
- 9/17 • • storing energy in pressurised fluids [2016.01]
- 9/18 • • storing heat [2016.01]
- 9/19 • • storing chemical energy, e.g. using electrolysis [2016.01]
- 9/20 • Wind motors characterised by the driven apparatus (F03D 9/10 takes precedence) [2016.01]
- 9/22 • • the apparatus producing heat [2016.01]
- 9/25 • • the apparatus being an electrical generator (F03D 9/22 takes precedence) [2016.01]
- 9/28 • • the apparatus being a pump or a compressor [2016.01]
- 9/30 • Wind motors specially adapted for installation in particular locations (means for mounting or supporting wind motors F03D 13/20) [2016.01]
- 9/32 • • on moving objects, e.g. vehicles [2016.01]
- 9/34 • • on stationary objects or on stationary man-made structures [2016.01]
- 9/35 • • • within towers, e.g. using chimney effects [2016.01]
- 9/37 • • • • with means for enhancing the air flow within the tower, e.g. by heating [2016.01]
- 9/39 • • • • • by circulation or vortex formation [2016.01]
- 9/41 • • • • • by using the wind outside the tower, e.g. using ejectors [2016.01]

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- 9/43
 - • • using infrastructure primarily used for other purposes, e.g. masts for overhead railway power lines **[2016.01]**
- 9/45
 - • • • Building formations **[2016.01]**
- 9/46
 - • • • Tunnels or streets **[2016.01]**
- 9/48
 - • using landscape topography, e.g. valleys **[2016.01]**
- 13/00 Assembly, mounting or commissioning of wind motors; Arrangements specially adapted for transporting wind motor components [2016.01]**
- 13/10
 - Assembly of wind motors; Arrangements for erecting wind motors **[2016.01]**
- 13/20
 - Arrangements for mounting or supporting wind motors; Masts or towers for wind motors **[2016.01]**
- 13/25
 - • specially adapted for offshore installation **[2016.01]**
- 13/30
 - Commissioning, e.g. inspection, testing or final adjustment before releasing for production **[2016.01]**
- 13/35
 - • Balancing static or dynamic imbalances **[2016.01]**
- 13/40
 - Arrangements or methods specially adapted for transporting wind motor components **[2016.01]**
- 15/00 Transmission of mechanical power [2016.01]**
- 15/10
 - using gearing not limited to rotary motion, e.g. with oscillating or reciprocating members **[2016.01]**
- 15/20
 - Gearless transmission, i.e. direct-drive **[2016.01]**
- 17/00 Monitoring or testing of wind motors, e.g. diagnostics (testing during commissioning of wind motors F03D 13/30) [2016.01]**
- 80/00 Details, components or accessories not provided for in groups F03D 1/00-F03D 17/00 [2016.01]**
- 80/10
 - Arrangements for warning air traffic **[2016.01]**
- 80/20
 - Arrangements for avoiding shadow flicker **[2016.01]**
- 80/30
 - Lightning protection **[2016.01]**
- 80/40
 - Ice detection; De-icing means **[2016.01]**
- 80/50
 - Maintenance or repair **[2016.01]**
- 80/55
 - • Cleaning (F03D 80/40 takes precedence) **[2016.01]**
- 80/60
 - Cooling or heating of wind motors **[2016.01]**
- 80/70
 - Bearing or lubricating arrangements **[2016.01]**
- 80/80
 - Arrangement of components within nacelles or towers **[2016.01]**