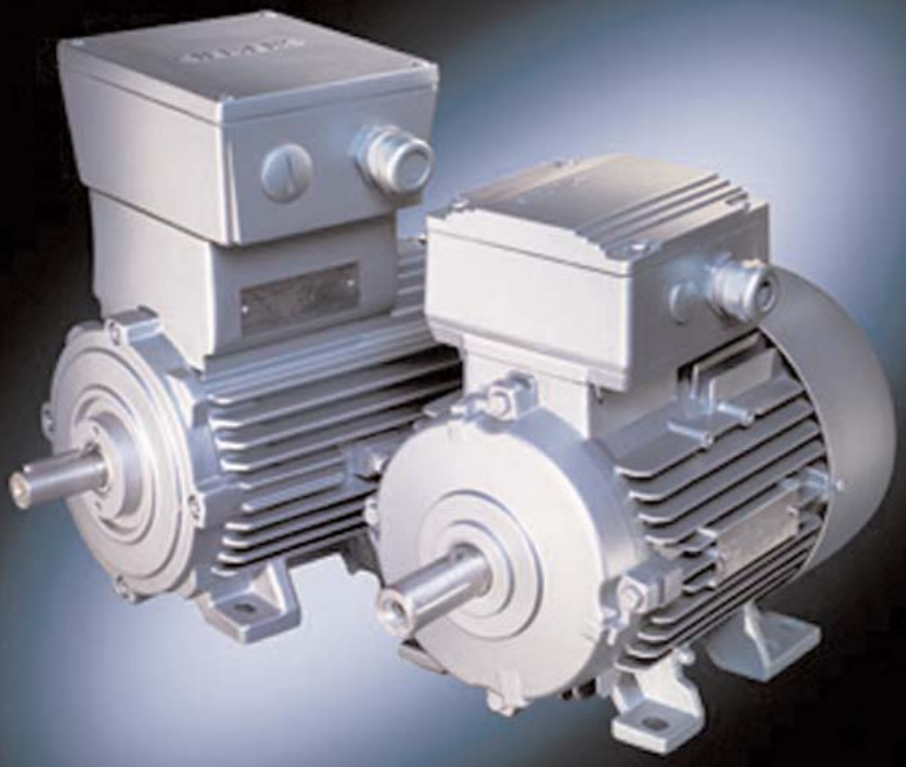
1MJ6–1MJ7

Explosion Proof, EEx de IIC T4, Cast Iron Frame TEFC IEC Motors



iec MOTORS

Technical Description

Explosion-protected motors from Siemens exceed basic safety requirements, operating reliably even under the most extreme conditions. In hazardous environments such as chemical plants, the oil industry or gas works, our rugged Eex motors comply with the strictest safety standards for the protection of life, machines and the environment. All explosion-protected motors from Siemens are tested by the German Federal Institute of Science and Technology (PTB) or German Coal and Still Technology Company (DMT).

Performance Specifications

- 25W to 132kW
- Guideline 94/9/94EG, ATEX 100a
- 3000, 1500, 1000 or 750 RPM
- 3 phase, 50 Hz; 230D/400Y V
- 3 phase, 50 Hz; 400D/690Y V
- Special voltages (50Hz and 60Hz) available
- Increased energy-saving EU efficiency class EFF2
- Class F insulation, Class B temperature rise
- Continuous duty
- Suitable for converted fed operation
- CE marked, IEC 60034, IEC 60079
- 71 through 315 frames

SIEMENS

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Features for Long Life

Frame and End Shields
Cast iron construction for a high degree of operational reliability in aggressive atmospheres. All motors are designed for IP55 (IEC 529), suitable for use in dusty or damp surroundings and ready for their use in the tropics. (IP56 available)

Rotor
A unique, offset laminated rotor core design provides improved efficiency, while larger bars and aluminum end rings reduce resistance for lower rotor losses. Each die-cast aluminum rotor assembly is dynamically balanced (IEC 60034-14) for extended bearing life.

Stator/Windings
Manufactured with premium electrical-grade steel laminations and the finest copper electrical magnet wire for lower losses and improved efficiencies. A unique stator core design lowers flux density and increases cooling capacity. Large conductor cross-section reduces resistance, also lowering stator losses.

Insulation
DURIGNIT® IR 2000, inverter-compatible up to 500 V, optionally up to 690 V. This insulation system comprises high-grade enameled wires and insulating sheet materials combined with solvent-free-impregnating resin. The system ensures a high level of mechanical and electrical strength, as well as good serviceability and long motor life. The insulation offers general protection for the windings against corrosive gases, vapors, dust, oil and increased humidity, and resists the normal stresses of vibration.

Cooling
Motors are fitted with a radial-flow fan that functions independently of the direction of rotation (cooling method IC 411 to DIN EN 60034-6). The material of the external cooling fans is a reinforced plastic. This material is tested and certified for a 20-year lifetime. Fan cowls are made of corrosion-protected steel plate.

Bearings
The bearing nominal life is specified by standard calculation (DIN ISO 281) and reaches or exceeds by 90% if used according to instructions. If the operating conditions are below average, a bearing life of 100,000 (Lh10 hours) can be achieved.

Lubrication
The grease life for pre-lubricated motors is tailored to the bearing life. In cases where re-lubrication is chosen, the motors are provided a grease retaining system that prevents grease from entering the motor. Siemens IEC motors use lithium-based grease.

Conduit Box
Aluminum construction for frames up to 160M, cast iron construction for frames 160L and above, top mounted is standard. The terminal box can be ordered on either side of the motor or rotated 90° or 180° (frames size 80 and above), providing a more flexible mounting.

Corrosion Resistance
Zinc-plated hardware, epoxy enamel paint and aluminum nameplate resist rust and corrosion (stainless steel hardware also available).

Flexible
All Siemens IEC motors are available with a wide variety of options to meet your specific motor needs.

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