

# SD10 TEFC Motors



The new SD10 series of severe duty TEFC motors meets or exceeds EPC efficiency standards. They are ideal for both indoor and outdoor applications in severe operating atmospheres. These industry workhorses are ideal for use in chemical processing, mining, foundry, pulp and paper, waste management and petro/chemical applications.

## Performance Specifications

- 1 to 20 HP
- 1.15 service factor, 40°C ambient
- 3600, 1800, 1200 or 900 RPM
- 3 phase, 60 Hz; 208-230/460 and 575 volt operation
- Meets or exceeds EPC efficiency standards
- Class F insulation, Class B temperature rise @ 1.0 SF
- NEMA Design B, Continuous Duty
- 143T through 256T frame



# nema MOTORS

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## Features for a Long Life:

**Frame & End Shields** – Cast iron construction for exceptional structural integrity and corrosion resistance, equipped with integrally cast feet and condensation T-drains. Lifting provisions are included for frames 180T to 256T. Unique frame fin design maximizes cooling.



**Rugged Mounting Structure** – Specially designed integrally cast mounting provides optimum strength.

**Rotor** – A unique offset rotor bar design provides improved efficiency. Large cross section bars and end rings reduce resistance for lower rotor losses. Each die cast aluminum rotor assembly is dynamically balanced for extended bearing life, and includes a high-strength carbon steel (C1045) shaft for maximum rotor performance.

**Stator/Windings** – Manufactured with premium electrical-grade steel laminations and copper electrical magnet wire to lower losses for improved efficiencies. A unique stator core design lowers flux density while increasing cooling capacity. Large conductor cross section reduces resistance and lowers stator losses.

**Insulation** – Proprietary inverter-rated NEMA Class F non-hygroscopic insulation system with Class B temperature rise @ 1.0 SF provides an extra margin of thermal life. Varnish system application ensures maximum wire penetration to provide protection from moisture, corrosion and electrical shock. This insulation system meets or exceeds NEMA MG1-2003, Part 31, making all motors suitable for operation with variable frequency drives.

**Cooling** – A bi-directional, non-sparking fan is locked and keyed to the shaft. Its low-inertia design reduces windage losses, improves air flow, reduces noise and provides dependable cooling. Cast iron fan covers are provided on all frame sizes.

**Bearings** – Regreasable, oversized double-shielded with cast iron inner caps. Alemite grease fittings on the inlets and pipe plugs on the relief ports for ease of routine maintenance. All motors are equipped with drive end and opposite drive end shaft V-ring slingers for added bearing protection. Provisions for Inpro/Seal® bearing isolators are standard on both ends.

**Lubrication** – A specially formulated, high temperature-tested, polyurea-based grease is used to provide more than four times the lubrication life of other polyurea greases.

**Oversized Conduit Box** – Cast iron construction that is larger than industry standards, diagonally split, neoprene-gasketed and rotatable in 90° increments for quick and easy connections. Includes a ground lug and non-wicking, clearly and permanently marked leads.

**Corrosion Resistance** – All cast iron construction, structural foam fan, zinc-plated hardware, epoxy enamel paint and stainless steel nameplate resist rust and corrosion.

**Modifiable** – Siemens motors are available with a wide variety of modifications to meet your specific motor needs.

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