Cat® Electric Motor for Gas Compression

CN3586

3500 bhp, 2610 bkW @ 900 rpm

Specifications	
Motor Type	8 Duty Continuous m Temperature Rise Class B at rated load lz Connection of Stator Winding Star 2 Full Load Current 447 Amps
Group A,B,C,D T3 (NEC or CE) Mounting Designation. F1 or F Enclosure Type/Method of Cooling	2 Locked Rotor Torque 60% II Breakdown Torque 220% F No Load Current 151 Amps D) Rated Torque 20,544 lb-ft (27854 N•m) Shaft 8.5 in (216 mm)*

Standard Features

Bearings

- Self-lubricated sleeve bearings
- Insulated non-drive end bearings to reduce bearing currents
- · Bearing RTDs for temperature monitoring

Rotors

- Designed for minimal vibration
- · Dynamic balancing at full operational speed
- · Fabricated copper squirrel cage
- · Forged, keyless shaft
- AISI 4140/DIN 42CrMo4 shaft

Stators

- · Radial air ducts ensure uniform and efficient cooling
- Vacuum pressure impregnated with a specially formulated epoxy resin
- 2x RTDs per phase
- · Space heater
- Welded and machined stator core retains its rigidity throughout motor life to ensure a sealed and homogeneous insulation system that results in high dielectric strength, excellent heat transfer and the elimination of hazardous internal partial discharges
- Magnetic slot wedges enhance the power factor and operating efficiency
- VFD ready

Performance Ratings

Load Characteristics	Load %	Current Amps	Efficiency %	Power Factor
	100	447	96.5	0.84
	75	346	96.6	0.81
	50	256	96.1	0.74
Direction of Rotation	Bi-directional			
Sound Pressure Level (sinus supply, no load)	82 dB(A), tol. + 3 dB(A), 3 ft (1 m)			
Weight of Rotor	6680 lb (3030 kg)			
Total Weight of Motor	21,869 lb (9920 kg)**			
Inertia Rotor/Load	Approx. 4197 lb-ft²/479 lb-ft² (177 kg-m²/20 kg-m²)			
Bearings	Sleeve self-lubricated			
Maximum Stalling Time	16.5 s (warm)			
Starting Time	0.8 s (V=100%), 1.6 s (V=80%)			
Number of Consecutive Starts per hour (evenly spaced intervals)	3/2 (cold/warm)			
Maximum Number of Starts	1000/year			
Speed Range	450-900 rpm w/blower, 765-900 rpm w/o blower			

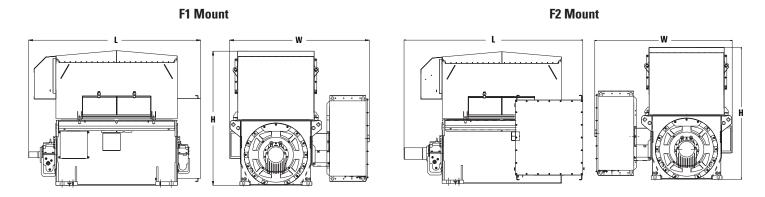




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3500 bhp

Dimensions

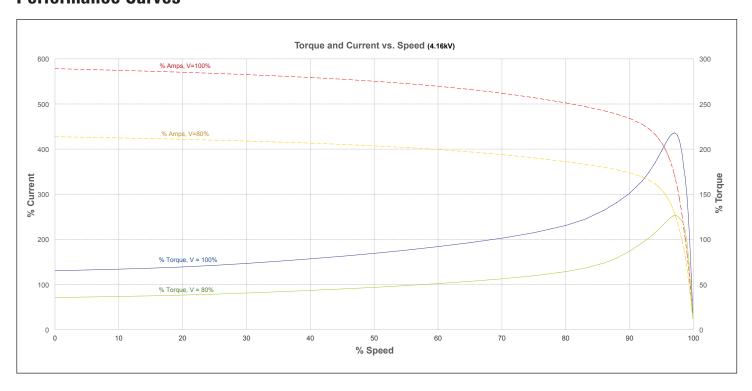


Standard Terminal Box Shown

Length	132.68 in (3770 mm)
Width	101.57 in (2580 mm)
Height	.97.05 in (2465 mm)
Weight	.18,342 lb (8320 kg)

approximate dimensions

Performance Curves



3500 bhp

Performance Curves continued

