

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium
Efficiency Three-Phase

Product code : 14443177

Catalog # : 02536XT3E284TS

Frame : 284TS
Output : 25 HP (18.5 kW)
Poles : 2
Frequency : 60 Hz
Rated voltage : 230/460 V
Rated current : 57.1/28.6 A
L. R. Amperes : 383/191 A
LRC : 6.7x(Code G)
No load current : 12.6/6.30 A
Rated speed : 3545 rpm
Slip : 1.53 %
Rated torque : 37.0 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 240 %
Insulation class : F
Service factor : 1.15
Moment of inertia (J) : 2.58 sq.ft.lb
Design : B

Locked rotor time : 59s (cold) 33s (hot)
Temperature rise : 80 K
Duty cycle : Cont.(S1)
Ambient temperature : -20°C to +40°C
Altitude : 1000 m.a.s.l.
Protection degree : IP55
Cooling method : IC411 - TEFC
Mounting : F-1
Rotation¹ : Both (CW and CCW)
Noise level² : 75.0 dB(A)
Starting method : Direct On Line
Approx. weight³ : 466 lb

Output	25%		50%		75%		100%	
Efficiency (%)	91.5	92.1	91.7	91.7	92.4	91.7	92.4	91.0
	91.5	90.9	91.7	91.7	91.7	91.7	91.7	92.4
Power Factor	0.58	0.64	0.78	0.82	0.85	0.87	0.88	0.89
	0.61	0.57	0.80	0.77	0.86	0.85	0.88	0.88

Foundation loads
Max. traction : 197 lb
Max. compression : 660 lb

Losses at normative operating points (speed;torque), in percentage of rated output power

Losses (%)	P1 (0,9;1,0)	7.8	9.3	8.6	7.8
	P2 (0,5;1,0)	5.9	7.1	6.5	5.9
	P3 (0,25;1,0)	5.0	6.0	5.5	5.0
	P4 (0,9;0,5)	3.7	4.5	4.1	3.7
	P5 (0,5;0,5)	2.1	2.5	2.3	2.1
	P6 (0,5;0,25)	1.2	1.5	1.4	1.2
	P7 (0,25;0,25)	0.7	0.8	0.8	0.7

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6311 C3	6211 C3
Sealing	:	Oil Seal	Lip Seal
Lubrication interval	:	11517 h	14226 h
Lubricant amount	:	18 g	11 g
Lubricant type	:	Mobil Polyrex EM	

Notes:

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.
- (4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 2 Revision		
Checked by				
Date	28/03/2024			

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page	Revision
Checked by				2 / 2	
Date	28/03/2024				