

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof IE2 Three-Phase Product code : 13585457

Frame	: 280S/M	Locked rotor time	: 48s (cold) 27s (hot)
Output	: 45 kW (60 HP)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 380/660 V	Altitude	: 1000 m.a.s.l.
Rated current	: 86.5/49.8 A	Protection degree	: IP55
L. R. Amperes	: 588/339 A	Cooling method	: IC411 - TEFC
LRC	: 6.8	Mounting	: B3T
No load current	: 34.0/19.6 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 985 rpm	Noise level ²	: 66.0 dB(A)
Slip	: 1.50 %	Starting method	: Direct On Line
Rated torque	: 322 ft.lb	Approx. weight ³	: 1640 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 53.3 sq.ft.lb		
Design	: N		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	91.4	90.4	92.0	91.0	93.1	93.1	93.5	93.5	Max. traction	: 1464 lb
	89.3		90.2		92.7		93.4			
Power Factor	0.45	0.39	0.71	0.64	0.79	0.75	0.84	0.80	Max. compression	: 3104 lb
	0.39		0.63		0.75		0.80			

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

Losses (%)	P1 (0,9;1,0)	6.6	6.6	6.7
	P2 (0,5;1,0)	5.1	5.1	5.2
	P3 (0,25;1,0)	4.7	4.7	4.8
	P4 (0,9;0,5)	3.4	3.4	3.5
	P5 (0,5;0,5)	2.1	2.1	2.2
	P6 (0,5;0,25)	1.4	1.4	1.5
	P7 (0,25;0,25)	0.9	0.9	0.9

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6316 C3	6316 C3
Sealing	:	Lip Seal	Lip Seal
Lubrication interval	:	14935 h	14935 h
Lubricant amount	:	34 g	34 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 IEC 60034-1.

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Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	150 °C

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