

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof IE2 Three-Phase Product code : 13218083

Frame	: 225S/M	Locked rotor time	: 32s (cold) 18s (hot)
Output	: 45 kW (60 HP)	Temperature rise	: 80 K
Poles	: 2	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	: 80.2/46.2 A	Protection degree	: IP55
L. R. Amperes	: 682/392 A	Cooling method	: IC411 - TEFC
LRC	: 8.5	Mounting	: B3T
No load current	: 17.0/9.79 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 2965 rpm	Noise level ²	: 82.0 dB(A)
Slip	: 1.17 %	Starting method	: Direct On Line
Rated torque	: 107 ft.lb	Approx. weight ³	: 1004 lb
Locked rotor torque	: 220 %		
Breakdown torque	: 270 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 9.81 sq.ft.lb		
Design	: N		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	92.7	92.3	93.0	92.5	93.5	93.7	93.7	93.7	Max. traction	: 532 lb
	91.3		91.9		93.2		93.7			
Power Factor	0.63	0.58	0.84	0.80	0.89	0.87	0.91	0.89	Max. compression	: 1536 lb
	0.56		0.78		0.86		0.89			

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

Losses (%)	P1 (0,9;1,0)	6.2	6.2	6.2
	P2 (0,5;1,0)	4.6	4.6	4.6
	P3 (0,25;1,0)	4.2	4.2	4.2
	P4 (0,9;0,5)	2.9	2.9	2.9
	P5 (0,5;0,5)	1.6	1.6	1.6
	P6 (0,5;0,25)	0.9	0.9	0.9
	P7 (0,25;0,25)	0.5	0.5	0.5

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6314 C3	6314 C3
Sealing	:	Lip Seal	Lip Seal
Lubrication interval	:	4548 h	4548 h
Lubricant amount	:	27 g	27 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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 2 Revision		
Checked by				
Date	27/03/2024			

Customer :

Thermal protection

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

Rev.	Changes Summary		Performed	Checked	Date
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