

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof NEMA Premium Efficiency Three-Phase Product code : 12408274

Frame	: 215TC	Locked rotor time	: 102s (cold) 57s (hot)
Output	: 5 HP (3.7 kW)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 13.7/6.83 A	Protection degree	: IP55
L. R. Amperes	: 92.9/46.4 A	Cooling method	: IC411 - TEFC
LRC	: 6.8x(Code J)	Mounting	: F-1
No load current	: 6.90/3.45 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1170 rpm	Noise level ²	: 55.0 dB(A)
Slip	: 2.50 %	Starting method	: Direct On Line
Rated torque	: 22.4 ft.lb	Approx. weight ³	: 211 lb
Locked rotor torque	: 170 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 1.47 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	88.2	89.8	88.5	88.5	89.5	86.8
	89.1	87.2	88.5	87.5	88.5	88.5
Power Factor	0.34	0.40	0.58	0.65	0.70	0.79
	0.37	0.35	0.61	0.58	0.73	0.76

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

Losses (%)	P1 (0,9;1,0)	11.1	14.4	13.5	12.3
	P2 (0,5;1,0)	9.1	11.8	11.1	10.1
	P3 (0,25;1,0)	8.8	11.4	10.8	9.8
	P4 (0,9;0,5)	5.8	7.5	7.1	6.4
	P5 (0,5;0,5)	4.0	5.2	4.9	4.5
	P6 (0,5;0,25)	2.9	3.7	3.5	3.2
	P7 (0,25;0,25)	2.1	2.7	2.6	2.3

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6308 2RS	6207 2RS
Sealing	:	Oil Seal	Lip Seal
Lubrication interval	:	-	-
Lubricant amount	:	-	-
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.

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Customer :

Thermal protection

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

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