

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE2 Three-Phase

Product code : 12047130

Frame	: 160M	Locked rotor time	: 18s (cold) 10s (hot)
Output	: 15 HP (11 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 380 V	Altitude	: 1000 m.a.s.l.
Rated current	: 21.9 A	Protection degree	: IP55
L. R. Amperes	: 136 A	Cooling method	: IC411 - TEFC
LRC	: 6.2	Mounting	: B35L(E)
No load current	: 9.10 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1465 rpm	Noise level ²	: 61.0 dB(A)
Slip	: 2.33 %	Starting method	: Direct On Line
Rated torque	: 53.8 ft.lb	Approx. weight ³	: 274 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 1.73 sq.ft.lb		
Design	: N		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	85.3	85.8	85.5	86.5	90.2	90.0	89.8	90.3	Max. traction	: 544 lb
	87.6		88.5		90.2		91.0			
Power Factor	0.44	0.36	0.69	0.61	0.79	0.73	0.85	0.81	Max. compression	: 818 lb
	0.37		0.62		0.75		0.82			

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

Losses (%)	P1 (0,9;1,0)	10.8	10.2	9.4
	P2 (0,5;1,0)	8.6	8.1	7.5
	P3 (0,25;1,0)	8.2	7.7	7.1
	P4 (0,9;0,5)	6.1	5.8	5.4
	P5 (0,5;0,5)	4.0	3.8	3.5
	P6 (0,5;0,25)	3.0	2.8	2.6
	P7 (0,25;0,25)	2.0	1.9	1.8

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6309 C3	6209 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	13 g	9 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 / 1		
Checked by				
Date	26/03/2024			
			Revision	