

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W21 Explosion Proof High Efficiency Three-Phase Product code : 12823586

Frame	: 184TC	Locked rotor time	: 32s (cold) 18s (hot)
Output	: 5 HP (3.7 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 13.0/6.52 A	Protection degree	: IP55
L. R. Amperes	: 91.3/45.6 A	Cooling method	: IC411 - TEFC
LRC	: 7.0x(Code J)	Mounting	: W-6
No load current	: 5.60/2.80 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1744 rpm	Noise level ²	: 56.0 dB(A)
Slip	: 3.11 %	Starting method	: Direct On Line
Rated torque	: 15.1 ft.lb	Approx. weight ³	: 125 lb
Locked rotor torque	: 210 %		
Breakdown torque	: 270 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.3813 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads					
Efficiency (%)	88.9	90.9	88.4	88.0	88.8	86.3	88.0	83.0	Max. traction	: 218 lb
	90.1	89.4	88.2	88.0	87.2	87.6	84.9	85.8		
Power Factor	0.40	0.47	0.65	0.73	0.76	0.81	0.81	0.85	Max. compression	: 343 lb
	0.44	0.40	0.69	0.66	0.79	0.77	0.83	0.82		

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

Losses (%)	P1 (0,9;1,0)	13.2	19.8	17.2	16.0
	P2 (0,5;1,0)	11.6	17.4	15.1	14.0
	P3 (0,25;1,0)	11.2	16.8	14.6	13.6
	P4 (0,9;0,5)	6.0	8.9	7.8	7.2
	P5 (0,5;0,5)	4.3	6.4	5.6	5.2
	P6 (0,5;0,25)	2.7	4.1	3.6	3.3
	P7 (0,25;0,25)	2.0	3.0	2.6	2.4

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6307 2RS	6206 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.

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

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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 2 / 2Revision	
Checked by					
Date	27/03/2024				