

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 11804410

Frame	: 324T	Locked rotor time	: 36s (cold) 20s (hot)
Output	: 40 HP (30 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	: 94.2/47.1 A	Protection degree	: IP55
L. R. Amperes	: 575/287 A	Cooling method	: IC411 - TEFC
LRC	: 6.1x(Code G)	Mounting	: F-3
No load current	: 34.0/17.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1775 rpm	Noise level ²	: 66.0 dB(A)
Slip	: 1.39 %	Starting method	: Direct On Line
Rated torque	: 118 ft.lb	Approx. weight ³	: 562 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 9.16 sq.ft.lb		
Design	: B		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	93.5	92.9	93.6	92.9	94.1	93.1	94.1	93.0	Max. traction	: 980 lb
	92.1	91.1	92.4	91.7	93.0	92.6	93.2	93.1		
	94.0	94.0	93.6	93.6	93.0	93.0	92.4	92.4		
	92.8		93.0		93.0		93.0			
Power Factor	0.46	0.43	0.72	0.68	0.80	0.78	0.85	0.84	Max. compression	: 1542 lb
	0.40	0.38	0.64	0.62	0.75	0.73	0.82	0.80		
	0.53	0.53	0.78	0.78	0.84	0.84	0.86	0.86		
	0.47		0.72		0.80		0.85			

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

Losses (%)	P1 (0,9;1,0)								
	P2 (0,5;1,0)	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
	P3 (0,25;1,0)	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	P4 (0,9;0,5)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	P5 (0,5;0,5)	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P6 (0,5;0,25)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	P7 (0,25;0,25)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 C3	6212 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	21 g	13 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.

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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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