

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Close Coupled Pump JM High Efficiency Three-Phase Product code : 11894603

Frame	: 324JM	Locked rotor time	: 32s (cold) 18s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 57.1 A	Protection degree	: IP55
L. R. Amperes	: 354 A	Cooling method	: IC411 - TEFC
LRC	: 6.2x(Code G)	Mounting	: F-1
No load current	: 14.5 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 3555 rpm	Noise level <sup>2</sup>	: 76.0 dB(A)
Slip	: 1.25 %	Starting method	: Direct On Line
Rated torque	: 73.9 ft.lb	Approx. weight <sup>3</sup>	: 538 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 229 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 5.32 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads
Efficiency (%)	91.5	92.9	91.7	92.4	Max. traction : 483 lb
	92.9	92.3	92.4	92.4	92.4
Power Factor	0.58	0.64	0.81	0.85	Max. compression : 1022 lb
	0.61	0.58	0.83	0.81	0.87
					0.86
					0.88
					0.89

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

Losses (%)	P1 (0,9;1,0)	7.6	8.4	8.4	7.6
	P2 (0,5;1,0)	5.7	6.3	6.3	5.7
	P3 (0,25;1,0)	5.3	5.8	5.8	5.3
	P4 (0,9;0,5)	3.9	4.3	4.3	3.9
	P5 (0,5;0,5)	2.2	2.4	2.4	2.2
	P6 (0,5;0,25)	1.4	1.5	1.5	1.4
	P7 (0,25;0,25)	0.8	0.8	0.8	0.8

	Drive end		Non drive end	
Bearing type	:	6312 C3	6212 C3	
Sealing	:	V'Ring	V'Ring	
Lubrication interval	:	12000 h	15000 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.

Rev.	Changes Summary		Performed	Checked	Date
Performed by					
Checked by					
Date	29/03/2024				
Page					Revision
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