

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 15197502

Catalog # : 02036ET3EPM254/6Y-W2

Frame	: 256TZ	Locked rotor time	: 25s (cold) 14s (hot)
Output	: 20 HP (15 kW)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 208-230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 51.3-46.5/23.3 A	Protection degree	: IP55
L. R. Amperes	: 313-284/142 A	Cooling method	: IC418 - TEAO
LRC	: 6.1x(Code G)	Mounting	: F-1
No load current	: 11.2-13.0/6.50 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3525 rpm	Noise level ²	: 72.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 29.8 ft.lb	Approx. weight ³	: 317 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 1.54 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%
Efficiency (%)	90.5 90.2	90.7 90.6	91.0 90.9	91.0 91.2
	90.2 89.5	90.4 89.8	91.2 91.1	91.2 91.2
	86.9 88.9	87.2 89.2	87.5 89.5	87.5 89.5
	89.0	89.2	89.5	89.5
Power Factor	0.56 0.54	0.80 0.78	0.87 0.86	0.89 0.89
	0.50 0.48	0.75 0.73	0.84 0.83	0.88 0.87
	0.64 0.60	0.85 0.82	0.89 0.88	0.90 0.89
	0.57	0.80	0.87	0.89

Foundation loads

Max. traction : 239 lb

Max. compression : 556 lb

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

	P1 (0,9;1,0)	9.0	8.8	8.8	8.8	13.0	10.7	10.7
	P2 (0,5;1,0)	6.6	6.5	6.5	6.5	9.6	7.9	7.9
	P3 (0,25;1,0)	6.2	6.0	6.0	6.0	8.9	7.3	7.3
	P4 (0,9;0,5)	4.9	4.8	4.8	4.8	7.1	5.8	5.8
	P5 (0,5;0,5)	2.7	2.6	2.6	2.6	3.9	3.2	3.2
	P6 (0,5;0,25)	1.8	1.7	1.7	1.7	2.6	2.1	2.1
Losses (%)	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.5	1.2	1.2

Drive end

Non drive end

Bearing type	:	6309 C3	6209 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	19000 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						
Checked by						
Date	28/03/2024				Page	Revision
					1 / 1	