

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11549070

Catalog # : 05009ET3E404T-W22

Frame	: 404/5T	Locked rotor time	: 52s (cold) 29s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 8	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	: 120/60.2 A	Protection degree	: IP55
L. R. Amperes	: 867/433 A	Cooling method	: IC411 - TEFC
LRC	: 7.2x(Code H)	Mounting	: F-1
No load current	: 49.0/24.5 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 880 rpm	Noise level <sup>2</sup>	: 60.0 dB(A)
Slip	: 2.22 %	Starting method	: Direct On Line
Rated torque	: 298 ft.lb	Approx. weight <sup>3</sup>	: 1117 lb
Locked rotor torque	: 170 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 34.6 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.0 92.9 91.8 91.8 92.4 92.4 92.4	93.0 92.3 92.2 92.2 91.7 91.7 91.7	93.0 91.3 91.7 91.8 90.2 91.0 91.0	Max. traction	: 2160 lb
Power Factor	0.68 0.65 0.63 0.60 0.74 0.71 0.68	0.78 0.78 0.76 0.73 0.82 0.80 0.78	0.83 0.84 0.82 0.80 0.85 0.84 0.83	Max. compression	: 3276 lb

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

Losses (%)	P1 (0,9;1,0)	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	P2 (0,5;1,0)	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	P3 (0,25;1,0)	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	P4 (0,9;0,5)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9	0.9

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6316 C3	6314 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	34 g	27 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
			1 / 1	