

# 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%
Efficiency (%)	93.0 92.9	93.0 92.3	93.0 91.3
	91.8 91.8	92.2 92.2	91.7 91.8
	92.4 92.4	91.7 91.7	90.2 91.0
	92.4	91.7	91.0
Power Factor	0.68 0.65	0.78 0.78	0.83 0.84
	0.63 0.60	0.76 0.73	0.82 0.80
	0.74 0.71	0.82 0.80	0.85 0.84
	0.68	0.78	0.83

### Foundation loads

Max. traction : 2160 lb

Max. compression : 3276 lb

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

	P1 (0,9;1,0)	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
	P3 (0,25;1,0)	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
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2
Losses (%)	P6 (0,5;0,25)	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

### Drive end

### Non drive end

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
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