

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12447063

Catalog # : 02009ET3E324T-W22

Frame : 324/6T  
Output : 20 HP (15 kW)  
Poles : 8  
Frequency : 60 Hz  
Rated voltage : 230/460 V  
Rated current : 56.6/28.3 A  
L. R. Amperes : 283/142 A  
LRC : 5.0x(Code G)  
No load current : 32.0/16.0 A  
Rated speed : 880 rpm  
Slip : 2.22 %  
Rated torque : 119 ft.lb  
Locked rotor torque : 190 %  
Breakdown torque : 220 %  
Insulation class : F  
Service factor : 1.25  
Moment of inertia (J) : 9.37 sq.ft.lb  
Design : B

Locked rotor time : 48s (cold) 27s (hot)  
Temperature rise : 80 K  
Duty cycle : Cont.(S1)  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Cooling method : IC411 - TEFC  
Mounting : F-1  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 56.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 509 lb

Output	50%	75%	100%
Efficiency (%)	89.5 88.5 87.4 86.3 89.5 88.5 87.5	91.0 89.6 89.0 88.5 89.5 89.5 89.5	91.0 89.5 89.3 89.0 88.5 88.5 88.5
Power Factor	0.54 0.51 0.46 0.42 0.61 0.56 0.52	0.66 0.64 0.60 0.56 0.72 0.68 0.65	0.73 0.72 0.69 0.65 0.77 0.75 0.72

Foundation loads  
Max. traction : 905 lb  
  
Max. compression : 1414 lb

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

Losses (%)	P1 (0,9;1,0)	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	P2 (0,5;1,0)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P7 (0,25;0,25)	2.0	2.0	2.0	2.0	2.0	2.0	2.0

	<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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page Revision 1 / 1		
Checked by				
Date	28/03/2024			