

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 High Efficiency Three-Phase

Product code :

12822601

Catalog # :

04018EP3ER324TC-W22

Frame : 324TC  
Output : 40 HP (30 kW)  
Poles : 4  
Frequency : 60 Hz  
Rated voltage : 230/460 V  
Rated current : 95.2/47.6 A  
L. R. Amperes : 571/286 A  
LRC : 6.0x(Code G)  
No load current : 30.0/15.0 A  
Rated speed : 1770 rpm  
Slip : 1.67 %  
Rated torque : 119 ft.lb  
Locked rotor torque : 210 %  
Breakdown torque : 240 %  
Insulation class : F  
Service factor : 1.25  
Moment of inertia (J) : 7.85 sq.ft.lb  
Design : B

Locked rotor time : 32s (cold) 18s (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 : W-6  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 69.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 508 lb

Output	25%		50%		75%		100%	
Efficiency (%)	92.2	91.4	92.4	91.7	93.0	92.4	93.0	92.4
	91.5	92.2	91.7	92.4	92.4	92.4	92.4	92.4
Power Factor	0.50	0.57	0.74	0.79	0.82	0.85	0.85	0.86
	0.52	0.49	0.75	0.73	0.83	0.82	0.85	0.85

Foundation loads  
Max. traction : 1012 lb  
Max. compression : 1519 lb

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

Losses (%)	P1 (0,9;1,0)	7.3	7.9	7.9	7.9
	P2 (0,5;1,0)	5.9	6.5	6.5	6.5
	P3 (0,25;1,0)	5.2	5.7	5.7	5.7
	P4 (0,9;0,5)	3.4	3.7	3.7	3.7
	P5 (0,5;0,5)	2.2	2.4	2.4	2.4
	P6 (0,5;0,25)	1.3	1.5	1.5	1.5
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 C3	6212 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	14000 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		Page 1 / 1		
Checked by				
Date	29/03/2024			
		Revision		