

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 High Efficiency Three-Phase Product code : 12822601
Catalog # : 04018EP3ER324TC-W22

Frame	: 324TC	Locked rotor time	: 32s (cold) 18s (hot)
Output	: 40 HP (30 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 95.2/47.6 A	Protection degree	: IP55
L. R. Amperes	: 571/286 A	Cooling method	: IC411 - TEFC
LRC	: 6.0x(Code G)	Mounting	: W-6
No load current	: 30.0/15.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1770 rpm	Noise level ²	: 69.0 dB(A)
Slip	: 1.67 %	Starting method	: Direct On Line
Rated torque	: 119 ft.lb	Approx. weight ³	: 508 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		

Output	25%	50%	75%	100%	Foundation loads											
Efficiency (%)	92.2	91.4	92.4	91.7	Max. traction : 1012 lb											
	91.5	92.2	91.7	92.4	92.4	92.4	Max. compression : 1519 lb									
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

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

	Drive end		Non drive end	
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					
Checked by					
Date	29/03/2024				
Page					Revision
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