

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11441772

Catalog # : 02012ET3E286T-W22

Frame	: 284/6T	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 20 HP (15 kW)	Temperature rise	: 80 K
Poles	: 6	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	: 48.4/24.2 A	Protection degree	: IP55
L. R. Amperes	: 300/150 A	Cooling method	: IC411 - TEFC
LRC	: 6.2x(Code G)	Mounting	: F-1
No load current	: 19.0/9.50 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1175 rpm	Noise level ²	: 59.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 89.4 ft.lb	Approx. weight ³	: 438 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 9.16 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	91.0 90.0	91.7 90.3	91.7 90.3	Max. traction	: 908 lb
	89.3 89.3	90.3 90.6	90.3 90.8		
	90.2 90.2	90.2 90.2	88.5 89.5		
	90.2	91.0	90.2		
Power Factor	0.70 0.66	0.80 0.79	0.85 0.84	Max. compression	: 1346 lb
	0.63 0.60	0.76 0.73	0.83 0.81		
	0.76 0.73	0.83 0.82	0.86 0.86		
	0.70	0.80	0.85		

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

Losses (%)	P1 (0,9;1,0)	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	P2 (0,5;1,0)	7.1	7.1	7.1	7.1	7.1	7.1	7.1
	P3 (0,25;1,0)	6.9	6.9	6.9	6.9	6.9	6.9	6.9
	P4 (0,9;0,5)	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	P5 (0,5;0,5)	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P6 (0,5;0,25)	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	P7 (0,25;0,25)	1.2	1.2	1.2	1.2	1.2	1.2	1.2

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6311 C3	6211 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	18 g	11 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	28/03/2024		Page 1 / 1	Revision