

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11356020

Catalog # : 10012ET3G444T-W22

Frame	: 444/5T	Locked rotor time	: 36s (cold) 20s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 121 A	Protection degree	: IP55
L. R. Amperes	: 749 A	Cooling method	: IC411 - TEFC
LRC	: 6.2x(Code G)	Mounting	: F-1
No load current	: 45.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1189 rpm	Noise level ²	: 69.0 dB(A)
Slip	: 0.92 %	Starting method	: Direct On Line
Rated torque	: 442 ft.lb	Approx. weight ³	: 1654 lb
Locked rotor torque	: 220 %		
Breakdown torque	: 250 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 87.3 sq.ft.lb		
Design	: B		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	94.4	93.8	94.5	93.8	95.0	94.3	95.0	94.2	Max. traction	: 2719 lb
	93.8	93.6	93.8	93.7	94.6	94.6	94.5	94.6		
	94.8	94.8	94.5	94.5	94.0	94.5	93.6	94.0		
	93.9		94.0		94.0		94.0			
Power Factor	0.44	0.40	0.68	0.64	0.78	0.75	0.82	0.81	Max. compression	: 4372 lb
	0.37	0.34	0.60	0.57	0.72	0.71	0.79	0.77		
	0.49	0.46	0.73	0.70	0.81	0.79	0.83	0.83		
	0.43		0.68		0.77		0.82			

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

Losses (%)	P1 (0,9;1,0)	5.2	6.1	5.8	5.7	6.8	6.3	6.3
	P2 (0,5;1,0)	4.2	4.9	4.6	4.5	5.4	5.1	5.1
	P3 (0,25;1,0)	3.8	4.5	4.2	4.1	5.0	4.6	4.6
	P4 (0,9;0,5)	2.8	3.2	3.1	3.0	3.6	3.4	3.4
	P5 (0,5;0,5)	1.8	2.2	2.0	2.0	2.4	2.2	2.2
	P6 (0,5;0,25)	1.3	1.5	1.4	1.4	1.7	1.6	1.6
	P7 (0,25;0,25)	0.9	1.0	1.0	0.9	1.1	1.0	1.0

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6319 C3	6316 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	13000 h	16000 h
Lubricant amount	:	45 g	34 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			

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Revision