

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11408911

Catalog # : 45018ET3GRB449T-W22

Frame	: L447/9T	Locked rotor time	: 39s (cold) 22s (hot)
Output	: 450 HP (330 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 513 A	Protection degree	: IP55
L. R. Amperes	: 4566 A	Cooling method	: IC411 - TEFC
LRC	: 8.9x(Code K)	Mounting	: F-1
No load current	: 215 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1791 rpm	Noise level ²	: 79.0 dB(A)
Slip	: 0.50 %	Starting method	: Direct On Line
Rated torque	: 1320 ft.lb	Approx. weight ³	: 3496 lb
Locked rotor torque	: 320 %		
Breakdown torque	: 330 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 152 sq.ft.lb		
Design	: A		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	95.3	95.7	95.4	95.8	96.2	96.2	96.2	96.2	Max. traction	: 11406 lb
	95.0	95.0	95.4	95.4	95.8	95.8	96.2	96.2		
Power Factor	0.41	0.45	0.66	0.70	0.78	0.80	0.84	0.84	Max. compression	: 14902 lb
	0.40	0.36	0.65	0.60	0.77	0.74	0.82	0.80		

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

Losses (%)	P1 (0,9;1,0)	4.5	4.5	4.5	4.5
	P2 (0,5;1,0)	3.3	3.3	3.3	3.3
	P3 (0,25;1,0)	2.7	2.7	2.7	2.7
	P4 (0,9;0,5)	2.5	2.5	2.5	2.5
	P5 (0,5;0,5)	1.5	1.5	1.5	1.5
	P6 (0,5;0,25)	1.1	1.1	1.1	1.1
	P7 (0,25;0,25)	0.6	0.6	0.6	0.6

		Drive end	Non drive end
Bearing type	:	NU-322 C3	6319 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	4000 h	8000 h
Lubricant amount	:	60 g	45 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	Revision
			1 / 1	