

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 11408913

Catalog # : 50018ET3GRB449T-W22

Frame : L447/9T
Output : 500 HP (370 kW)
Poles : 4
Frequency : 60 Hz
Rated voltage : 460 V
Rated current : 568 A
L. R. Amperes : 4998 A
LRC : 8.8x(Code J)
No load current : 225 A
Rated speed : 1789 rpm
Slip : 0.61 %
Rated torque : 1470 ft.lb
Locked rotor torque : 300 %
Breakdown torque : 280 %
Insulation class : F
Service factor : 1.00
Moment of inertia (J) : 160 sq.ft.lb
Design : B

Locked rotor time : 39s (cold) 22s (hot)
Temperature rise : 105 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 : F-1
Rotation¹ : Both (CW and CCW)
Noise level² : 79.0 dB(A)
Starting method : Direct On Line
Approx. weight³ : 3528 lb

Output	25%		50%		75%		100%	
Efficiency (%)	95.3	95.7	95.4	95.8	96.2	96.2	96.2	96.2
	95.0	95.0	95.4	95.4	95.8	95.8	96.2	96.2
Power Factor	0.45	0.48	0.72	0.74	0.81	0.83	0.85	0.86
	0.44	0.40	0.70	0.66	0.80	0.77	0.84	0.82

Foundation loads
Max. traction : 11343 lb
Max. compression : 14871 lb

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

		<u>Drive end</u>	<u>Non drive end</u>
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		Page 1 / 1		
Checked by				
Date	29/03/2024			
		Revision		