

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency
Three-Phase

Product code : 11431840

Catalog # : 07509ST3QIE444T-W22

Frame	: 444/5T	Locked rotor time	: 32s (cold) 18s (hot)
Output	: 75 HP (55 kW)	Temperature rise	: 80 K
Poles	: 8	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	: 93.4 A	Protection degree	: IP56
L. R. Amperes	: 598 A	Cooling method	: IC411 - TEFC
LRC	: 6.4x(Code H)	Mounting	: F-1
No load current	: 40.0 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 890 rpm	Noise level ²	: 63.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 443 ft.lb	Approx. weight ³	: 1495 lb
Locked rotor torque	: 170 %		
Breakdown torque	: 200 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 73.6 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.0 92.6 91.3 91.2 91.5 92.0 92.0	93.6 93.0 92.6 92.5 91.7 92.4 92.4	93.6 93.0 92.9 92.9 91.7 92.4 92.4	Max. traction	: 2232 lb
Power Factor	0.64 0.56 0.52 0.49 0.70 0.66 0.63	0.74 0.69 0.65 0.62 0.77 0.75 0.73	0.79 0.77 0.73 0.71 0.80 0.79 0.78	Max. compression	: 3727 lb

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

Losses (%)	P1 (0,9;1,0)	6.6	6.6	6.6	6.6	6.6	6.6	6.6
	P2 (0,5;1,0)	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	P3 (0,25;1,0)	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	P4 (0,9;0,5)	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.0	1.0	1.0

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6319 C3	6316 C3
Sealing	:	Inpro/Seal	Inpro/Seal
Lubrication interval	:	17000 h	20000 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		Page Revision 1 / 1		
Checked by				
Date	26/03/2024			