

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12385054
Catalog # : 00509ST3QIE254T-W22

Frame	: 254/6T	Locked rotor time	: 77s (cold) 43s (hot)
Output	: 5 HP (3.7 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	: 7.69 A	Protection degree	: IP56
L. R. Amperes	: 40.8 A	Cooling method	: IC411 - TEFC
LRC	: 5.3x(Code H)	Mounting	: F-1
No load current	: 5.40 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 883 rpm	Noise level ²	: 54.0 dB(A)
Slip	: 1.89 %	Starting method	: Direct On Line
Rated torque	: 29.7 ft.lb	Approx. weight ³	: 267 lb
Locked rotor torque	: 250 %		
Breakdown torque	: 280 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 3.41 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads					
Efficiency (%)	84.0	83.7	84.7	84.0	87.0	84.8	87.5	84.8	Max. traction	: 315 lb
	83.4	81.5	83.7	82.0	85.5	85.5	85.5	85.5		
Power Factor	0.26	0.31	0.48	0.55	0.61	0.67	0.69	0.74	Max. compression	: 582 lb
	0.28	0.25	0.50	0.46	0.62	0.59	0.70	0.68		

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

Losses (%)	P1 (0,9;1,0)	13.7	13.7	13.7	13.7
	P2 (0,5;1,0)	11.9	11.9	11.9	11.9
	P3 (0,25;1,0)	12.0	12.0	12.0	12.0
	P4 (0,9;0,5)	7.8	7.8	7.8	7.8
	P5 (0,5;0,5)	5.9	5.9	5.9	5.9
	P6 (0,5;0,25)	4.6	4.6	4.6	4.6
	P7 (0,25;0,25)	3.6	3.6	3.6	3.6

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6309 C3	6209 C3
Sealing	:	Inpro/Seal	Inpro/Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	13 g	9 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	25/03/2024			
			Page	Revision
			1 / 1	