

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IEEE 841 NEMA Premium Efficiency Three-Phase Product code : 12385056
Catalog # : 00712ST3QIE254TC-W22

Frame	: 254/6TC	Locked rotor time	: 54s (cold) 30s (hot)
Output	: 7.5 HP (5.5 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	: 9.48 A	Protection degree	: IP56
L. R. Amperes	: 63.5 A	Cooling method	: IC411 - TEFC
LRC	: 6.7x(Code H)	Mounting	: F-1
No load current	: 4.50 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1175 rpm	Noise level ²	: 59.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 33.5 ft.lb	Approx. weight ³	: 301 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 290 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 3.92 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads					
Efficiency (%)	88.6	90.2	89.5	89.5	90.2	89.5	91.0	88.5	Max. traction	: 334 lb
	89.3	88.7	89.5	89.5	89.5	89.5	89.5	90.2		
Power Factor	0.38	0.44	0.63	0.70	0.74	0.79	0.80	0.83	Max. compression	: 635 lb
	0.41	0.39	0.66	0.64	0.77	0.75	0.82	0.81		

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

Losses (%)	P1 (0,9;1,0)	10.9	14.5	13.0	12.0
	P2 (0,5;1,0)	9.4	13.0	11.5	10.5
	P3 (0,25;1,0)	8.9	12.4	11.0	10.0
	P4 (0,9;0,5)	5.6	7.2	6.5	6.1
	P5 (0,5;0,5)	4.0	5.4	4.8	4.4
	P6 (0,5;0,25)	2.9	3.8	3.4	3.2
	P7 (0,25;0,25)	2.0	2.9	2.5	2.3

		<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	26/03/2024			
			Page	Revision
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