

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 14325516

Catalog # : 02009ST3QIE324TC-W22

Frame : 324/6TC
Output : 20 HP (15 kW)
Poles : 8
Frequency : 60 Hz
Rated voltage : 460 V
Rated current : 28.3 A
L. R. Amperes : 142 A
LRC : 5.0x(Code G)
No load current : 16.0 A
Rated speed : 880 rpm
Slip : 2.22 %
Rated torque : 119 ft.lb
Locked rotor torque : 190 %
Breakdown torque : 220 %
Insulation class : F
Service factor : 1.25
Moment of inertia (J) : 9.37 sq.ft.lb
Design : B

Locked rotor time : 48s (cold) 27s (hot)
Temperature rise : 80 K
Duty cycle : Cont.(S1)
Ambient temperature : -20°C to +40°C
Altitude : 1000 m.a.s.l.
Protection degree : IP56
Cooling method : IC411 - TEFC
Mounting : F-1
Rotation¹ : Both (CW and CCW)
Noise level² : 56.0 dB(A)
Starting method : Direct On Line
Approx. weight³ : 530 lb

Output	25%		50%		75%		100%	
Efficiency (%)	89.2	88.3	89.5	88.5	91.0	89.6	91.0	89.5
	86.8	85.6	87.4	86.3	89.0	88.5	89.3	89.0
	90.2	89.1	89.5	88.5	89.5	89.5	88.5	88.5
	88.0		87.5		89.5		88.5	
Power Factor	0.31	0.29	0.54	0.51	0.66	0.64	0.73	0.72
	0.25	0.23	0.46	0.42	0.60	0.56	0.69	0.65
	0.36	0.32	0.61	0.56	0.72	0.68	0.77	0.75
	0.29		0.52		0.65		0.72	

Foundation loads
Max. traction : 894 lb
Max. compression : 1425 lb

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

Losses (%)	P1 (0,9;1,0)	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	P2 (0,5;1,0)	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	P3 (0,25;1,0)	7.7	7.7	7.7	7.7	7.7	7.7	7.7
	P4 (0,9;0,5)	5.2	5.2	5.2	5.2	5.2	5.2	5.2
	P5 (0,5;0,5)	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P6 (0,5;0,25)	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P7 (0,25;0,25)	2.0	2.0	2.0	2.0	2.0	2.0	2.0

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type :	6312 C3	6212 C3
Sealing :	Inpro/Seal	Inpro/Seal
Lubrication interval :	20000 h	20000 h
Lubricant amount :	21 g	13 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 1 / 1
Revision