

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

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

Product code : 11431306

Catalog # : 05036ST3QIE326TS-W22

Frame	: 324/6TS	Locked rotor time	: 63s (cold) 35s (hot)
Output	: 50 HP (37 kW)	Temperature rise	: 80 K
Poles	: 2	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	: 56.7 A	Protection degree	: IP56
L. R. Amperes	: 357 A	Cooling method	: IC411 - TEFC
LRC	: 6.3x(Code G)	Mounting	: F-1
No load current	: 14.0 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 3555 rpm	Noise level <sup>2</sup>	: 76.0 dB(A)
Slip	: 1.25 %	Starting method	: Direct On Line
Rated torque	: 73.9 ft.lb	Approx. weight <sup>3</sup>	: 558 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 229 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 5.75 sq.ft.lb		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.0 92.8	93.0 92.9	93.0 93.3	Max. traction	: 472 lb
	92.2 92.2	92.8 93.1	93.3 93.3		
	93.0 93.0	92.4 92.4	91.0 91.7		
	93.0	93.0	92.4		
Power Factor	0.81 0.80	0.87 0.87	0.88 0.89	Max. compression	: 1030 lb
	0.77 0.76	0.85 0.84	0.88 0.87		
	0.85 0.83	0.88 0.87	0.89 0.89		
	0.82	0.86	0.88		

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

Losses (%)	P1 (0,9;1,0)	8.2	7.8	7.8	7.8	10.8	9.9	8.9
	P2 (0,5;1,0)	6.5	6.2	6.2	6.2	9.0	8.2	7.3
	P3 (0,25;1,0)	5.8	5.5	5.5	5.5	8.3	7.4	6.5
	P4 (0,9;0,5)	4.0	3.9	3.9	3.9	5.2	4.8	4.4
	P5 (0,5;0,5)	2.5	2.4	2.4	2.4	3.4	3.1	2.8
	P6 (0,5;0,25)	1.6	1.5	1.5	1.5	2.2	2.0	1.8
	P7 (0,25;0,25)	1.0	1.0	1.0	1.0	1.5	1.4	1.2

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6312 C3	6212 C3
Sealing	:	Inpro/Seal	Inpro/Seal
Lubrication interval	:	12000 h	15000 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	Revision
			1 / 1	