

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 High Efficiency Three-Phase

Product code : 12822510

Frame	: 256TC	Locked rotor time	: 27s (cold) 15s (hot)
Output	: 20 HP (15 kW)	Temperature rise	: 80 K
Poles	: 4	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 48.6/24.3 A	Protection degree	: IP55
L. R. Amperes	: 292/146 A	Cooling method	: IC411 - TEFC
LRC	: 6.0x(Code G)	Mounting	: W-6
No load current	: 18.0/9.00 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1765 rpm	Noise level <sup>2</sup>	: 64.0 dB(A)
Slip	: 1.94 %	Starting method	: Direct On Line
Rated torque	: 59.5 ft.lb	Approx. weight <sup>3</sup>	: 291 lb
Locked rotor torque	: 200 %		
Breakdown torque	: 240 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 2.86 sq.ft.lb		
Design	: B		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	90.0	86.6	90.2	87.0	91.0	87.3	91.0	87.4	Max. traction	: 614 lb
	88.6	89.2	88.9	89.5	89.0	89.9	89.1	90.0		
Power Factor	0.46	0.53	0.72	0.77	0.81	0.85	0.85	0.87	Max. compression	: 904 lb
	0.50	0.47	0.75	0.72	0.83	0.82	0.86	0.86		

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

Losses (%)	P1 (0,9;1,0)	10.0	14.5	12.3	11.2
	P2 (0,5;1,0)	9.1	13.2	11.2	10.2
	P3 (0,25;1,0)	8.1	11.9	10.1	9.1
	P4 (0,9;0,5)	4.5	6.5	5.5	5.0
	P5 (0,5;0,5)	3.3	4.8	4.0	3.7
	P6 (0,5;0,25)	2.0	3.0	2.5	2.3
	P7 (0,25;0,25)	1.5	2.2	1.9	1.7

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6309 C3	6209 C3
Sealing	:	V'Ring	V'Ring
Lubrication interval	:	18000 h	19000 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		Page 1 / 1		
Checked by				
Date	28/03/2024			
			Revision	