

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 12101174

Frame	: 404/5T	Locked rotor time	: 23s (cold) 13s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 113 A	Protection degree	: IP55
L. R. Amperes	: 825 A	Cooling method	: IC411 - TEFC
LRC	: 7.3x(Code H)	Mounting	: F-3
No load current	: 38.0 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level <sup>2</sup>	: 68.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 295 ft.lb	Approx. weight <sup>3</sup>	: 1182 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 29.9 sq.ft.lb		
Design	: B		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	94.6	93.4	95.0	94.0	95.0	94.4	95.4	95.0	Max. traction	: 2081 lb
	93.3	93.0	93.9	93.6	94.5	94.5	95.0	95.0		
	94.8	94.7	94.5	94.5	94.1	94.5	93.6	94.1		
	94.4		94.5		94.5		94.5			
Power Factor	0.51	0.47	0.77	0.72	0.84	0.83	0.87	0.86	Max. compression	: 3262 lb
	0.44	0.41	0.69	0.66	0.81	0.79	0.85	0.84		
	0.57	0.53	0.82	0.79	0.86	0.85	0.88	0.88		
	0.51		0.77		0.84		0.87			

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

Losses (%)	P1 (0,9;1,0)								
	P2 (0,5;1,0)	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	P3 (0,25;1,0)	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	P4 (0,9;0,5)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	P5 (0,5;0,5)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	P6 (0,5;0,25)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	NU-316 C3	6314 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	7000 h	12000 h
Lubricant amount	:	34 g	27 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 Revision 1 / 2		
Checked by				
Date	28/03/2024			

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## Three Phase Induction Motor - Squirrel Cage



Customer :

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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