

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 IE2 Three-Phase

Product code : 14420929  
Catalog # : E04512EP3Y280SMF3-W2

Frame	: 280S/M	Locked rotor time	: 46s (cold) 26s (hot)
Output	: 45 kW (60 HP)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: S1
Frequency	: 50 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 380/660 V	Altitude	: 1000 m.a.s.l.
Rated current	: 89.6/51.6 A	Protection degree	: IP55
L. R. Amperes	: 511/294 A	Cooling method	: IC411 - TEFC
LRC	: 5.7	Mounting	: B3T
No load current	: 33.0/19.0 A	Rotation <sup>1</sup>	: Both (CW and CCW)
Rated speed	: 986 rpm	Noise level <sup>2</sup>	: 65.0 dB(A)
Slip	: 1.40 %	Starting method	: Direct On Line
Rated torque	: 322 ft.lb	Approx. weight <sup>3</sup>	: 1314 lb
Locked rotor torque	: 180 %		
Breakdown torque	: 220 %		
Insulation class	: F		
Service factor	: 1.00		
Moment of inertia (J)	: 48.0 sq.ft.lb		
Design	: N		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	94.1	93.5	93.7	93.4	93.6	93.6	93.1	93.4	Max. traction	: 1334 lb
	93.0	92.2	93.1	92.4	93.5	93.6	93.5	93.6		
Power Factor	0.45	0.41	0.69	0.65	0.79	0.76	0.82	0.81	Max. compression	: 2649 lb
	0.38	0.39	0.62	0.63	0.74	0.75	0.79	0.80		

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

Losses (%)	P1 (0,9;1,0)	7.0	6.7	6.6	6.5
	P2 (0,5;1,0)	5.6	5.3	5.3	5.2
	P3 (0,25;1,0)	5.3	5.1	5.0	4.9
	P4 (0,9;0,5)	3.4	3.3	3.2	3.2
	P5 (0,5;0,5)	2.2	2.1	2.1	2.0
	P6 (0,5;0,25)	1.4	1.4	1.3	1.3
	P7 (0,25;0,25)	0.9	0.9	0.9	0.9

		Drive end	Non drive end
Bearing type	:	6316 C3	6316 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	18000 h	18000 h
Lubricant amount	:	34 g	34 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 IEC 60034-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date	26/03/2024			

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Revision

Customer :

Thermal protection

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

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