

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

13034181

Catalog # :

04512ET3Y280S/M-W22

Frame : 280S/M  
Output : 60 HP (45 kW)  
Poles : 6  
Frequency : 50 Hz  
Rated voltage : 380 V  
Rated current : 89.8 A  
L. R. Amperes : 611 A  
LRC : 6.8  
No load current : 38.0 A  
Rated speed : 990 rpm  
Slip : 1.00 %  
Rated torque : 318 ft.lb  
Locked rotor torque : 190 %  
Breakdown torque : 240 %  
Insulation class : F  
Service factor : 1.25  
Moment of inertia (J) : 66.5 sq.ft.lb  
Design : N

Locked rotor time : 39s (cold) 22s (hot)  
Temperature rise : 80 K  
Duty cycle : S1  
Ambient temperature : -20°C to +40°C  
Altitude : 1000 m.a.s.l.  
Protection degree : IP55  
Cooling method : IC411 - TEFC  
Mounting : B3L(E)  
Rotation<sup>1</sup> : Both (CW and CCW)  
Noise level<sup>2</sup> : 65.0 dB(A)  
Starting method : Direct On Line  
Approx. weight<sup>3</sup> : 1391 lb

Output	50%	75%	100%
Efficiency (%)	92.4 92.4	94.0 94.2	94.0 94.2
	93.0	94.5	94.5
Power Factor	0.66 0.60	0.77 0.72	0.81 0.78
	0.62	0.72	0.78

Foundation loads  
Max. traction : 1560 lb  
Max. compression : 2951 lb

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

Losses (%)	P1 (0,9;1,0)	6.0	5.8	5.5
	P2 (0,5;1,0)	4.2	4.1	3.9
	P3 (0,25;1,0)	3.5	3.4	3.2
	P4 (0,9;0,5)	3.9	3.8	3.6
	P5 (0,5;0,5)	2.3	2.2	2.1
	P6 (0,5;0,25)	1.8	1.8	1.7
	P7 (0,25;0,25)	1.2	1.1	1.1

	Drive end	Non drive end
Bearing type :	6316 C3	6316 C3
Sealing :	WSeal	WSeal
Lubrication interval :	16000 h	16000 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 NEMA MG-1.

Rev.	Changes Summary	Performed	Checked	Date
Performed by				Page 1 / 1
Checked by				
Date				
26/03/2024				Revision