

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Tru-Metric IE3 Three-Phase

Product code :

13034283

Catalog # :

03709ET3Y280S/M-W22

Frame : 280S/M
Output : 50 HP (37 kW)
Poles : 8
Frequency : 50 Hz
Rated voltage : 380 V
Rated current : 77.5 A
L. R. Amperes : 465 A
LRC : 6.0
No load current : 31.6 A
Rated speed : 740 rpm
Slip : 1.33 %
Rated torque : 355 ft.lb
Locked rotor torque : 160 %
Breakdown torque : 200 %
Insulation class : F
Service factor : 1.25
Moment of inertia (J) : 66.9 sq.ft.lb
Design : N

Locked rotor time : 91s (cold) 51s (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)
Rotation¹ : Both (CW and CCW)
Noise level² : 59.0 dB(A)
Starting method : Direct On Line
Approx. weight³ : 1484 lb

Output	50%	75%	100%
Efficiency (%)	89.0 89.0	91.0 91.0	93.0 93.0
	92.0	92.2	92.4
Power Factor	0.65 0.59	0.74 0.70	0.78 0.76
	0.59	0.71	0.77

Foundation loads
Max. traction : 1297 lb
Max. compression : 2780 lb

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

Losses (%)	P1 (0,9;1,0)	7.1	7.1	7.8
	P2 (0,5;1,0)	5.1	5.1	5.5
	P3 (0,25;1,0)	4.3	4.3	4.7
	P4 (0,9;0,5)	4.3	4.3	4.7
	P5 (0,5;0,5)	2.6	2.6	2.8
	P6 (0,5;0,25)	2.0	2.0	2.2
	P7 (0,25;0,25)	1.3	1.3	1.4

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type :	6316 C3	6316 C3
Sealing :	WSeal	WSeal
Lubrication interval :	20000 h	20000 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		