

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12821759

Catalog # : 00156ET3ER143TC-W22

Frame : 143TC
 Output : 1.5 HP (1.1 kW)
 Poles : 2
 Frequency : 60 Hz
 Rated voltage : 230/460 V
 Rated current : 3.92/1.96 A
 L. R. Amperes : 34.9/17.4 A
 LRC : 8.9x(Code L)
 No load current : 1.66/0.830 A
 Rated speed : 3480 rpm
 Slip : 3.33 %
 Rated torque : 2.26 ft.lb
 Locked rotor torque : 310 %
 Breakdown torque : 370 %
 Insulation class : F
 Service factor : 1.25
 Moment of inertia (J) : 0.0470 sq.ft.lb
 Design : B

Locked rotor time : 37s (cold) 21s (hot)
 Temperature rise : 80 K
 Duty cycle : Cont.(S1)
 Ambient temperature : -20°C to +40°C
 Altitude : 1000 m.a.s.l.
 Protection degree : IP55
 Cooling method : IC411 - TEFC
 Mounting : W-6
 Rotation¹ : Both (CW and CCW)
 Noise level² : 68.0 dB(A)
 Starting method : Direct On Line
 Approx. weight³ : 42.8 lb

Output	25%		50%		75%		100%	
Efficiency (%)	81.1	79.9	81.5	80.5	84.0	83.2	84.0	83.4
	78.4	77.9	79.3	78.9	82.8	82.7	83.4	83.4
	80.6	81.6	81.0	82.0	81.5	82.5	81.5	82.5
	81.7	82.0			82.5		82.5	
Power Factor	0.43	0.39	0.68	0.63	0.78	0.74	0.84	0.81
	0.35	0.33	0.58	0.55	0.71	0.68	0.78	0.76
	0.51	0.46	0.75	0.70	0.84	0.80	0.87	0.86
	0.43		0.67		0.78		0.84	

Foundation loads
 Max. traction : 52 lb
 Max. compression : 95 lb

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

Losses (%)	P1 (0,9;1,0)	17.7	17.7	17.7	17.7	17.7	17.7	17.7
	P2 (0,5;1,0)	13.3	13.3	13.3	13.3	13.3	13.3	13.3
	P3 (0,25;1,0)	12.1	12.1	12.1	12.1	12.1	12.1	12.1
	P4 (0,9;0,5)	9.8	9.8	9.8	9.8	9.8	9.8	9.8
	P5 (0,5;0,5)	5.6	5.6	5.6	5.6	5.6	5.6	5.6
	P6 (0,5;0,25)	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	P7 (0,25;0,25)	2.4	2.4	2.4	2.4	2.4	2.4	2.4

	<u>Drive end</u>	<u>Non drive end</u>
Bearing type :	6205 ZZ	6204 ZZ
Sealing :	V'Ring	V'Ring
Lubrication interval :	-	-
Lubricant amount :	-	-
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		