

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase

Product code : 12821973

Catalog # : 00236ET3ER145TC-W22

Frame	: 145TC	Locked rotor time	: 21s (cold) 12s (hot)
Output	: 2 HP (1.5 kW)	Temperature rise	: 80 K
Poles	: 2	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 5.38/2.69 A	Protection degree	: IP55
L. R. Amperes	: 47.9/23.9 A	Cooling method	: IC411 - TEFC
LRC	: 8.9x(Code L)	Mounting	: W-6
No load current	: 2.40/1.20 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 3500 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 2.78 %	Starting method	: Direct On Line
Rated torque	: 3.00 ft.lb	Approx. weight ³	: 51.2 lb
Locked rotor torque	: 270 %		
Breakdown torque	: 380 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 0.0605 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads					
Efficiency (%)	82.1	80.9	82.5	81.4	85.5	83.3	85.5	83.5	Max. traction	: 69 lb
	79.2	79.0	80.3	80.1	83.1	83.1	84.0	84.0		
	83.4	82.1	82.5	82.5	84.0	84.0	82.5	84.0		
	82.1		82.5		84.0		84.0			
Power Factor	0.40	0.37	0.64	0.61	0.76	0.73	0.82	0.81	Max. compression	: 120 lb
	0.35	0.31	0.60	0.52	0.69	0.65	0.78	0.75		
	0.46	0.42	0.71	0.68	0.82	0.79	0.87	0.85		
	0.39		0.65		0.77		0.83			

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

Losses (%)	P1 (0,9;1,0)	15.7	18.3	17.6	17.6	19.6	17.6	17.6
	P2 (0,5;1,0)	12.3	14.3	13.8	13.8	15.4	13.8	13.8
	P3 (0,25;1,0)	11.6	13.5	13.0	13.0	14.5	13.0	13.0
	P4 (0,9;0,5)	8.8	10.3	9.9	9.9	11.0	9.9	9.9
	P5 (0,5;0,5)	5.4	6.3	6.1	6.1	6.8	6.1	6.1
	P6 (0,5;0,25)	3.9	4.6	4.4	4.4	4.9	4.4	4.4
	P7 (0,25;0,25)	2.7	3.1	3.0	3.0	3.4	3.0	3.0

		<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				
Checked by				
Date	28/03/2024			