

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Cooling Tower NEMA Premium
Efficiency Three-Phase

Product code : 11976563

Catalog # : 02012ET3ECT286T-W22

Frame	: 284/6T	Locked rotor time	: 28s (cold) 16s (hot)
Output	: 20 HP (15 kW)	Temperature rise	: 80 K
Poles	: 6	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	: 48.4/24.2 A	Protection degree	: IP55
L. R. Amperes	: 300/150 A	Cooling method	: IC411 - TEFC
LRC	: 6.2x(Code G)	Mounting	: F-2
No load current	: 19.0/9.50 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1175 rpm	Noise level ²	: 59.0 dB(A)
Slip	: 2.08 %	Starting method	: Direct On Line
Rated torque	: 89.4 ft.lb	Approx. weight ³	: 445 lb
Locked rotor torque	: 229 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 9.16 sq.ft.lb		
Design	: B		

Output	25%		50%		75%		100%		Foundation loads	
Efficiency (%)	90.8	89.8	91.0	90.0	91.7	90.3	91.7	90.3	Max. traction	: 905 lb
	89.1	88.9	89.3	89.3	90.3	90.6	90.3	90.8		
	91.5	90.6	90.2	90.2	90.2	90.2	88.5	89.5		
	90.7		90.2		91.0		90.2			
Power Factor	0.44	0.41	0.70	0.66	0.80	0.79	0.85	0.84	Max. compression	: 1350 lb
	0.38	0.36	0.63	0.60	0.76	0.73	0.83	0.81		
	0.51	0.47	0.76	0.73	0.83	0.82	0.86	0.86		
	0.44		0.70		0.80		0.85			

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

Losses (%)	P1 (0,9;1,0)	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	P2 (0,5;1,0)	7.1	7.1	7.1	7.1	7.1	7.1	7.1
	P3 (0,25;1,0)	6.9	6.9	6.9	6.9	6.9	6.9	6.9
	P4 (0,9;0,5)	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	P5 (0,5;0,5)	2.8	2.8	2.8	2.8	2.8	2.8	2.8
	P6 (0,5;0,25)	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	P7 (0,25;0,25)	1.2	1.2	1.2	1.2	1.2	1.2	1.2

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	6311 2RS C3	6211 2RS C3
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.

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Customer :

Space heater information

Voltage: 110-127/200-240 V

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