

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

Product line : W22 - IE4 Super Premium Efficiency
(Multivoltage)

Frame	: 280S/M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B3T
Duty cycle	: S1	Rotation ¹	: Both
Ambient temperature	: -20 °C to +40 °C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l	Approx. weight ³	: 746 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.85 kgm ²
Design	: NE		

Output	75 kW	75 kW	75 kW	75 kW
Poles	4	4	4	4
Frequency	50 Hz	50 Hz	50 Hz	60 Hz
Rated voltage	380/660 V	400/690 V	415 V	460 V
Rated current	145/83.3 A	138/79.7 A	136 A	122 A
L. R. Amperes	1086/625 A	1100/638 A	1155 A	1101 A
LRC	7.5	8.0	8.5	9.0 x Code K
No load current	55.0/31.7 A	59.0/34.2 A	63.0 A	56.0 A
Rated speed	1488 rpm	1489 rpm	1490 rpm	1791 rpm
Slip	0.80 %	0.73 %	0.67 %	0.50 %
Rated torque	481 Nm	481 Nm	481 Nm	400 Nm
Locked rotor torque	250 %	280 %	310 %	320 %
Pull up torque	210 %	235 %	260 %	270 %
Breakdown torque	280 %	300 %	350 %	370 %
Service factor	1.00	1.00	1.00	1.00
Noise level ²	69.0 dB(A)	69.0 dB(A)	69.0 dB(A)	73.0 dB(A)
Locked rotor time (hot)	32 s	29 s	27 s	33 s
Locked rotor time (cold)	58 s	52 s	49 s	59 s
Efficiency (%)	50%	95.0	95.0	94.8
	75%	95.8	95.8	95.7
	100%	96.0	96.0	96.2
Power Factor	50%	0.70	0.67	0.64
	75%	0.79	0.77	0.75
	100%	0.82	0.82	0.80

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

Losses (%)	P1(0,9;1,0)	4.0	4.0	4.0	3.8
	P2(0,5;1,0)	3.0	3.0	3.0	2.9
	P3(0,25;1,0)	2.7	2.7	2.7	2.6
	P4(0,9;0,5)	2.2	2.2	2.2	2.1
	P5(0,5;0,5)	1.4	1.4	1.4	1.3
	P6(0,5;0,25)	1.0	1.0	1.0	0.9
	P7(0,25;0,25)	0.6	0.6	0.6	0.6

	Drive end	Non drive end	Foundation loads
Bearing type	6316-C3	6316-C3	Max. traction : 11076 N
Lubrication interval	13000 h	13000 h	Max. compression : 18391 N
Lubricant amount	34 g	34 g	Load type : -
Lubricant type	MOBIL POLYREX EM		Load torque : -
			Load inertia (J=GD ² /4) : -

Notes
See notes on page 2.

Rev.	Changes Summary	Rev.	Checked	Date
Performed by	ghodgetts	1753954420		
Checked by	AUTOMATICO	Page	Rev.	
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Thermal protection				
ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155°C

Space heater information
Voltage: 110-127/200-240 V
Output: 117-156/97-139 W

Notes

Standards	Specification	: IEC 60034-1	Vibration	: IEC 60034-14
	Test	: IEC 60034-2	Tolerance	: IEC 60034-1
	Noise	: IEC 60034-9		

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 be changed after manufacturing process.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

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