

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	: B5T
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	: 710 kg
Protection degree	: IP55	Moment of inertia (J)	: 1.51 kgm ²
Design	: NE		

Output	75 kW	75 kW	75 kW	75 kW
Poles	2	2	2	2
Frequency	50 Hz	50 Hz	50 Hz	60 Hz
Rated voltage	380/660 V	400/690 V	415 V	460 V
Rated current	135/78.0 A	132/76.3 A	128 A	115 A
L. R. Amperes	1029/593 A	1093/634 A	1143 A	1037 A
LRC	7.6	8.3	8.9	9.0 x Code K
No load current	39.0/22.5 A	42.0/24.3 A	47.0 A	40.0 A
Rated speed	2979 rpm	2981 rpm	2982 rpm	3584 rpm
Slip	0.70 %	0.63 %	0.60 %	0.44 %
Rated torque	240 Nm	240 Nm	240 Nm	200 Nm
Locked rotor torque	230 %	250 %	260 %	300 %
Pull up torque	195 %	210 %	220 %	255 %
Breakdown torque	290 %	320 %	350 %	370 %
Service factor	1.00	1.00	1.00	1.00
Noise level ²	77.0 dB(A)	77.0 dB(A)	77.0 dB(A)	81.0 dB(A)
Locked rotor time (hot)	39 s	36 s	33 s	46 s
Locked rotor time (cold)	70 s	65 s	59 s	83 s
Efficiency (%)	50%	93.8	93.6	93.4
	75%	94.8	94.8	94.8
	100%	95.6	95.6	95.0
Power Factor	50%	0.78	0.75	0.73
	75%	0.85	0.83	0.82
	100%	0.88	0.86	0.85

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

Losses (%)	P1(0,9;1,0)	4.3	4.3	4.3	4.9
	P2(0,5;1,0)	2.9	2.9	2.9	3.3
	P3(0,25;1,0)	2.4	2.4	2.4	2.8
	P4(0,9;0,5)	2.7	2.7	2.7	3.1
	P5(0,5;0,5)	1.4	1.4	1.4	1.6
	P6(0,5;0,25)	1.0	1.0	1.0	1.2
	P7(0,25;0,25)	0.5	0.5	0.5	0.6

Bearing type	Drive end 6314-C3	Non drive end 6314-C3	Foundation loads	
Lubrication interval	5000 h	5000 h	Max. traction	: 3877 N
Lubricant amount	27 g	27 g	Max. compression	: 10846 N
Lubricant type	MOBIL POLYREX EM		Load type	: -
			Load torque	: -
			Load inertia (J=GD ² /4)	: -

Notes
See notes on page 2.

Rev.	Changes Summary		Rev.	Checked	Date
Performed by	ghodgetts				1753558568
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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.

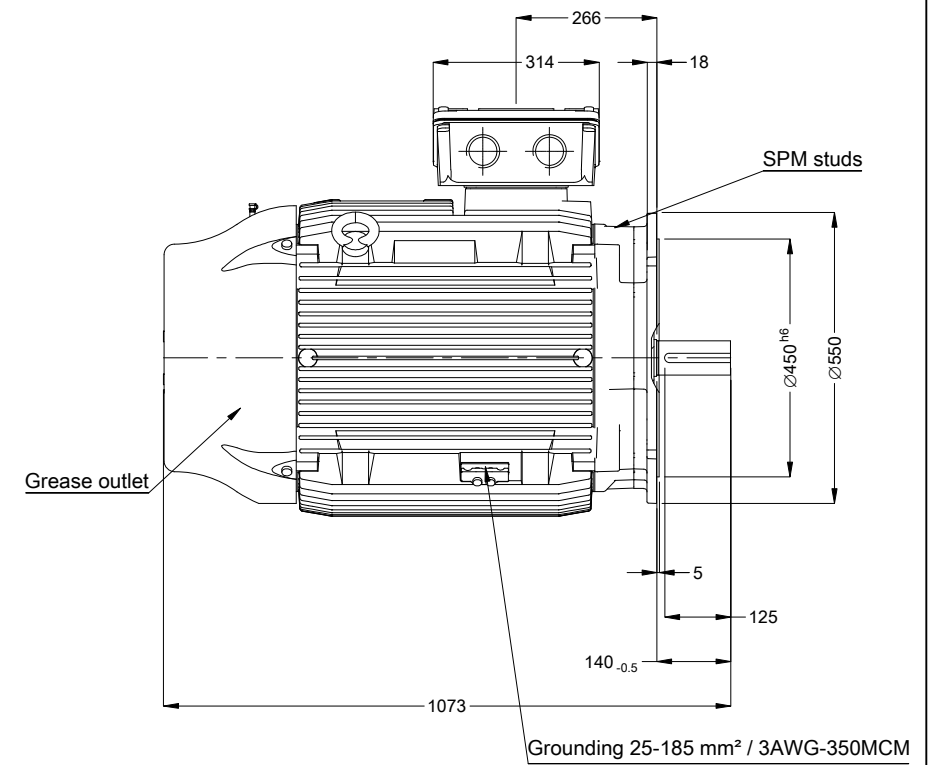
(1) Looking the motor from the shaft end.

(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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