

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : QUANTUM CONTROLS

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

Frame	: 315S/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	: 938 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.34 kgm ²
Design	: NE		

Output	110 kW	110 kW	110 kW	110 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	198/114 A	190/110 A	185 A	168 A
L. R. Amperes	1345/775 A	1521/882 A	1538 A	1430 A
LRC	6.8	8.0	8.3	8.5 x Code J
No load current	58.0/33.4 A	60.0/34.8 A	63.0 A	56.0 A
Rated speed	2977 rpm	2980 rpm	2982 rpm	3582 rpm
Slip	0.77 %	0.67 %	0.60 %	0.50 %
Rated torque	353 Nm	353 Nm	352 Nm	293 Nm
Locked rotor torque	200 %	210 %	230 %	240 %
Pull up torque	170 %	175 %	195 %	200 %
Breakdown torque	260 %	290 %	310 %	330 %
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)	50 s	46 s	46 s	50 s
Locked rotor time (cold)	90 s	83 s	83 s	90 s
Efficiency (%)	50%	94.0	94.0	94.5
	75%	95.5	95.5	95.4
	100%	96.0	96.0	95.4
Power Factor	50%	0.79	0.76	0.74
	75%	0.85	0.84	0.83
	100%	0.88	0.87	0.86

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	4.6
	P2(0,5;1,0)	2.8	2.8	2.8	3.3
	P3(0,25;1,0)	2.4	2.4	2.4	2.8
	P4(0,9;0,5)	2.4	2.4	2.4	2.8
	P5(0,5;0,5)	1.3	1.3	1.3	1.5
	P6(0,5;0,25)	0.9	0.9	0.9	1.1
	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	: 4002 N
Lubricant amount	27 g	27 g	Max. compression	: 13204 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				
Checked by	AUTOMATICO				
Date	10/09/2025				

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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.

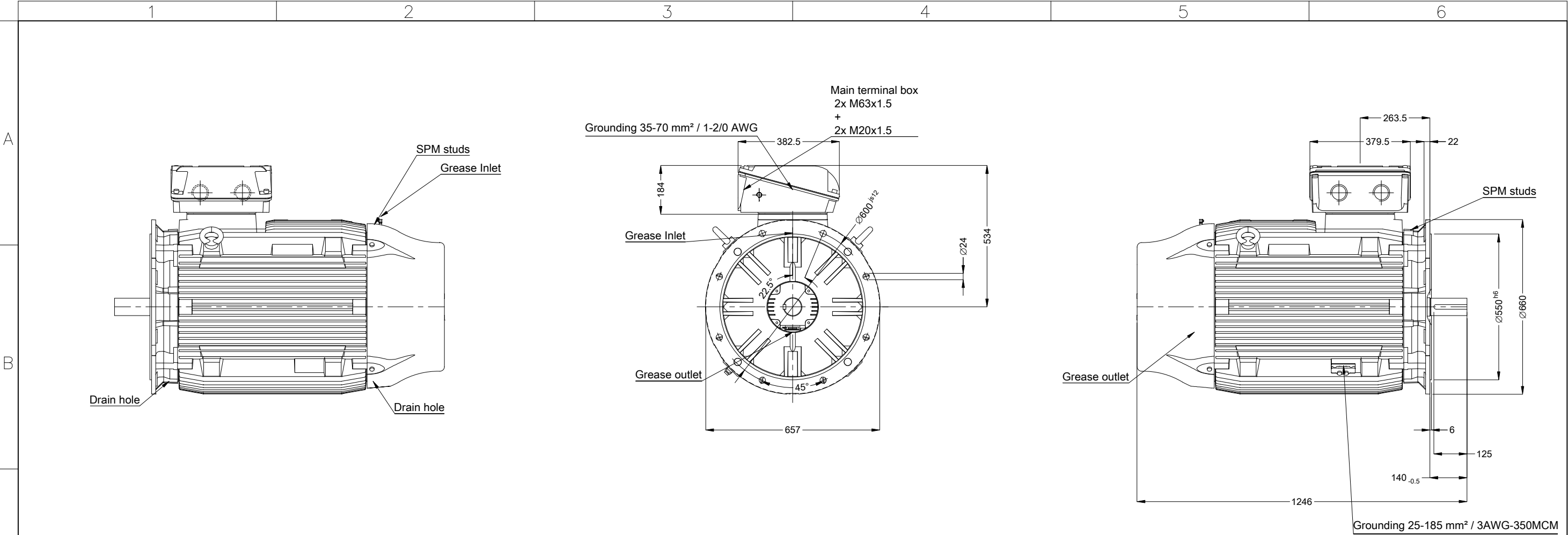
(1) Looking the motor from the shaft end.

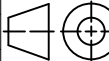
(2) Measured at 1m and with tolerance of +3dB(A).

(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.

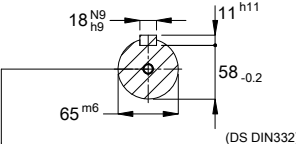
Rev.	Changes Summary		Rev.	Checked	Date
Performed by	ghodgetts			1750825074	
Checked by	AUTOMATICO			Page	Rev.
Date	10/09/2025			2 / 2	0



D															110 kW 02 Poles 50 Hz		A					
					QUANTUM CONTROLS																	
									Scale				1 : 15									
									PIRWBUSER						00							
					ECM		LOC		SUMMARY OF MODIFICATIONS				EXECUTED		CHECKED		RELEASED		DATE		VER	
					EXECUTED		PIRWBUSER		 THREE PH. MOTOR W22 IE4 FRAME 315S/M IP55 TEFC				PREVIEW WDD 00									
					REL. DATE				WEG		REDDITCH				[Operational]		SHEET		1 / 1			

Space heaters 110-127 V / 200-240 V
DE grounding brush holder kit
SPM studs
Sealing - Viton oil seal ring
NDE endshield with electrically insulated bearing hub
Color RAL 5009
Painting plan 222P
Mounting B5T

DE Shaft End



DM20 WEG WPR-7339

Vibration sensor studs detail

