

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : ASTRAPROM D.O.O.

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

Frame	: 280S/M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B35T
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	: 790 kg
Protection degree	: IP55	Moment of inertia (J)	: 2.85 kgm ²
Design	: NE		

	90 kW	90 kW	90 kW	90 kW
Output	90 kW	90 kW	90 kW	90 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	169/97.5 A	165/95.6 A	161 A	145 A
L. R. Amperes	1220/702 A	1319/765 A	1367 A	1290 A
LRC	7.2	8.0	8.5	8.9 x Code K
No load current	62.0/35.7 A	68.0/39.4 A	72.0 A	65.0 A
Rated speed	1487 rpm	1489 rpm	1490 rpm	1790 rpm
Slip	0.87 %	0.73 %	0.67 %	0.56 %
Rated torque	578 Nm	577 Nm	577 Nm	480 Nm
Locked rotor torque	240 %	270 %	290 %	310 %
Pull up torque	200 %	230 %	245 %	260 %
Breakdown torque	260 %	290 %	310 %	320 %
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)	27 s	25 s	23 s	29 s
Locked rotor time (cold)	49 s	45 s	41 s	52 s
Efficiency (%)	50%	95.5	95.5	95.0
	75%	95.9	96.0	96.0
	100%	96.1	96.1	96.1
Power Factor	50%	0.72	0.69	0.66
	75%	0.80	0.78	0.76
	100%	0.84	0.82	0.81

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

Losses (%)	P1(0,9;1,0)		P2(0,5;1,0)		P3(0,25;1,0)		P4(0,9;0,5)		P5(0,5;0,5)		P6(0,5;0,25)		P7(0,25;0,25)	
	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end	Drive end	Non drive end
	3.9	3.9	3.1	3.1	2.8	2.8	2.1	2.1	1.3	1.3	0.9	0.9	0.6	0.6

Bearing type	Drive end 6316-C3	Non drive end 6316-C3	Foundation loads	
Lubrication interval	13000 h	13000 h	Max. traction	: 11785 N
Lubricant amount	34 g	34 g	Max. compression	: 19534 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	pmijailovic		1765537760		
Checked by	AUTOMATICO		Page	Rev.	
Date	14/10/2025		1 / 2	2	

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : ASTRAPROM D.O.O.

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

Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermistor - 2 wires	1 x Phase	155°C

Notes

Standards

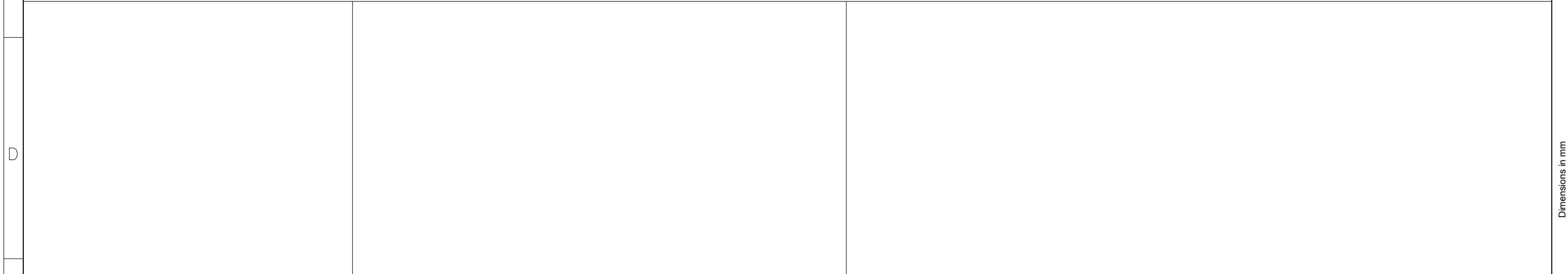
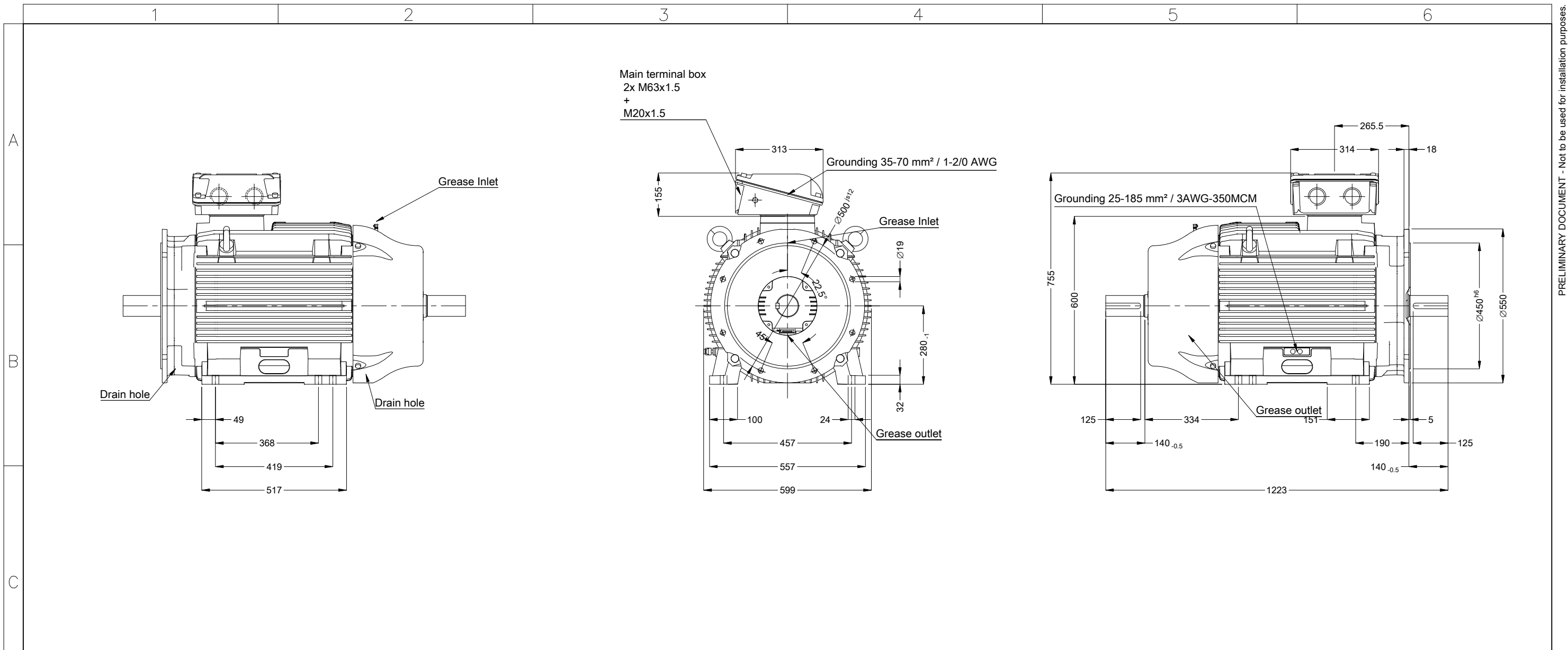
Specification	: IEC 60034-1	Vibration	: IEC 60034-14
Test	: IEC 60034-2	Tolerance	: IEC 60034-1
Noise	: IEC 60034-9		

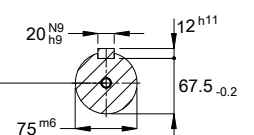
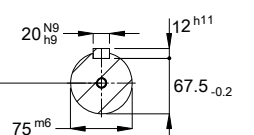
This revision replaces and cancel the previous one, which must be eliminated.

- (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	pmijailovic	1765537760		
Checked by	AUTOMATICO	Page	Rev.	
Date	14/10/2025	2 / 2	2	



Aluminum fan		DE Shaft End		NDE Shaft End		90 kW 04 Poles 50 Hz		ASTRAPROM D.O.O.		A	
Color RAL 5009		 DM20 WEG WPR-7339 (DS DIN332)		 DM20 WEG WPR-7339 (DS DIN332)				Scale 1 : 14			
Painting plan 203A						Saved when return to easyO3 async		EXECUTED		CRISLAINE BZAGUETO BZAGUETO 18.10.2025 02	
Mounting B35T						ECM LOC		CHECKED		BZAGUETO	
						SUMMARY OF MODIFICATIONS		RELEASED		DATE VER	
						EXECUTED CRISLAINE		THREE PH. MOTOR W22 IE4		1766750765	
						CHECKED BZAGUETO		FRAME 280S/M IP55 TEFC		WDD 02	
						RELEASED BZAGUETO		REL. DATE 18.10.2025		SHEET 1 / 1	
						WID JARAGUA DO SUL		[Vendas e Marketing]		