

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 14104021

Frame	: 444/5T	Locked rotor time	: 27s (cold) 15s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 8	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 575 V	Altitude	: 1000 m.a.s.l.
Rated current	: 102 A	Protection degree	: IP55
L. R. Amperes	: 610 A	Cooling method	: IC411 - TEFC
LRC	: 6.0x(Code G)	Mounting	: F-1
No load current	: 44.8 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 890 rpm	Noise level ²	: 63.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 81.5 kgfm	Approx. weight ³	: 803 kg
Locked rotor torque	: 190 %		
Breakdown torque	: 220 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 3.68 kgm ²		
Design	: B		

Output	50%	75%	100%	Foundation loads	
Efficiency (%)	93.6	94.1	94.1	Max. traction	: 1168 kgf
Power Factor	0.63	0.74	0.79	Max. compression	: 1970 kgf

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

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)
6.1	4.9	4.4	3.0	2.0	1.4	0.9

		<u>Drive end</u>	<u>Non drive end</u>
Bearing type	:	NU-319 C3	6316 C3
Sealing	:	WSeal	WSeal
Lubrication interval	:	15000 h	20000 h
Lubricant amount	:	45 g	34 g
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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 2 Revision		
Checked by				
Date	27/10/2024			

LOAD PERFORMANCE CURVE

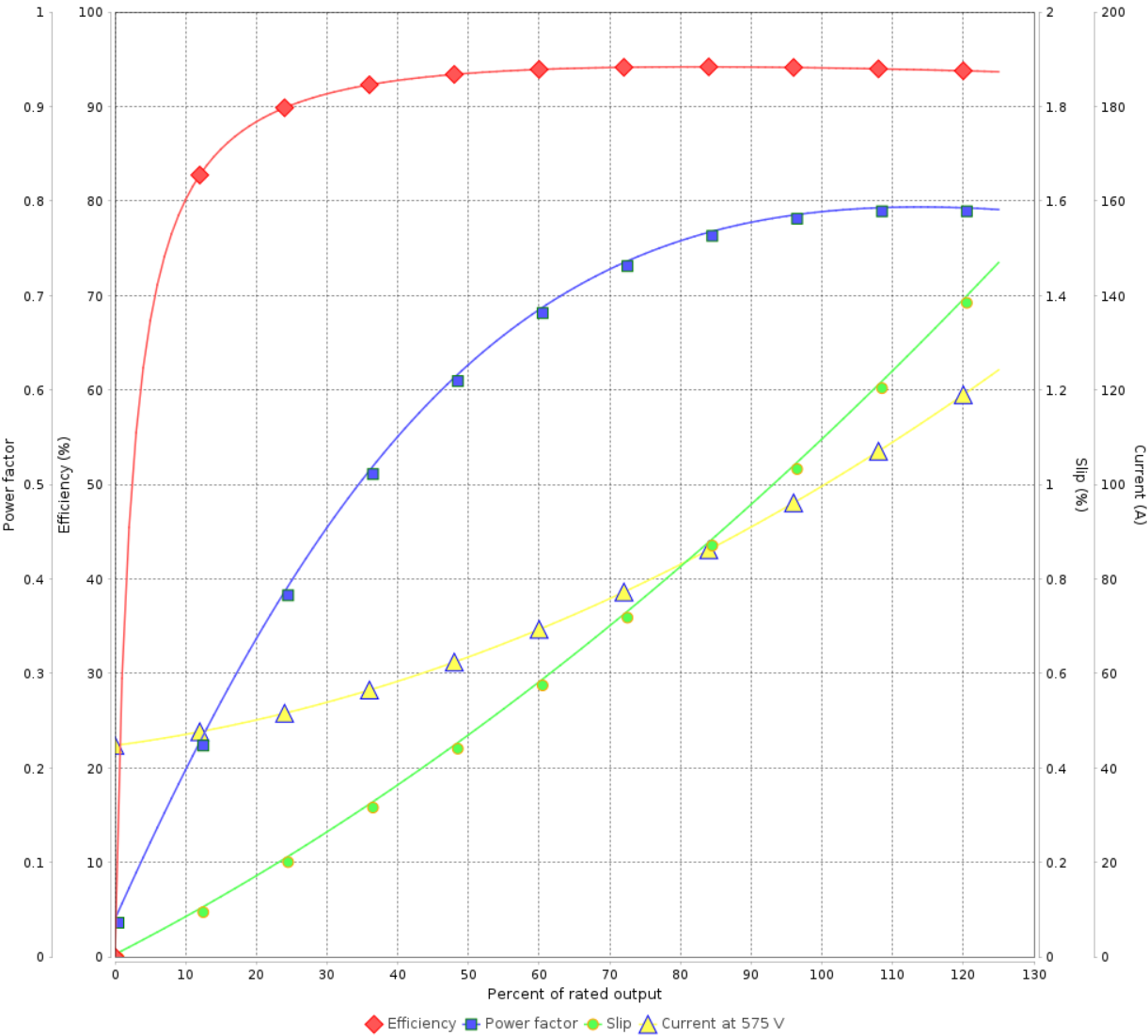
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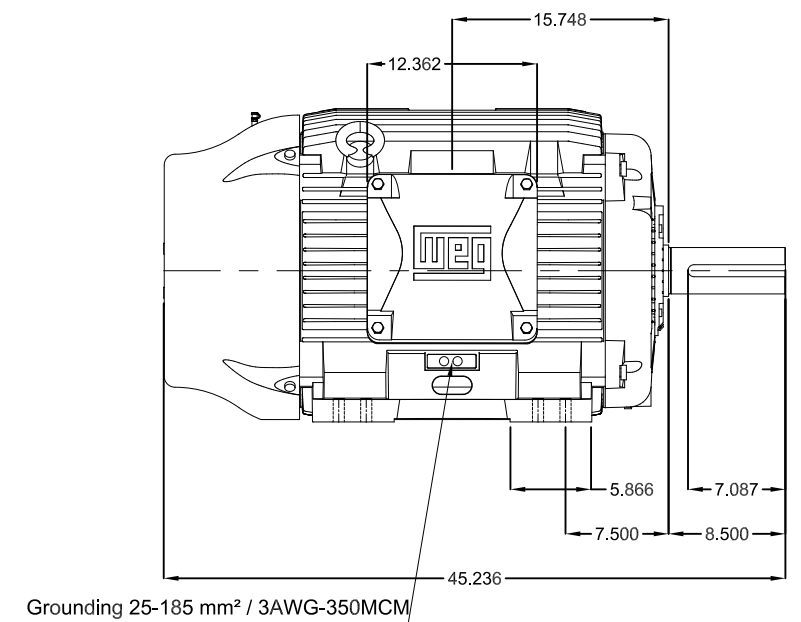
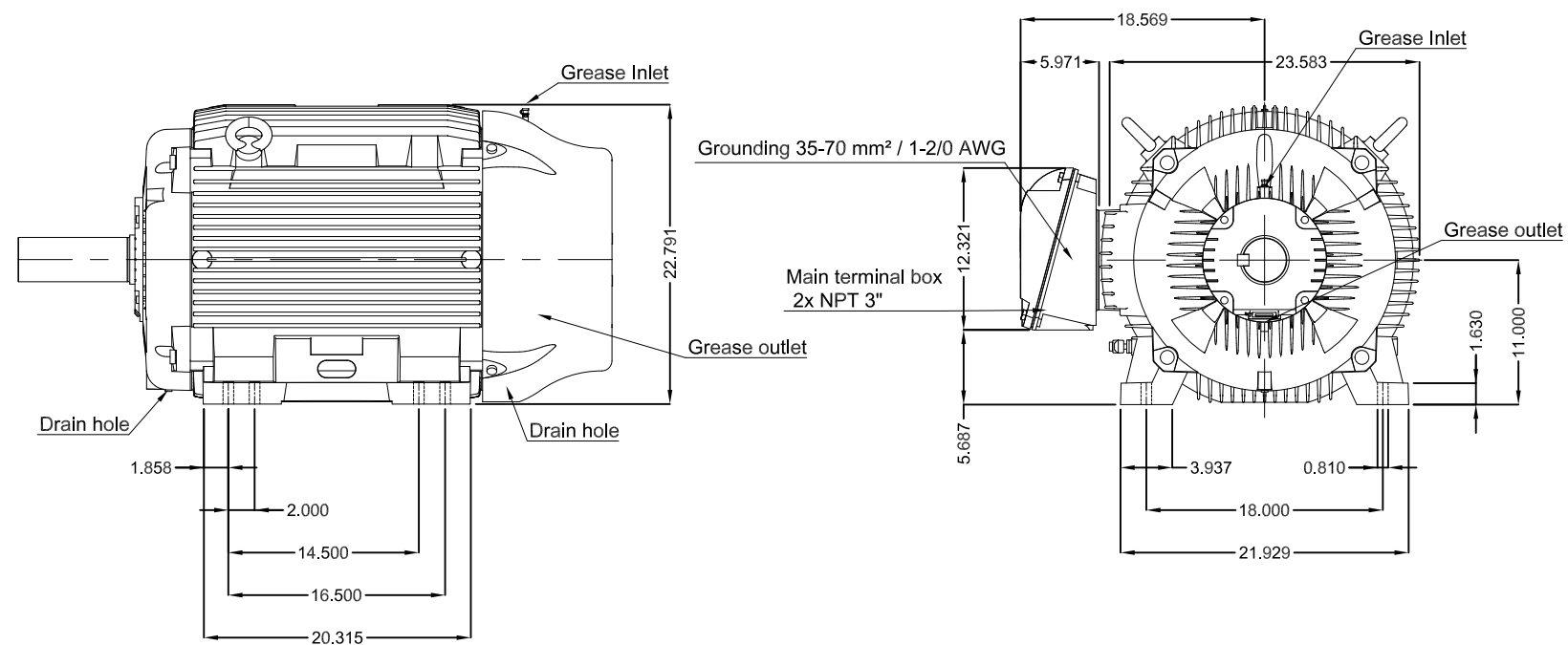
LOAD PERFORMANCE CURVE



Performance : 575 V 60 Hz 8P

Rated current	: 102 A	Moment of inertia (J)	: 3.68 kgm ²
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 81.5 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.25
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 890 rpm	Design	: B

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100 HP 08 Poles 60 Hz										A	
					HYBRISUSER						
ECM		LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER	
EXECUTED	HYBRISUSER		THREE PH. MOTOR W22 NEMA PREM. EFF. FRAME 444/5T IP55 TEFC				PREVIEW WDD 00				
CHECKED											
RELEASED											
REL. DATE											
					SHEET		/				