

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase Product code : 12828820
Catalog # : HT100504NPBBW22K

Frame	: 404/5T	Locked rotor time	: 23s (cold) 13s (hot)
Output	: 100 HP (75 kW)	Temperature rise	: 80 K
Poles	: 4	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	: 90.4 A	Protection degree	: IP55
L. R. Amperes	: 660 A	Cooling method	: IC411 - TEFC
LRC	: 7.3x(Code H)	Mounting	: F-1
No load current	: 30.4 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1780 rpm	Noise level ²	: 68.0 dB(A)
Slip	: 1.11 %	Starting method	: Direct On Line
Rated torque	: 295 ft.lb	Approx. weight ³	: 1140 lb
Locked rotor torque	: 240 %		
Breakdown torque	: 260 %		
Insulation class	: F		
Service factor	: 1.25		
Moment of inertia (J)	: 29.9 sq.ft.lb		
Design	: B		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	0.000	95.0	95.0	95.4	Max. traction	: 1721 lb
Power Factor	0.00	0.77	0.84	0.87	Max. compression	: 2884 lb

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)
4.7	3.8	3.7	2.2	1.5	0.9	0.6

	Drive end	Non drive end
Bearing type	: 6316 C3	: 6314 C3
Sealing	: WSeal	: WSeal
Lubrication interval	: 10000 h	: 12000 h
Lubricant amount	: 34 g	: 27 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.

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Revision

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Customer :

Thermal protection

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

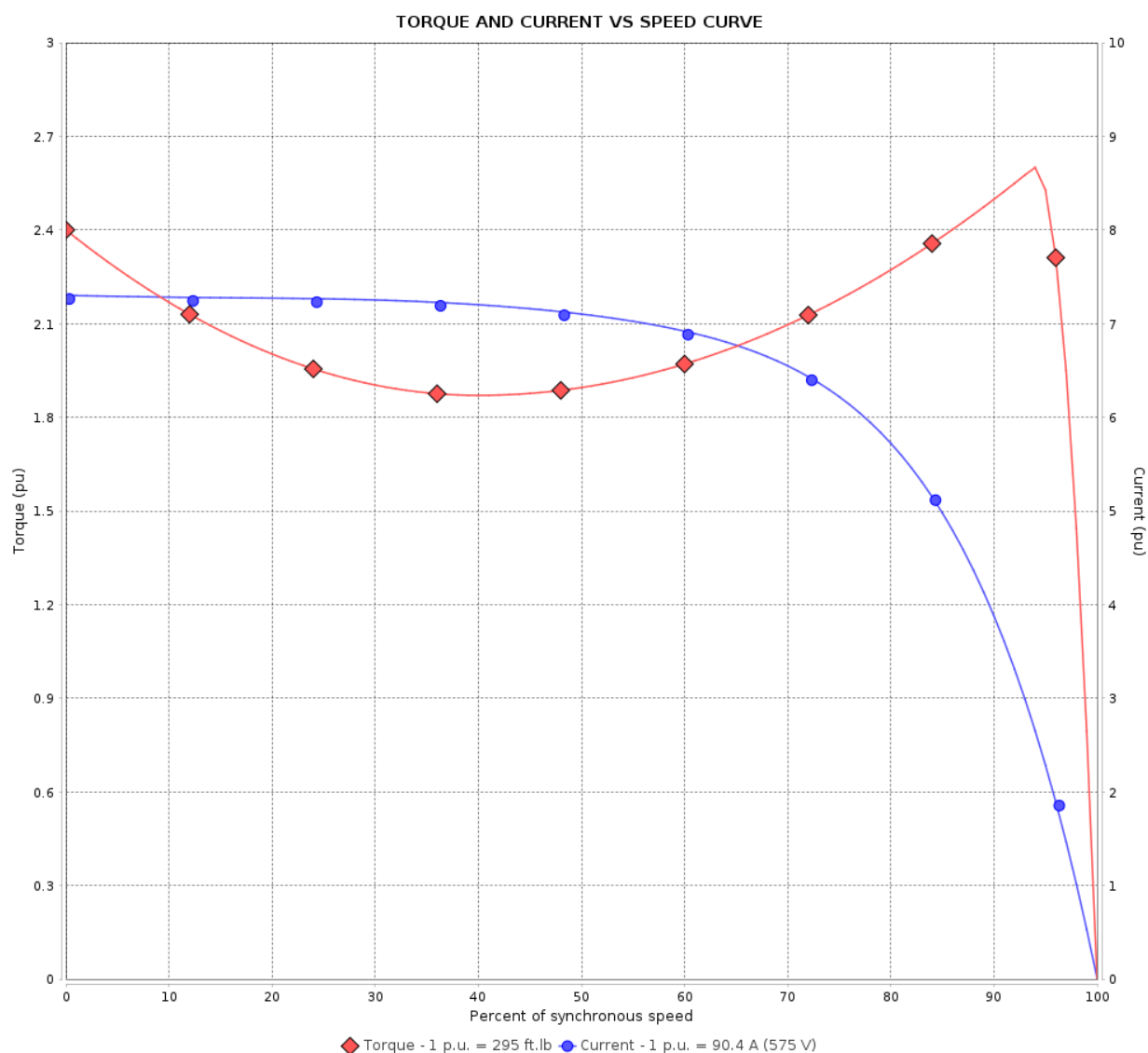


Customer :

Product line : W22 NEMA Premium Efficiency
Three-Phase

Product code : 12828820

Catalog # : HT100504NPBBW22K



Performance : 575 V 60 Hz 4P

Rated current	: 90.4 A	Moment of inertia (J)	: 29.9 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 295 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.25
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

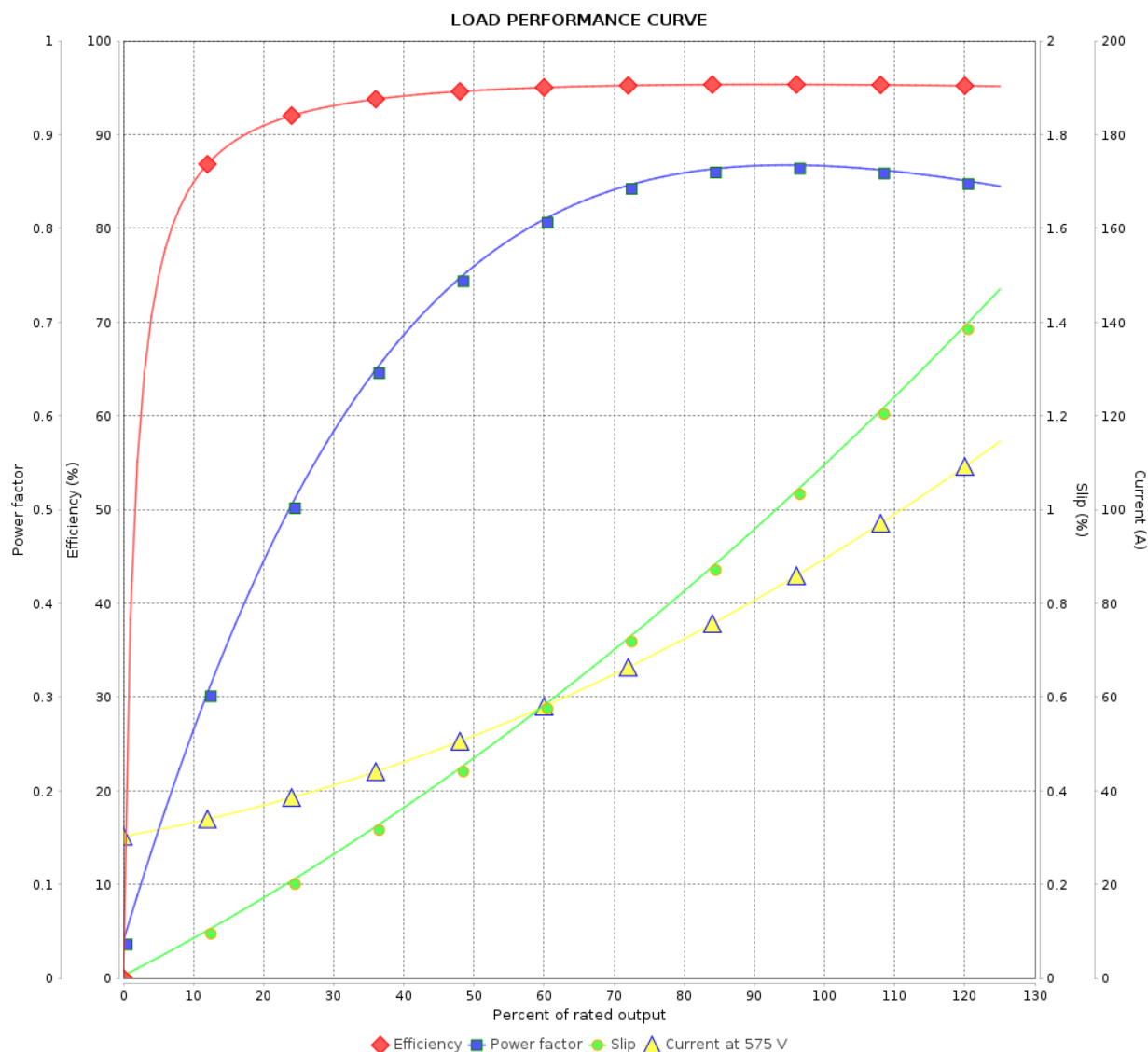


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THERMAL LIMIT CURVE

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Heating constant

Cooling constant

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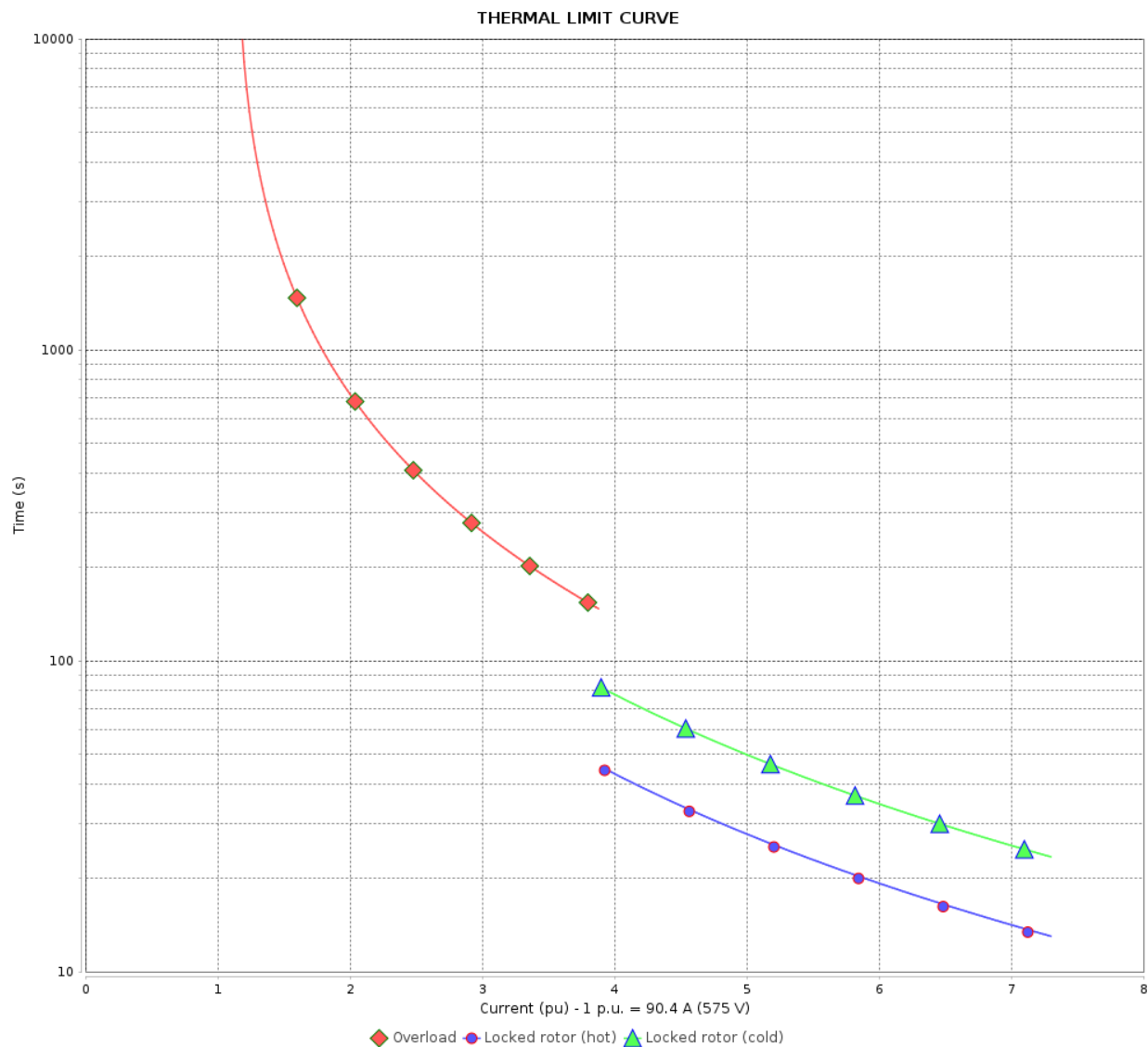
Subject to change without notice

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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VFD OPERATION CURVE

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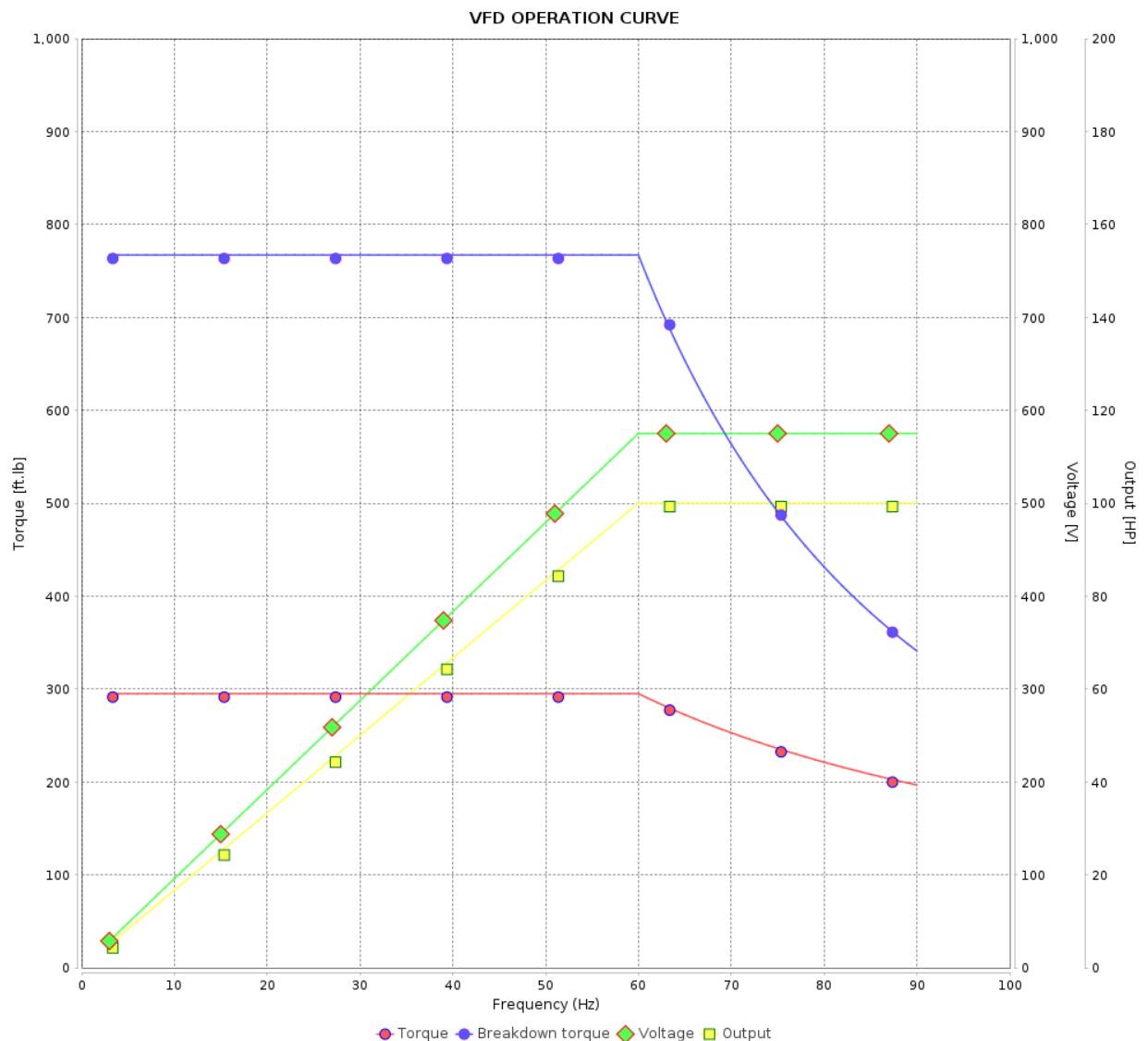


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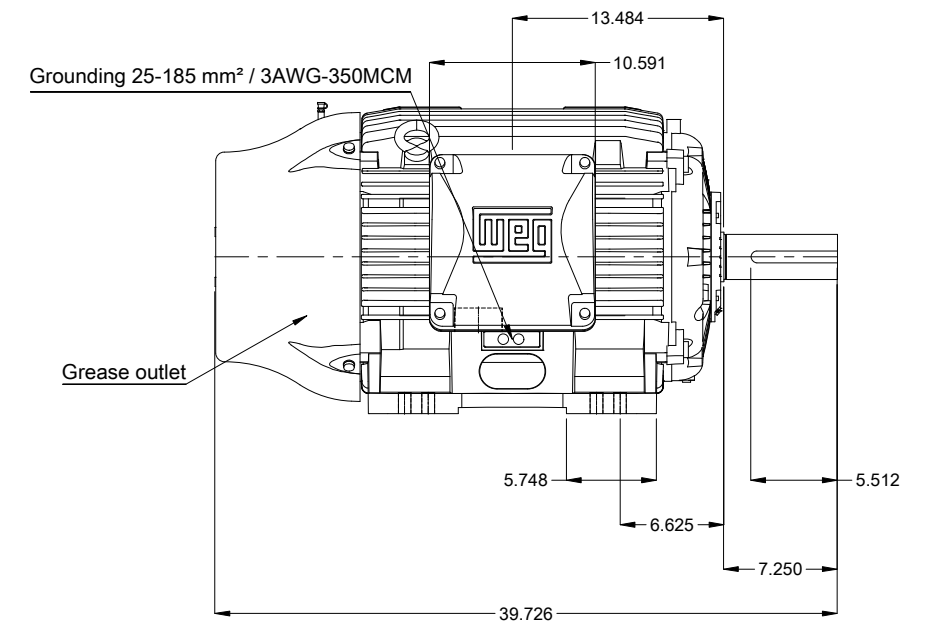
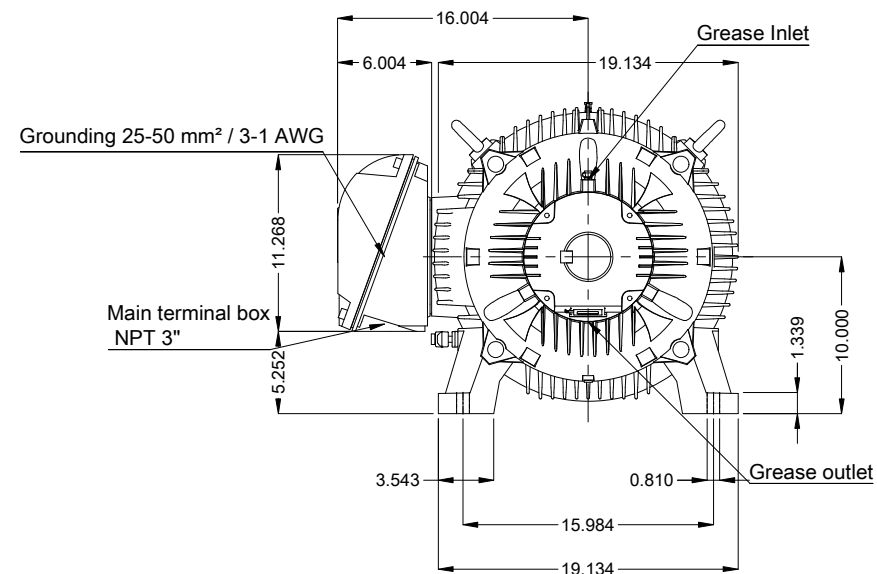
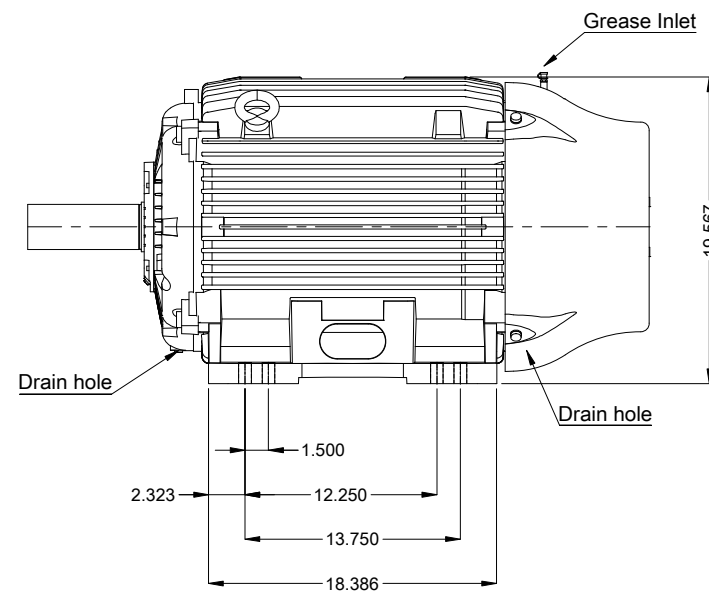


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100 HP 04 Poles 60 Hz										A
						Scale 1 : 12				
						HYBRISUSER				00
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	 THREE PH. MOTOR W22 NEMA PREM. EFF. FRAME 404/5T IP55 TEFC				PREVIEW WDD 00				
CHECKED										
RELEASED										
REL. DATE										
						SHEET		1 / 1		