

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :																			
Product line	: W22 Brake Motor NEMA Premium Efficiency Three-Phase																		
Product code :	13500906																		
Catalog # :	00318ET3EBM182T-W22																		
Frame : 182/4T Output : 3 HP (2.2 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 230/460 V Rated current : 7.82/3.91 A L. R. Amperes : 63.3/31.7 A LRC : 8.1x(Code K) No load current : 4.00/2.00 A Rated speed : 1760 rpm Slip : 2.22 % Rated torque : 1.24 kgfm Locked rotor torque : 229 % Breakdown torque : 340 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 0.0143 kgm <sup>2</sup> Design : B	Locked rotor time : 41s (cold) 23s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation <sup>1</sup> : Both (CW and CCW) Noise level <sup>2</sup> : 56.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 48.8 kg																		
Output	25%    50%    75%    100%																		
Efficiency (%)	86.4    87.5    88.5    89.5																		
Power Factor	0.36    0.61    0.73    0.79																		
Foundation loads																			
Max. traction : 63 kgf																			
Max. compression : 112 kgf																			
	<table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Drive end</u></td> <td style="text-align: center;"><u>Non drive end</u></td> </tr> <tr> <td>Bearing type :</td> <td style="text-align: center;">6207 ZZ</td> <td style="text-align: center;">6206 ZZ</td> </tr> <tr> <td>Sealing :</td> <td style="text-align: center;">V'Ring</td> <td style="text-align: center;">Lip Seal</td> </tr> <tr> <td>Lubrication interval :</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Lubricant amount :</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Lubricant type :</td> <td colspan="2" style="text-align: center;">Mobil Polyrex EM</td> </tr> </table>		<u>Drive end</u>	<u>Non drive end</u>	Bearing type :	6207 ZZ	6206 ZZ	Sealing :	V'Ring	Lip Seal	Lubrication interval :	-	-	Lubricant amount :	-	-	Lubricant type :	Mobil Polyrex EM	
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Notes USABLE @208V 8.65A SF 1.15 SFA 9.95A																			
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															
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## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

### Brake information

Voltage: 220-240 V  
Brake Torque: 6.12 kgfm

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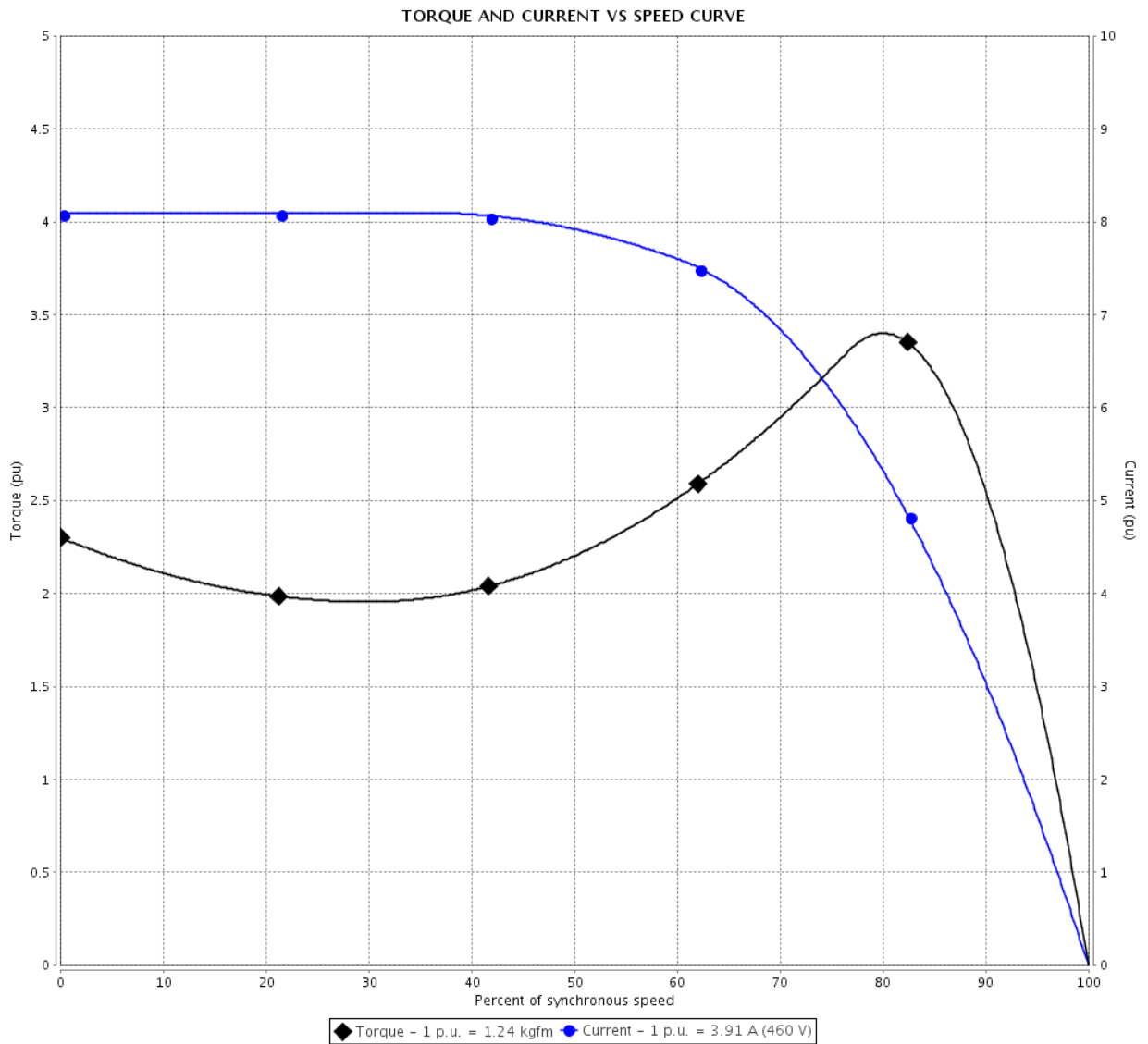
# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 Brake Motor NEMA Premium Efficiency Three-Phase      Product code : 13500906  
 Catalog # : 00318ET3EBM182T-W22



Performance : 230/460 V 60 Hz 4P

Rated current	: 7.82/3.91 A	Moment of inertia (J)	: 0.0143 kgm <sup>2</sup>
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 1.24 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

Locked rotor time : 41s (cold) 23s (hot)

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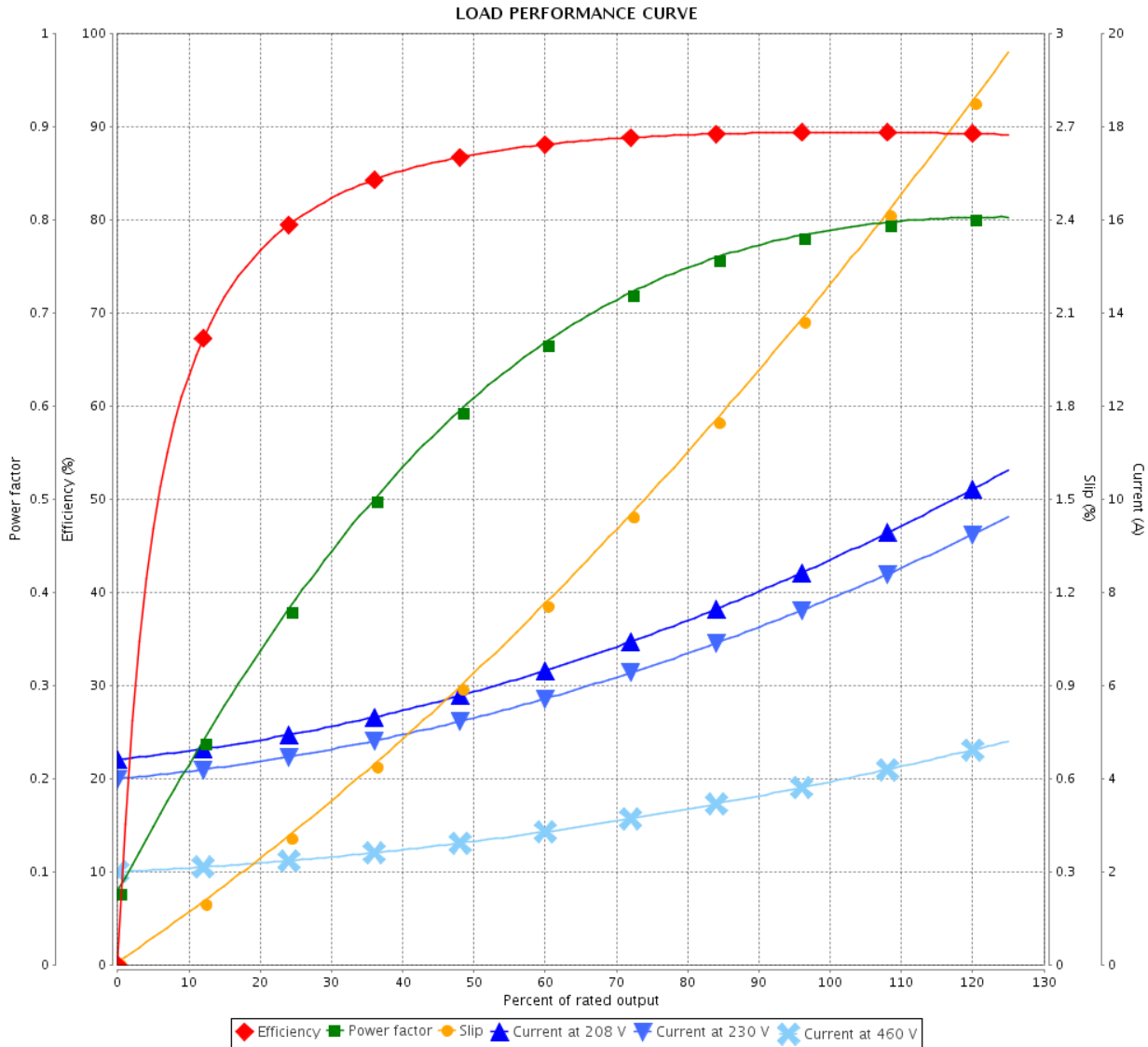
# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Brake Motor NEMA Premium Efficiency Three-Phase      Product code : 13500906  
 Catalog # : 00318ET3EBM182T-W22



Performance : 230/460 V 60 Hz 4P

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Rated torque	: 1.24 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.25
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm	Design	: B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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Heating constant

Cooling constant

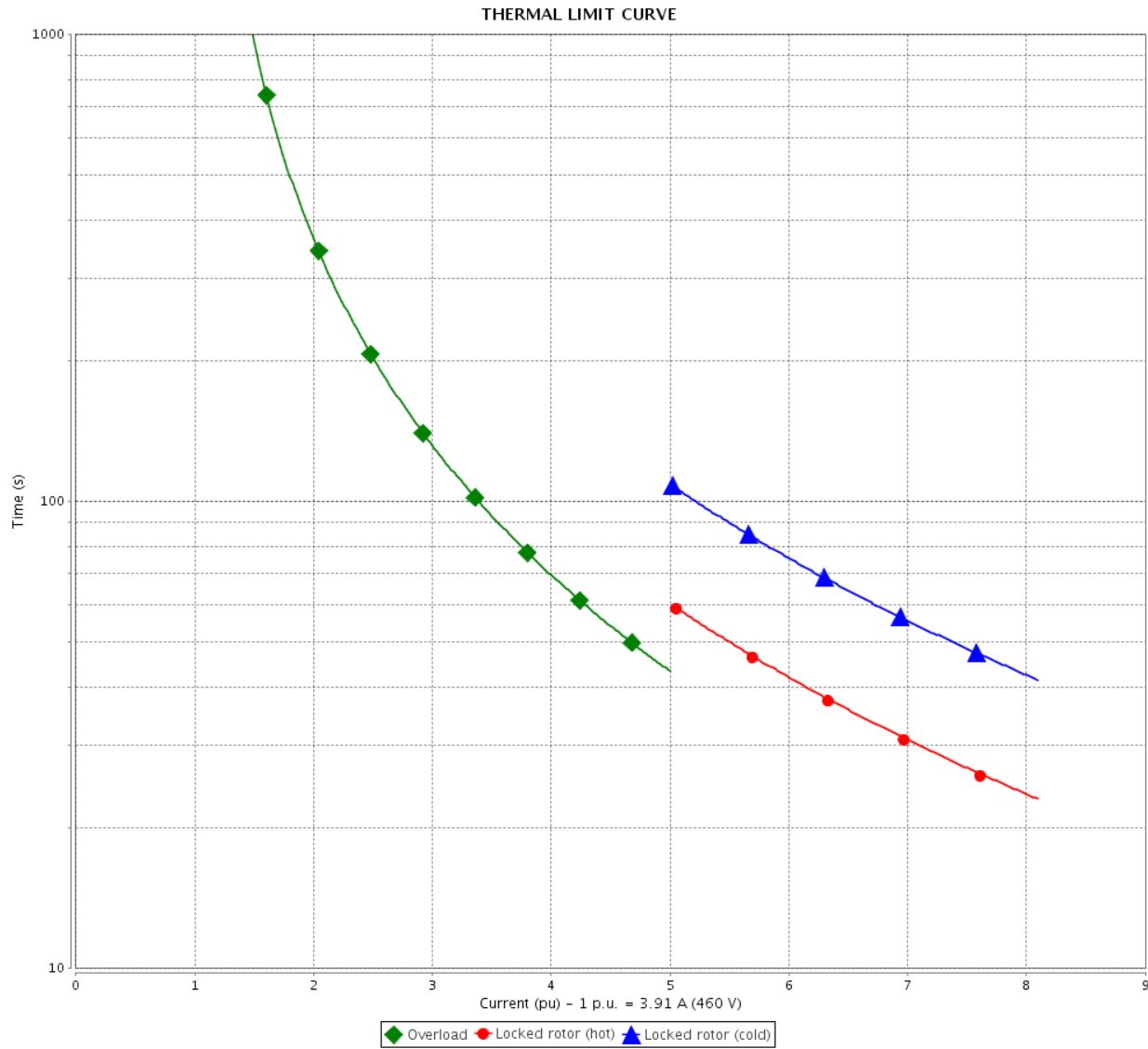
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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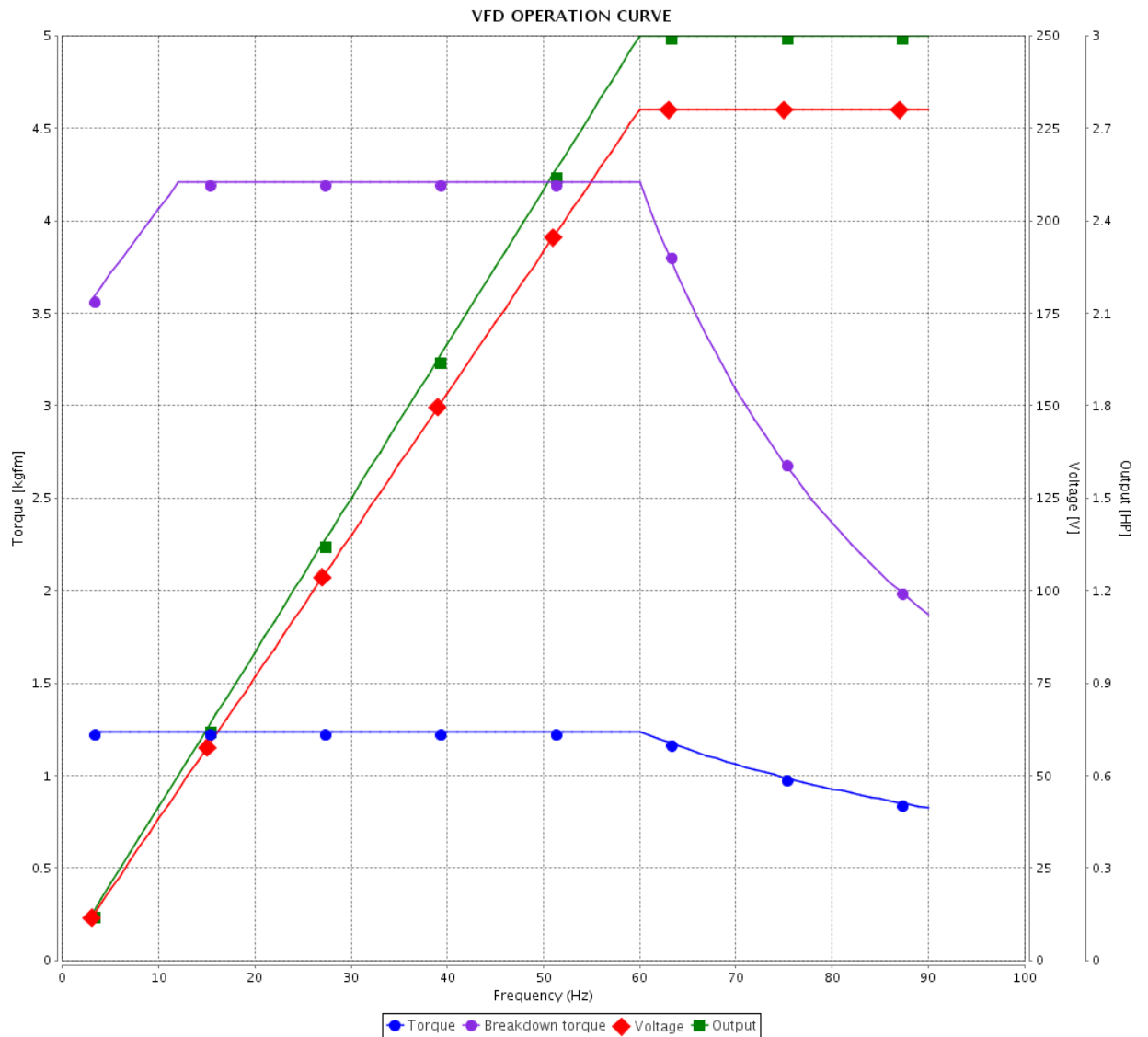
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W22 Brake Motor NEMA Premium Efficiency Three-Phase      Product code : 13500906  
 Catalog # : 00318ET3EBM182T-W22



Performance : 230/460 V 60 Hz 4P

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 Rated torque : 1.24 kgfm  
 Locked rotor torque : 229 %  
 Breakdown torque : 340 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0143 kgm<sup>2</sup>  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

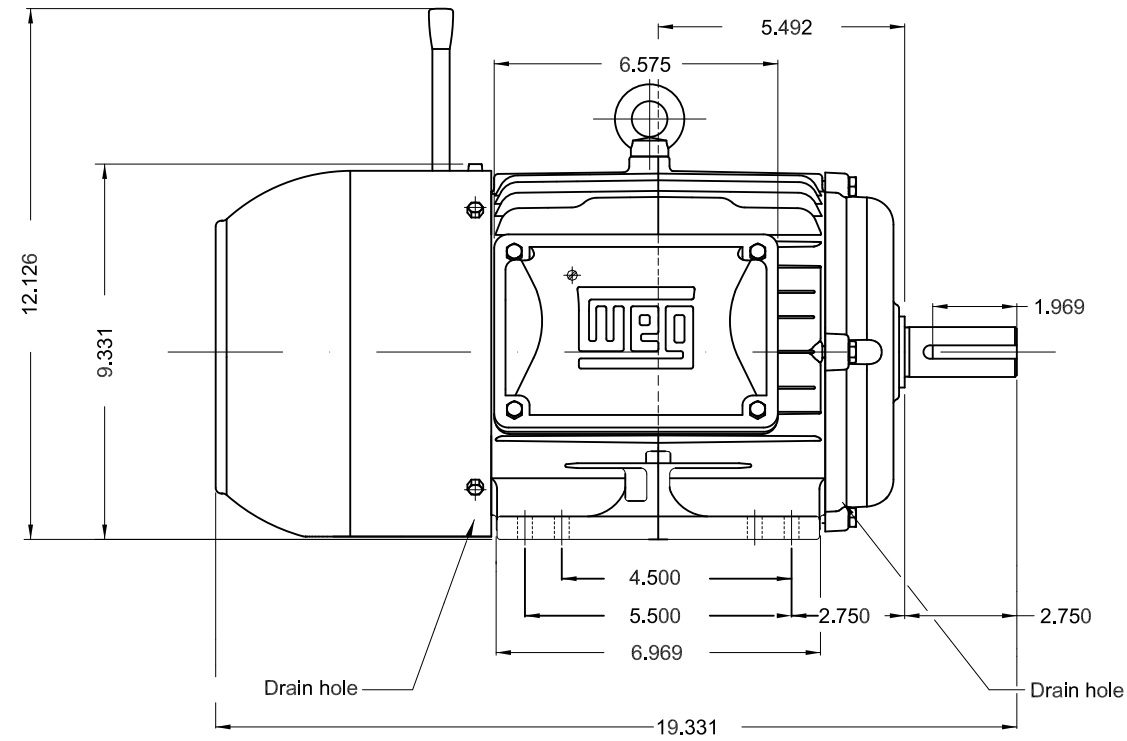
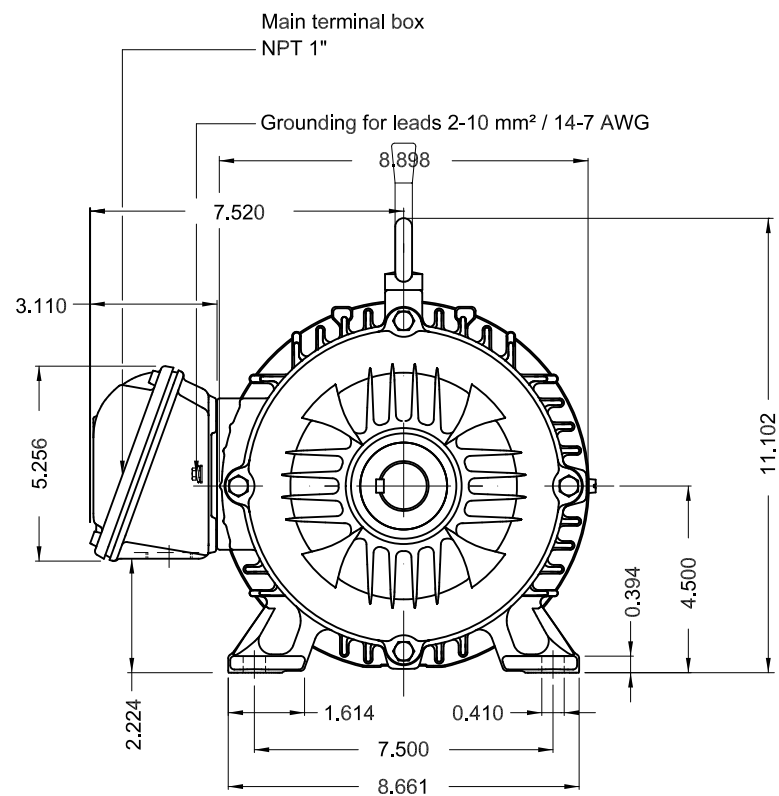
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1 2 3 4 5 6

A

B

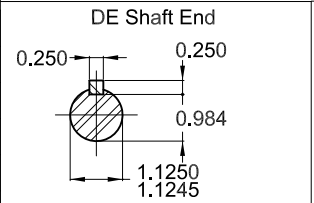
C



D

E

Packing - crate
With brake 14 (60 Nm)
Color RAL 5009
Painting plan 207A
Mounting NEMA F-1
Mounting B3R(D)



3 HP 04 Poles 60 Hz A

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR W22 BRAKE MOTOR PREM. EFF.					
CHECKED		FRAME 182/4T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

PREVIEW  
WDD





**W22**

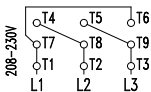
CC029A

® Inverter Duty Motor  
Severe Duty

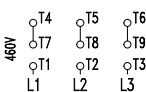
13500906

MADE IN BRAZIL MODEL 00318ET3EBM182T-W22

PH 3	FR 182/4T	HP(kW) 3.0(2.2)	Hz 60	SF 1.25	PF 0.79
V 230/460	A 7.82/3.91	RPM 1760	INS. CL. F	ΔT 80 K	IP55
NEMA NOM EFF 89.5 %			DES B DUTY CONT.		AMB 40°C
ENCL TEFC	SFA 9.78/4.89	USABLE @208V 8.65 A	SF 1.15	SFA 9.95	
					CODE K



ΔΔ



Δ



→ 6207-ZZ

→ 6206-ZZ

MOBIL POLYREX EM

ALT 1000 m.a.s.l. | 108 Lbs



For use on PWM, VT1000:1, CT20:1, 1.0SF

MOD.TE1BFOXON