

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase			
Product code :	13465908			
Catalog # :	15018XT3H445T			
Frame : 444/5T Output : 150 HP (110 kW) Poles : 4 Frequency : 60 Hz Rated voltage : 575 V Rated current : 136 A L. R. Amperes : 857 A LRC : 6.3x(Code G) No load current : 41.6 A Rated speed : 1780 rpm Slip : 1.11 % Rated torque : 442 ft.lb Locked rotor torque : 210 % Breakdown torque : 220 % Insulation class : F Service factor : 1.15 Moment of inertia (J) : 66.7 sq.ft.lb Design : B	Locked rotor time : 39s (cold) 22s (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> : 76.0 dB(A) Starting method : Direct On Line Approx. weight <sup>3</sup> : 2195 lb			
Output	25%    50%    75%    100%			
Efficiency (%)	94.8    95.0    95.8    95.8			
Power Factor	0.49    0.72    0.81    0.85			
Foundation loads				
Max. traction	: 1497 lb			
Max. compression	: 3693 lb			
Bearing type	: <u>Drive end</u> 6219 C3 <u>Non drive end</u> 6316 C3			
Sealing	: Viton Oil Seal    Viton Seal			
Lubrication interval	: 8033 h    8569 h			
Lubricant amount	: 28 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.				
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Customer : \_\_\_\_\_

### Thermal protection

ID	Application	Type	Quantity	Sensing Temperature
1	Winding	Thermostat - 2 wires	1 x Phase	130 °C
2	Winding	Thermostat - 2 wires	1 x Phase	155 °C

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# TORQUE AND CURRENT VS SPEED CURVE



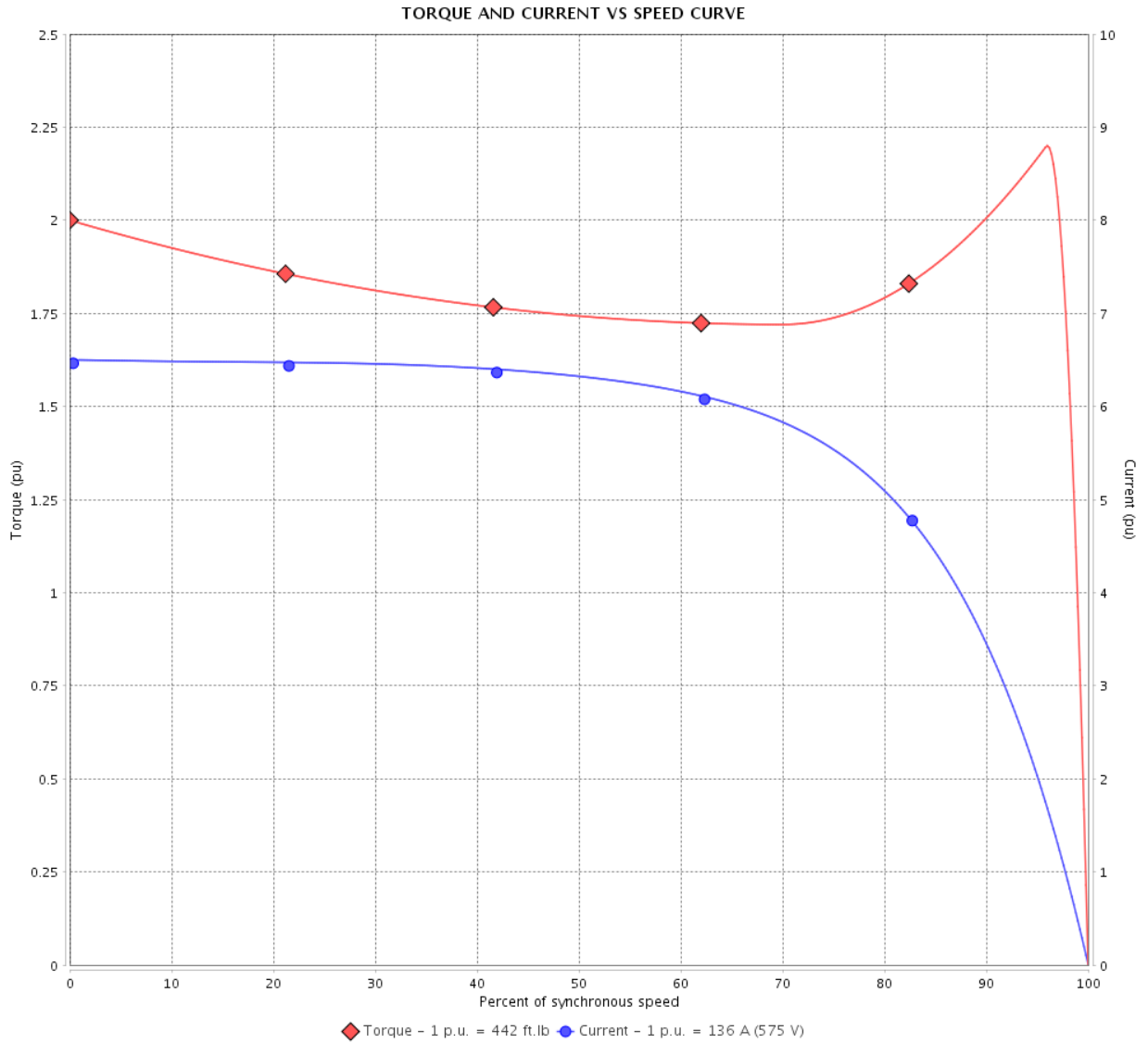
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13465908

Catalog # : 15018XT3H445T



Performance : 575 V 60 Hz 4P

Rated current	: 136 A	Moment of inertia (J)	: 66.7 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 442 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

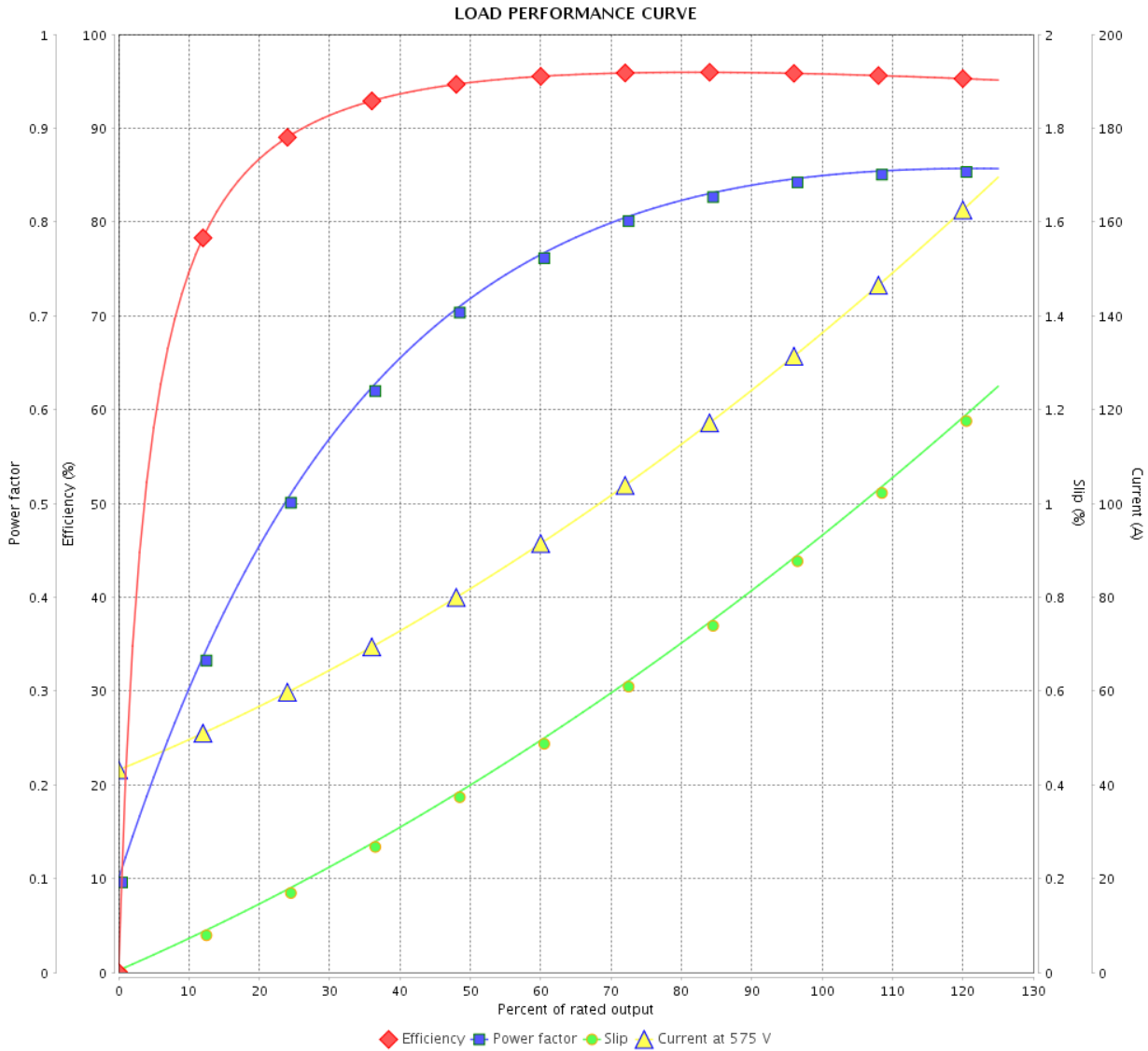


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Rated current	: 136 A	Moment of inertia (J)	: 66.7 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 442 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1780 rpm	Design	: B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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 Product code : 13465908  
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Performance : 575 V 60 Hz 4P

Rated current : 136 A	Moment of inertia (J) : 66.7 sq.ft.lb
LRC : 6.3	Duty cycle : Cont.(S1)
Rated torque : 442 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 220 %	Temperature rise : 80 K
Rated speed : 1780 rpm	Design : B

Heating constant

Cooling constant

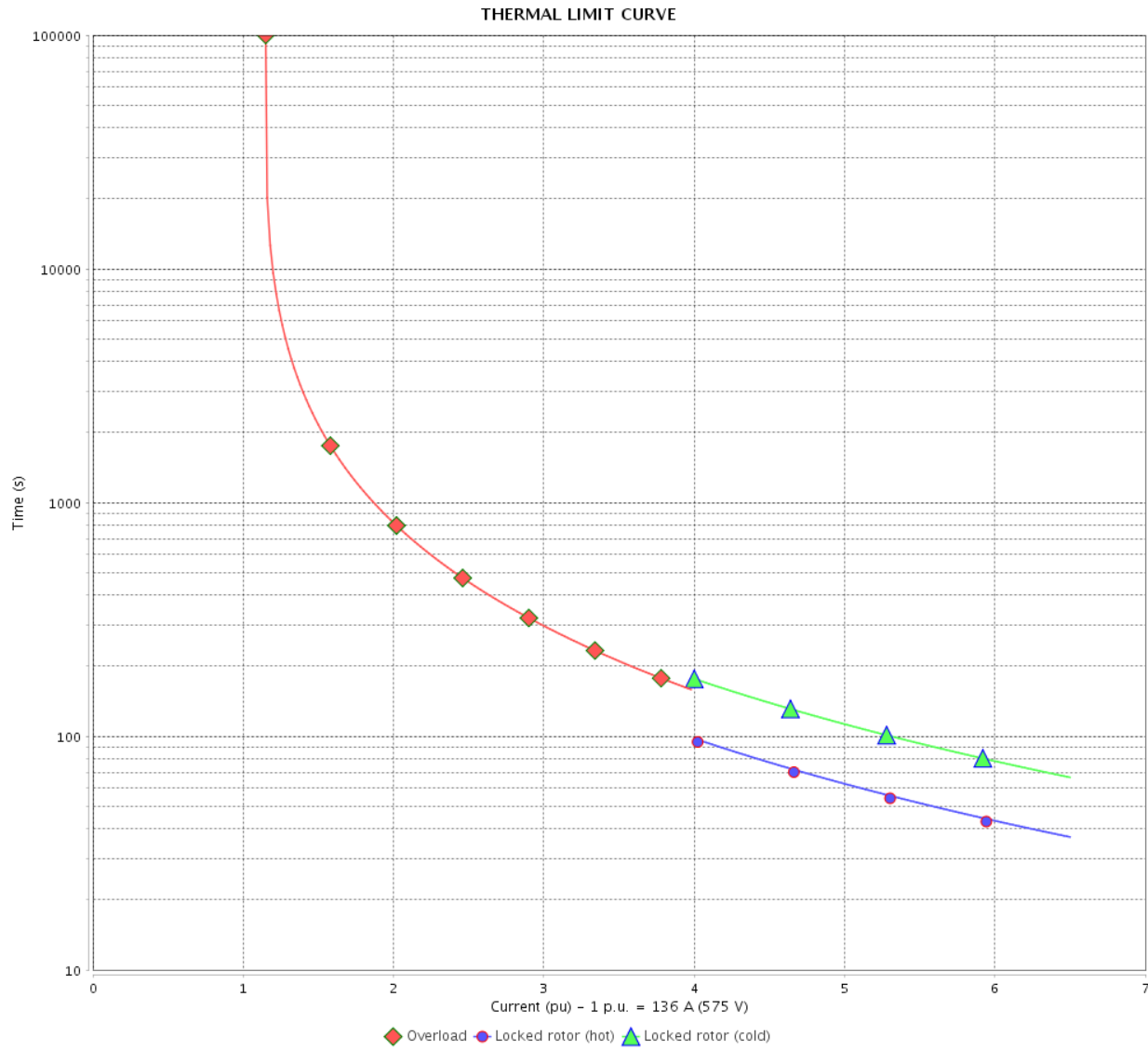
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

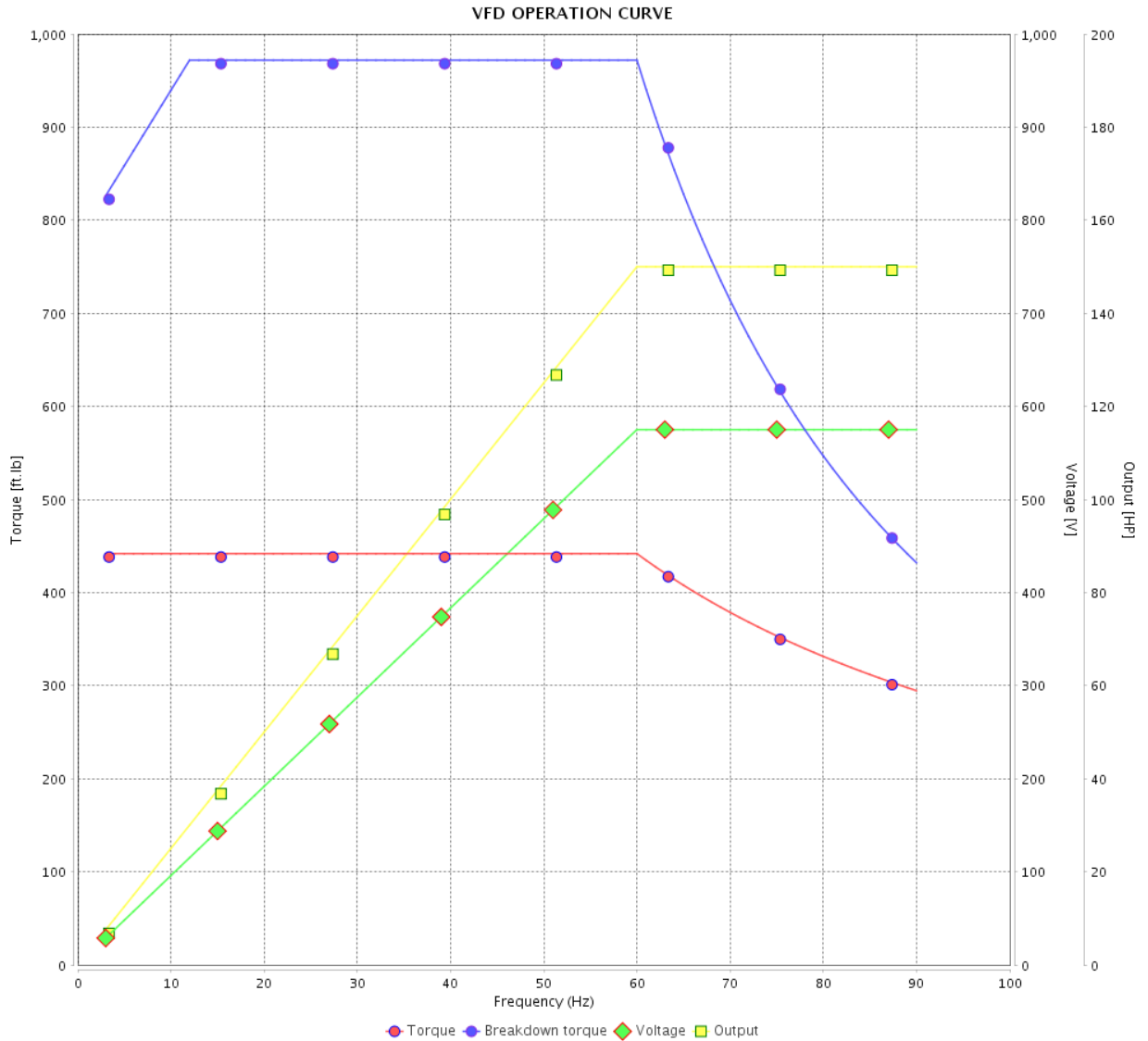


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13465908

Catalog # : 15018XT3H445T

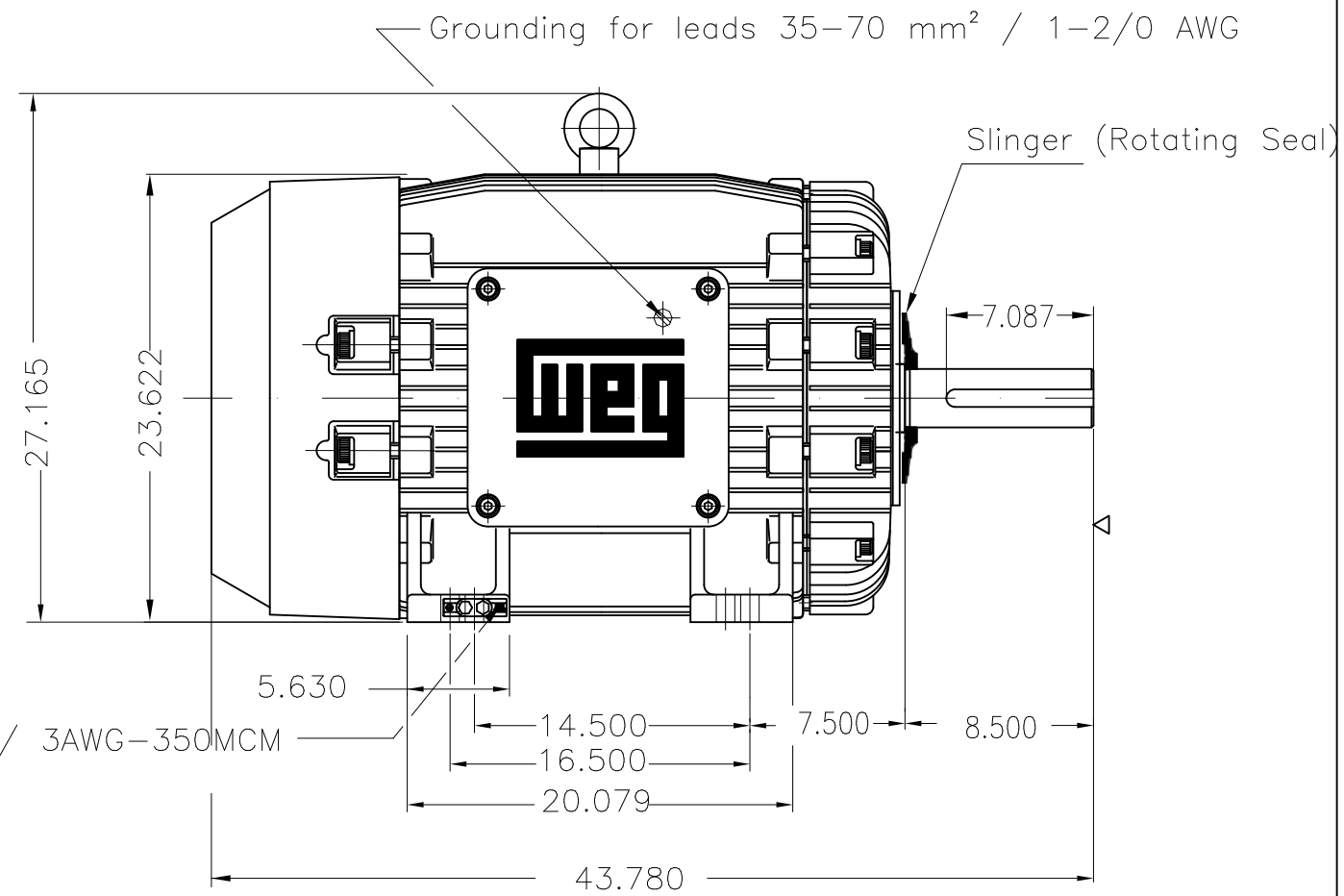
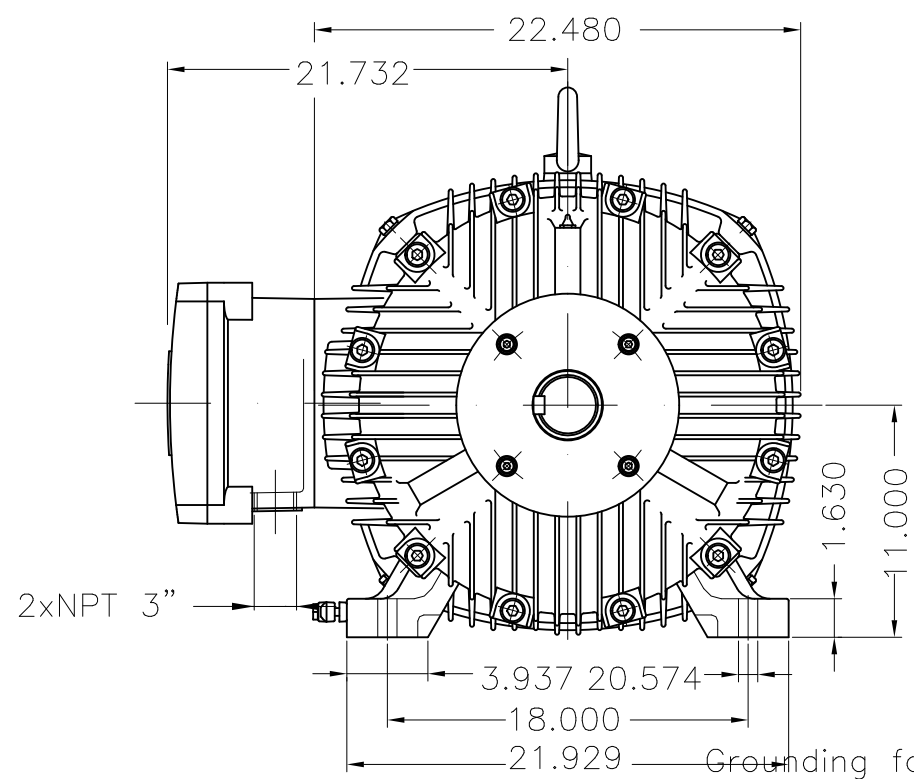


Performance : 575 V 60 Hz 4P

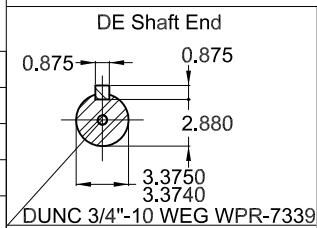
Rated current : 136 A  
 LRC : 6.3  
 Rated torque : 442 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 220 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 66.7 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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Thermal protection to alarm - thermostat 130°C  
 Color RAL 5009  
 Painting plan 202P  
 Mounting NEMA F-1  
 Mounting B3R(D)



150 HP 04 Poles 60 Hz

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 444/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

PREVIEW  
WDD



SHEET 1 / 1

Dimensions in inches XME A3





**W21X NEMA**  
**CC029A Premium**

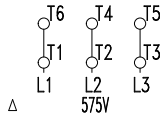
*Inverter Duty Motor  
 Severe Duty*




TEMP CODE T3C  
 CSA/UL: Class I - Div. 1 - Groups C and D  
 CSA: Class II - Div. 1 - Groups F and G  
 CSA: Class I - Zone 1 - IIB  
**EXPLOSION PROOF MOTOR**  
 FOR USE ON VPWM VFD 1000:1VT, 2:1CT, 1.0SF, T3C, AMB 40°C.

MODEL 15018XT3H445T  
 MADE IN BRAZIL  
 13465908

PH 3	FR 444/5T	HP(kW) 150(110)	Hz 60
V 575	A 136	RPM 1780	
NEMA NOM. EFF. 95.8%		INS CL F $\Delta$ T 80 K	IP55
PF 0.85	DUTY CONT.		CODE G
ENCL. TEFC	SF 1.15	SFA 156	
AMB 40°C	DES B		
AMB 55°C SF1.0	-bearings lub interval reduced by a factor of 50%		



 → 6219-C3(28g)      MOBIL POLYREX EM  
 → 6316-C3(34g)      8033 h  
 ALT 1000 m.a.s.l      2196 Lbs