

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12677332	
Catalog # :	00318ET3ER182TC-S	
Frame	: 182/4TC	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Protection degree	: IP55	
Design	: B	
Cooling method	: IC411 - TEFC	
Mounting	: W-6	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 93.2 lb	
Moment of inertia (J)	: 0.4017 sq.ft.lb	
Output [HP]	3	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	7.62/3.81	
L. R. Amperes [A]	67.1/33.5	
LRC [A]	8.8x(Code K)	
No load current [A]	4.00/2.00	
Rated speed [RPM]	1765	
Slip [%]	1.94	
Rated torque [ft.lb]	8.93	
Locked rotor torque [%]	220	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	32s (cold) 18s (hot)	
Noise level <sup>2</sup>	56.0 dB(A)	
Efficiency (%)	25%	86.4
	50%	87.5
	75%	88.5
	100%	89.5
Power Factor	25%	0.36
	50%	0.61
	75%	0.74
	100%	0.81
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: -	
Lubricant amount	: -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 153 lb	
	Max. compression : 246 lb	
Notes USABLE @208V 8.43A SF 1.00 SFA 8.43A		
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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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



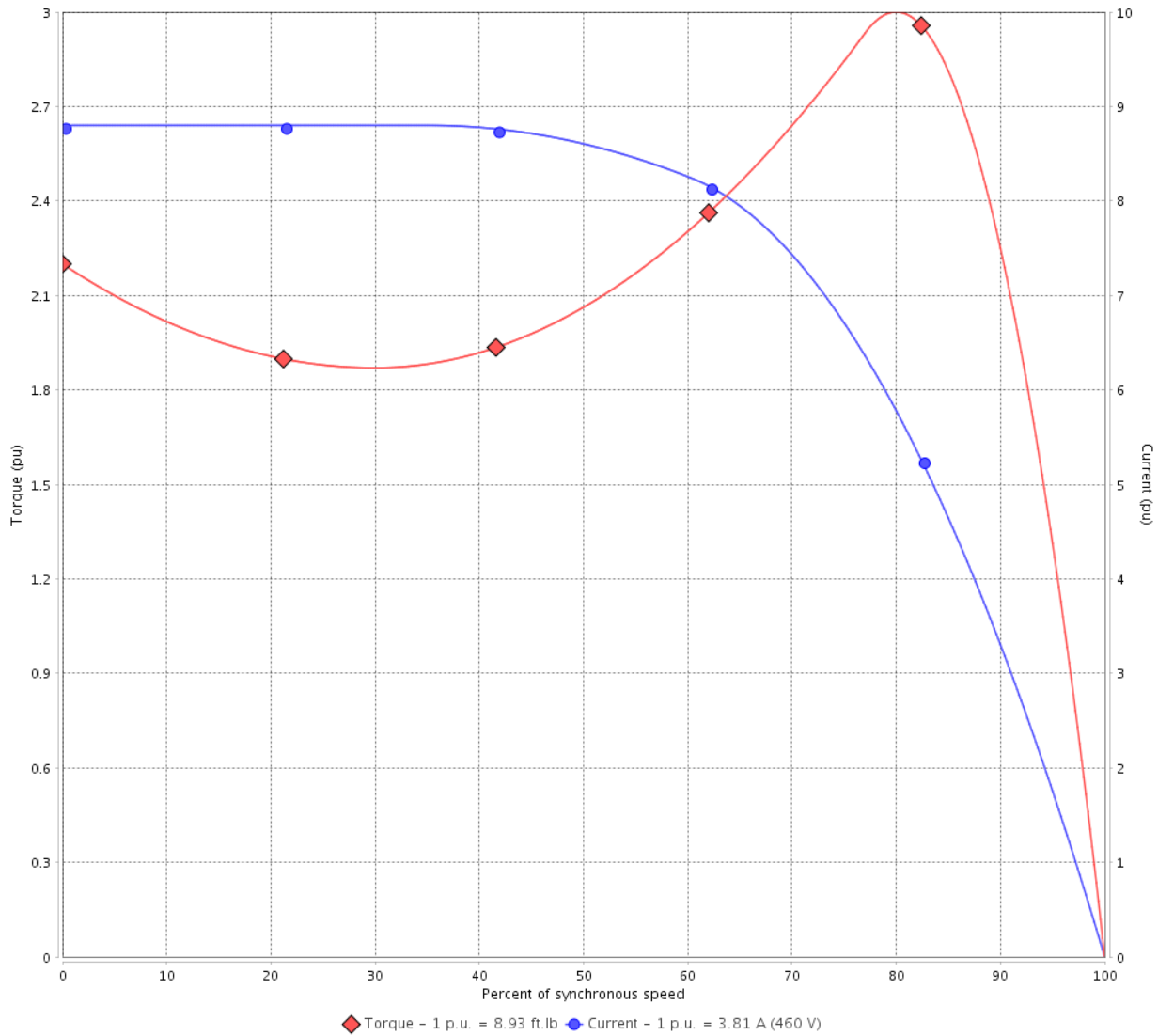
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 7.62/3.81 A	Moment of inertia (J)	: 0.4017 sq.ft.lb
LRC	: 8.8	Duty cycle	: Cont.(S1)
Rated torque	: 8.93 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Locked rotor time : 32s (cold) 18s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



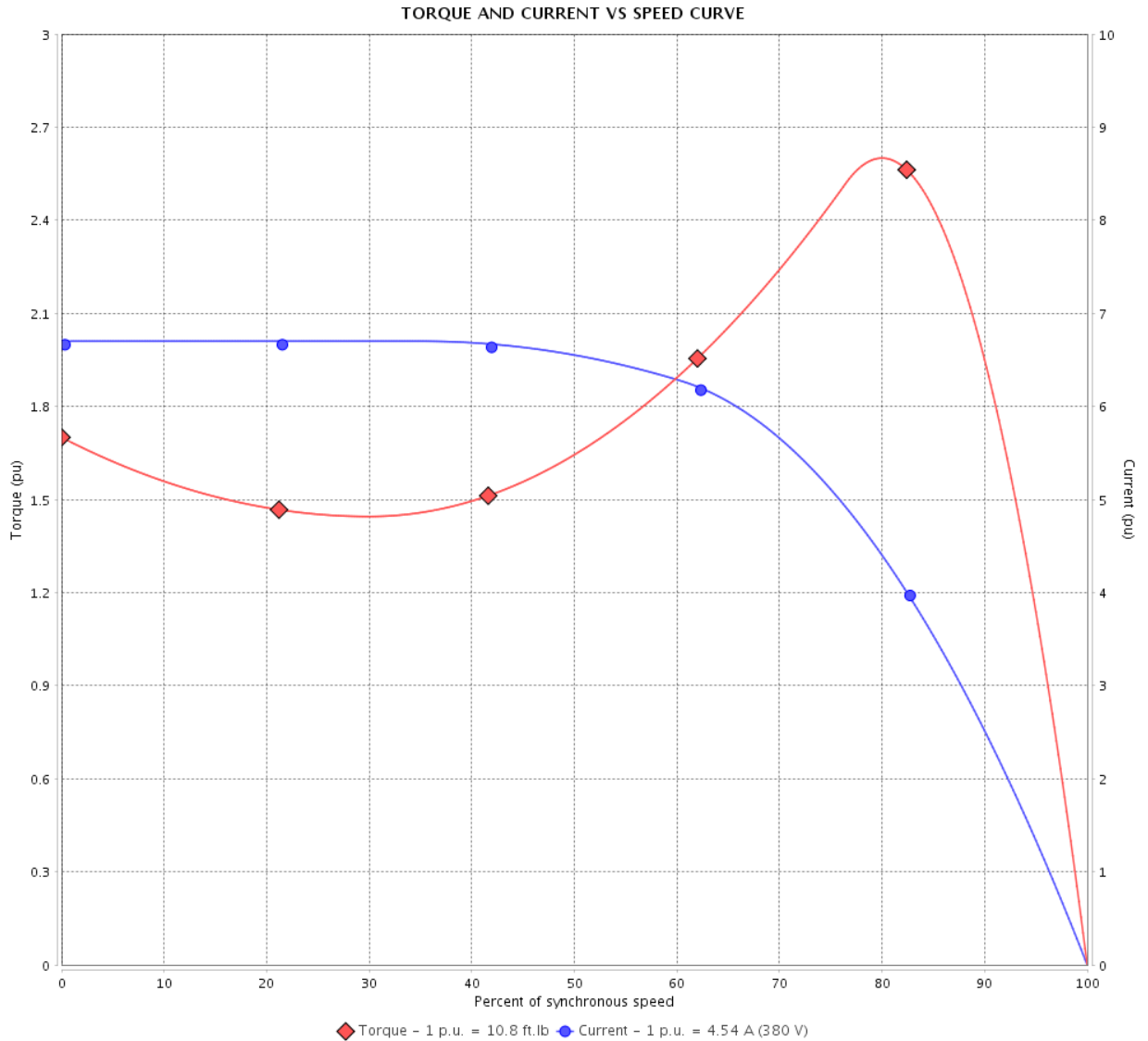
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A  
 LRC : 6.7  
 Rated torque : 10.8 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 260 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



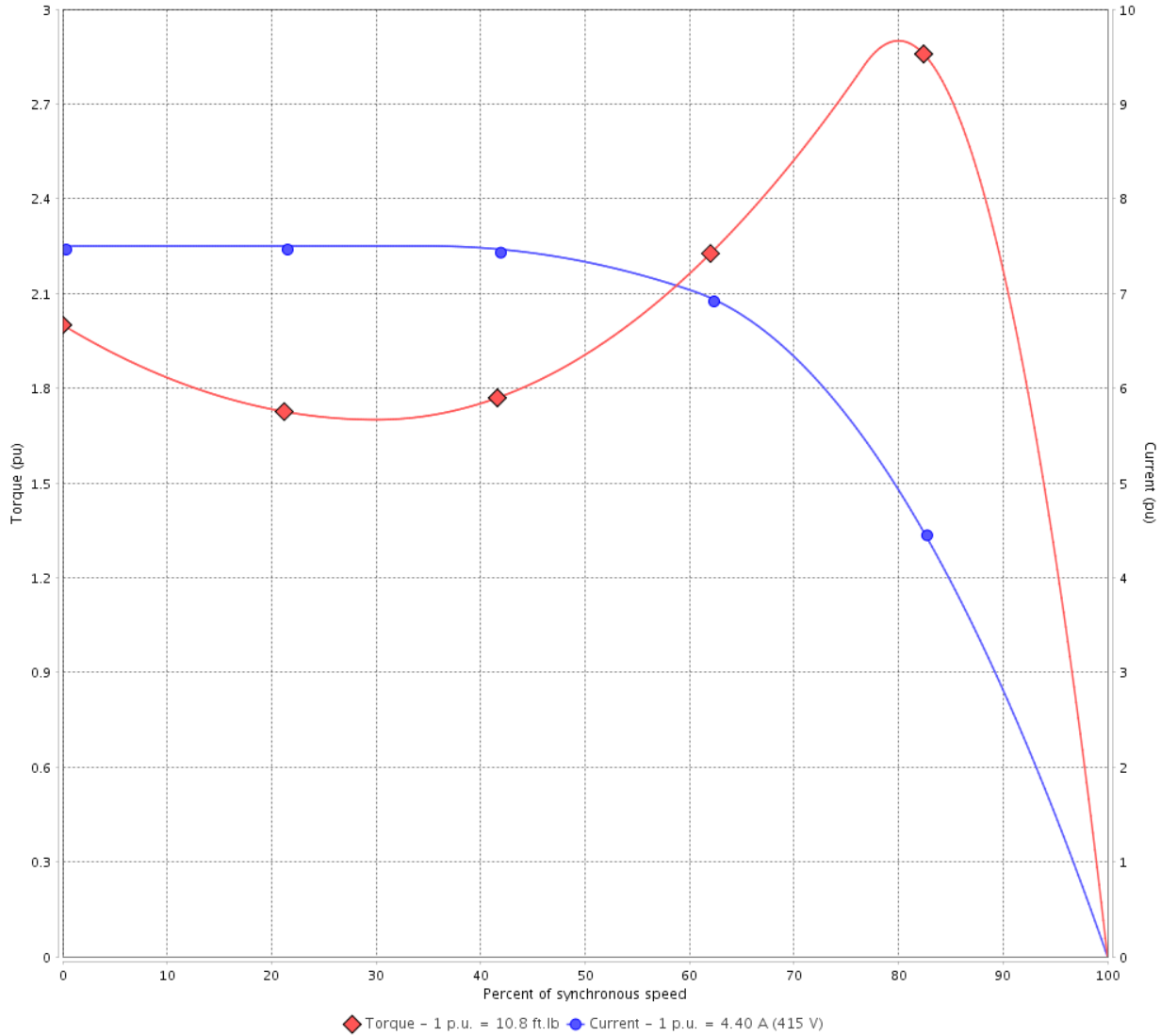
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 8.30/4.40 A	Moment of inertia (J)	: 0.4017 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 10.8 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

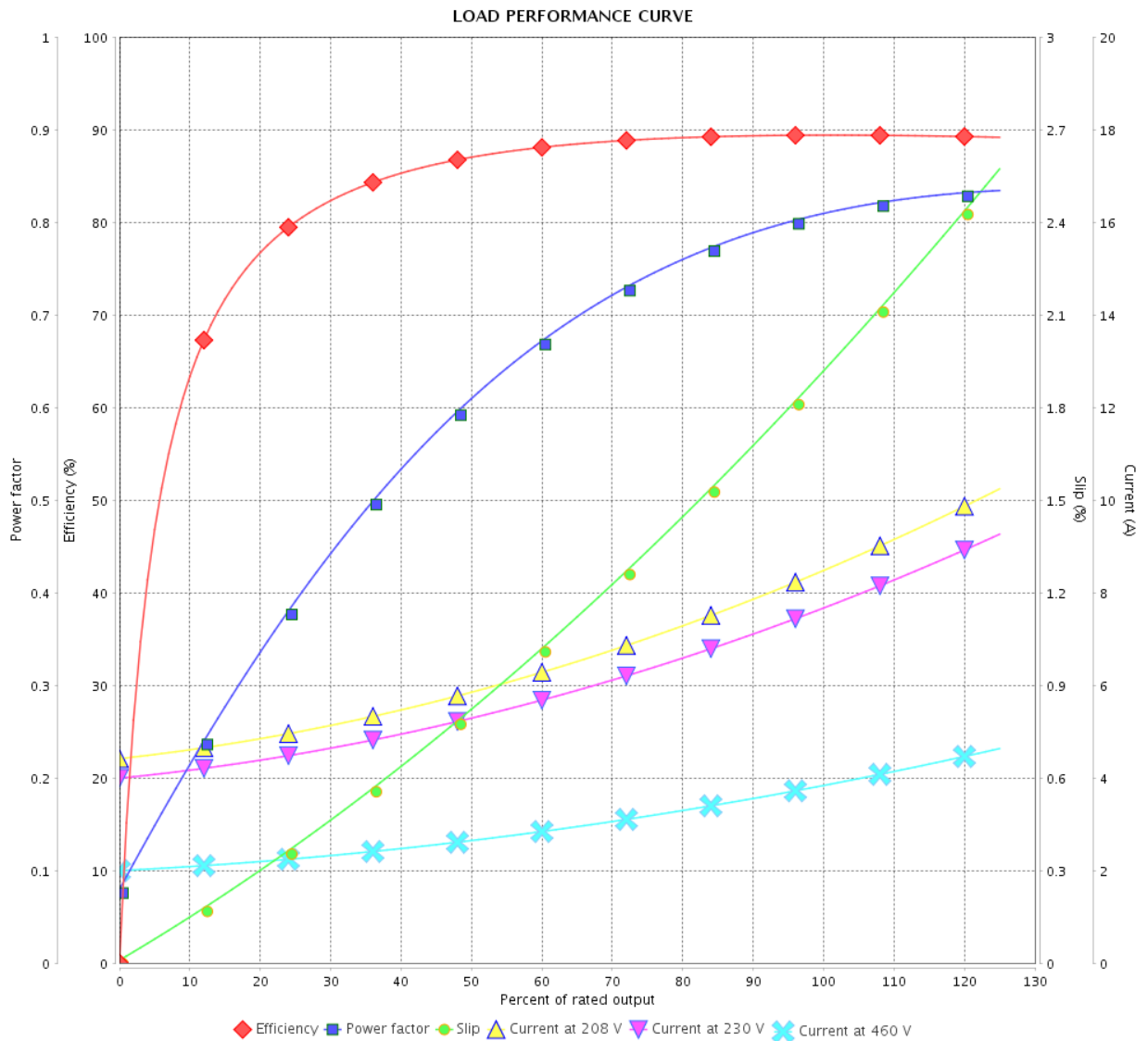


Customer :

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Performance : 230/460 V 60 Hz 4P

Rated current : 7.62/3.81 A  
 LRC : 8.8  
 Rated torque : 8.93 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



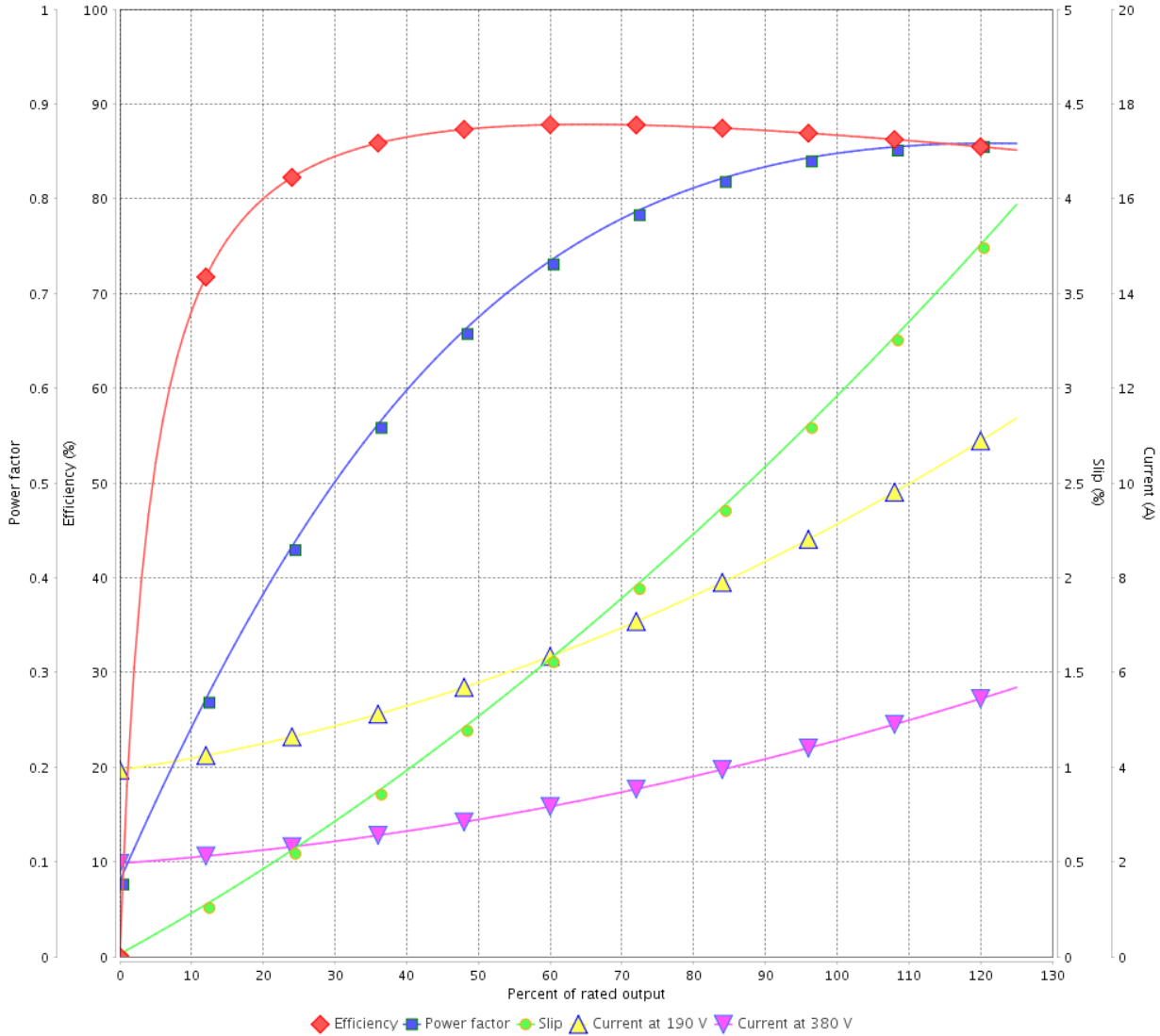
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A  
 LRC : 6.7  
 Rated torque : 10.8 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 260 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

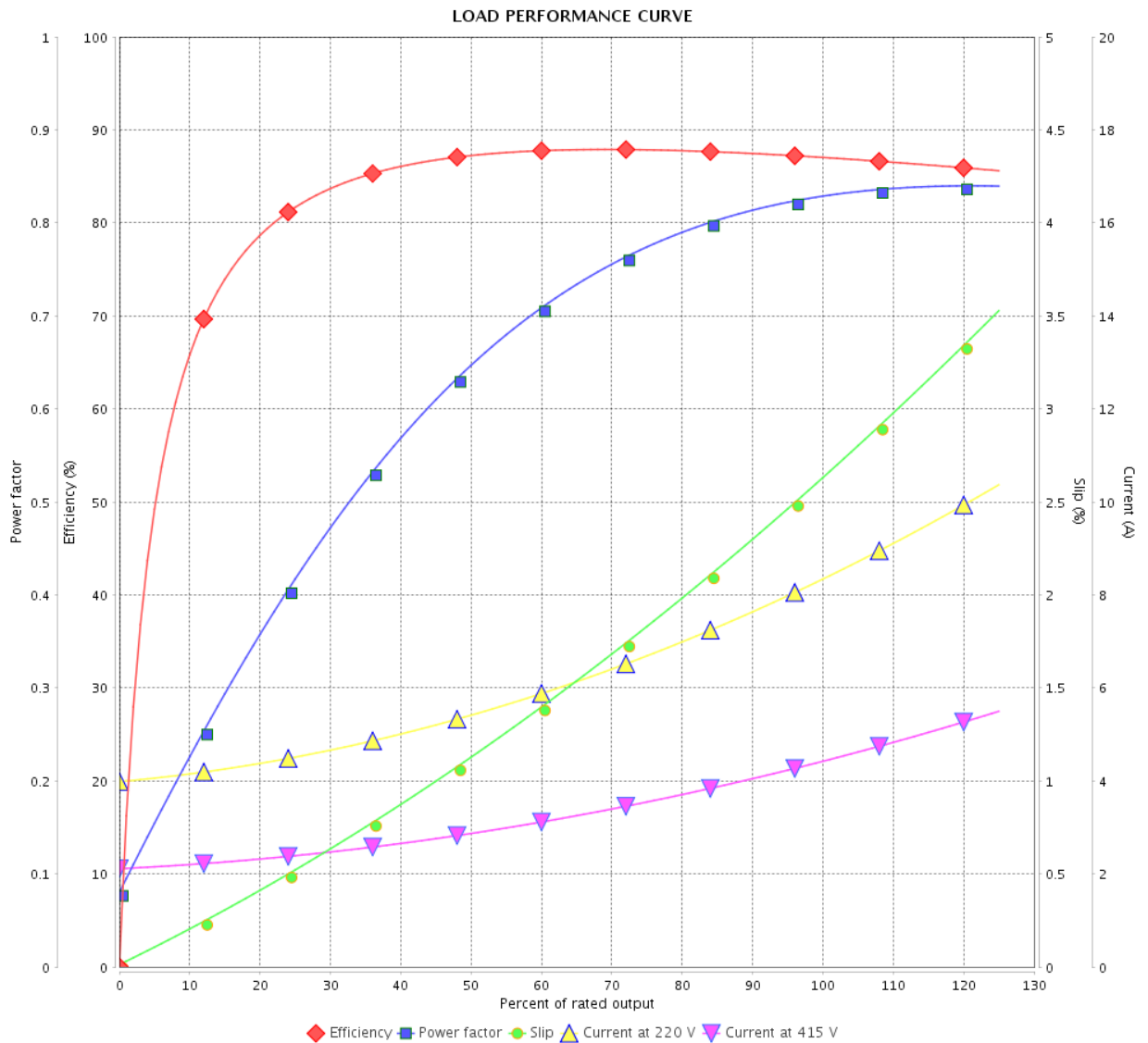


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S



Performance : 220/415 V 50 Hz 4P

Rated current : 8.30/4.40 A  
 LRC : 7.5  
 Rated torque : 10.8 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 290 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
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 Temperature rise : 80 K  
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
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Performance : 230/460 V 60 Hz 4P

Rated current	: 7.62/3.81 A	Moment of inertia (J)	: 0.4017 sq.ft.lb
LRC	: 8.8	Duty cycle	: Cont.(S1)
Rated torque	: 8.93 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1765 rpm	Design	: B

Heating constant

Cooling constant

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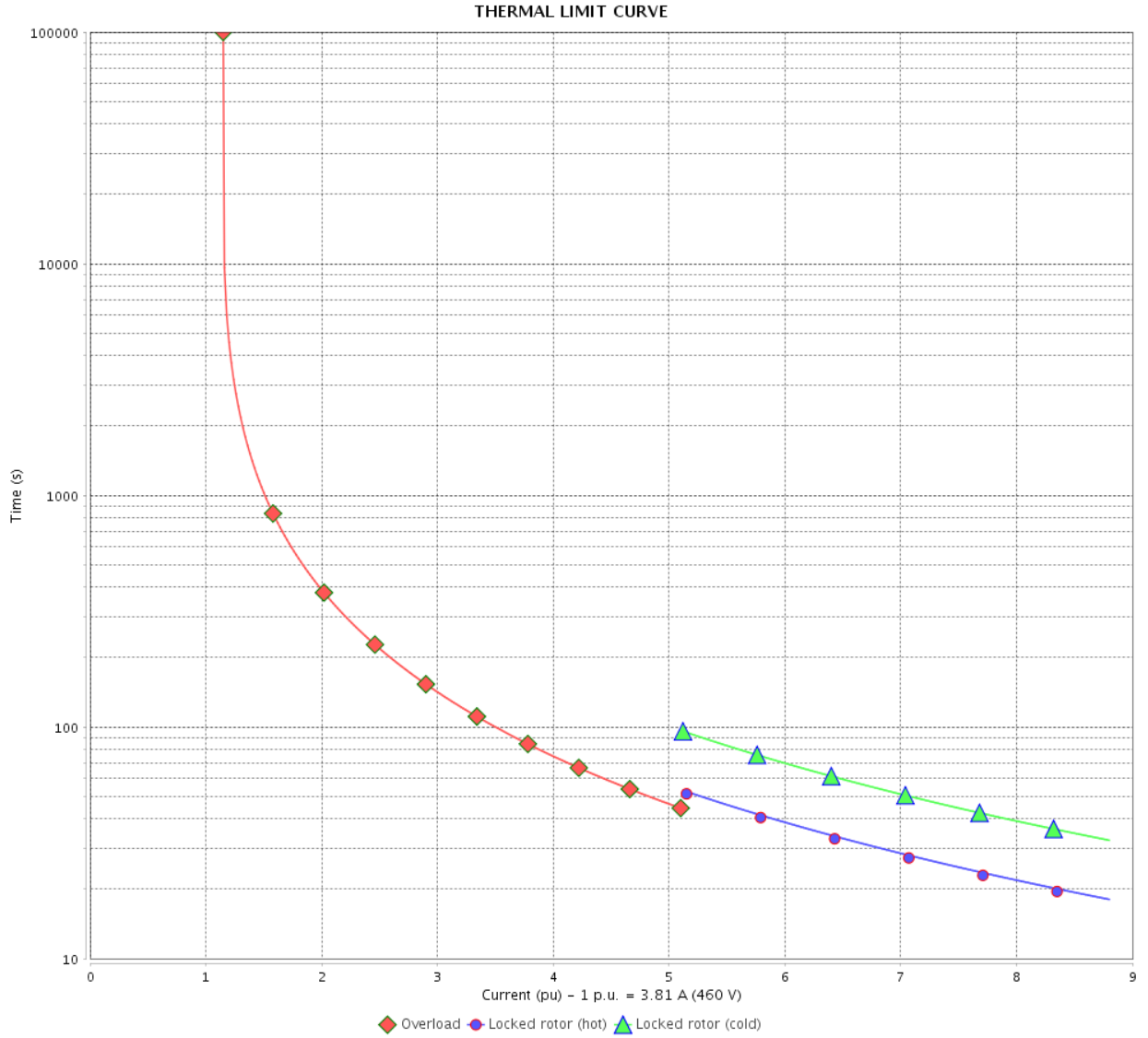


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
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Performance : 190/380 V 50 Hz 4P

Rated current : 9.08/4.54 A	Moment of inertia (J) : 0.4017 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 10.8 ft.lb	Insulation class : F
Locked rotor torque : 170 %	Service factor : 1.15
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 1455 rpm	Design : B

Heating constant

Cooling constant

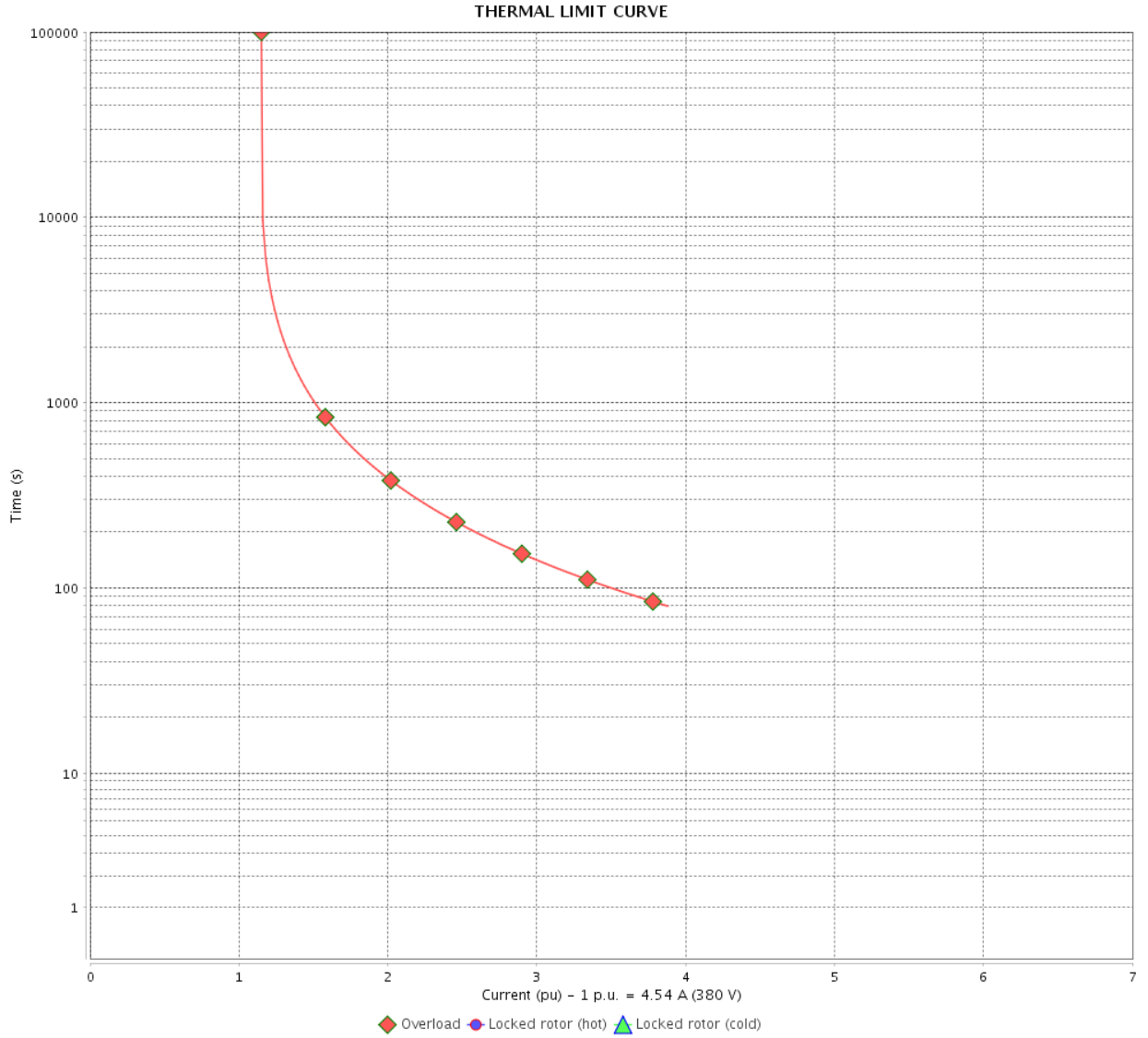
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Customer :

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LRC : 7.5	Duty cycle : Cont.(S1)
Rated torque : 10.8 ft.lb	Insulation class : F
Locked rotor torque : 200 %	Service factor : 1.15
Breakdown torque : 290 %	Temperature rise : 80 K
Rated speed : 1460 rpm	Design : B

Heating constant

Cooling constant

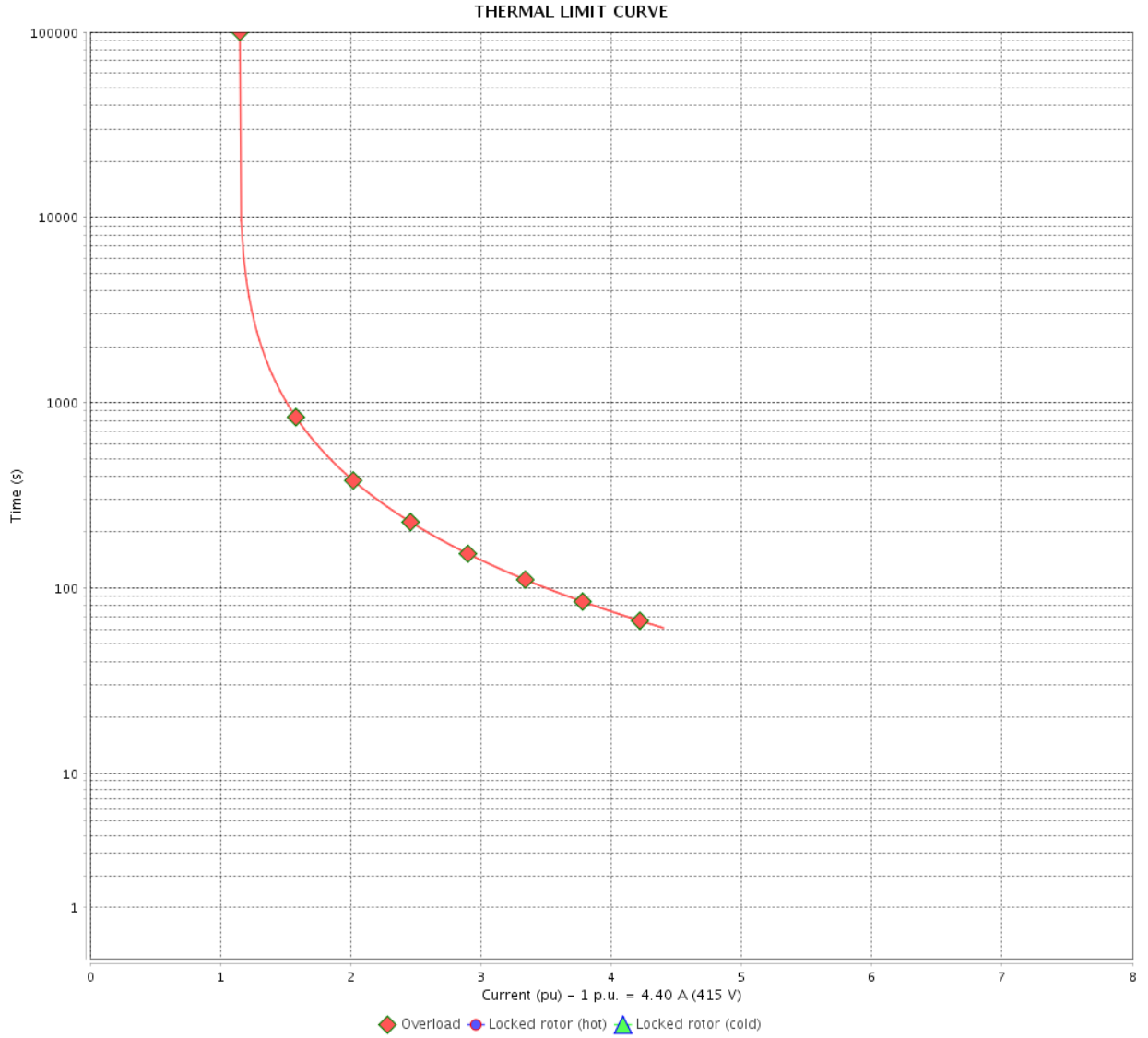
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

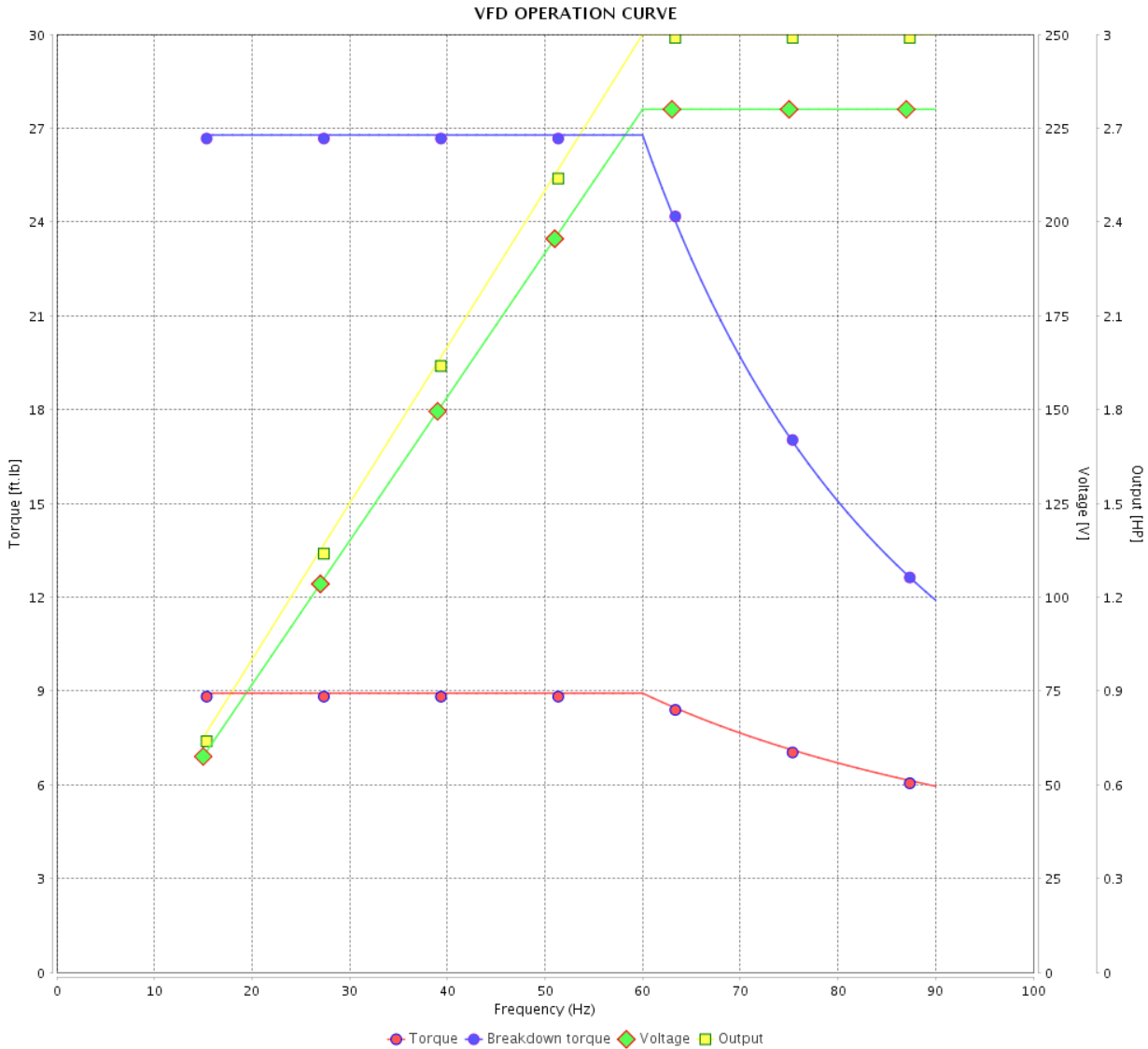


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677332

Catalog # : 00318ET3ER182TC-S



Performance : 230/460 V 60 Hz 4P

Rated current : 7.62/3.81 A  
 LRC : 8.8  
 Rated torque : 8.93 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 1765 rpm

Moment of inertia (J) : 0.4017 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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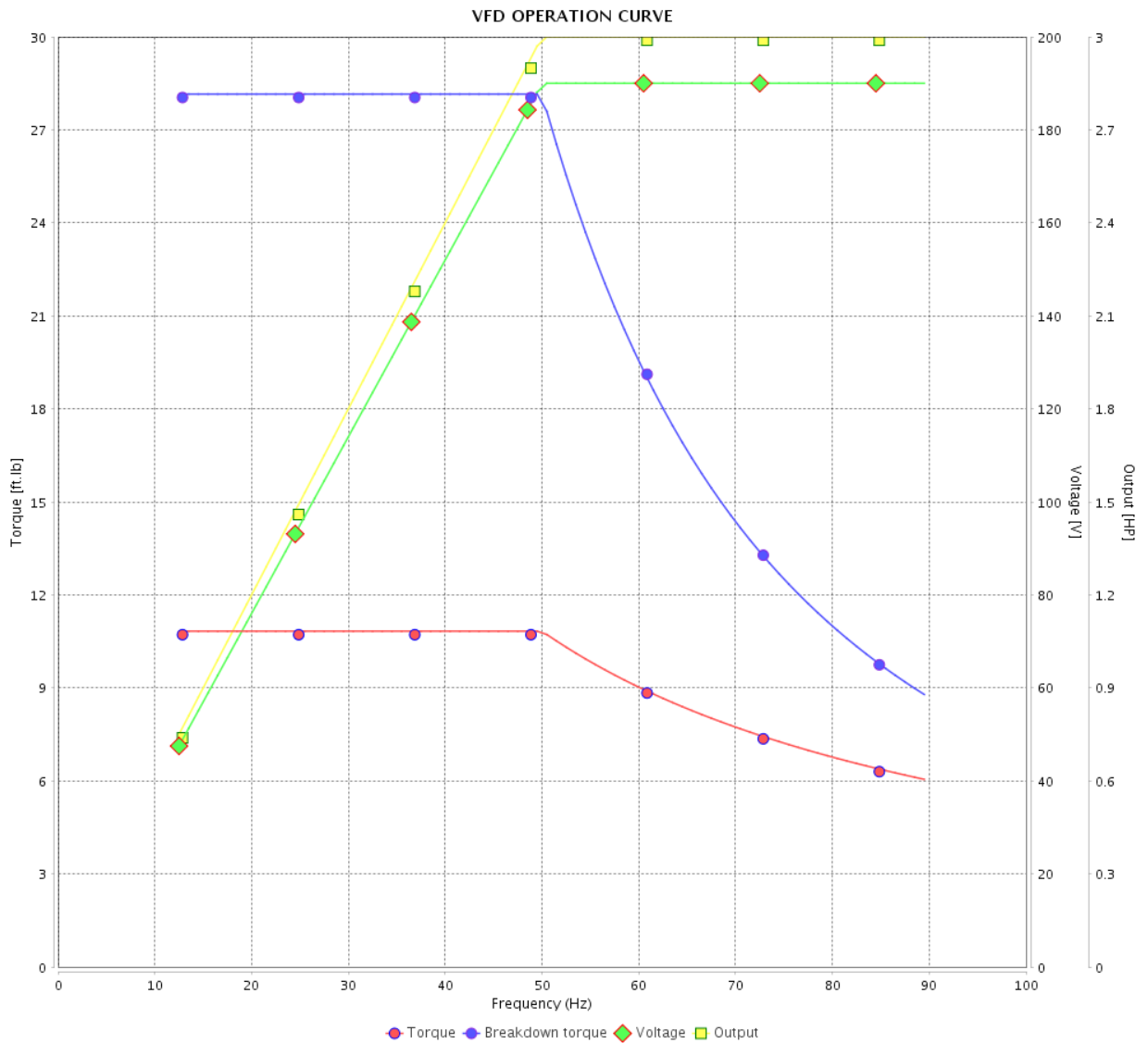


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

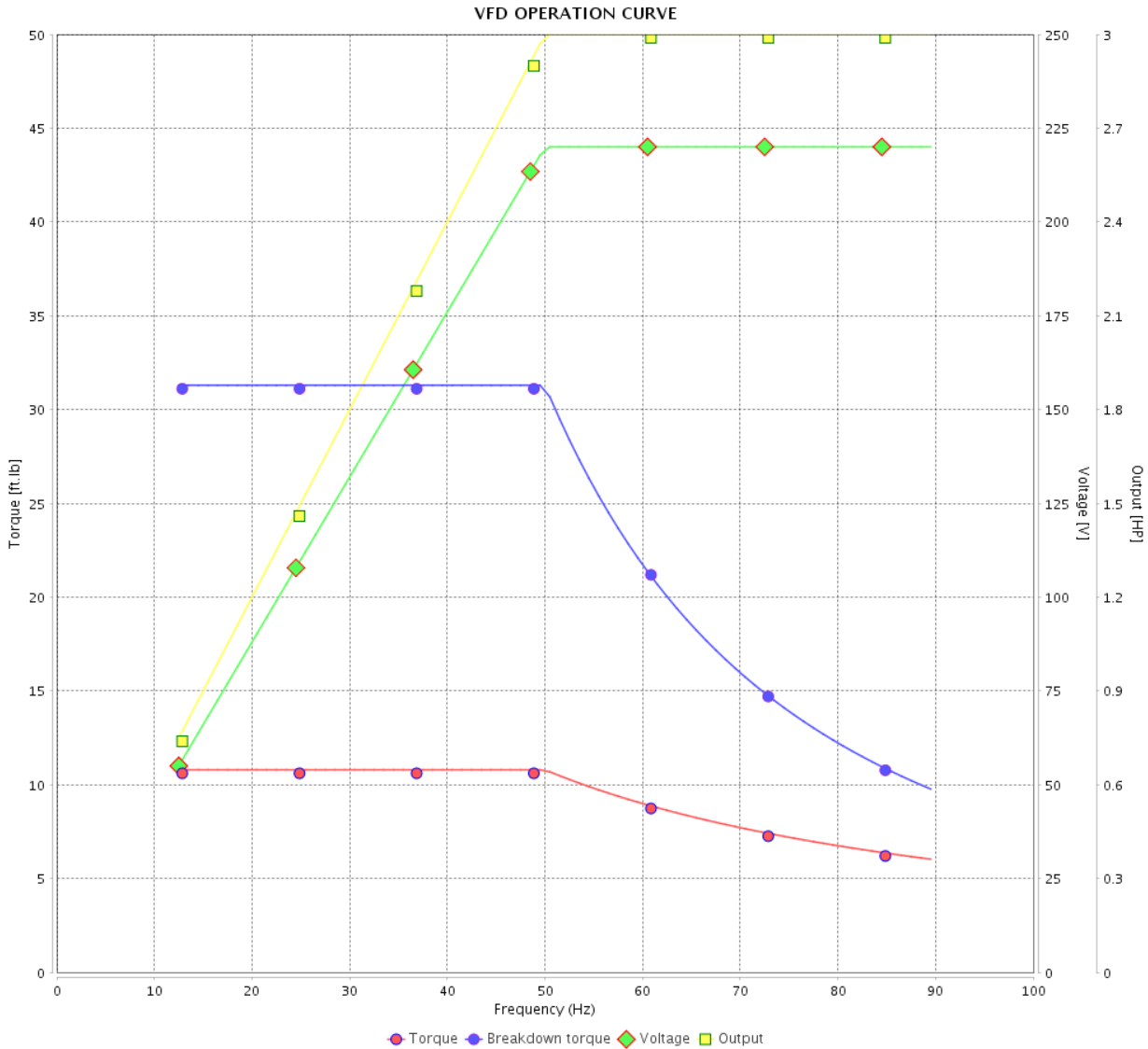


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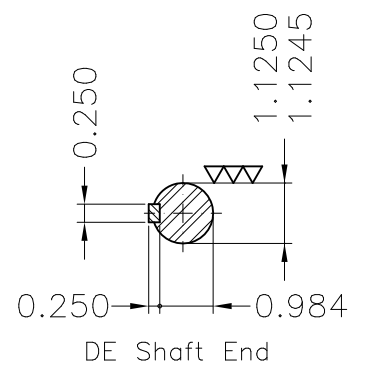
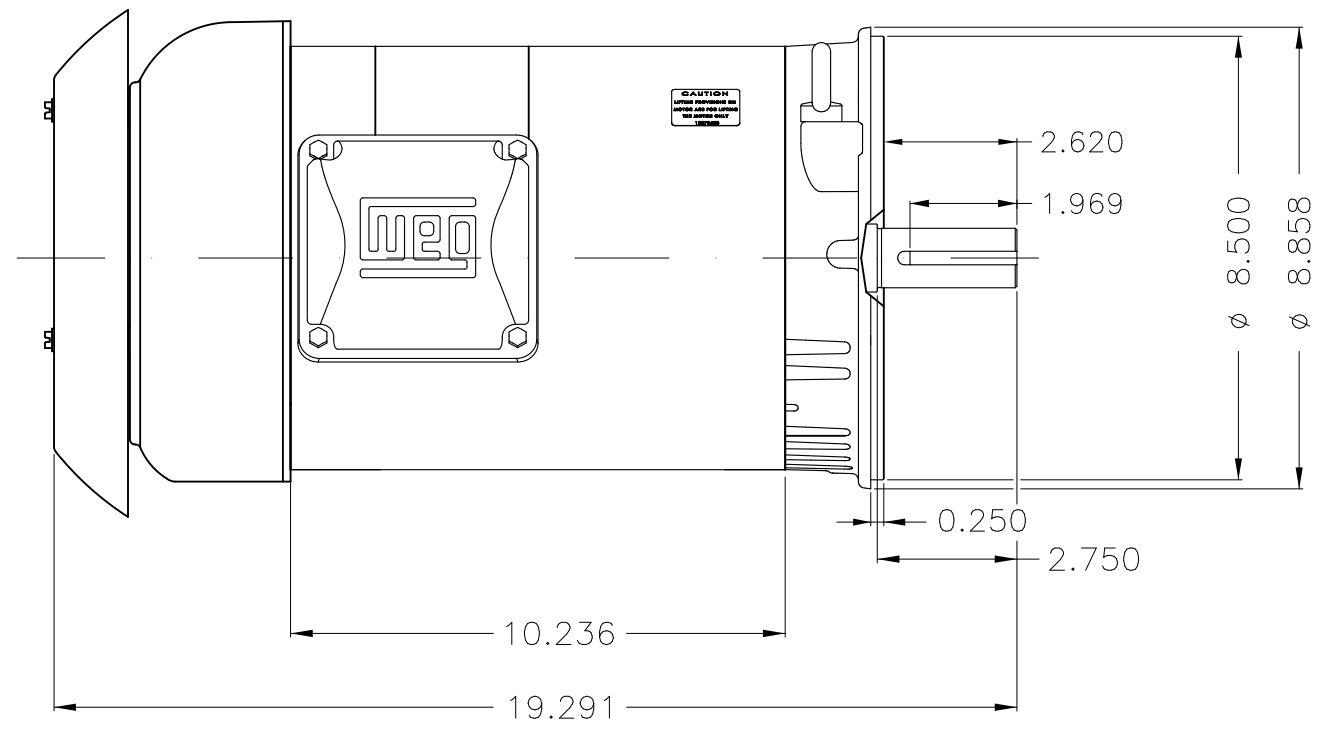
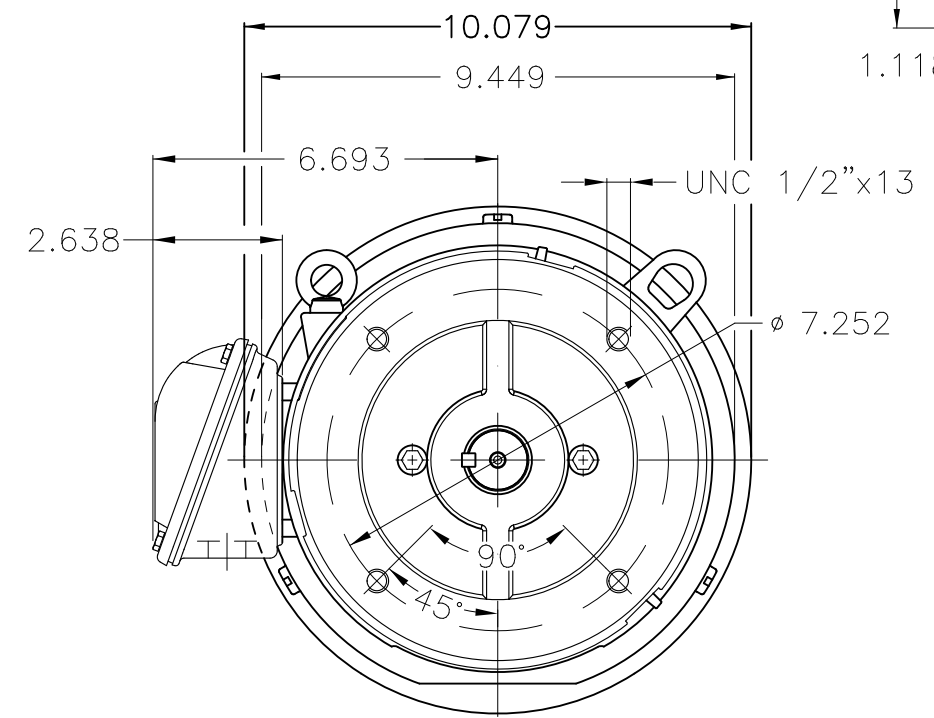
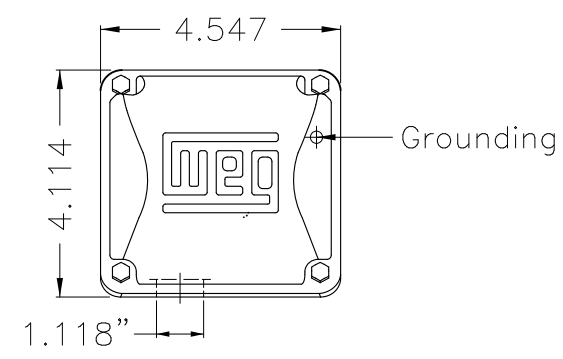
A

B

C

D

E



Dimensions in inches

Color Munsell N 1 matte black											
Painting plan 207N											
Mounting W-6/V18R(D)											
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.						<b>PREVIEW</b> WDD			
CHECKED		FRAME 182/4TC IP55 TEFC									
RELEASED											
REL DT.	WMO	Jaragua do Sul	Product Engineering			SHEET	1 / 1				

3 HP 04 Poles 60 Hz



**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN MEXICO

**MAT: 12677332 CC029A**

**W01.TE0IC0X0N**

**MODEL 00318ET3ER182TC-S**

**22APR2022 S/N:**

**For 60Hz: Class I, Zone 2, IIC**  
**Class I, Div.2, Gr. A,B,C,D - T3**

**Div 2 Inverter Duty (SF1.00)**  
**CT 2:1/VT 1000:1**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 3.0</b>
<b>FR 182/4TC</b>		<b>KW 2.2</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 7.62/3.81</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 8.76/4.38</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE K</b>	<b>PF 0.81</b>
<b>USABLE @ 208V 8.43A</b>		<b>RPM 1765</b>
<b>SF1.00</b>		<b>NEMA</b>
		<b>NOM. EFF 89.5%</b>

**ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15**  
**9.08-8.15/4.54-4.32A 1455RPM EFF 86.7% (IE3) IEC 60034-1**

**For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT**

**DE 6206-ZZ ODE 6205-ZZ MOBIL POLYREX EM**



**T1-BLU T2-WHT**  
**T3-ORG T4-YEL**  
**T5-BLK T6-GRY**  
**T7-PNK T8-RED**  
**T9-BRK RED**

**INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION**

**WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.**



**AVERTISSEMENT: Le moteur doit être mis à la terre**

**conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.**

