

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12677341	
Catalog # :	01036ET3ER215TC-S	
Frame	: 213/5TC	
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>	: 169 lb	
Moment of inertia (J)	: 0.7188 sq.ft.lb	
Output [HP]	10	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	23.0/11.5	
L. R. Amperes [A]	173/86.2	
LRC [A]	7.5x(Code H)	
No load current [A]	7.53/3.77	
Rated speed [RPM]	3530	
Slip [%]	1.94	
Rated torque [ft.lb]	14.9	
Locked rotor torque [%]	260	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	21s (cold) 12s (hot)	
Noise level <sup>2</sup>	70.0 dB(A)	
Efficiency (%)	25%	89.3
	50%	89.5
	75%	90.2
	100%	90.2
Power Factor	25%	0.53
	50%	0.80
	75%	0.88
	100%	0.91
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: -	
Lubricant amount	: -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 180 lb	
	Max. compression : 349 lb	
Notes USABLE @208V 25.4A SF 1.00 SFA 25.4A		
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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12/04/2022		
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



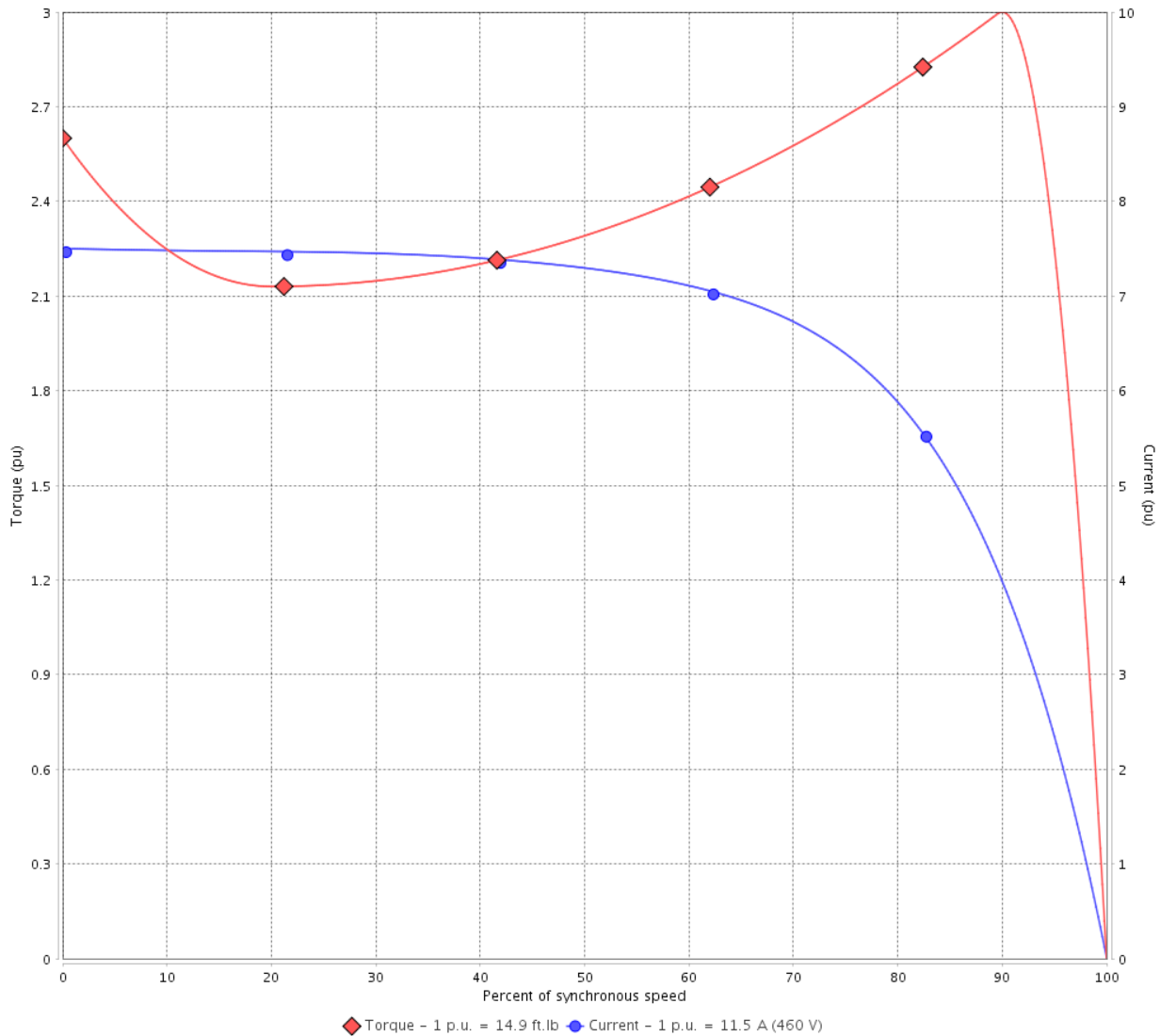
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 23.0/11.5 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



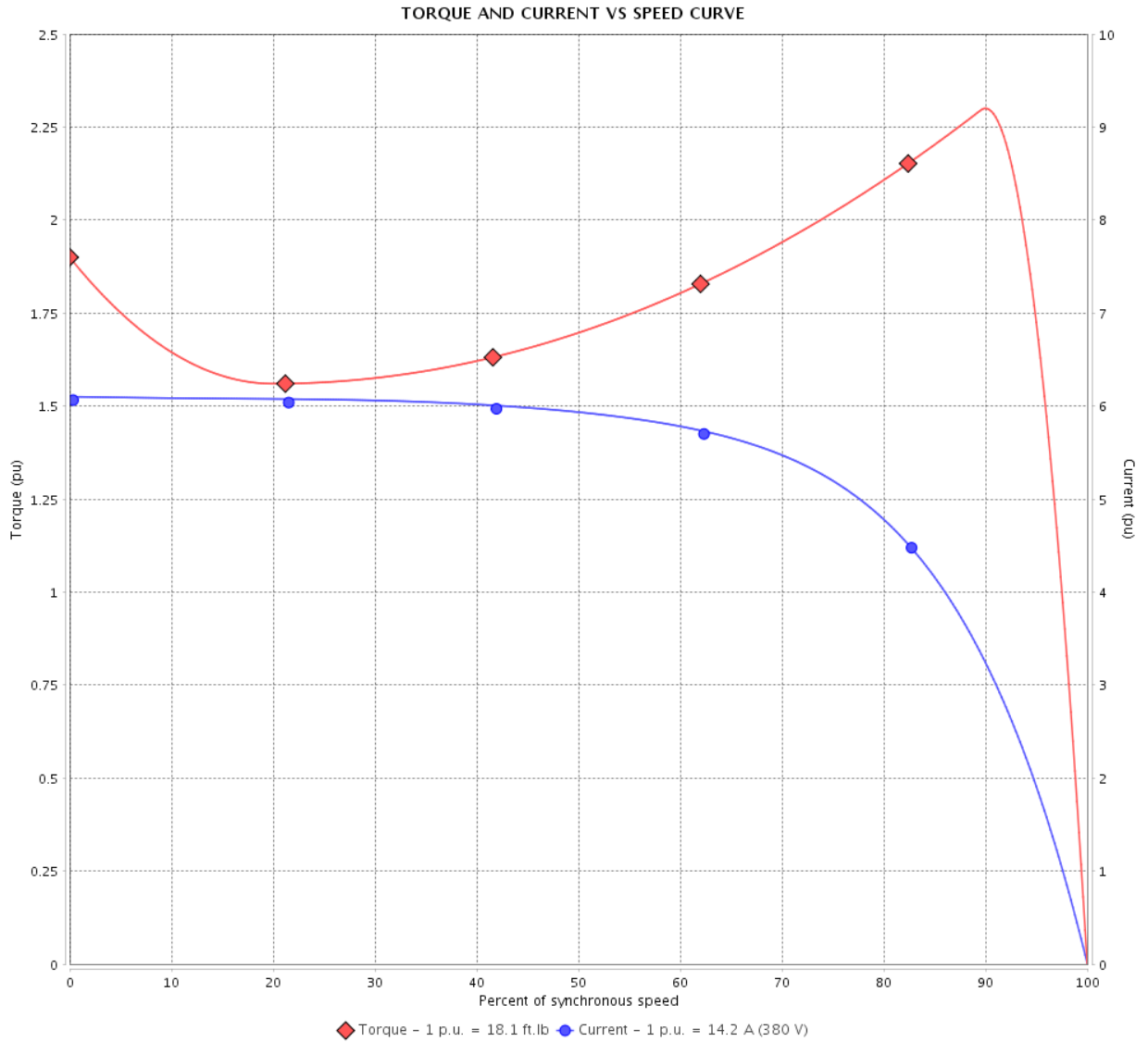
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S



Performance : 190/380 V 50 Hz 2P

Rated current : 28.4/14.2 A  
 LRC : 6.1  
 Rated torque : 18.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.7188 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 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



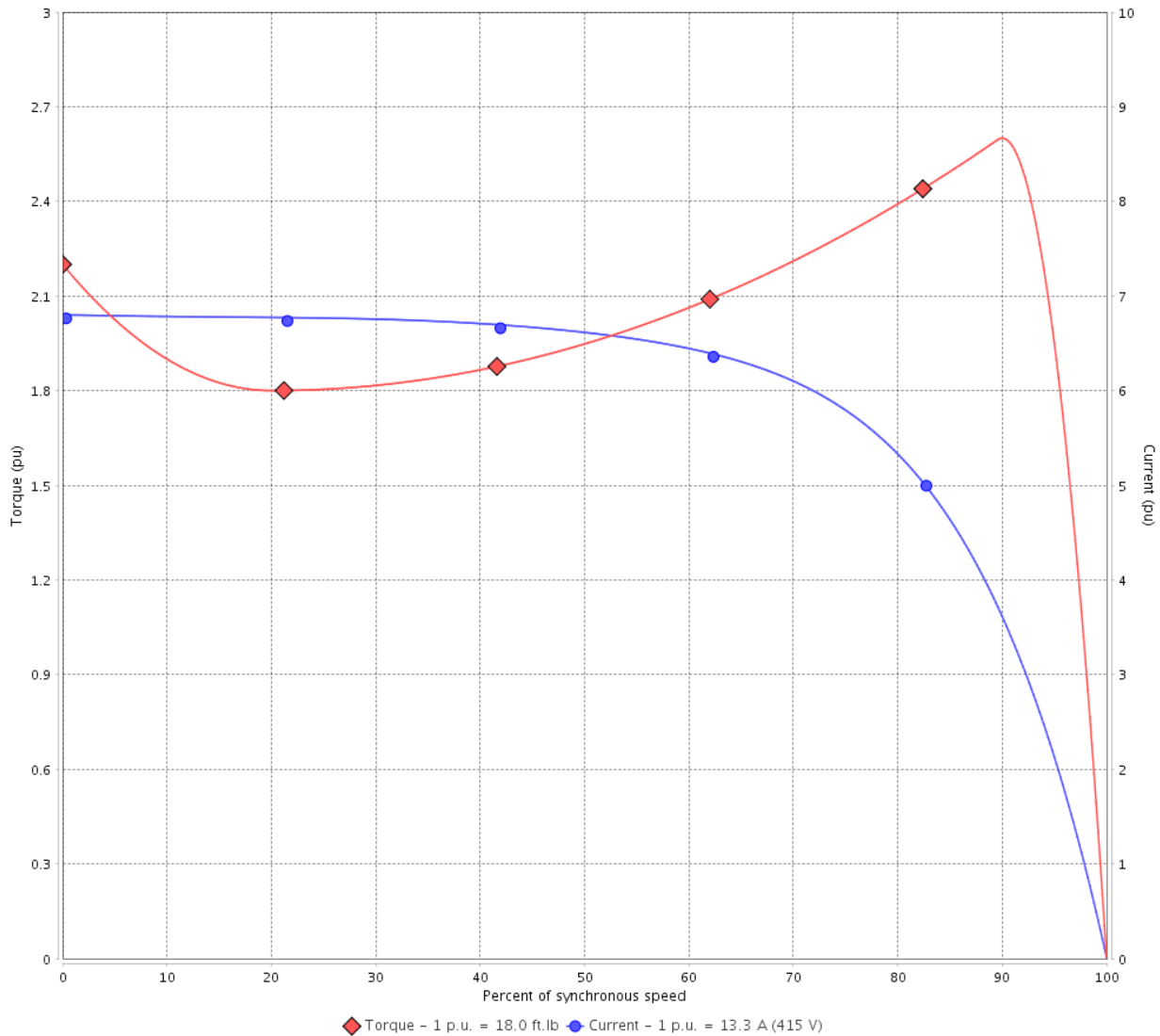
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 25.1/13.3 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 2910 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

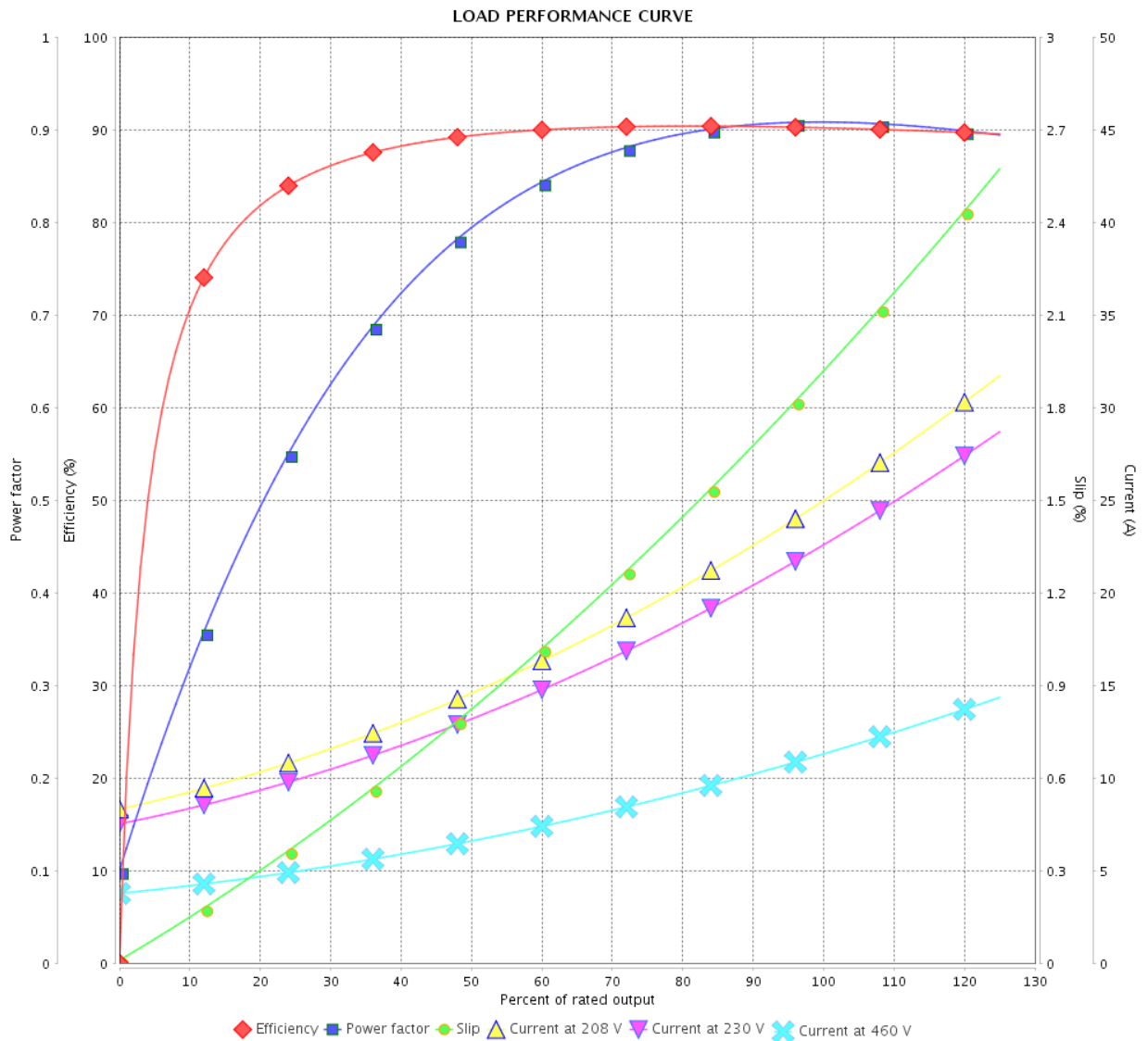


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S



Performance : 230/460 V 60 Hz 2P

Rated current : 23.0/11.5 A  
 LRC : 7.5  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 3530 rpm

Moment of inertia (J) : 0.7188 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



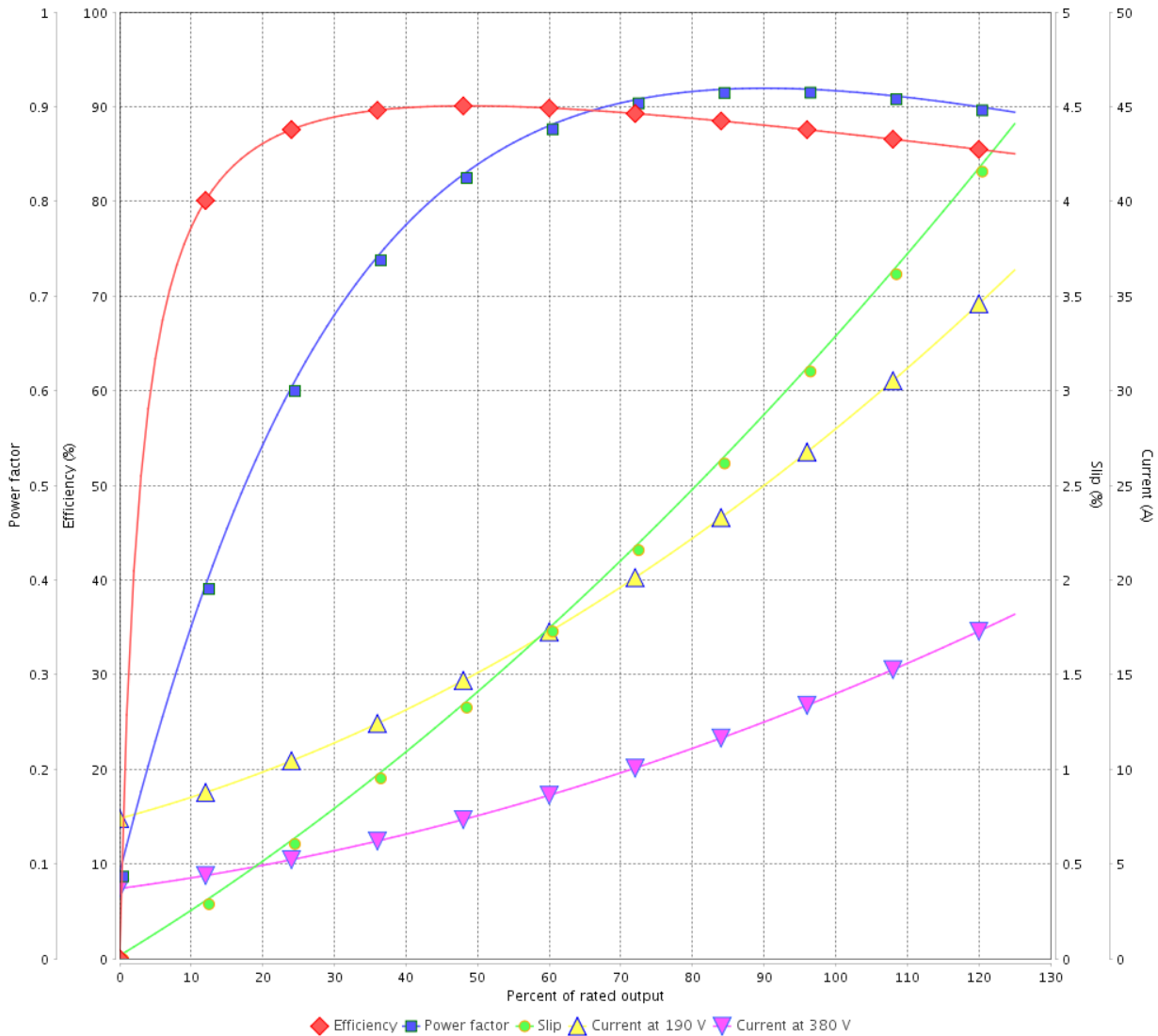
Customer :

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Product code : 12677341

Catalog # : 01036ET3ER215TC-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 28.4/14.2 A  
 LRC : 6.1  
 Rated torque : 18.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 229 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.7188 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

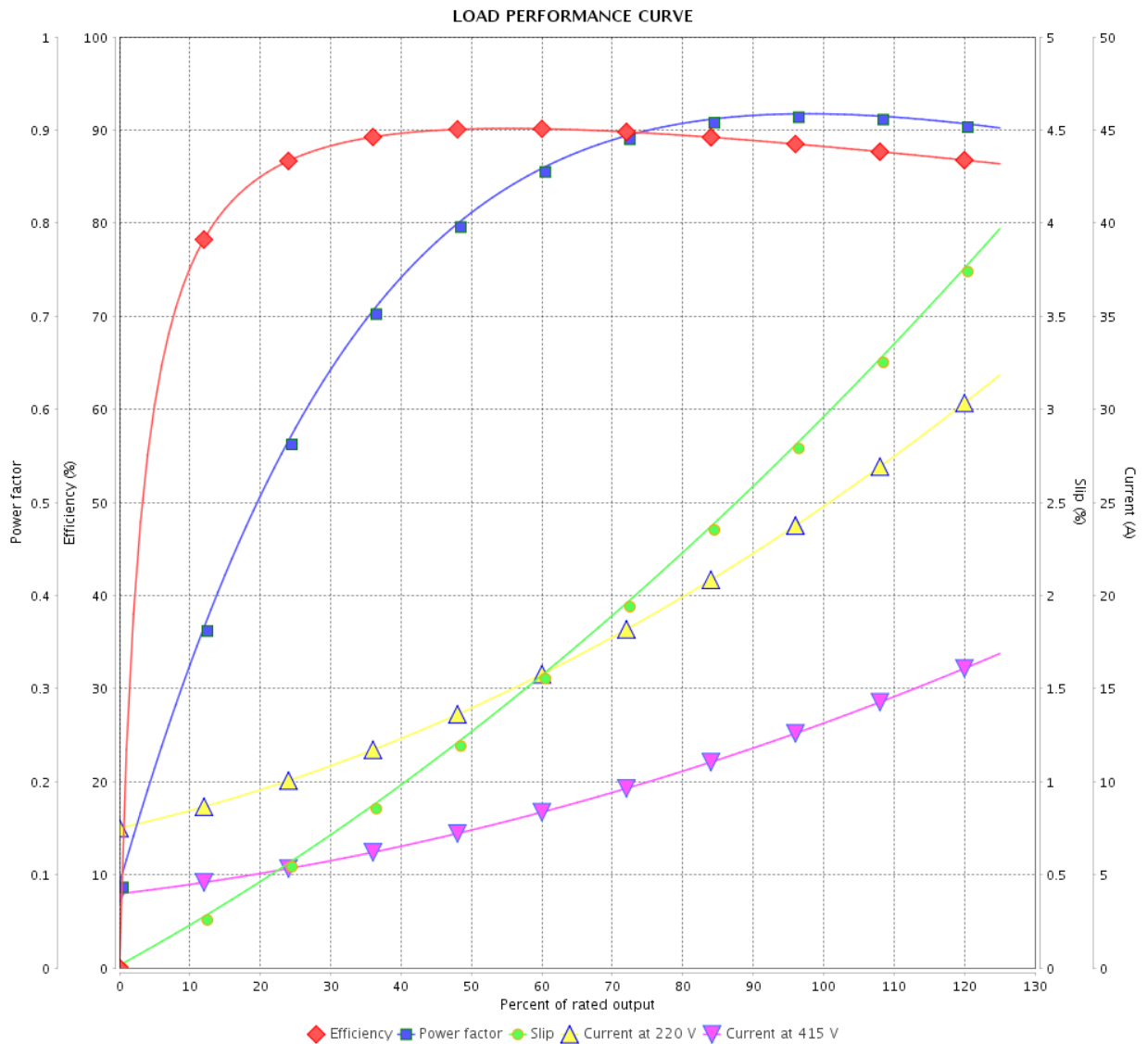


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S



Performance : 220/415 V 50 Hz 2P

Rated current : 25.1/13.3 A  
 LRC : 6.8  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.7188 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12677341  
Catalog # : 01036ET3ER215TC-S

Performance : 230/460 V 60 Hz 2P

Rated current	: 23.0/11.5 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: B

Heating constant

Cooling constant

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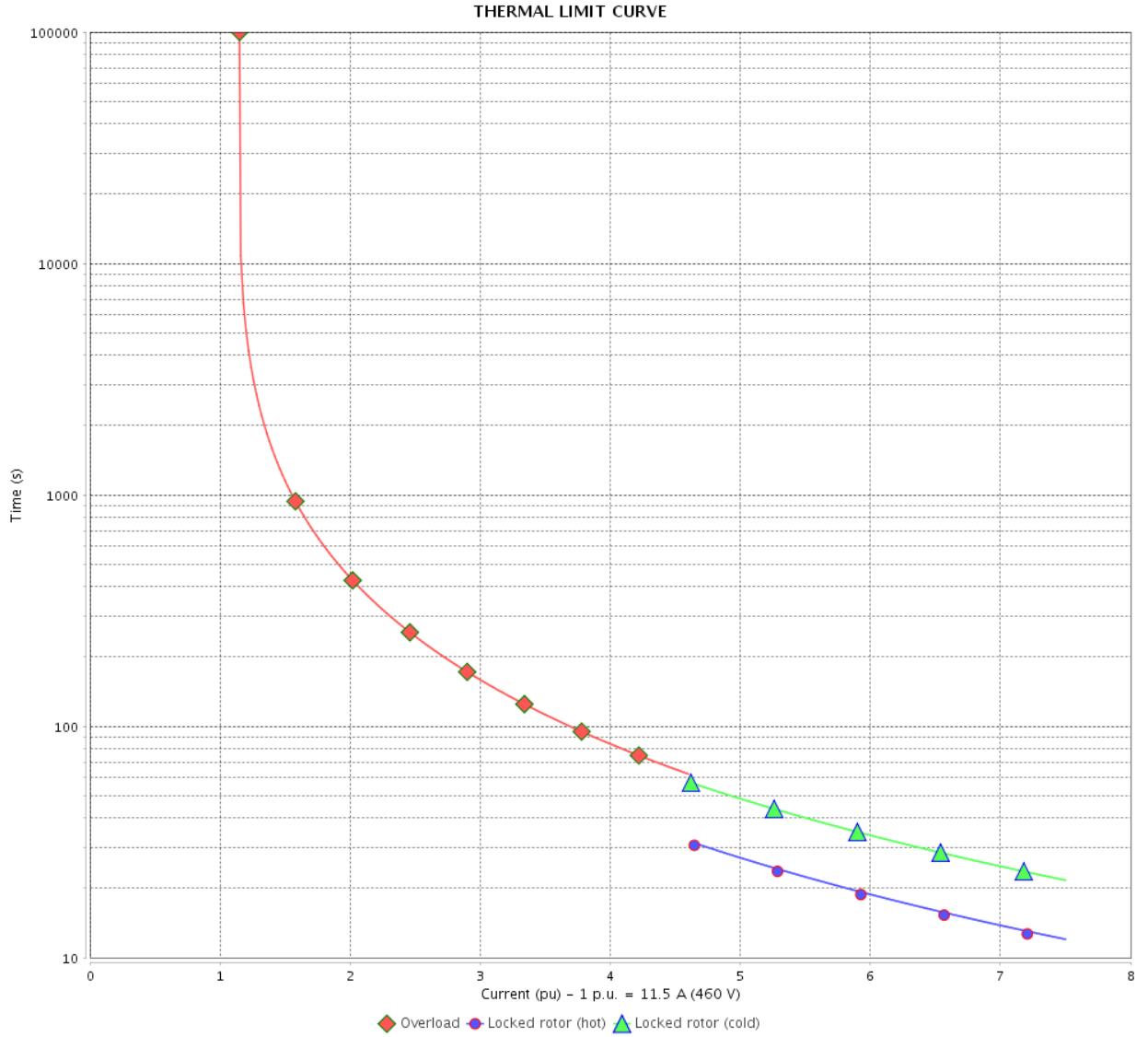


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 12677341  
 Catalog # : 01036ET3ER215TC-S

Performance : 190/380 V 50 Hz 2P

Rated current : 28.4/14.2 A	Moment of inertia (J) : 0.7188 sq.ft.lb
LRC : 6.1	Duty cycle : Cont.(S1)
Rated torque : 18.1 ft.lb	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.00
Breakdown torque : 229 %	Temperature rise : 105 K
Rated speed : 2900 rpm	Design : B

Heating constant

Cooling constant

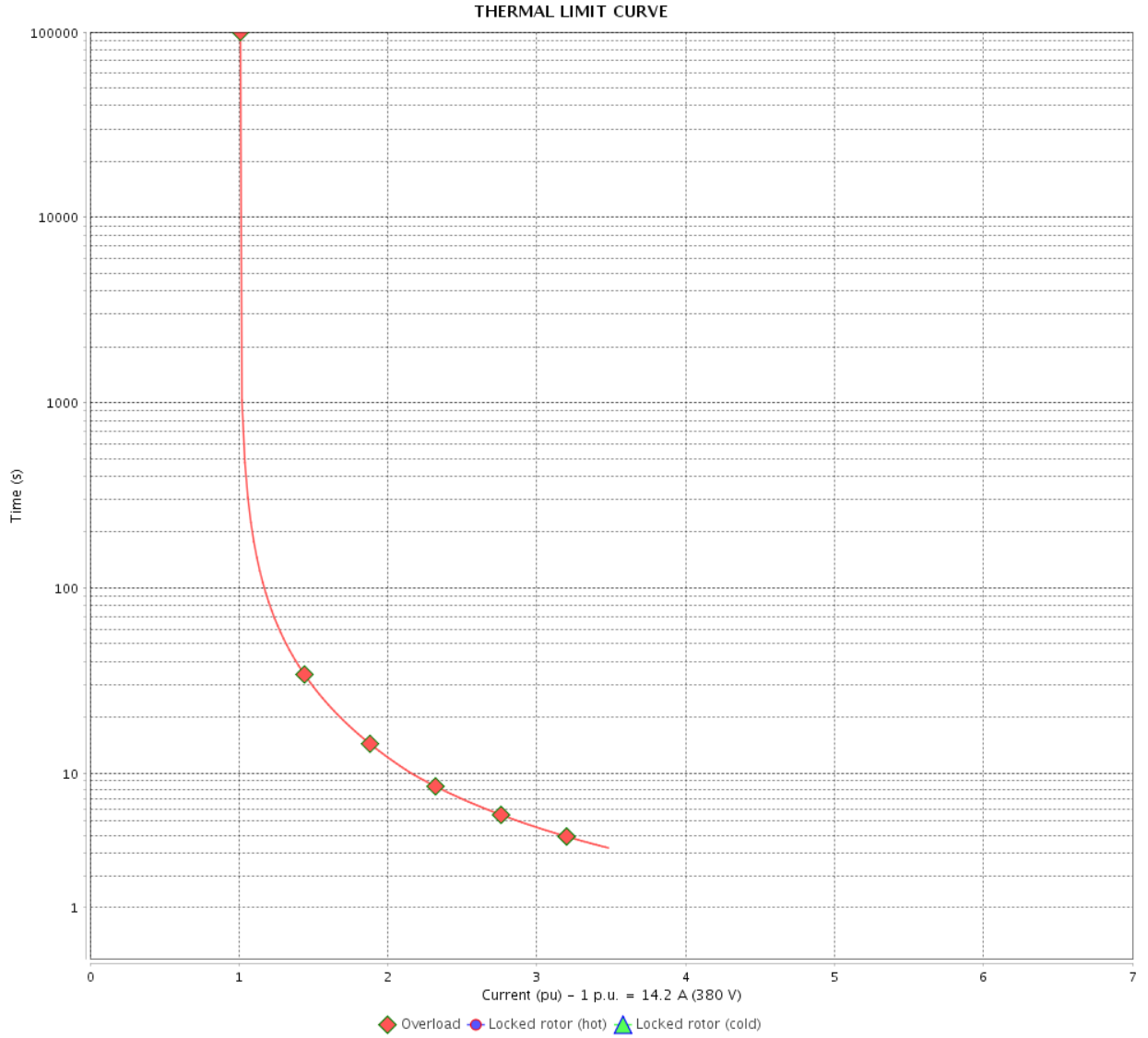
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# THERMAL LIMIT CURVE

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



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Locked rotor torque : 220 %	Service factor : 1.00
Breakdown torque : 260 %	Temperature rise : 105 K
Rated speed : 2910 rpm	Design : B

Heating constant

Cooling constant

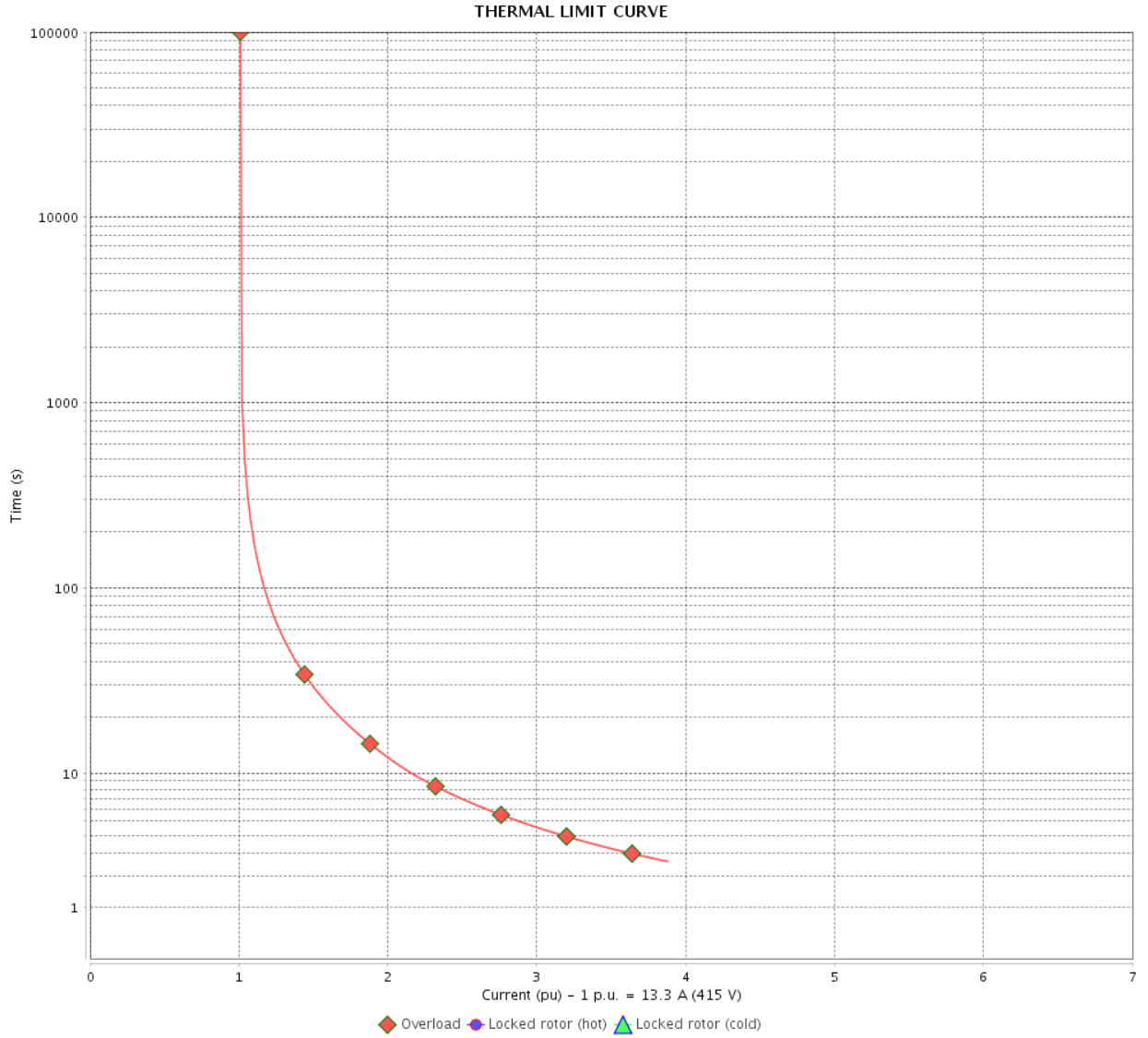
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

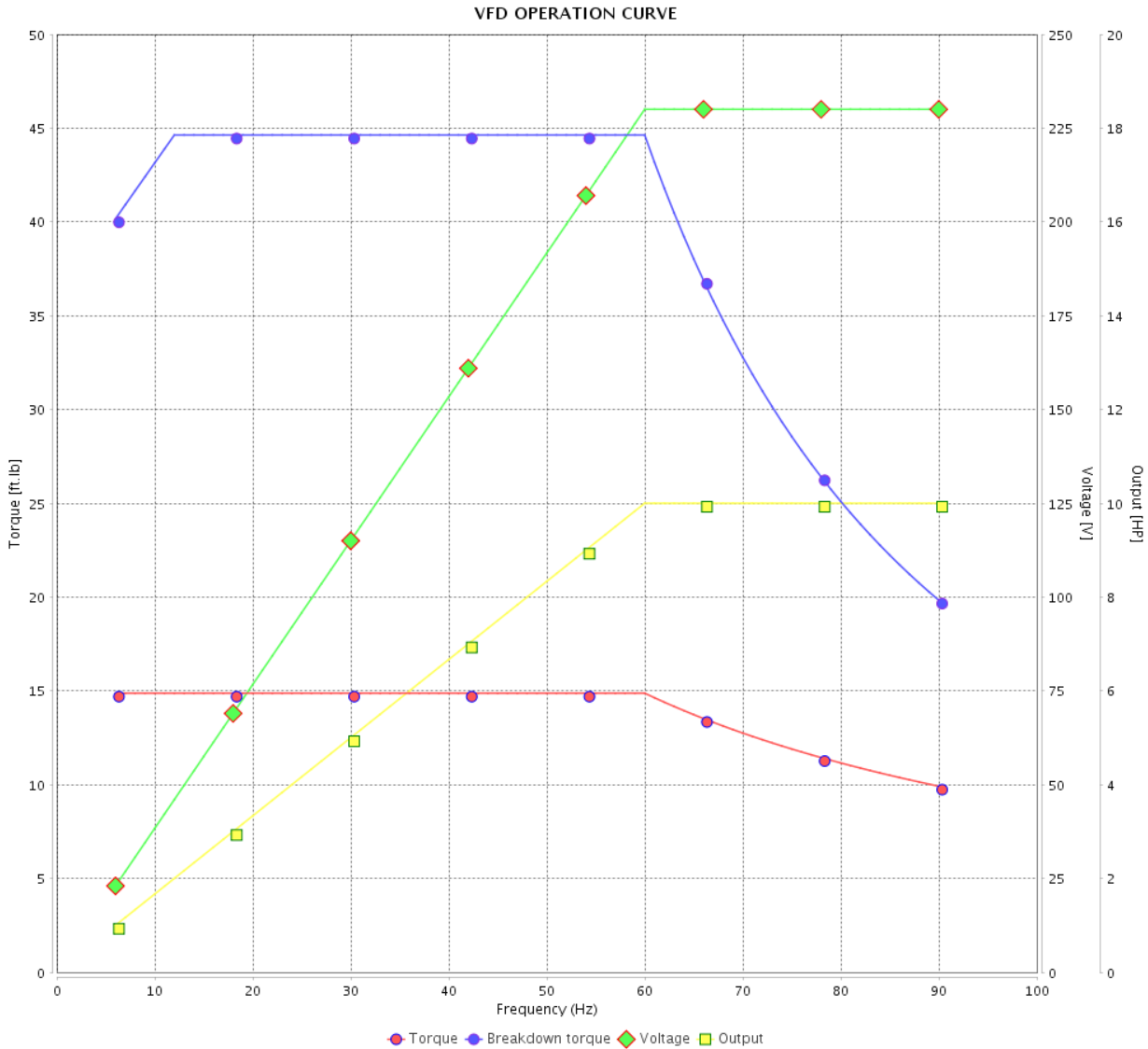


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677341

Catalog # : 01036ET3ER215TC-S



Performance : 230/460 V 60 Hz 2P

Rated current : 23.0/11.5 A  
 LRC : 7.5  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 3530 rpm

Moment of inertia (J) : 0.7188 sq.ft.lb  
 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

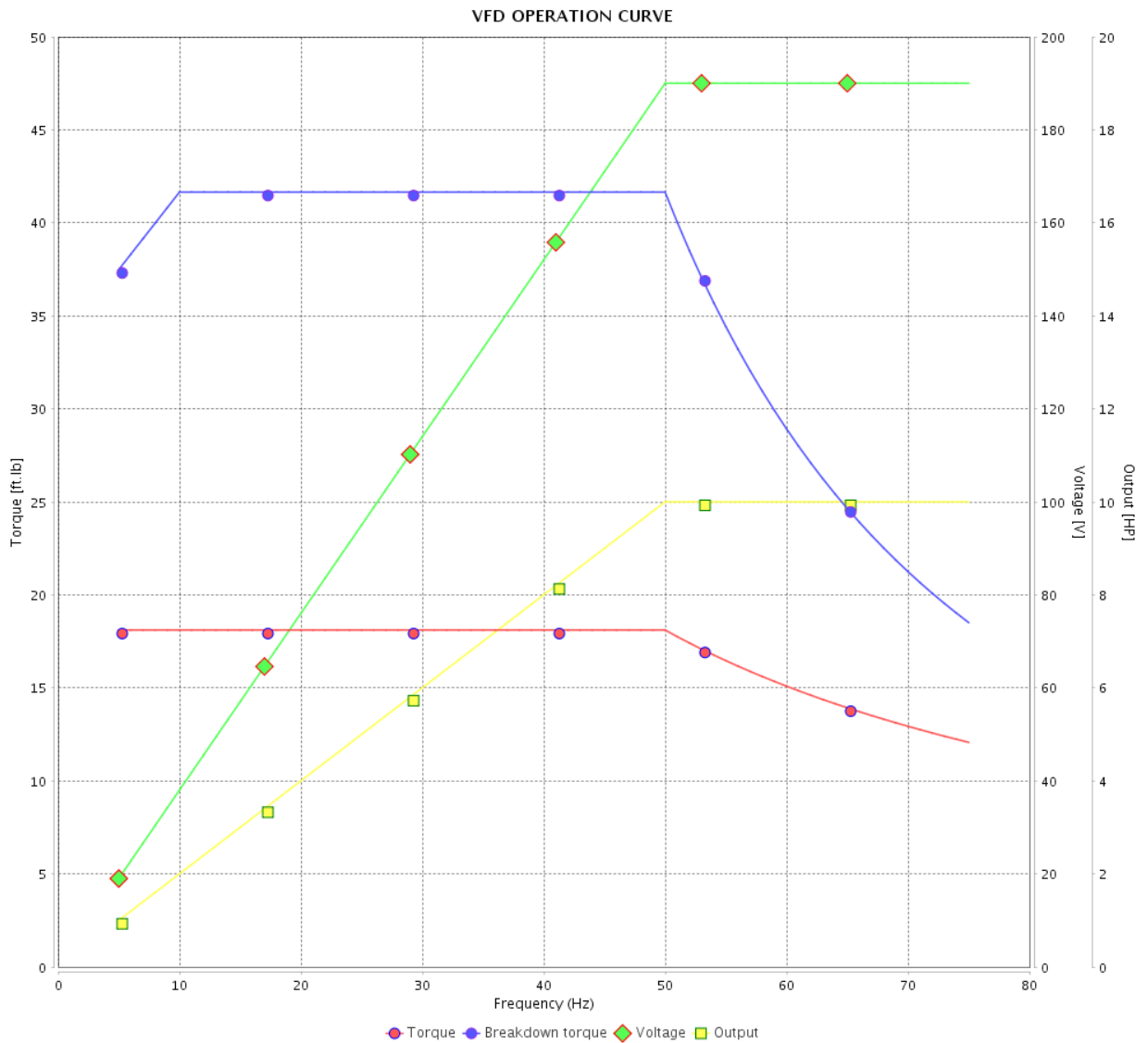


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 Breakdown torque : 229 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.7188 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

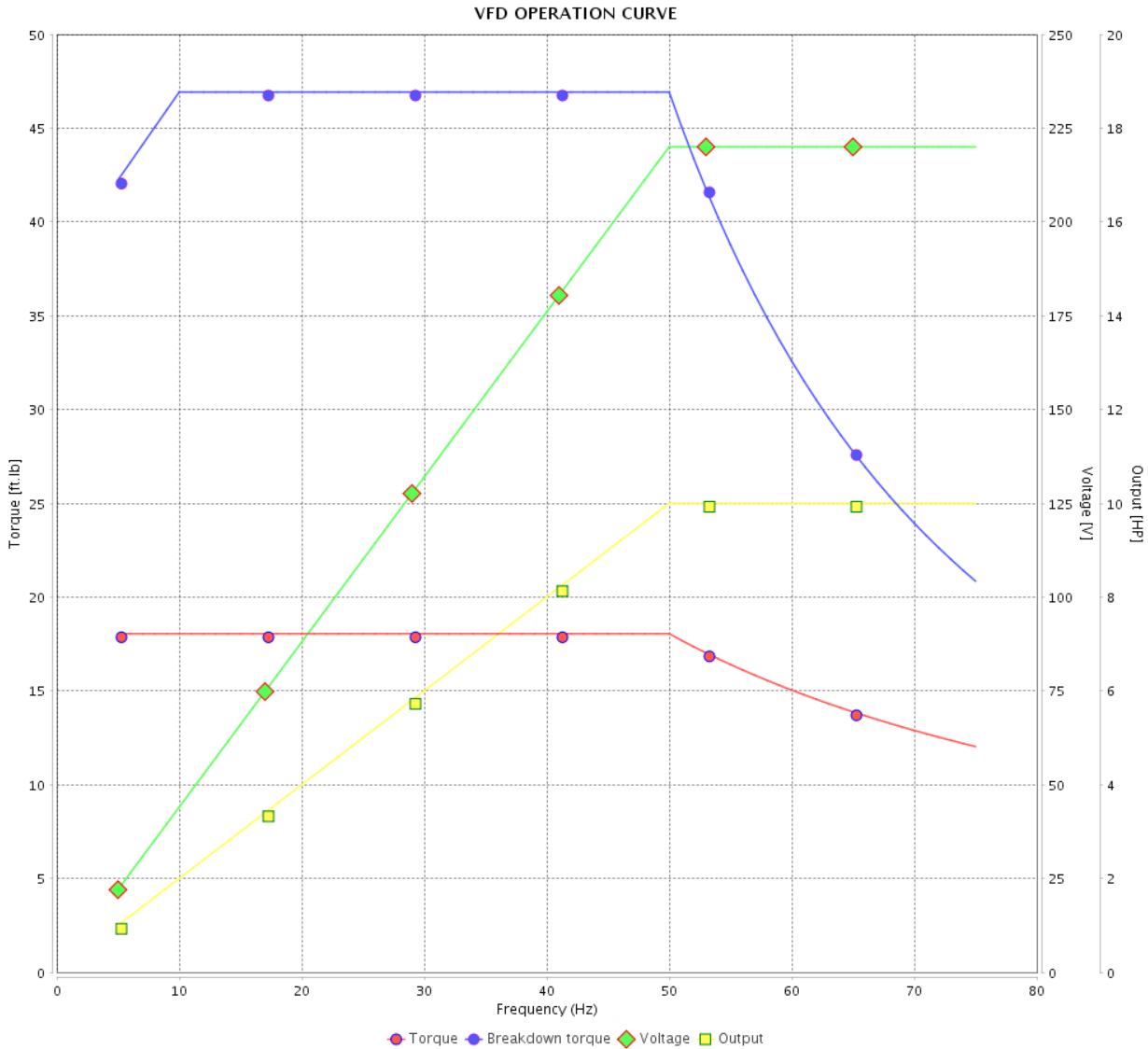


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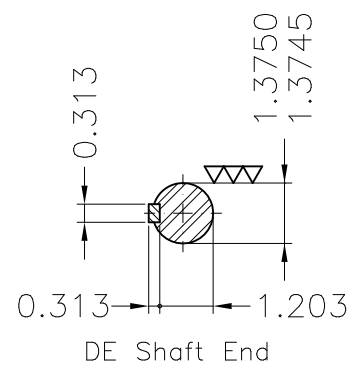
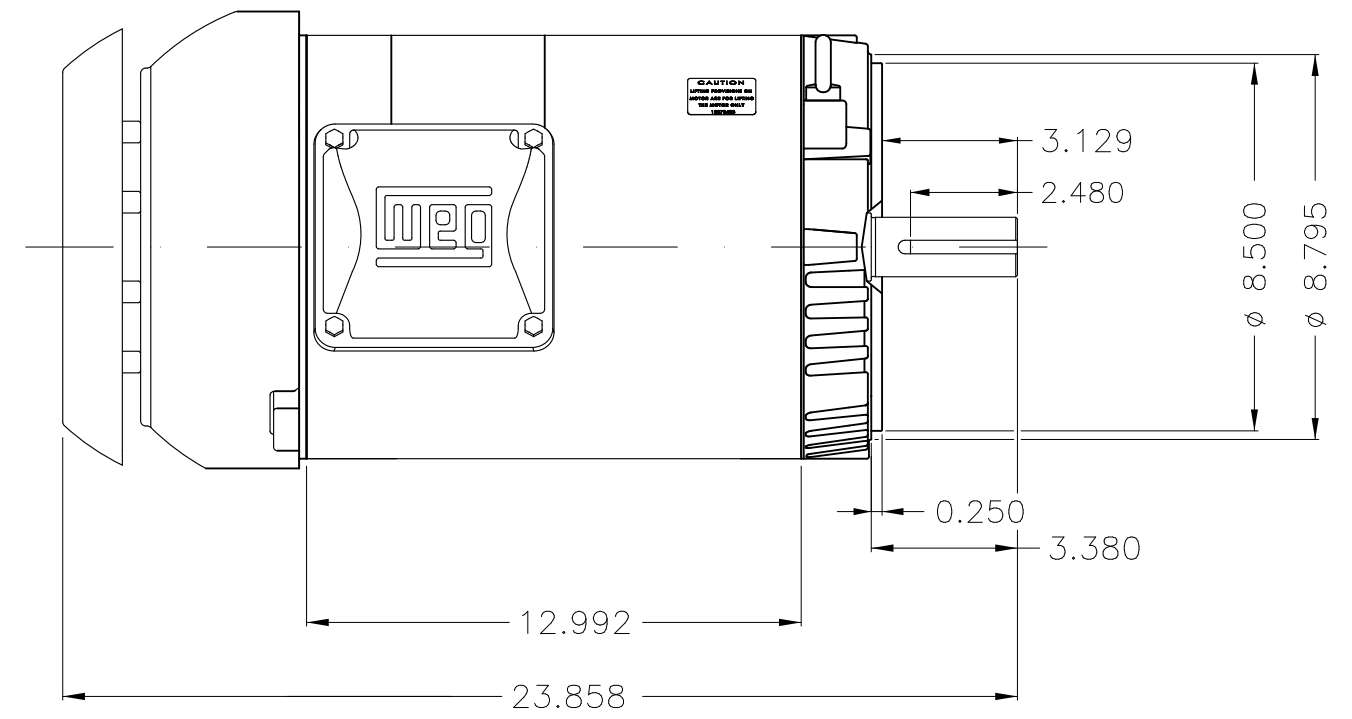
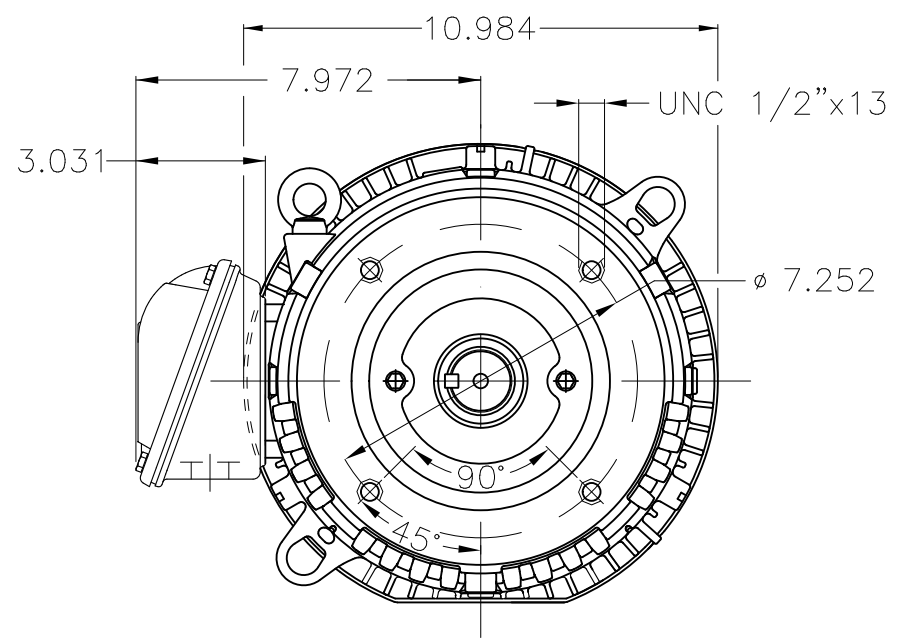
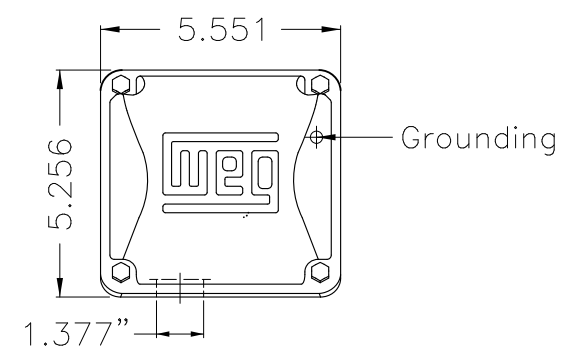
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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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1 2 3 4 5 6

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 213/5TC IP55 TEFC							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			

10 HP 02 Poles 60 Hz

A



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 12677341 CC029A**

**W01.TE0IC0X0N**

**MODEL 01036ET3ER215TC-S**

**25FEB2022 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 10</b>
<b>FR 213/5TC</b>		<b>KW 7.5</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 23.0/11.5</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 26.4/13.2</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE H</b>	<b>PF 0.91</b>
<b>USABLE @ 208V 25.4A</b>		<b>RPM 3530</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 90.2%</b>

<b>ALTERNATE RATING: 10HP 50Hz 190-220/380-415V SF1.00</b>
<b>28.4-24.3/14.2-12.9A 2900RPM EFF 87.2% (IE1) IEC 60034-1</b>

For safe area-Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

<b>DE 6208-ZZ</b>	<b>ODE 6206-ZZ</b>	<b>MOBIL POLYREX EM</b>
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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.