

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: Rolled Steel NEMA Premium Efficiency Three-Phase		Product code :	1412239
			Catalog # :	01036ET3E215TC-S	
Frame	:	213/5TC	Cooling method	:	IC411 - TEFC
Insulation class	:	F	Mounting	:	W-6
Duty cycle	:	Cont.(S1)	Rotation <sup>1</sup>	:	Both (CW and CCW)
Ambient temperature	:	-20°C to +40°C	Starting method	:	Direct On Line
Altitude	:	1000 m.a.s.l.	Approx. weight <sup>2</sup>	:	164 lb
Protection degree	:	IP55	Moment of inertia (J)	:	0.7188 sq.ft.lb
Design	:	B			
Output [HP]		10	10		10
Poles		2	2		2
Frequency [Hz]		60	50		50
Rated voltage [V]		230/460	190-220/380		415
Rated current [A]		23.0/11.5	28.4-24.5/14.2		12.9
L. R. Amperes [A]		173/86.2	173-150/86.6		95.5
LRC [A]		7.5x(Code H)	6.1x(Code G)		7.4x(Code H)
No load current [A]		7.53/3.77	7.43-6.42/3.71		4.20
Rated speed [RPM]		3530	2900		2920
Slip [%]		1.94	3.33		2.67
Rated torque [ft.lb]		14.9	18.1		18.0
Locked rotor torque [%]		260	190		240
Breakdown torque [%]		300	229		280
Service factor		1.15	1.00		1.00
Temperature rise		80 K	105 K		105 K
Locked rotor time		21s (cold) 12s (hot)	19s (cold) 11s (hot)		19s (cold) 11s (hot)
Noise level <sup>2</sup>		70.0 dB(A)	67.0 dB(A)		67.0 dB(A)
Efficiency (%)	25%	89.3	91.7		91.1
	50%	89.5	90.0		90.1
	75%	90.2	89.2		90.0
	100%	90.2	87.2		88.7
Power Factor	25%	0.53	0.59		0.53
	50%	0.80	0.85		0.80
	75%	0.88	0.90		0.88
	100%	0.91	0.92		0.91
Bearing type	:	<u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads		
Sealing	:	V'Ring V'Ring	Max. traction	:	202 lb
Lubrication interval	:	- -	Max. compression	:	366 lb
Lubricant amount	:	- -			
Lubricant type	:	Mobil Polyrex EM			
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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# TORQUE AND CURRENT VS SPEED CURVE



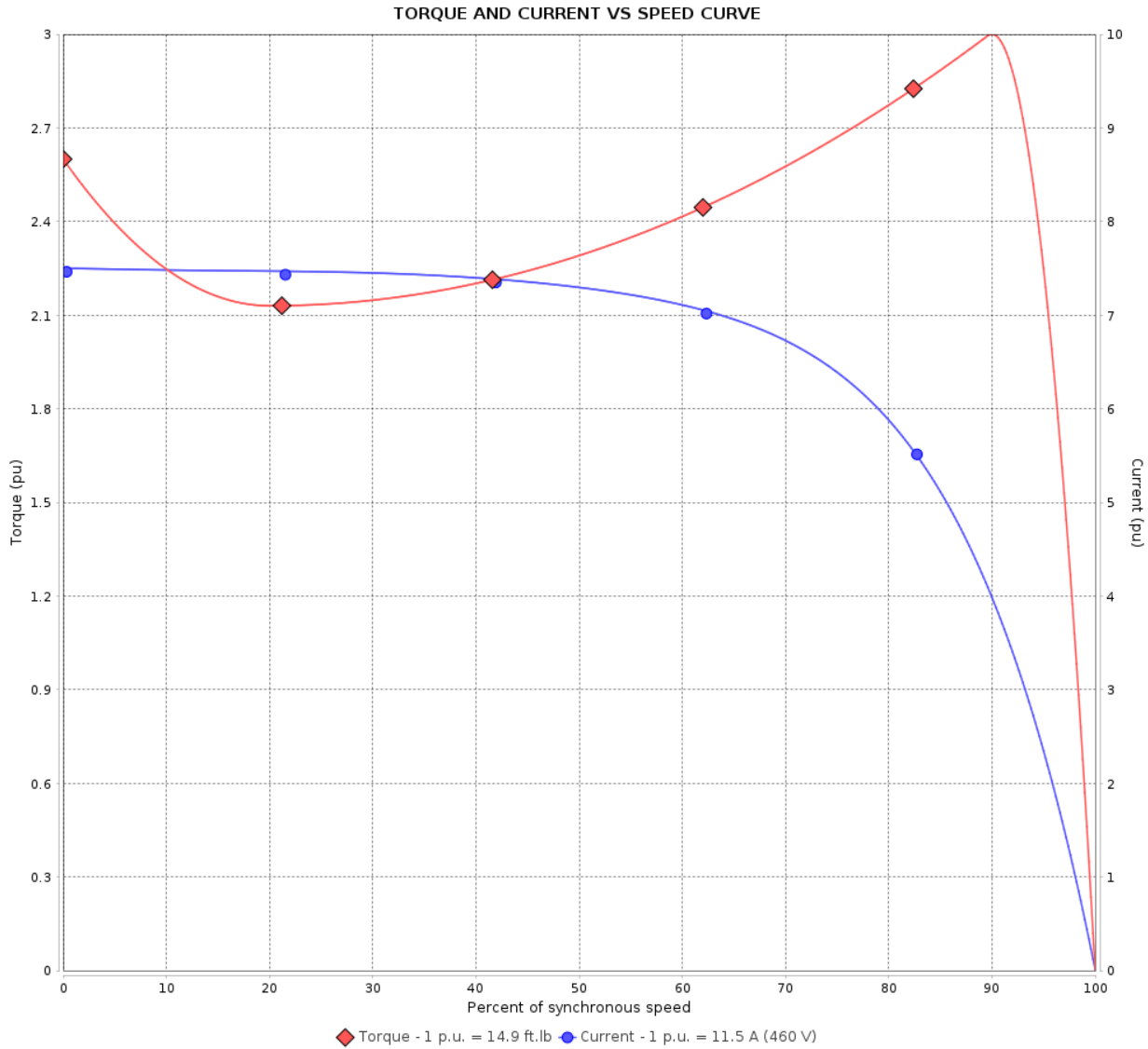
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-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

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

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# TORQUE AND CURRENT VS SPEED CURVE



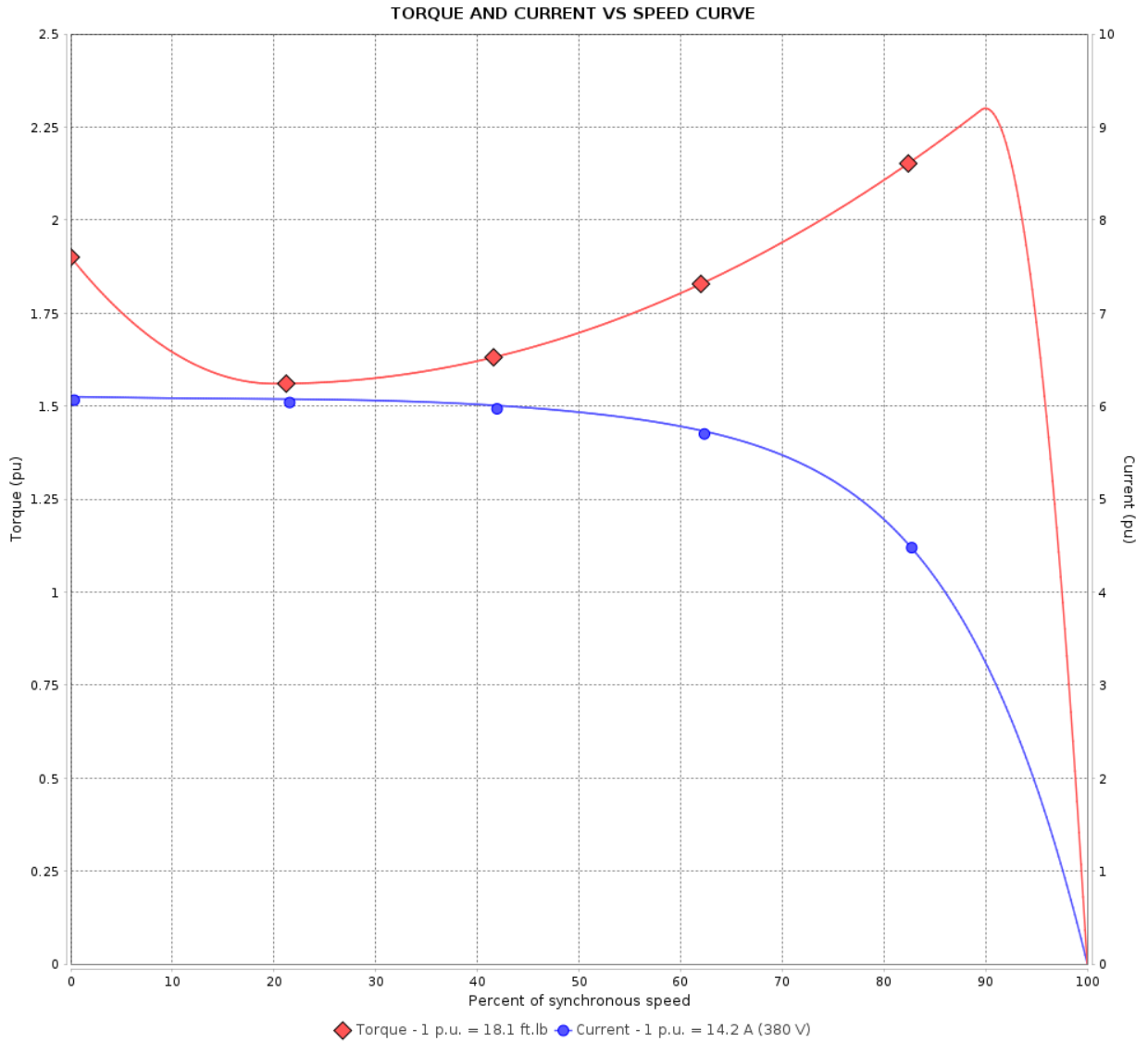
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-S



Performance : 190-220/380 V 50 Hz 2P

Rated current	: 28.4-24.5/14.2 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

Locked rotor time : 19s (cold) 11s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

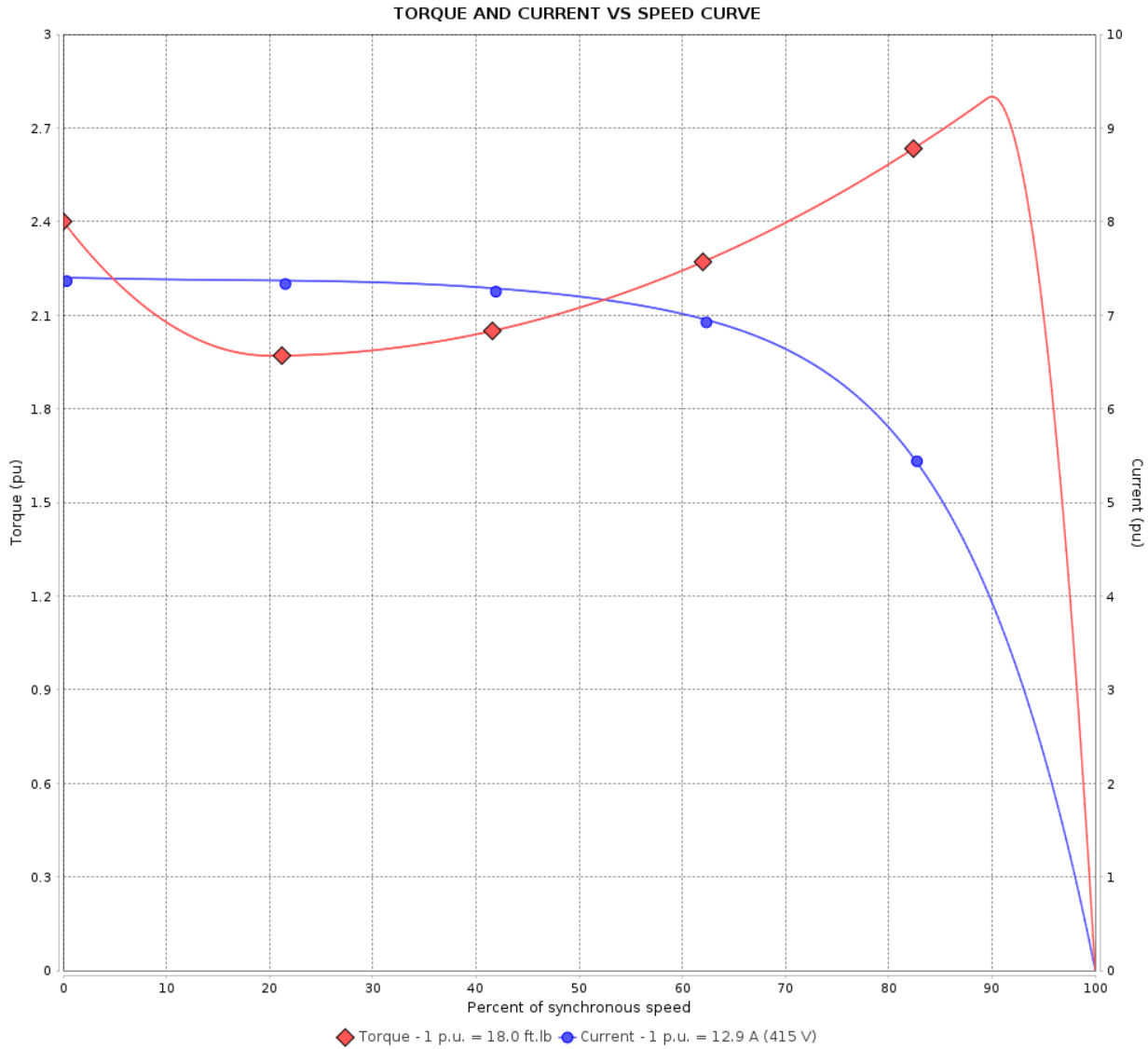


Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-S



Performance : 415 V 50 Hz 2P

Rated current	: 12.9 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 105 K
Rated speed	: 2920 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

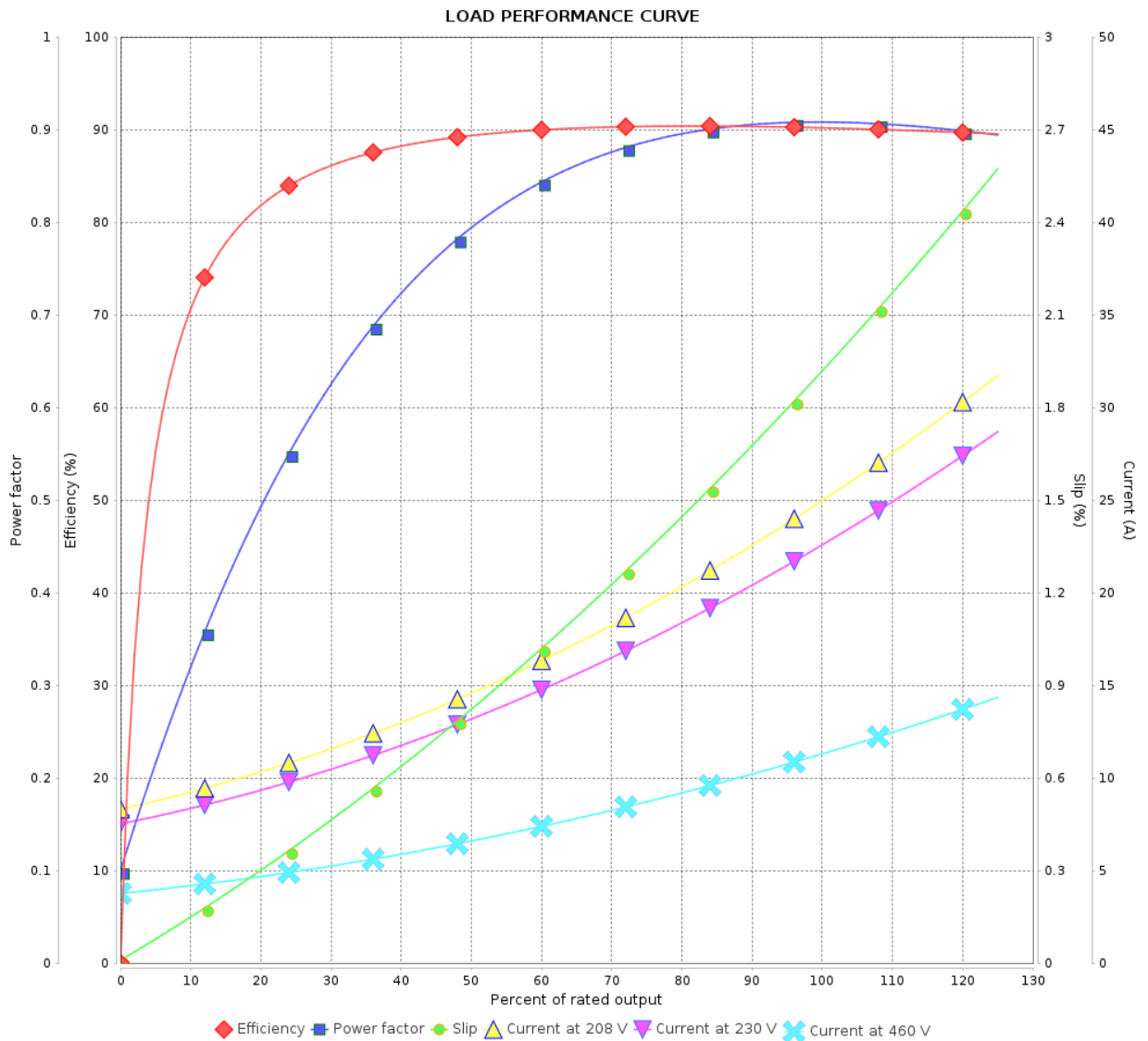


Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 1412239

Catalog # : 01036ET3E215TC-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

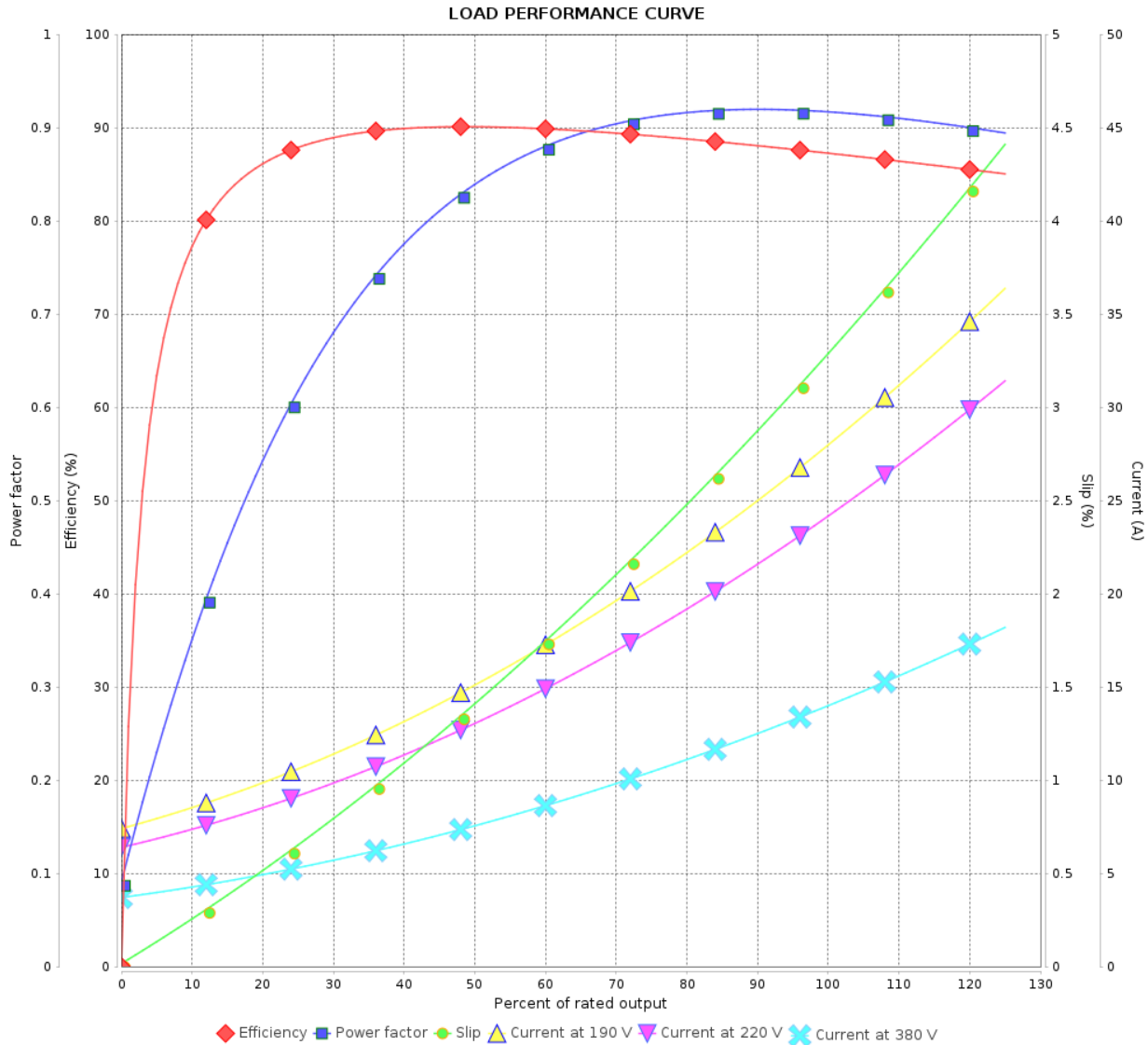


Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-S



Performance : 190-220/380 V 50 Hz 2P

Rated current : 28.4-24.5/14.2 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

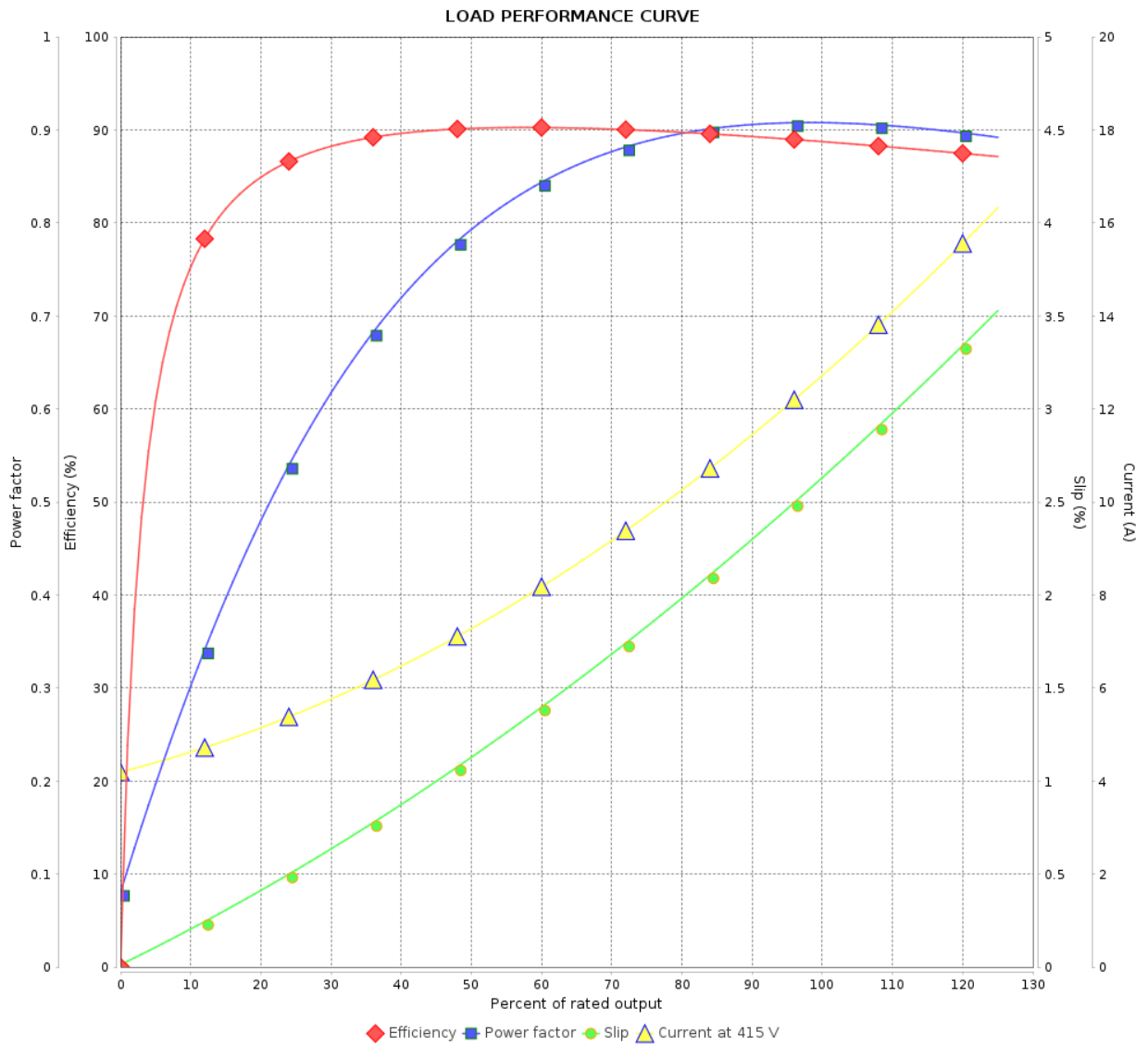


Customer :

Product line : Rolled Steel NEMA Premium Efficiency Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-S



Performance : 415 V 50 Hz 2P

Rated current : 12.9 A  
 LRC : 7.4  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 280 %  
 Rated speed : 2920 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 : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-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

Heating constant

Cooling constant

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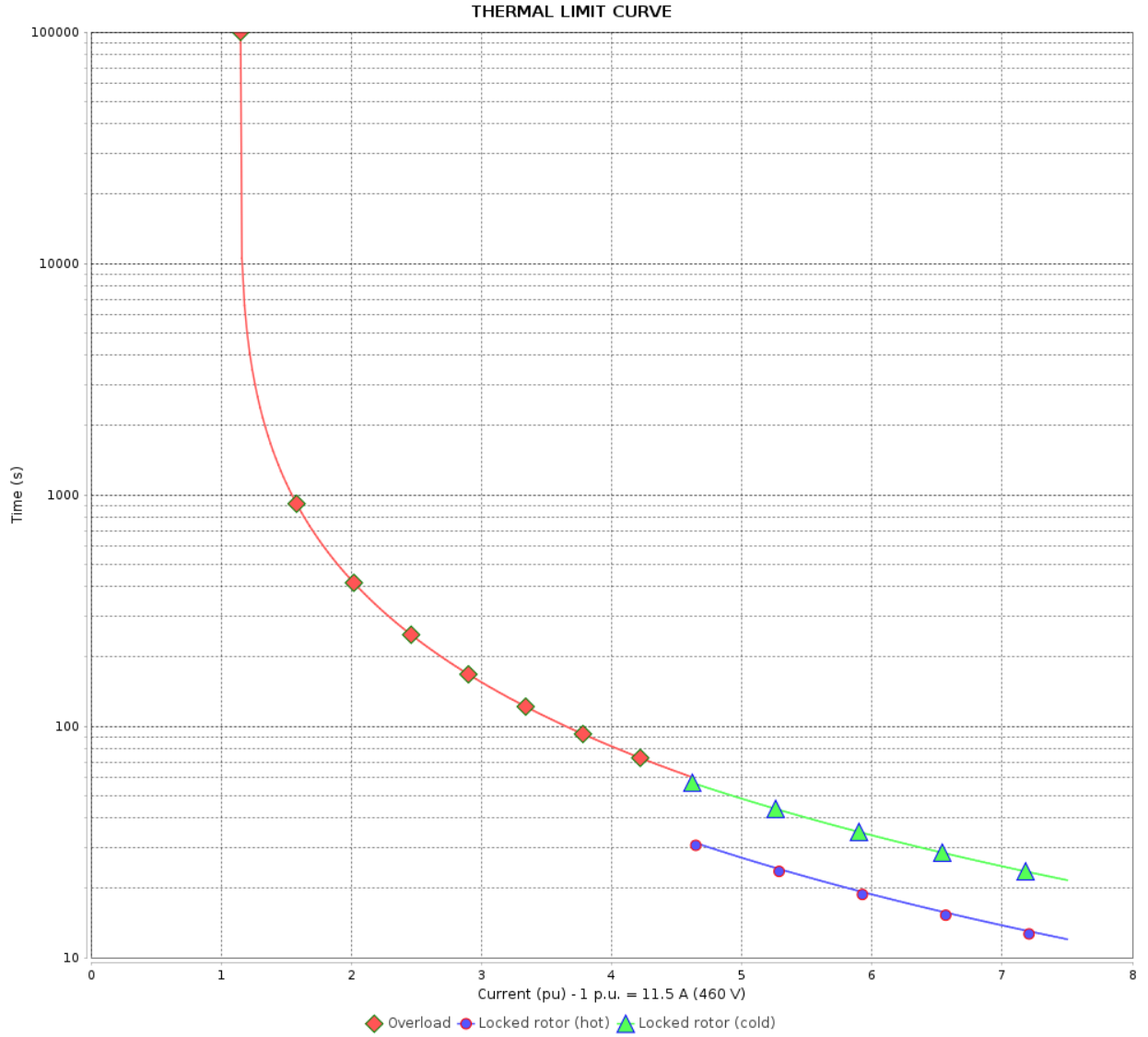


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : Rolled Steel NEMA Premium Efficiency  
Three-Phase

Product code : 14122239

Catalog # : 01036ET3E215TC-S

Performance : 190-220/380 V 50 Hz 2P

Rated current : 28.4-24.5/14.2 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  
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Design : B

Heating constant

Cooling constant

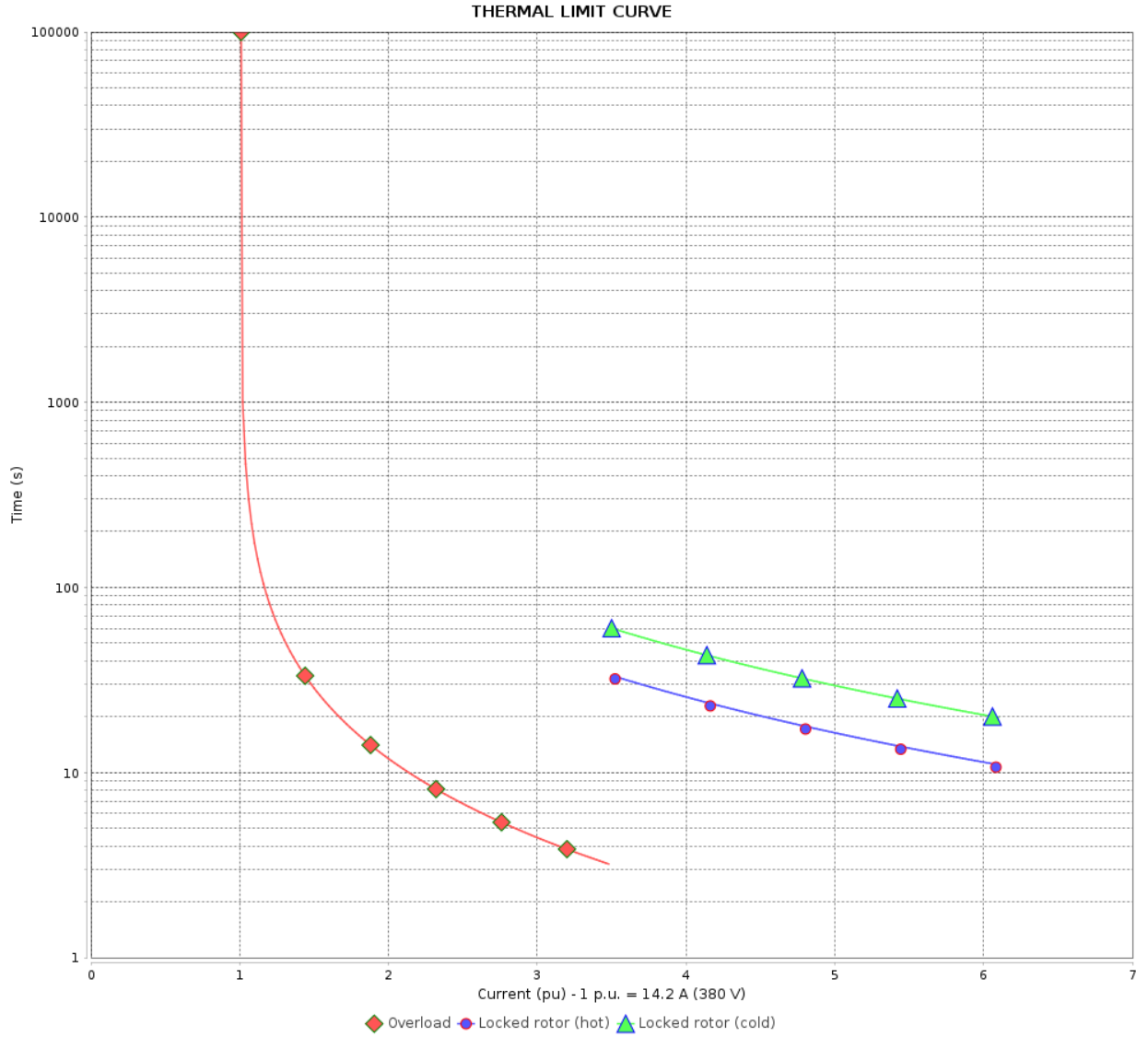
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Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Product code : 14122239

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Performance : 415 V 50 Hz 2P

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Rated speed : 2920 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

Heating constant

Cooling constant

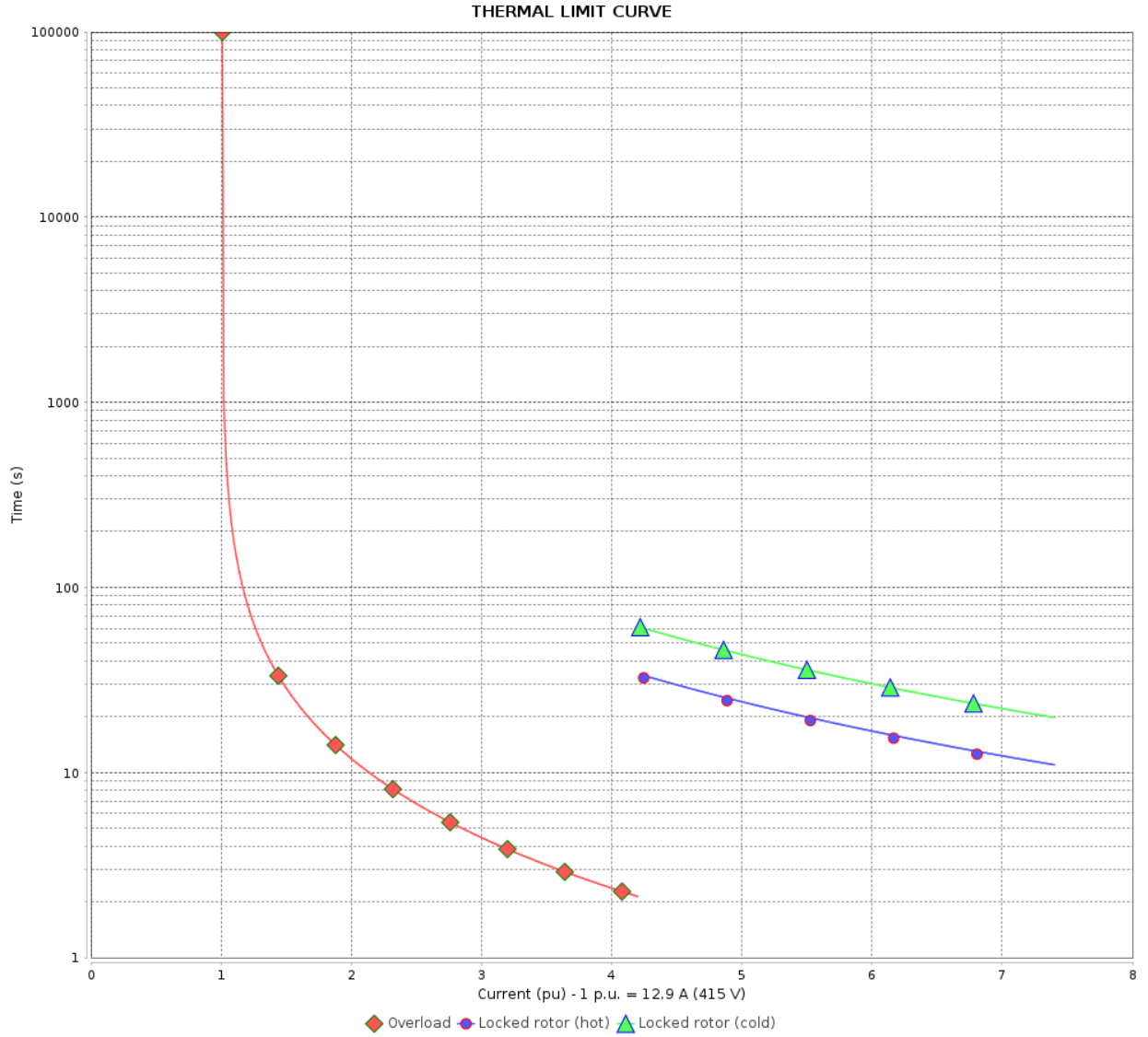
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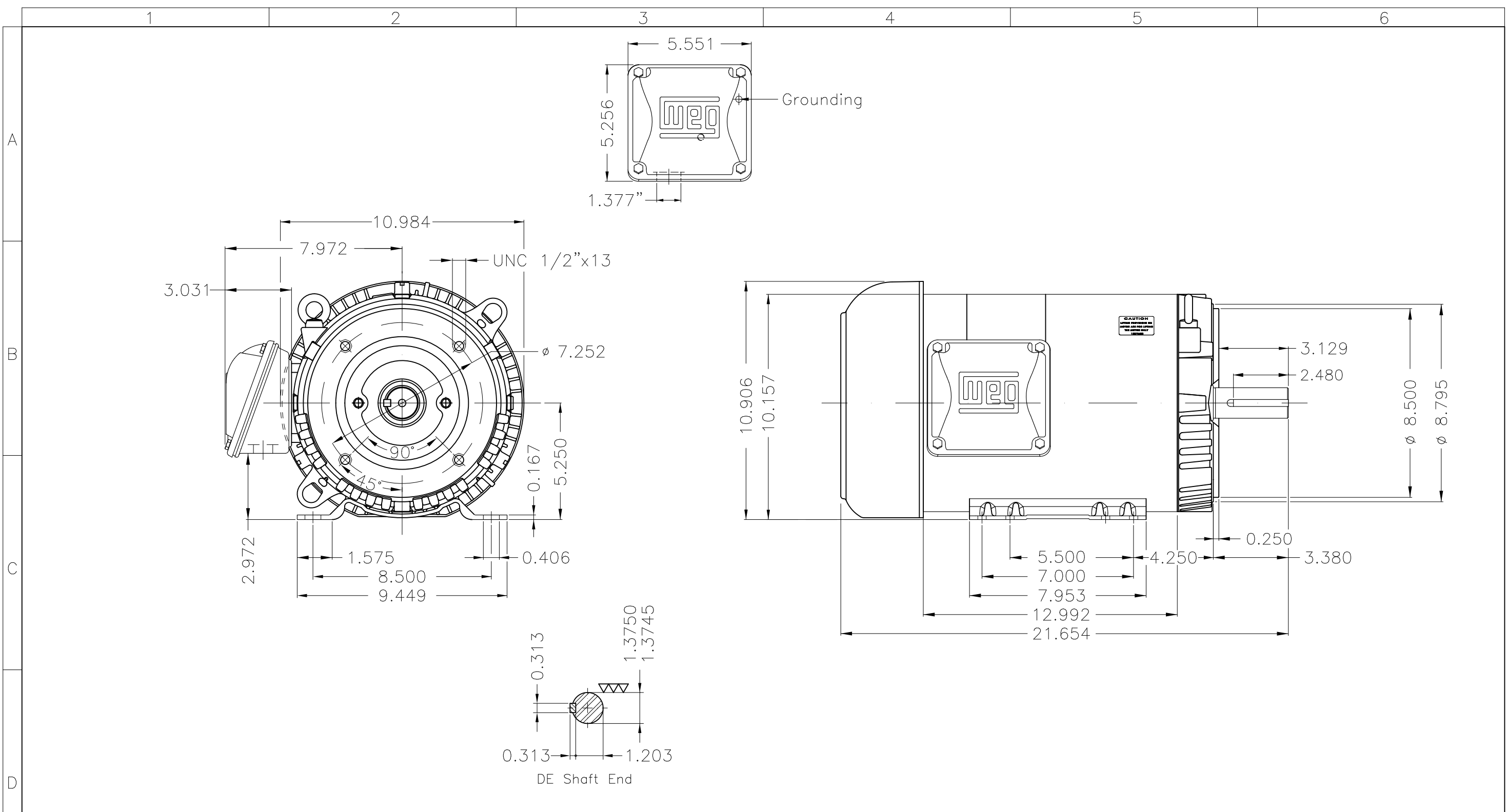
Three Phase Induction Motor - Squirrel Cage



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**10 HP 02 Poles 60 Hz**

NDE sealing - V ring									
Color Munsell N 1 matte black									
Painting plan 207N									
Mounting W-6/V17R(D)									
					USERADMIN		00		
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	USERADMIN	THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF.		<b>PREVIEW</b>					
CHECKED		FRAME 213/5TC IP55 TEFC							
RELEASED									
REL. DATE		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1			



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 14122239 CC029A**

**W01.TE0IC0X0N**

**MODEL 01036ET3E215TC-S**

**For 60Hz: Class I, Zone 2, IIC**

**Class I, Div.2, Gr. A,B,C,D - T3**

**Class II, Div.2, Gr. F,G - T4**

**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>RPM 3530</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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**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.

