

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12674692	
		Catalog # :	01036OT3E213TC-S	
Frame	: 213/5TC	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
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>	: 133 lb	
Design	: B	Moment of inertia (J)	: 0.4651 sq.ft.lb	
Output [HP]	10	10	10	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	24.0/12.0	29.0/14.5	26.0/13.8	
L. R. Amperes [A]	163/81.6	157/78.3	159/84.2	
LRC [A]	6.8x(Code H)	5.4x(Code F)	6.1x(Code G)	
No load current [A]	9.32/4.66	9.15/4.58	9.58/5.08	
Rated speed [RPM]	3535	2910	2925	
Slip [%]	1.81	3.00	2.50	
Rated torque [ft.lb]	14.9	18.0	18.0	
Locked rotor torque [%]	200	150	170	
Breakdown torque [%]	280	210	240	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	19s (cold) 11s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	66.0 dB(A)	64.0 dB(A)	64.0 dB(A)	
Efficiency (%)	25%	88.3	91.2	90.6
	50%	88.5	89.4	89.3
	75%	89.5	88.6	89.0
	100%	89.5	86.5	87.4
Power Factor	25%	0.47	0.53	0.49
	50%	0.74	0.80	0.77
	75%	0.84	0.88	0.86
	100%	0.88	0.91	0.90
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 176 lb	
		Max. compression	: 309 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 26.5A SF 1.00 SFA 26.5A				
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



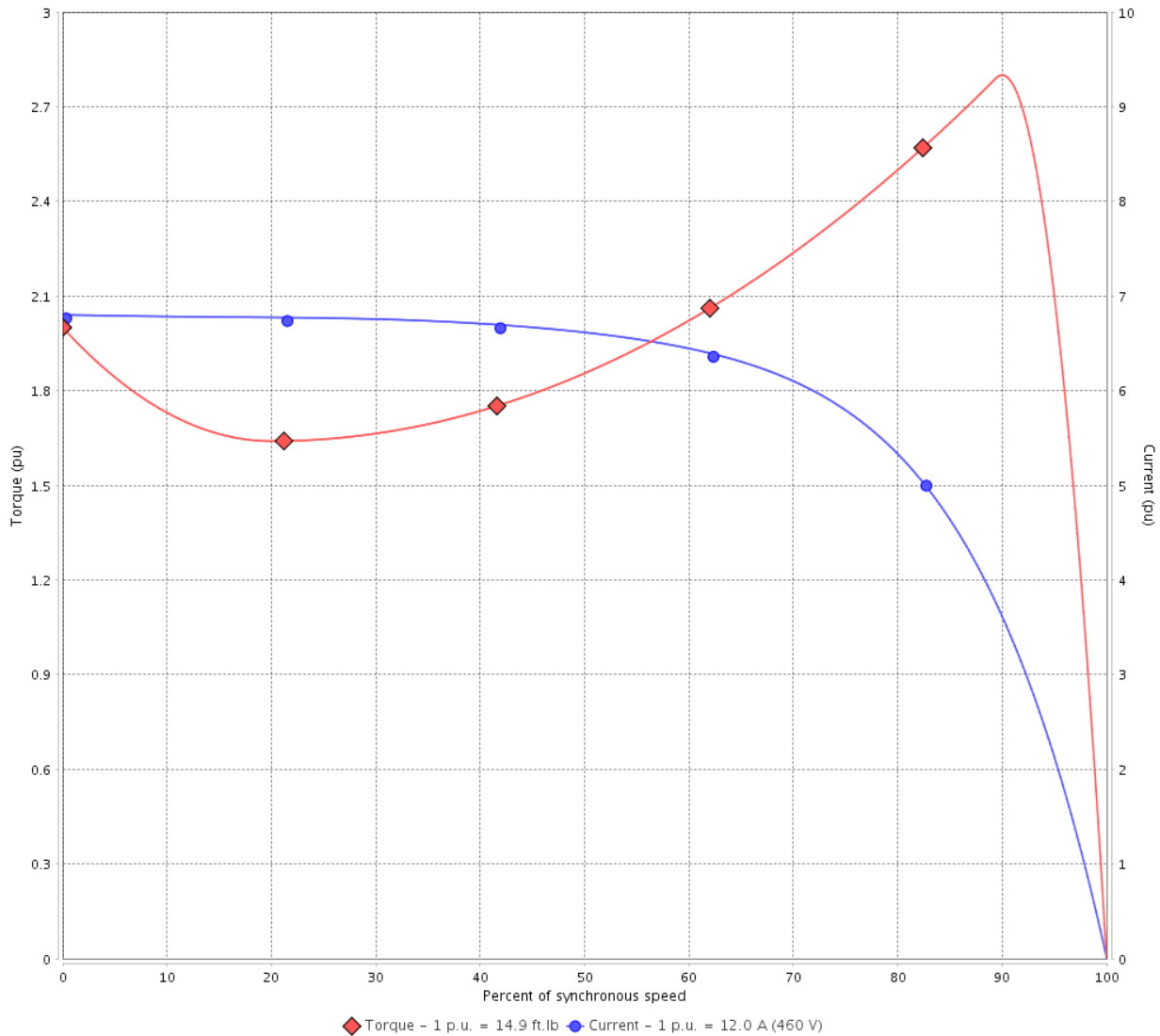
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 010360T3E213TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 24.0/12.0 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

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

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# TORQUE AND CURRENT VS SPEED CURVE



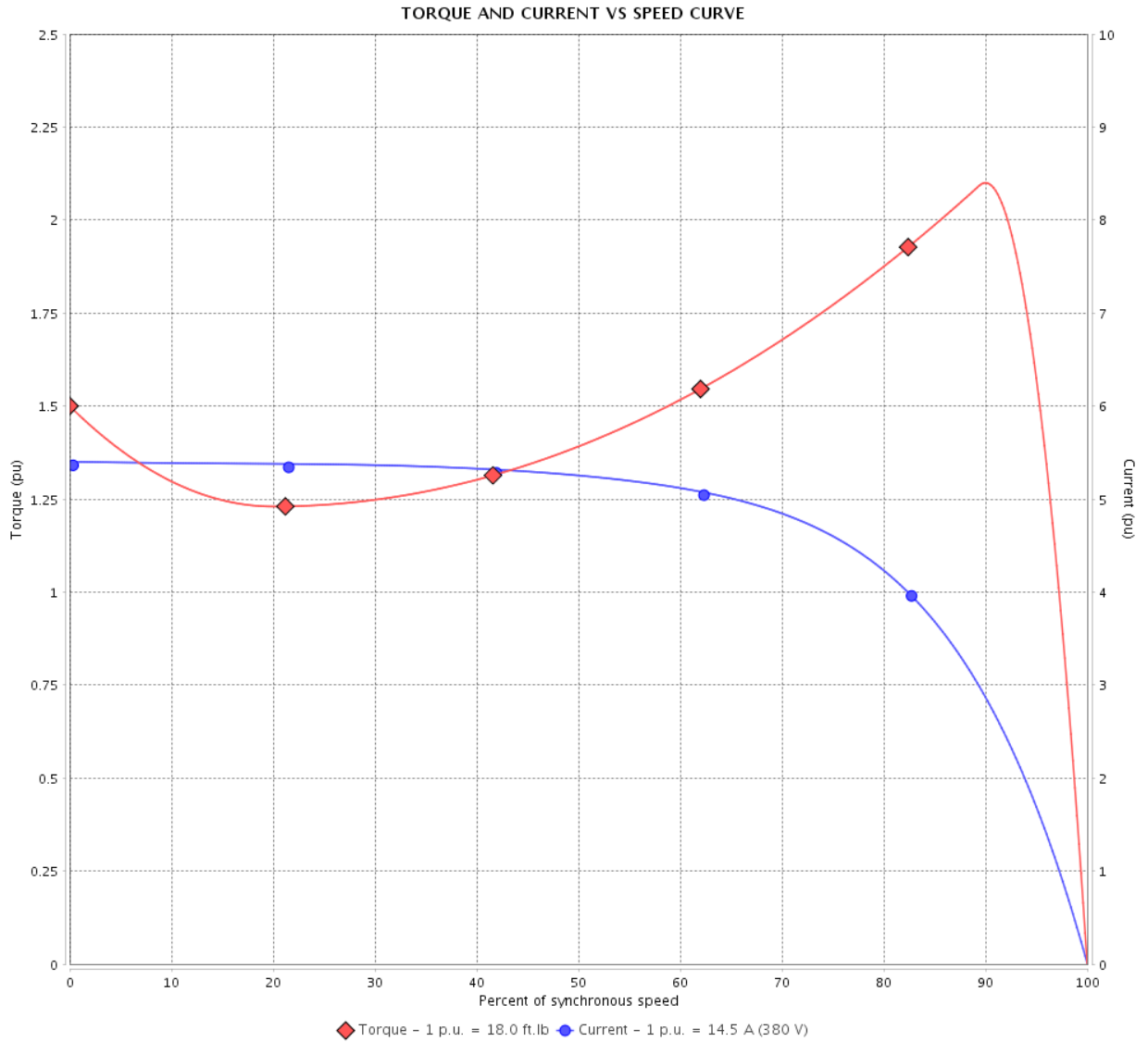
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S



Performance : 190/380 V 50 Hz 2P

Rated current : 29.0/14.5 A  
 LRC : 5.4  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 150 %  
 Breakdown torque : 210 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.4651 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



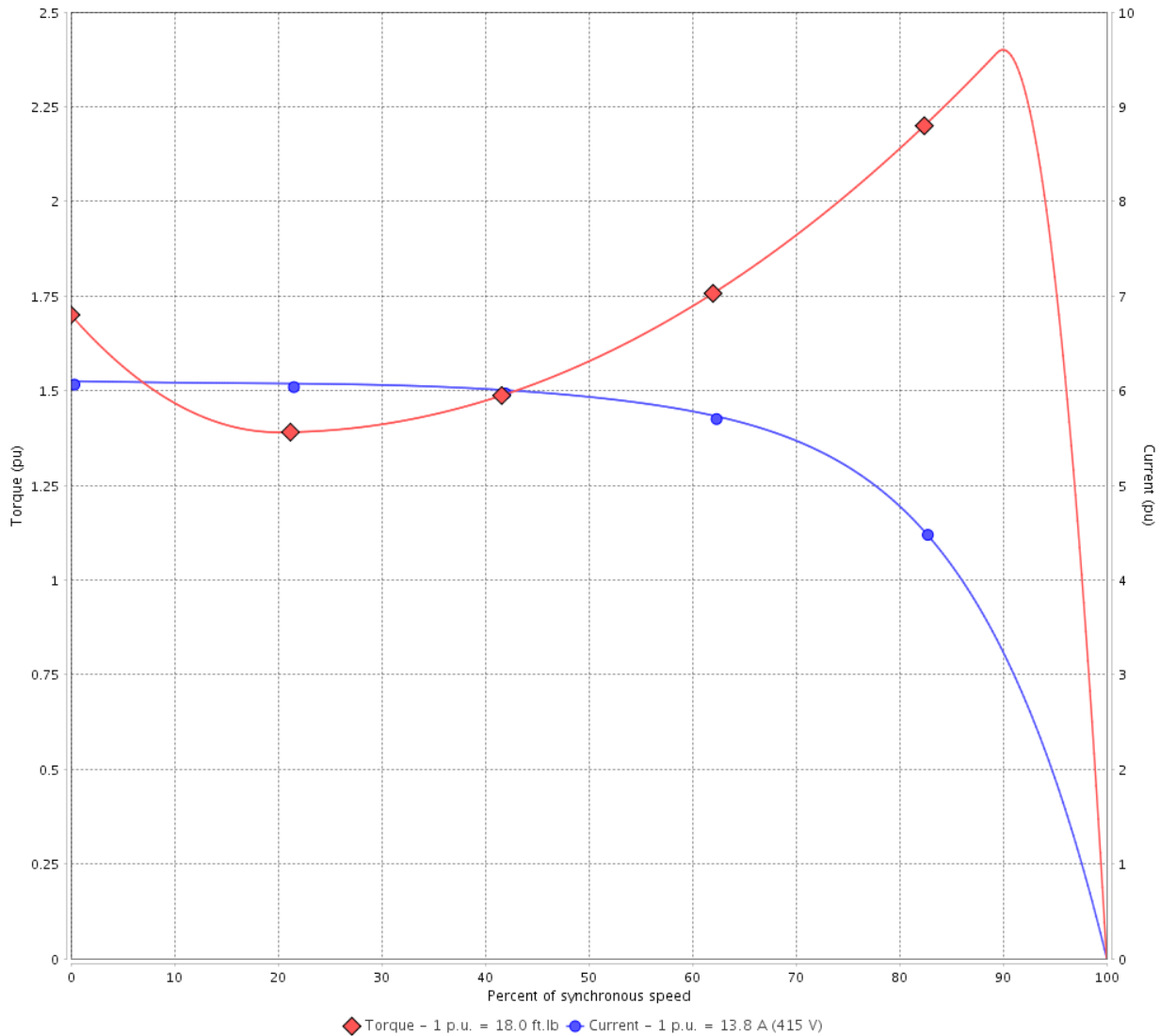
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 26.0/13.8 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

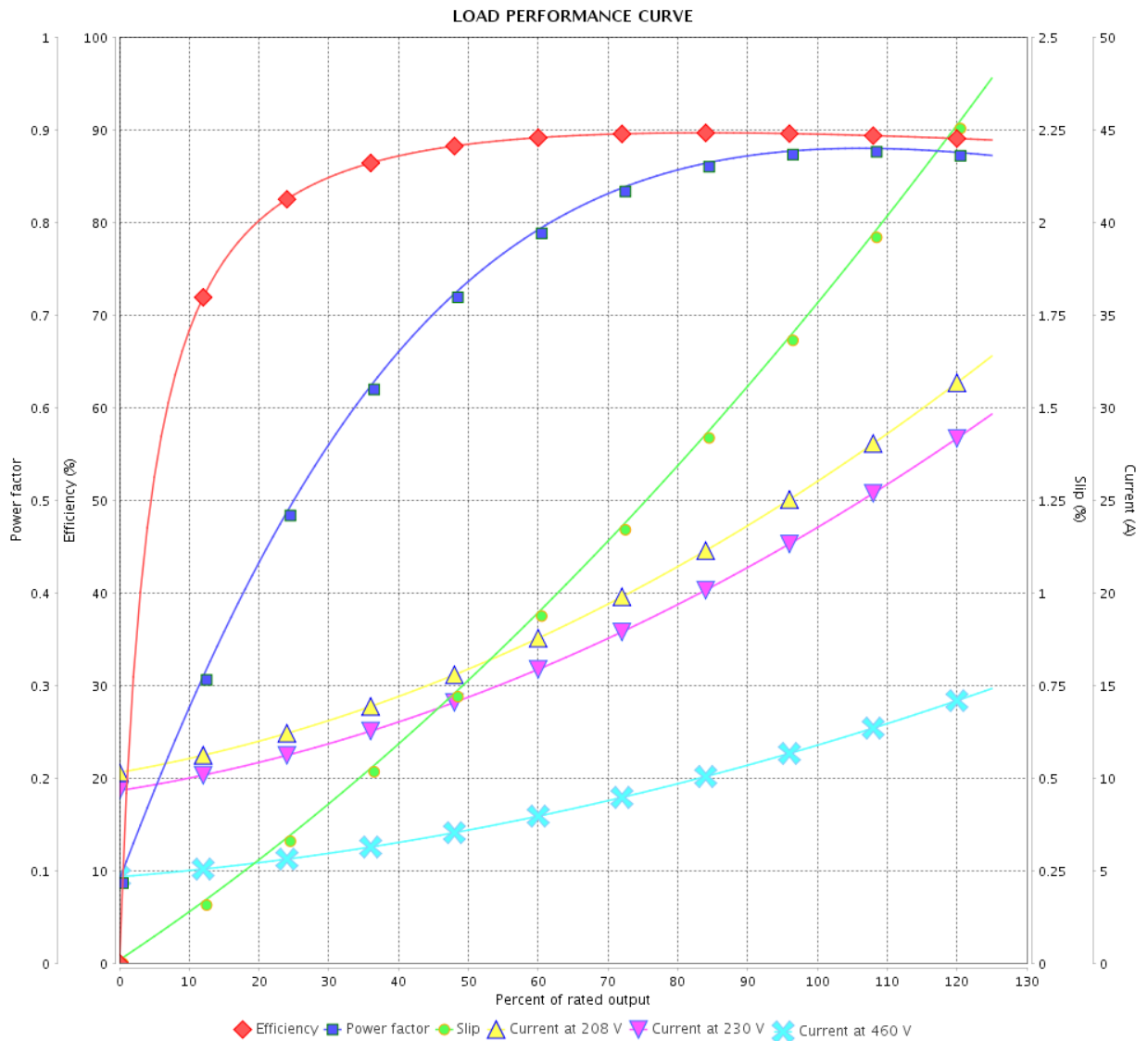


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S



Performance : 230/460 V 60 Hz 2P

Rated current : 24.0/12.0 A  
 LRC : 6.8  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 3535 rpm

Moment of inertia (J) : 0.4651 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



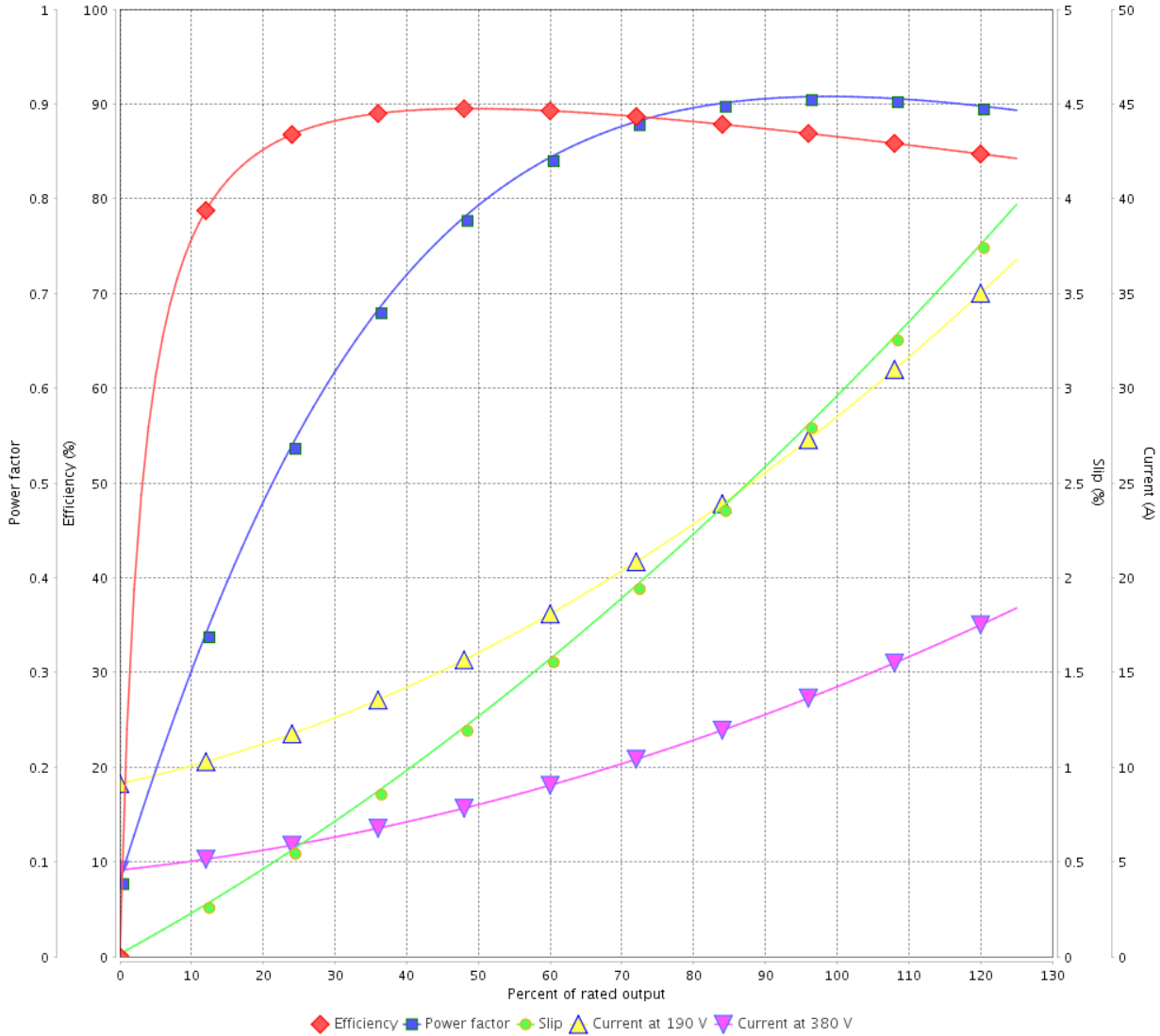
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 29.0/14.5 A  
 LRC : 5.4  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 150 %  
 Breakdown torque : 210 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.4651 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

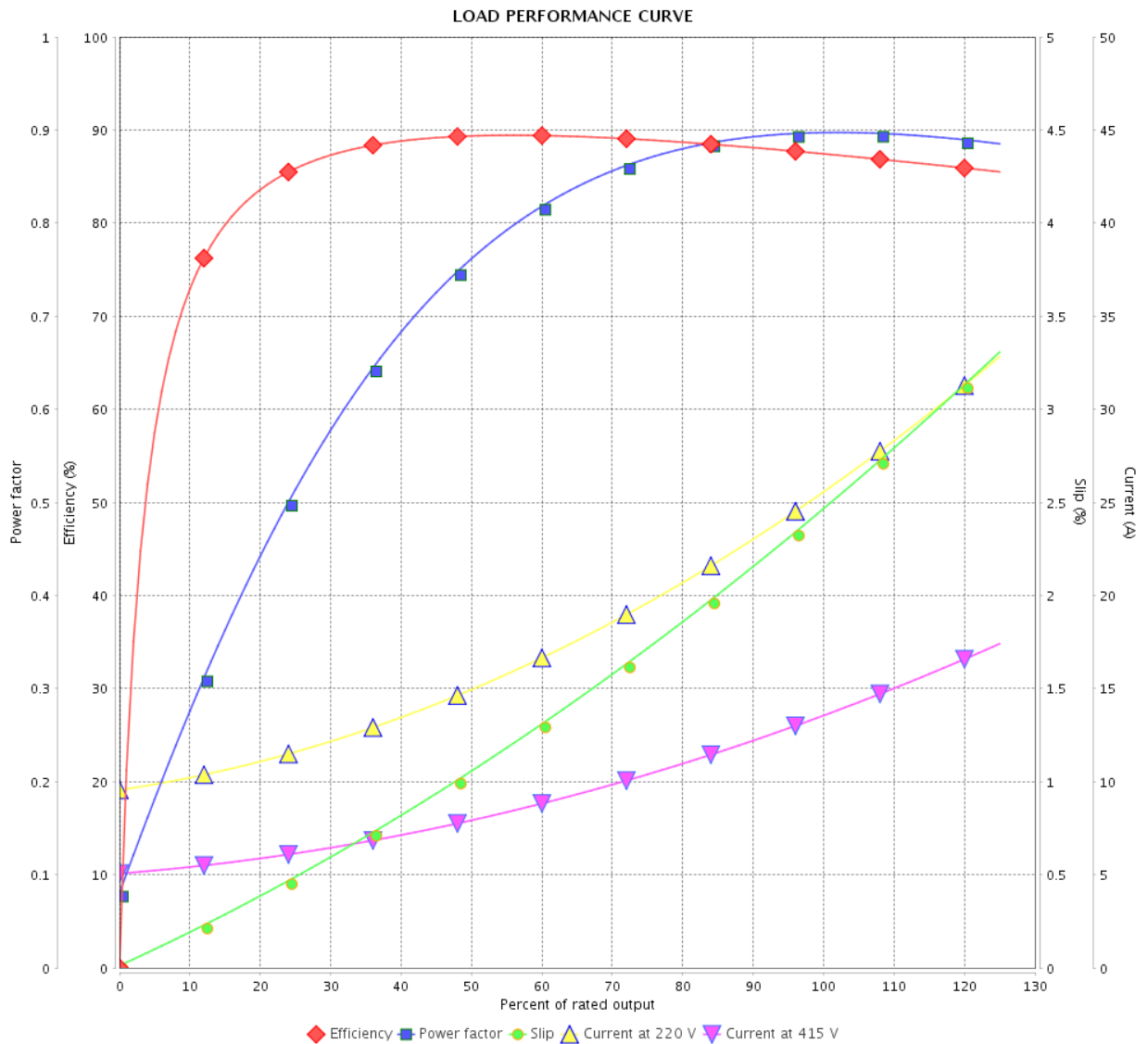


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S



Performance : 220/415 V 50 Hz 2P

Rated current : 26.0/13.8 A  
 LRC : 6.1  
 Rated torque : 18.0 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 240 %  
 Rated speed : 2925 rpm

Moment of inertia (J) : 0.4651 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 LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12674692  
Catalog # : 01036OT3E213TC-S

Performance : 230/460 V 60 Hz 2P

Rated current	: 24.0/12.0 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

Heating constant

Cooling constant

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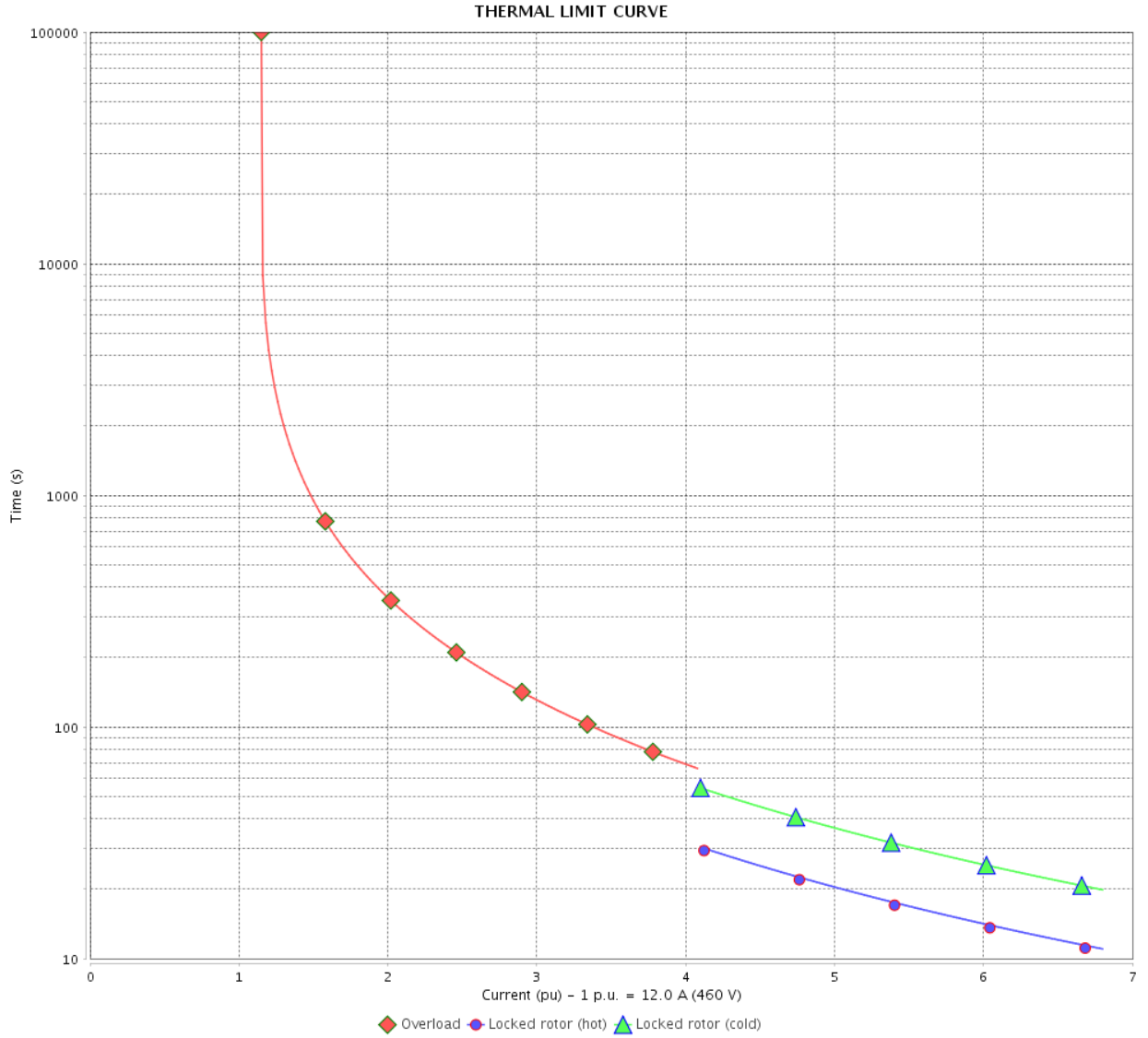


# THERMAL LIMIT CURVE

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 : 12674692  
Catalog # : 01036OT3E213TC-S

Performance : 190/380 V 50 Hz 2P

Rated current	: 29.0/14.5 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 150 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm	Design	: B

Heating constant

Cooling constant

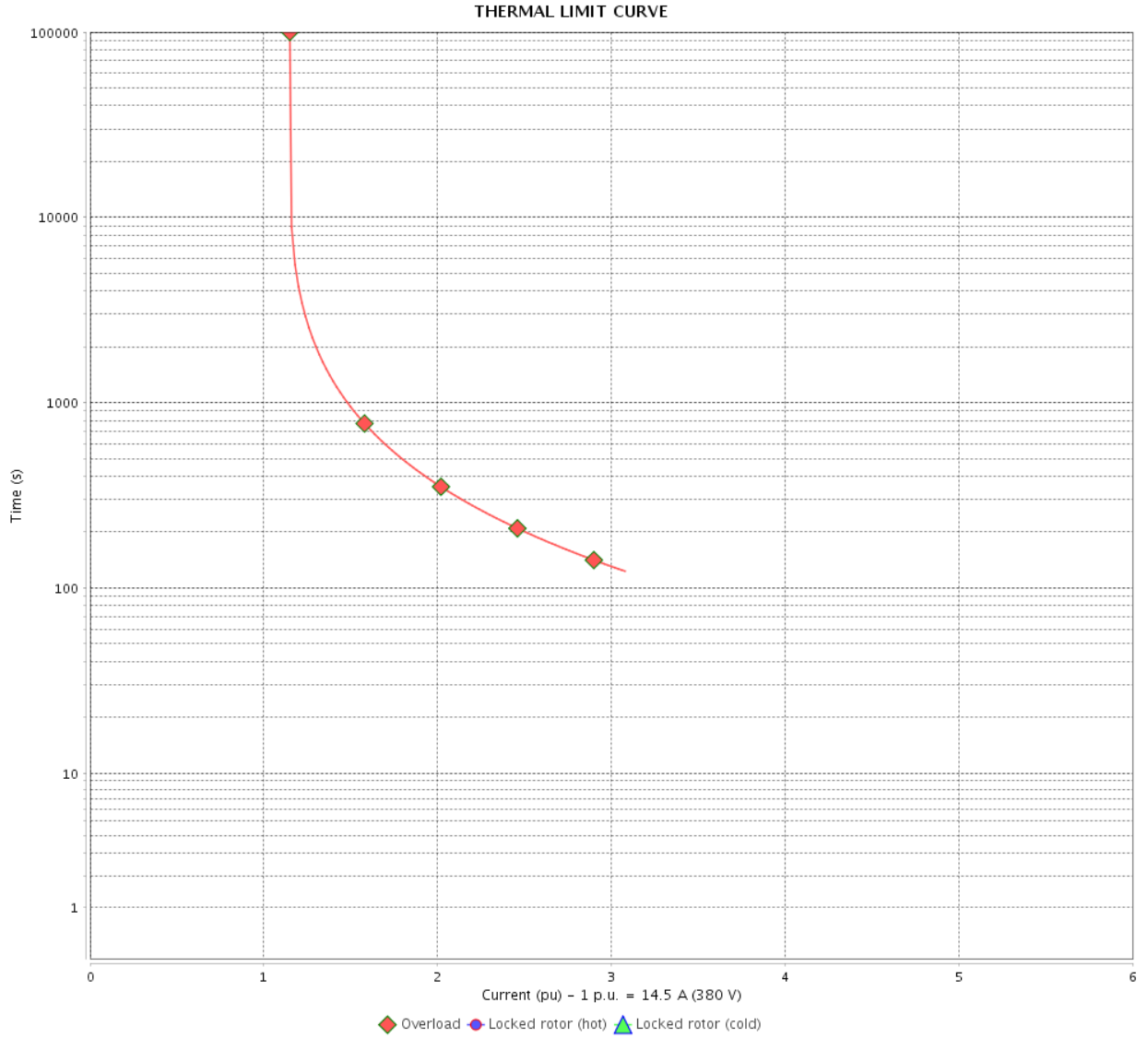
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# THERMAL LIMIT CURVE

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 : 12674692  
Catalog # : 01036OT3E213TC-S

Performance : 220/415 V 50 Hz 2P

Rated current	: 26.0/13.8 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: B

Heating constant

Cooling constant

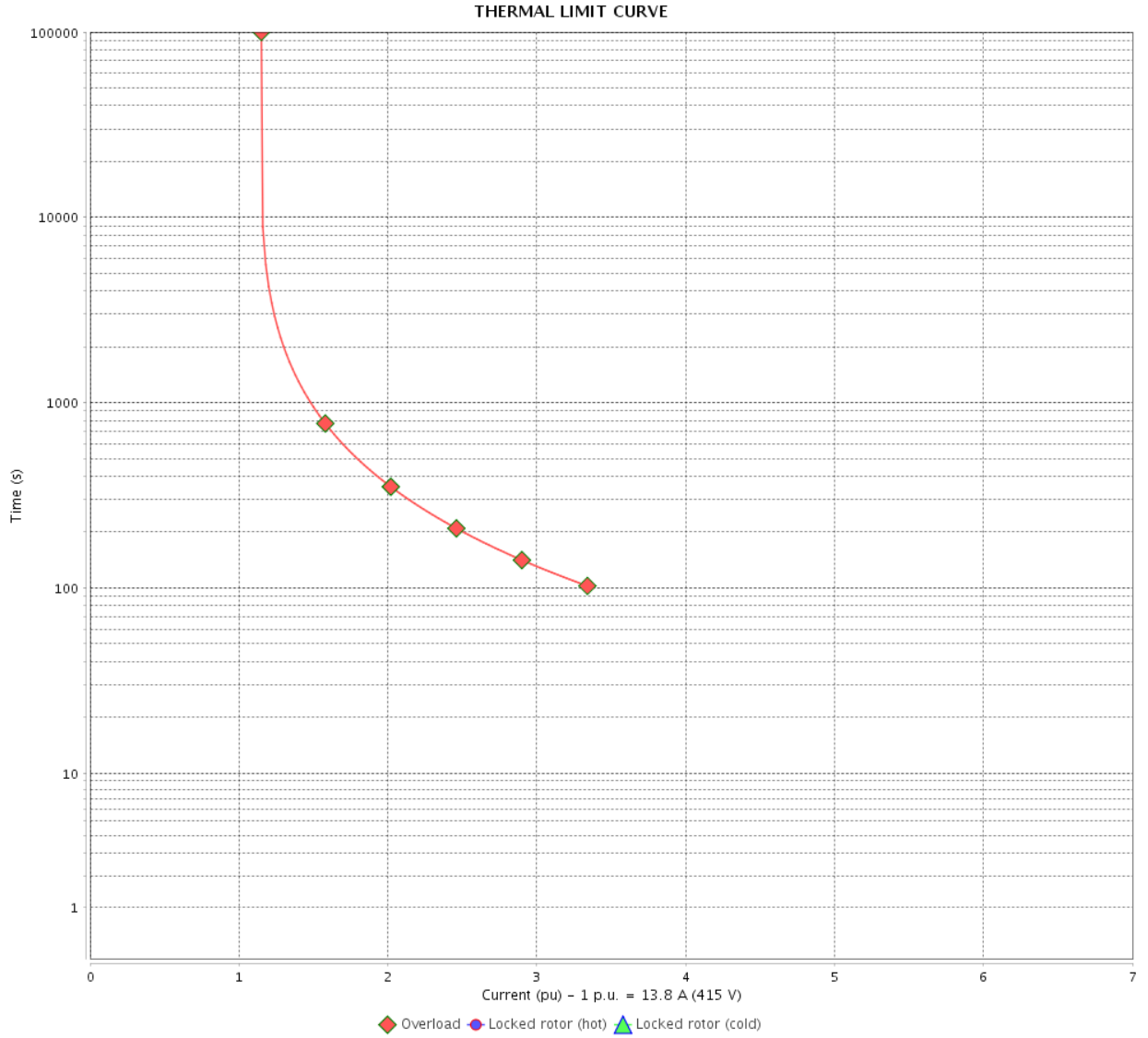
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



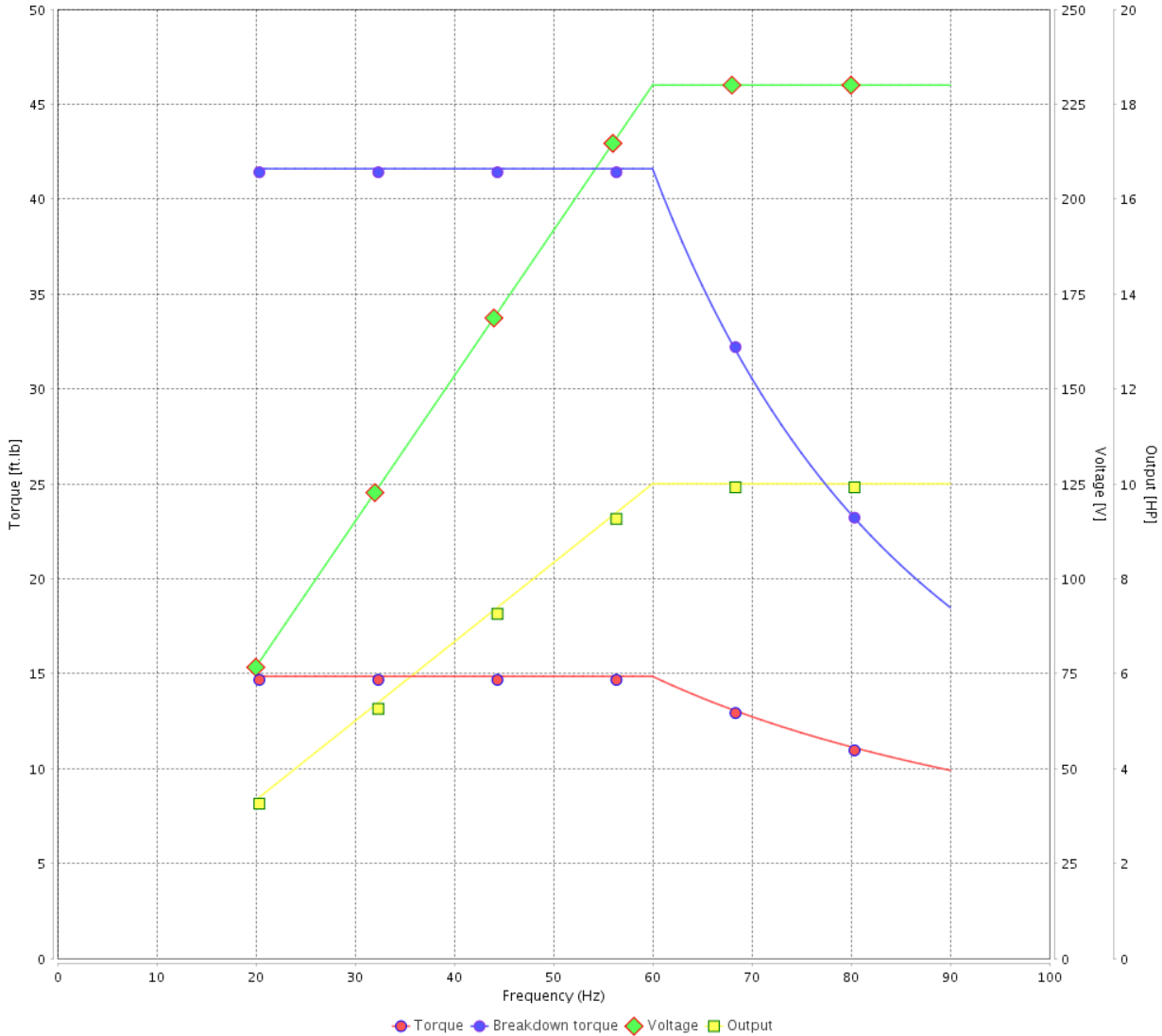
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12674692

Catalog # : 01036OT3E213TC-S

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 24.0/12.0 A  
 LRC : 6.8  
 Rated torque : 14.9 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 280 %  
 Rated speed : 3535 rpm

Moment of inertia (J) : 0.4651 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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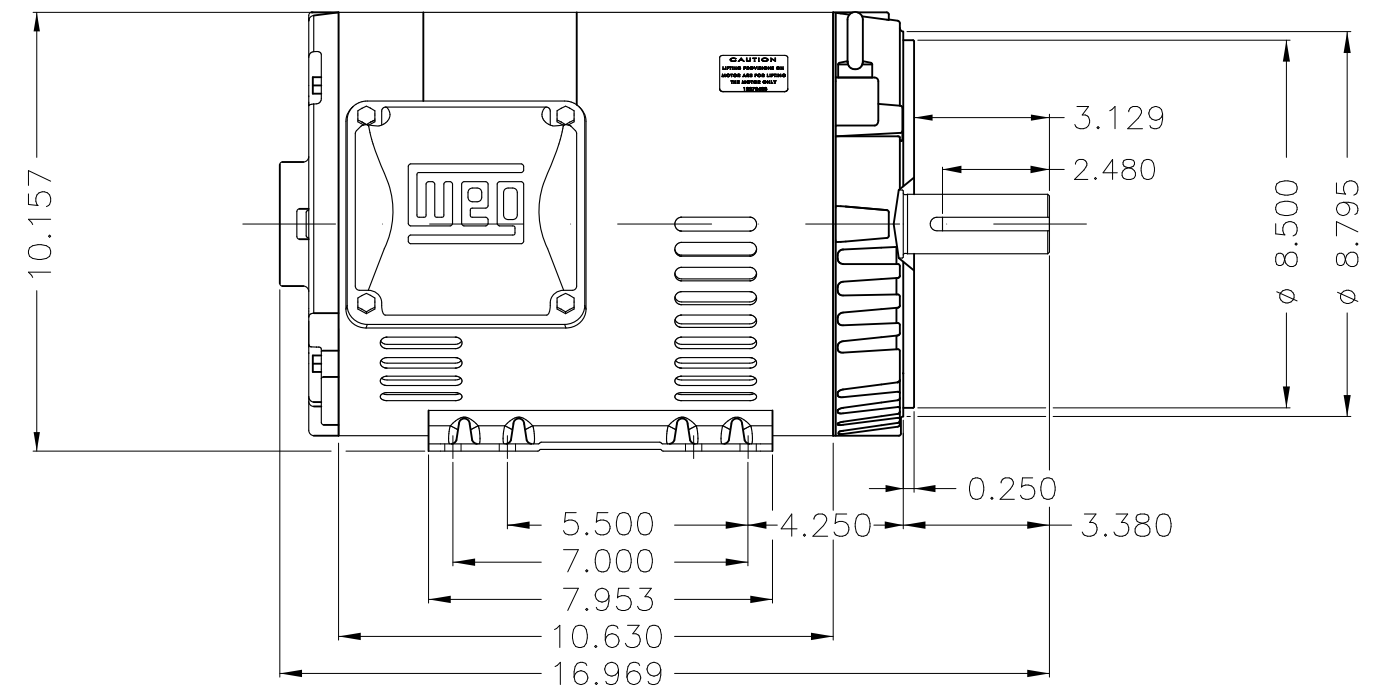
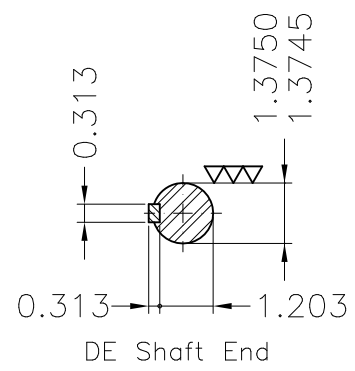
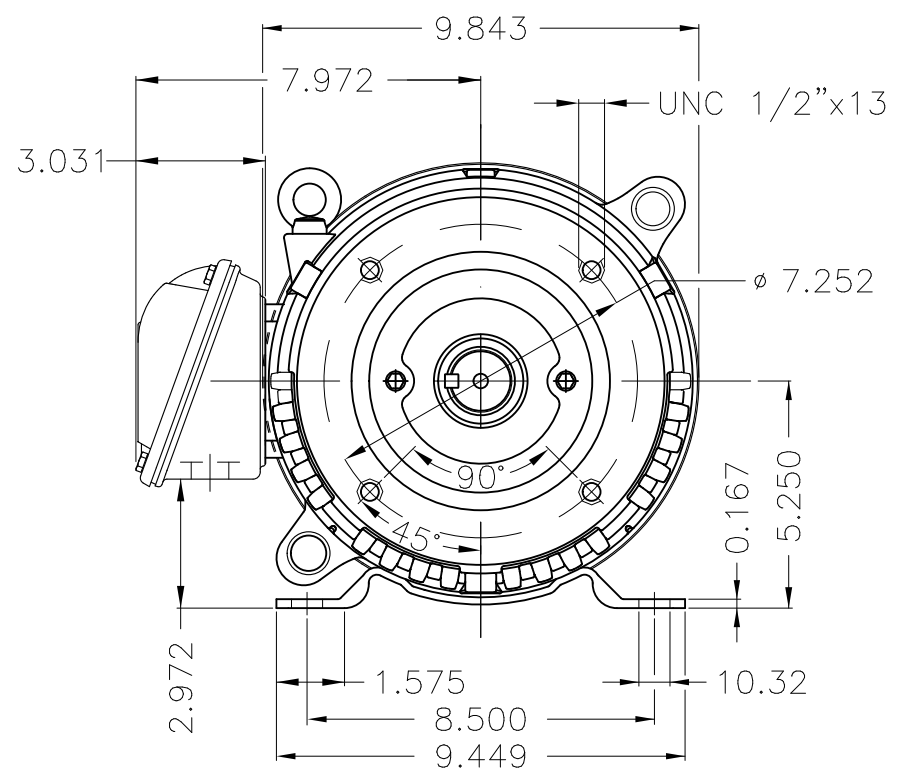
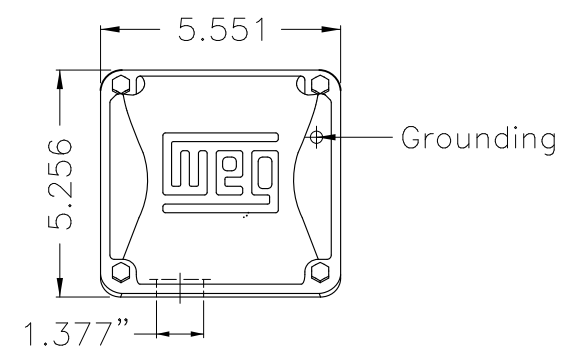
A

B

C

D

E



Dimensions in inches

Color Munsell N 1 matte black											
Painting plan 207N											
Mounting F-1/B34R(D)											
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 213/5TC IP21 ODP									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							

10 HP 02 Poles 60 Hz

A



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 12674692 CC029A**

**W01.T00IC0X0N**

**MODEL 01036OT3E213TC-S**

**12APR2022 S/N:**

<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 24.0/12.0</b>
<b>INS CL F AT 80K</b>		<b>SFA 27.6/13.8</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE H</b>	<b>PF 0.88</b>
<b>USABLE @ 208V 28.5A</b>		<b>RPM 3535</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 89.5%</b>

**ALTERNATE RATING: 10HP 50Hz 190-220/380-415V SF1.15**  
**29.0-25.1/14.5-13.3A 2910RPM EFF 86.5% (IE1) IEC 60034-1**

**Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 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.

