

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer					
Product line		: NEMA Premium Efficiency Three-Phase	Product code :		14212540
			Catalog # :		00336XT3E182TC
Frame		: 182/4TC	Cooling method		: IC411 - TEFC
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>		: 125 lb
Protection degree		: IP55	Moment of inertia (J)		: 0.1471 sq.ft.lb
Design		: B			
Output [HP]	3	3	3	3	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	7.52/3.76	4.44	4.27	4.16	
L. R. Amperes [A]	63.2/31.6	29.7	31.6	33.3	
LRC [A]	8.4x(Code K)	6.7x(Code H)	7.4x(Code J)	8.0x(Code J)	
No load current [A]	2.80/1.40	1.30	1.40	1.48	
Rated speed [RPM]	3510	2880	2890	2900	
Slip [%]	2.50	4.00	3.67	3.33	
Rated torque [ft.lb]	4.49	5.47	5.45	5.43	
Locked rotor torque [%]	250	210	240	260	
Breakdown torque [%]	400	300	340	370	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	54s (cold) 30s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)	77s (cold) 43s (hot)	
Noise level <sup>2</sup>	69.0 dB(A)	64.0 dB(A)	64.0 dB(A)	64.0 dB(A)	
Efficiency (%)	25%	81.3	82.0	81.2	81.3
	50%	82.5	82.5	82.5	82.5
	75%	85.5	85.5	85.5	85.5
	100%	86.5	85.5	86.5	86.5
Power Factor	25%	0.48	0.55	0.51	0.48
	50%	0.73	0.78	0.75	0.72
	75%	0.81	0.85	0.83	0.81
	100%	0.85	0.88	0.86	0.85
Bearing type		Drive end : 6307 2RS	Non drive end : 6206 2RS	Foundation loads	
Sealing		: Oil Seal	: Lip Seal	Max. traction : 65 lb	
Lubrication interval		: -	: -	Max. compression : 191 lb	
Lubricant amount		: -	: -		
Lubricant type		: Mobil Polyrex EM			
Notes					
USABLE @208V 8.32A SF 1.15 SFA 9.56A					
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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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

### Thermal protection

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

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# TORQUE AND CURRENT VS SPEED CURVE



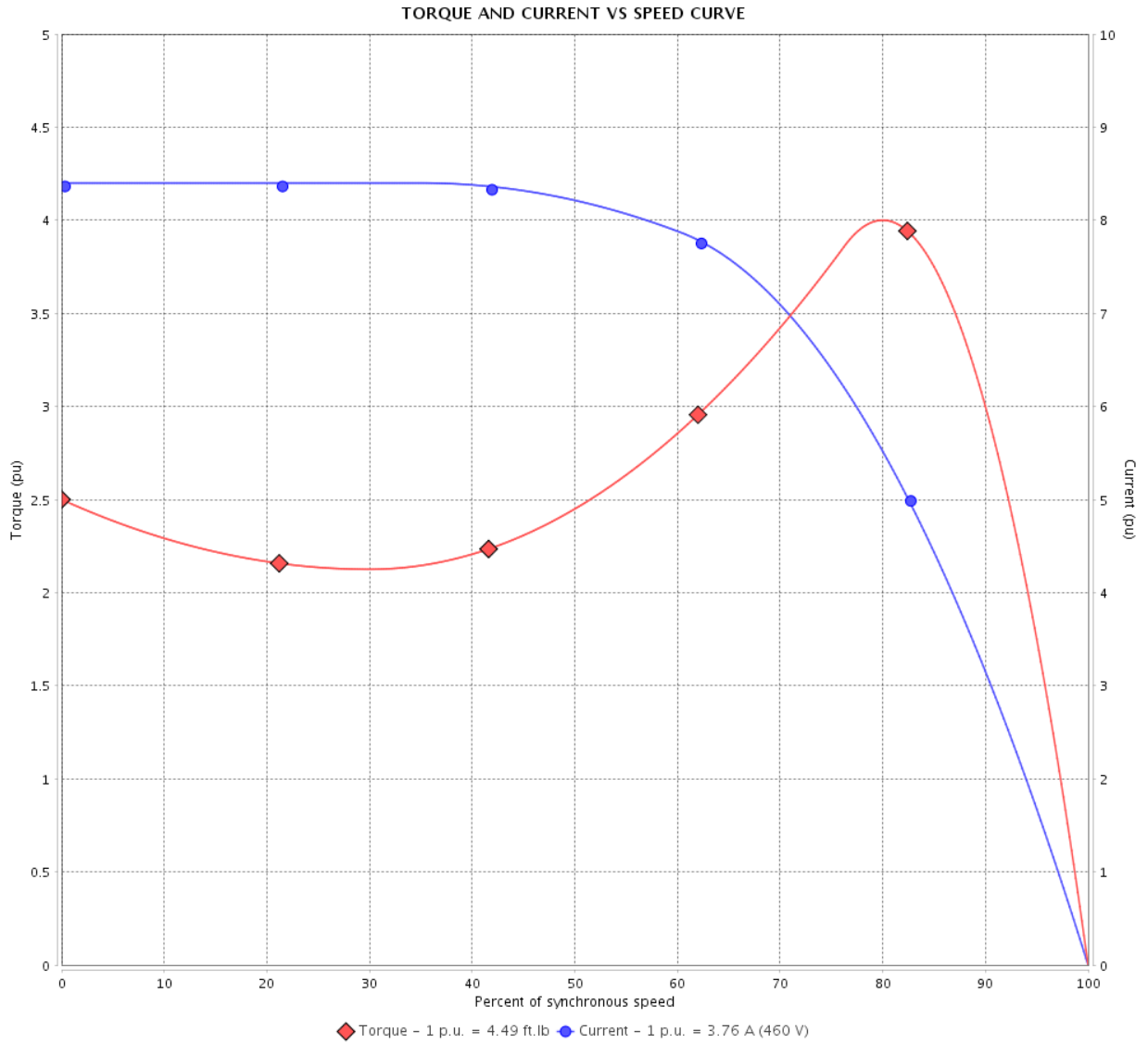
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 230/460 V 60 Hz 2P

Rated current : 7.52/3.76 A  
 LRC : 8.4  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 400 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1471 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 54s (cold) 30s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



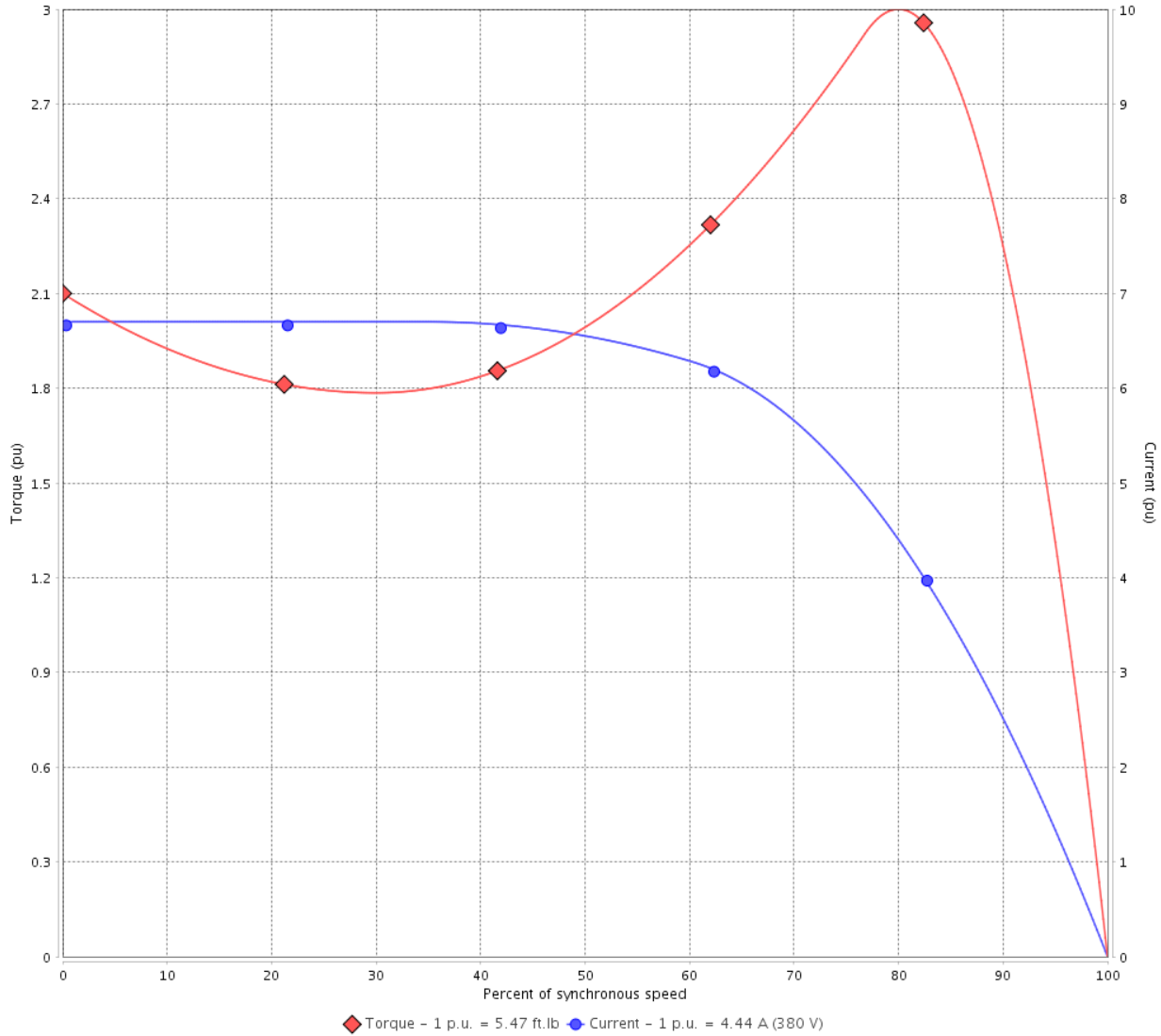
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current	: 4.44 A	Moment of inertia (J)	: 0.1471 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 5.47 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.00
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2880 rpm	Design	: B

Locked rotor time : 77s (cold) 43s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



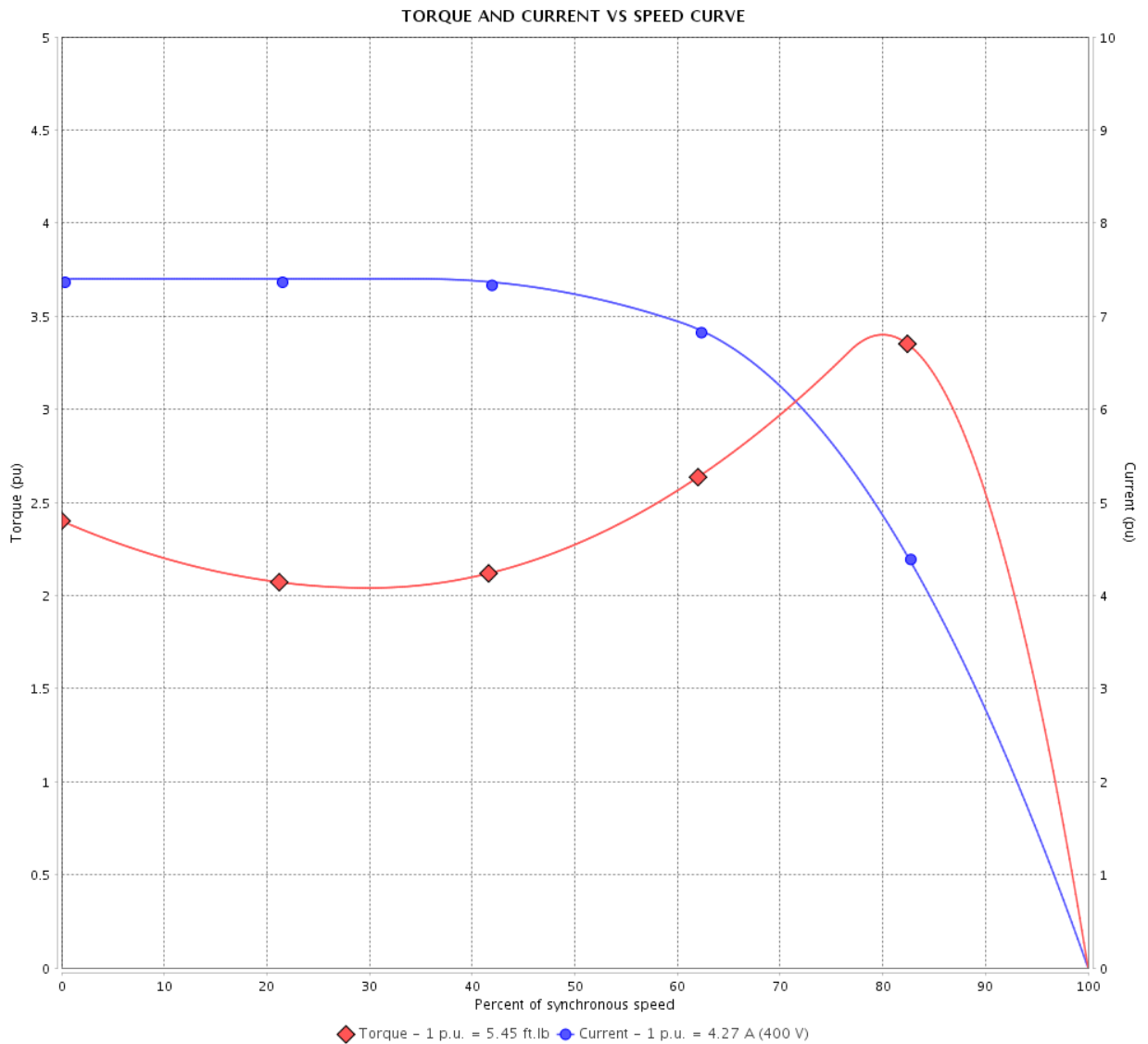
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 400 V 50 Hz 2P IE3

Rated current	: 4.27 A	Moment of inertia (J)	: 0.1471 sq.ft.lb
LRC	: 7.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.45 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2890 rpm	Design	: B

Locked rotor time : 77s (cold) 43s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



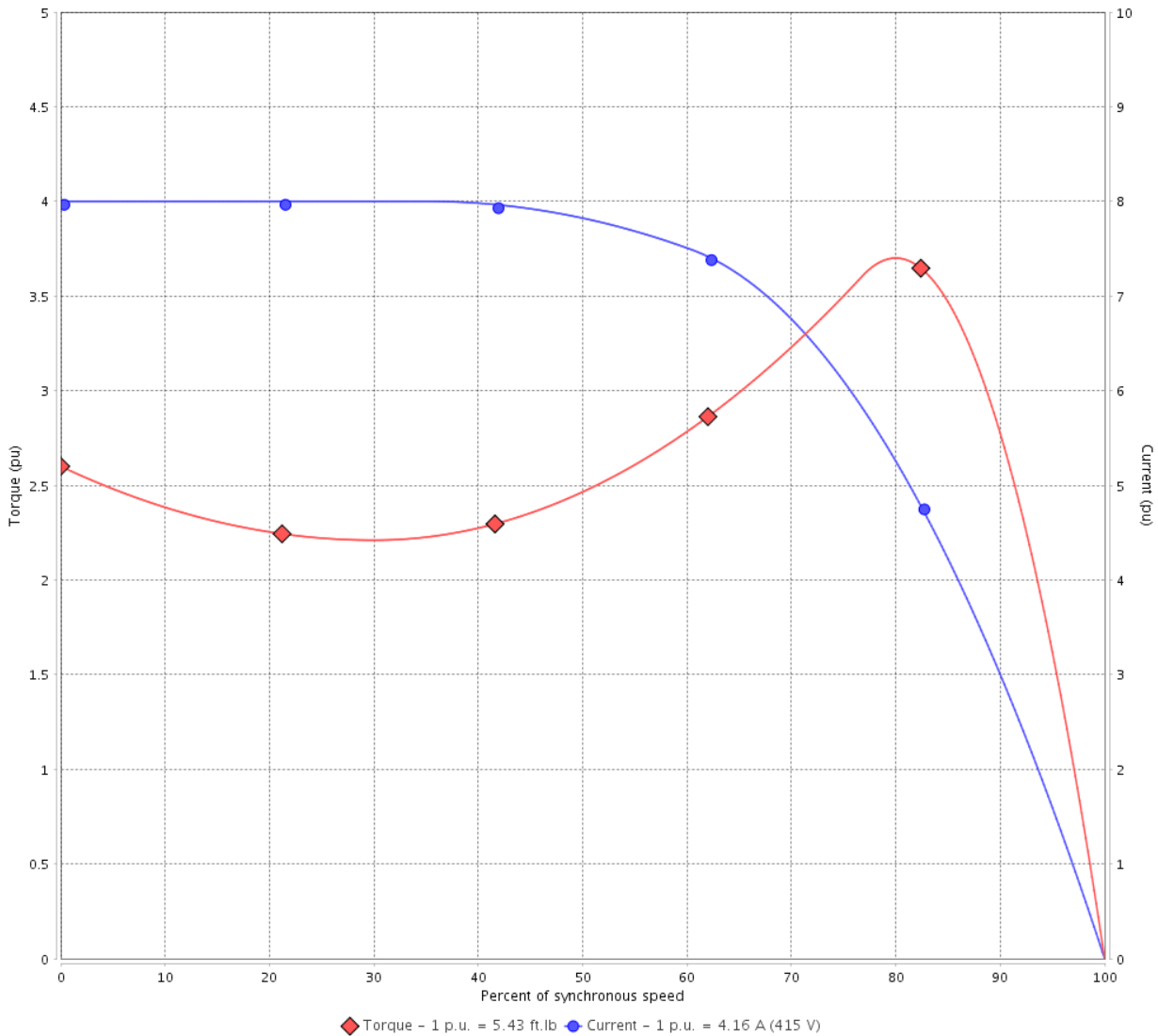
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current	: 4.16 A	Moment of inertia (J)	: 0.1471 sq.ft.lb
LRC	: 8.0	Duty cycle	: Cont.(S1)
Rated torque	: 5.43 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

Locked rotor time : 77s (cold) 43s (hot)

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

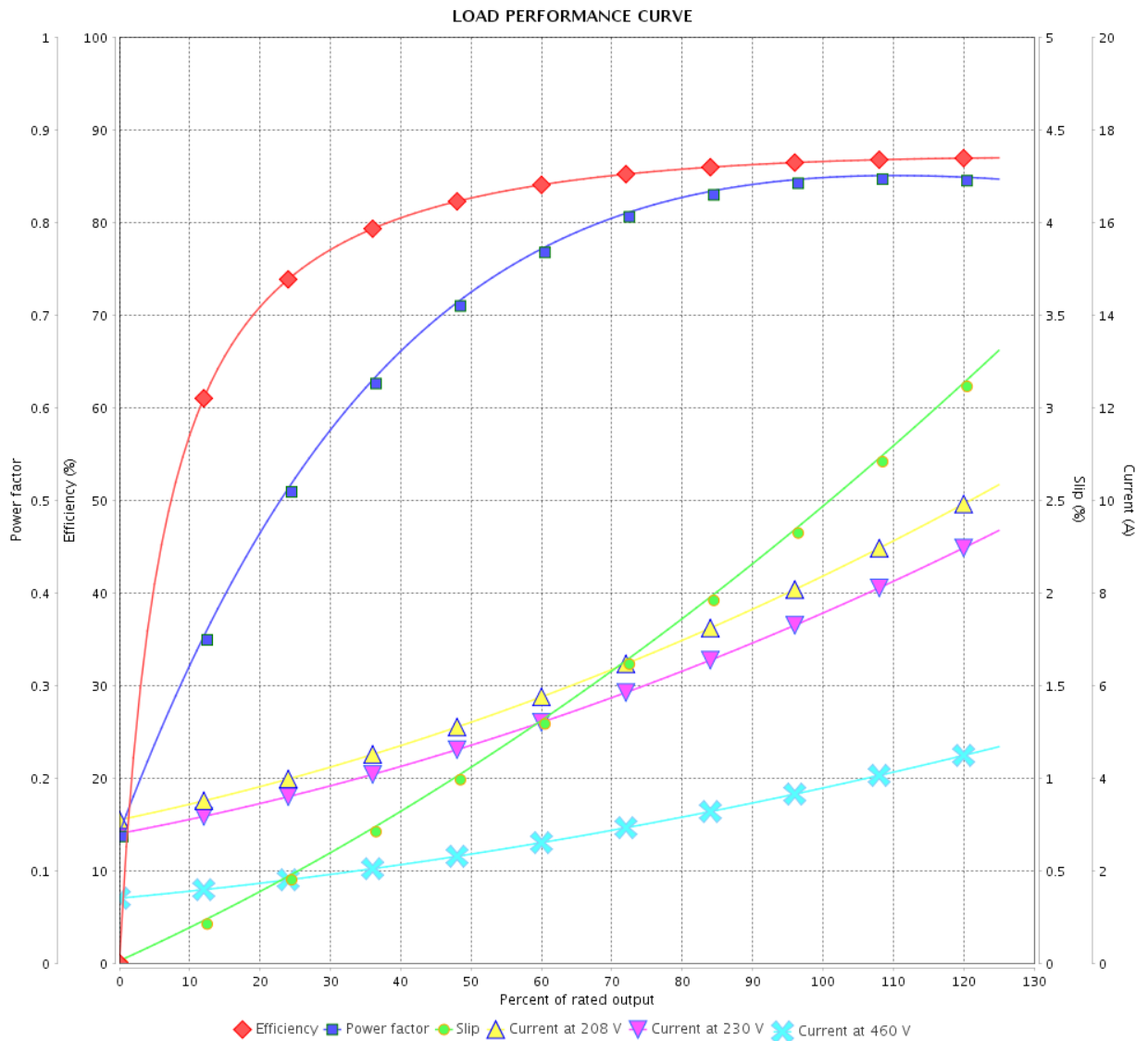


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 230/460 V 60 Hz 2P

Rated current : 7.52/3.76 A  
 LRC : 8.4  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 400 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1471 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



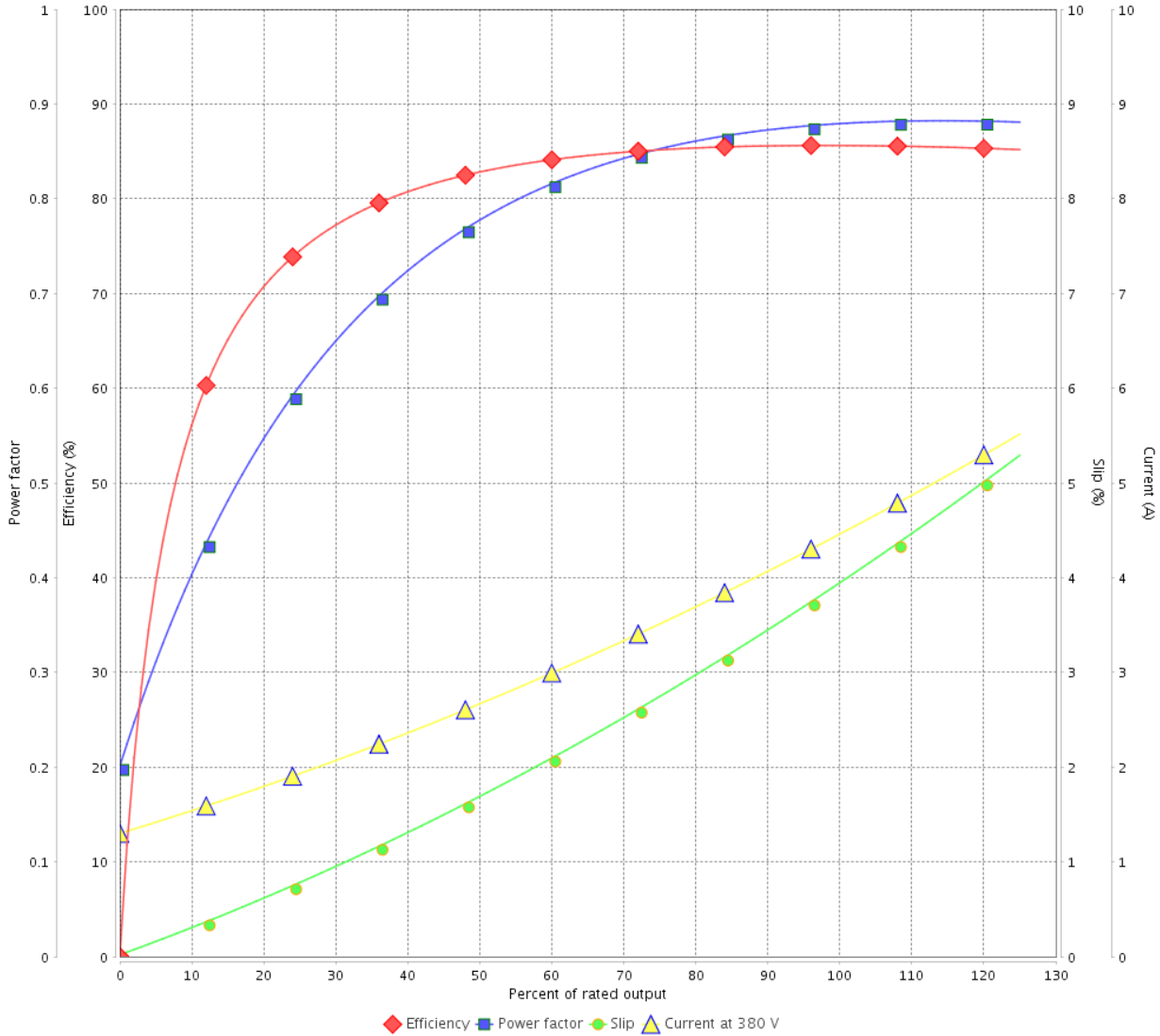
Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

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Catalog # : 00336XT3E182TC

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE2

Rated current : 4.44 A	Moment of inertia (J) : 0.1471 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 5.47 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 2880 rpm	Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

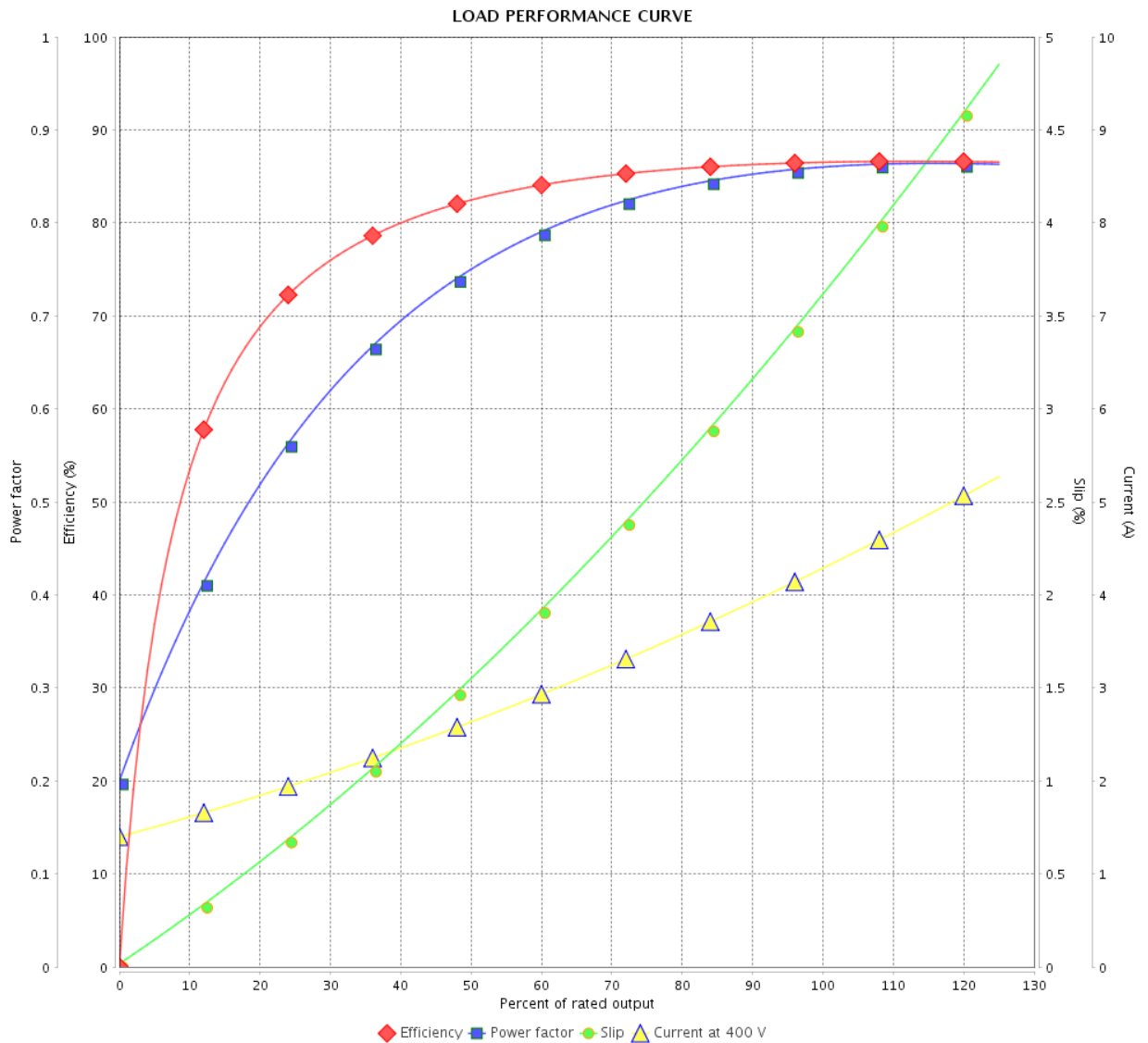


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 400 V 50 Hz 2P IE3

Rated current : 4.27 A  
 LRC : 7.4  
 Rated torque : 5.45 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.1471 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



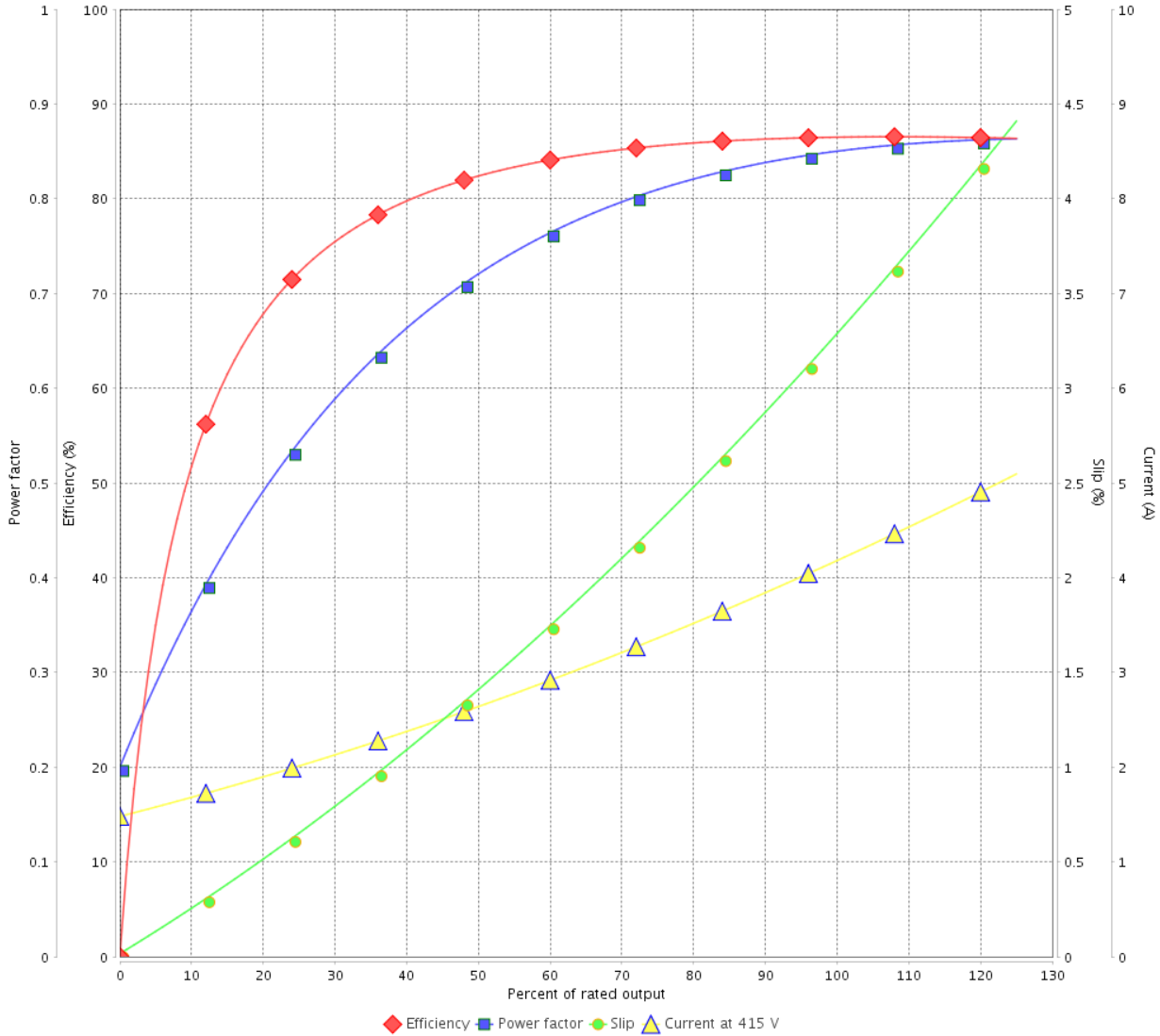
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 4.16 A  
 LRC : 8.0  
 Rated torque : 5.43 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 370 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.1471 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 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 : 14212540  
Catalog # : 00336XT3E182TC

Performance : 230/460 V 60 Hz 2P

Rated current	: 7.52/3.76 A	Moment of inertia (J)	: 0.1471 sq.ft.lb
LRC	: 8.4	Duty cycle	: Cont.(S1)
Rated torque	: 4.49 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 400 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

Heating constant

Cooling constant

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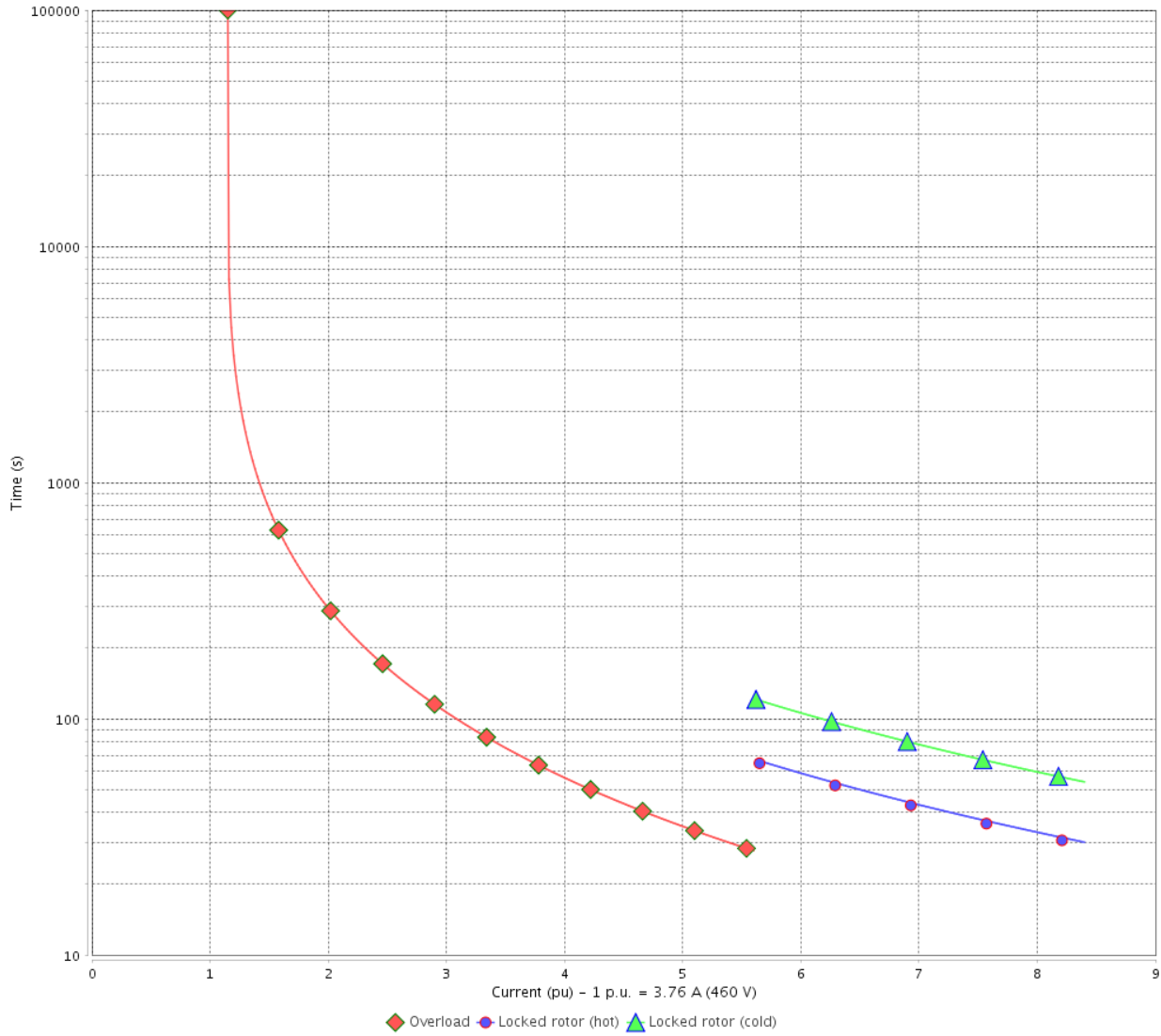
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Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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Performance : 380 V 50 Hz 2P IE2

Rated current : 4.44 A	Moment of inertia (J) : 0.1471 sq.ft.lb
LRC : 6.7	Duty cycle : Cont.(S1)
Rated torque : 5.47 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.00
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 2880 rpm	Design : B

Heating constant

Cooling constant

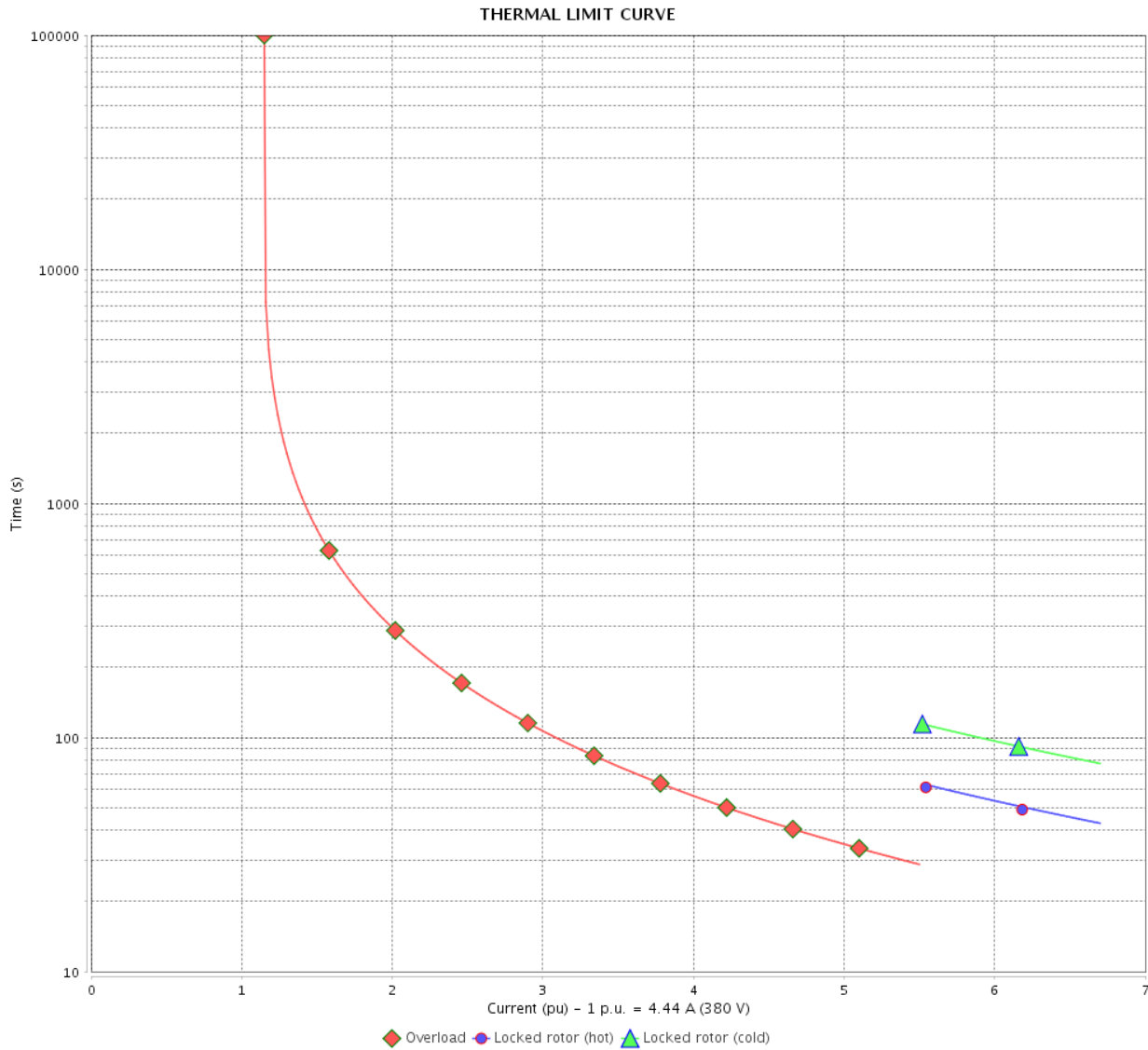
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Date	13/04/2022			

# 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 : 14212540  
 Catalog # : 00336XT3E182TC

Performance : 400 V 50 Hz 2P IE3

Rated current : 4.27 A	Moment of inertia (J) : 0.1471 sq.ft.lb
LRC : 7.4	Duty cycle : Cont.(S1)
Rated torque : 5.45 ft.lb	Insulation class : F
Locked rotor torque : 240 %	Service factor : 1.00
Breakdown torque : 340 %	Temperature rise : 80 K
Rated speed : 2890 rpm	Design : B

Heating constant

Cooling constant

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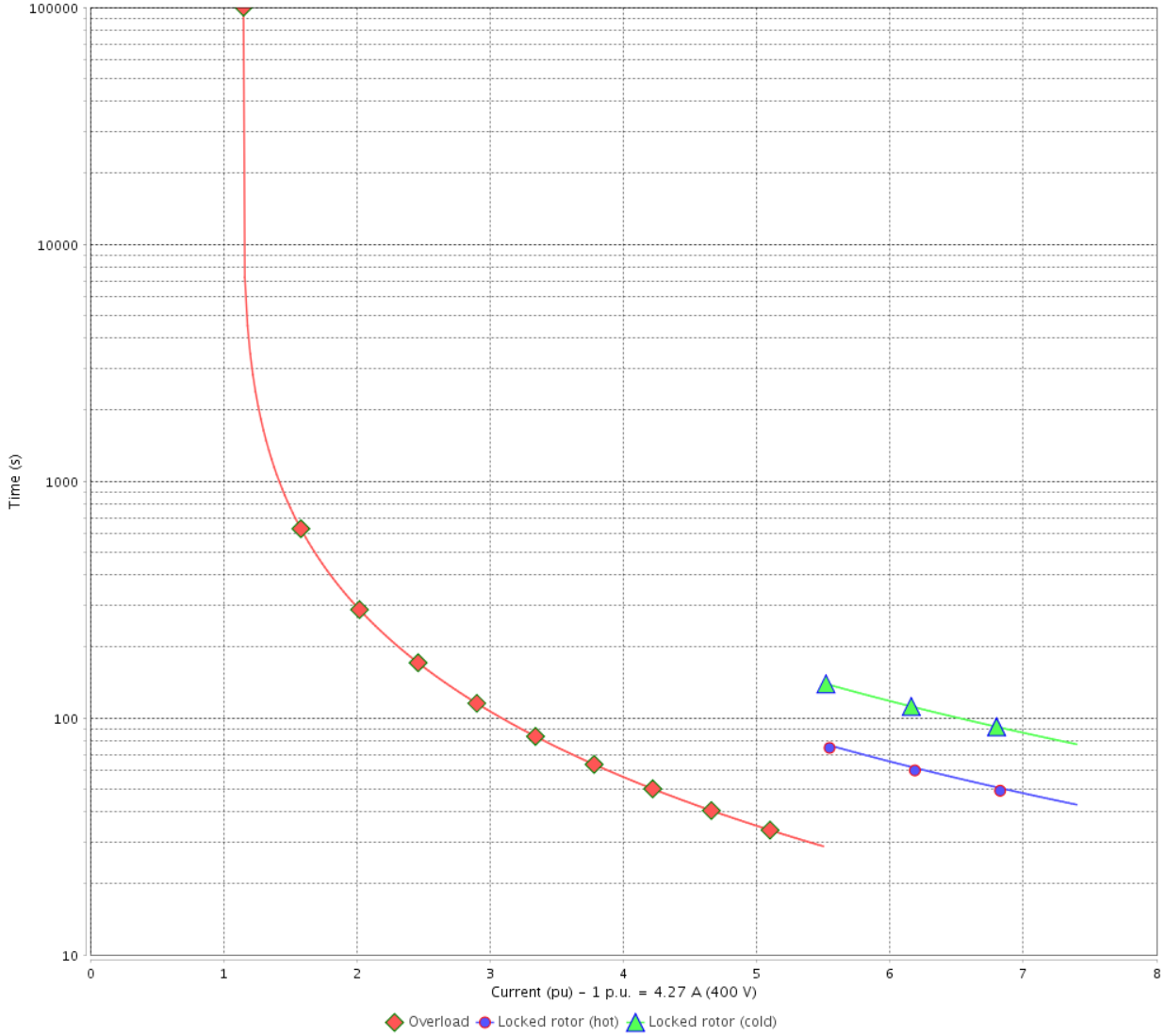
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Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 14212540  
 Catalog # : 00336XT3E182TC

Performance : 415 V 50 Hz 2P IE3

Rated current : 4.16 A	Moment of inertia (J) : 0.1471 sq.ft.lb
LRC : 8.0	Duty cycle : Cont.(S1)
Rated torque : 5.43 ft.lb	Insulation class : F
Locked rotor torque : 260 %	Service factor : 1.00
Breakdown torque : 370 %	Temperature rise : 80 K
Rated speed : 2900 rpm	Design : B

Heating constant

Cooling constant

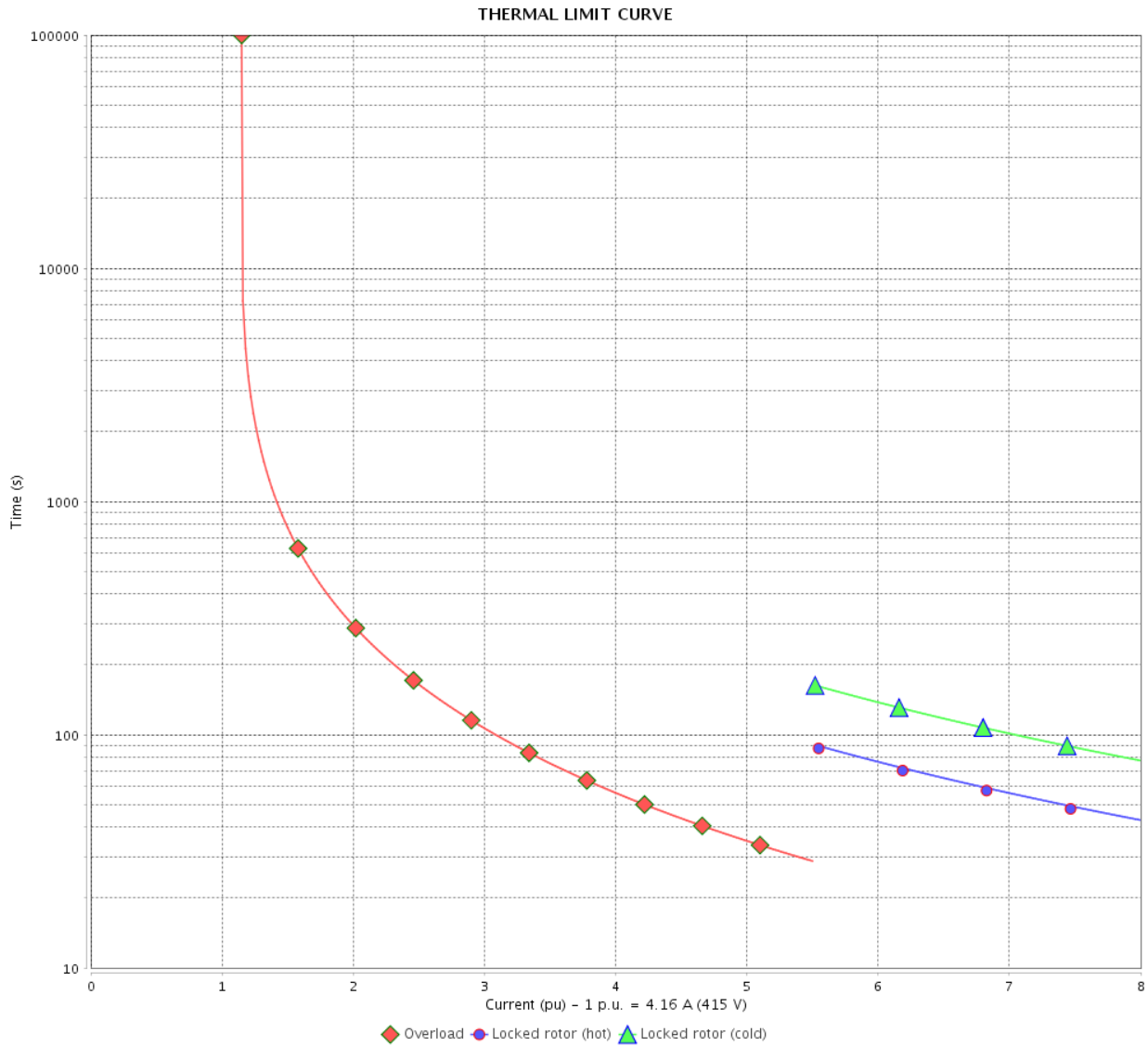
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

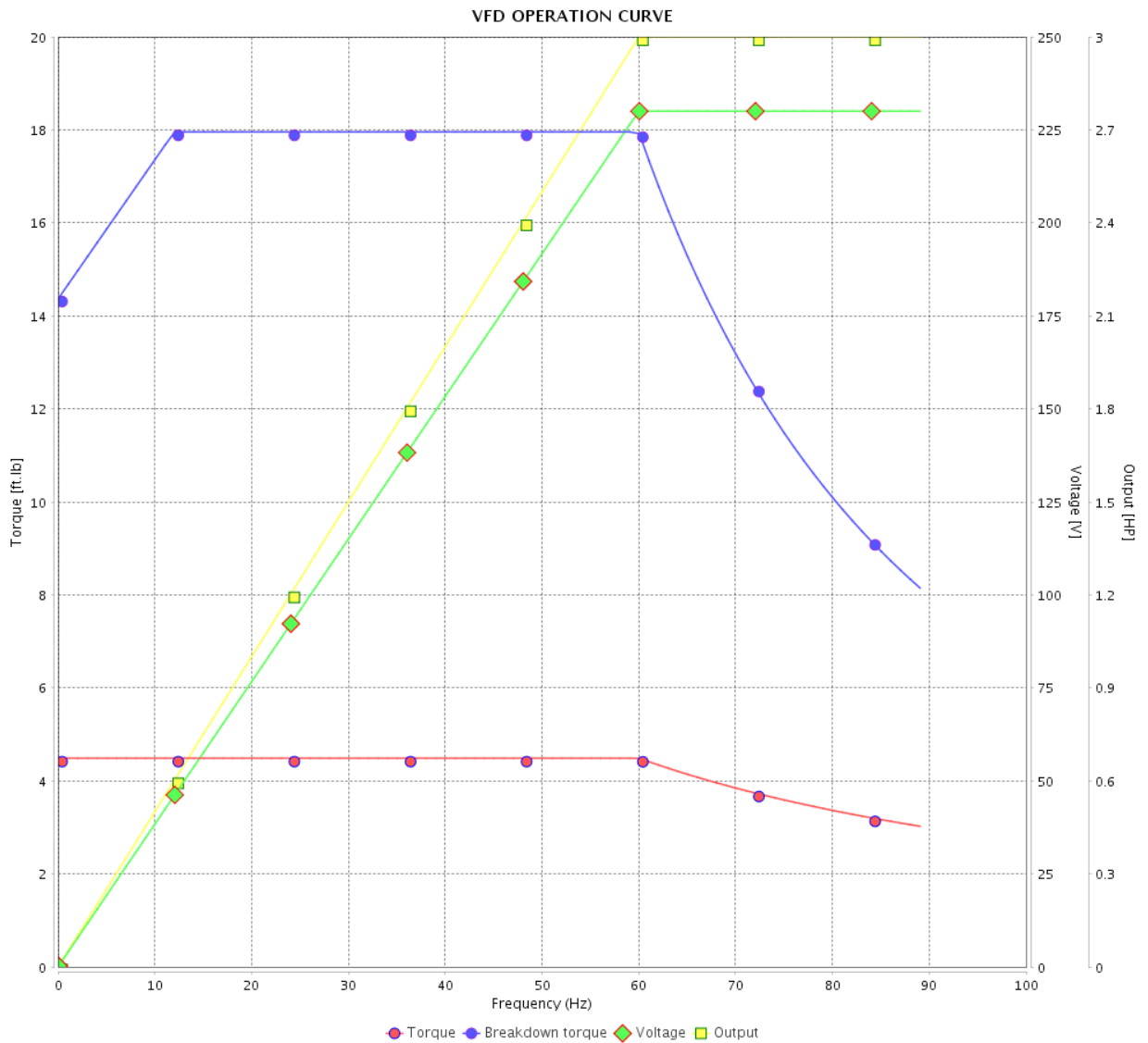


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 230/460 V 60 Hz 2P

Rated current : 7.52/3.76 A  
 LRC : 8.4  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 400 %  
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1471 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

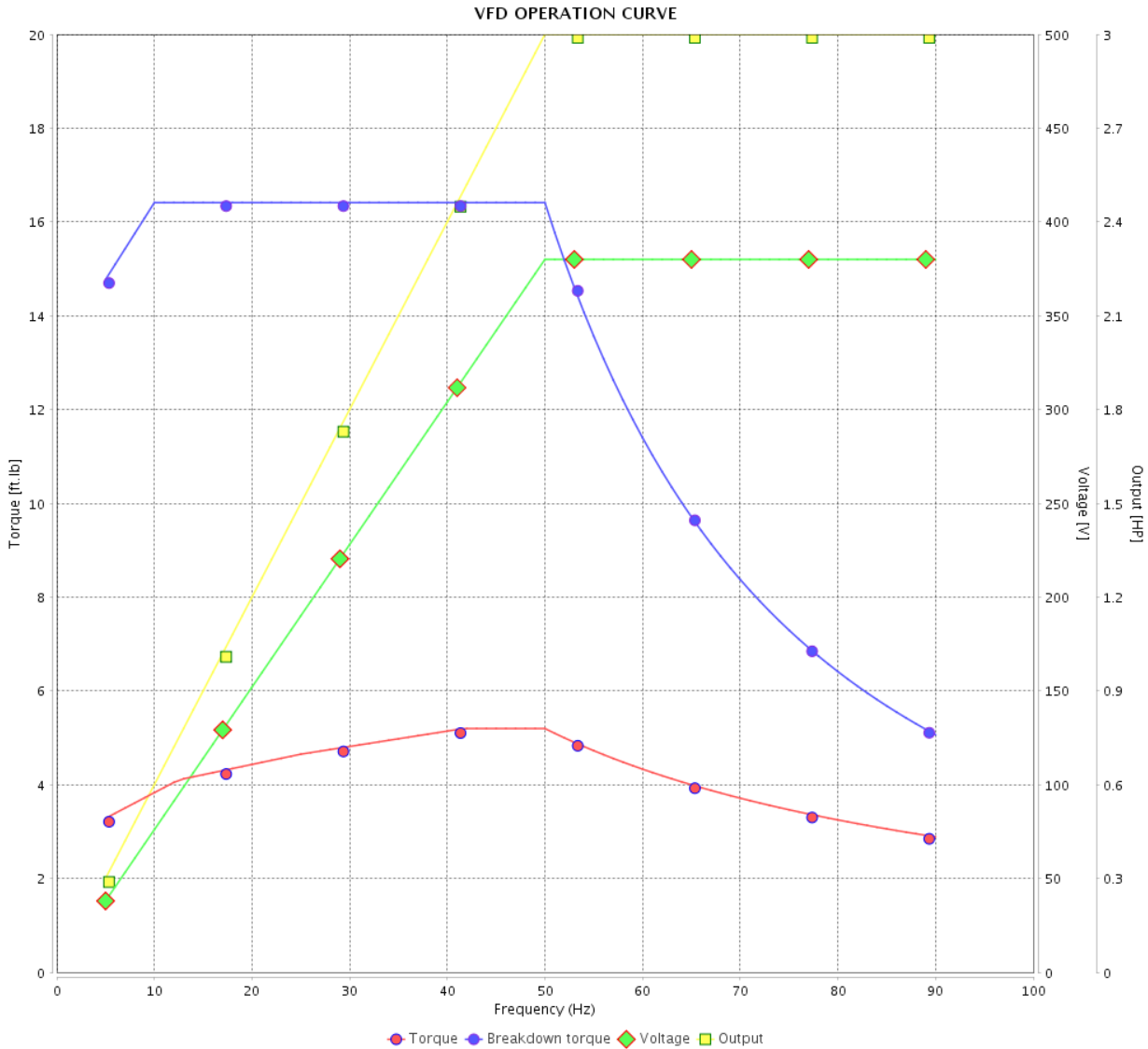


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14212540

Catalog # : 00336XT3E182TC



Performance : 380 V 50 Hz 2P IE2

Rated current : 4.44 A  
 LRC : 6.7  
 Rated torque : 5.47 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 300 %  
 Rated speed : 2880 rpm

Moment of inertia (J) : 0.1471 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

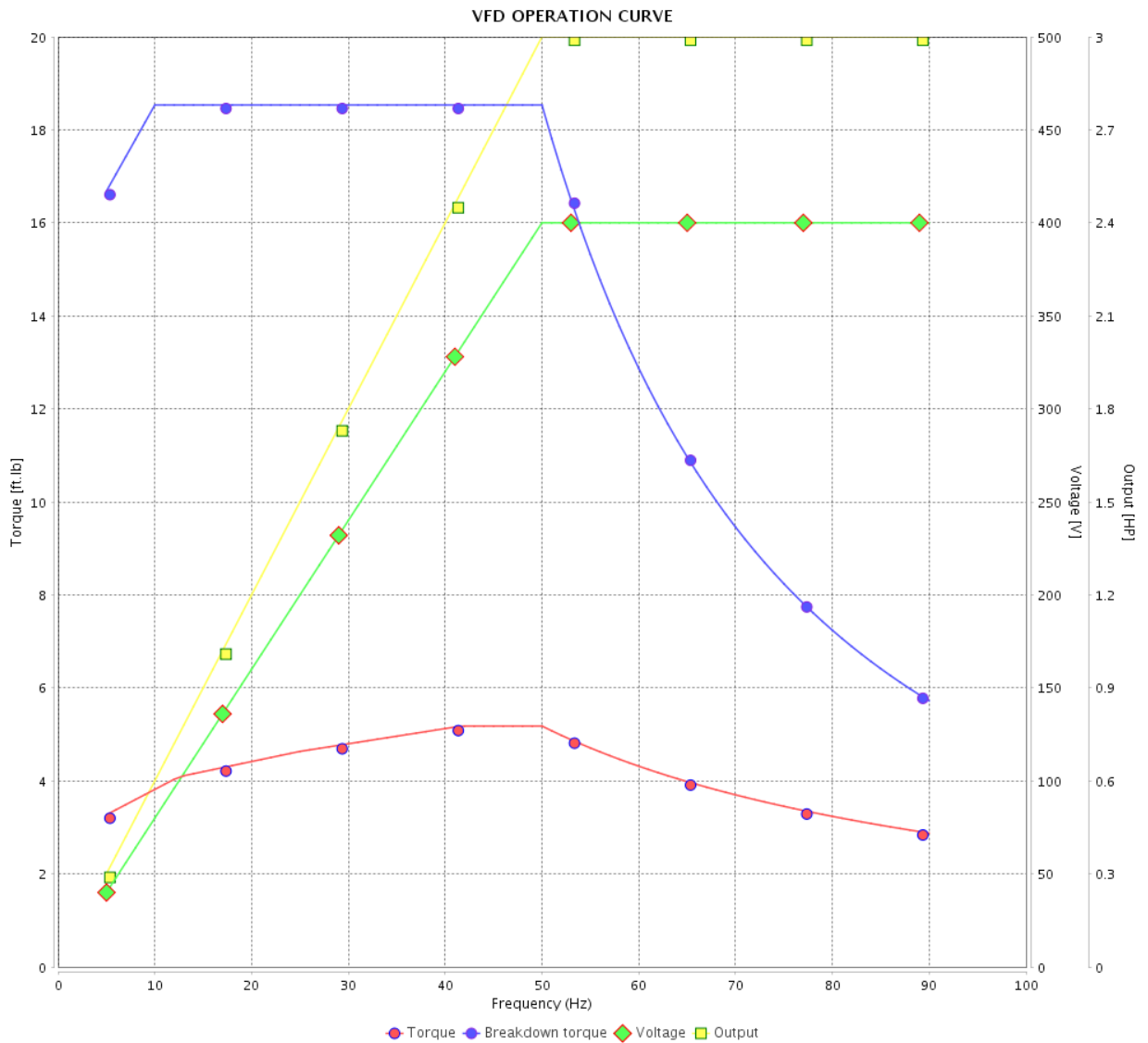


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Performance : 400 V 50 Hz 2P IE3

Rated current : 4.27 A  
 LRC : 7.4  
 Rated torque : 5.45 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 340 %  
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Moment of inertia (J) : 0.1471 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

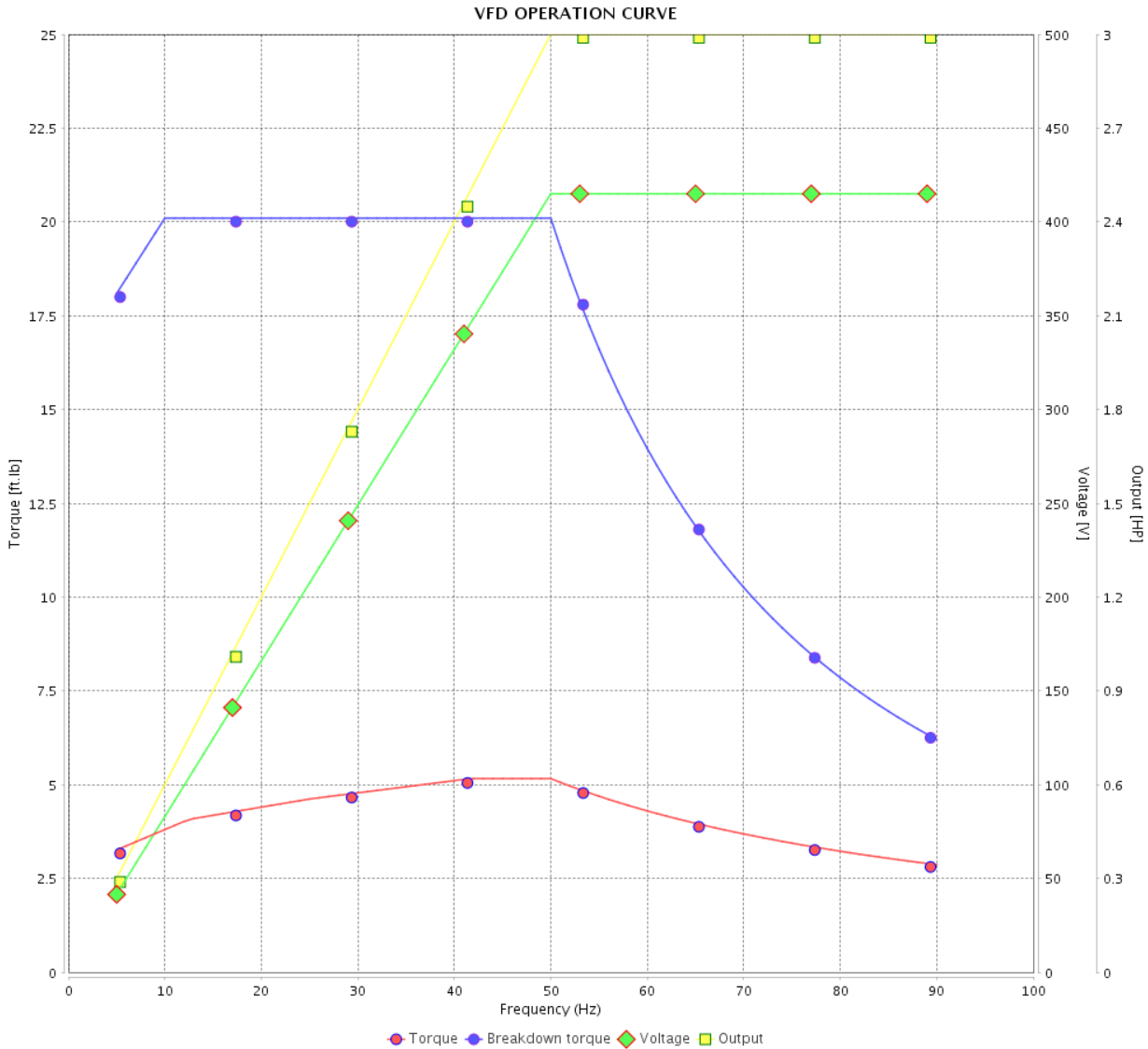


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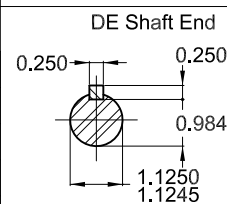
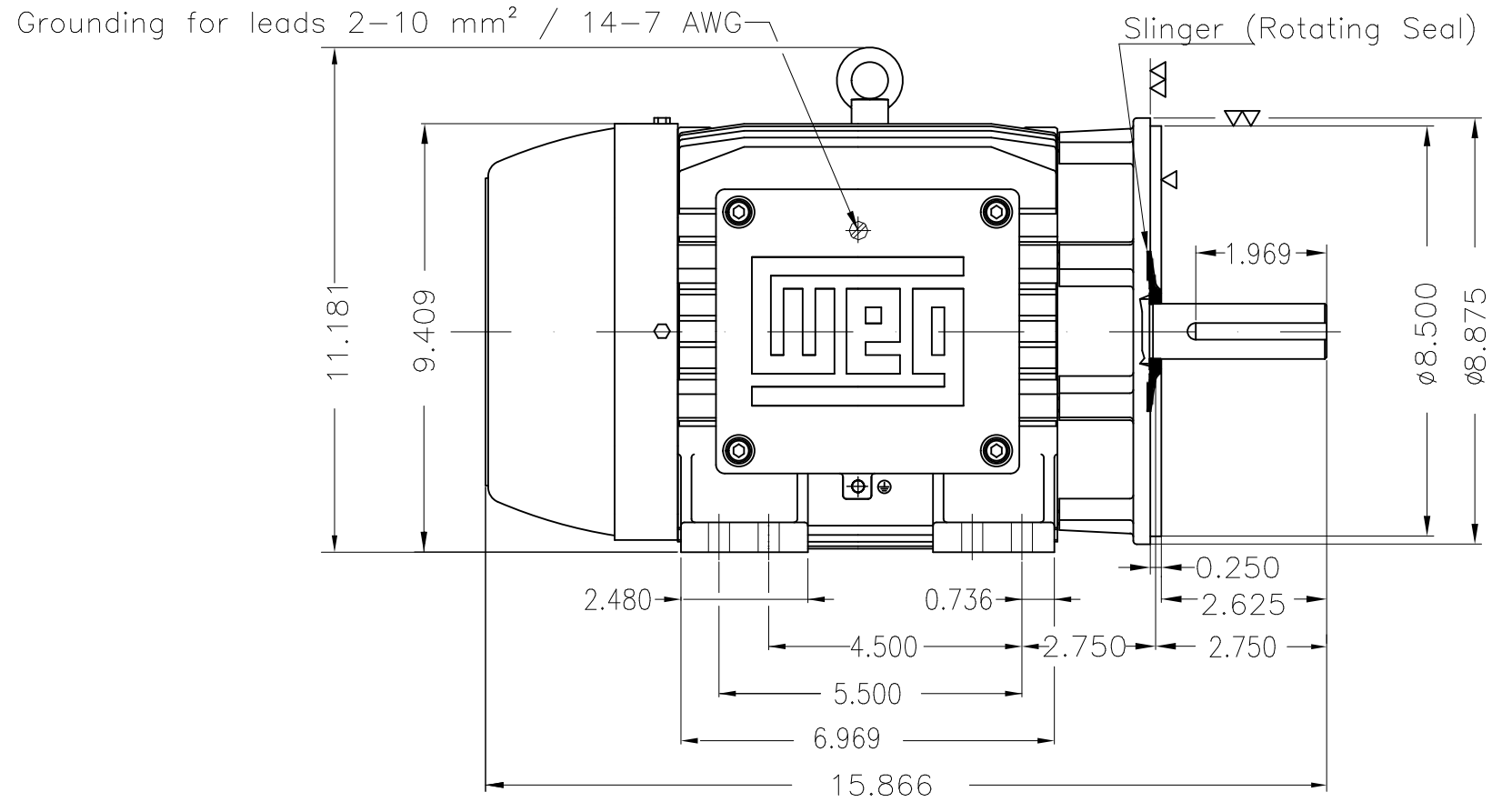
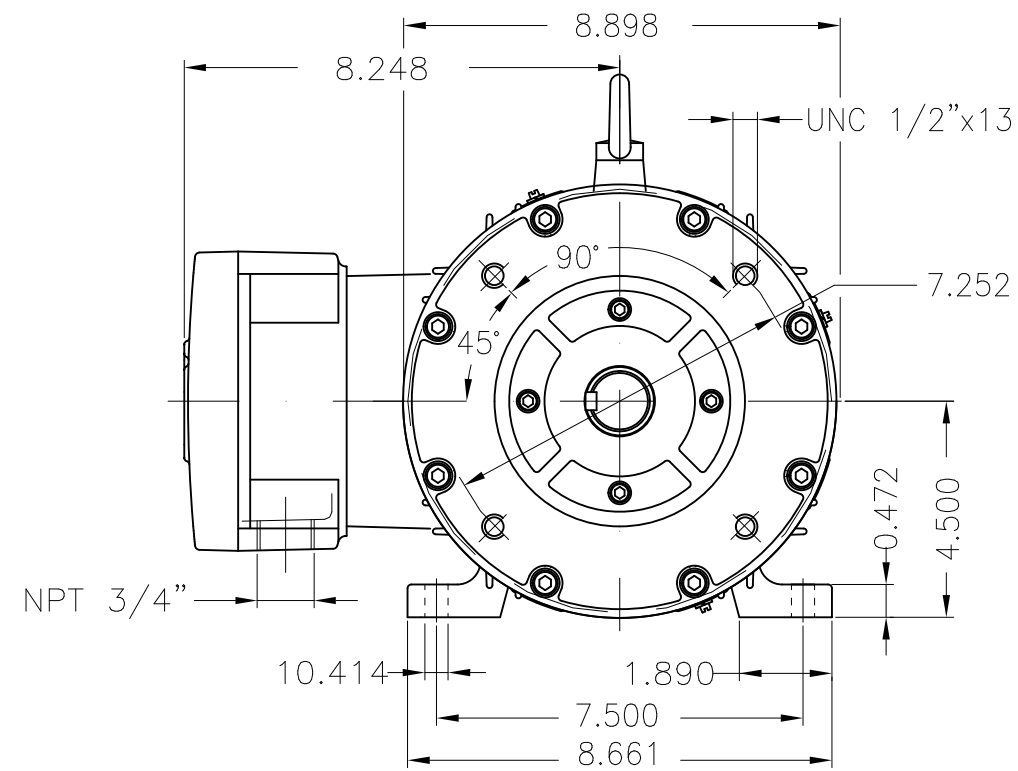


Performance : 415 V 50 Hz 2P IE3

Rated current : 4.16 A  
 LRC : 8.0  
 Rated torque : 5.43 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 370 %  
 Rated speed : 2900 rpm

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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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Packing - crate  
 Color RAL 5009  
 Painting plan 202P  
 Mounting NEMA F-1  
 Mounting B34R(D)

3 HP 02 Poles 60 Hz

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR EXPLOSION PROOF PREM. EFF.					
CHECKED		FRAME 182/4TC IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering				

**PREVIEW**  
 WDD



SHEET 1 / 1

Dimensions in inches

XME A3

MADE IN BRAZIL


**W21X NEMA**  
**Premium**

14212540



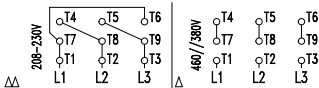
LISTED

CC029A

*Inverter Duty Motor*  
*Severe Duty*

MODEL 00336XT3E182TC

PH 3	FR 182/4TC		
HP(kW) 3.0(2.2)		HZ 60	IP55
V 230/460		A 7.52/3.76	
RPM 3510		NEMA NOM EFF 86.5%	
PF 0.85		SFA 8.65/4.32	DES B
INS CL F $\Delta$ T 80 K		SF 1.15	ENCL TEFC
DUTY CONT.		CODE K	ALT 1000 m.a.s.l.
AMB 40°C	USABLE @208V	8.32 A	SF 1.15 SFA 9.57
AMB 55°C SF1.0			
3.0HP 2.2kW 50Hz 380V 4.44A 2880RPM SF1.00 EFF 85.5% (IE2)			


 → 6307-2RS MOBIL POLYREX EM  
 → 6206-2RS

126 Lbs


 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, 20:1CT, 1.0SF, T3C, AMB 40°C.