

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12675385	
		Catalog # :	00212ET3E184TC-S	
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>	: 89.1 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.3424 sq.ft.lb	
Design	: B			
Output [HP]	2	2	2	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	6.00/3.00	7.00/3.50	6.49/3.44	
L. R. Amperes [A]	45.0/22.5	42.7/21.3	43.5/23.0	
LRC [A]	7.5x(Code K)	6.1x(Code H)	6.7x(Code J)	
No load current [A]	3.74/1.87	3.69/1.85	3.77/2.00	
Rated speed [RPM]	1170	955	960	
Slip [%]	2.50	4.50	4.00	
Rated torque [ft.lb]	8.98	11.0	10.9	
Locked rotor torque [%]	260	210	250	
Breakdown torque [%]	370	280	320	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	79s (cold) 44s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	50.0 dB(A)	50.0 dB(A)	
Efficiency (%)	25%	82.0	85.5	84.3
	50%	84.0	85.3	84.5
	75%	86.5	86.4	86.3
	100%	88.5	85.7	86.1
Power Factor	25%	0.28	0.33	0.30
	50%	0.50	0.57	0.53
	75%	0.62	0.69	0.66
	100%	0.71	0.76	0.73
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads		
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 179 lb	
		Max. compression	: 268 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 6.63A SF 1.00 SFA 6.63A				
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



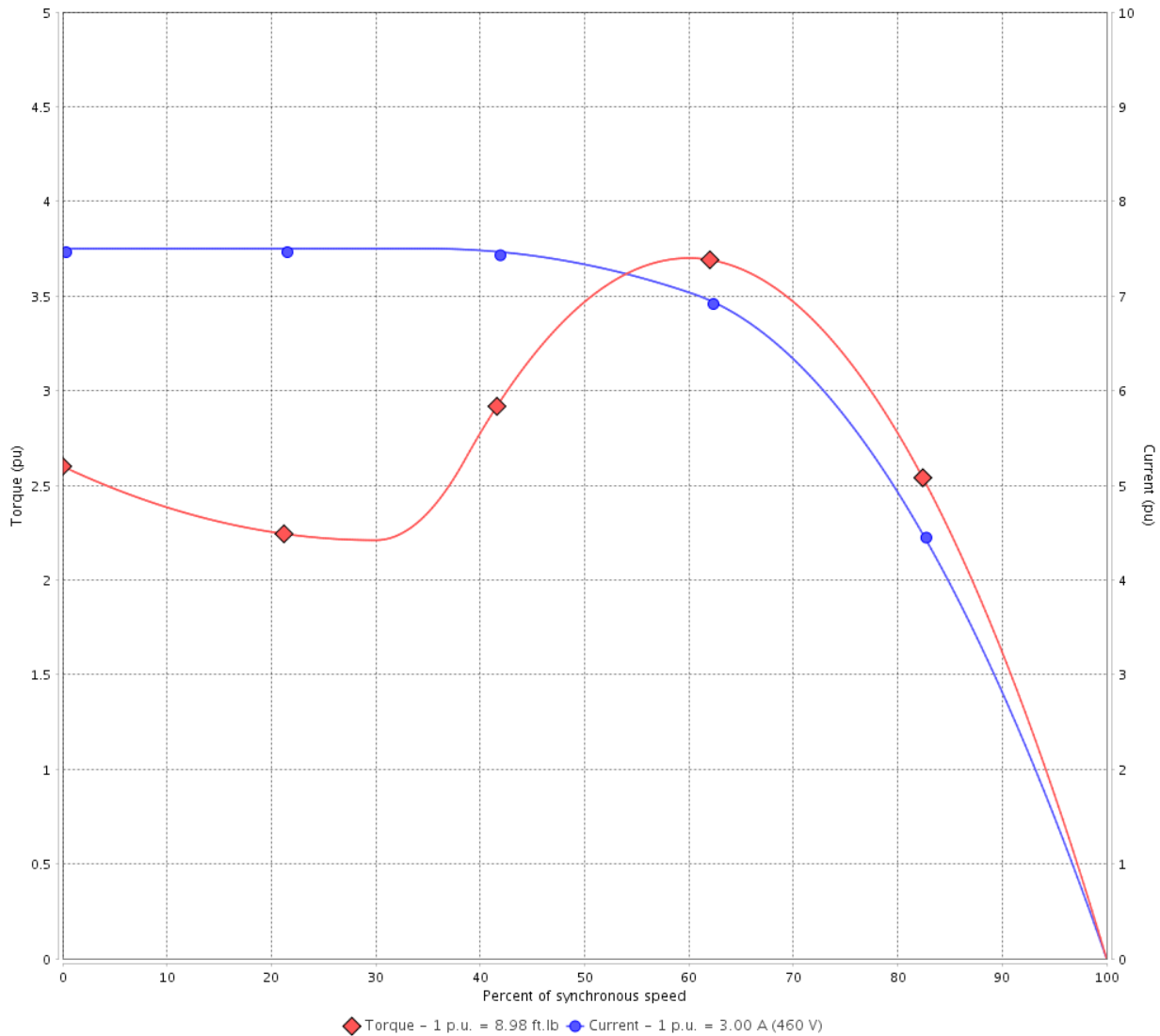
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675385

Catalog # : 00212ET3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 6.00/3.00 A  
 LRC : 7.5  
 Rated torque : 8.98 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 370 %  
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.3424 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 79s (cold) 44s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



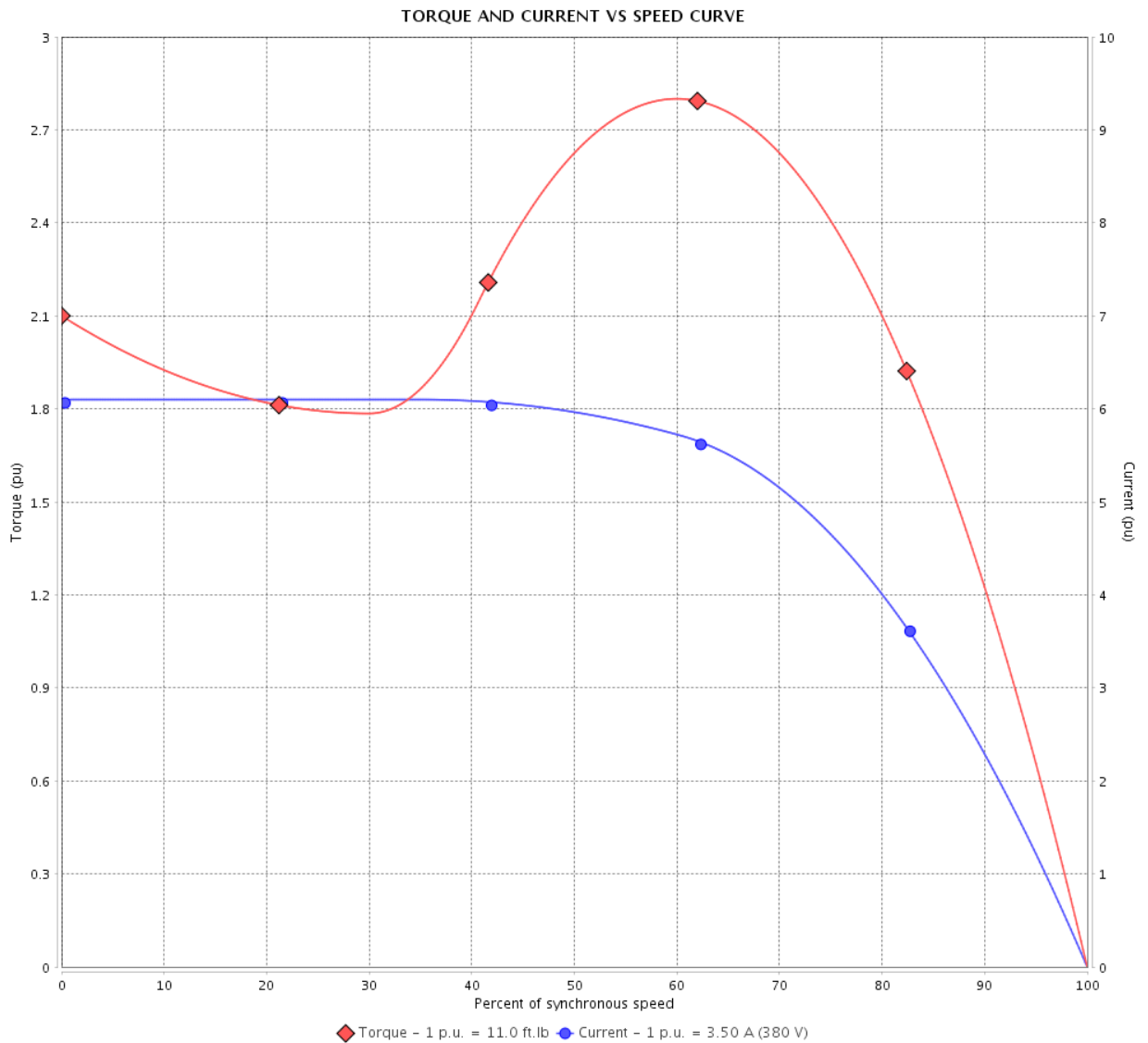
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675385

Catalog # : 00212ET3E184TC-S



Performance : 190/380 V 50 Hz 6P

Rated current : 7.00/3.50 A  
 LRC : 6.1  
 Rated torque : 11.0 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 280 %  
 Rated speed : 955 rpm

Moment of inertia (J) : 0.3424 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



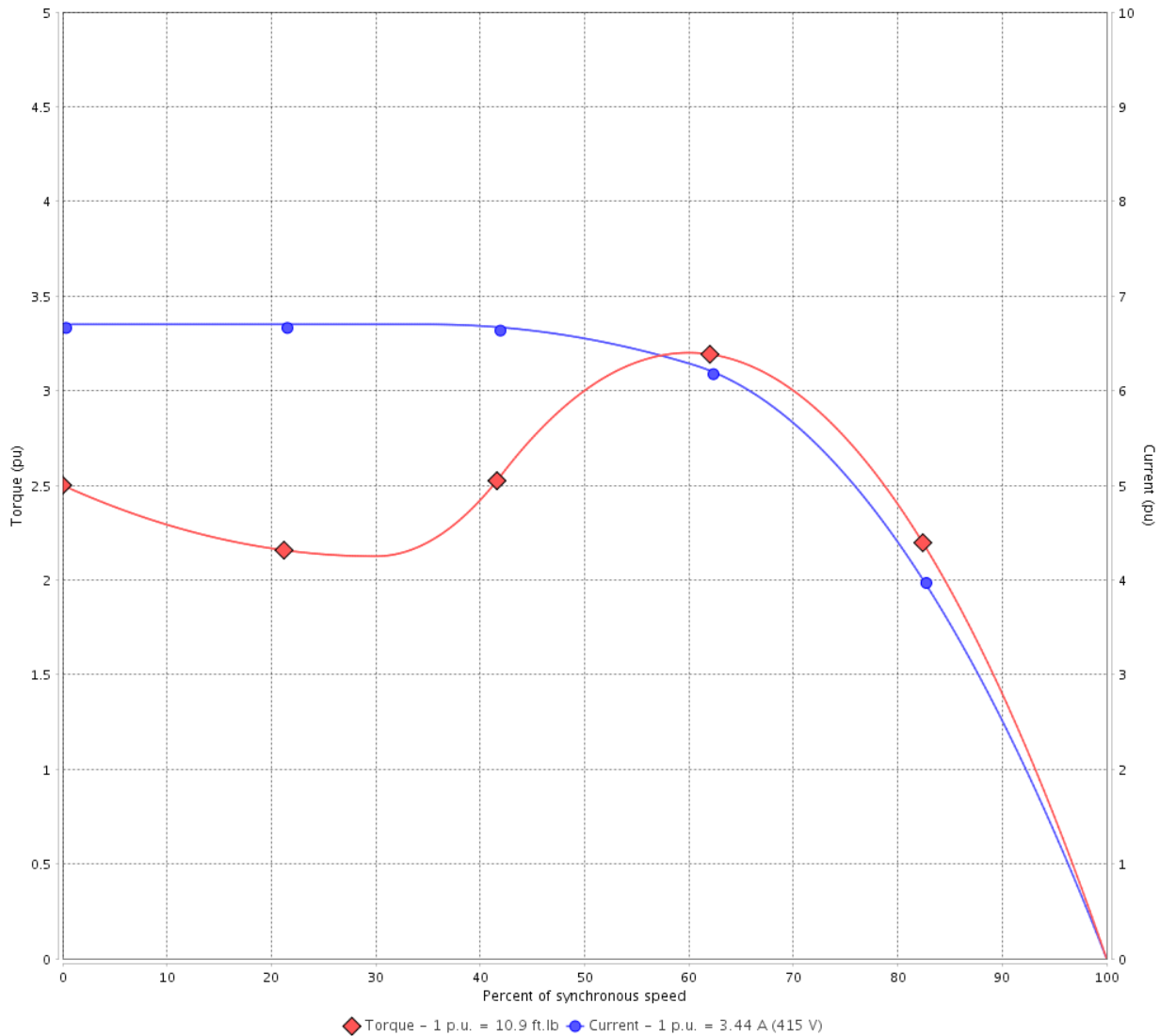
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675385

Catalog # : 00212ET3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 6.49/3.44 A	Moment of inertia (J)	: 0.3424 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 10.9 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

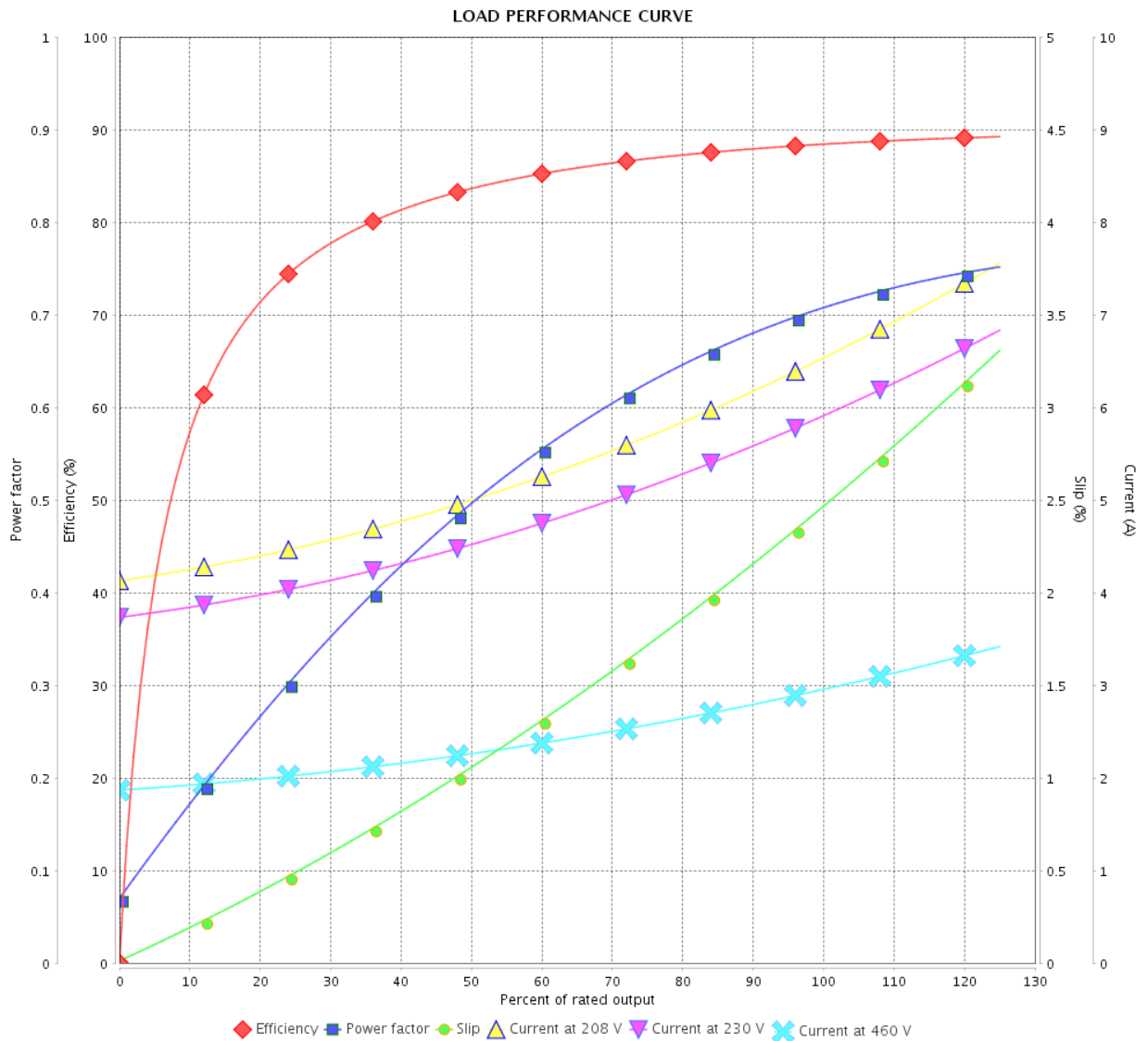


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675385

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Performance : 230/460 V 60 Hz 6P

Rated current : 6.00/3.00 A  
 LRC : 7.5  
 Rated torque : 8.98 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 370 %  
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.3424 sq.ft.lb  
 Duty cycle : Cont.(S1)  
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 Service factor : 1.15  
 Temperature rise : 80 K  
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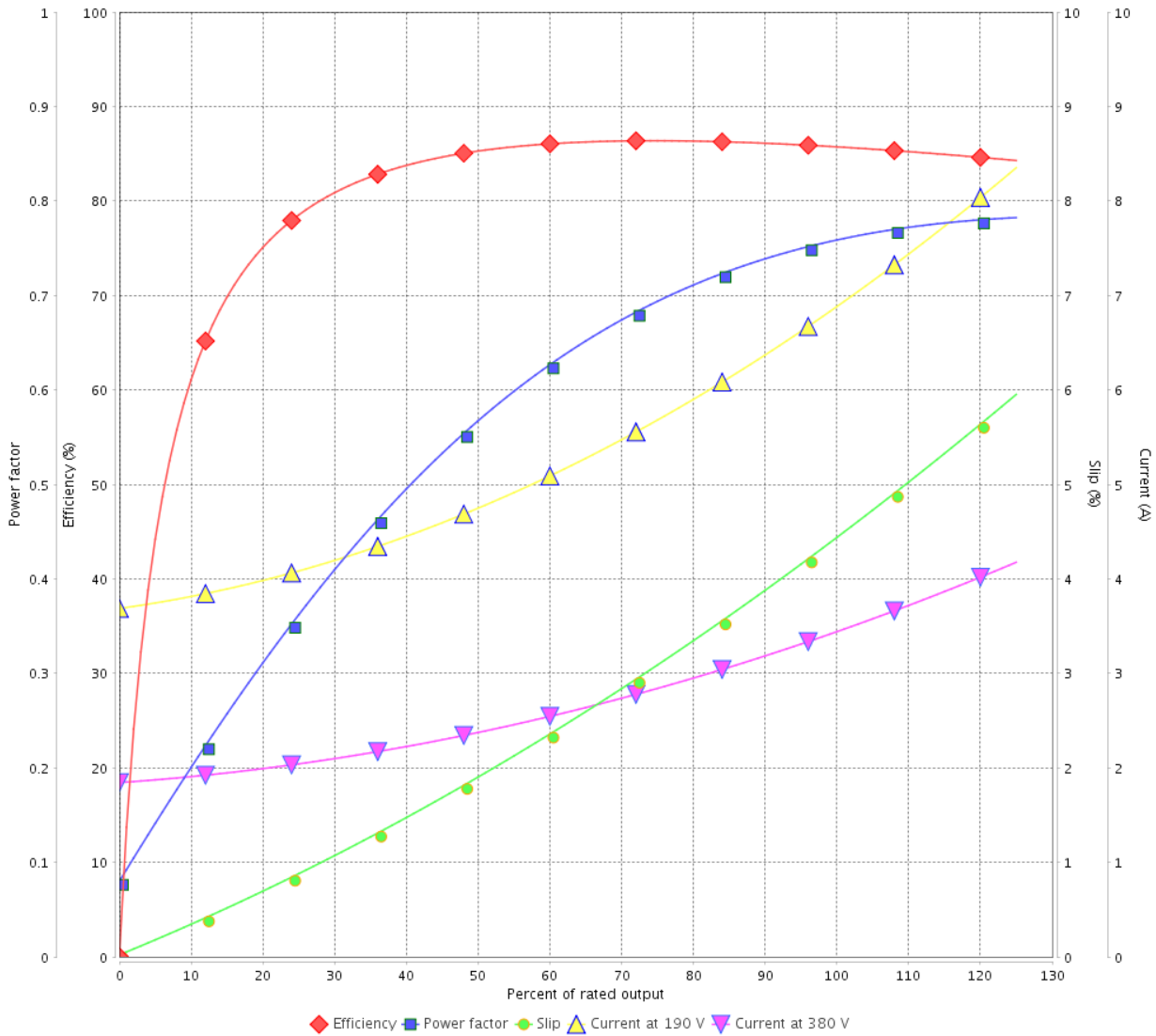
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675385

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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 7.00/3.50 A  
 LRC : 6.1  
 Rated torque : 11.0 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 280 %  
 Rated speed : 955 rpm

Moment of inertia (J) : 0.3424 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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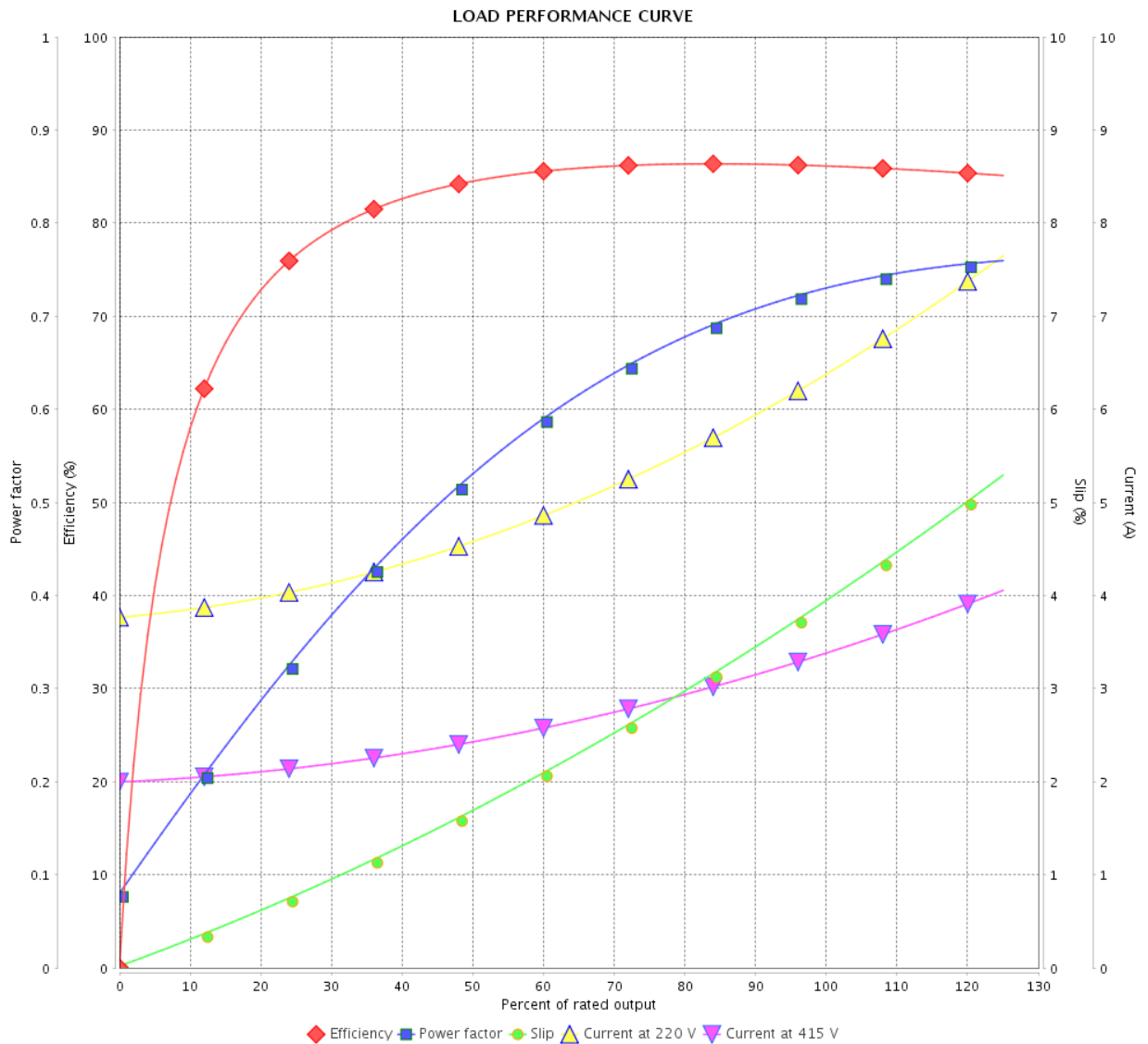


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Product code : 12675385

Catalog # : 00212ET3E184TC-S



Performance : 220/415 V 50 Hz 6P

Rated current : 6.49/3.44 A  
 LRC : 6.7  
 Rated torque : 10.9 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 320 %  
 Rated speed : 960 rpm

Moment of inertia (J) : 0.3424 sq.ft.lb  
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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12675385  
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Performance : 230/460 V 60 Hz 6P

Rated current	: 6.00/3.00 A	Moment of inertia (J)	: 0.3424 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 8.98 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 370 %	Temperature rise	: 80 K
Rated speed	: 1170 rpm	Design	: B

Heating constant

Cooling constant

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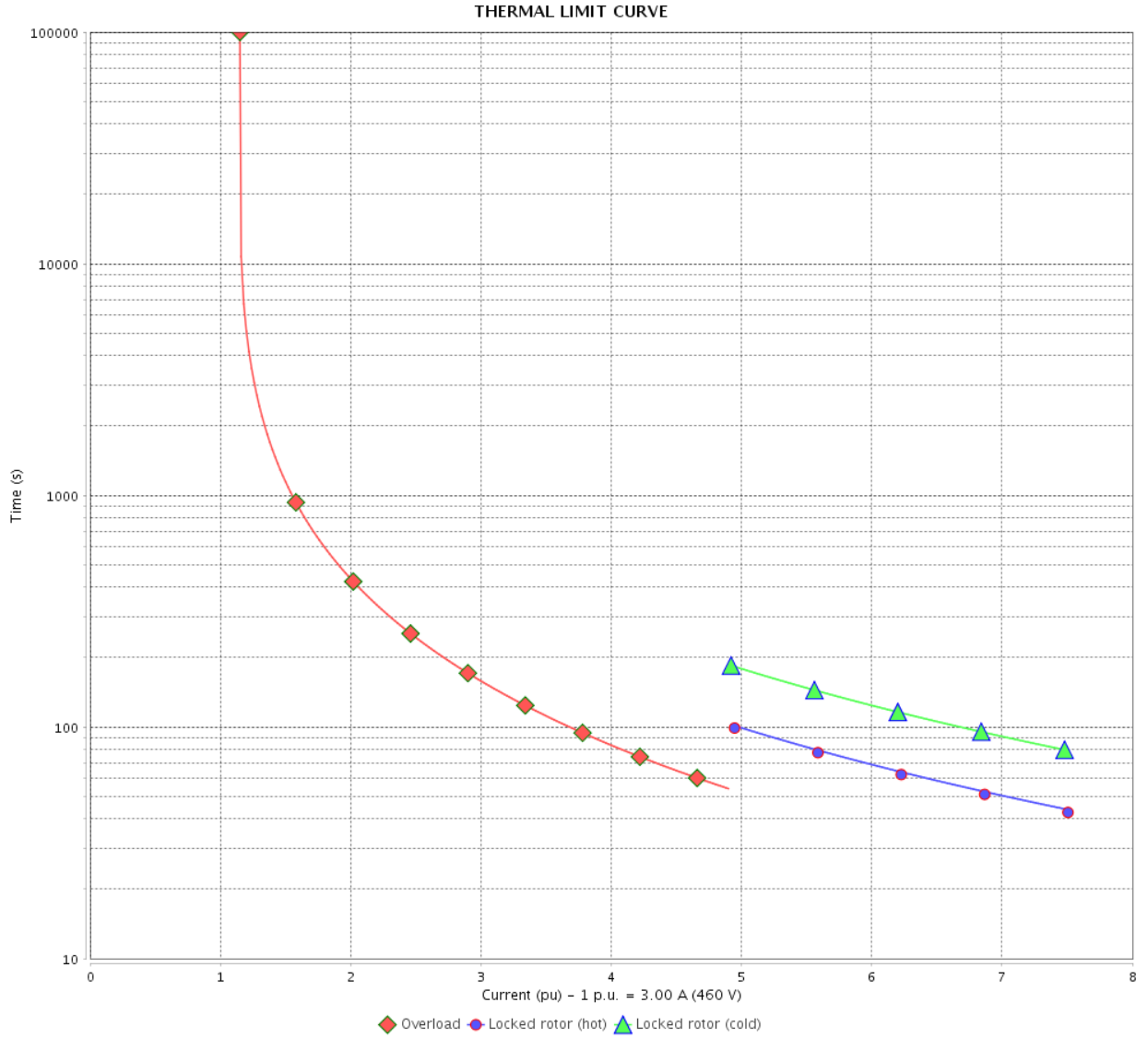


# THERMAL LIMIT CURVE

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  
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Catalog # : 00212ET3E184TC-S

Performance : 190/380 V 50 Hz 6P

Rated current : 7.00/3.50 A	Moment of inertia (J) : 0.3424 sq.ft.lb
LRC : 6.1	Duty cycle : Cont.(S1)
Rated torque : 11.0 ft.lb	Insulation class : F
Locked rotor torque : 210 %	Service factor : 1.15
Breakdown torque : 280 %	Temperature rise : 80 K
Rated speed : 955 rpm	Design : B

Heating constant

Cooling constant

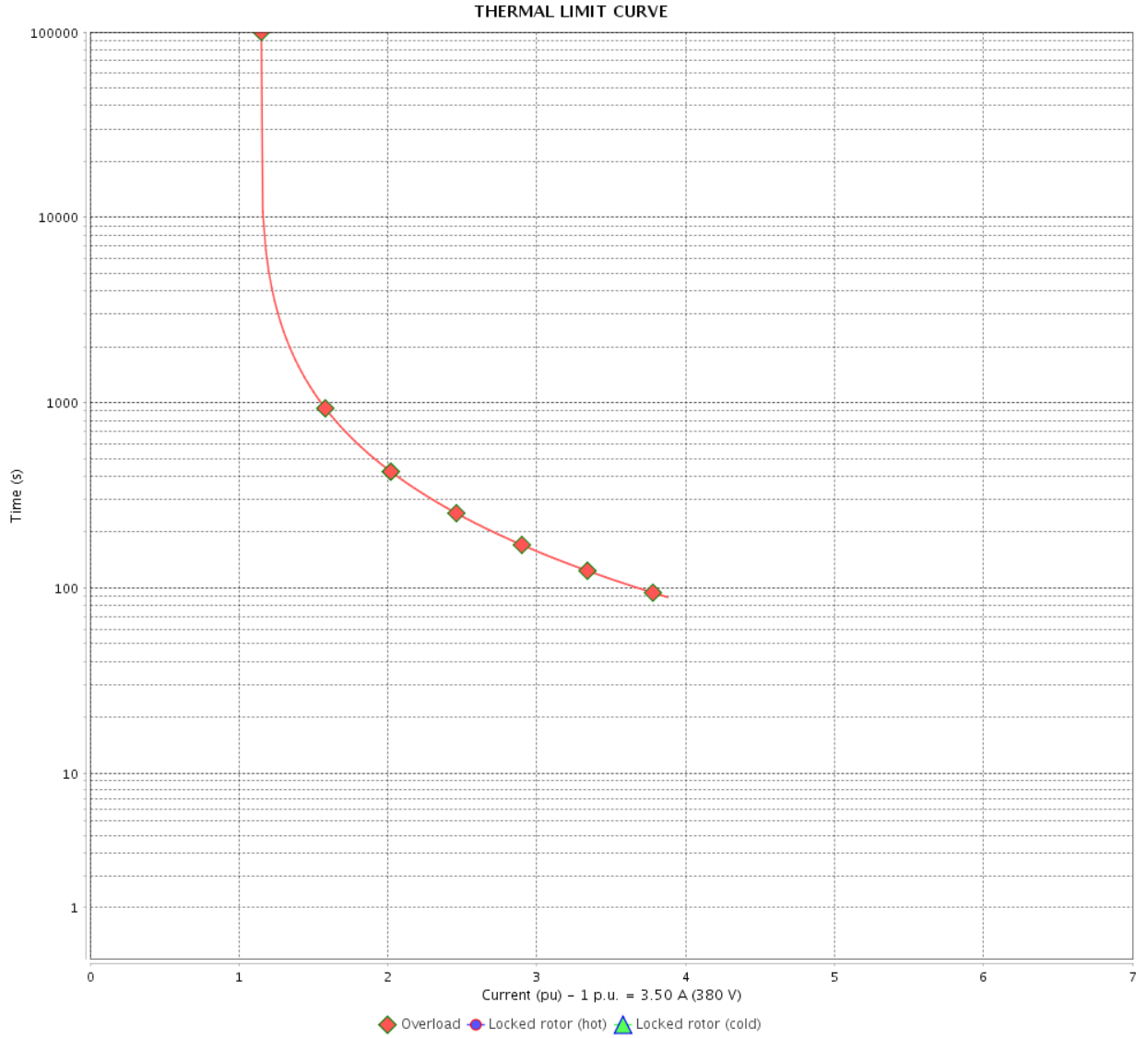
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Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Heating constant

Cooling constant

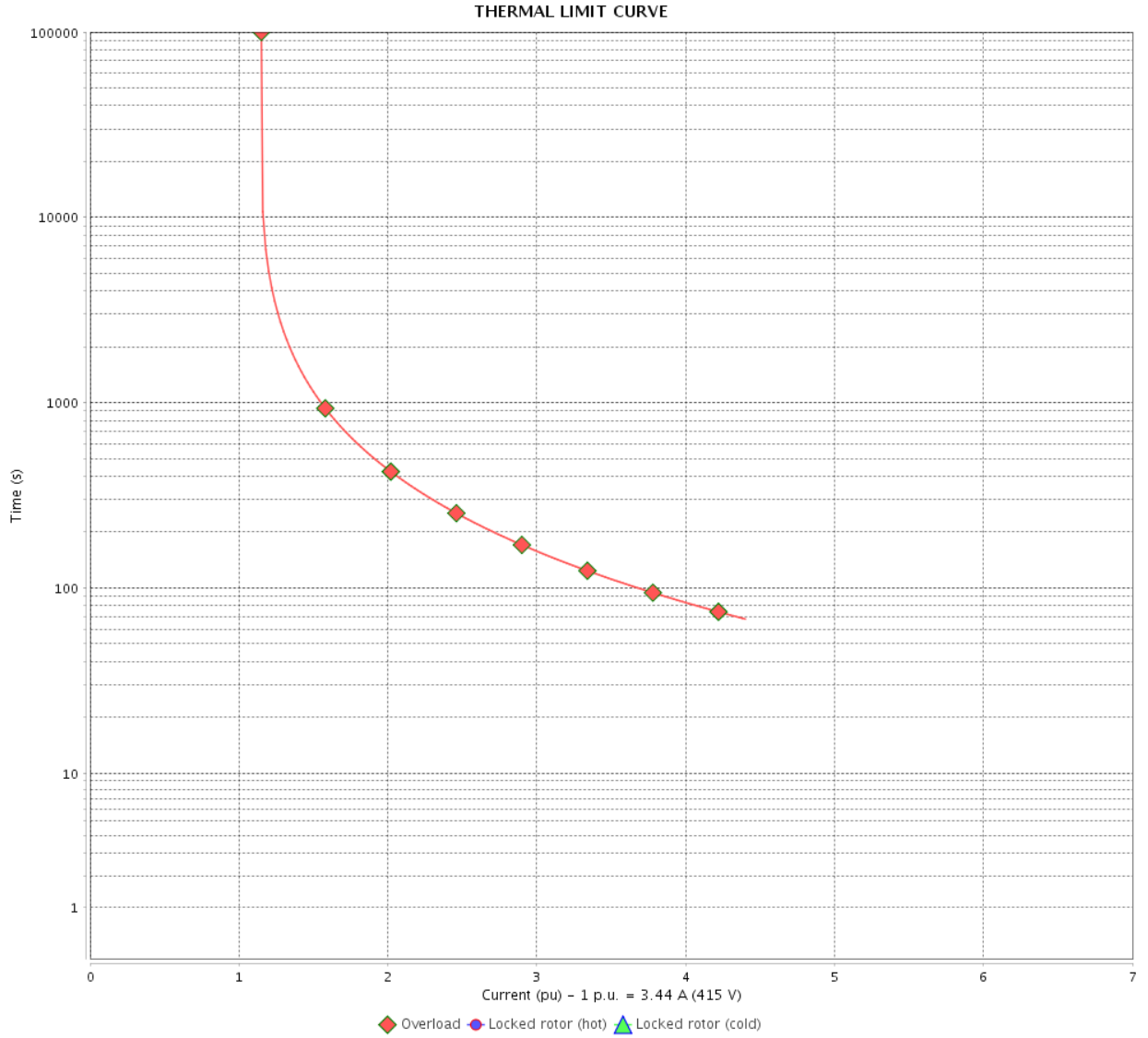
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



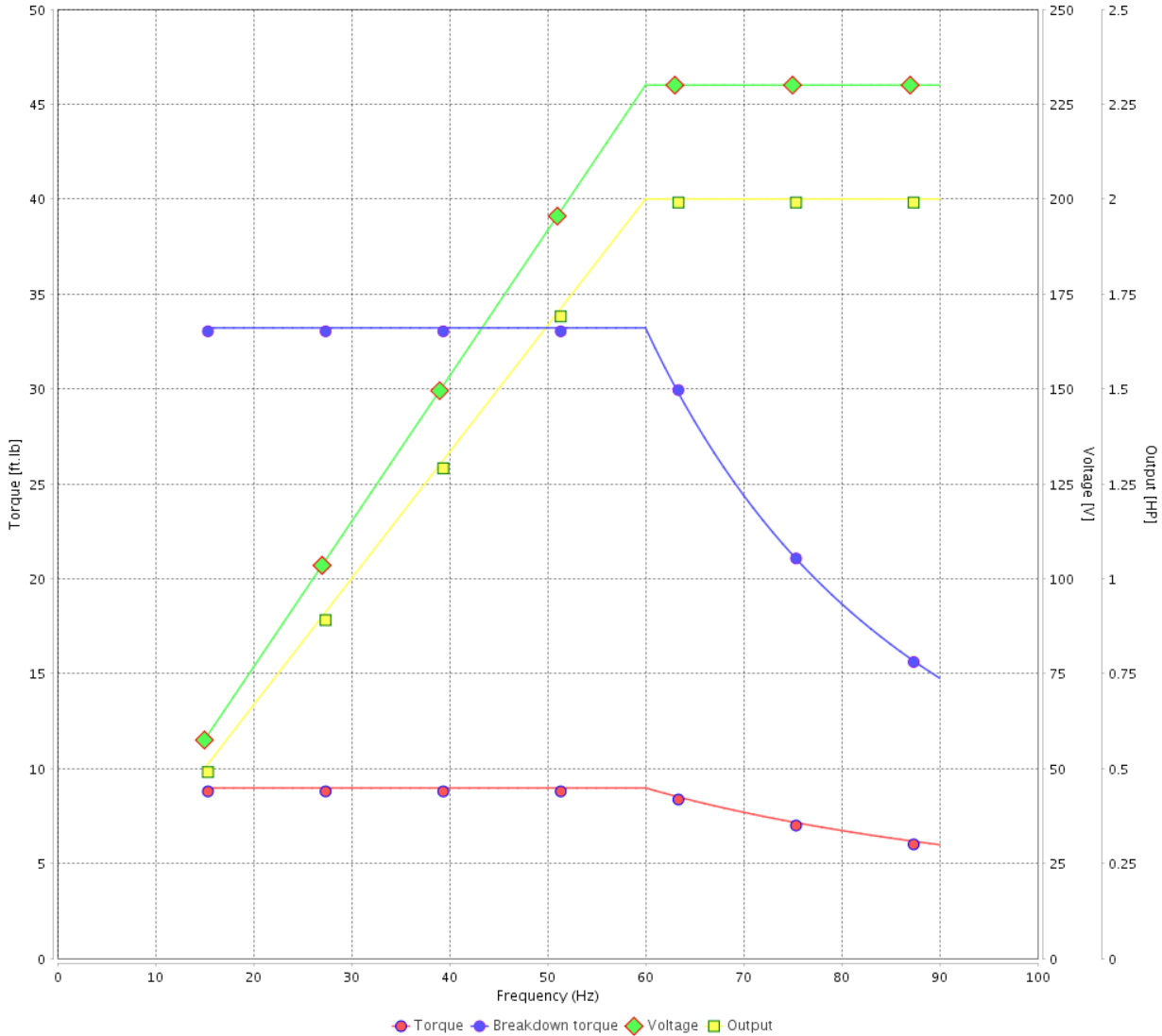
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VFD OPERATION CURVE



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# VFD OPERATION CURVE

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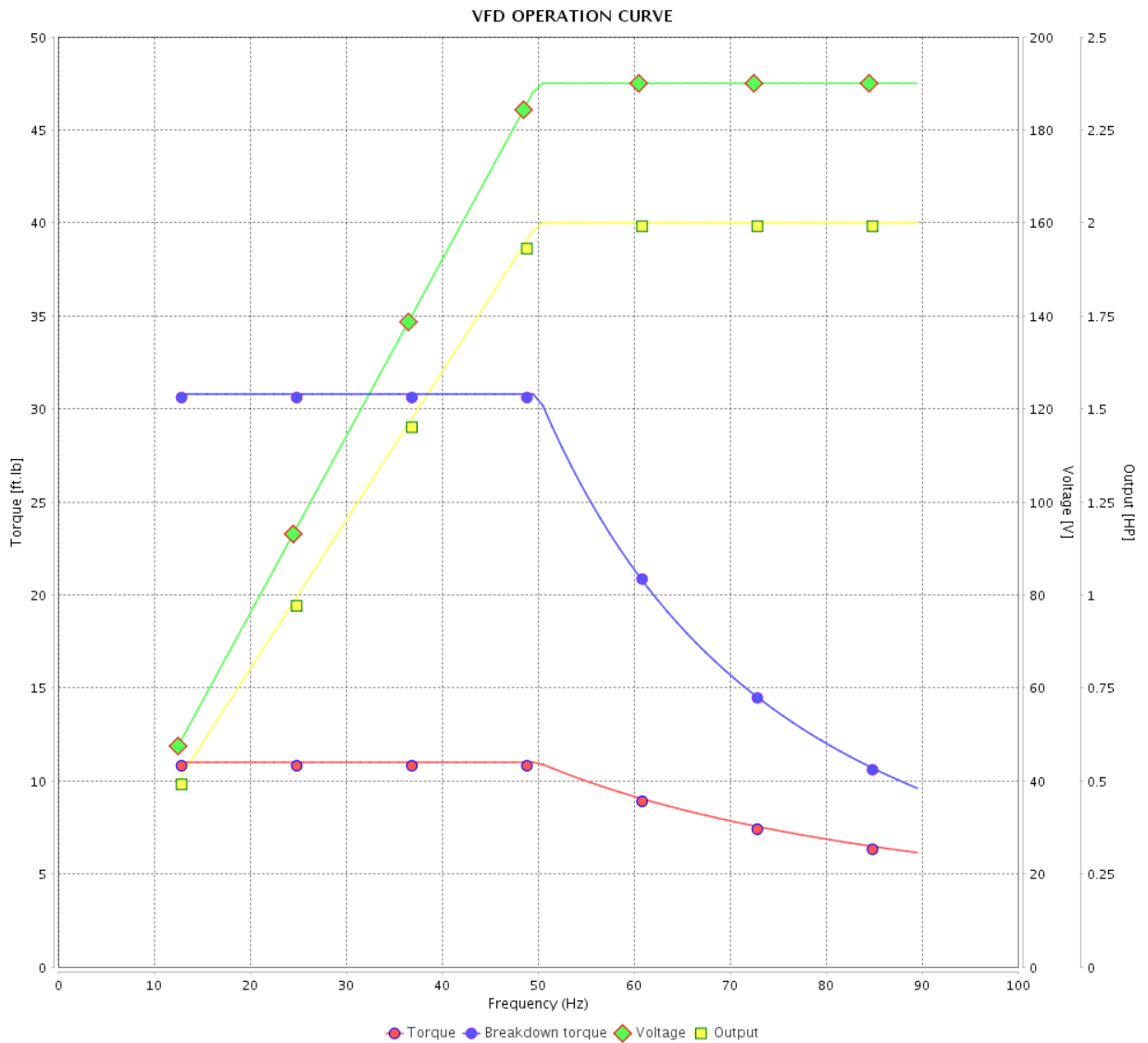


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



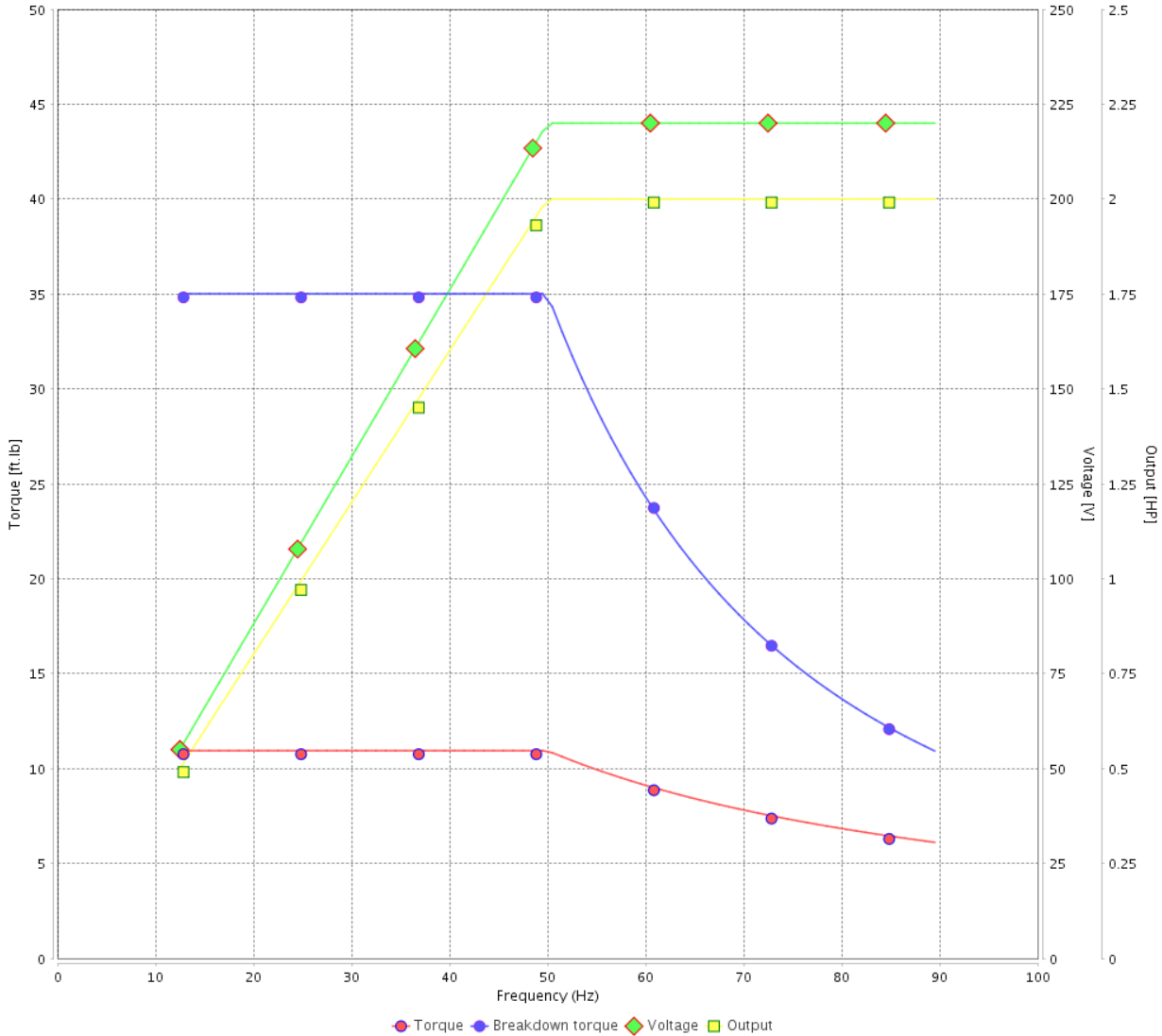
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VFD OPERATION CURVE



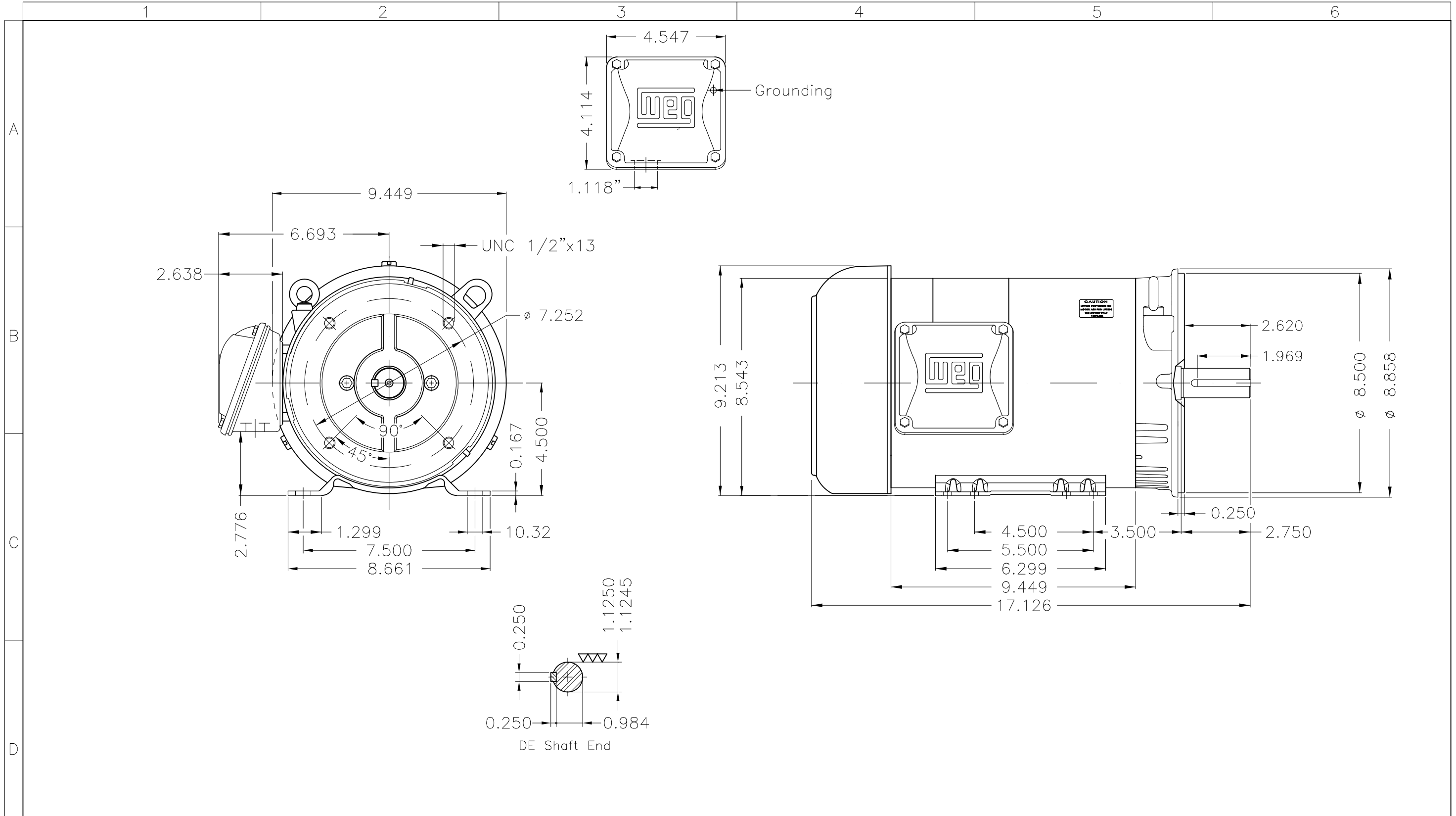
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Dimensions in inches

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.						<b>PREVIEW</b> WDD			
CHECKED		FRAME 182/4TC IP55 TEFC									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1					

2 HP 06 Poles 60 Hz

A



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 12675385 CC029A**

**W01.TE0IC0X0N**

**MODEL 00212ET3E184TC-S**

**01APR2022 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 2.0</b>
<b>FR 182/4TC</b>		<b>KW 1.5</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 6.00/3.00</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 6.90/3.45</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 0.71</b>
<b>USABLE @ 208V 6.83A</b>		<b>RPM 1170</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 88.5%</b>

<b>ALTERNATE RATING: 2.0HP 50Hz 190-220/380-415V SF1.15</b>
<b>7.00-6.43/3.50-3.41A 955RPM EFF 85.7% (IE3) IEC 60034-1</b>

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

<b>DE 6206-ZZ</b>	<b>ODE 6205-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.

