

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	13171657	
Catalog # :	01036ET3E215JM-SG	
Frame	: 213/5JM	
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	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 171 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> 6209 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 : 179 lb	
	Max. compression : 350 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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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



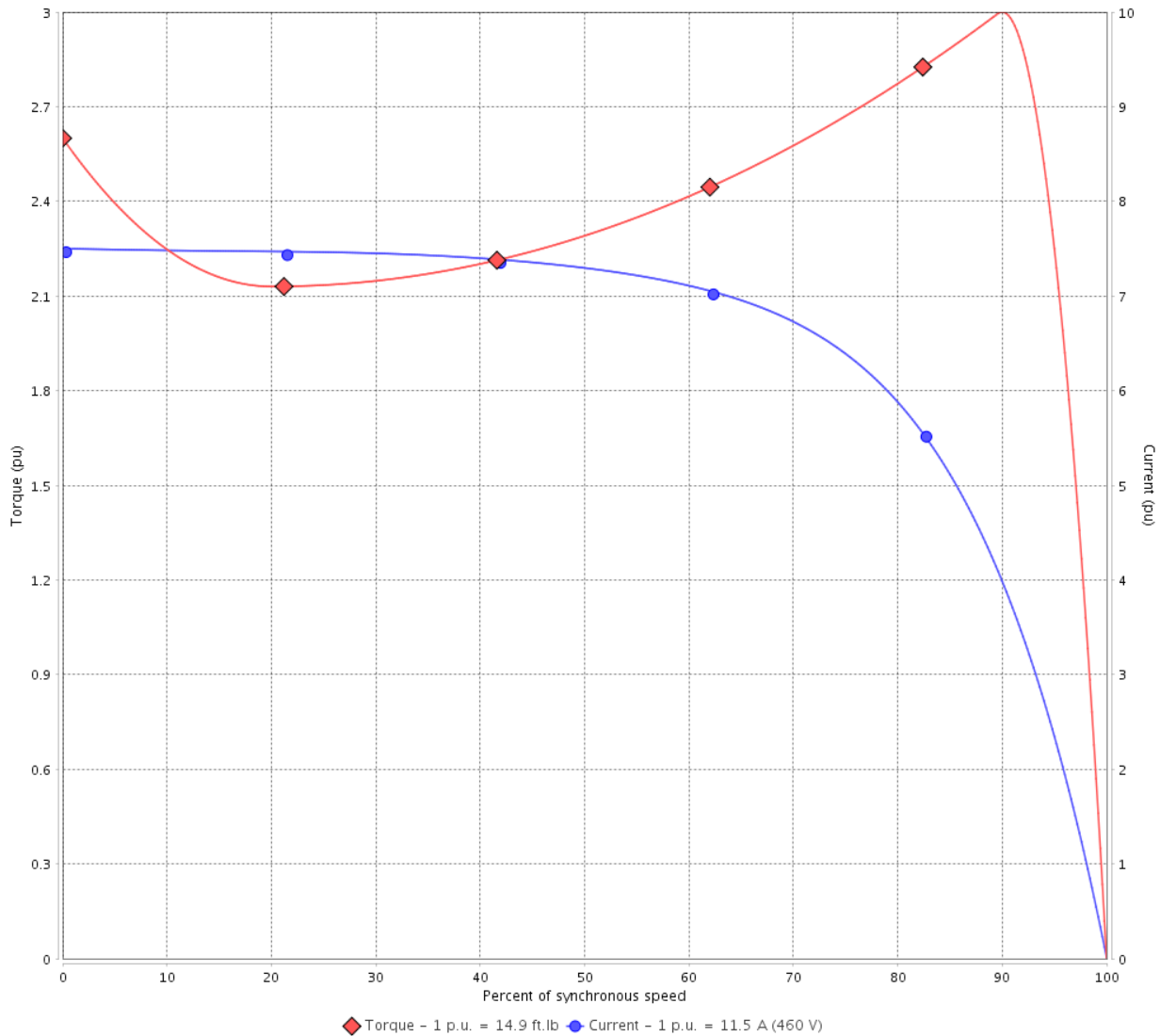
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13171657

Catalog # : 01036ET3E215JM-SG

TORQUE AND CURRENT VS SPEED CURVE



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

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

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# TORQUE AND CURRENT VS SPEED CURVE



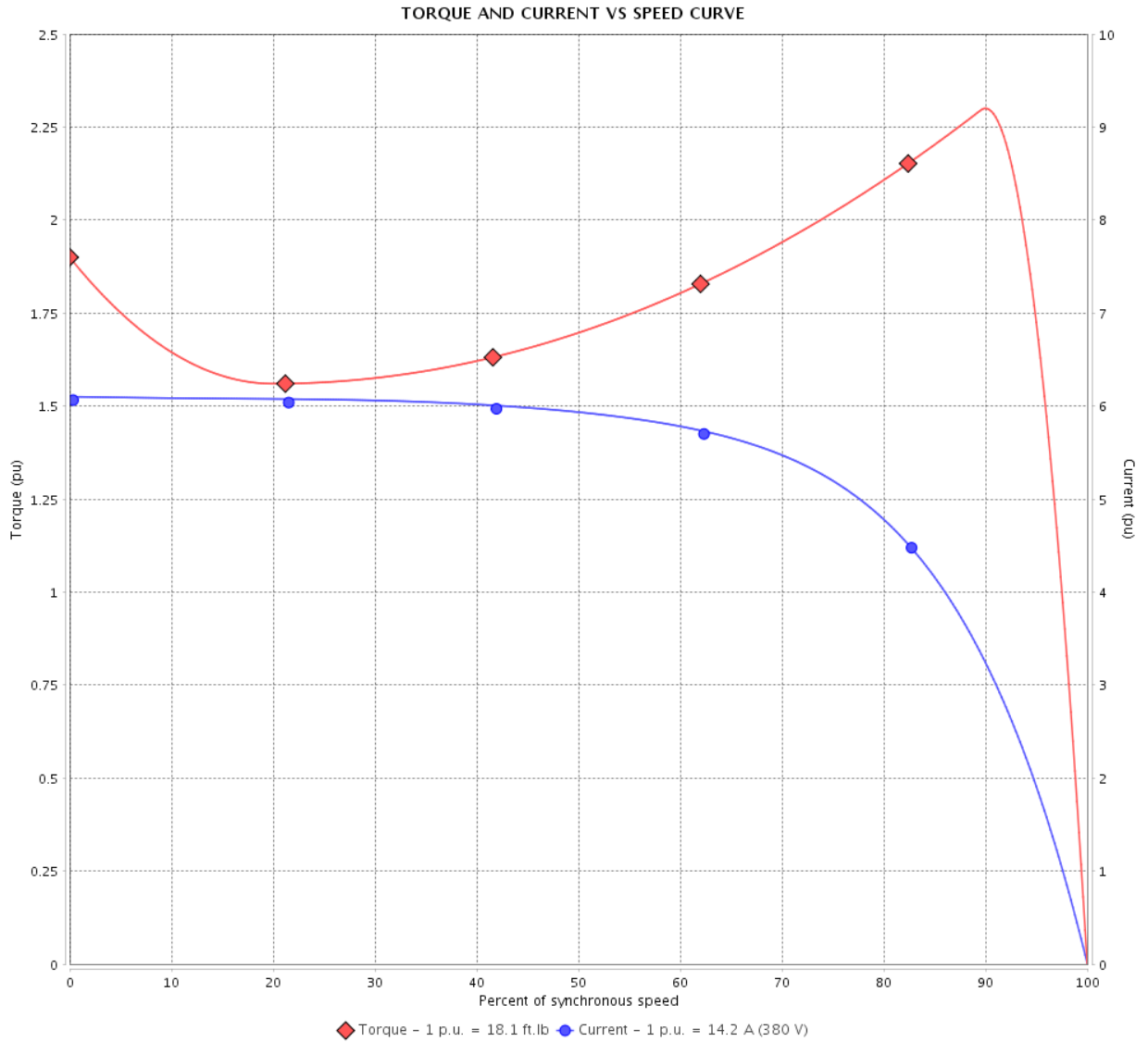
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13171657

Catalog # : 01036ET3E215JM-SG



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



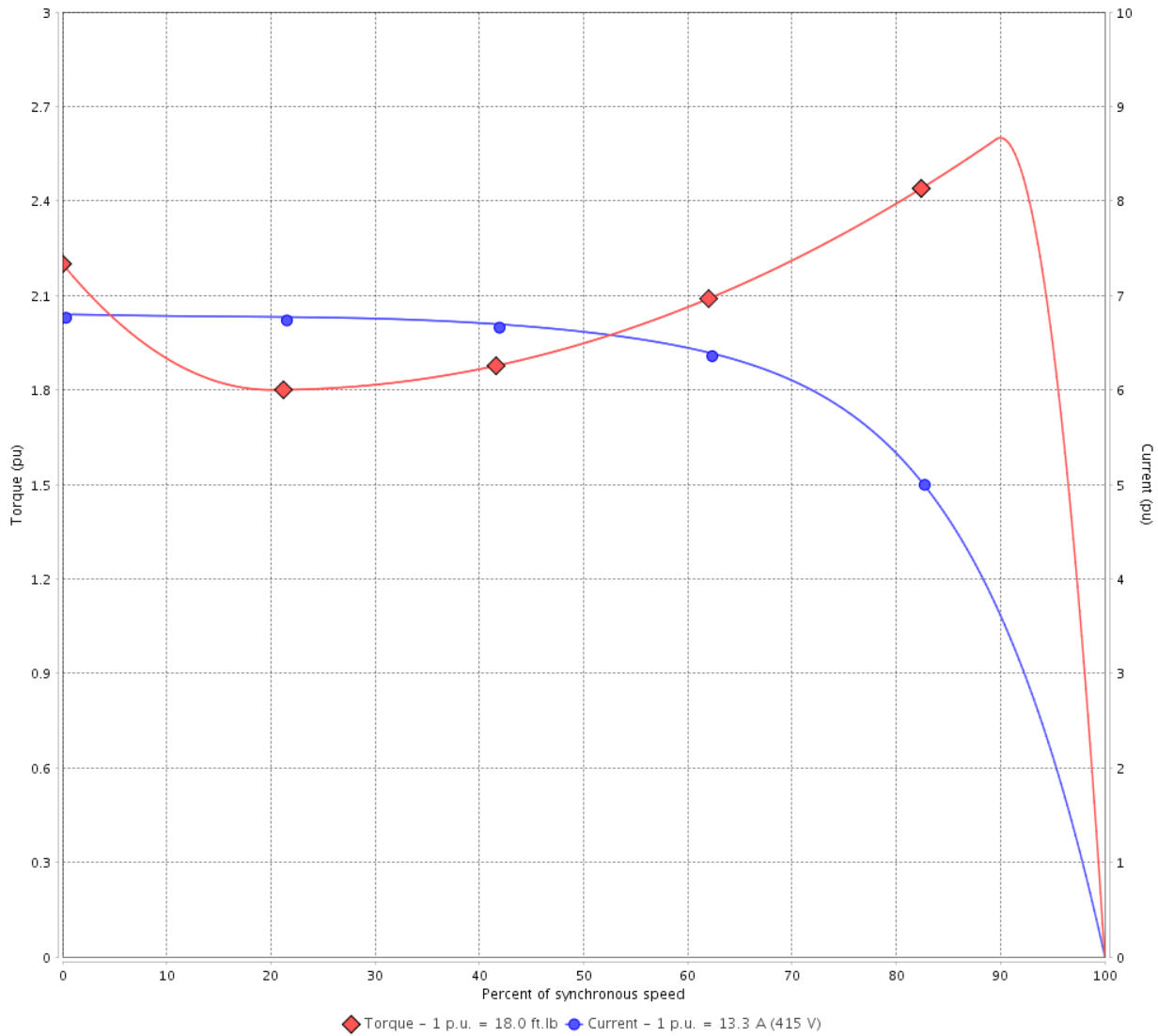
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Product code : 13171657

Catalog # : 01036ET3E215JM-SG

TORQUE AND CURRENT VS SPEED CURVE



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

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

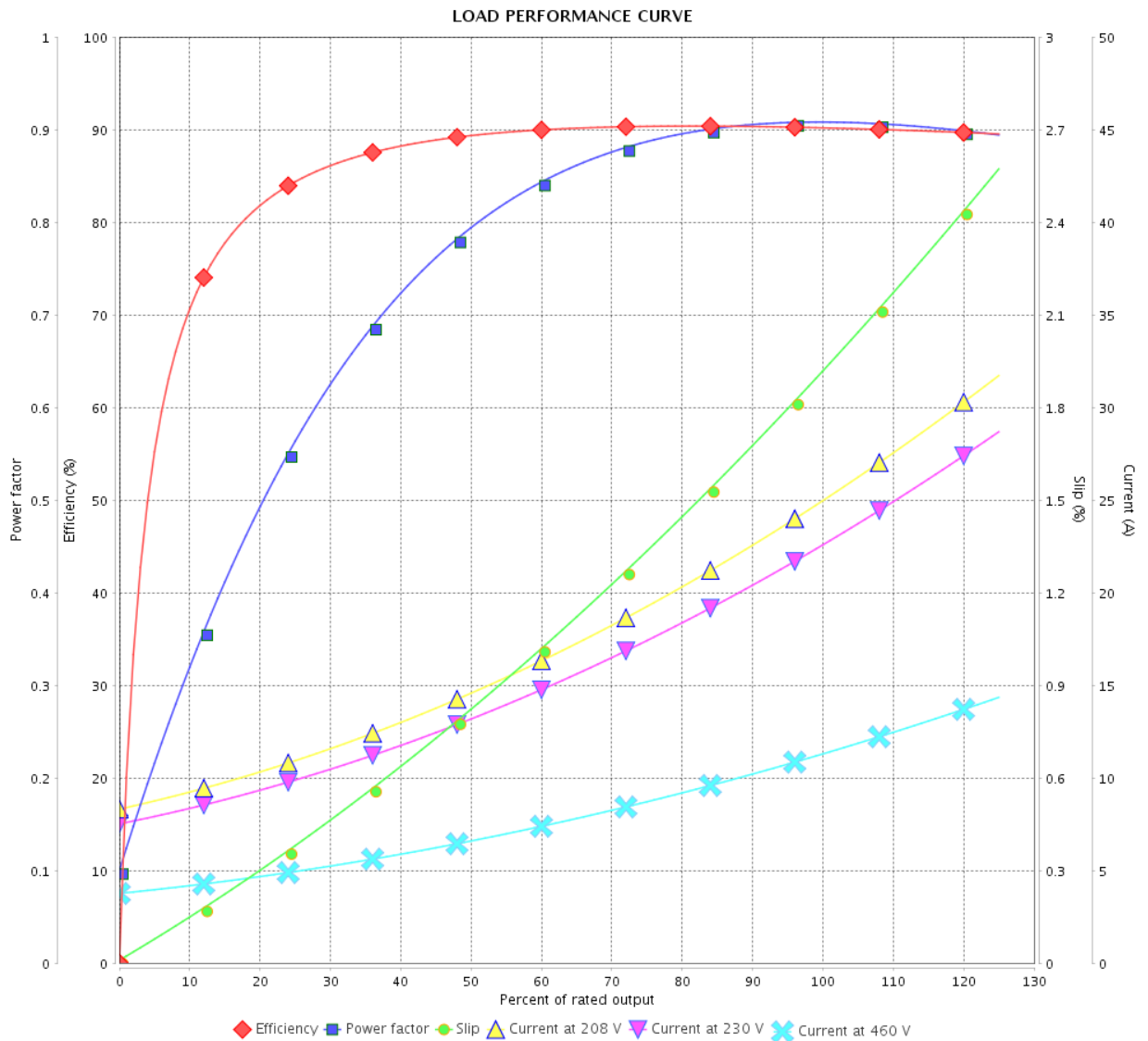


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 Temperature rise : 80 K  
 Design : B

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Three Phase Induction Motor - Squirrel Cage



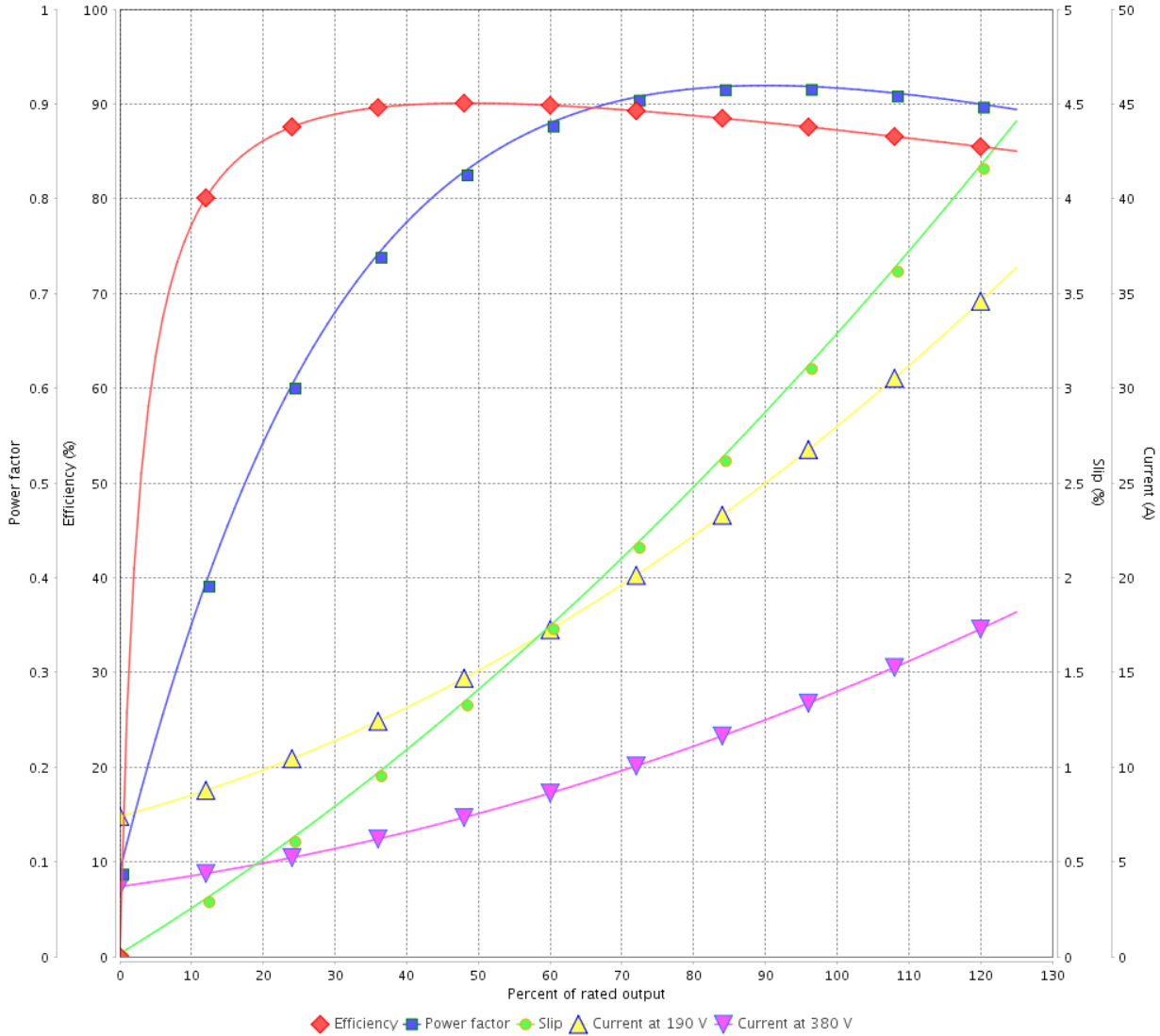
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LOAD PERFORMANCE CURVE



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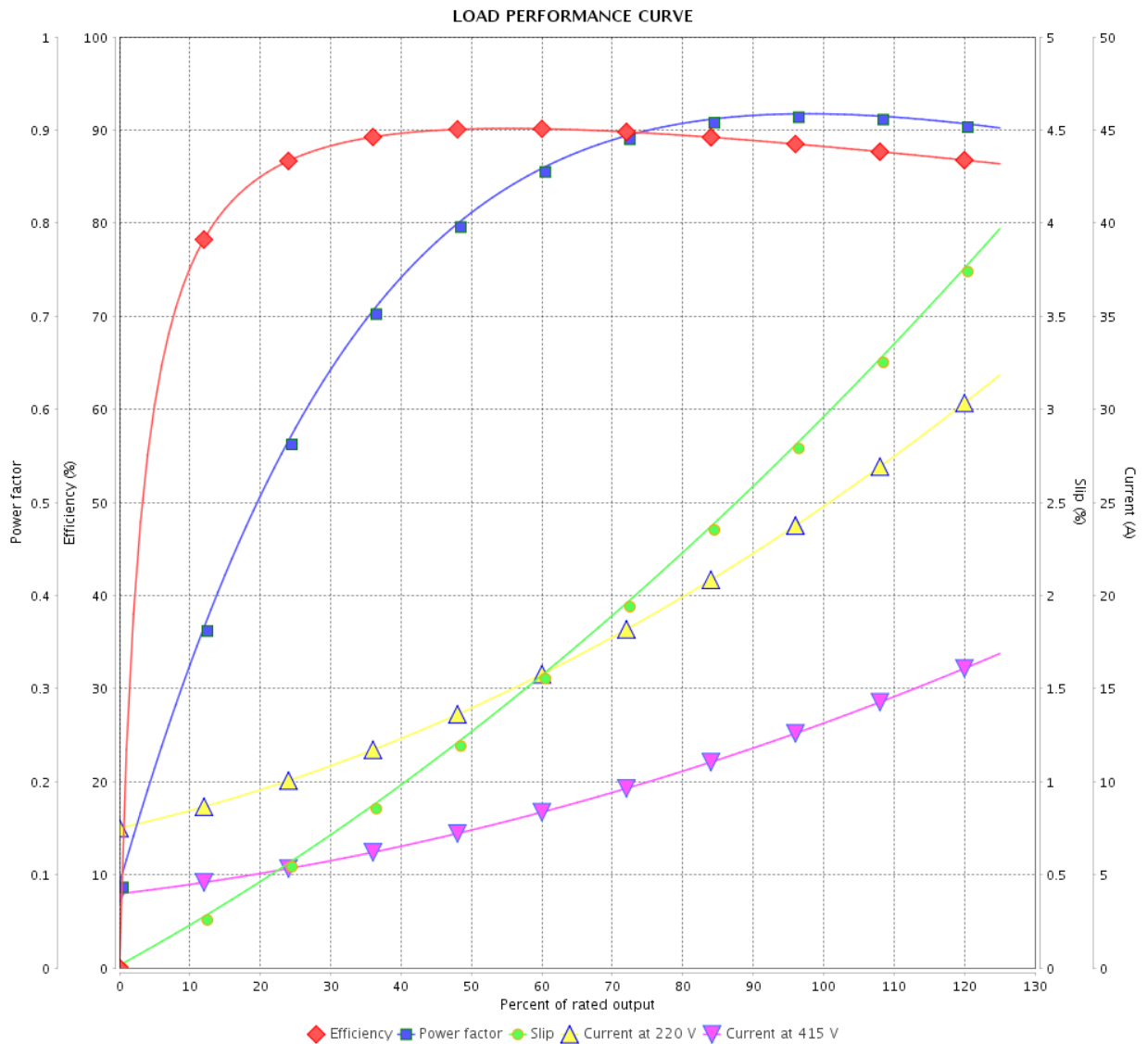


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# THERMAL LIMIT CURVE



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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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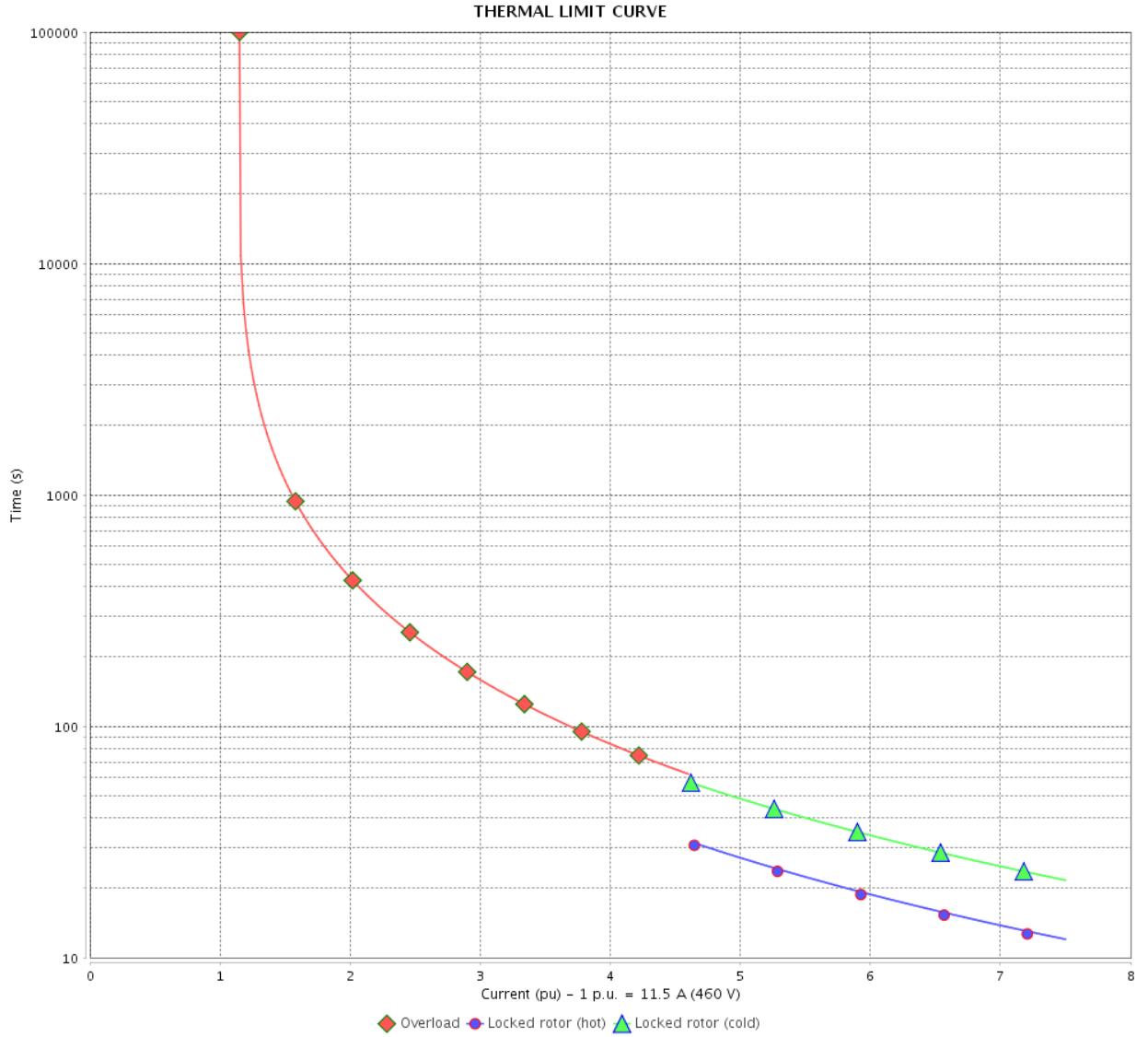


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Three Phase Induction Motor - Squirrel Cage



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Cooling constant

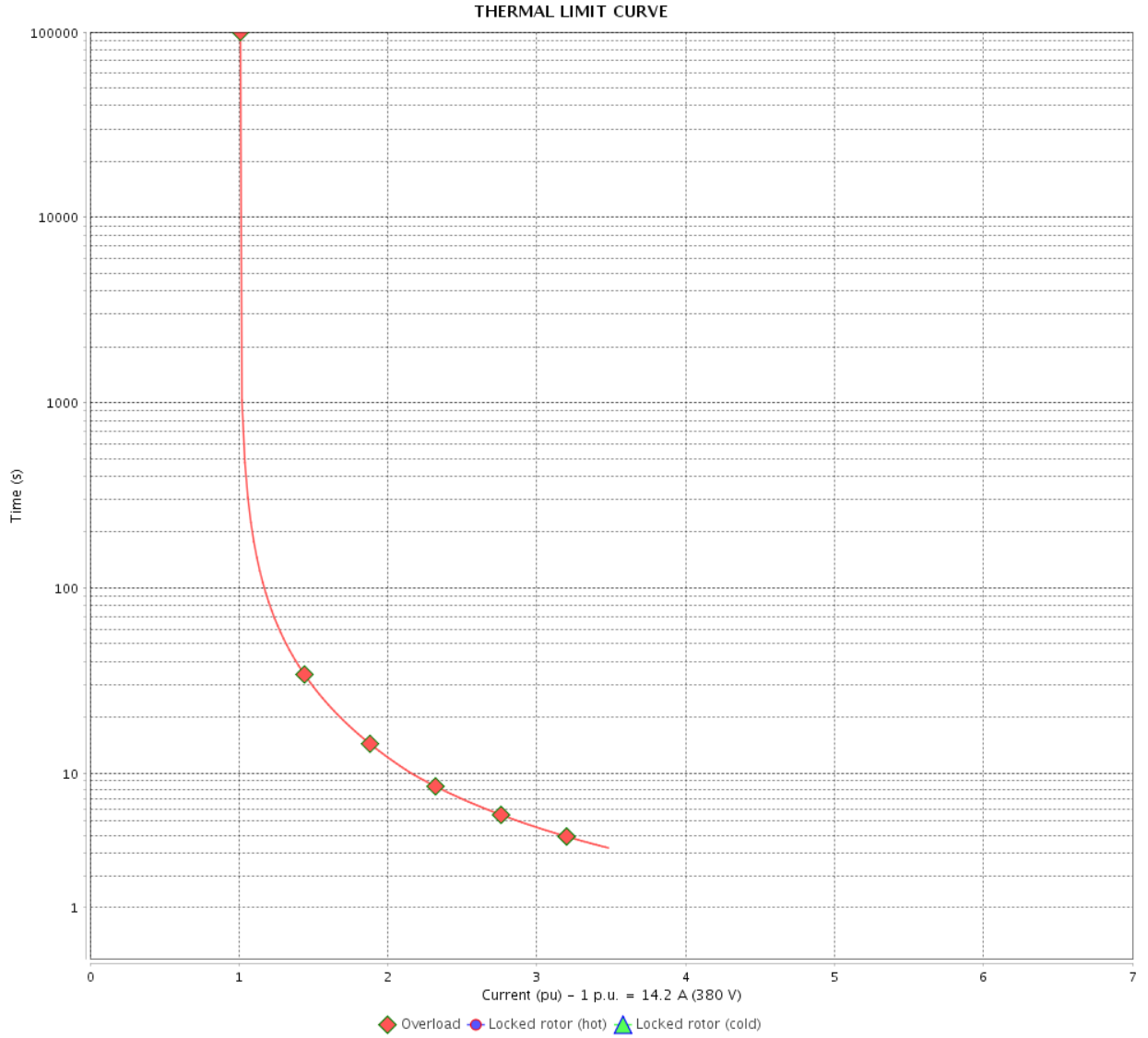
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Cooling constant

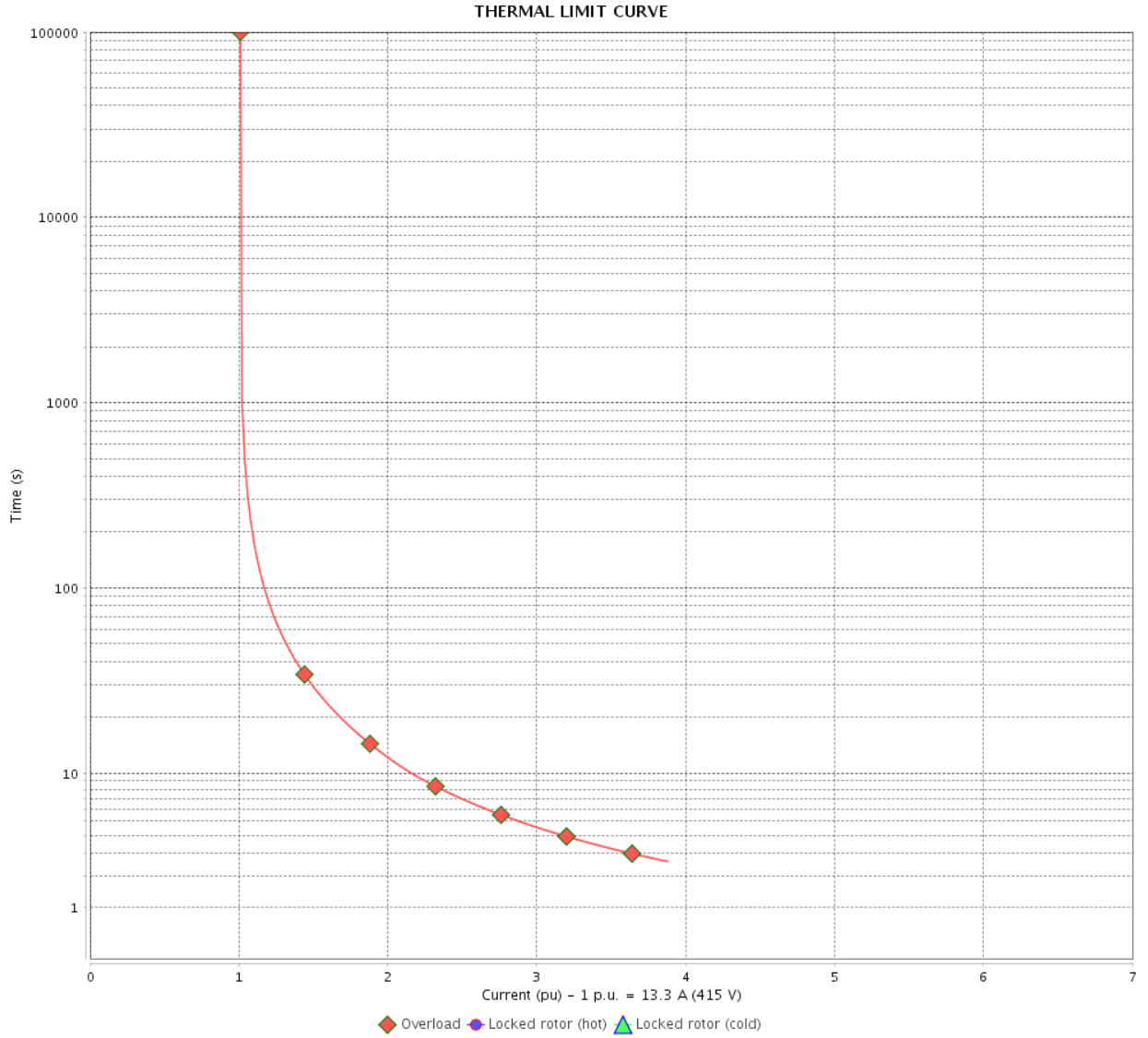
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# VFD OPERATION CURVE

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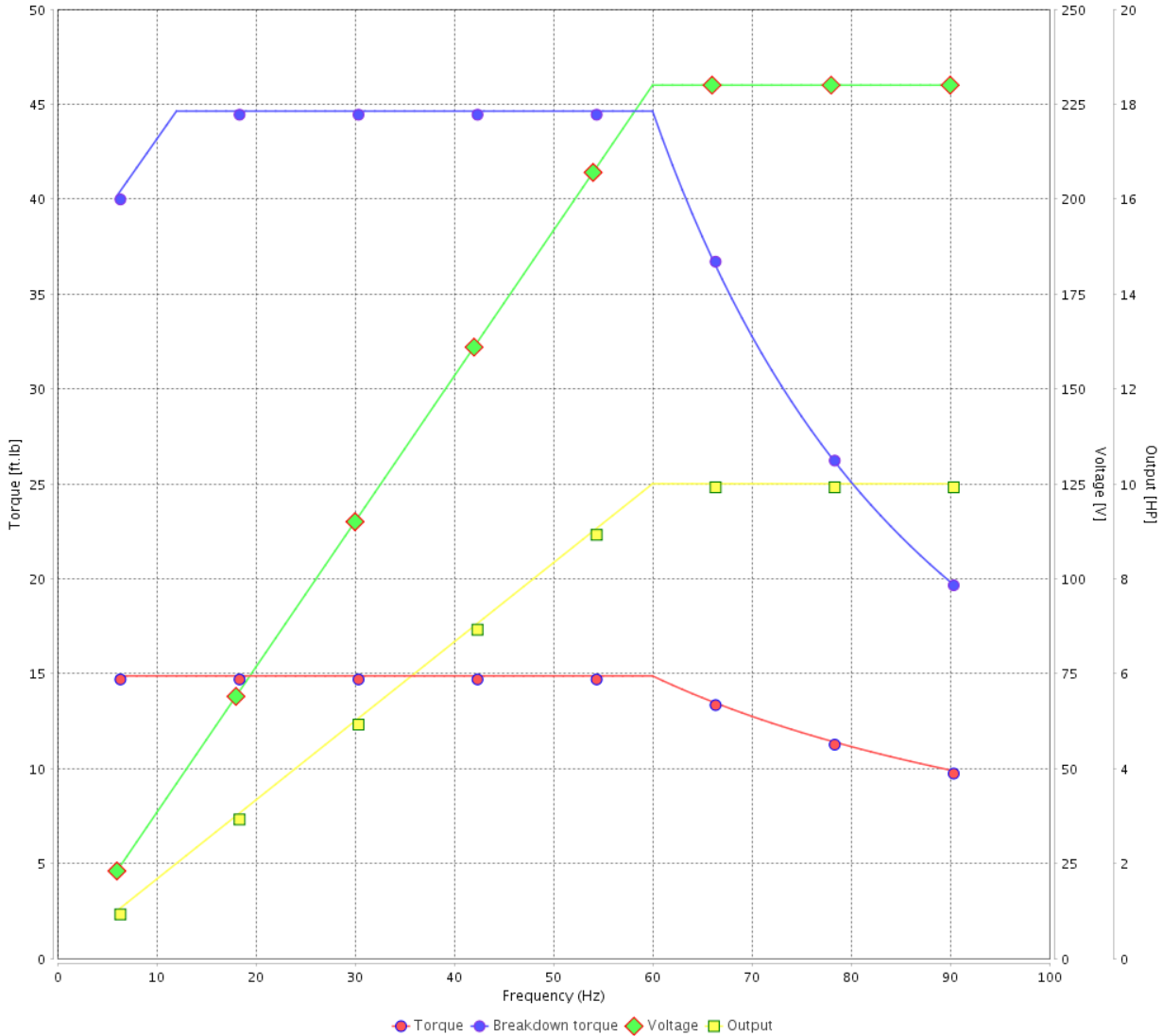
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VFD OPERATION CURVE



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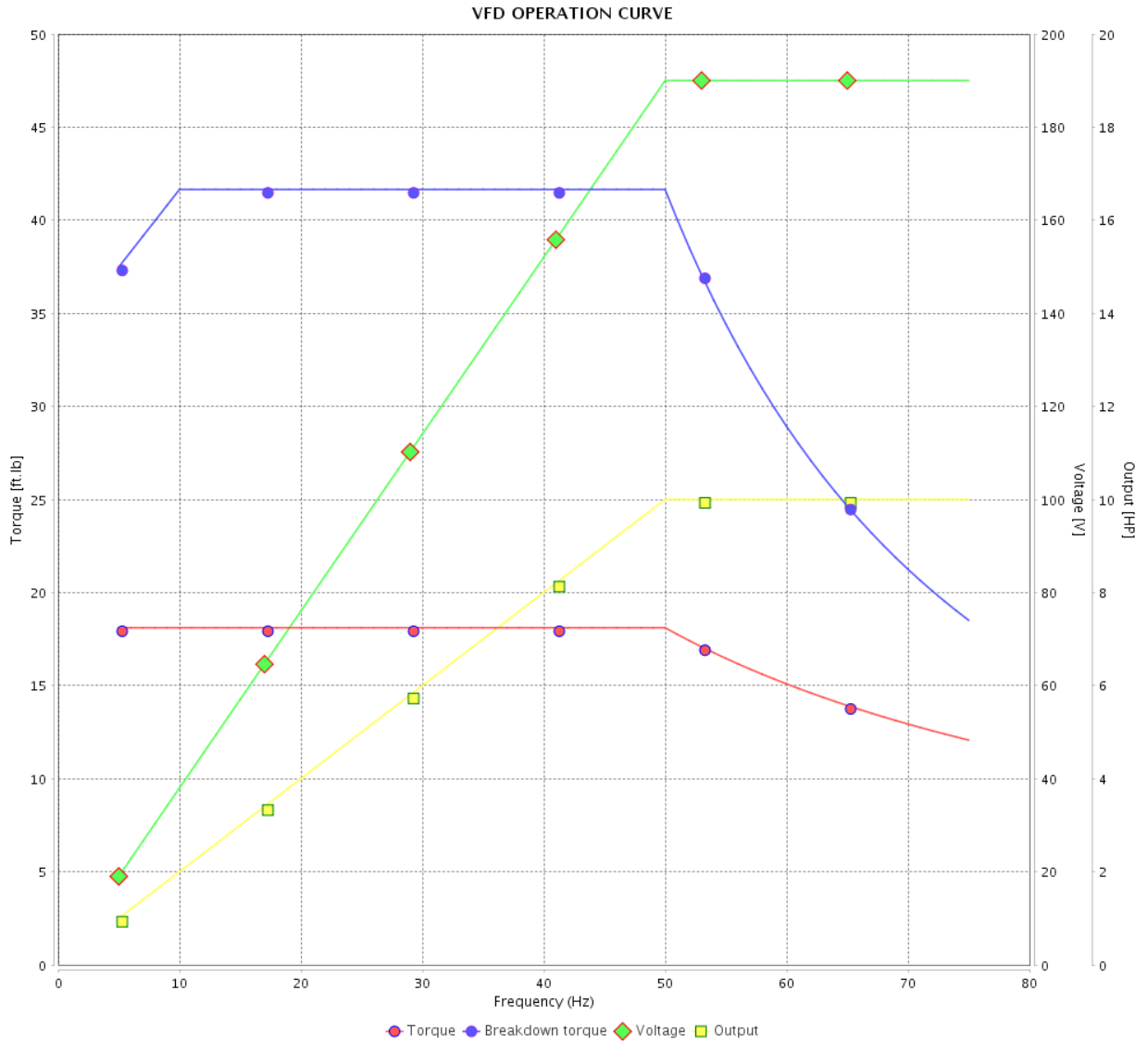


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 Service factor : 1.00  
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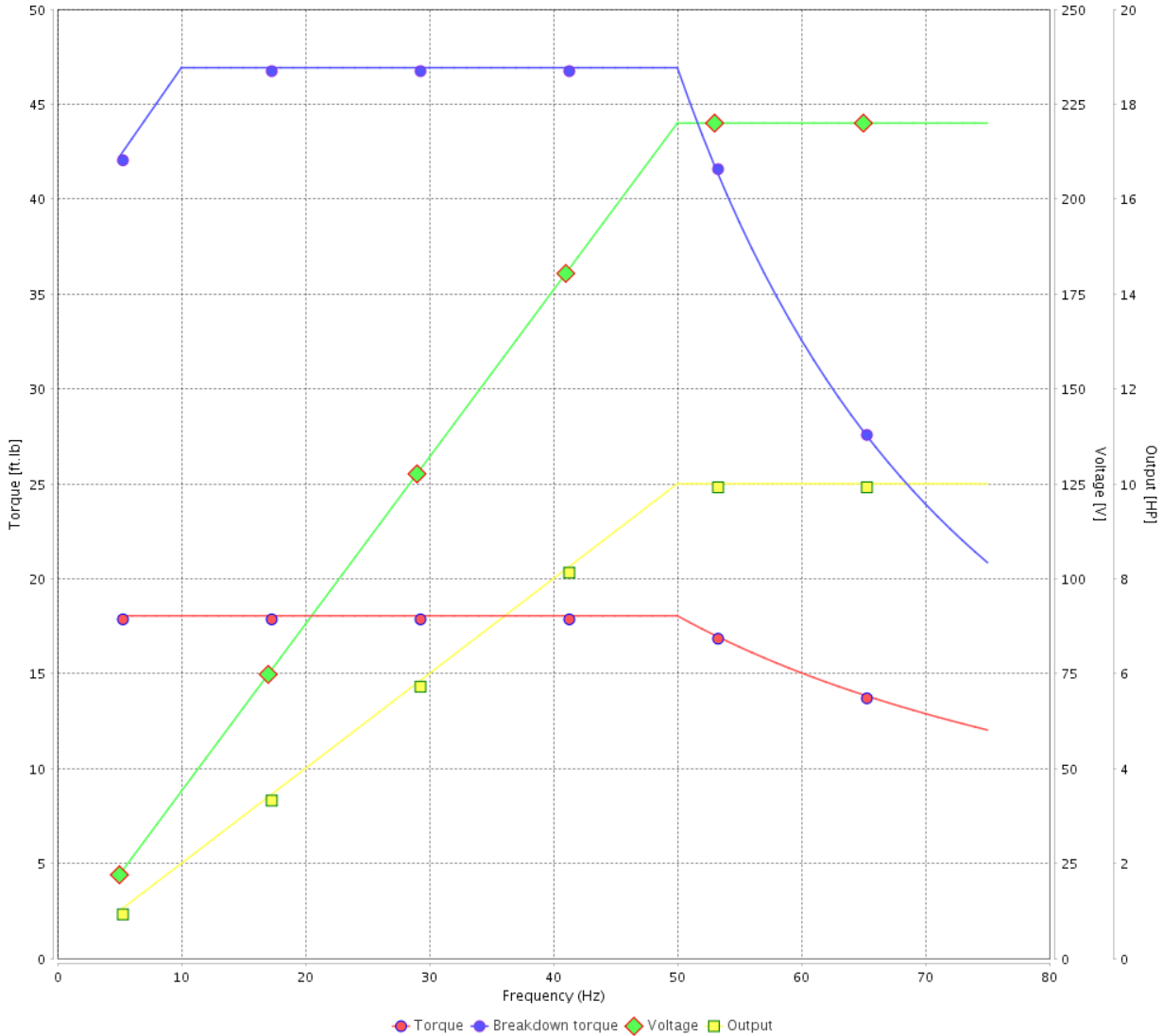
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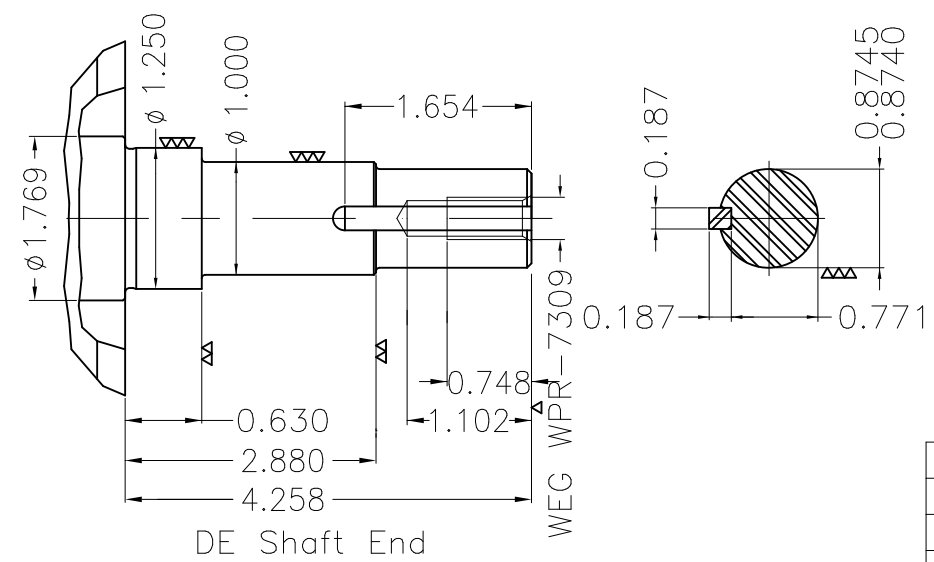
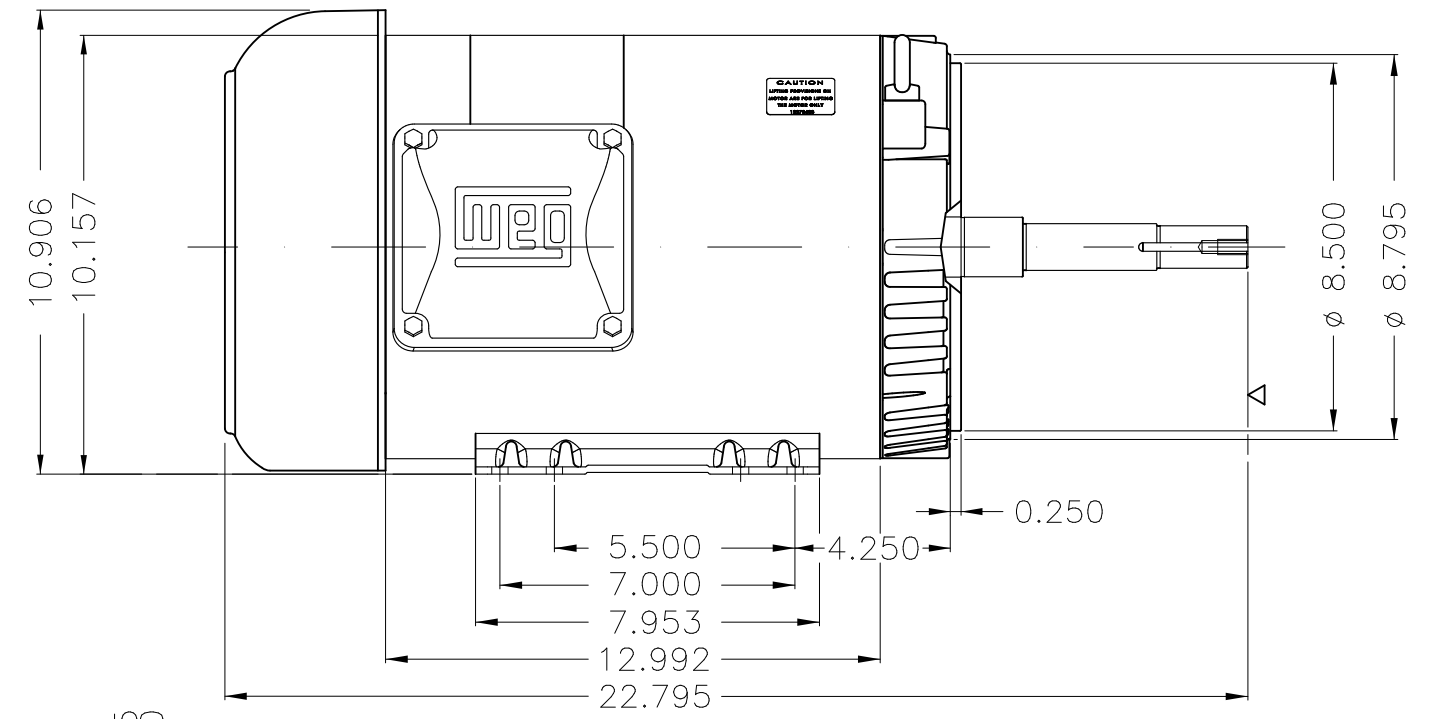
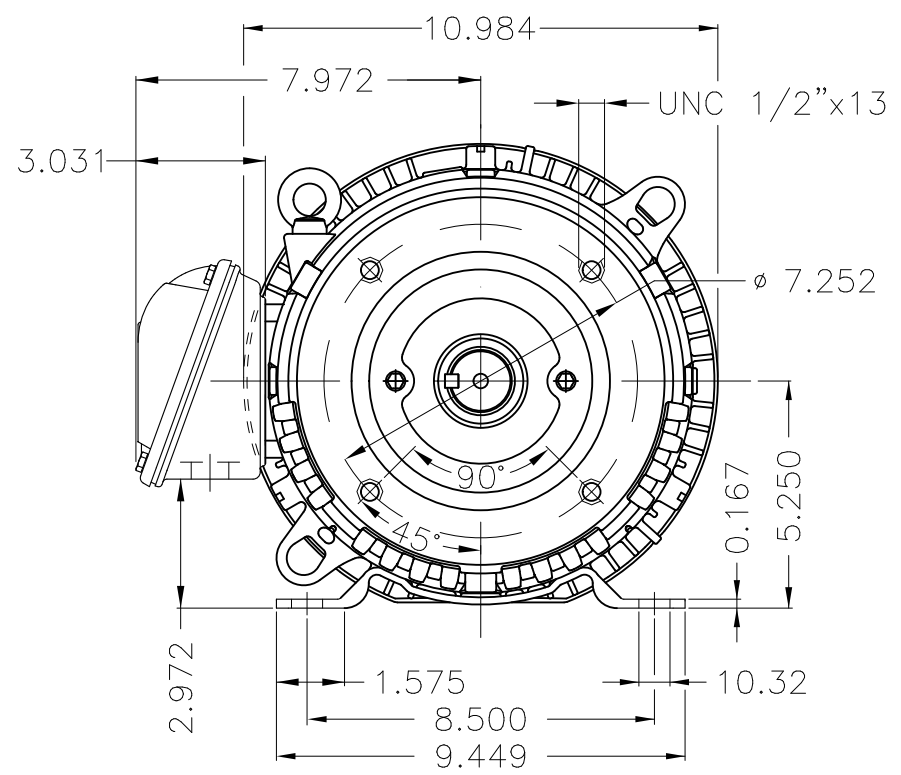
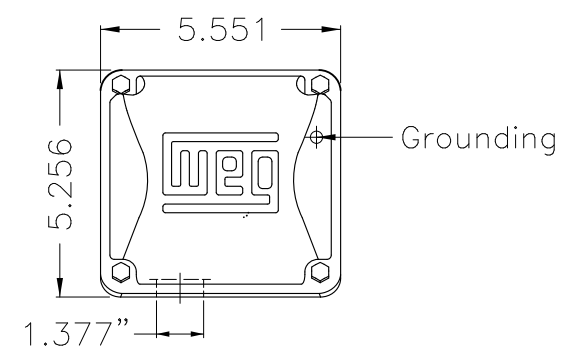
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1 2 3 4 5 6

A  
B  
C  
D  
E



EUNC 3/8" - 16 WEG WPR-7309

Internal AEGIS ground ring on the DE  
 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 CLOSE COUPLED PUMP JN TYPE PSEF 575					
CHECKED		FRAME 213/5JM IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

10 HP 02 Poles 60 Hz



Dimensions in inches XME A3

**NEMA**  
**Premium**

3PT9



Energy Verified

MADE IN MEXICO

**MAT: 13171657 CC029A****W01.TE0IC0X0N****MODEL 01036ET3E215JM-SG****11NOV2021 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 10</b>
<b>FR 213/5JM</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>

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

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

**DE 6209-ZZ ODE 6206-ZZ MOBIL POLYREX EM**



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.

