

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	12676982	
Catalog # :	01018OT3E215JM-S	
Frame	: 213/5JM	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 130 lb	
Moment of inertia (J)	: 1.30 sq.ft.lb	
Output [HP]	10	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	24.8/12.4	
L. R. Amperes [A]	174/86.8	
LRC [A]	7.0x(Code H)	
No load current [A]	12.0/5.99	
Rated speed [RPM]	1770	
Slip [%]	1.67	
Rated torque [ft.lb]	29.7	
Locked rotor torque [%]	250	
Breakdown torque [%]	350	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	25s (cold) 14s (hot)	
Noise level <sup>2</sup>	59.0 dB(A)	
Efficiency (%)	25%	89.4
	50%	90.2
	75%	91.0
	100%	91.7
Power Factor	25%	0.38
	50%	0.64
	75%	0.77
	100%	0.83
Bearing type	: <u>Drive end</u> 6209 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: Without Without Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 501 lb Max. compression : 631 lb	
Notes USABLE @208V 27.4A SF 1.00 SFA 27.4A		
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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Checked by	Checked	
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Revision		

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



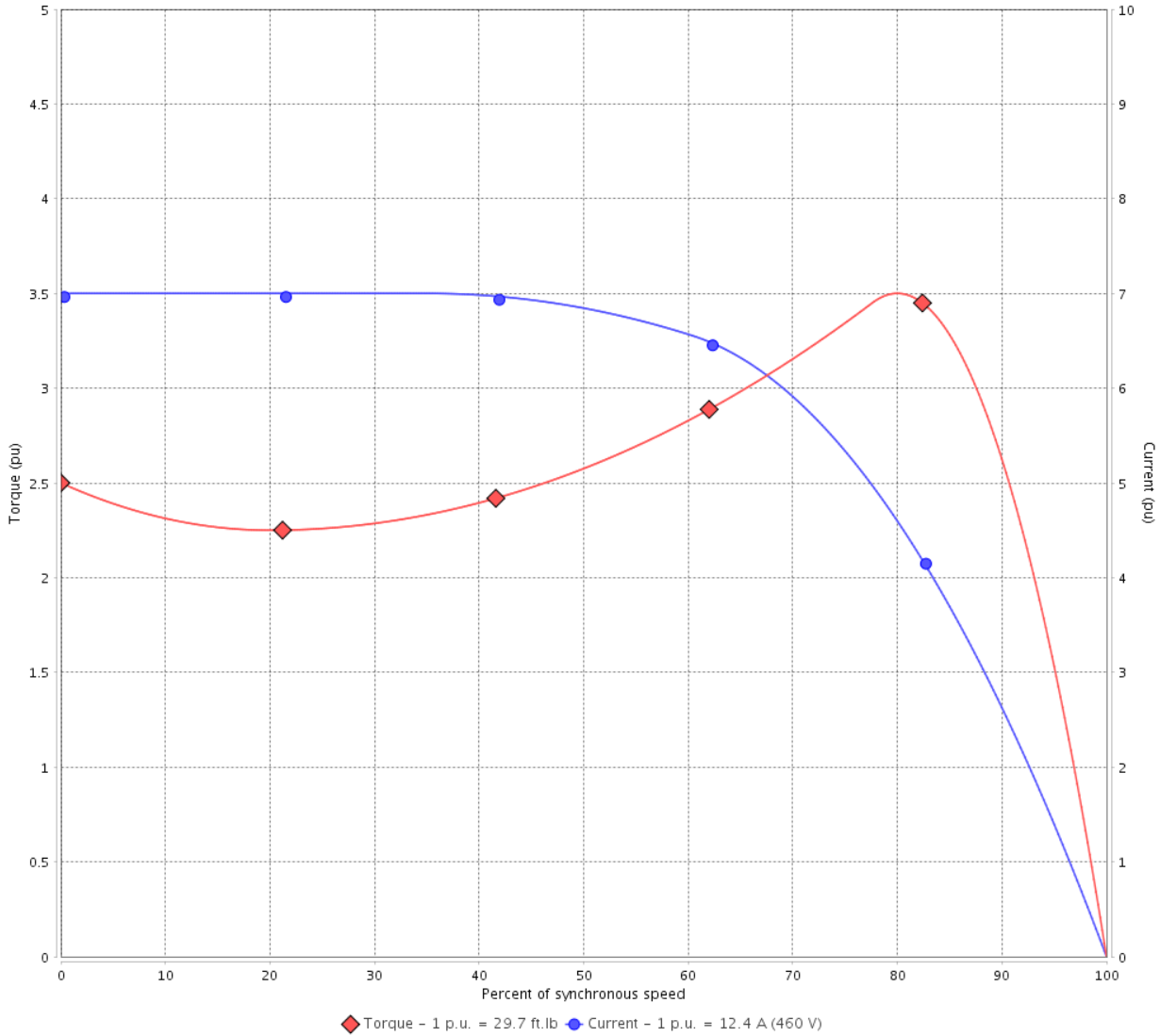
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12676982

Catalog # : 01018OT3E215JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 24.8/12.4 A  
LRC : 7.0  
Rated torque : 29.7 ft.lb  
Locked rotor torque : 250 %  
Breakdown torque : 350 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 1.30 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Locked rotor time : 25s (cold) 14s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



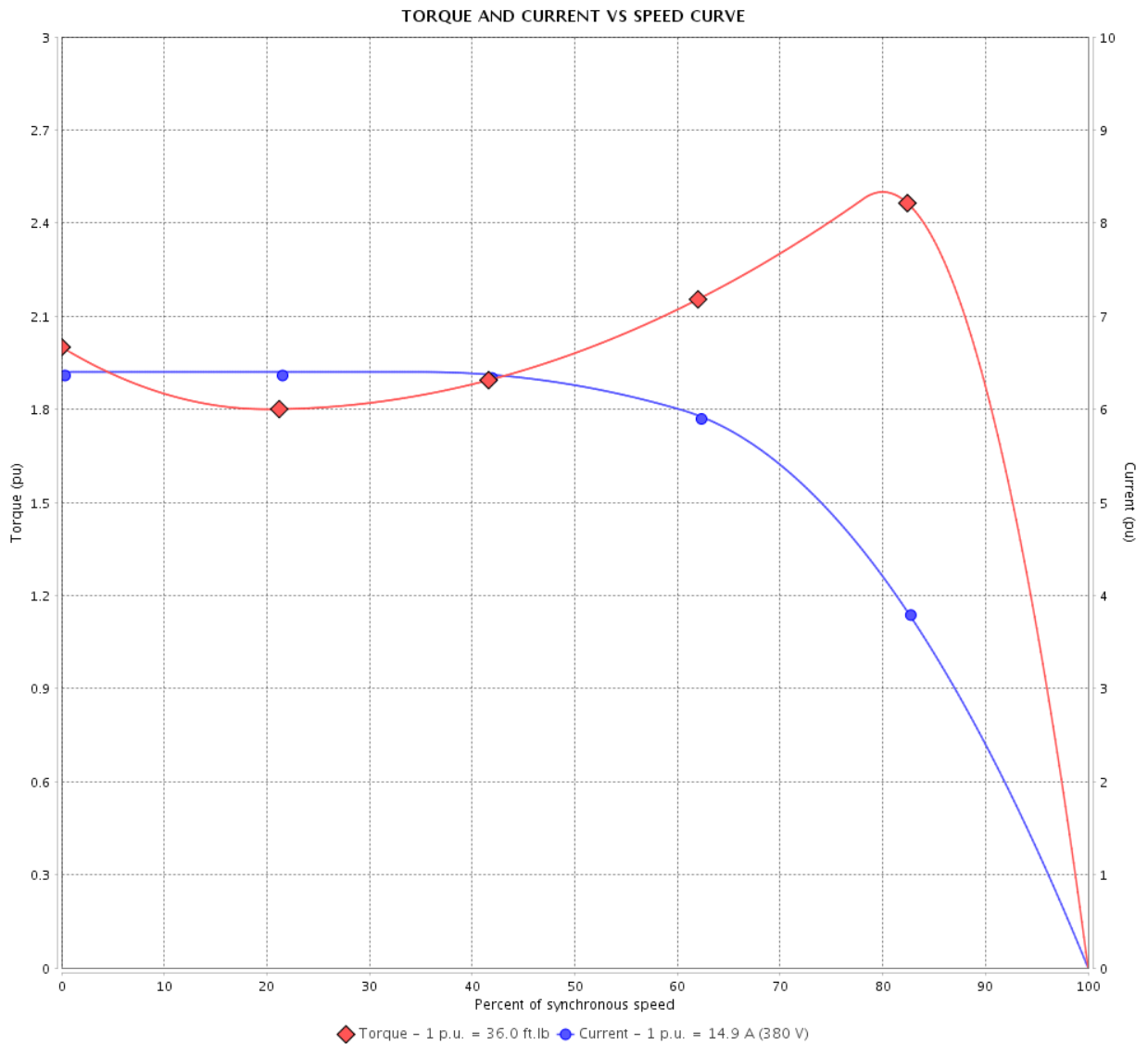
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12676982

Catalog # : 01018OT3E215JM-S



Performance : 190/380 V 50 Hz 4P

Rated current : 29.8/14.9 A  
 LRC : 6.4  
 Rated torque : 36.0 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.30 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



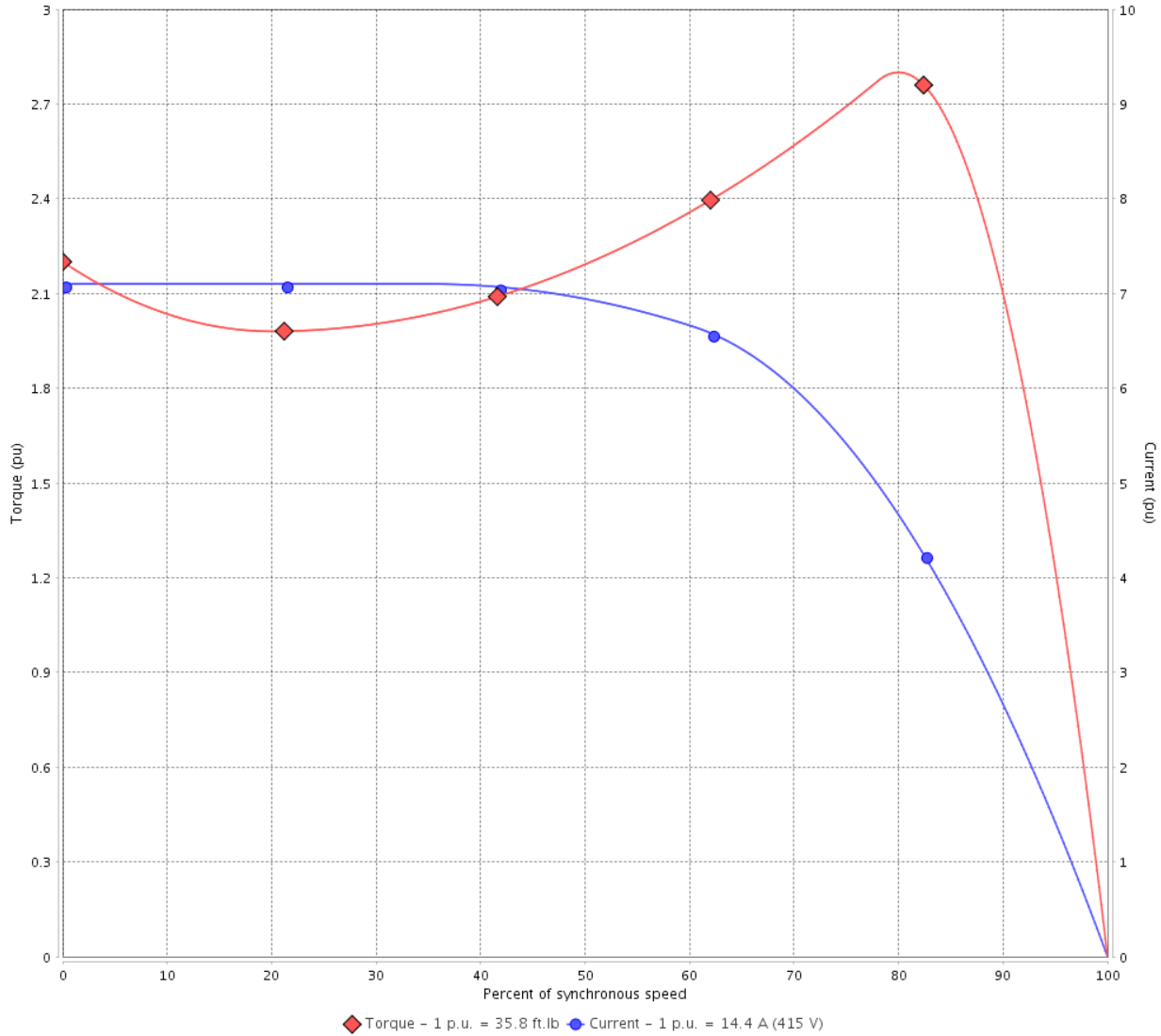
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12676982

Catalog # : 01018OT3E215JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 27.2/14.4 A	Moment of inertia (J)	: 1.30 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 35.8 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1465 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

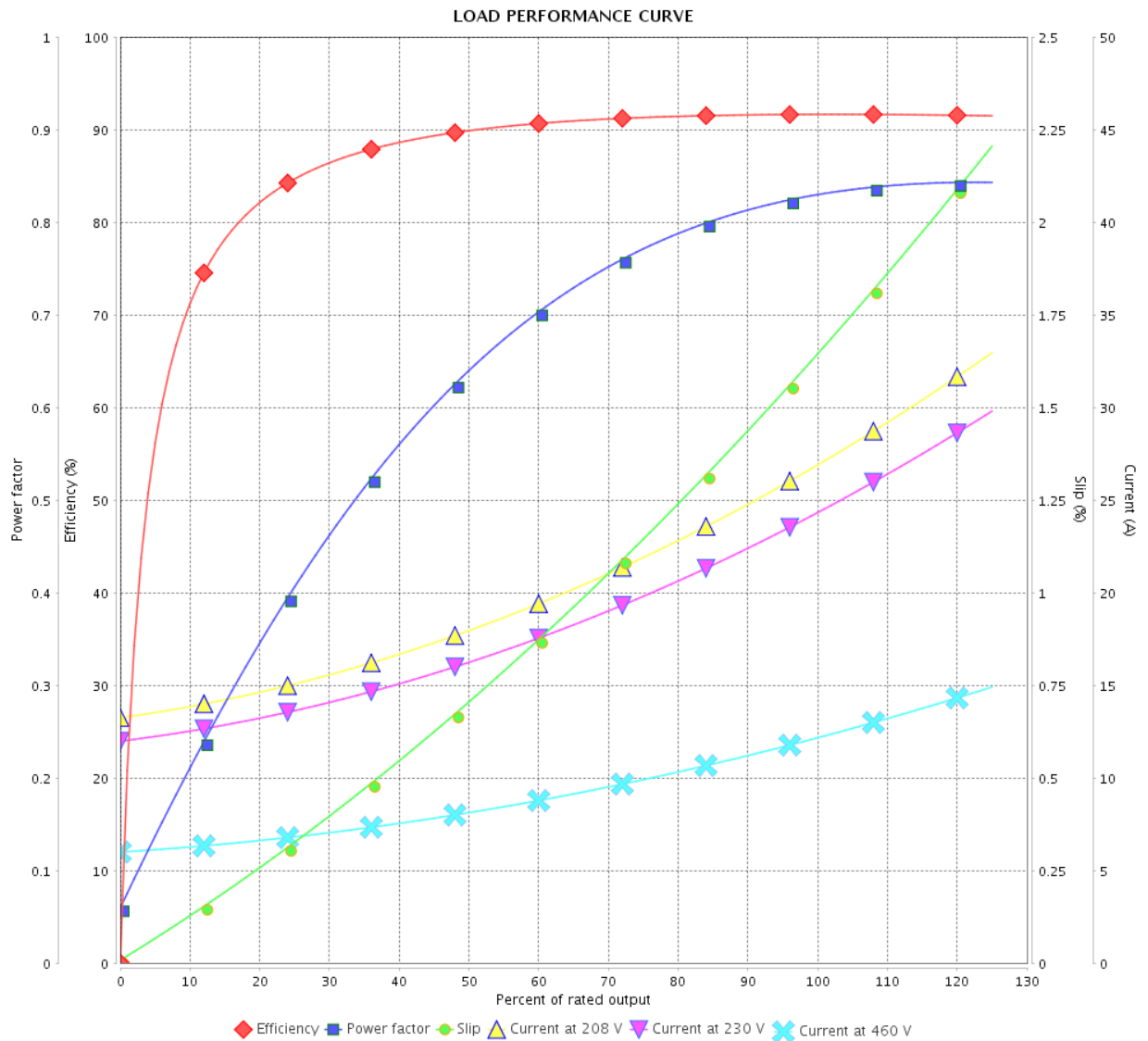


Customer :

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Product code : 12676982

Catalog # : 01018OT3E215JM-S



Performance : 230/460 V 60 Hz 4P

Rated current : 24.8/12.4 A  
 LRC : 7.0  
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 Locked rotor torque : 250 %  
 Breakdown torque : 350 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.30 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
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 Design : B

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Three Phase Induction Motor - Squirrel Cage



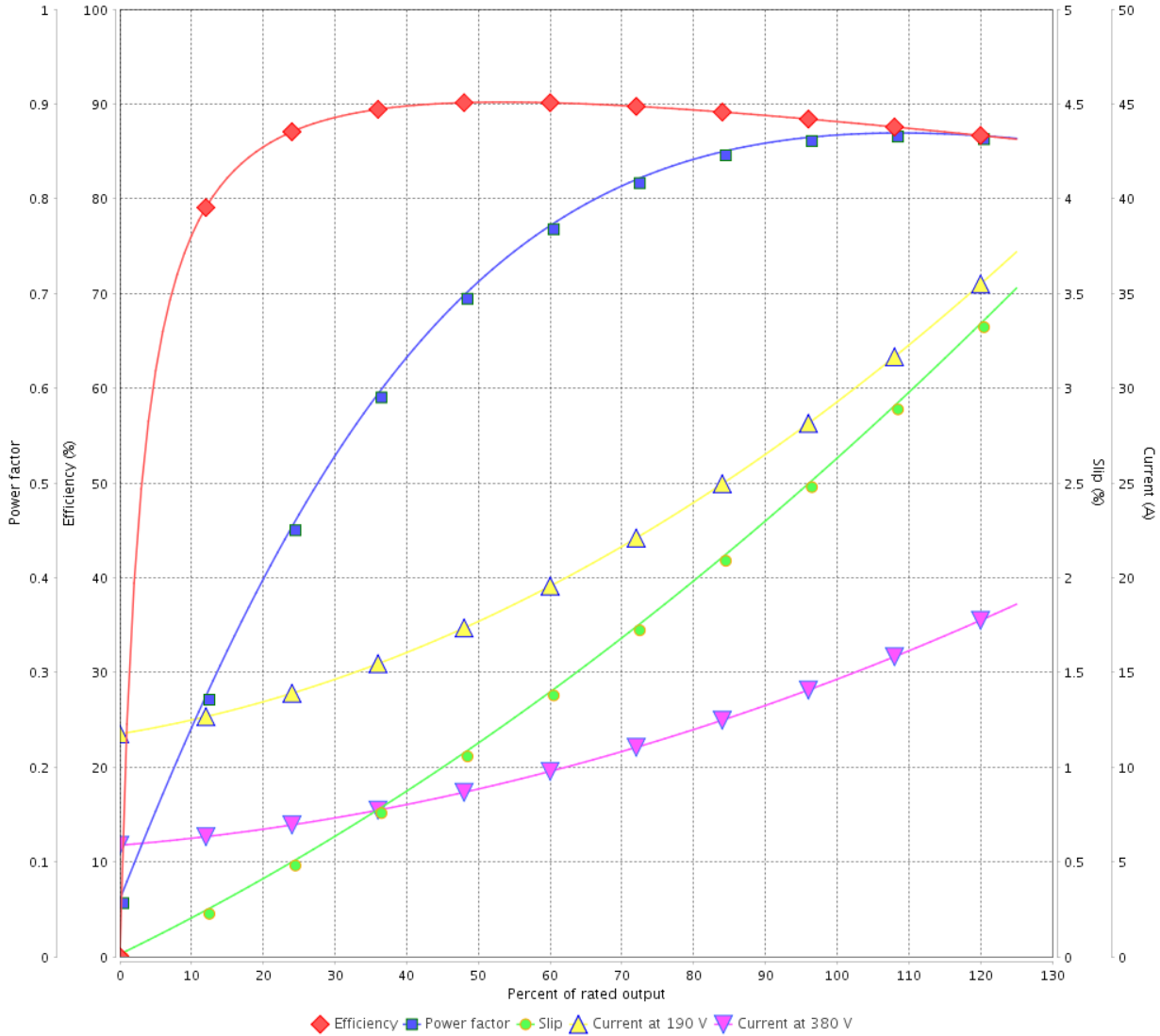
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LOAD PERFORMANCE CURVE



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Breakdown torque : 250 %  
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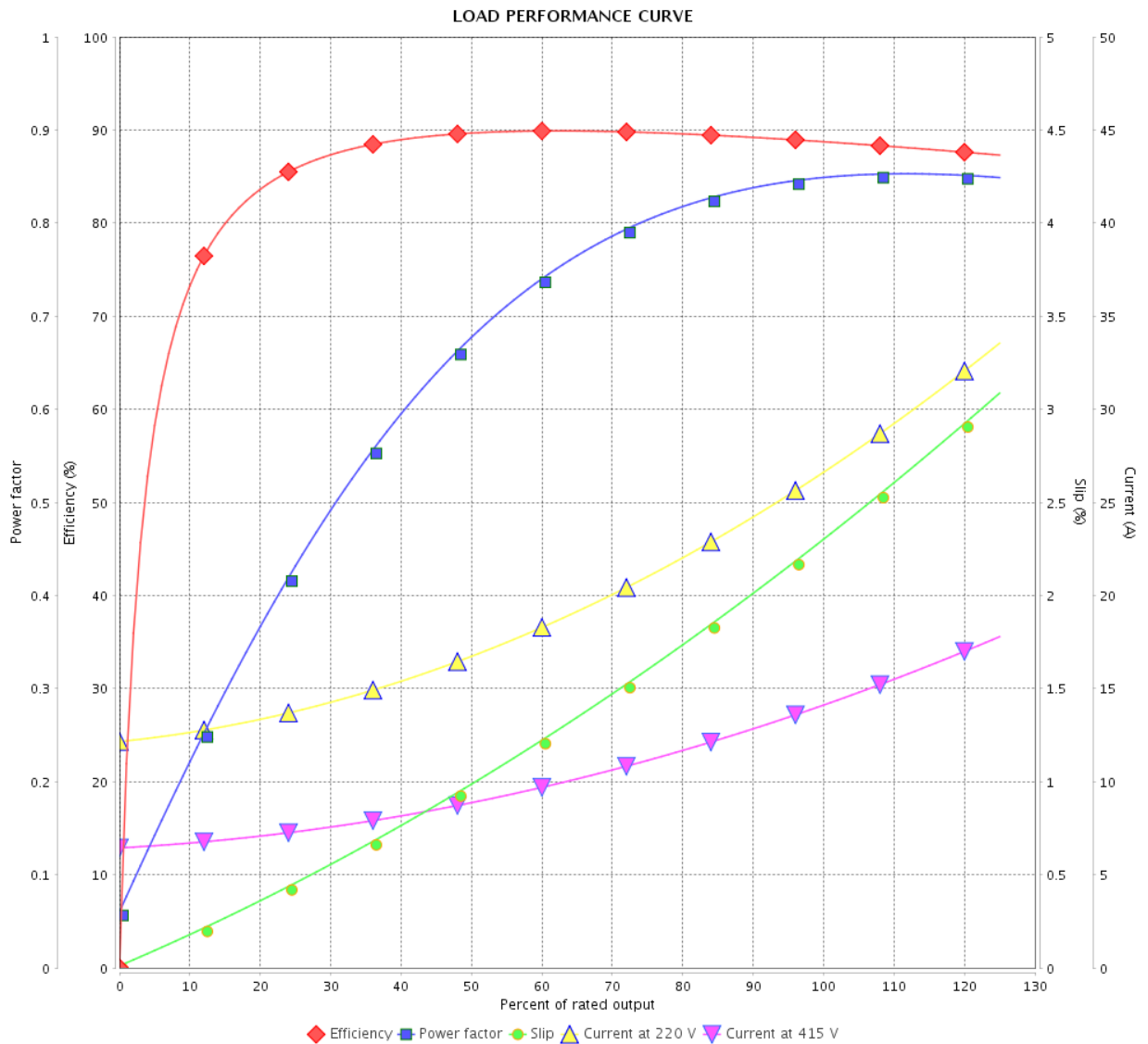


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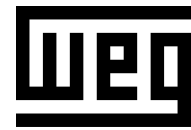
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Catalog # : 01018OT3E215JM-S

Performance : 230/460 V 60 Hz 4P

Rated current : 24.8/12.4 A  
LRC : 7.0  
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Breakdown torque : 350 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 1.30 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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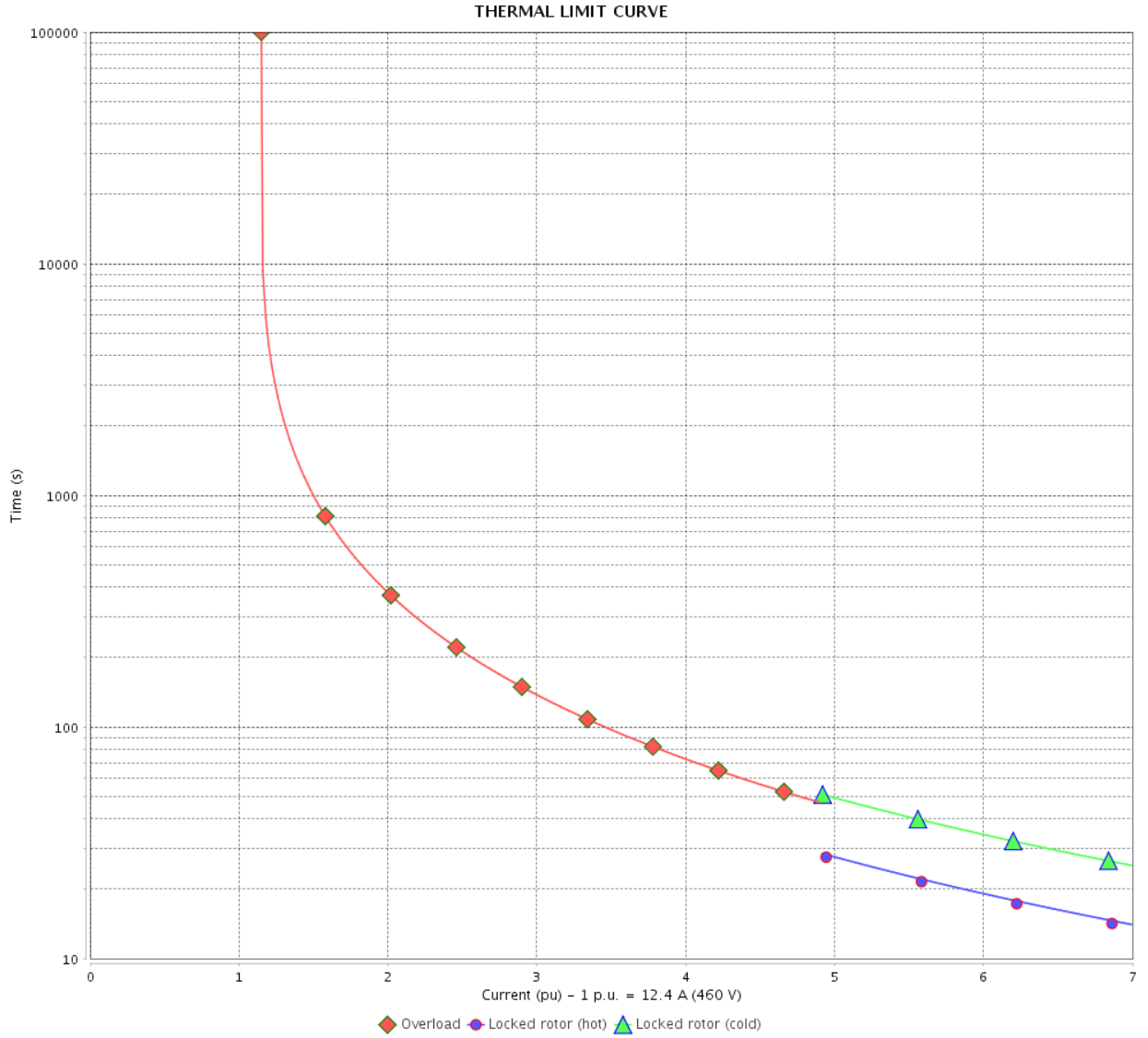


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Three Phase Induction Motor - Squirrel Cage



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Cooling constant

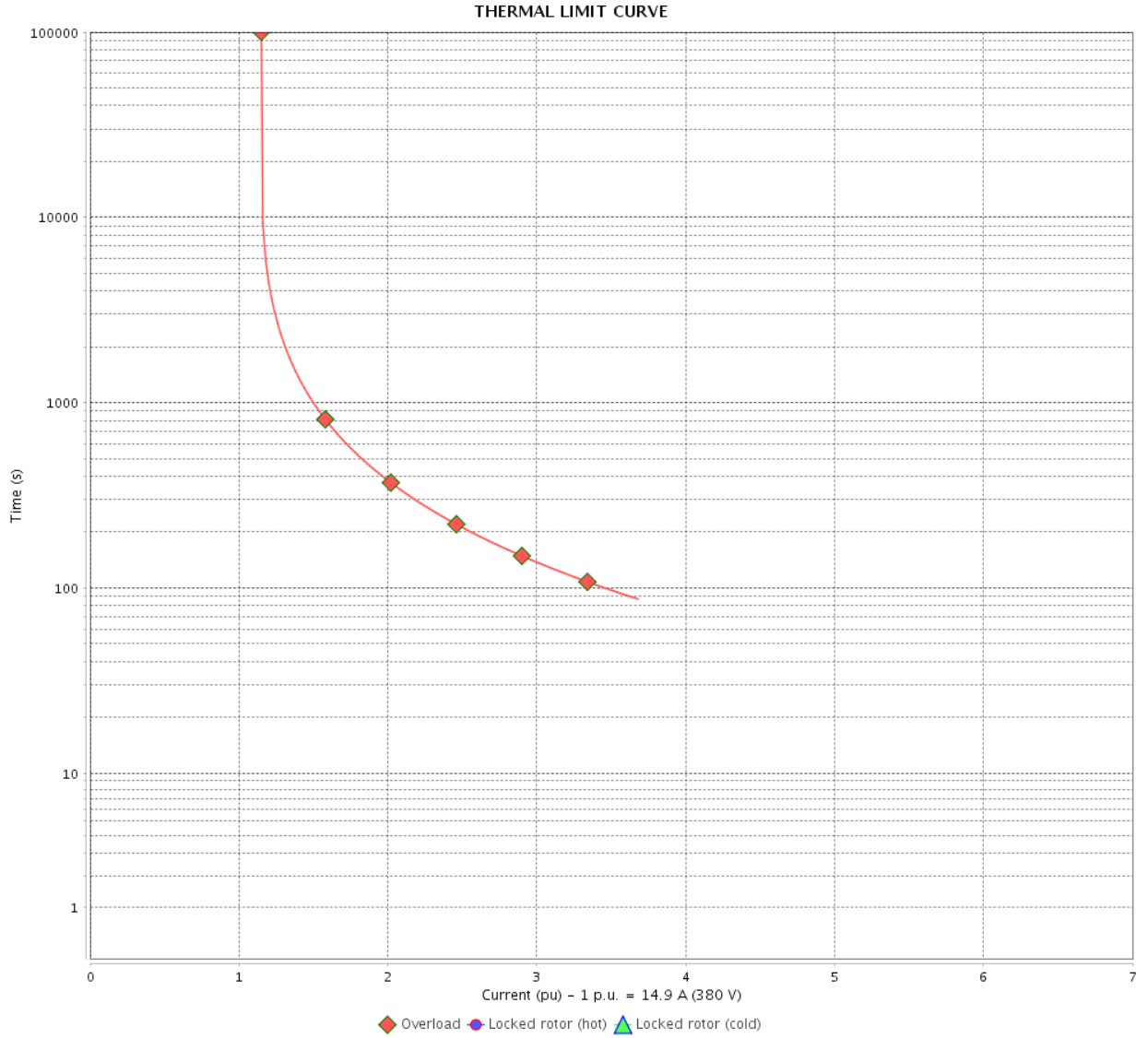
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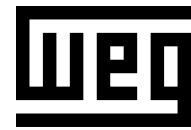


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Heating constant

Cooling constant

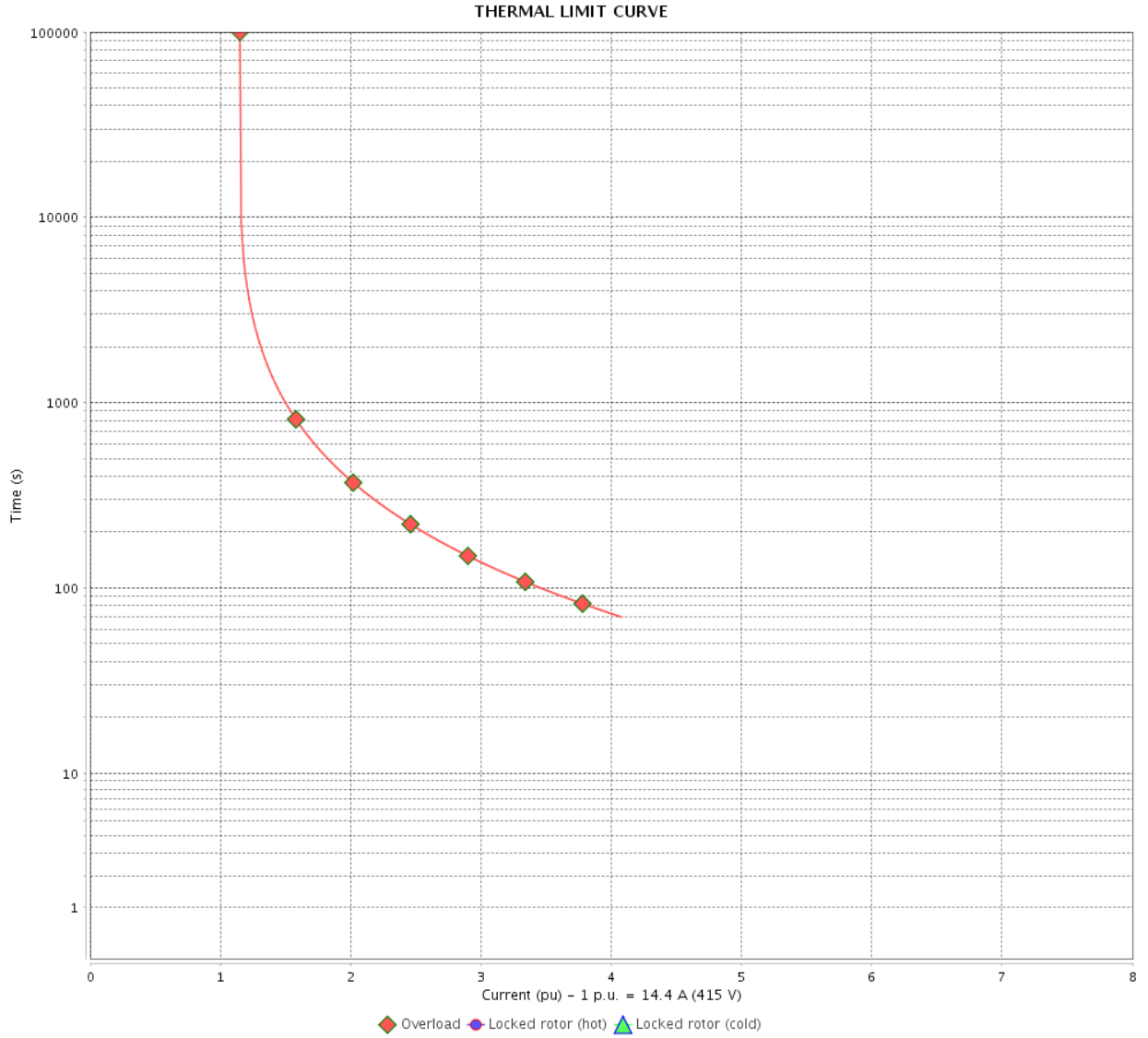
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



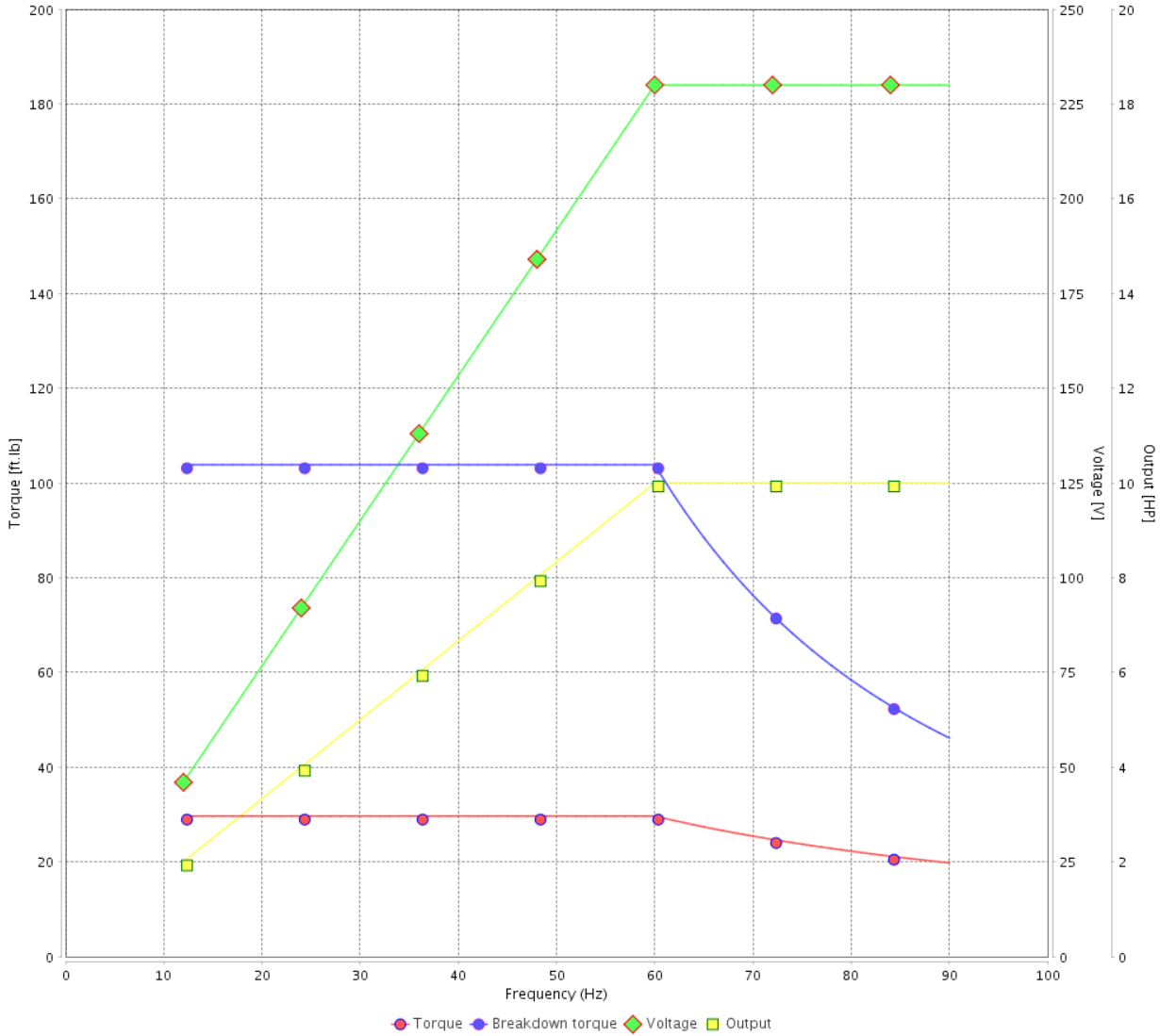
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VFD OPERATION CURVE



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 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

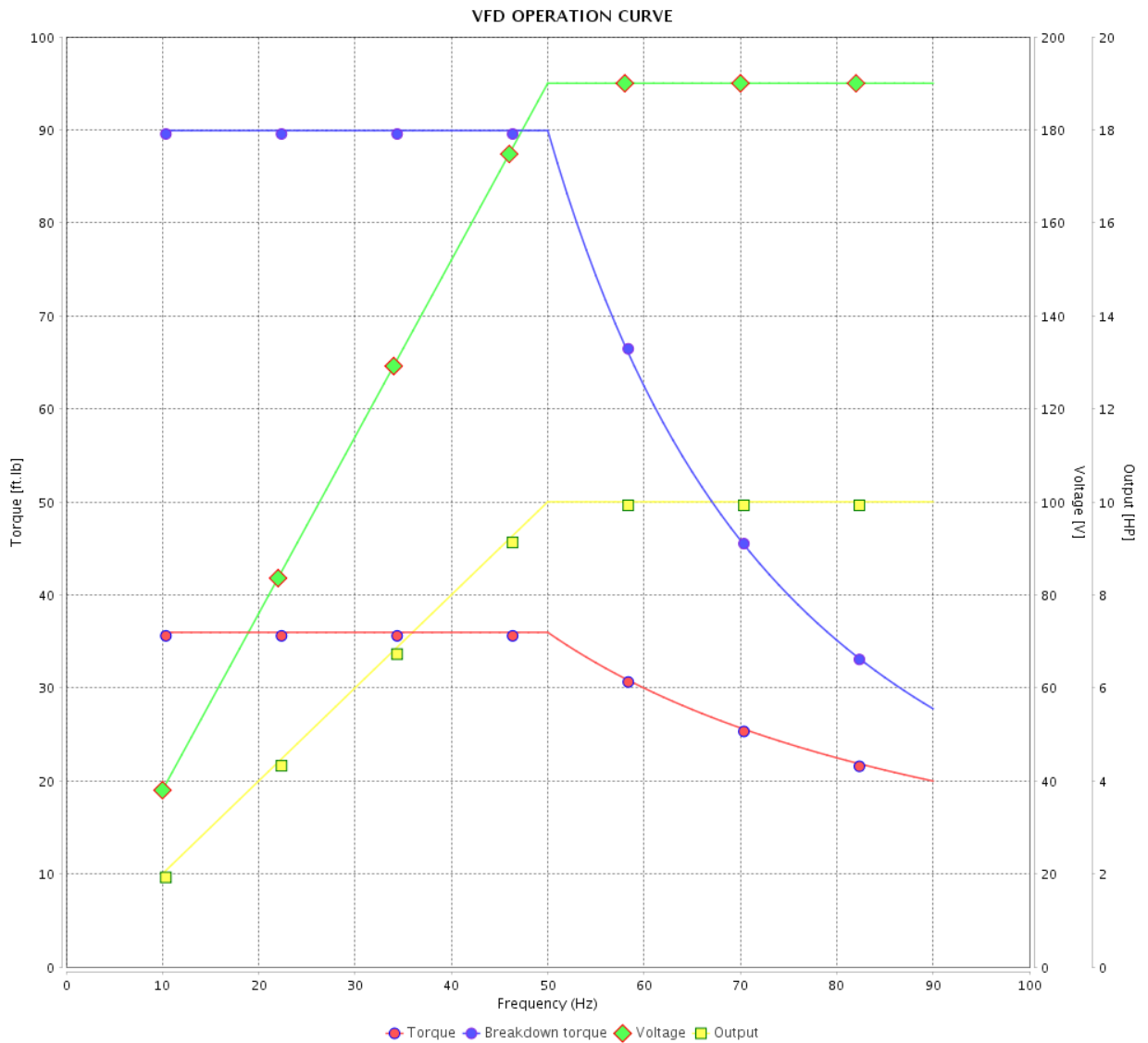


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 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



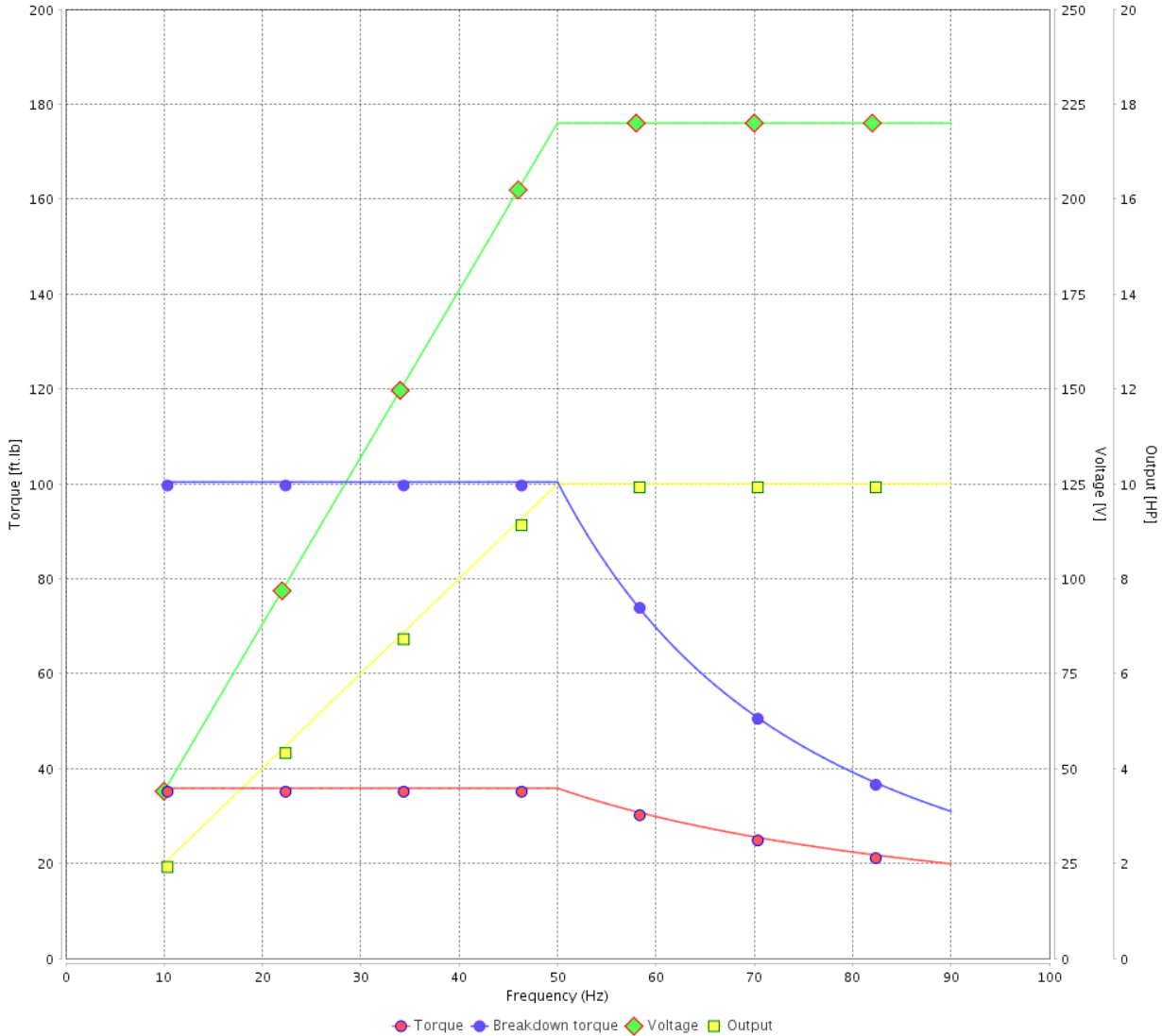
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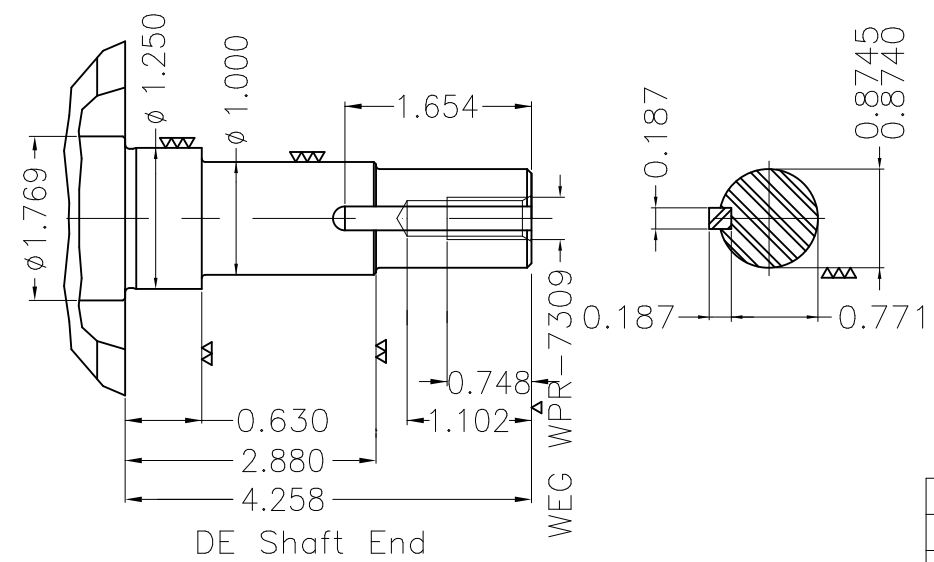
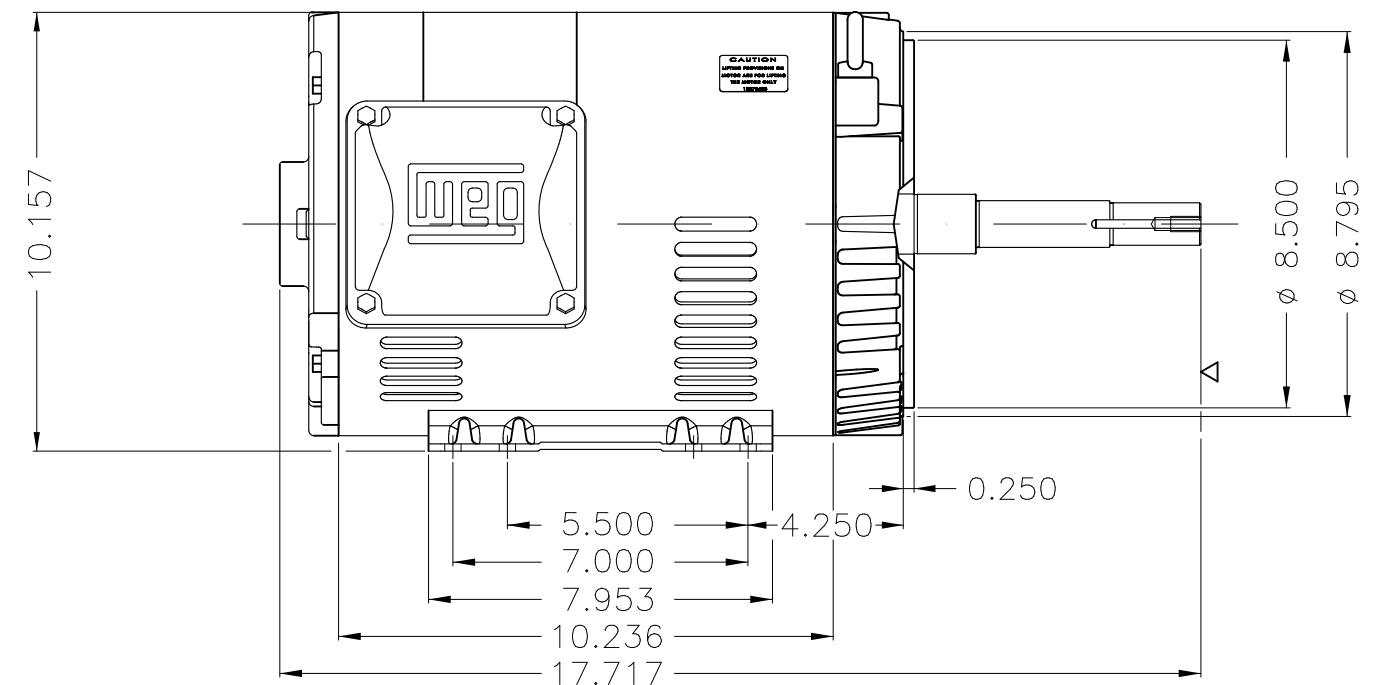
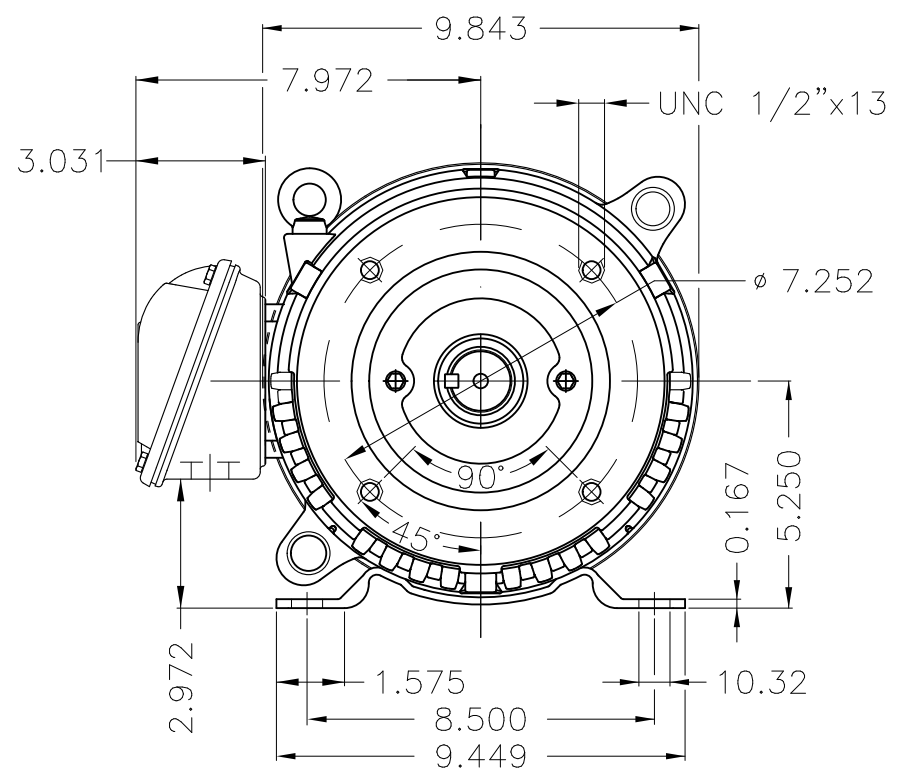
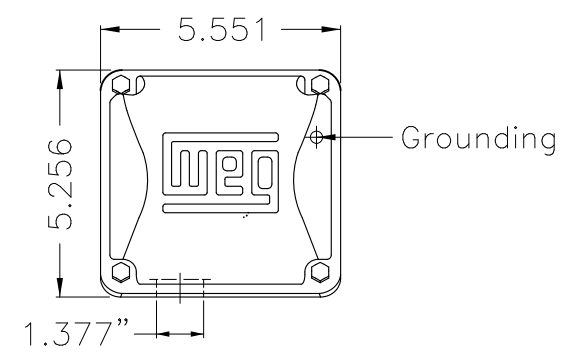
A

B

C

D

E



EUNC 3/8" - 16 WEG WPR-7309

DE Shaft End

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	PIRBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 1/2					
CHECKED		FRAME 213/5JM IP21 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

**PREVIEW**

WDD



10 HP 04 Poles 60 Hz



**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN MEXICO

**MAT: 12676982 CC029A**

**W01.T00IC0X0N**

**MODEL 010180T3E215JM-S**

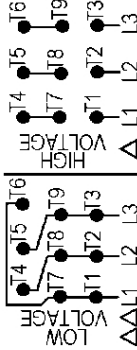
**28MAR2022 S/N:**

<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 24.8/12.4</b>
<b>INS CL F AT 80K</b>		<b>SFA 28.5/14.3</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 0.83</b>
<b>USABLE @ 208V 27.4A</b>		<b>RPM 1770</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 91.7%</b>

**ALTERNATE RATING: 10HP 50Hz 190-220/380-415V SF1.15**  
**29.8-28.4/14.9-14.0A 1460RPM EFF 88.1% (IE1) IEC 60034-1**

**Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT**

<b>DE 6209-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.

