

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :		
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	
Product code :	13180568	
Catalog # :	00718ET3E213JM-S	
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>	: 132 lb	
Moment of inertia (J)	: 0.9380 sq.ft.lb	
Output [HP]	7.5	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	18.1/9.07	
L. R. Amperes [A]	132/66.2	
LRC [A]	7.3x(Code H)	
No load current [A]	8.81/4.41	
Rated speed [RPM]	1770	
Slip [%]	1.67	
Rated torque [ft.lb]	22.3	
Locked rotor torque [%]	260	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	39s (cold) 22s (hot)	
Noise level <sup>2</sup>	60.0 dB(A)	
Efficiency (%)	25%	89.4
	50%	90.2
	75%	91.0
	100%	91.7
Power Factor	25%	0.39
	50%	0.64
	75%	0.76
	100%	0.82
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 : 360 lb	
	Max. compression : 492 lb	
Notes USABLE @208V 20.1A SF 1.00 SFA 20.1A		
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

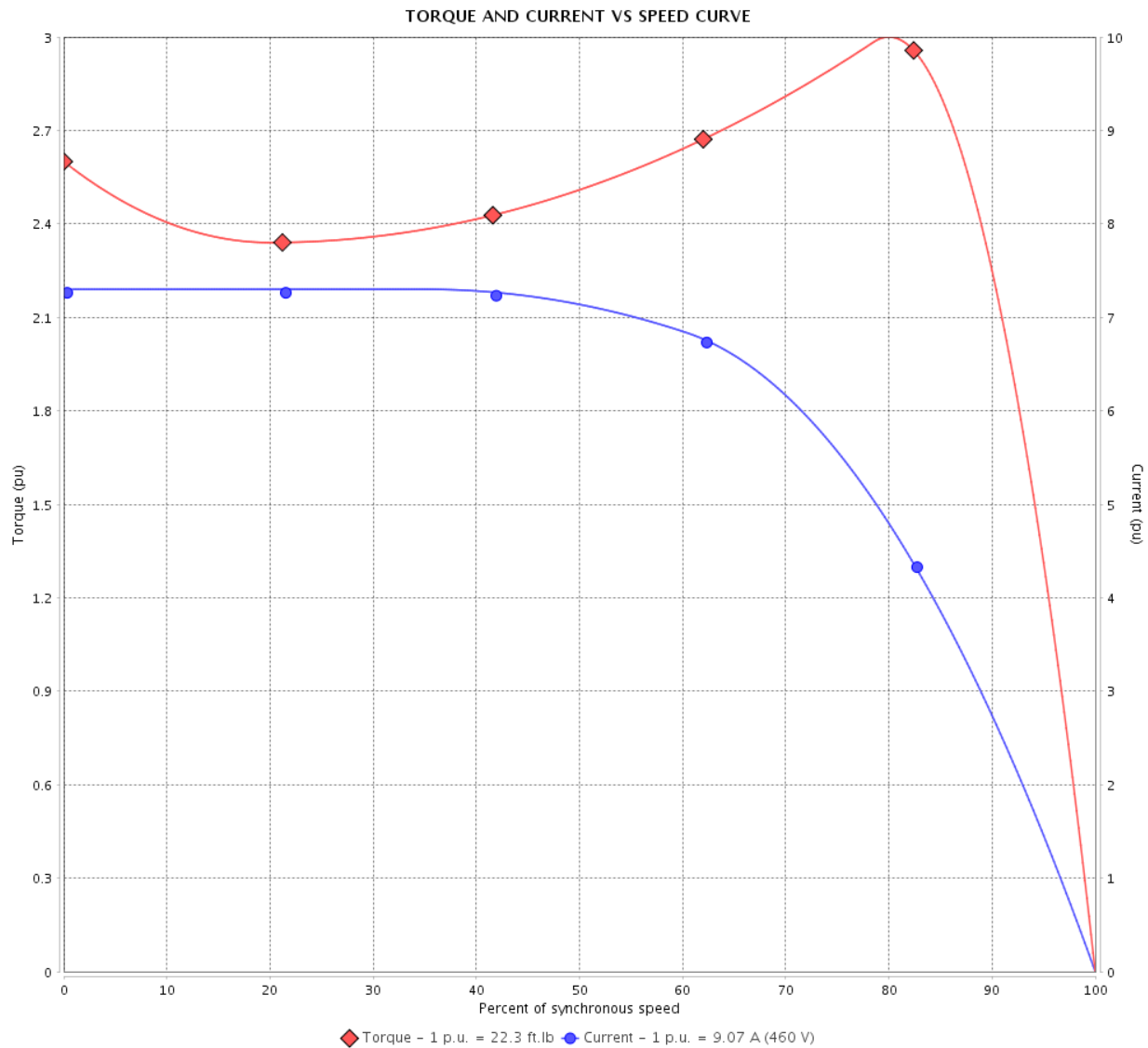


Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13180568

Catalog # : 00718ET3E213JM-S



Performance : 230/460 V 60 Hz 4P

Rated current	: 18.1/9.07 A	Moment of inertia (J)	: 0.9380 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 39s (cold) 22s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



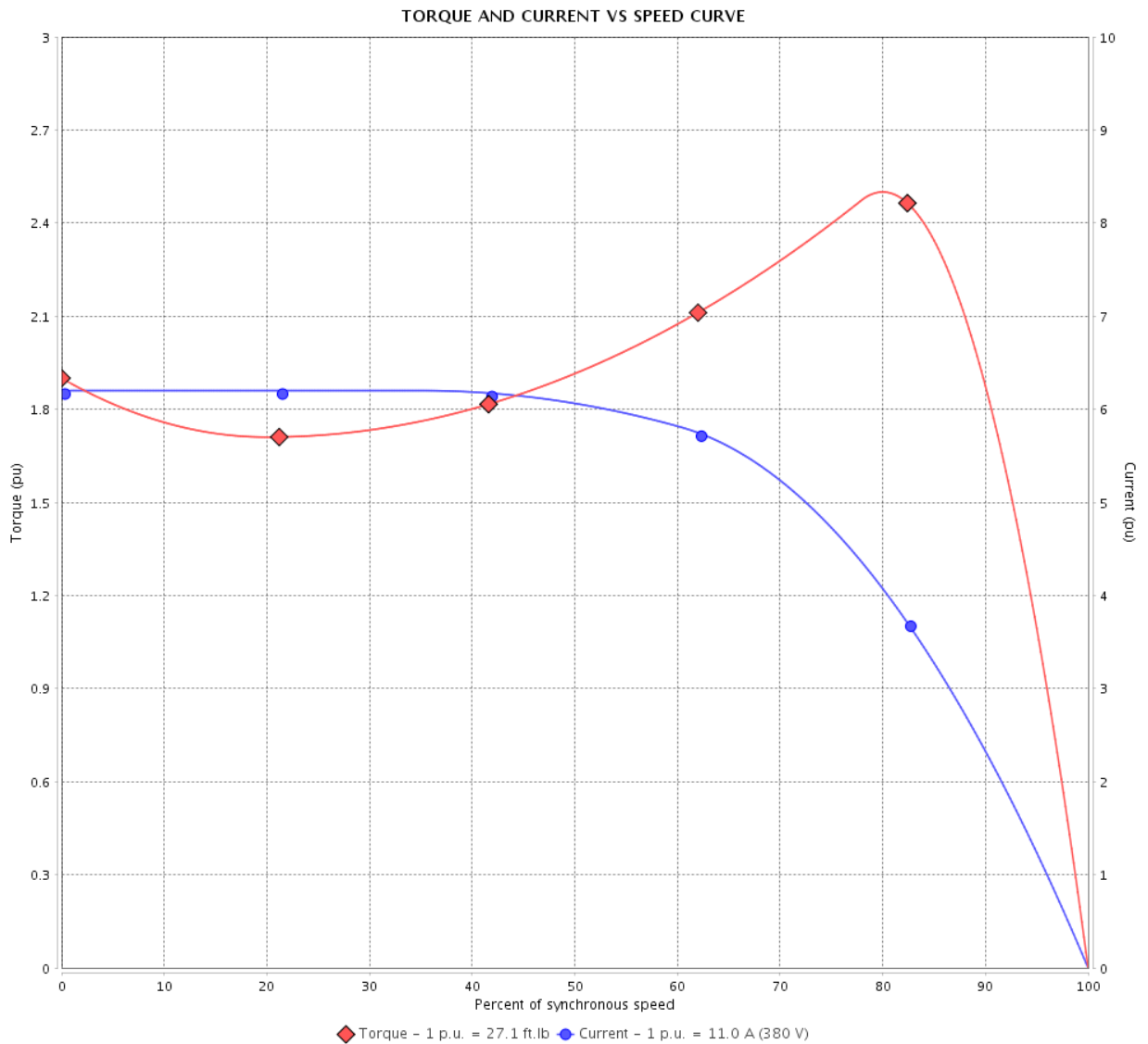
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13180568

Catalog # : 00718ET3E213JM-S



Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A  
 LRC : 6.2  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.9380 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



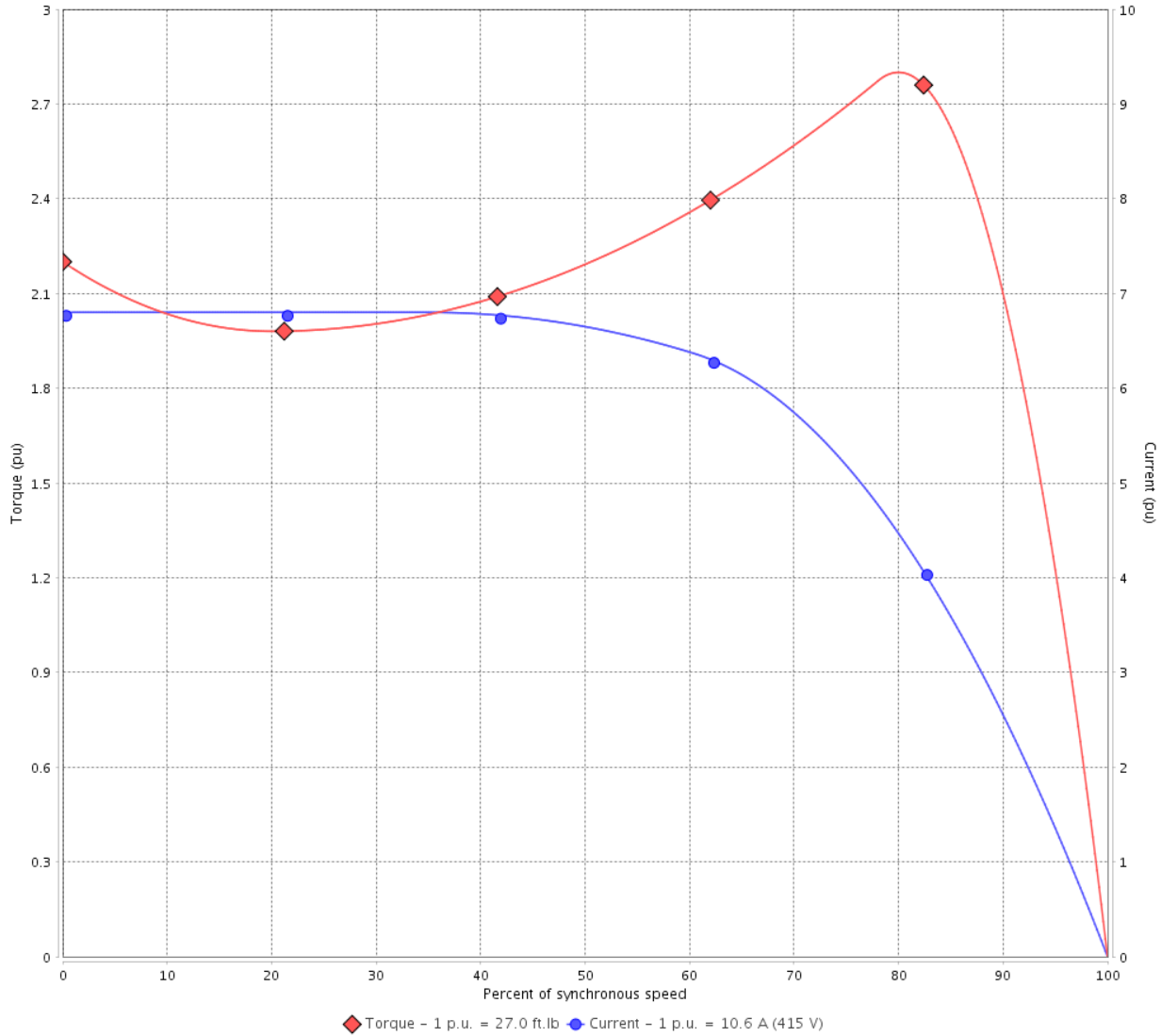
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13180568

Catalog # : 00718ET3E213JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 20.0/10.6 A	Moment of inertia (J)	: 0.9380 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 27.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

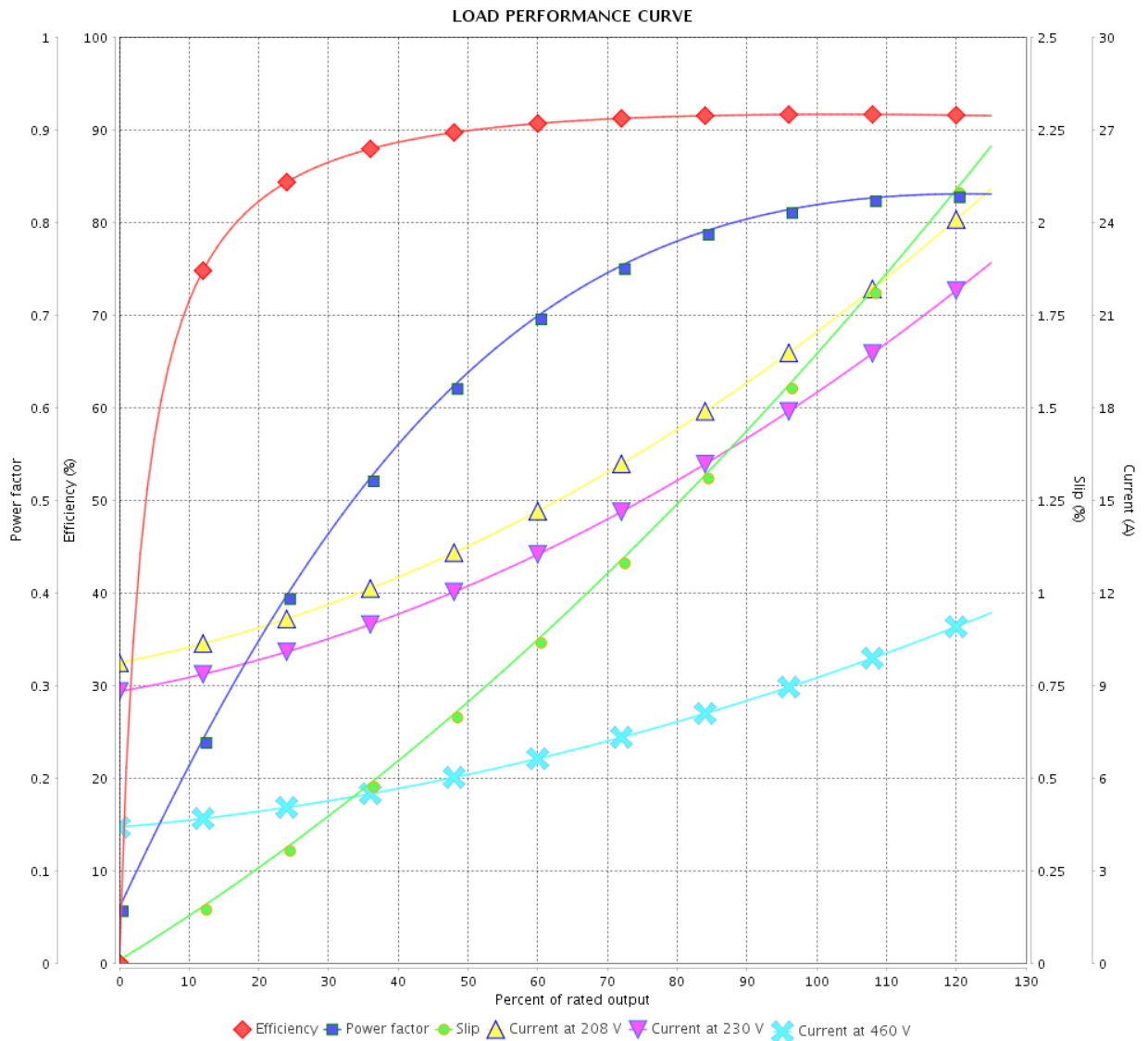


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Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A  
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 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.9380 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



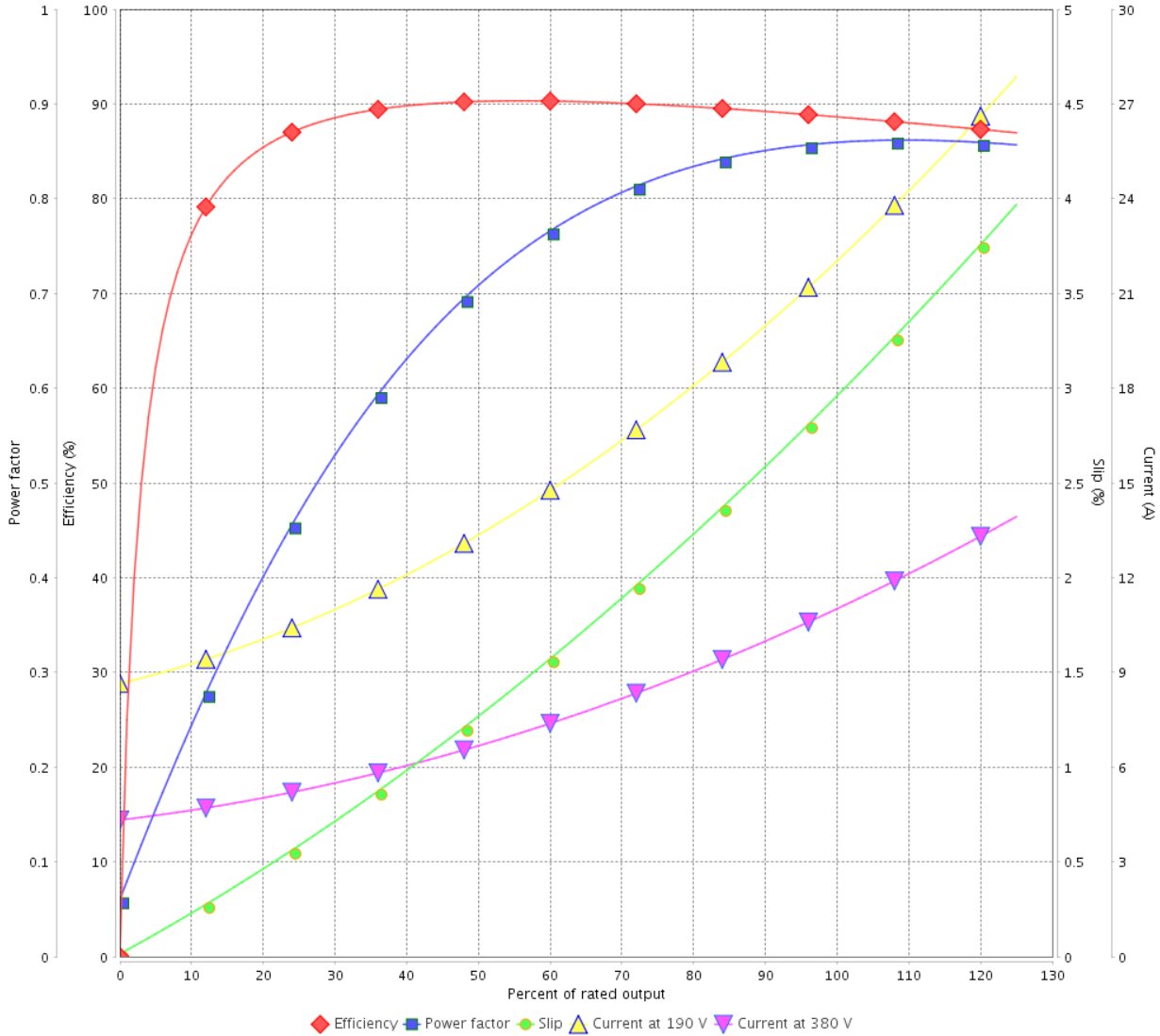
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Product code : 13180568

Catalog # : 00718ET3E213JM-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A  
 LRC : 6.2  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.9380 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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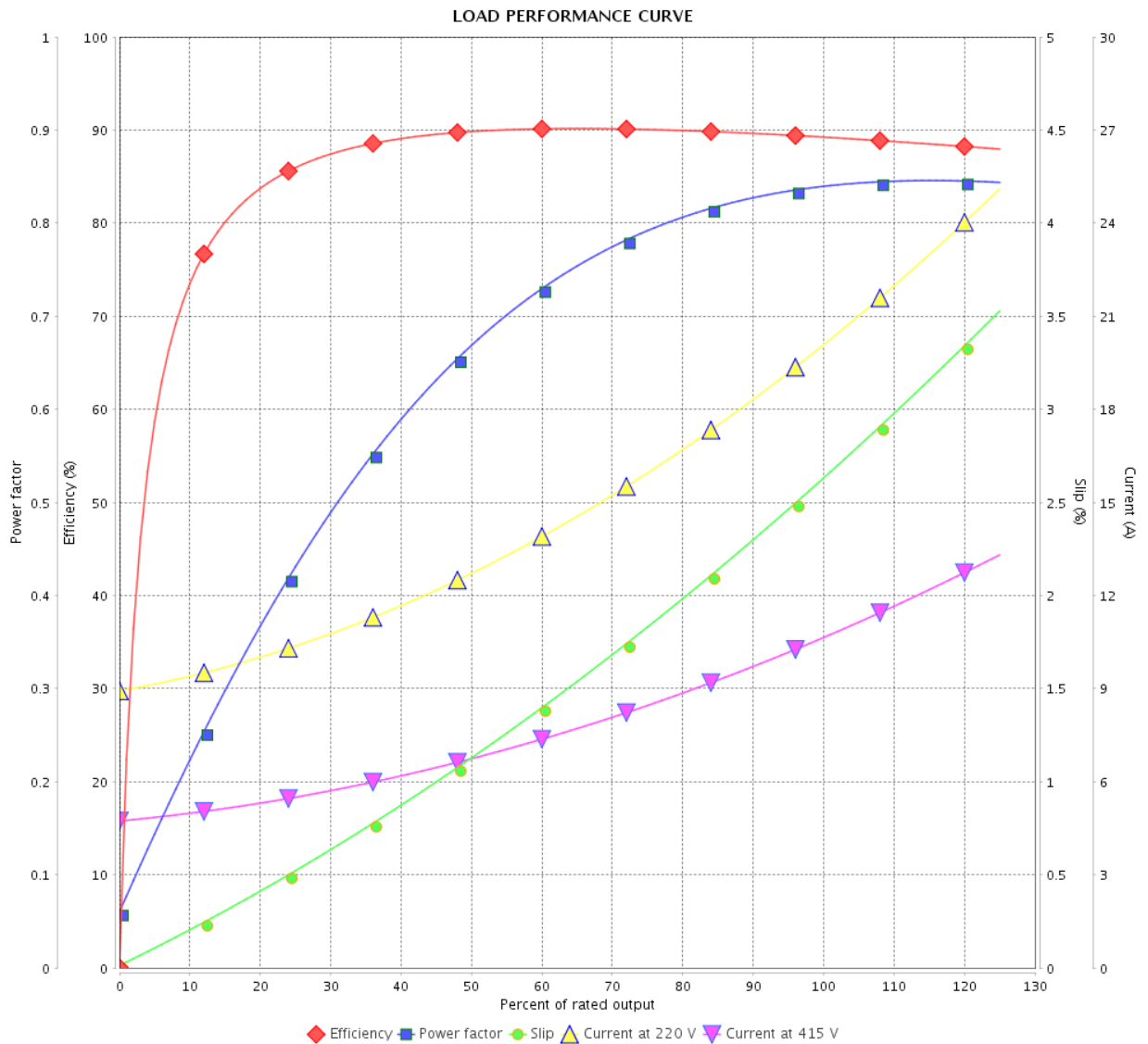


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Performance : 220/415 V 50 Hz 4P

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 Rated speed : 1460 rpm

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 Service factor : 1.00  
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 Design : B

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# THERMAL LIMIT CURVE



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Rated speed : 1770 rpm

Moment of inertia (J) : 0.9380 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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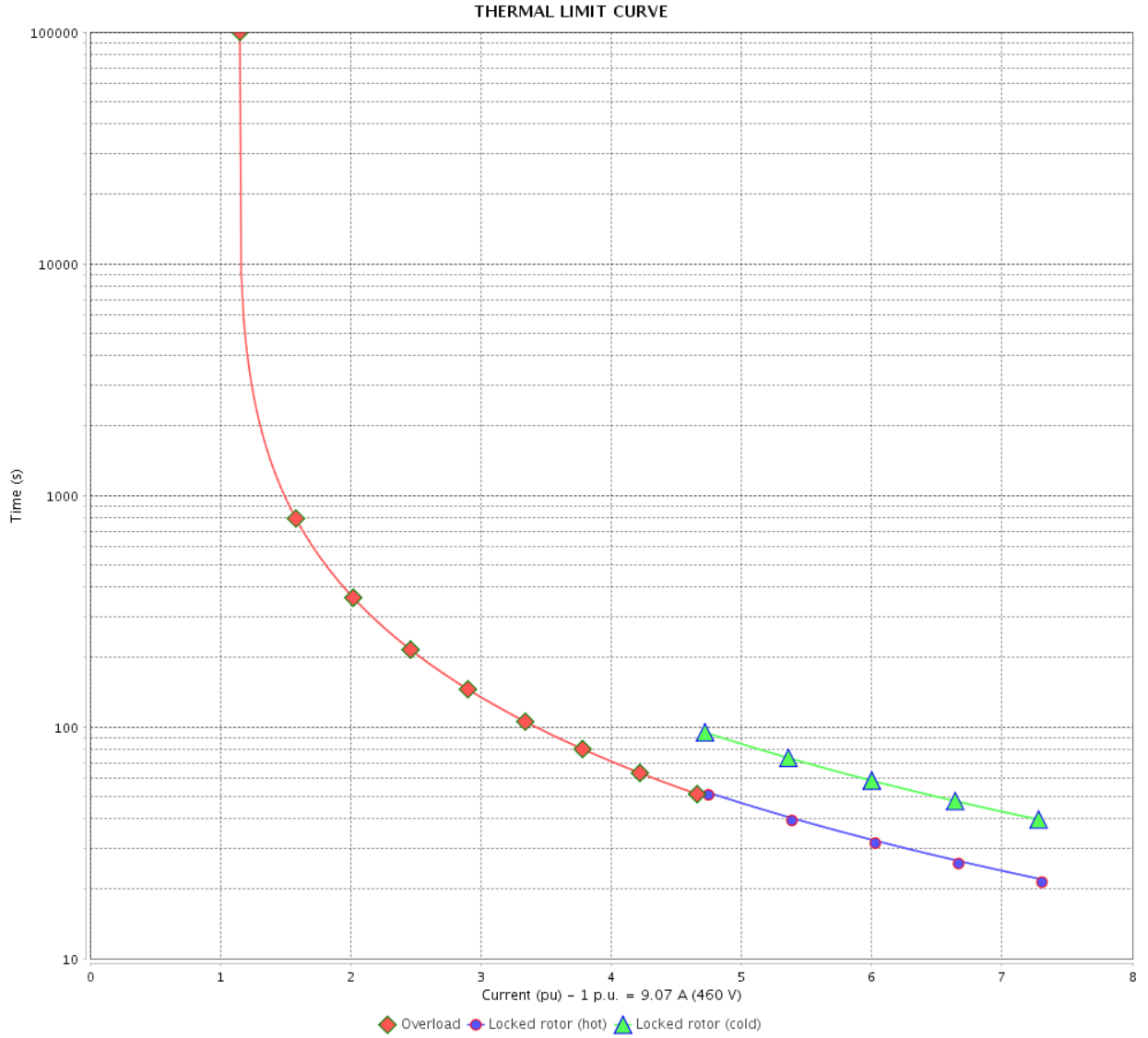


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Three Phase Induction Motor - Squirrel Cage



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



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Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A  
LRC : 6.2  
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Locked rotor torque : 190 %  
Breakdown torque : 250 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.9380 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

Heating constant

Cooling constant

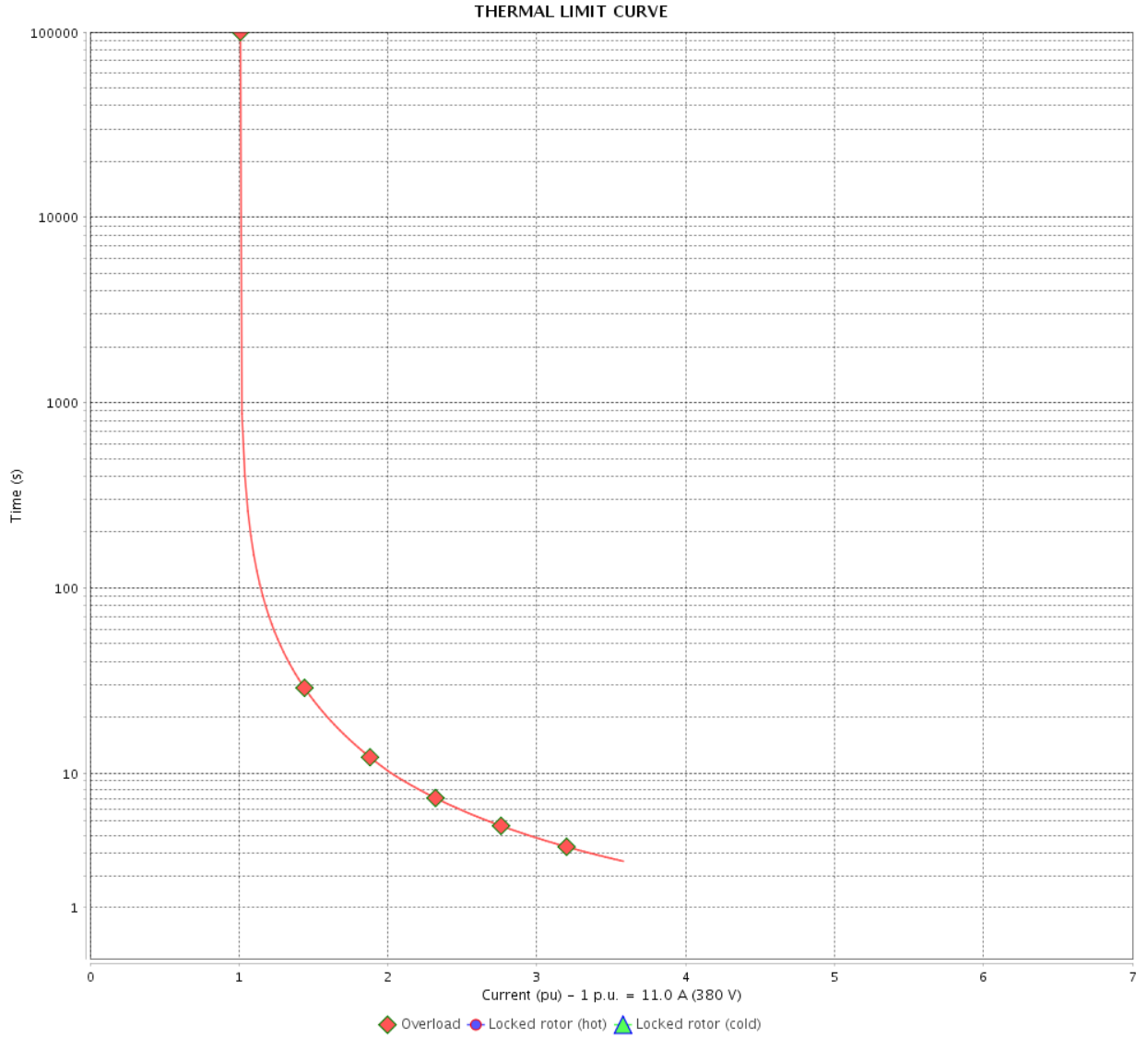
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Design : B

Heating constant

Cooling constant

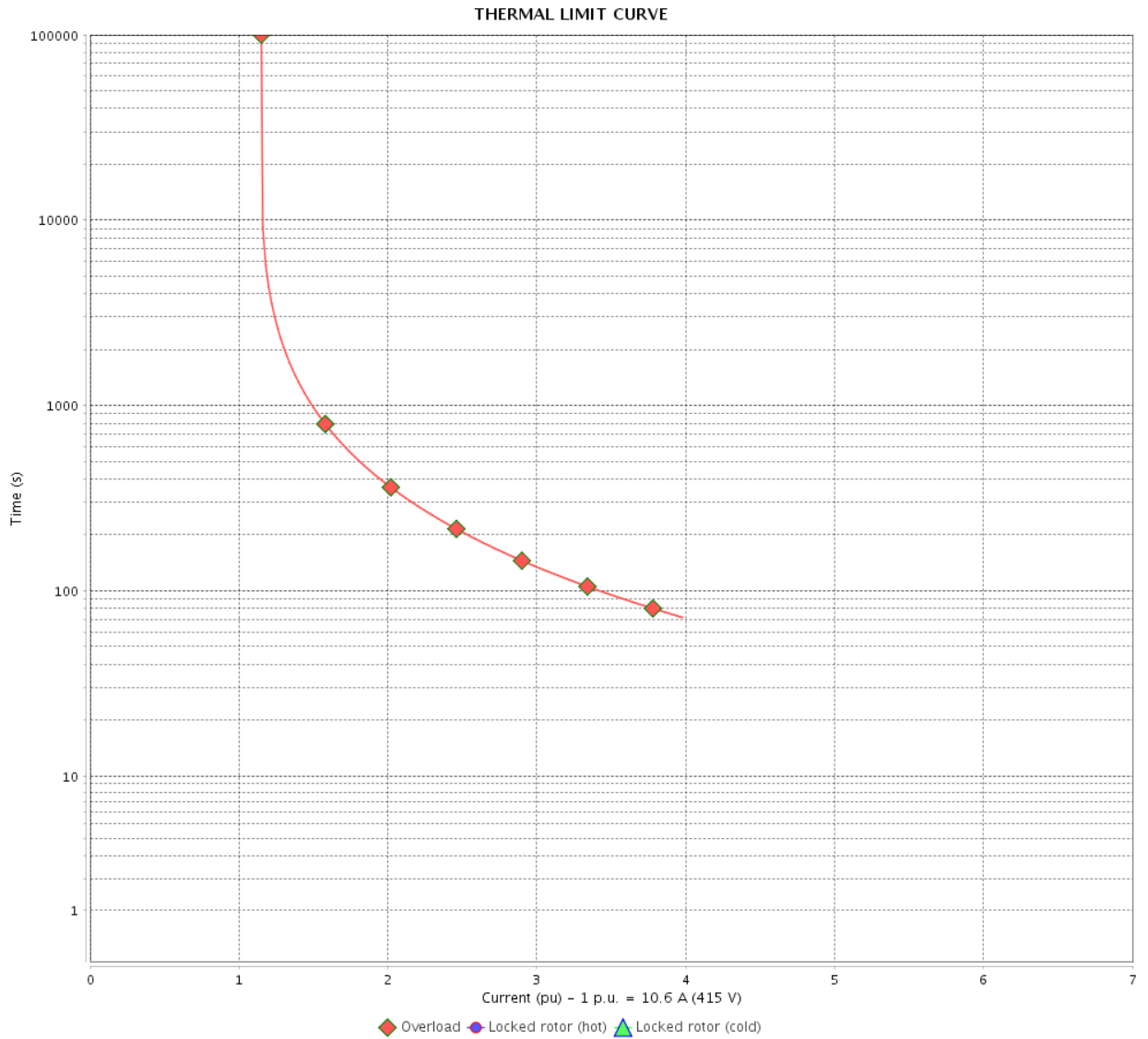
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



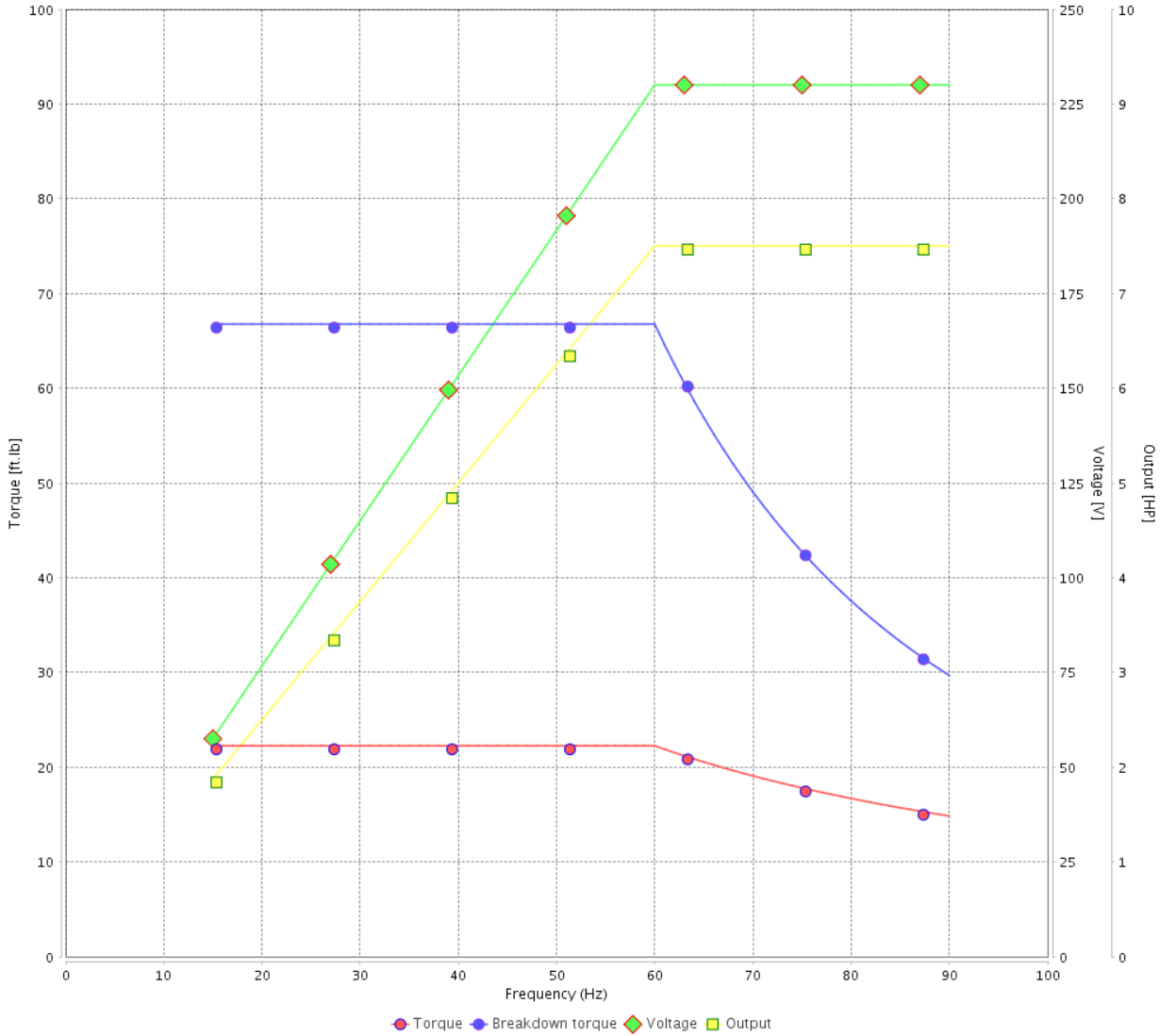
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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A  
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 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.9380 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

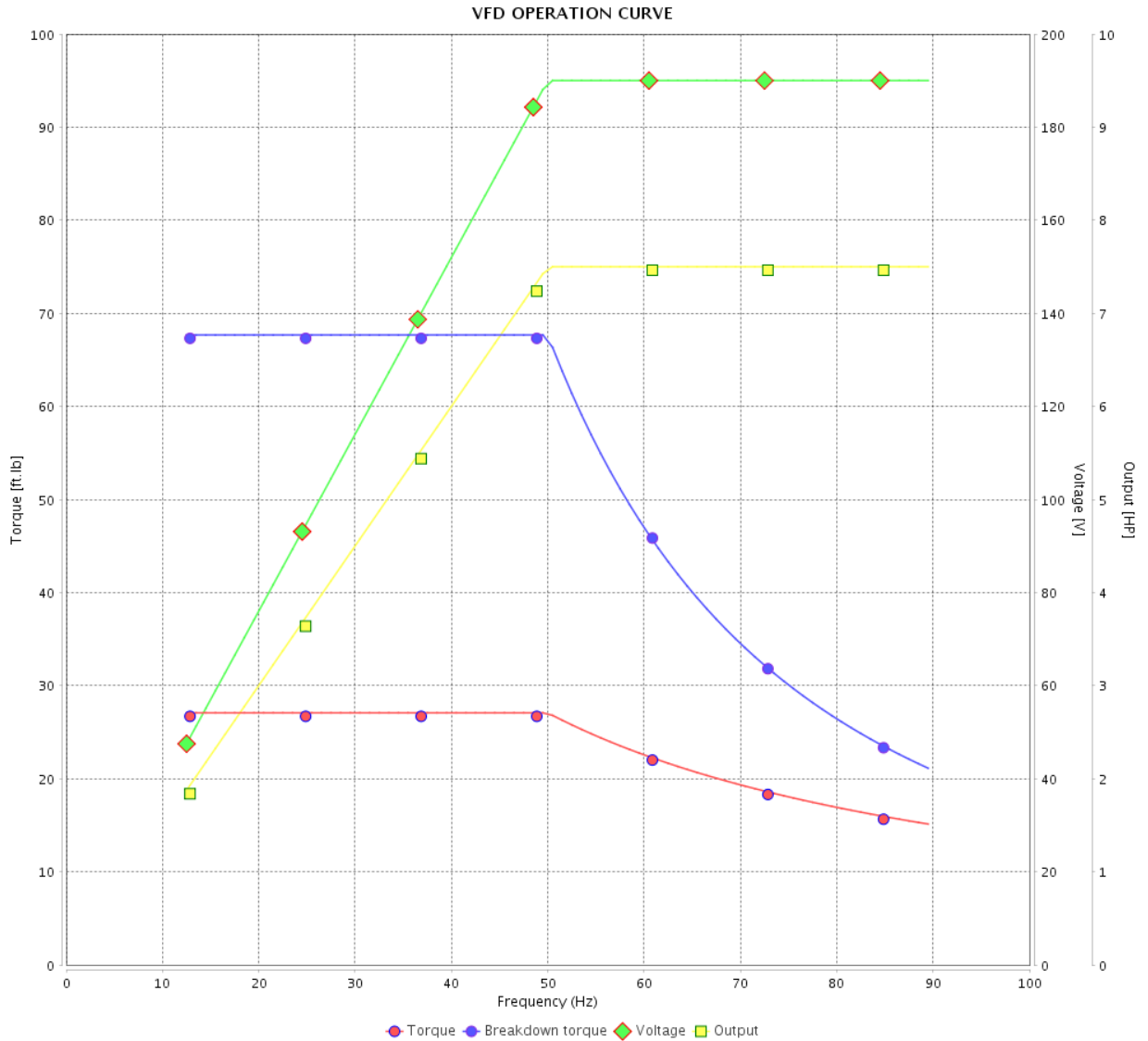


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Moment of inertia (J) : 0.9380 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



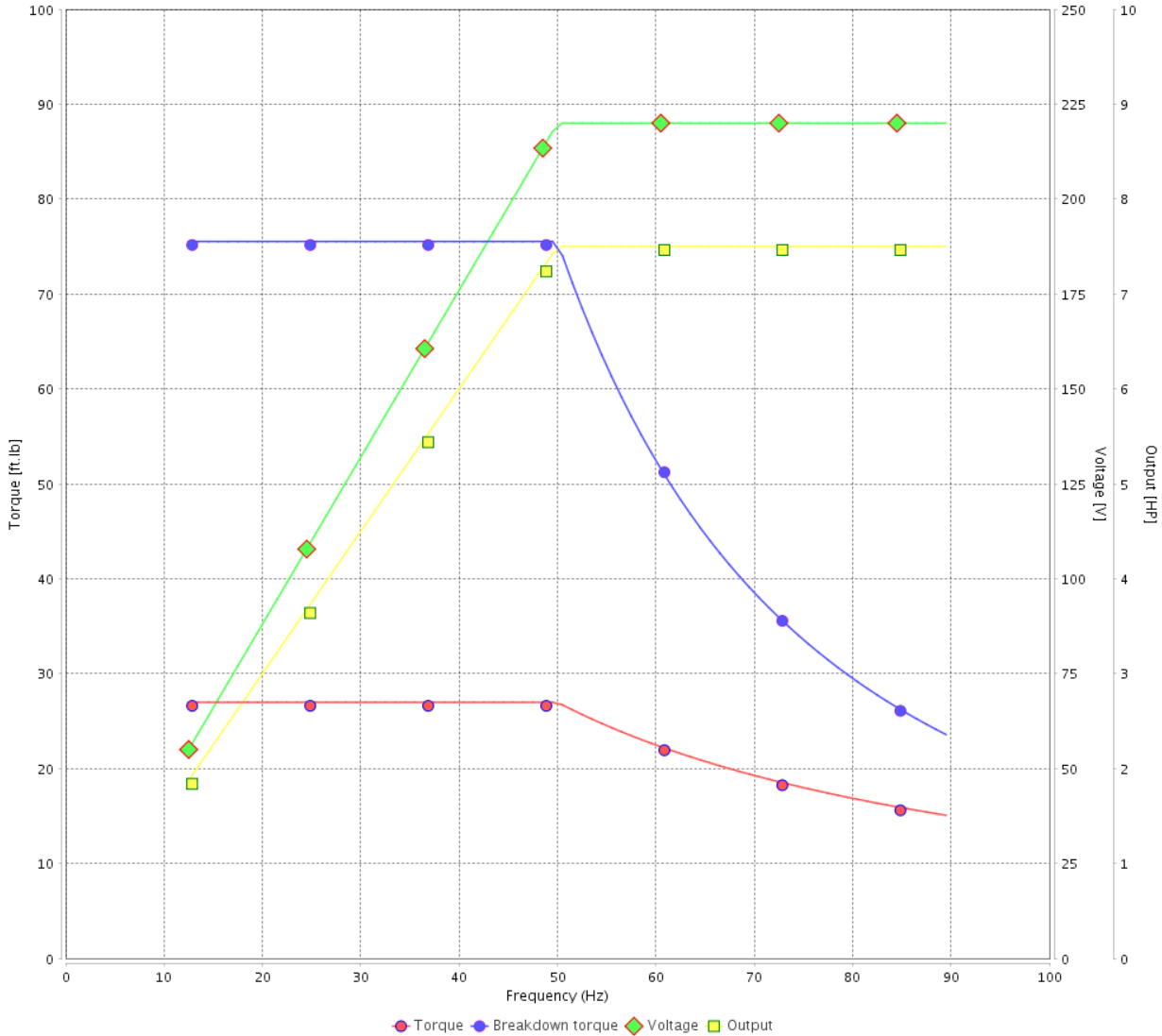
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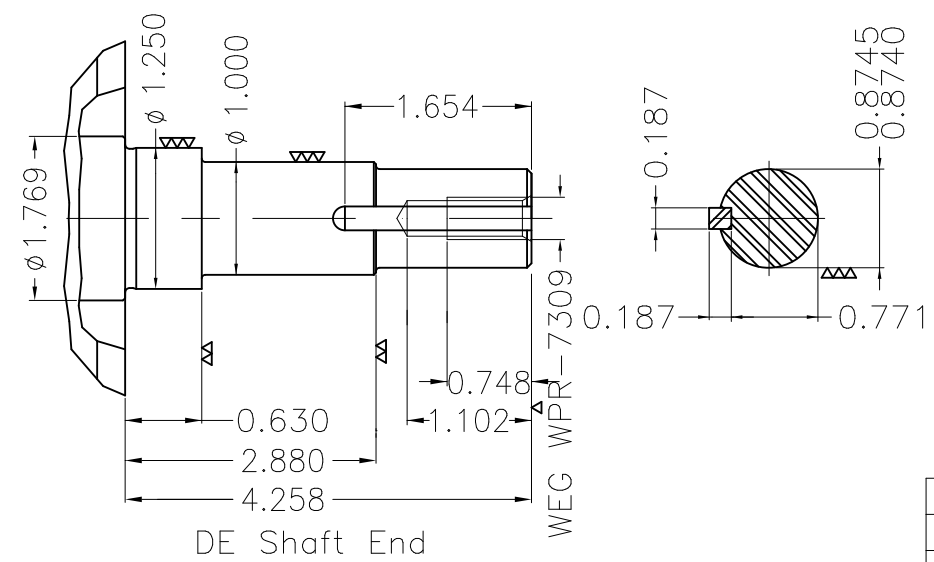
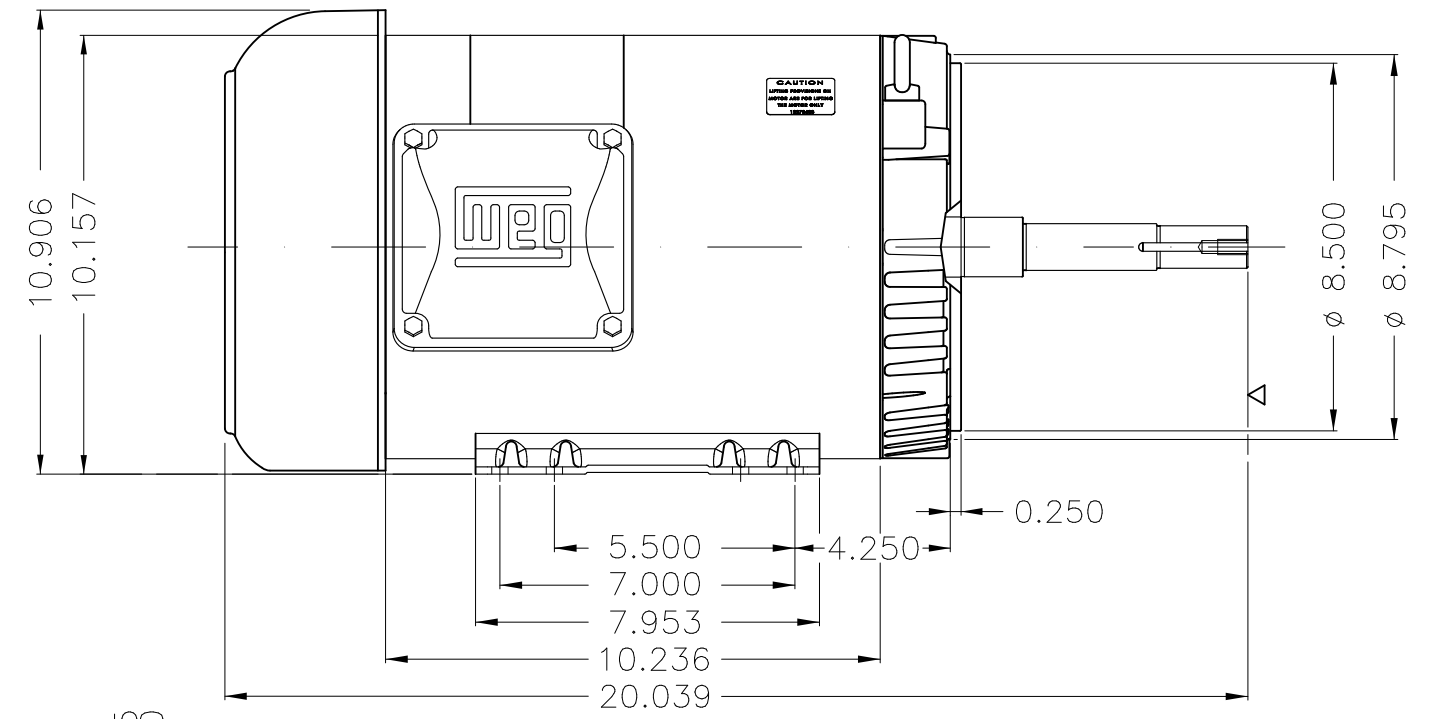
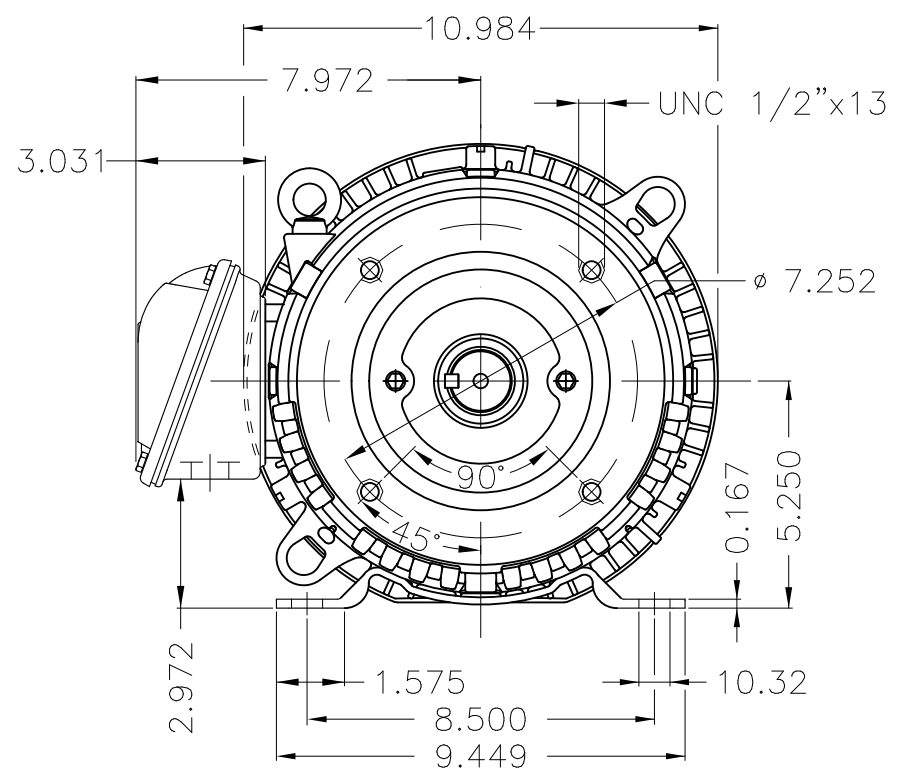
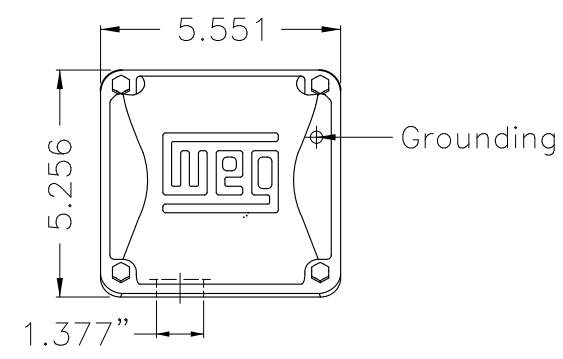
A

B

C

D

E



EUNC 3/8" - 16 WEG WPR-7309

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 PSE 107							
CHECKED		FRAME 213/5JM IP55 TEFC							
RELEASED									
REL DT.		WMO	Jaragua do Sul	Product Engineering					

7.5 HP 04 Poles 60 Hz

PREVIEW  
WDD  
SHEET 1 / 1





**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13180568 CC029A**

**W01.TE0IC0X0N**

**JM007404NPW01**

**28MAR2022 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 7.5</b>
<b>FR 213/5JM</b>		<b>KW 5.5</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 18.1/9.07</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 20.8/10.4</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 0.82</b>
<b>USABLE @ 208V 20.1A</b>		<b>RPM 1770</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 91.7%</b>

<b>ALTERNATE RATING: 7.5HP 50Hz 190-220/380-415V SF1.00</b>
<b>22.0-19.4/11.0-10.3A 1455RPM EFF 88.6% (IE2) IEC 60034-1</b>

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

<b>DE 6209-ZZ</b>	<b>ODE 6206-ZZ</b>	<b>MOBIL POLYREX EM</b>
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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.

