

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14808960	
		Catalog # :	00218ET3E145JP-SG	
Frame	: 143/5JP	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>	: 2.2 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.1296 sq.ft.lb	
Design	: B			
Output [HP]	2	2	2	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	5.44/2.72	6.50/3.25	5.89/3.12	
L. R. Amperes [A]	44.6/22.3	39.0/19.5	39.4/20.9	
LRC [A]	8.2x(Code K)	6.0x(Code H)	6.7x(Code J)	
No load current [A]	2.80/1.40	2.75/1.37	2.87/1.52	
Rated speed [RPM]	1745	1415	1425	
Slip [%]	3.06	5.67	5.00	
Rated torque [ft.lb]	6.02	7.42	7.37	
Locked rotor torque [%]	270	210	240	
Breakdown torque [%]	300	240	270	
Service factor		1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	27s (cold) 15s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	86.0	87.1	86.0
	50%	85.5	85.4	84.9
	75%	87.5	84.9	85.2
	100%	86.5	82.6	83.6
Power Factor	25%	0.35	0.42	0.38
	50%	0.60	0.68	0.64
	75%	0.73	0.80	0.76
	100%	0.80	0.85	0.83
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads		
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 172 lb	
		Max. compression	: 174 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 6.02A SF 1.00 SFA 6.02A				
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

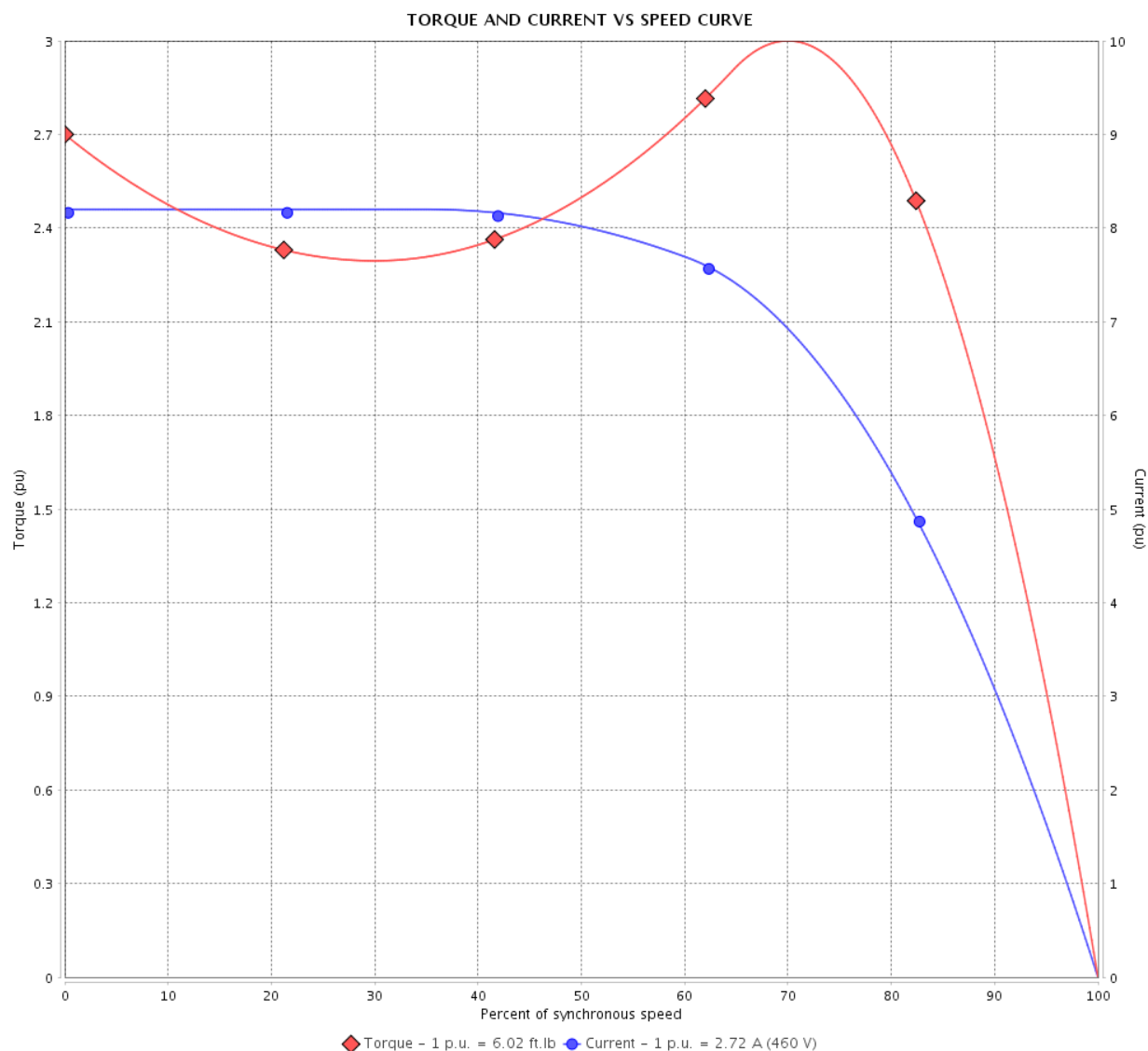


Customer :

Product line : JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14808960

Catalog # : 00218ET3E145JP-SG



Performance : 230/460 V 60 Hz 4P

Rated current	: 5.44/2.72 A	Moment of inertia (J)	: 0.1296 sq.ft.lb
LRC	: 8.2	Duty cycle	: Cont.(S1)
Rated torque	: 6.02 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1745 rpm	Design	: B

Locked rotor time : 27s (cold) 15s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



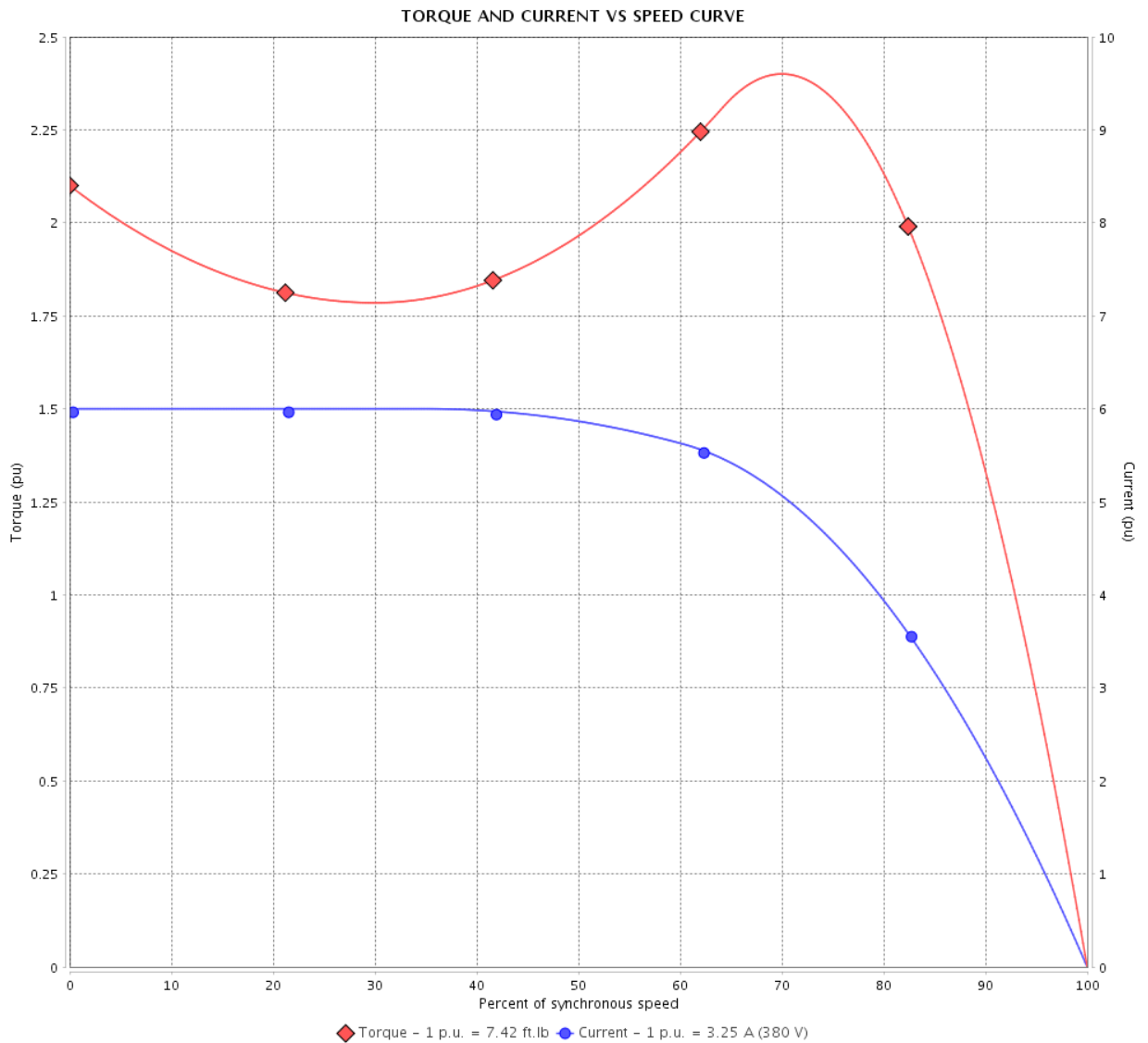
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14808960

Catalog # : 00218ET3E145JP-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 6.50/3.25 A  
 LRC : 6.0  
 Rated torque : 7.42 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 240 %  
 Rated speed : 1415 rpm

Moment of inertia (J) : 0.1296 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

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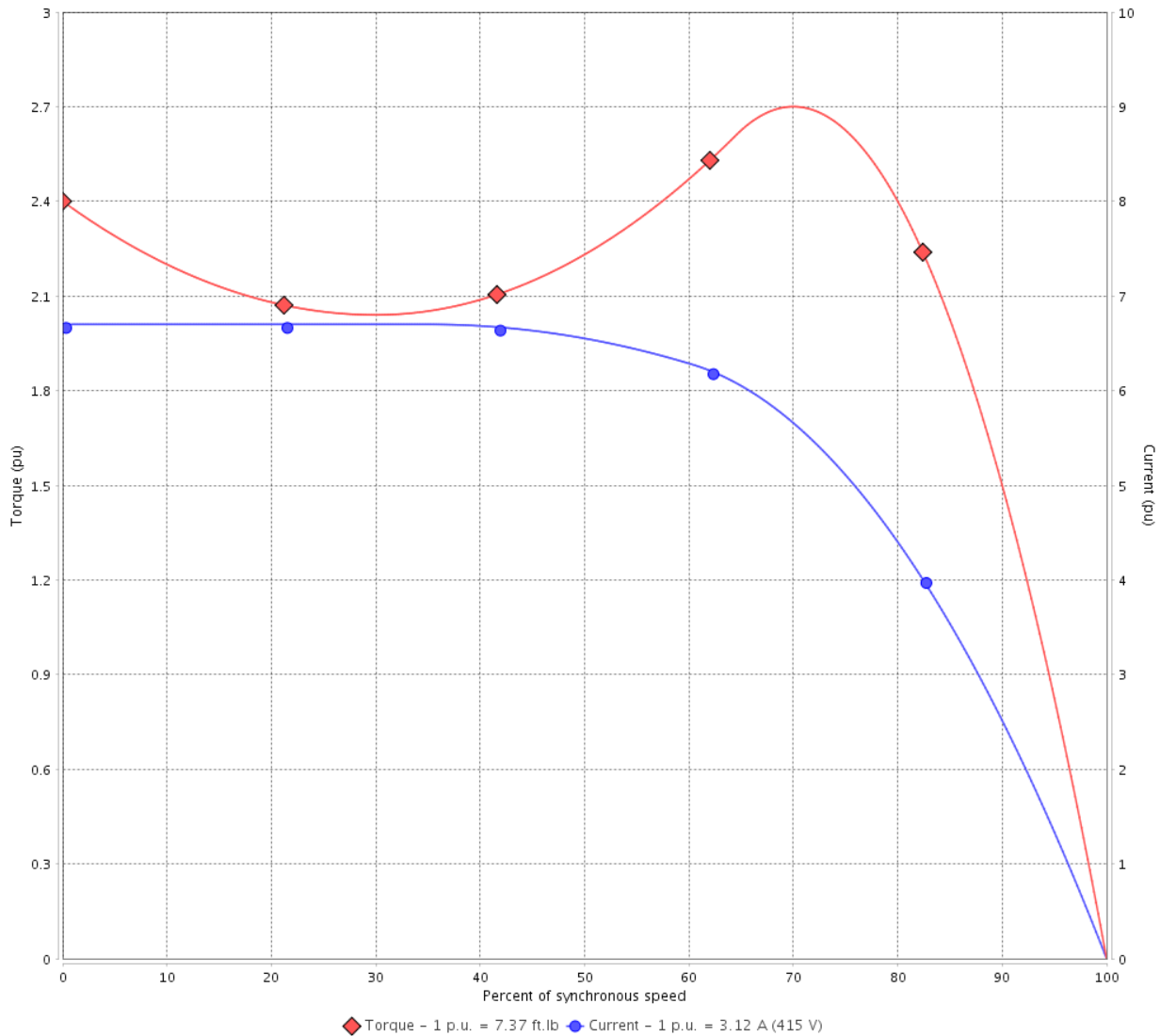
Customer :

Product line : JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14808960

Catalog # : 00218ET3E145JP-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 5.89/3.12 A	Moment of inertia (J)	: 0.1296 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 7.37 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 1425 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

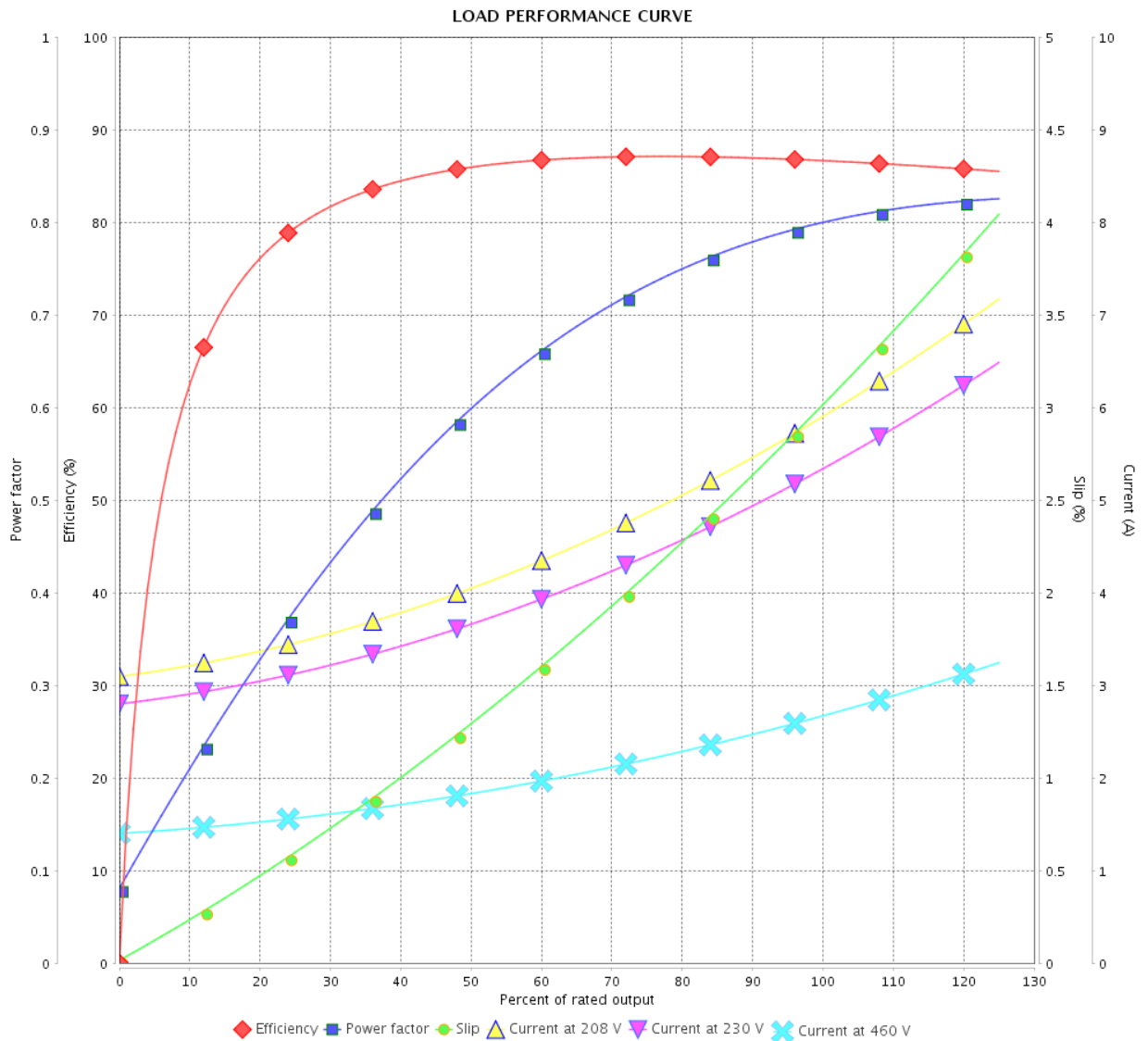


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Performance : 230/460 V 60 Hz 4P

Rated current : 5.44/2.72 A  
 LRC : 8.2  
 Rated torque : 6.02 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 300 %  
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



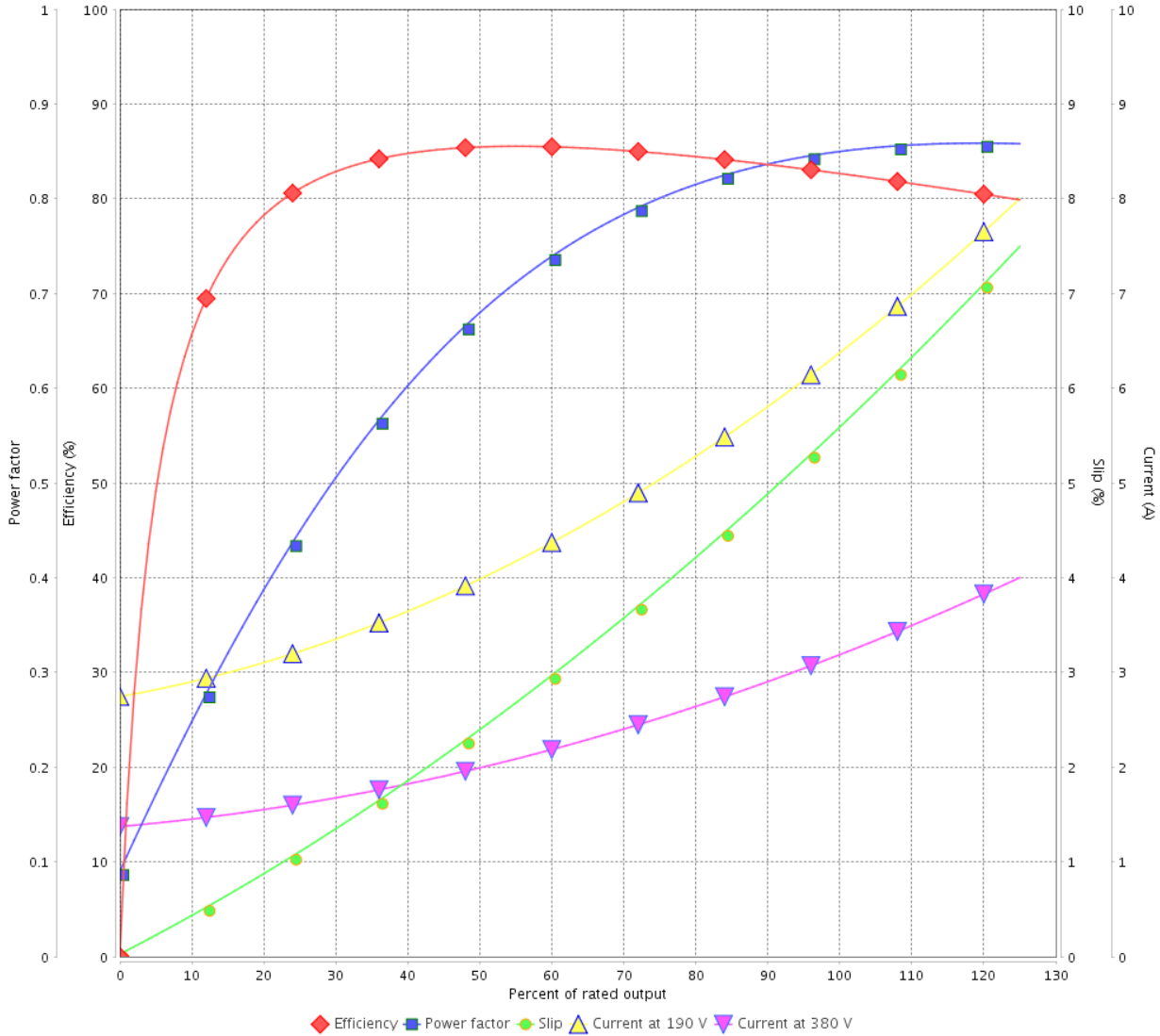
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

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Moment of inertia (J) : 0.1296 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

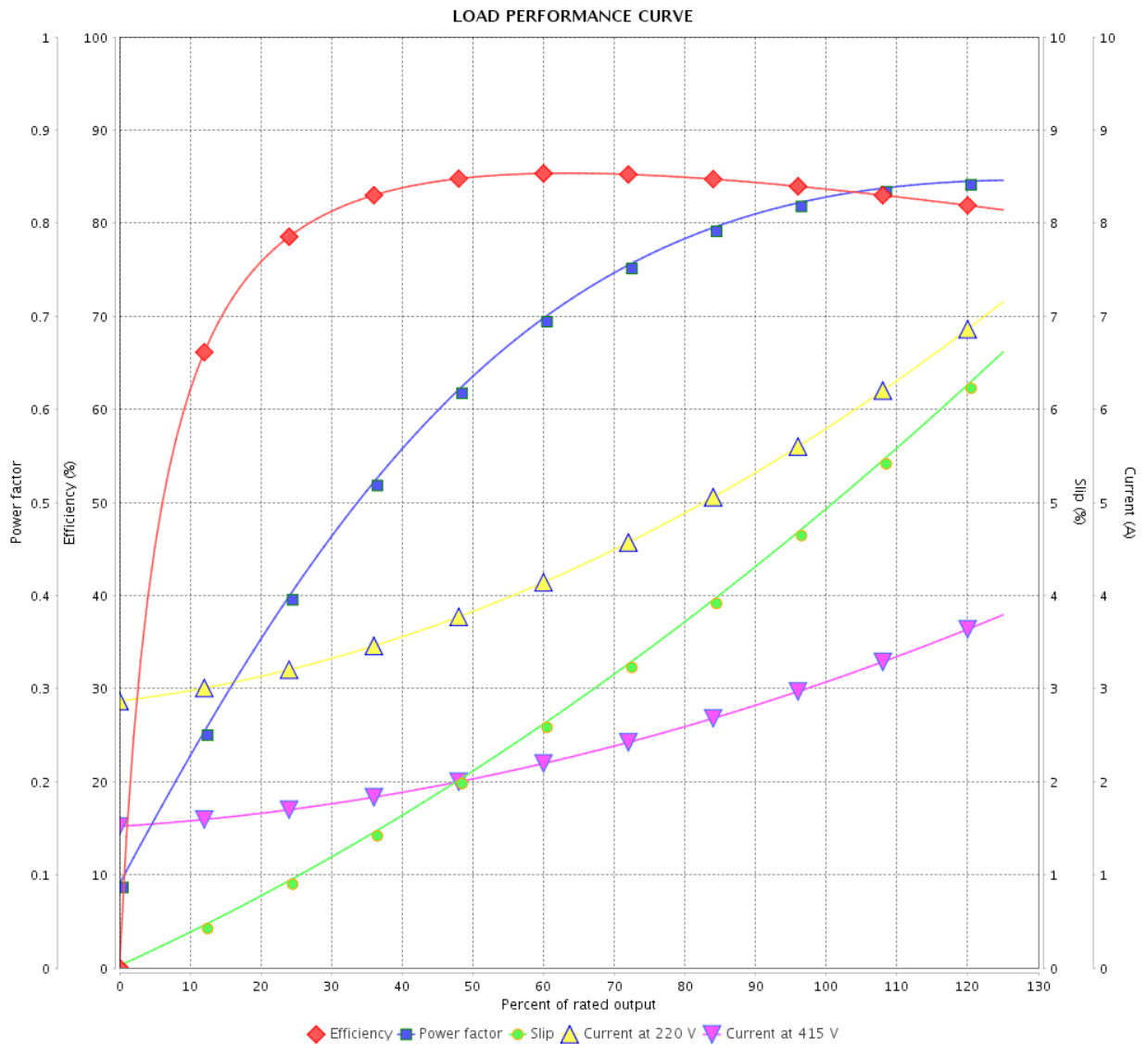


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Design : B

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# THERMAL LIMIT CURVE



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Performance : 230/460 V 60 Hz 4P

Rated current : 5.44/2.72 A  
LRC : 8.2  
Rated torque : 6.02 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 300 %  
Rated speed : 1745 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor :  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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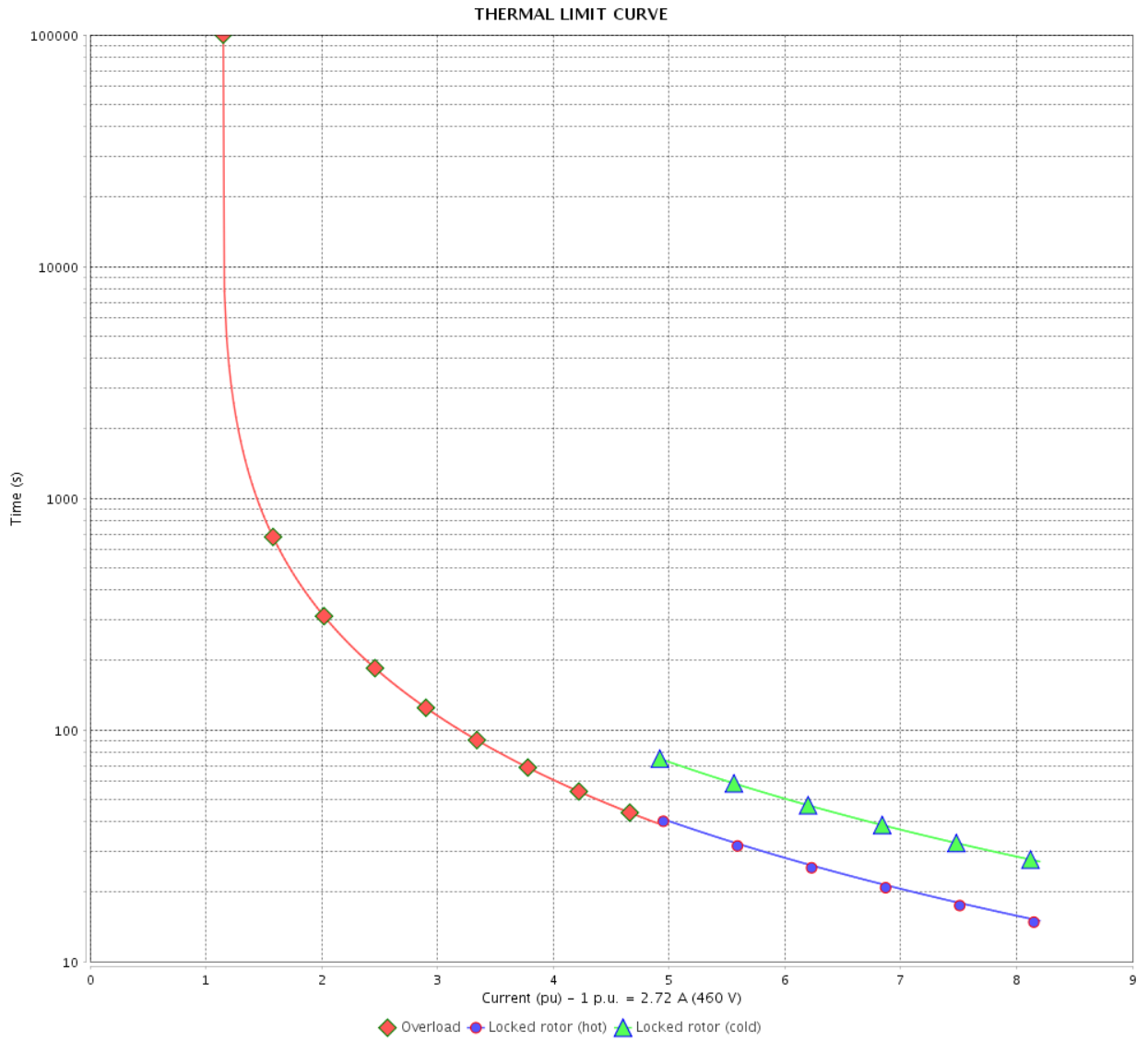


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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Cooling constant

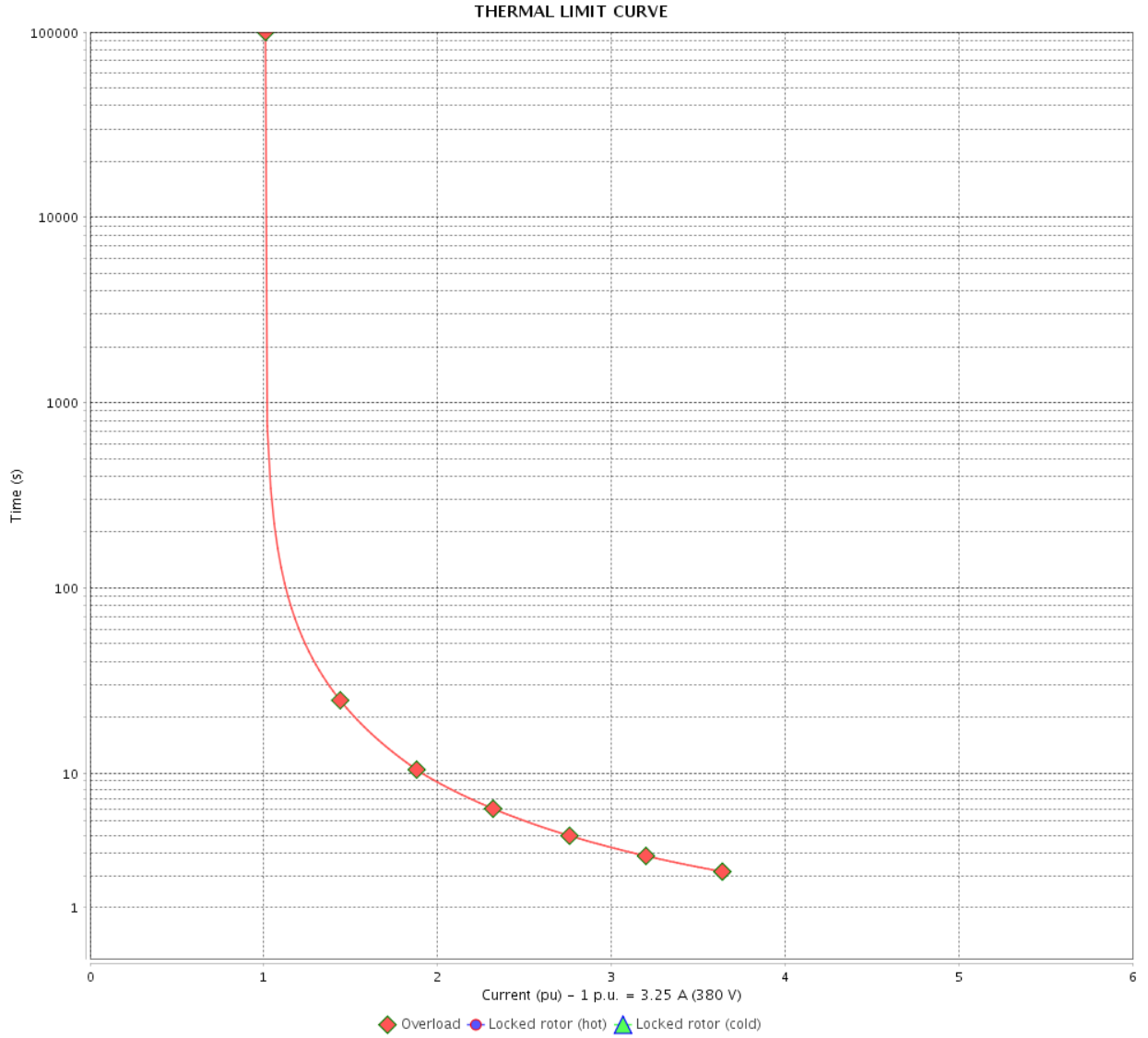
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Heating constant

Cooling constant

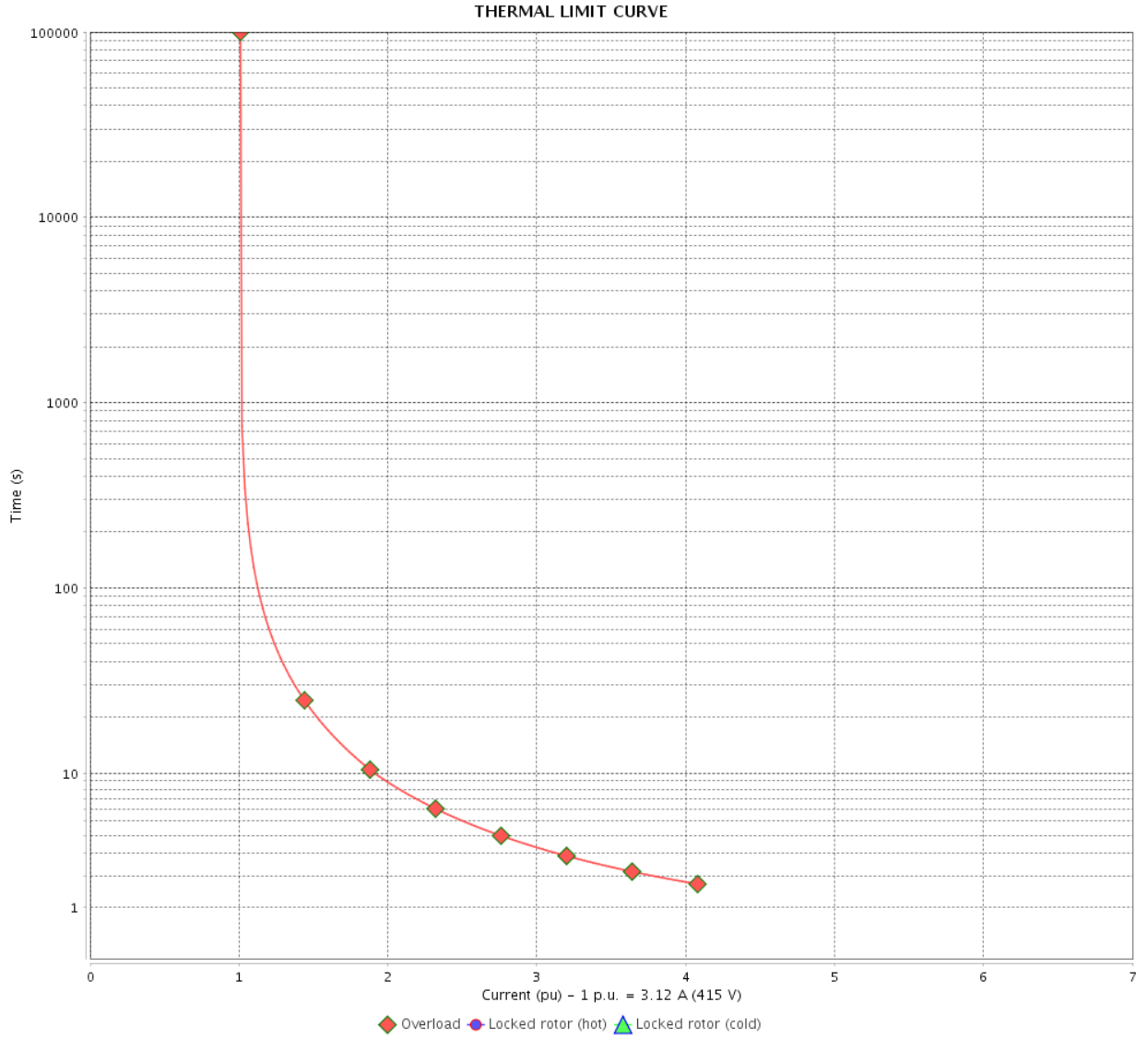
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# VFD OPERATION CURVE

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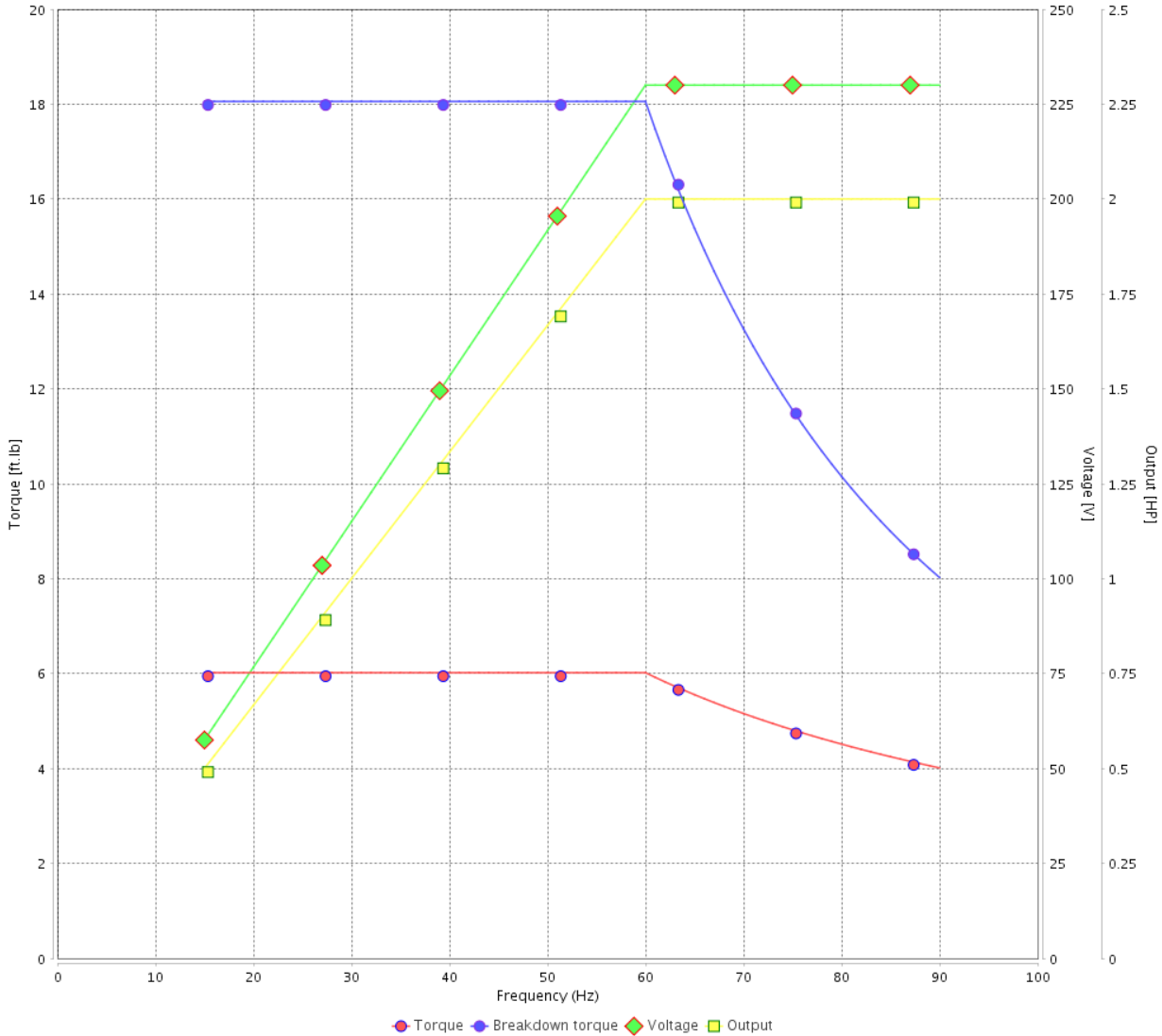
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VFD OPERATION CURVE



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 Breakdown torque : 300 %  
 Rated speed : 1745 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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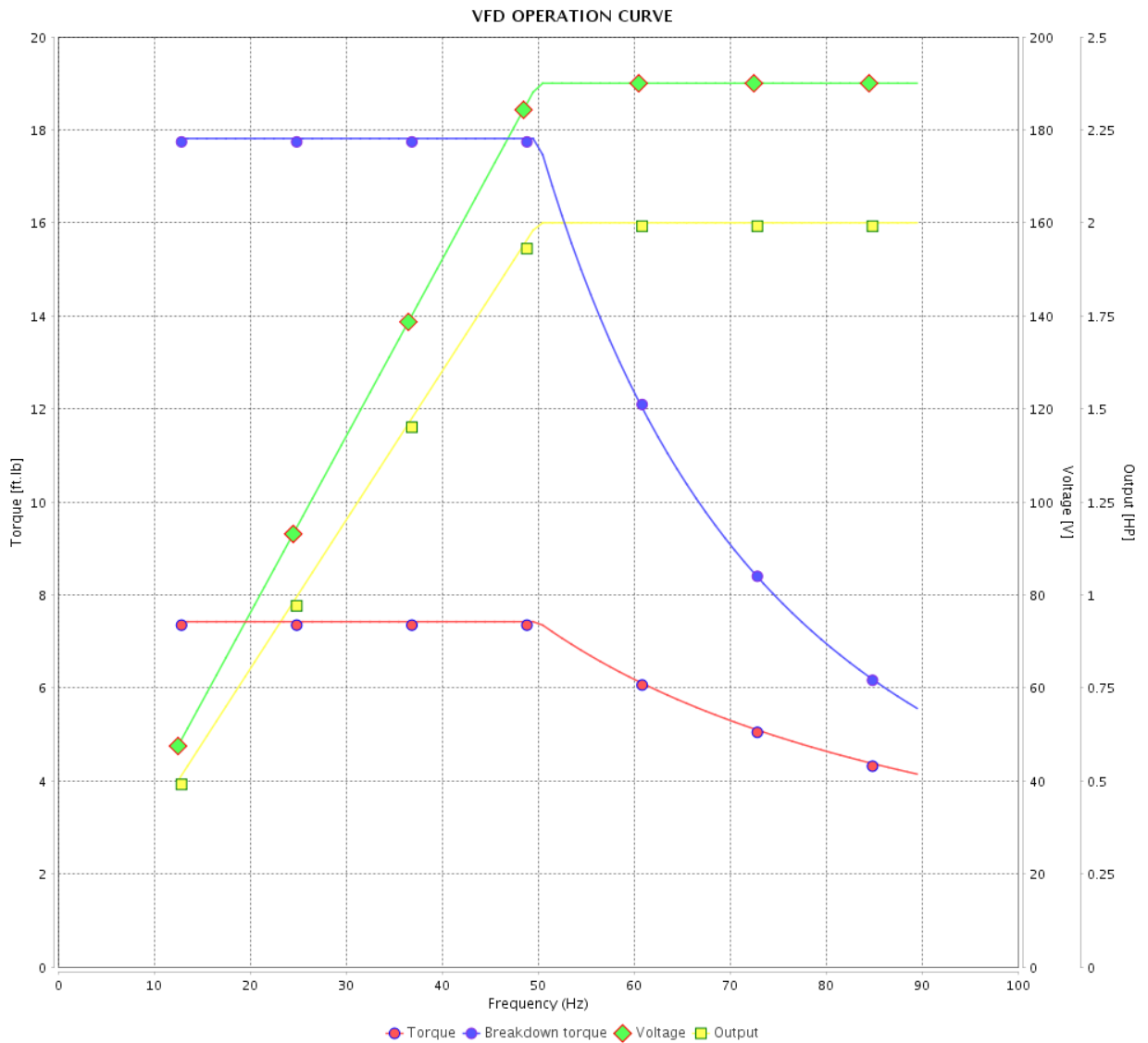


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 Insulation class : F  
 Service factor : 1.00  
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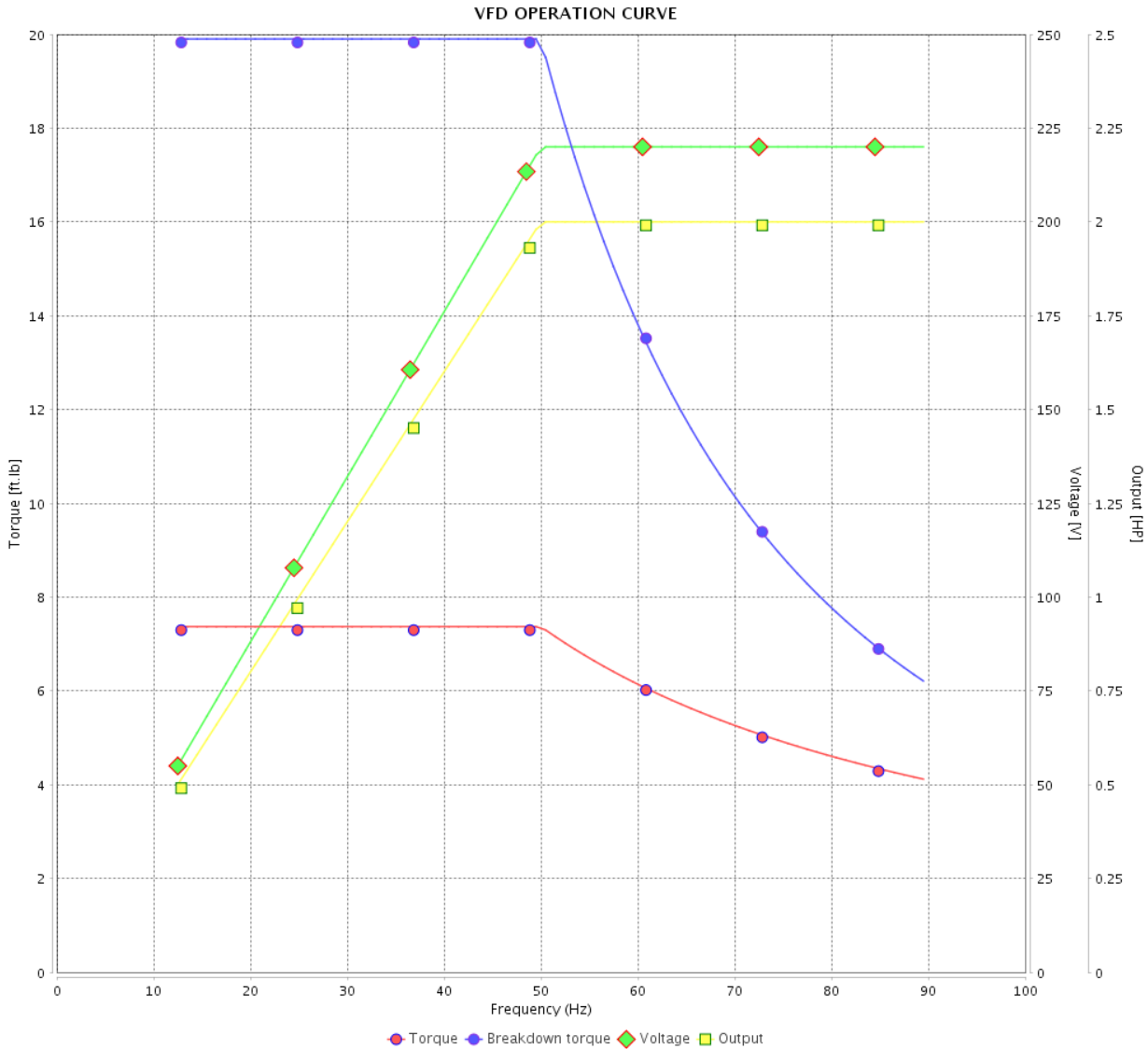


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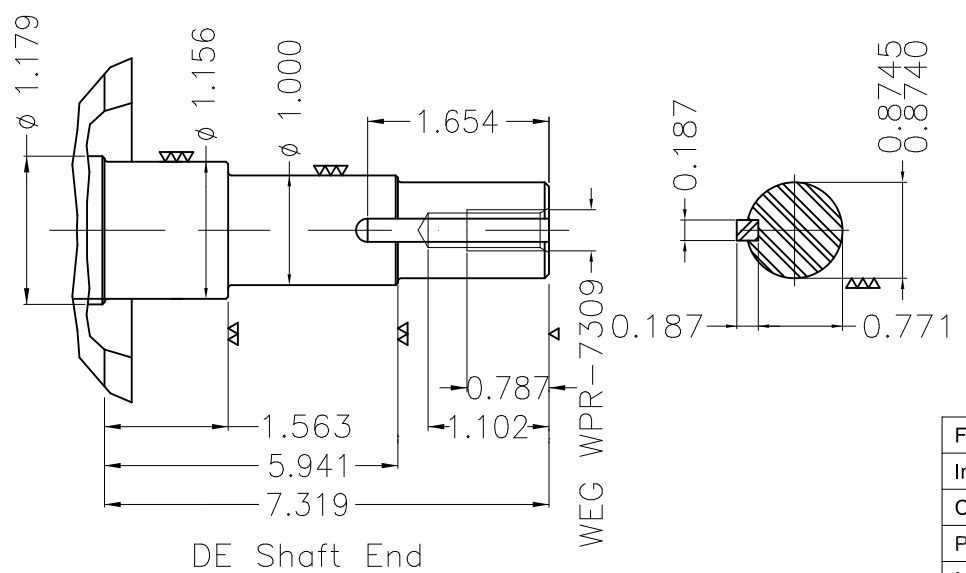
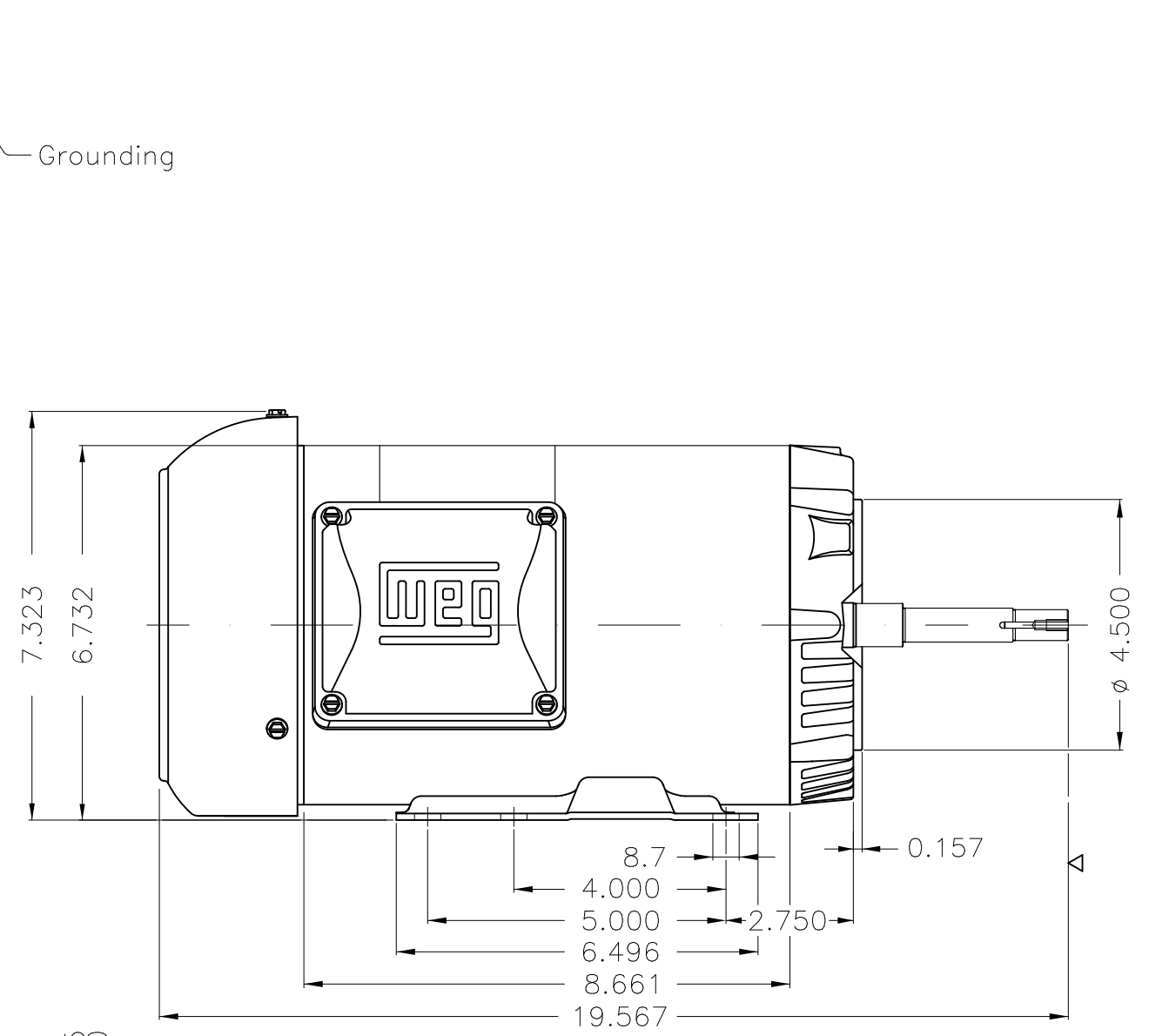
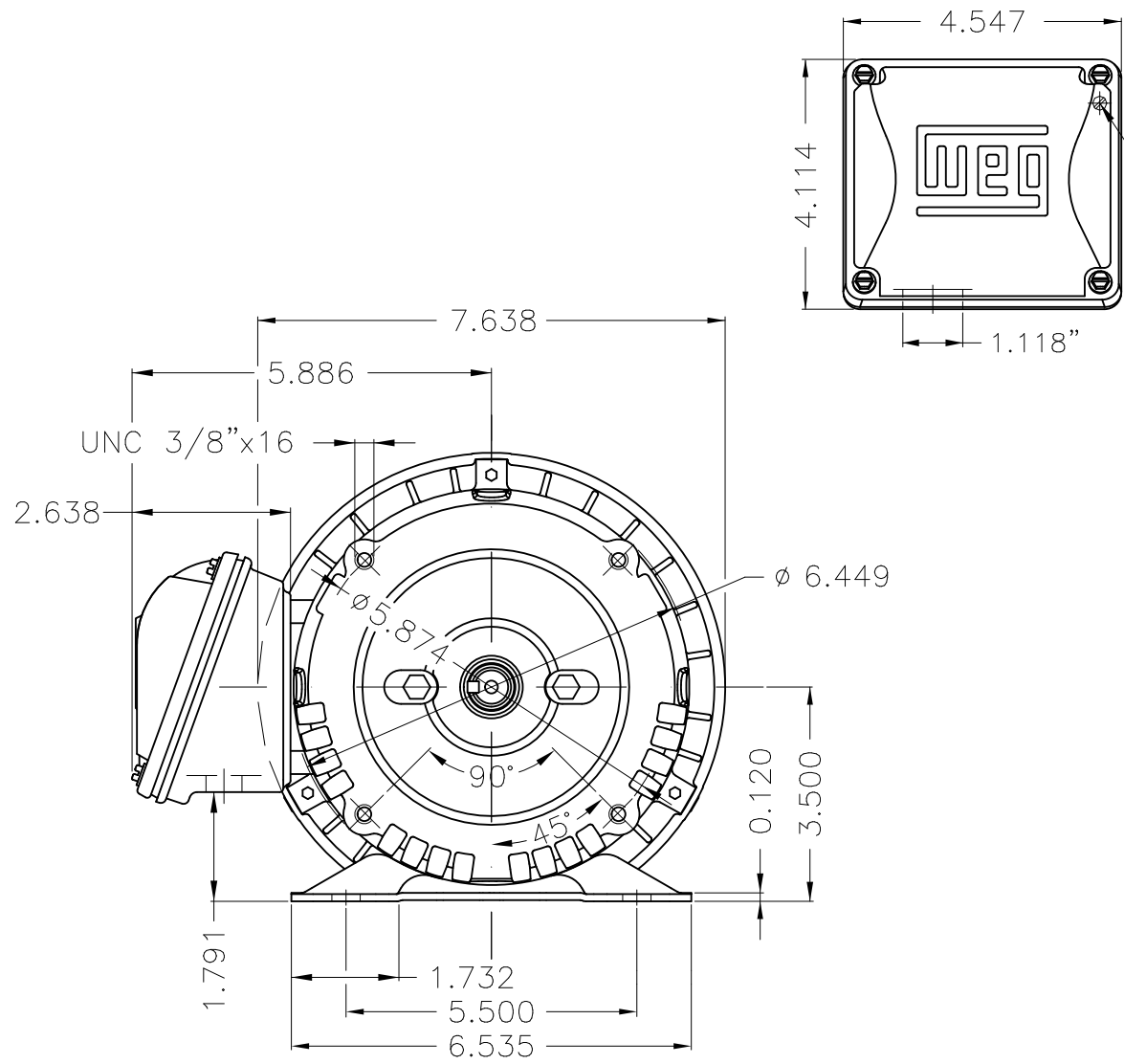
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

- Fan cover - steel plate
- 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	PIRWUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JP 55 DE PREM LFA					
CHECKED		FRAME 143/5JP IP55 TEFC					
RELEASED							
REL DT.		WMO Jaragua do Sul					

**PREVIEW**  
WDD



2 HP 04 Poles 60 Hz

A REL DT. Product Engineering SHEET 1 / 1

Dimensions in inches XME A3