

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	
Product code :	14808745	
Catalog # :	00158ET3E145JP-SG	
Frame	: 143/5JP	
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>	: 2.2 lb	
Moment of inertia (J)	: 0.1101 sq.ft.lb	
Output [HP]	1.5	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	4.04/2.02	
L. R. Amperes [A]	33.1/16.6	
LRC [A]	8.2x(Code K)	
No load current [A]	2.17/1.08	
Rated speed [RPM]	1750	
Slip [%]	2.78	
Rated torque [ft.lb]	4.50	
Locked rotor torque [%]	270	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	37s (cold) 21s (hot)	
Noise level <sup>2</sup>	52.0 dB(A)	
Efficiency (%)	25%	85.2
	50%	85.5
	75%	86.5
	100%	86.5
Power Factor	25%	0.35
	50%	0.59
	75%	0.72
	100%	0.79
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 133 lb	
	Max. compression : 135 lb	
Notes USABLE @208V 4.47A SF 1.00 SFA 4.47A		
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

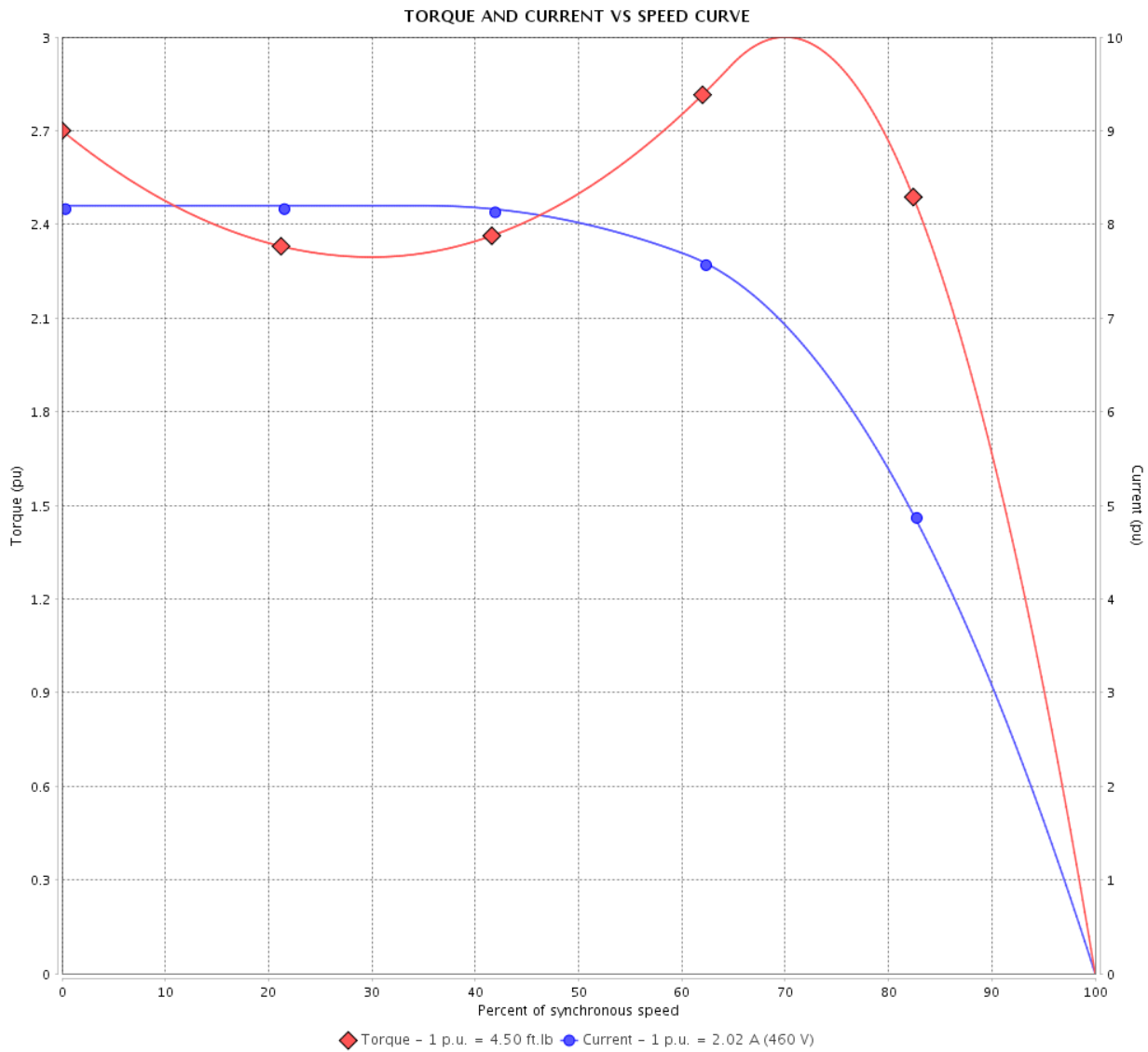


Customer :

Product line : JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14808745

Catalog # : 00158ET3E145JP-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 4.04/2.02 A  
LRC : 8.2  
Rated torque : 4.50 ft.lb  
Locked rotor torque : 270 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor :  
Temperature rise : 80 K  
Design : B

Locked rotor time : 37s (cold) 21s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



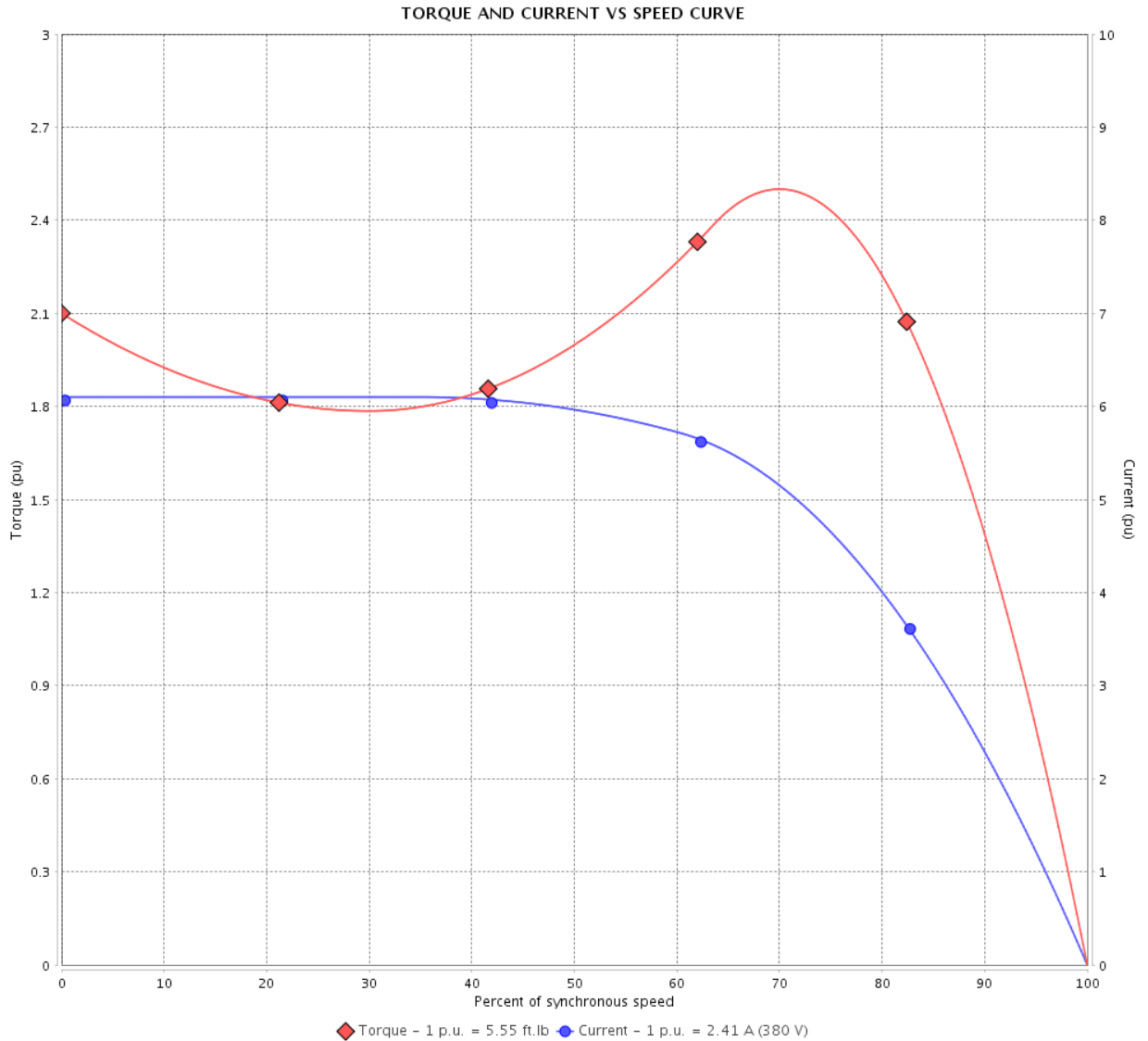
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JP Pump NEMA Premium Efficiency Three-Phase

Product code : 14808745

Catalog # : 00158ET3E145JP-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 4.82/2.41 A  
 LRC : 6.1  
 Rated torque : 5.55 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 250 %  
 Rated speed : 1420 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 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



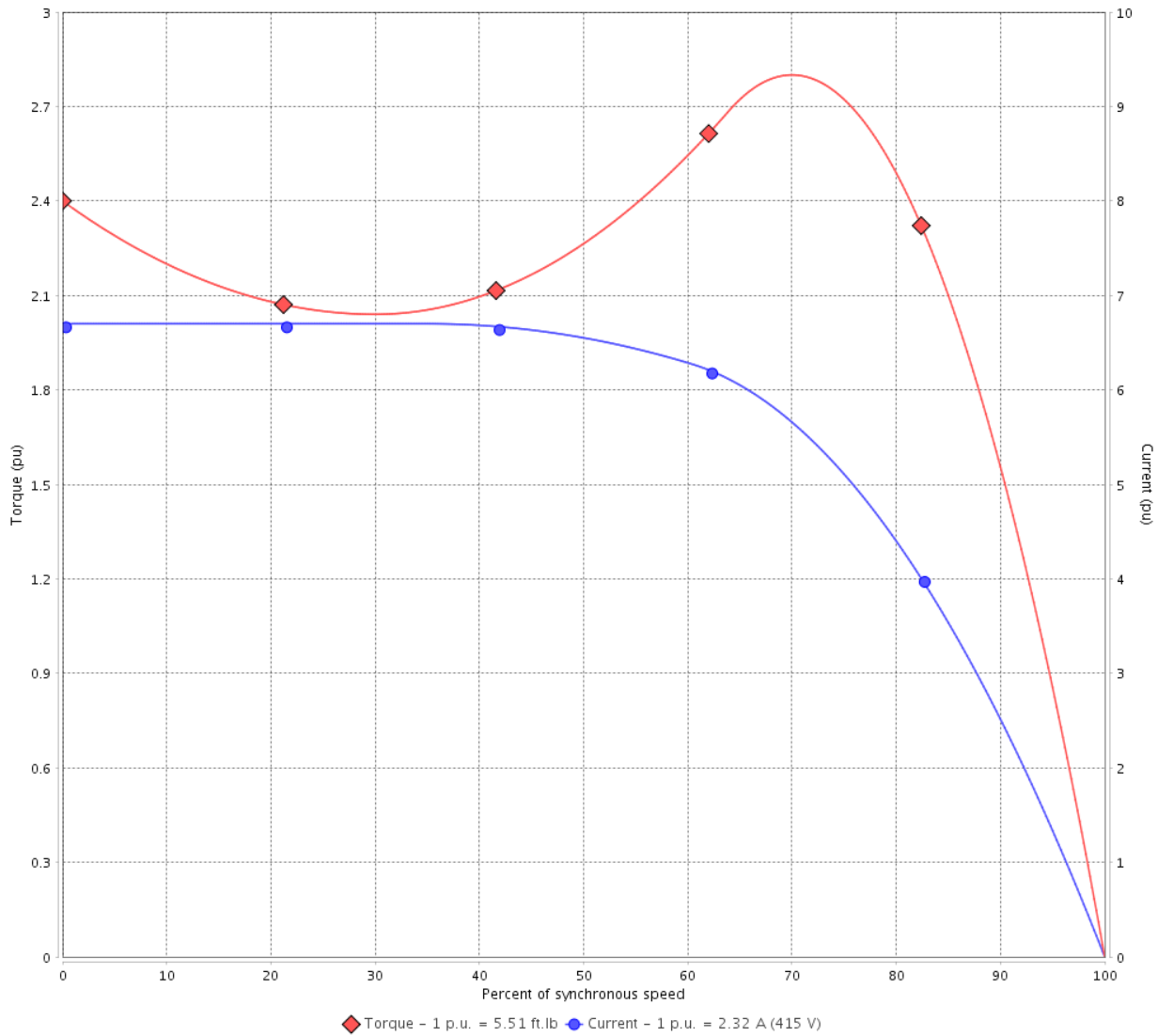
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Product line : JP Pump NEMA Premium  
Efficiency Three-Phase

Product code : 14808745

Catalog # : 00158ET3E145JP-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 4.38/2.32 A	Moment of inertia (J)	: 0.1101 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 5.51 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1430 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

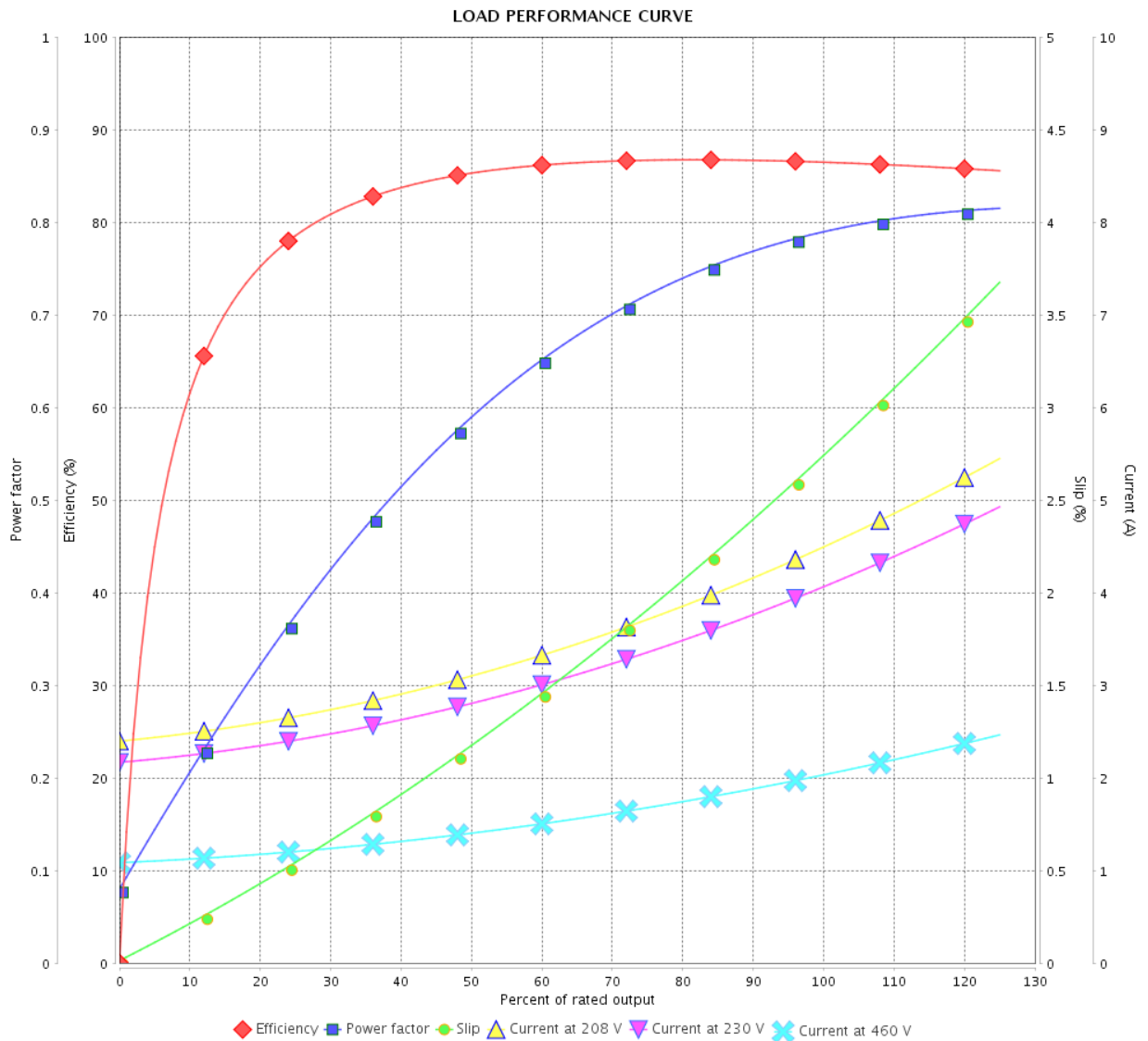


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Moment of inertia (J) : 0.1101 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
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# LOAD PERFORMANCE CURVE

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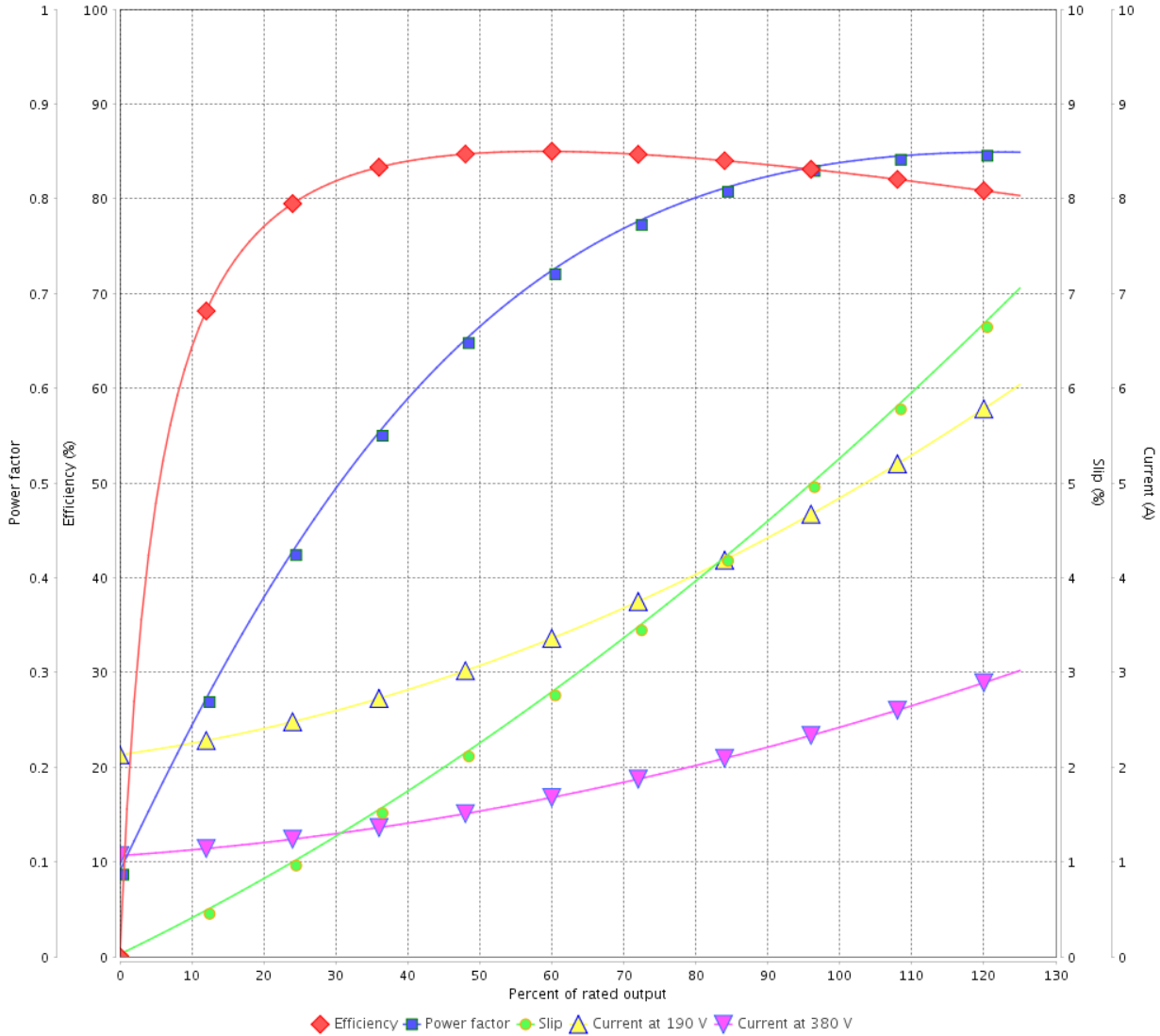
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

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Locked rotor torque : 210 %  
Breakdown torque : 250 %  
Rated speed : 1420 rpm

Moment of inertia (J) : 0.1101 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K  
Design : B

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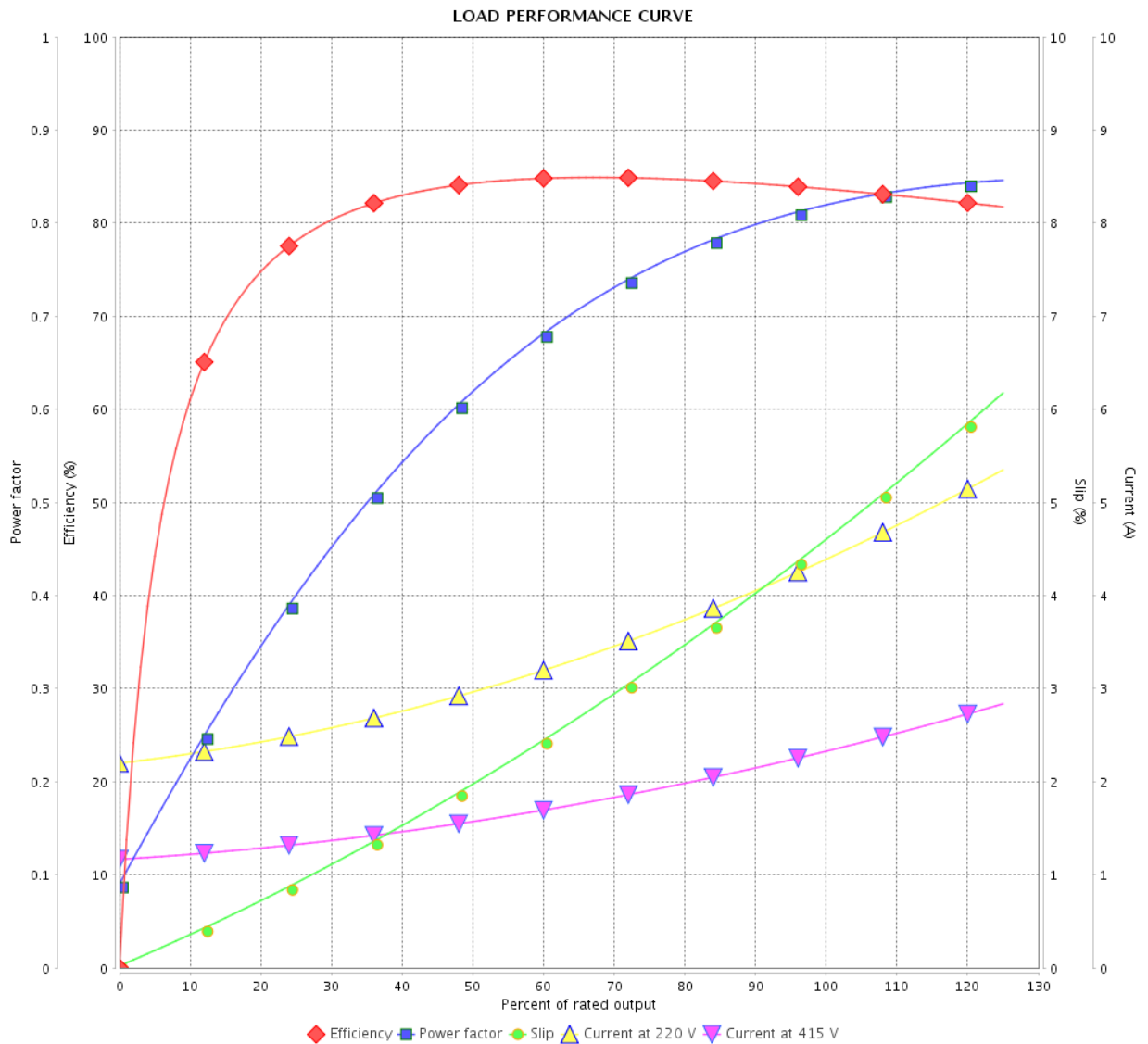


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# THERMAL LIMIT CURVE



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Moment of inertia (J) : 0.1101 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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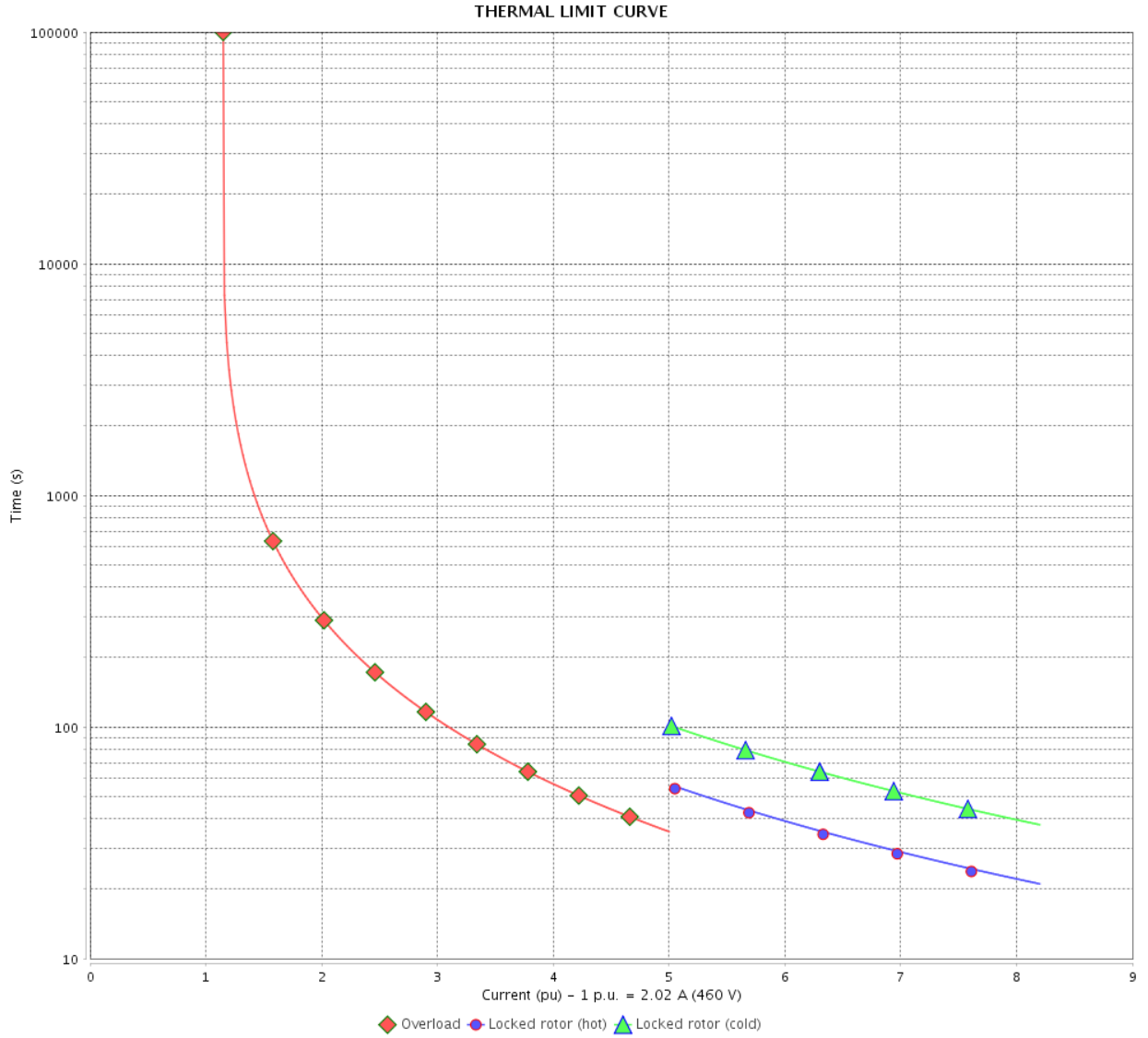


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Three Phase Induction Motor - Squirrel Cage



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Temperature rise : 105 K  
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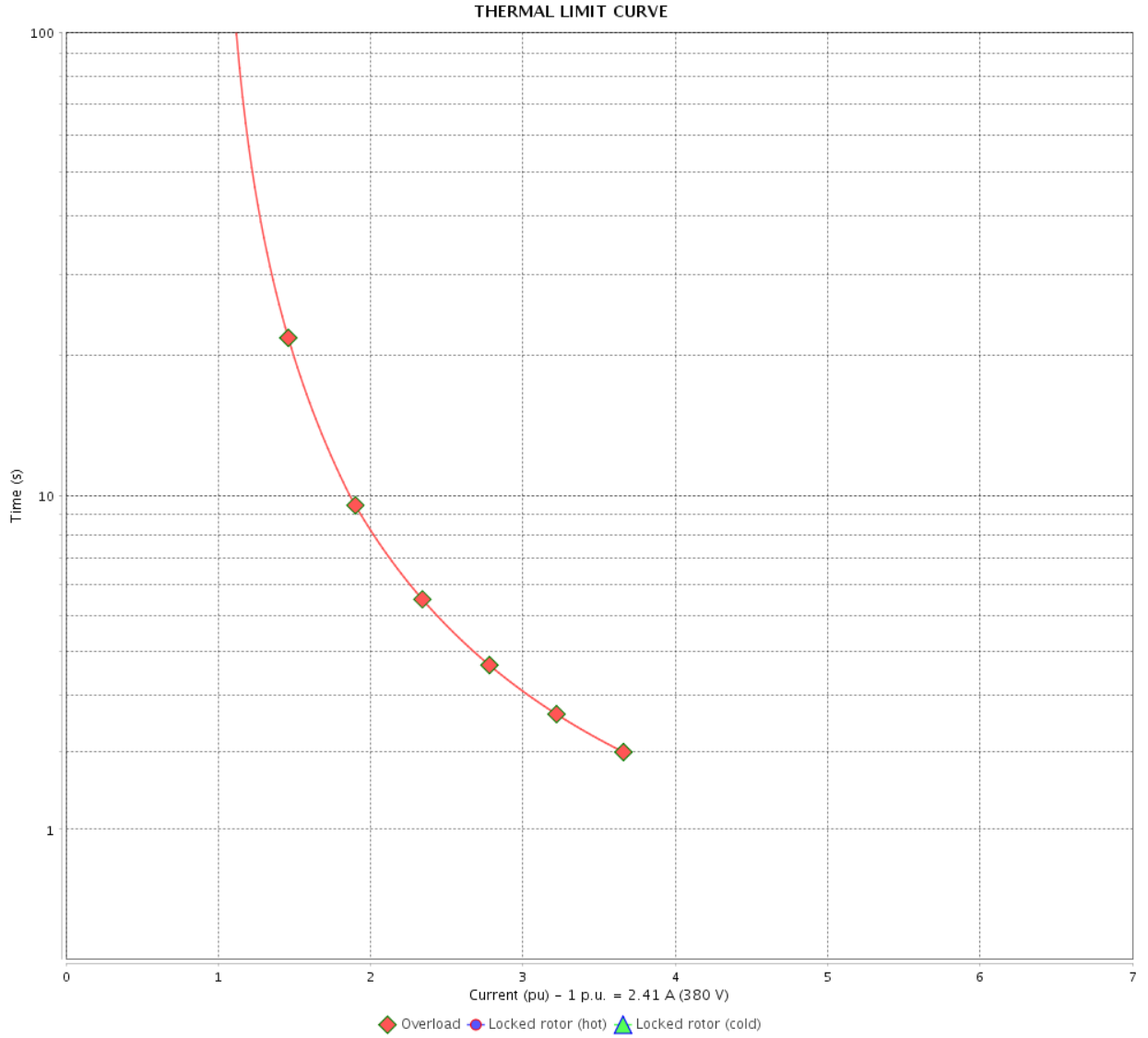
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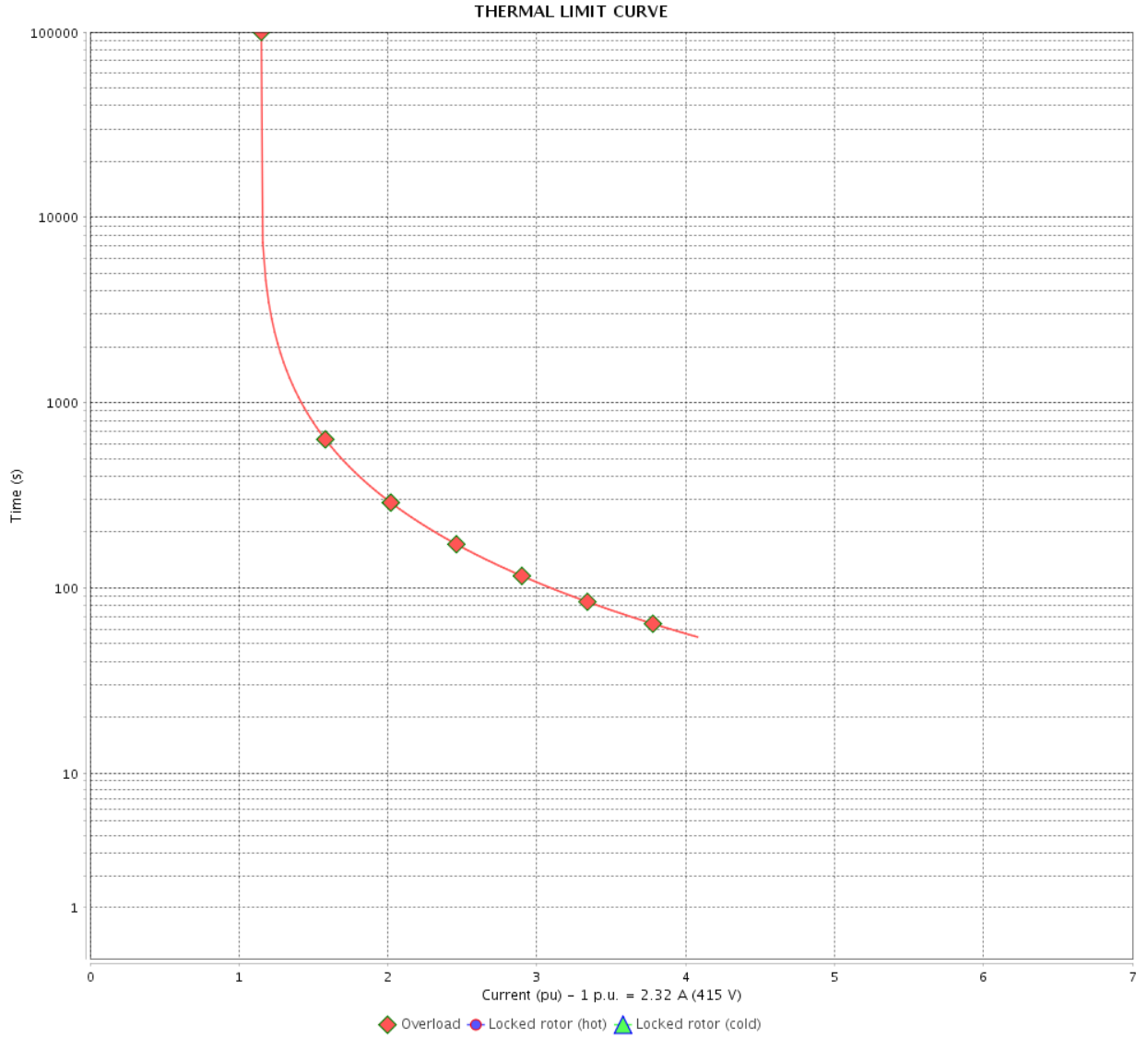
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



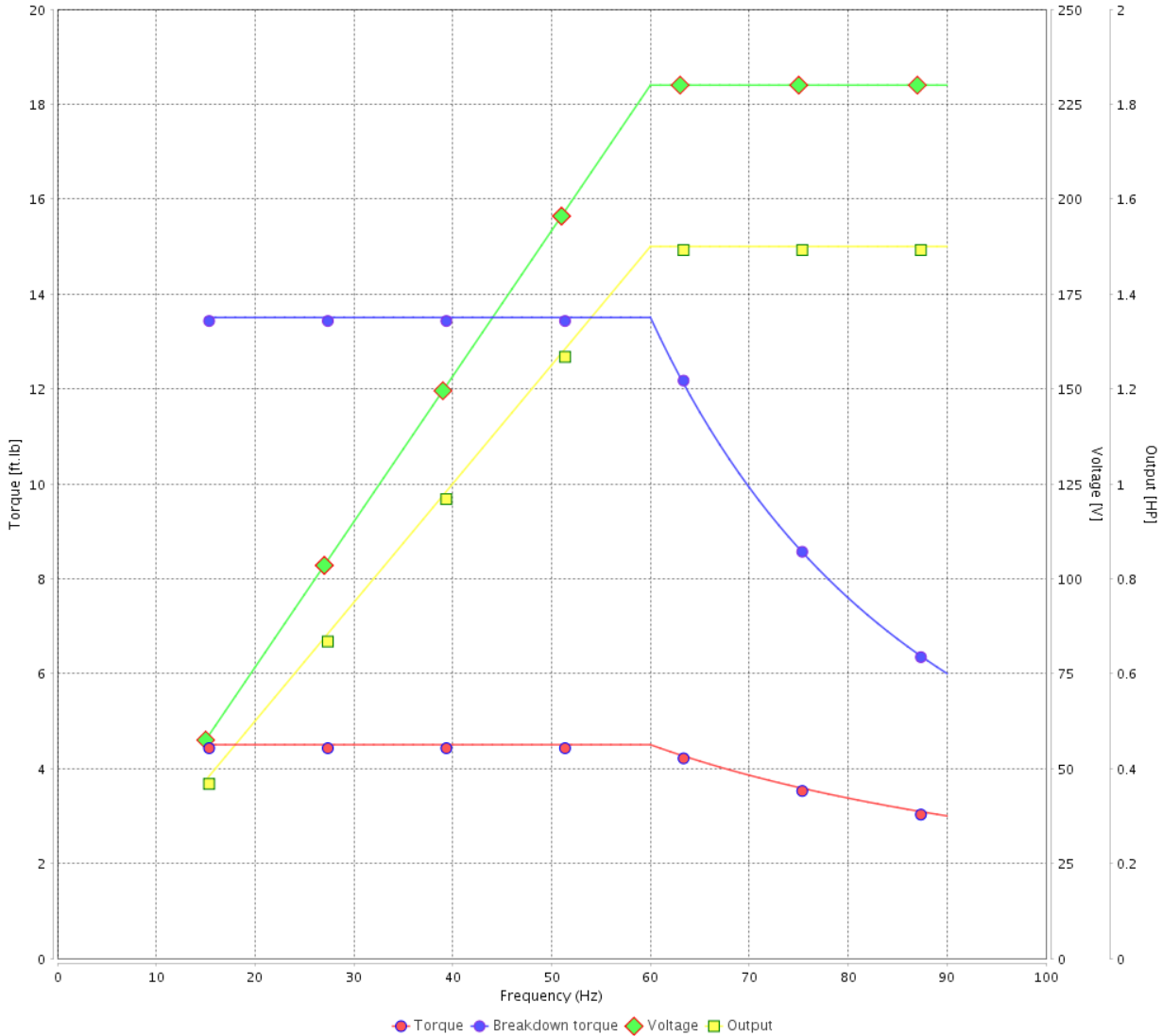
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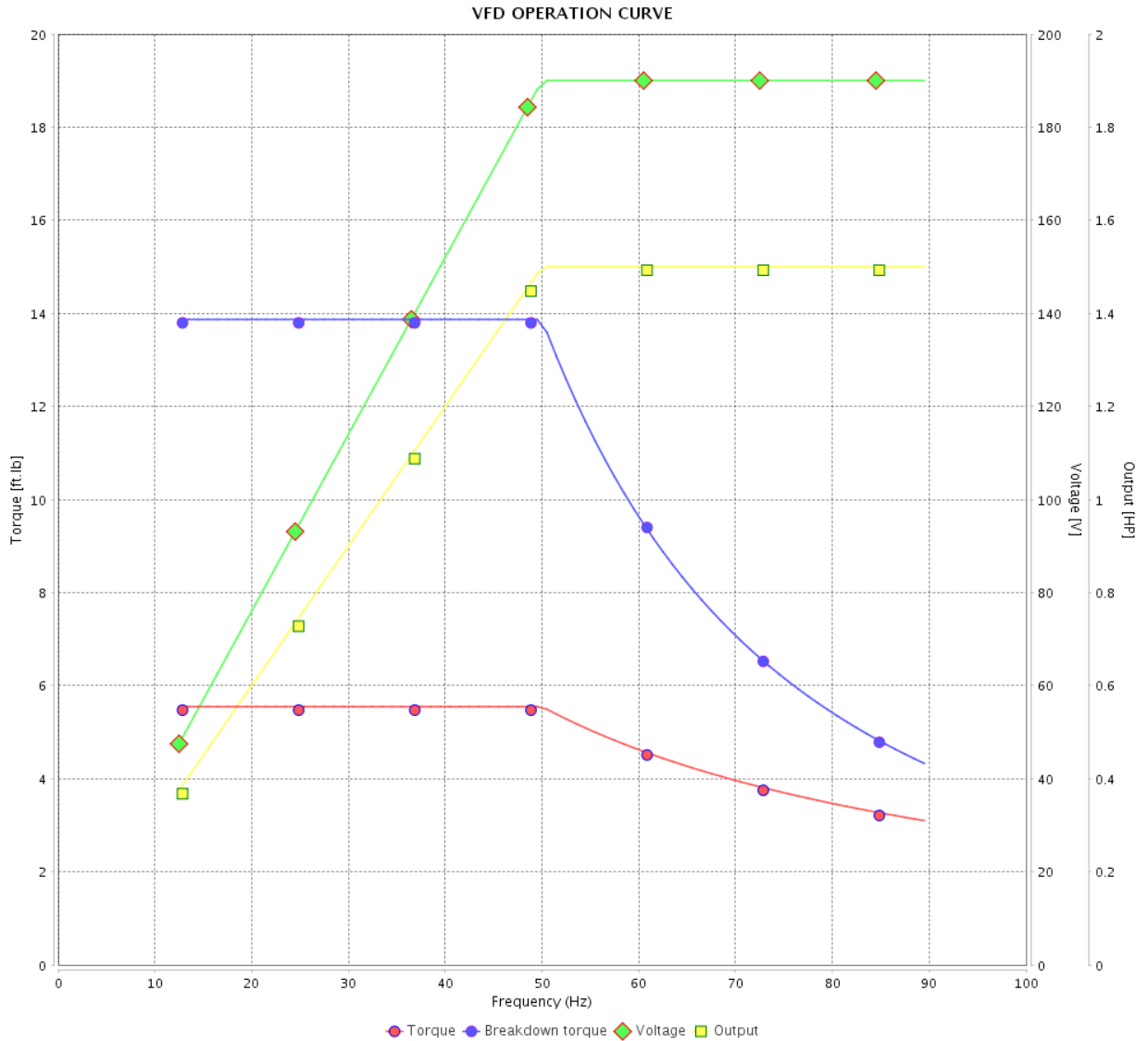


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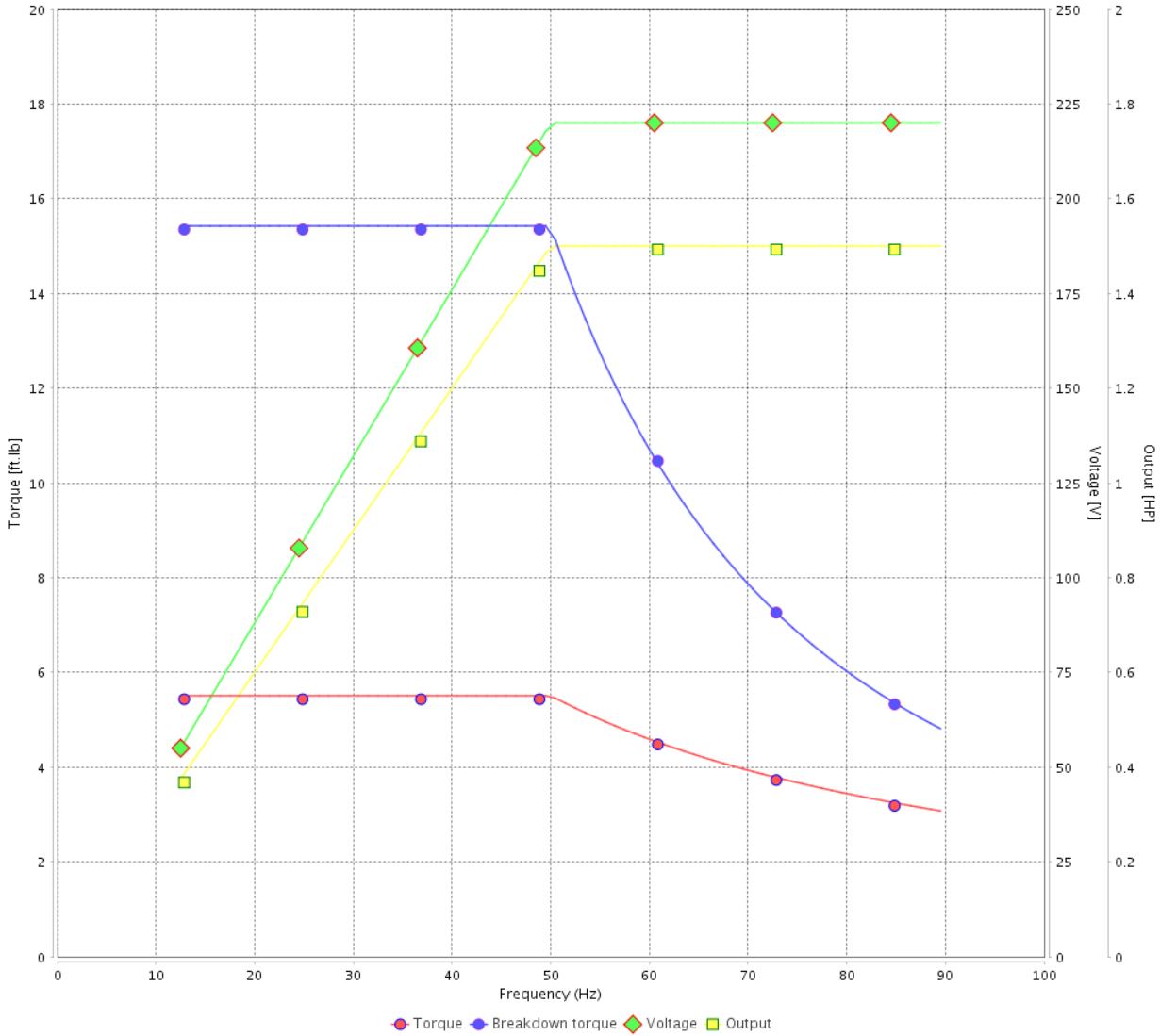
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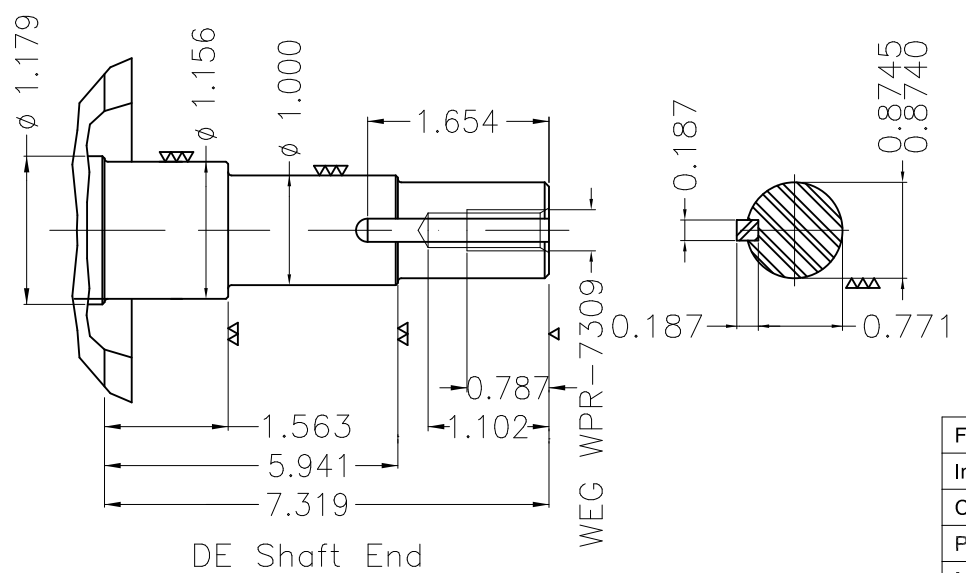
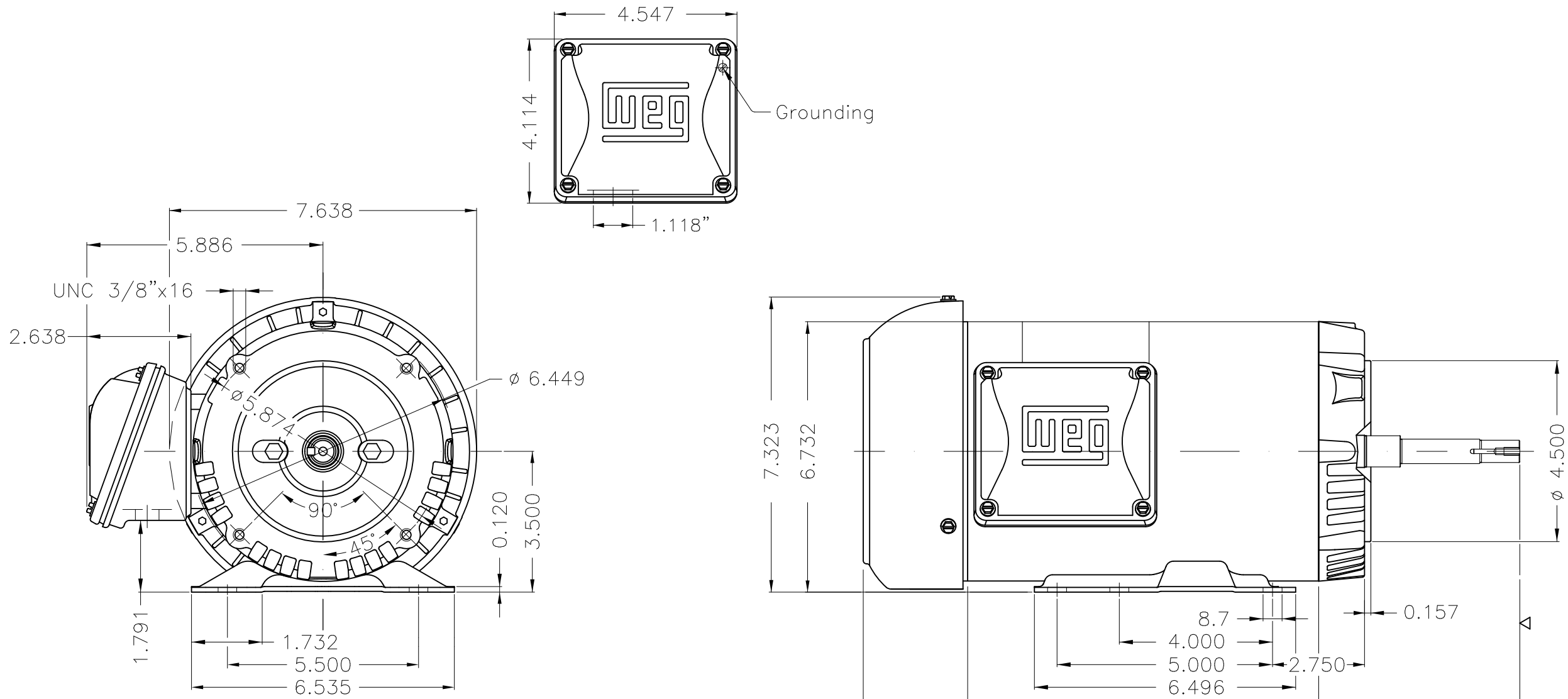
A

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	Product Engineering	WDD	SHEET	1 / 1	

1.5 HP 04 Poles 60 Hz

