

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JP Pump NEMA Premium Efficiency Three-Phase	Product code :	14807035	
		Catalog # :	00112ET3E145JP-S	
Frame	: 143/5JP	Cooling method	: IC411 - TEFC	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation ¹	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight ²	: 38.6 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.1597 sq.ft.lb	
Design	: B			
Output [HP]	1	1	1	
Poles	6	6	6	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.16/1.58	3.74/1.87	3.41/1.81	
L. R. Amperes [A]	18.3/9.16	16.5/8.23	16.7/8.87	
LRC [A]	5.8x(Code J)	4.4x(Code F)	4.9x(Code G)	
No load current [A]	2.03/1.01	2.00/1.00	2.02/1.07	
Rated speed [RPM]	1145	915	930	
Slip [%]	4.58	8.50	7.00	
Rated torque [ft.lb]	4.59	5.74	5.65	
Locked rotor torque [%]	229	170	200	
Breakdown torque [%]	280	200	229	
Service factor		1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	55s (cold) 31s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	50.0 dB(A)	47.0 dB(A)	47.0 dB(A)	
Efficiency (%)	25%	79.5	82.0	80.4
	50%	80.0	80.1	79.4
	75%	82.5	80.1	80.4
	100%	82.5	77.3	78.6
Power Factor	25%	0.28	0.33	0.31
	50%	0.50	0.58	0.54
	75%	0.63	0.71	0.68
	100%	0.72	0.79	0.76
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	: 94 lb	
		Max. compression	: 132 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 3.49A SF 1.00 SFA 3.49A				
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



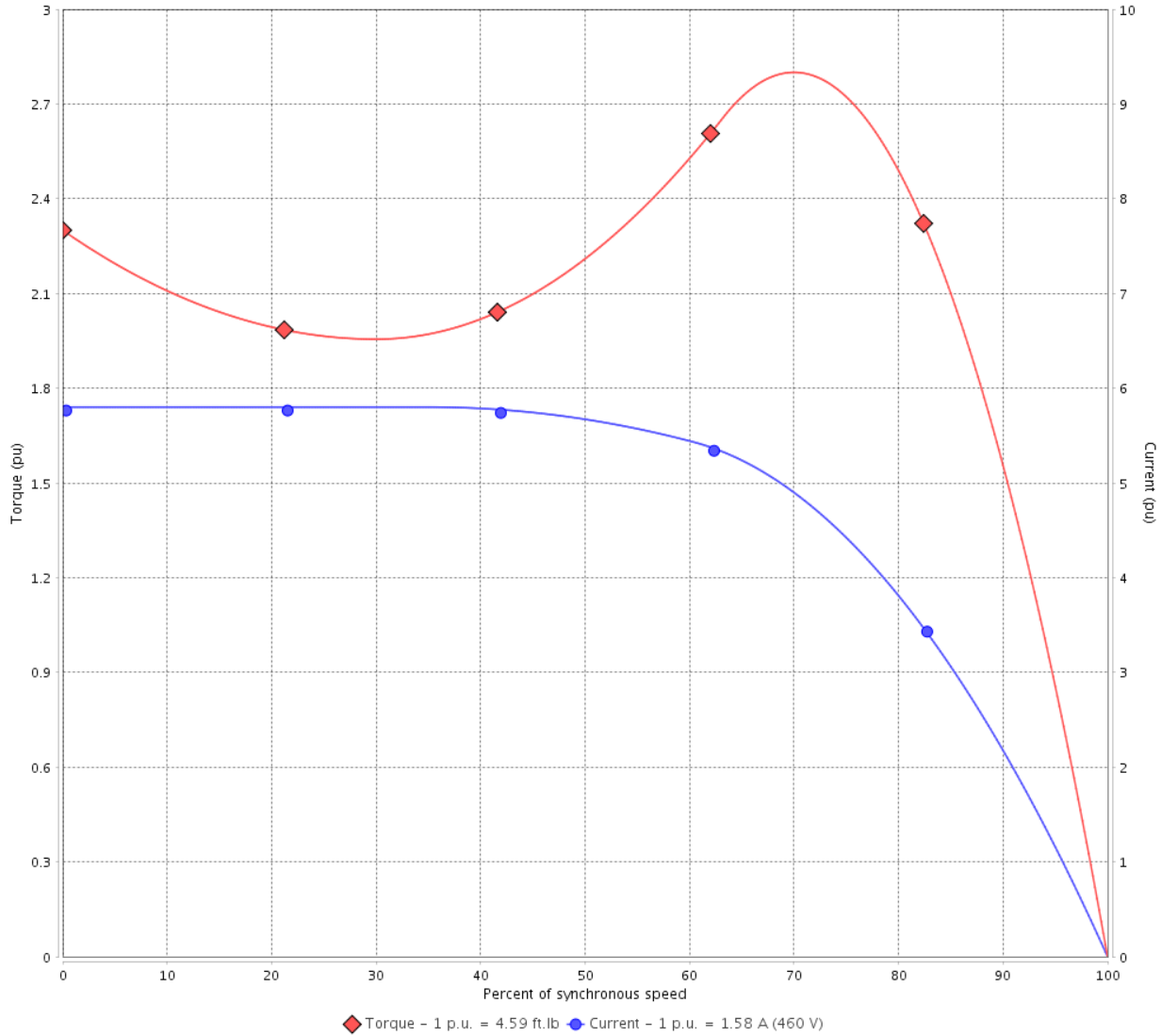
Customer :

Product line : JP Pump NEMA Premium
Efficiency Three-Phase

Product code : 14807035

Catalog # : 00112ET3E145JP-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 3.16/1.58 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.59 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1145 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



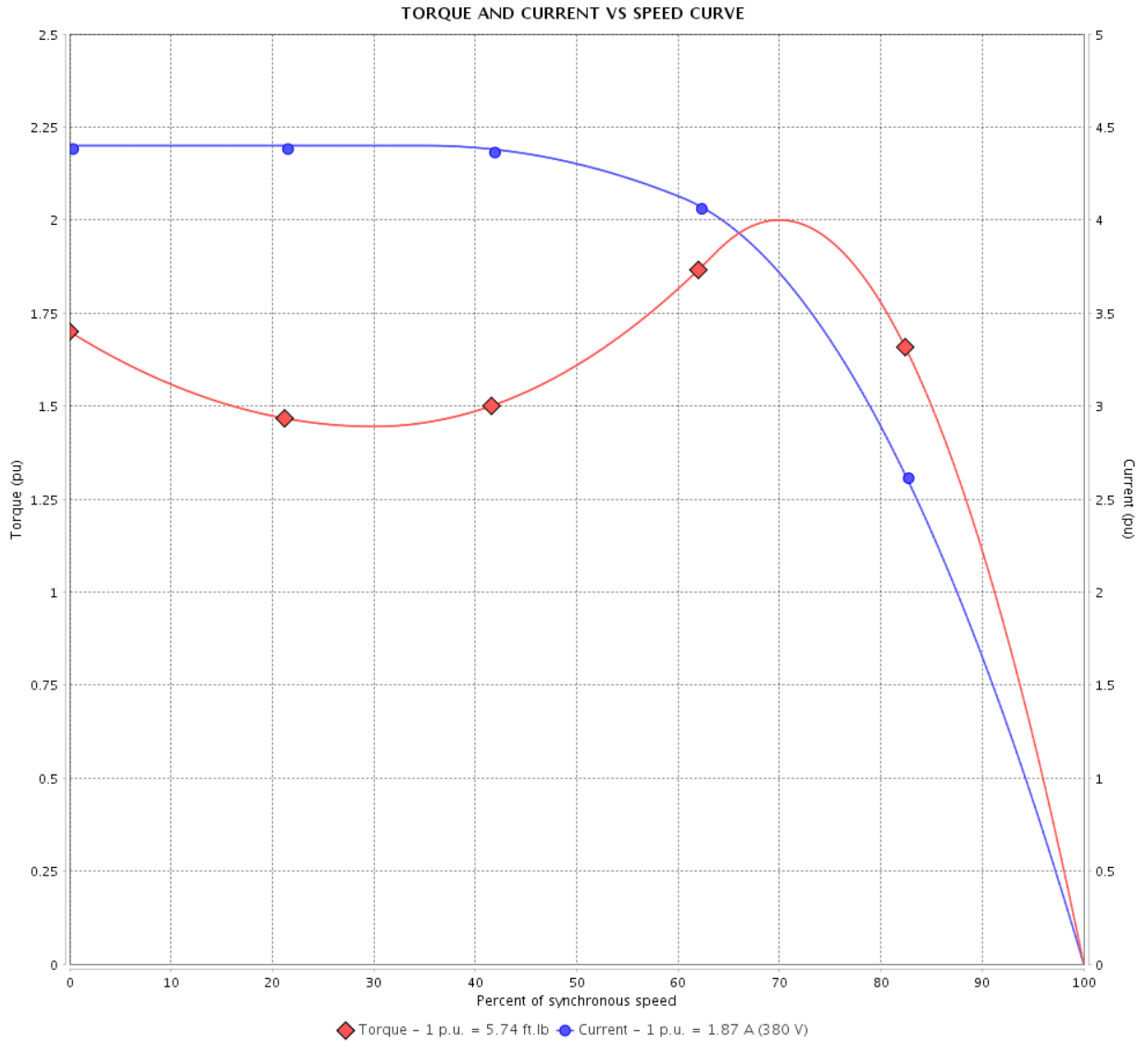
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JP Pump NEMA Premium Efficiency Three-Phase

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Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A
 LRC : 4.4
 Rated torque : 5.74 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 200 %
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 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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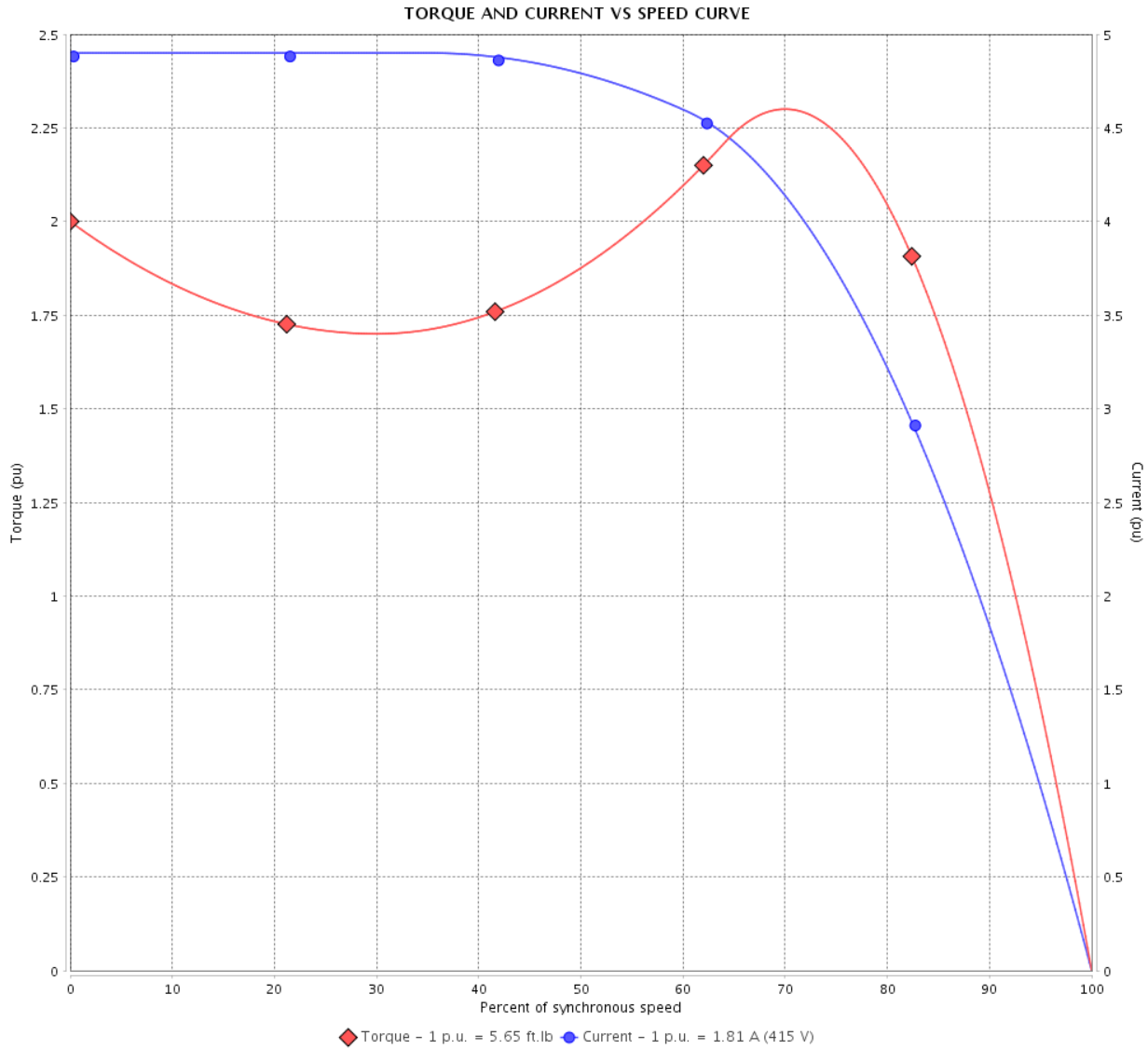


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Performance : 220/415 V 50 Hz 6P

Rated current	: 3.41/1.81 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 5.65 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 930 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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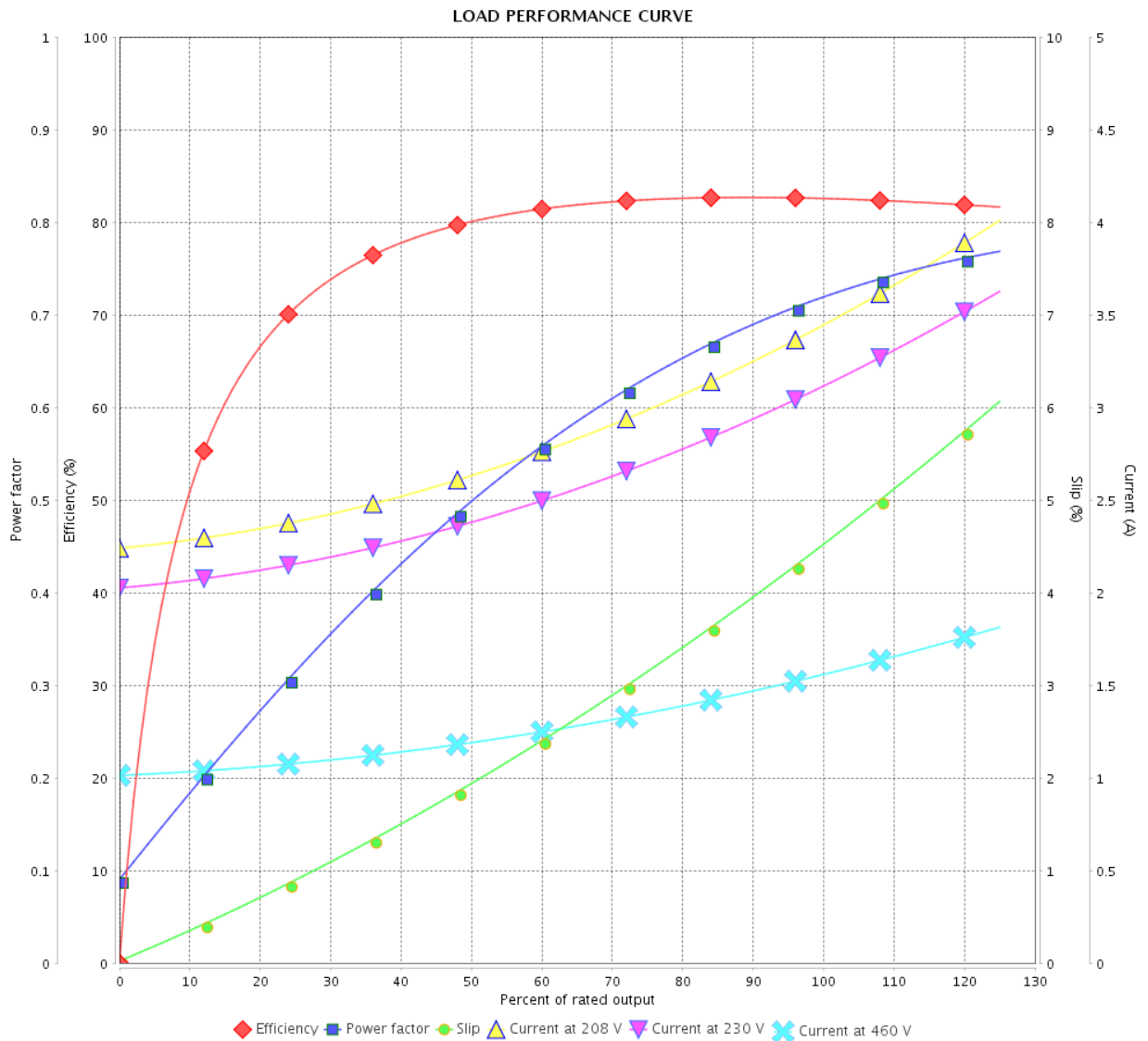


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Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A
 LRC : 5.8
 Rated torque : 4.59 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 280 %
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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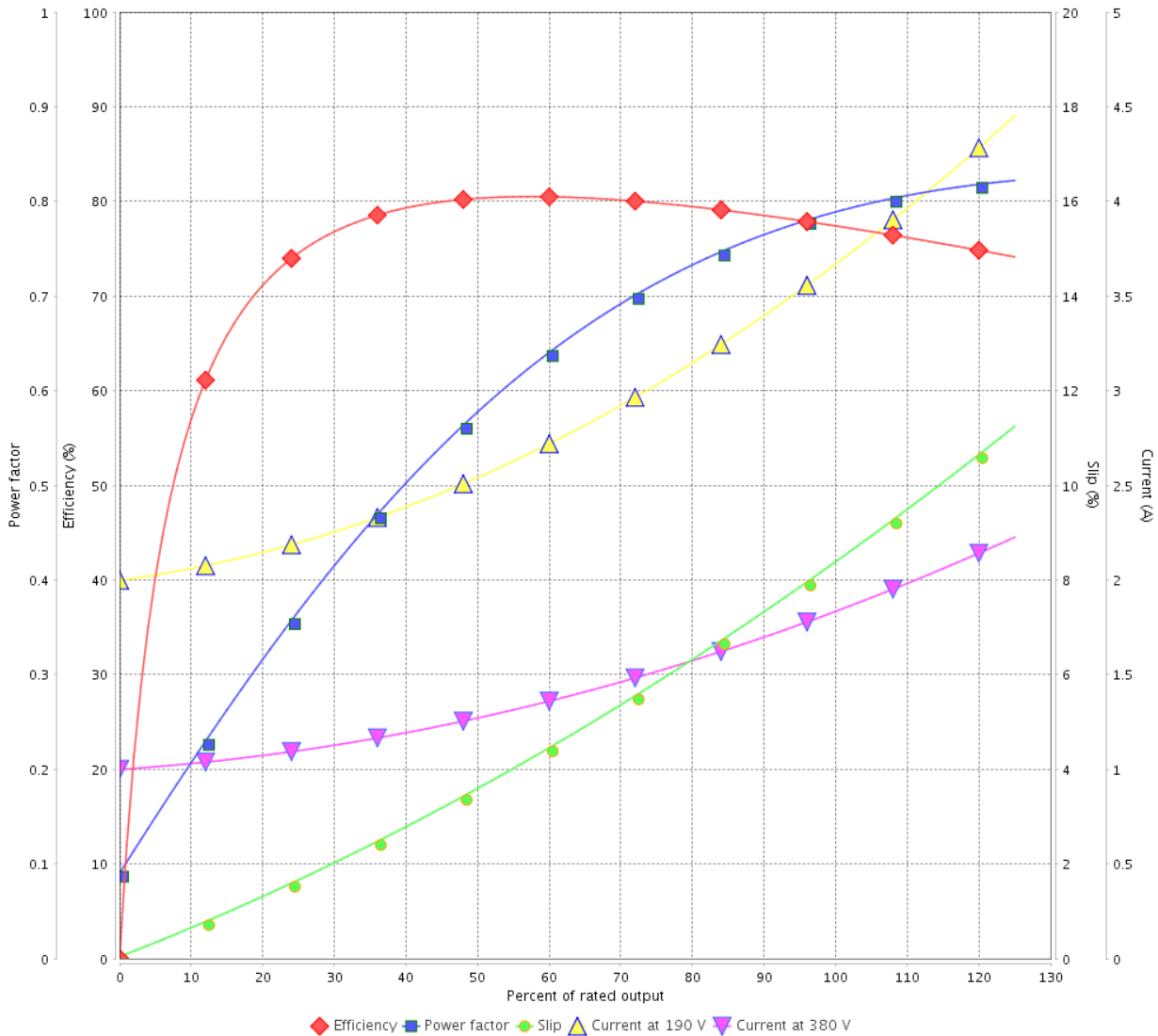
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Rated current : 3.74/1.87 A
LRC : 4.4
Rated torque : 5.74 ft.lb
Locked rotor torque : 170 %
Breakdown torque : 200 %
Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
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Design : B

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Three Phase Induction Motor - Squirrel Cage

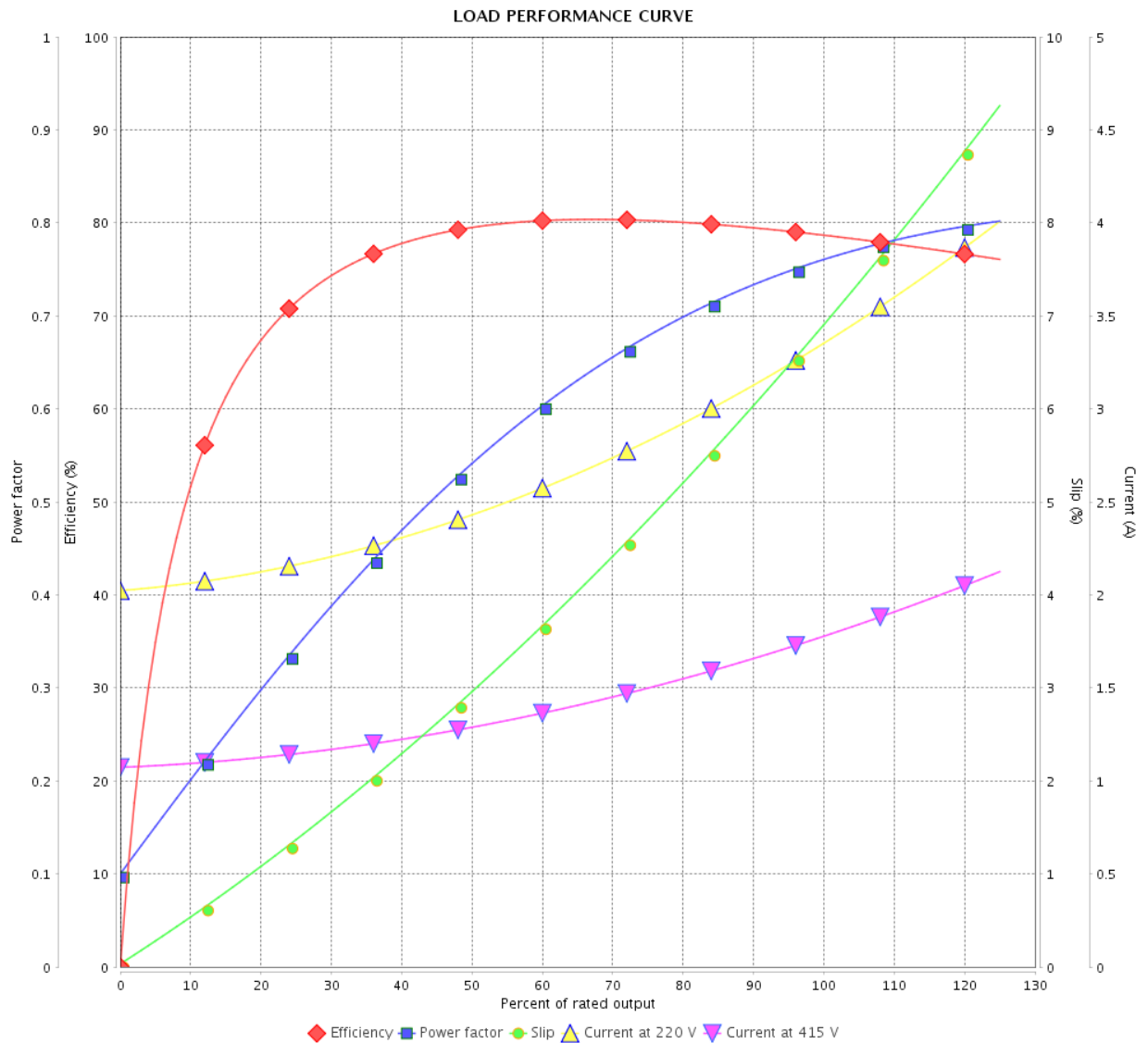


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THERMAL LIMIT CURVE



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Service factor :
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

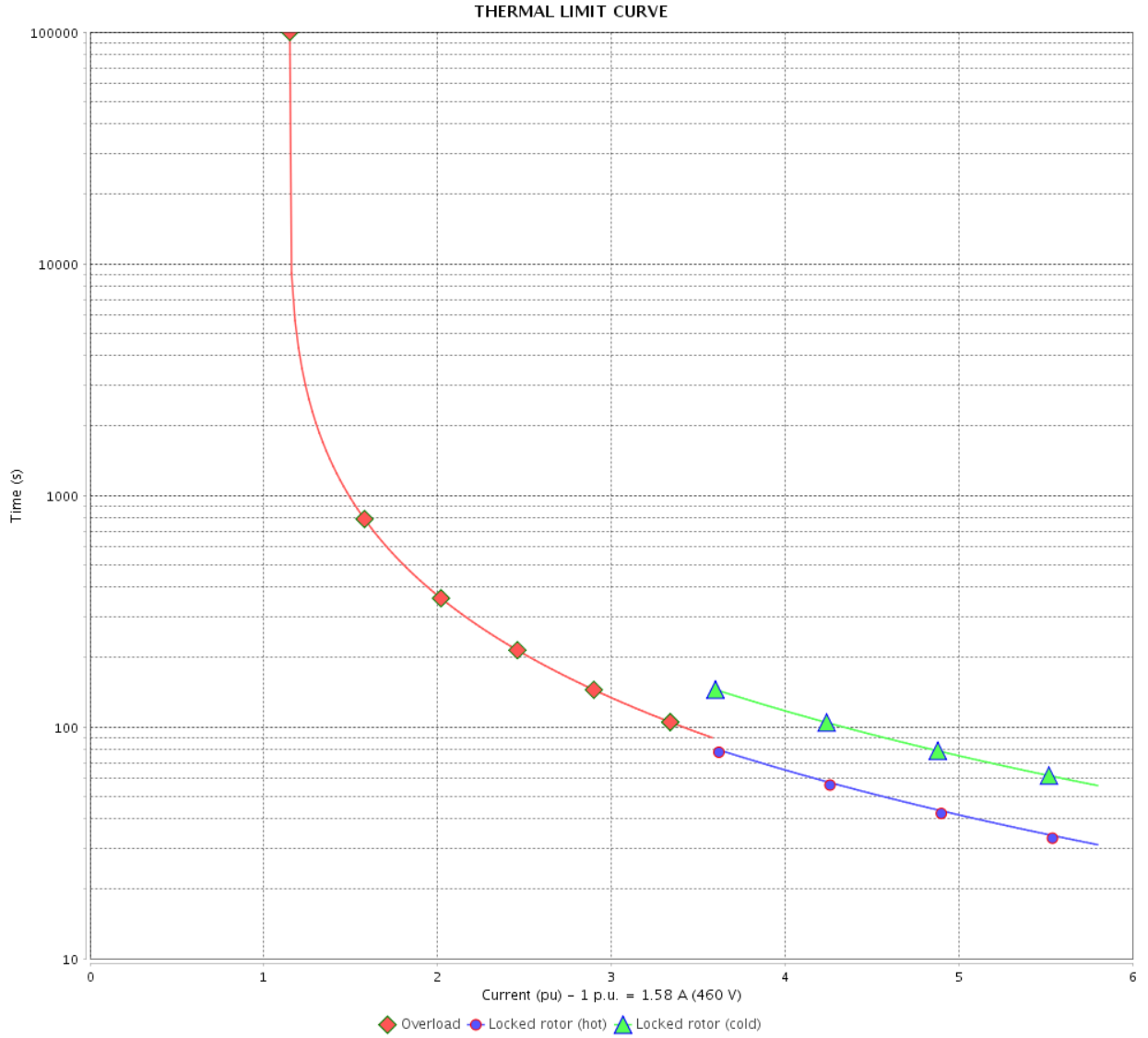
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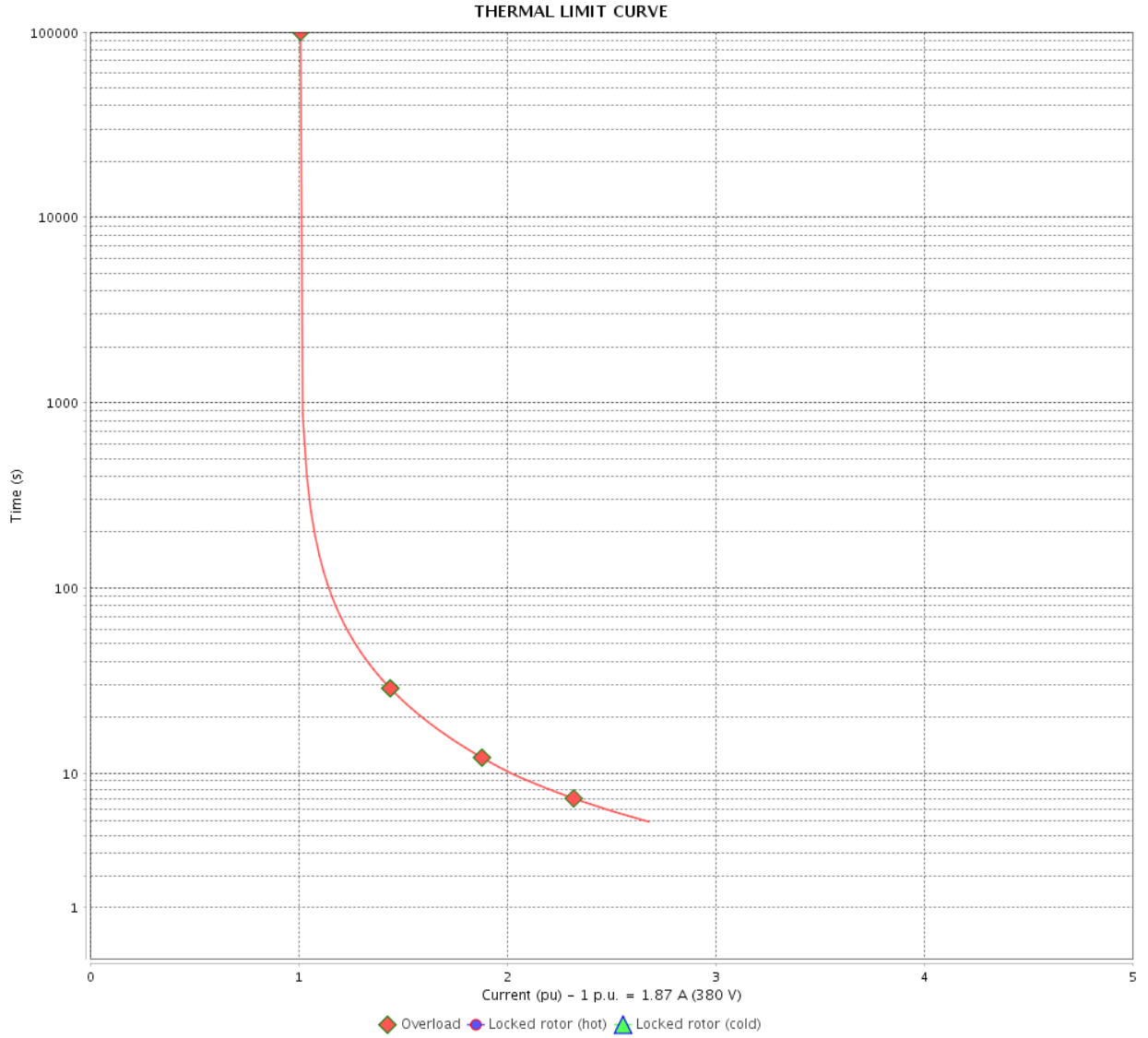
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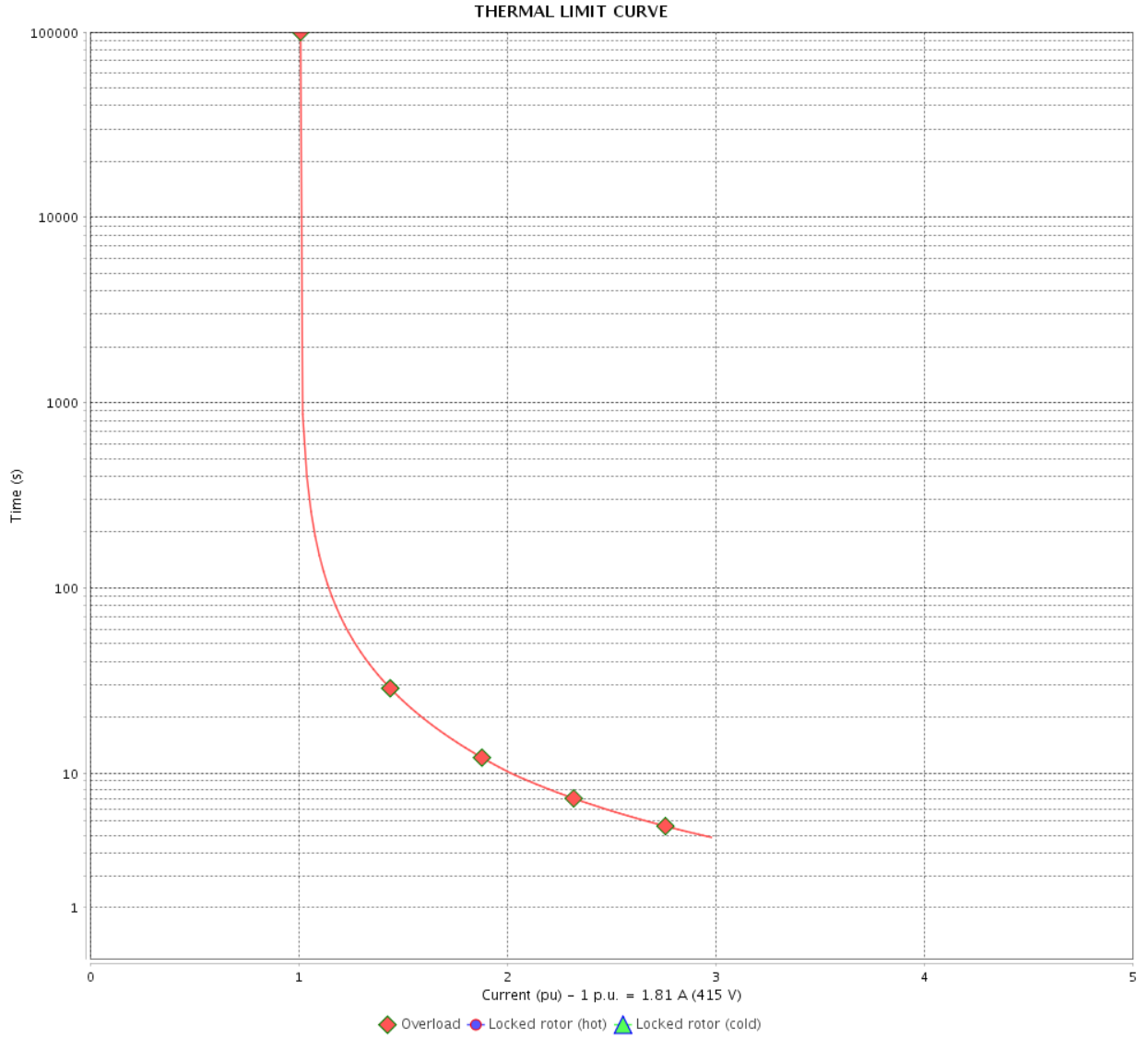
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



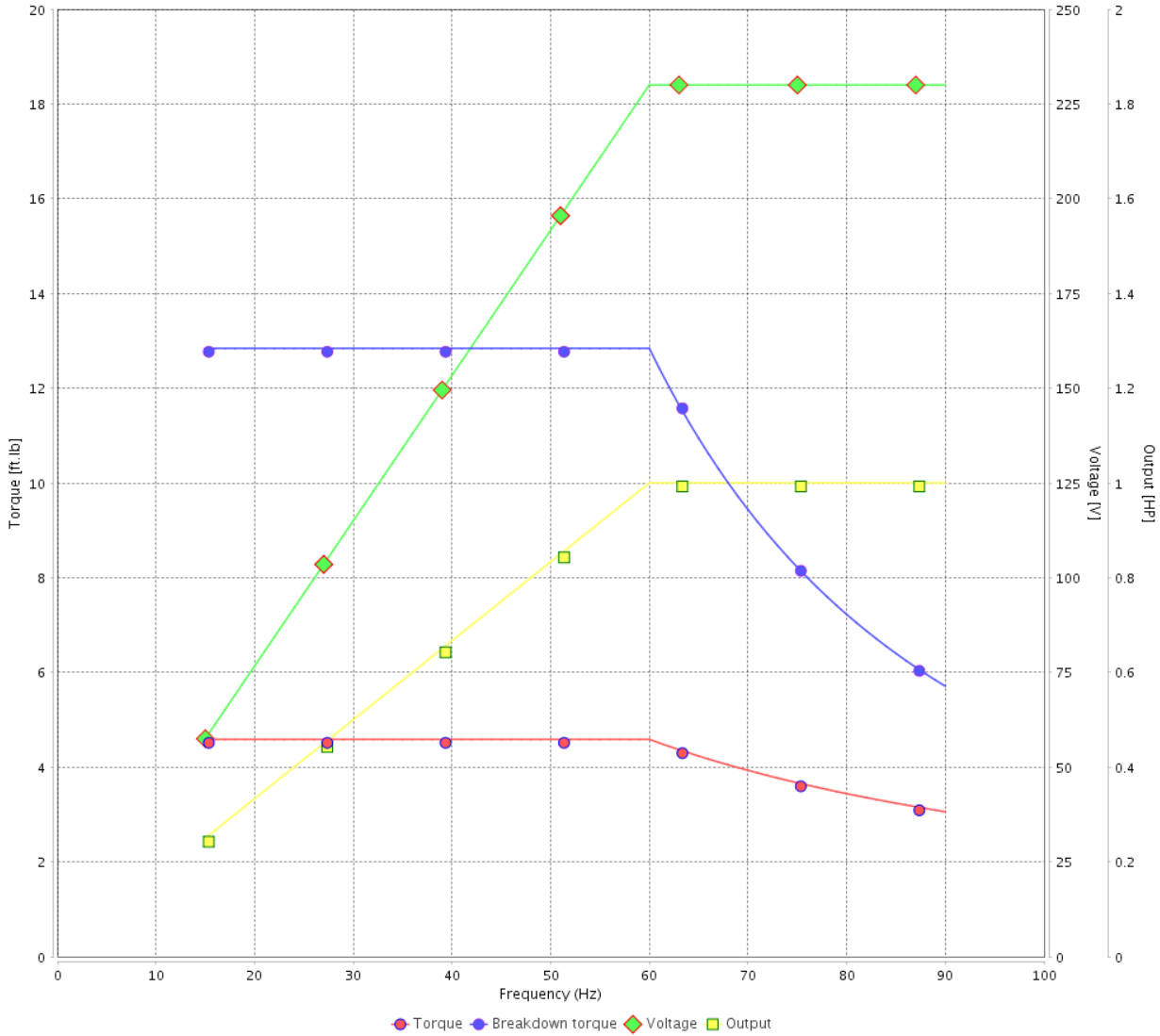
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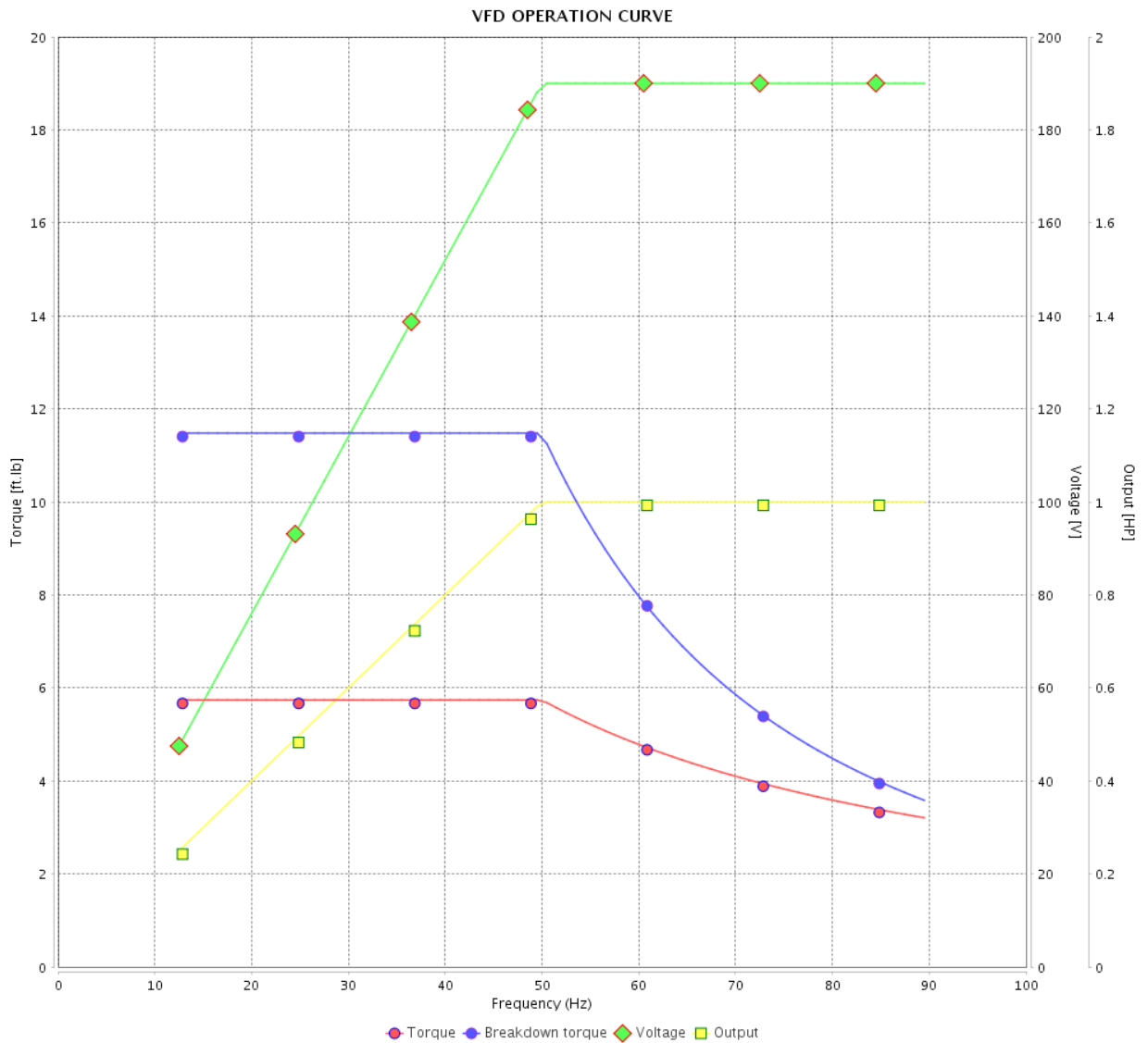


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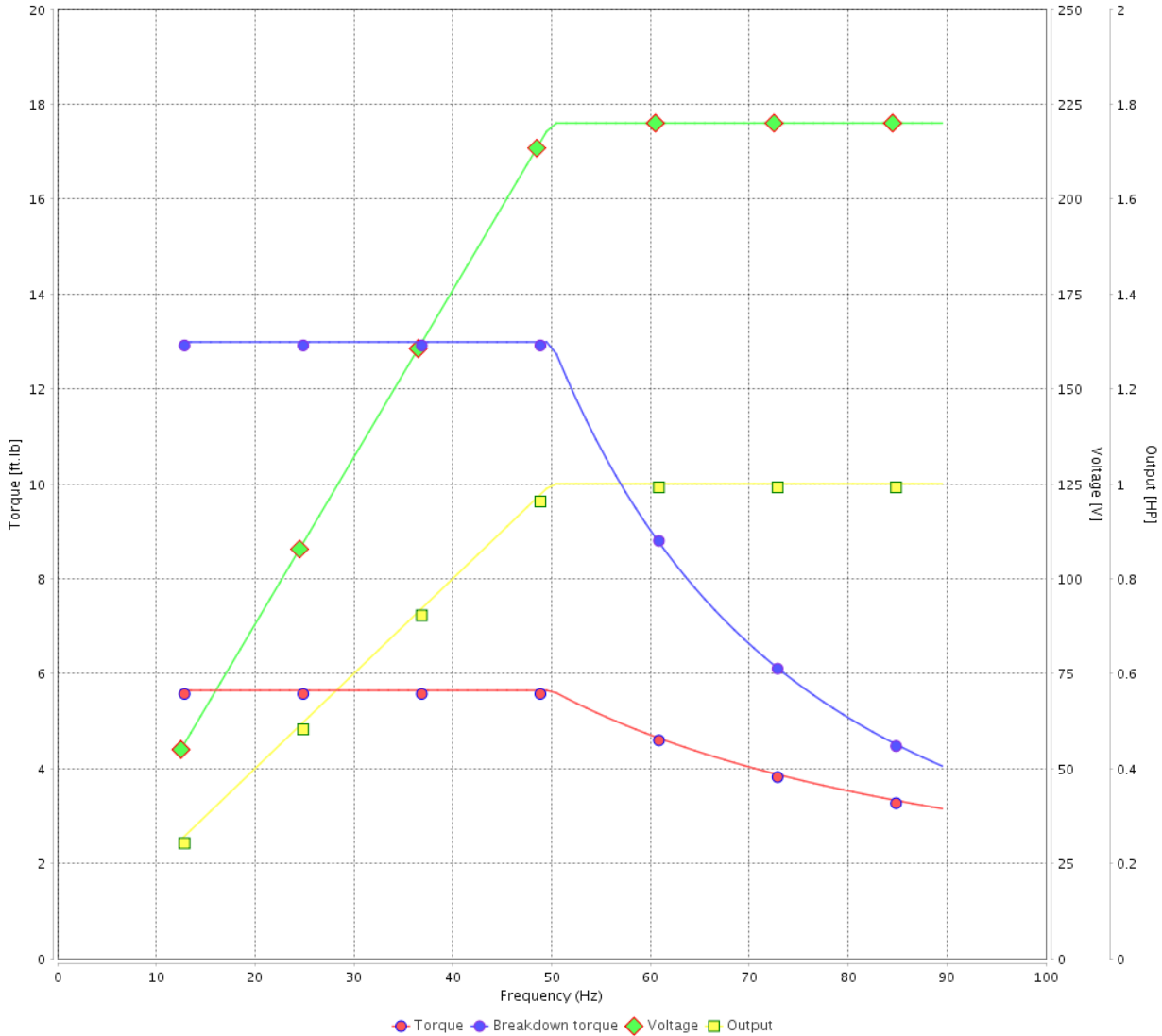
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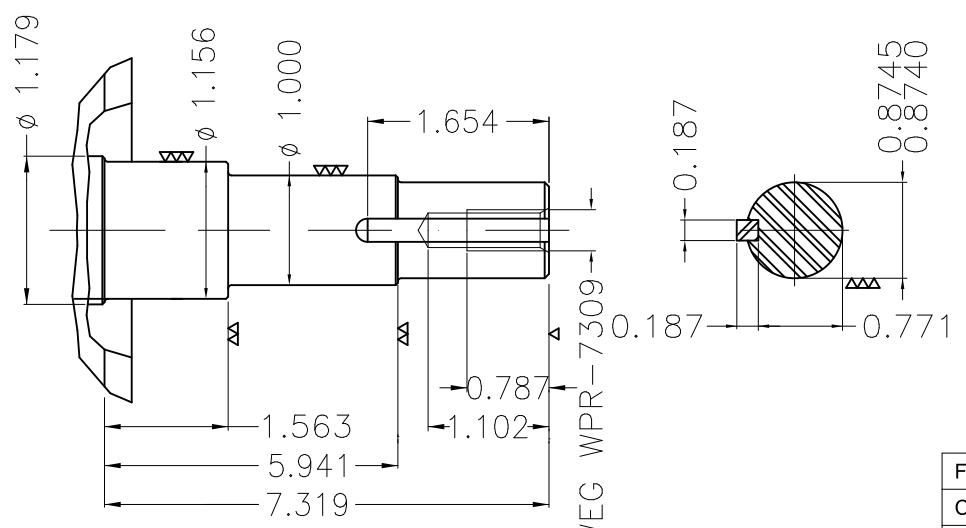
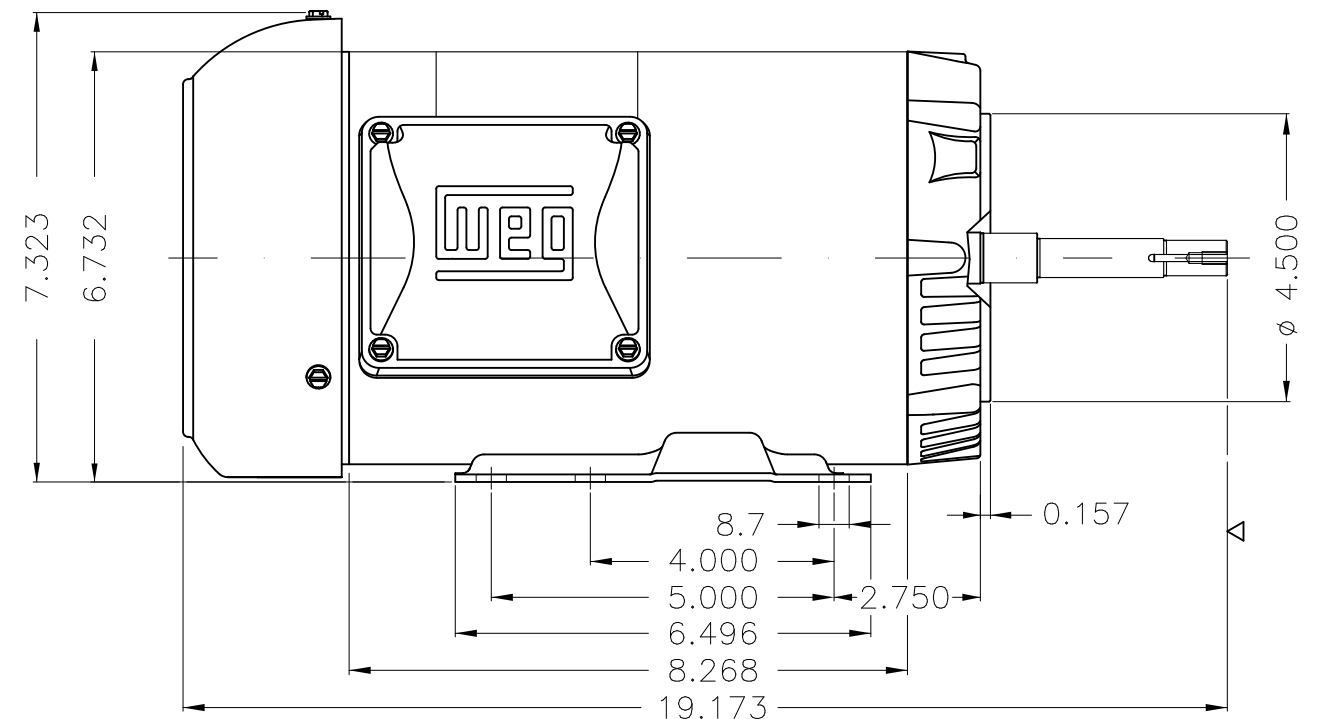
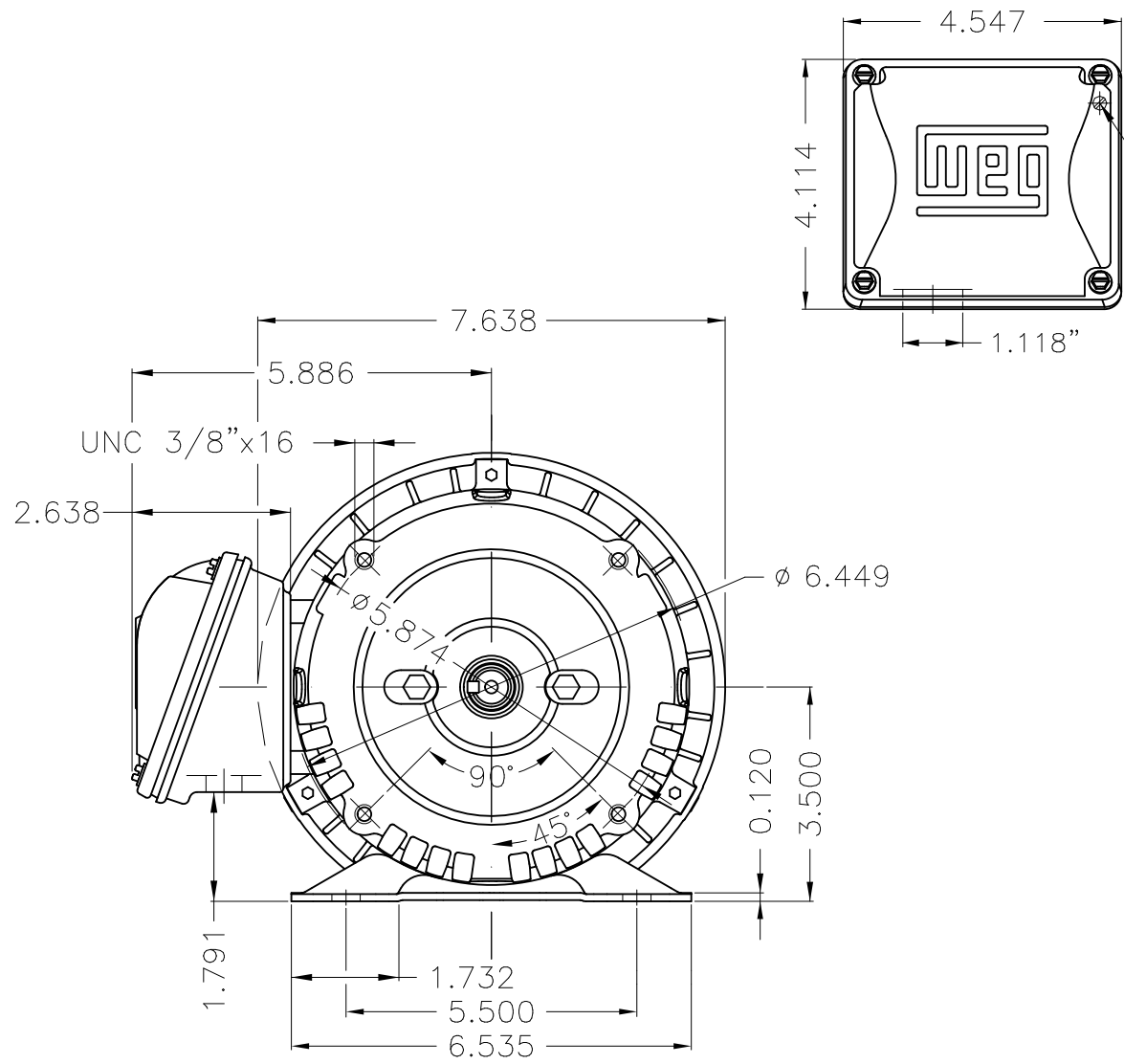
A

B

C

D

E



DE Shaft End

EUNC 3/8"-16 WEG WPR-7309

Fan cover - steel plate						
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 JP 5/50 PREM EFF			PREVIEW WDD		REL DT.	WMO
CHECKED			FRAME 143/5JP IP55 TEFC						
RELEASED									
REL DT.			Jaragua do Sul	Product Engineering	SHEET	1 / 1			

1 HP 06 Poles 60 Hz