

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13500412
		Catalog # :	00236OT3E145JMV-S
Frame	: 143/5JM	Cooling method	: IC01 - ODP
Insulation class	: F	Mounting	: W-6
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	: 36.8 lb
Design	: B	Moment of inertia (J)	: 0.1151 sq.ft.lb
Output [HP]	2	2	2
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	4.84/2.42	5.82/2.91	5.26/2.79
L. R. Amperes [A]	43.1/21.5	40.2/20.1	40.0/21.2
LRC [A]	8.9x(Code K)	6.9x(Code H)	7.6x(Code J)
No load current [A]	1.83/0.917	1.81/0.906	1.84/0.978
Rated speed [RPM]	3510	2890	2900
Slip [%]	2.50	3.67	3.33
Rated torque [ft.lb]	2.99	3.63	3.62
Locked rotor torque [%]	220	180	200
Breakdown torque [%]	330	250	280
Service factor		1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	25s (cold) 14s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)
Efficiency (%)	25%	83.7	85.4
	50%	84.0	84.7
	75%	85.5	85.4
	100%	85.5	84.3
Power Factor	25%	0.49	0.52
	50%	0.77	0.80
	75%	0.86	0.88
	100%	0.91	0.92
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads	
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 70 lb
		Max. compression	: 106 lb
Lubrication interval	: - -		
Lubricant amount	: - -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 5.35A SF 1.00 SFA 5.35A			
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

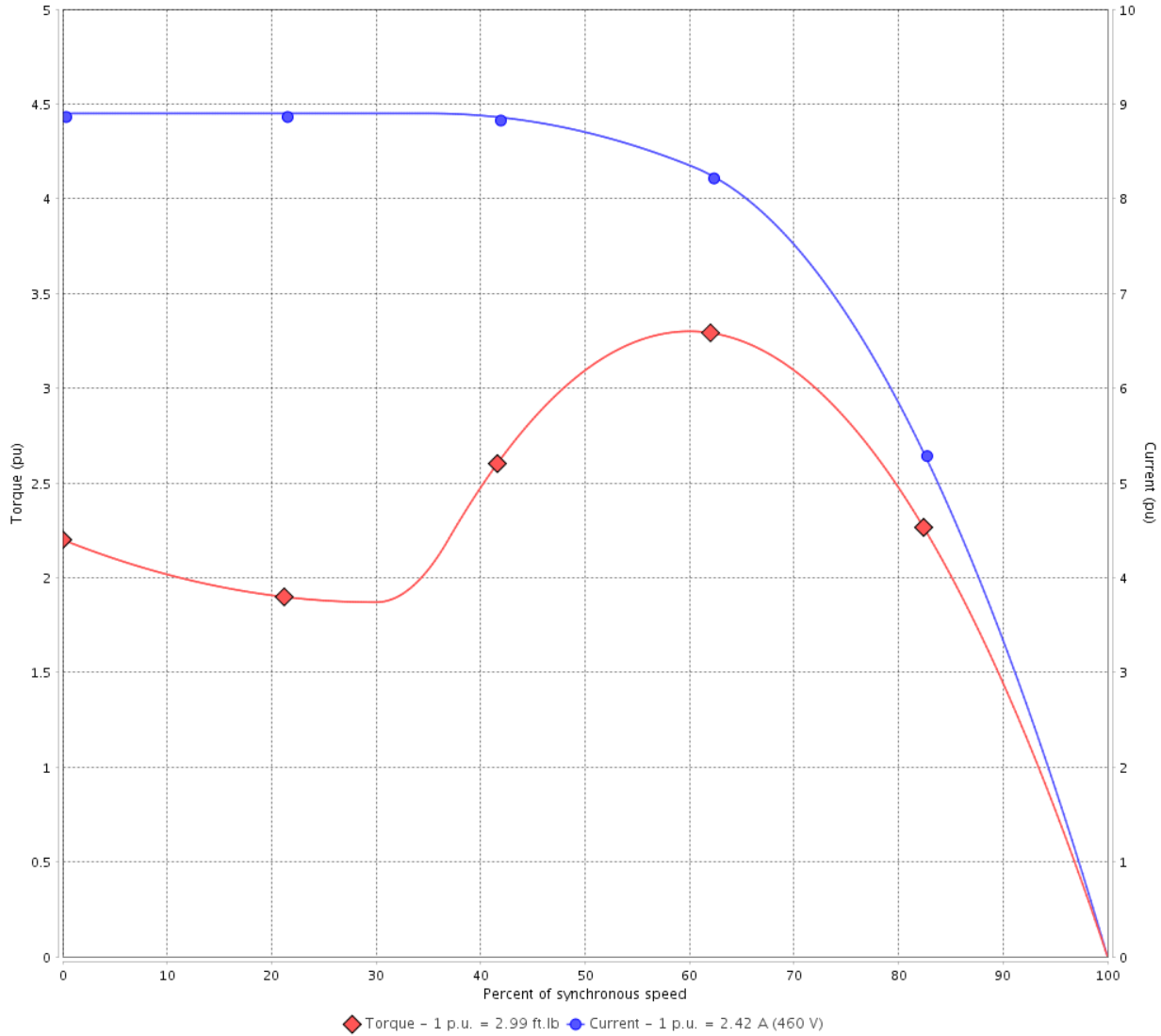
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13500412

Catalog # : 00236OT3E145JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 4.84/2.42 A	Moment of inertia (J)	: 0.1151 sq.ft.lb
LRC	: 8.9	Duty cycle	: Cont.(S1)
Rated torque	: 2.99 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 3510 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



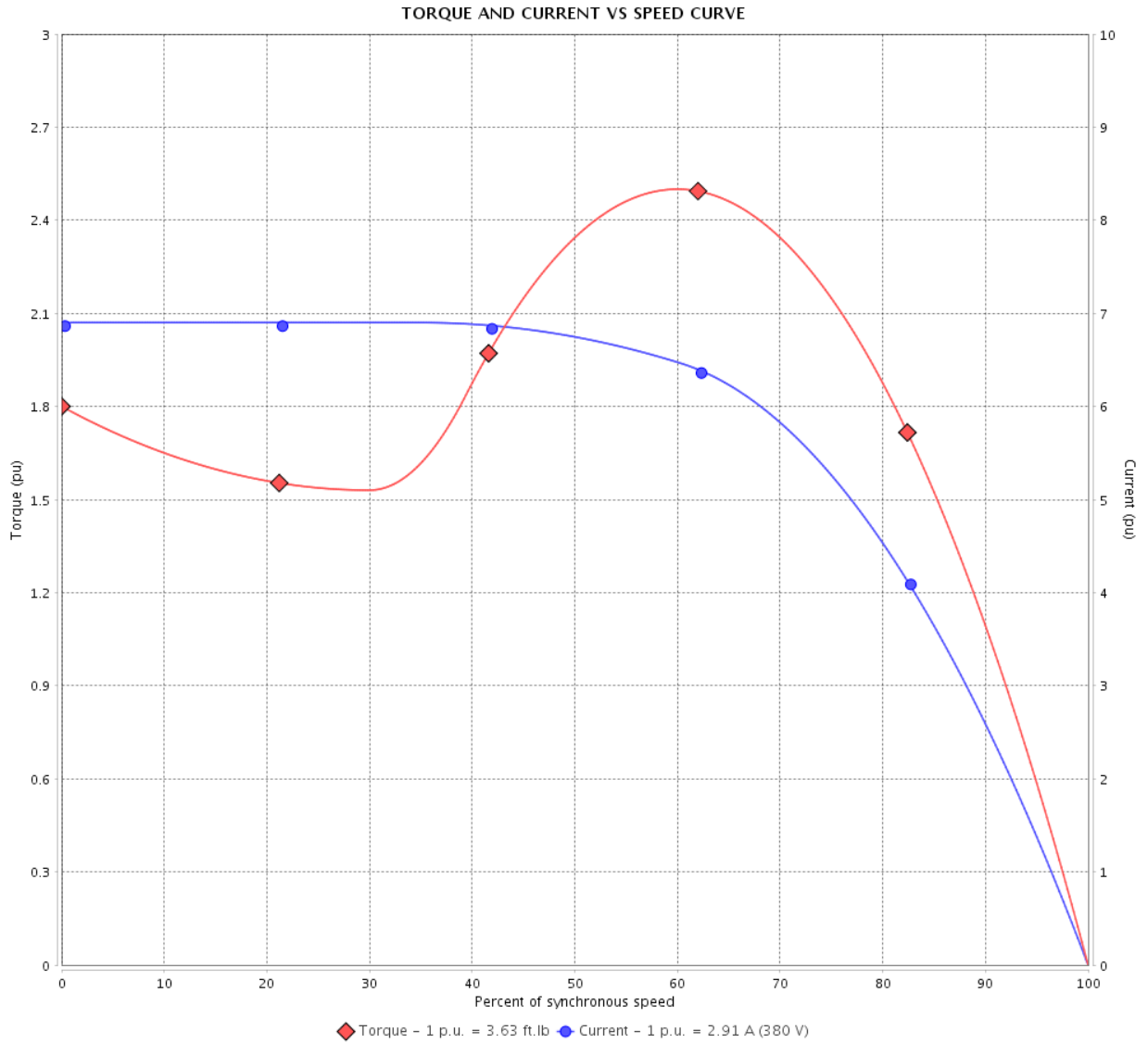
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

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Catalog # : 00236OT3E145JMV-S



Performance : 190/380 V 50 Hz 2P

Rated current : 5.82/2.91 A
 LRC : 6.9
 Rated torque : 3.63 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 250 %
 Rated speed : 2890 rpm

Moment of inertia (J) : 0.1151 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

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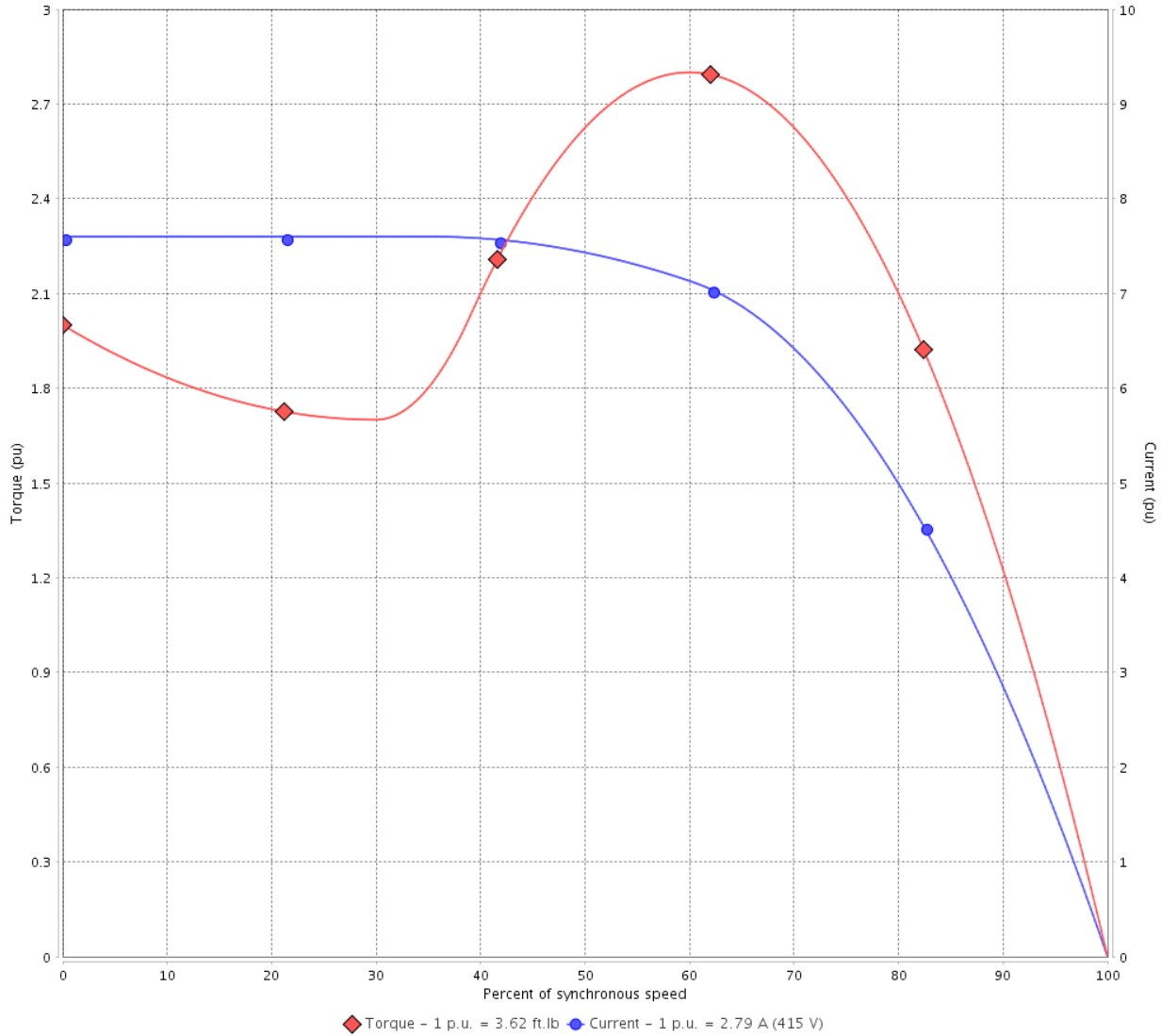
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 5.26/2.79 A	Moment of inertia (J)	: 0.1151 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 3.62 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2900 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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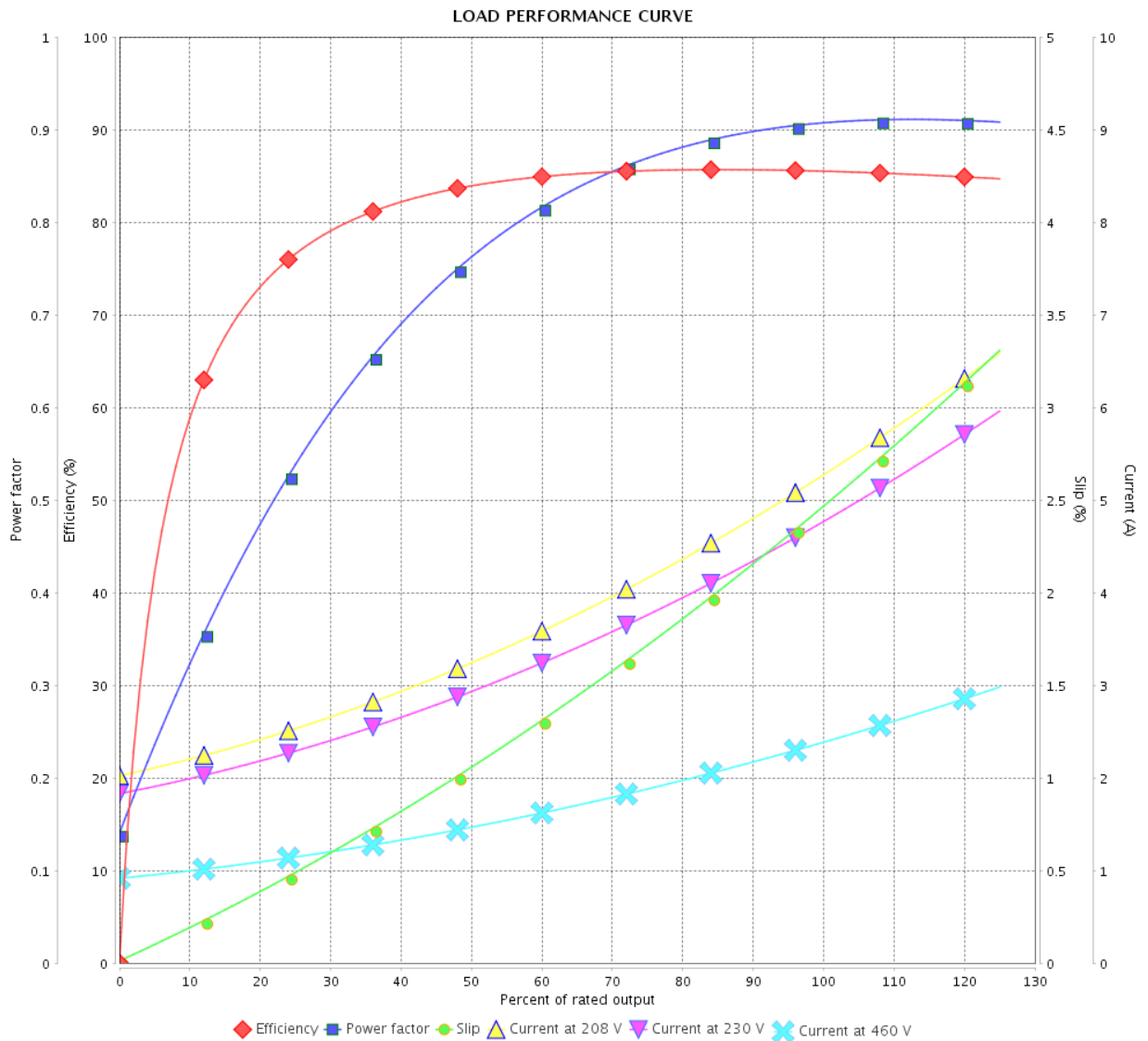


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 Locked rotor torque : 220 %
 Breakdown torque : 330 %
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Moment of inertia (J) : 0.1151 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



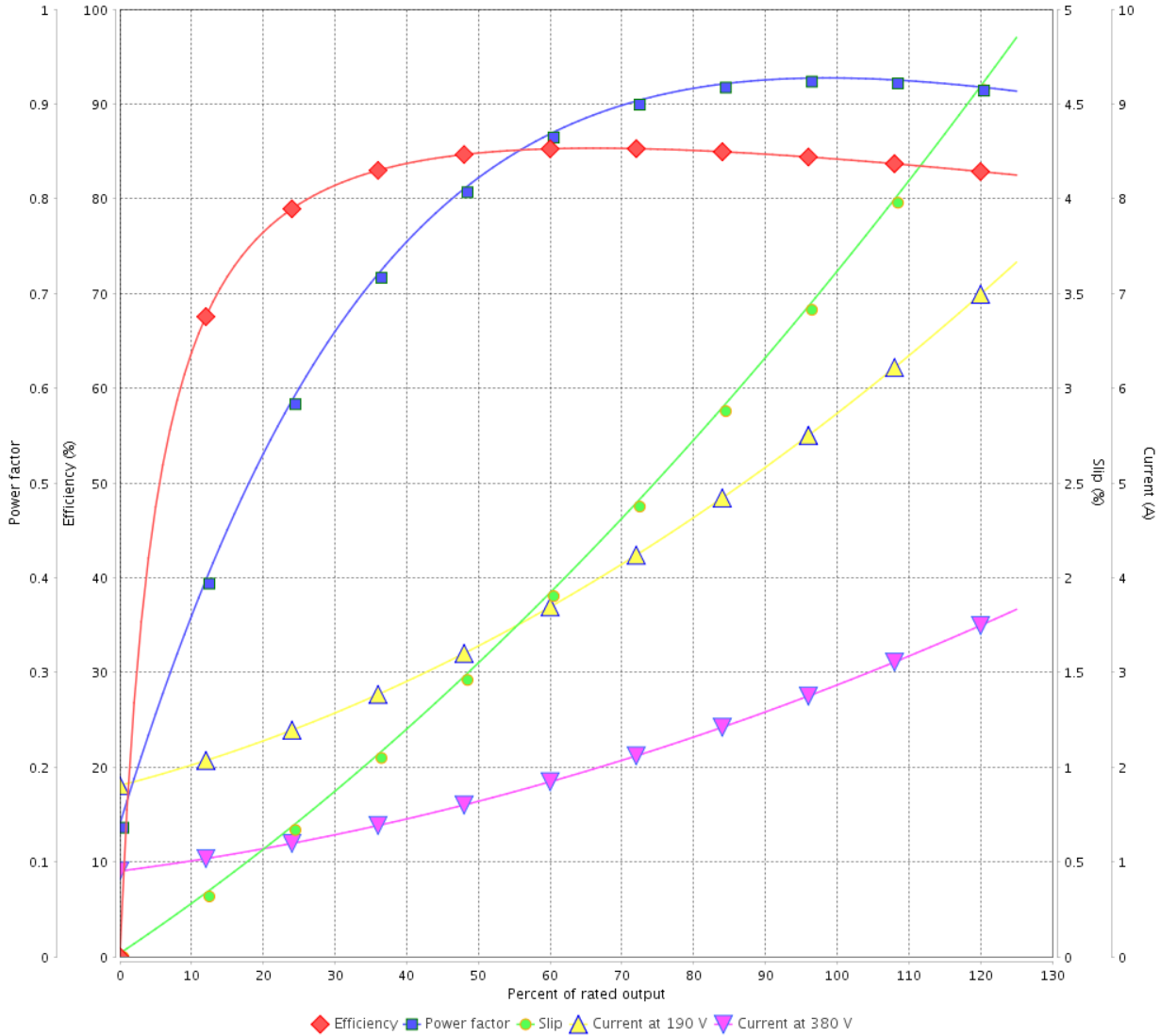
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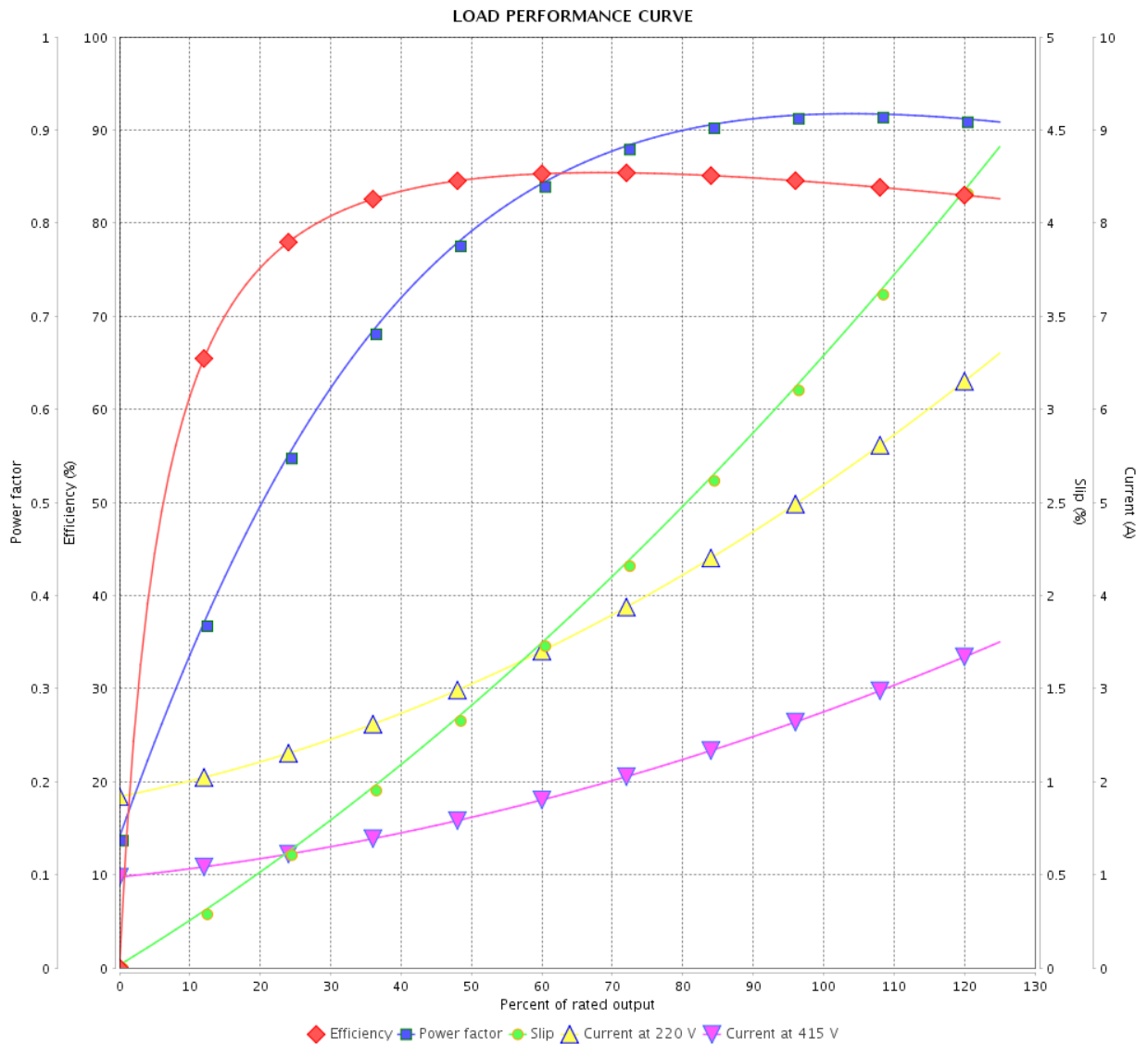


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THERMAL LIMIT CURVE

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Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

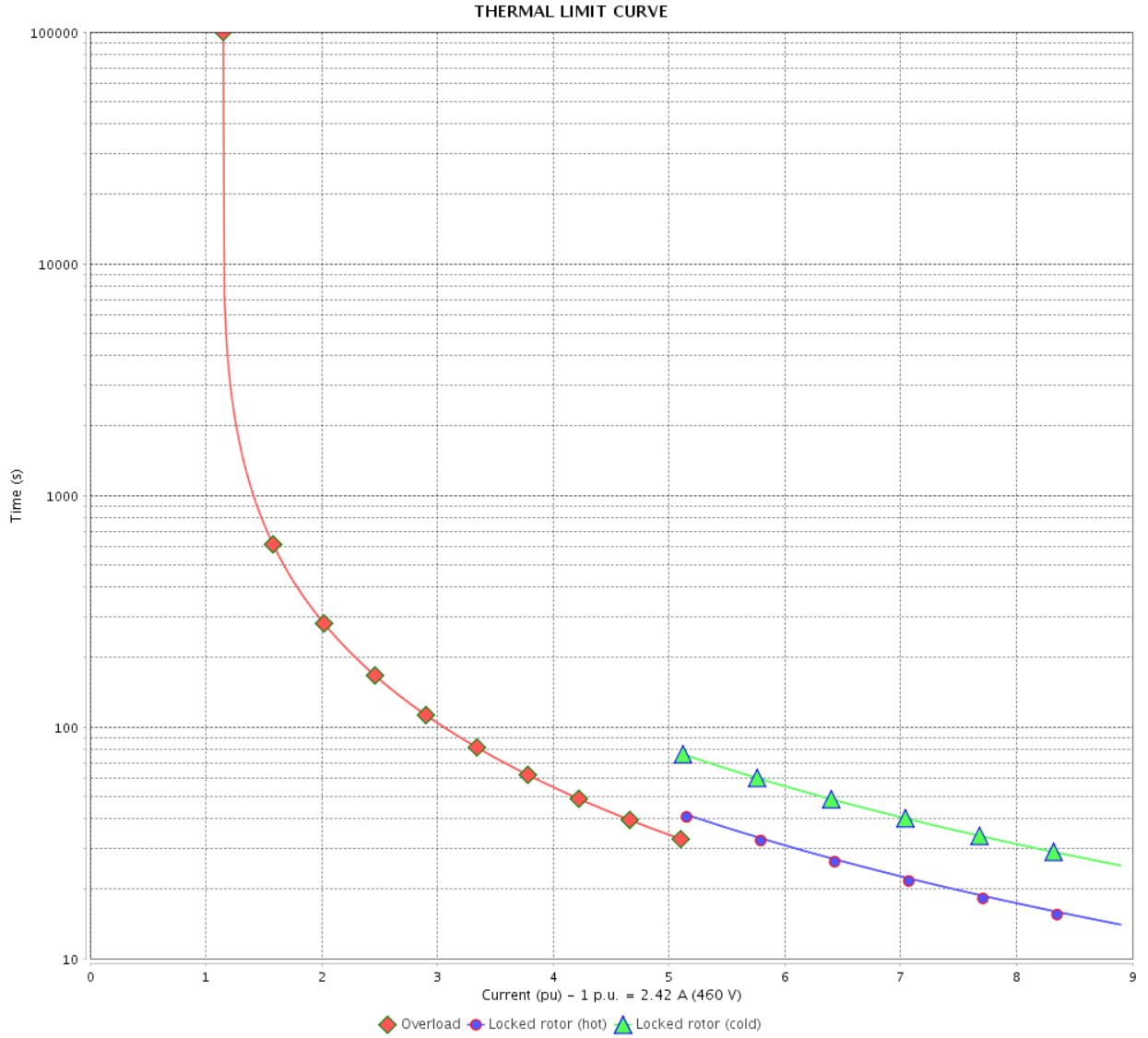
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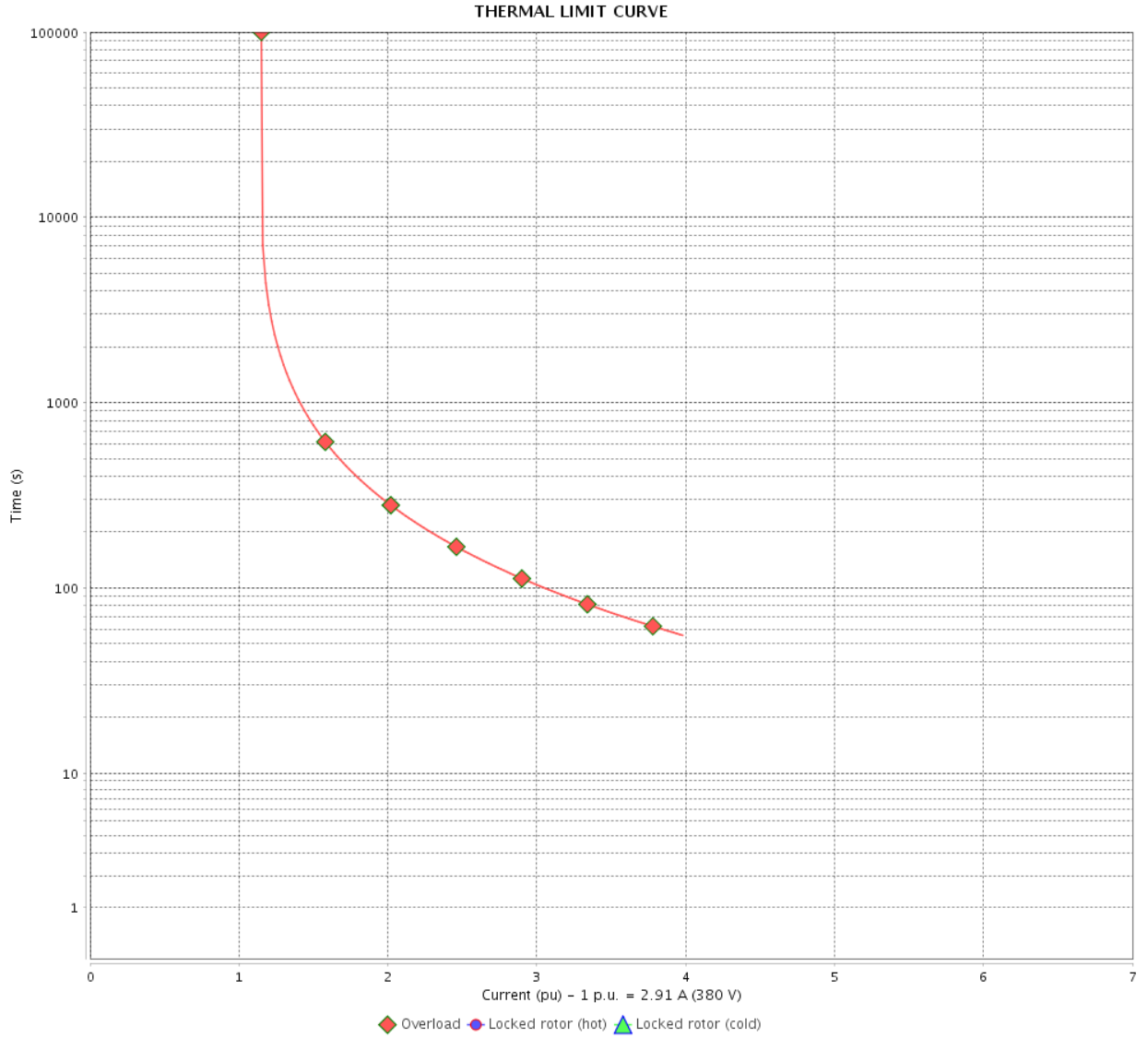
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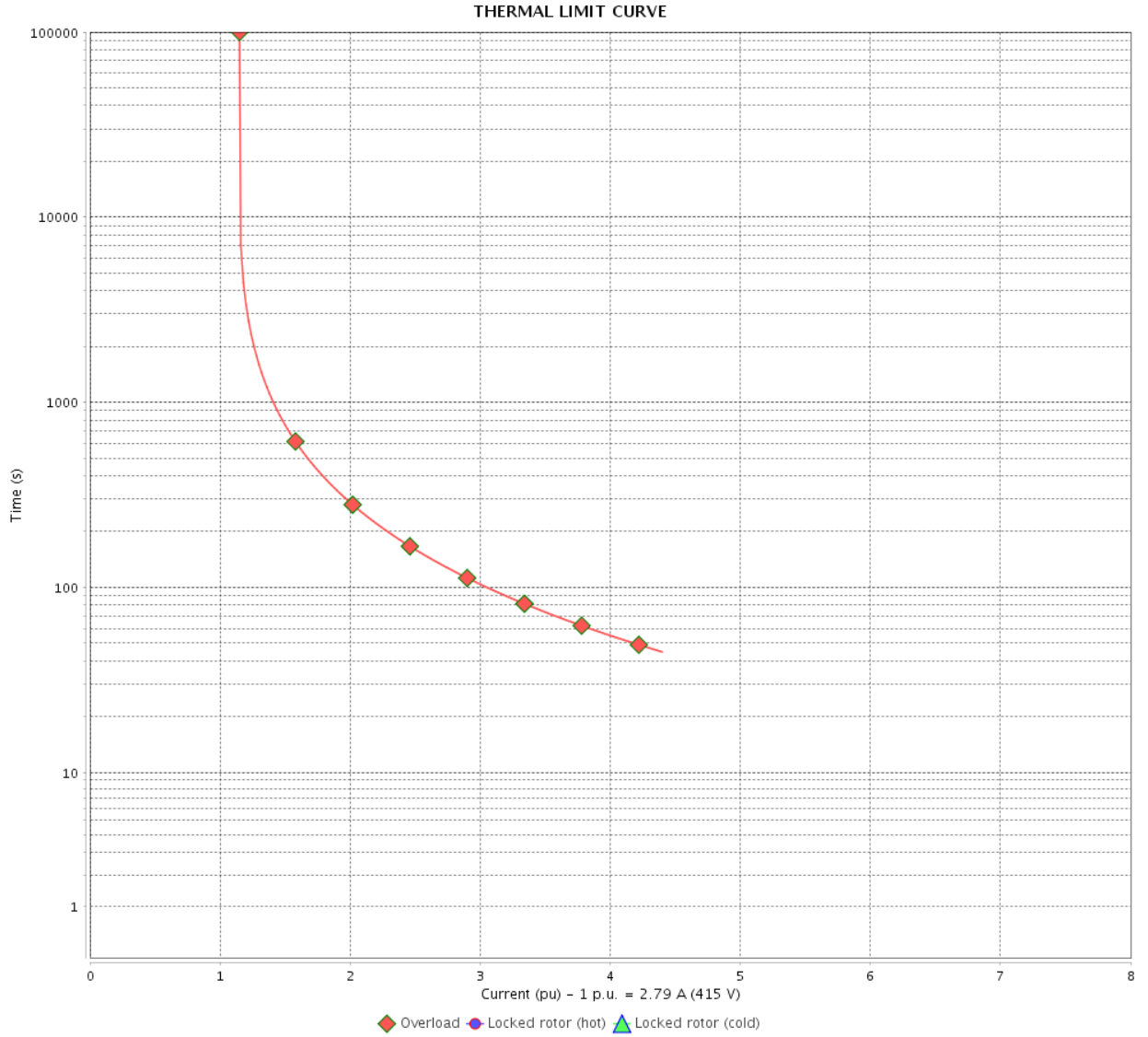
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

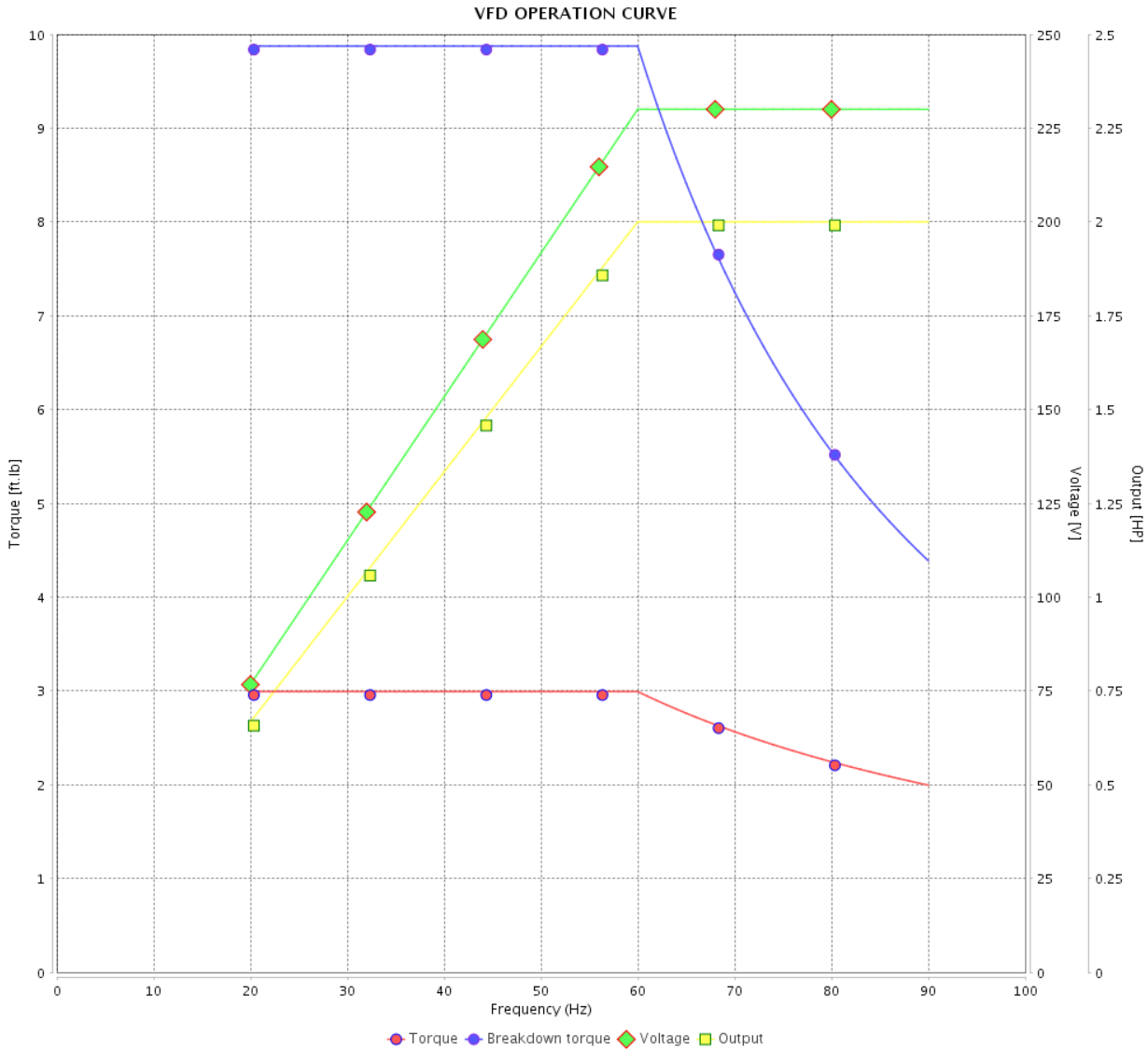


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 Service factor :
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 Design : B

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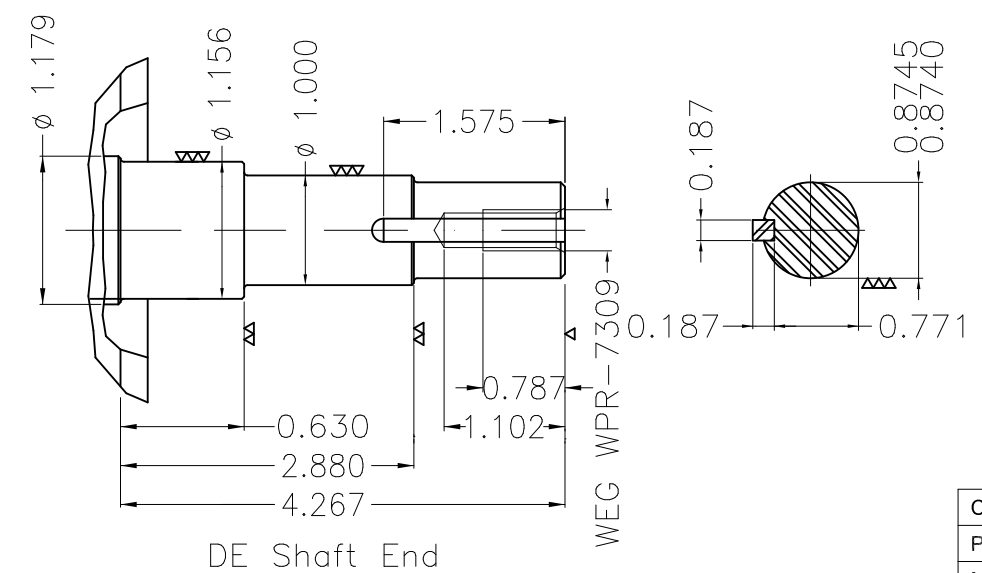
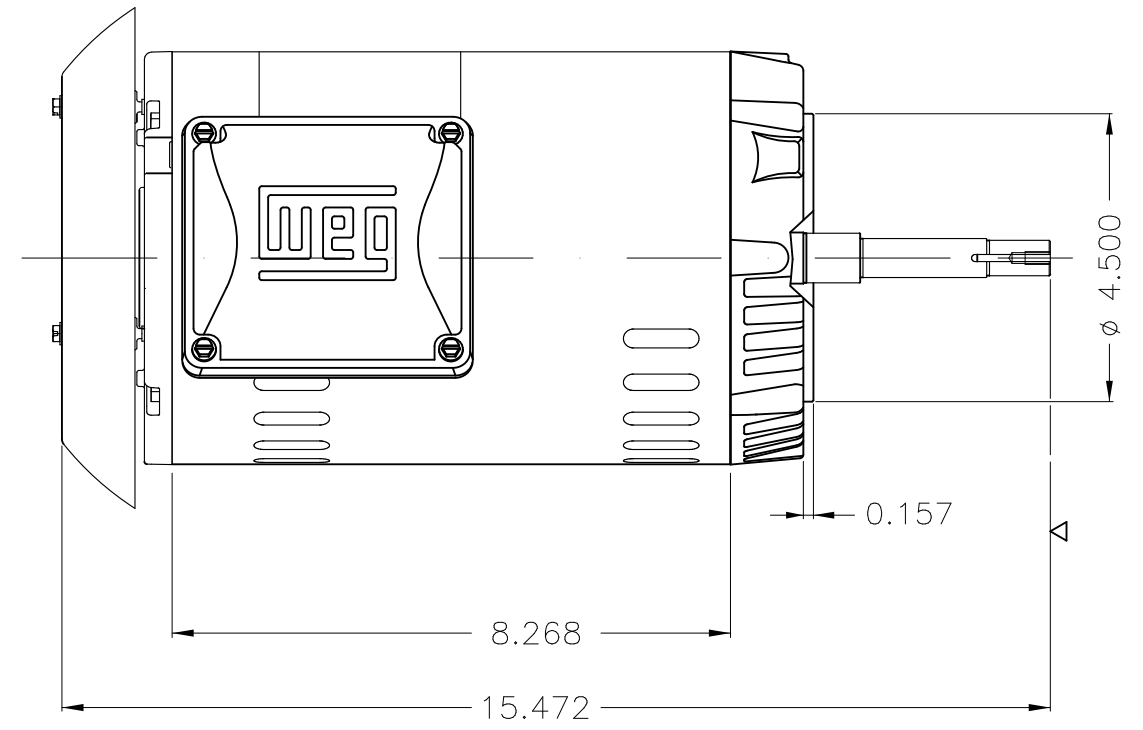
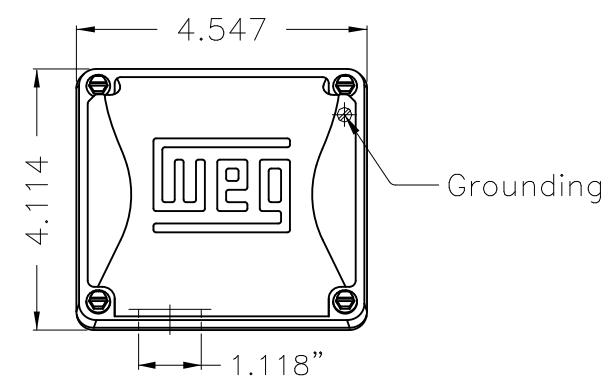
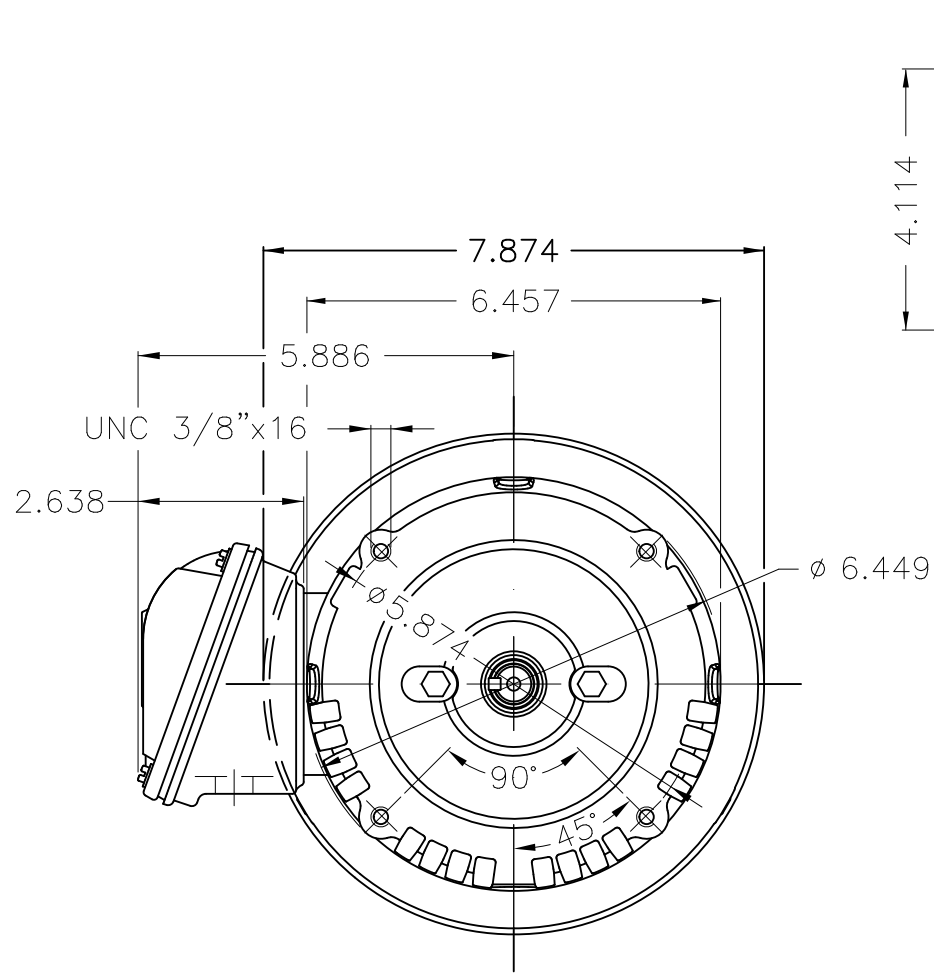
A

B

C

D

E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

Color Munsell N 1 matte black						
Painting plan 207N						
Mounting W-6/V18R(D)						
ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE VER
EXECUTED	PIRBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 187 FRAME 143/5JM IP21 ODP	PREVIEW	WDD	SHEET	1 / 1
CHECKED						
RELEASED						
REL DT.	WMO	Jaragua do Sul	Product Engineering			

2 HP 02 Poles 60 Hz