

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13173714	
		Catalog # :	00118OT3E143JM-SG	
Frame	: 143/5JM	Cooling method	: IC01 - ODP	
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	: 36.8 lb	
Design	: B	Moment of inertia (J)	: 0.1101 sq.ft.lb	
Output [HP]	1	1	1	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.02/1.51	3.44/1.72	3.15/1.67	
L. R. Amperes [A]	24.2/12.1	22.4/11.2	22.4/11.9	
LRC [A]	8.0x(Code L)	6.5x(Code J)	7.1x(Code K)	
No load current [A]	1.92/0.958	1.88/0.942	1.93/1.02	
Rated speed [RPM]	1760	1445	1450	
Slip [%]	2.22	3.67	3.33	
Rated torque [ft.lb]	2.98	3.63	3.62	
Locked rotor torque [%]	290	200	229	
Breakdown torque [%]	360	270	300	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	39s (cold) 22s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)	
Efficiency (%)	25%	79.9	80.7	
	50%	81.5	81.0	
	75%	84.0	83.2	
	100%	85.5	83.1	
Power Factor	25%	0.29	0.31	
	50%	0.51	0.55	
	75%	0.65	0.69	
	100%	0.73	0.78	
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	: 76 lb	
		Max. compression	: 113 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 3.34A SF 1.00 SFA 3.34A				
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



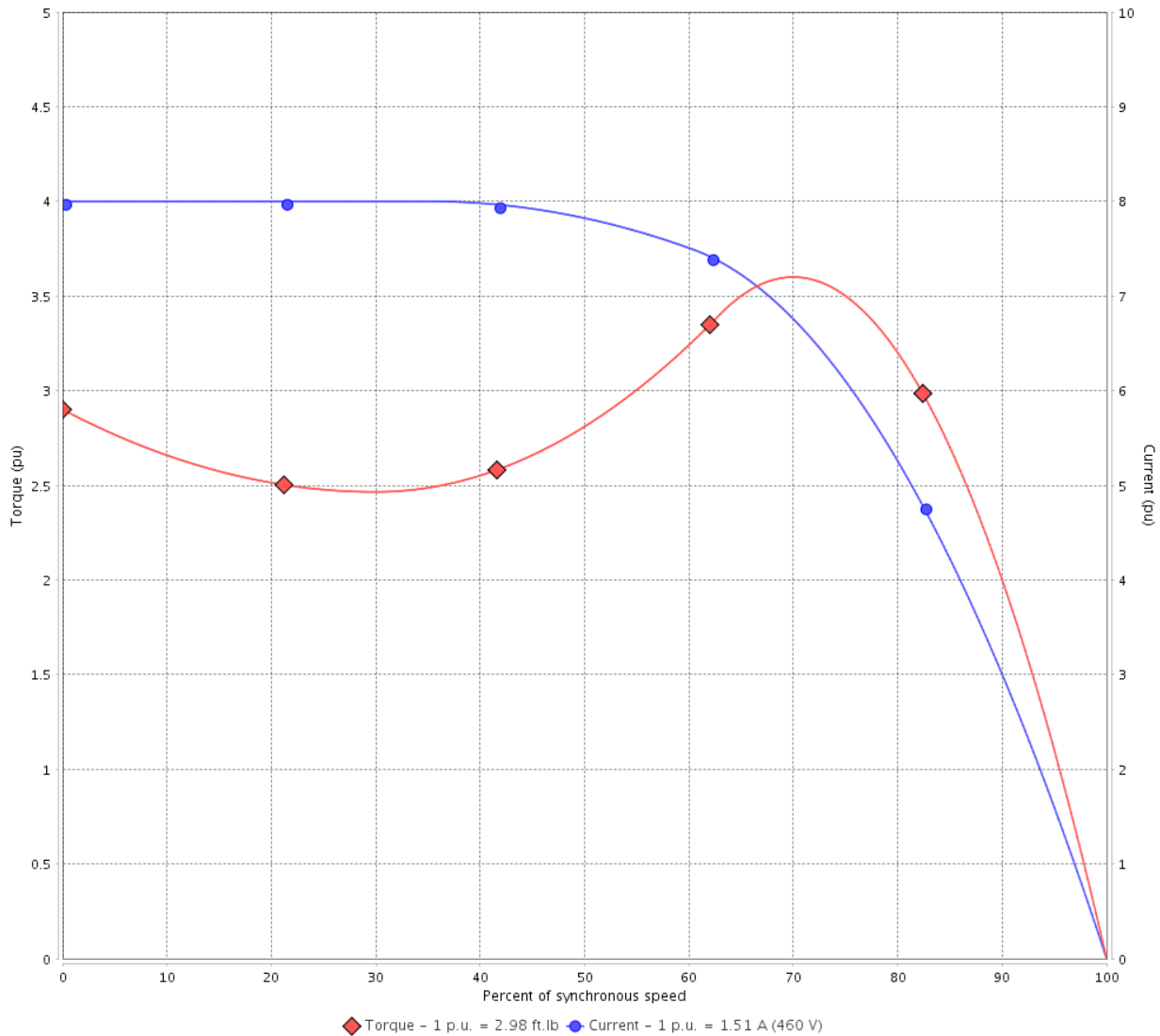
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13173714

Catalog # : 001180T3E143JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 3.02/1.51 A
LRC : 8.0
Rated torque : 2.98 ft.lb
Locked rotor torque : 290 %
Breakdown torque : 360 %
Rated speed : 1760 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 : 39s (cold) 22s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



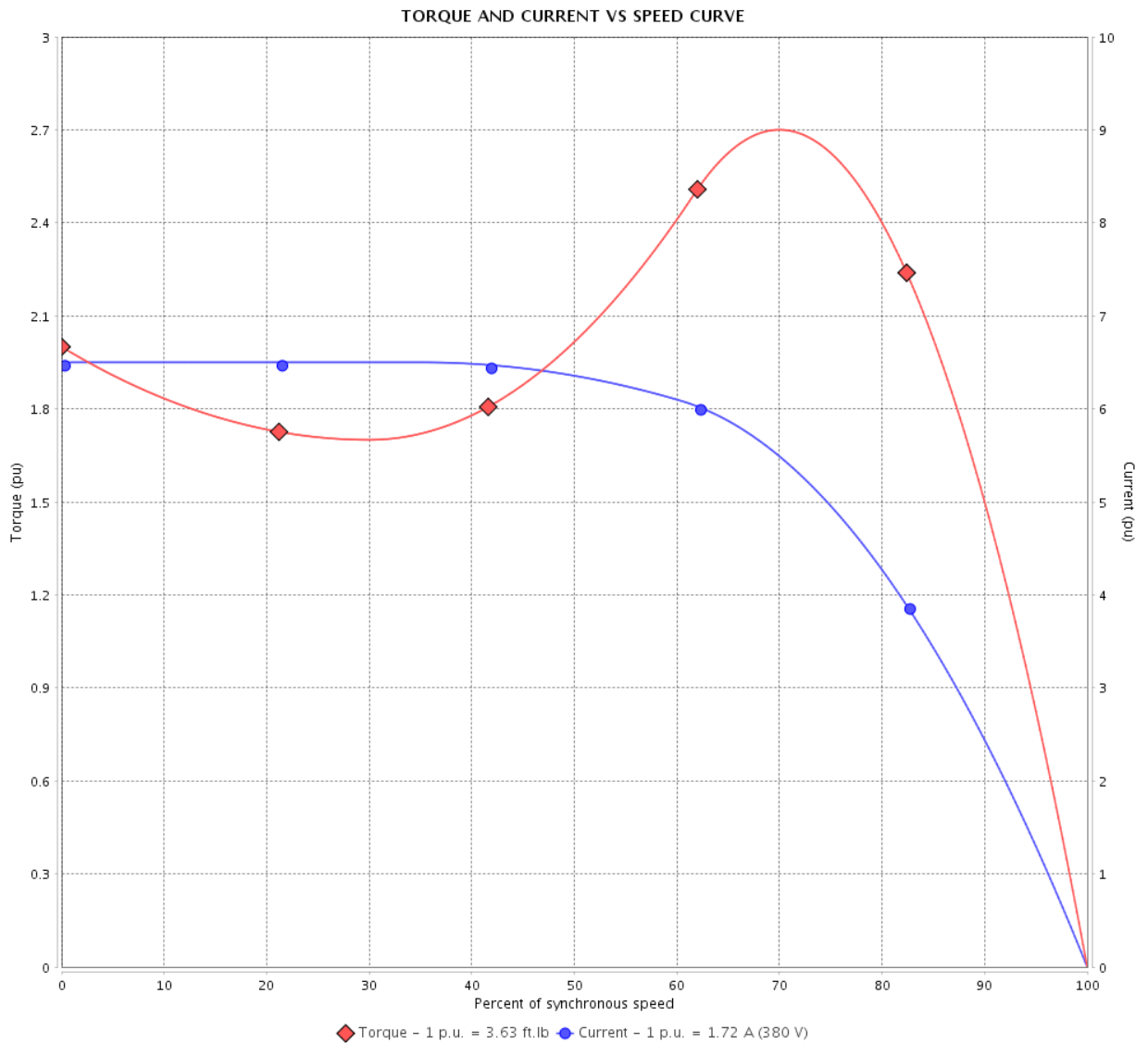
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13173714

Catalog # : 00118OT3E143JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current	: 3.44/1.72 A	Moment of inertia (J)	: 0.1101 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 3.63 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 1445 rpm	Design	: B

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

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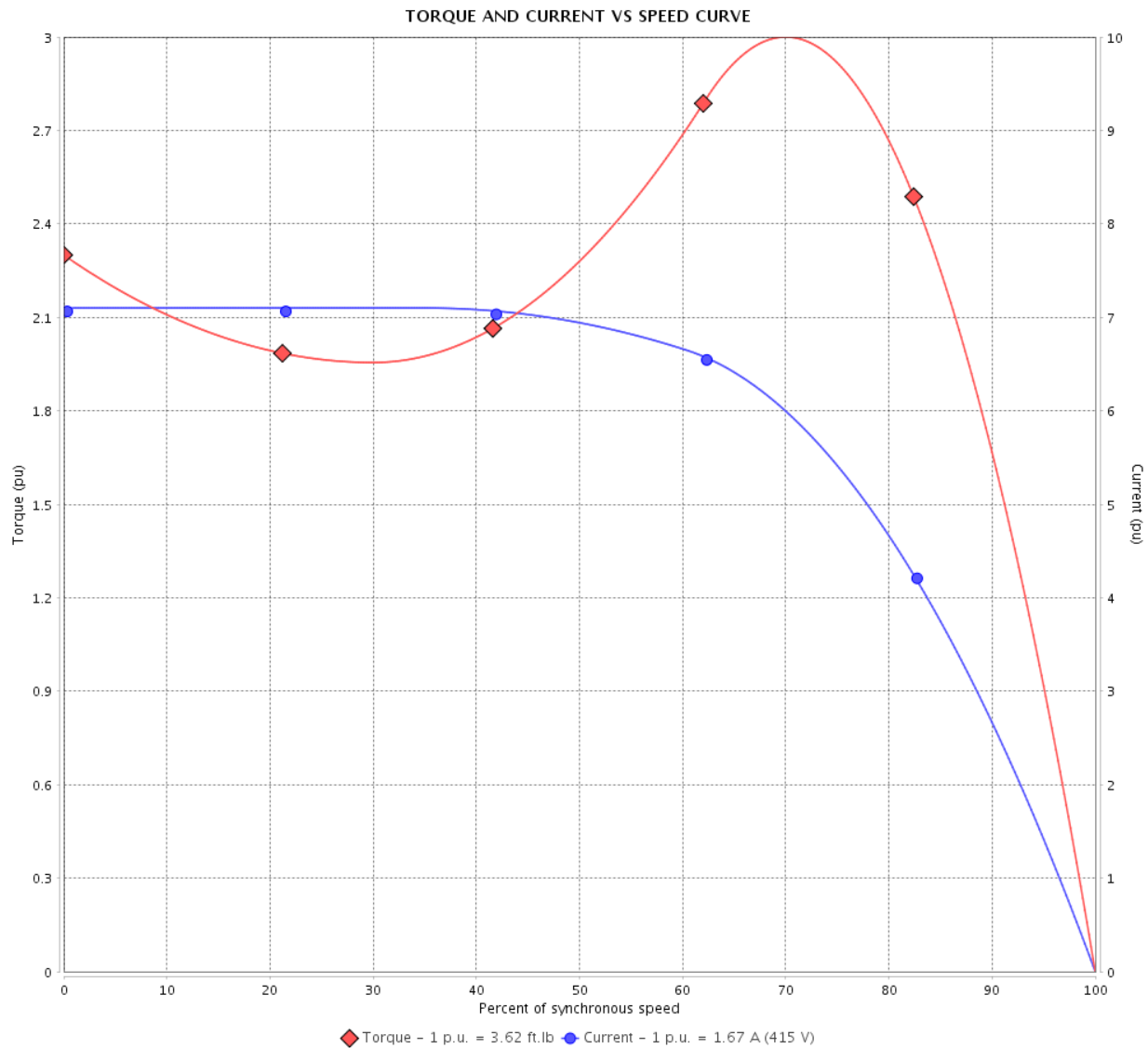


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Performance : 220/415 V 50 Hz 4P

Rated current	: 3.15/1.67 A	Moment of inertia (J)	: 0.1101 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 3.62 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1450 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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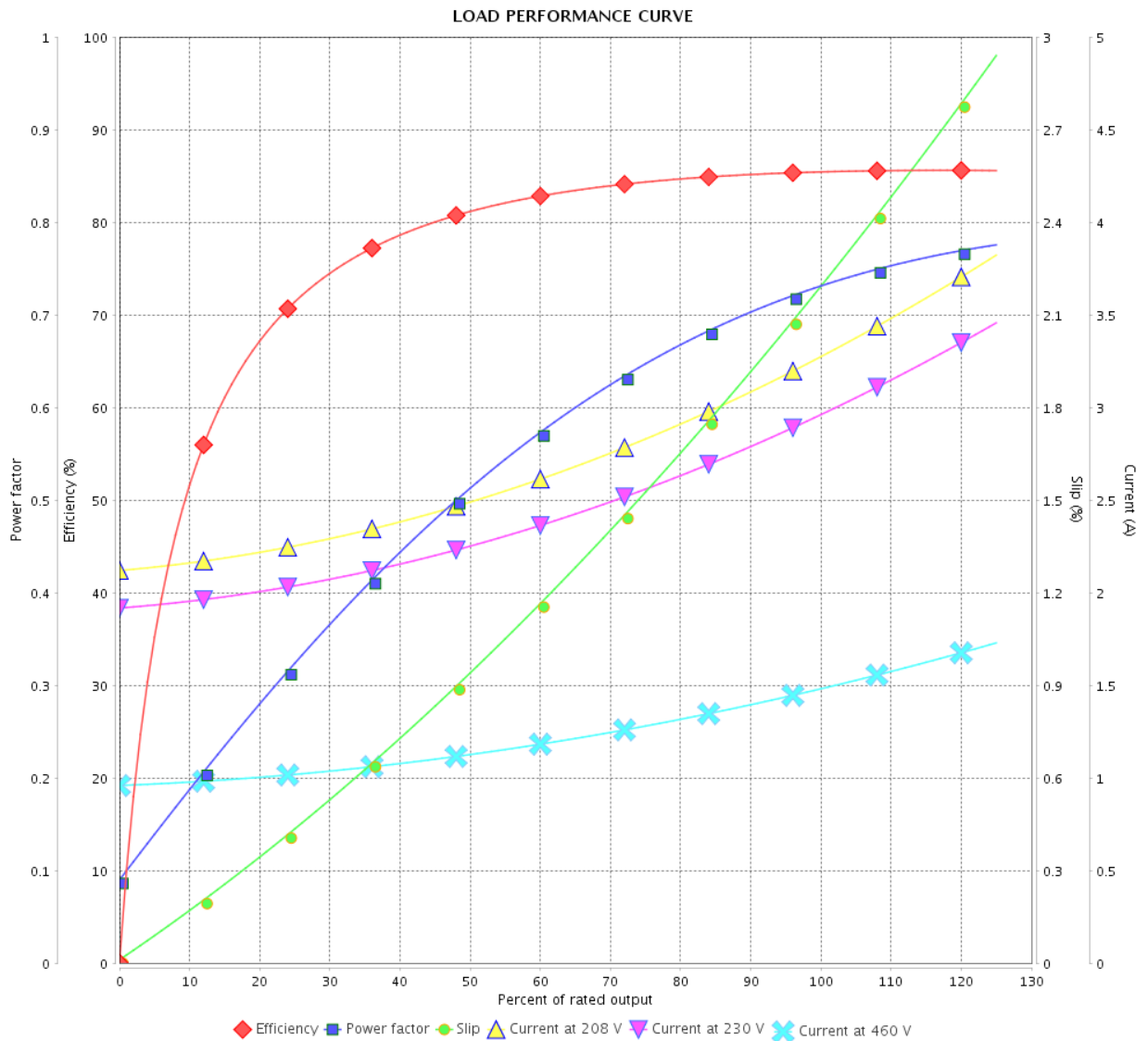


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Performance : 230/460 V 60 Hz 4P

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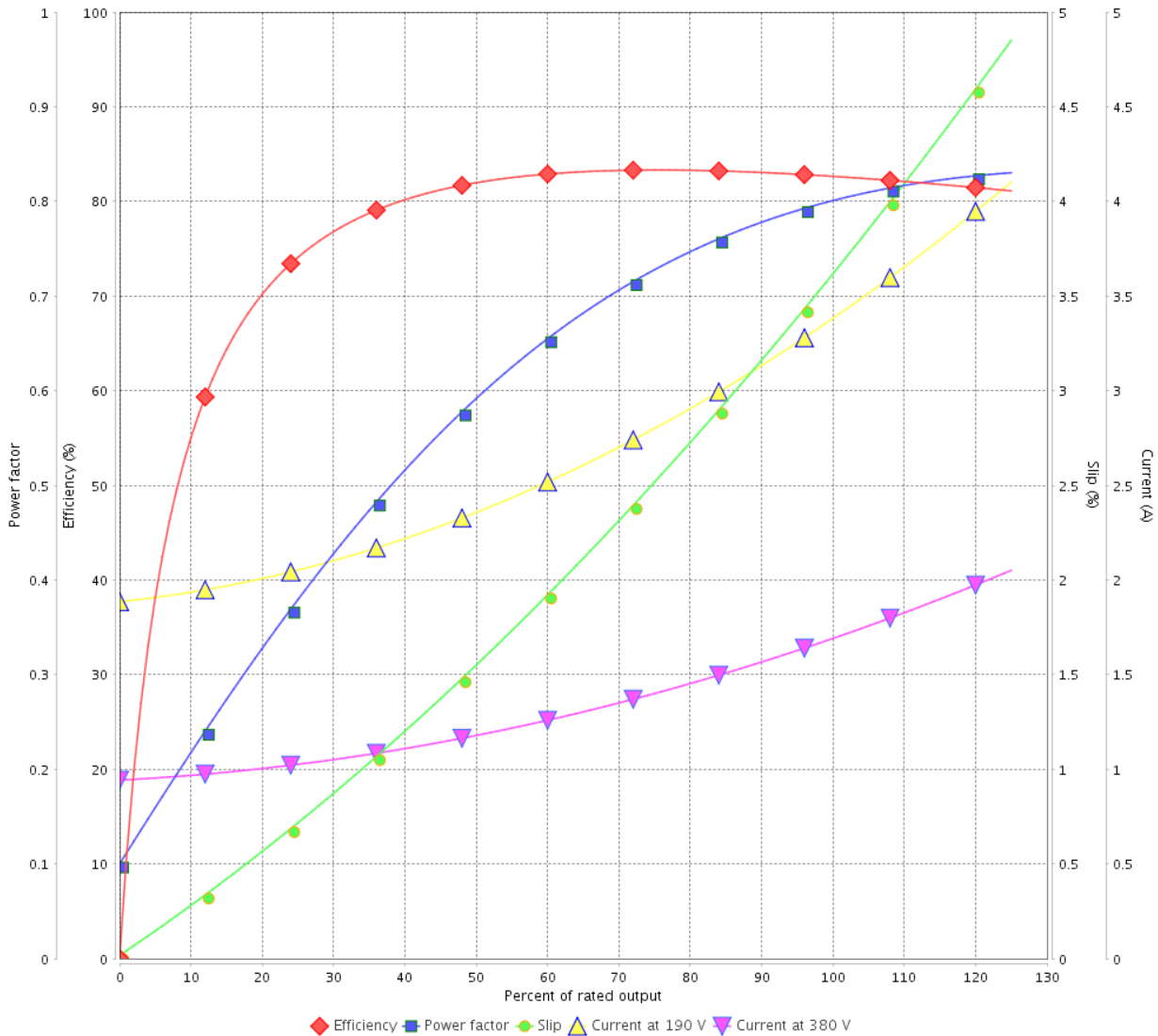
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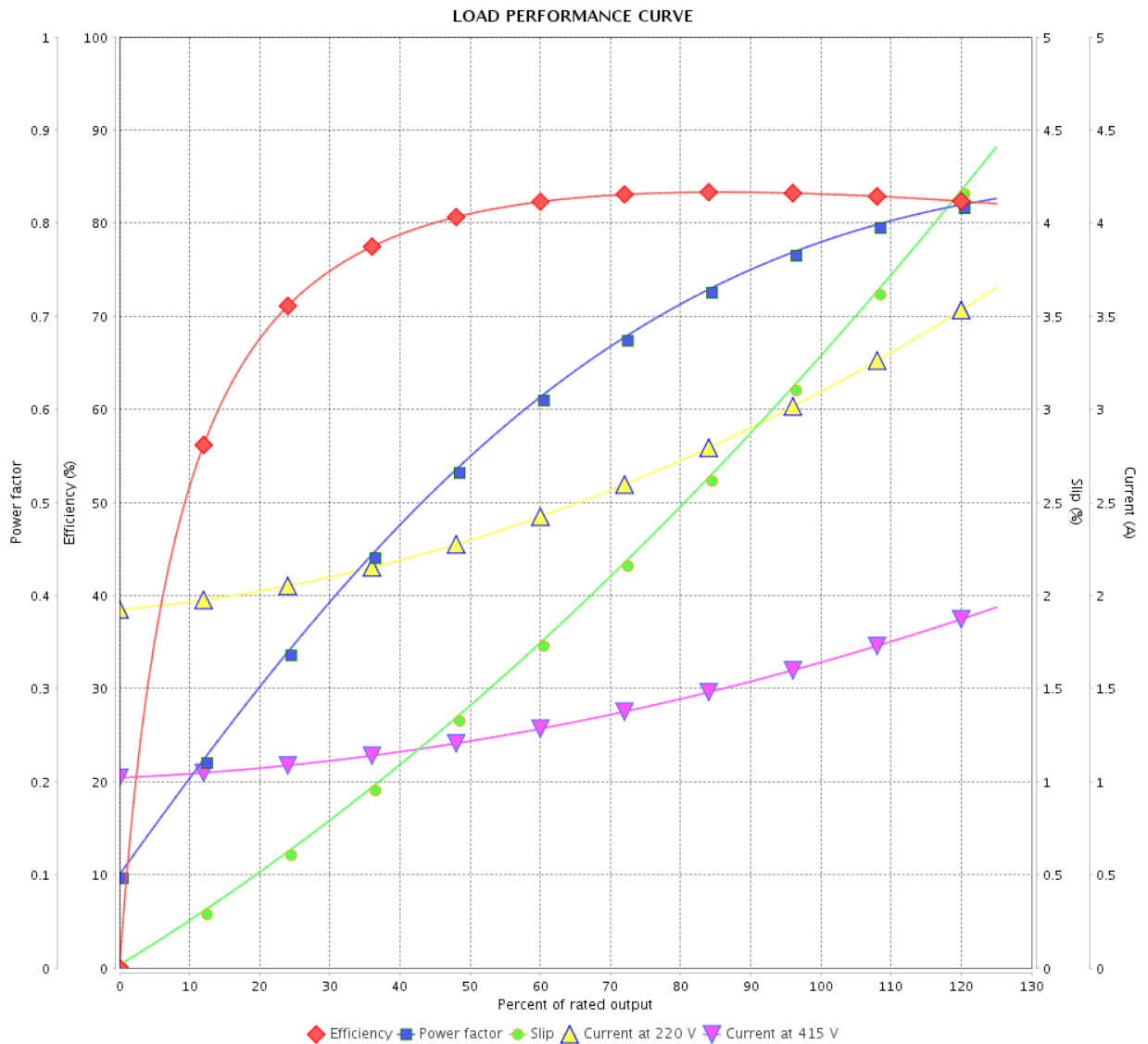


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THERMAL LIMIT CURVE



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Heating constant

Cooling constant

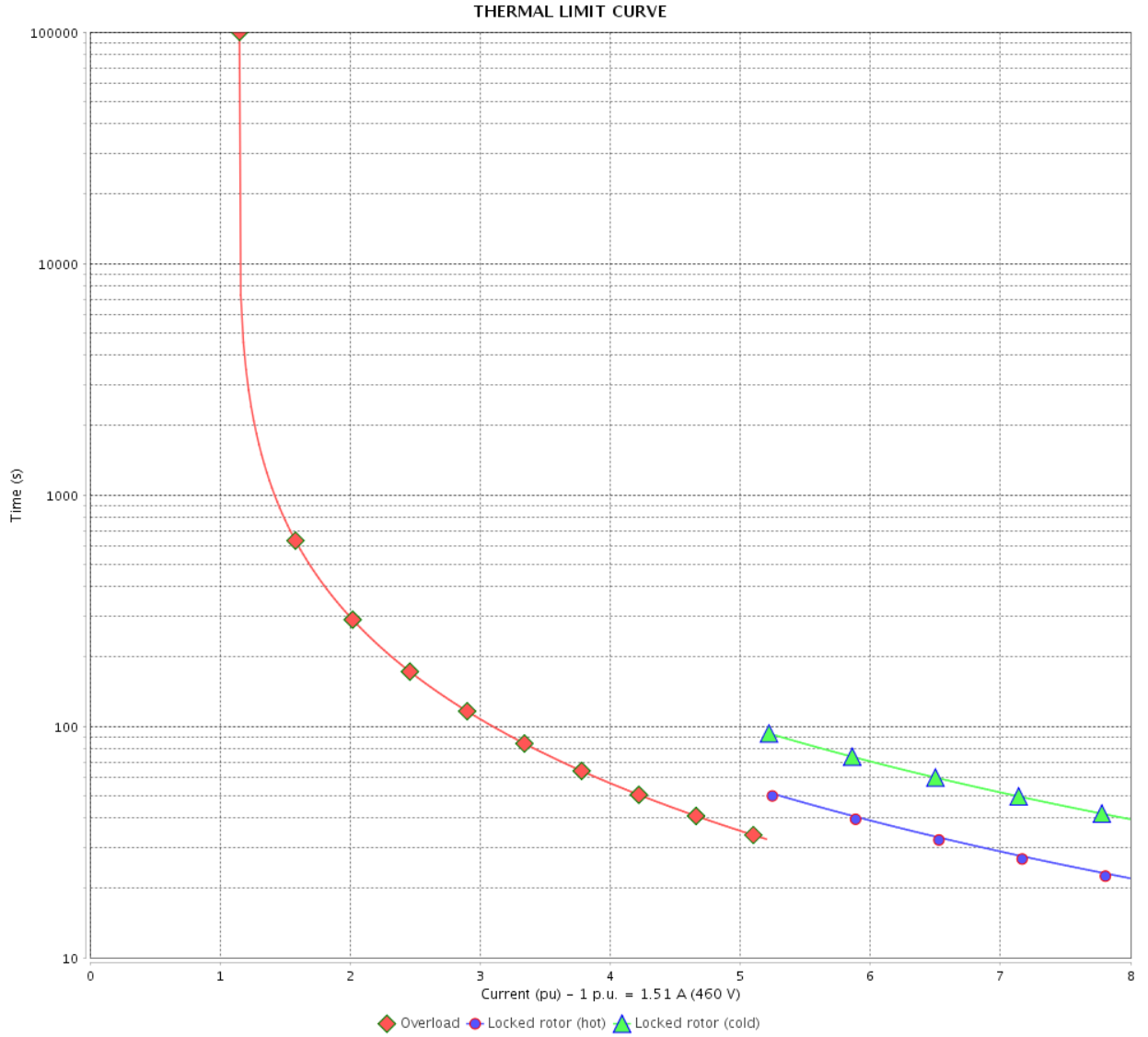
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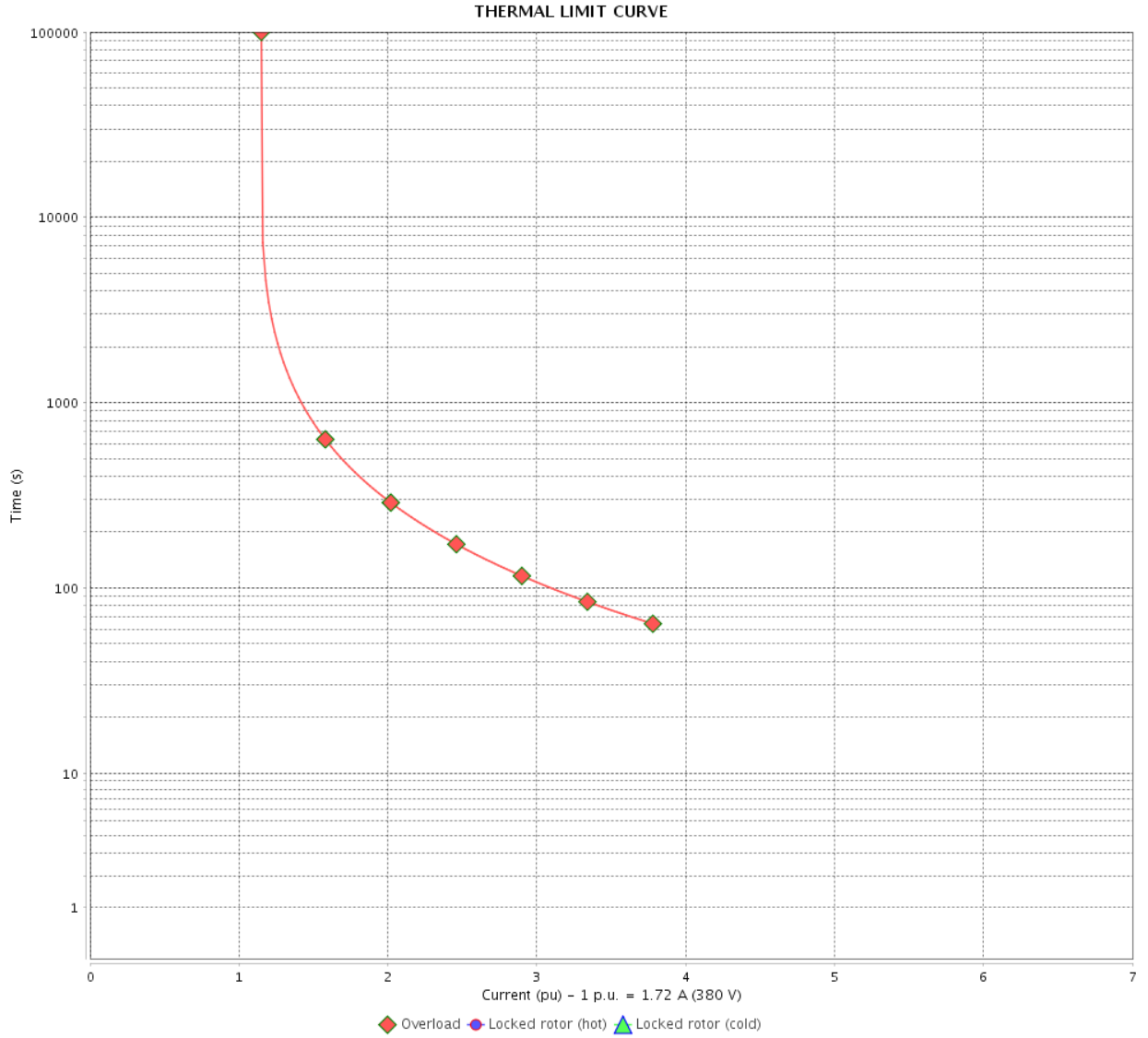
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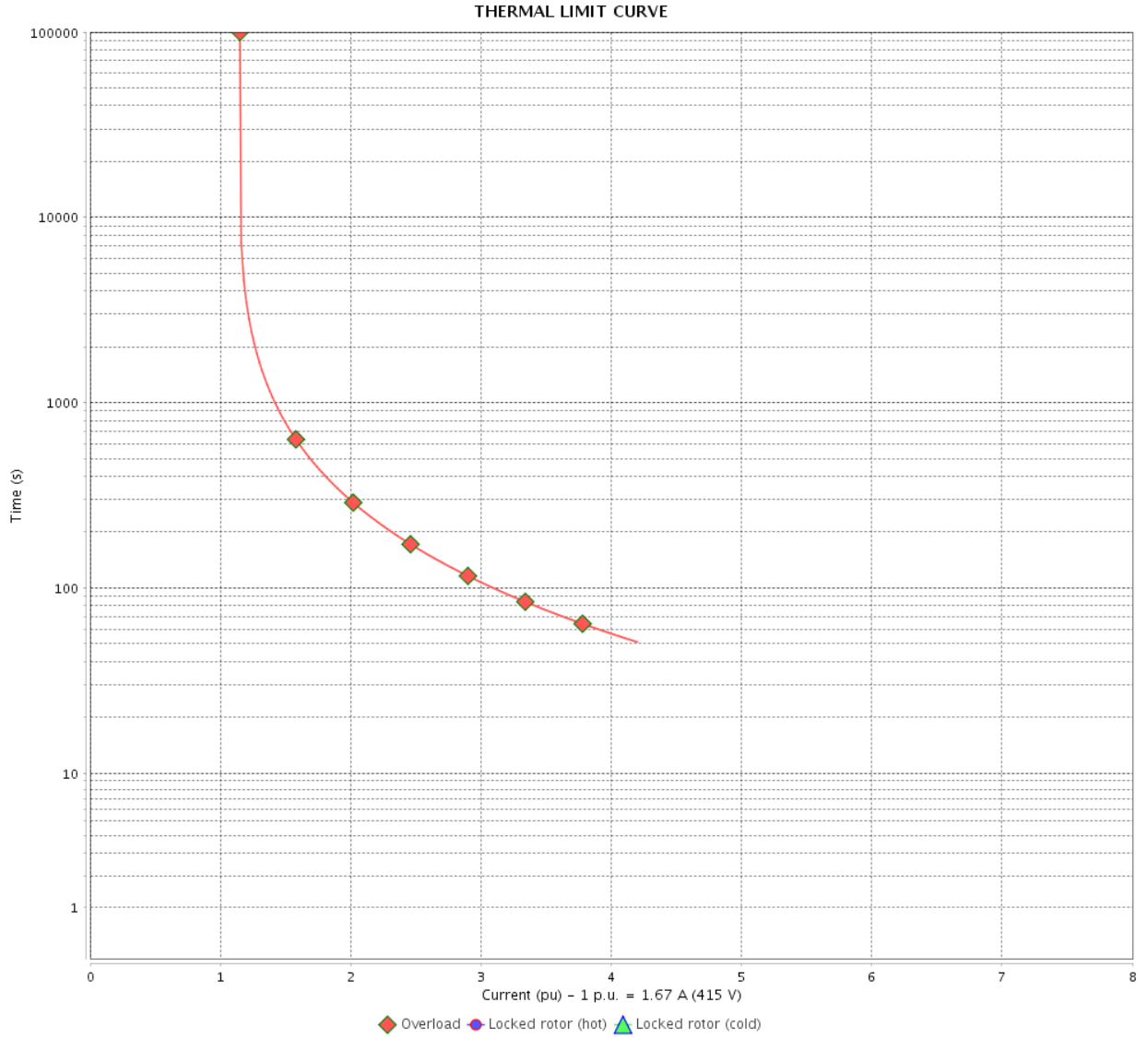
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



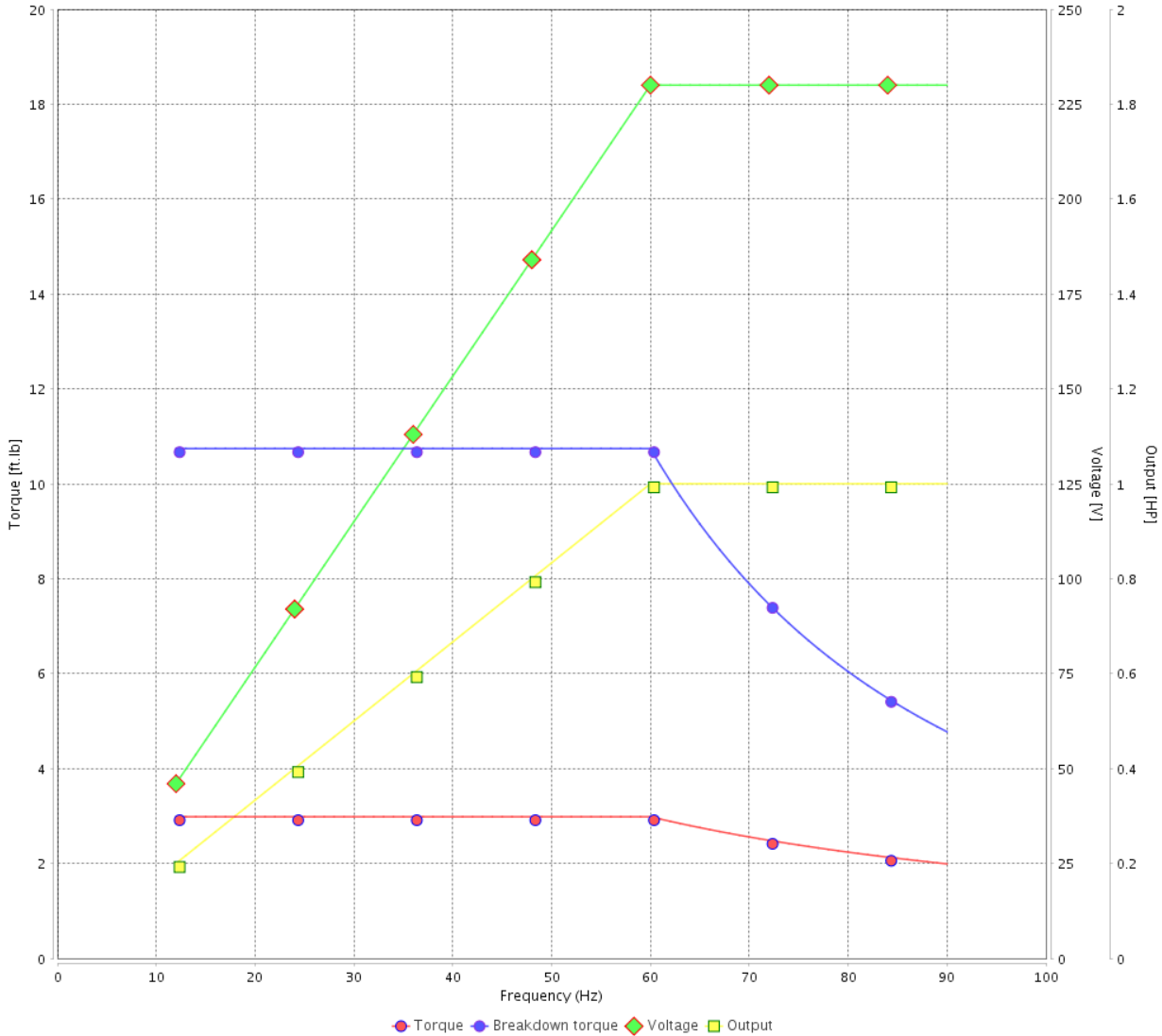
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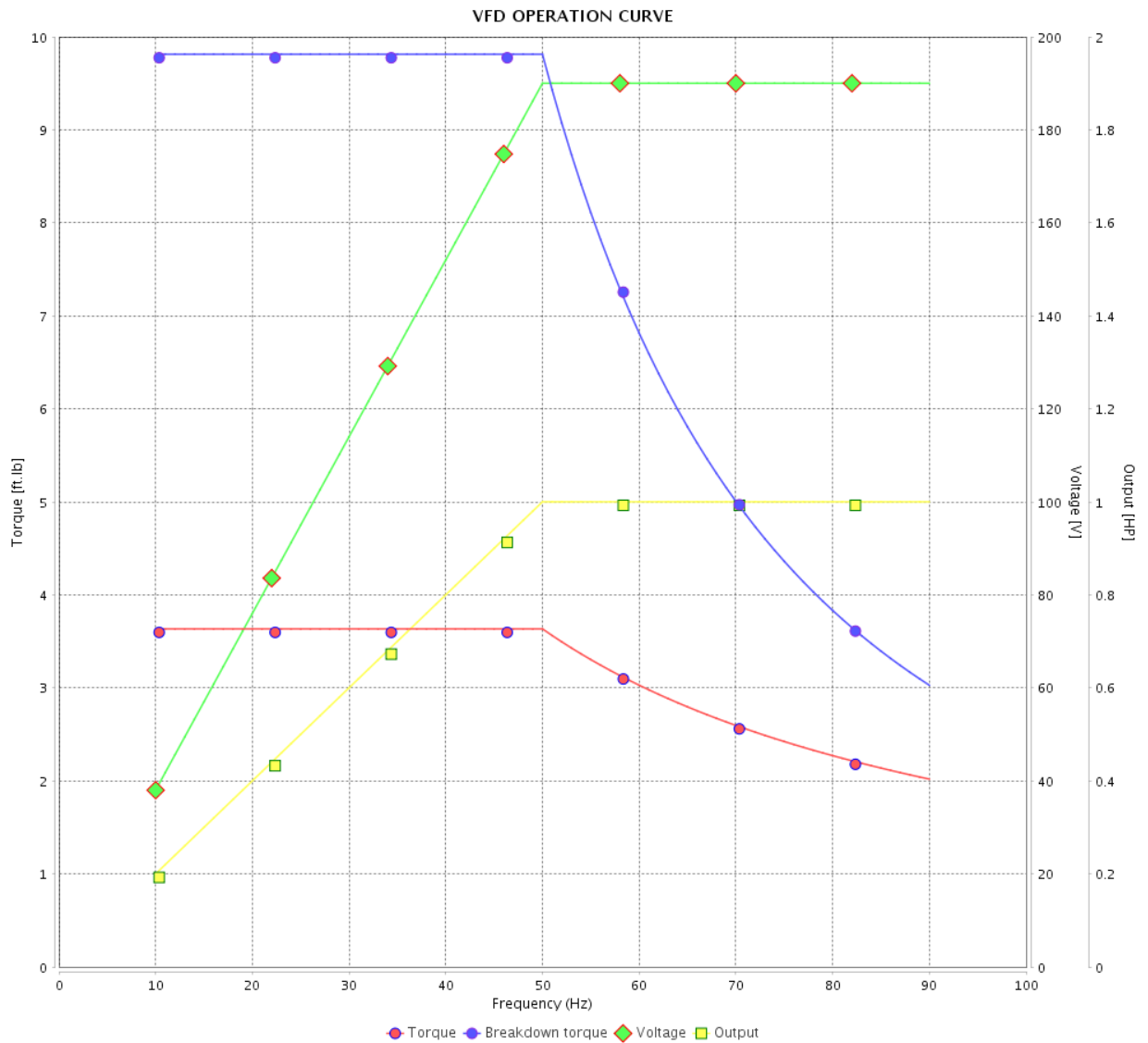


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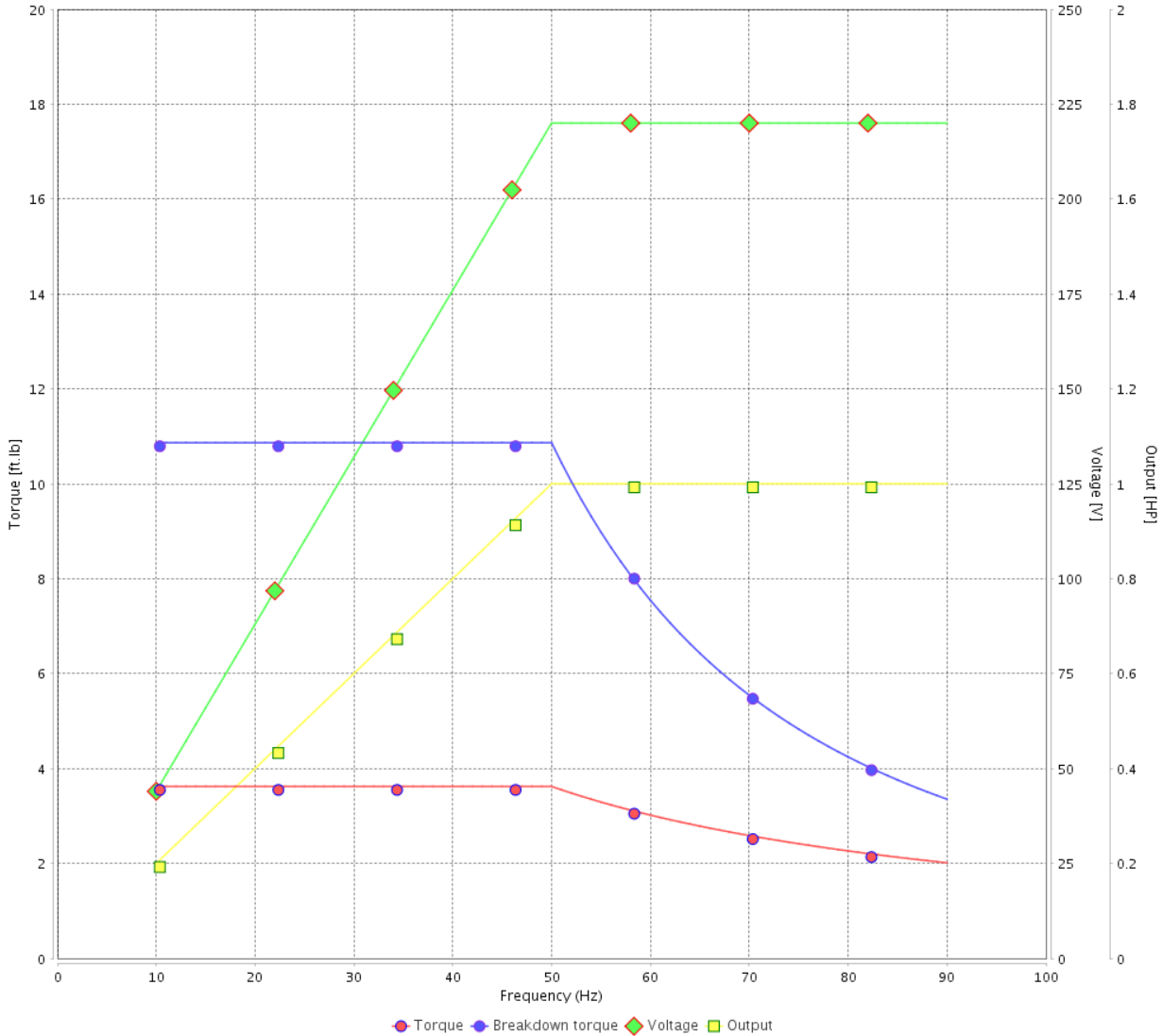
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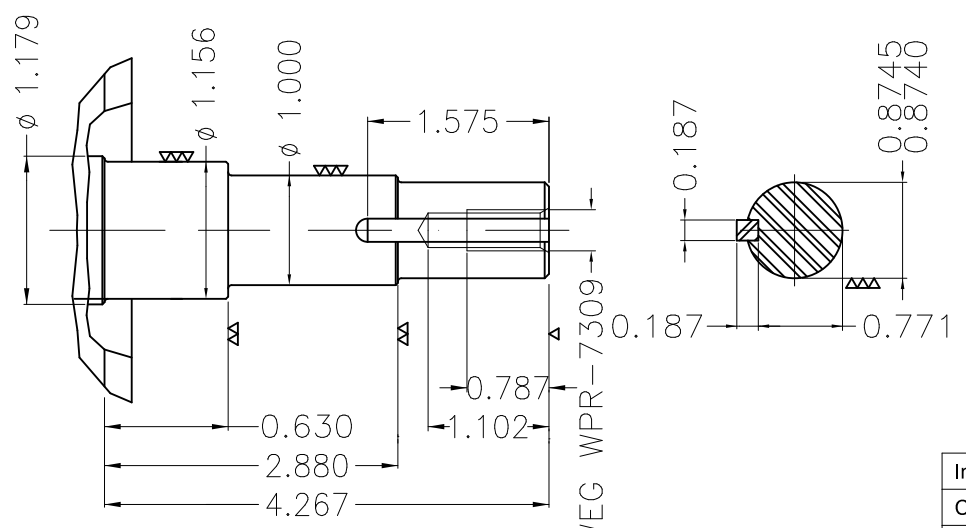
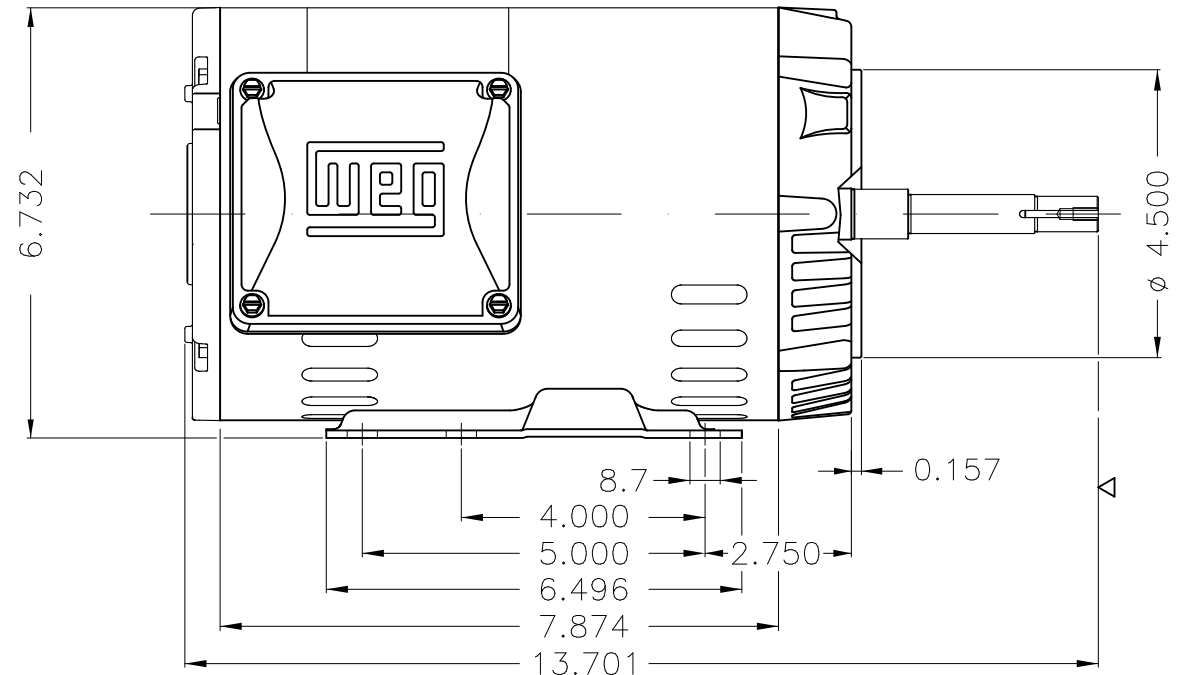
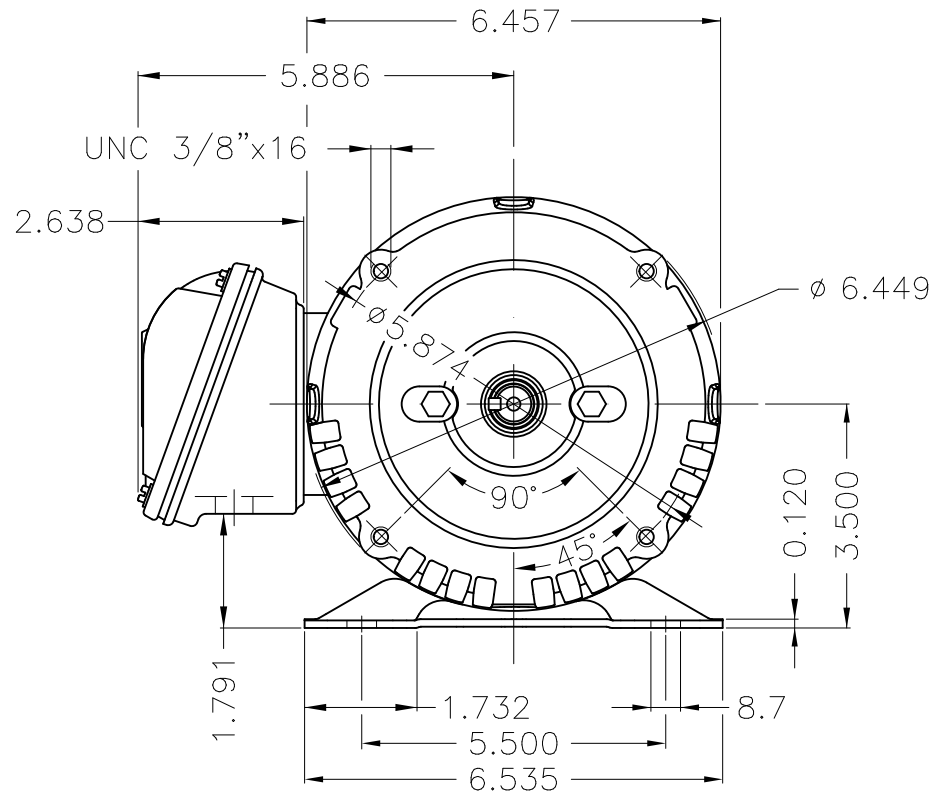
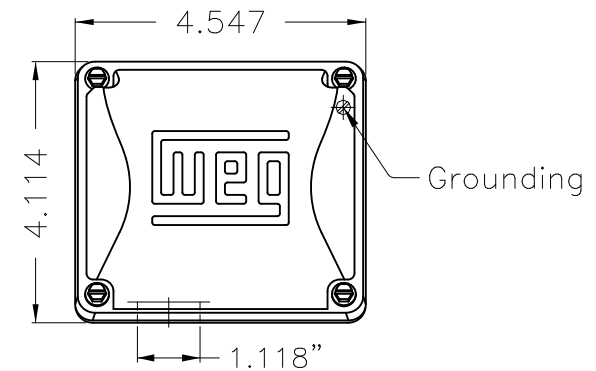
A

B

C

D

E



EUNC 3/8" - 16 WEG WPR-7309

DE Shaft End

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 JN TYPE PSE 1/2 HP					
CHECKED		FRAME 143/5JM IP21 ODP					
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

1 HP 04 Poles 60 Hz





NEMA
Premium



MADE IN MEXICO

MAT: 13173714 CC029A

W01.T00IC0X0N

MODEL 001180T3E143JM-SG

30MAR2022 B/N:



PH 3	Hz 60	HP 1.0
FR 143/5JM		KW 0.75
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 3.02/1.51
INS CL F AT 80K		SFA 3.47/1.74
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE L	PF 0.73
USABLE @ 208V 3.34A		RPM 1760
SF1.00		NEMA NOM. EFF 85.5%

ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.15
3.44-3.15/1.72-1.67A 1445RPM EFF 82.6% (IE3) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6206-ZZ	ODE 6203-ZZ	MOBIL POLYREX EM
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T1-BLU T2-WHT
 T3-ORG T4-YEL
 T5-BLK T6-GRY
 T7-PNK T8-RED
 T9-BRK RED

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.

