

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13180573
		Catalog # :	01518ET3E254JM-S
Frame	: 254/6JM	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	: 227 lb
Protection degree	: IP55	Moment of inertia (J)	: 2.15 sq.ft.lb
Design	: B		
Output [HP]	15	15	15
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190-220/380	415
Rated current [A]	36.4/18.2	43.8-37.8/21.9	20.6
L. R. Amperes [A]	237/118	241-208/120	134
LRC [A]	6.5x(Code G)	5.5x(Code F)	6.5x(Code H)
No load current [A]	17.3/8.65	17.1-14.7/8.53	9.86
Rated speed [RPM]	1770	1455	1465
Slip [%]	1.67	3.00	2.33
Rated torque [ft.lb]	44.5	54.1	53.8
Locked rotor torque [%]	250	190	229
Breakdown torque [%]	300	229	280
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	34s (cold) 19s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%		
	50%	91.0	90.9
	75%	92.4	91.4
	100%	92.4	90.7
Power Factor	25%		
	50%	0.64	0.64
	75%	0.76	0.76
	100%	0.82	0.82
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 609 lb
		Max. compression	: 835 lb
Lubrication interval	: 20000 h 20000 h		
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 40.2A SF 1.00 SFA 40.2A			
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



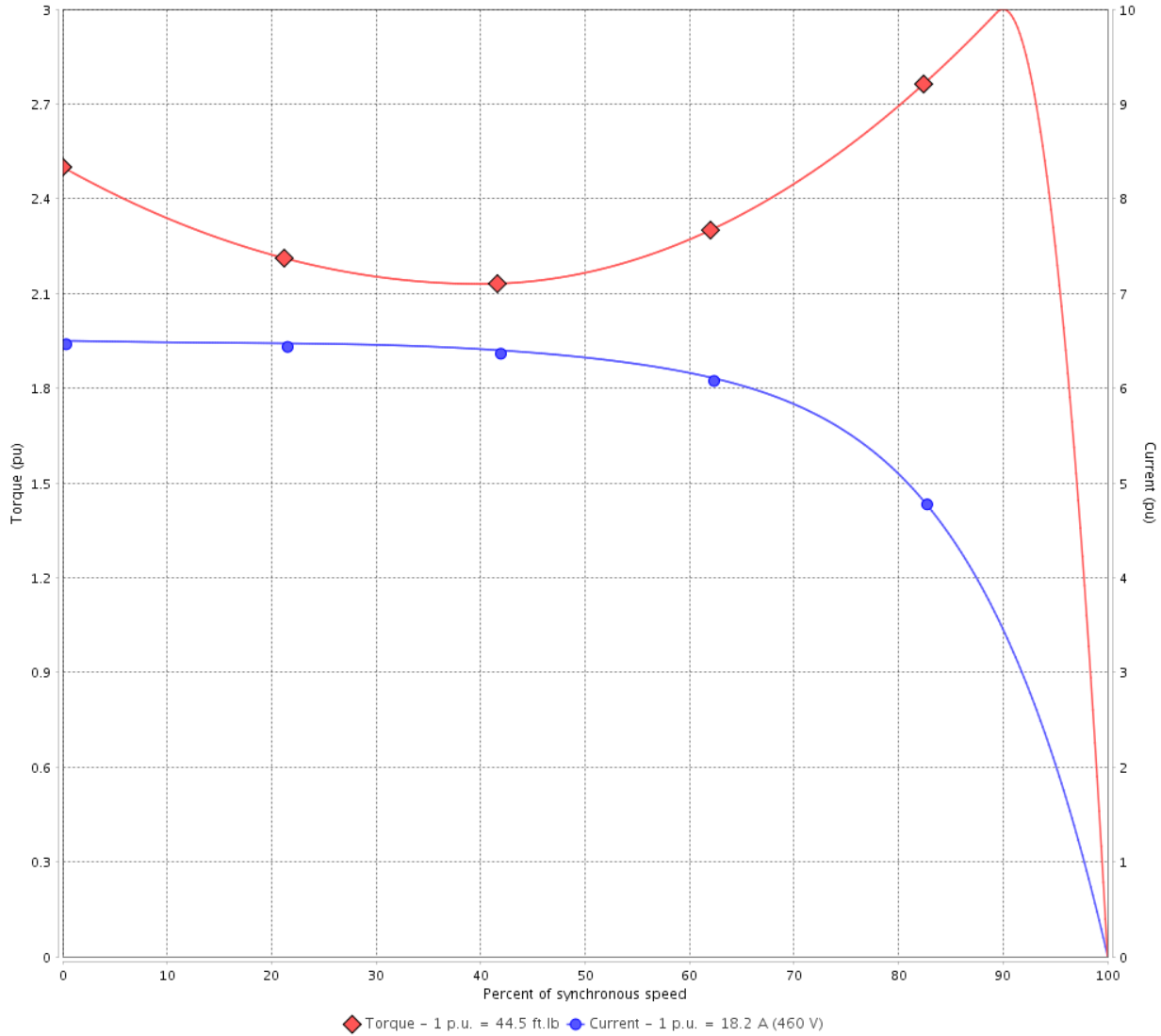
Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 13180573

Catalog # : 01518ET3E254JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 36.4/18.2 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 44.5 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 34s (cold) 19s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



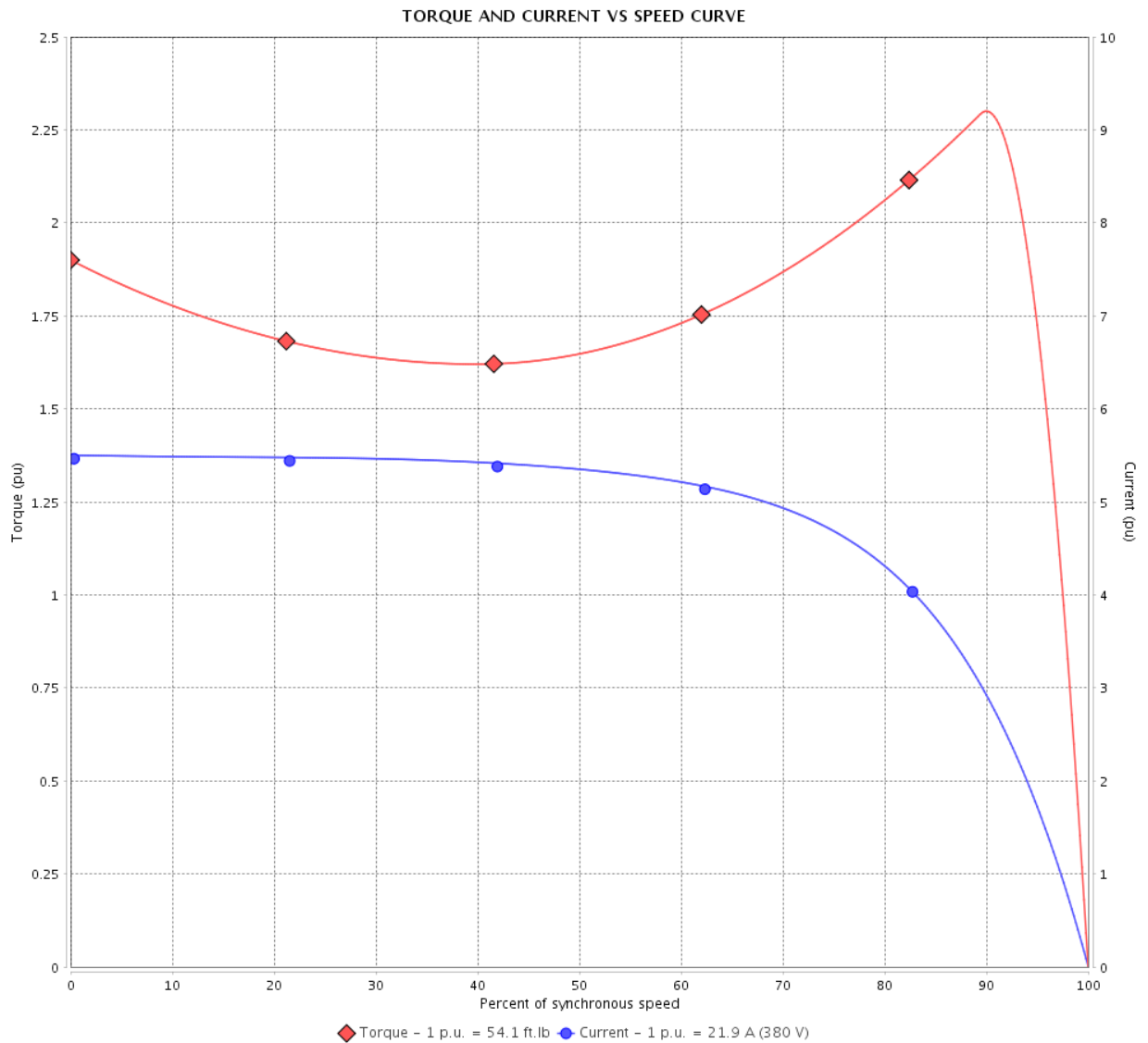
Three Phase Induction Motor - Squirrel Cage

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Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13180573

Catalog # : 01518ET3E254JM-S



Performance : 190-220/380 V 50 Hz 4P

Rated current	: 43.8-37.8/21.9 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 54.1 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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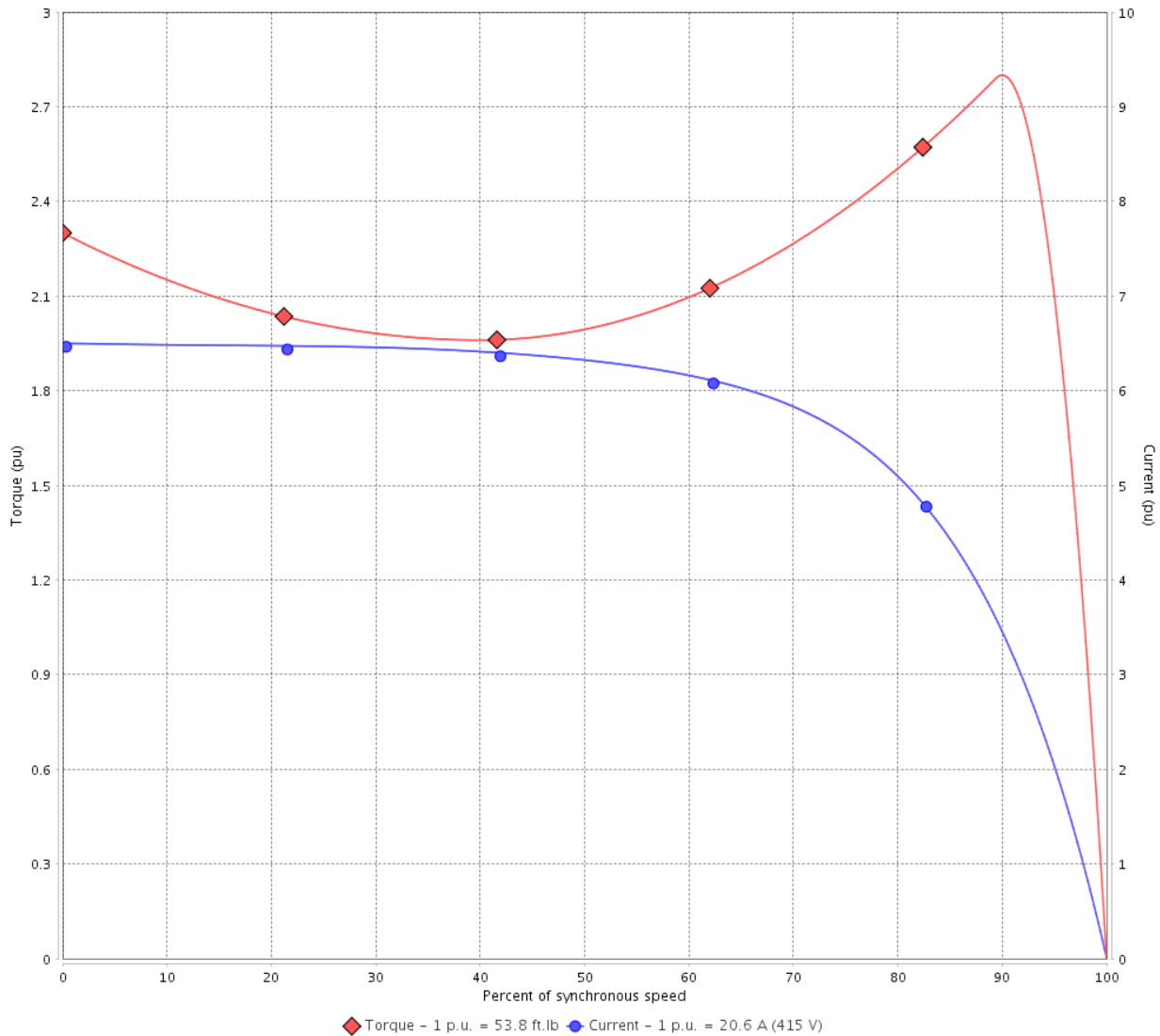
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Product code : 13180573

Catalog # : 01518ET3E254JM-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P

Rated current	: 20.6 A	Moment of inertia (J)	: 2.15 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 53.8 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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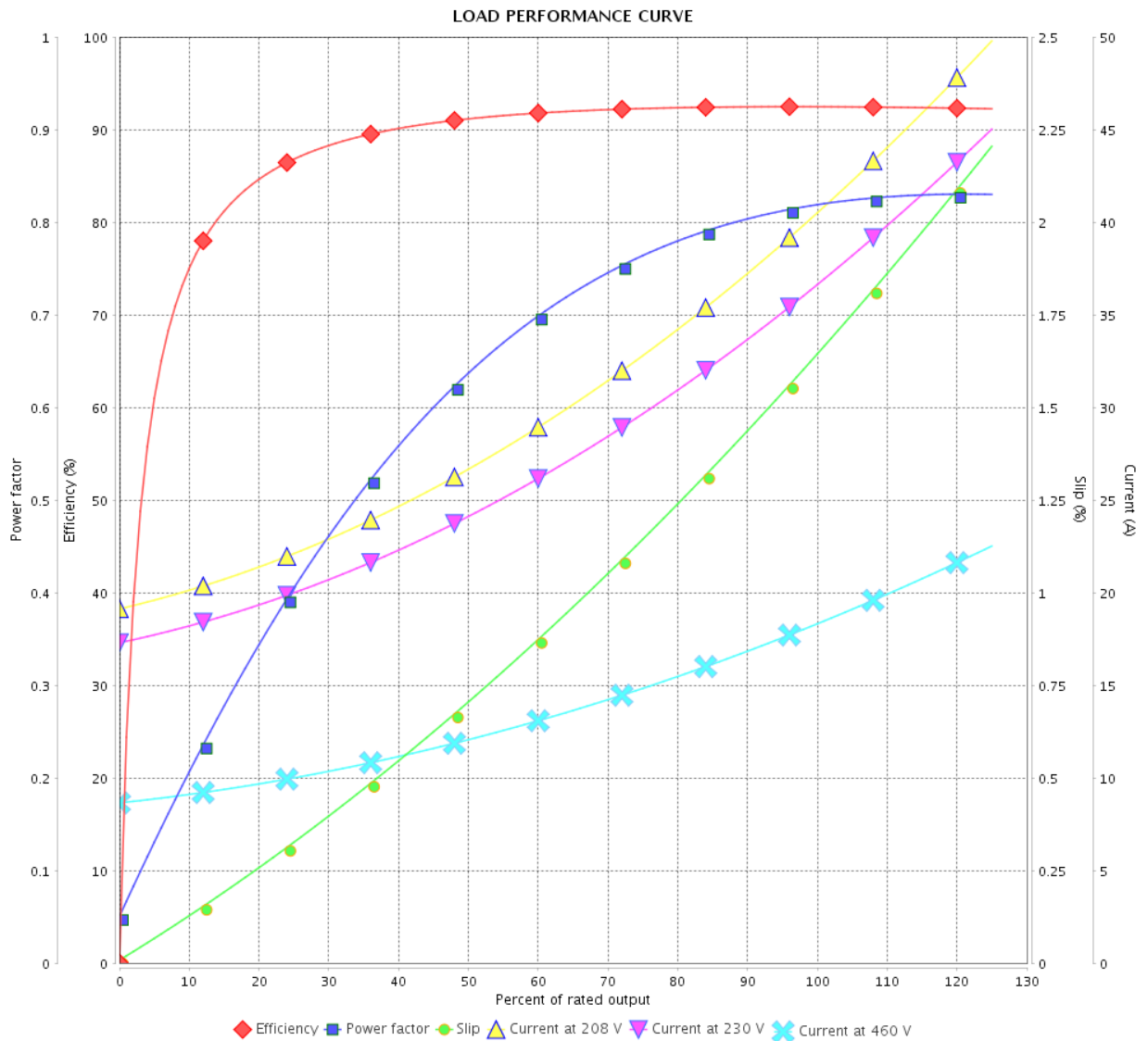


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Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A
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 Rated torque : 44.5 ft.lb
 Locked rotor torque : 250 %
 Breakdown torque : 300 %
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Moment of inertia (J) : 2.15 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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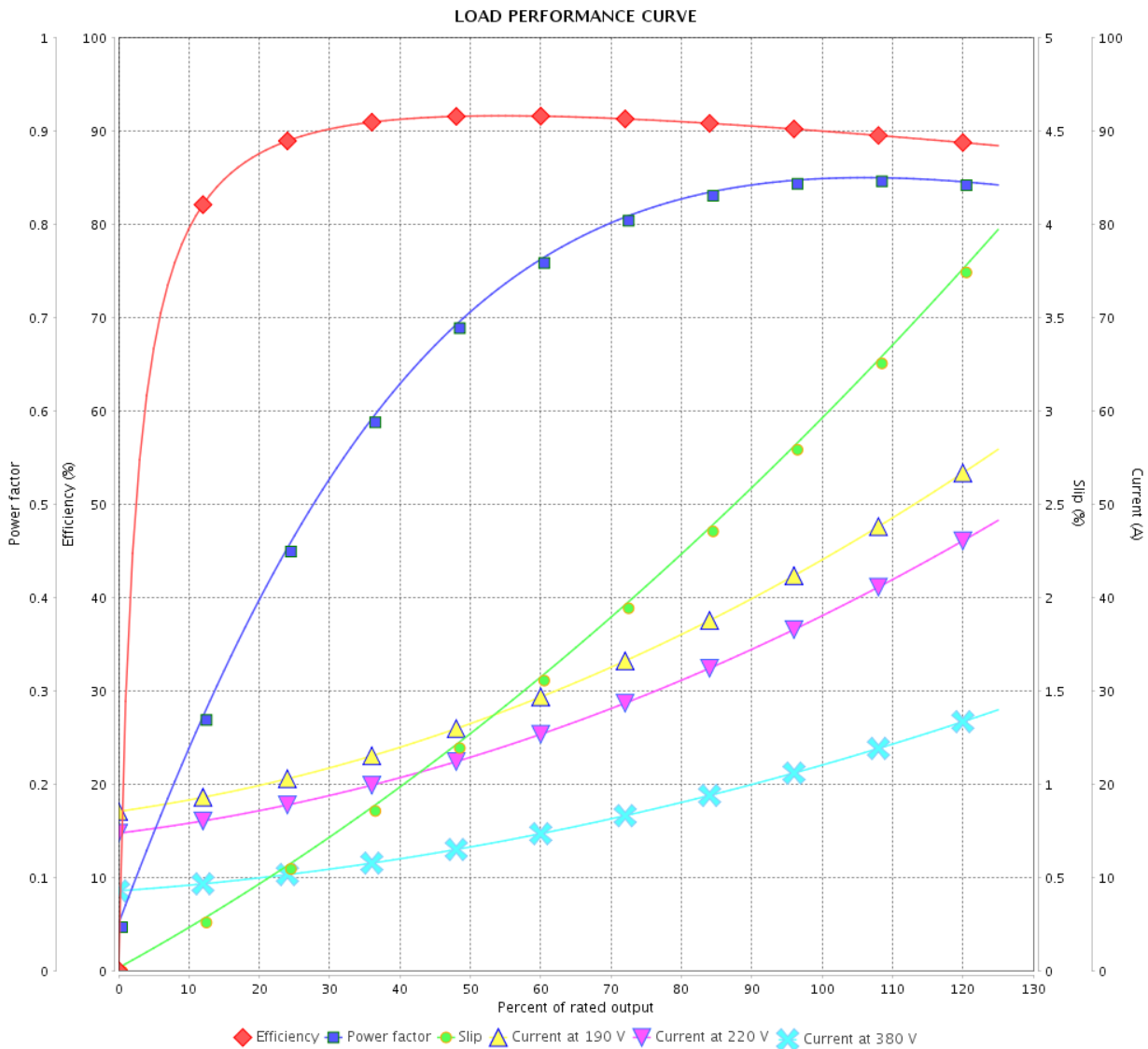


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Performance : 190-220/380 V 50 Hz 4P

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 LRC : 5.5
 Rated torque : 54.1 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 229 %
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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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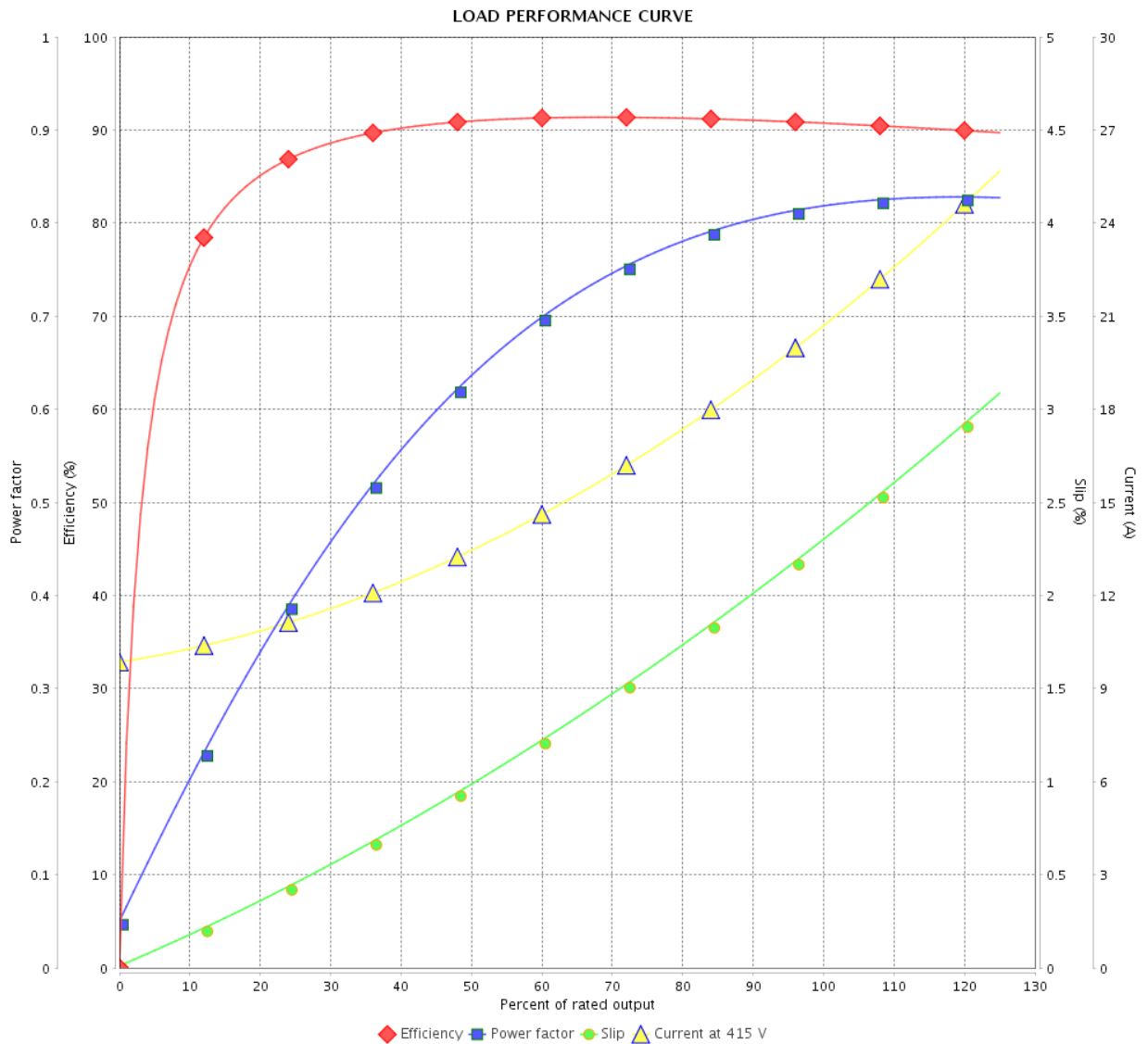


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THERMAL LIMIT CURVE



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Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

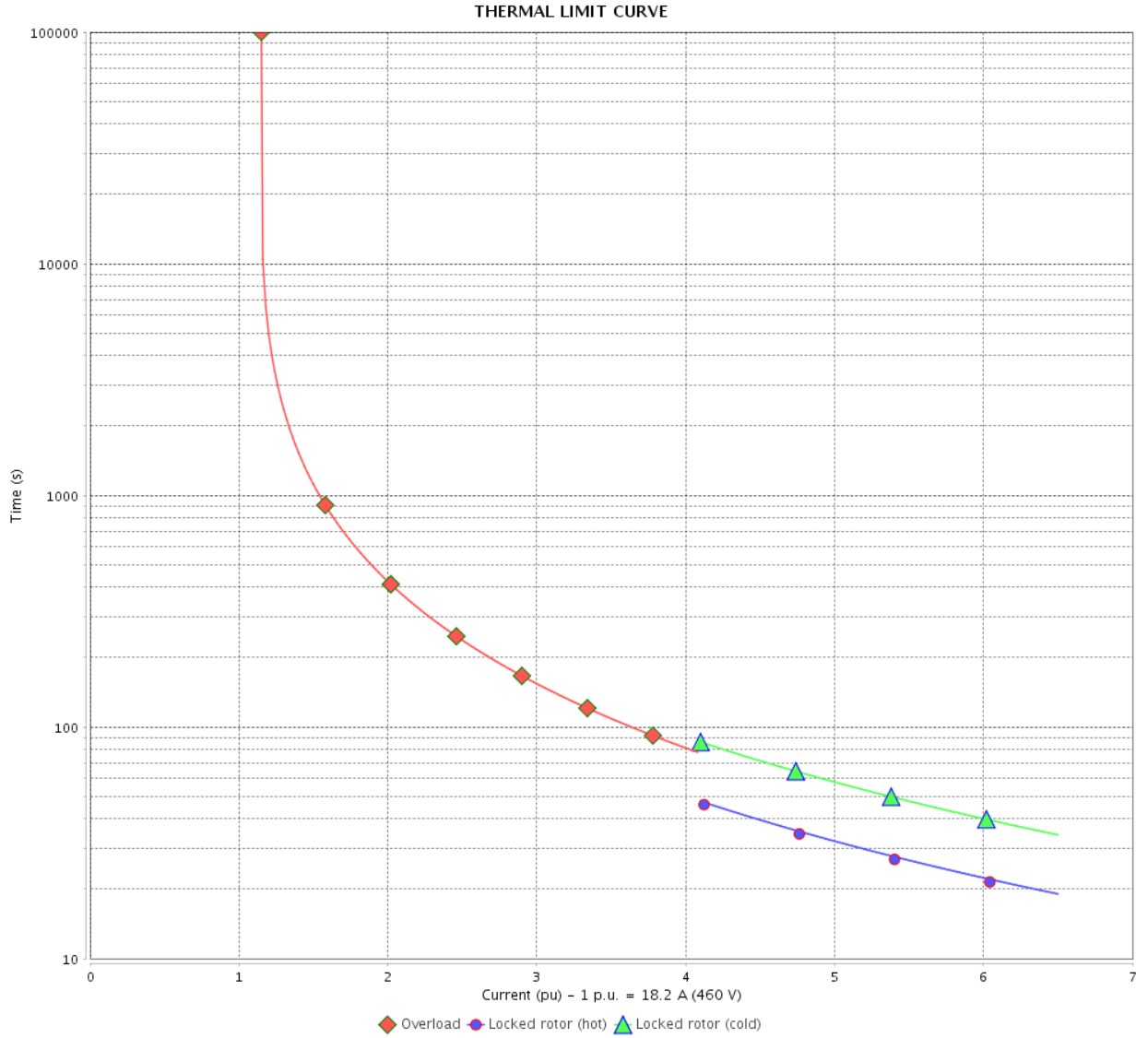
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THERMAL LIMIT CURVE

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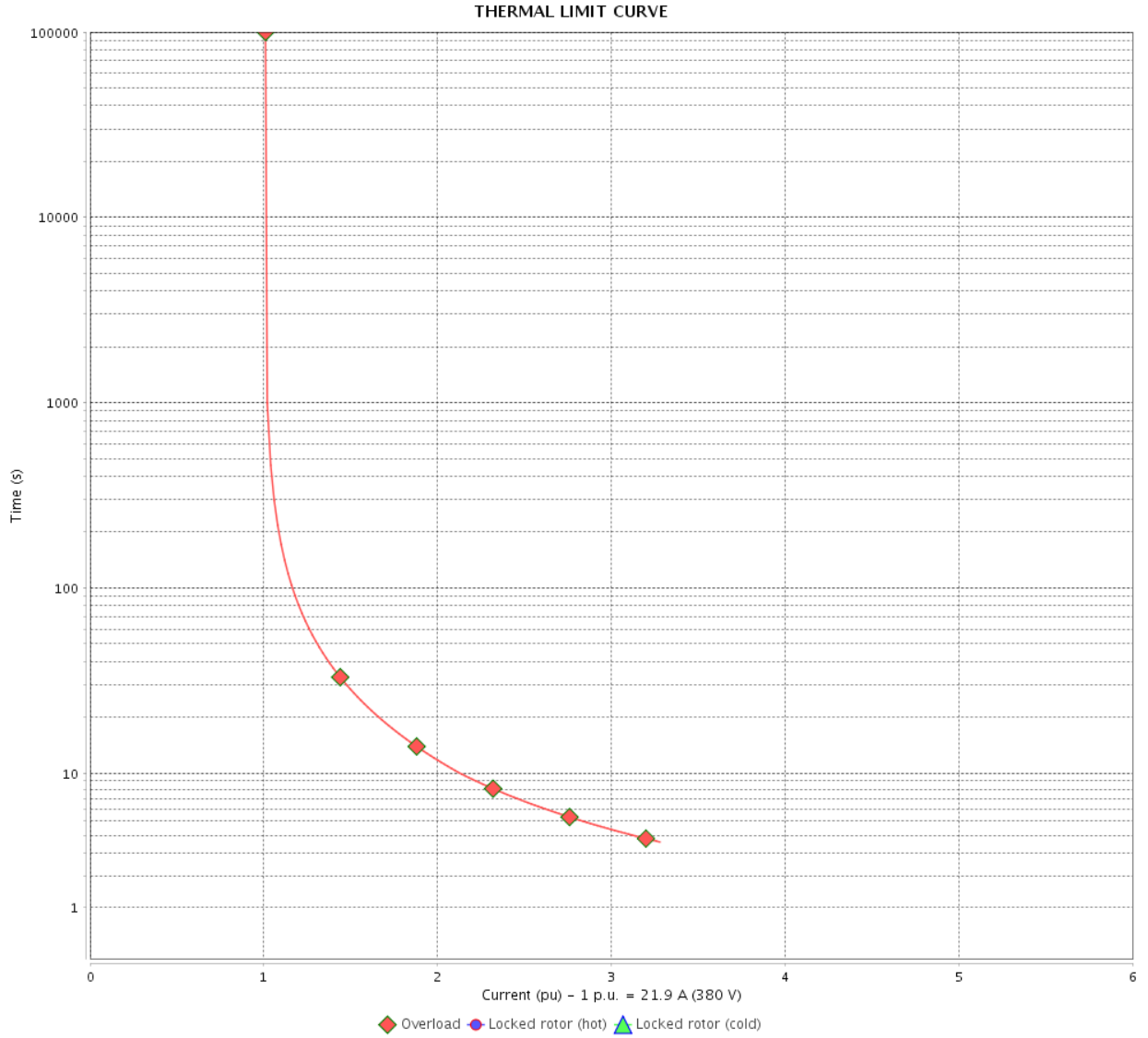
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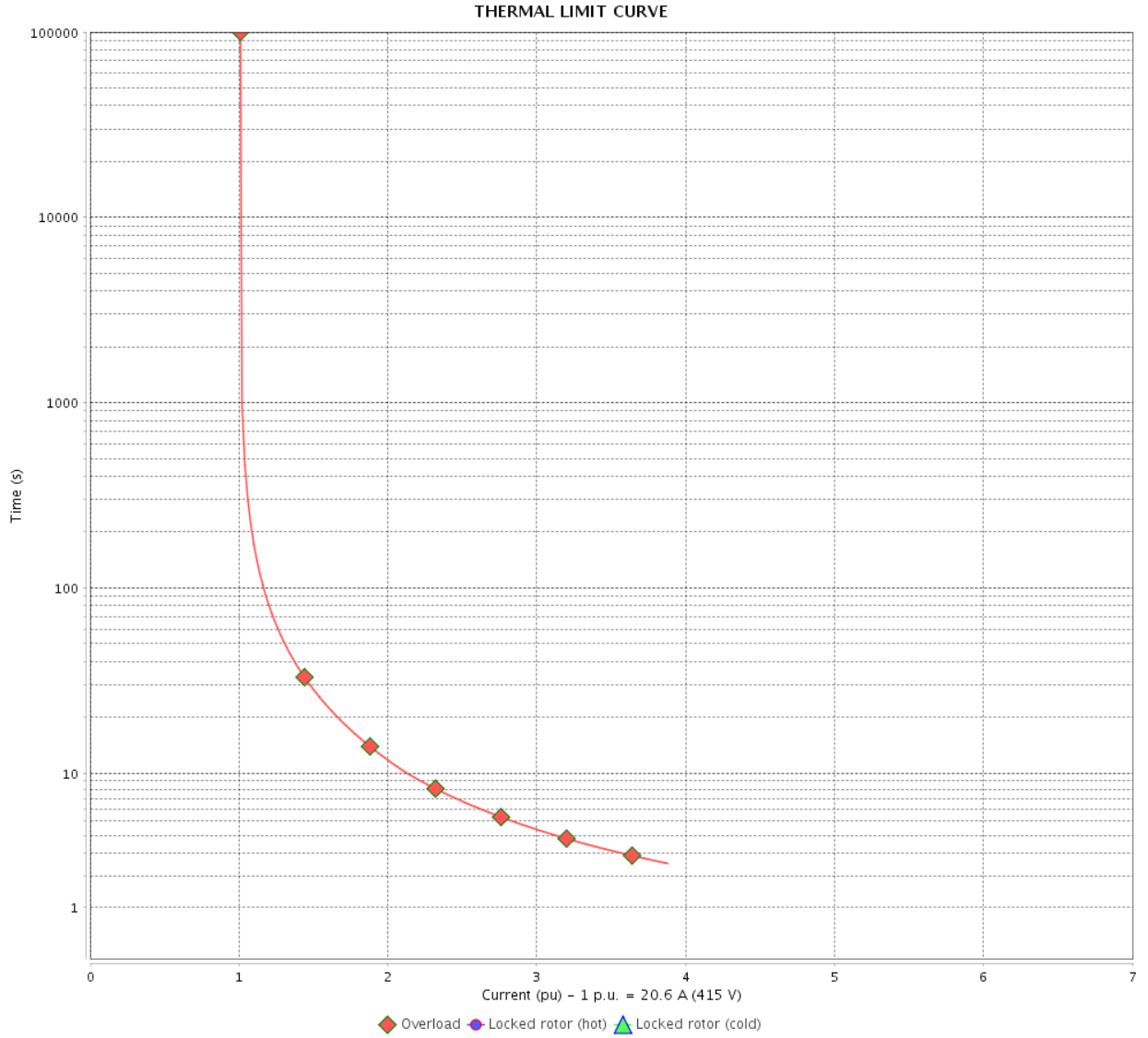
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VFD OPERATION CURVE

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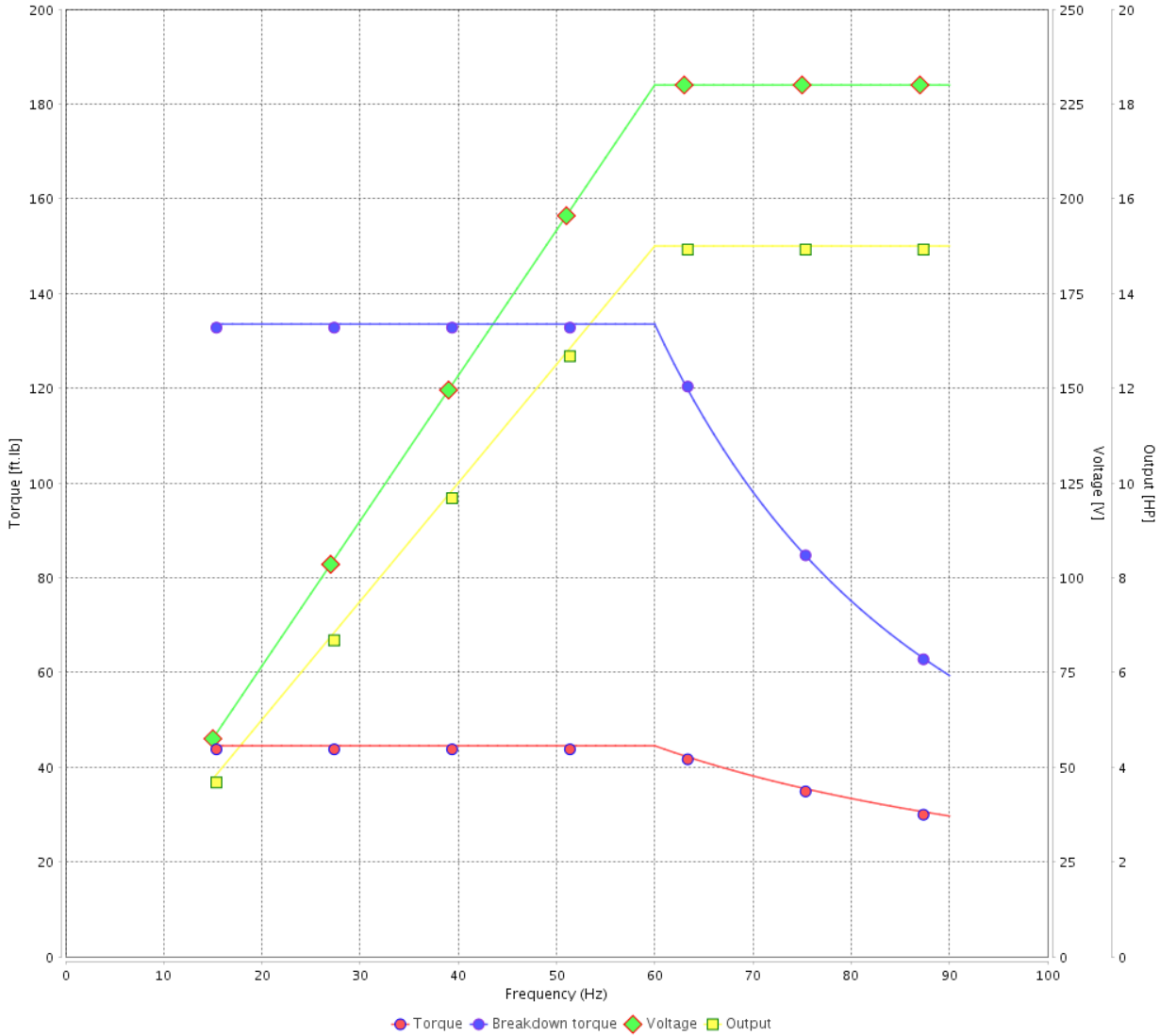
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Moment of inertia (J) : 2.15 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

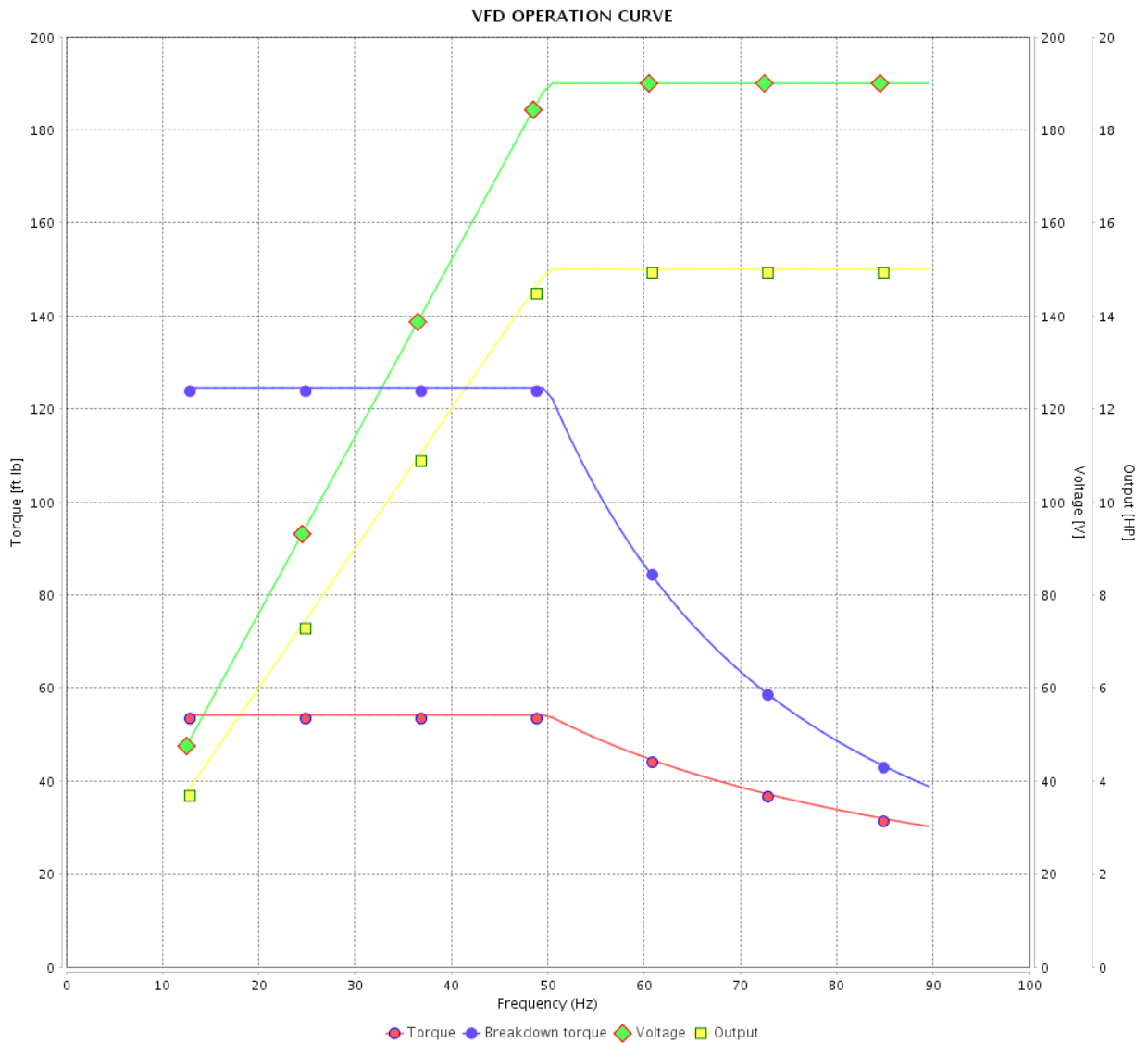


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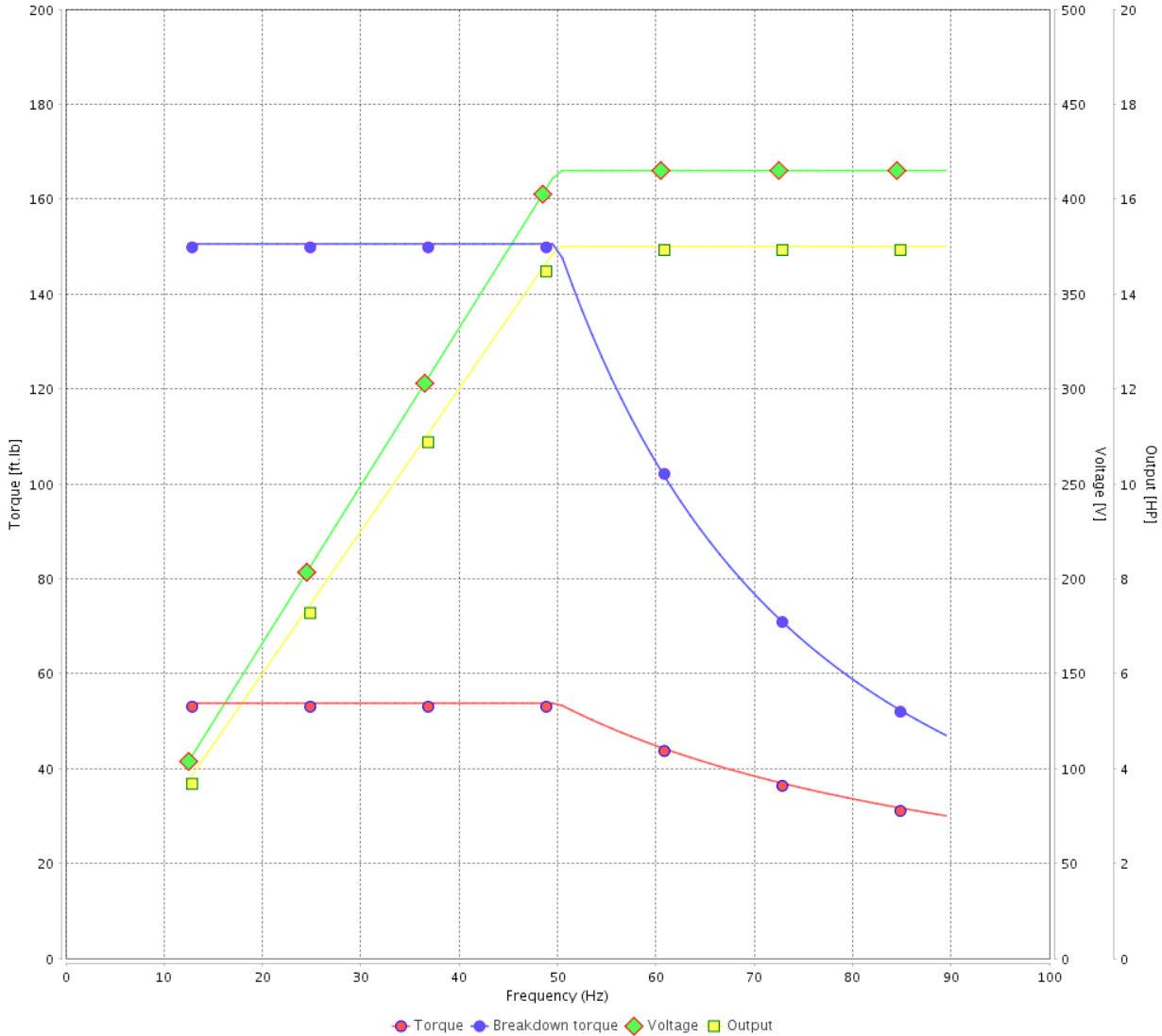
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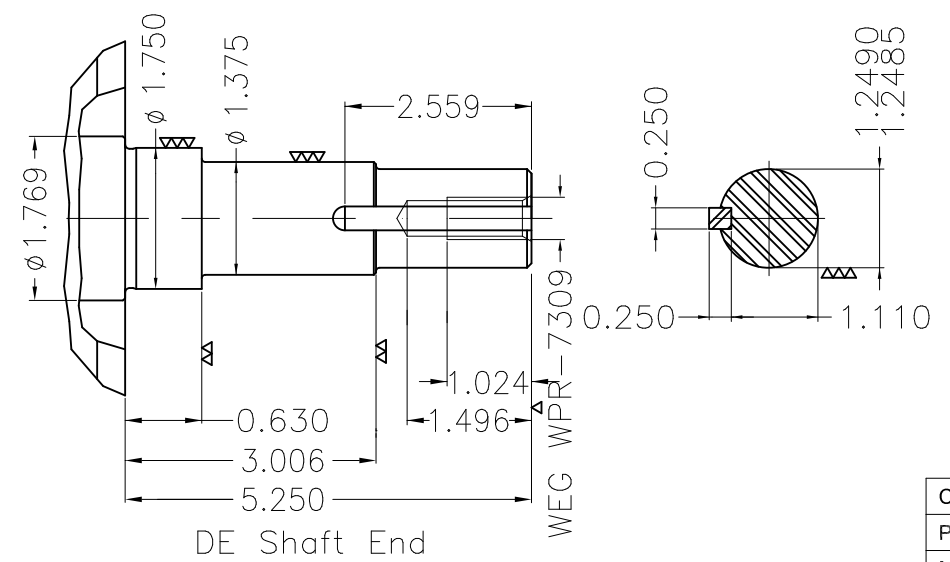
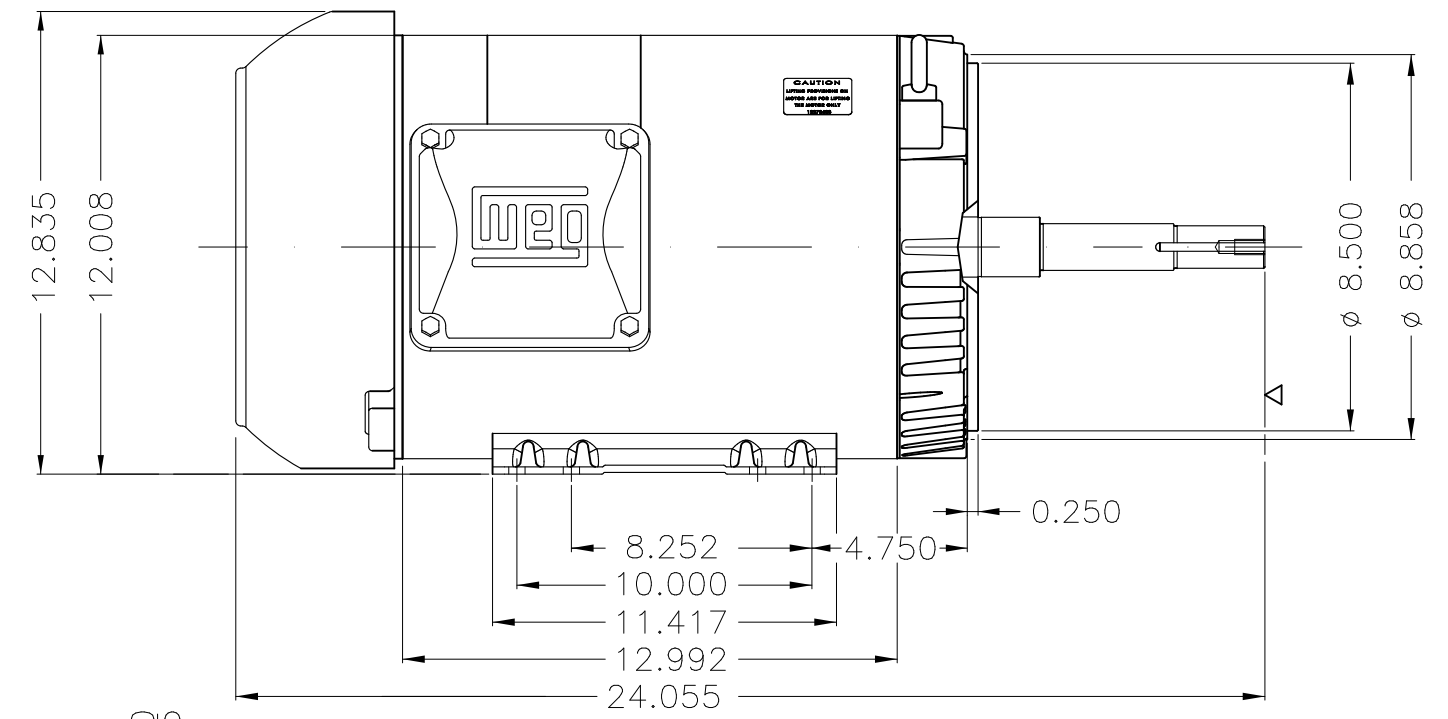
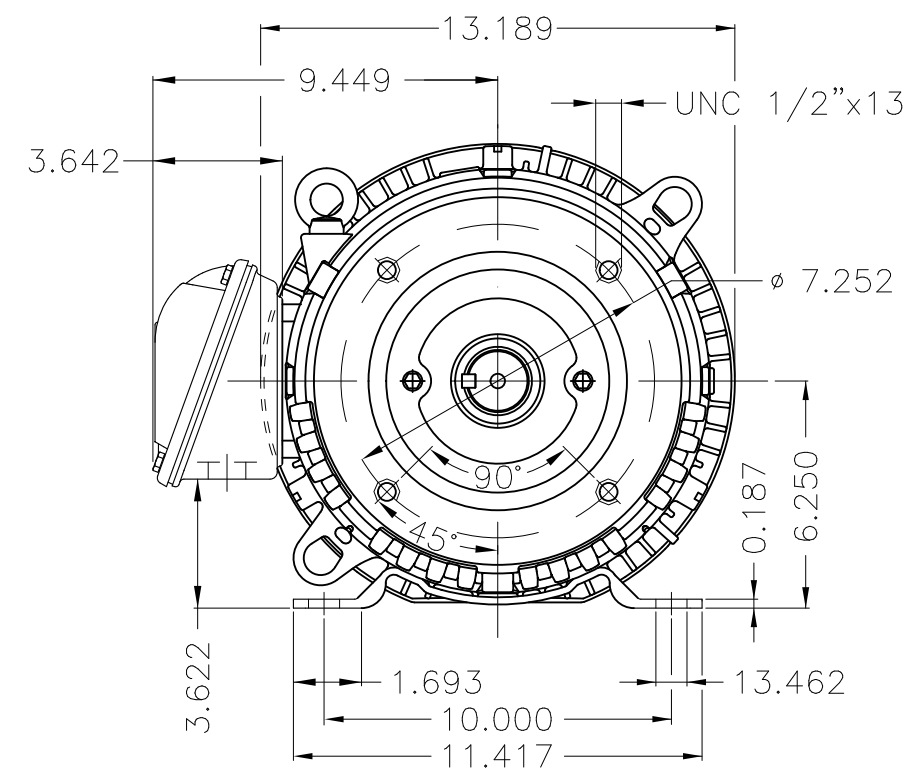
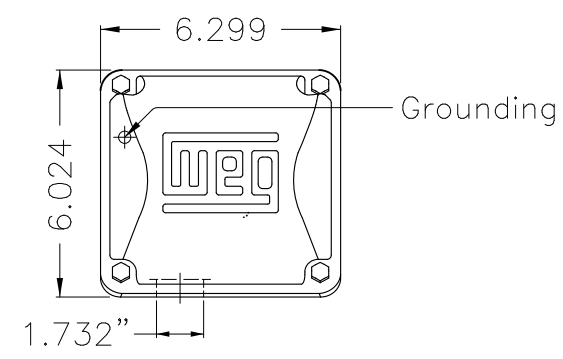
A

B

C

D

E



EUNC 1/2"-13 WEG WPR-7309

DE Shaft End

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	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 1/2"					
CHECKED		FRAME 254/6JM IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD			

PREVIEW



15 HP 04 Poles 60 Hz



NEMA
Premium



MADE IN MEXICO

MAT: 13180573 CC029A

W01.TE0IC0X0N

JM015404NPW01

01APR2022 S/N:

For 60Hz: Class I, Zone 2, IIC
Class I, Div.2, Gr. A,B,C,D - T3
Div 2 Inverter Duty (SF1.00)

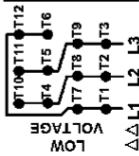
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 15
FR 254/6JM		KW 11
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 36.4/18.2
INS CL F AT 80K	IP55	SFA 41.9/20.9
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE G	PF 0.82
USABLE @ 208V 40.3A		RPM 1770
SF1.00		NEMA NOM. EFF 92.4%

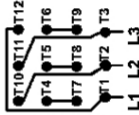
ALTERNATE RATING: 15HP	50Hz	190-220/380-415V	SF1.00
43.8-38.9/21.9-20.6A	1455RPM	EFF 89.9% (IE2)	IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	200000h
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LOW
VOLTAGE



HIGH
VOLTAGE

△△ L1 L2 L3

△ L1 L2 L3

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.

