

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	14808489	
		Catalog # :	00218ET3E145JM-S	
Frame	: 143/5JM	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	: 45.5 lb	
Protection degree	: IP55	Moment of inertia (J)	: 0.1296 sq.ft.lb	
Design	: B			
Output [HP]	2	2	2	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	5.44/2.72	6.50/3.25	5.89/3.12	
L. R. Amperes [A]	44.6/22.3	39.0/19.5	39.4/20.9	
LRC [A]	8.2x(Code K)	6.0x(Code H)	6.7x(Code J)	
No load current [A]	2.80/1.40	2.75/1.37	2.87/1.52	
Rated speed [RPM]	1745	1415	1425	
Slip [%]	3.06	5.67	5.00	
Rated torque [ft.lb]	6.02	7.42	7.37	
Locked rotor torque [%]	270	210	240	
Breakdown torque [%]	300	240	270	
Service factor		1.00	1.00	
Temperature rise	80 K	105 K	105 K	
Locked rotor time	27s (cold) 15s (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%	86.0	87.1	86.0
	50%	85.5	85.4	84.9
	75%	87.5	84.9	85.2
	100%	86.5	82.6	83.6
Power Factor	25%	0.35	0.42	0.38
	50%	0.60	0.68	0.64
	75%	0.73	0.80	0.76
	100%	0.80	0.85	0.83
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	: 150 lb	
		Max. compression	: 196 lb	
Lubrication interval	: -			
Lubricant amount	: -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 6.02A SF 1.00 SFA 6.02A				
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

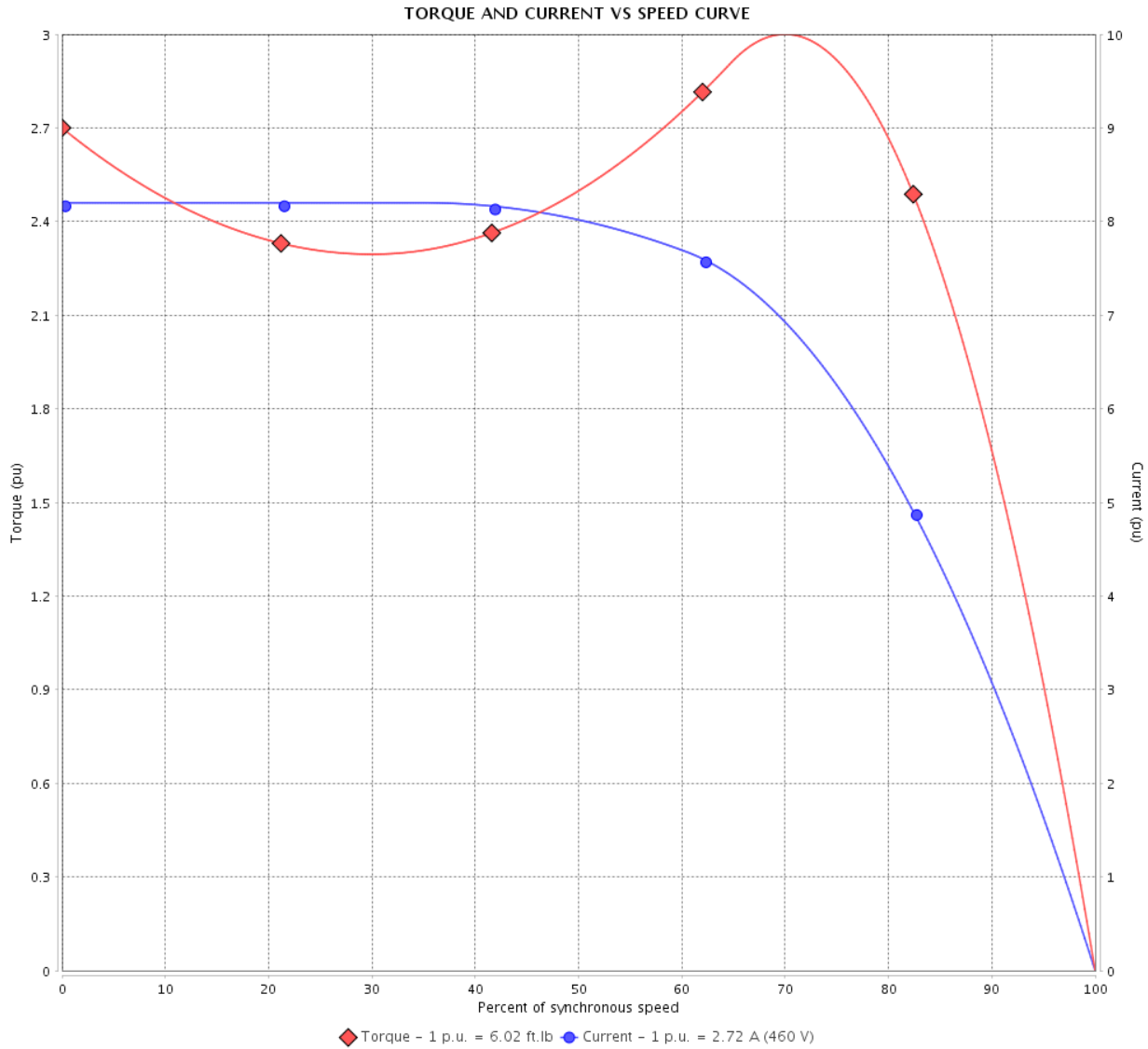


Customer :

Product line : JM Pump NEMA Premium
Efficiency Three-Phase

Product code : 14808489

Catalog # : 00218ET3E145JM-S



Performance : 230/460 V 60 Hz 4P

Rated current : 5.44/2.72 A
LRC : 8.2
Rated torque : 6.02 ft.lb
Locked rotor torque : 270 %
Breakdown torque : 300 %
Rated speed : 1745 rpm

Moment of inertia (J) : 0.1296 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K
Design : B

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



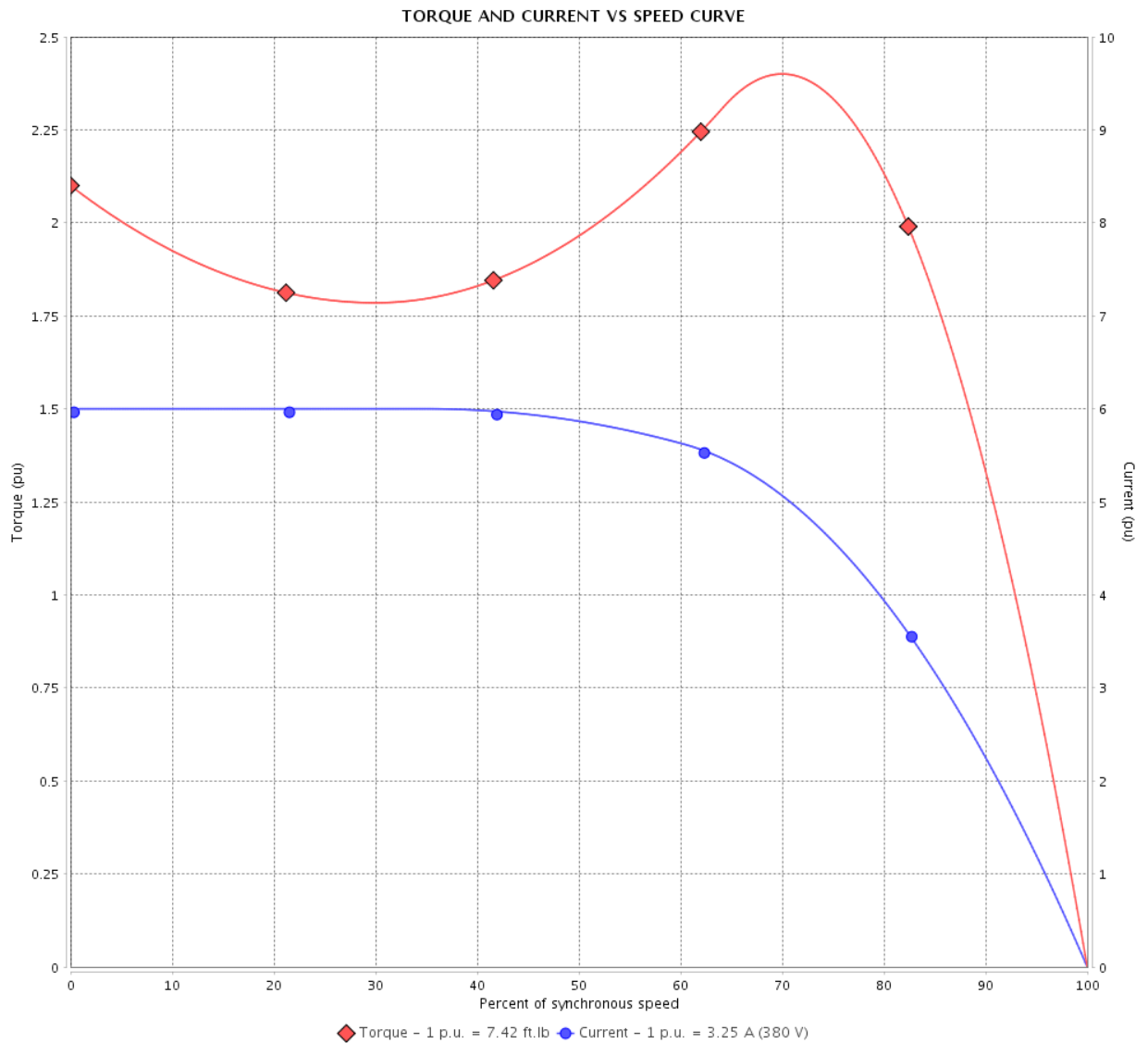
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 14808489

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Performance : 190/380 V 50 Hz 4P

Rated current : 6.50/3.25 A
 LRC : 6.0
 Rated torque : 7.42 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 240 %
 Rated speed : 1415 rpm

Moment of inertia (J) : 0.1296 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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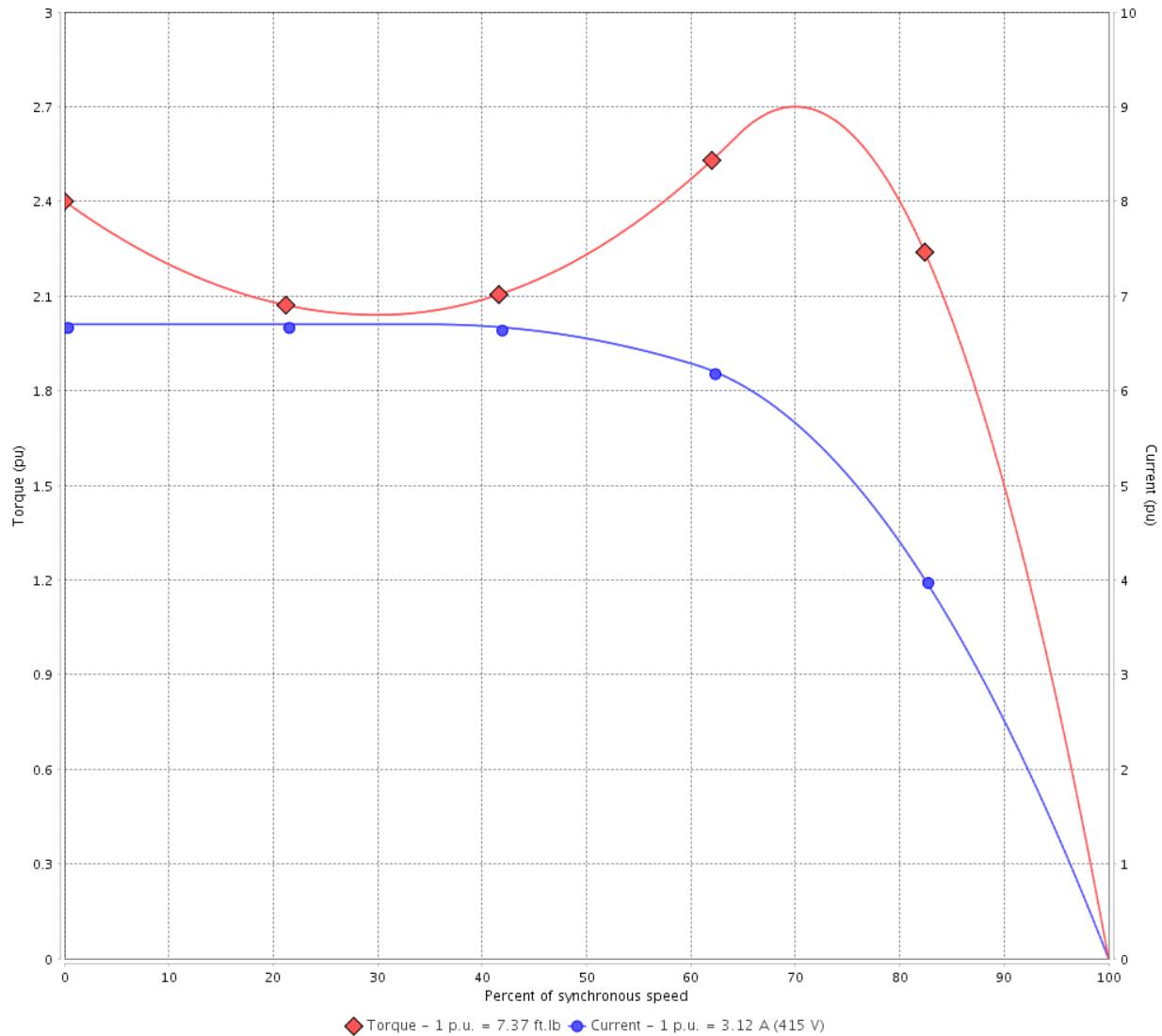
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 5.89/3.12 A	Moment of inertia (J)	: 0.1296 sq.ft.lb
LRC	: 6.7	Duty cycle	: Cont.(S1)
Rated torque	: 7.37 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 105 K
Rated speed	: 1425 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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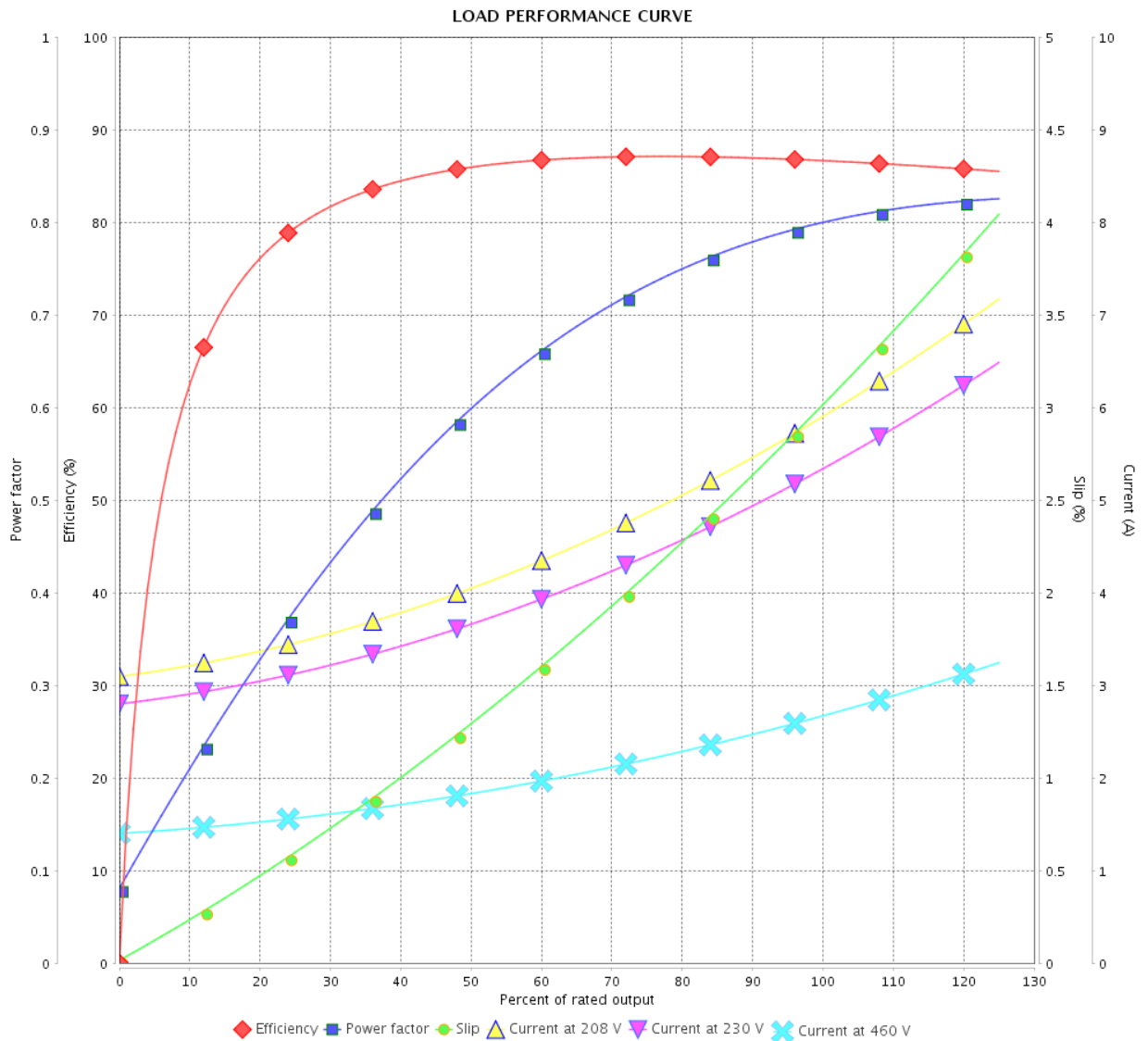


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 Service factor :
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 Design : B

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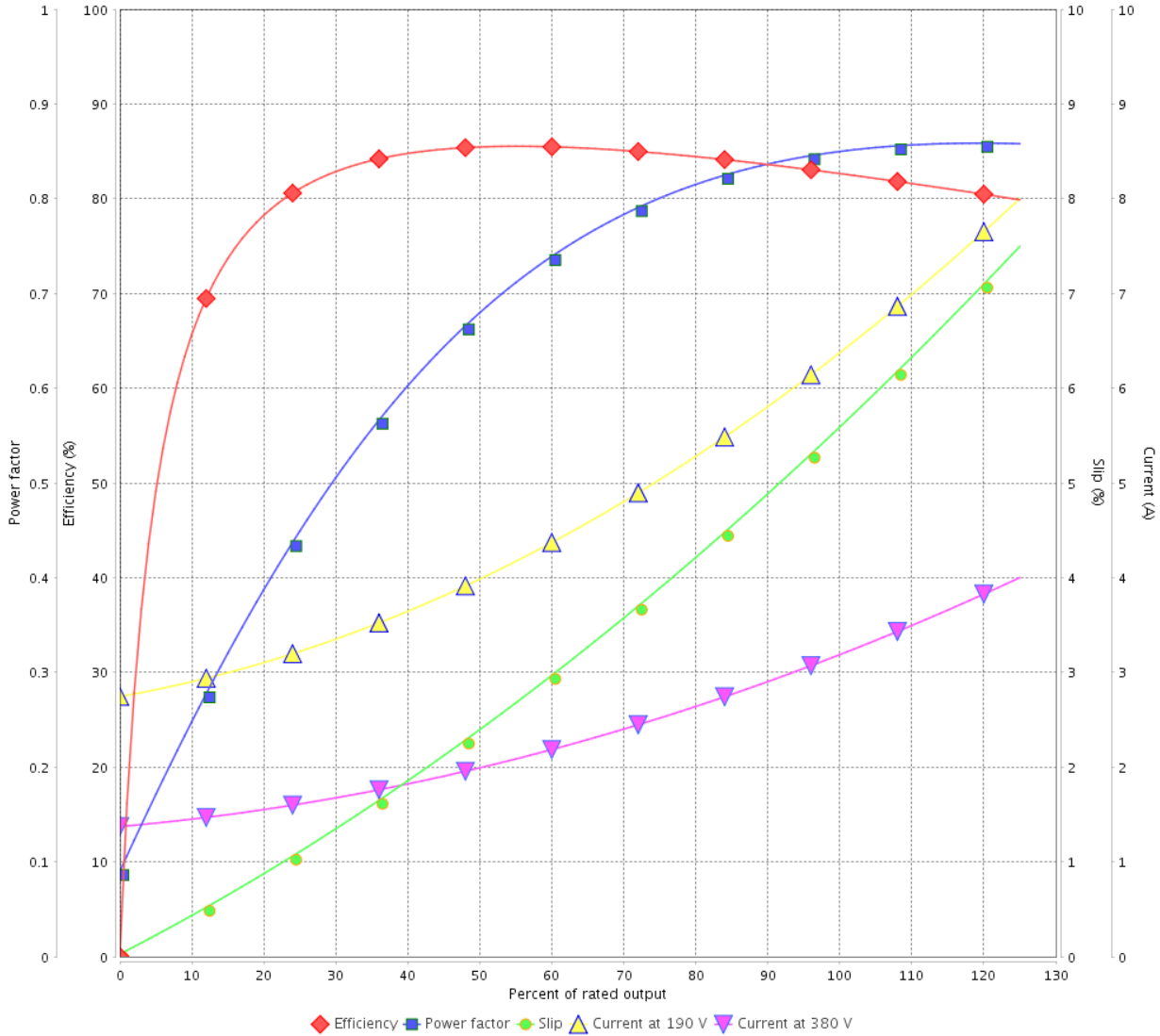
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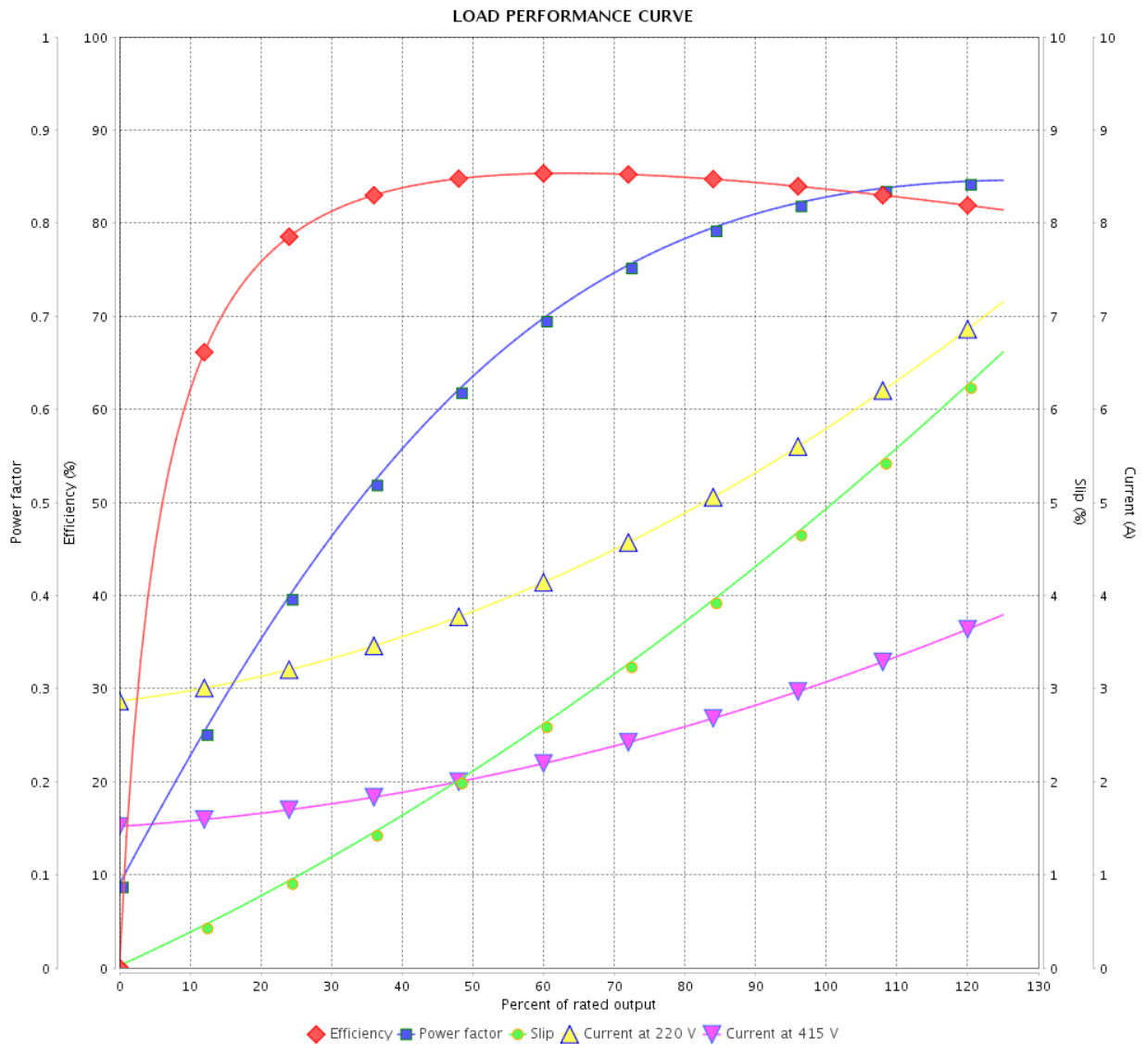


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THERMAL LIMIT CURVE



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Service factor :
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Design : B

Heating constant

Cooling constant

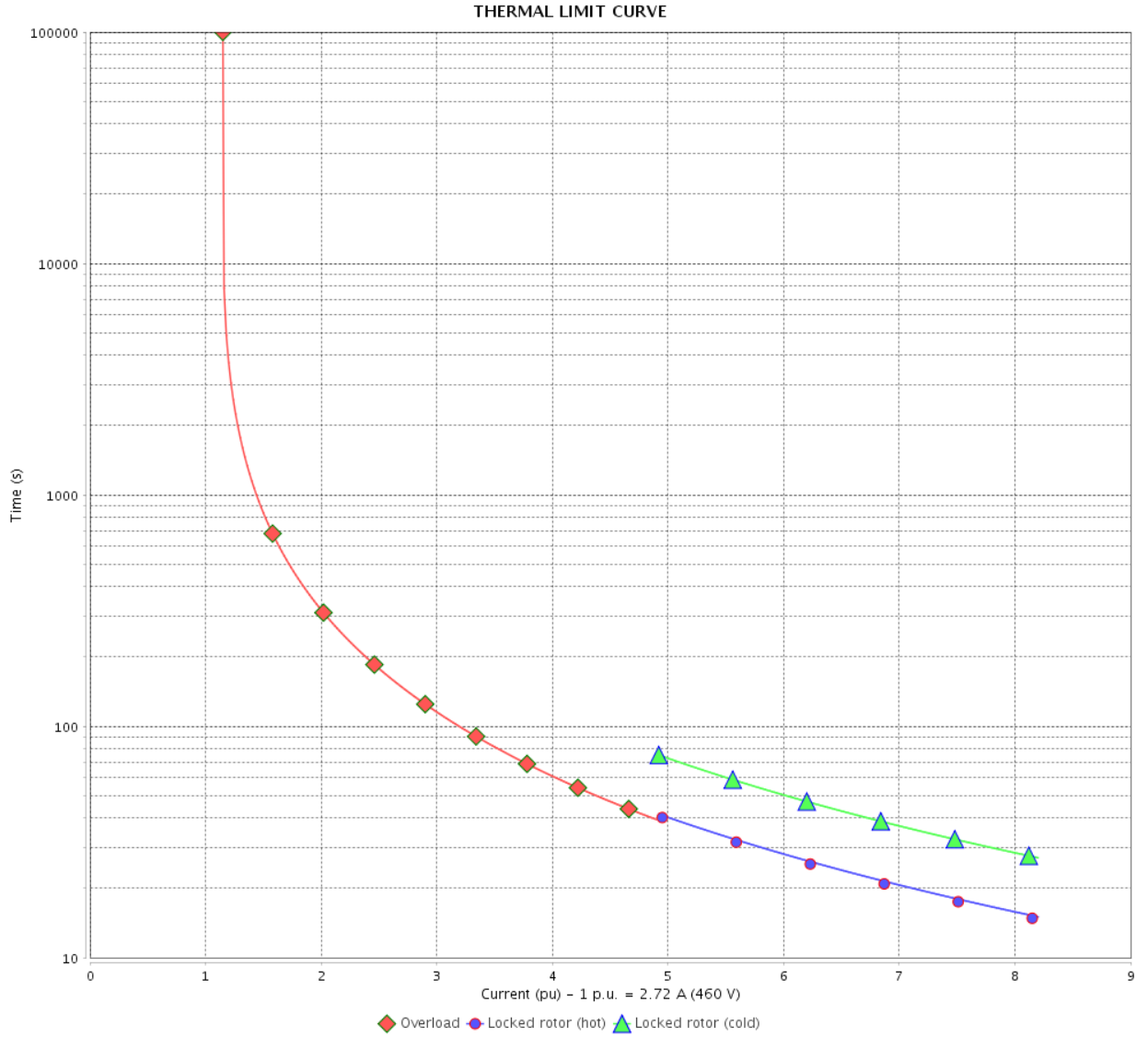
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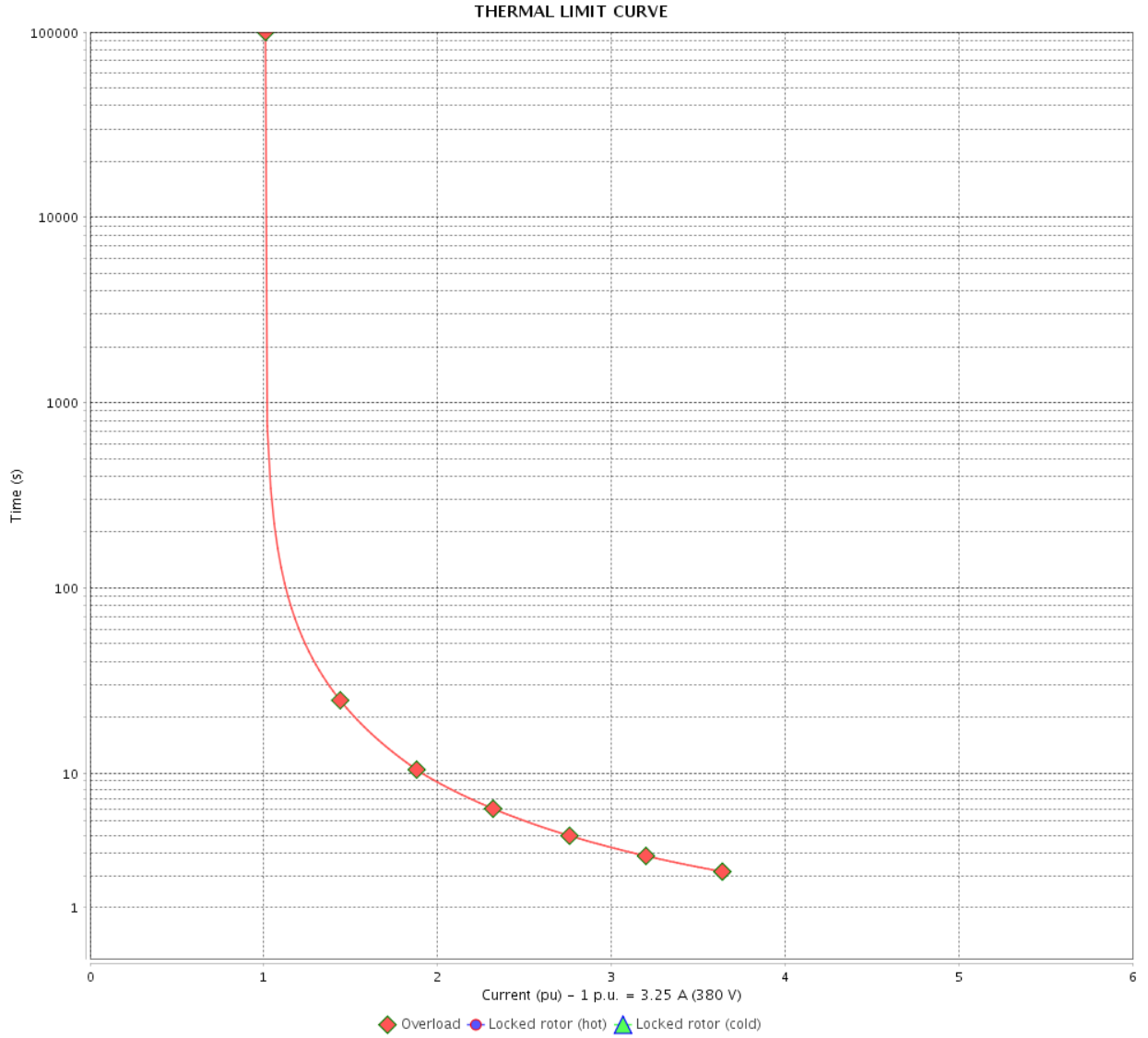
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Cooling constant

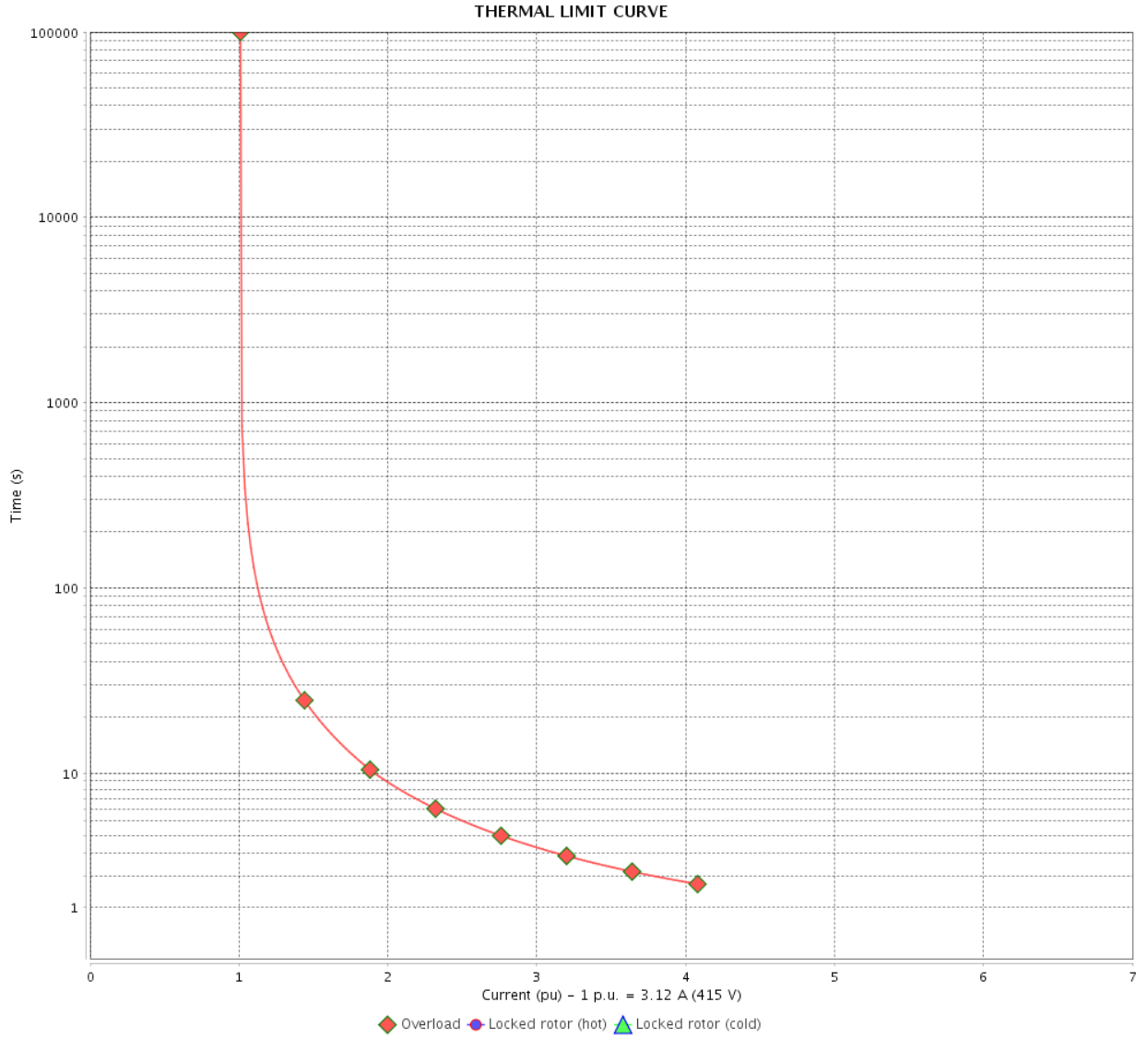
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VFD OPERATION CURVE

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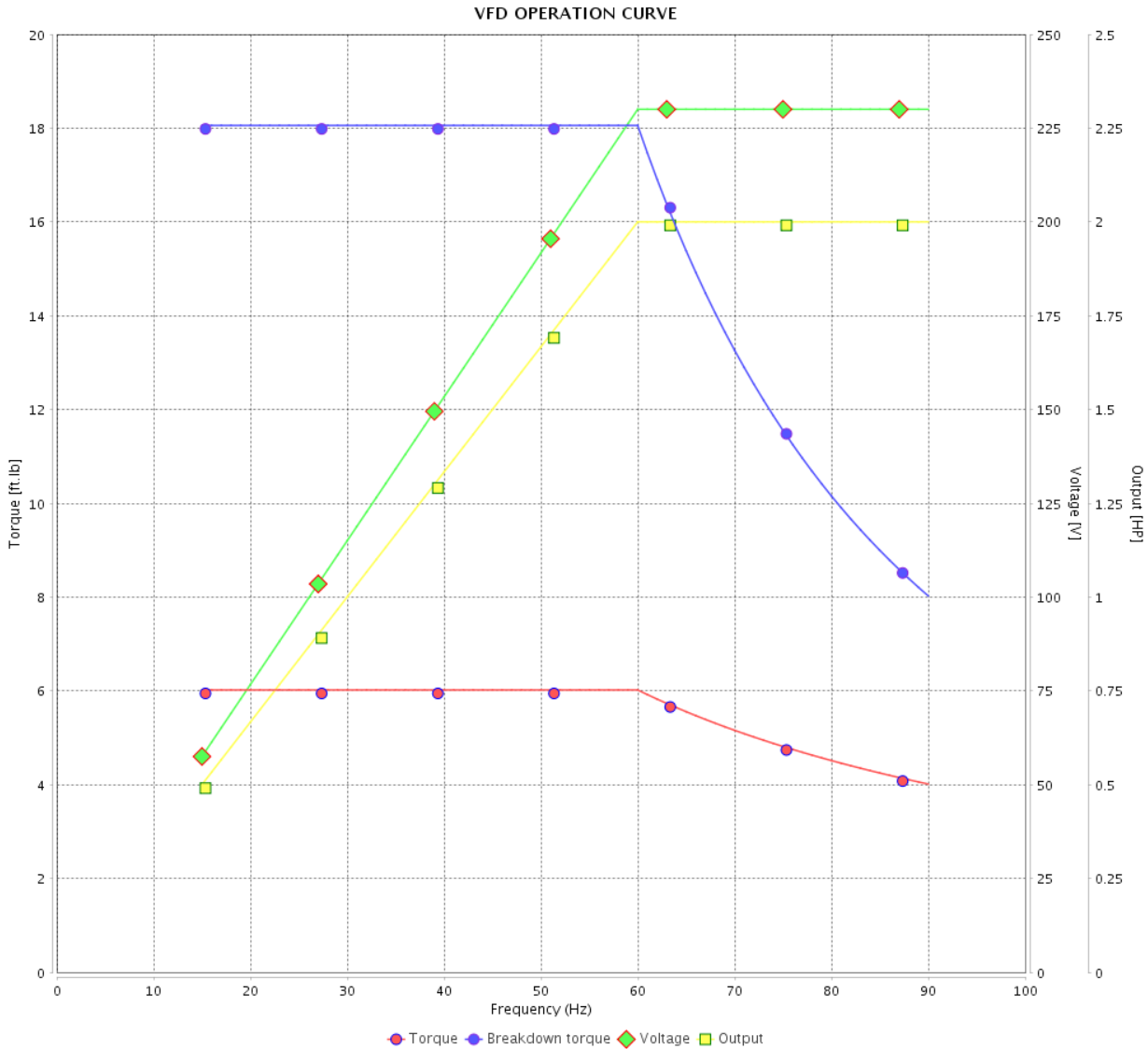


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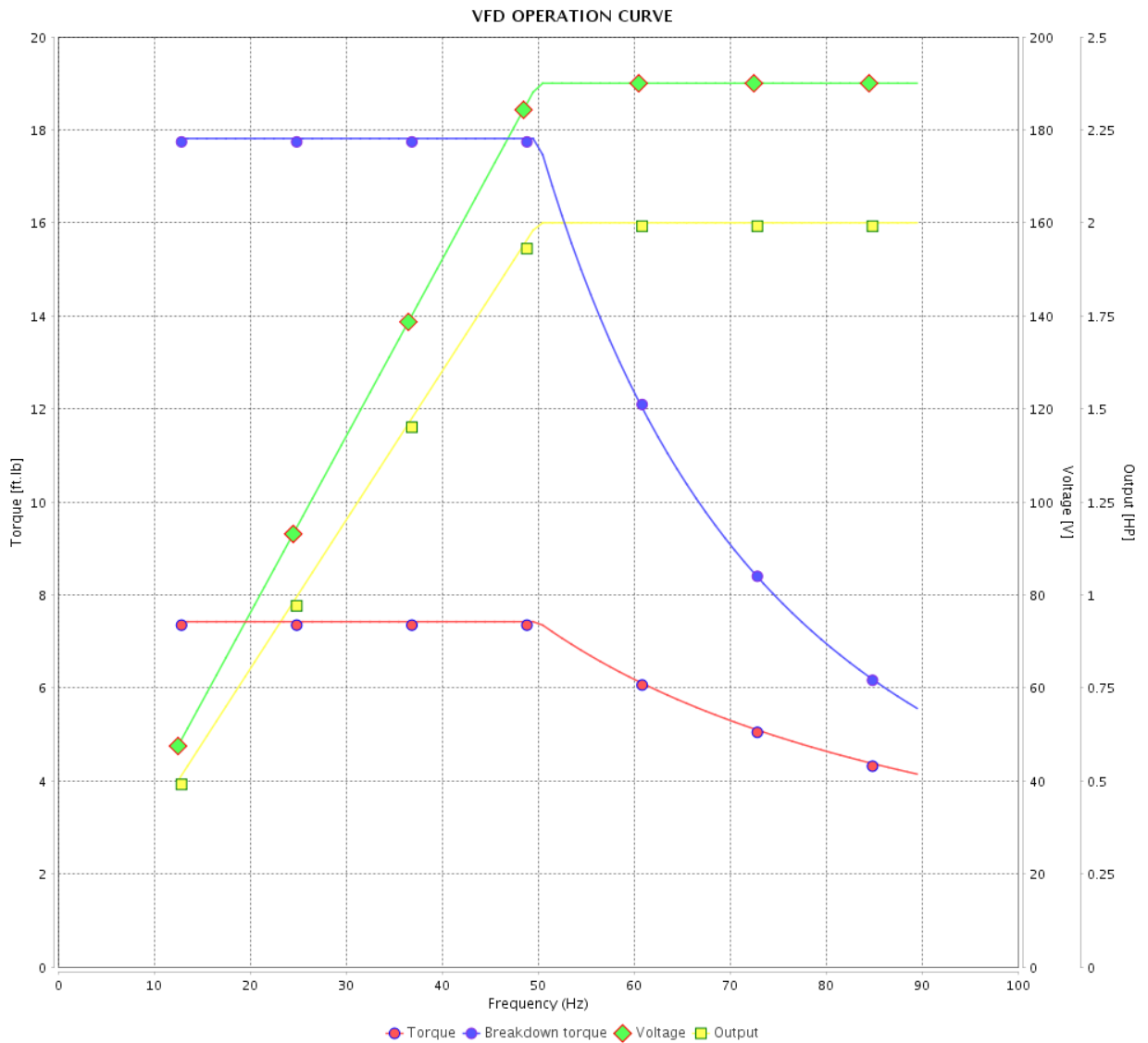


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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 Design : B

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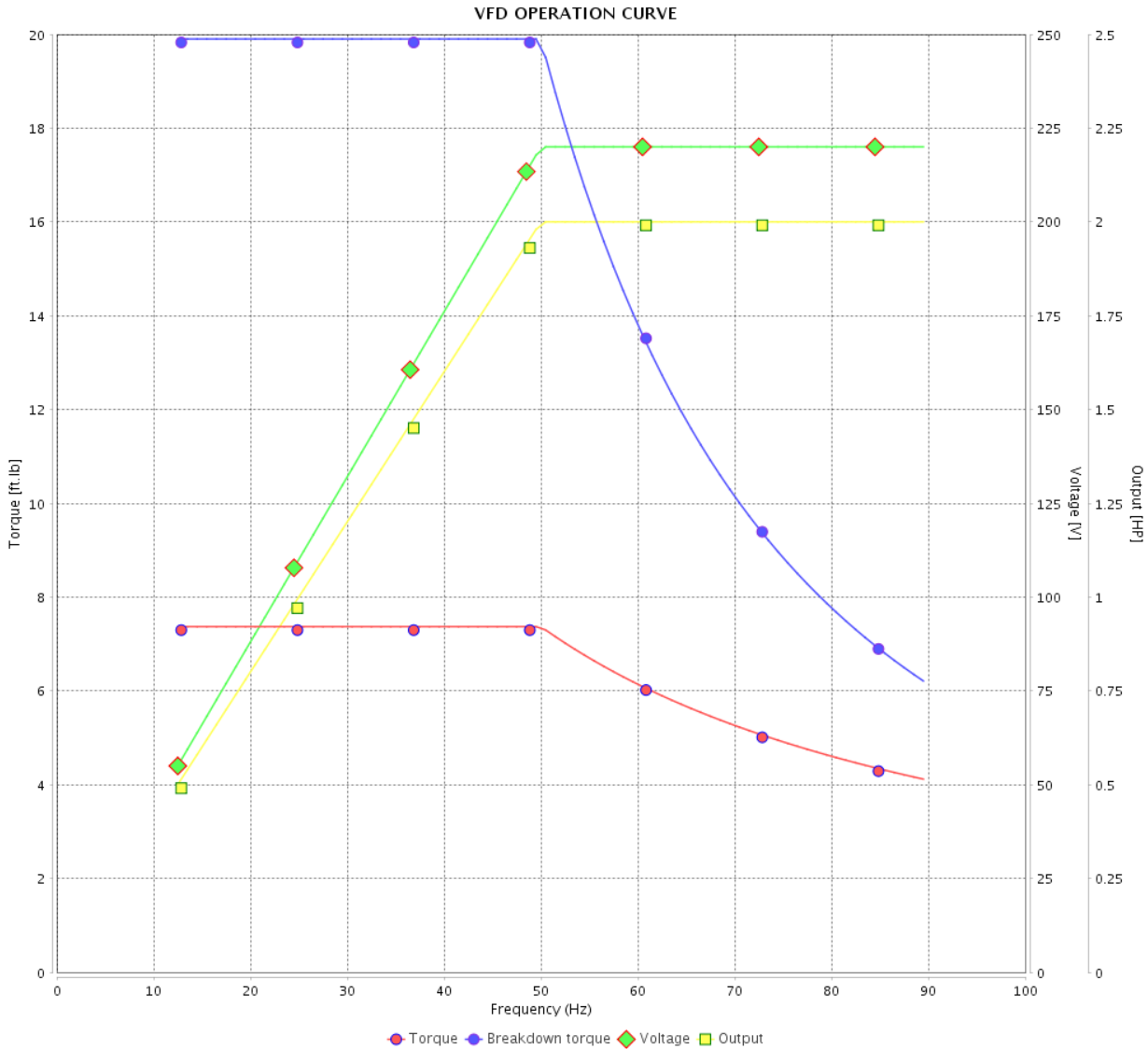


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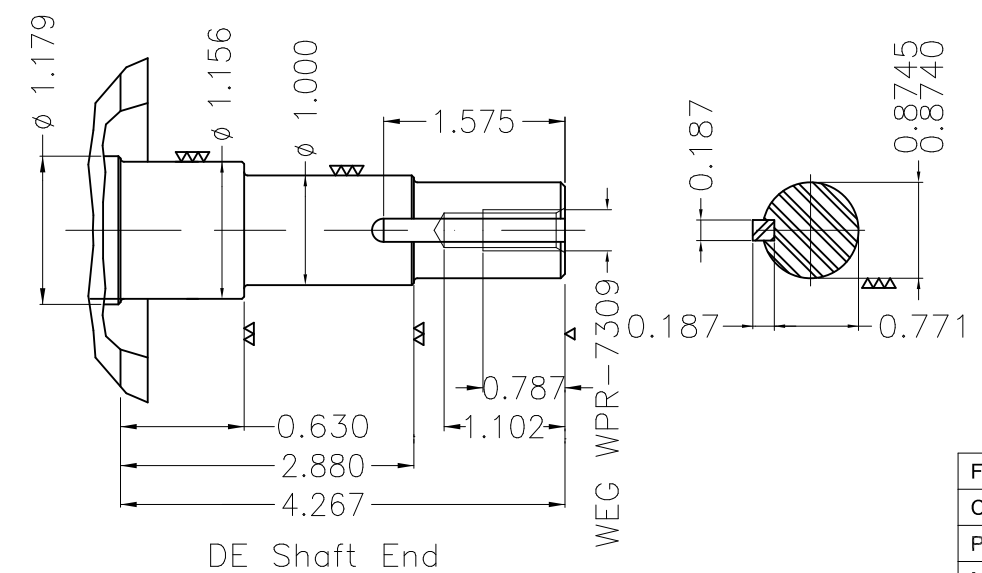
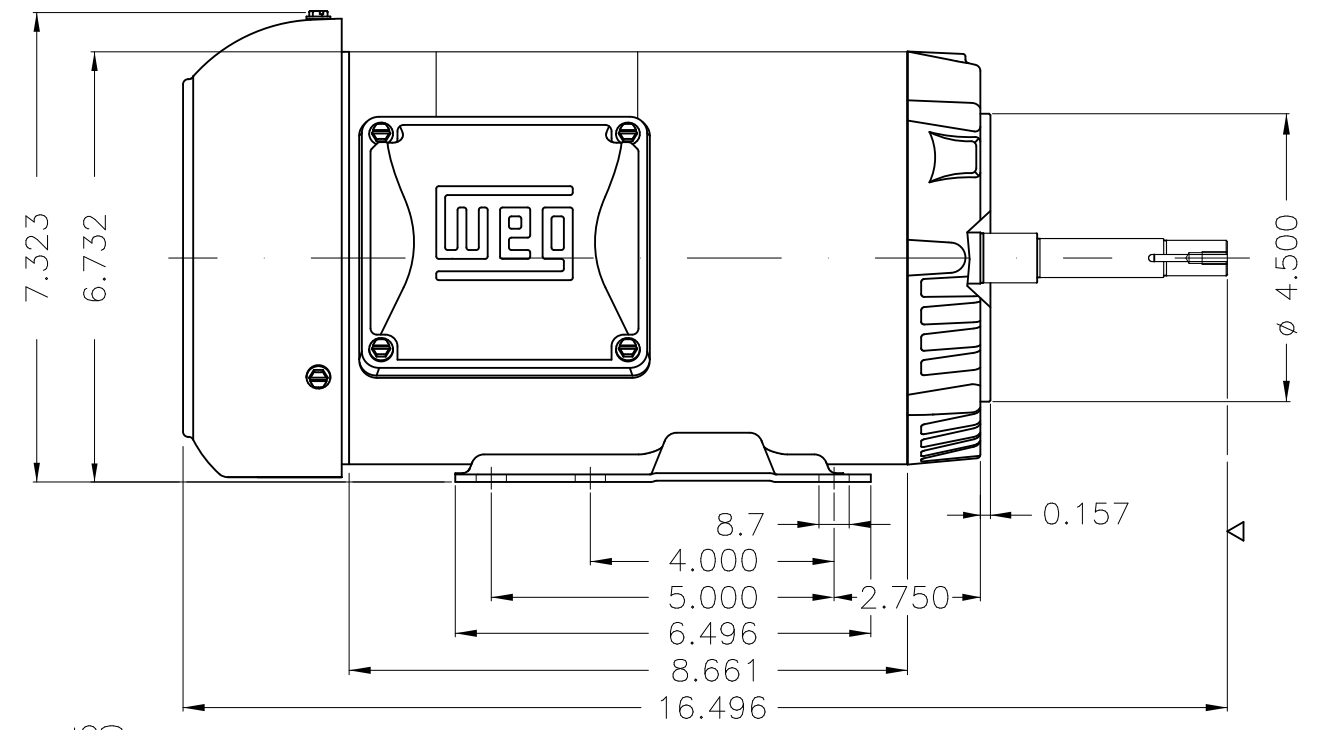
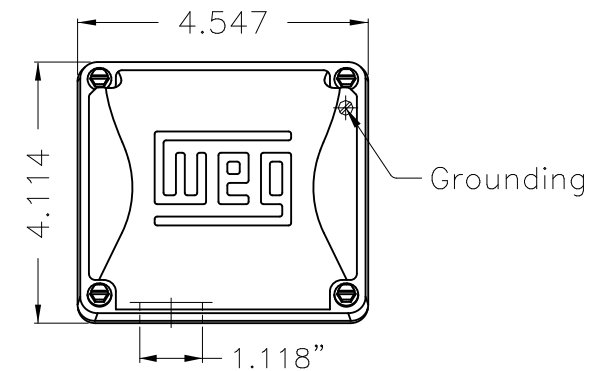
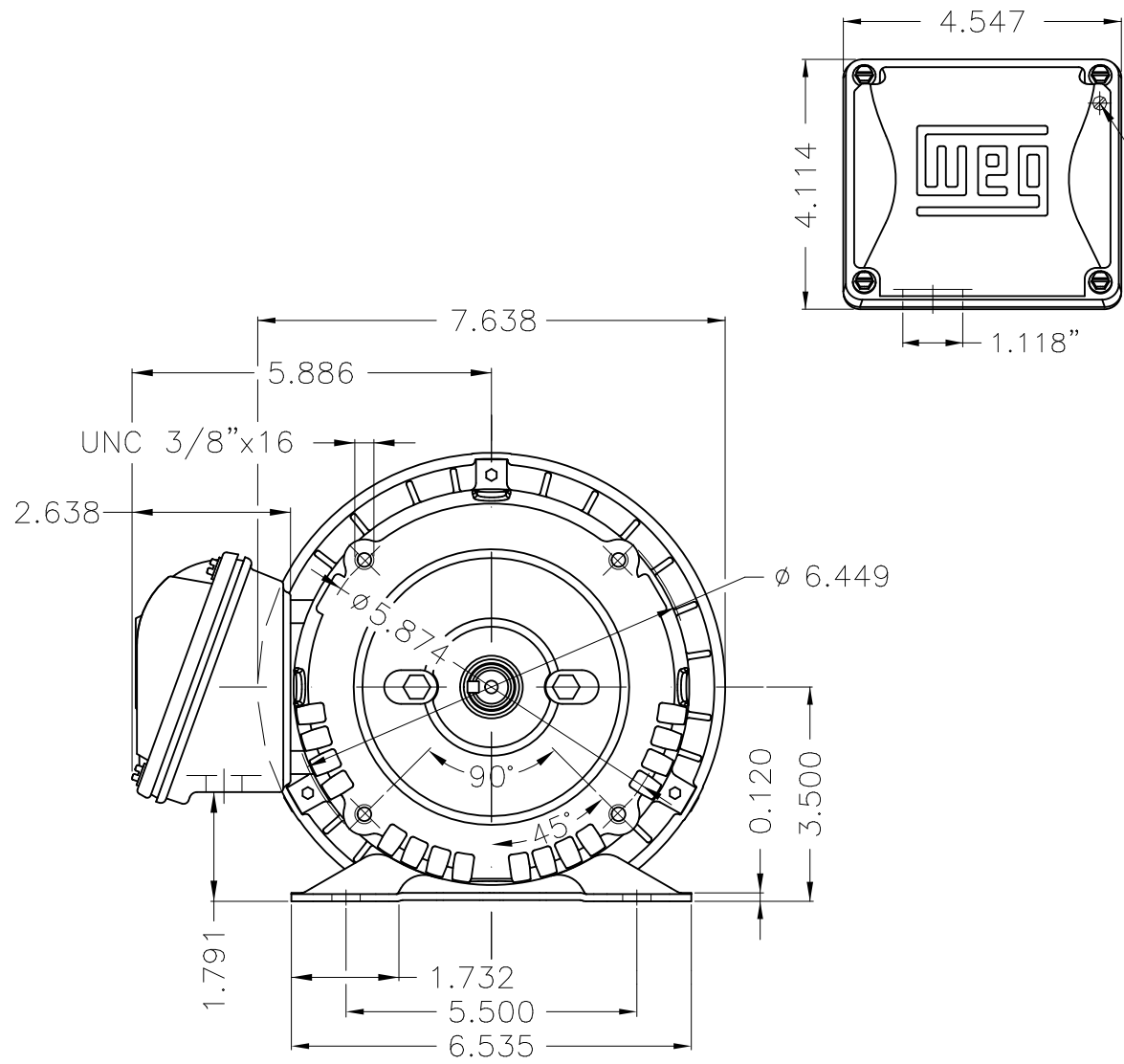
Rated current : 5.89/3.12 A
LRC : 6.7
Rated torque : 7.37 ft.lb
Locked rotor torque : 240 %
Breakdown torque : 270 %
Rated speed : 1425 rpm

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Duty cycle : Cont.(S1)
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Temperature rise : 105 K
Design : B

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1 2 3 4 5 6

A
B
C
D
E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

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 JN TYPE PSE 143			PREVIEW WDD		REL DT.	WMO
CHECKED			FRAME 143/5JM IP55 TEFC						
RELEASED									
REL DT.			Jaragua do Sul	Product Engineering	SHEET	1 / 1			

2 HP 04 Poles 60 Hz

Dimensions in inches XME A3

**NEMA
Premium**3PT9
UL US LISTED
FOR SAFE AREA

Energy Verified

MADE IN BRAZIL

MAT: 14808489 CC029A**W01.TE0IC0X0N****MODEL 00218ET3E145JM-S****07APR2022 B/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 2.0
FR 143/5JM		KW 1.5
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 5.44/2.72
INS CL F AT 80K	IP55	SFA 6.26/3.13
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE K	PF 0.80
USABLE @ 208V 6.02A		RPM 1745
SF1.00		NEMA NOM. EFF 86.5%

ALTERNATE RATING: 2.0HP 50Hz 190-220/380-415V SF1.00
6.50-5.79/3.25-3.07A 1415RPM EFF 82.6% (IE1) IEC 60034-1

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

