

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer		:	
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12677285
		Catalog # :	00152ET3ER182TC-S
Frame	: 182/4TC	Cooling method	: IC411 - TEFC
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	: 77.8 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.2800 sq.ft.lb
Design	: B		
Output [HP]	1.5	1.5	1.5
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	4.44/2.22	5.18/2.59	4.73/2.51
L. R. Amperes [A]	30.6/15.3	29.5/14.8	29.8/15.8
LRC [A]	6.9x(Code K)	5.7x(Code H)	6.3x(Code J)
No load current [A]	2.73/1.36	2.69/1.34	2.74/1.46
Rated speed [RPM]	1170	955	960
Slip [%]	2.50	4.50	4.00
Rated torque [ft.lb]	6.73	8.25	8.21
Locked rotor torque [%]	240	190	220
Breakdown torque [%]	340	260	290
Service factor	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	99s (cold) 55s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	52.0 dB(A)	50.0 dB(A)	50.0 dB(A)
Efficiency (%)	25%	82.8	83.2
	50%	84.0	83.5
	75%	86.5	85.5
	100%	87.5	85.4
Power Factor	25%	0.29	0.31
	50%	0.50	0.54
	75%	0.63	0.66
	100%	0.71	0.74
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 113 lb
		Max. compression	: 191 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 4.91A SF 1.00 SFA 4.91A			
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



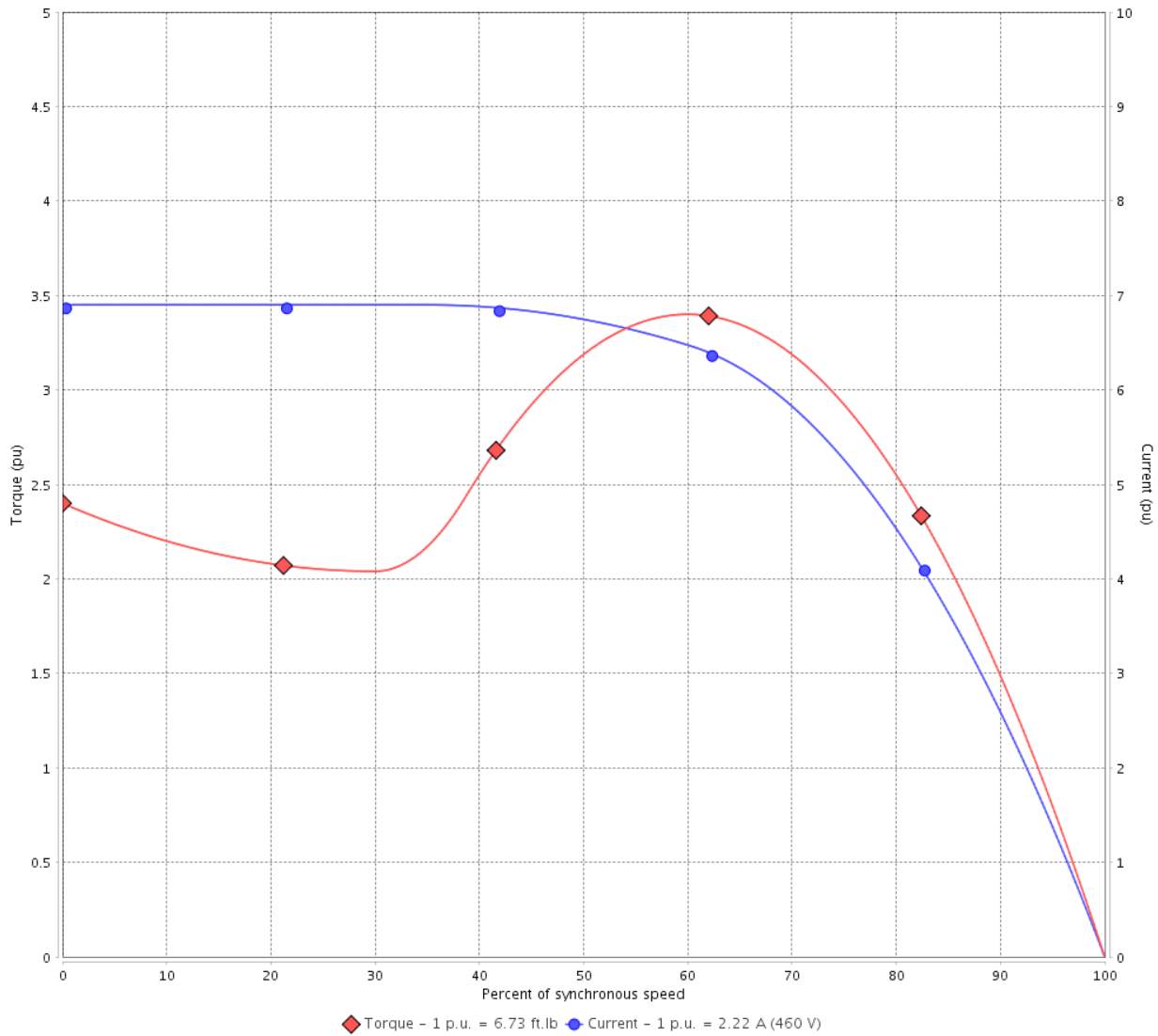
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677285

Catalog # : 00152ET3ER182TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 4.44/2.22 A
 LRC : 6.9
 Rated torque : 6.73 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 340 %
 Rated speed : 1170 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 99s (cold) 55s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



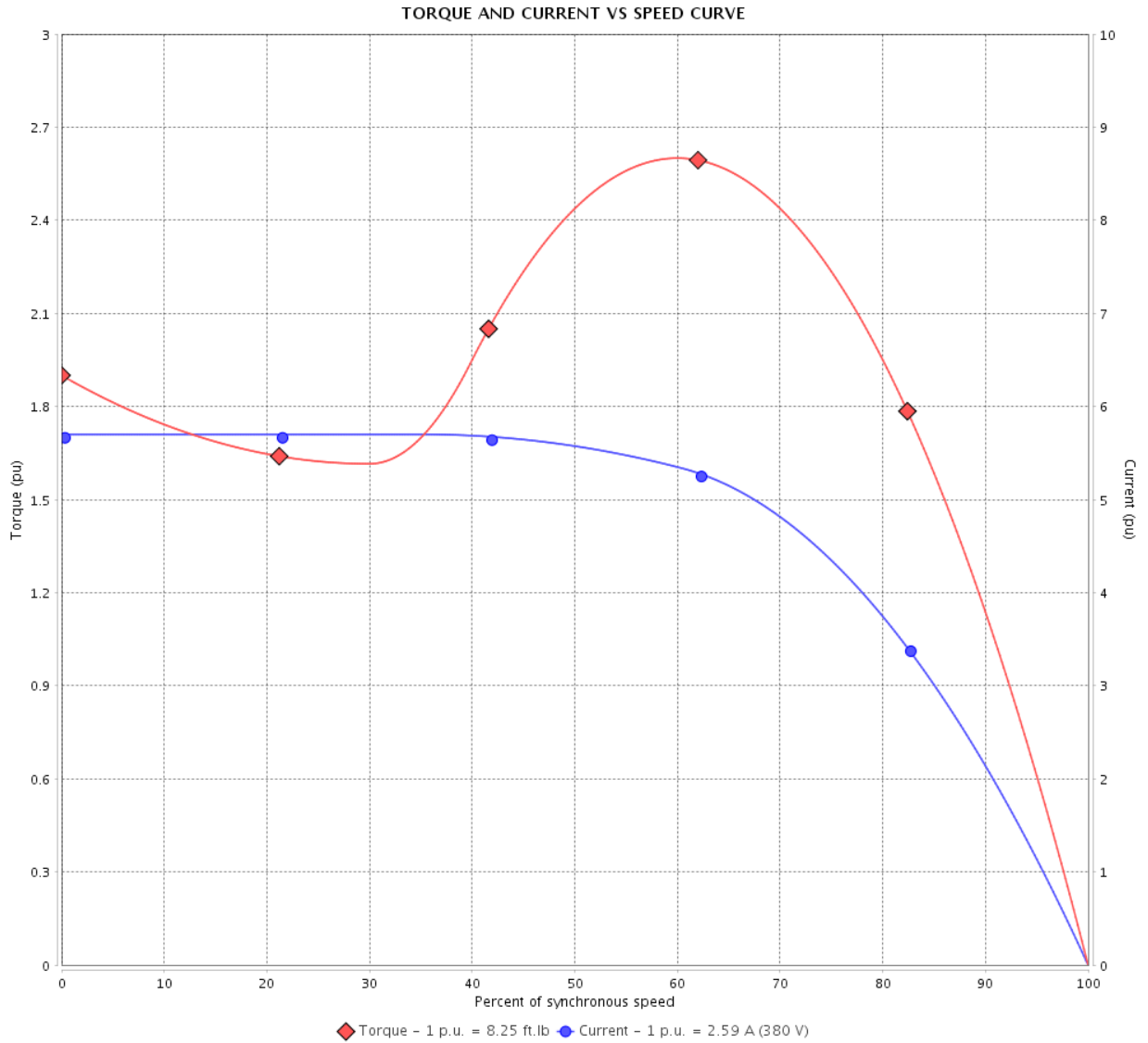
Three Phase Induction Motor - Squirrel Cage

Customer :

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Performance : 190/380 V 50 Hz 6P

Rated current : 5.18/2.59 A
 LRC : 5.7
 Rated torque : 8.25 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 260 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.2800 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

Three Phase Induction Motor - Squirrel Cage



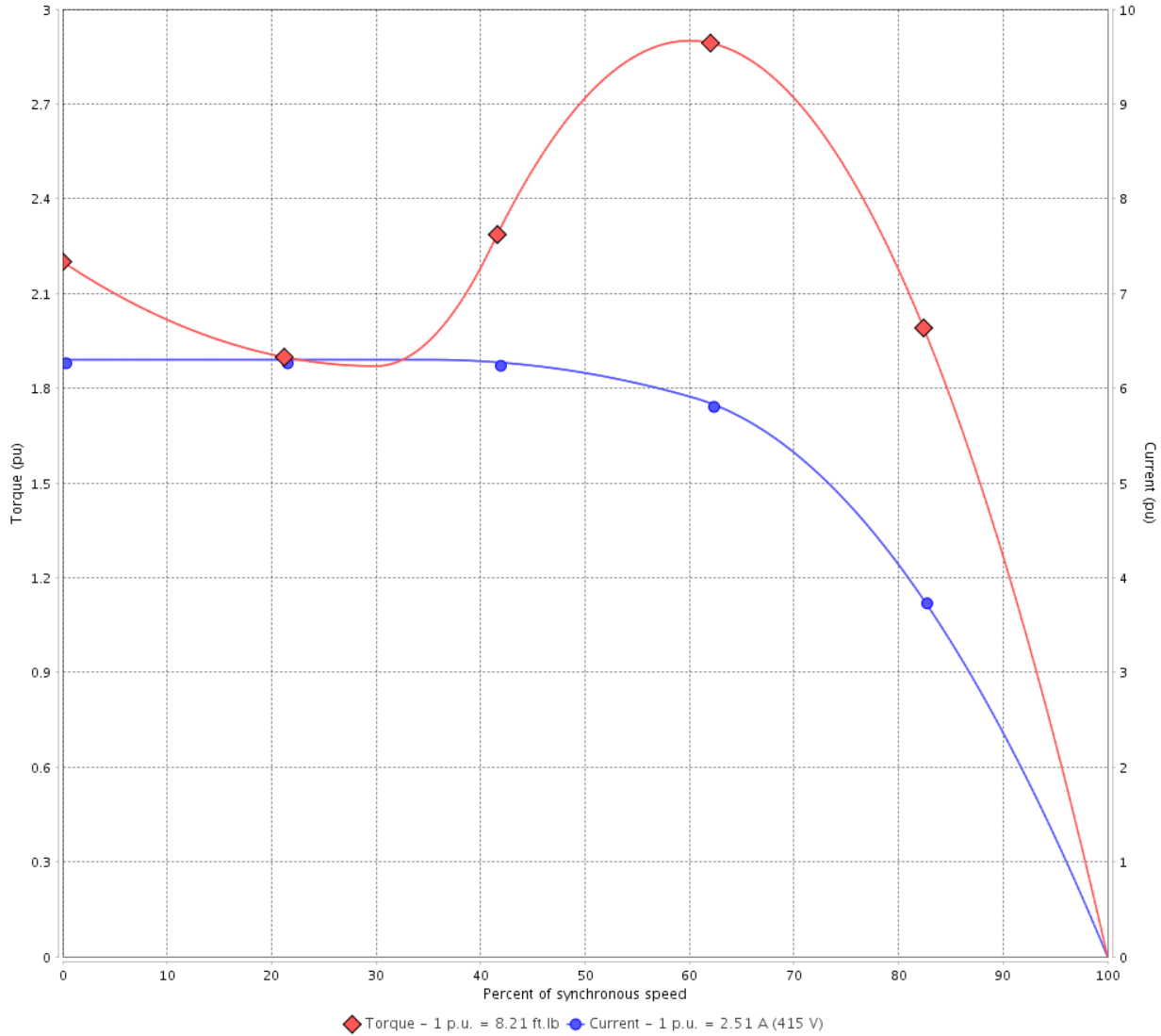
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 4.73/2.51 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.21 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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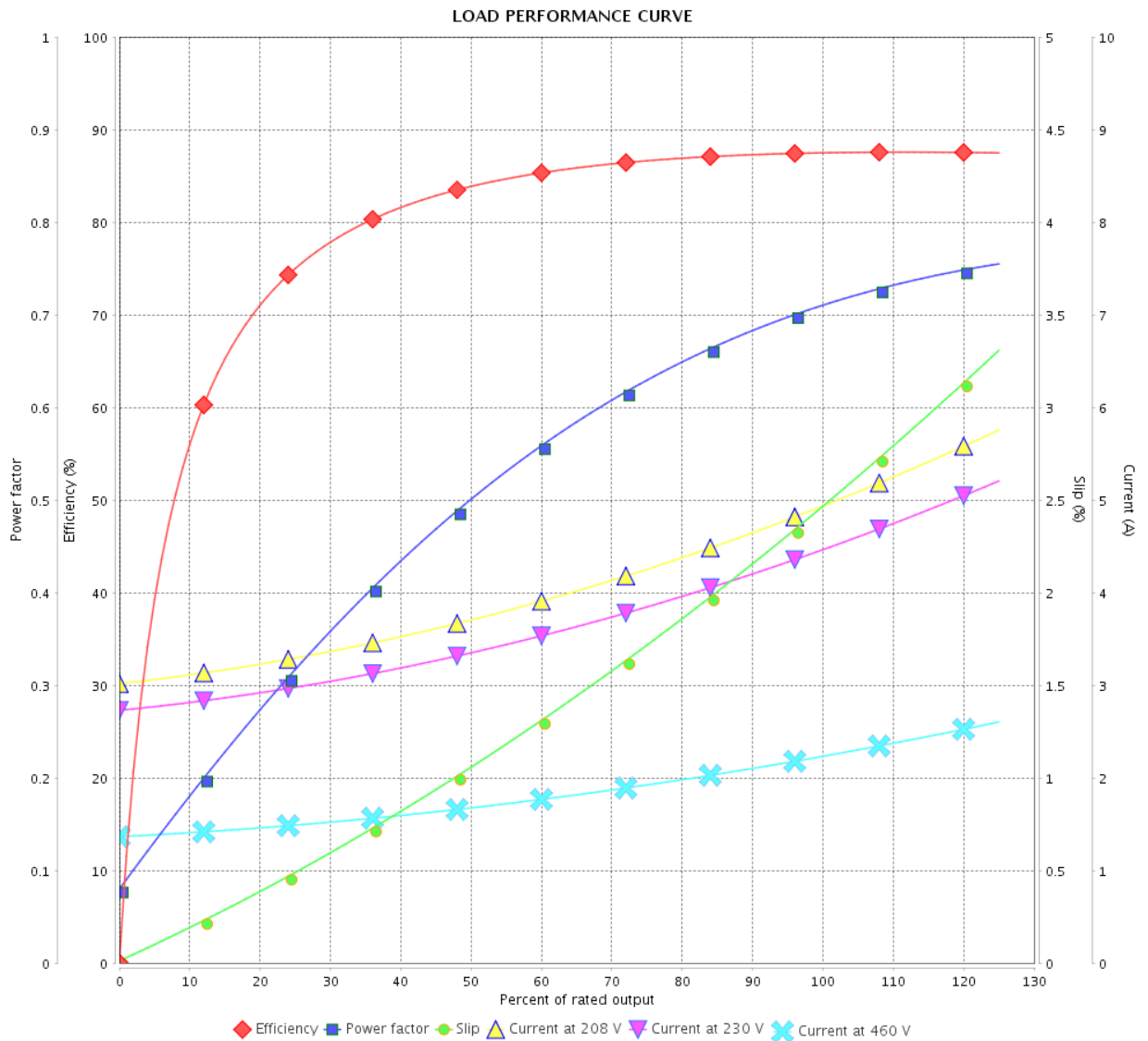


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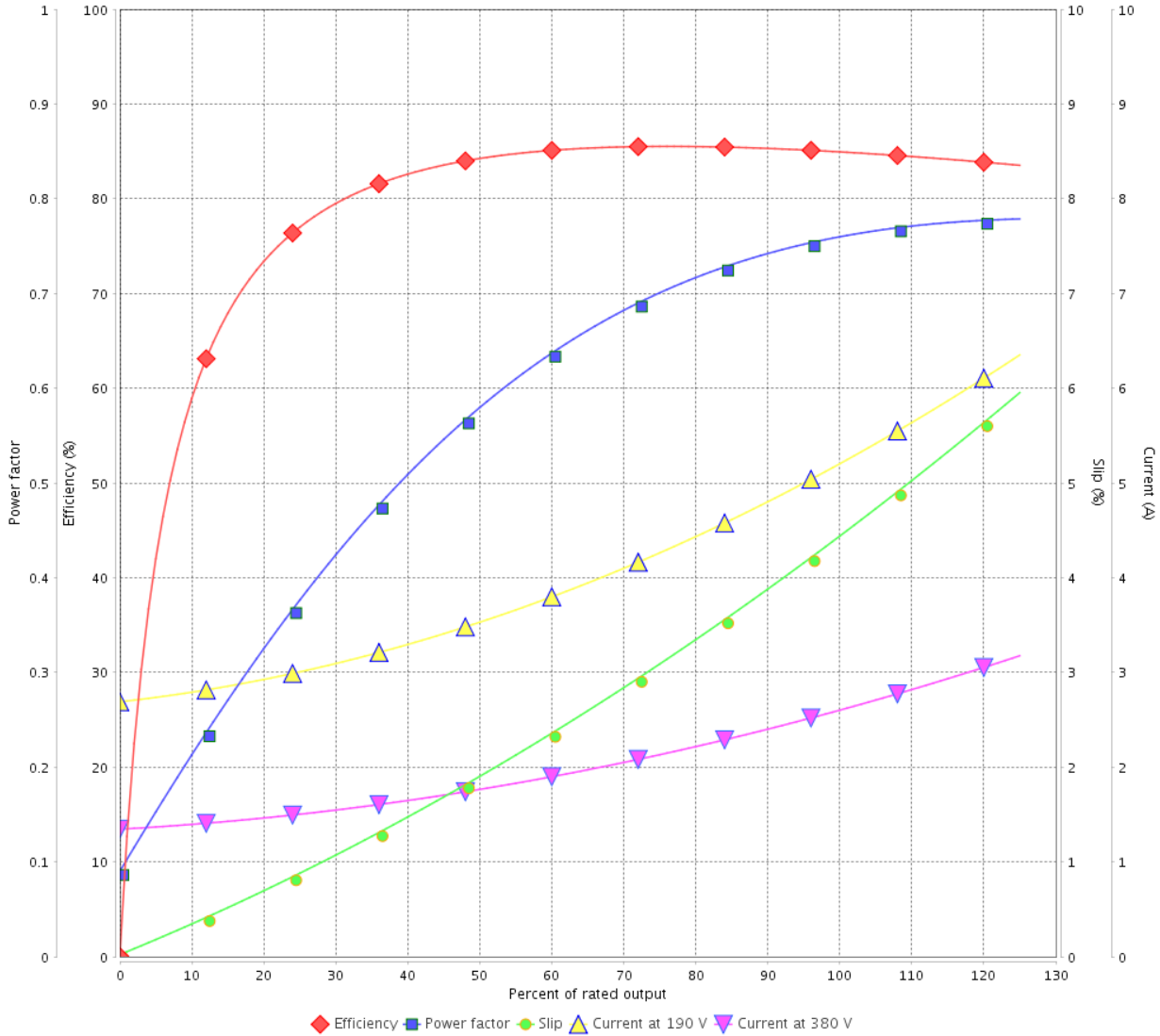
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 Locked rotor torque : 190 %
 Breakdown torque : 260 %
 Rated speed : 955 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
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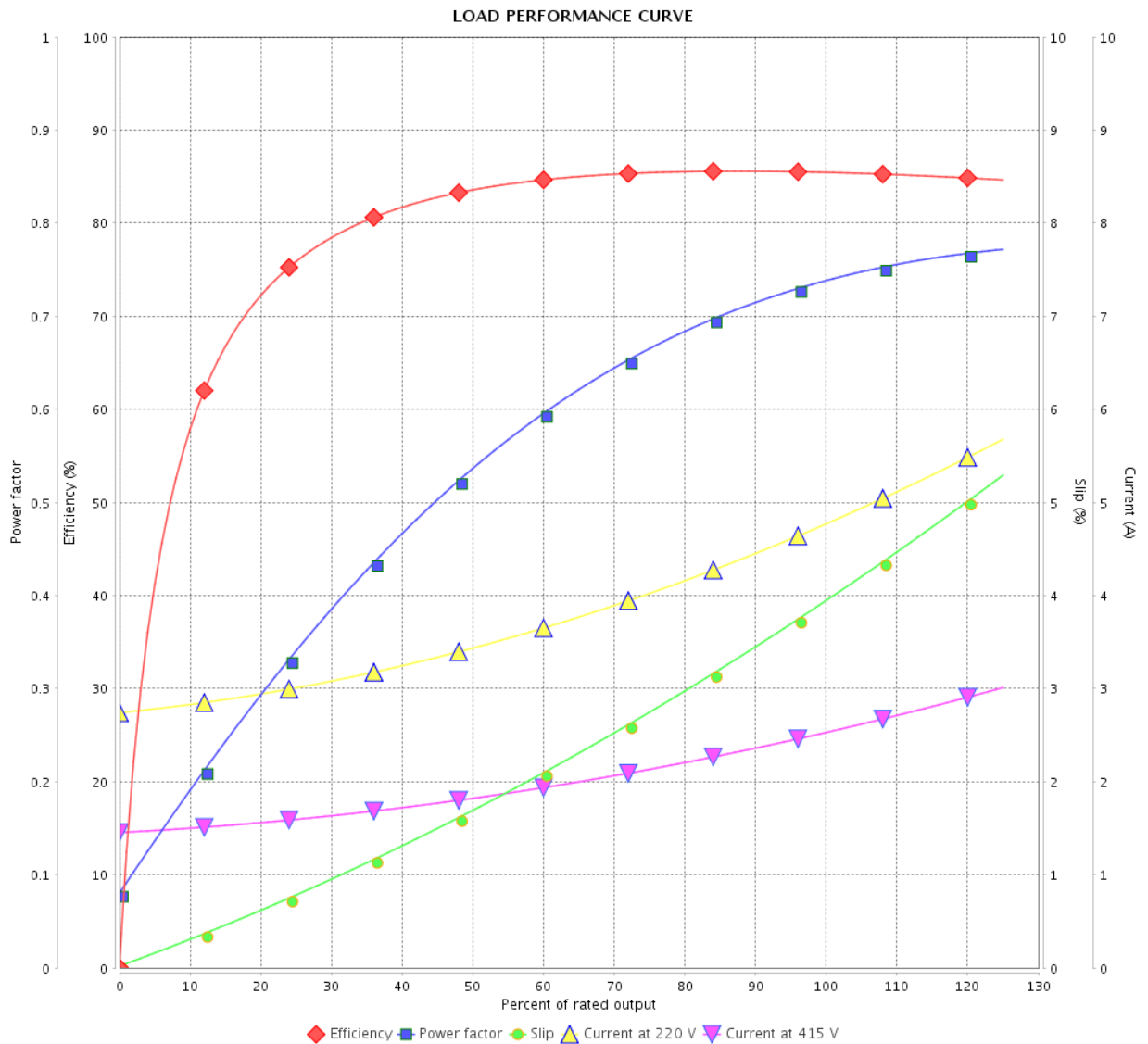


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THERMAL LIMIT CURVE



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Rated speed : 1170 rpm	Design : B

Heating constant

Cooling constant

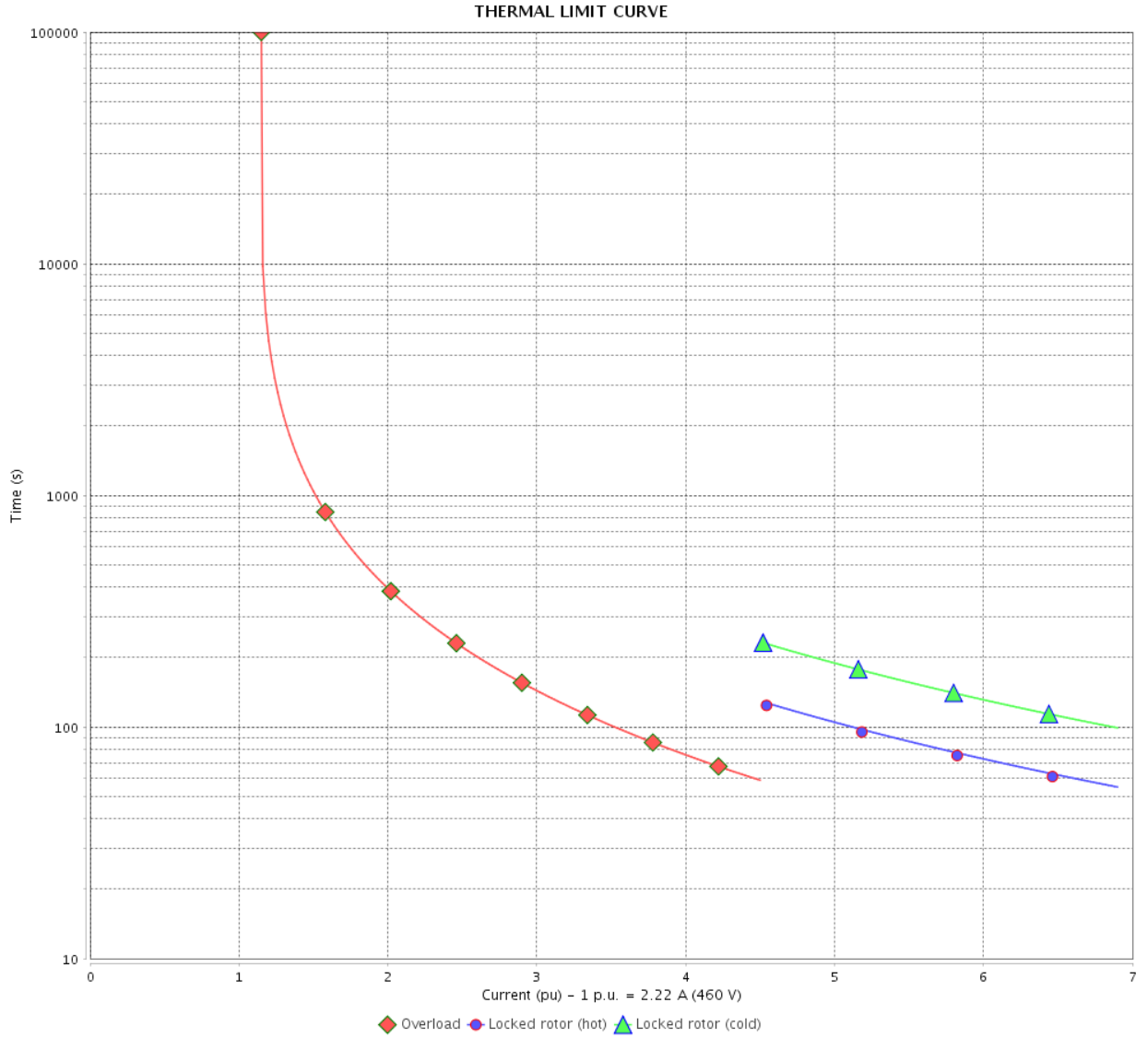
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Rated torque : 8.25 ft.lb	Insulation class : F
Locked rotor torque : 190 %	Service factor : 1.15
Breakdown torque : 260 %	Temperature rise : 80 K
Rated speed : 955 rpm	Design : B

Heating constant

Cooling constant

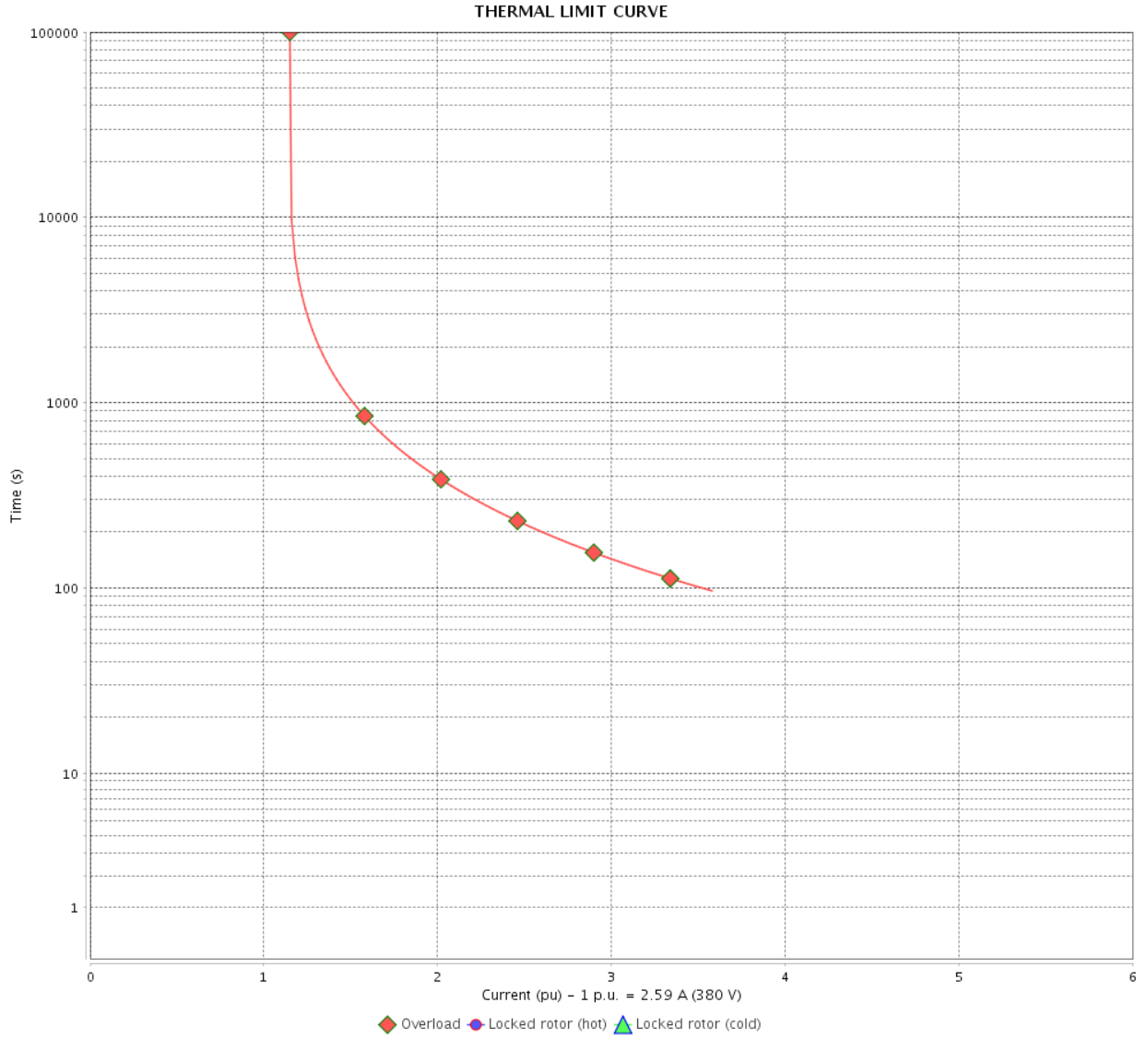
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Cooling constant

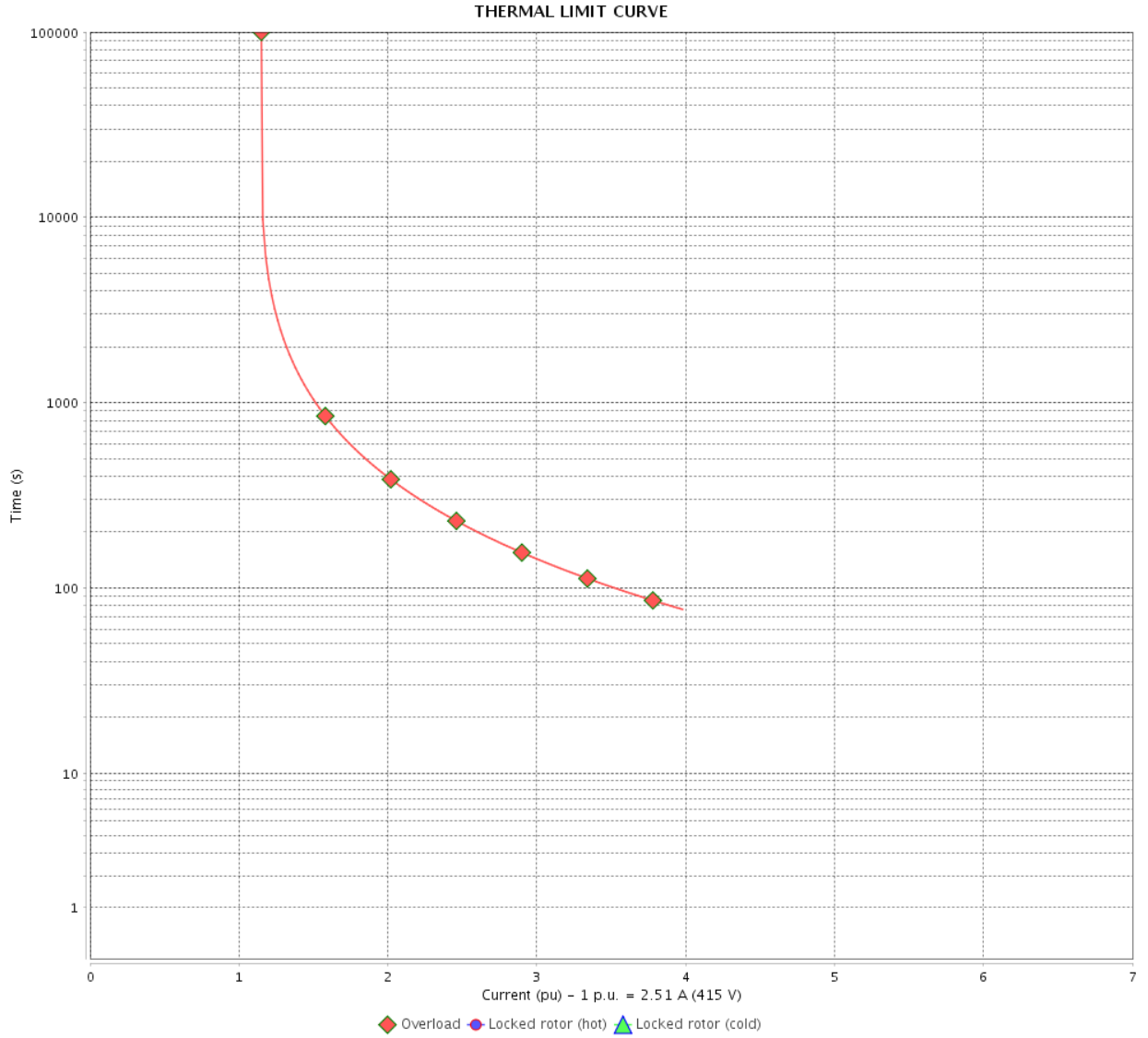
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

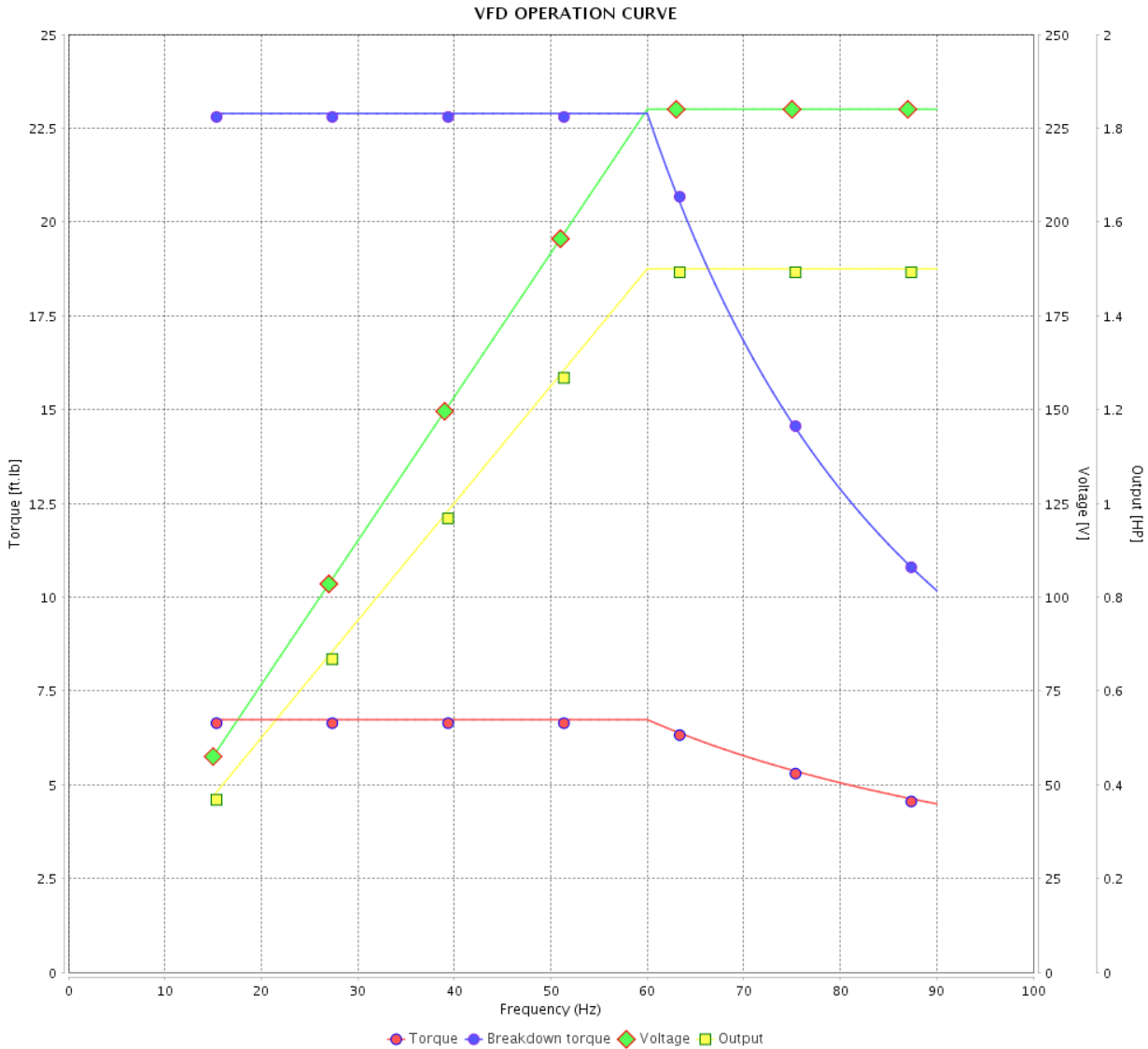


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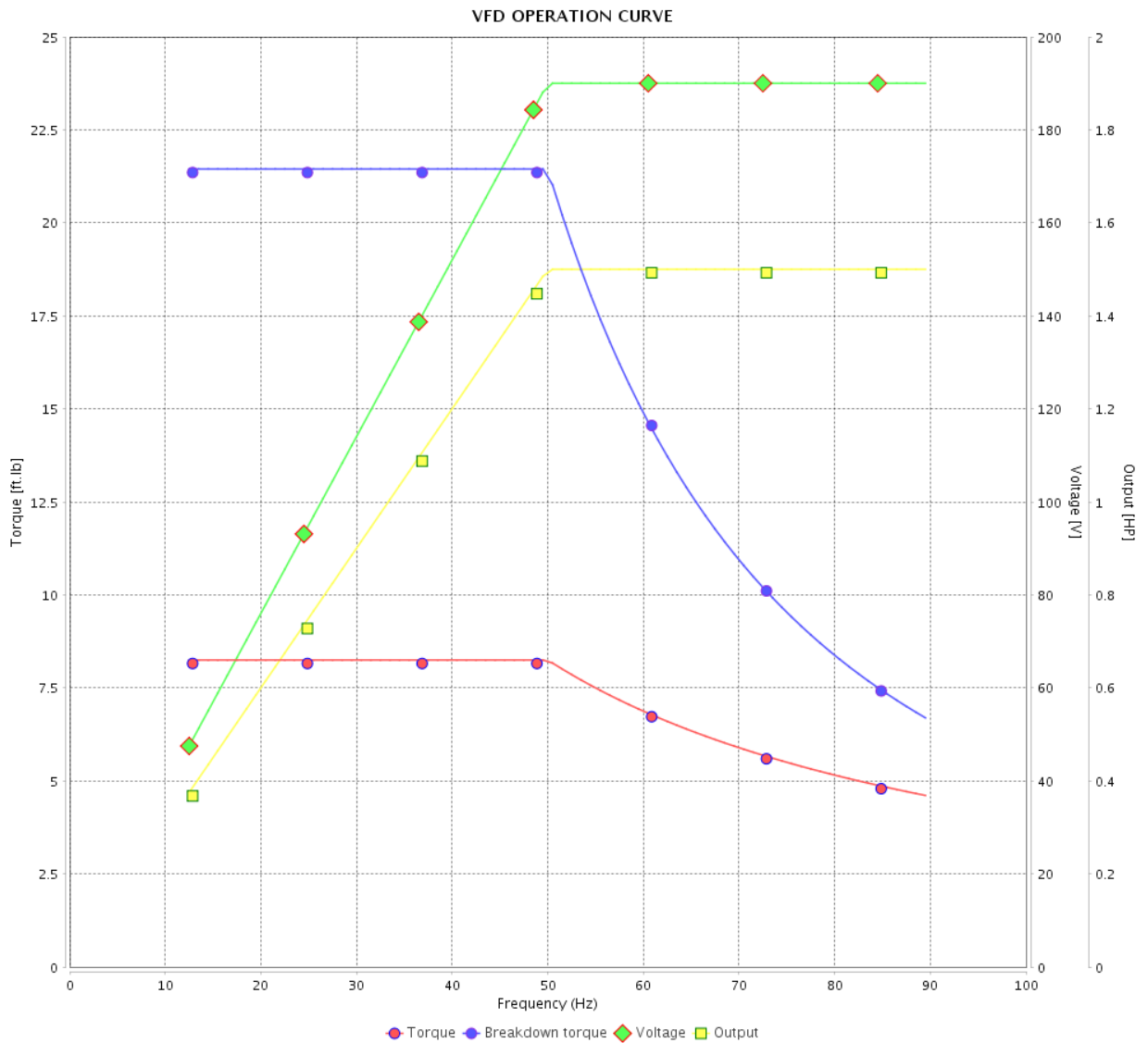


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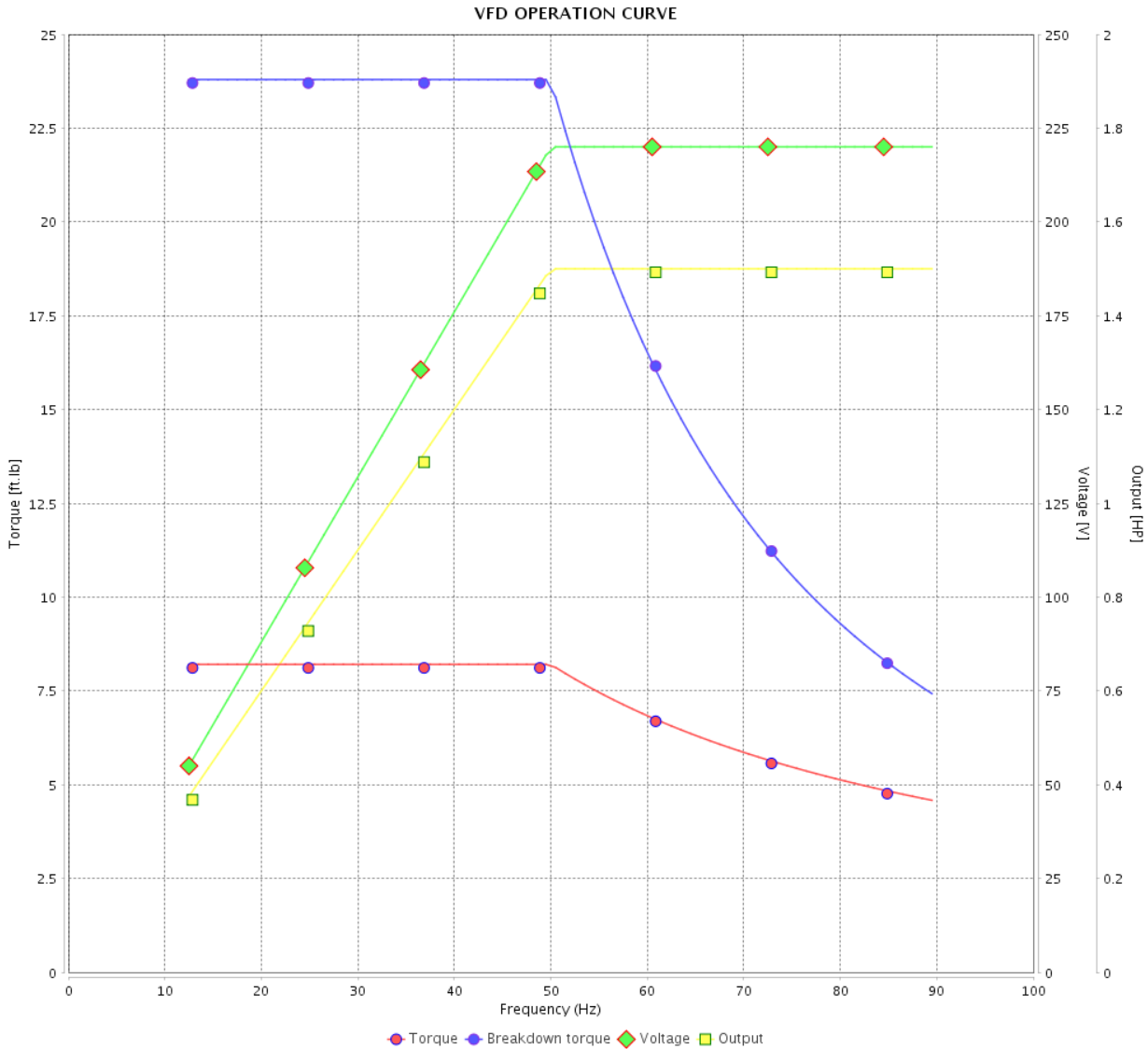


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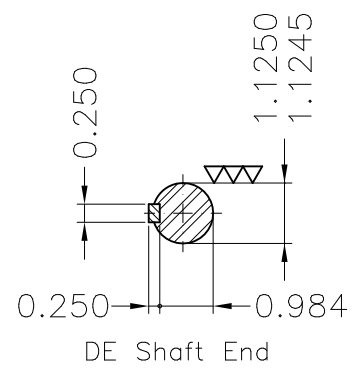
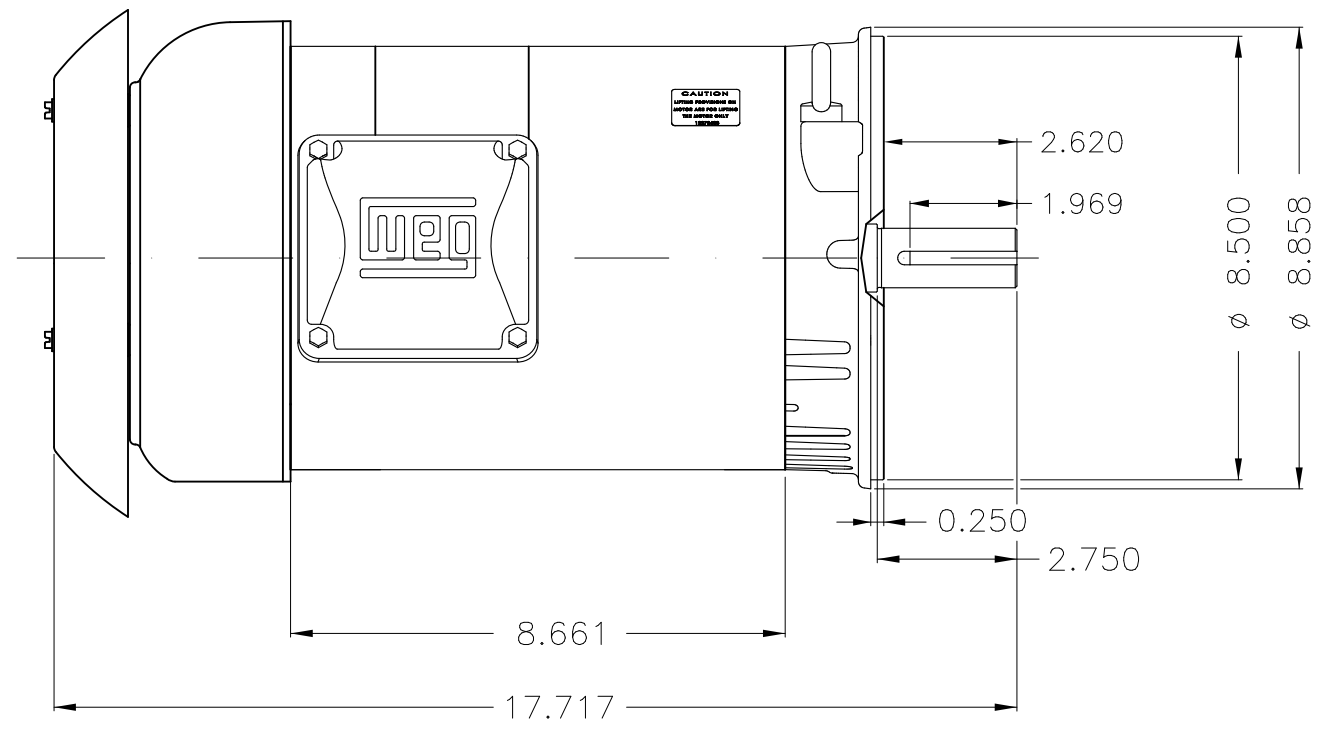
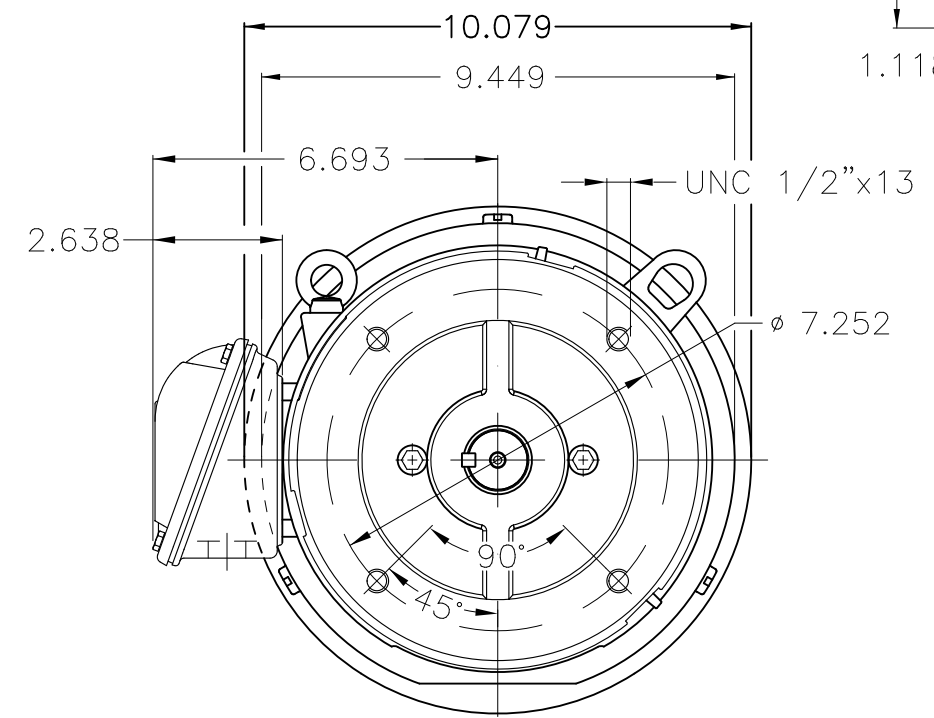
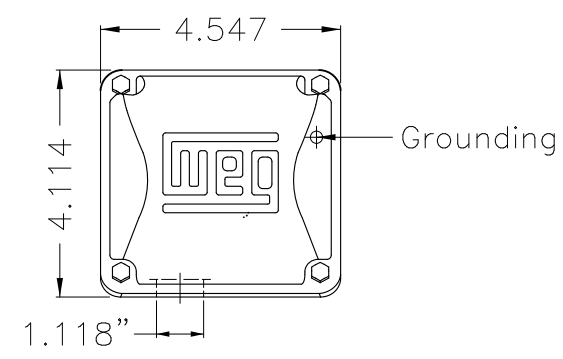
A

B

C

D

E



Dimensions in inches

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	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 182/4TC IP55 TEFC									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							

1.5 HP 06 Poles 60 Hz

A



NEMA
Premium



MADE IN MEXICO

MAT: 12677285 CC029A

W01.TE0IC0X0N

MODEL 00152ET3ER182TC-S

11MAR2022 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 1.5
FR 182/4TC		KW 1.1
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 4.44/2.22
INS CL F AT 80K	IP55	SFA 5.11/2.55
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE K	PF 0.71
USABLE @ 208V 4.91A		RPM 1170
SF1.00		NEMA NOM. EFF 87.5%

ALTERNATE RATING: 1.5HP 50Hz 190-220/380-415V SF1.15
5.18-4.70/2.59-2.49A 955RPM EFF 84.9% (IE4) IEC 60034-1

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

DE 6206-ZZ	ODE 6205-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.

