

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12677331
		Catalog # :	00312ET3ER213TC-S
Frame	: 213/5TC	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	: 140 lb
Protection degree	: IP55	Moment of inertia (J)	: 1.08 sq.ft.lb
Design	: B		
Output [HP]	3	3	3
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	8.34/4.17	9.76/4.88	8.90/4.72
L. R. Amperes [A]	53.4/26.7	49.8/24.9	49.9/26.4
LRC [A]	6.4x(Code H)	5.1x(Code F)	5.6x(Code G)
No load current [A]	4.71/2.36	4.66/2.33	4.69/2.48
Rated speed [RPM]	1175	970	975
Slip [%]	2.08	3.00	2.50
Rated torque [ft.lb]	13.4	16.2	16.2
Locked rotor torque [%]	229	170	200
Breakdown torque [%]	290	220	250
Service factor	1.15	1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	82s (cold) 46s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	55.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%	84.3	86.8
	50%	85.5	86.6
	75%	88.5	87.8
	100%	89.5	87.3
Power Factor	25%	0.32	0.34
	50%	0.55	0.58
	75%	0.67	0.70
	100%	0.74	0.77
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 158 lb
		Max. compression	: 298 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 9.22A SF 1.00 SFA 9.22A			
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



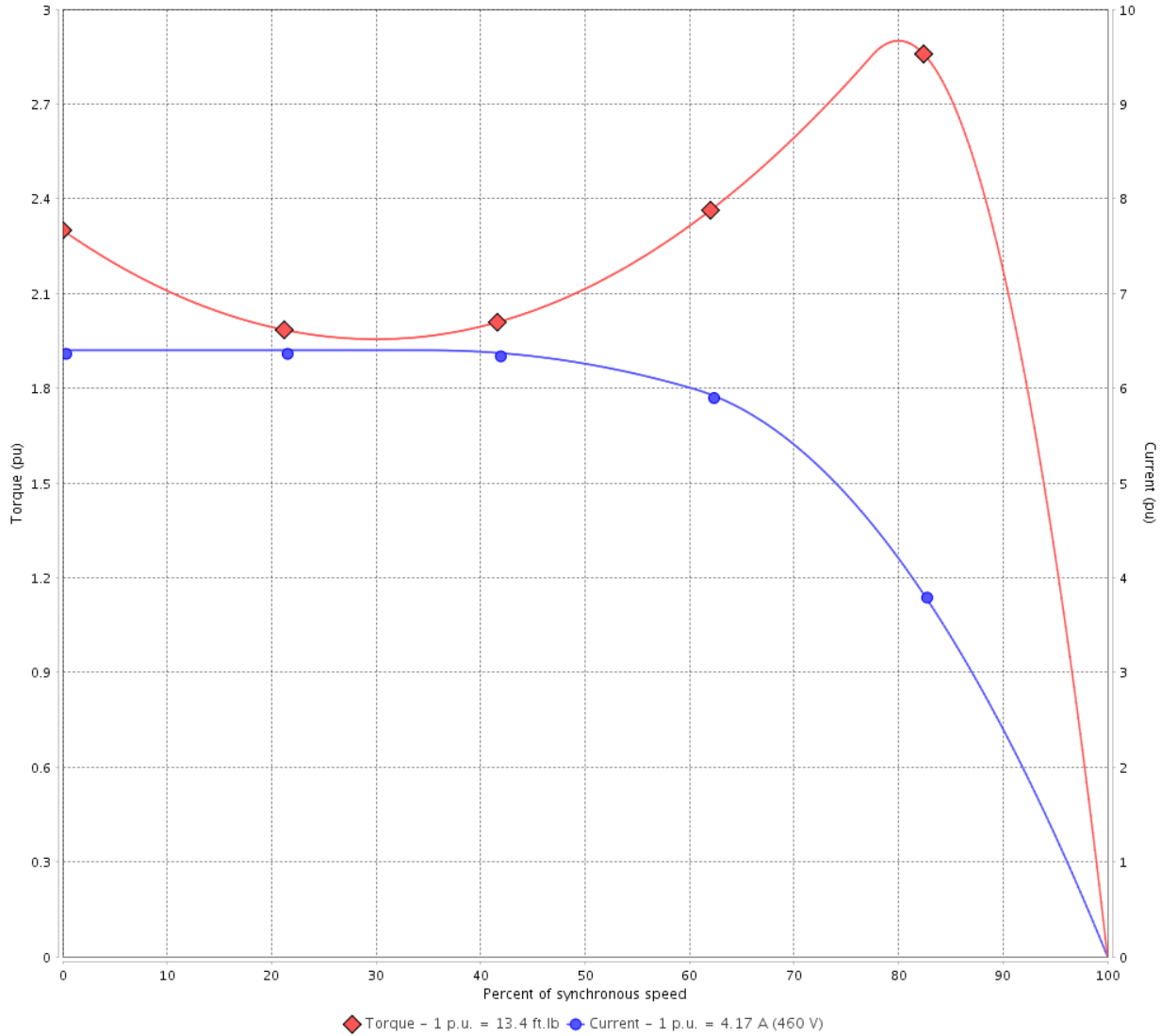
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677331

Catalog # : 00312ET3ER213TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 8.34/4.17 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 82s (cold) 46s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



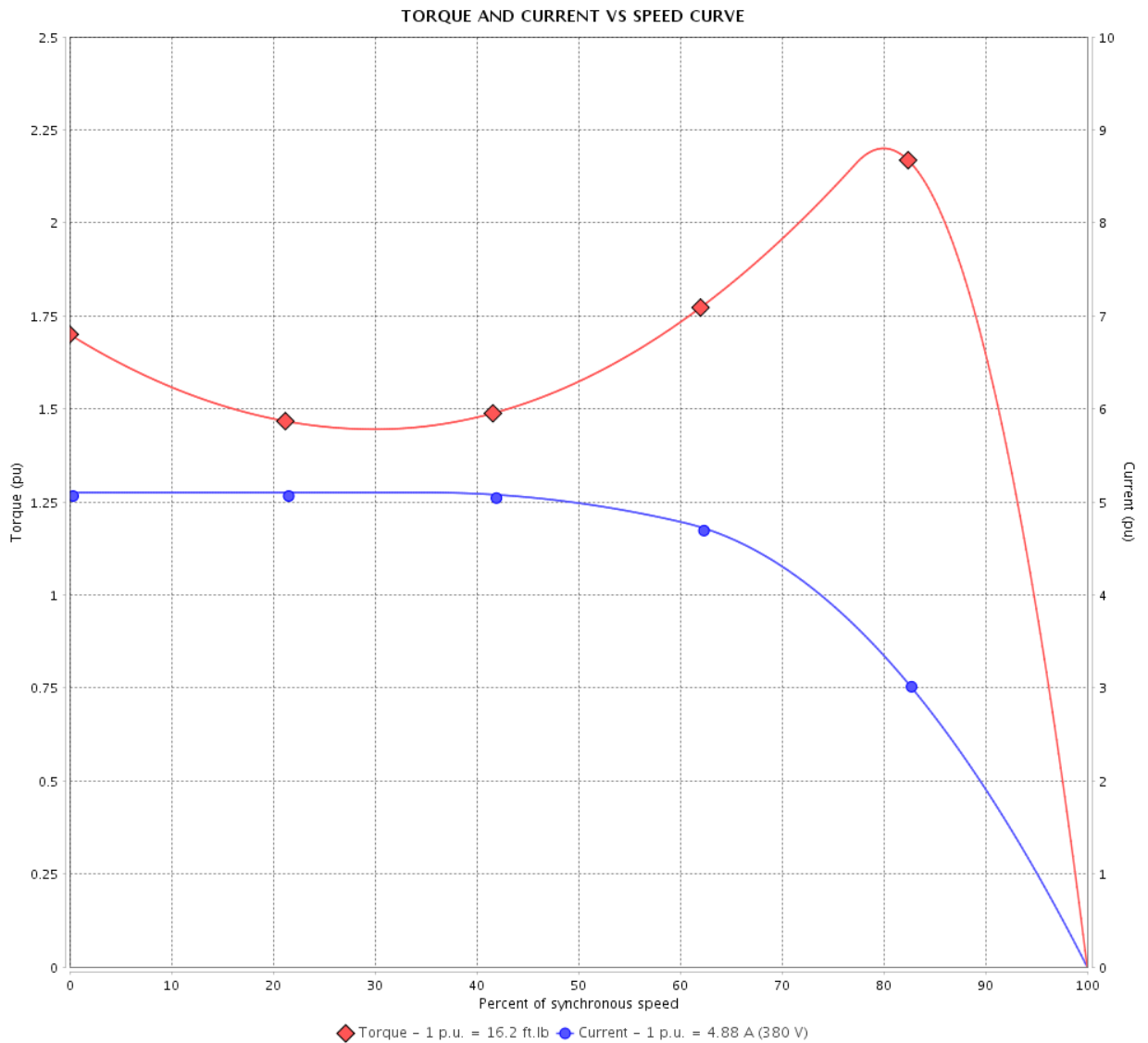
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12677331

Catalog # : 00312ET3ER213TC-S



Performance : 190/380 V 50 Hz 6P

Rated current	: 9.76/4.88 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 16.2 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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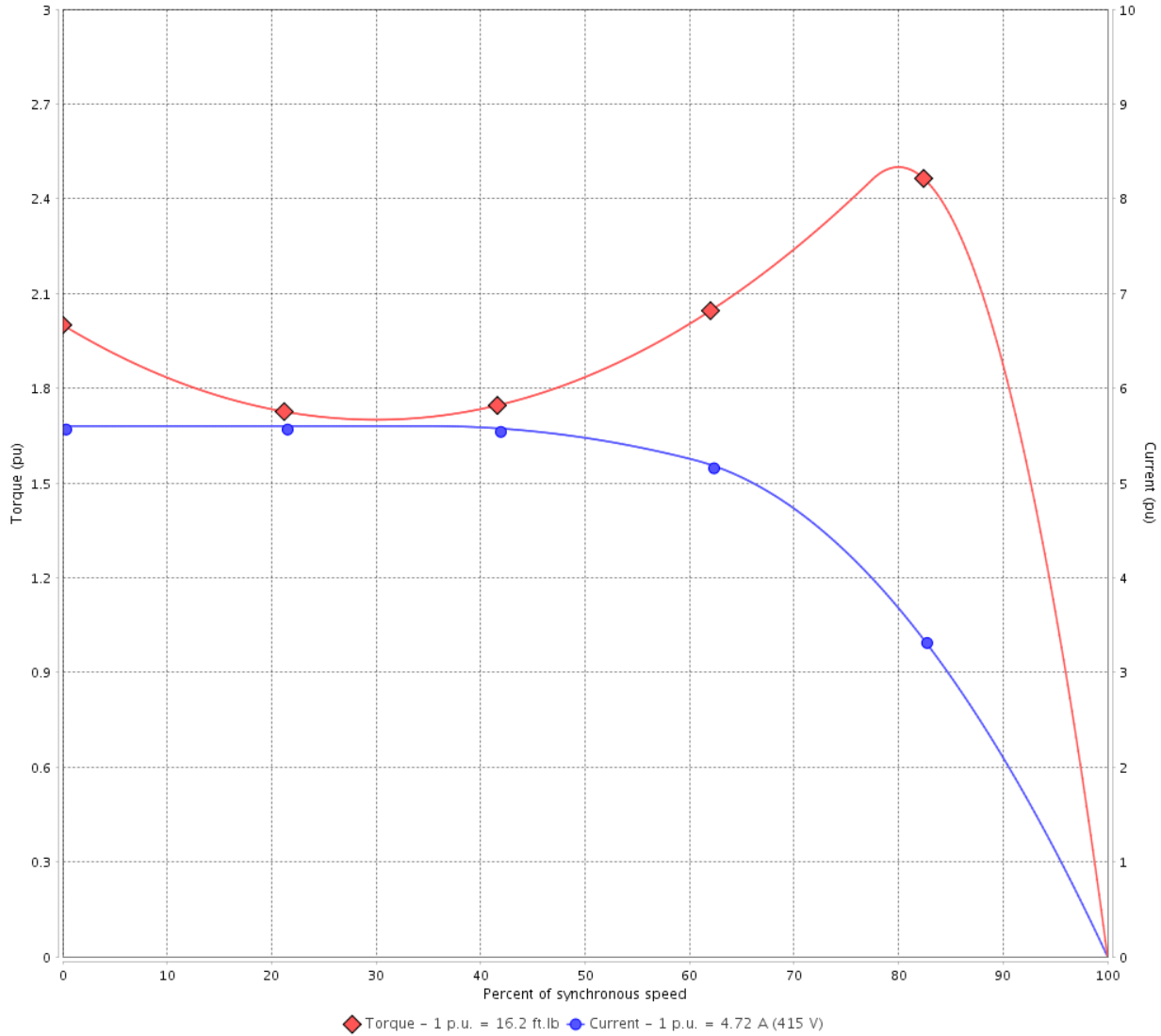
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 8.90/4.72 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 16.2 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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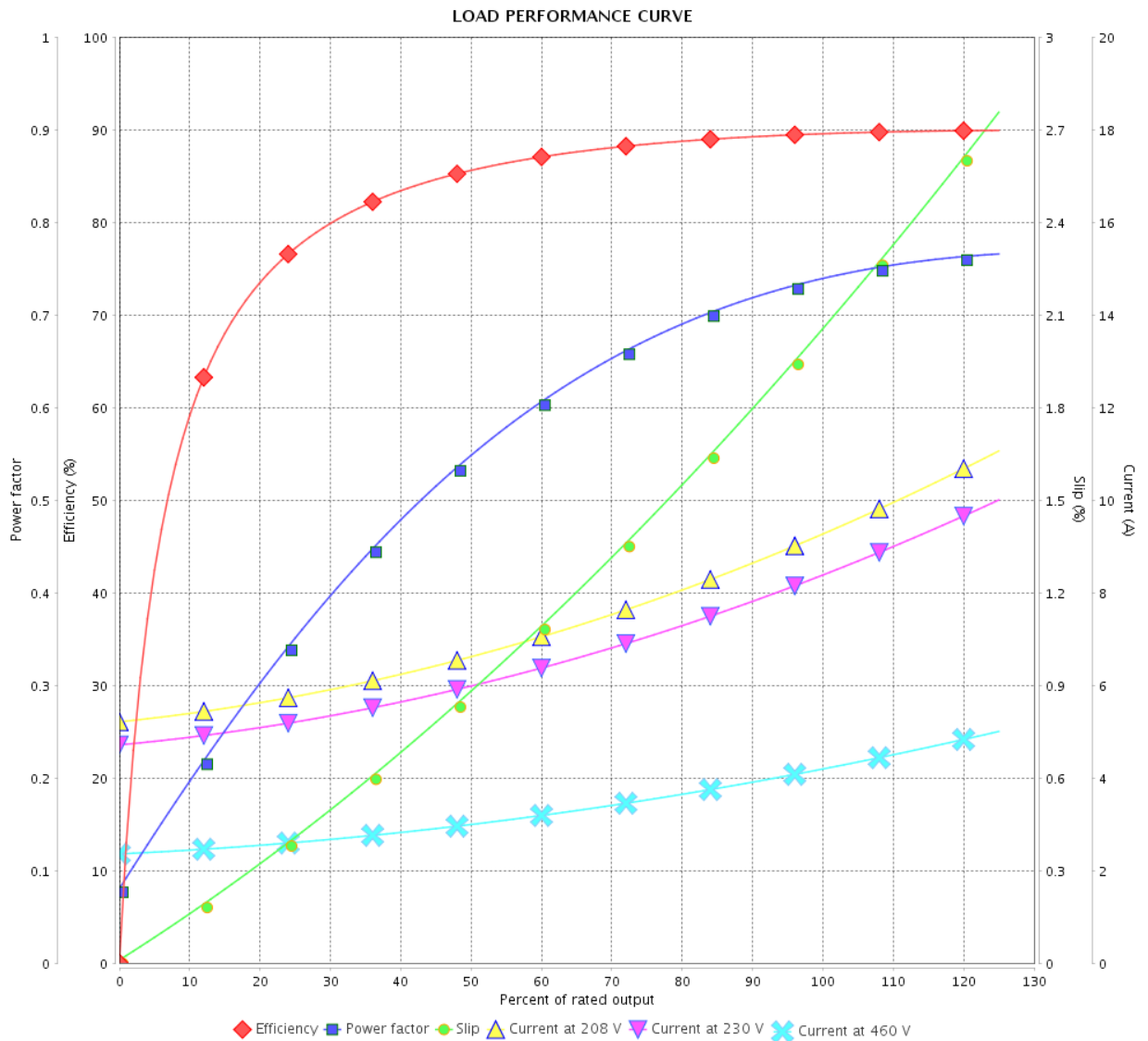


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Performance : 230/460 V 60 Hz 6P

Rated current : 8.34/4.17 A
 LRC : 6.4
 Rated torque : 13.4 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 290 %
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.08 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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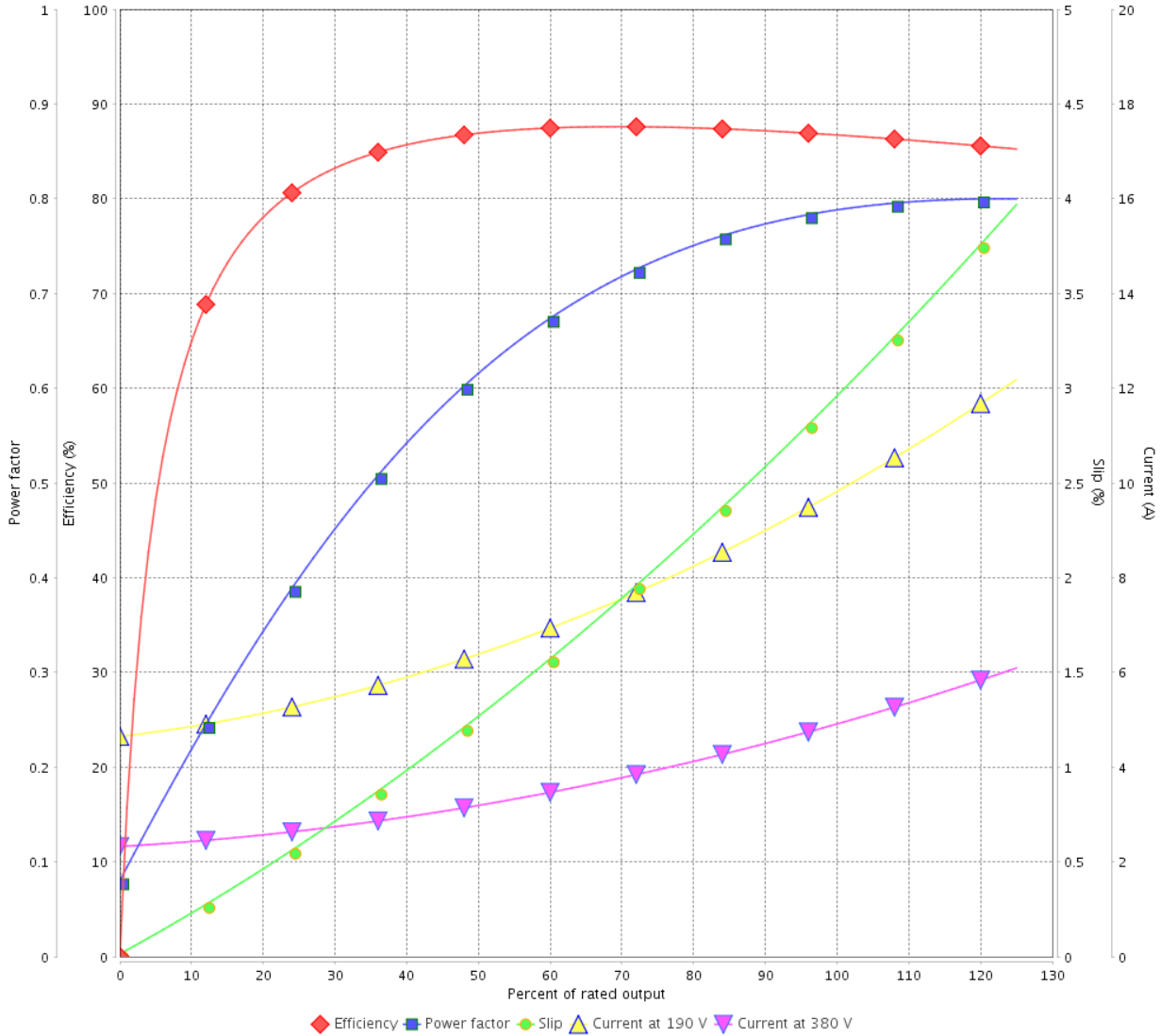
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 9.76/4.88 A
 LRC : 5.1
 Rated torque : 16.2 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 220 %
 Rated speed : 970 rpm

Moment of inertia (J) : 1.08 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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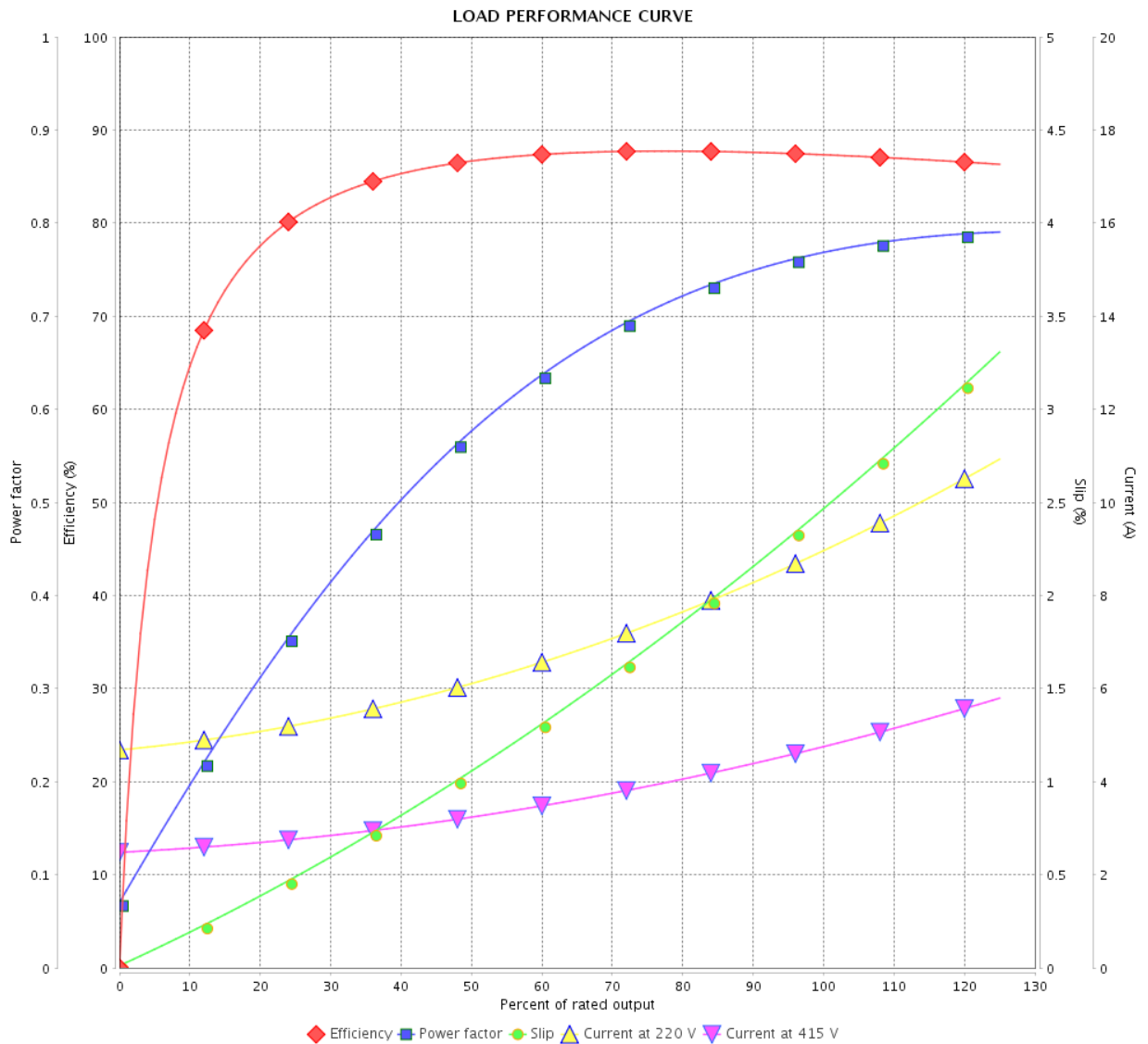


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THERMAL LIMIT CURVE

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Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Heating constant

Cooling constant

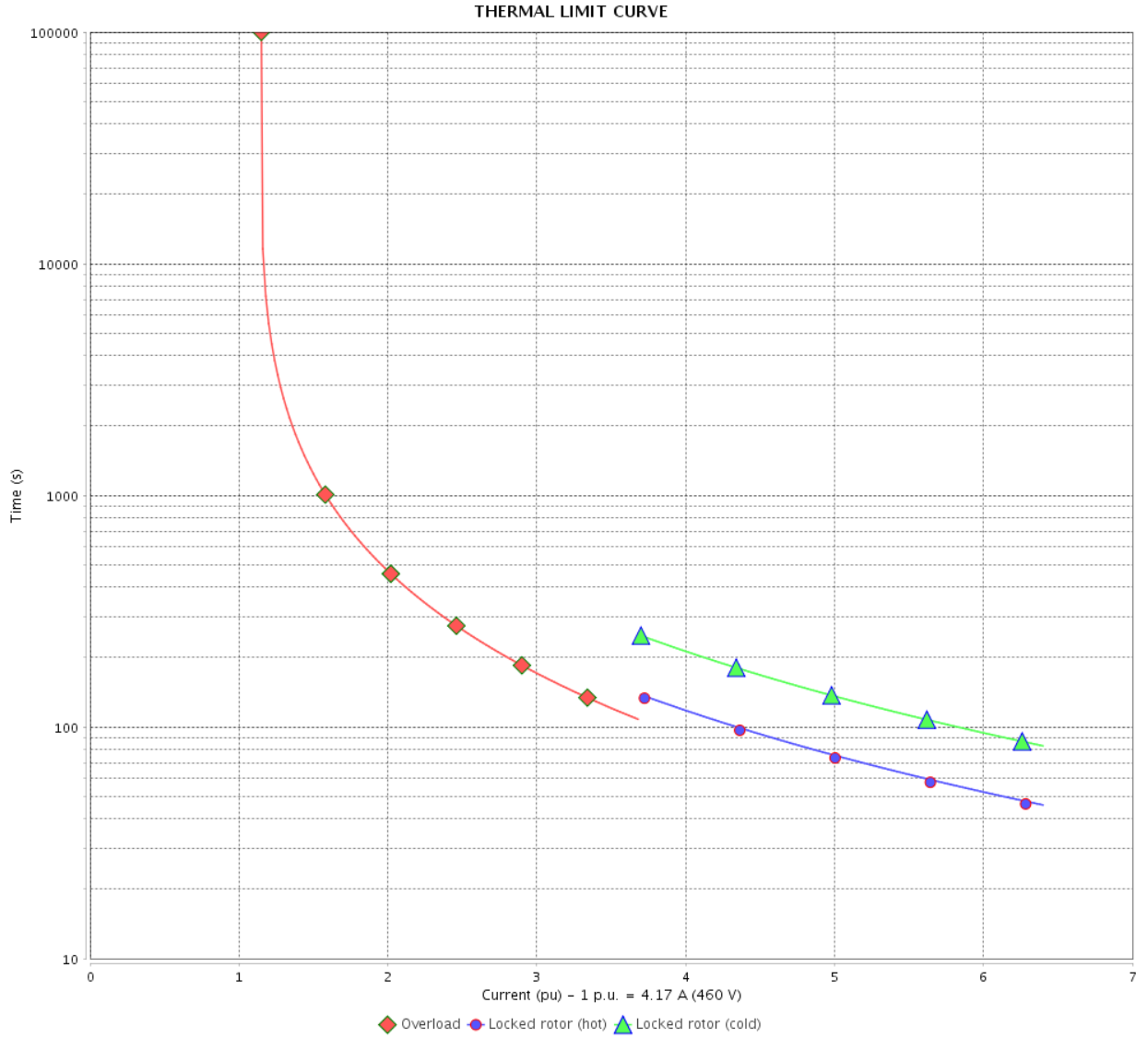
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Rated torque	: 16.2 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

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Cooling constant

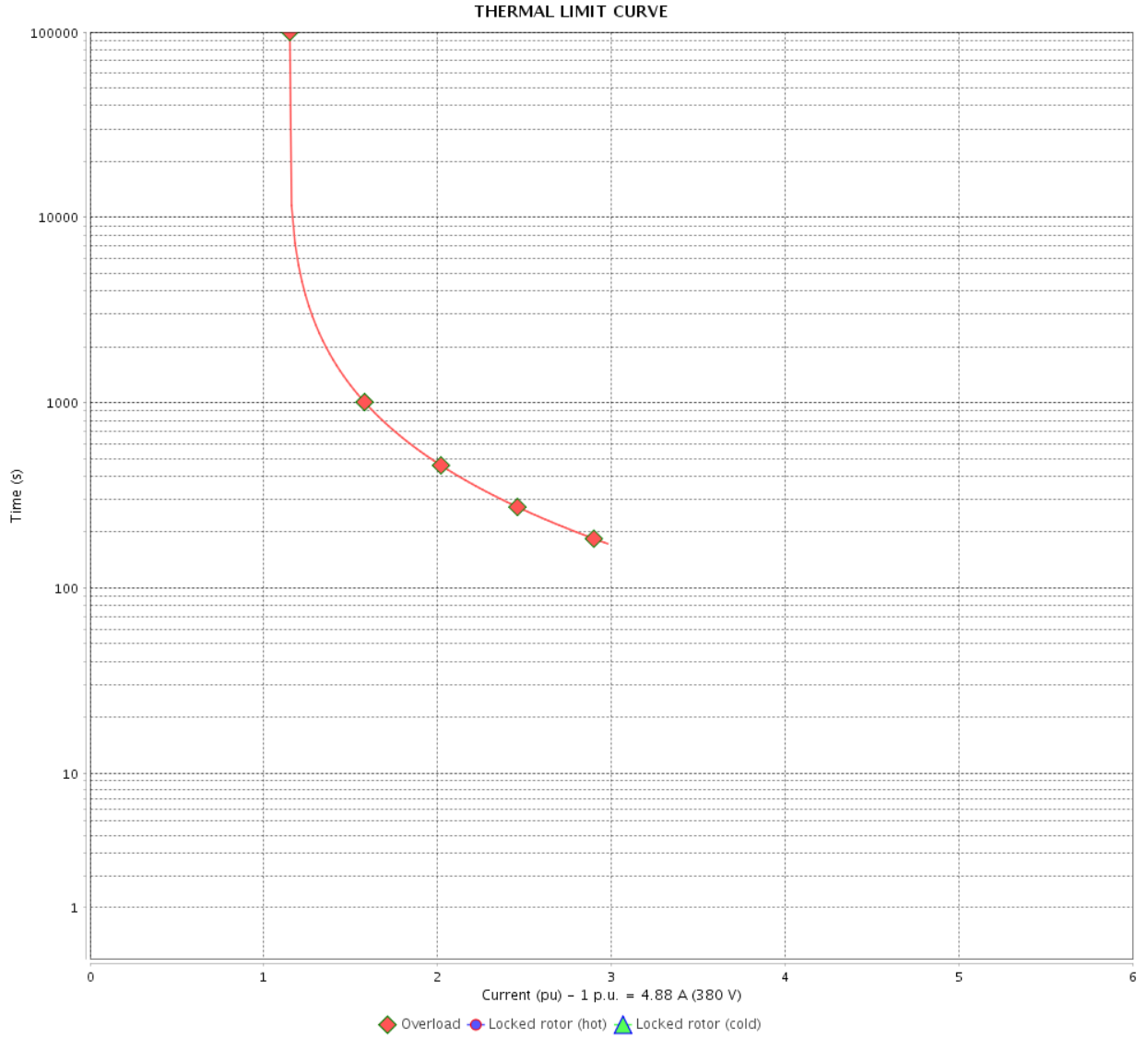
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Rated torque	: 16.2 ft.lb	Insulation class	: F
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Cooling constant

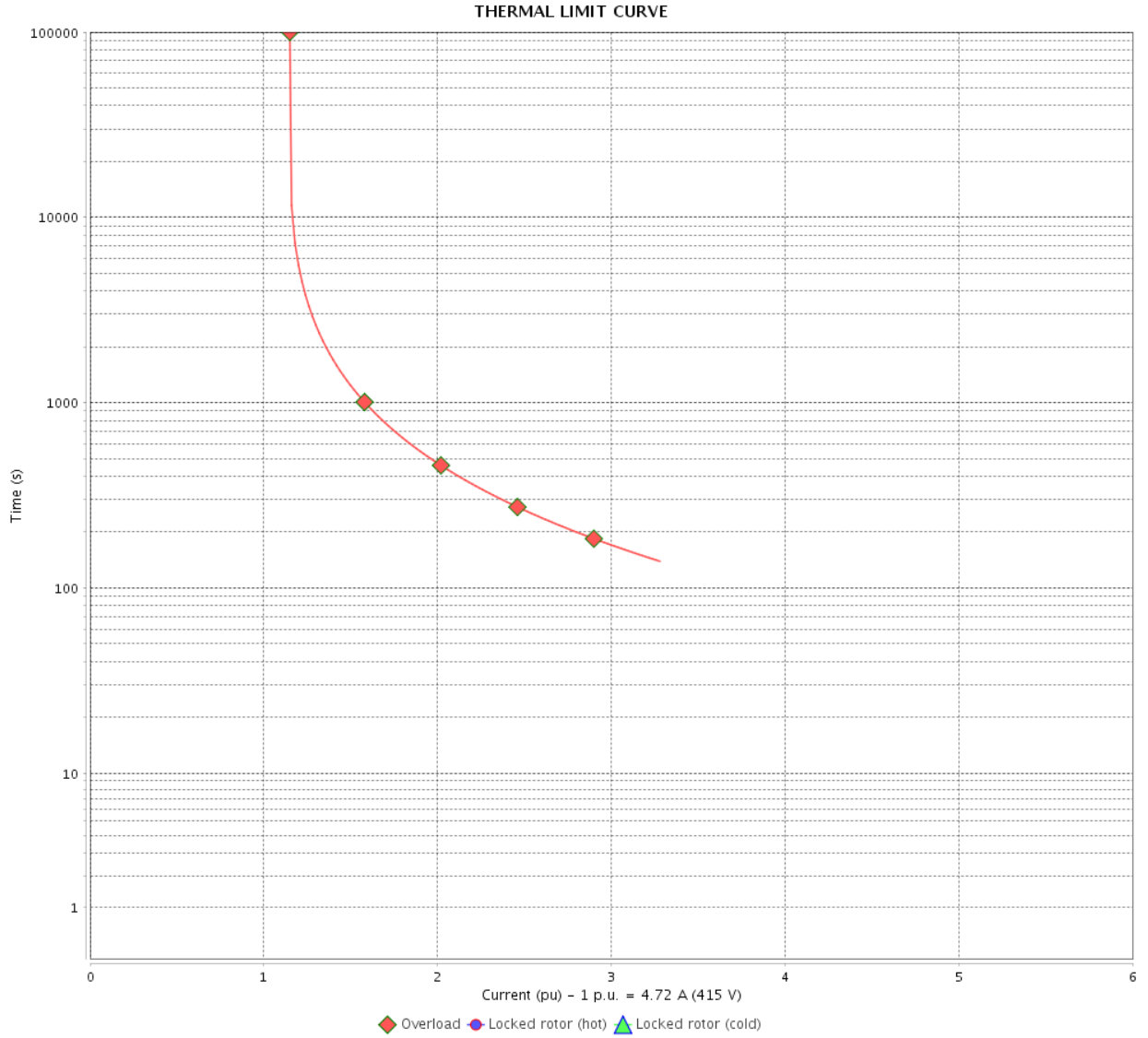
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

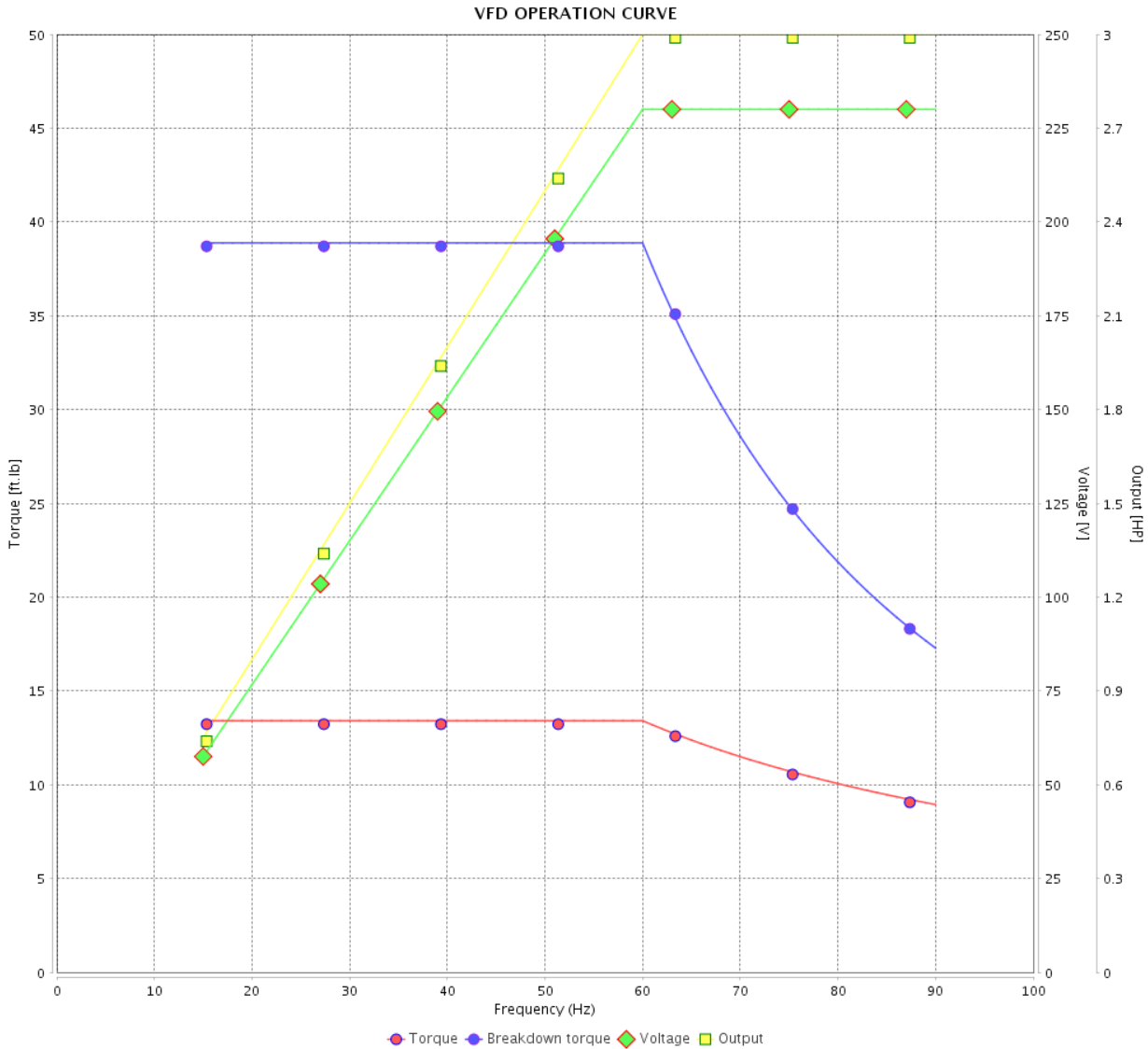


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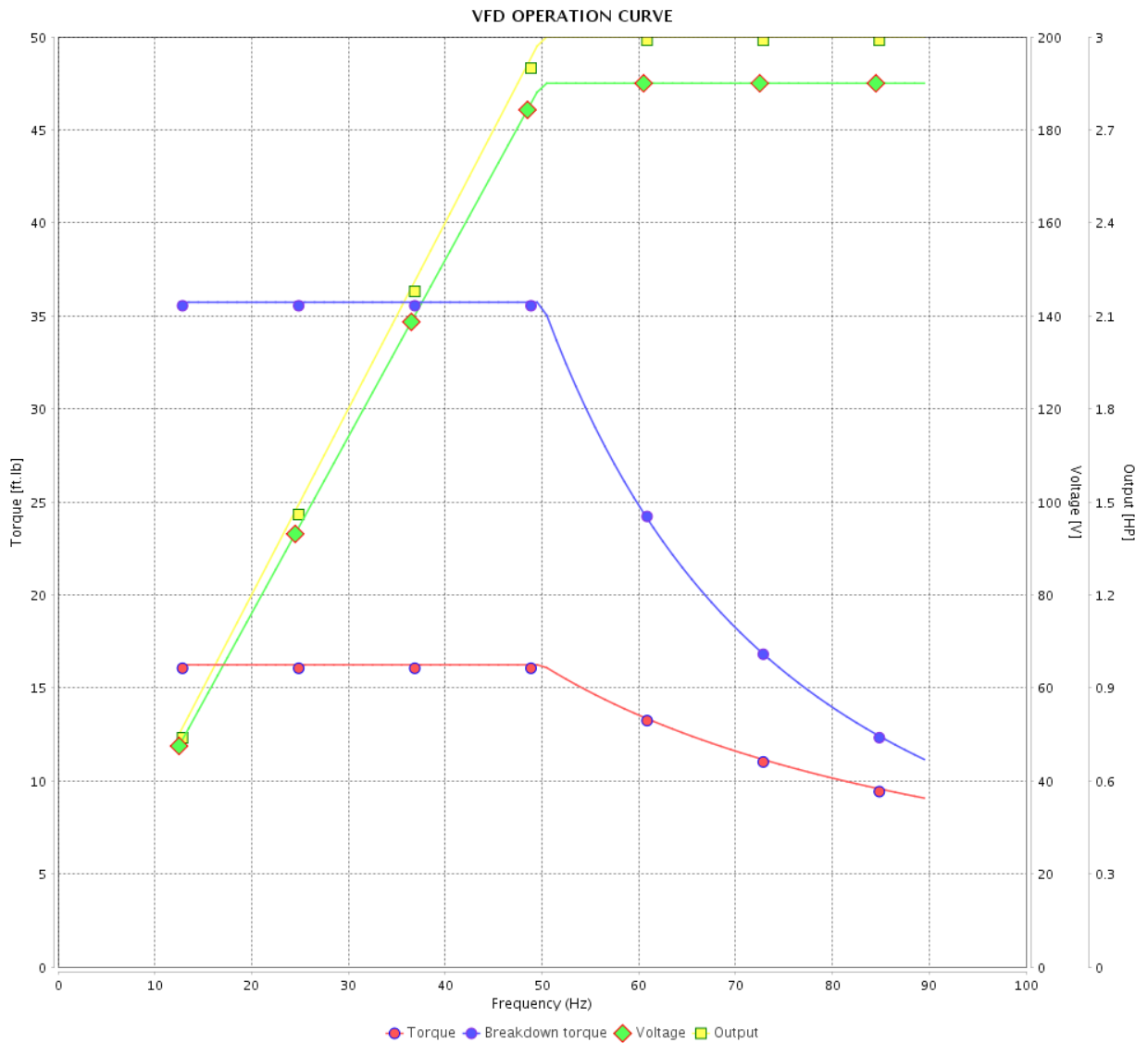


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 Design : B

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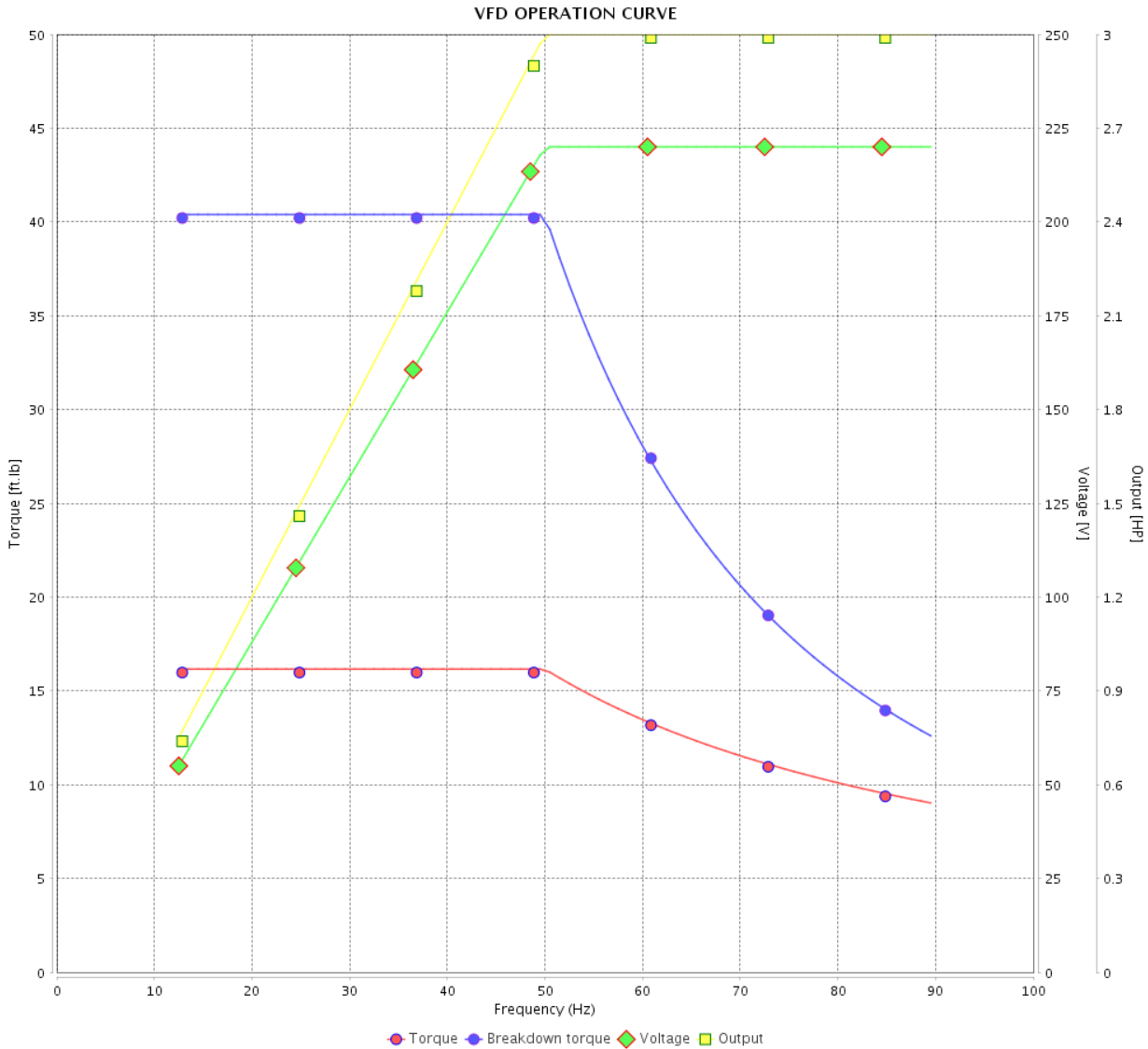


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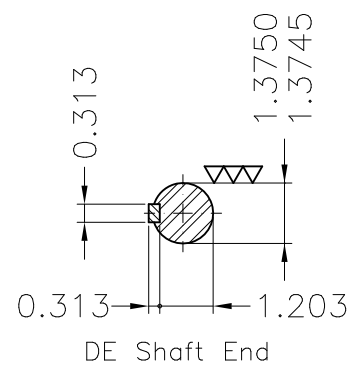
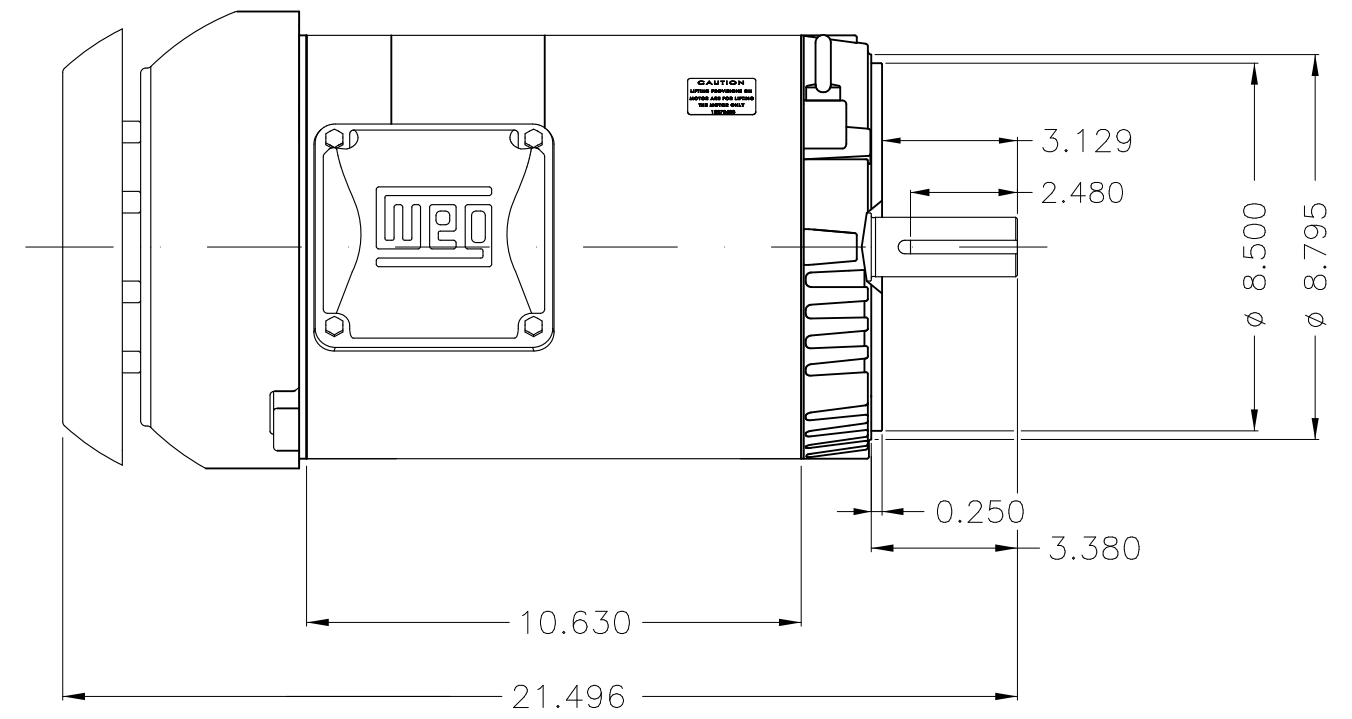
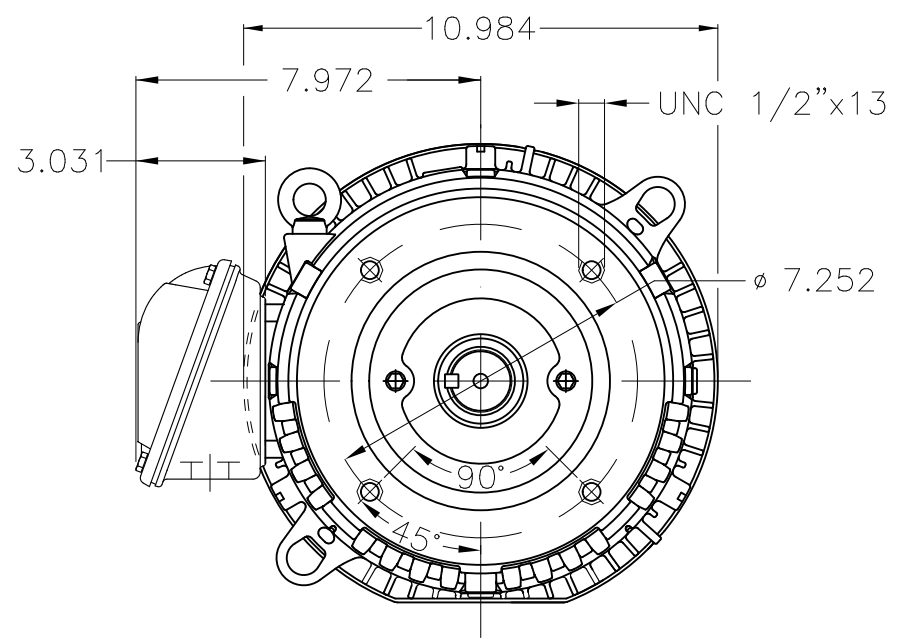
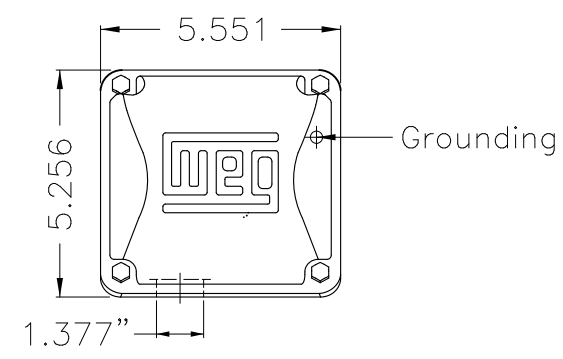
A

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			
CHECKED		FRAME 213/5TC IP55 TEFC							
RELEASED									
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

3 HP 06 Poles 60 Hz

XME A3



NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 12677331 CC029A

W01.TE0IC0X0N

MODEL 00312ET3ER213TC-S

27JUL2021 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 3.0
FR 213/5TC		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 8.34/4.17
INS CL F AT 80K	IP55	SFA 9.59/4.80
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE H	PF 0.74
USABLE @ 208V 9.22A		RPM 1175
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15
9.76-8.79/4.88-4.66A 970RPM EFF 86.7% (IE3) IEC 60034-1

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

DE 6208-ZZ	ODE 6206-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.

