

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12651151	
Catalog # :	00512OT3E215TC-S	
Frame	: 213/5TC	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: F-1	
Rotation ¹	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight ²	: 135 lb	
Moment of inertia (J)	: 1.08 sq.ft.lb	
Output [HP]	5	
Poles	6	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	13.5/6.74	
L. R. Amperes [A]	79.5/39.8	
LRC [A]	5.9x(Code H)	
No load current [A]	7.10/3.55	
Rated speed [RPM]	1175	
Slip [%]	2.08	
Rated torque [ft.lb]	22.3	
Locked rotor torque [%]	220	
Breakdown torque [%]	250	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	52s (cold) 29s (hot)	
Noise level ²	55.0 dB(A)	
Efficiency (%)	25%	88.3
	50%	88.5
	75%	89.5
	100%	89.5
Power Factor	25%	0.34
	50%	0.58
	75%	0.70
	100%	0.77
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: Without Without Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 255 lb Max. compression : 390 lb	
Notes USABLE @208V 14.9A SF 1.00 SFA 14.9A		
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



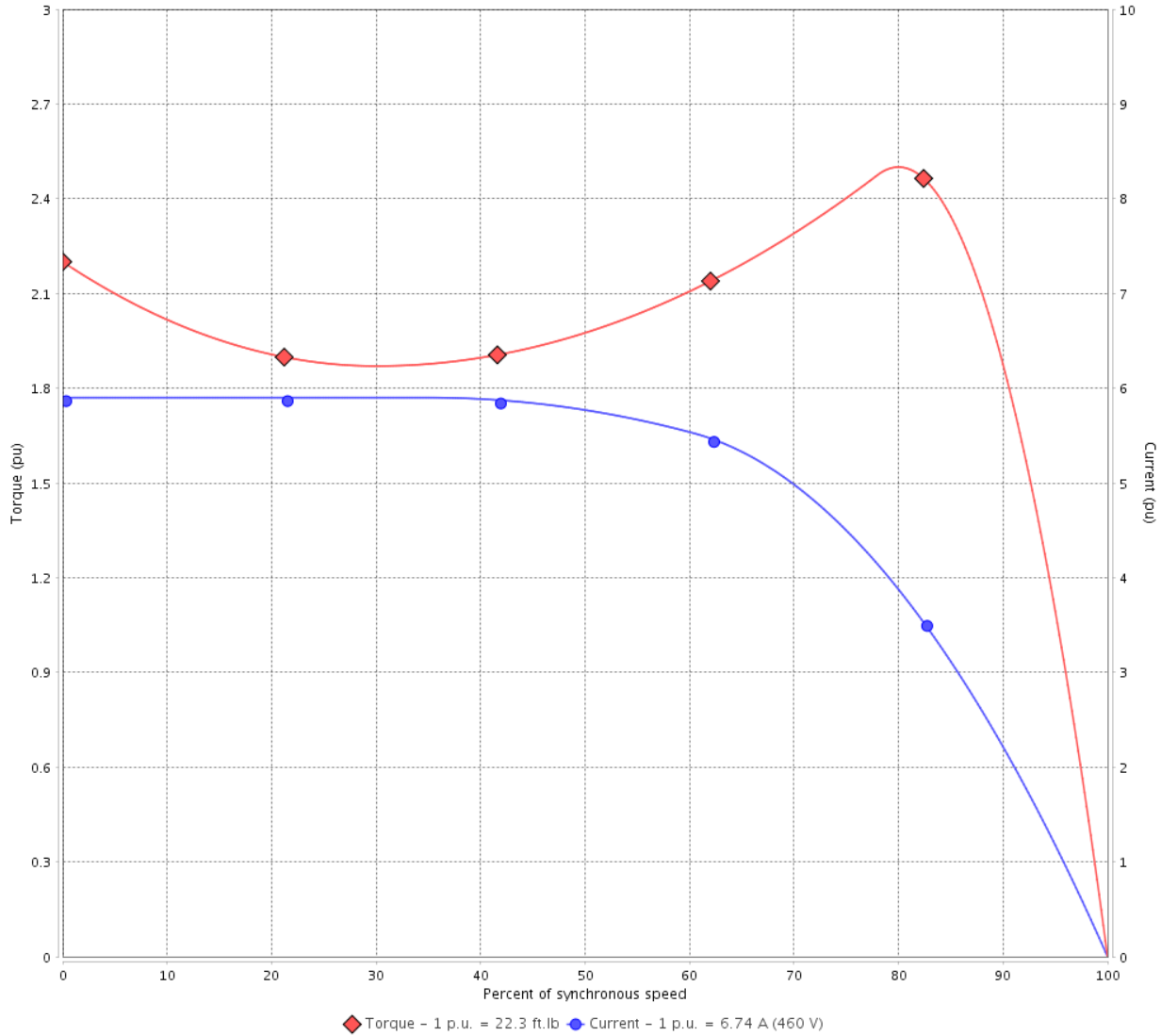
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12651151

Catalog # : 005120T3E215TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 13.5/6.74 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 52s (cold) 29s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



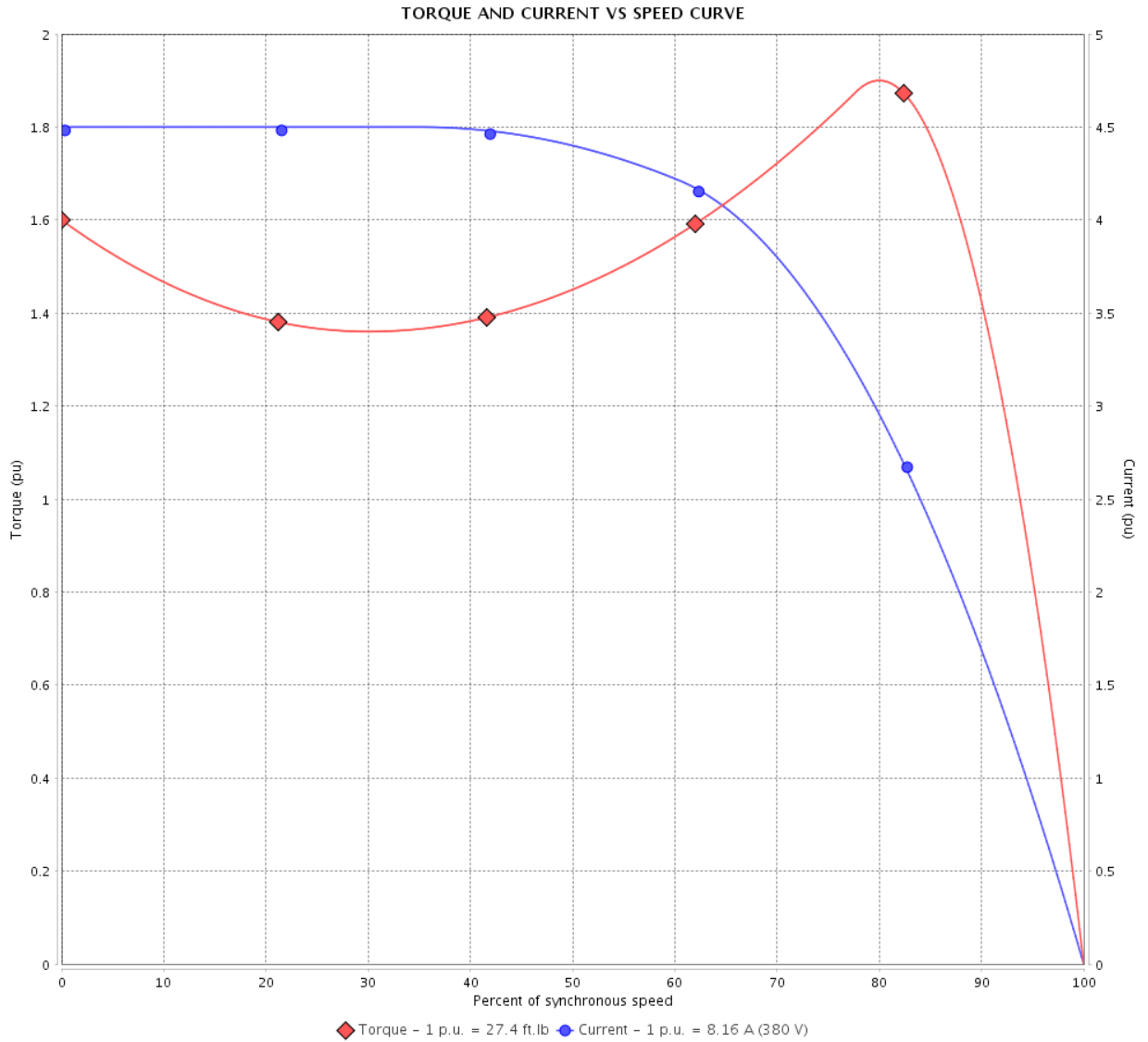
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12651151

Catalog # : 005120T3E215TC-S



Performance : 190/380 V 50 Hz 6P

Rated current	: 16.3/8.16 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 27.4 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	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



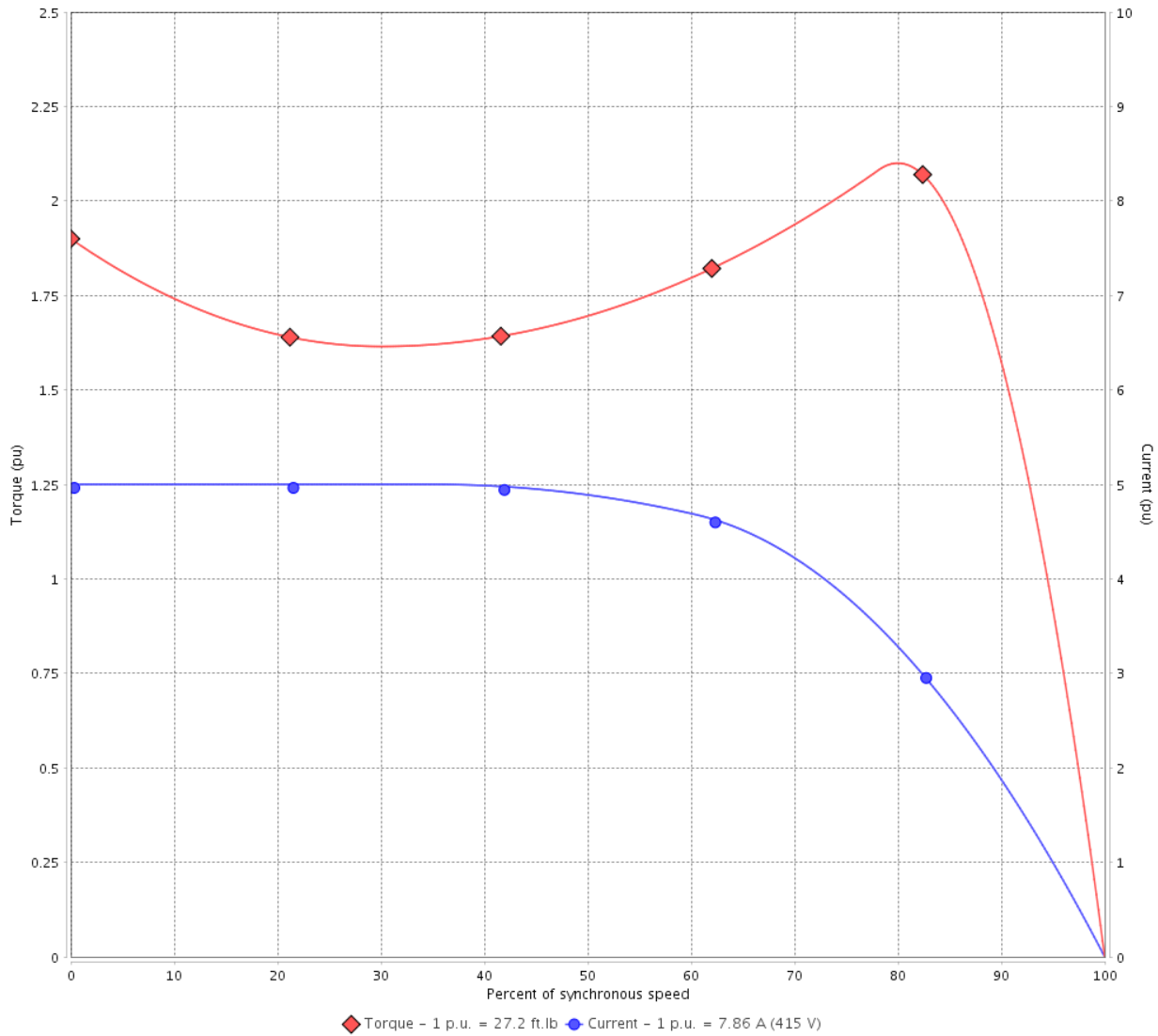
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12651151

Catalog # : 005120T3E215TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 14.8/7.86 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 27.2 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

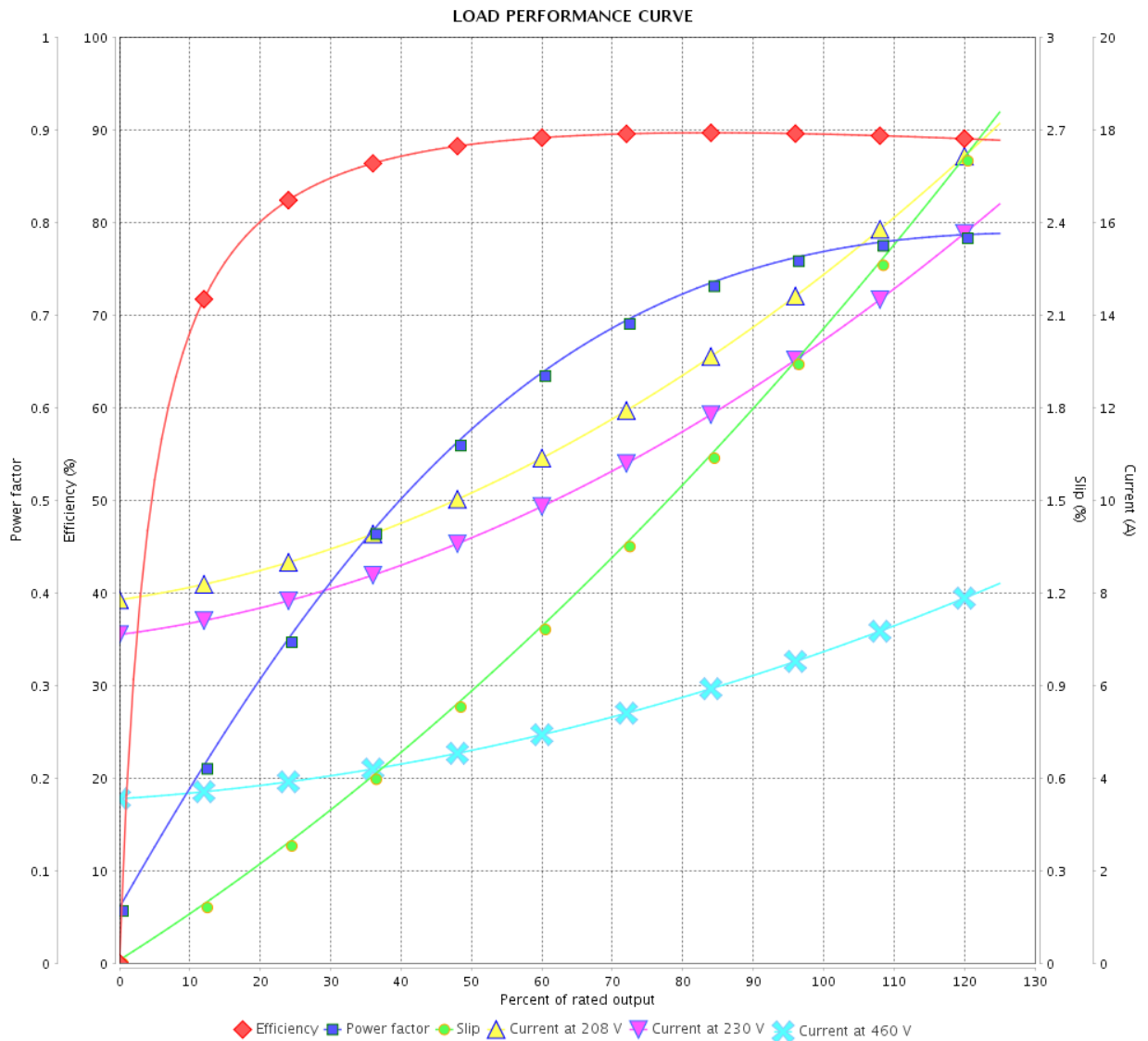


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Performance : 230/460 V 60 Hz 6P

Rated current : 13.5/6.74 A
 LRC : 5.9
 Rated torque : 22.3 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1175 rpm

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 Insulation class : F
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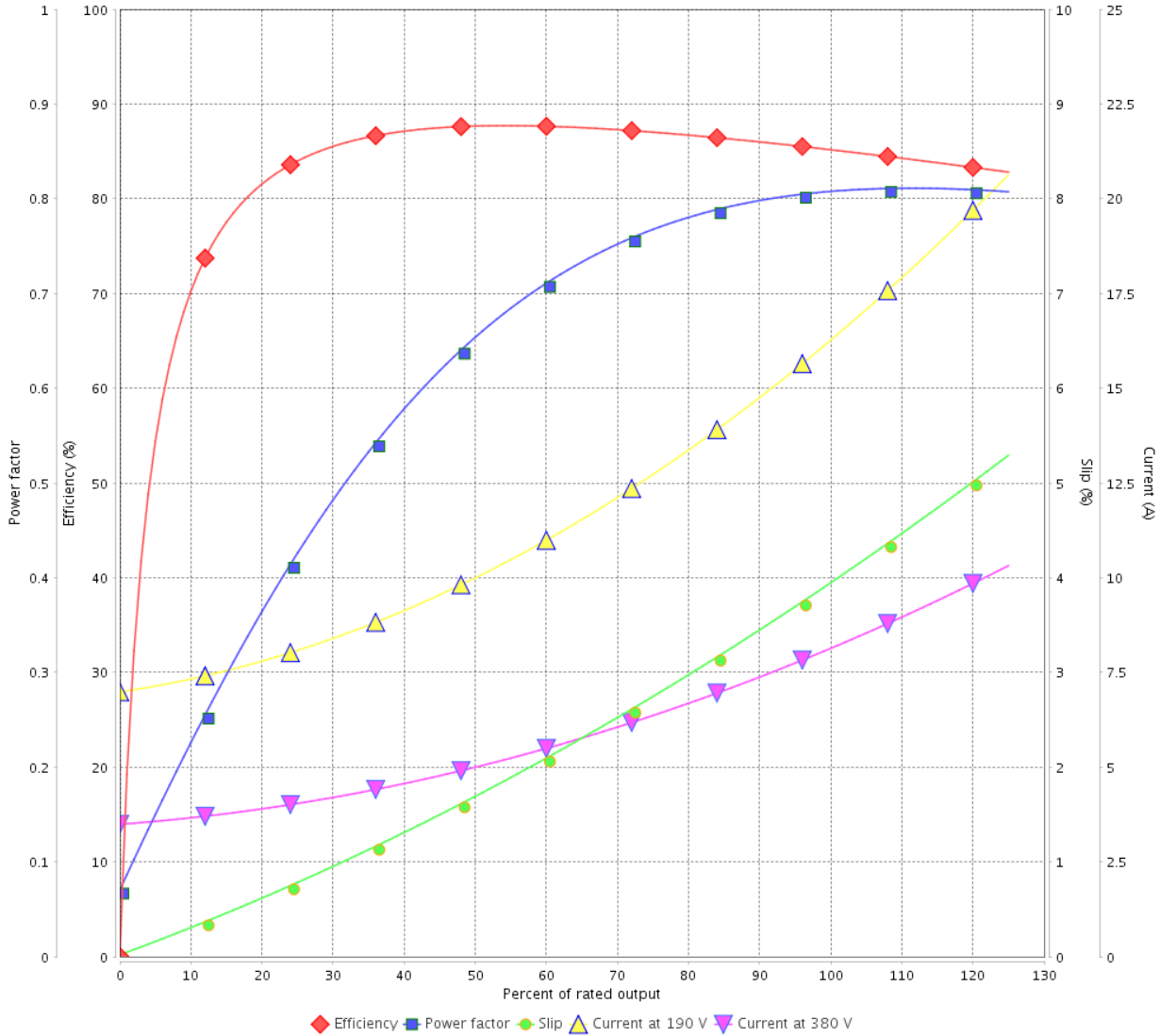
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LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 16.3/8.16 A
 LRC : 4.5
 Rated torque : 27.4 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 190 %
 Rated speed : 960 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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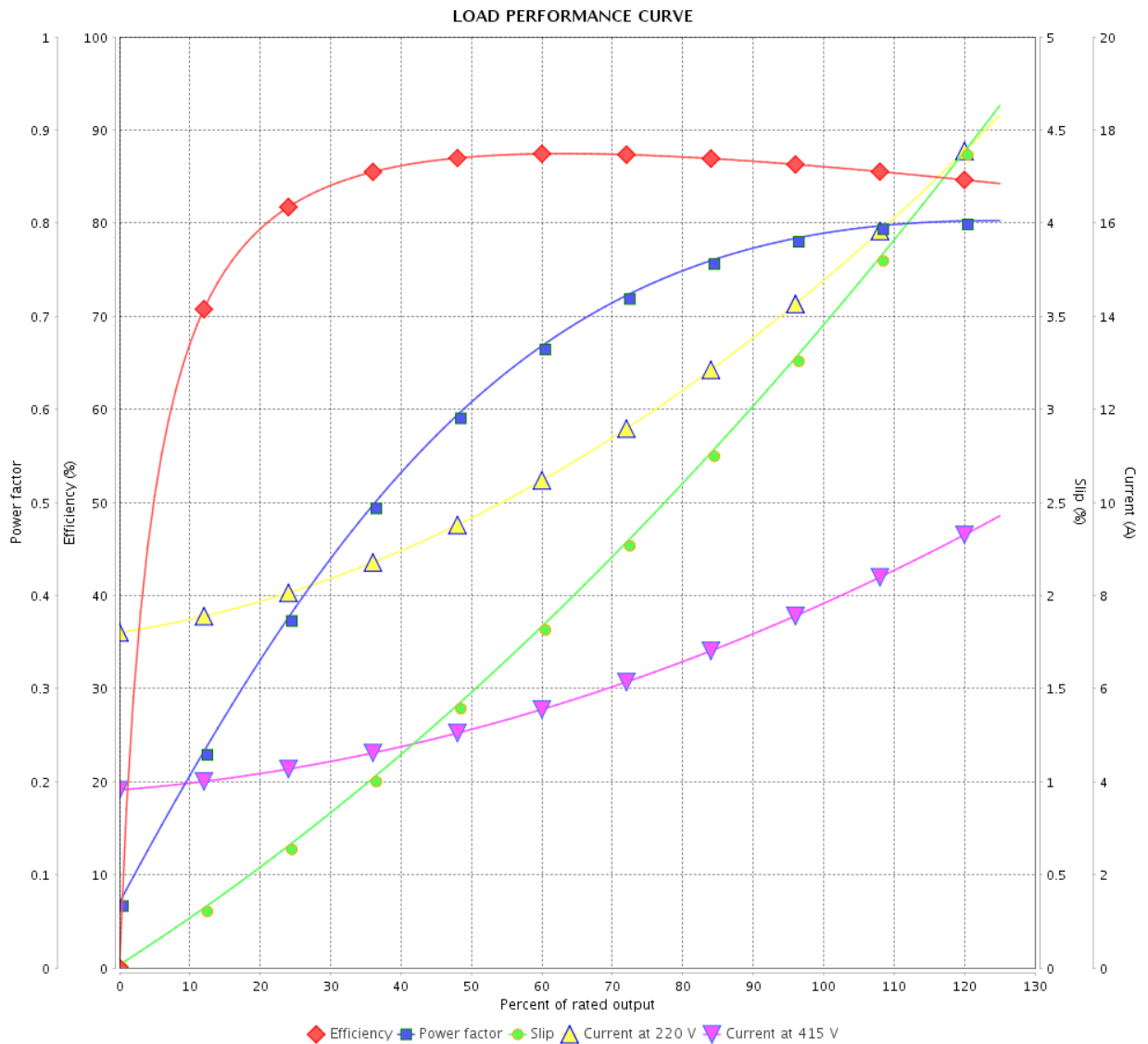


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THERMAL LIMIT CURVE



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Rated speed : 1175 rpm	Design : B

Heating constant

Cooling constant

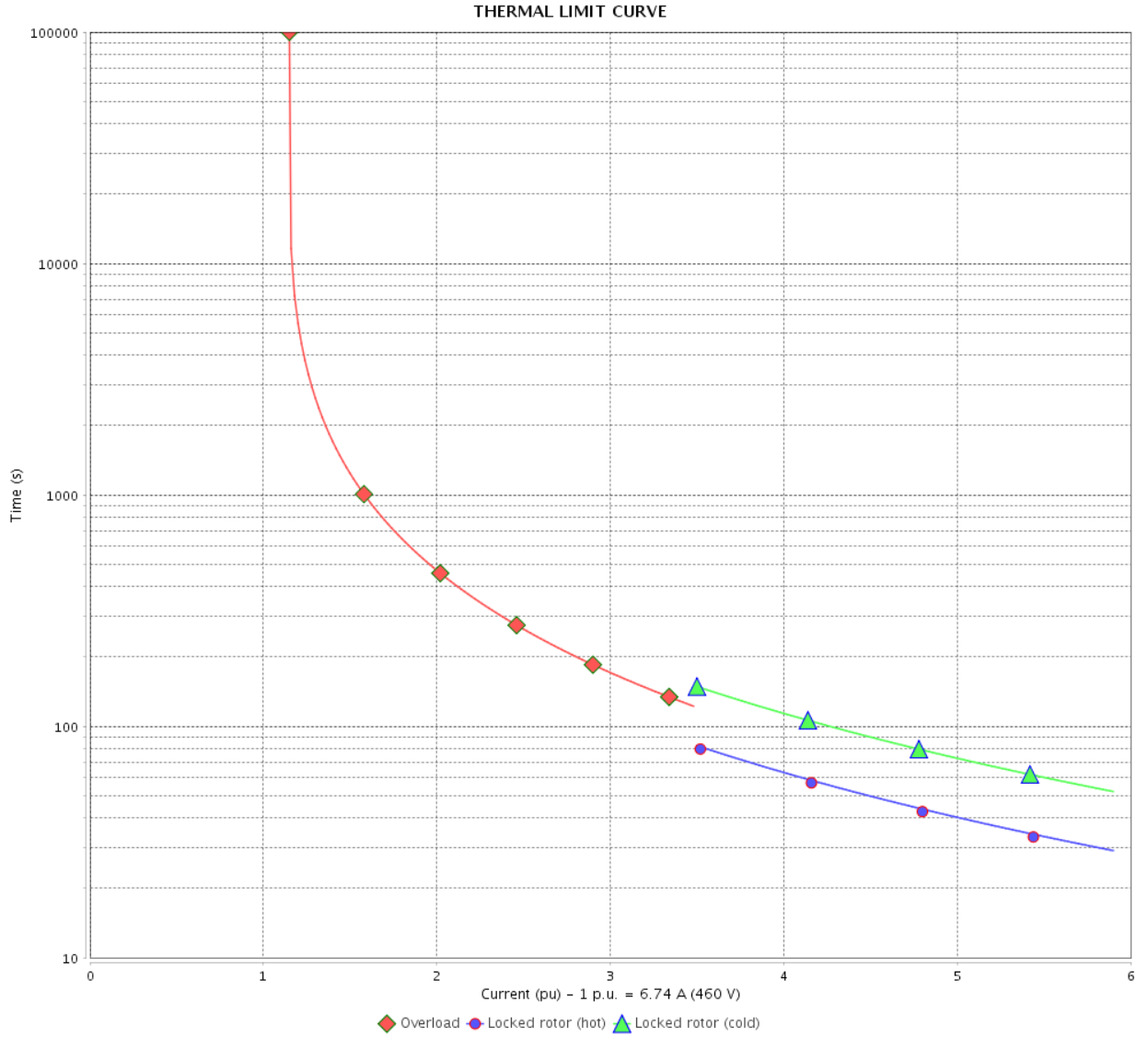
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LRC : 4.5	Duty cycle : Cont.(S1)
Rated torque : 27.4 ft.lb	Insulation class : F
Locked rotor torque : 160 %	Service factor : 1.15
Breakdown torque : 190 %	Temperature rise : 80 K
Rated speed : 960 rpm	Design : B

Heating constant

Cooling constant

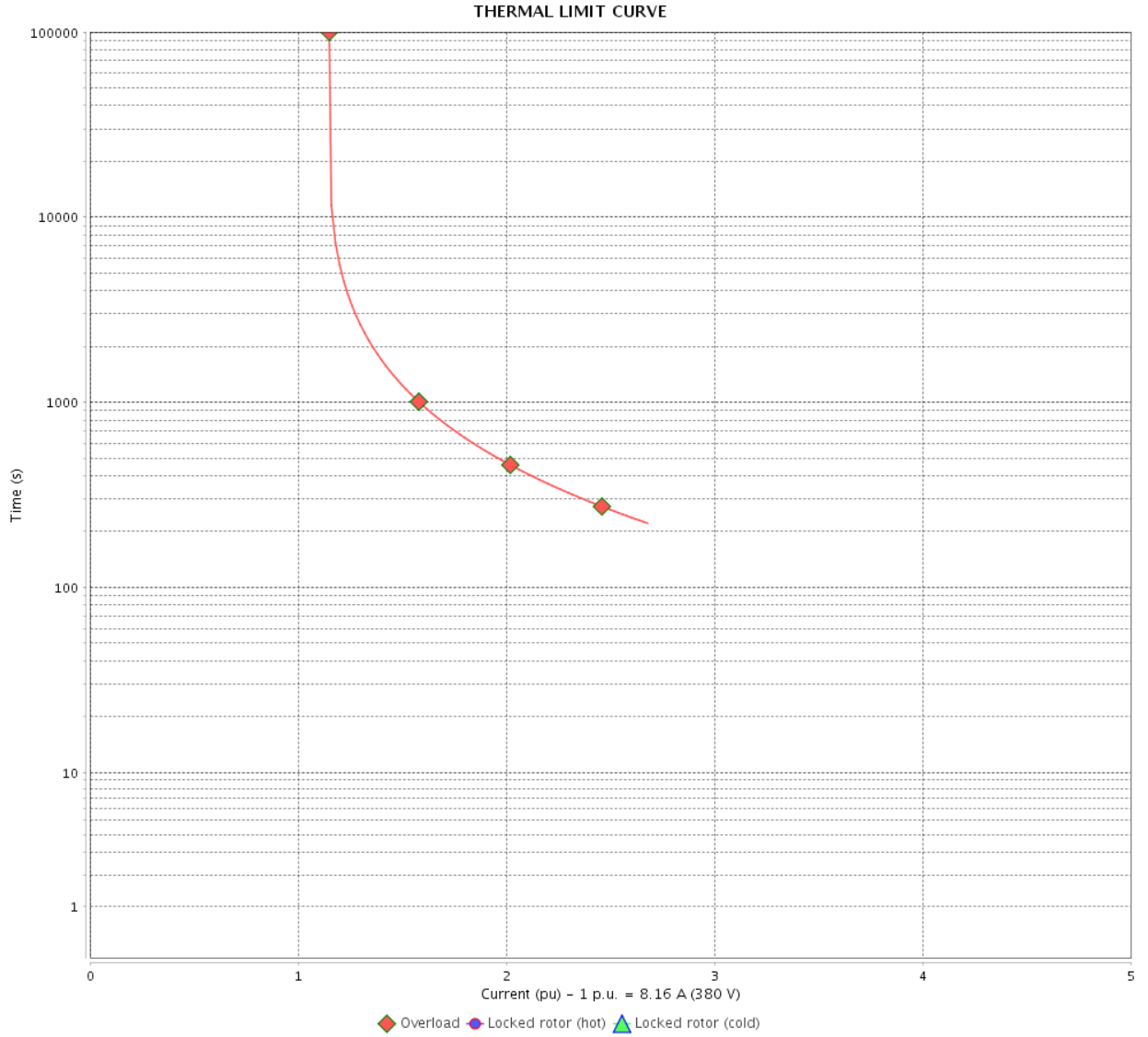
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Heating constant

Cooling constant

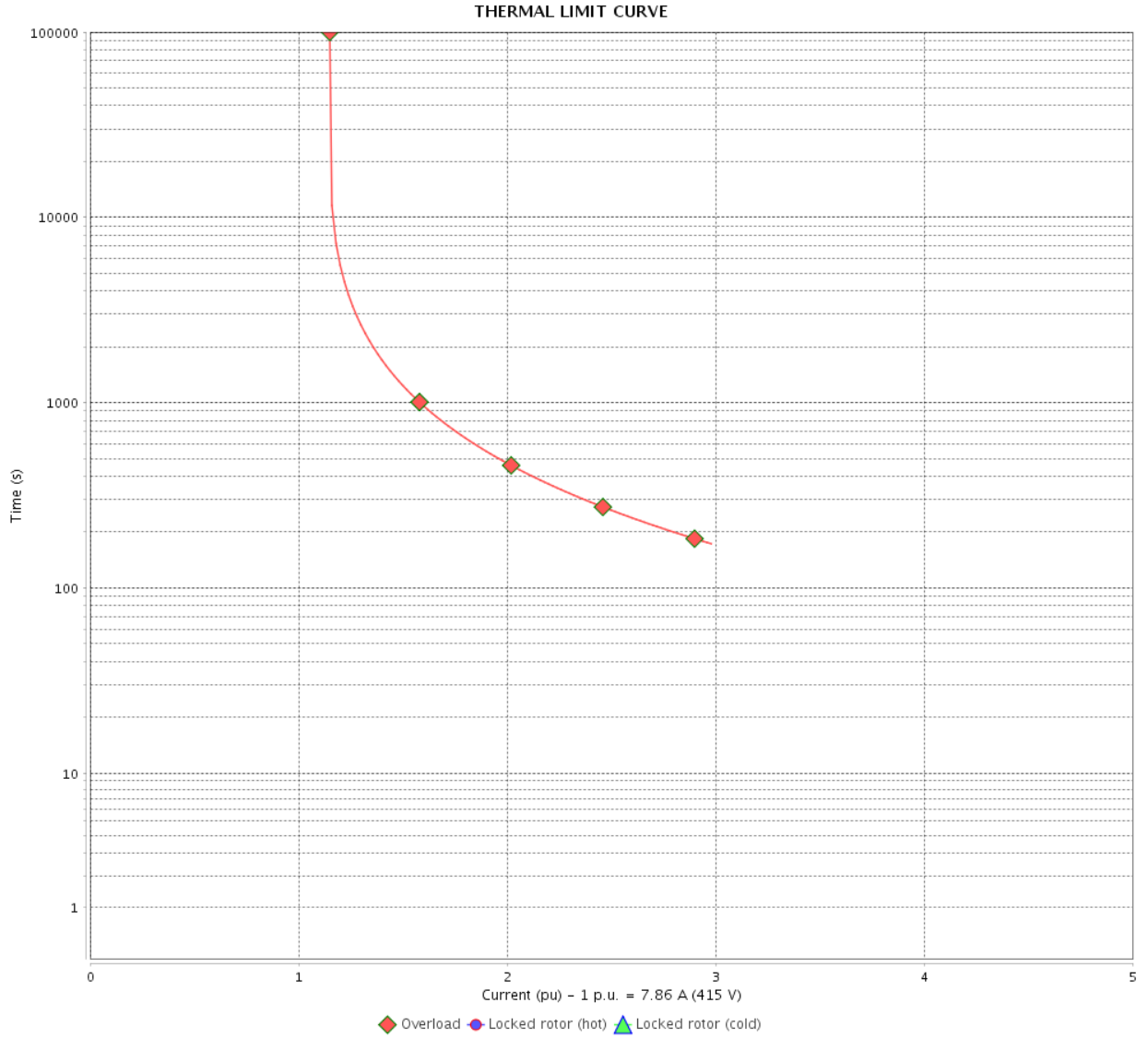
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

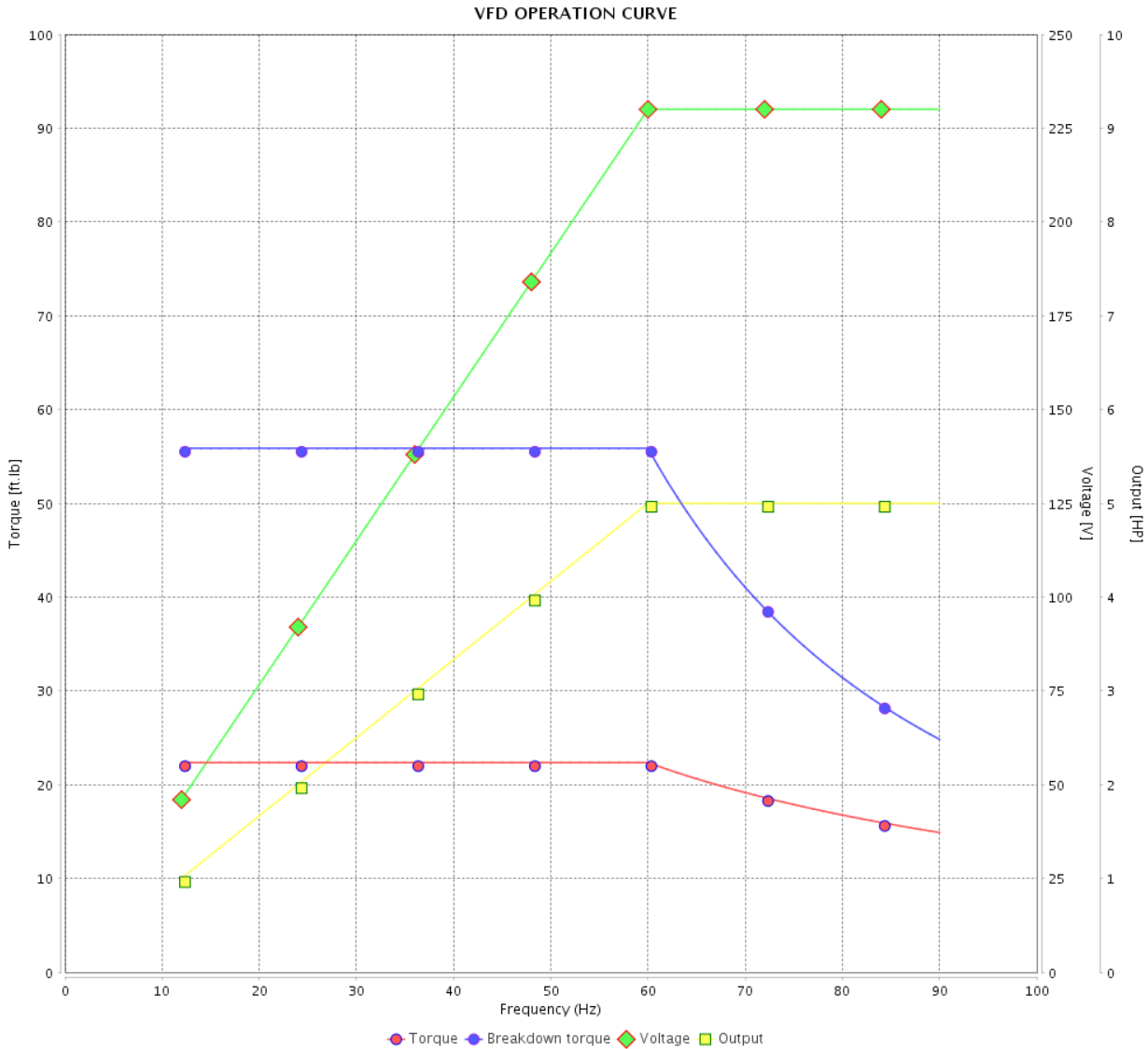


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 Rated torque : 22.3 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 250 %
 Rated speed : 1175 rpm

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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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

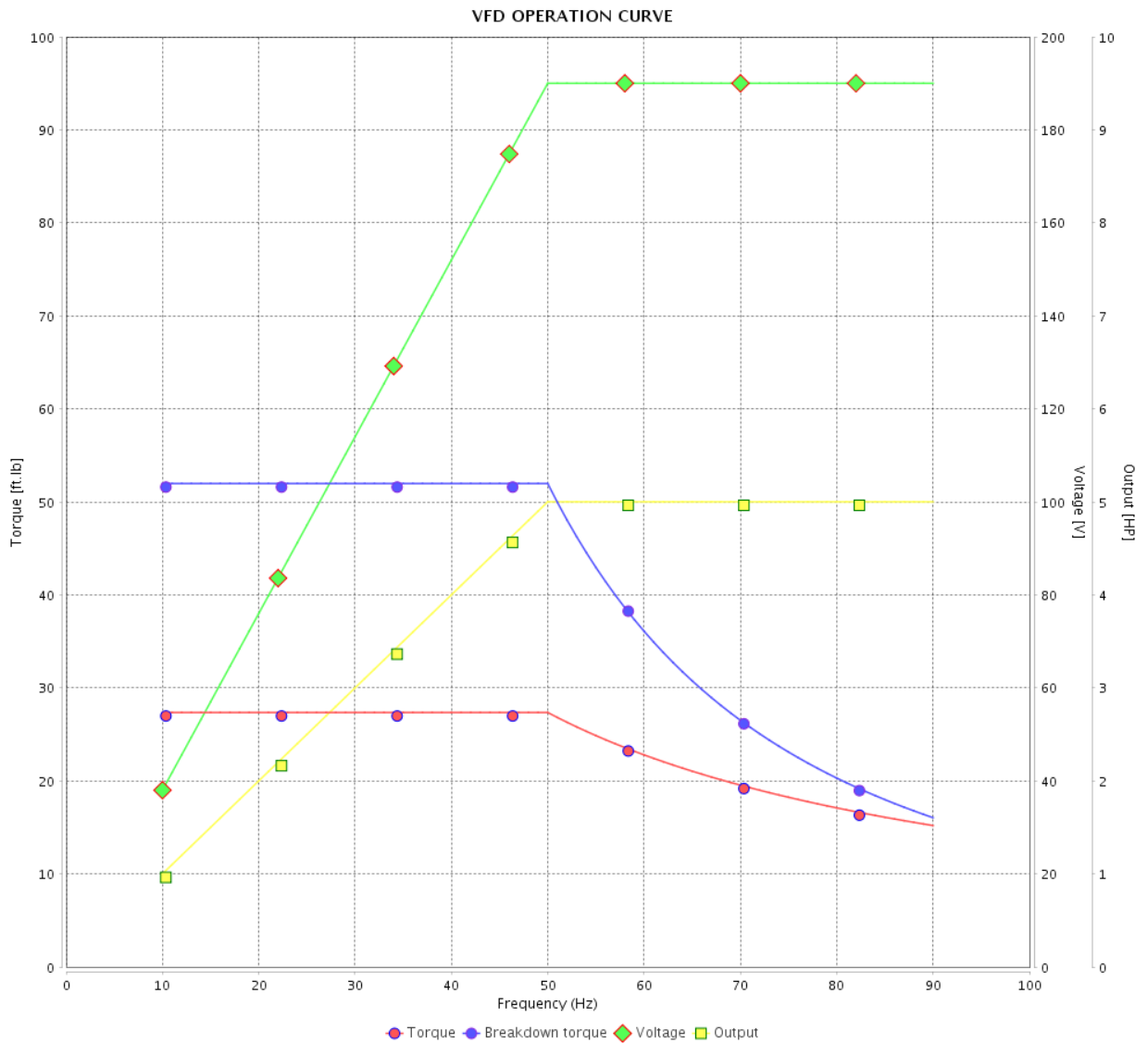


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



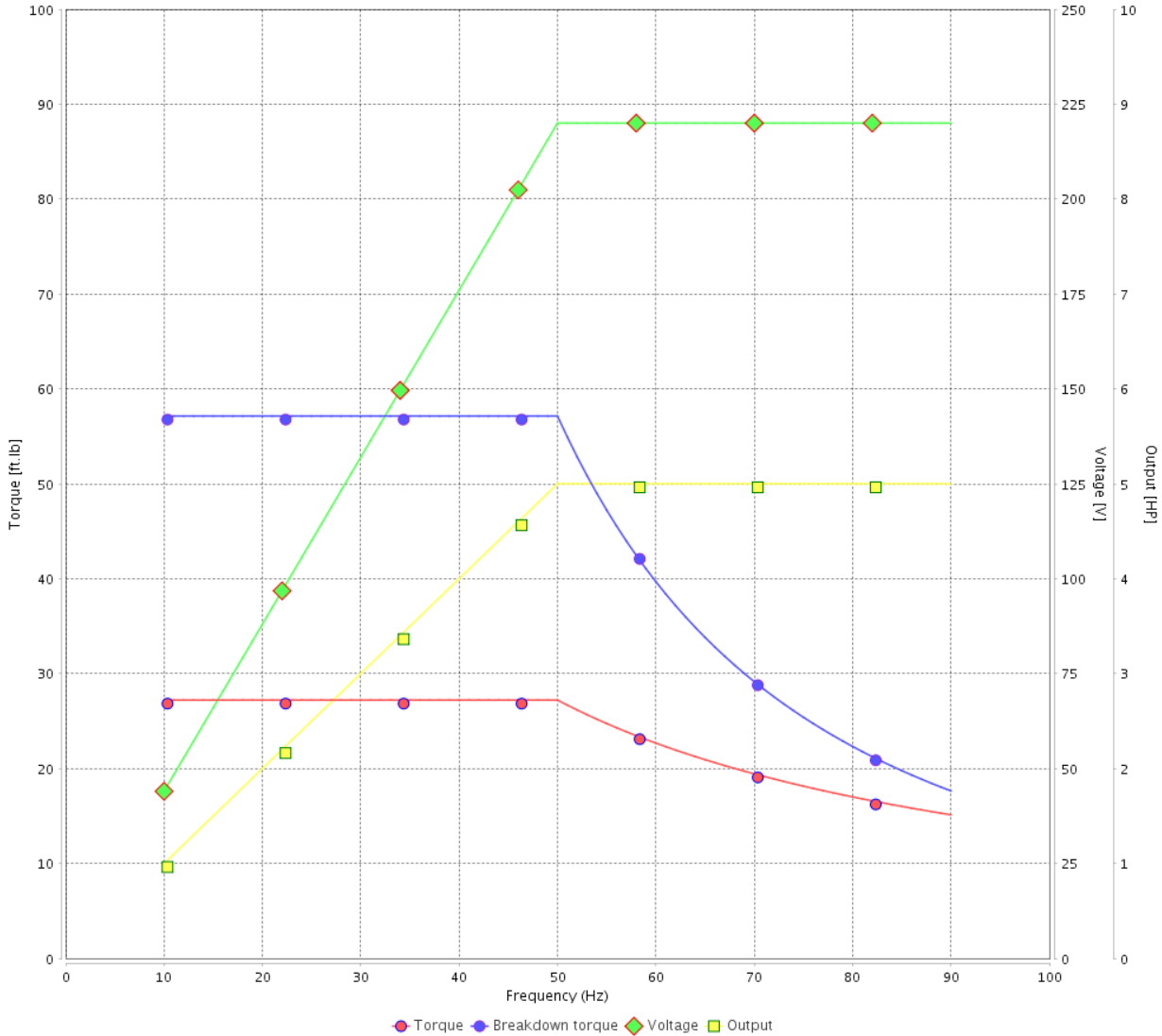
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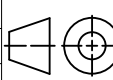
A

B

C

D

E

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 PREM. EFF. FRAME 213/5TC IP21 ODP				PREVIEW WDD
CHECKED						
RELEASED						
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1	

5 HP 06 Poles 60 Hz

A

Dimensions in inches
XME A3



**NEMA**
Premium

3PT9



Energy Verified

MADE IN MEXICO

MAT: 12651151 CC029A

W01.T00IC0X0N

MODEL 005120T3E215TC-S

23MAR2022 S/N:

PH 3	Hz 60	HP 5.0
FR 213/5TC		KW 3.7
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 13.5/6.74
INS CL F AT 80K		SFA 15.5/7.75
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE H	PF 0.77
USABLE @ 208V 14.9A		RPM 1175
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.15
 18.3-14.6/8.18-7.74A 960RPM EFF 85.1% (IE2) IEC 60034-1

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

DE 6208-ZZ ODE 6206-ZZ MOBIL POLYREX EM



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.

