

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	13163448	
Catalog # :	01018OT3E215TC-SG	
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	: 130 lb	
Moment of inertia (J)	: 1.30 sq.ft.lb	
Output [HP]	10	
Poles	4	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	24.8/12.4	
L. R. Amperes [A]	174/86.8	
LRC [A]	7.0x(Code H)	
No load current [A]	12.0/5.99	
Rated speed [RPM]	1770	
Slip [%]	1.67	
Rated torque [ft.lb]	29.7	
Locked rotor torque [%]	250	
Breakdown torque [%]	350	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	25s (cold) 14s (hot)	
Noise level ²	59.0 dB(A)	
Efficiency (%)	25%	89.4
	50%	90.2
	75%	91.0
	100%	91.7
Power Factor	25%	0.38
	50%	0.64
	75%	0.77
	100%	0.83
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 : 501 lb Max. compression : 631 lb	
Notes USABLE @208V 27.4A SF 1.00 SFA 27.4A		
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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Revision		

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



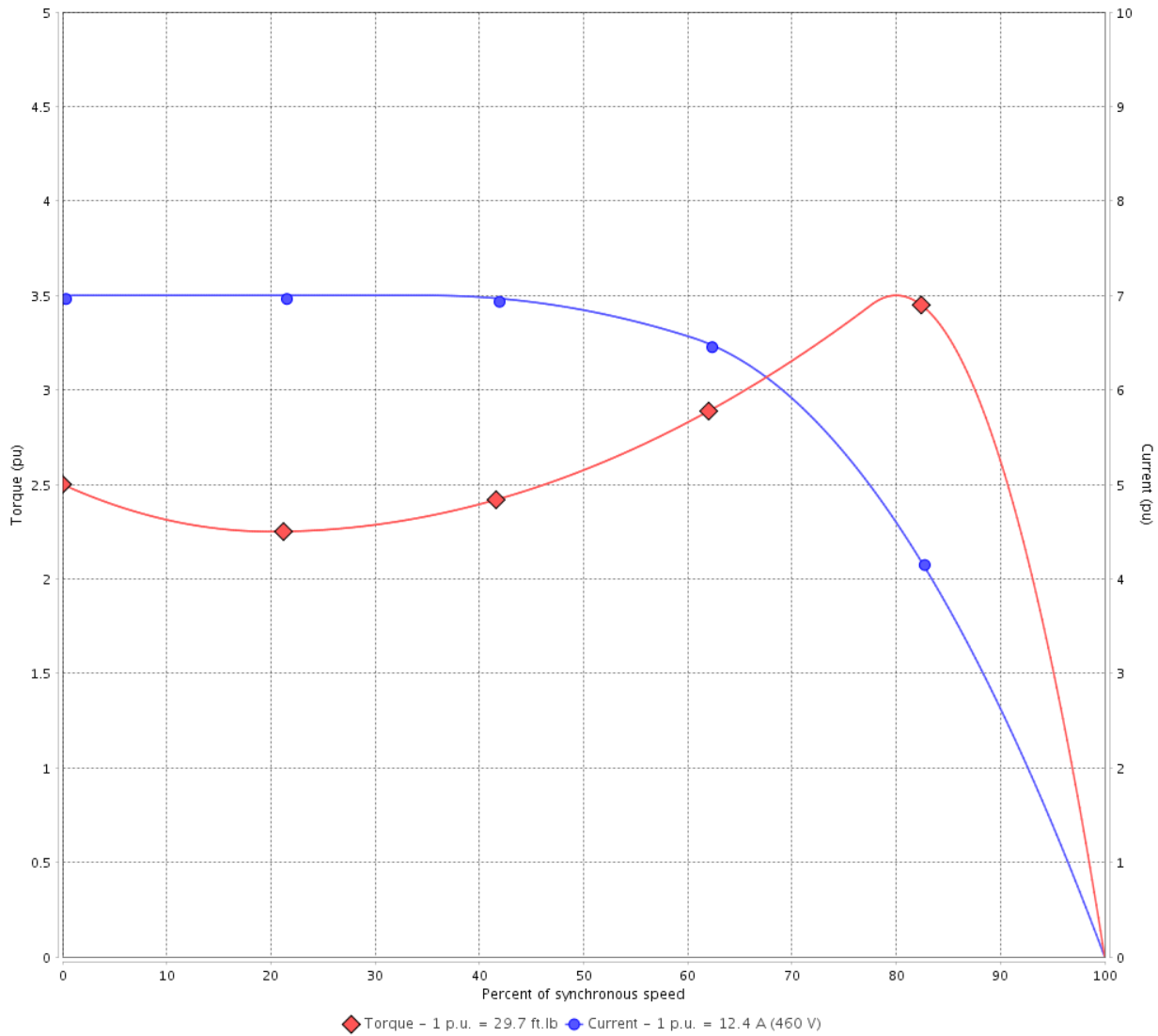
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163448

Catalog # : 01018OT3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 24.8/12.4 A	Moment of inertia (J)	: 1.30 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 29.7 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 350 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 25s (cold) 14s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



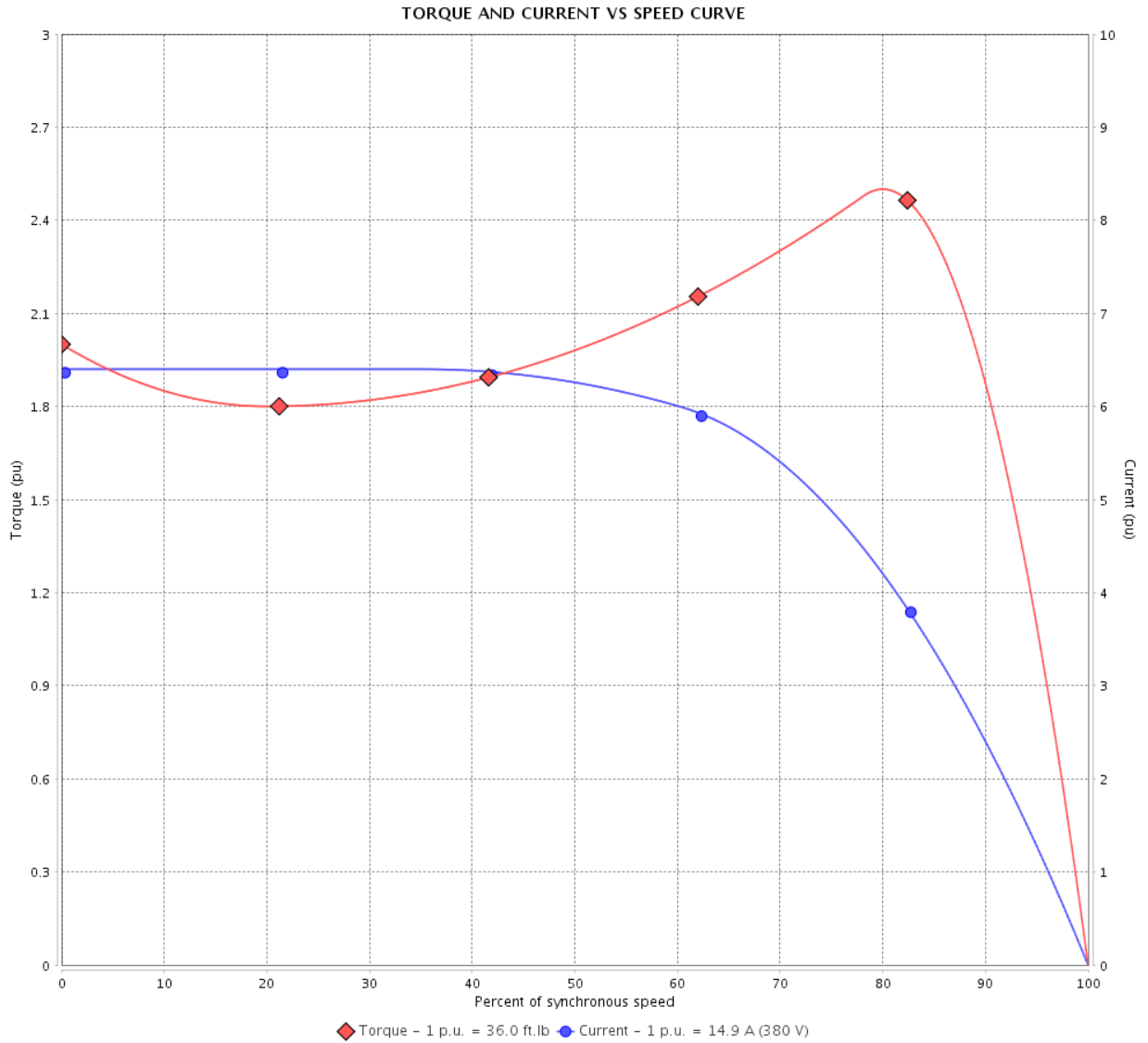
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163448

Catalog # : 01018OT3E215TC-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 29.8/14.9 A
 LRC : 6.4
 Rated torque : 36.0 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 250 %
 Rated speed : 1460 rpm

Moment of inertia (J) : 1.30 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



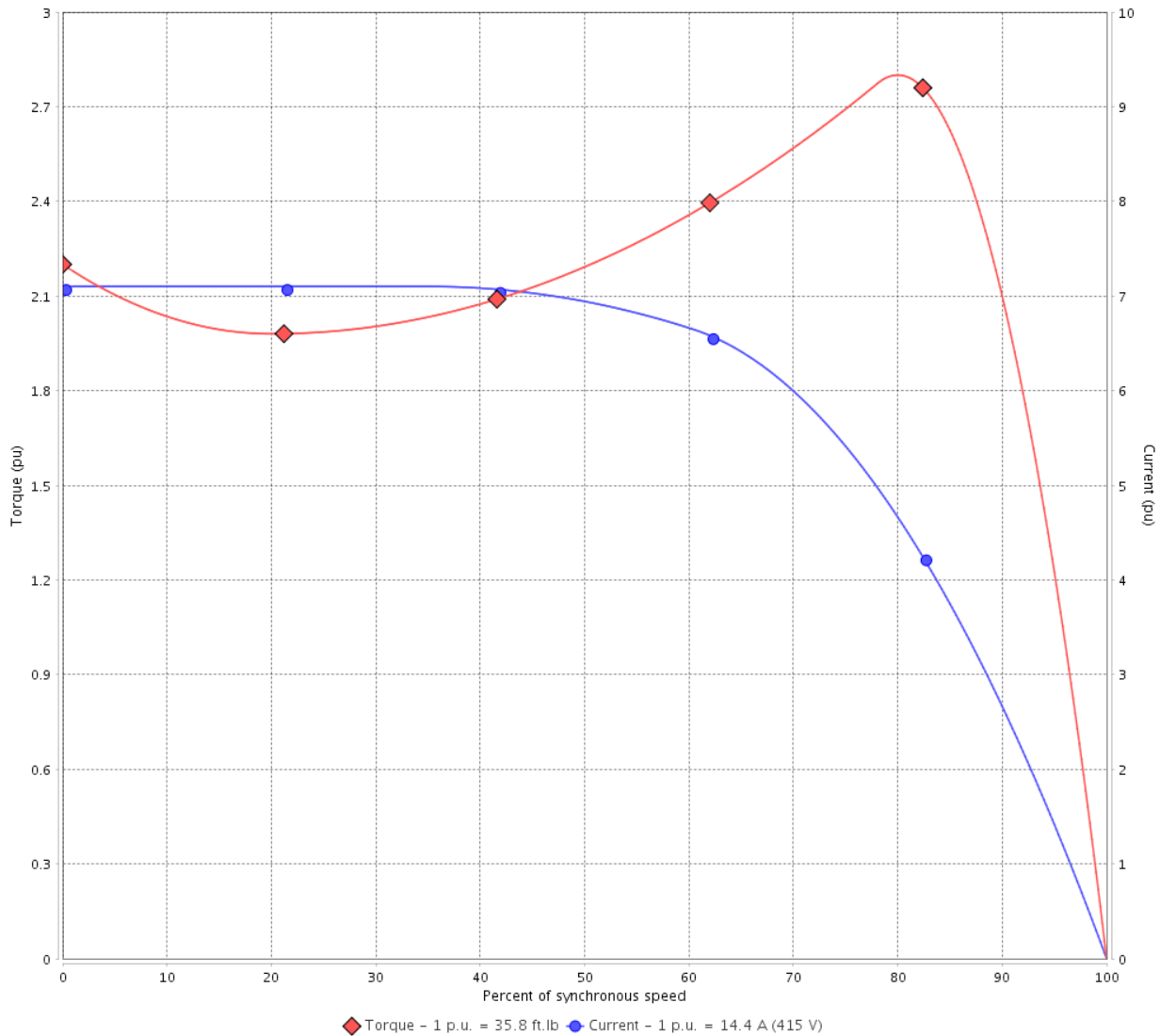
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163448

Catalog # : 01018OT3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 27.2/14.4 A	Moment of inertia (J)	: 1.30 sq.ft.lb
LRC	: 7.1	Duty cycle	: Cont.(S1)
Rated torque	: 35.8 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 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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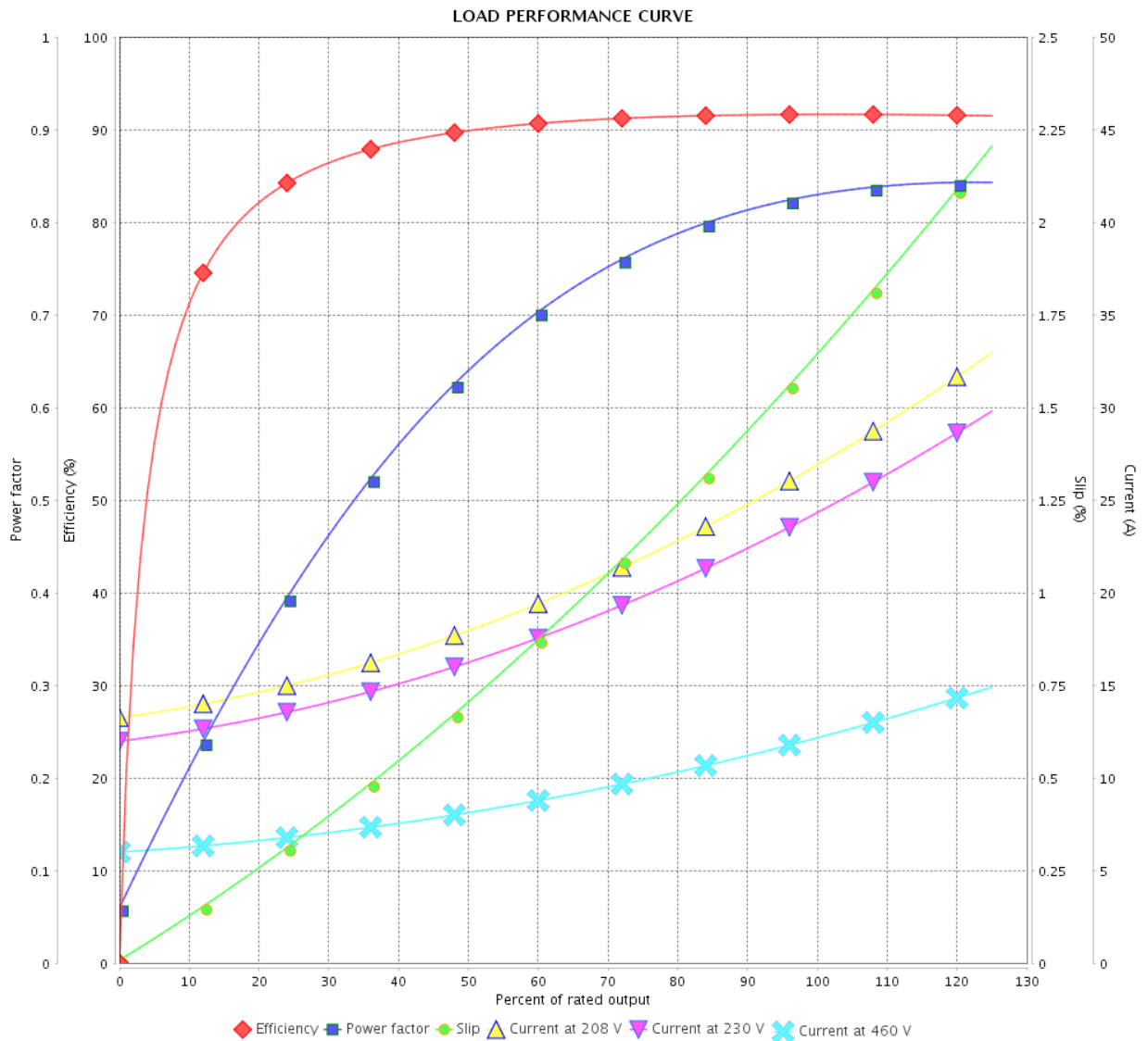


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Performance : 230/460 V 60 Hz 4P

Rated current : 24.8/12.4 A
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 Insulation class : F
 Service factor : 1.15
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 Design : B

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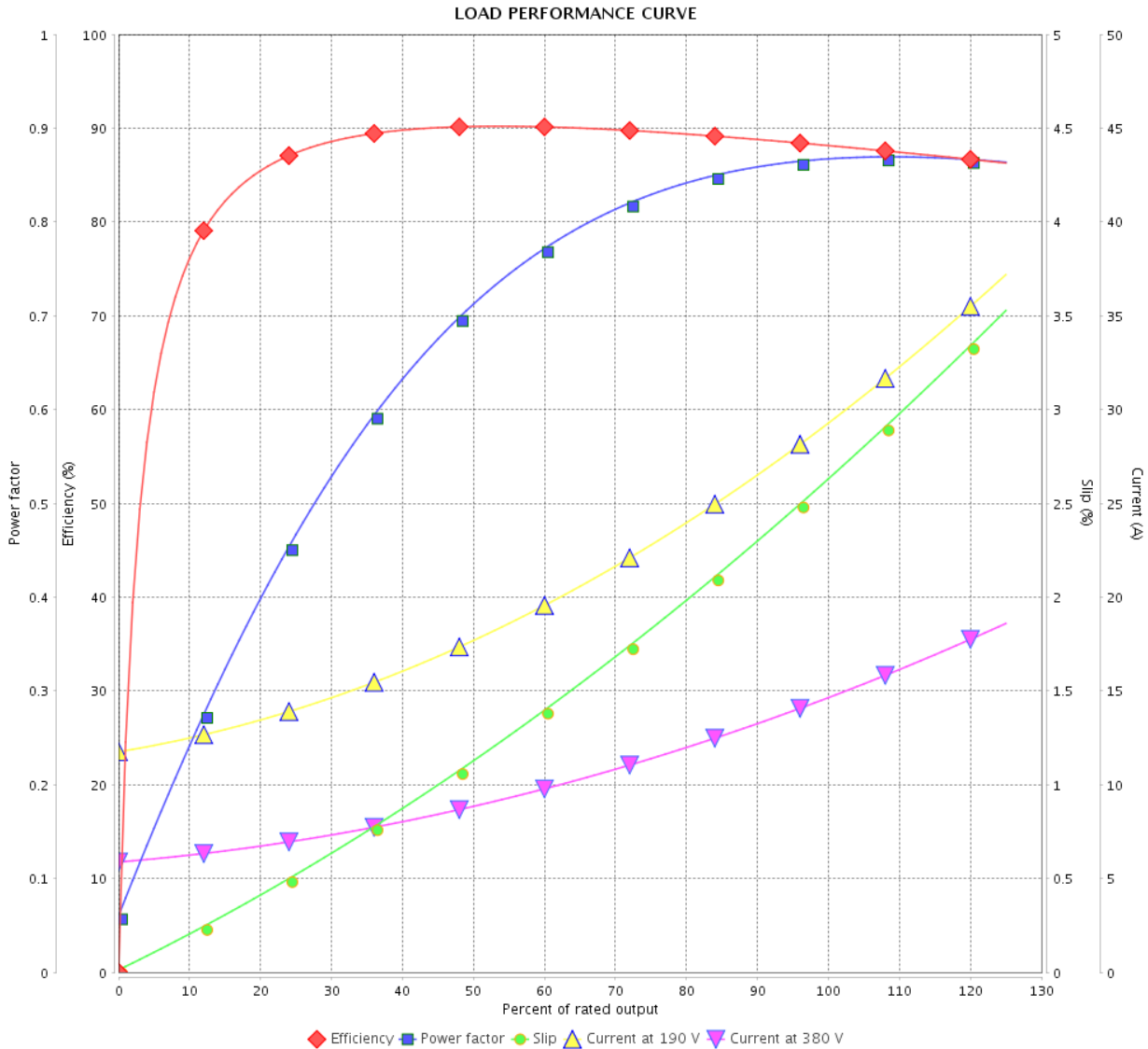


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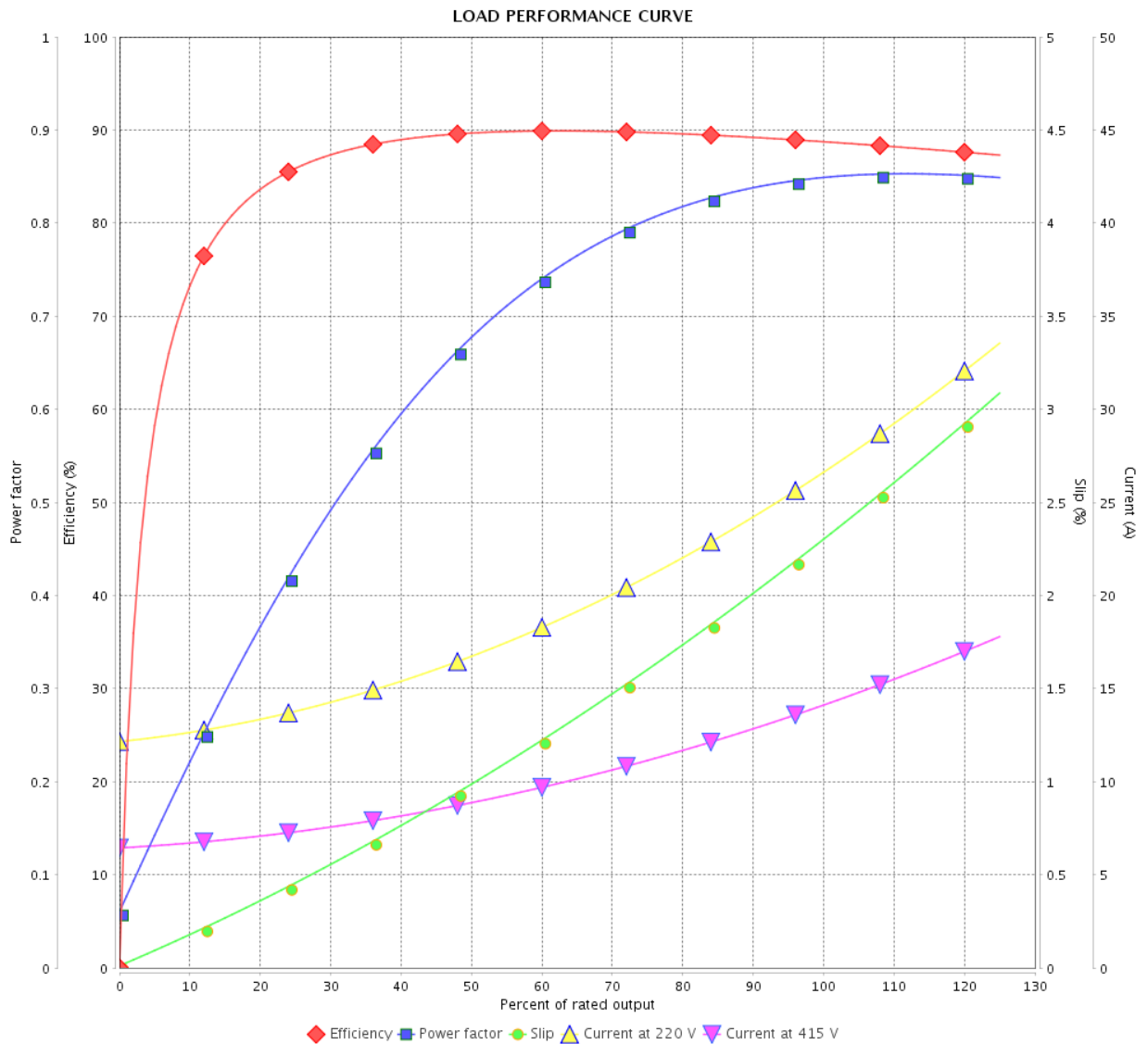


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THERMAL LIMIT CURVE



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Locked rotor torque : 250 %	Service factor : 1.15
Breakdown torque : 350 %	Temperature rise : 80 K
Rated speed : 1770 rpm	Design : B

Heating constant

Cooling constant

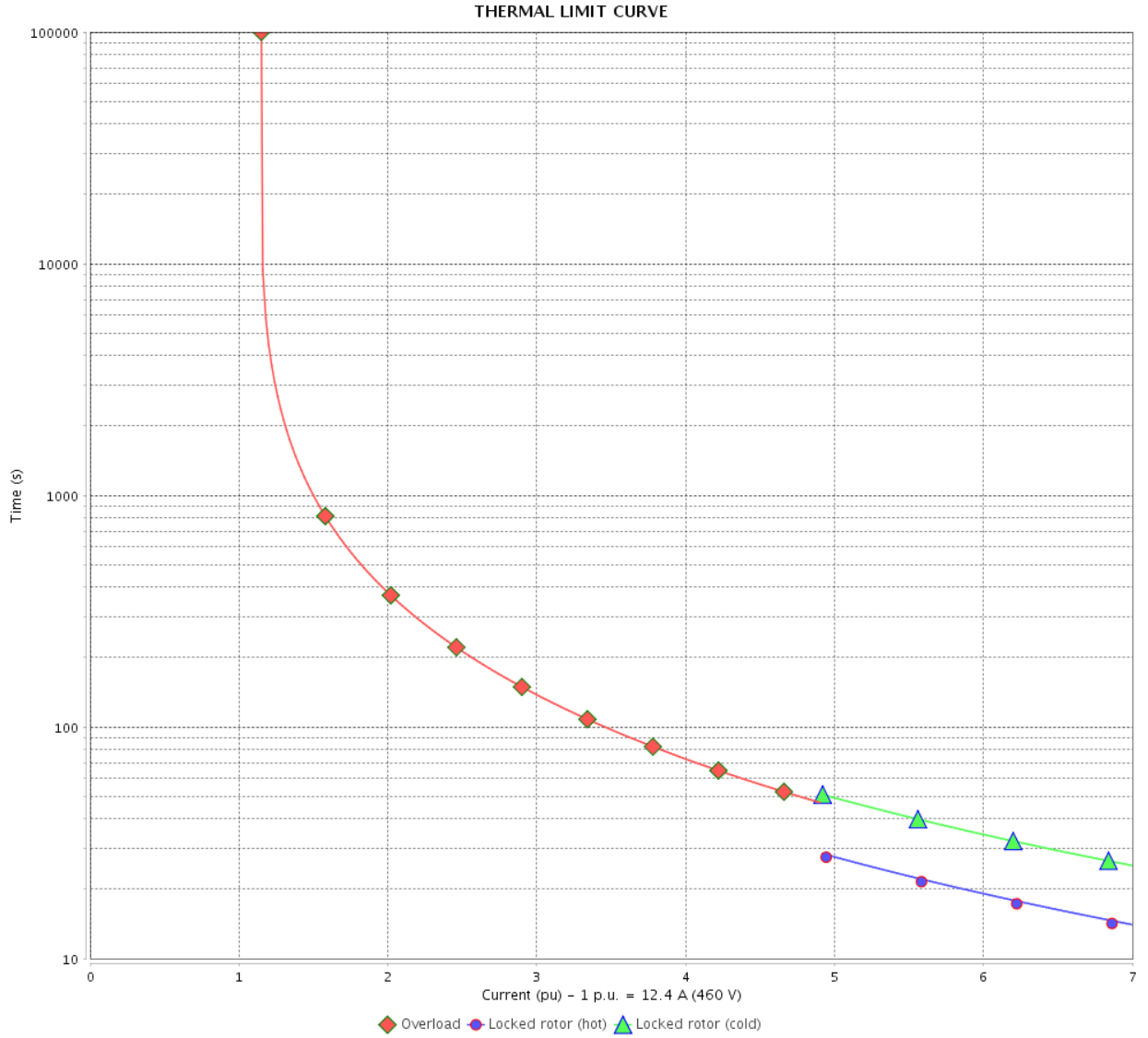
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Rated speed	: 1460 rpm	Design	: B

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Cooling constant

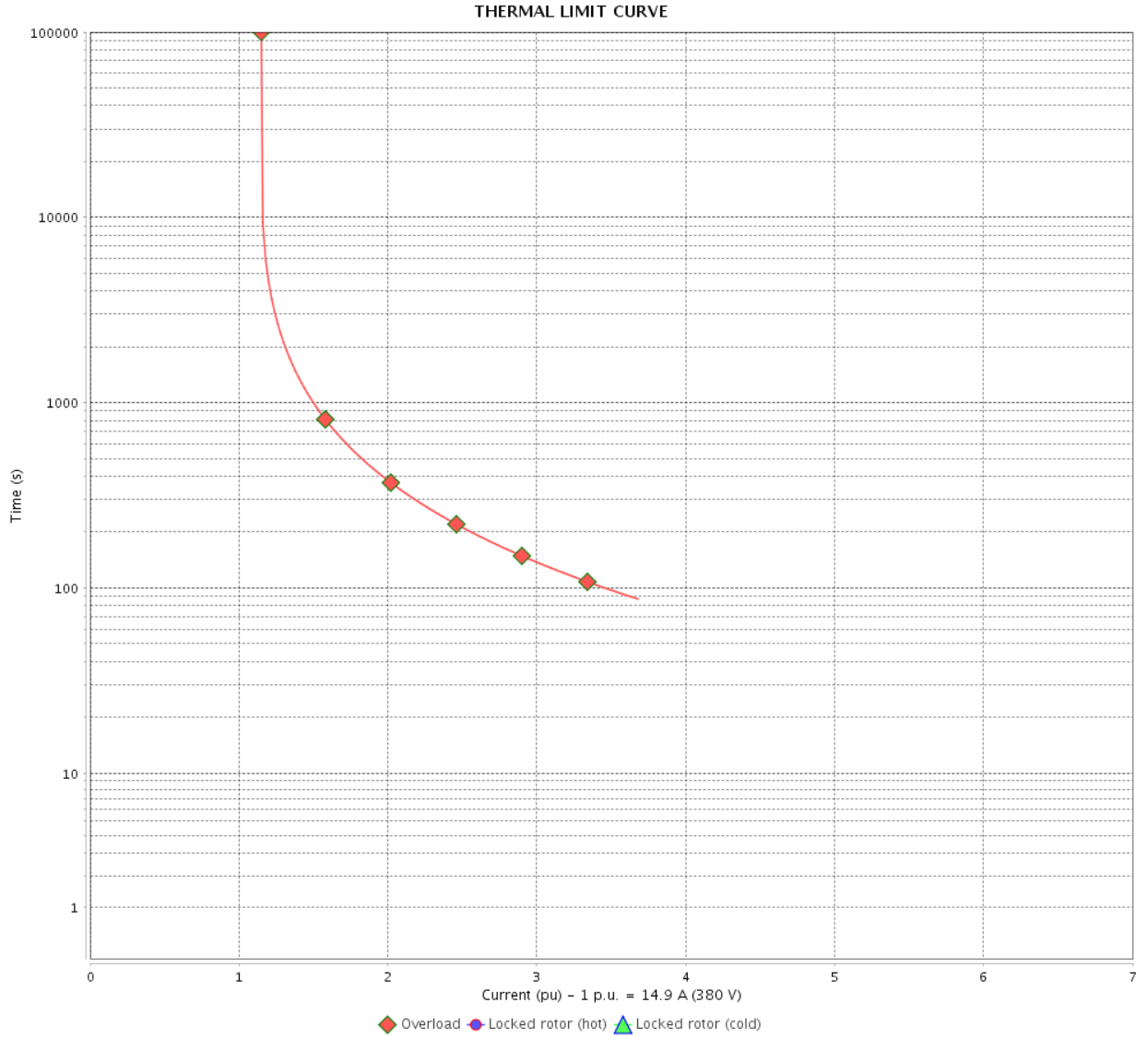
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Cooling constant

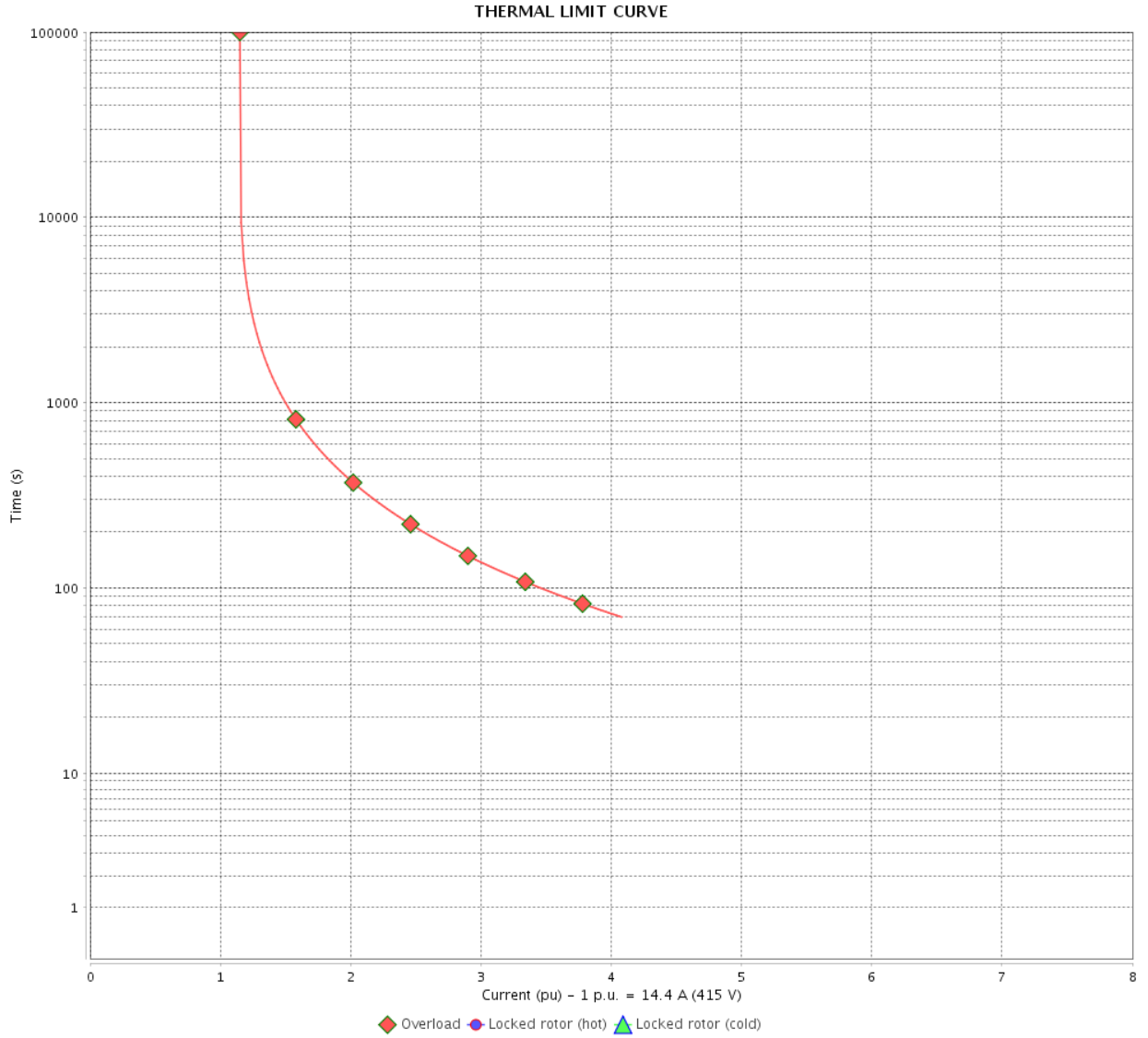
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



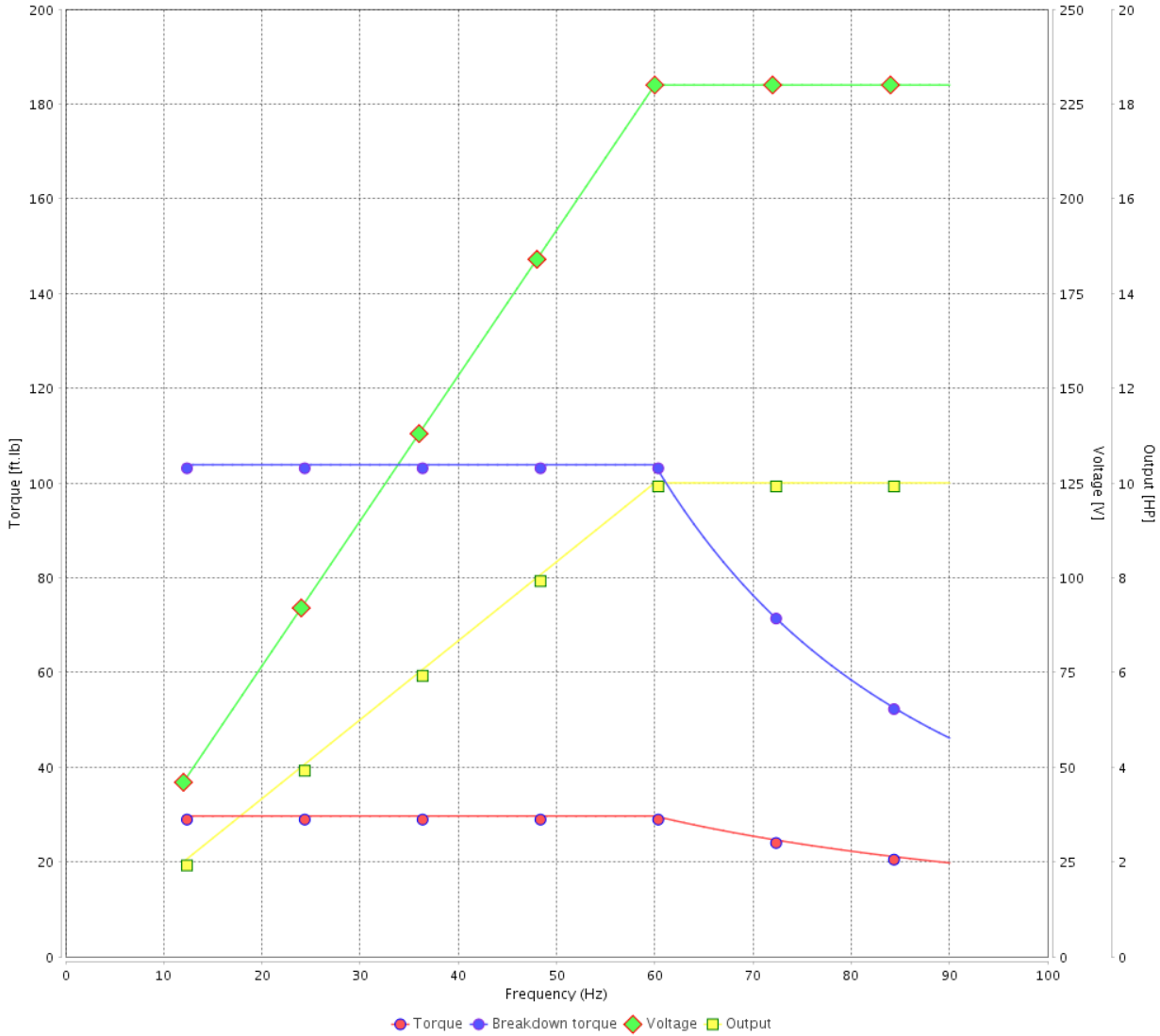
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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

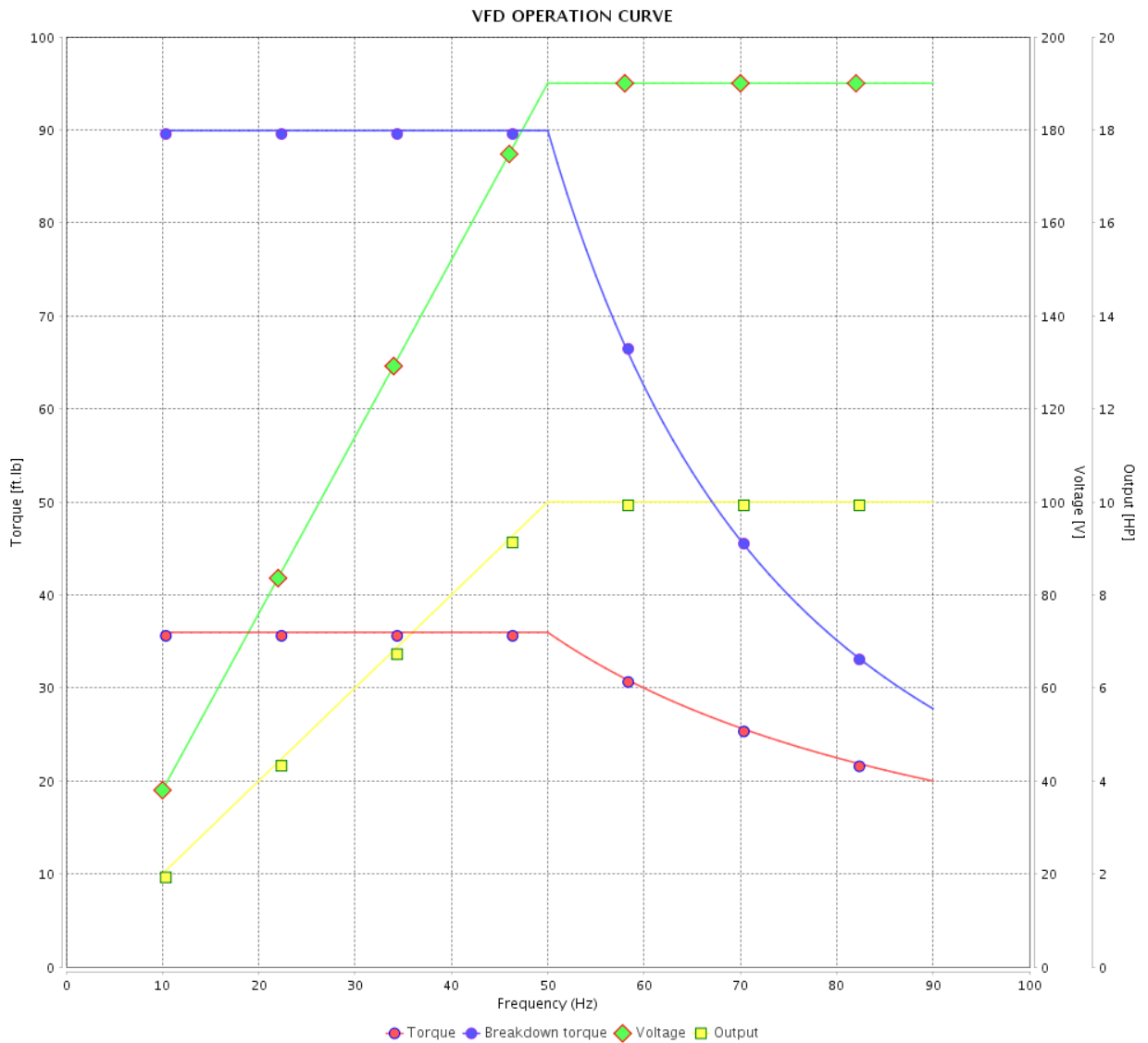


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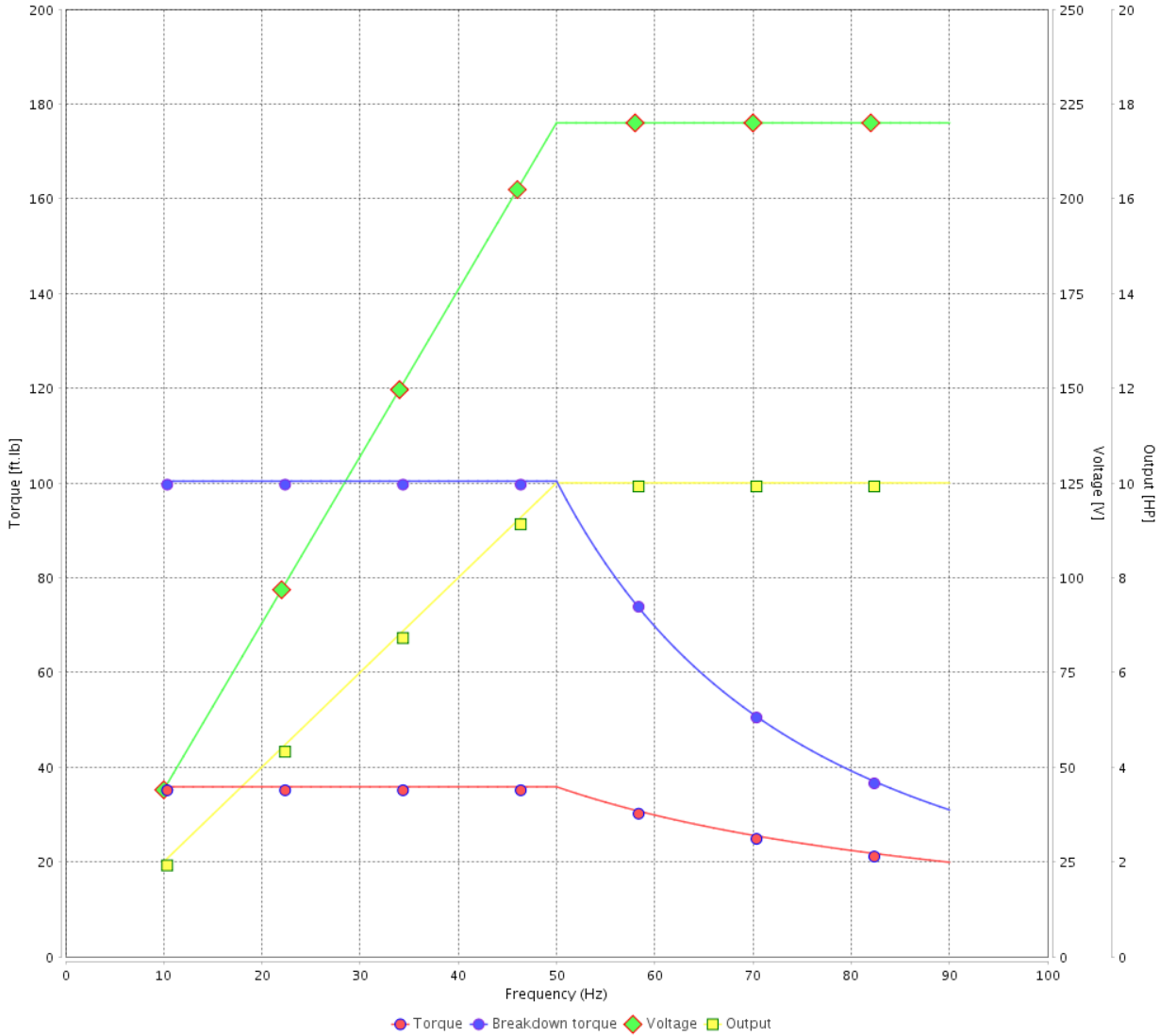
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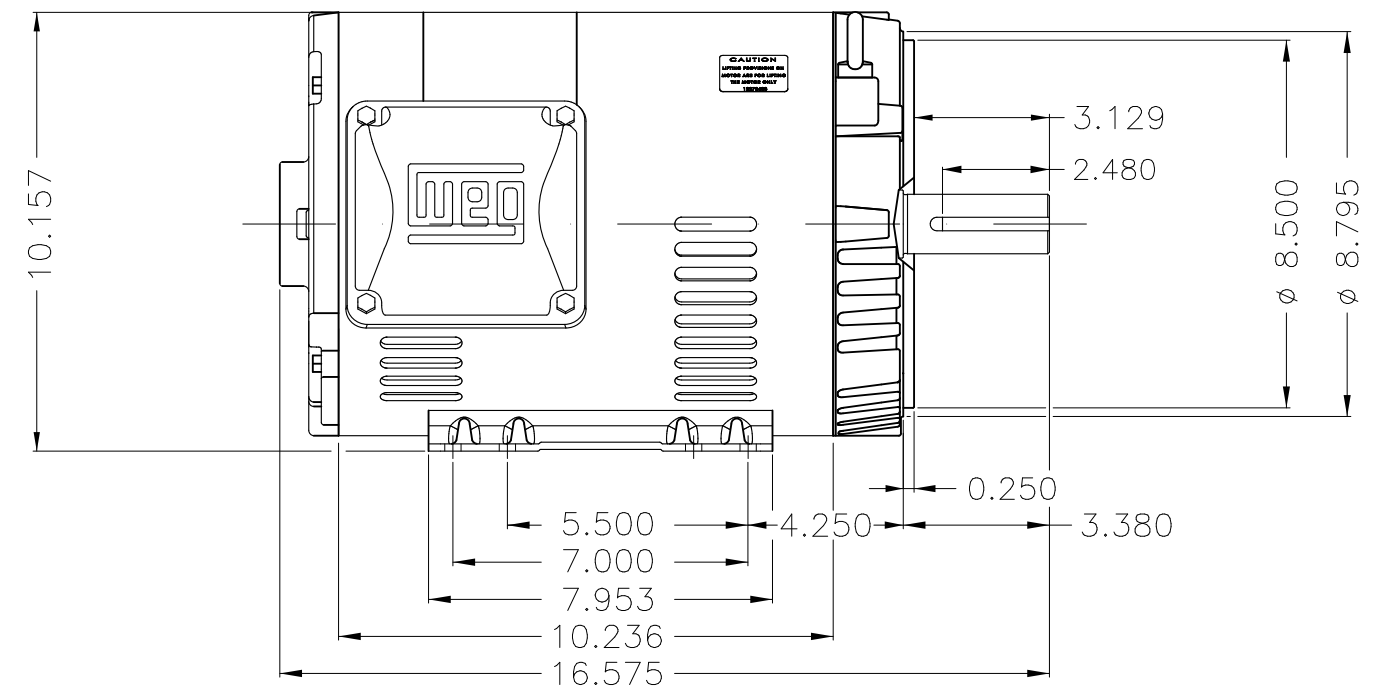
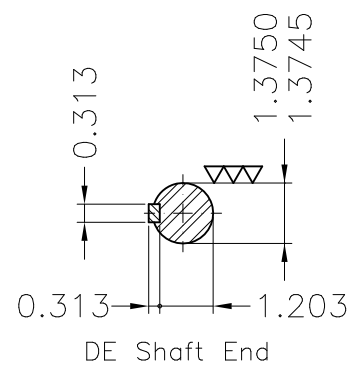
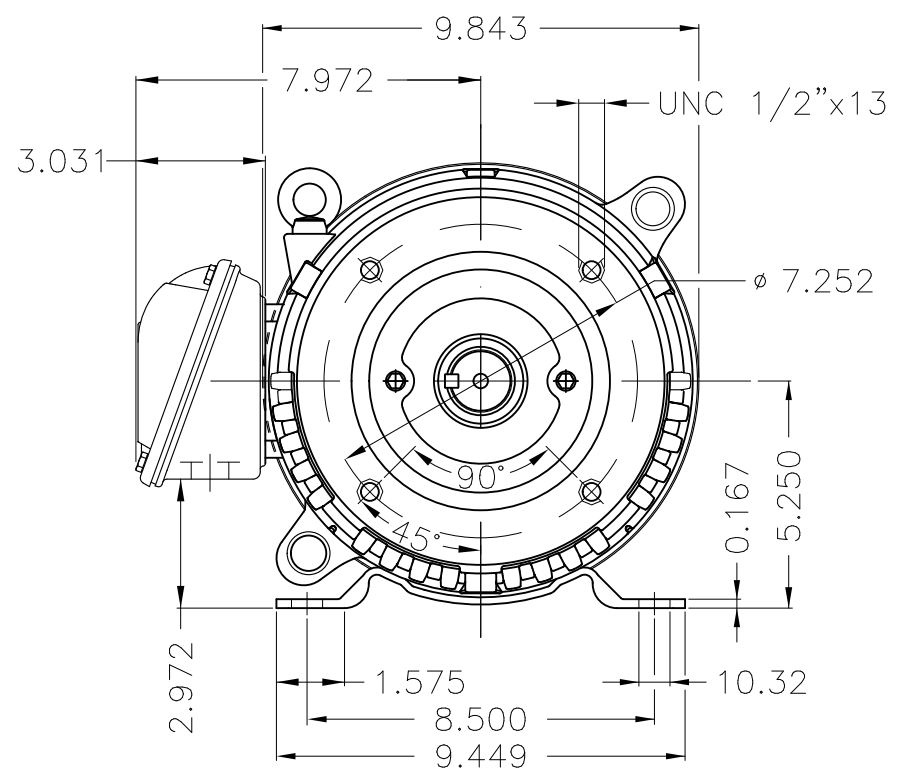
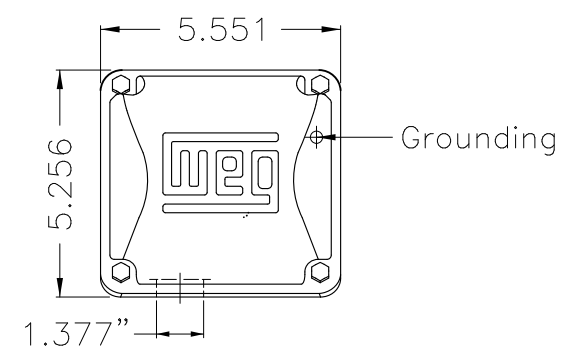
A

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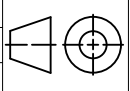
C

D

E



Internal AEGIS ground ring on the DE
 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					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

10 HP 04 Poles 60 Hz

PREVIEW
WDD



**NEMA**
Premium

MADE IN MEXICO

MAT: 13163448 CC029A

W01.T00IC0X0N

MODEL 010180T3E215TC-SG

28FEB2022 S/N:

PH 3	Hz 60	HP 10
FR 213/5TC		KW 7.5
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 24.8/12.4
INS CL F AT 80K		SFA 28.5/14.3
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE H	PF 0.83
USABLE @ 208V 27.4A		RPM 1770
SF1.00		NEMA NOM. EFF 91.7%

ALTERNATE RATING: 10HP 50Hz 190-220/380-415V SF1.15
 29.8-28.4/14.9-14.0A 1460RPM EFF 88.1% (IE1) 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.

