

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12751165	
Catalog # :	002120T3E184T-S	
Frame	: 182/4T	
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	: 66.4 lb	
Moment of inertia (J)	: 0.2800 sq.ft.lb	
Output [HP]	2	
Poles	6	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	5.90/2.95	
L. R. Amperes [A]	38.9/19.5	
LRC [A]	6.6x(Code J)	
No load current [A]	3.42/1.71	
Rated speed [RPM]	1165	
Slip [%]	2.92	
Rated torque [ft.lb]	9.02	
Locked rotor torque [%]	200	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	59s (cold) 33s (hot)	
Noise level ²	52.0 dB(A)	
Efficiency (%)	25%	84.4
	50%	85.5
	75%	86.5
	100%	87.5
Power Factor	25%	0.30
	50%	0.53
	75%	0.66
	100%	0.73
Bearing type	: <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ	
Sealing	: Without Without	
	: Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 143 lb	
	Max. compression : 210 lb	
Notes USABLE @208V 6.52A SF 1.00 SFA 6.52A		
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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14/04/2022		
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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

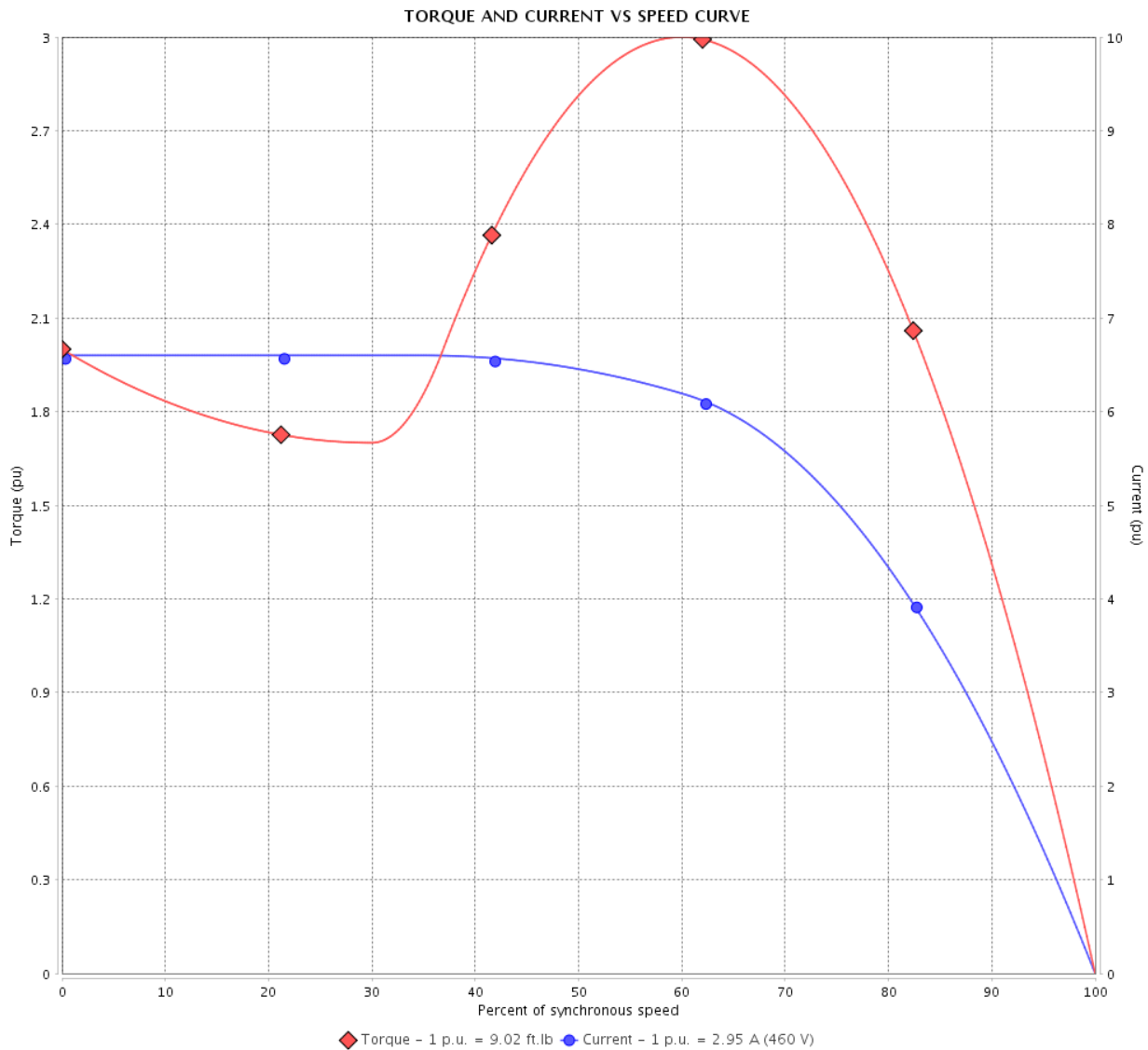


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751165

Catalog # : 002120T3E184T-S



Performance : 230/460 V 60 Hz 6P

Rated current	: 5.90/2.95 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 9.02 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1165 rpm	Design	: B

Locked rotor time : 59s (cold) 33s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



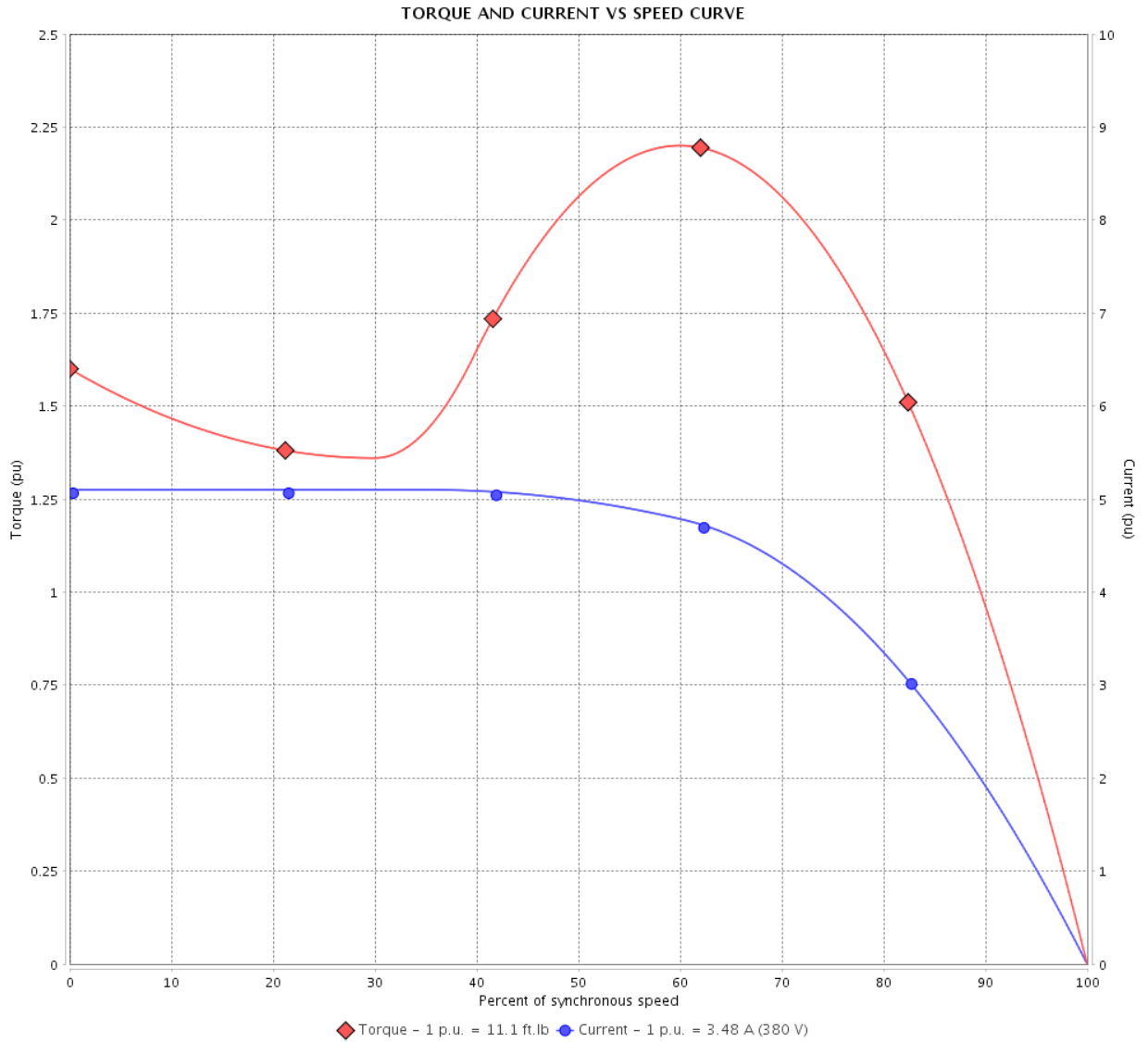
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751165

Catalog # : 00212OT3E184T-S



Performance : 190/380 V 50 Hz 6P

Rated current : 6.96/3.48 A
 LRC : 5.1
 Rated torque : 11.1 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 220 %
 Rated speed : 945 rpm

Moment of inertia (J) : 0.2800 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

Three Phase Induction Motor - Squirrel Cage



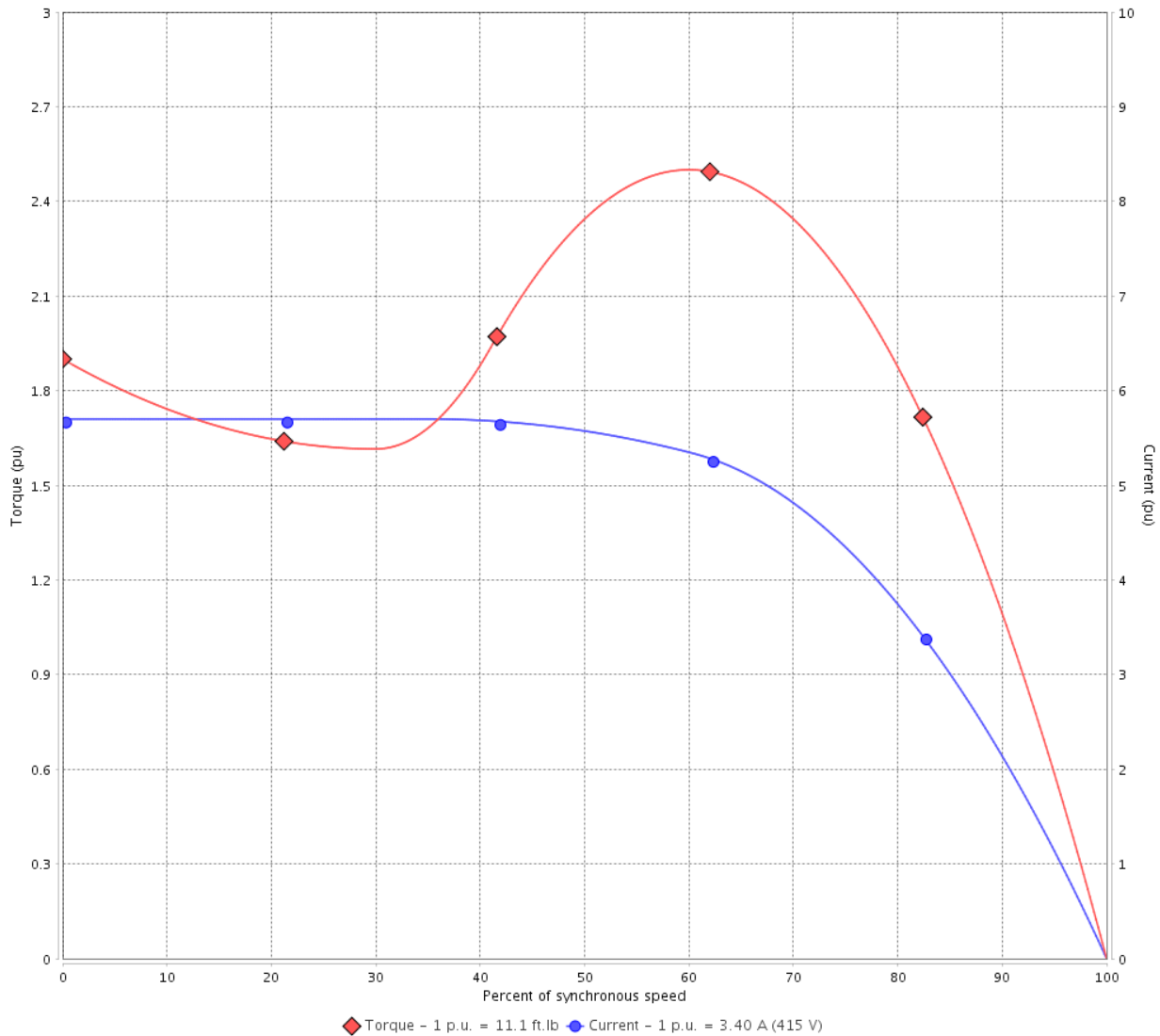
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751165

Catalog # : 002120T3E184T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 6.41/3.40 A	Moment of inertia (J)	: 0.2800 sq.ft.lb
LRC	: 5.7	Duty cycle	: Cont.(S1)
Rated torque	: 11.1 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 950 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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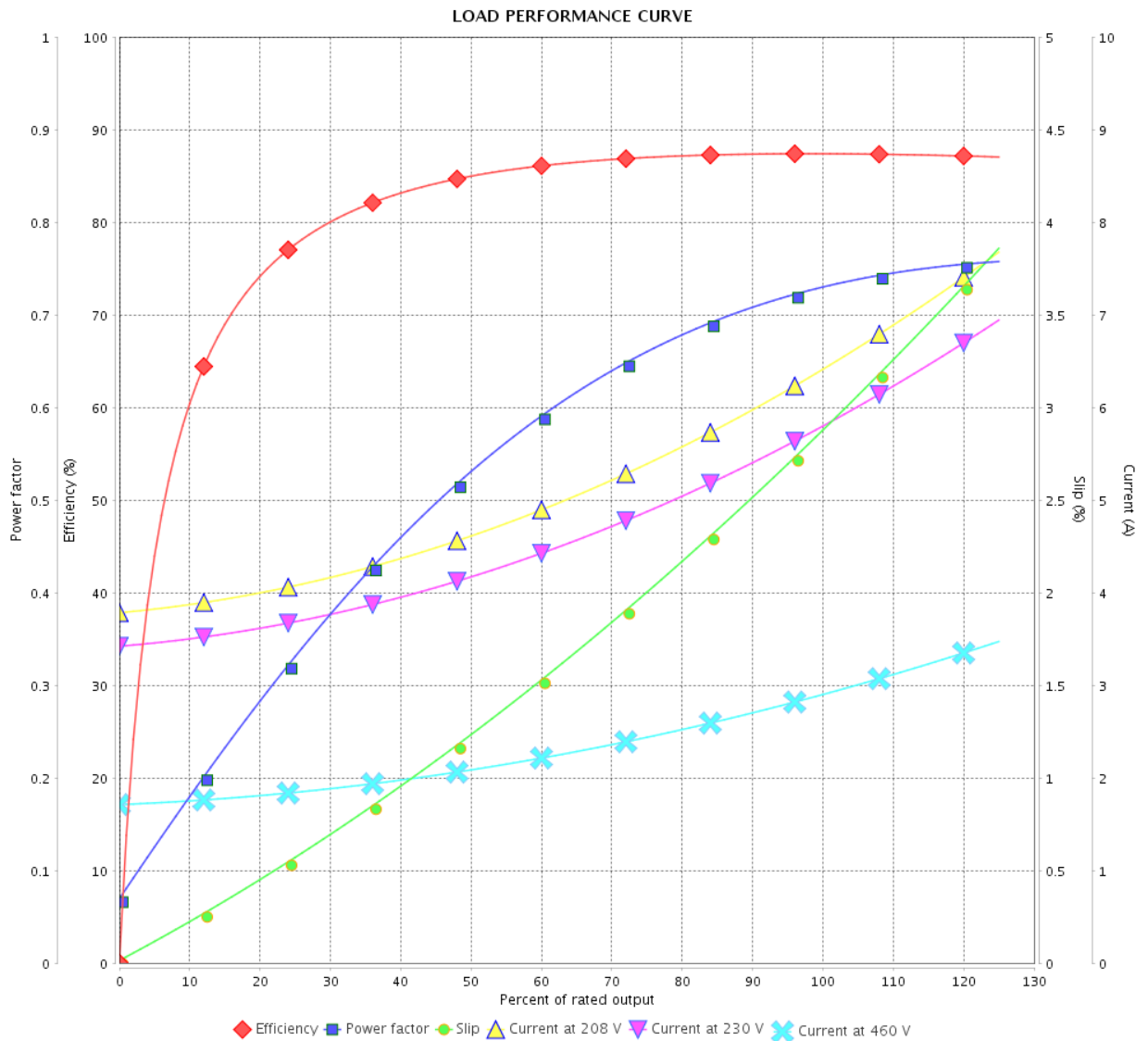


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 Breakdown torque : 300 %
 Rated speed : 1165 rpm

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

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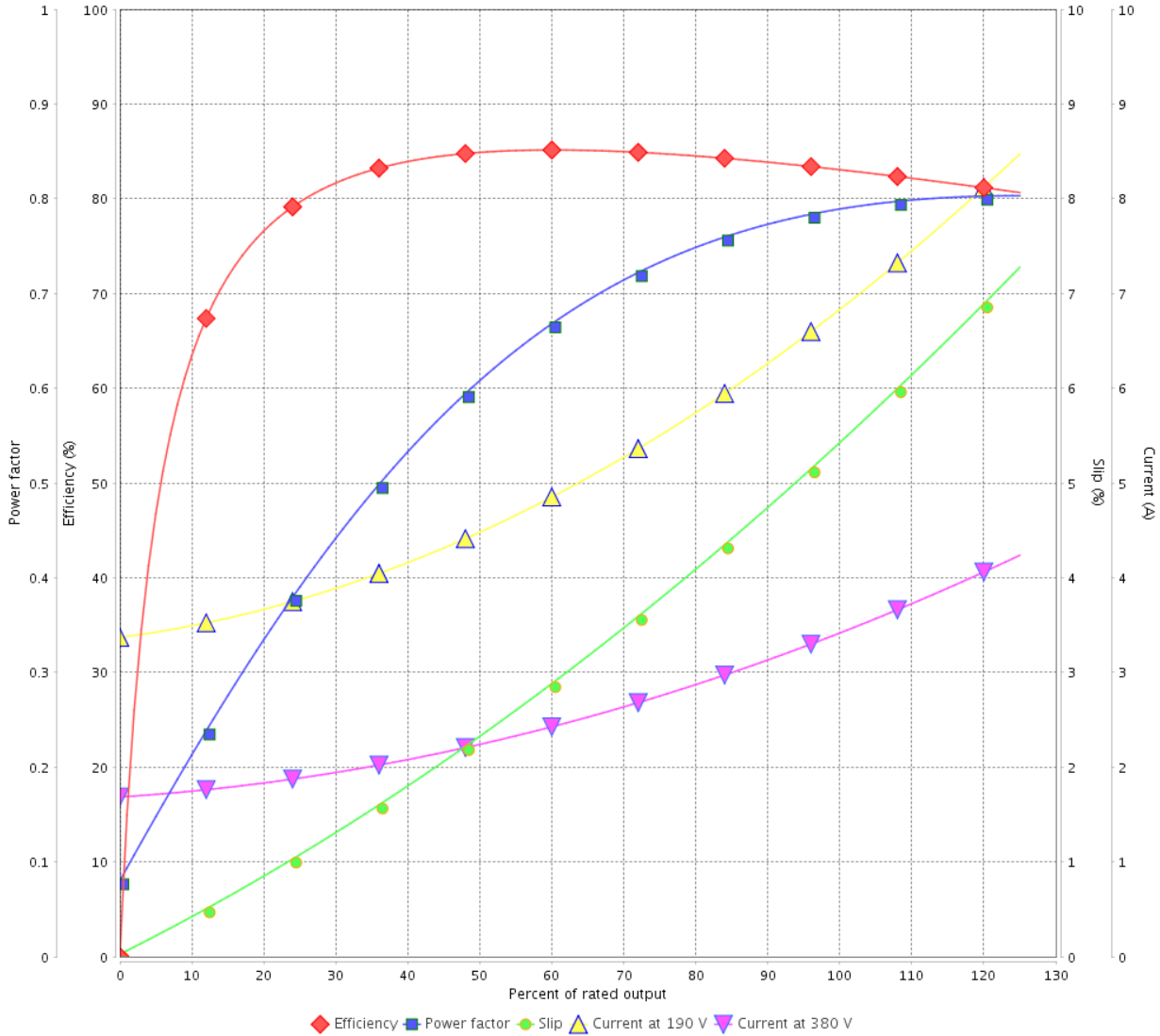
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Performance : 190/380 V 50 Hz 6P

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 LRC : 5.1
 Rated torque : 11.1 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 220 %
 Rated speed : 945 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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LOAD PERFORMANCE CURVE

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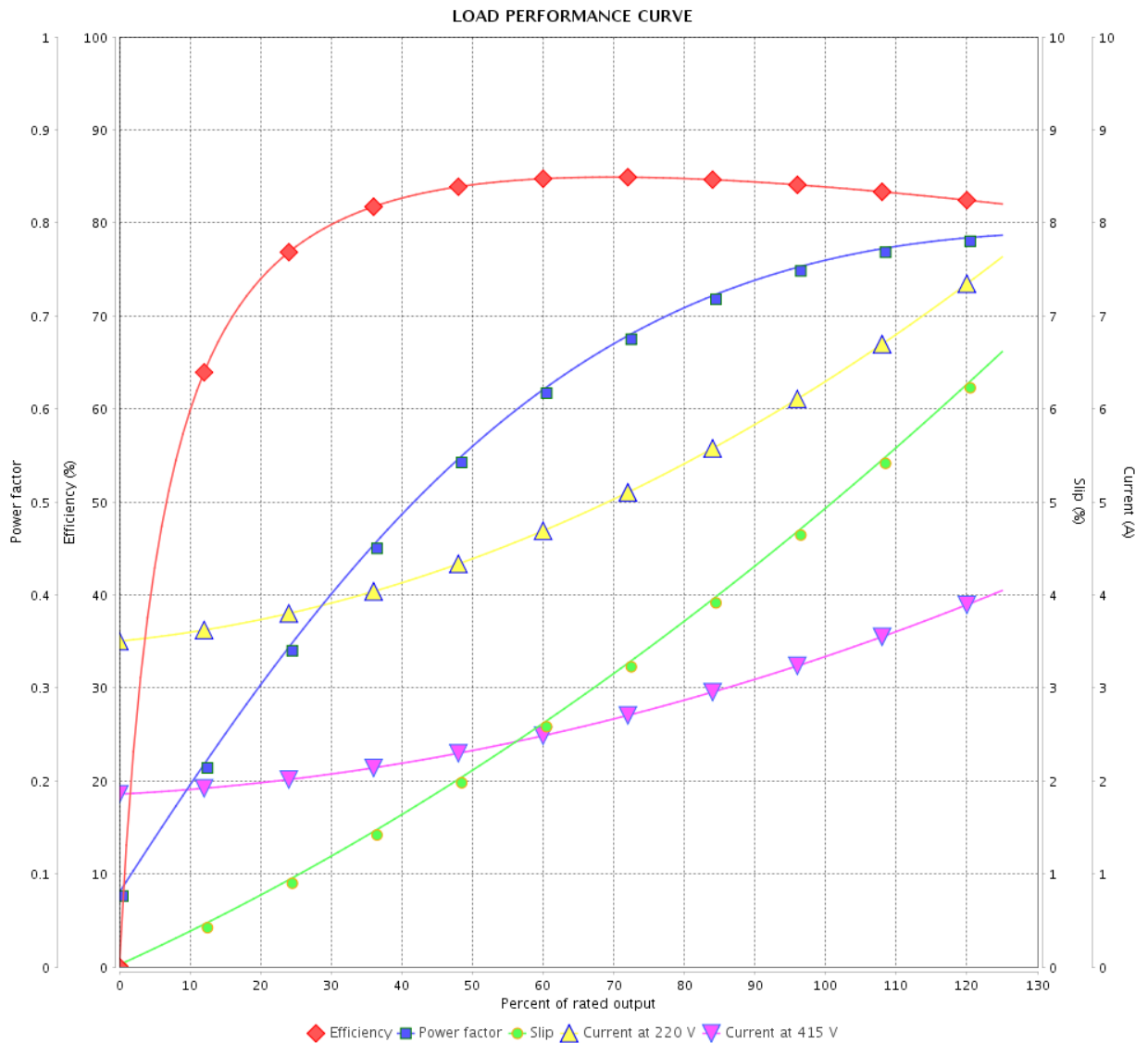


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 Rated speed : 950 rpm

Moment of inertia (J) : 0.2800 sq.ft.lb
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 Insulation class : F
 Service factor : 1.00
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THERMAL LIMIT CURVE



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Rated speed	: 1165 rpm	Design	: B

Heating constant

Cooling constant

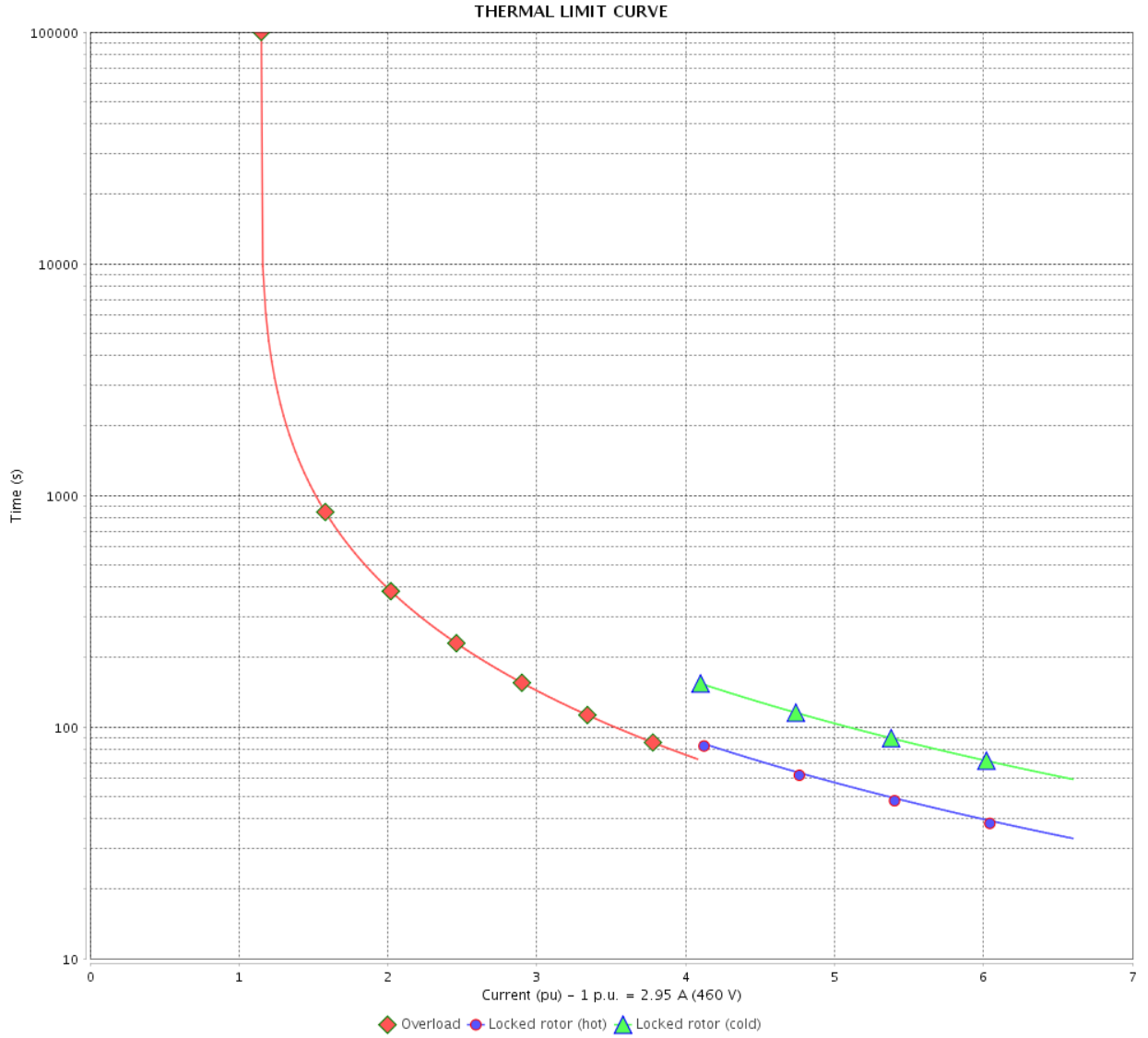
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LRC : 5.1	Duty cycle : Cont.(S1)
Rated torque : 11.1 ft.lb	Insulation class : F
Locked rotor torque : 160 %	Service factor : 1.00
Breakdown torque : 220 %	Temperature rise : 105 K
Rated speed : 945 rpm	Design : B

Heating constant

Cooling constant

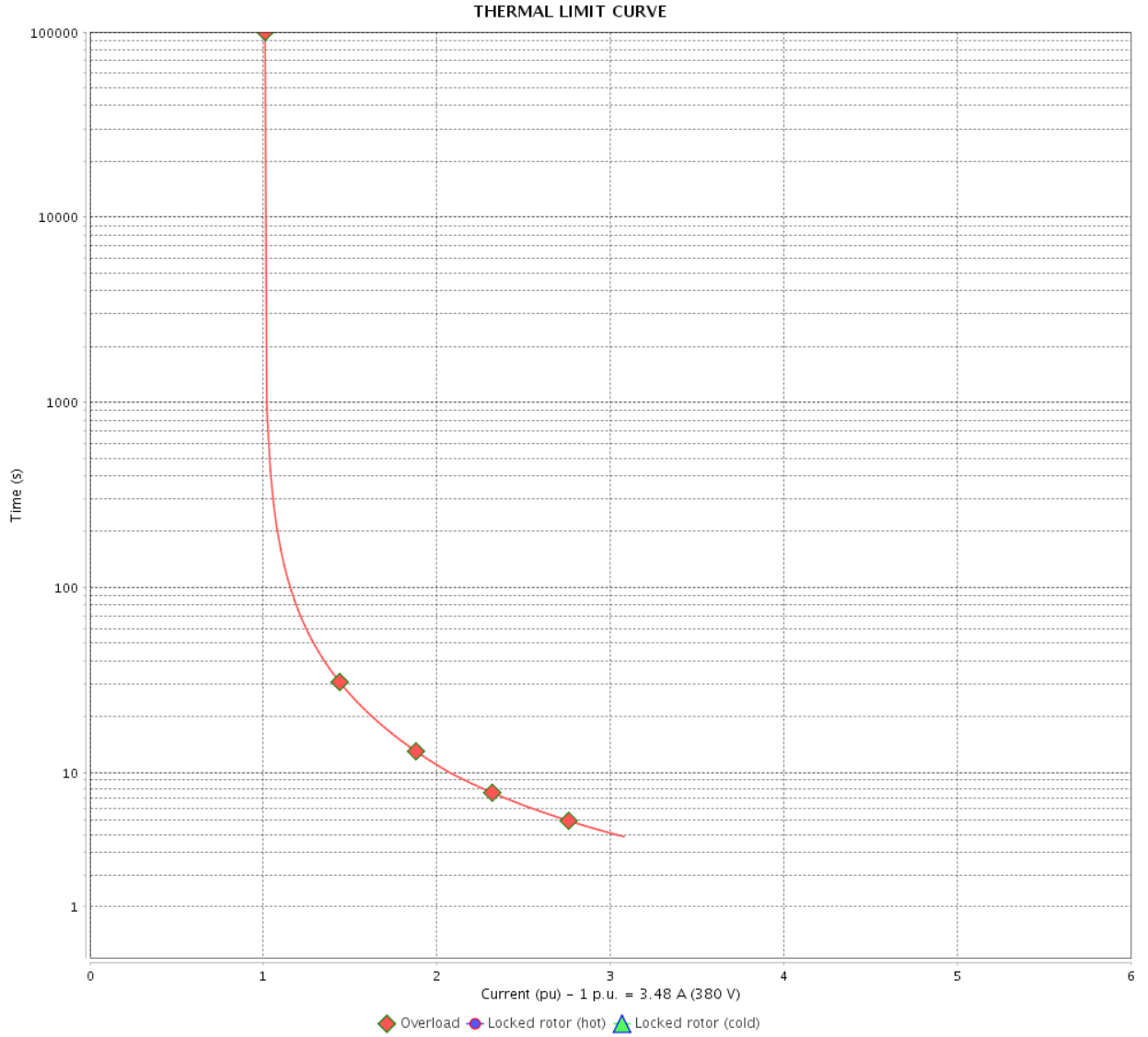
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Rated speed	: 950 rpm	Design	: B

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Cooling constant

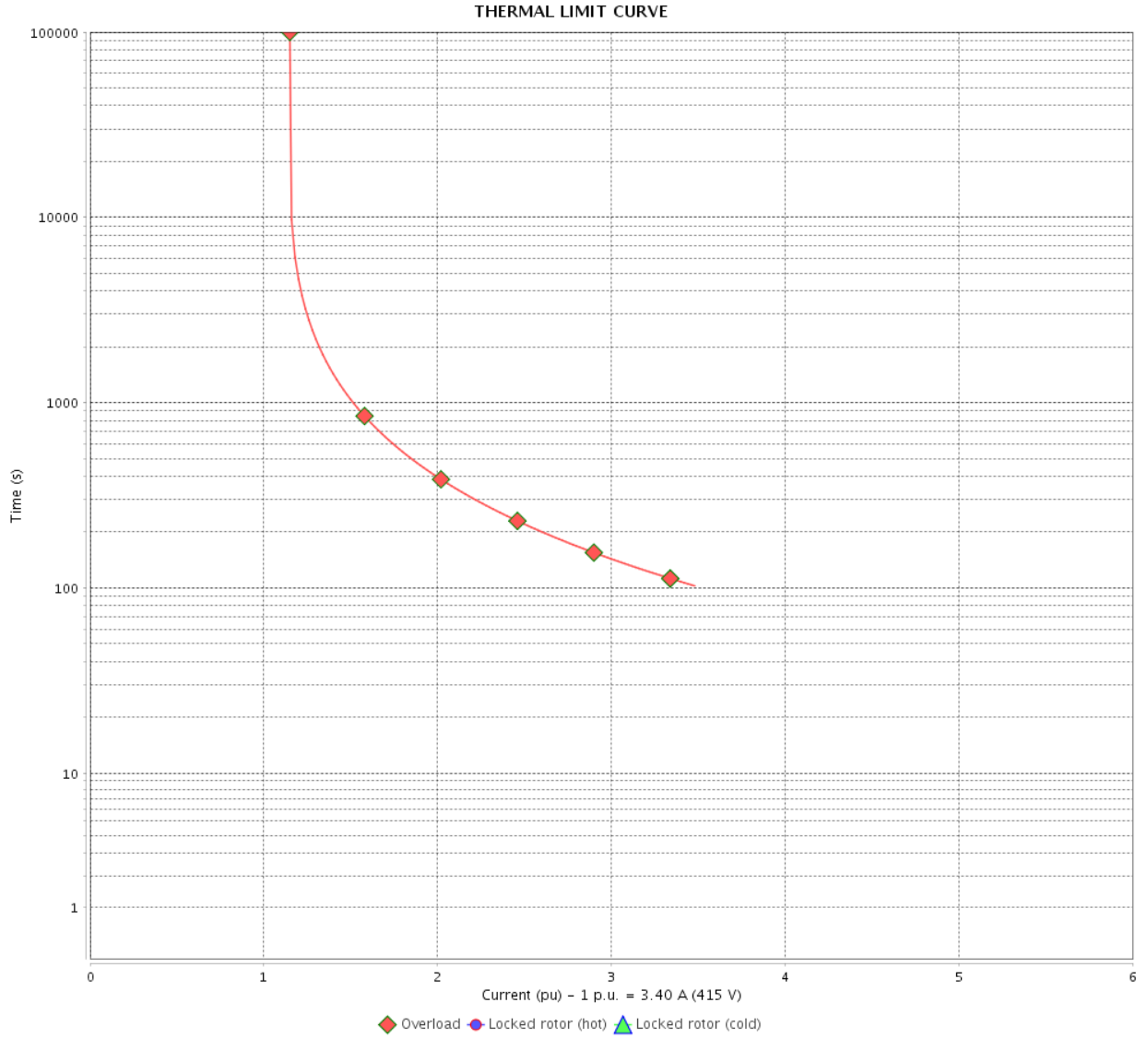
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

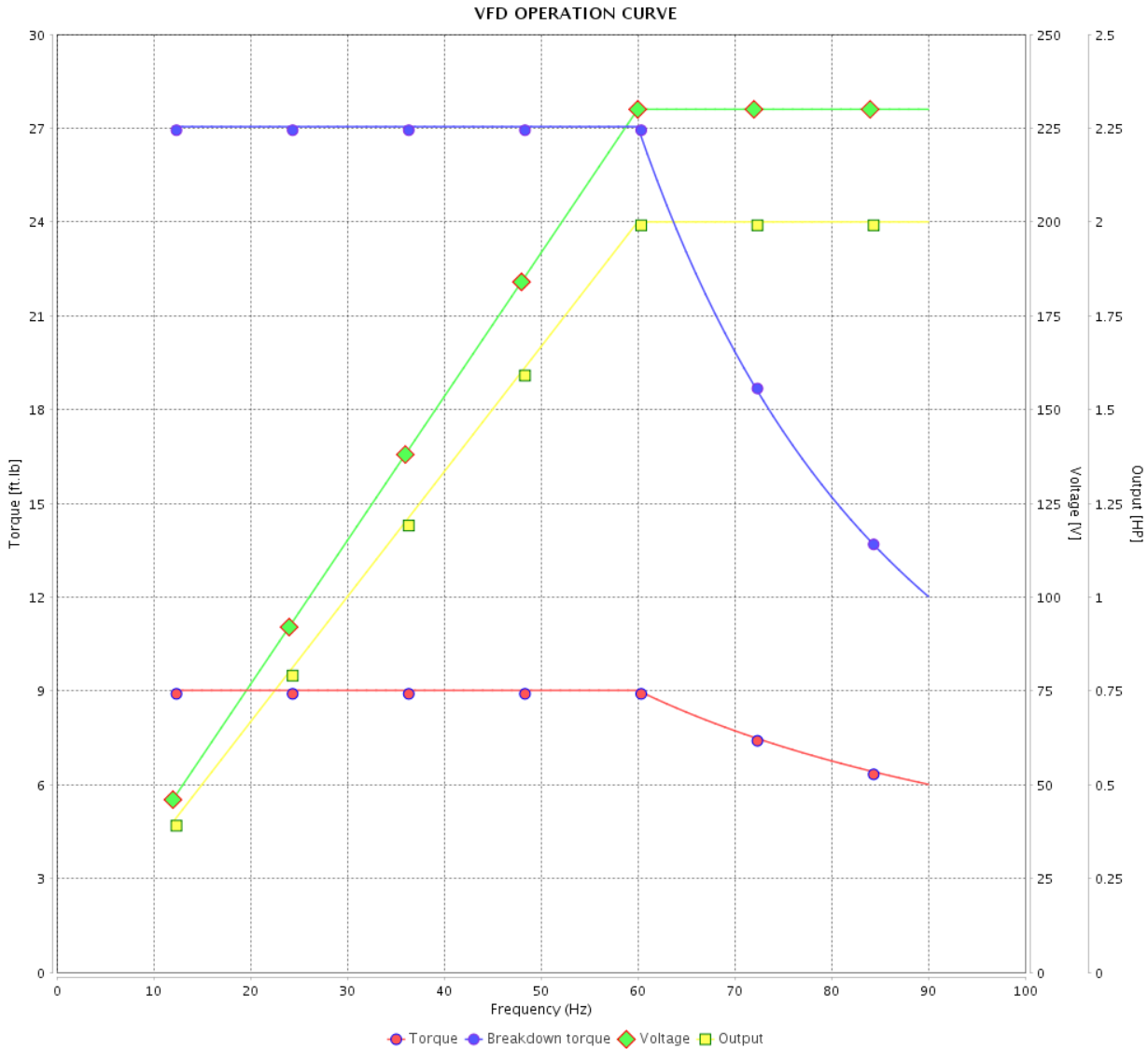


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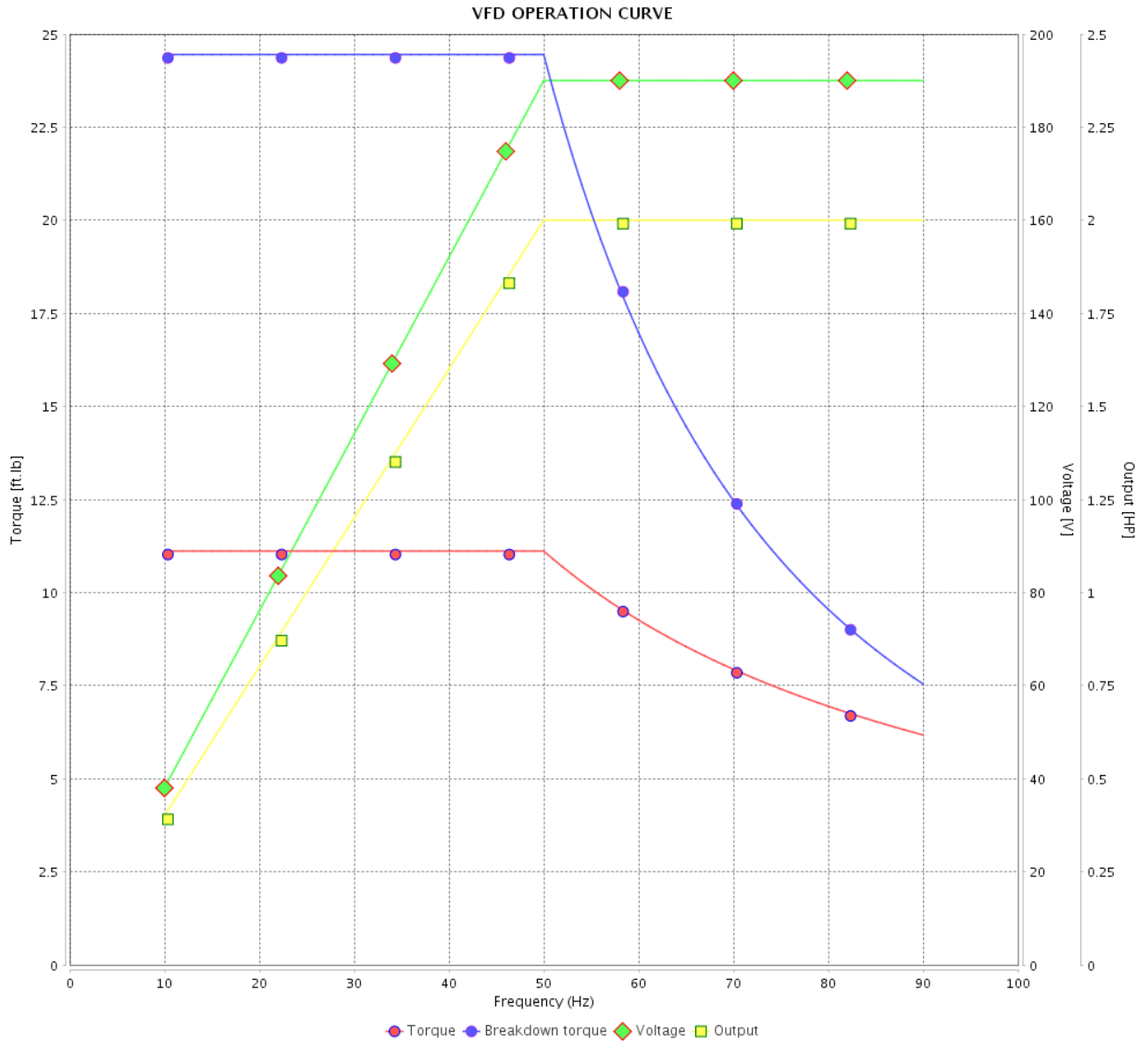


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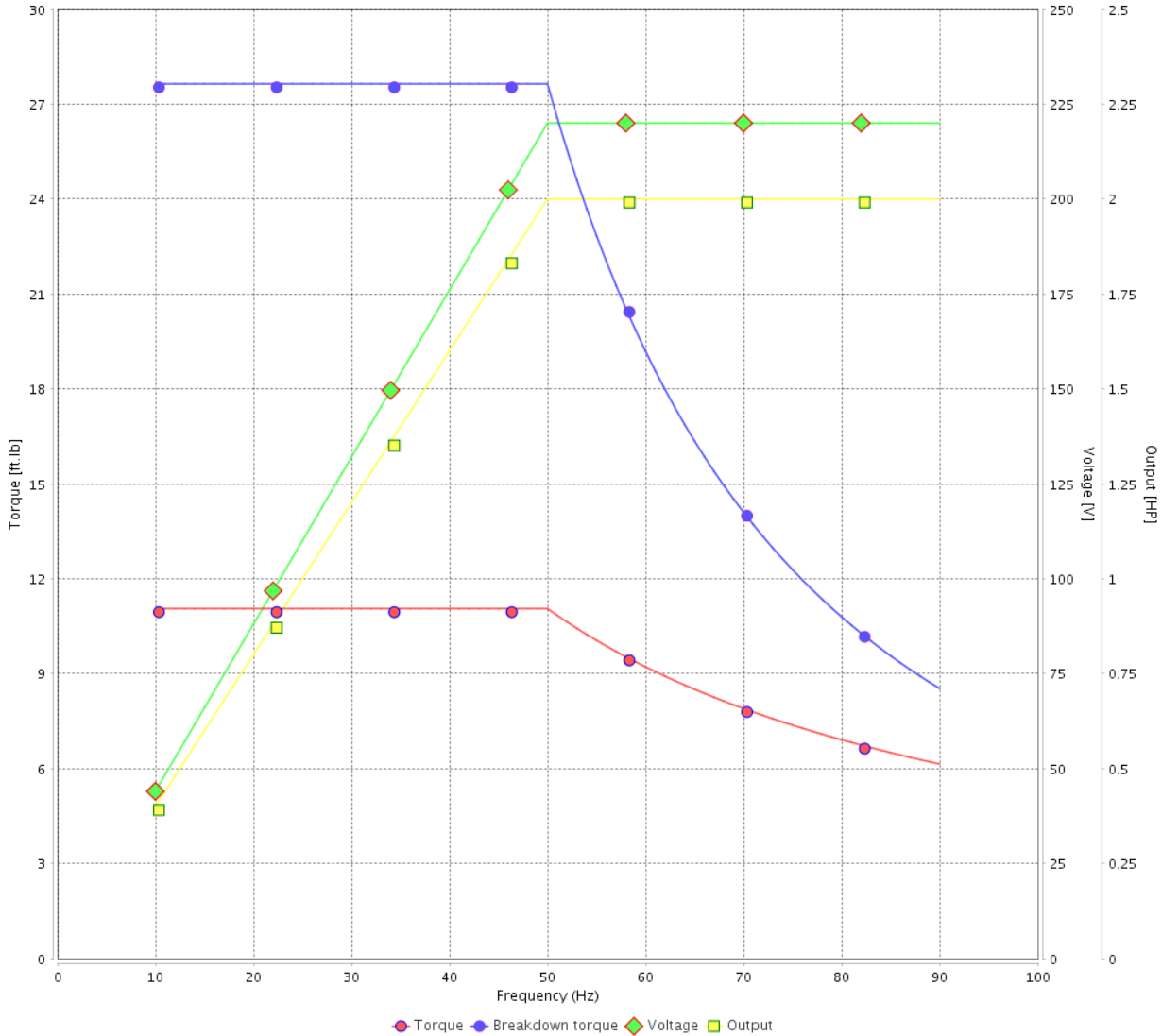
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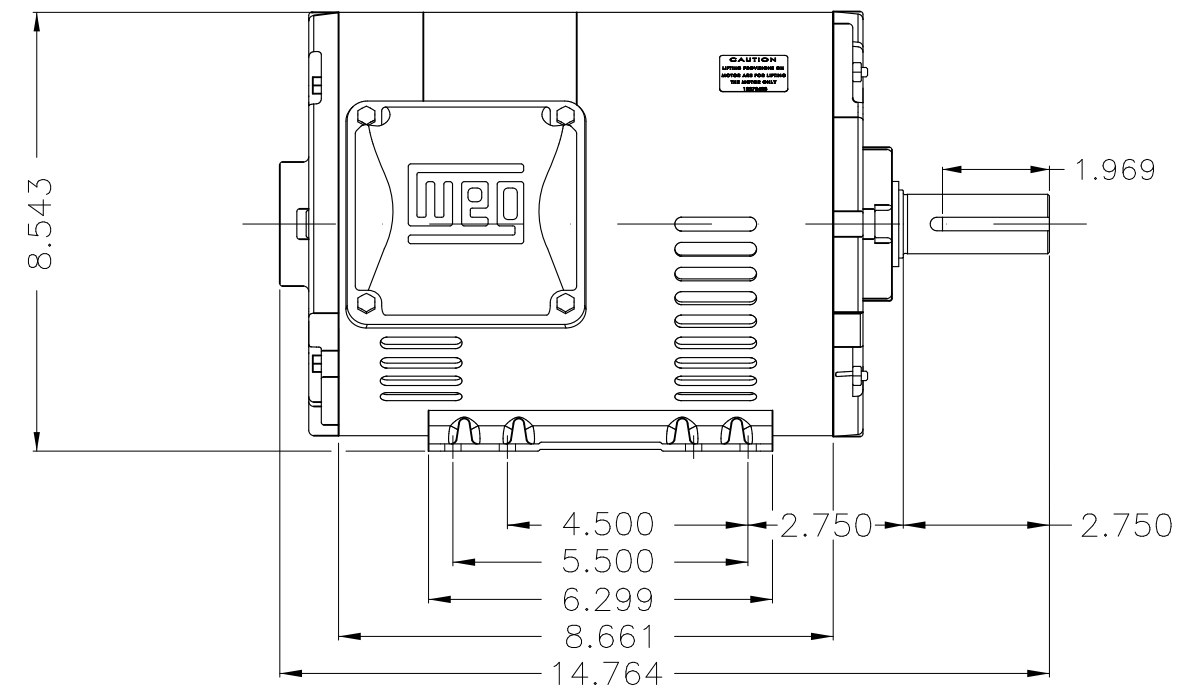
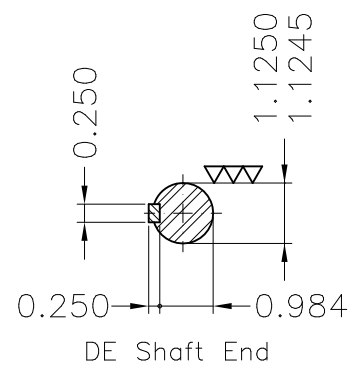
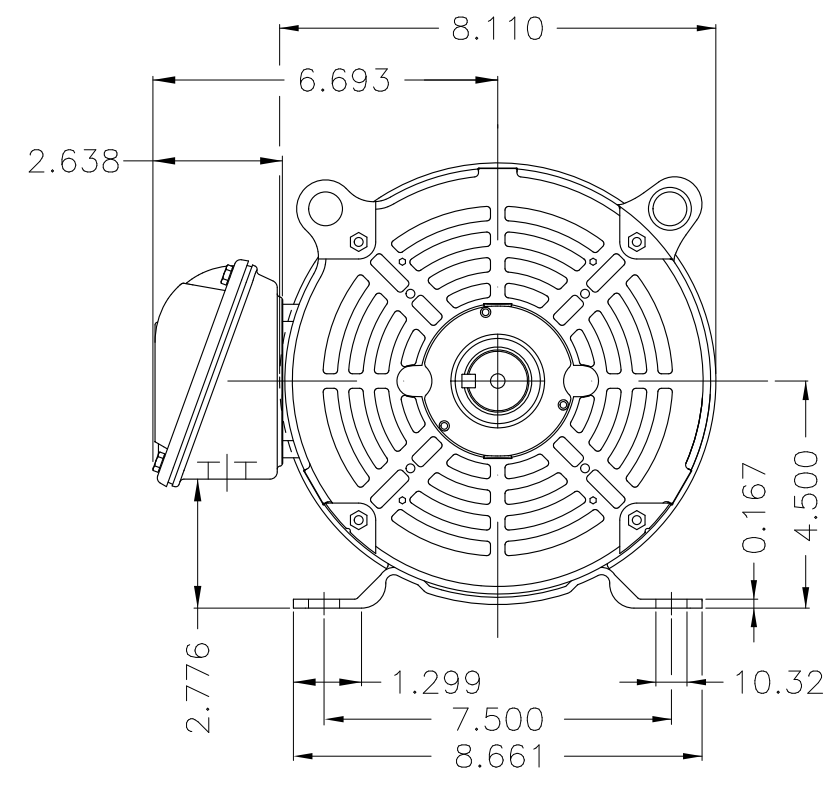
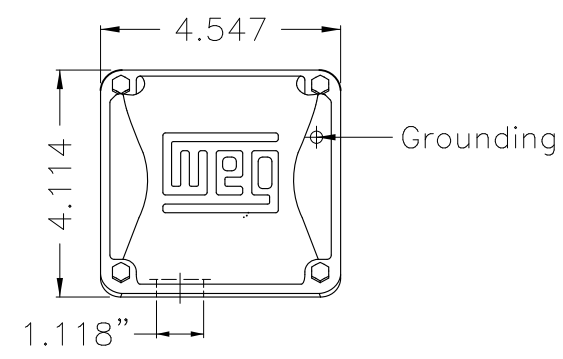
A

B

C

D

E



2 HP 06 Poles 60 Hz

Color Munsell N 1 matte black											
Painting plan 207N											
Mounting F-1/B3R(D)											
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.						PREVIEW WDD			
CHECKED		FRAME 182/4T IP21 ODP									
RELEASED											
REL DT.	WMO	Jaragua do Sul	Product Engineering			SHEET	1 / 1				



NEMA
Premium



MADE IN MEXICO

MAT: 12751165 CC029A
W01.T00IC0X0N
MODEL 002120T3E184T-S
25MAR2022 S/N:

PH 3	Hz 60	HP 2.0
FR 182/4T		KW 1.5
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 5.90/2.95
INS CL F AT 80K		SFA 6.79/3.39
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE J	PF 0.73
USABLE @ 208V 6.52A		RPM 1165
SF1.00		NEMA NOM. EFF 87.5%

ALTERNATE RATING: 2.0HP 50Hz 190-220/380-415V SF1.00
6.96-6.34/3.48-3.36A 945RPM EFF 83.0% (IE3) IEC 60034-1

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

DE 6206-ZZ ODE 6205-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.

