

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :					
Product line	: High Efficiency Three-Phase				
Product code :	13982686				
Catalog # :	.1836EP3EAL63-W22				
Frame : 63	Cooling method : IC411 - TEFC				
Insulation class : F	Mounting : B3L(E)				
Duty cycle : 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 ³ : 13.8 lb				
Protection degree : IP55	Moment of inertia (J) : 0.0029 sq.ft.lb				
Design : N					
Output [HP]	0.25	0.25	0.25	0.25	
Poles	2	2	2	2	
Frequency [Hz]	60	50	50	50	
Rated voltage [V]	230/460	380	400	415	
Rated current [A]	1.01/0.504	0.518	0.533	0.550	
L. R. Amperes [A]	5.04/2.52	2.28	2.35	2.42	
LRC [A]	5.0	4.4	4.4	4.4	
No load current [A]	0.900/0.450	0.430	0.500	0.540	
Rated speed [RPM]	3400	2735	2765	2780	
Slip [%]	5.56	8.83	7.83	7.33	
Rated torque [ft.lb]	0.386	0.480	0.475	0.472	
Locked rotor torque [%]	320	220	250	270	
Breakdown torque [%]	350	229	254	280	
Service factor	1.15	1.00	1.00	1.00	
Temperature rise	80 K	80 K	80 K	80 K	
Locked rotor time	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	36s (cold) 20s (hot)	
Noise level ²	56.0 dB(A)	52.0 dB(A)	52.0 dB(A)	52.0 dB(A)	
Efficiency (%)	25%	53.1	58.0	58.7	54.1
	50%	55.0	60.0	60.0	58.0
	75%	62.0	64.0	64.0	60.0
	100%	64.0	66.0	65.0	65.0
Power Factor	25%	0.26	0.31	0.27	0.25
	50%	0.48	0.58	0.53	0.48
	75%	0.60	0.70	0.65	0.60
	100%	0.70	0.80	0.75	0.70
Bearing type	: <u>Drive end</u> 6201 ZZ <u>Non drive end</u> 6201 ZZ	Foundation loads			
Sealing	: Oil Seal Oil Seal	Max. traction	: 9 lb		
Lubrication interval	: - -	Max. compression	: 23 lb		
Lubricant amount	: - -				
Lubricant type	: Mobil Polyrex EM				
Notes					
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 : High Efficiency Three-Phase

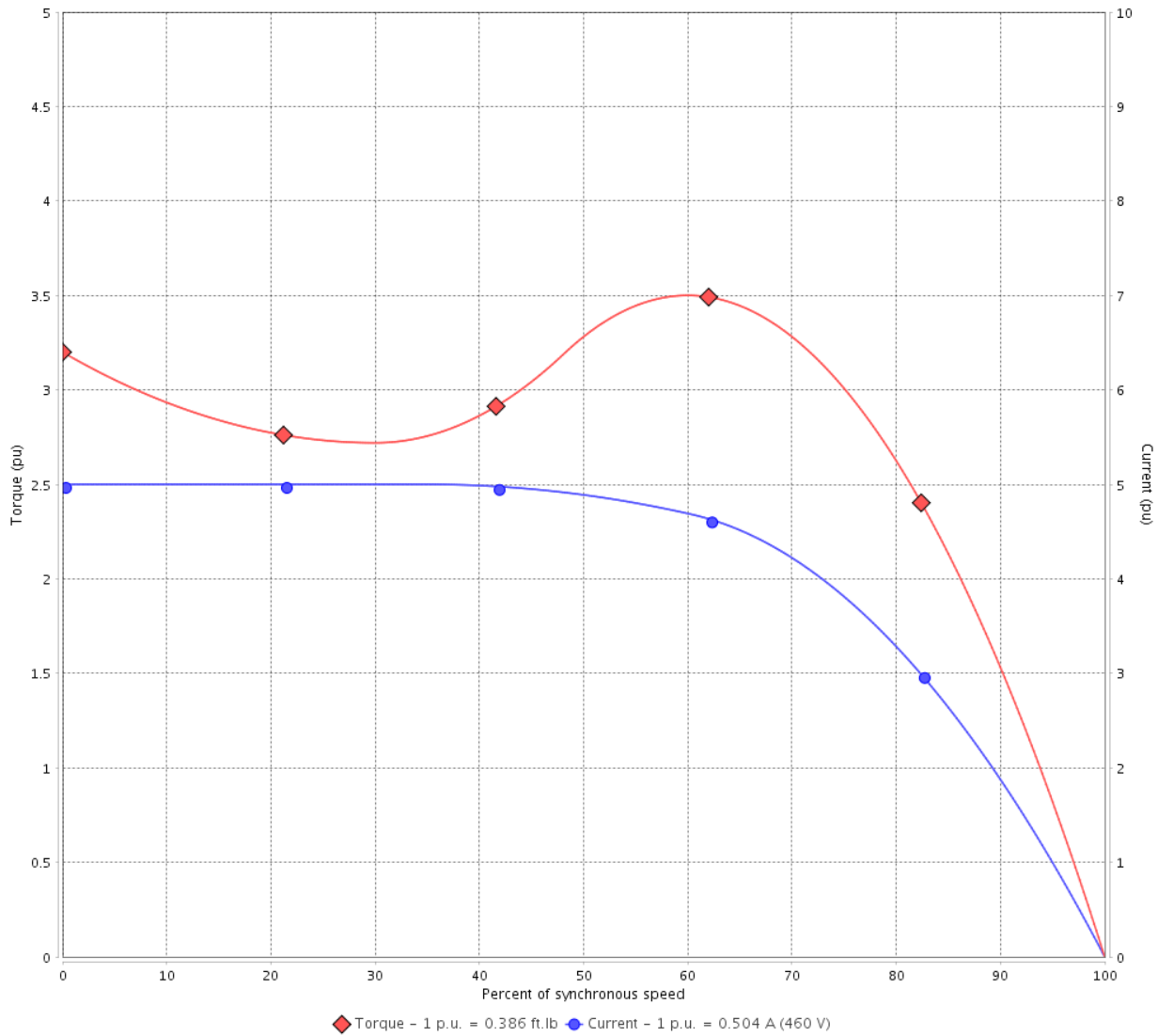
Product code :

13982686

Catalog # :

.1836EP3EAL63-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 1.01/0.504 A
 LRC : 5.0
 Rated torque : 0.386 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 350 %
 Rated speed : 3400 rpm

Moment of inertia (J) : 0.0029 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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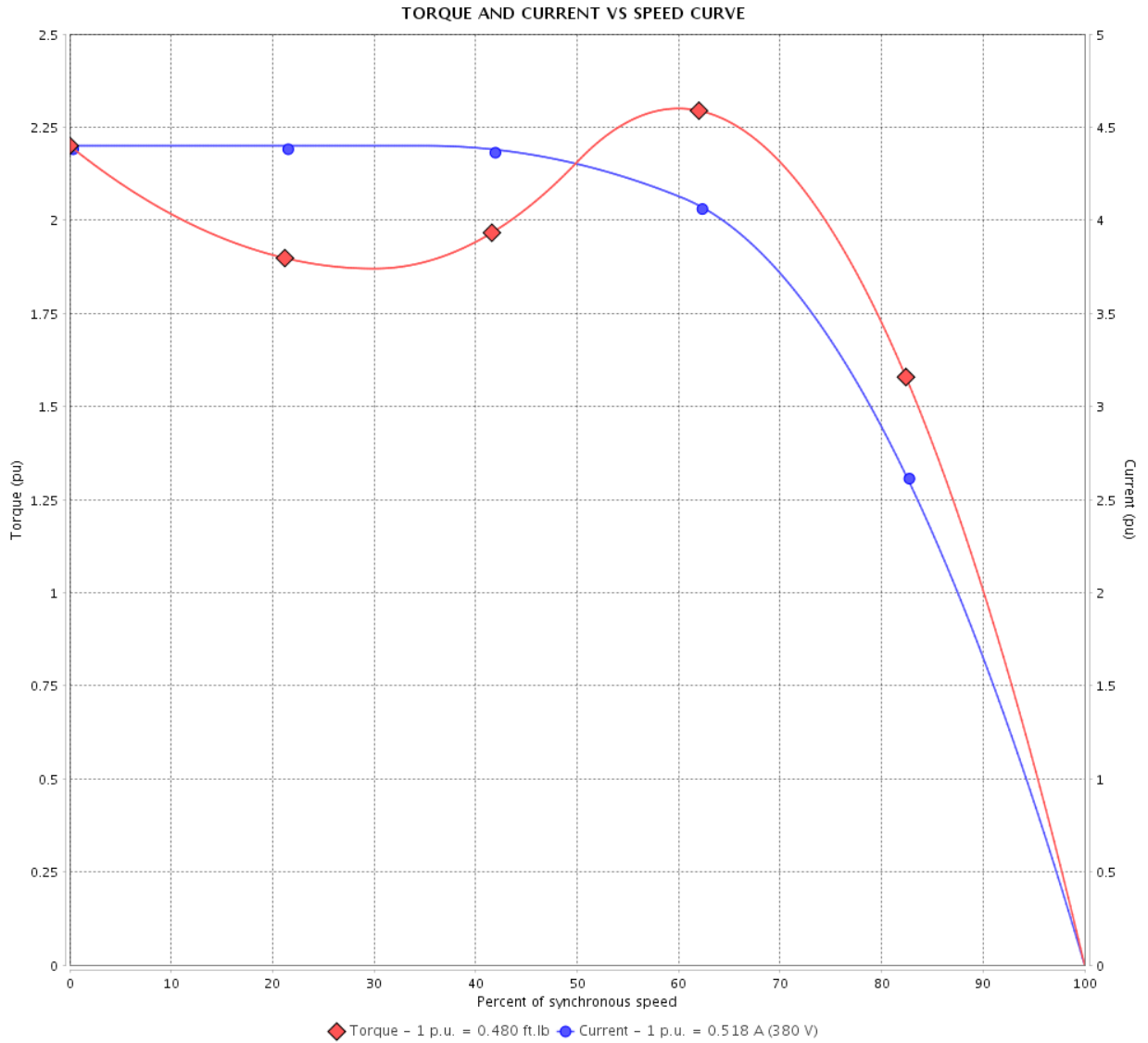
Product line : High Efficiency Three-Phase

Product code :

13982686

Catalog # :

.1836EP3EAL63-W22



Performance : 380 V 50 Hz 2P IE3

Rated current	: 0.518 A	Moment of inertia (J)	: 0.0029 sq.ft.lb
LRC	: 4.4	Duty cycle	: S1
Rated torque	: 0.480 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2735 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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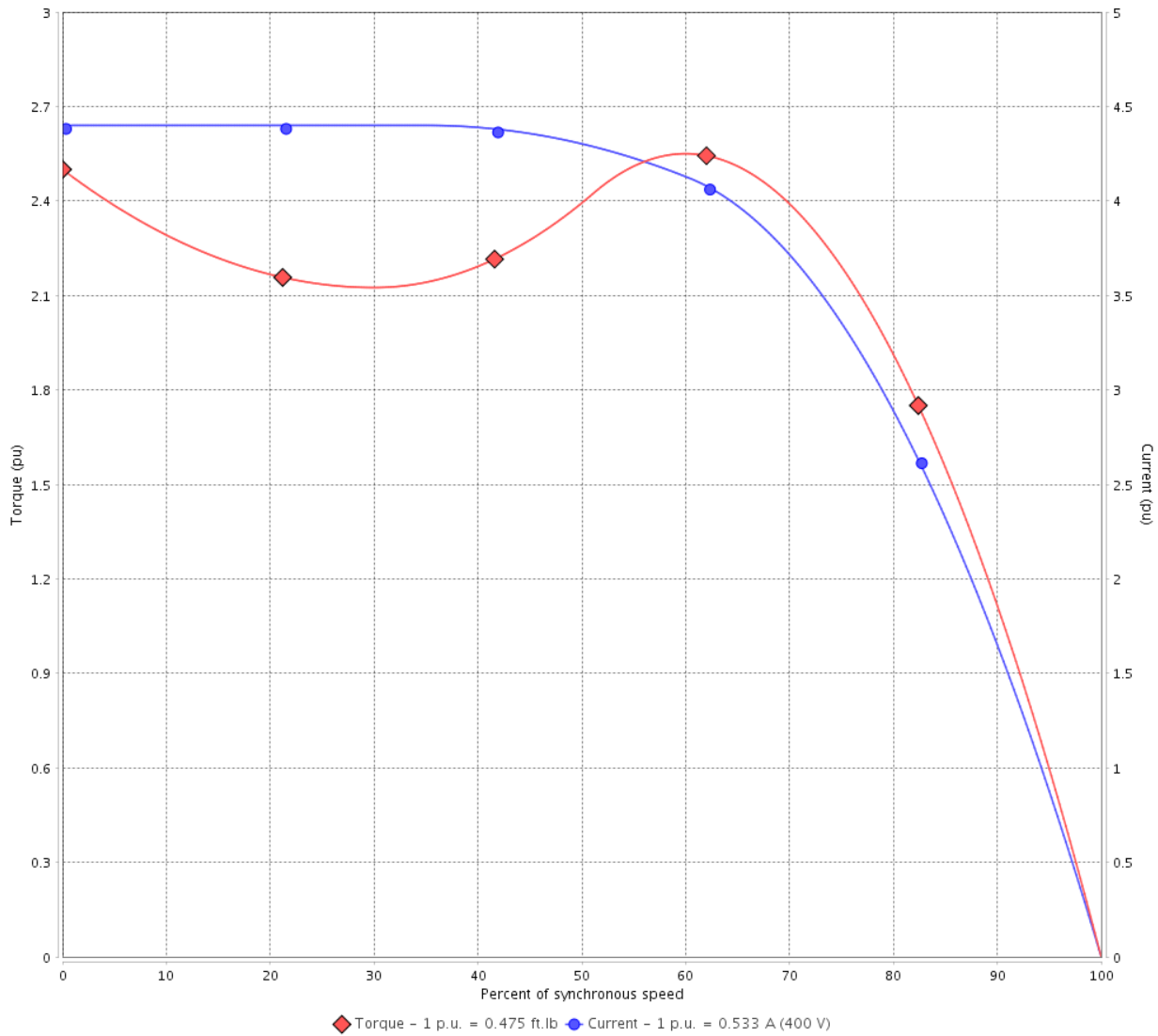
Product code :

13982686

Catalog # :

.1836EP3EAL63-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE2

Rated current	: 0.533 A	Moment of inertia (J)	: 0.0029 sq.ft.lb
LRC	: 4.4	Duty cycle	: S1
Rated torque	: 0.475 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.00
Breakdown torque	: 254 %	Temperature rise	: 80 K
Rated speed	: 2765 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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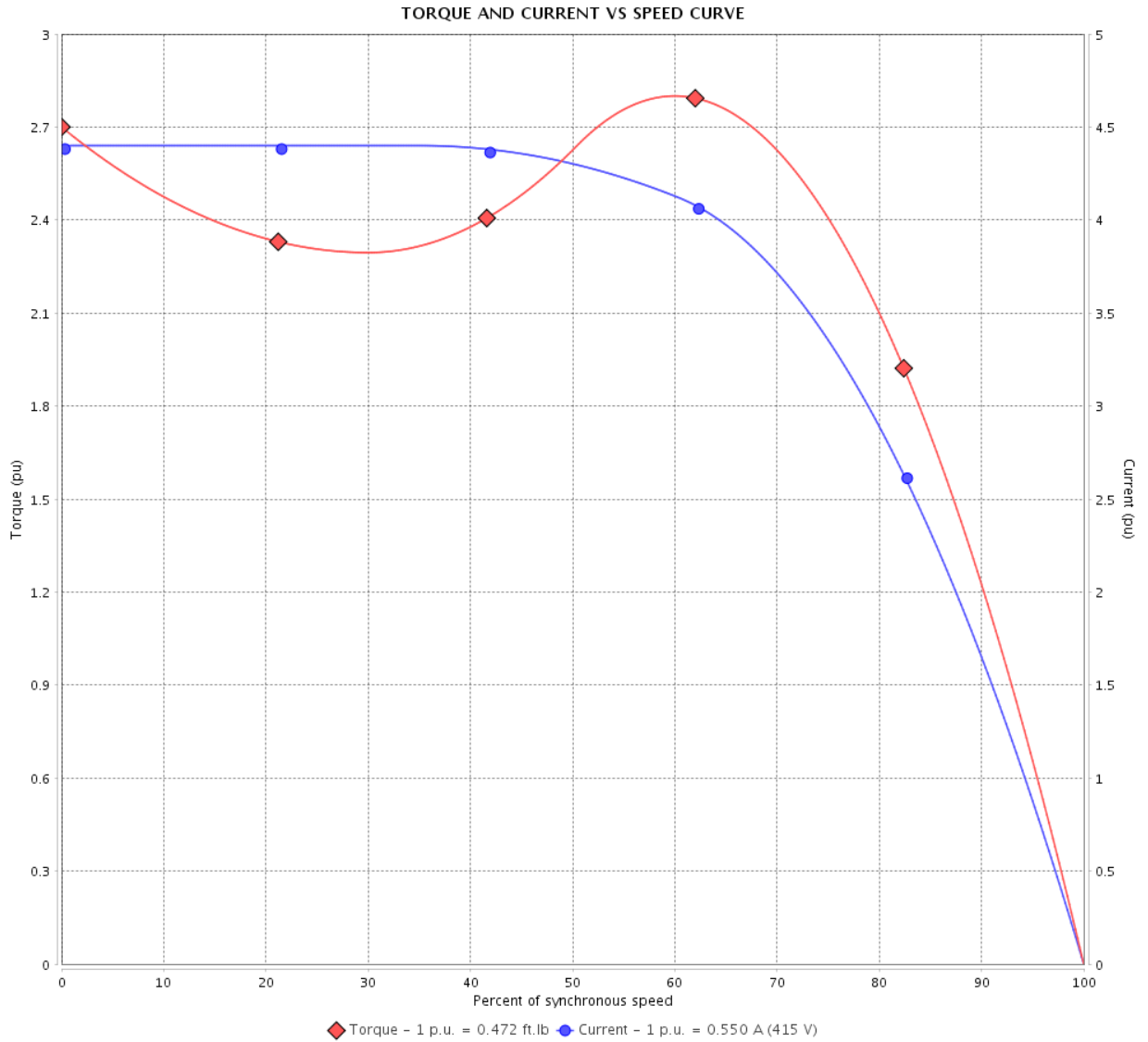
Product line : High Efficiency Three-Phase

Product code :

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Catalog # :

.1836EP3EAL63-W22



Performance : 415 V 50 Hz 2P IE2

Rated current	: 0.550 A	Moment of inertia (J)	: 0.0029 sq.ft.lb
LRC	: 4.4	Duty cycle	: S1
Rated torque	: 0.472 ft.lb	Insulation class	: F
Locked rotor torque	: 270 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 2780 rpm	Design	: N

Locked rotor time : 36s (cold) 20s (hot)

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LOAD PERFORMANCE CURVE

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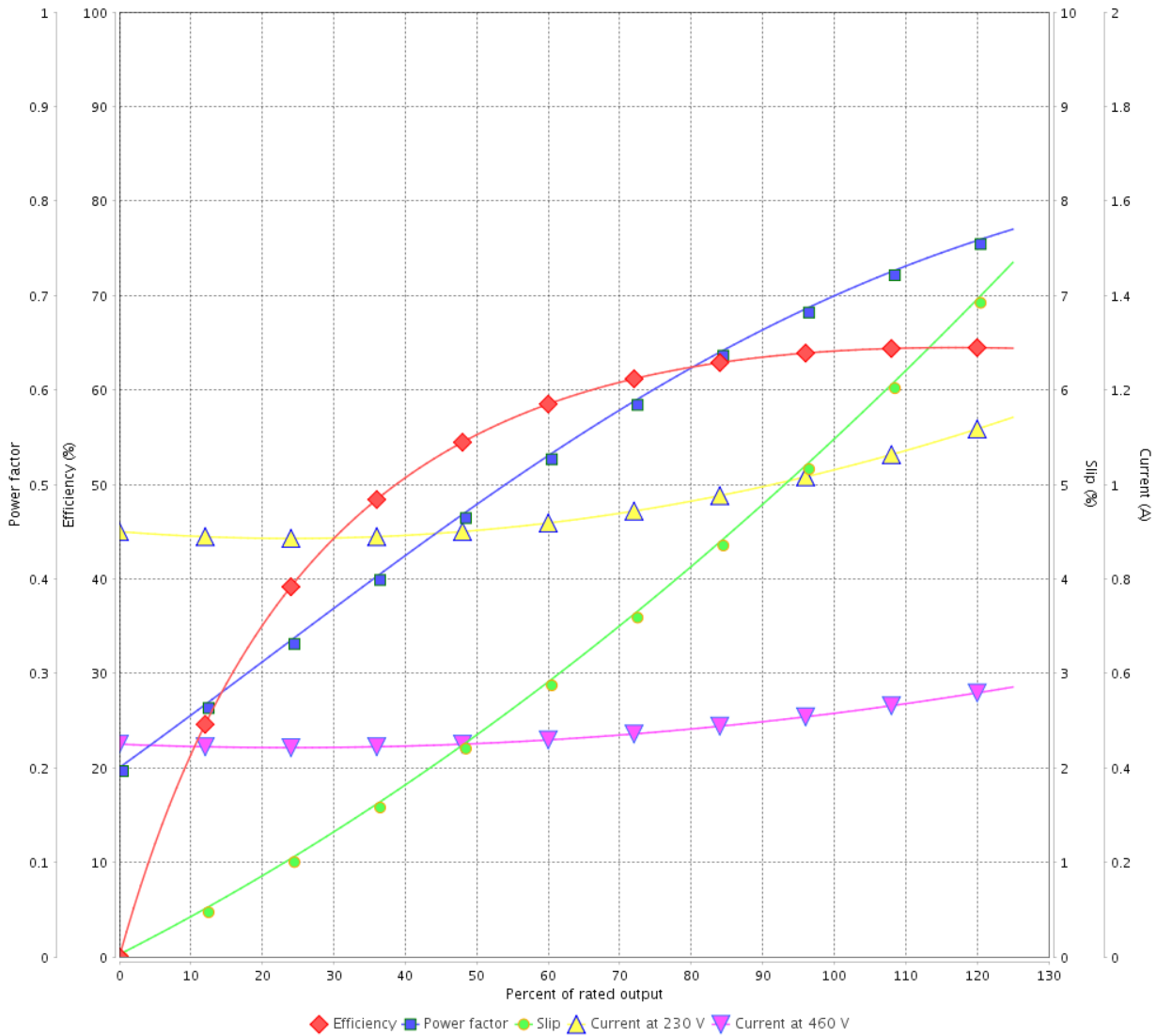
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LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 1.01/0.504 A
 LRC : 5.0
 Rated torque : 0.386 ft.lb
 Locked rotor torque : 320 %
 Breakdown torque : 350 %
 Rated speed : 3400 rpm

Moment of inertia (J) : 0.0029 sq.ft.lb
 Duty cycle : S1
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : N

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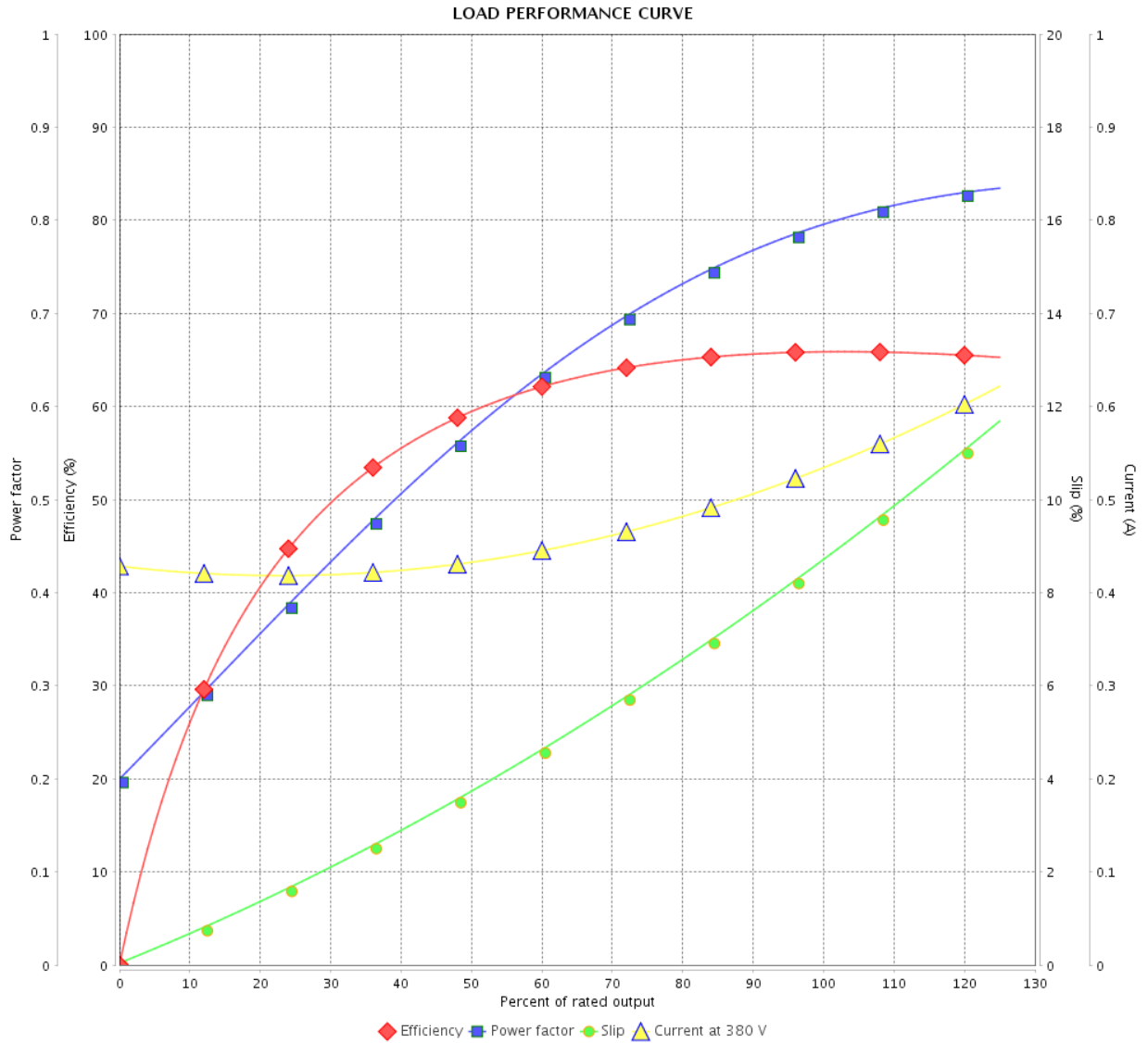
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 Rated torque : 0.480 ft.lb
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 Breakdown torque : 229 %
 Rated speed : 2735 rpm

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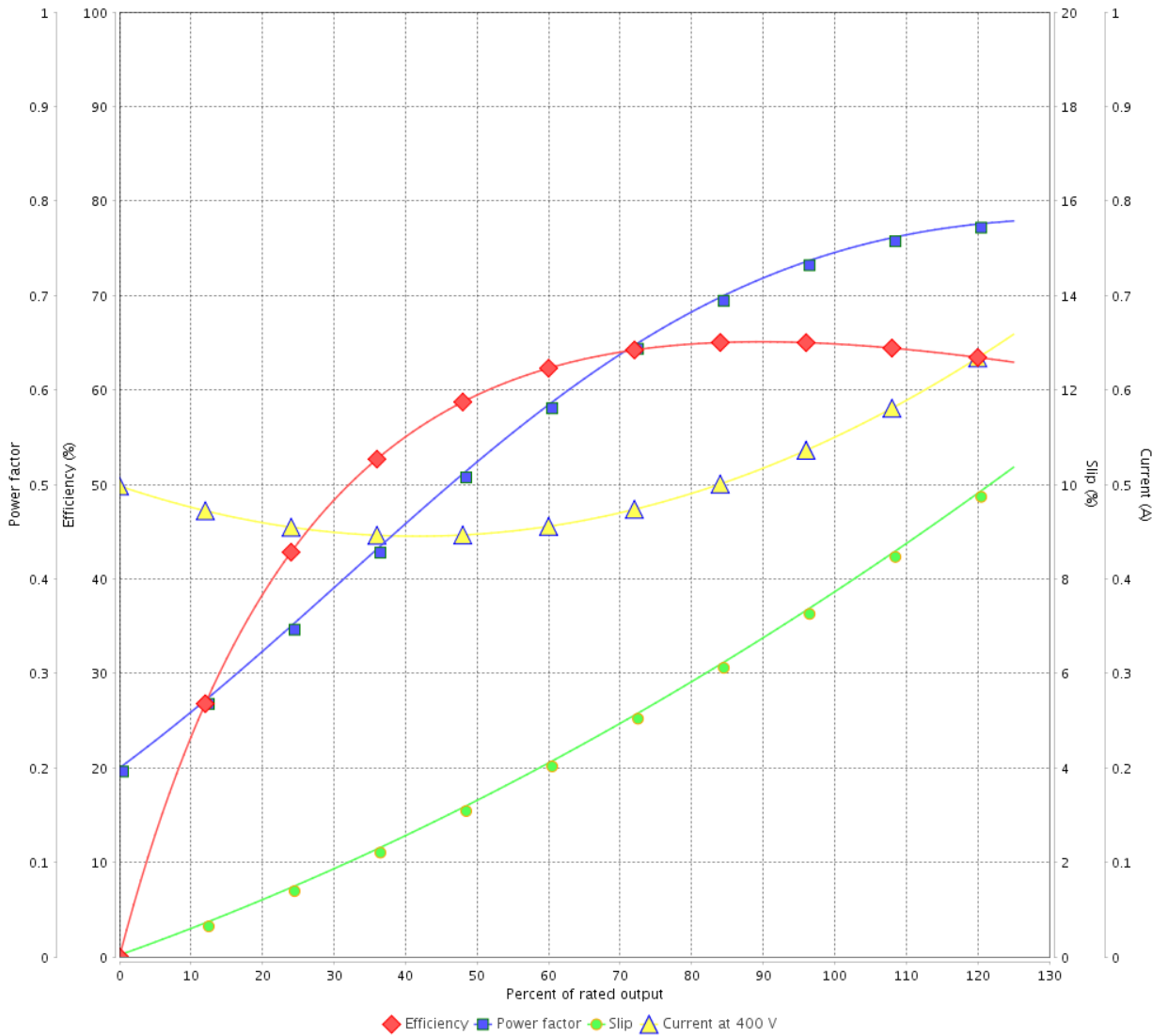
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LOAD PERFORMANCE CURVE



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 Locked rotor torque : 250 %
 Breakdown torque : 254 %
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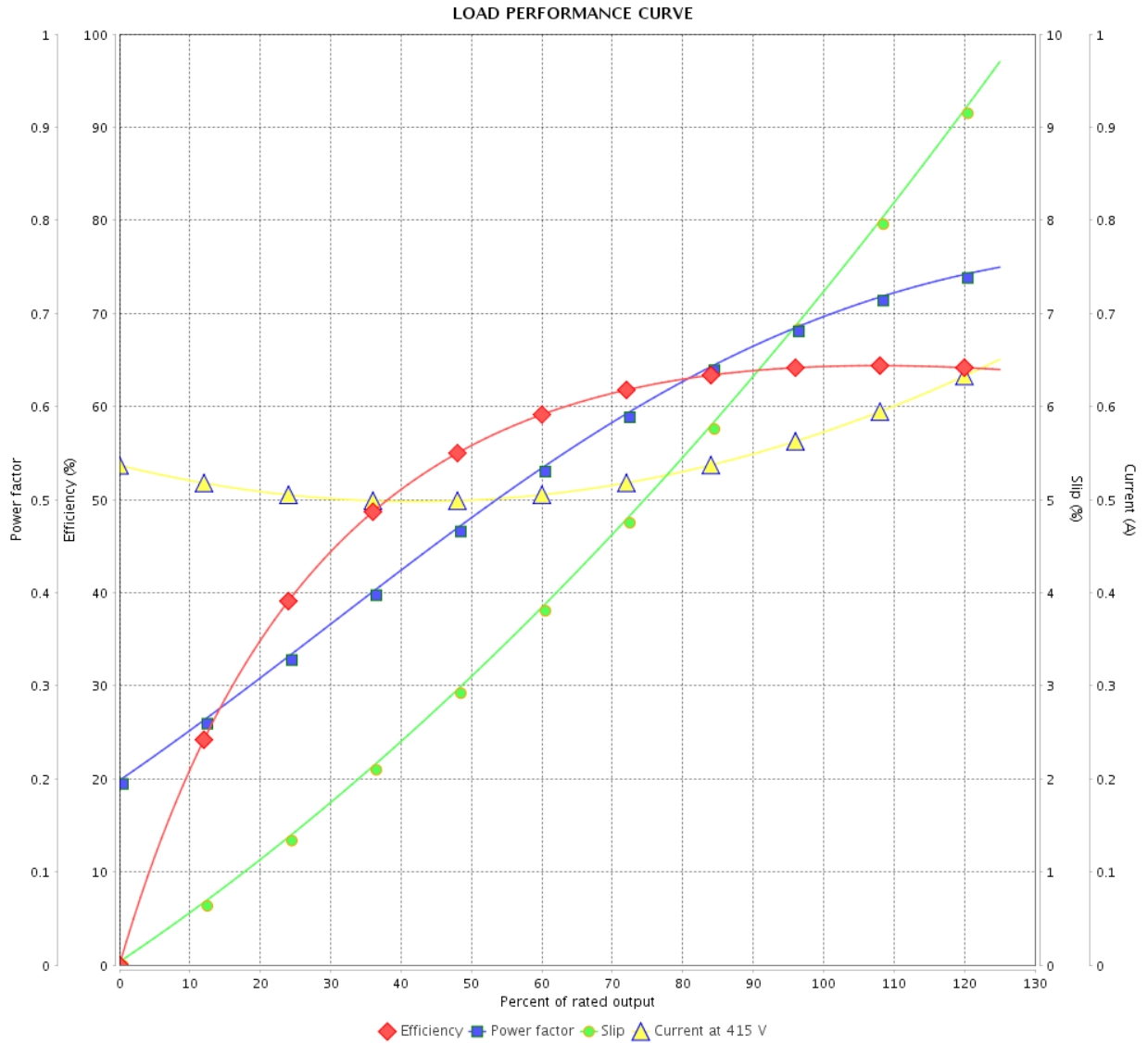
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 Service factor : 1.00
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

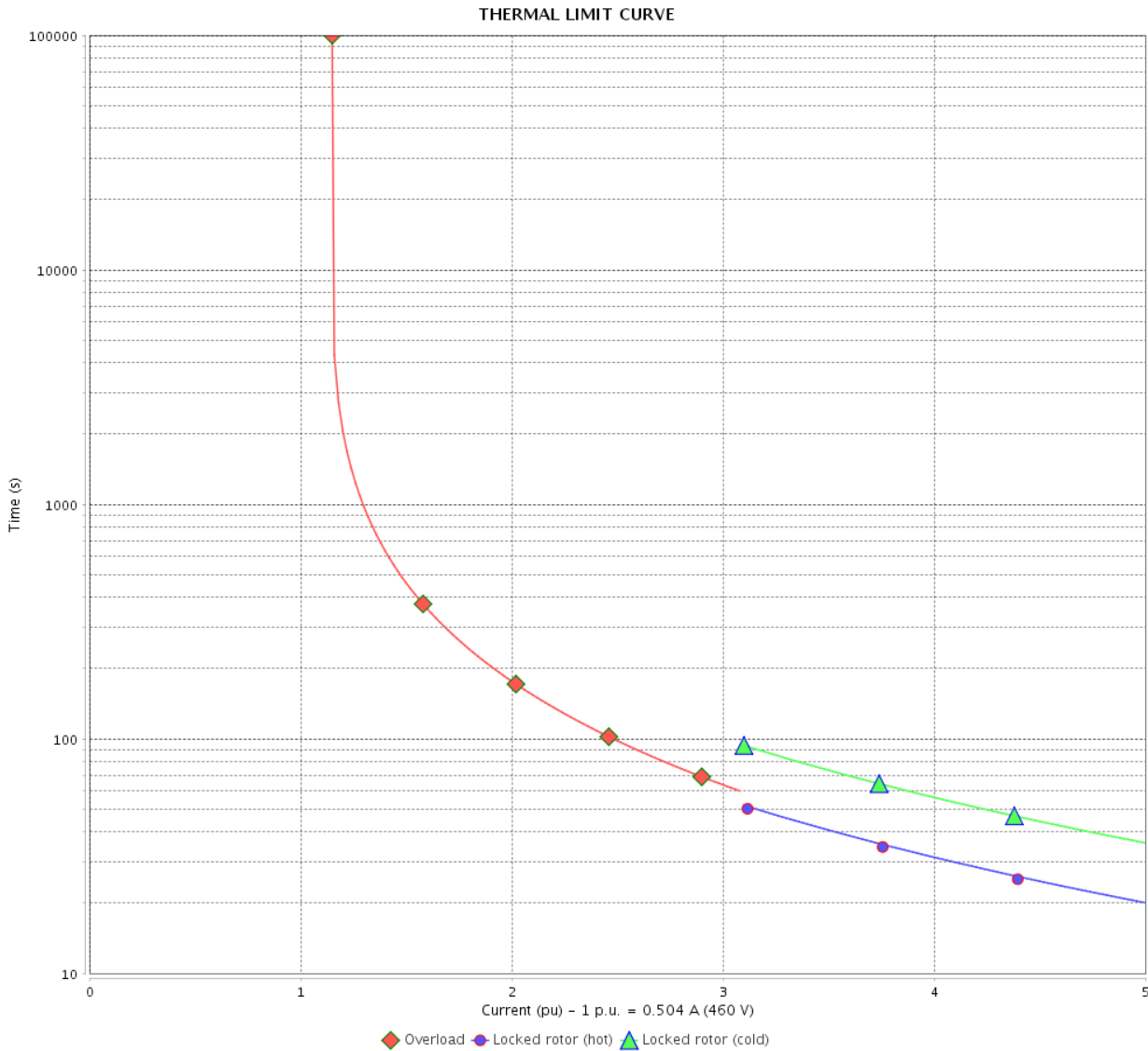
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Heating constant

Cooling constant

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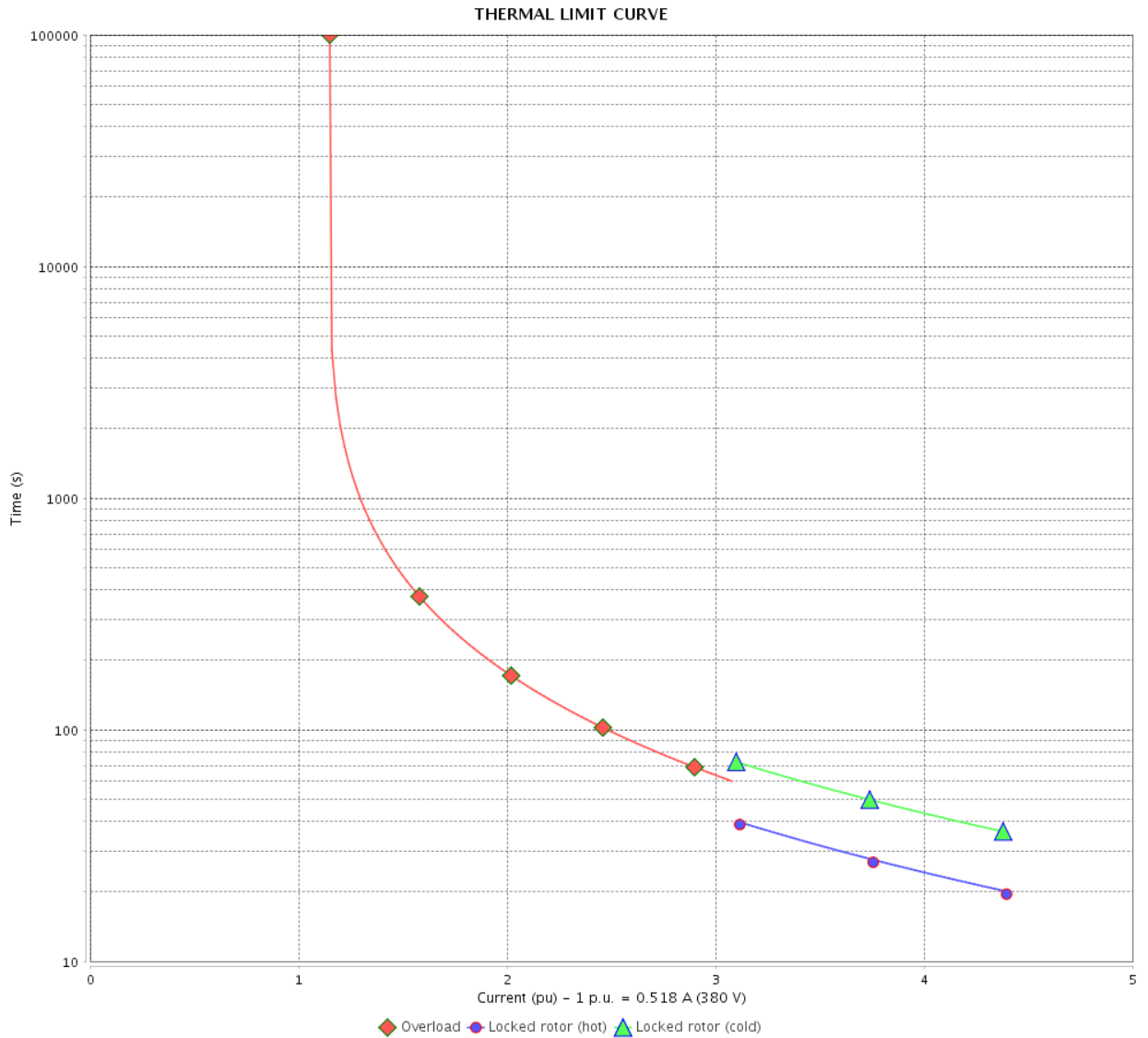
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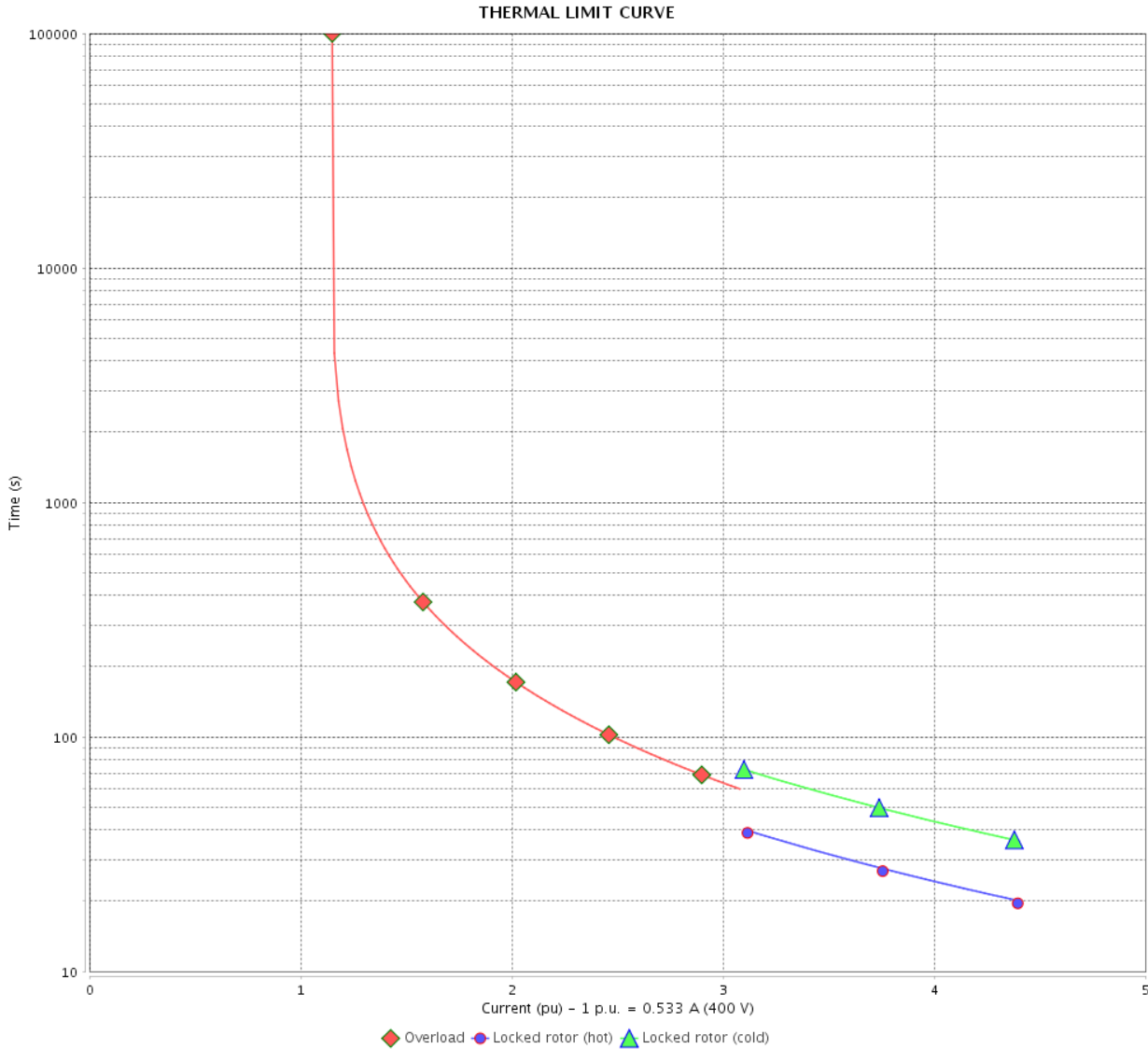
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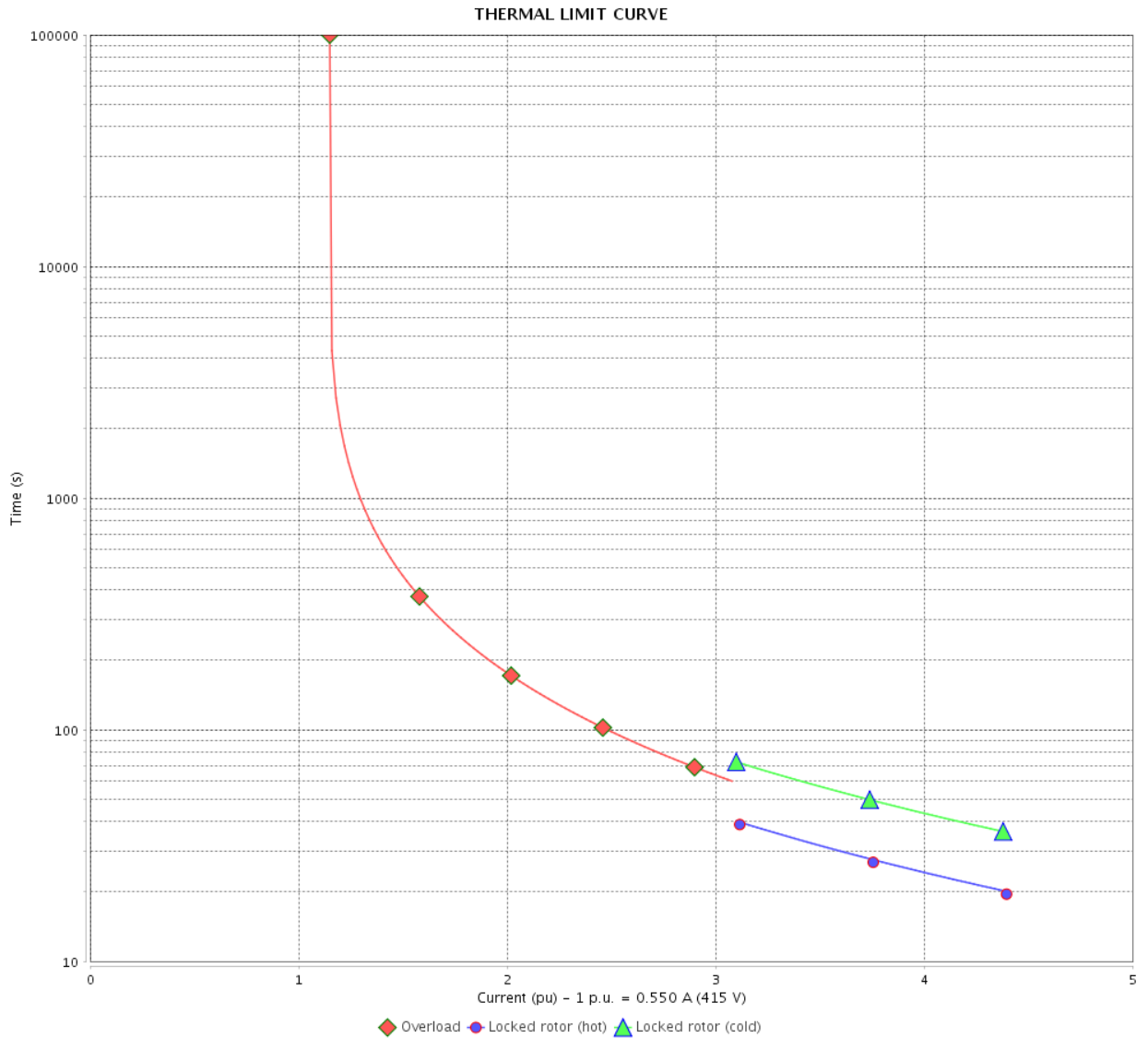
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Date				
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

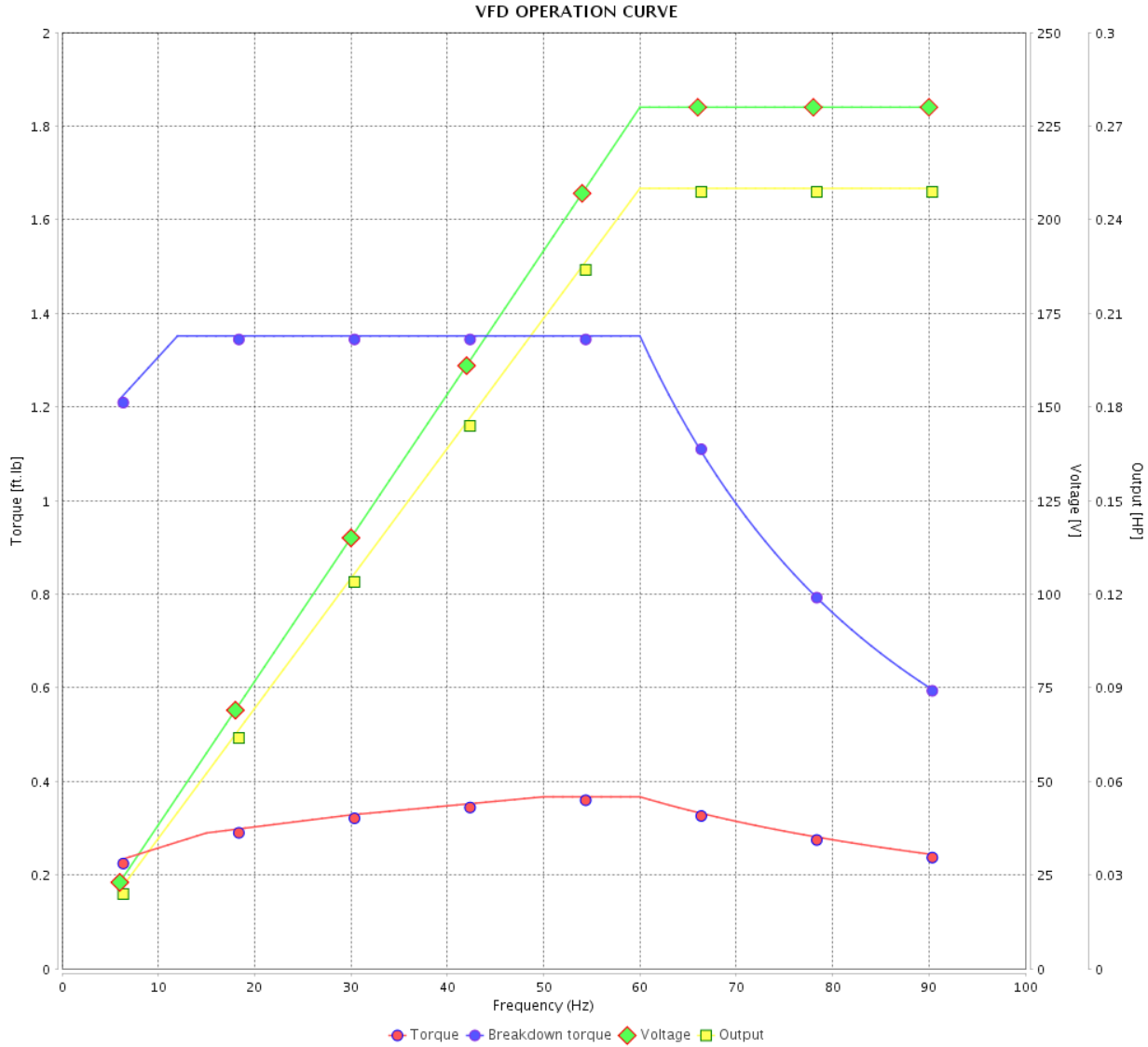
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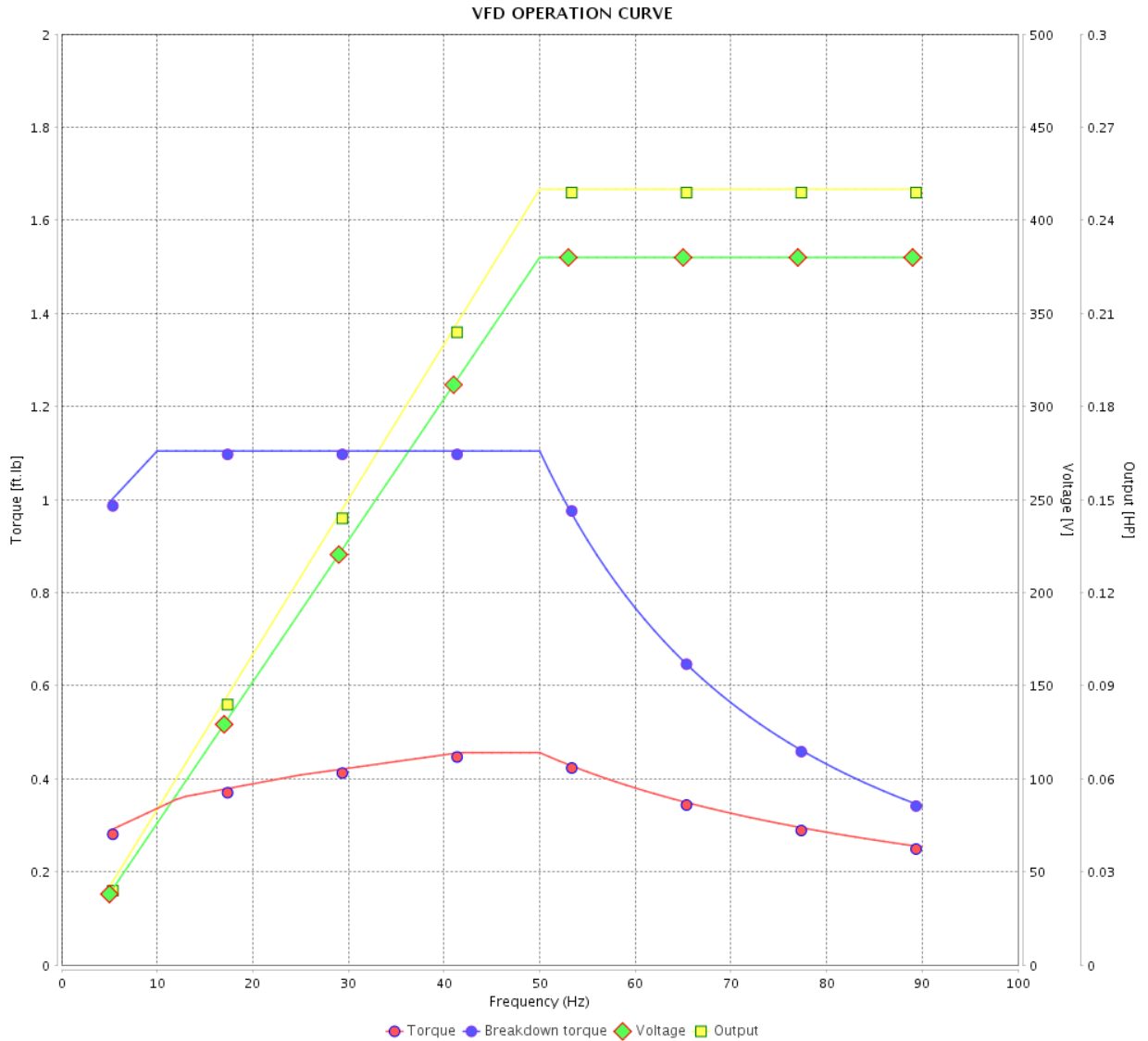
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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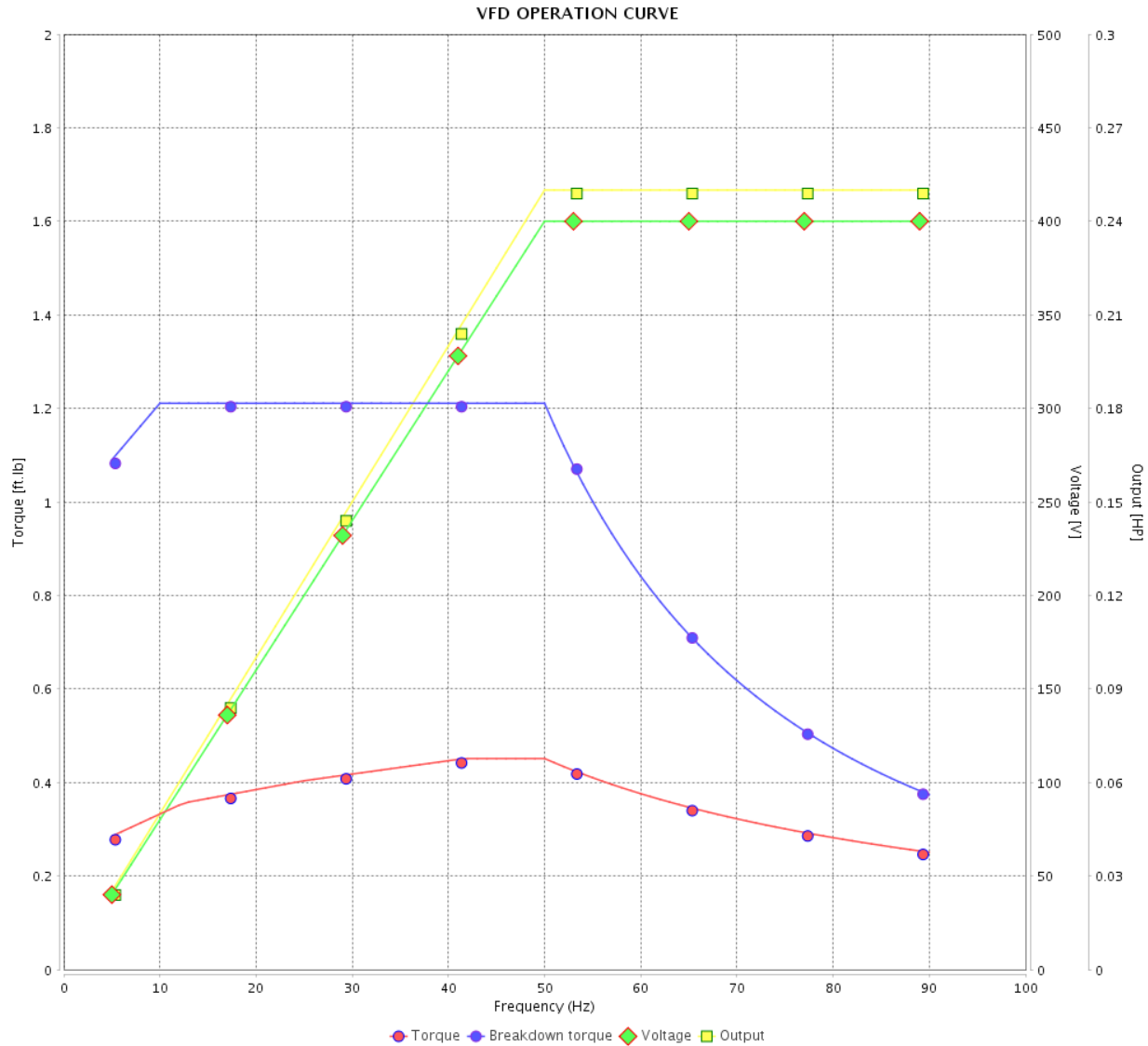
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VFD OPERATION CURVE

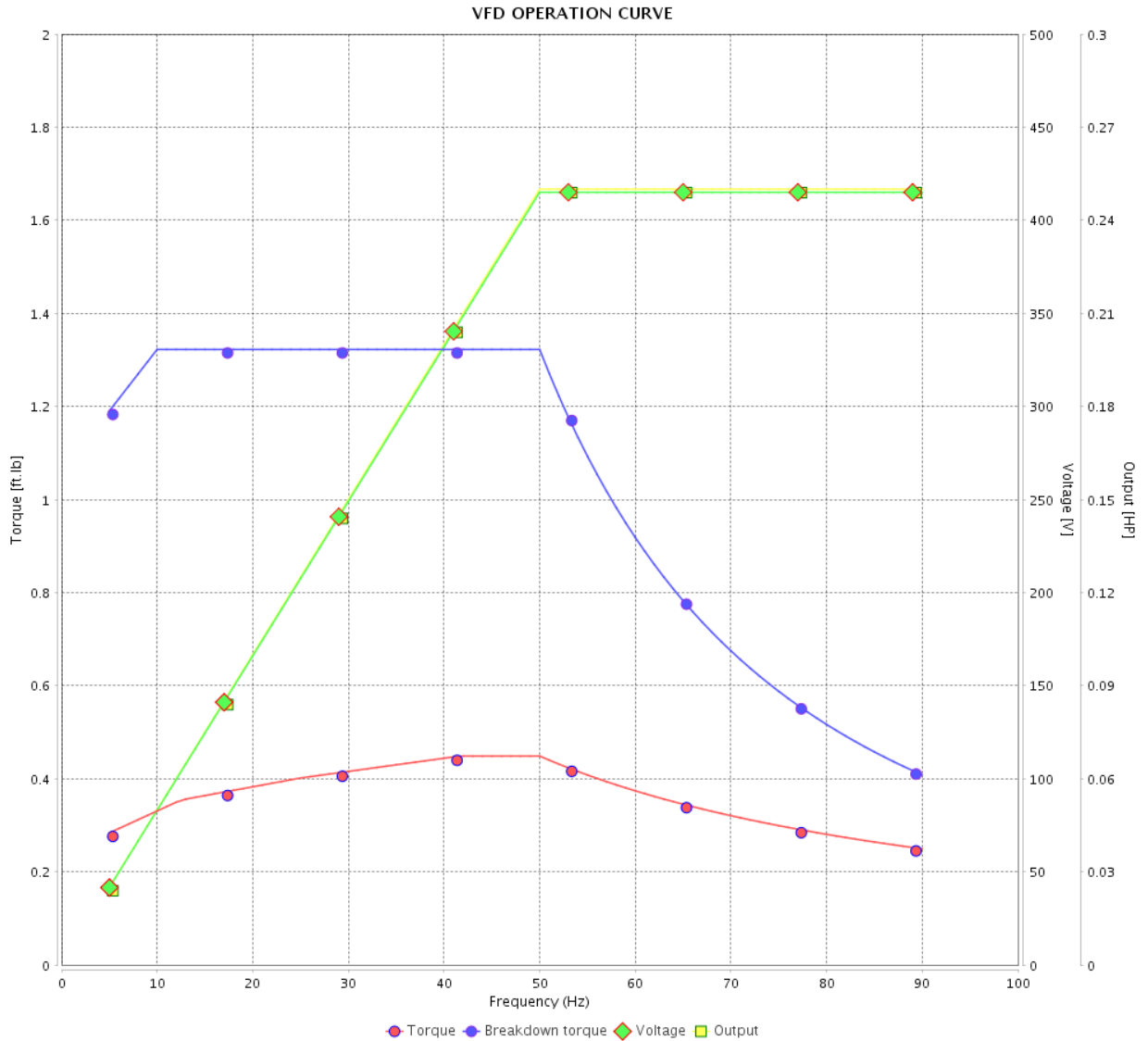
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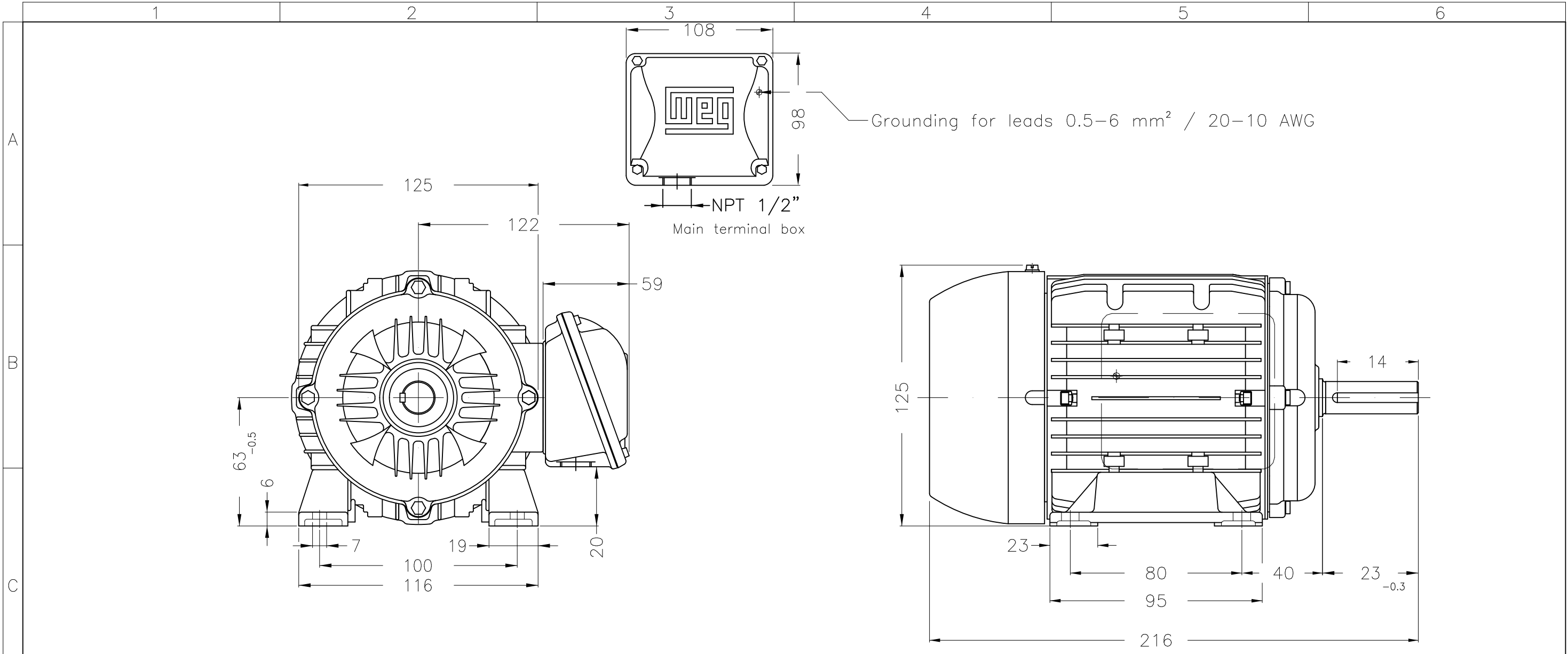


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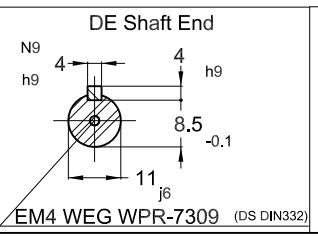
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0.25 HP 02 Poles 60 Hz										A	
ECM	LOC	SUMMARY OF MODIFICATIONS					EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	HYBRISUSER	THREE PH. MOTOR MULTIMOUNTIN HIGH EFF.									
CHECKED		FRAME 63 IP55 TEFC									
RELEASED											
REL DT.		WMO	Jaragua do Sul	Product Engineering							

Color RAL 7022
 Painting plan 207N
 Mounting B3L(E)



PREVIEW
 WDD
 SHEET 1 / 1

MADE IN BRAZIL


W21 CC029A
Severe Duty

IE2-64.0%



IEC 60034-1

MODEL .1836EP3EAL63-W22

3 ~ AL63

AMB 40°C

MOD.TE01A0X0H0000100172

INS CL. F ENCL TEFC TYPE ET IP55 DUTY CONT.

kW(HP)	Hz	VOLTS	RPM	AMPS	PF	SFA
0.18(0.25)	50	380 Y	2735	0.518	0.80	-
		415 Y	2780	0.550	0.70	-
0.18(0.25)	60	230 YY	3400	1.01	0.70	1.16
		460 Y		0.504		0.58

Hz SF CODE Δt (k) ALT 1000 m.a.s.l.

50	1.00	H	80	NEMA EFF 60Hz DES
60	1.15	K	80	NOM(%) 64.0 3/4(%) 62.0

RUN CONNECTION



→ 6201-ZZ

MOBIL POLYREX EM

Lbs

→ 6201-ZZ

TEMP CODE T3C

Class I, Div. 2, Gr. B, C and D

Class I, Zone 2, IIC

FOR SAFE AREA
ELECTRIC MOTOR3PT9
LISTED

13982686