

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Multimounting IE3 Three-Phase Product code : 14052064
Catalog # : 00418ET3YAL112MFF-W2

Frame	: 112M	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: B35L(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 ²	: 92.7 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.4312 sq.ft.lb
Design	: N		

Output [HP]	5.5	5.5	5.5
Poles	4	4	4
Frequency [Hz]	50	50	60
Rated voltage [V]	380	415	460
Rated current [A]	8.47	8.09	7.28
L. R. Amperes [A]	59.3	56.6	58.2
LRC [A]	7.0	7.0	8.0
No load current [A]	4.15	4.95	4.25
Rated speed [RPM]	1445	1455	1755
Slip [%]	3.67	3.00	2.50
Rated torque [ft.lb]	20.0	19.9	16.5
Locked rotor torque [%]	200	260	250
Breakdown torque [%]	270	340	350
Service factor	1.00	1.00	1.25
Temperature rise	80 K	80 K	80 K
Locked rotor time	27s (cold) 15s (hot)	27s (cold) 15s (hot)	34s (cold) 19s (hot)
Noise level ²	56.0 dB(A)	56.0 dB(A)	56.0 dB(A)
Efficiency (%)	25%		
	50%	89.3	87.5
	75%	89.0	89.5
	100%	88.6	89.5
Power Factor	25%		
	50%	0.65	0.58
	75%	0.76	0.70
	100%	0.81	0.77

	<u>Drive end</u>	<u>Non drive end</u>	Foundation loads
Bearing type	: 6207 ZZ	6206 ZZ	Max. traction : 318 lb
Sealing	: V'Ring	V'Ring	Max. compression : 410 lb
Lubrication interval	: -	-	
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 :

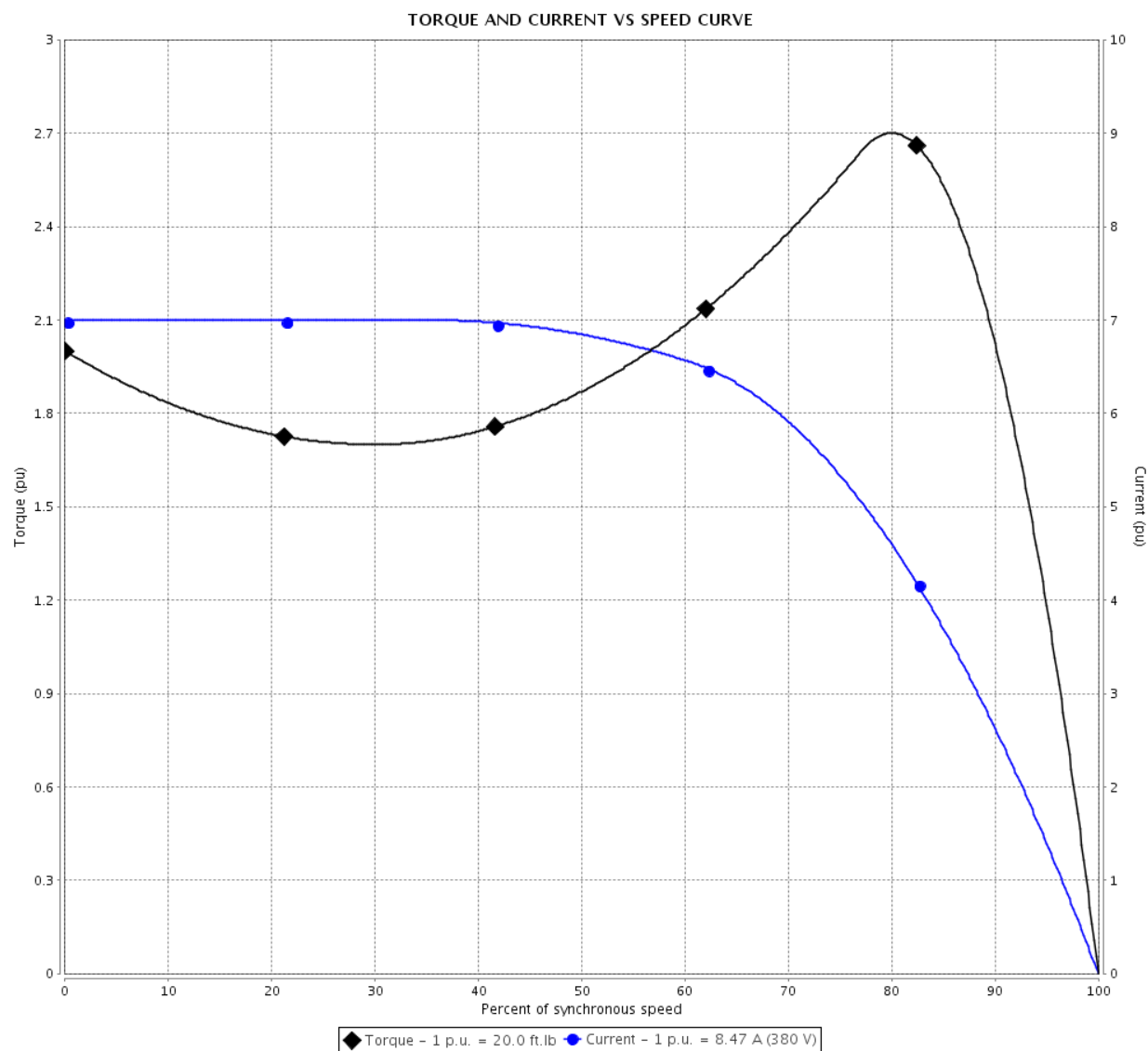
Product line : Multimounting IE3 Three-Phase

Product code :

14052064

Catalog # :

00418ET3YAL112MFF-W2



Performance : 380 V 50 Hz 4P

Rated current : 8.47 A
LRC : 7.0
Rated torque : 20.0 ft.lb
Locked rotor torque : 200 %
Breakdown torque : 270 %
Rated speed : 1445 rpm

Moment of inertia (J) : 0.4312 sq.ft.lb
Duty cycle : S1
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : N

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

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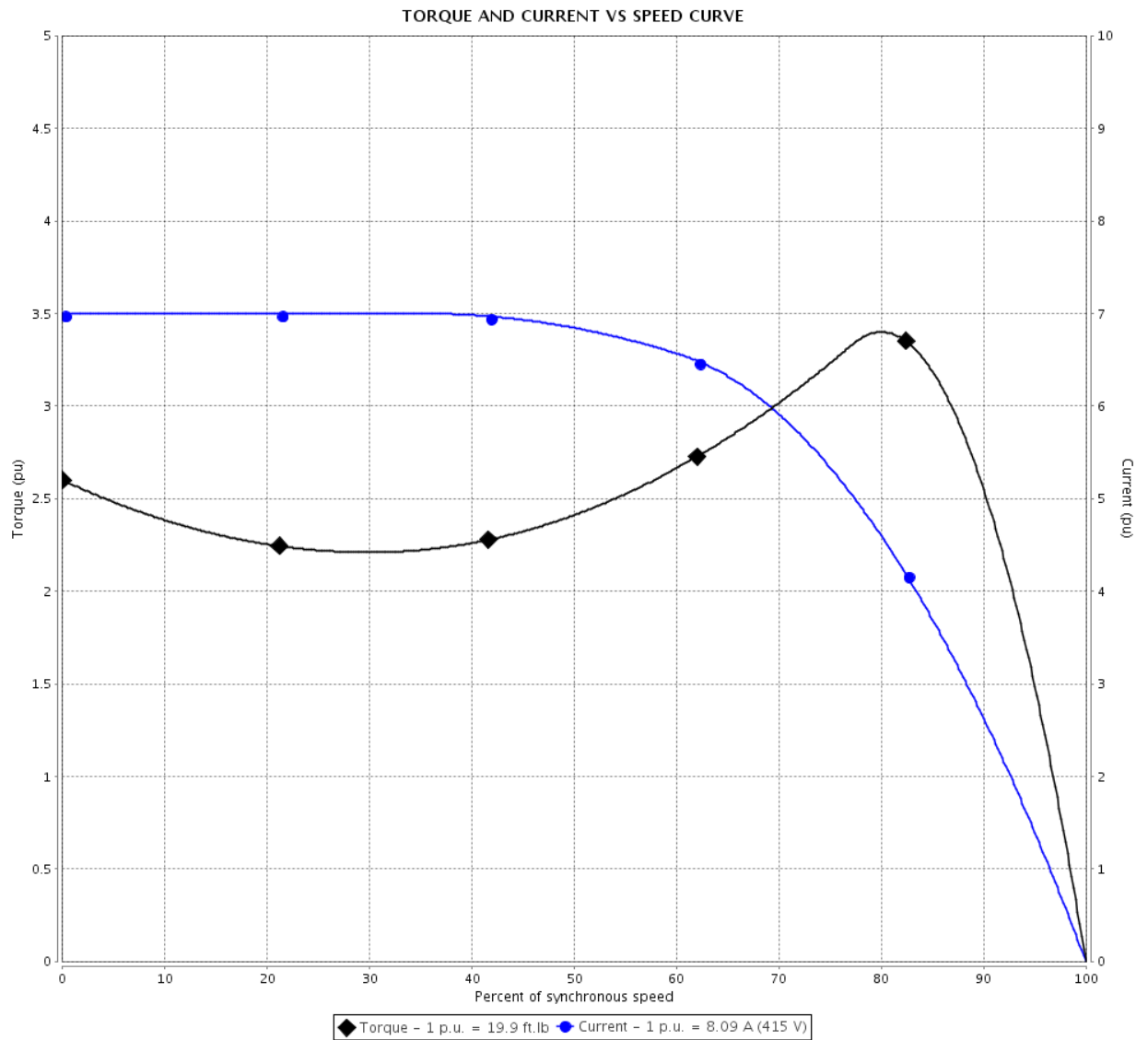
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Performance : 415 V 50 Hz 4P

Rated current	: 8.09 A	Moment of inertia (J)	: 0.4312 sq.ft.lb
LRC	: 7.0	Duty cycle	: S1
Rated torque	: 19.9 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 1455 rpm	Design	: N

Locked rotor time : 27s (cold) 15s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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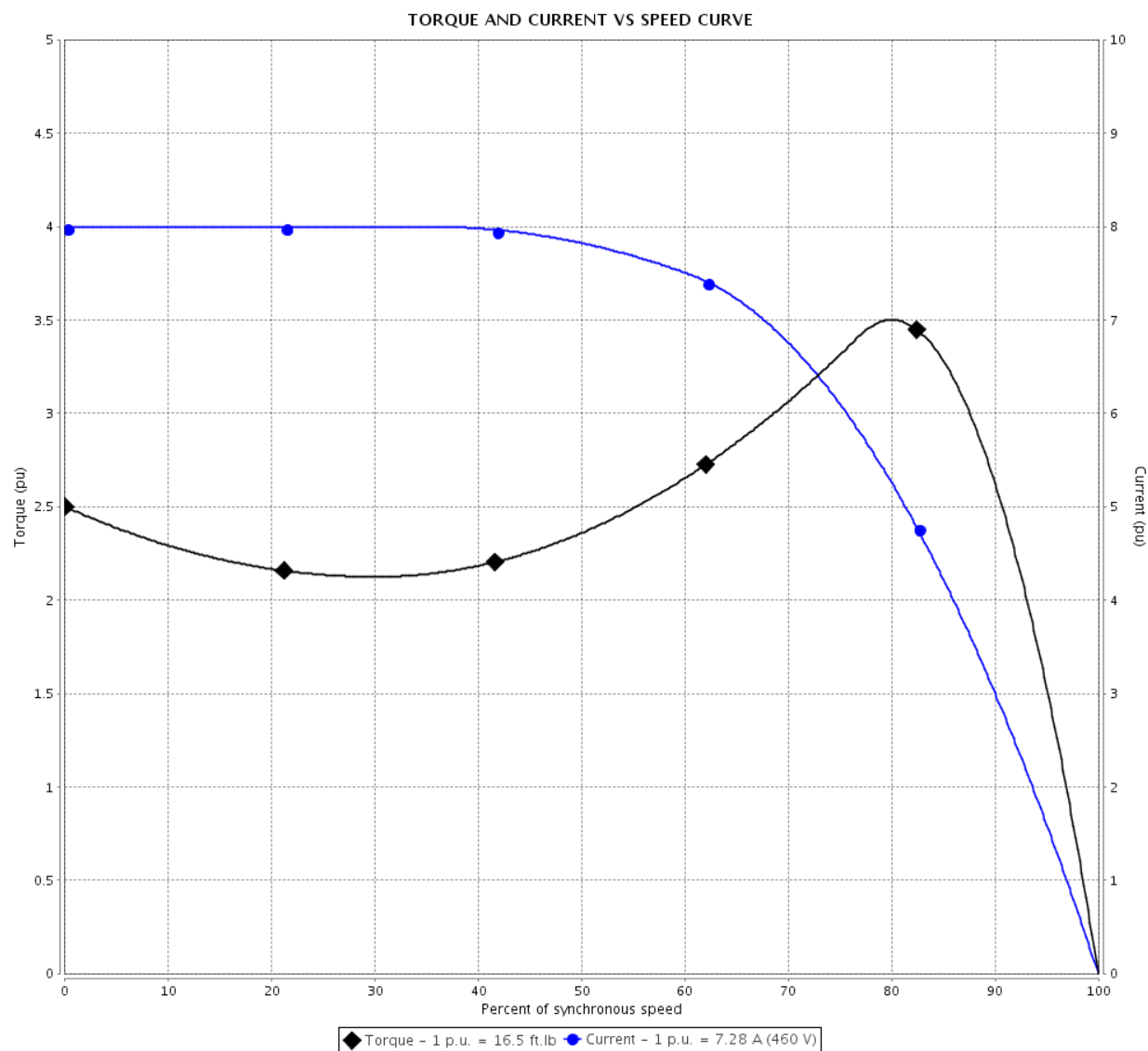
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Performance : 460 V 60 Hz 4P

Rated current : 7.28 A
LRC : 8.0
Rated torque : 16.5 ft.lb
Locked rotor torque : 250 %
Breakdown torque : 350 %
Rated speed : 1755 rpm

Moment of inertia (J) : 0.4312 sq.ft.lb
Duty cycle : S1
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : N

Locked rotor time : 34s (cold) 19s (hot)

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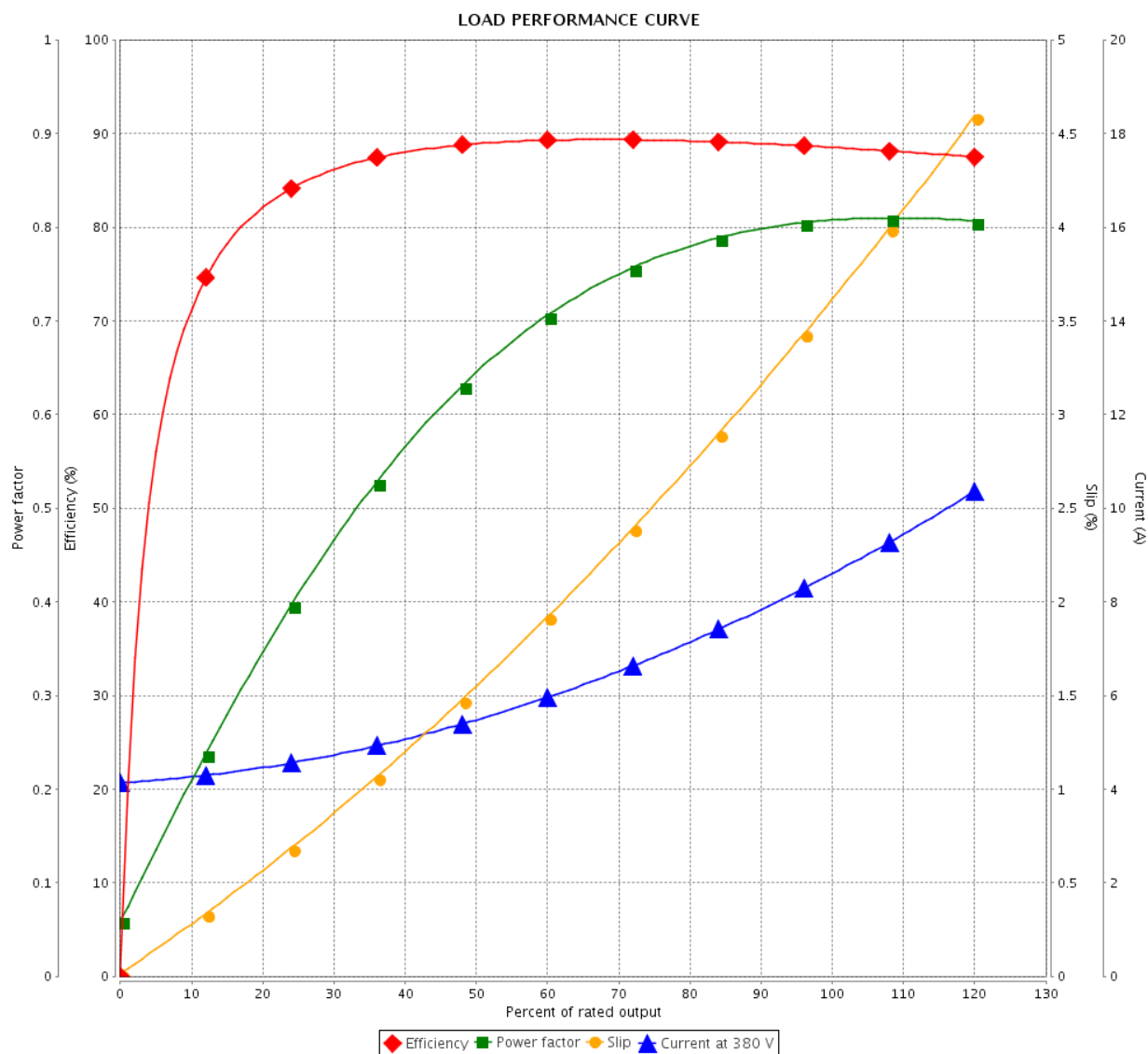
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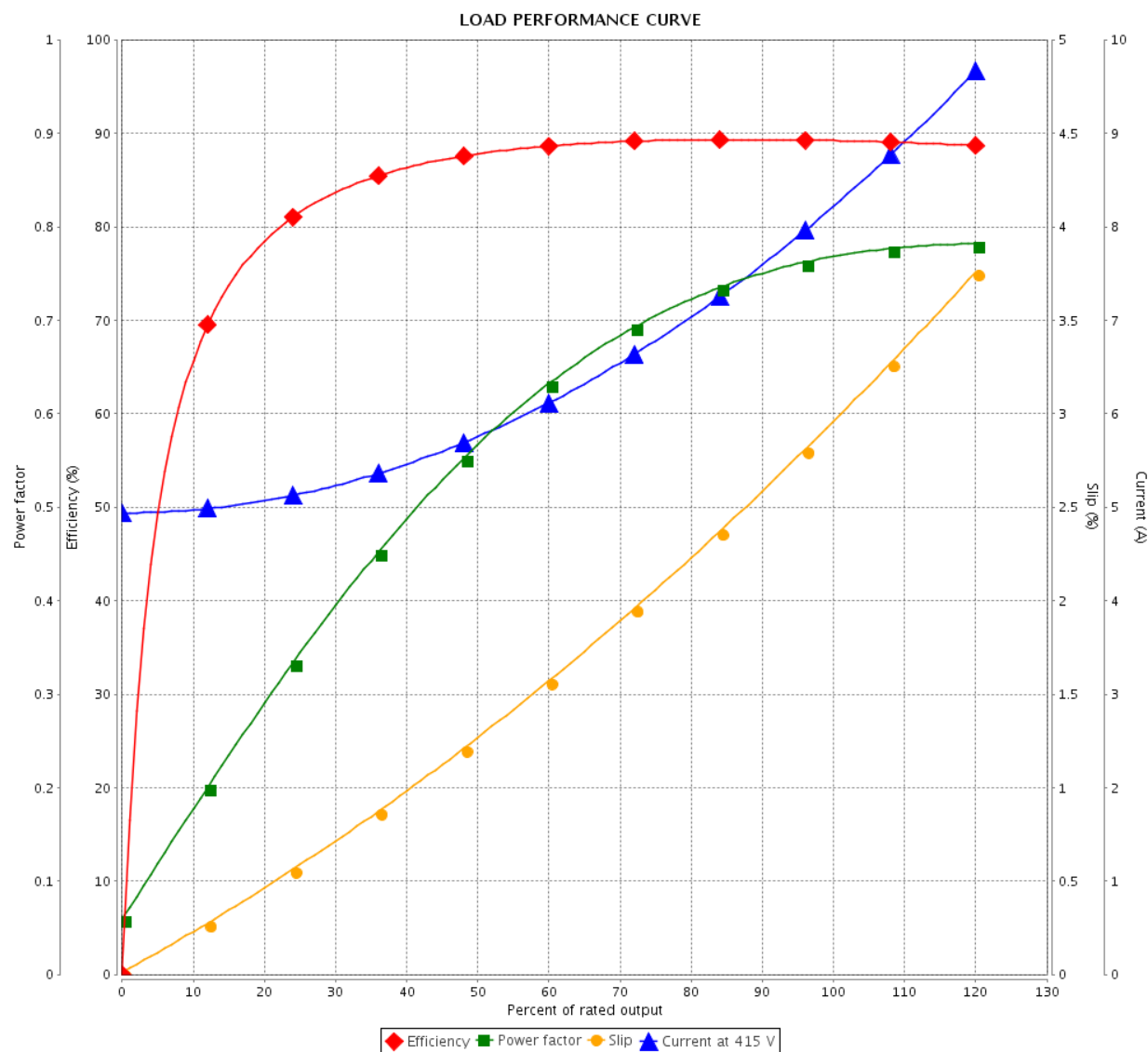
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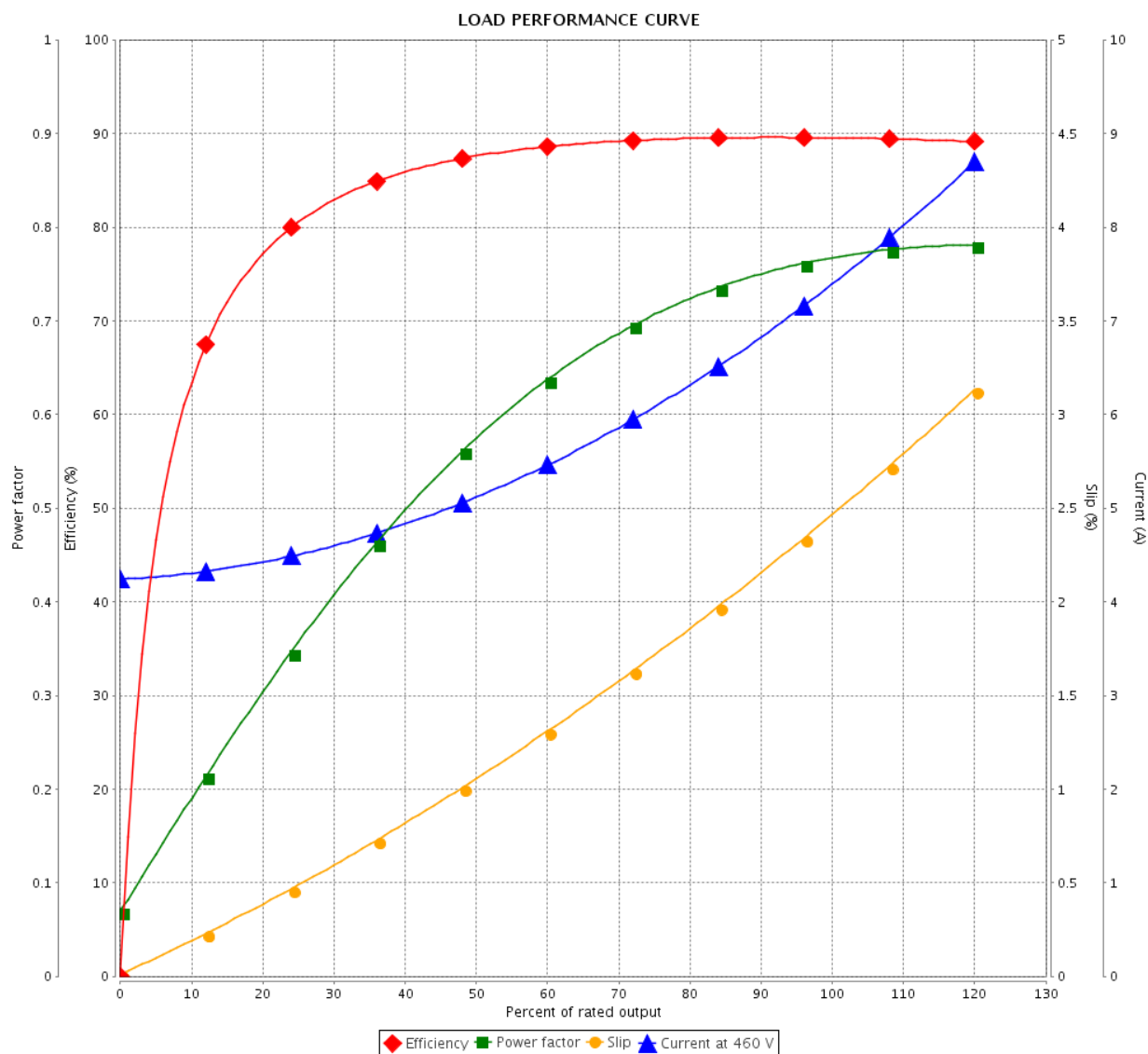
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THERMAL LIMIT CURVE

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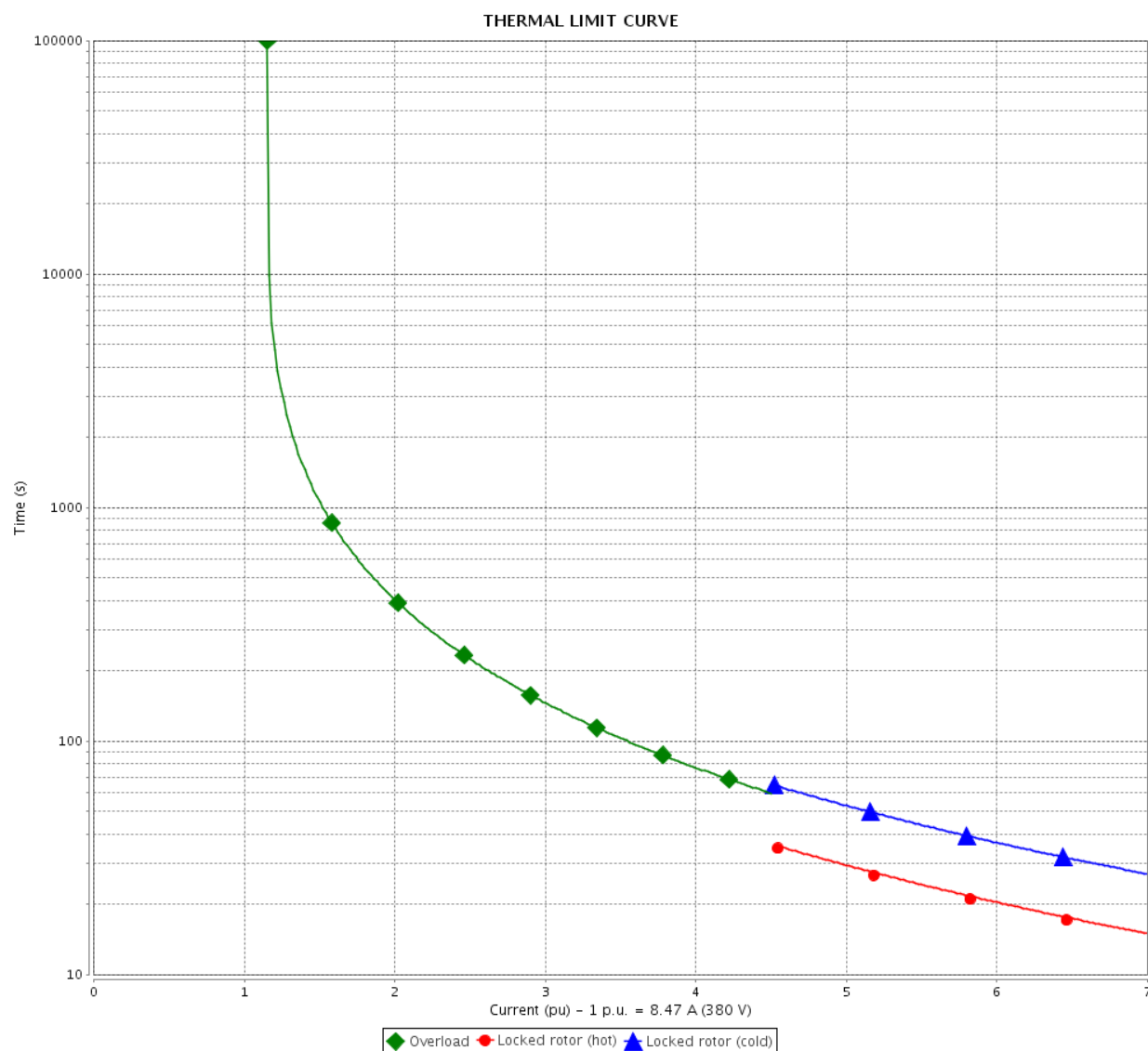
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Heating constant

Cooling constant

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THERMAL LIMIT CURVE

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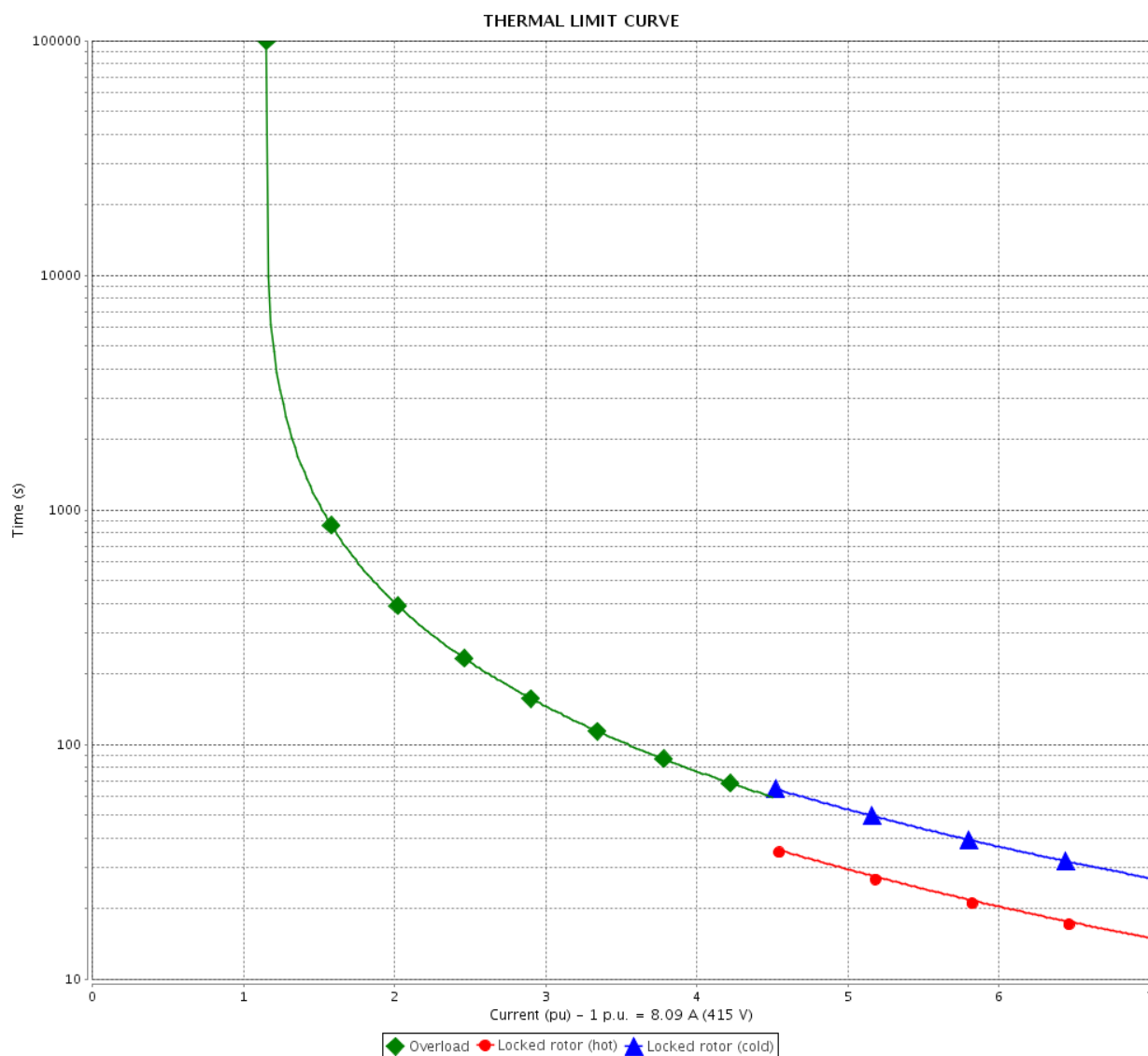
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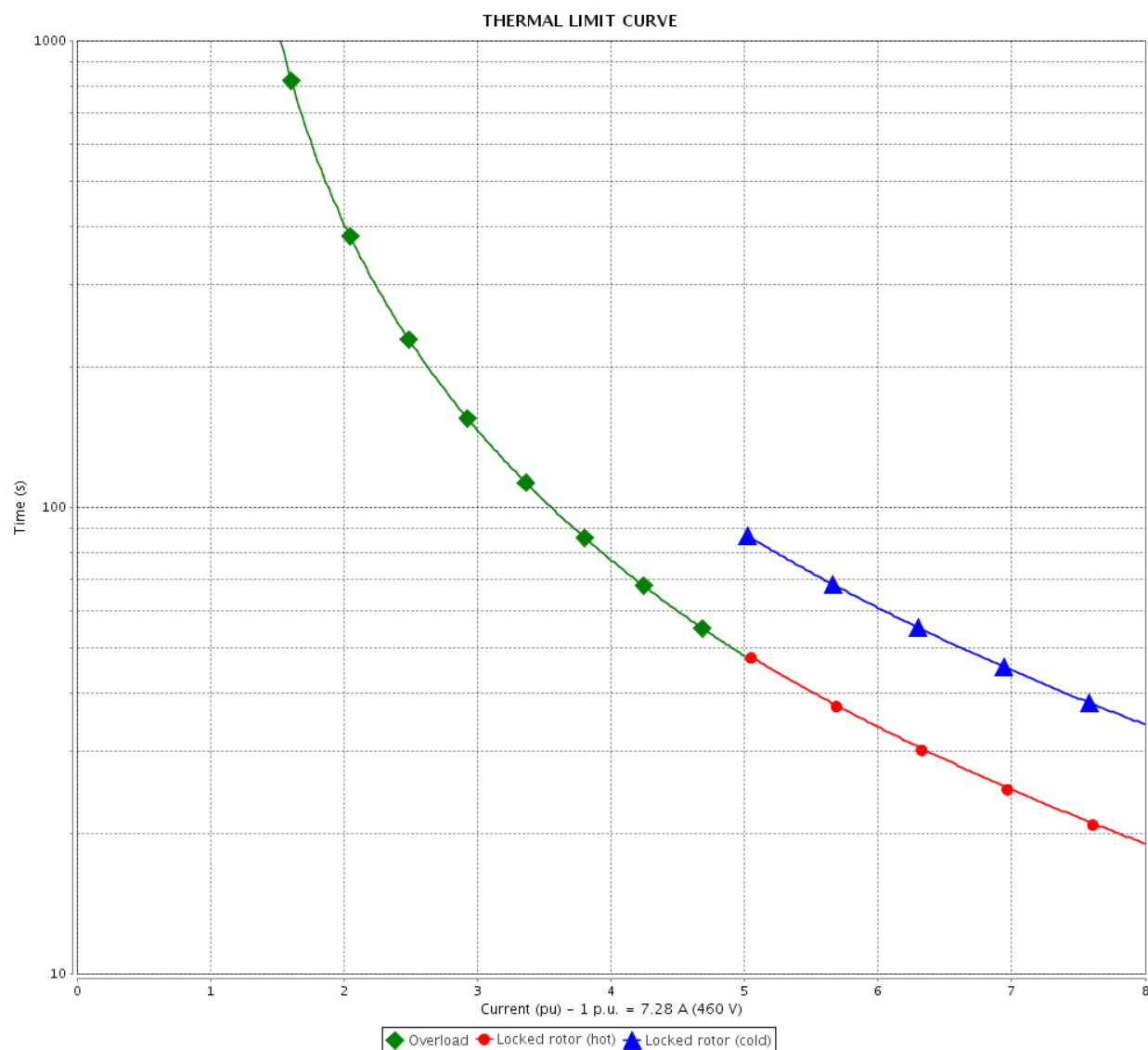
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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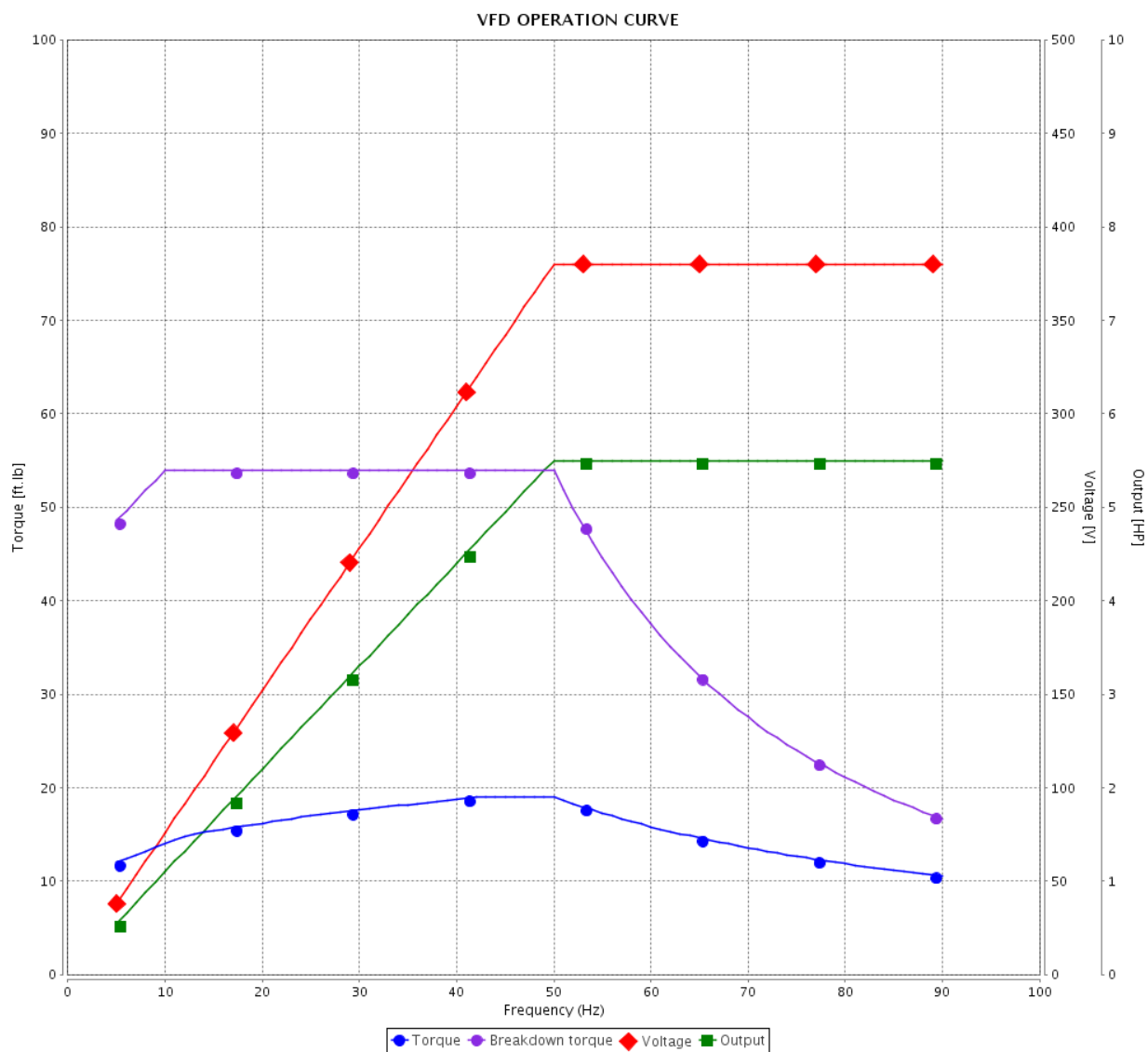
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VFD OPERATION CURVE

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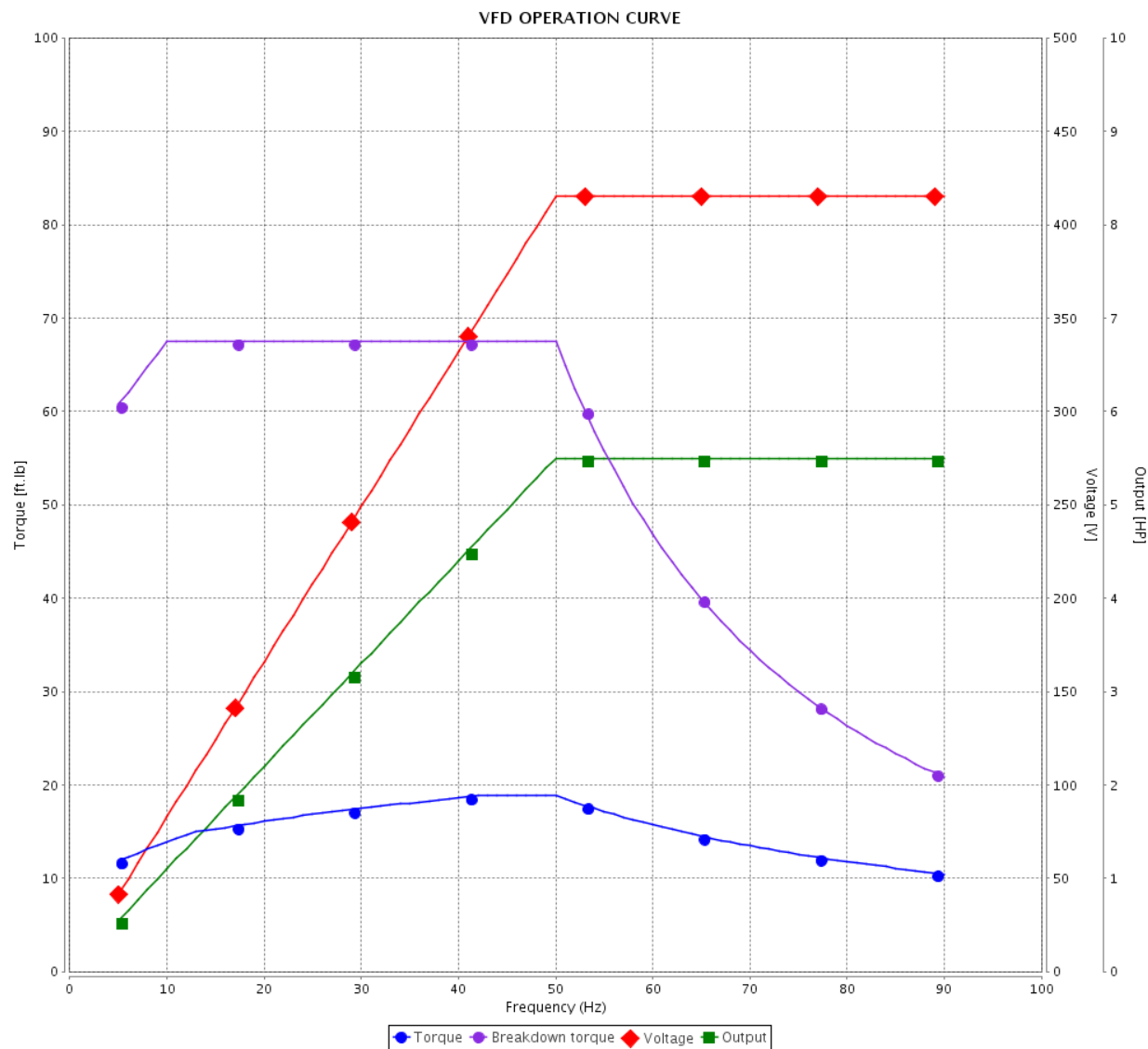
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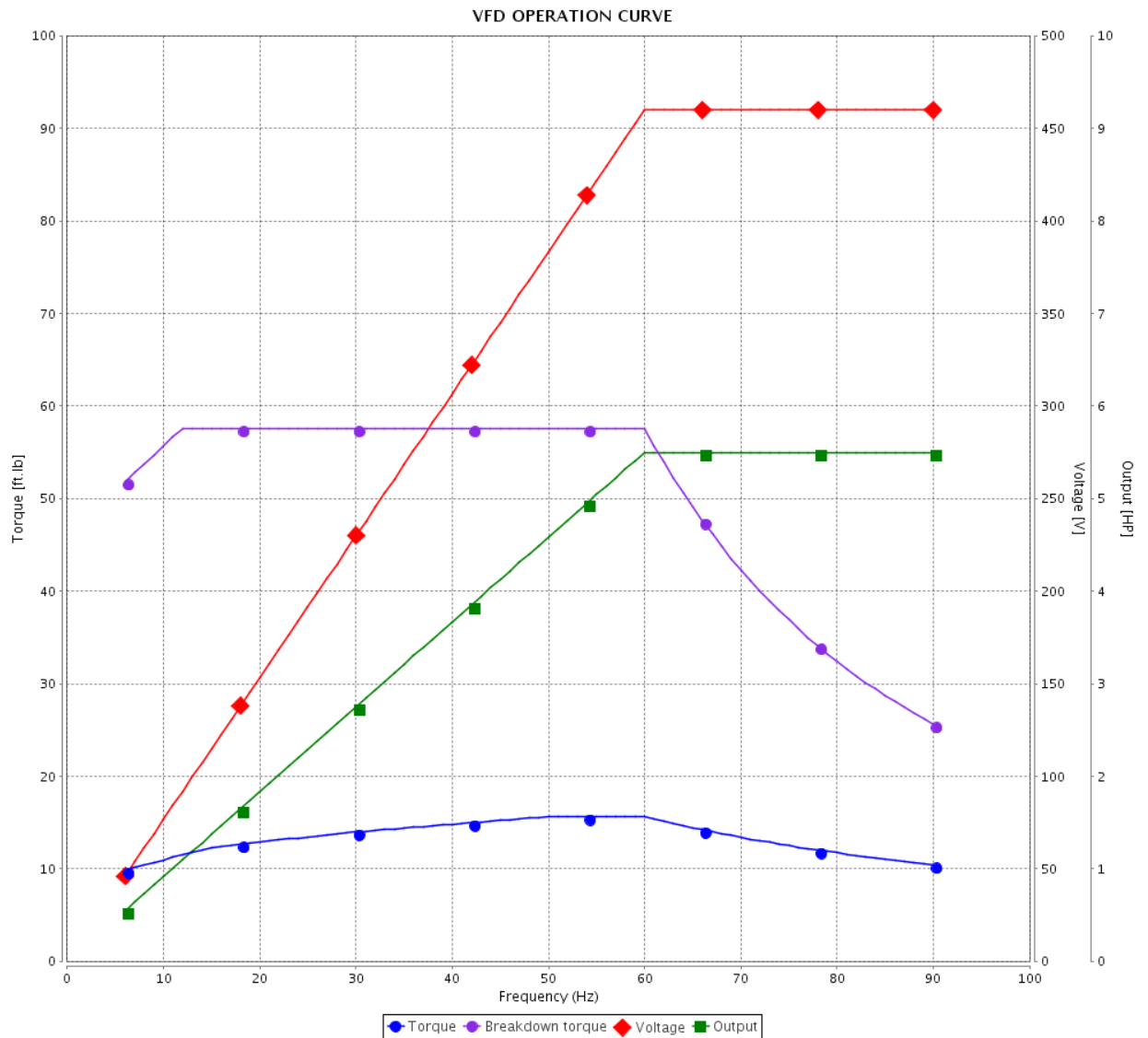
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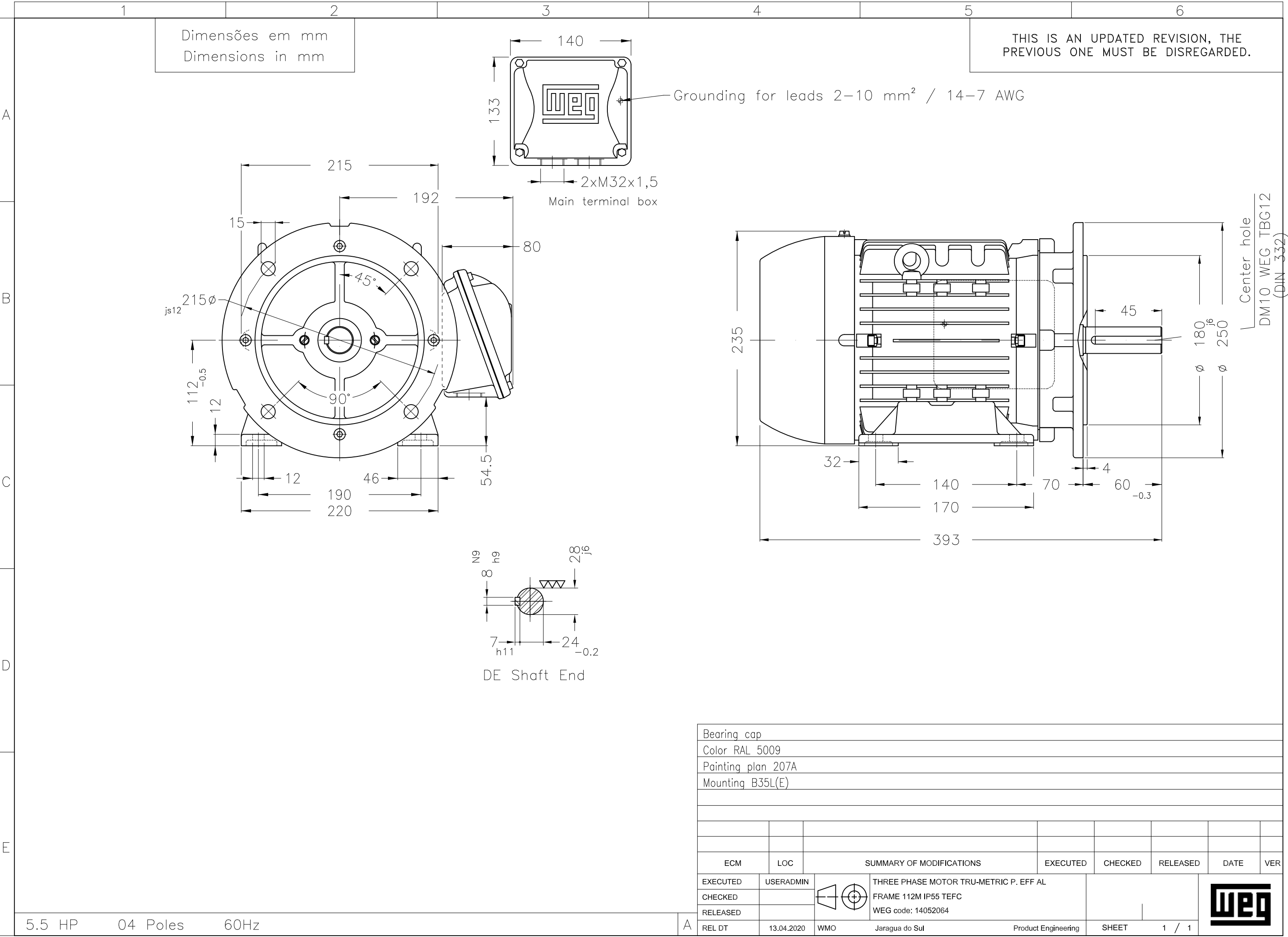
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MADE IN BRAZIL



IE3-89.5%

CC029A

Severe Duty

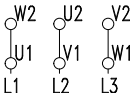
PH 3 FRAME AL112M

MODEL 00418ET3YAL112MFF-W2

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

kW(HP)	Hz	VOLTS	RPM	AMPS	PF	SFA
4.0(5.5)	50	380 Δ	1445	8.47	0.81	-
		415 Δ	1455	8.09	0.77	-
4.0(5.5)	60	460 Δ	1755	7.28	0.77	9.1

Hz	SF	CODE	Δt (k)	ALT 1000 m.a.s.l.	MAX AMB. 40°C
50	1.00	J	80	NEMA EFF 60Hz DES	
60	1.25	K	80	NOM(%) 89.5	3/4(%) 89.5



Δ DELTA RUN



→ 6207-ZZ

MOBIL POLYREX EM

→ 6206-ZZ

93 Lbs

TEMP CODE T3C

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

Class I, Zone 2, IIC



MOD.TE01A0X0\$0000302359

C US
LR 50962

EEV 78282

14052064