DATA SHEET

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase	Product code :	12687686
		Catalog # :	02018OT3E256T-SG

Frame	: 254/6T	Cooling method	: IC01 - ODP
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(S1)	Rotation¹	: Both (CW and CCW)
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line
Altitude	: 1000 m.a.s.l.	Approx. weight³	: 97.0 kg
Design	: B	Moment of inertia (J)	: 0.0939 kgm²

Output [HP]		20	20	20
Poles		4	4	4
Frequency [Hz]		60	50	50
Rated voltage [V]		230/460	190/380	220/415
Rated current [A]		50.0/25.0	59.8/29.9	54.0/28.6
L. R. Amperes [A]		315/158	311/155	313/166
LRC [A]		6.3x(Code G)	5.2x(Code F)	5.8x(Code G)
No load current [A]		22.9/11.4	22.4/11.2	23.6/12.5
Rated speed [RPM]		1770	1460	1465
Slip [%]		1.67	2.67	2.33
Rated torque [kgfm]		8.20	9.94	9.91
Locked rotor torque [%]		240	180	200
Breakdown torque [%]		290	220	250
Service factor		1.15	1.15	1.15
Temperature rise		80 K	80 K	80 K
Locked rotor time		27s (cold) 15s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level²		64.0 dB(A)	62.0 dB(A)	62.0 dB(A)
Efficiency (%)	25%	91.7	93.0	92.2
	50%	92.4	91.8	91.4
	75%	92.4	91.2	91.3
	100%	93.0	89.7	90.2
Power Factor	25%	0.38	0.46	0.41
	50%	0.63	0.72	0.68
	75%	0.74	0.82	0.79
	100%	0.81	0.85	0.84

		Drive end	Non drive end
Bearing type	:	6309 Z C3	6208 Z C3
Sealing	:	Without Bearing Seal	Without Bearing Seal
Lubrication interval	:	20000 h	20000 h
Lubricant amount	:	13 g	8 g
Lubricant type	:	Mobil Polyrex EM	

Foundation loads
Max. traction : 341 kgf
Max. compression : 438 kgf

Notes
USABLE @208V 55.3A SF 1.00 SFA 55.3A

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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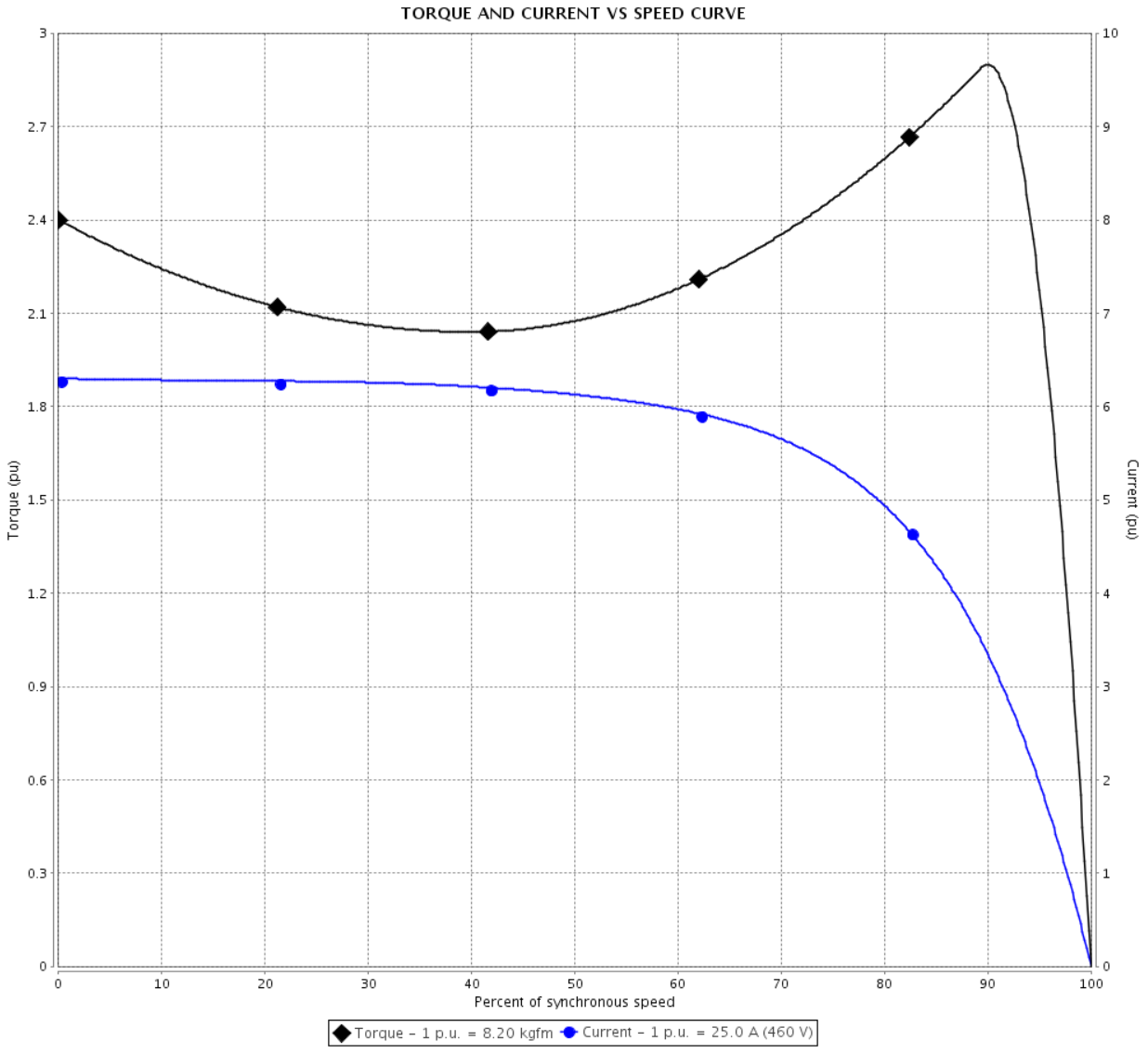
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

Customer	:

Product line	: Rolled Steel NEMA Premium Efficiency Three-Phase	Product code :	12687686
		Catalog # :	02018OT3E256T-SG



Performance	: 230/460 V 60 Hz 4P

Rated current	: 50.0/25.0 A	Moment of inertia (J)	: 0.0939 kgm²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.20 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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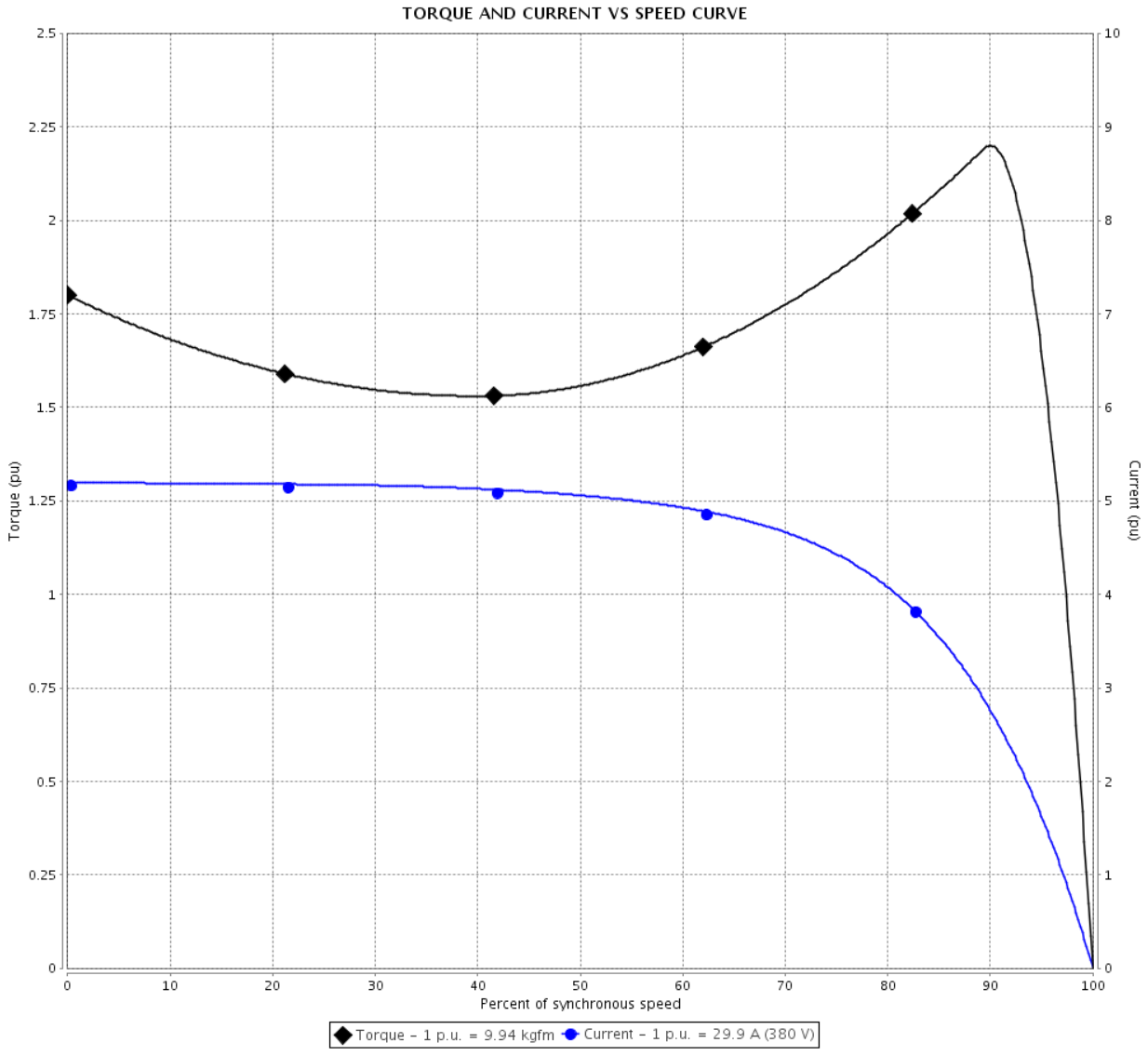

Performance	: 190/380 V 50 Hz 4P

Rated current	: 59.8/29.9 A	Moment of inertia (J)	: 0.0939 kgm²
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 9.94 kgfm	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 1460 rpm	Design	: B

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

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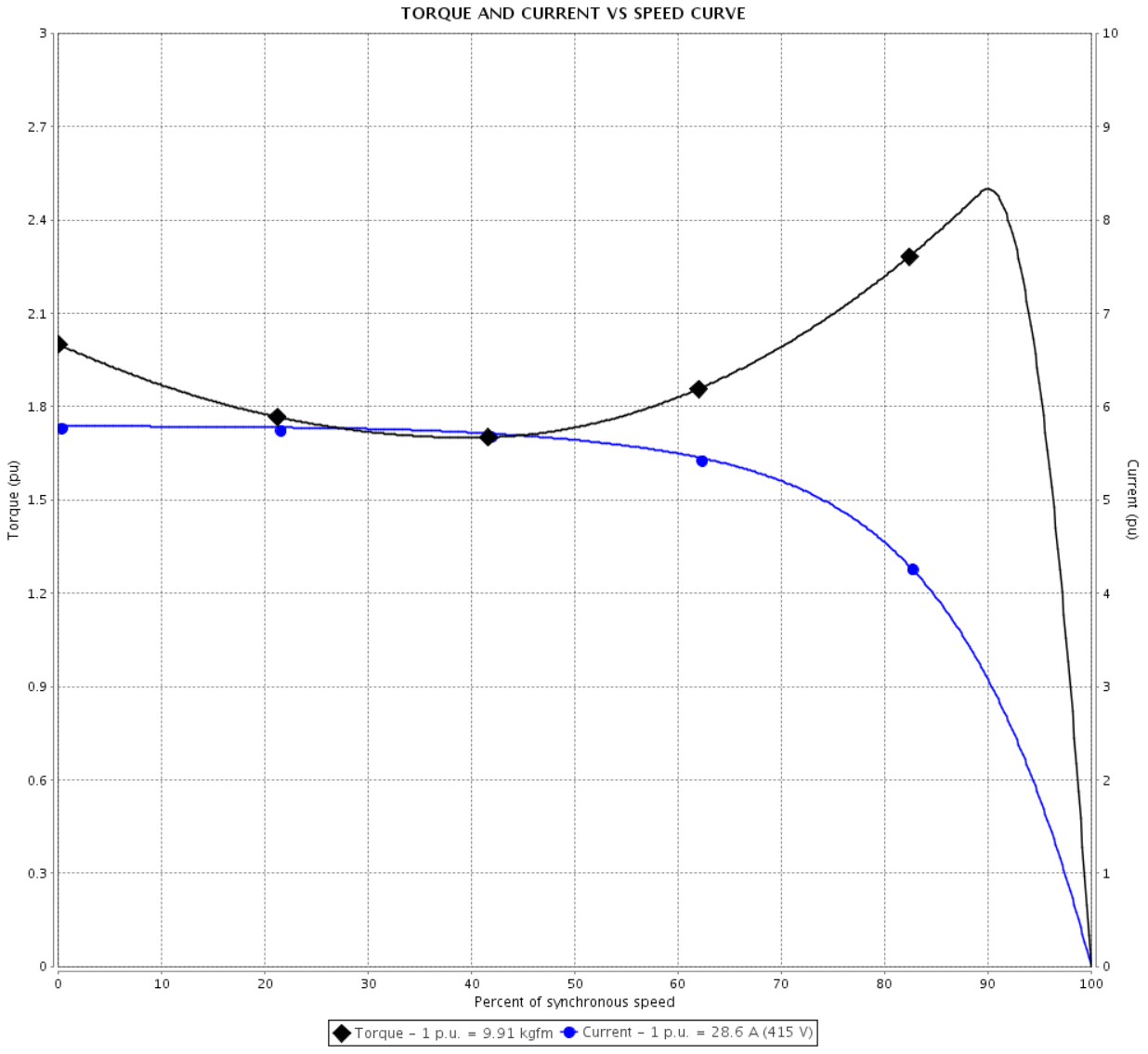

Performance	: 220/415 V 50 Hz 4P

Rated current	: 54.0/28.6 A	Moment of inertia (J)	: 0.0939 kgm²
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 9.91 kgfm	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
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Locked rotor time	: 0s (cold) 0s (hot)

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LOAD PERFORMANCE CURVE

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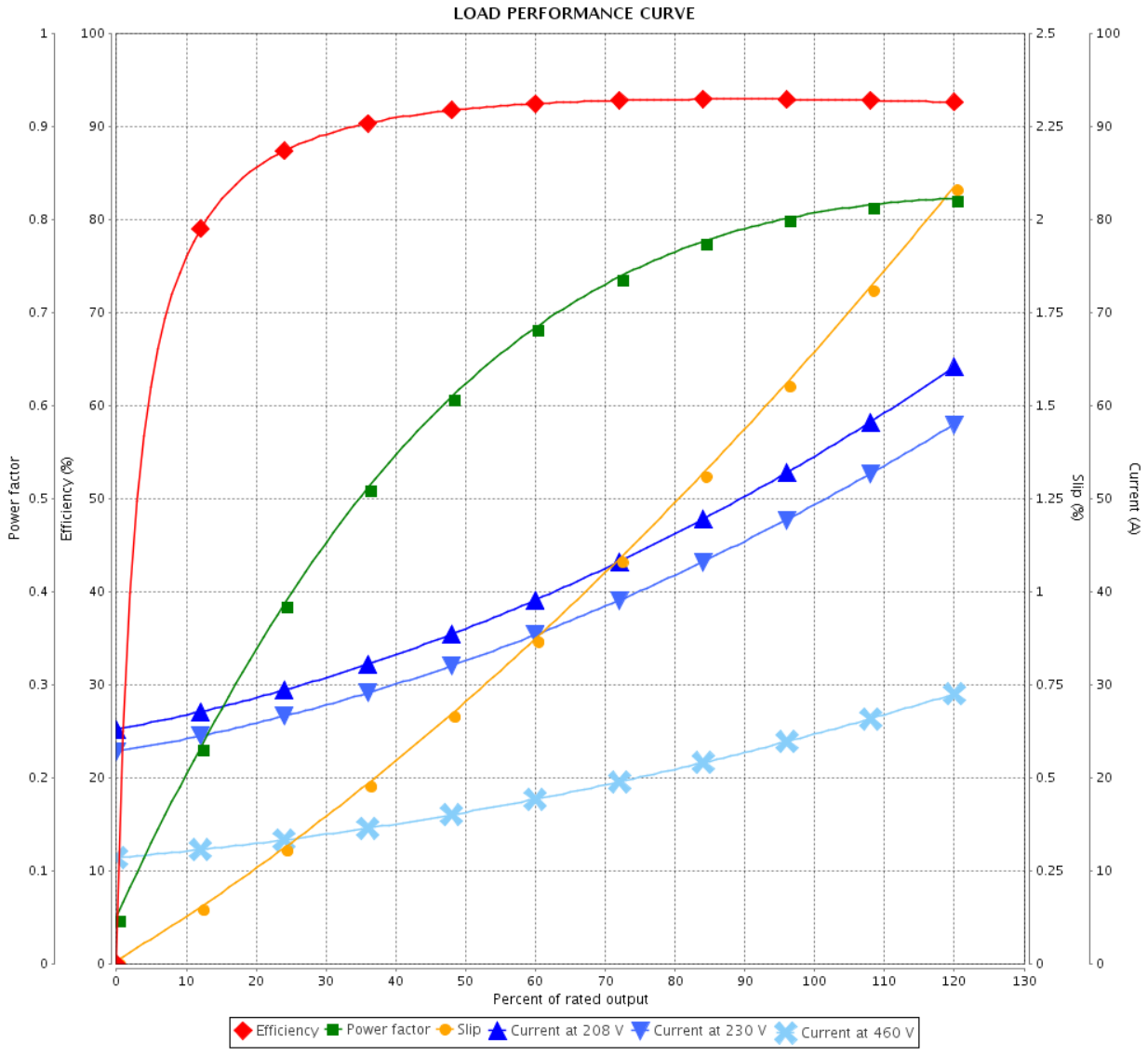

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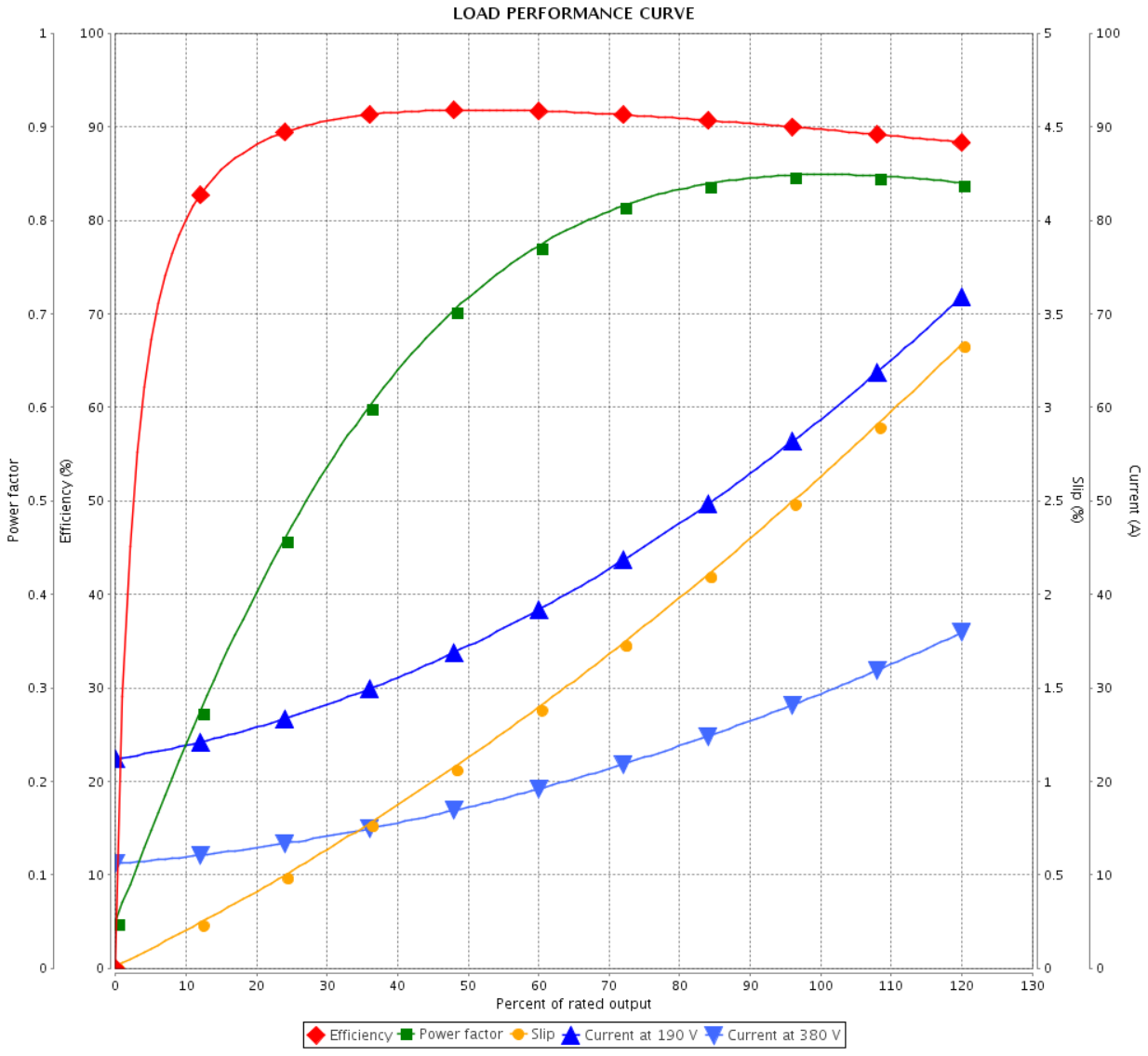

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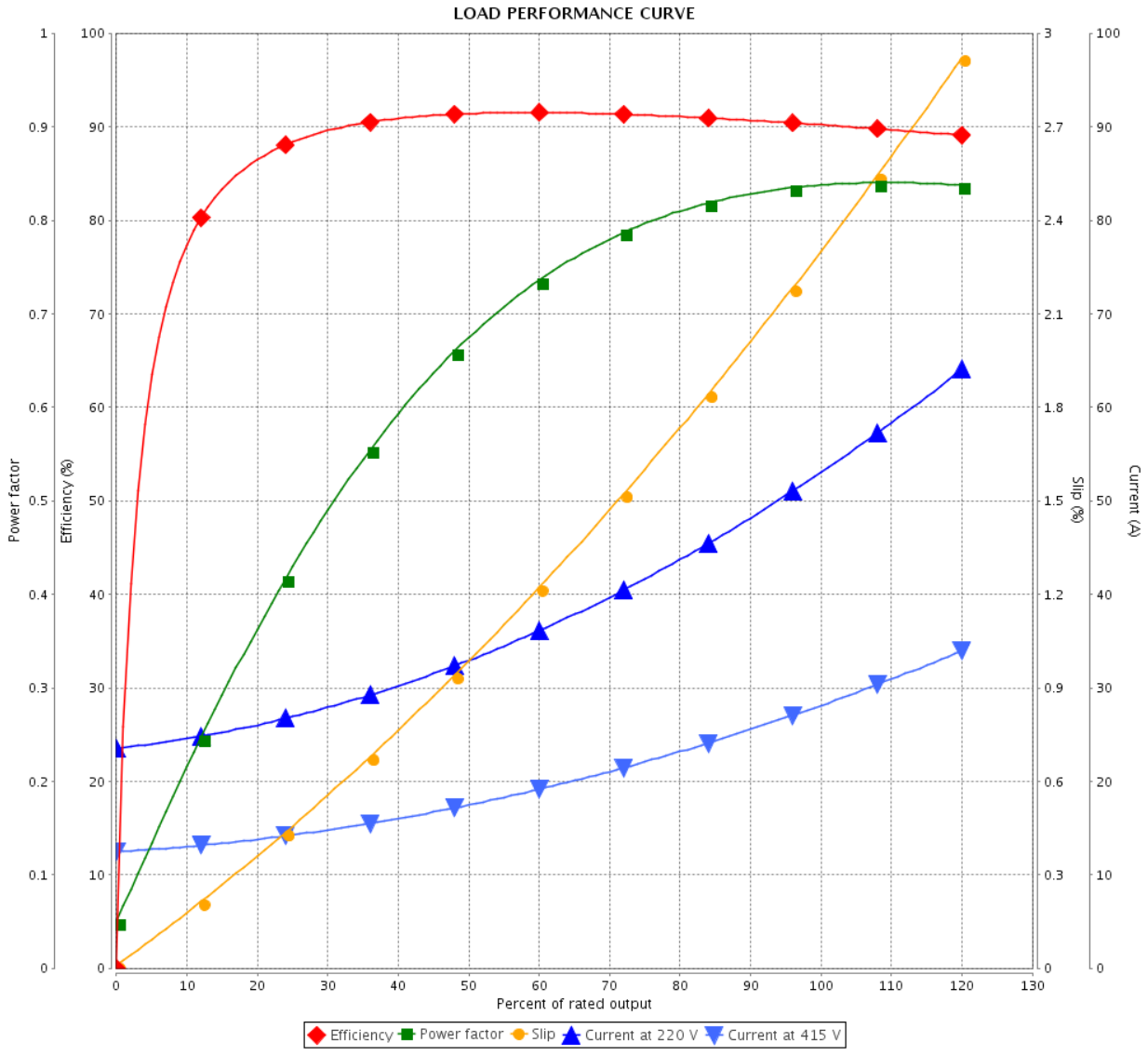

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THERMAL LIMIT CURVE

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Rated torque	: 8.20 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B
Heating constant			
Cooling constant			

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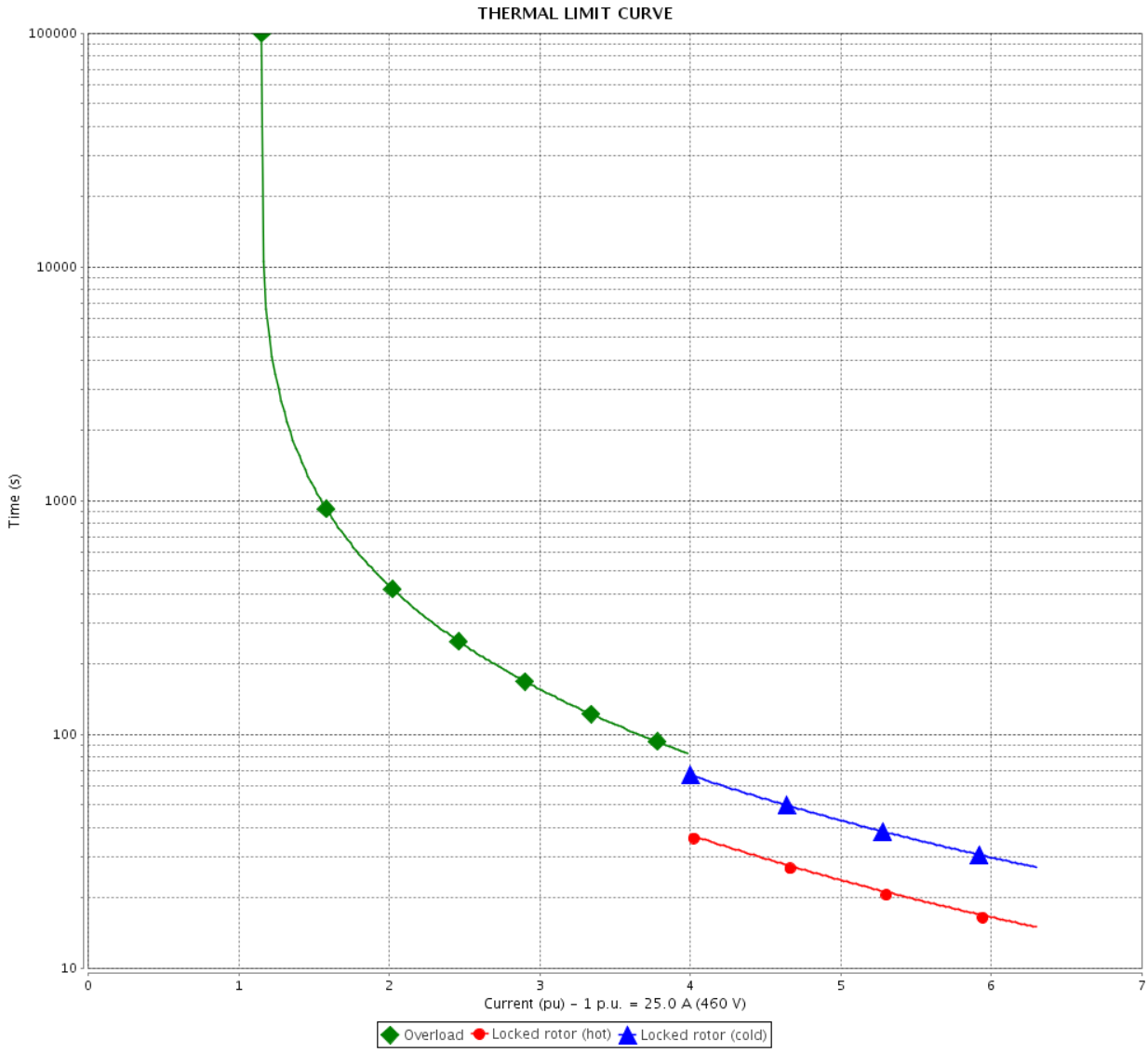

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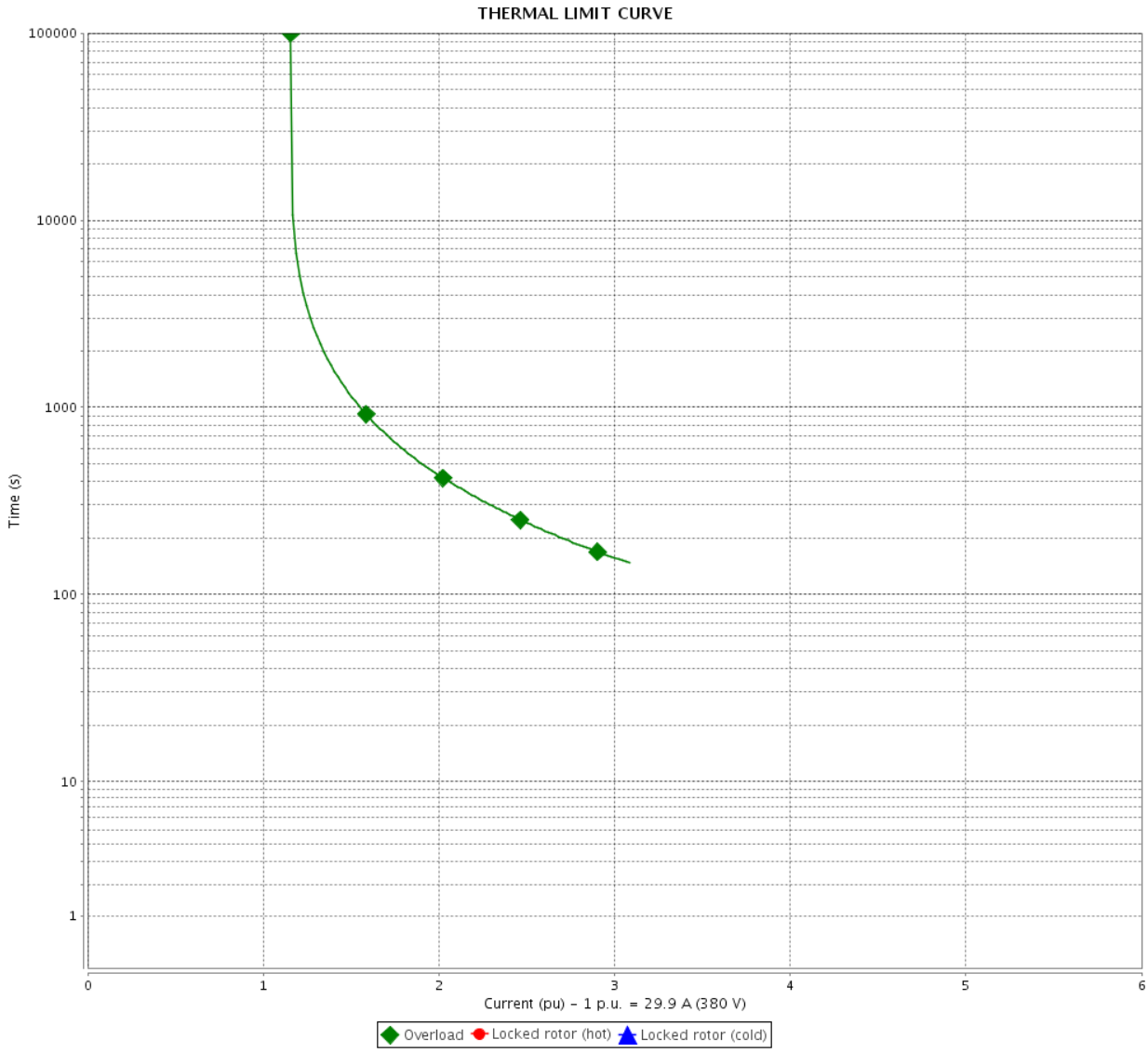

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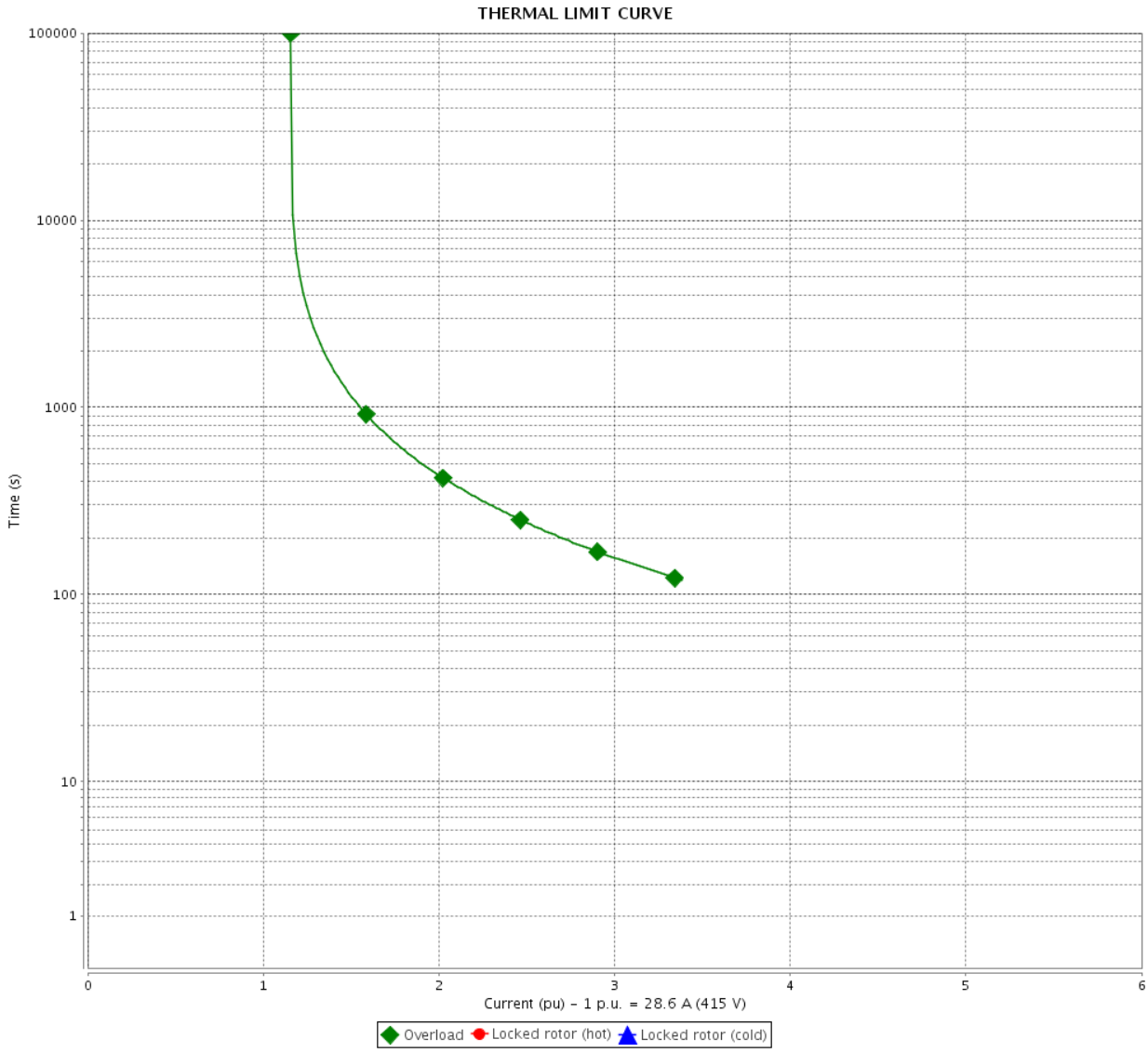

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VFD OPERATION CURVE

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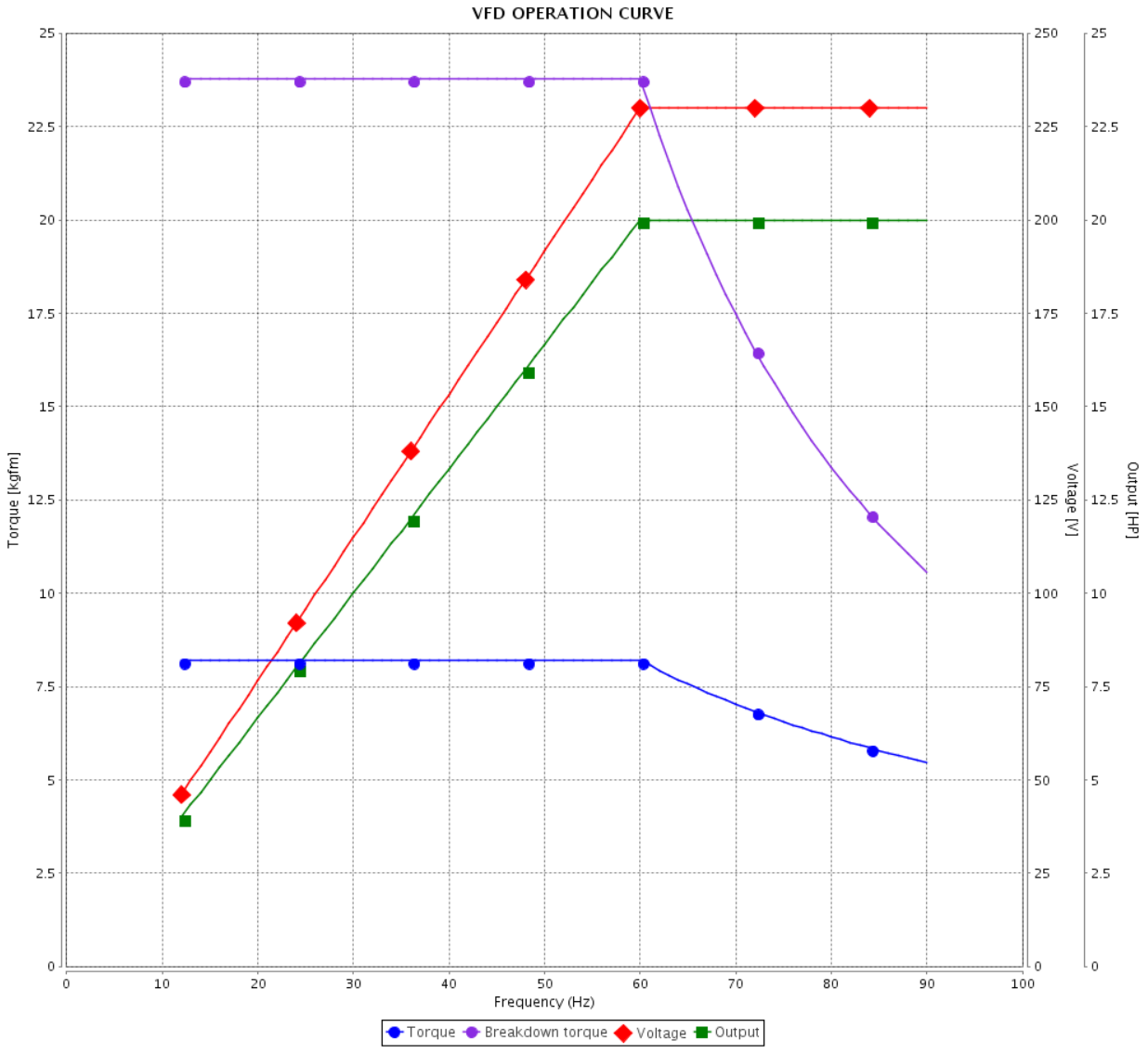

Performance	: 230/460 V 60 Hz 4P		
Rated current	: 50.0/25.0 A	Moment of inertia (J)	: 0.0939 kgm²
LRC	: 6.3	Duty cycle	: Cont.(S1)
Rated torque	: 8.20 kgfm	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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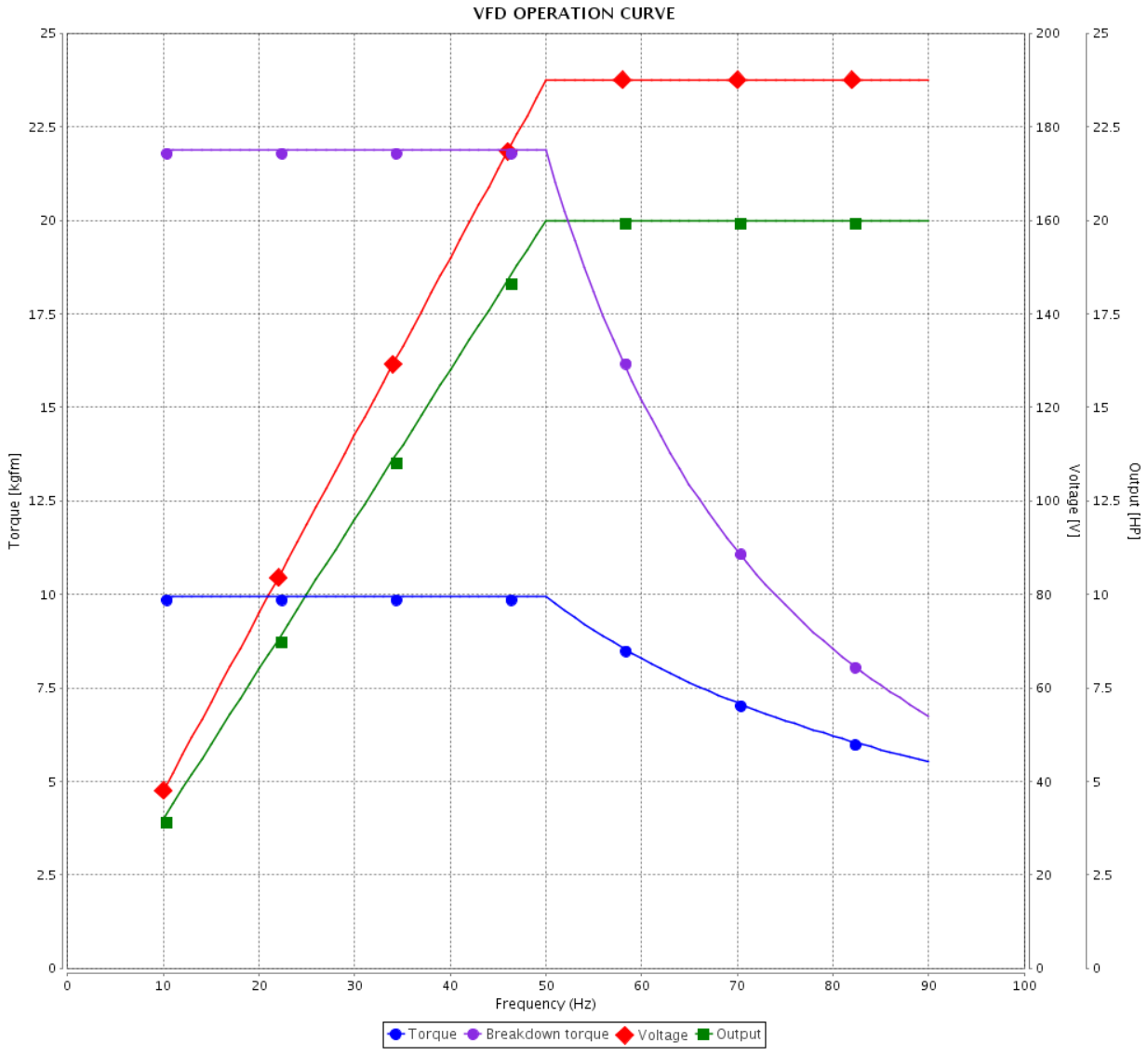

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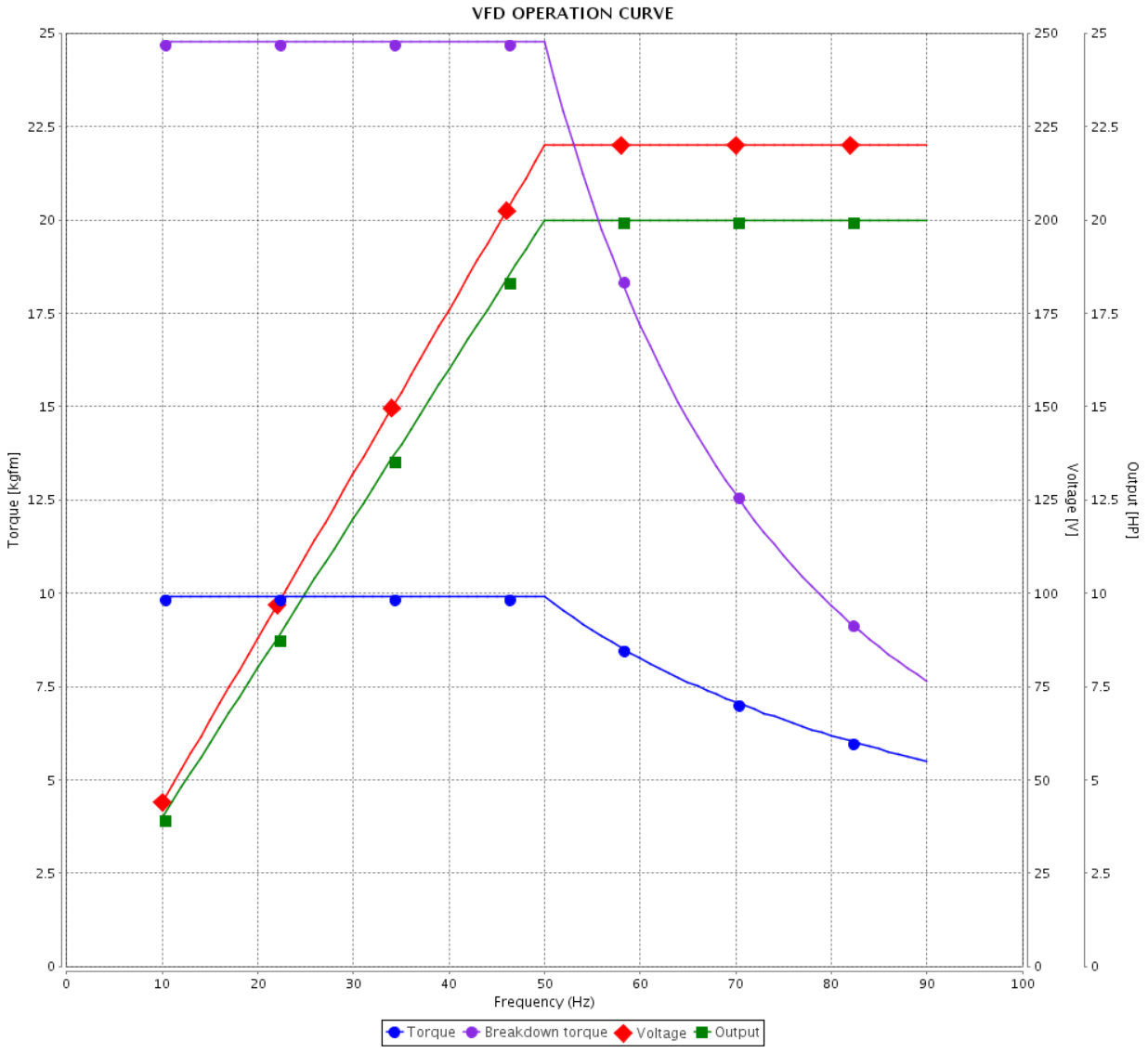

Performance	: 220/415 V 50 Hz 4P		
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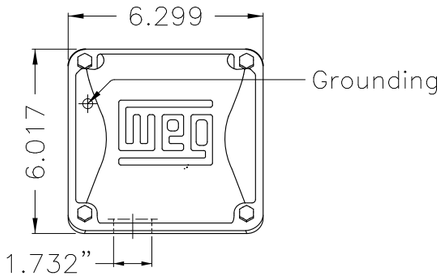
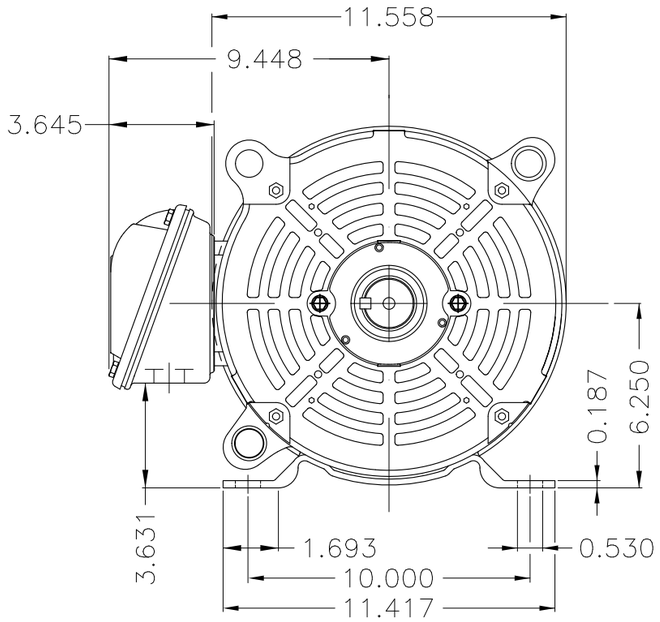
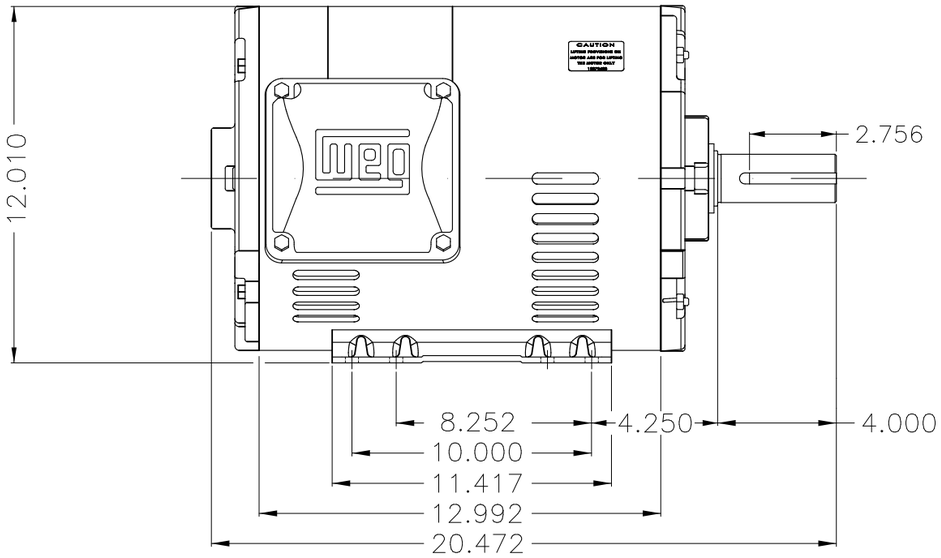
EIXO
PADRÃO X
OPCIONAL
ESPECIAL

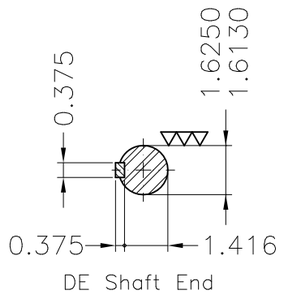
Dimensões em polegada
Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.









Internal AEGIS ground ring on the DE
Bearing cap
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	USERADMIN	THREE P. MOTOR OPEN ROLLED STEEL NEMA PREM		
CHECKED		FRAME 254/6T ODP		
RELEASED		WEG code: 12687686		
REL DT	22.03.2021	WMO Jaragua do Sul Product Engineering	SHEET 1 / 1	

20 HP 04 Poles 60Hz

A

ZME A3

NEMA Premium®

3PT9 c UL us LISTED

c CSA us Energy Verified

MADE IN MÉXICO

MAT: 12687686 CC029A

W01.TO0IC0X0N

MODEL 02018OT3E256T-SG

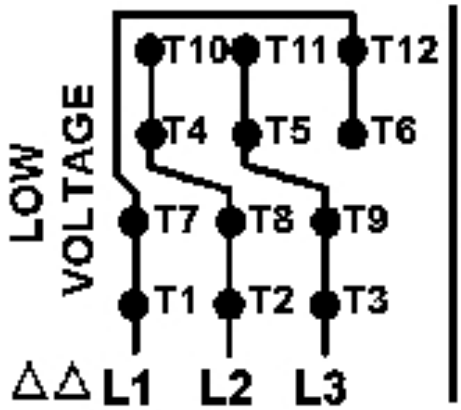
25MAR2021 S/N:

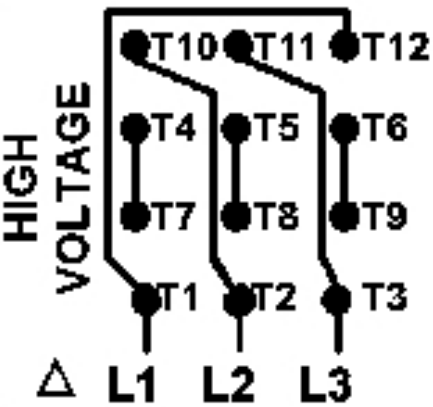
PH 3	Hz 60	HP	20
FR 254/6T		kW	15
DUTY CONT.		V	230/460
ALT 1000 m.a.s.l		A	50.0/25.0
INS CL F ΔT 80K		SFA	57.5/28.7
AMB 40°C	DES B	SF	1.15
ENCL ODP	CODE G	PF	0.81
USABLE @ 208V 55.3A SF1.00		RPM	1770
		NEMA NOM. EFF	93.0%

ALTERNATE RATING: 20HP 50Hz 190-220/380-415V SF1.15
59.8-53.0/29.9-28.1A 1460RPM EFF 89.7% (IE1) IEC 60034-1

Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	20000h





T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-BRK RED
T10-CURRY
T11-GRN T12-VLT

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.