

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :			
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12759403
		Catalog # :	02036ET3E256T-SG
Frame	: 254/6T	Cooling method	: IC411 - TEFC
Insulation class	: F	Mounting	: F-1
Duty cycle	: Cont.(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	: 221 lb
Protection degree	: IP55	Moment of inertia (J)	: 1.22 sq.ft.lb
Design	: B		
Output [HP]	20	15	15
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	45.4/22.7	40.8/20.4	36.8/19.5
L. R. Amperes [A]	300/150	302/151	298/158
LRC [A]	6.6x(Code G)	7.4x(Code H)	8.1x(Code J)
No load current [A]	13.8/6.88	13.6/6.79	13.7/7.26
Rated speed [RPM]	3515	2925	2935
Slip [%]	2.36	2.50	2.17
Rated torque [ft.lb]	29.9	26.9	26.8
Locked rotor torque [%]	200	210	240
Breakdown torque [%]	290	310	340
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	80 K
Locked rotor time	21s (cold) 12s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	75.0 dB(A)	72.0 dB(A)	72.0 dB(A)
Efficiency (%)	25%	89.7	91.8
	50%	90.0	91.5
	75%	91.0	92.0
	100%	91.0	91.4
Power Factor	25%	0.55	0.48
	50%	0.81	0.75
	75%	0.88	0.85
	100%	0.91	0.89
Bearing type	: <u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 327 lb
Lubrication interval	: 15797 h 20000 h	Max. compression	: 548 lb
Lubricant amount	: 13 g 8 g		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 50.2A SF 1.00 SFA 50.2A			
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



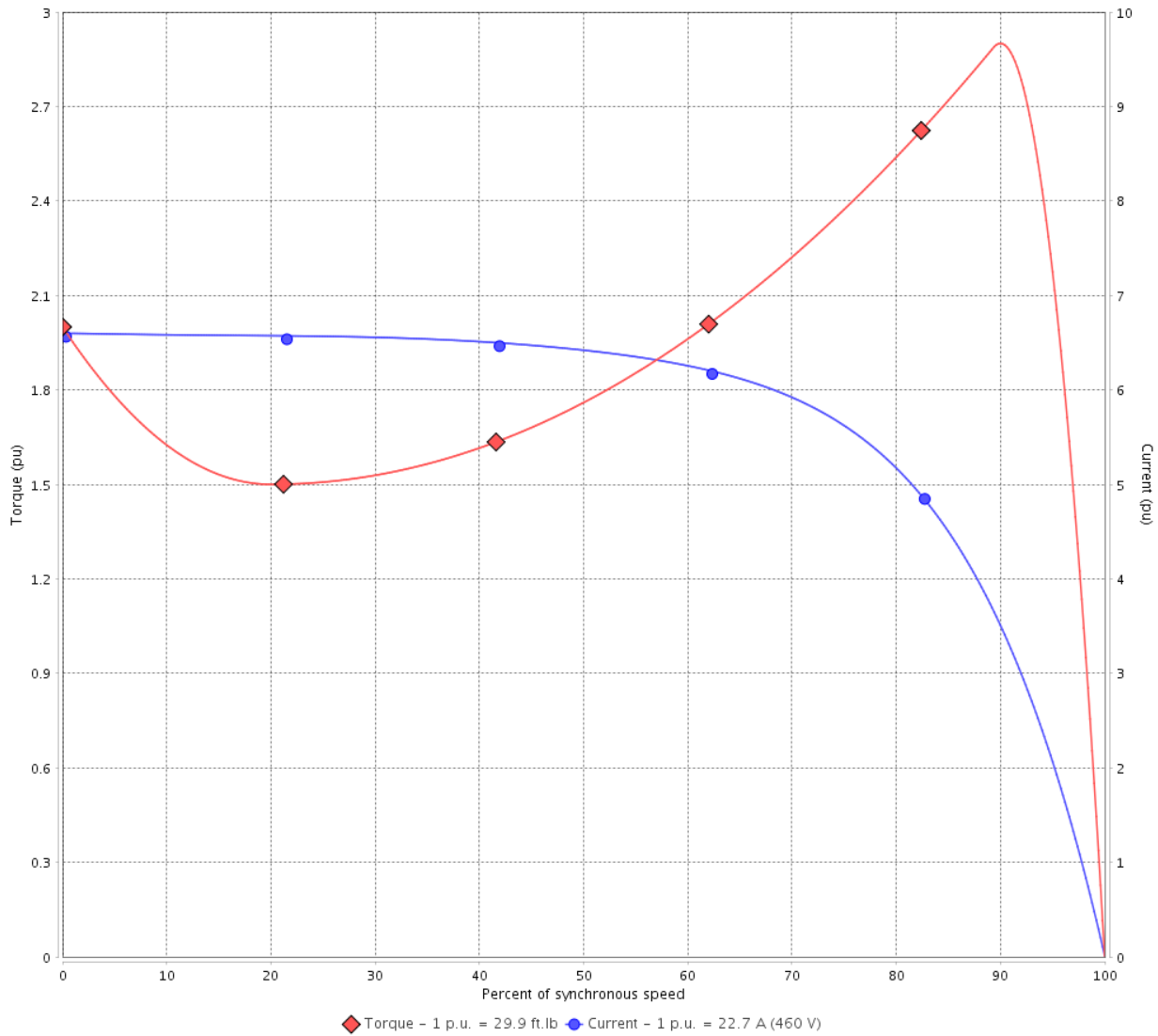
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12759403

Catalog # : 02036ET3E256T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 45.4/22.7 A	Moment of inertia (J)	: 1.22 sq.ft.lb
LRC	: 6.6	Duty cycle	: Cont.(S1)
Rated torque	: 29.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 3515 rpm	Design	: B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



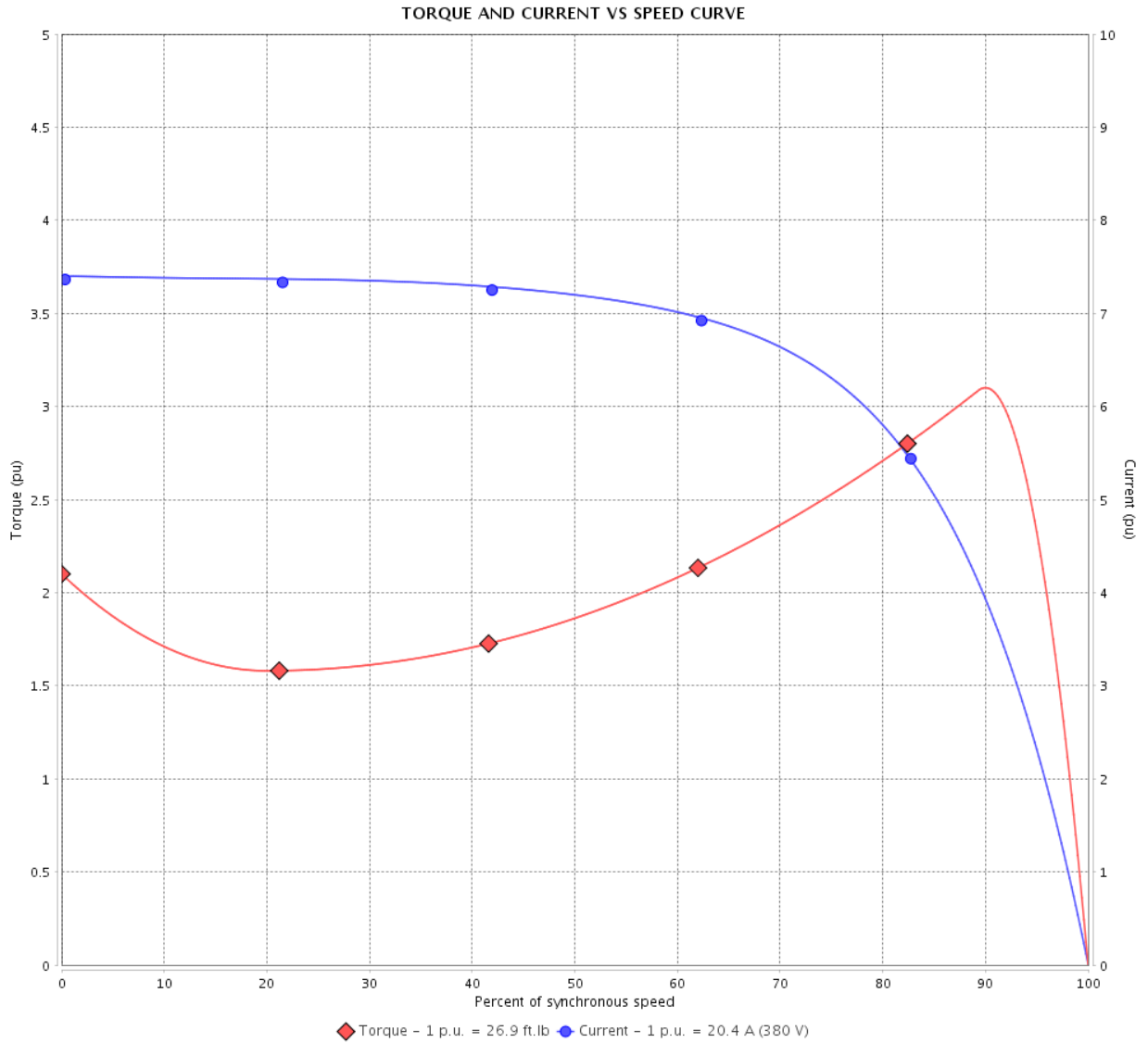
Three Phase Induction Motor - Squirrel Cage

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Performance : 190/380 V 50 Hz 2P

Rated current : 40.8/20.4 A
 LRC : 7.4
 Rated torque : 26.9 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 310 %
 Rated speed : 2925 rpm

Moment of inertia (J) : 1.22 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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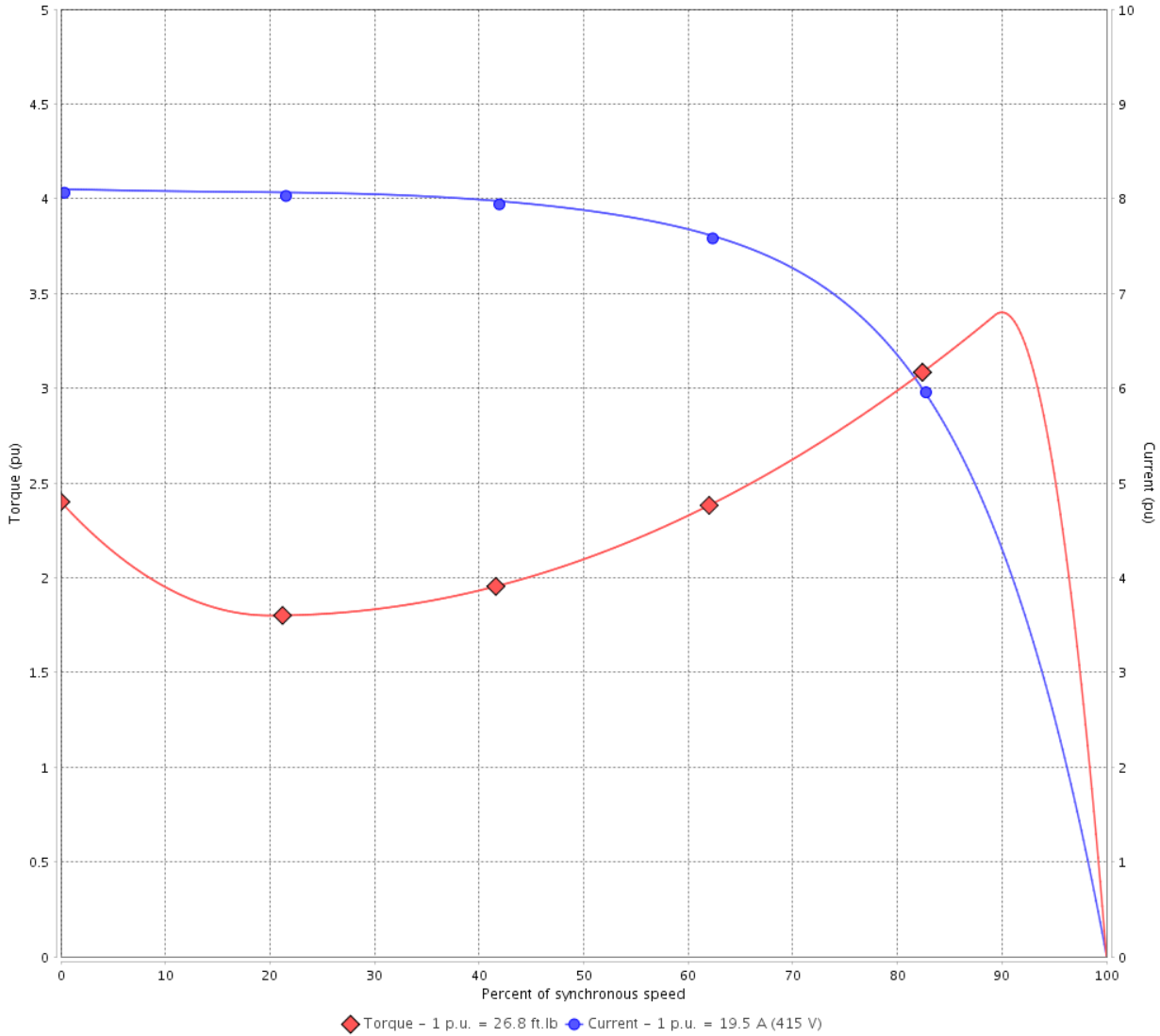
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 36.8/19.5 A	Moment of inertia (J)	: 1.22 sq.ft.lb
LRC	: 8.1	Duty cycle	: Cont.(S1)
Rated torque	: 26.8 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.00
Breakdown torque	: 340 %	Temperature rise	: 80 K
Rated speed	: 2935 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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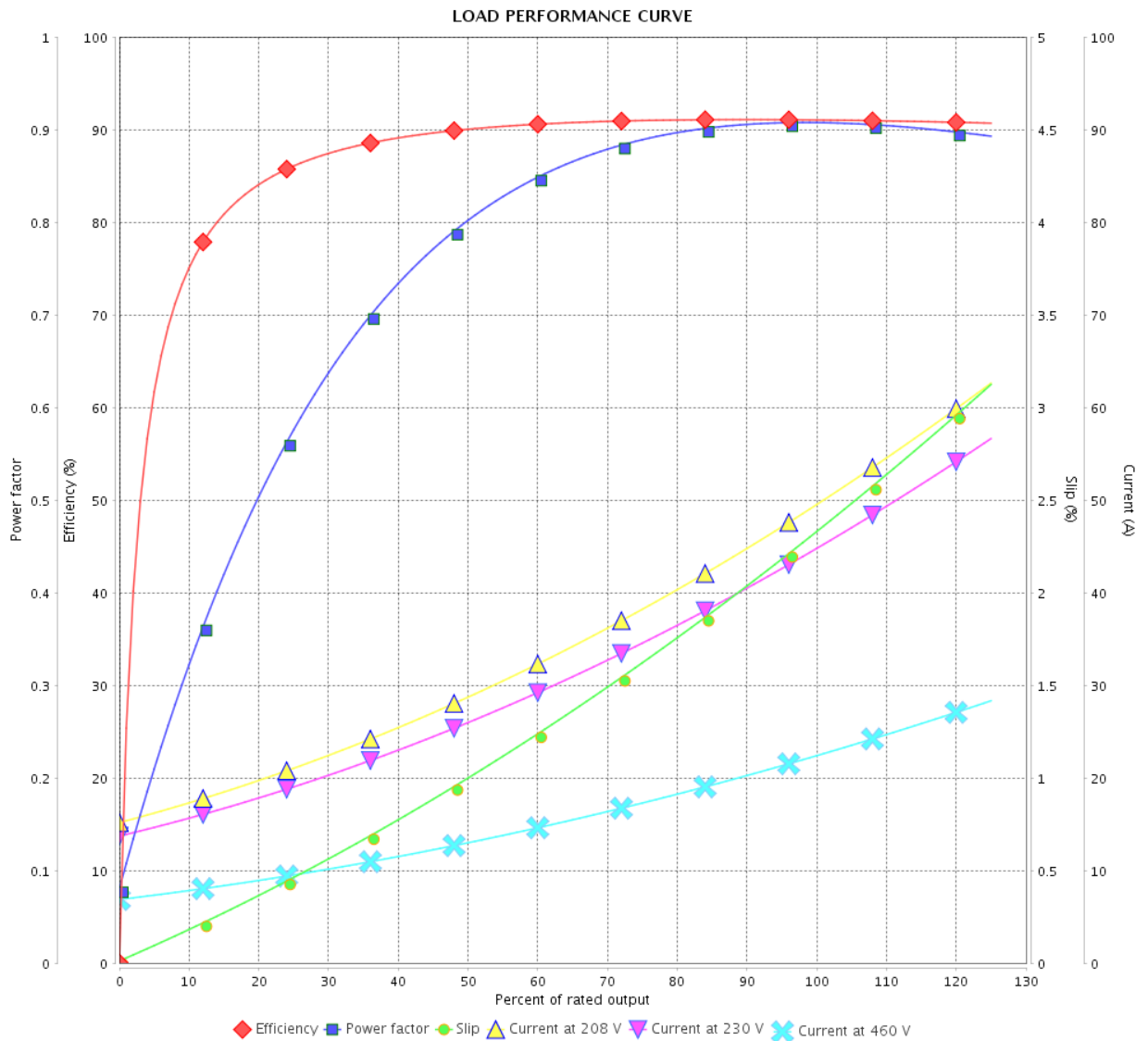


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 Temperature rise : 80 K
 Design : B

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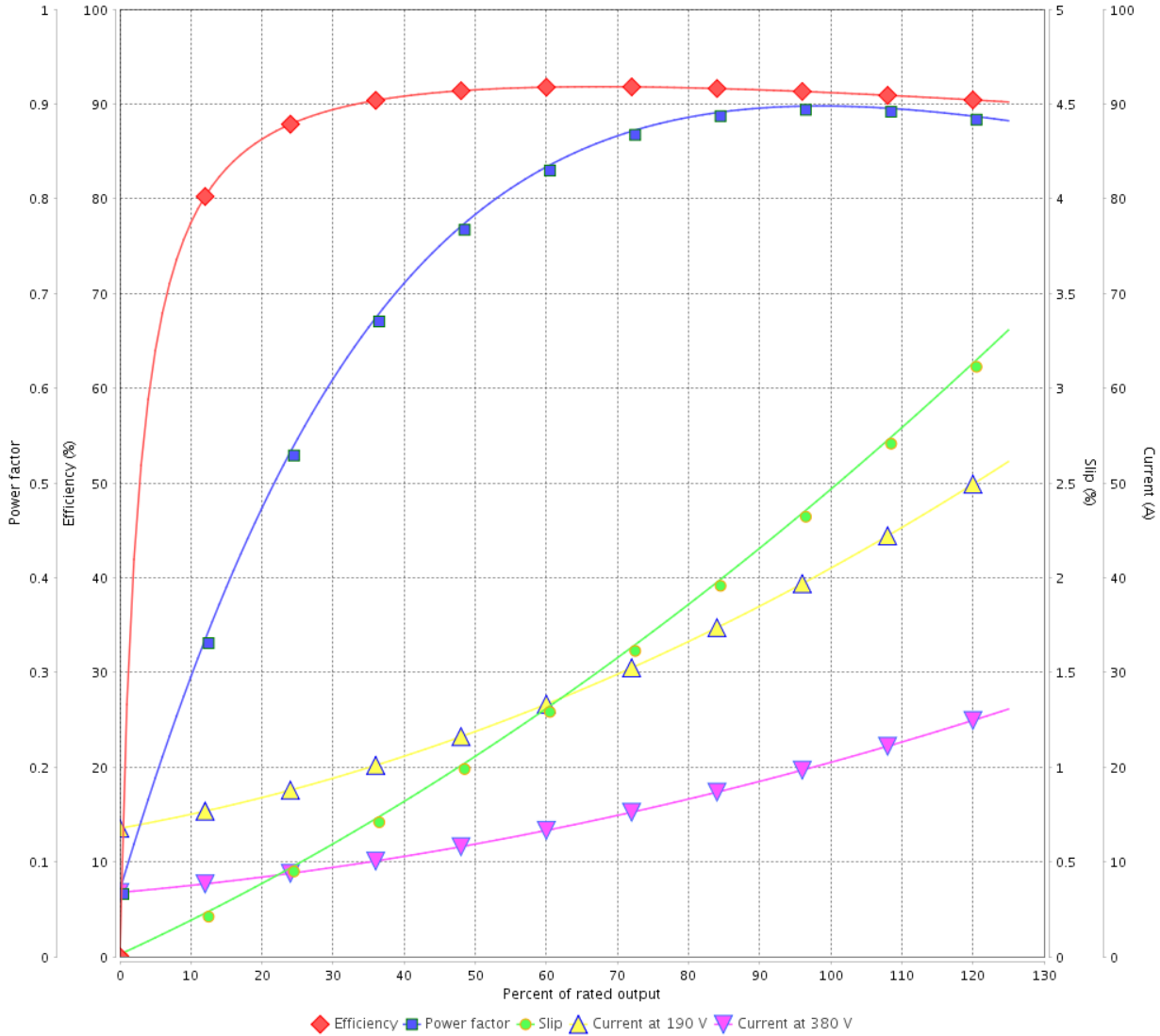
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Moment of inertia (J) : 1.22 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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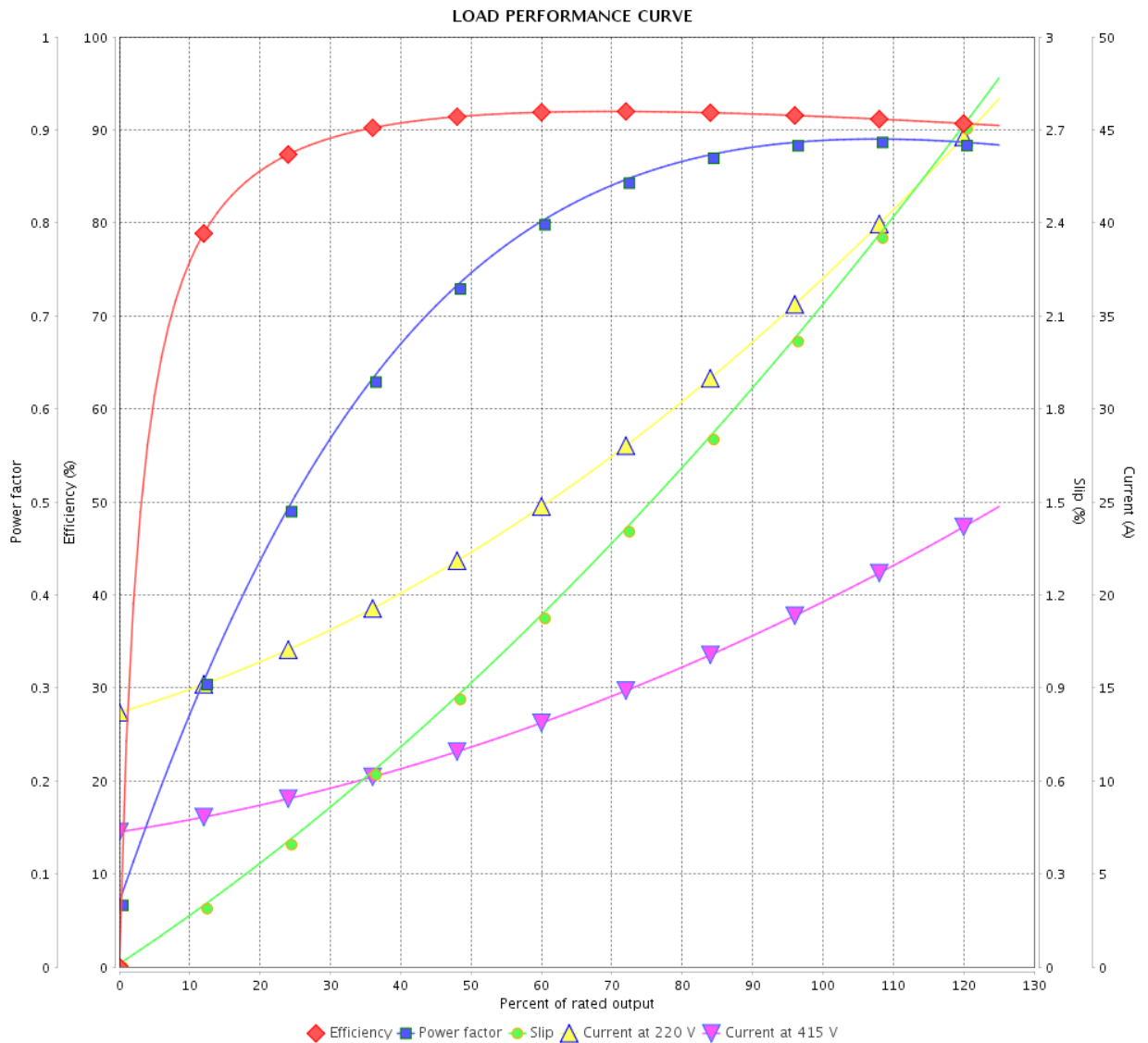


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THERMAL LIMIT CURVE

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Rated speed	: 3515 rpm	Design	: B

Heating constant

Cooling constant

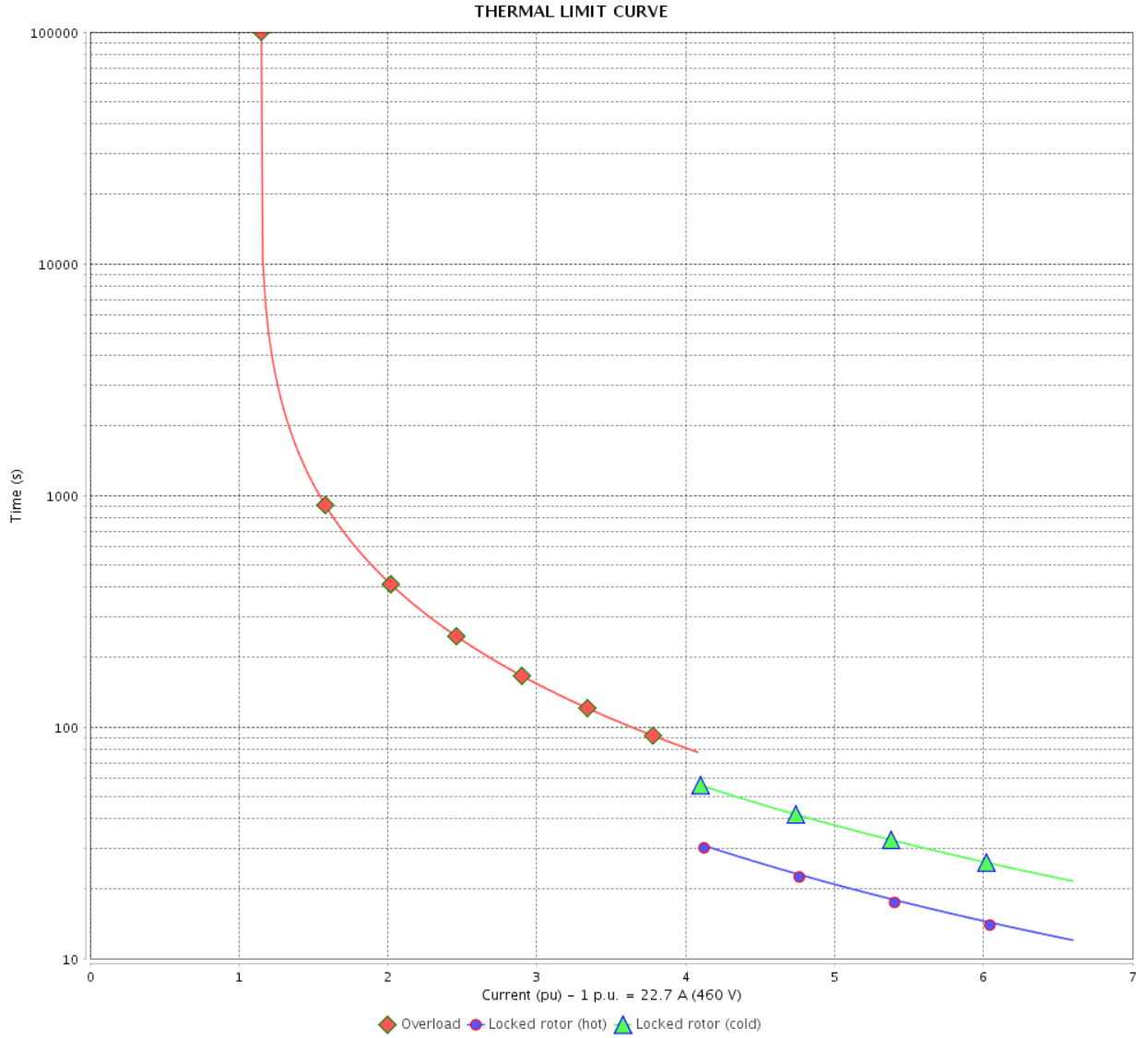
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Breakdown torque	: 310 %	Temperature rise	: 105 K
Rated speed	: 2925 rpm	Design	: B

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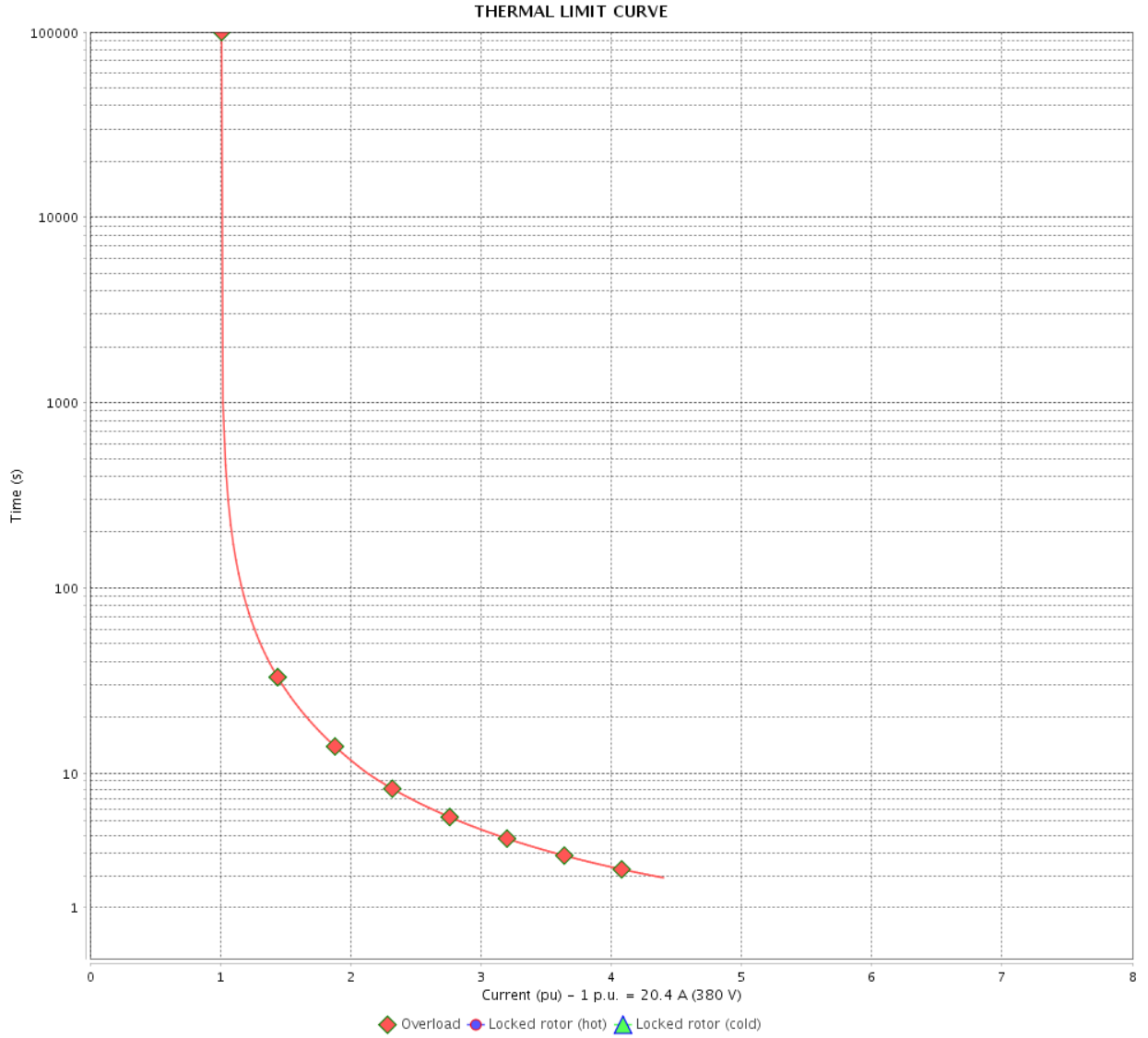
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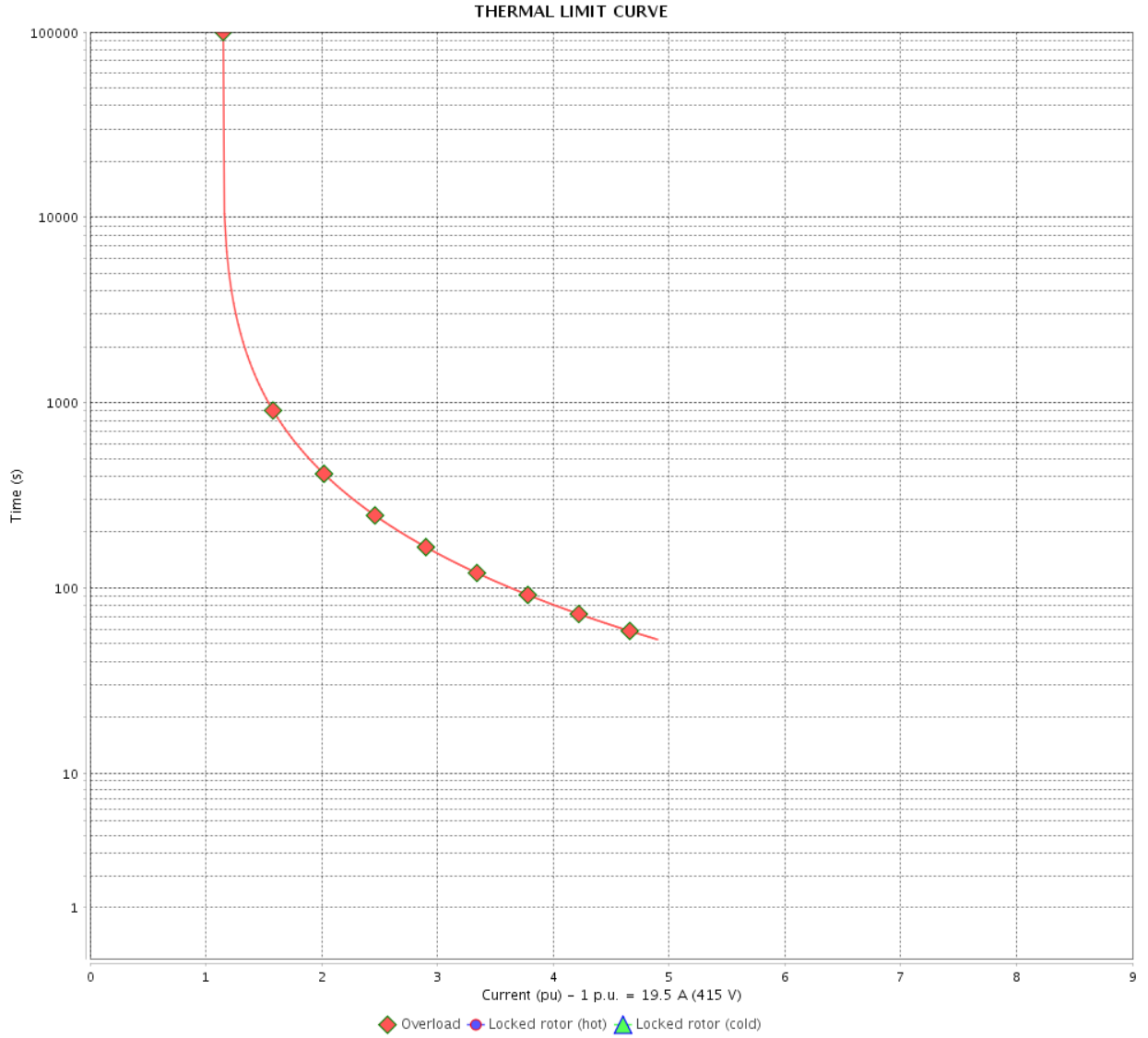
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VFD OPERATION CURVE

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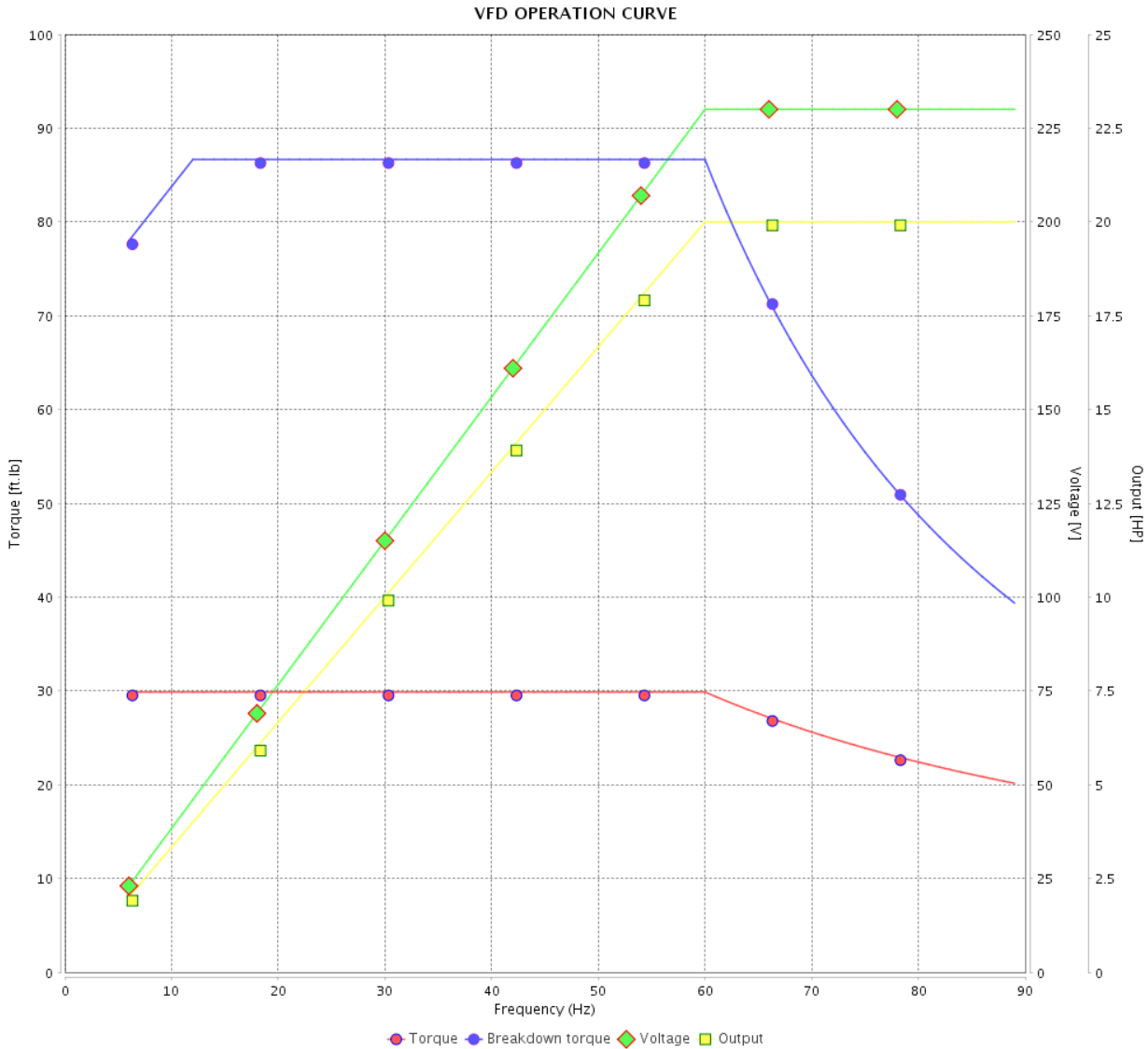


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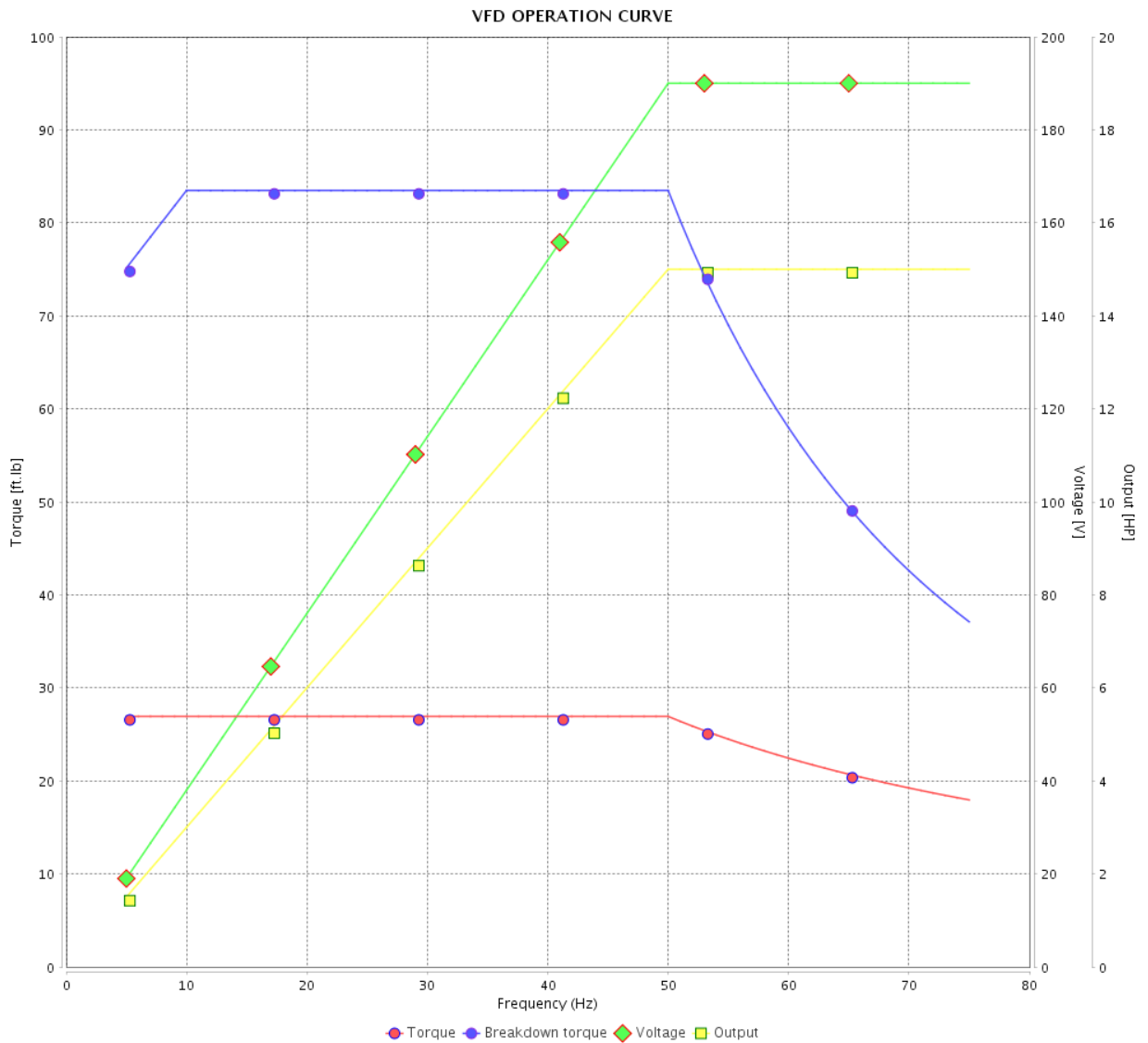


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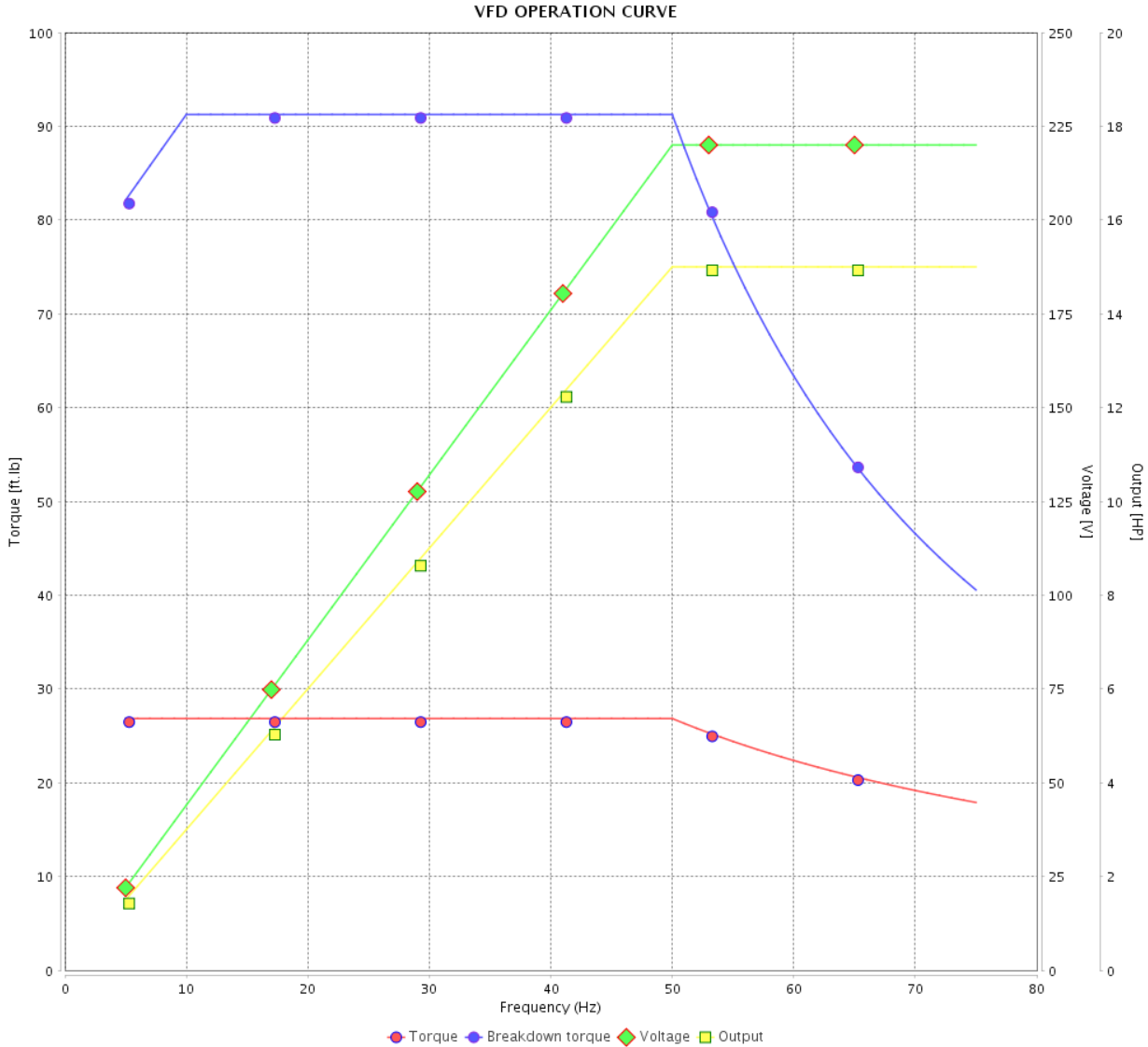


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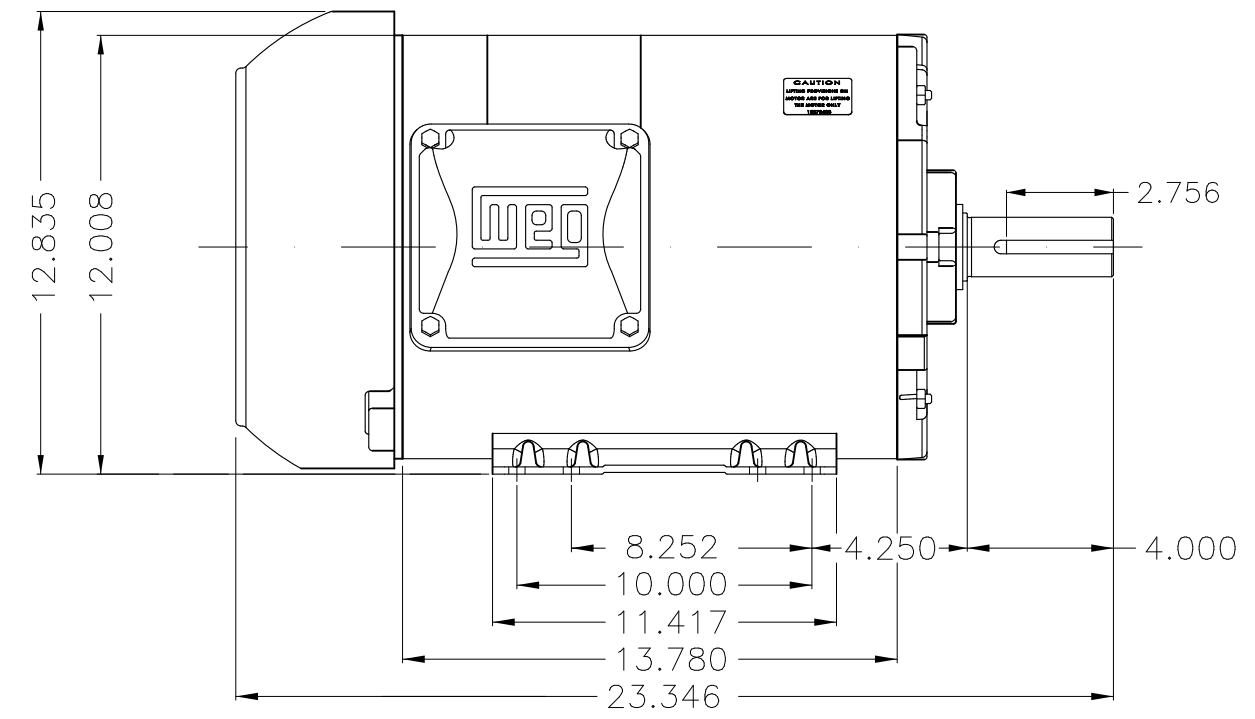
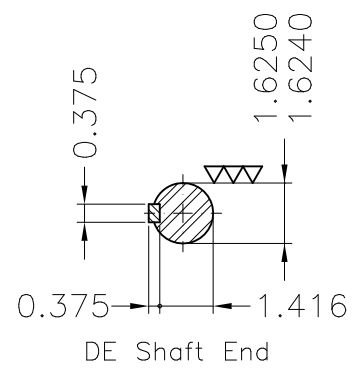
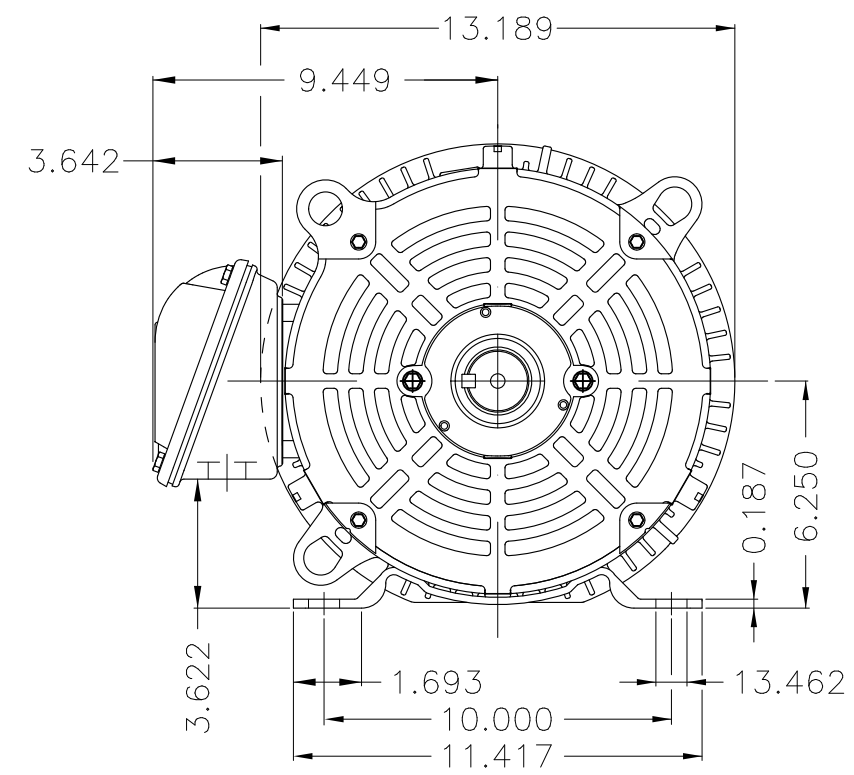
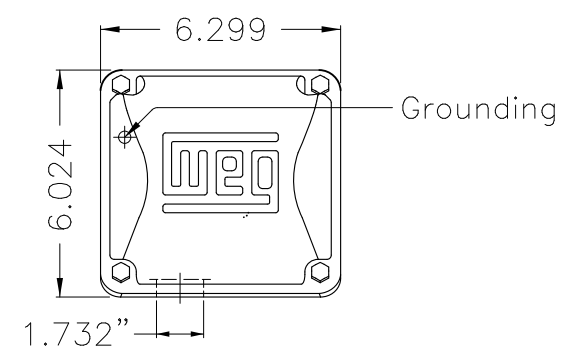
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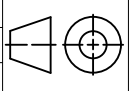
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1 2 3 4 5 6

A
B
C
D
E



- Bearing cap
- Internal AEGIS ground ring on the DE
- 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. FRAME 254/6T IP55 TEFC					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

20 HP 02 Poles 60 Hz

A

PREVIEW
WDD





NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 12759403 CC029A

W01.TE0IC0X0N

MODEL 02036ET3E256T-SG

08FEB2022 S/N:

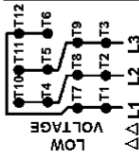


PH 3	Hz 60	HP 20
FR 254/6T		KW 15
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 45.4/22.7
INS CL F AT 80K	IP55	SFA 52.2/26.1
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE G	PF 0.91
USABLE @ 208V 50.2A		RPM 3515
SF1.00		NEMA NOM. EFF 91.0%

ALTERNATE RATING: 15HP 50Hz 190-220/380-415V SF1.00
 40.8-35.8/20.4-19.0A 2925RPM EFF 91.2% (IE3) IEC 60034-1

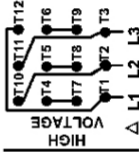
Inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	15797h
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LOW
VOLTAGE

△△ L1 L2 L3



HIGH
VOLTAGE

△ L1 L2 L3

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.

