

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

Customer :					
Product line		: Rolled Steel NEMA Premium Efficiency Three-Phase		Product code : 14122313	
			Catalog # :	01518ET3E254TC-S	
Frame	:	254/6TC	Cooling method	: IC411 - TEFC	
Insulation class	:	F	Mounting	: W-6	
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	: 102 kg	
Protection degree	:	IP55	Moment of inertia (J)	: 0.0904 kgm ²	
Design	:	B			
Output [HP]		15	15	15	
Poles		4	4	4	
Frequency [Hz]		60	50	50	
Rated voltage [V]		230/460	190-220/380	415	
Rated current [A]		36.4/18.2	43.8-37.8/21.9	20.6	
L. R. Amperes [A]		237/118	241-208/120	134	
LRC [A]		6.5x(Code G)	5.5x(Code F)	6.5x(Code H)	
No load current [A]		17.3/8.65	17.1-14.7/8.53	9.86	
Rated speed [RPM]		1770	1455	1465	
Slip [%]		1.67	3.00	2.33	
Rated torque [kgfm]		6.15	7.48	7.43	
Locked rotor torque [%]		250	190	229	
Breakdown torque [%]		300	229	280	
Service factor		1.15	1.00	1.00	
Temperature rise		80 K	105 K	105 K	
Locked rotor time		34s (cold) 19s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²		68.0 dB(A)	65.0 dB(A)	65.0 dB(A)	
Efficiency (%)	25%	90.8	92.5	91.3	
	50%	91.0	91.5	90.9	
	75%	92.4	91.2	91.4	
	100%	92.4	89.9	90.7	
Power Factor	25%	0.39	0.45	0.38	
	50%	0.64	0.71	0.64	
	75%	0.76	0.81	0.76	
	100%	0.82	0.85	0.82	
Bearing type	:	<u>Drive end</u> 6309 Z C3 <u>Non drive end</u> 6208 Z C3	Foundation loads		
Sealing	:	V'Ring V'Ring	Max. traction	: 276 kgf	
Lubrication interval	:	14395 h 16660 h	Max. compression	: 378 kgf	
Lubricant amount	:	13 g 8 g			
Lubricant type	:	Mobil Polyrex EM			
Notes USABLE @208V 40.2A SF 1.00 SFA 40.2A					
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

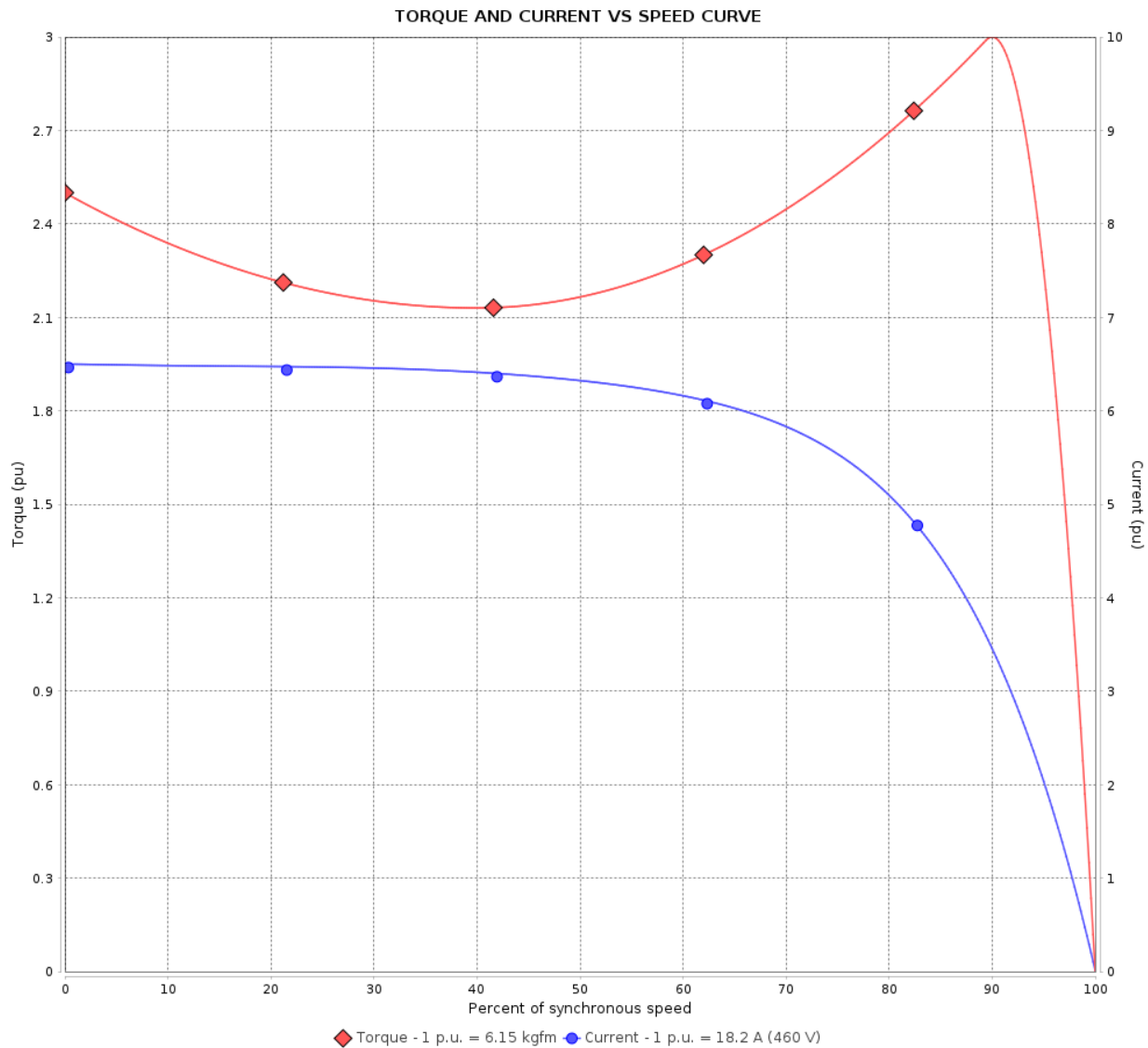


Customer :

Product line : Rolled Steel NEMA Premium Efficiency
Three-Phase

Product code : 14122313

Catalog # : 01518ET3E254TC-S



Performance : 230/460 V 60 Hz 4P

Rated current	: 36.4/18.2 A	Moment of inertia (J)	: 0.0904 kgm ²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 6.15 kgfm	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



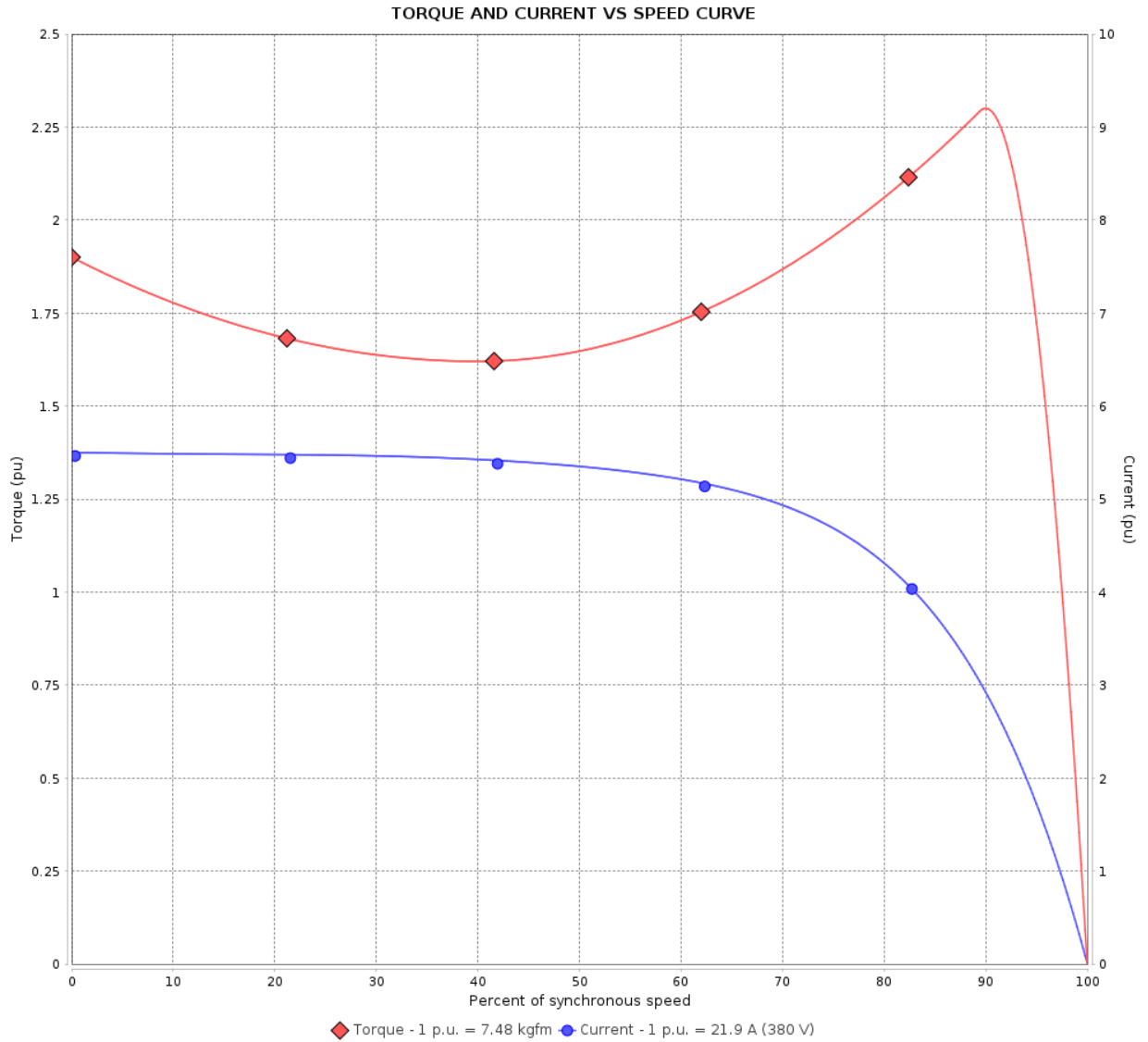
Three Phase Induction Motor - Squirrel Cage

Customer :

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Three-Phase

Product code : 14122313

Catalog # : 01518ET3E254TC-S



Performance : 190-220/380 V 50 Hz 4P

Rated current	: 43.8-37.8/21.9 A	Moment of inertia (J)	: 0.0904 kgm ²
LRC	: 5.5	Duty cycle	: Cont.(S1)
Rated torque	: 7.48 kgfm	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 1455 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE

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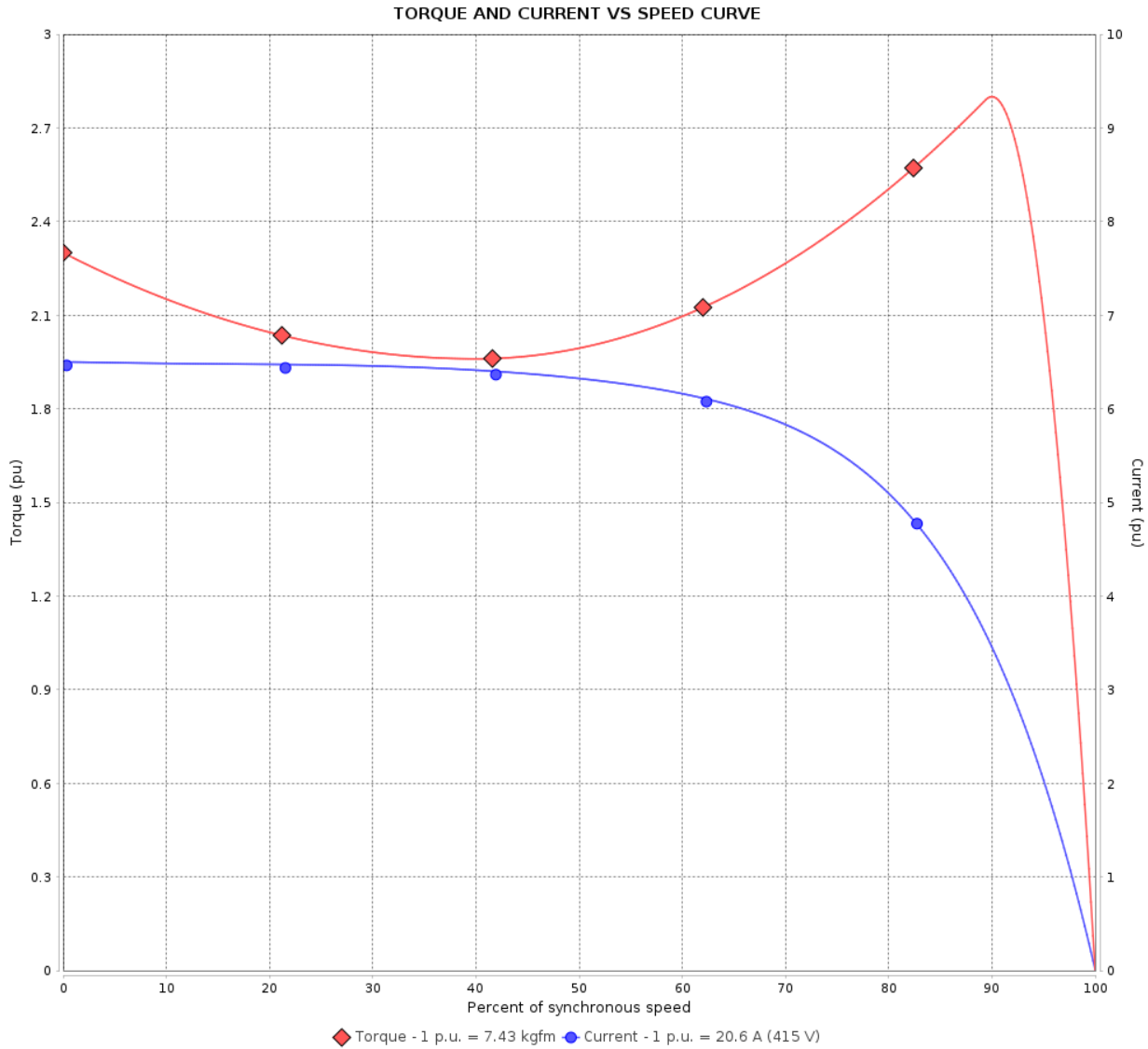


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Three-Phase

Product code : 14122313

Catalog # : 01518ET3E254TC-S



Performance : 415 V 50 Hz 4P

Rated current	: 20.6 A	Moment of inertia (J)	: 0.0904 kgm ²
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 7.43 kgfm	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.00
Breakdown torque	: 280 %	Temperature rise	: 105 K
Rated speed	: 1465 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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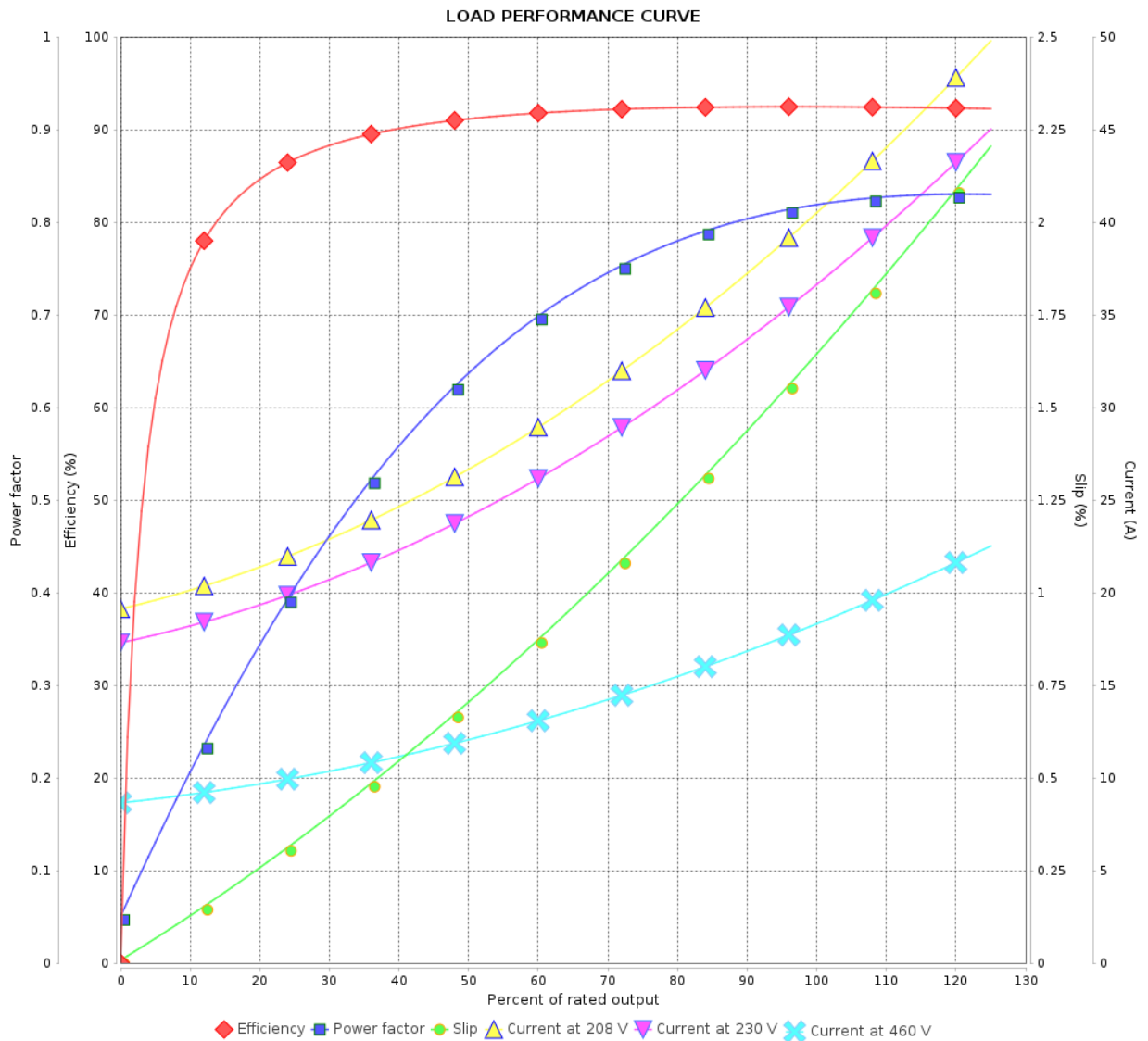


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Performance : 230/460 V 60 Hz 4P

Rated current : 36.4/18.2 A
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 Locked rotor torque : 250 %
 Breakdown torque : 300 %
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.0904 kgm²
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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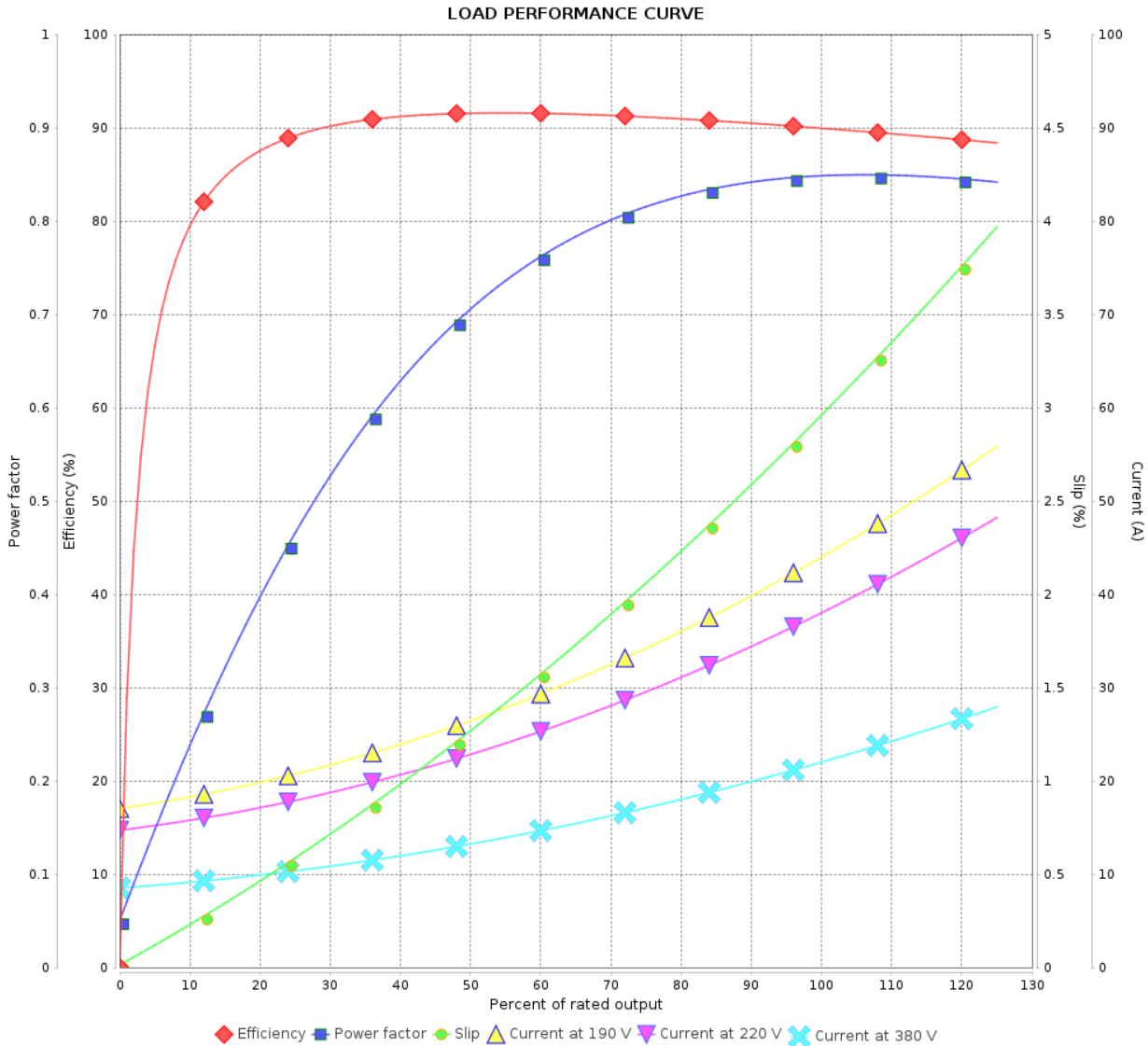


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 Locked rotor torque : 190 %
 Breakdown torque : 229 %
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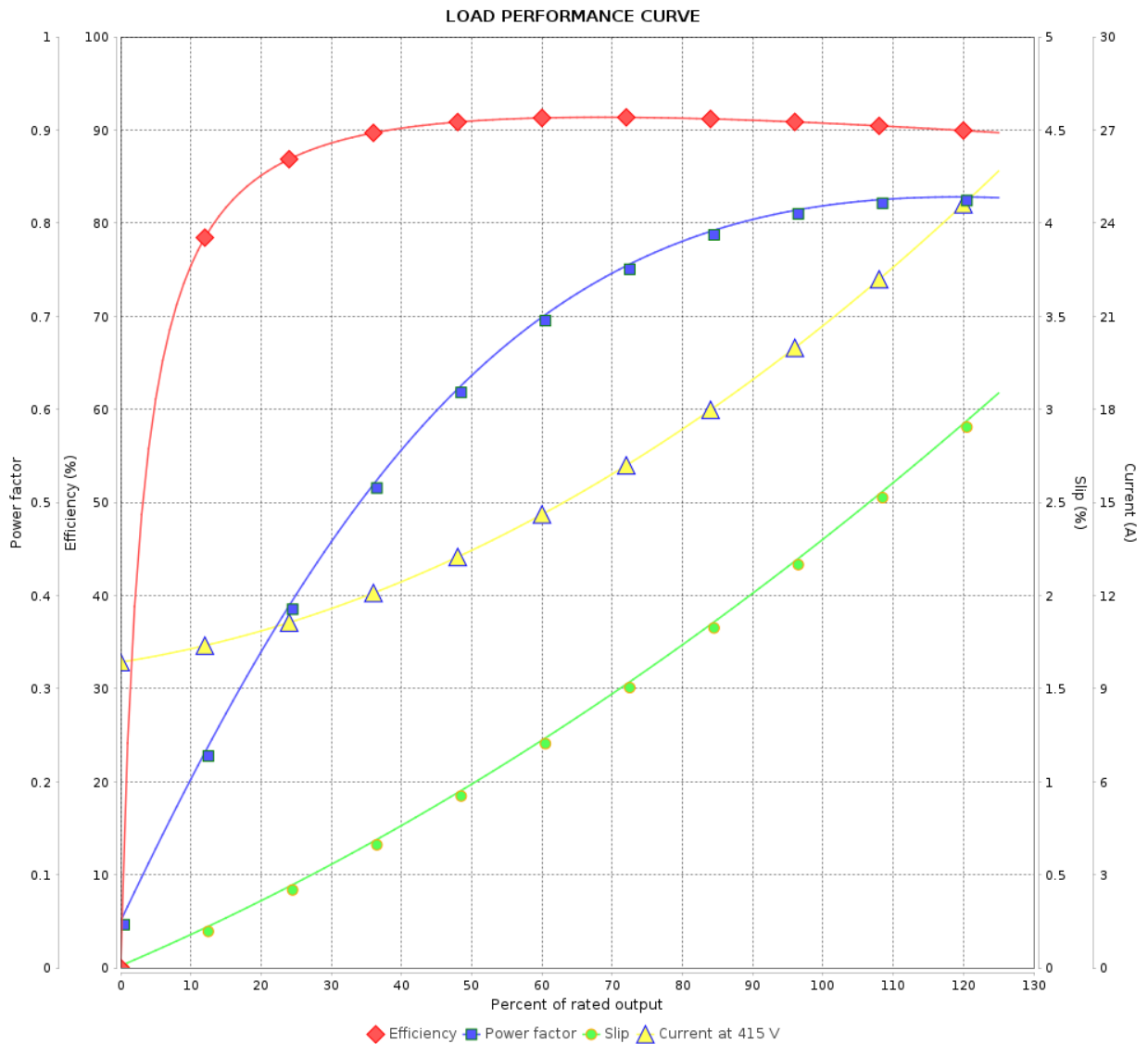


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THERMAL LIMIT CURVE



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

Heating constant

Cooling constant

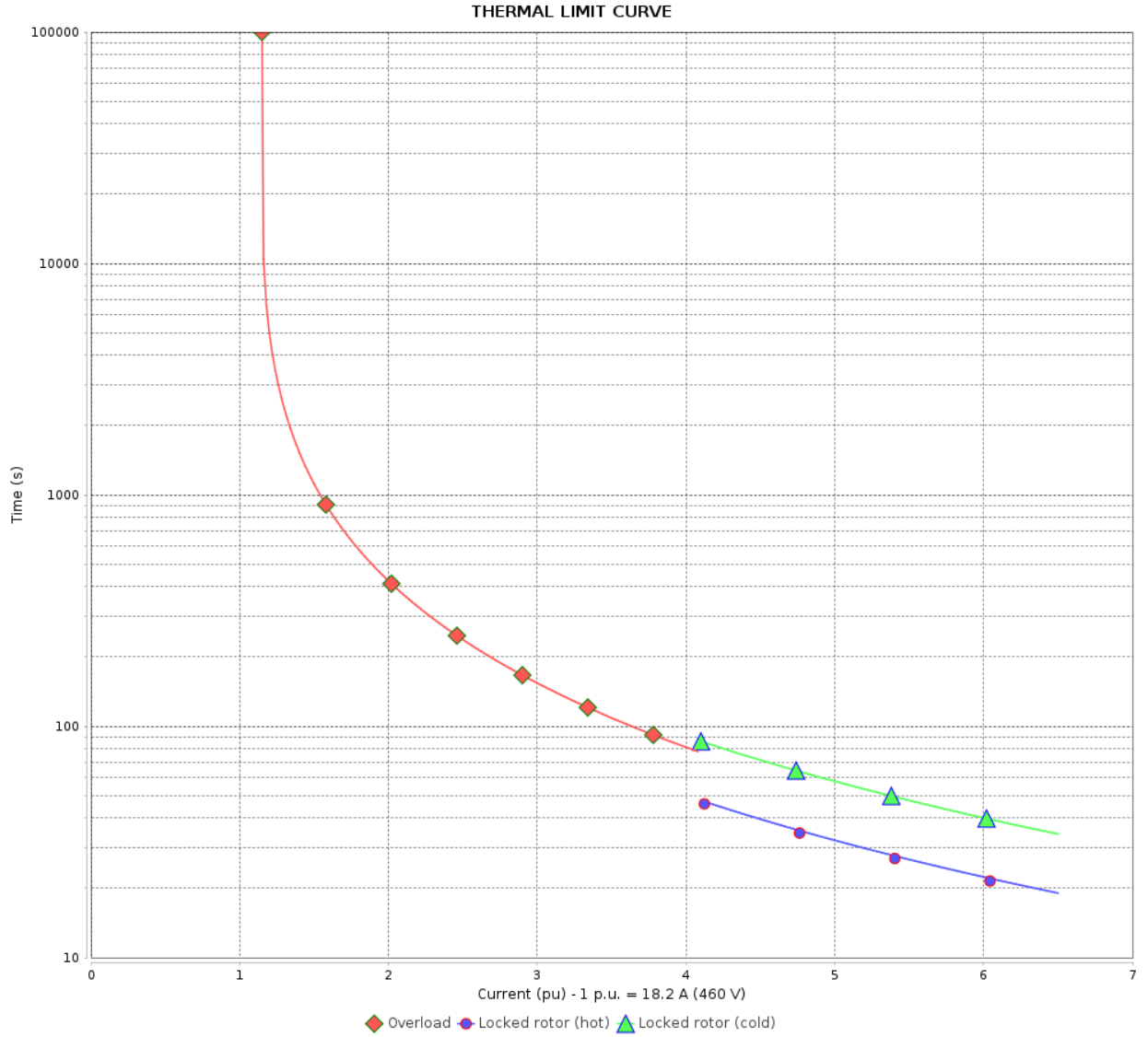
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Rated torque : 7.48 kgfm

Locked rotor torque : 190 %

Breakdown torque : 229 %

Rated speed : 1455 rpm

Moment of inertia (J) : 0.0904 kgm²

Duty cycle : Cont.(S1)

Insulation class : F

Service factor : 1.00

Temperature rise : 105 K

Design : B

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Cooling constant

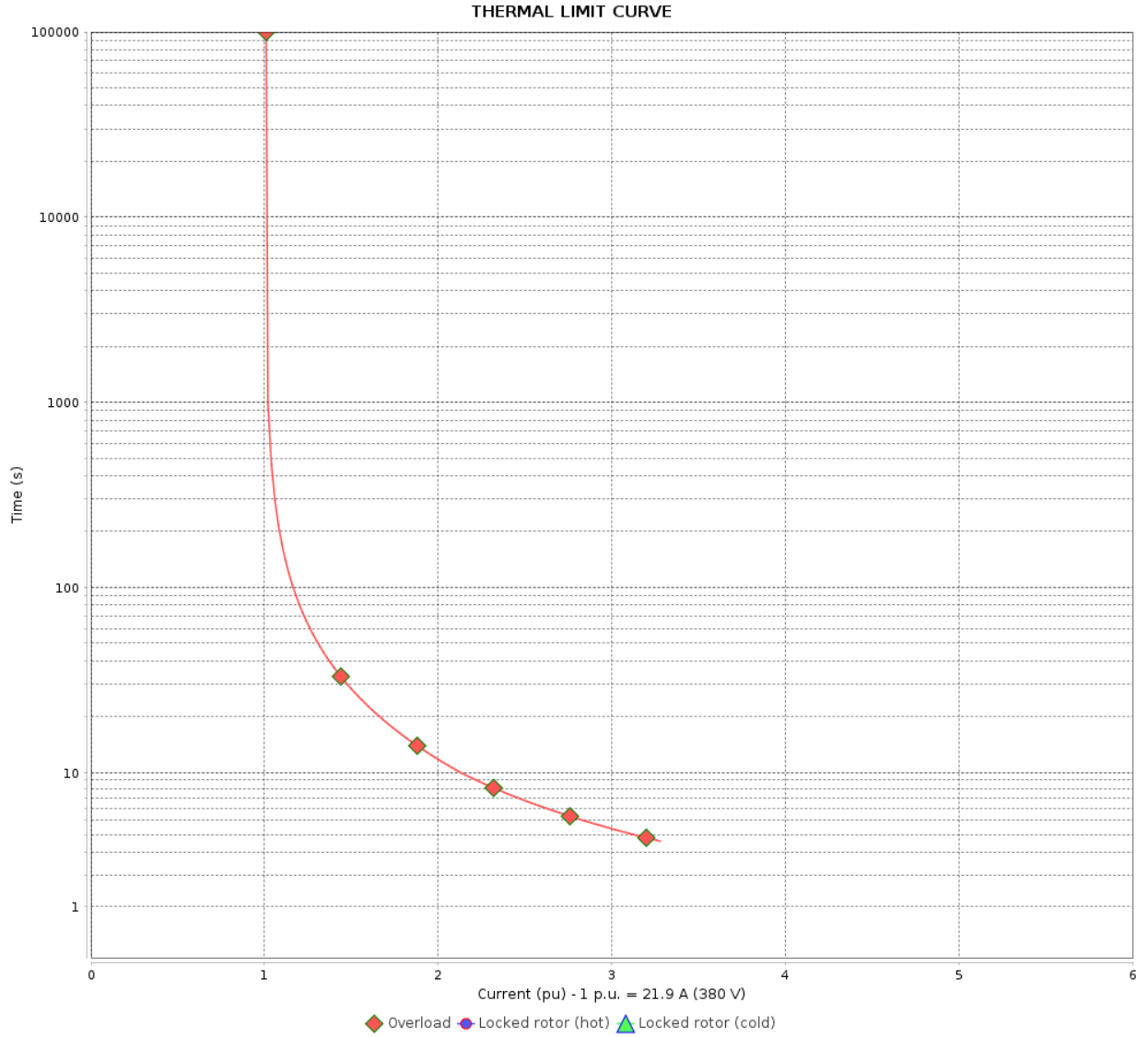
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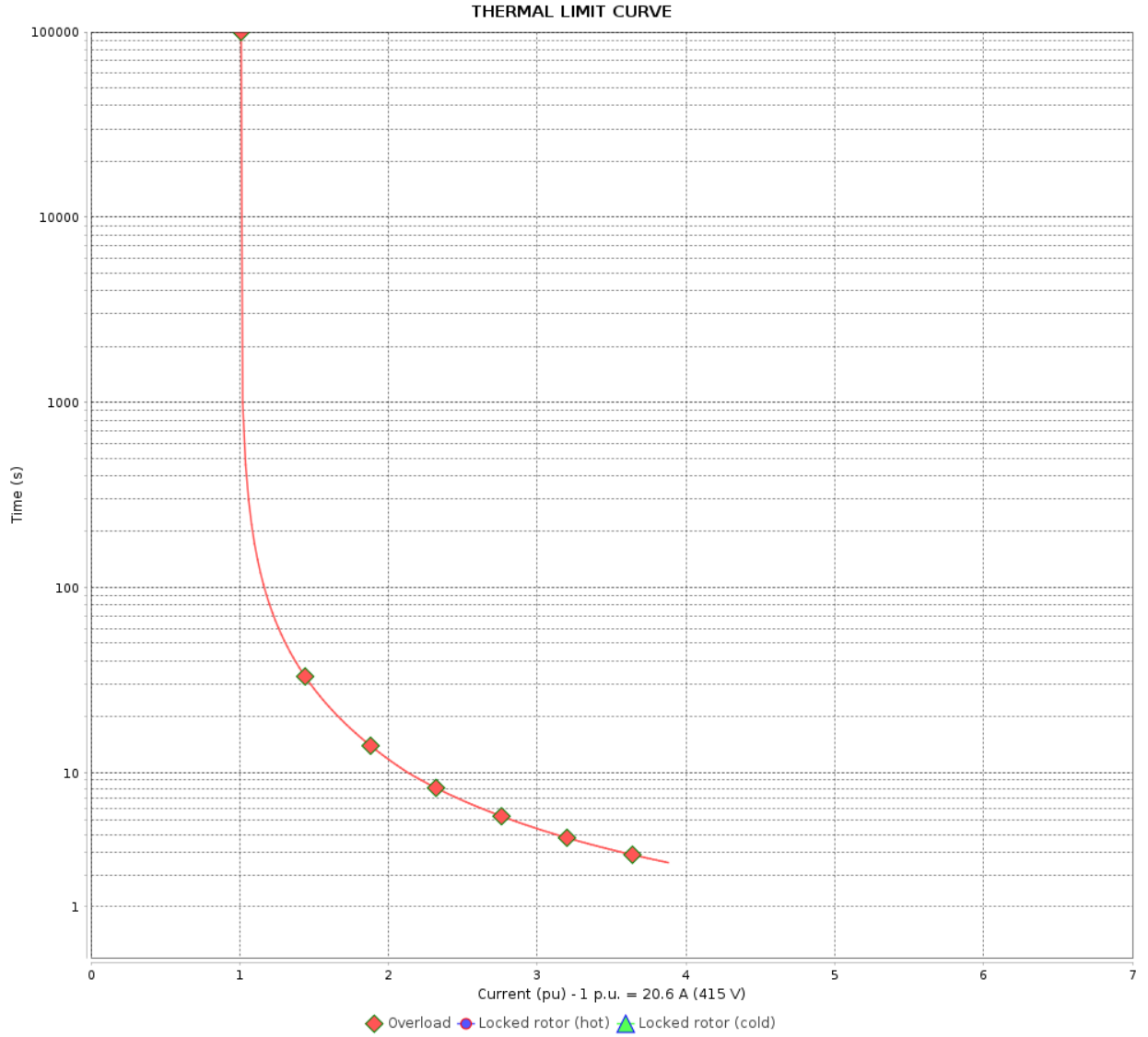
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VFD OPERATION CURVE

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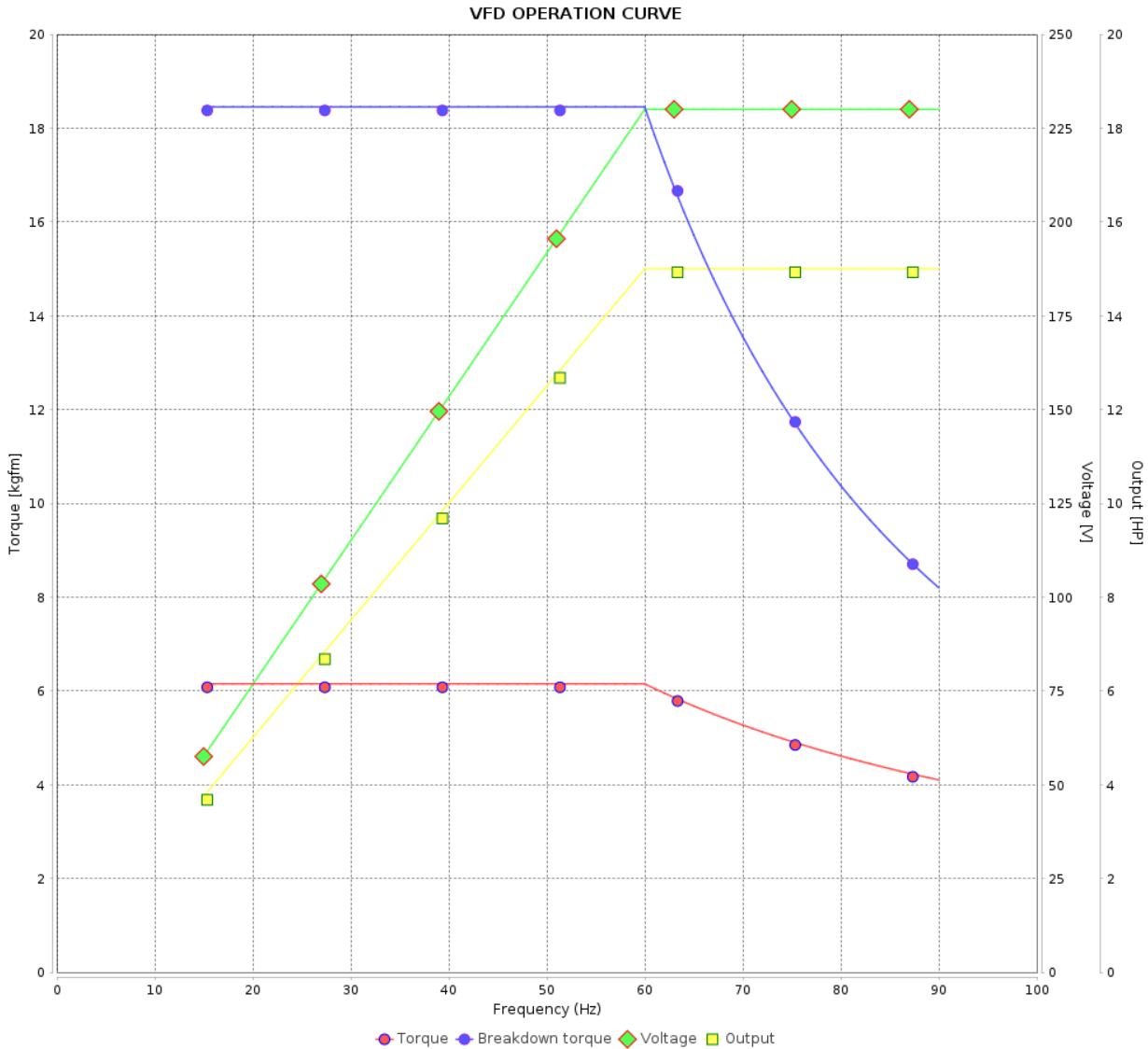


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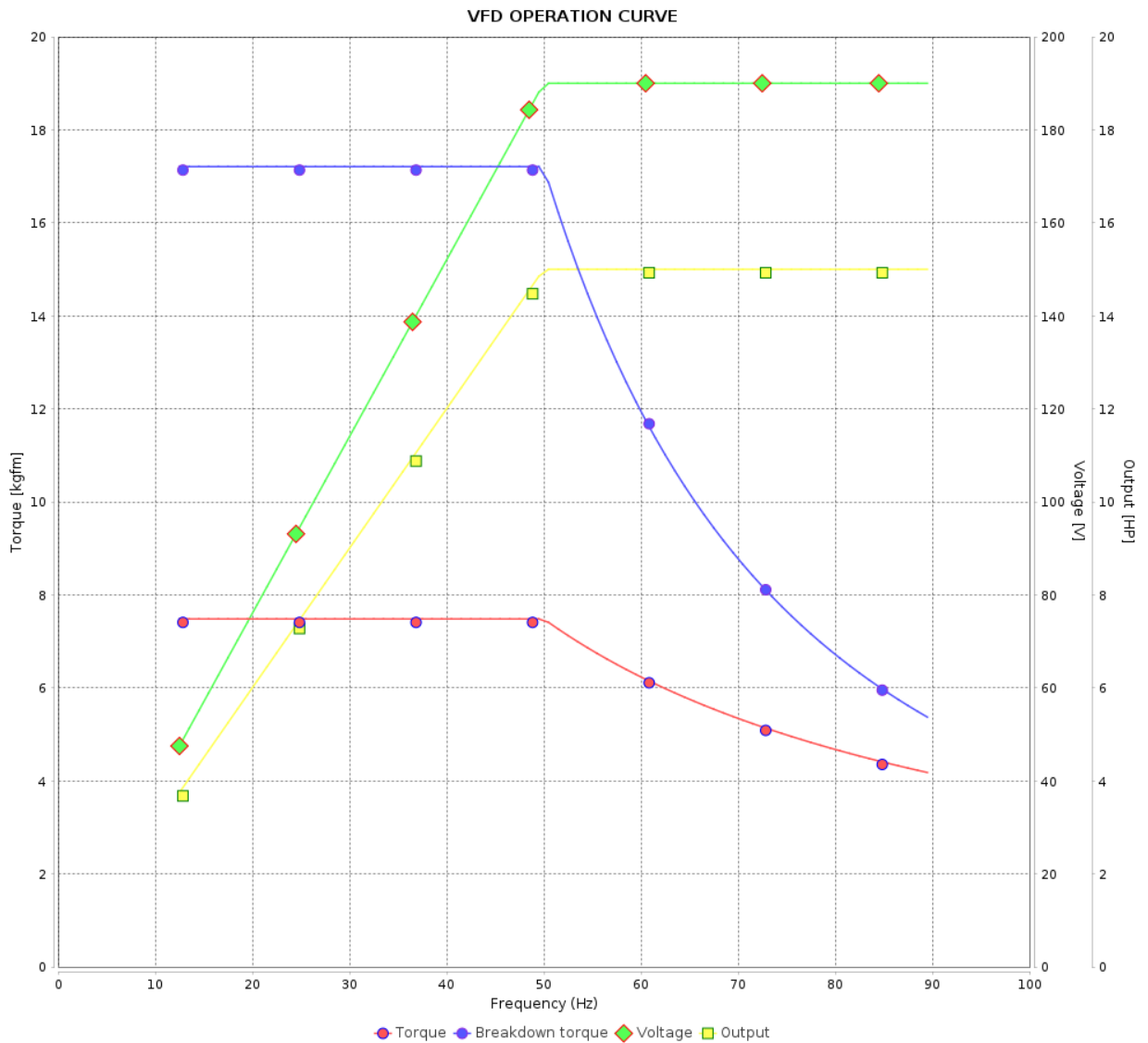


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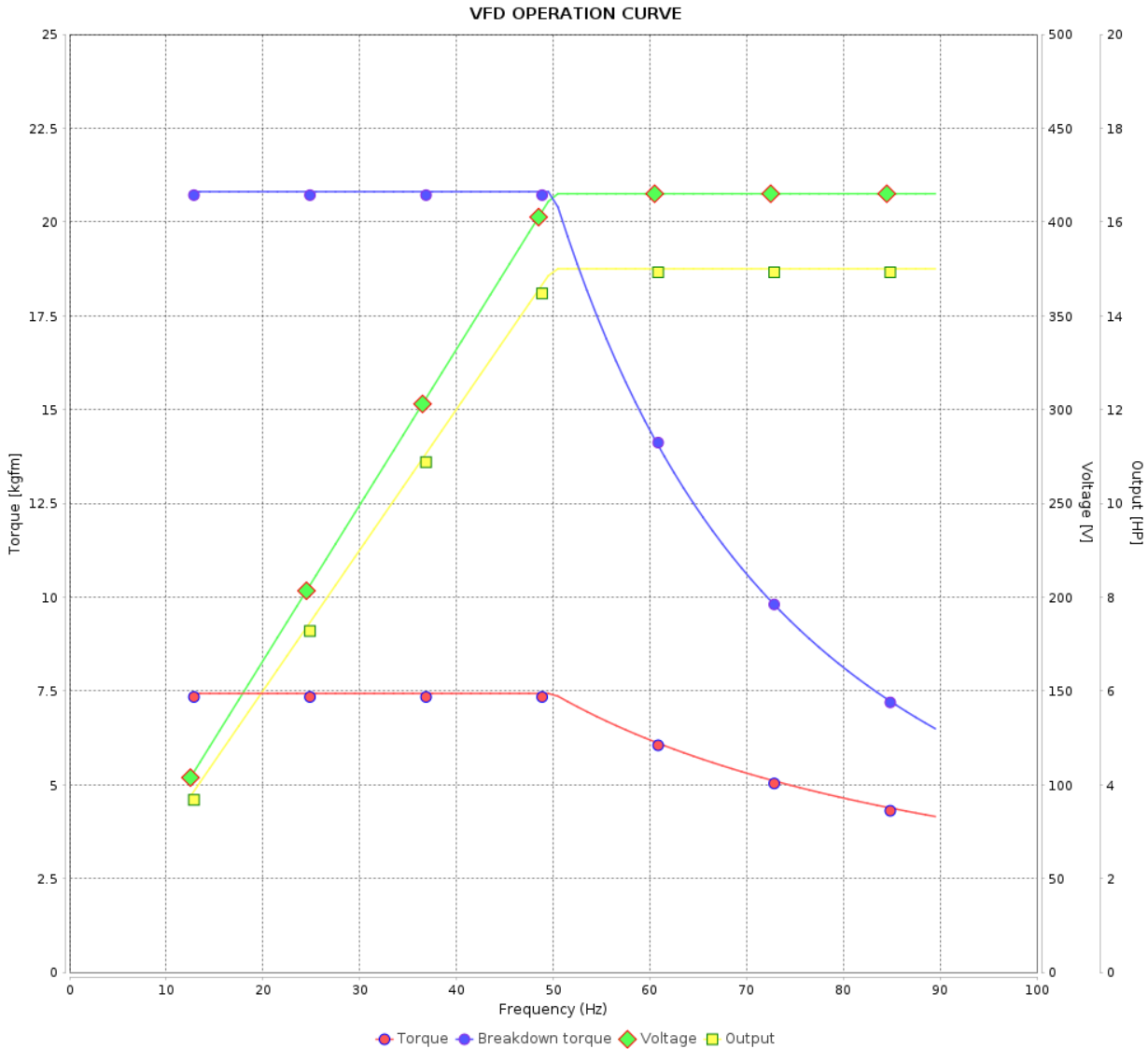


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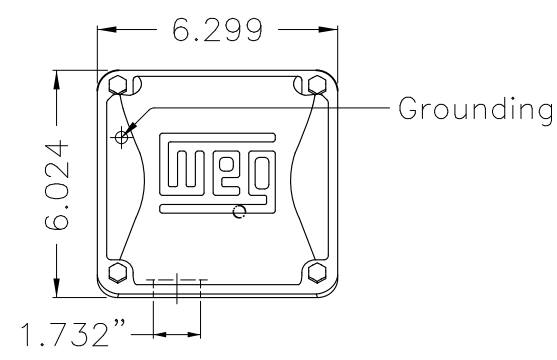
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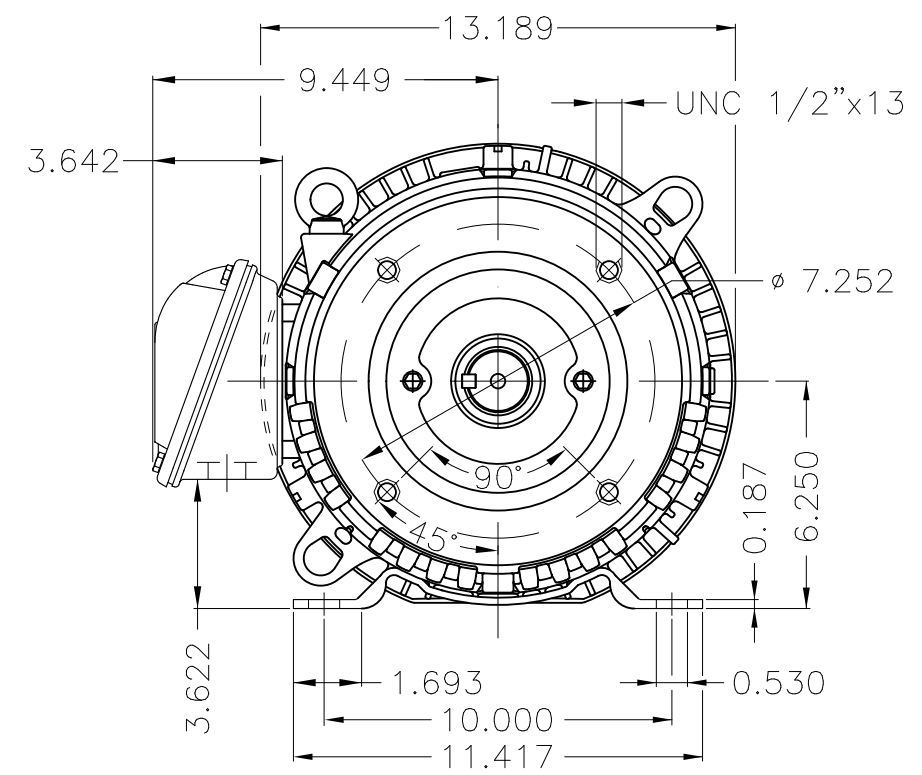
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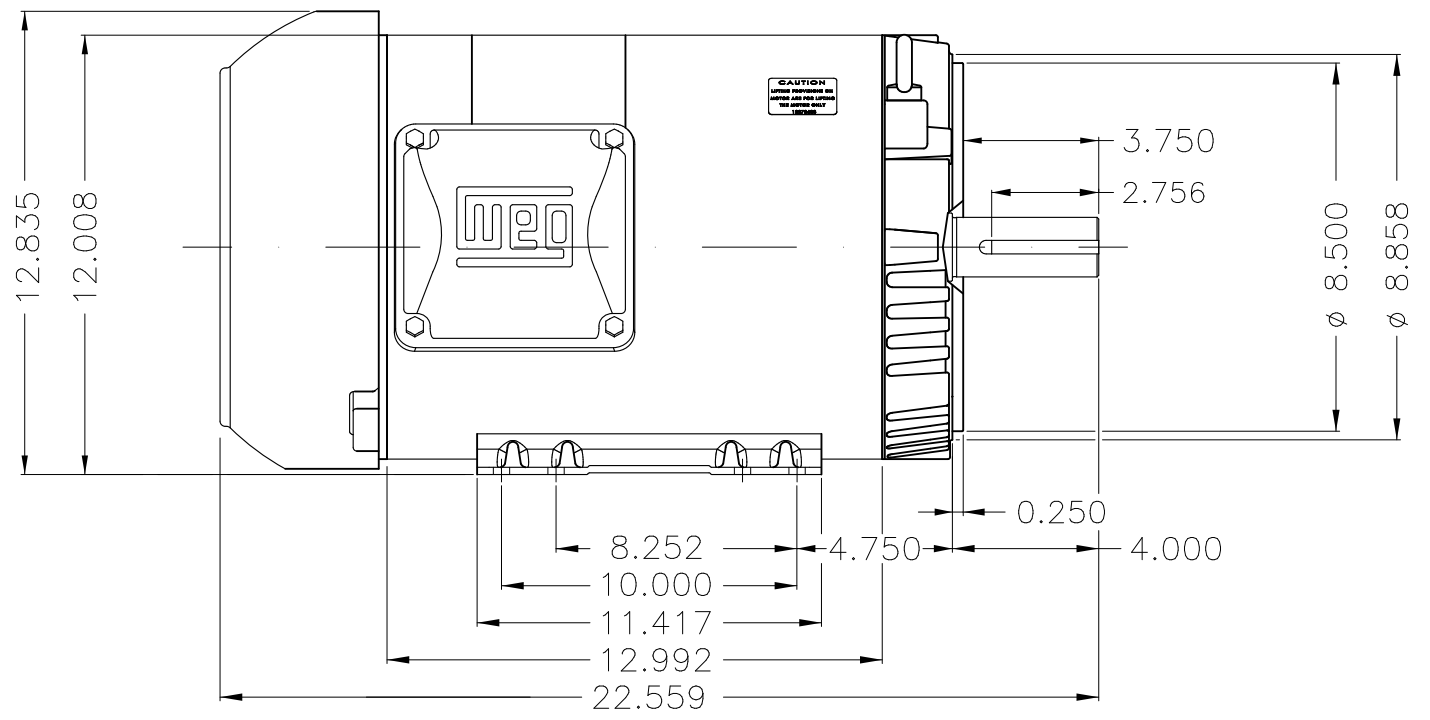
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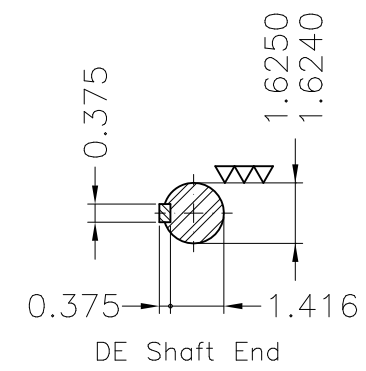
B



C



D



E

NDE sealing - V ring						
Color Munsell N 1 matte black						
Painting plan 207N						
Mounting W-6/V17R(D)						
					USERADMIN	00
ECM	LOC	SUMMARY OF MODIFICATIONS		EXECUTED	CHECKED	RELEASED
EXECUTED	USERADMIN	THREE PH. MOTOR ROLLED STEEL NEMA PREM. EFF. FRAME 254/6TC IP55 TEFC		PREVIEW WDD 00 SHEET 1 / 1		
CHECKED						
RELEASED						
REL. DATE		WMO	Jaragua do Sul	Product Engineering		

15 HP 04 Poles 60 Hz

A





NEMA
Premium



MADE IN MEXICO

MAT: 14122313 CC029A

W01.TE0IC0X0N

MODEL 01518ET3E254TC-S

**For 60Hz: Class I, Zone 2, IIC
Class I, Div.2, Gr. A,B,C,D - T3**

Class II, Div.2, Gr. F,G - T4

Div 2 Inverter Duty (SF1.00)

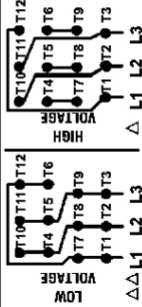
CT 2:1/VT 1000:1

PH 3	Hz 60	HP 15
FR 254/6TC		KW 11
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 36.4/18.2
INS CL F AT 80K	IP55	SFA 41.9/20.9
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE G	PF 0.82
		RPM 1770
		NEMA NOM. EFF 92.4%

ALTERNATE RATING: 15HP	50Hz	190-220/380-415V	SF1.00
43.8-38.9/21.9-20.6A	1455RPM	EFF 89.9%	(IE2) IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT

DE 6309-Z-C3	ODE 6208-Z-C3	MOBIL POLYREX EM	14395h
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T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-RED BRK
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.

