

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13163404
		Catalog # :	00736ET3E213TC-SG
Frame	: 213/5TC	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	: 133 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.5496 sq.ft.lb
Design	: B		
Output [HP]	7.5	7.5	7.5
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	17.3/8.67	21.2/10.6	19.1/10.1
L. R. Amperes [A]	132/65.9	134/66.8	133/70.7
LRC [A]	7.6x(Code H)	6.3x(Code G)	7.0x(Code H)
No load current [A]	6.63/3.32	6.54/3.27	6.64/3.52
Rated speed [RPM]	3530	2905	2915
Slip [%]	1.94	3.17	2.83
Rated torque [ft.lb]	11.2	13.6	13.5
Locked rotor torque [%]	260	190	220
Breakdown torque [%]	300	240	270
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	80 K
Locked rotor time	27s (cold) 15s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level ²	70.0 dB(A)	67.0 dB(A)	67.0 dB(A)
Efficiency (%)	25%	86.4	89.4
	50%	87.5	88.6
	75%	88.5	88.8
	100%	89.5	87.7
Power Factor	25%	0.49	0.51
	50%	0.76	0.78
	75%	0.85	0.87
	100%	0.89	0.90
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 139 lb
		Max. compression	: 272 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 19.2A SF 1.00 SFA 19.2A			
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



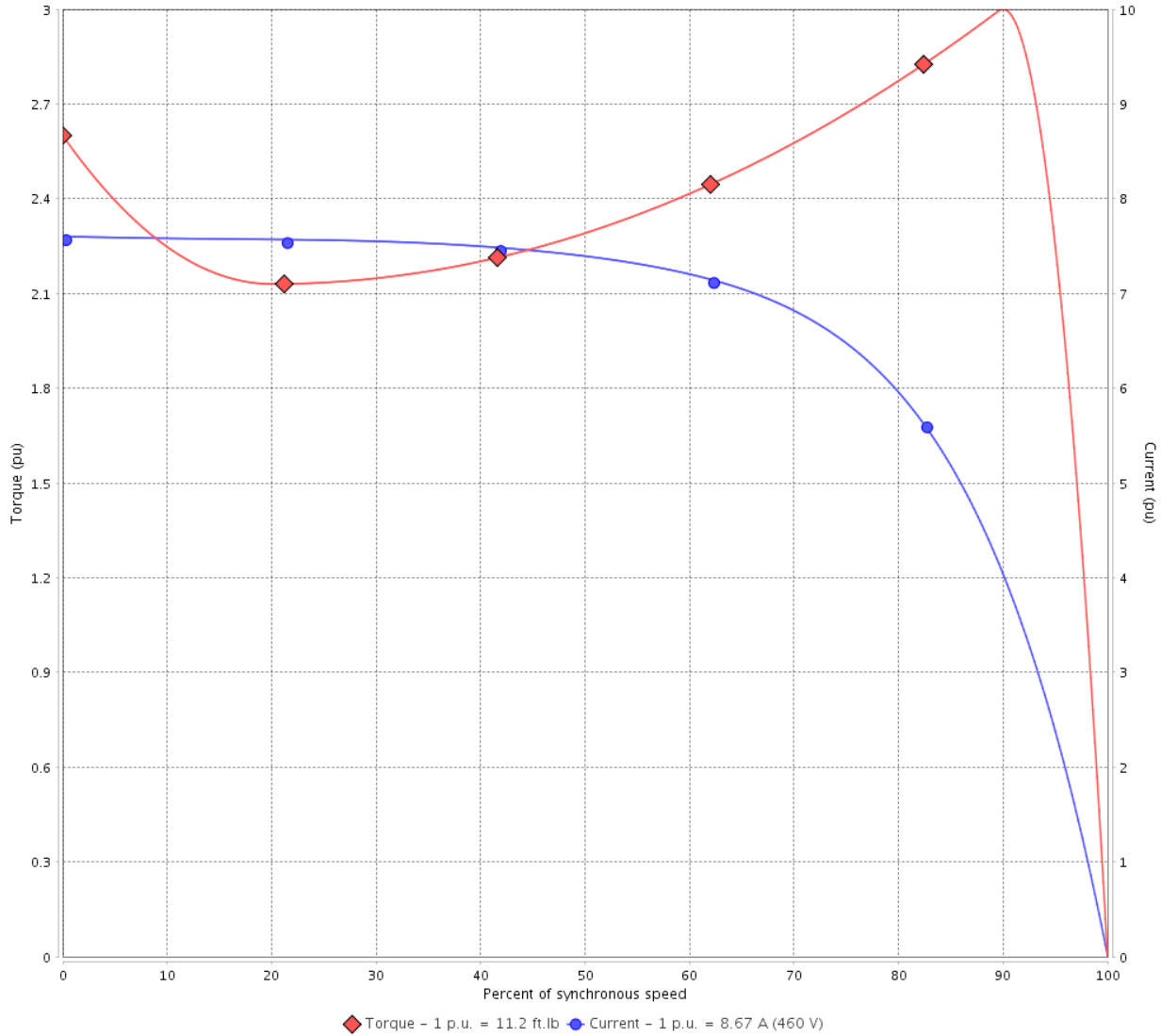
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163404

Catalog # : 00736ET3E213TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 17.3/8.67 A	Moment of inertia (J)	: 0.5496 sq.ft.lb
LRC	: 7.6	Duty cycle	: Cont.(S1)
Rated torque	: 11.2 ft.lb	Insulation class	: F
Locked rotor torque	: 260 %	Service factor	: 1.15
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 3530 rpm	Design	: B

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

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TORQUE AND CURRENT VS SPEED CURVE



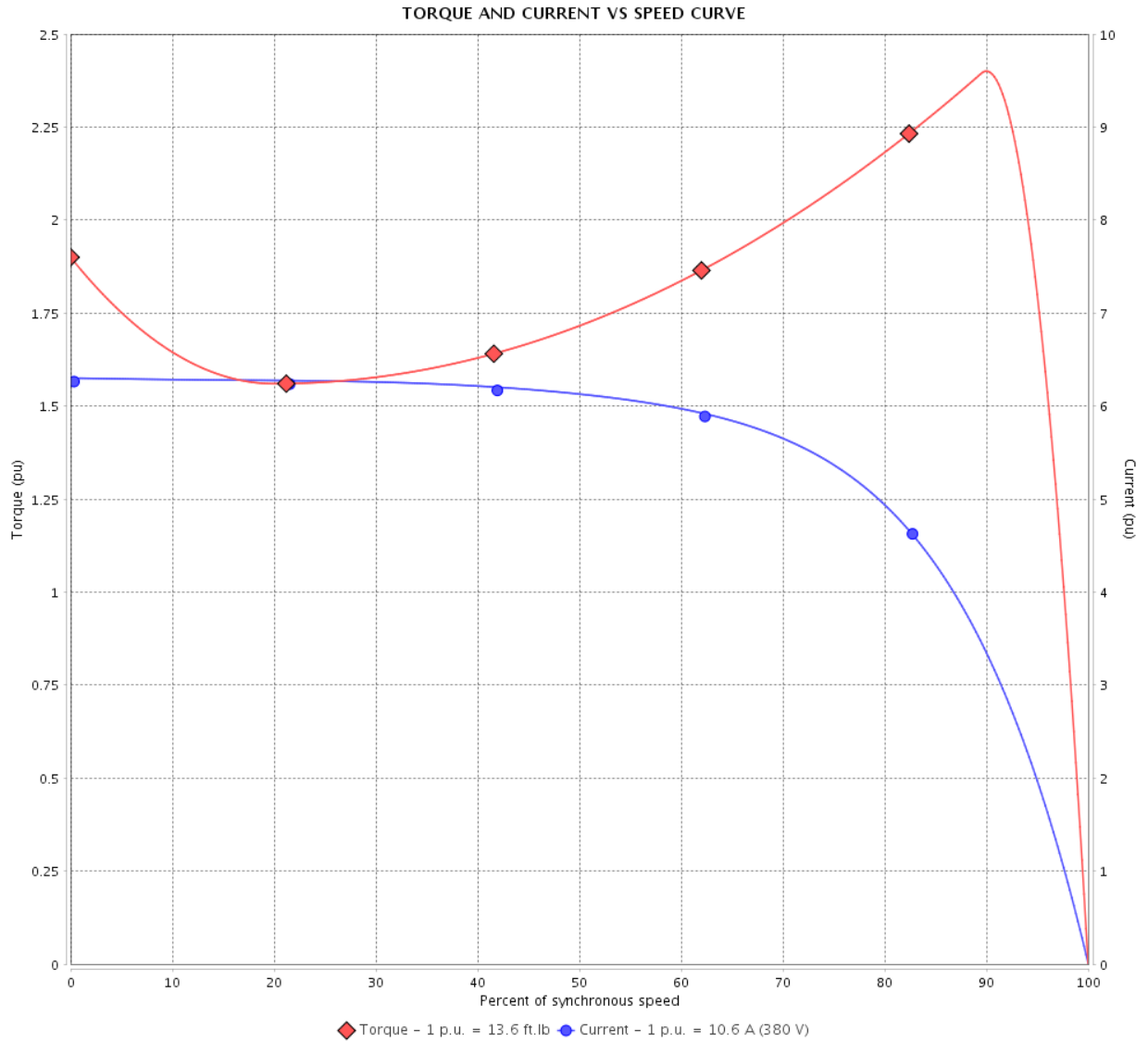
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Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163404

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Performance : 190/380 V 50 Hz 2P

Rated current : 21.2/10.6 A
 LRC : 6.3
 Rated torque : 13.6 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 240 %
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.5496 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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TORQUE AND CURRENT VS SPEED CURVE

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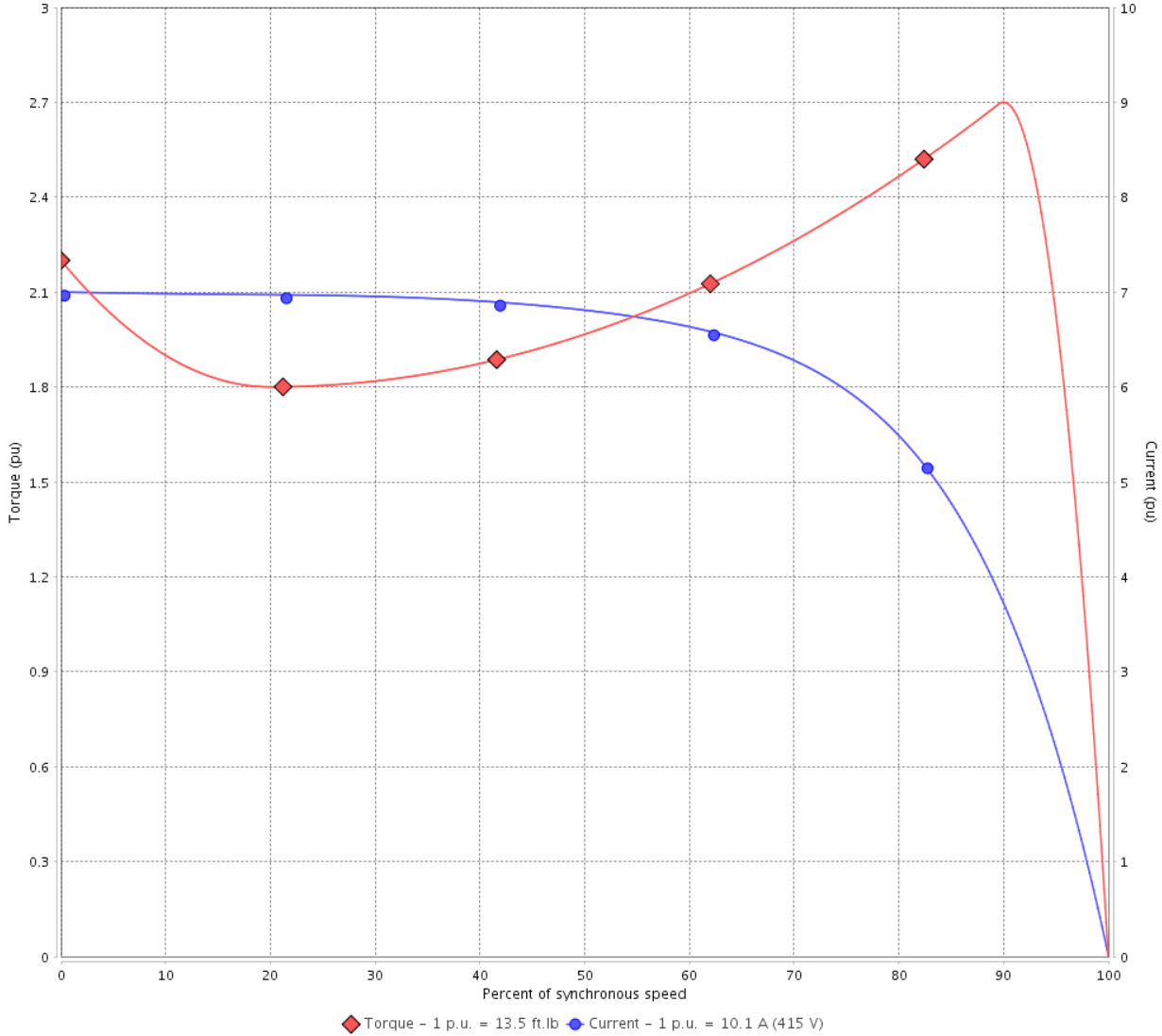
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TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 19.1/10.1 A	Moment of inertia (J)	: 0.5496 sq.ft.lb
LRC	: 7.0	Duty cycle	: Cont.(S1)
Rated torque	: 13.5 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 270 %	Temperature rise	: 80 K
Rated speed	: 2915 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

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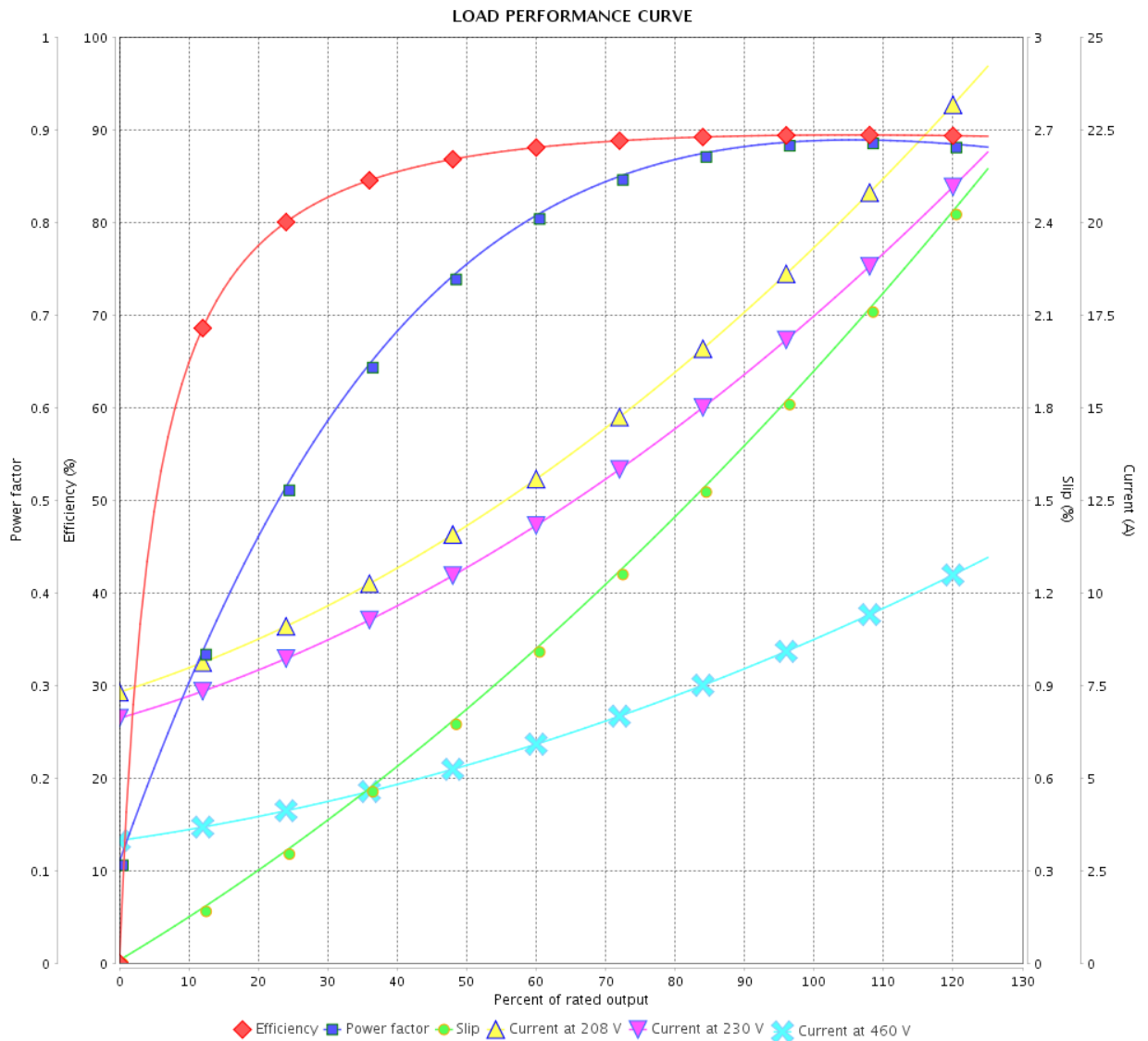


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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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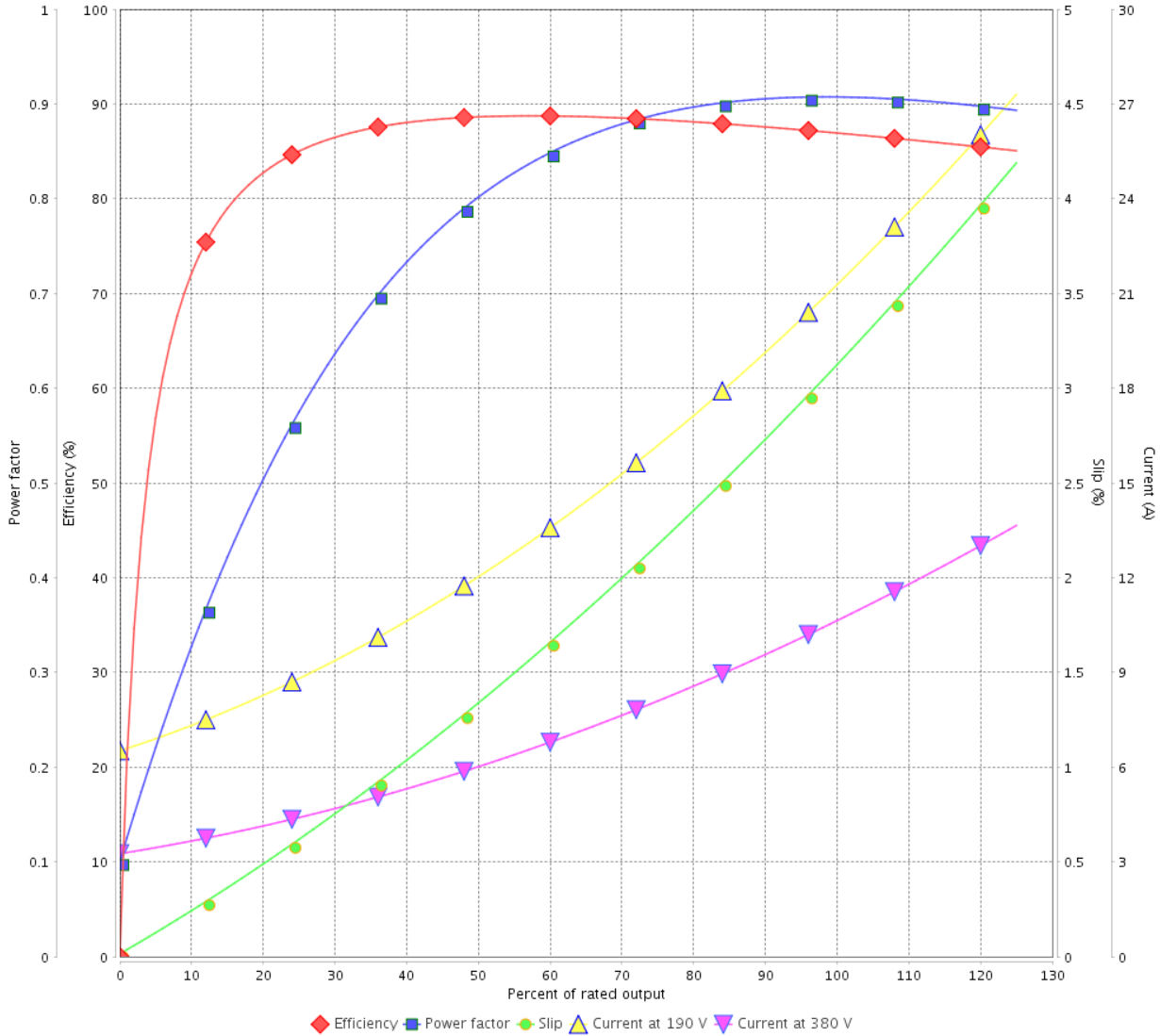
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 Breakdown torque : 240 %
 Rated speed : 2905 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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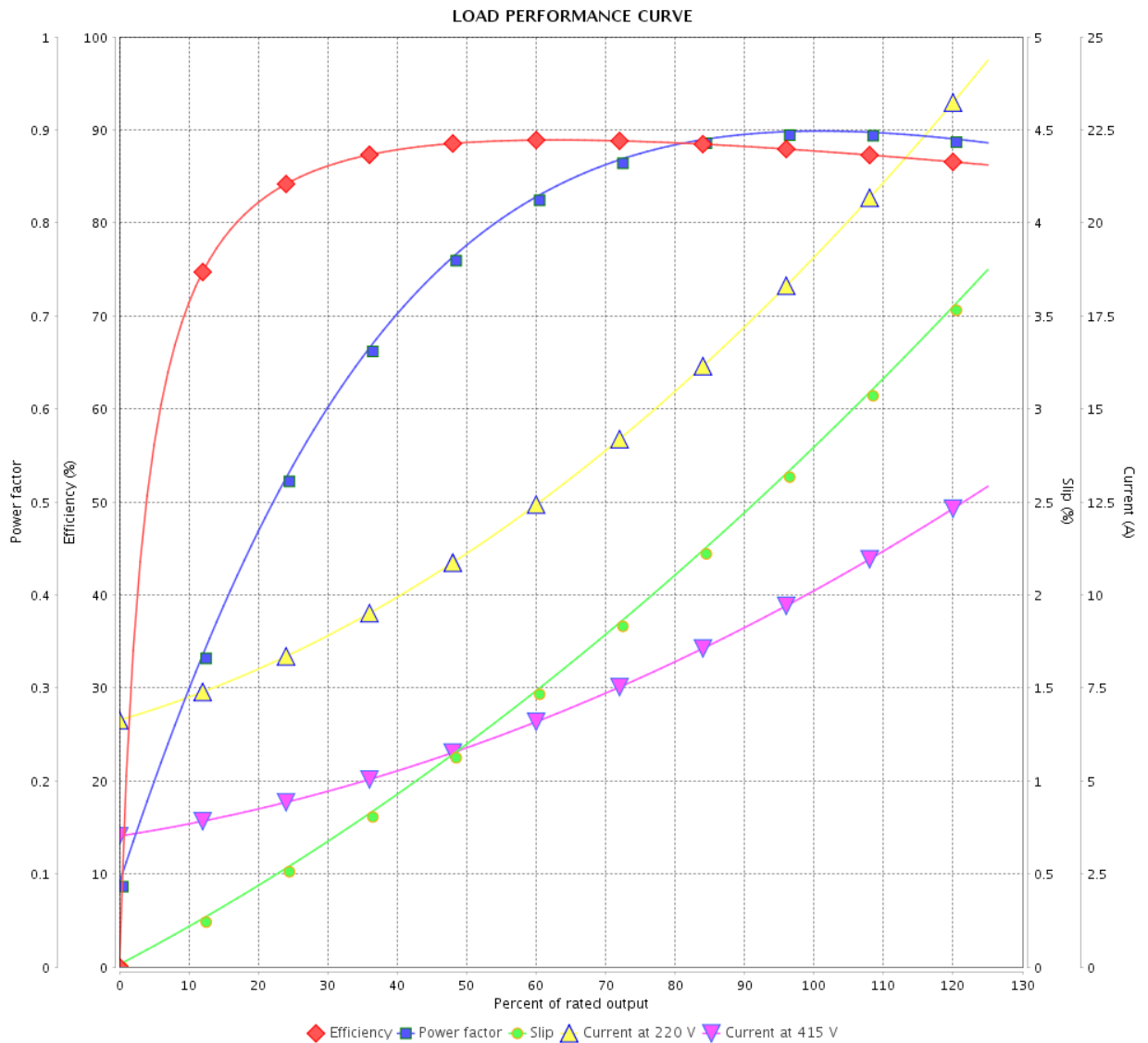


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THERMAL LIMIT CURVE



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Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 3530 rpm	Design : B

Heating constant

Cooling constant

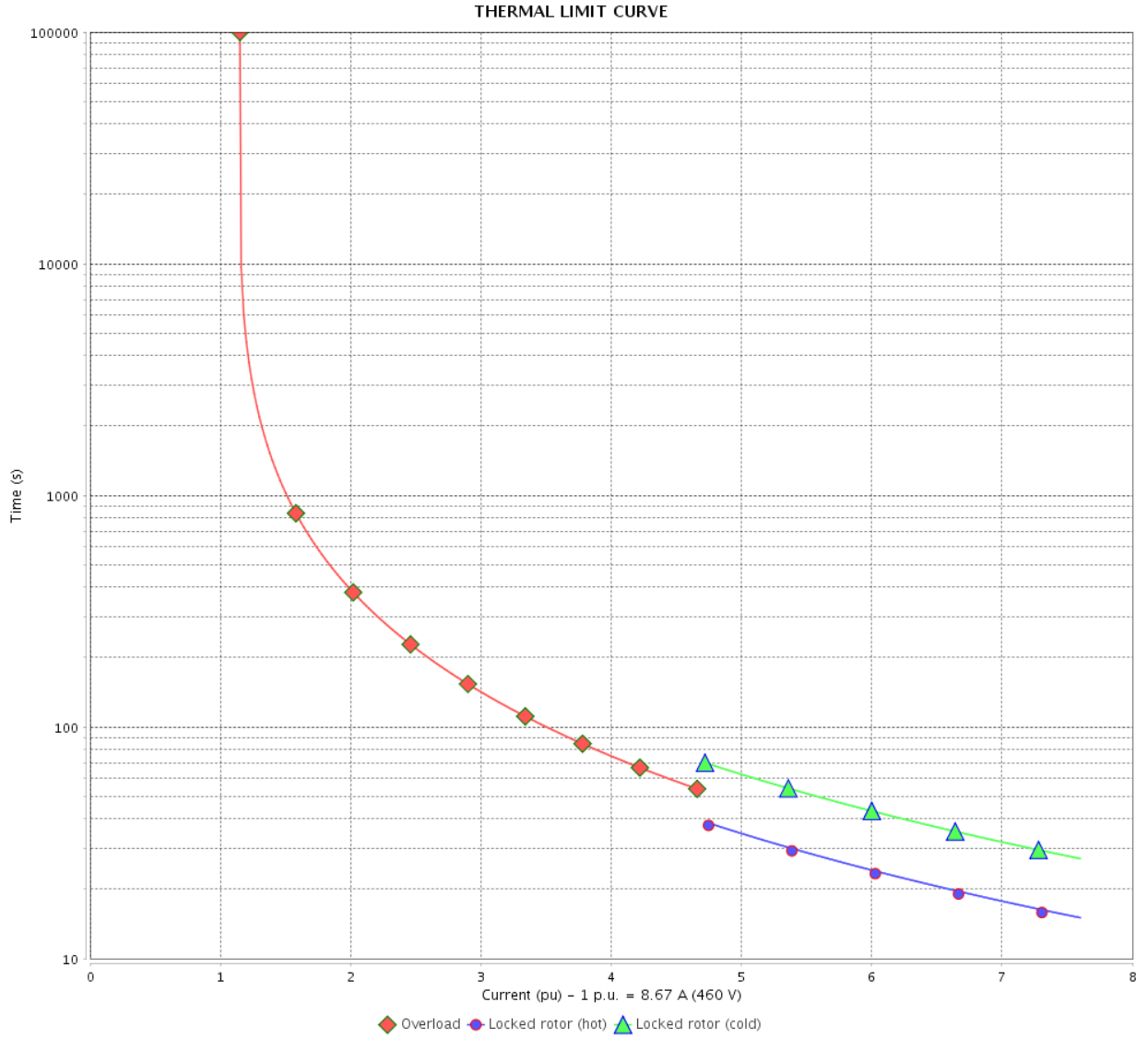
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Locked rotor torque	: 190 %	Service factor	: 1.00
Breakdown torque	: 240 %	Temperature rise	: 105 K
Rated speed	: 2905 rpm	Design	: B

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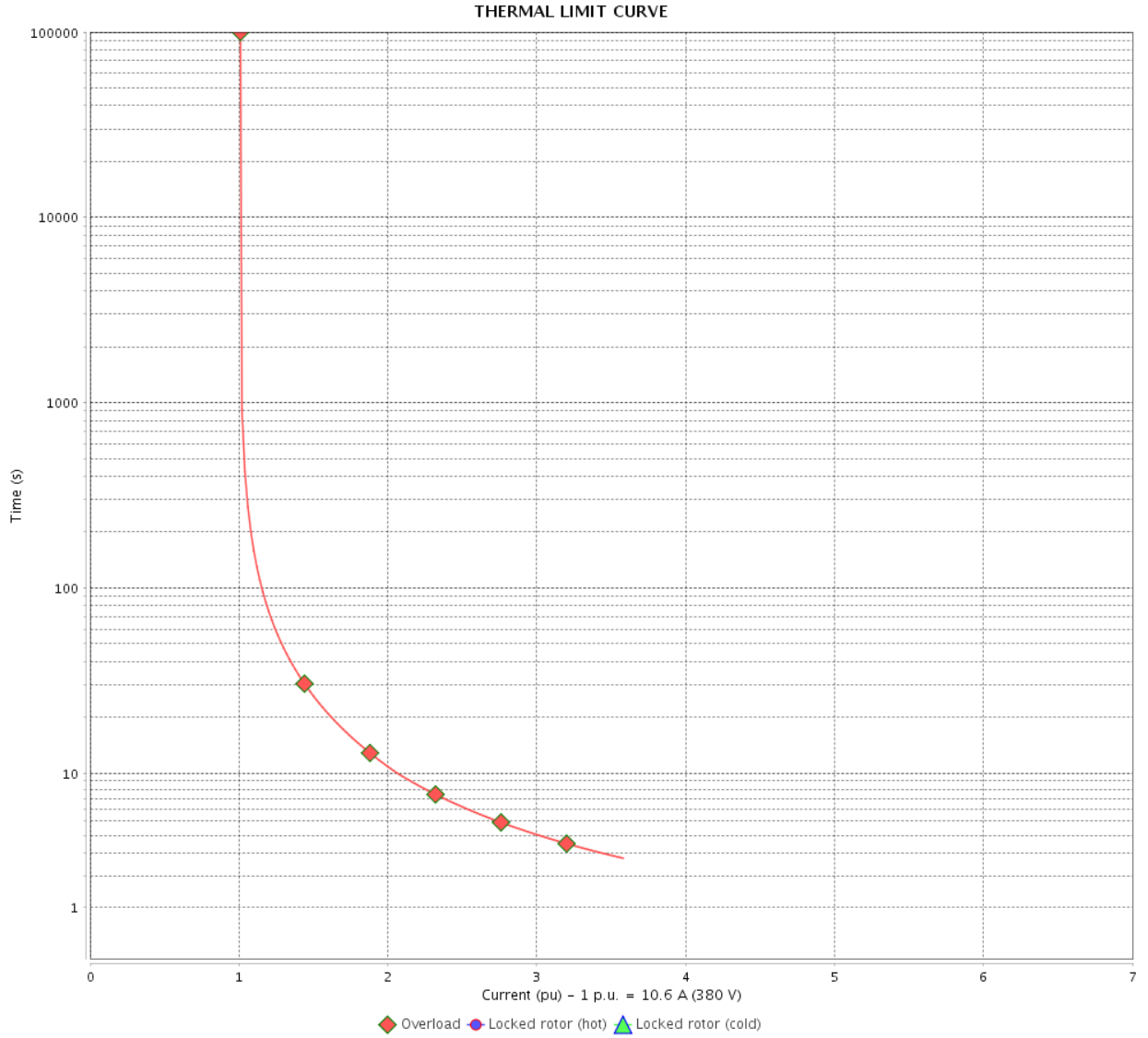
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Cooling constant

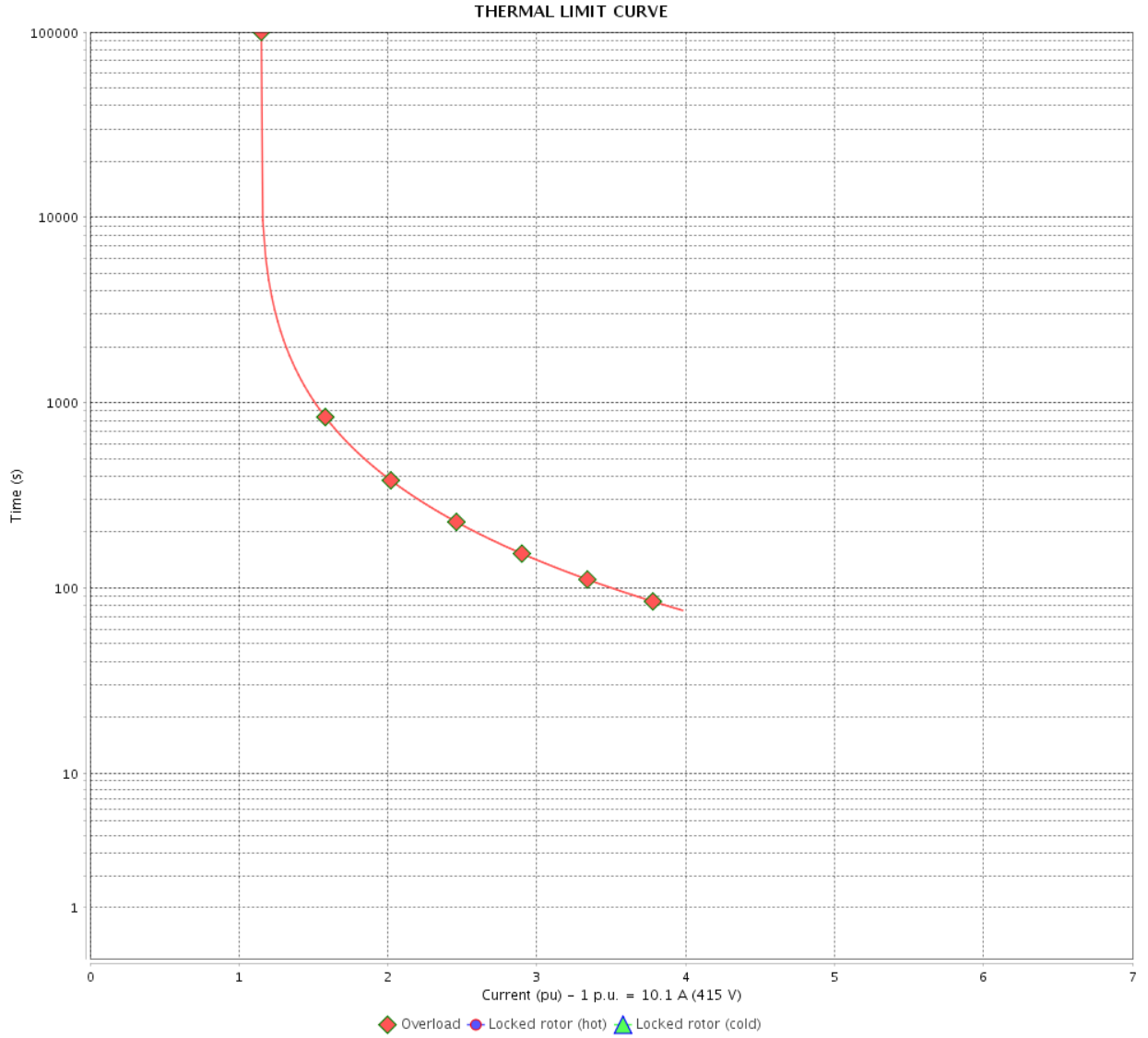
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VFD OPERATION CURVE

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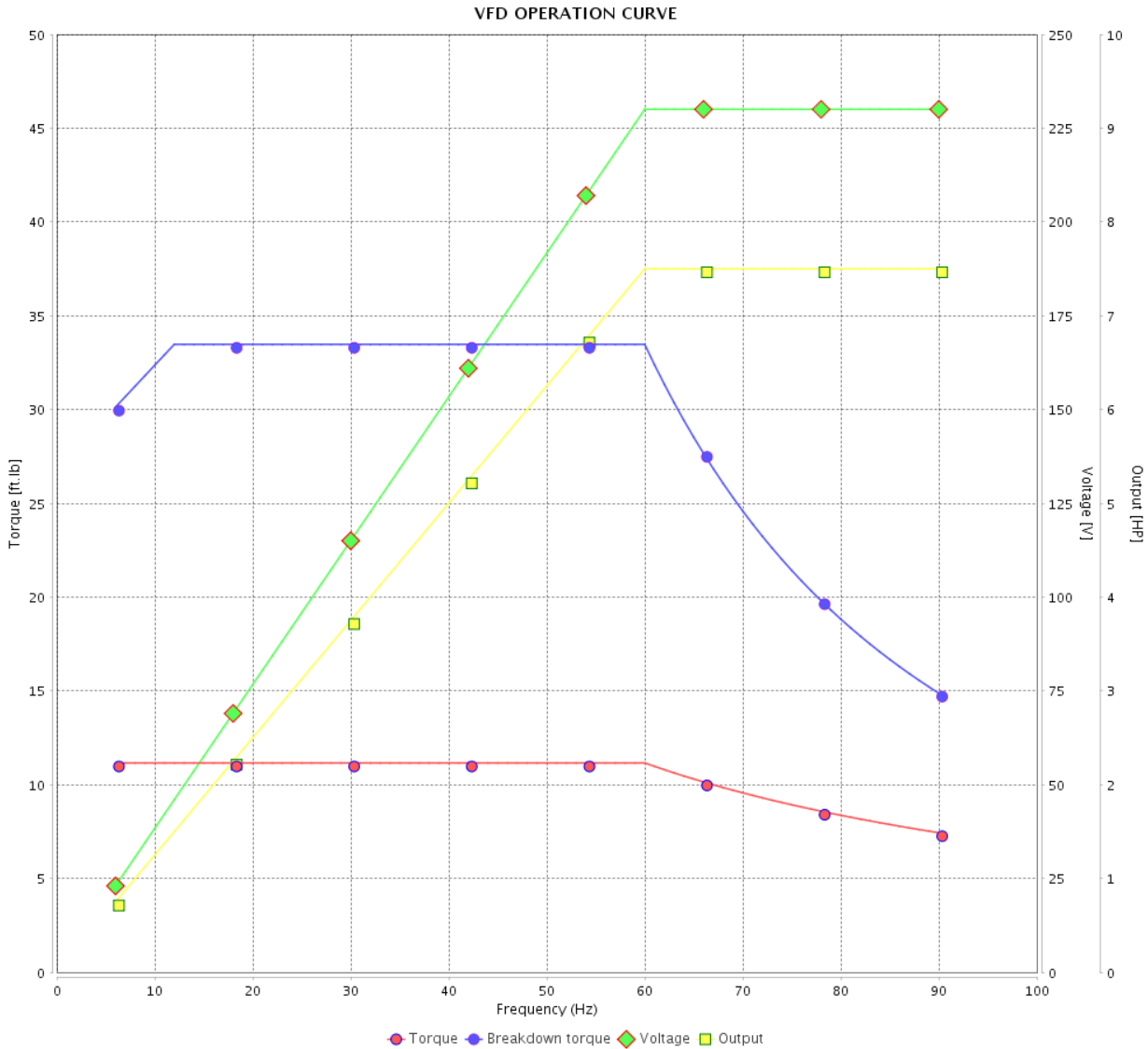


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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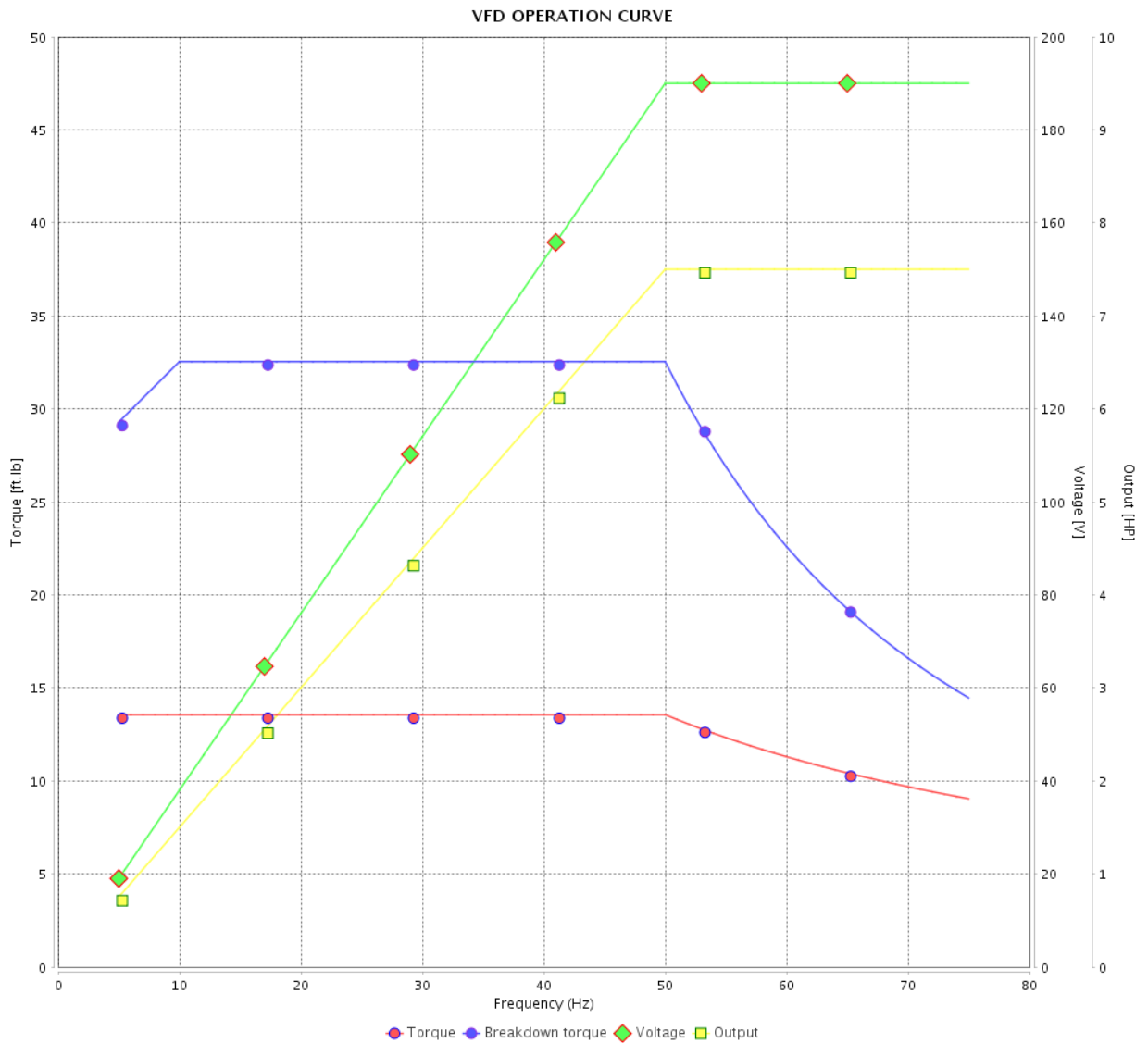
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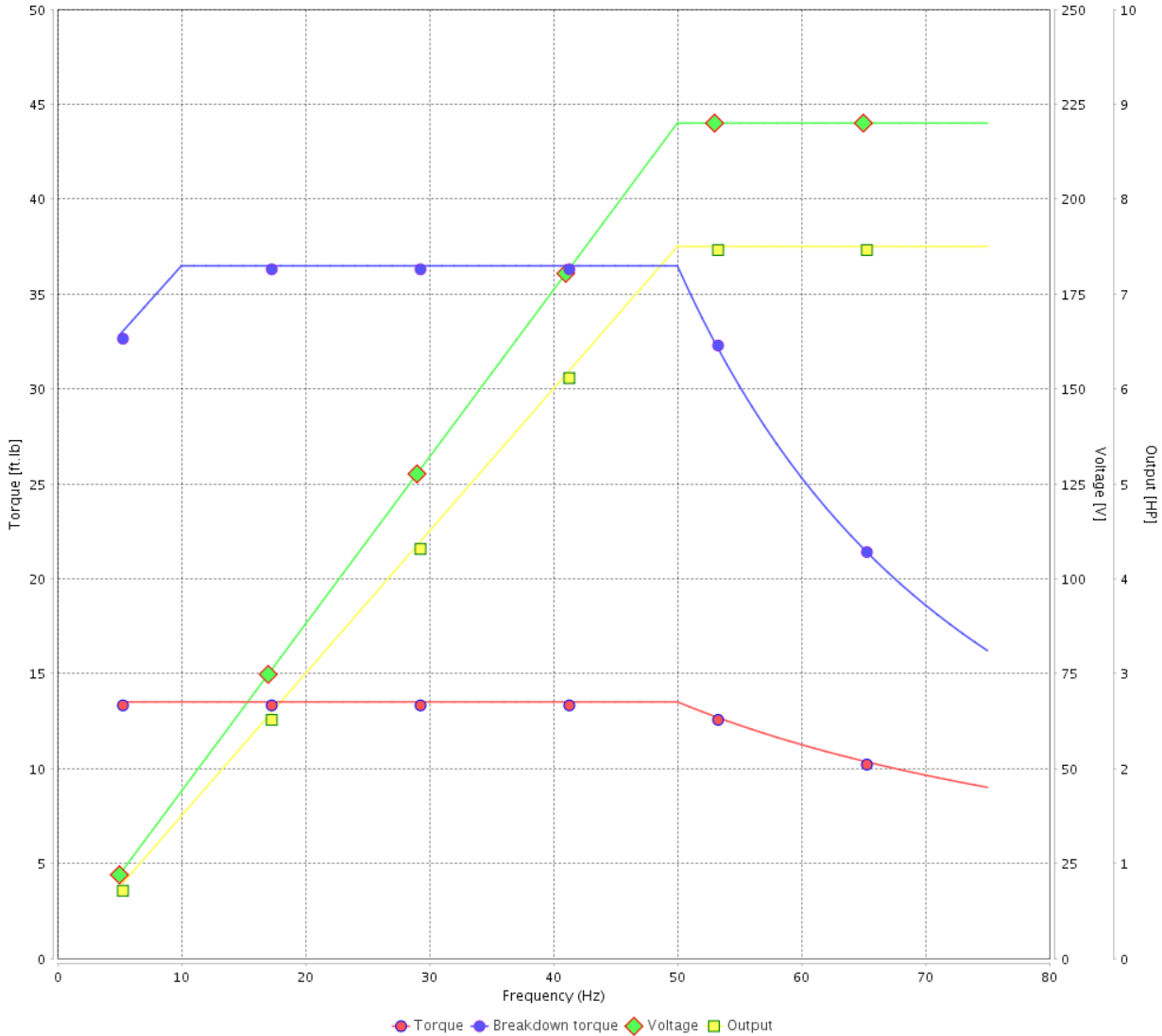
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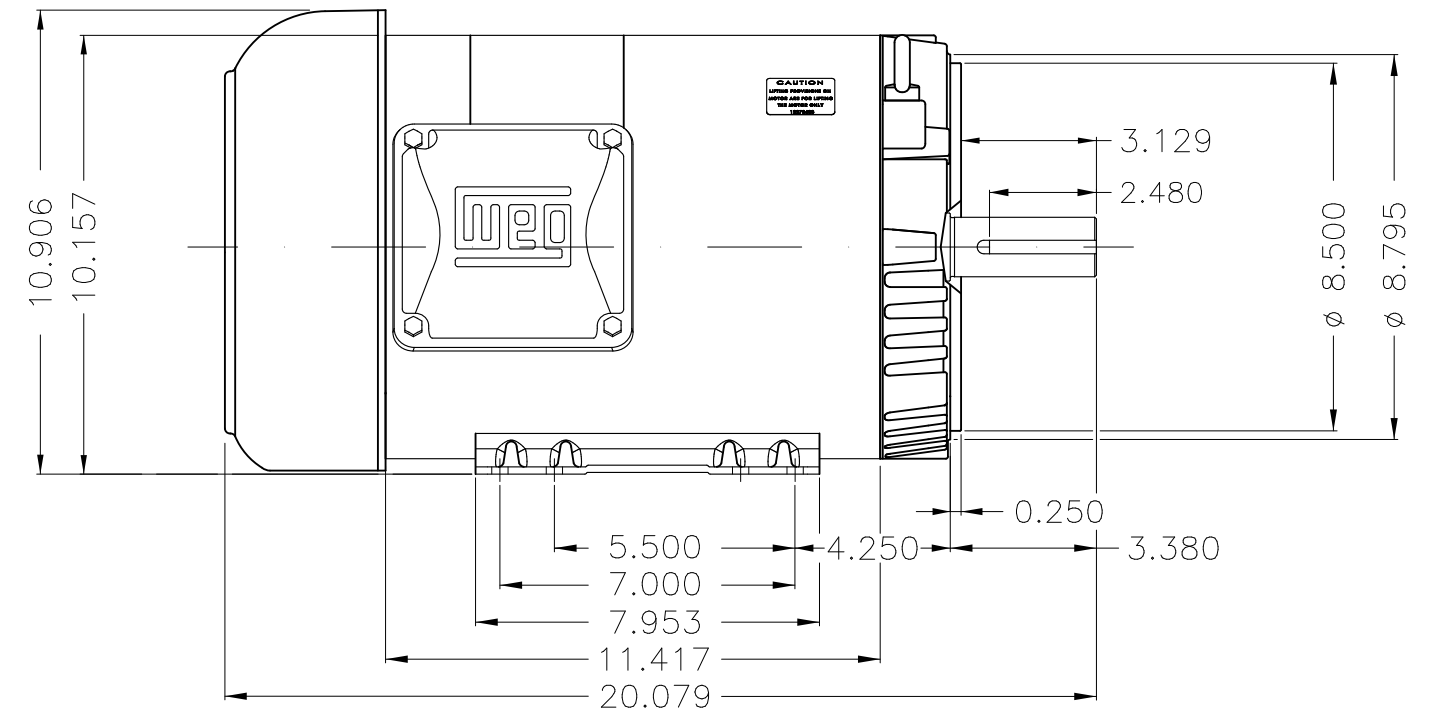
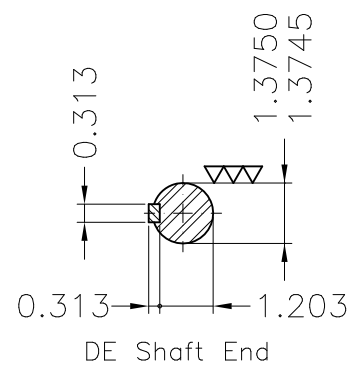
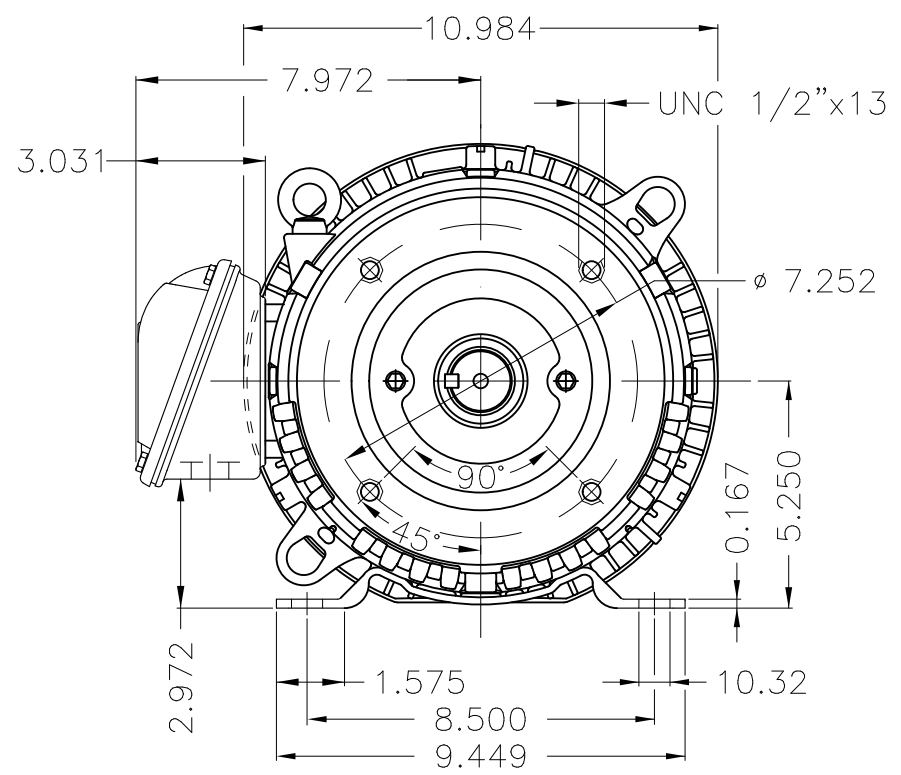
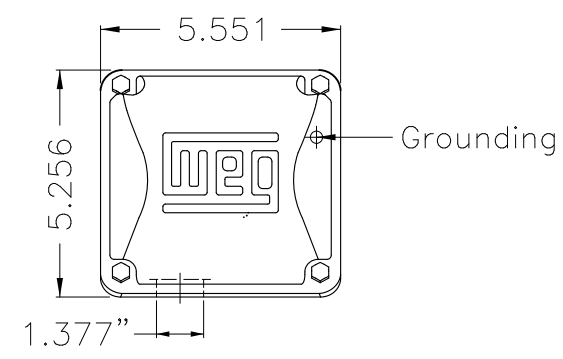
A

B

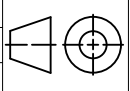
C

D

E



Internal AEGIS ground ring on the DE
 Color Munsell N 1 matte black
 Painting plan 207N
 Mounting F-1/B34R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	 THREE PH. MOTOR ROLLED STEEL PREM. EFF. FRAME 213/5TC IP55 TEFC					
CHECKED							
RELEASED							
REL DT.		WMO Jaragua do Sul	Product Engineering	SHEET	1 / 1		

7.5 HP 02 Poles 60 Hz

A

PREVIEW
WDD

