

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	13163450	
		Catalog # :	01036OT3E213TC-SG	
Frame	: 213/5TC	Cooling method	: IC01 - ODP	
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	: 126 lb	
Design	: B	Moment of inertia (J)	: 0.4651 sq.ft.lb	
Output [HP]	10	10	10	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	24.0/12.0	29.0/14.5	26.0/13.8	
L. R. Amperes [A]	163/81.6	157/78.3	159/84.2	
LRC [A]	6.8x(Code H)	5.4x(Code F)	6.1x(Code G)	
No load current [A]	9.32/4.66	9.15/4.58	9.58/5.08	
Rated speed [RPM]	3535	2910	2925	
Slip [%]	1.81	3.00	2.50	
Rated torque [ft.lb]	14.9	18.0	18.0	
Locked rotor torque [%]	200	150	170	
Breakdown torque [%]	280	210	240	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	19s (cold) 11s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level ²	66.0 dB(A)	64.0 dB(A)	64.0 dB(A)	
Efficiency (%)	25%	88.3	91.2	90.6
	50%	88.5	89.4	89.3
	75%	89.5	88.6	89.0
	100%	89.5	86.5	87.4
Power Factor	25%	0.47	0.53	0.49
	50%	0.74	0.80	0.77
	75%	0.84	0.88	0.86
	100%	0.88	0.91	0.90
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 180 lb	
		Max. compression	: 306 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 26.5A SF 1.00 SFA 26.5A				
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



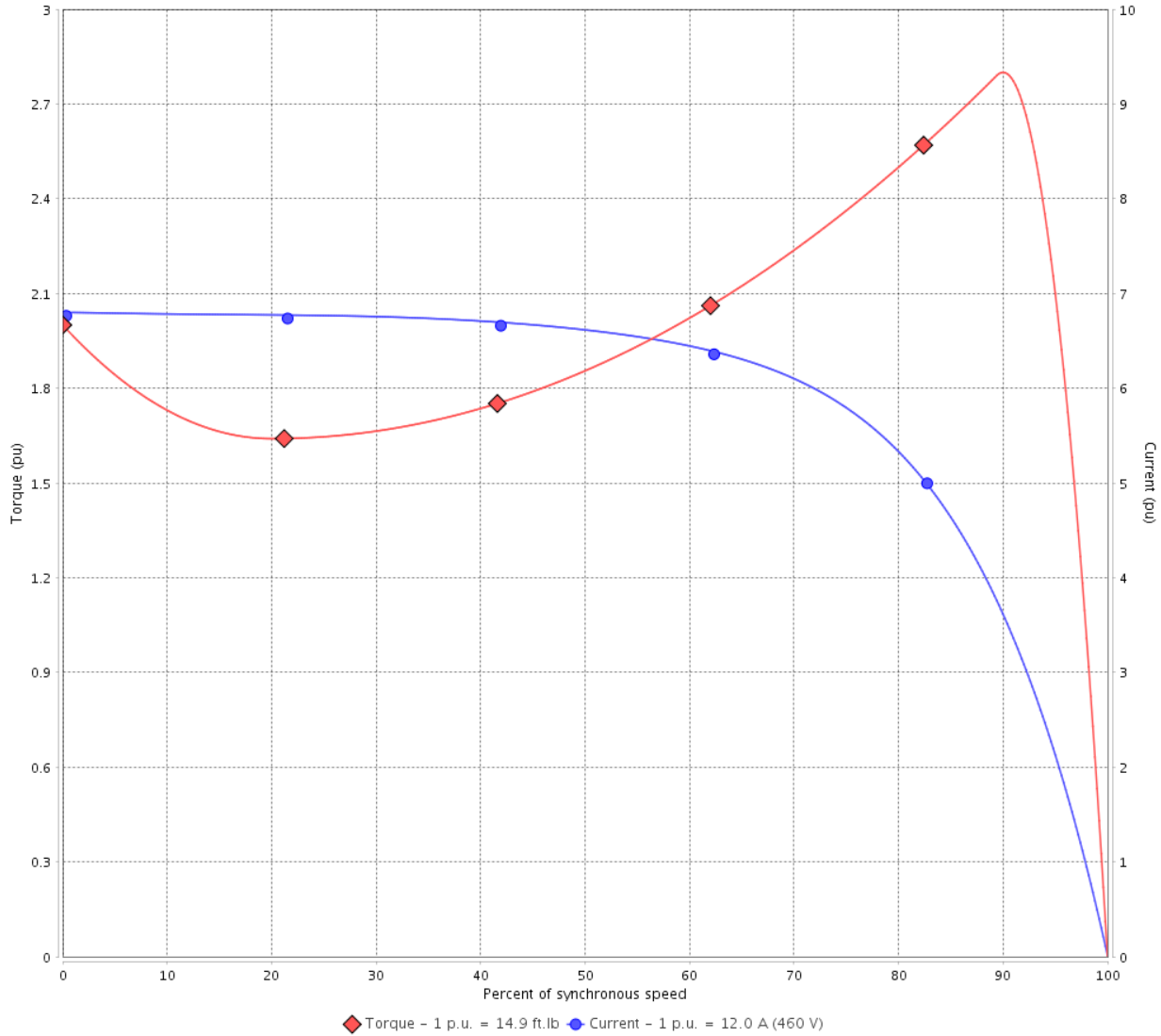
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163450

Catalog # : 010360T3E213TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 24.0/12.0 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

Locked rotor time : 19s (cold) 11s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



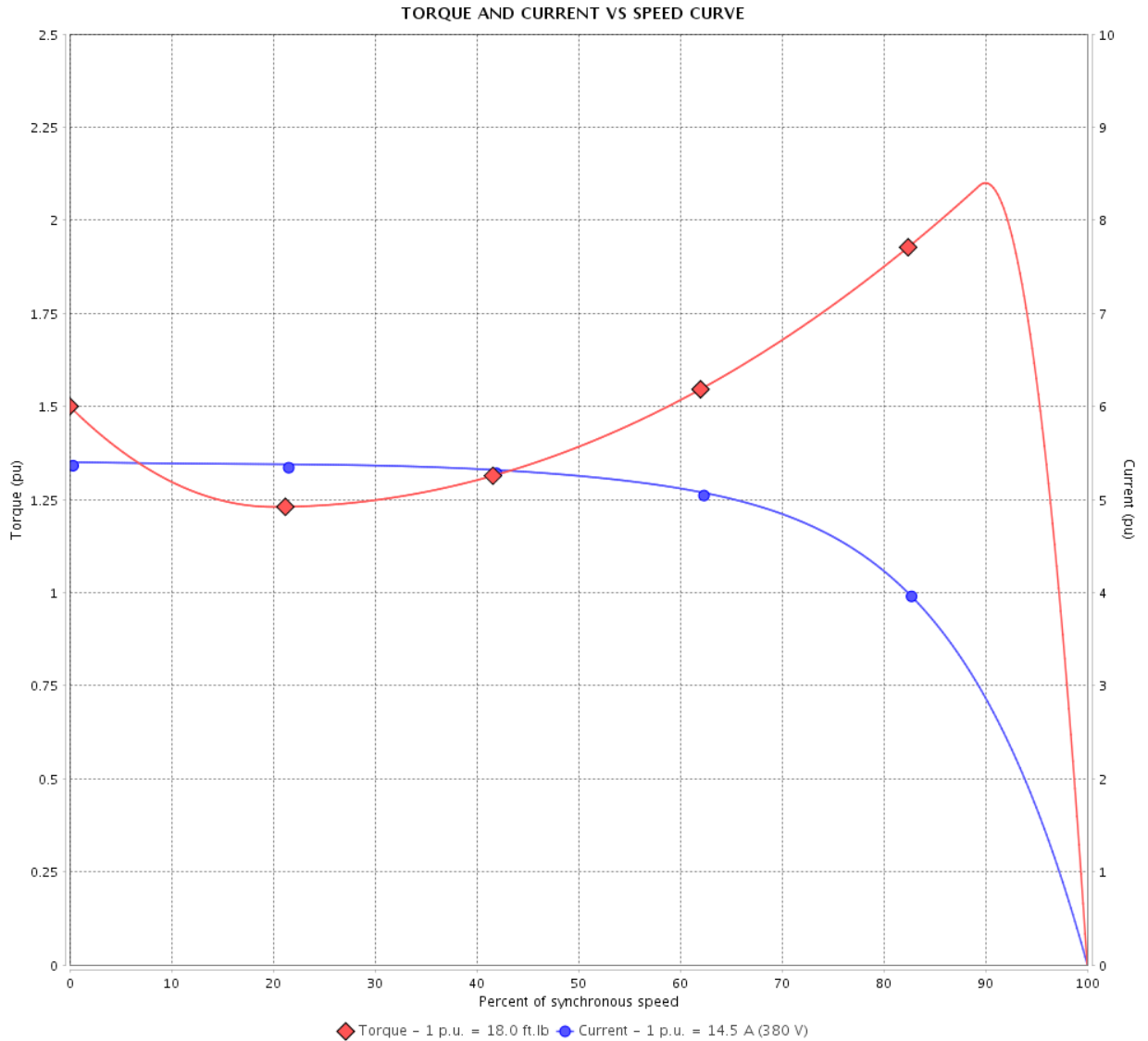
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163450

Catalog # : 01036OT3E213TC-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 29.0/14.5 A
 LRC : 5.4
 Rated torque : 18.0 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 210 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.4651 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



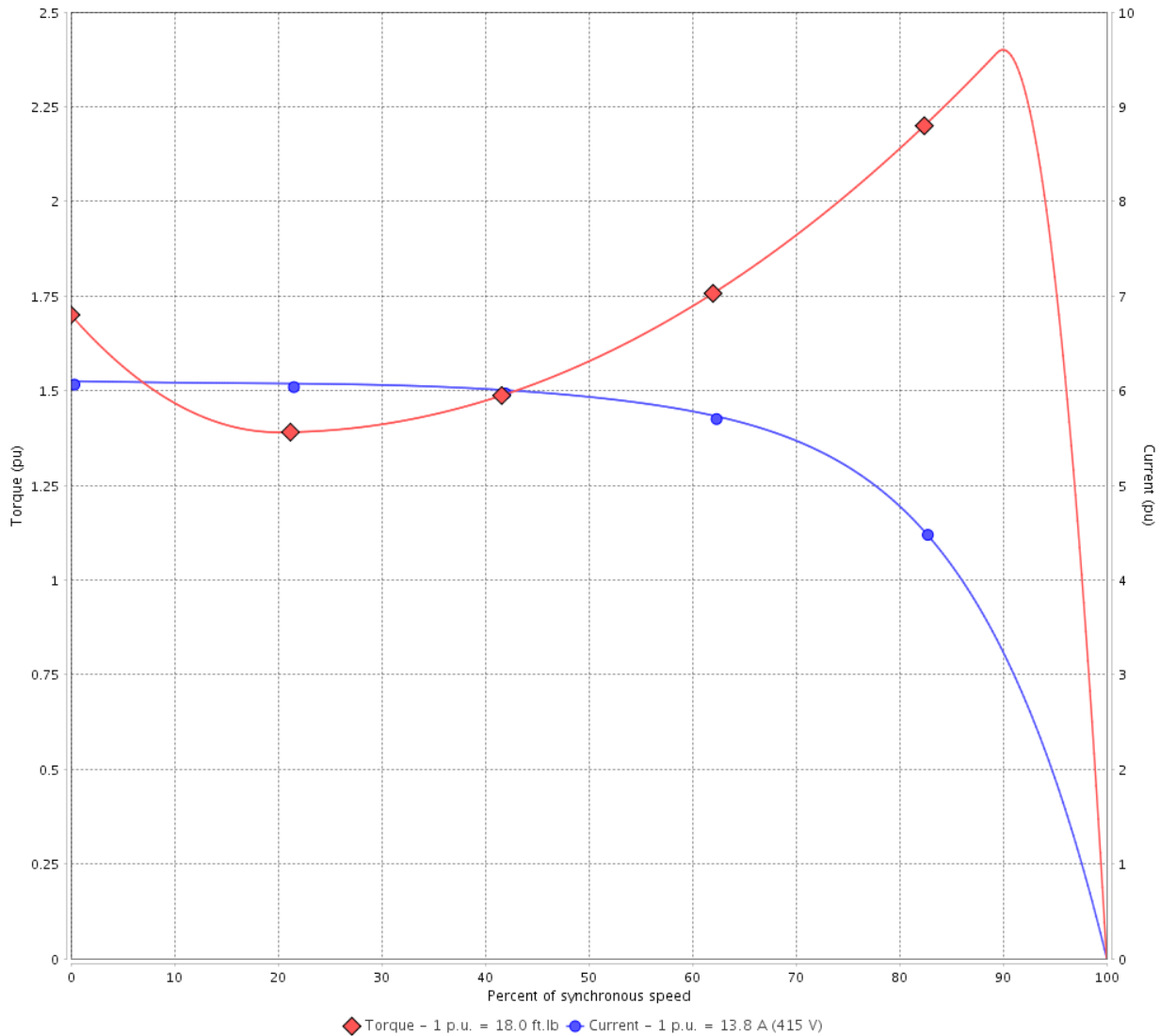
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Product code : 13163450

Catalog # : 010360T3E213TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 26.0/13.8 A	Moment of inertia (J)	: 0.4651 sq.ft.lb
LRC	: 6.1	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 240 %	Temperature rise	: 80 K
Rated speed	: 2925 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

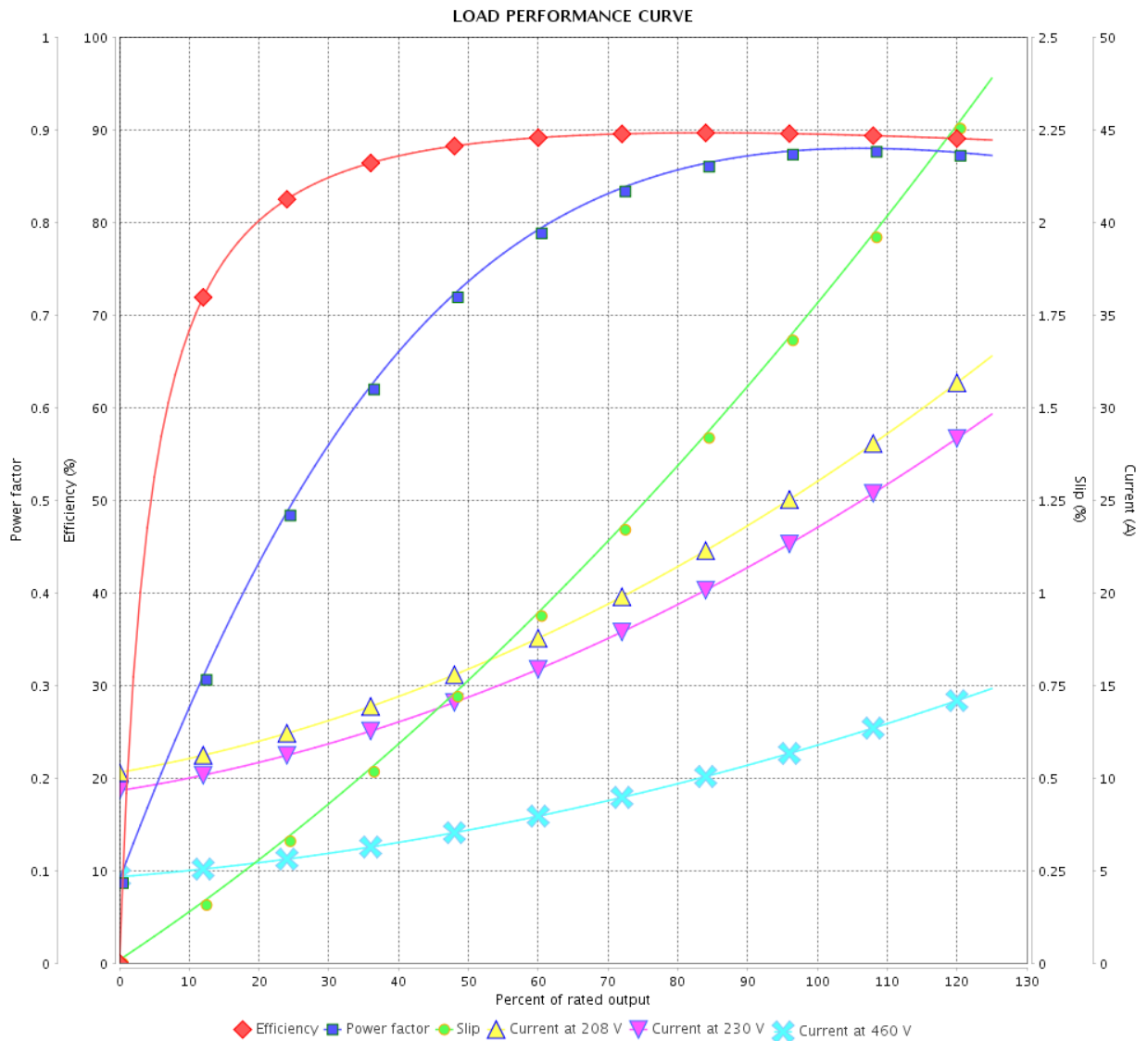


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Performance : 230/460 V 60 Hz 2P

Rated current : 24.0/12.0 A
 LRC : 6.8
 Rated torque : 14.9 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 280 %
 Rated speed : 3535 rpm

Moment of inertia (J) : 0.4651 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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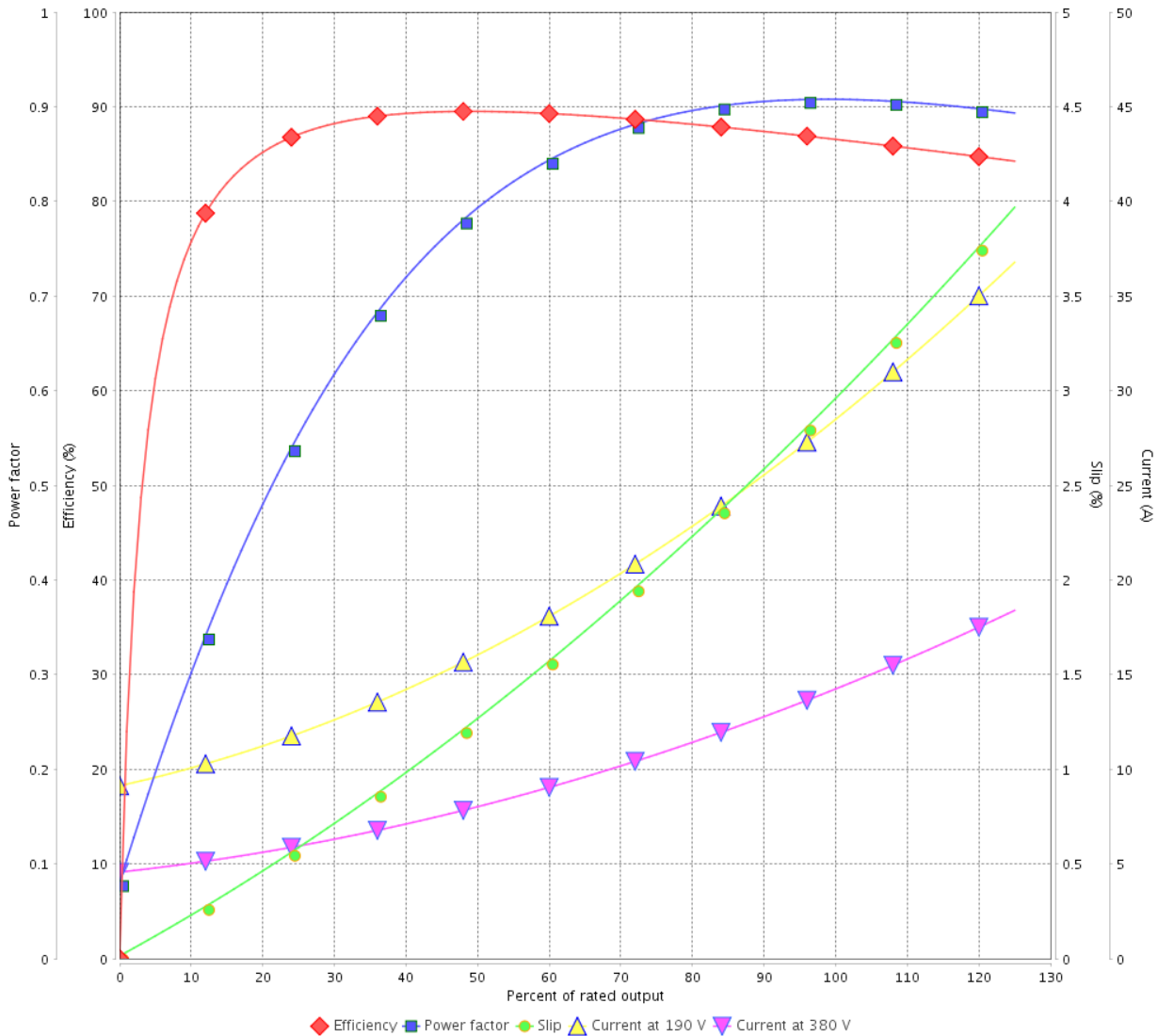
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Three Phase Induction Motor - Squirrel Cage

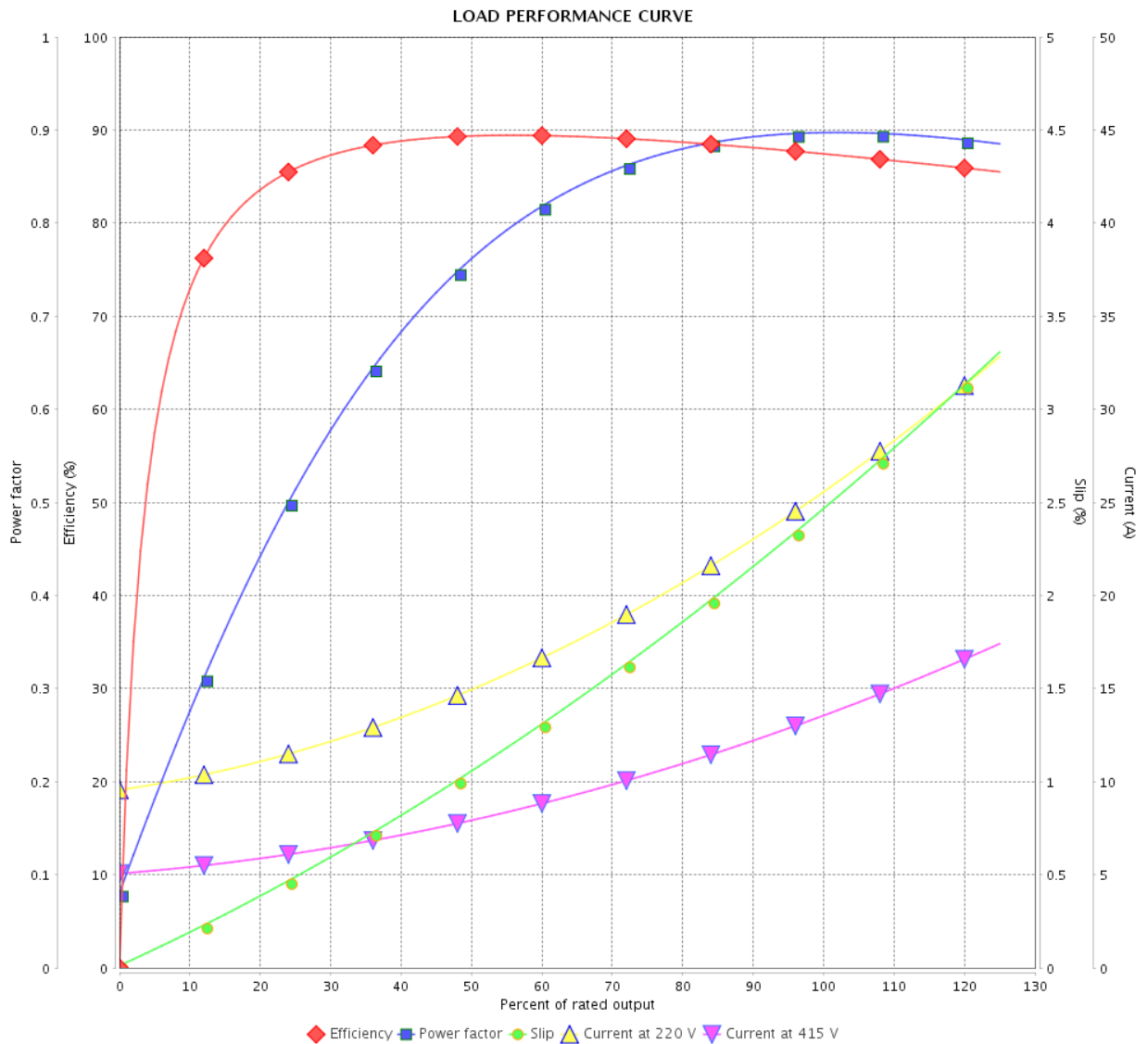


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Performance : 220/415 V 50 Hz 2P

Rated current : 26.0/13.8 A
 LRC : 6.1
 Rated torque : 18.0 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 240 %
 Rated speed : 2925 rpm

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THERMAL LIMIT CURVE

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Rated torque	: 14.9 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

Heating constant

Cooling constant

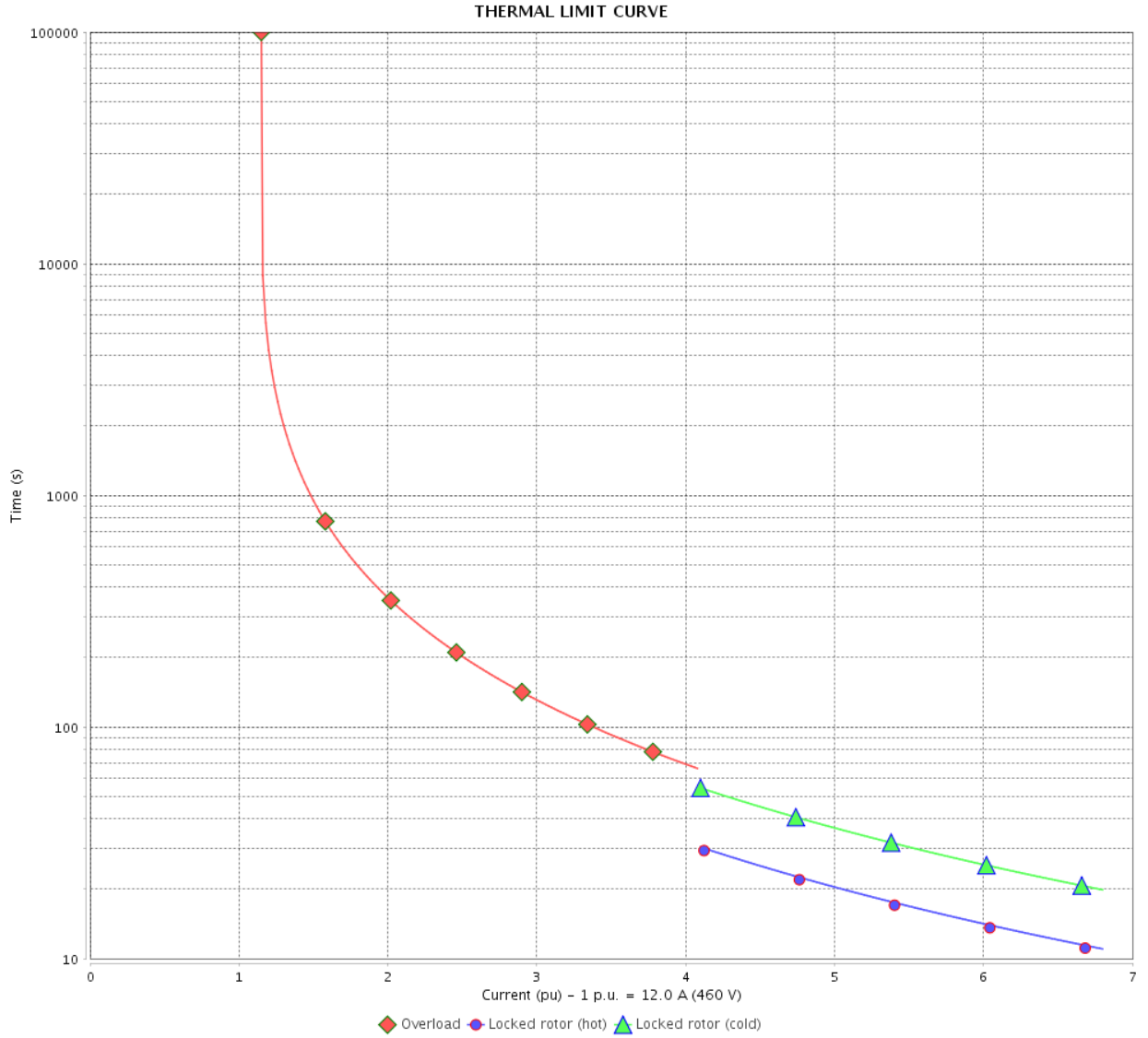
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THERMAL LIMIT CURVE

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Rated torque : 18.0 ft.lb	Insulation class : F
Locked rotor torque : 150 %	Service factor : 1.15
Breakdown torque : 210 %	Temperature rise : 80 K
Rated speed : 2910 rpm	Design : B

Heating constant

Cooling constant

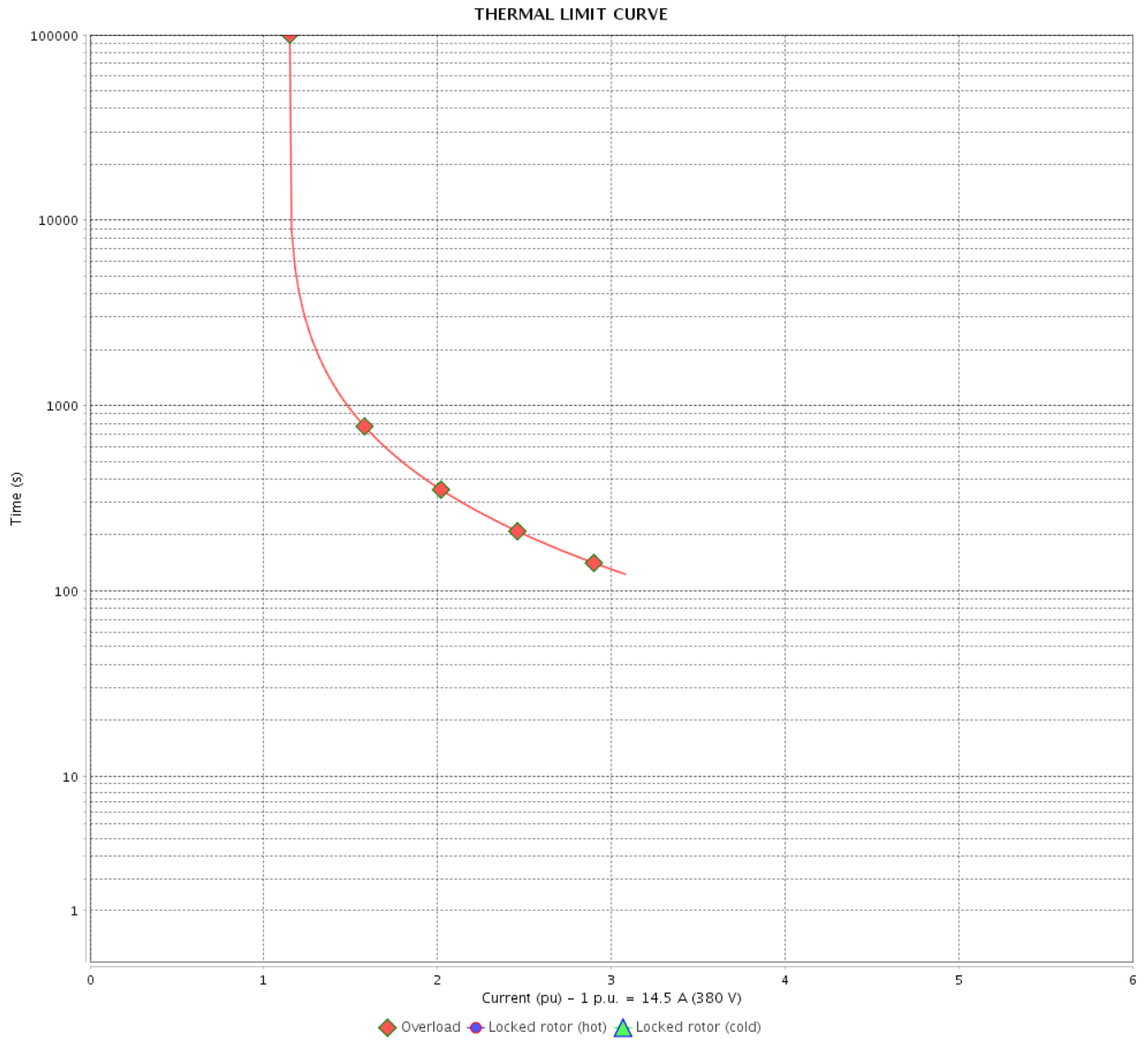
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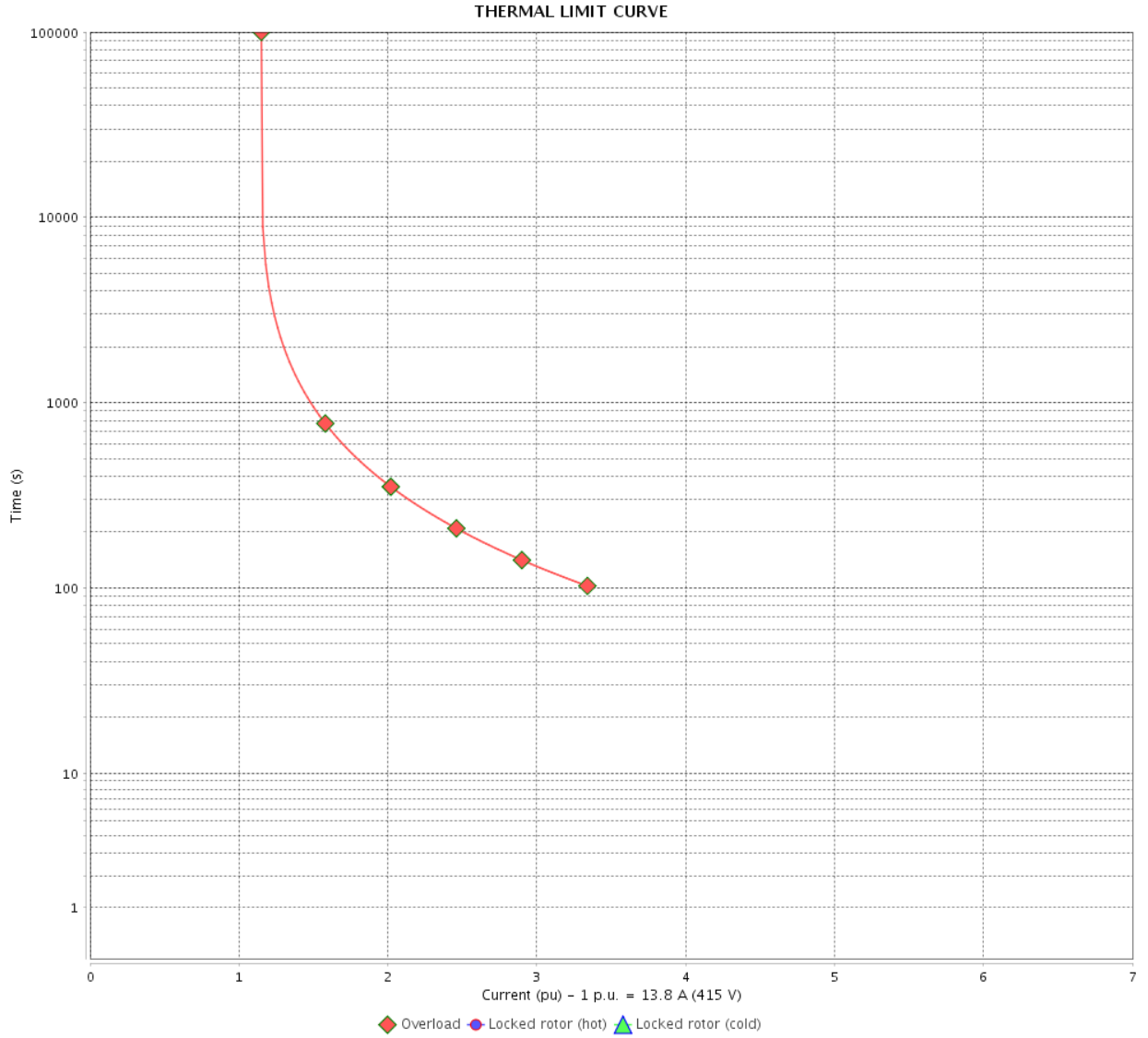
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

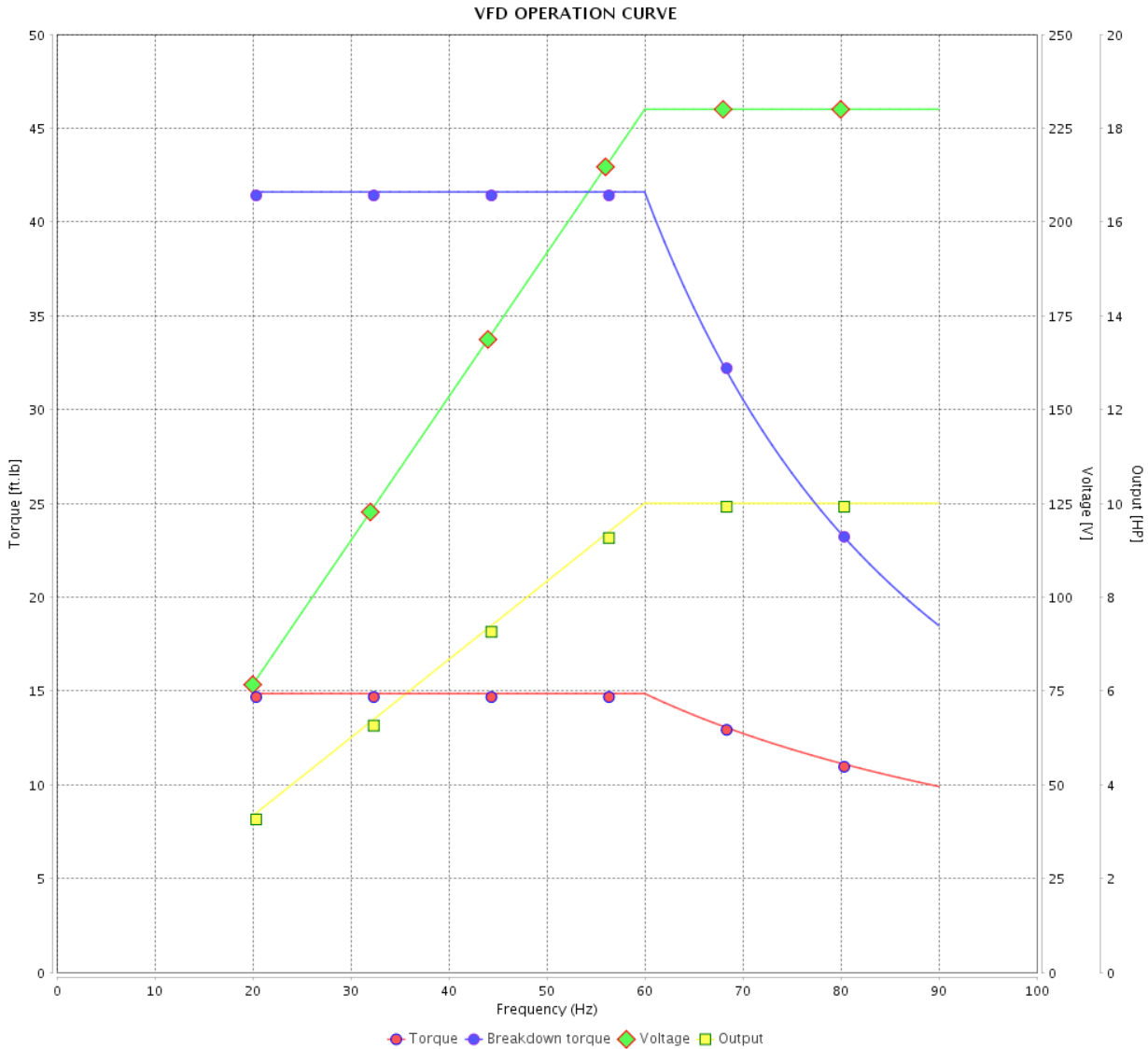


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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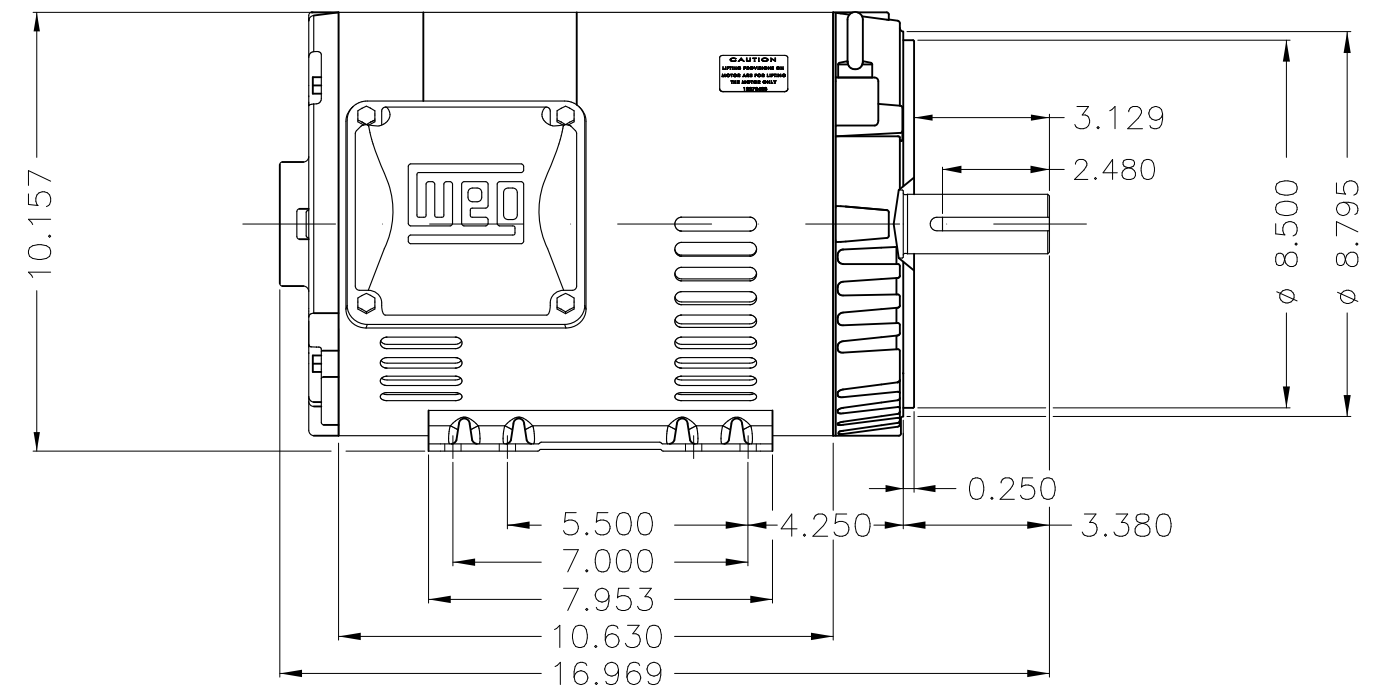
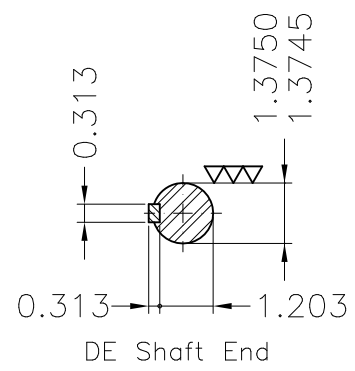
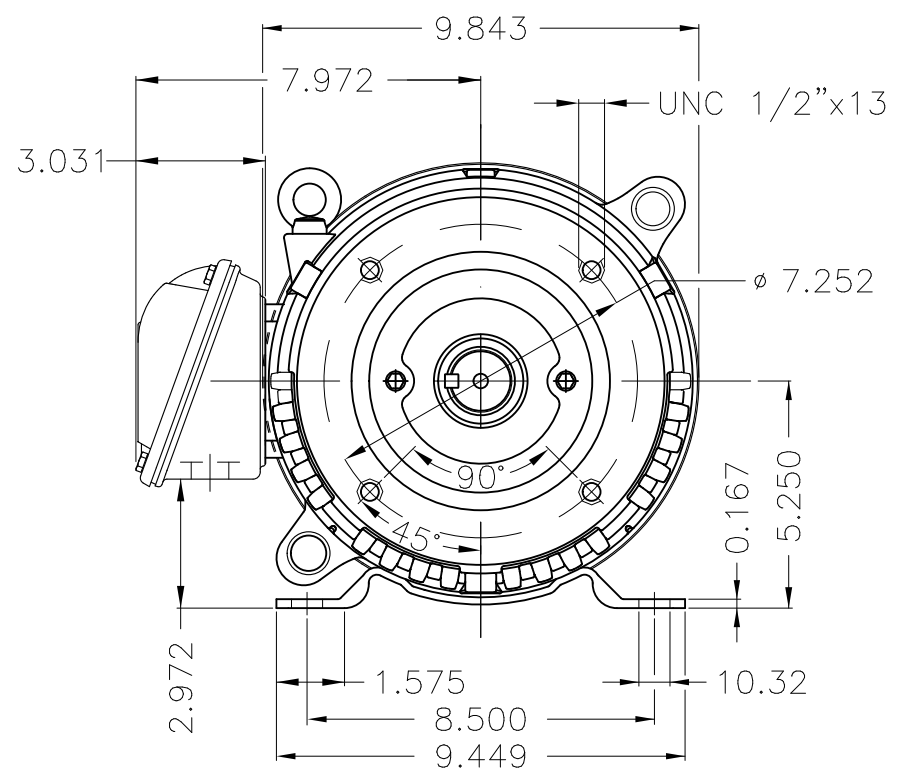
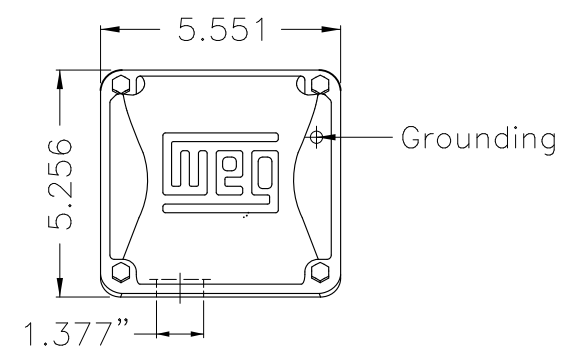
A

B

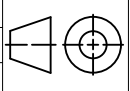
C

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 IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET 1 / 1			

10 HP 02 Poles 60 Hz

A

PREVIEW
WDD

