

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	13163449	
Catalog # :	01036ET3E215TC-SG	
Frame	: 213/5TC	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Protection degree	: IP55	
Design	: B	
Cooling method	: IC411 - TEFC	
Mounting	: F-1	
Rotation ¹	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight ²	: 161 lb	
Moment of inertia (J)	: 0.7188 sq.ft.lb	
Output [HP]	10	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	23.0/11.5	
L. R. Amperes [A]	173/86.2	
LRC [A]	7.5x(Code H)	
No load current [A]	7.53/3.77	
Rated speed [RPM]	3530	
Slip [%]	1.94	
Rated torque [ft.lb]	14.9	
Locked rotor torque [%]	260	
Breakdown torque [%]	300	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	21s (cold) 12s (hot)	
Noise level ²	70.0 dB(A)	
Efficiency (%)	25%	89.3
	50%	89.5
	75%	90.2
	100%	90.2
Power Factor	25%	0.53
	50%	0.80
	75%	0.88
	100%	0.91
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: V'Ring Without Bearing Seal	
Lubrication interval	: -	
Lubricant amount	: -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 184 lb	
	Max. compression : 345 lb	
Notes USABLE @208V 25.4A SF 1.00 SFA 25.4A		
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



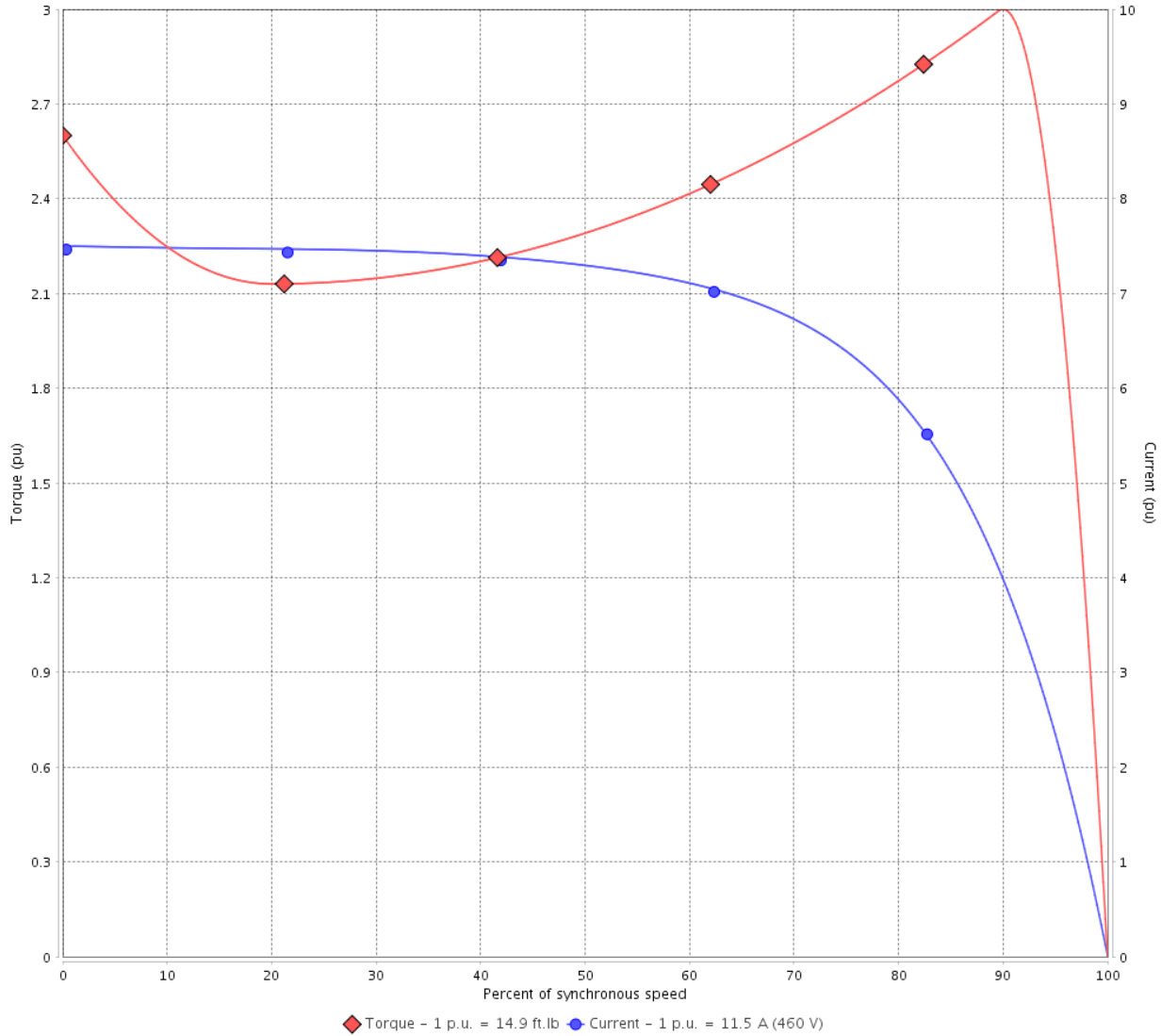
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163449

Catalog # : 01036ET3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 23.0/11.5 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 7.5	Duty cycle	: Cont.(S1)
Rated torque	: 14.9 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 : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



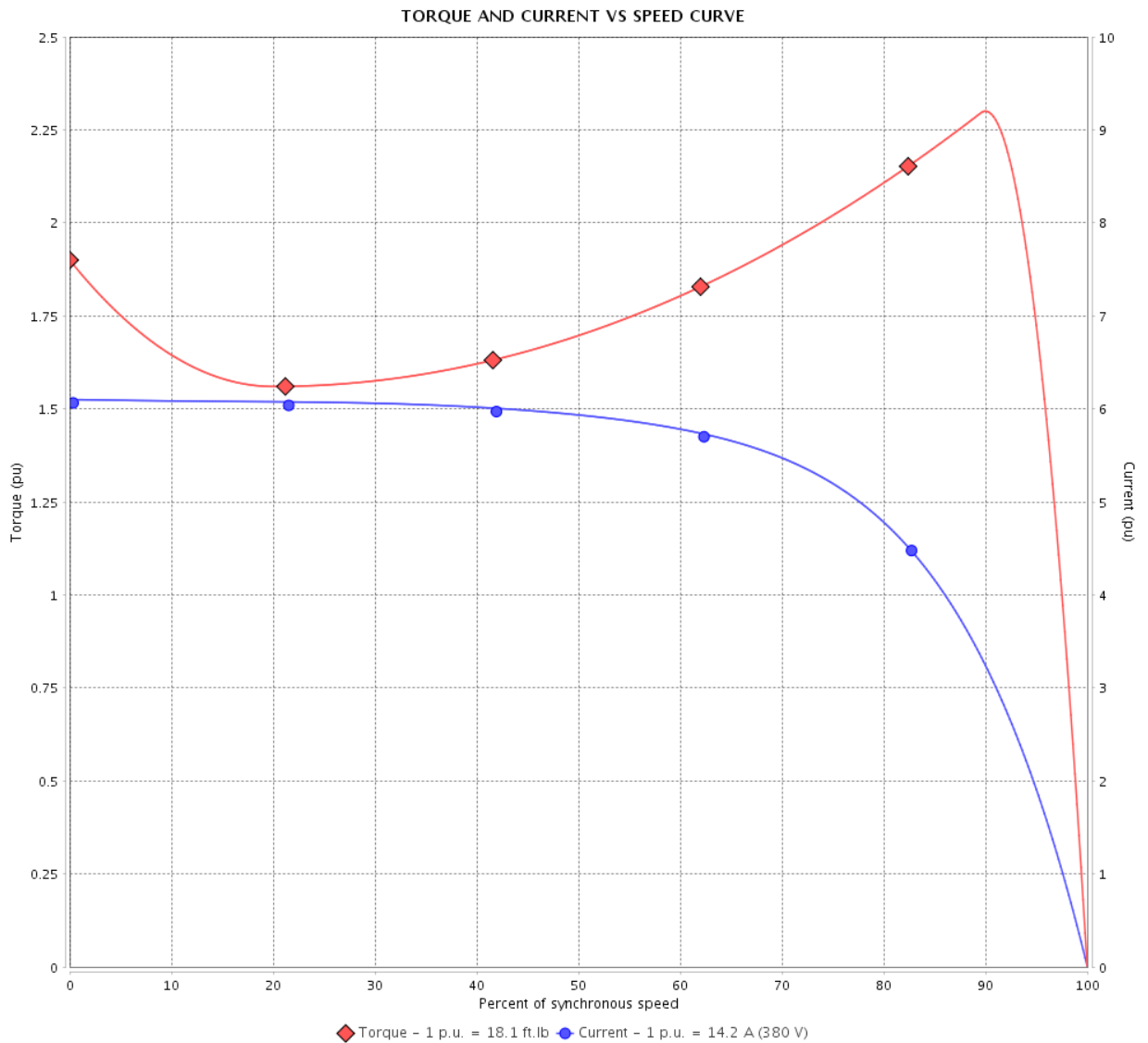
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163449

Catalog # : 01036ET3E215TC-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 28.4/14.2 A
 LRC : 6.1
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 229 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.7188 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

Three Phase Induction Motor - Squirrel Cage



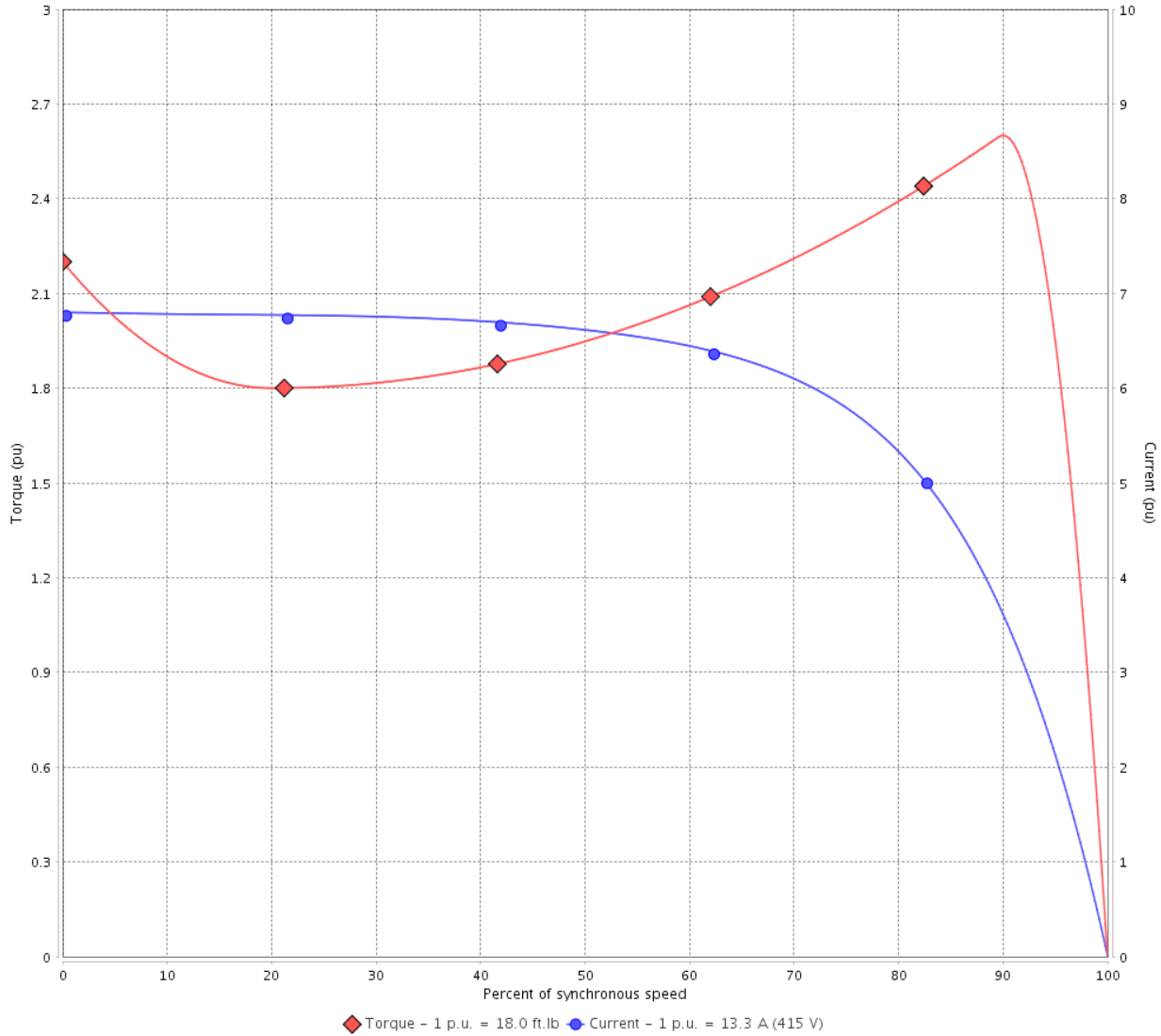
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Product code : 13163449

Catalog # : 01036ET3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 25.1/13.3 A	Moment of inertia (J)	: 0.7188 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 18.0 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 2910 rpm	Design	: B

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

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

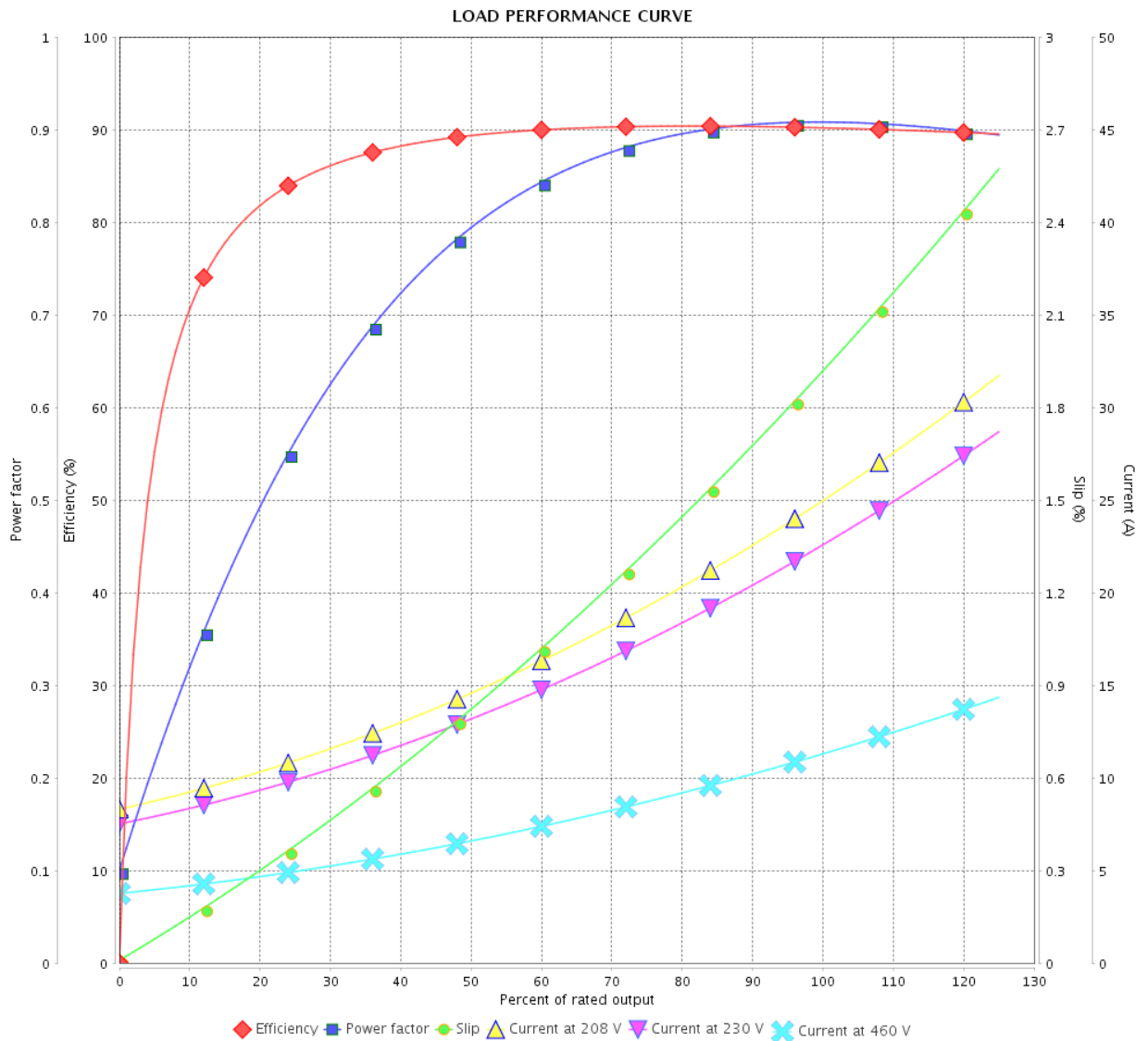


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 Insulation class : F
 Service factor : 1.15
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 Design : B

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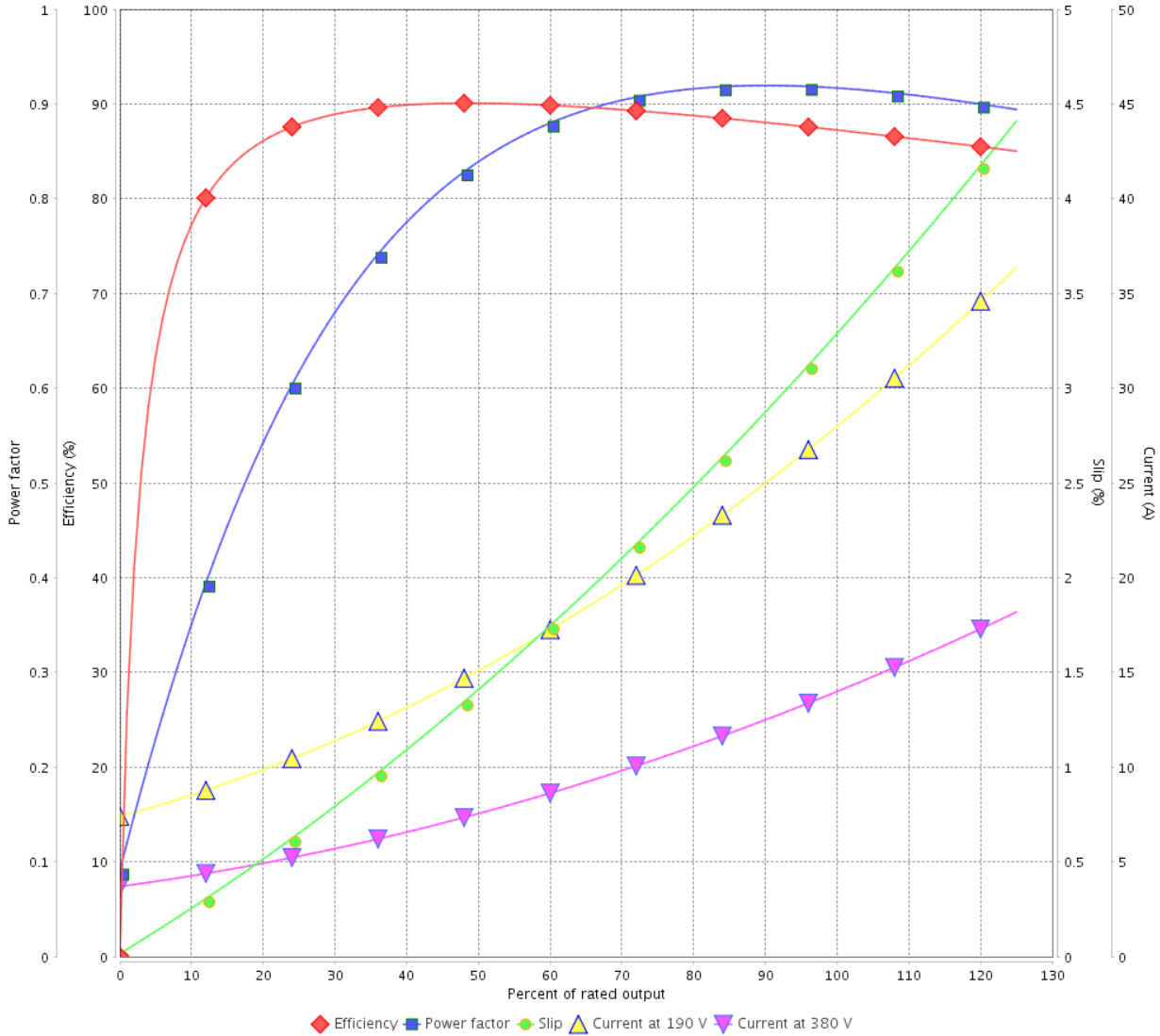
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 Insulation class : F
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 Temperature rise : 105 K
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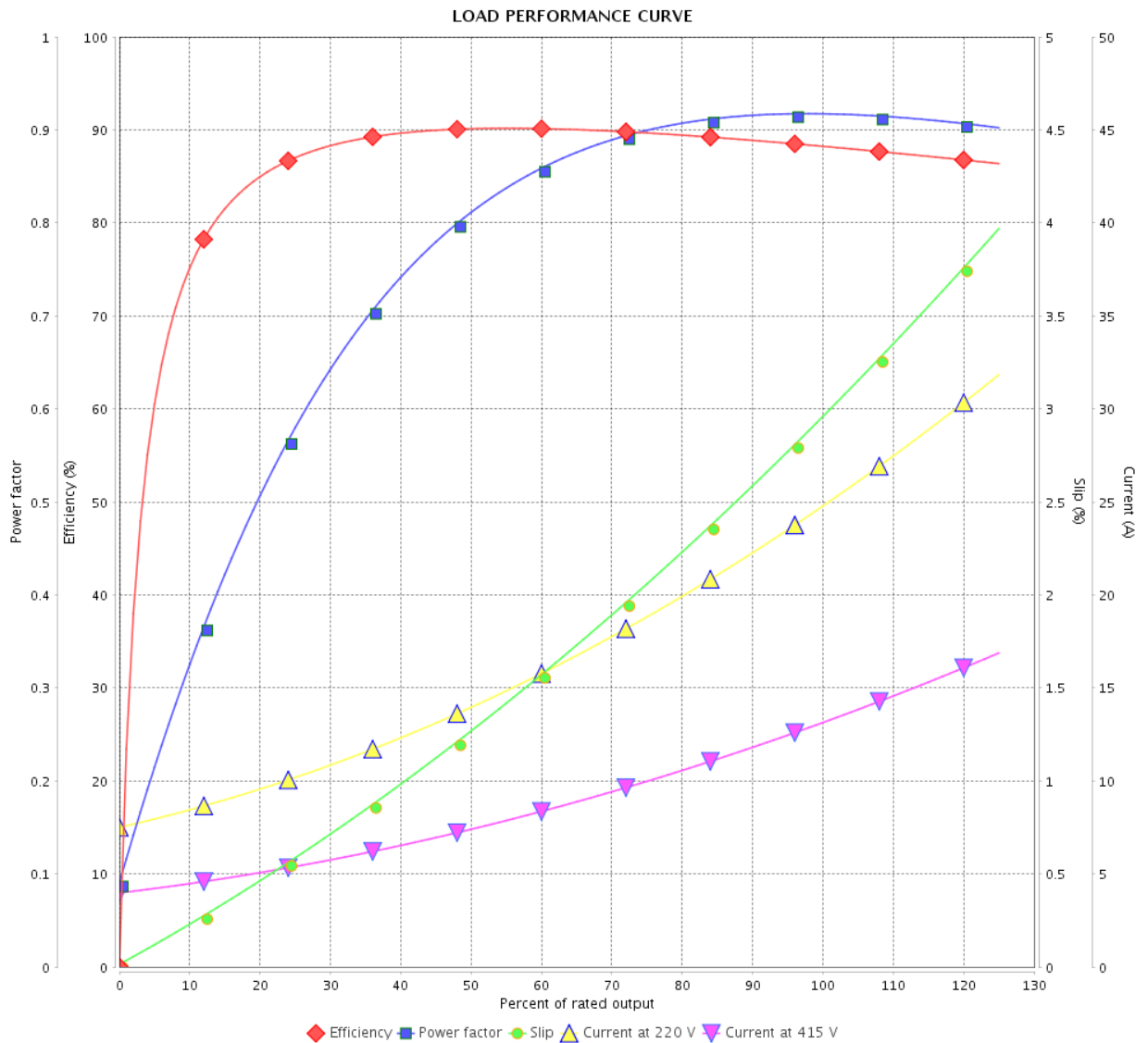


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THERMAL LIMIT CURVE



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Rated speed	: 3530 rpm	Design	: B

Heating constant

Cooling constant

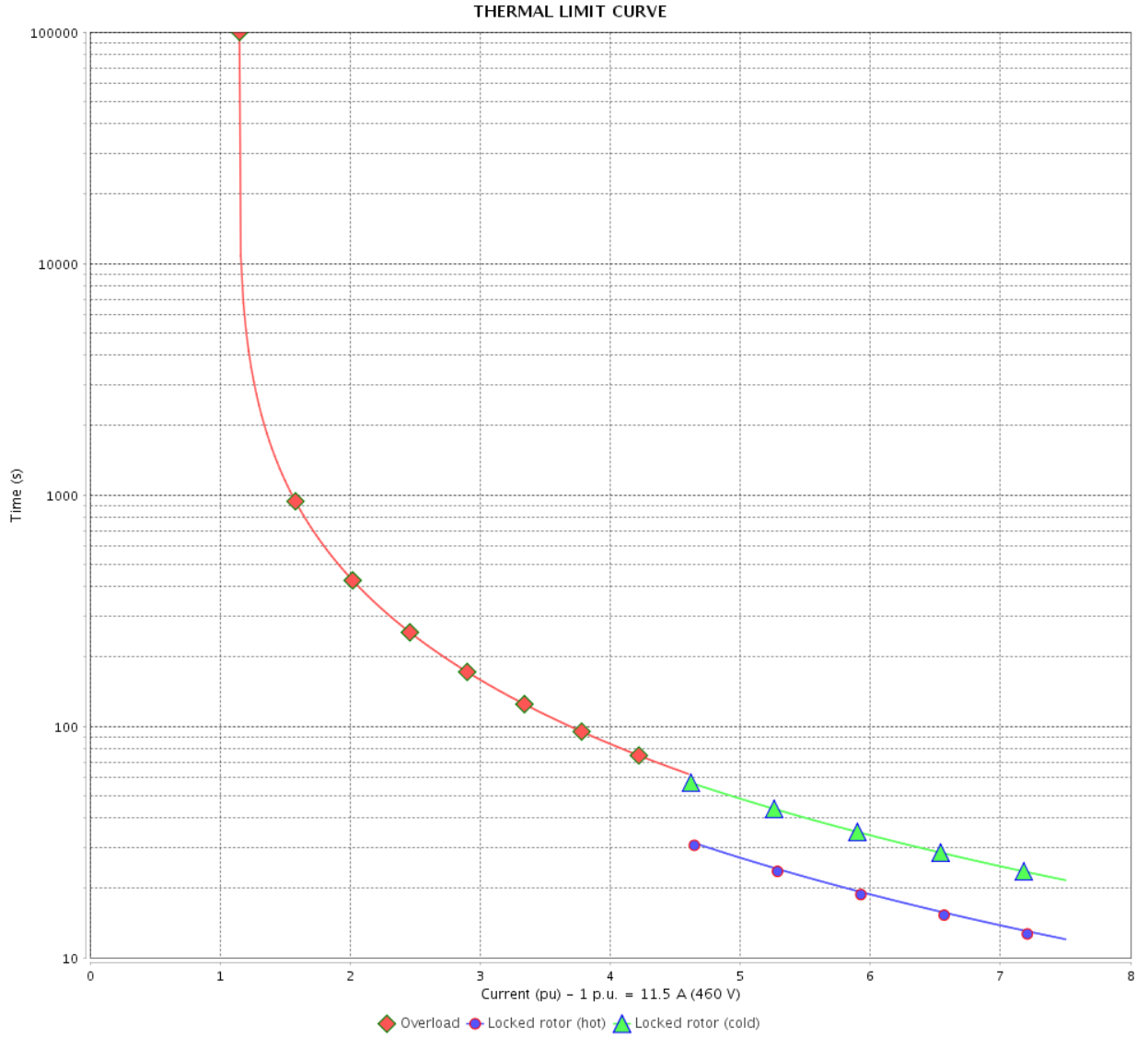
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Three Phase Induction Motor - Squirrel Cage



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Rated speed : 2900 rpm	Design : B

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Cooling constant

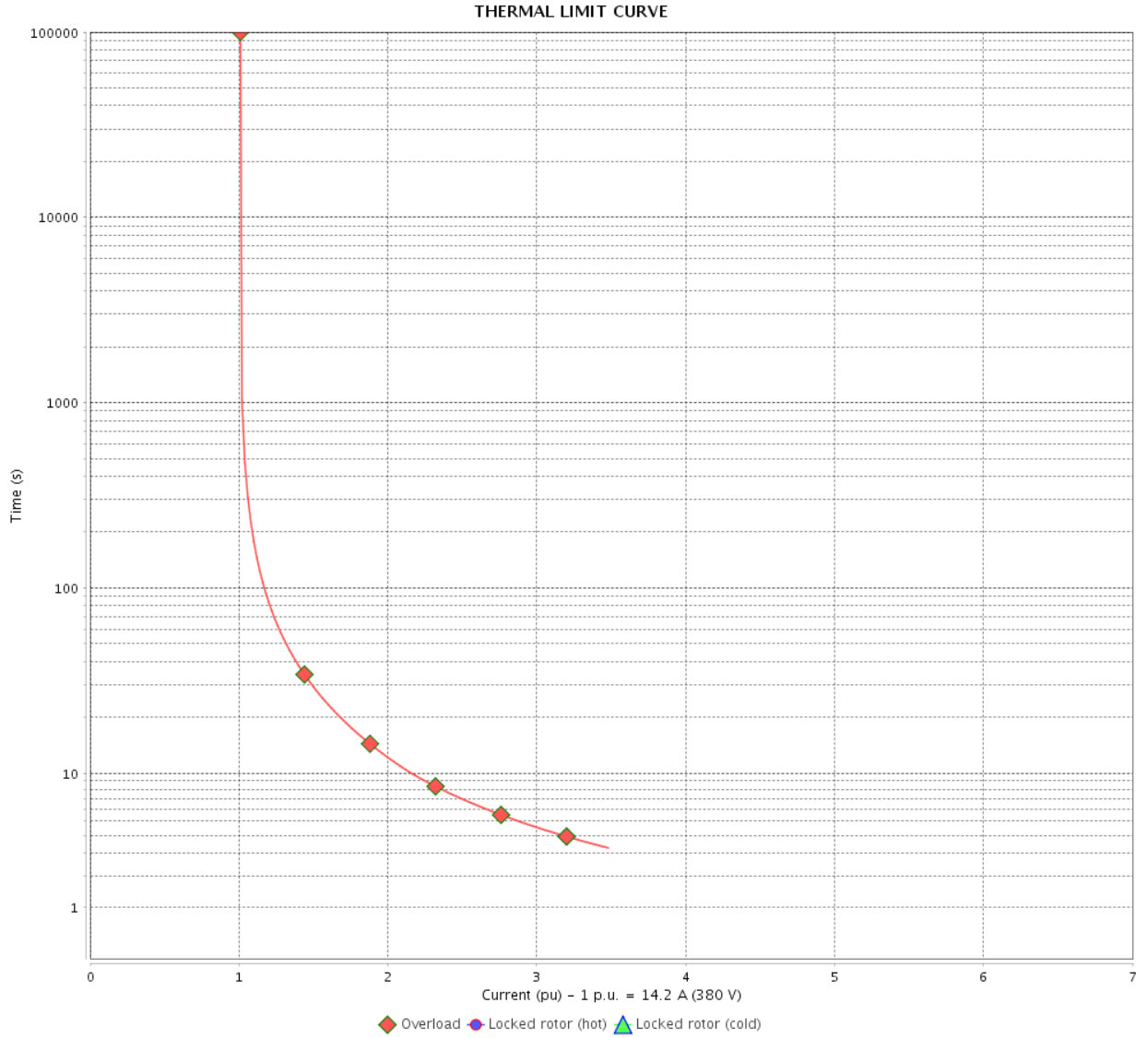
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Cooling constant

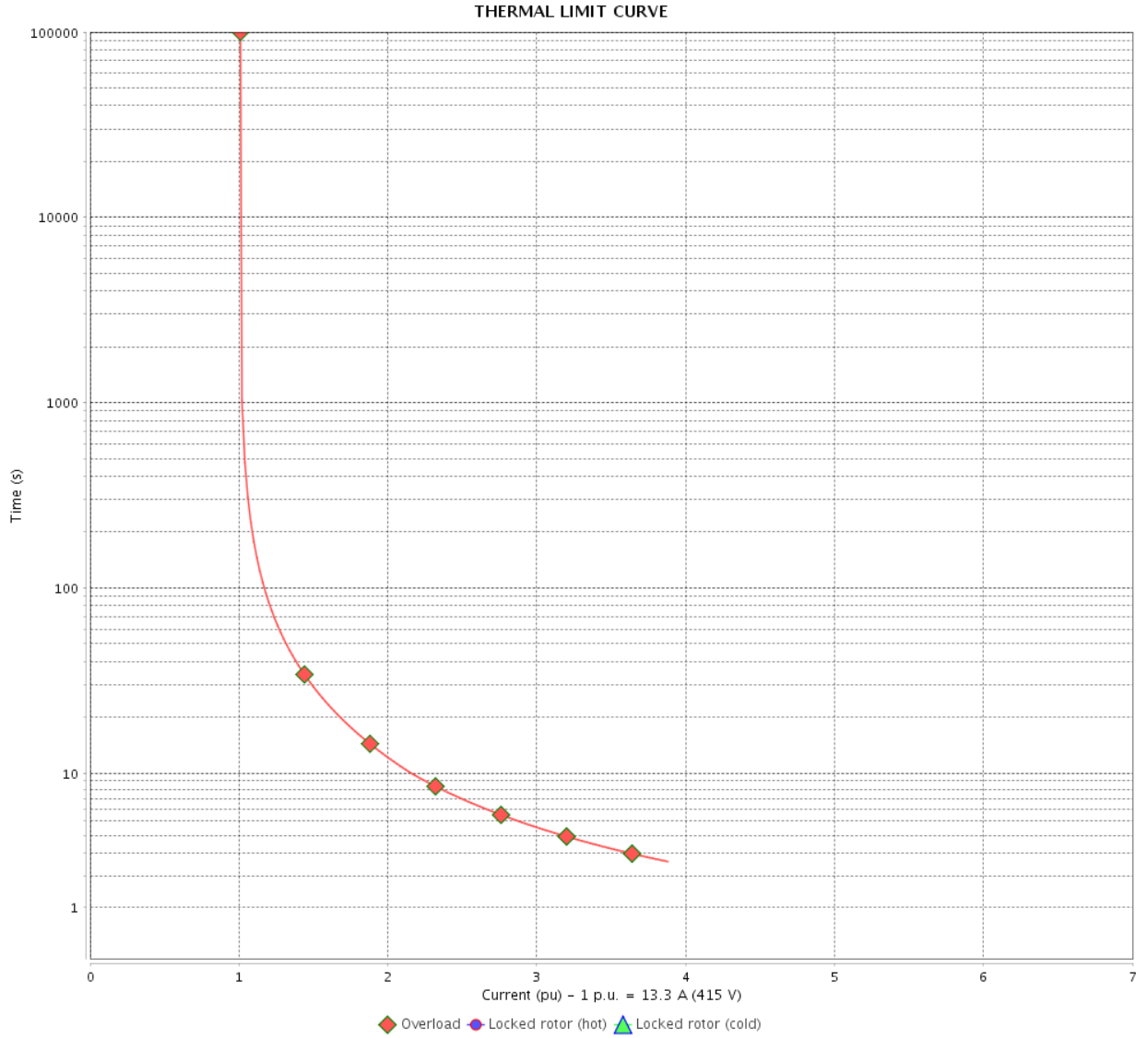
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

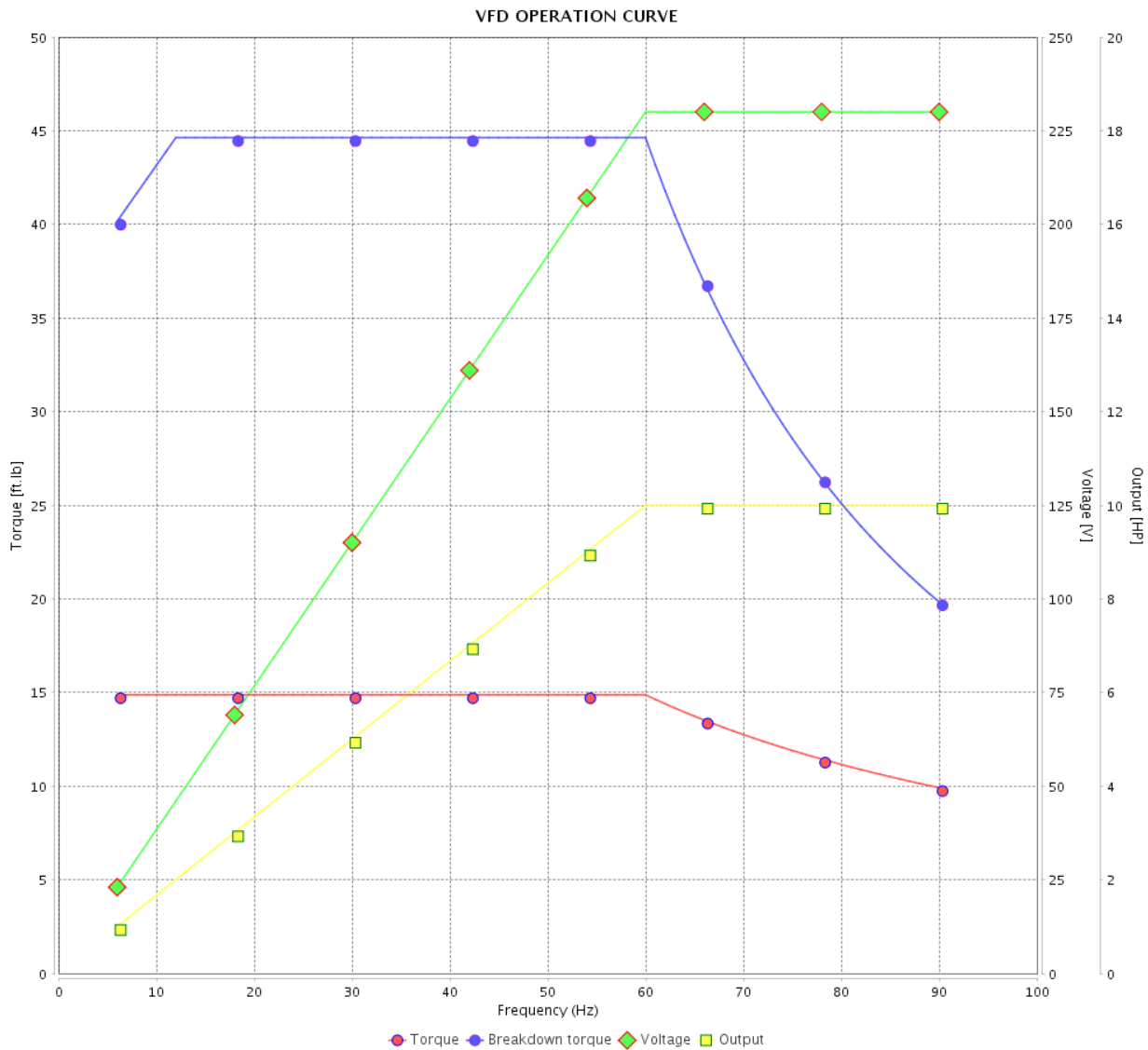


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 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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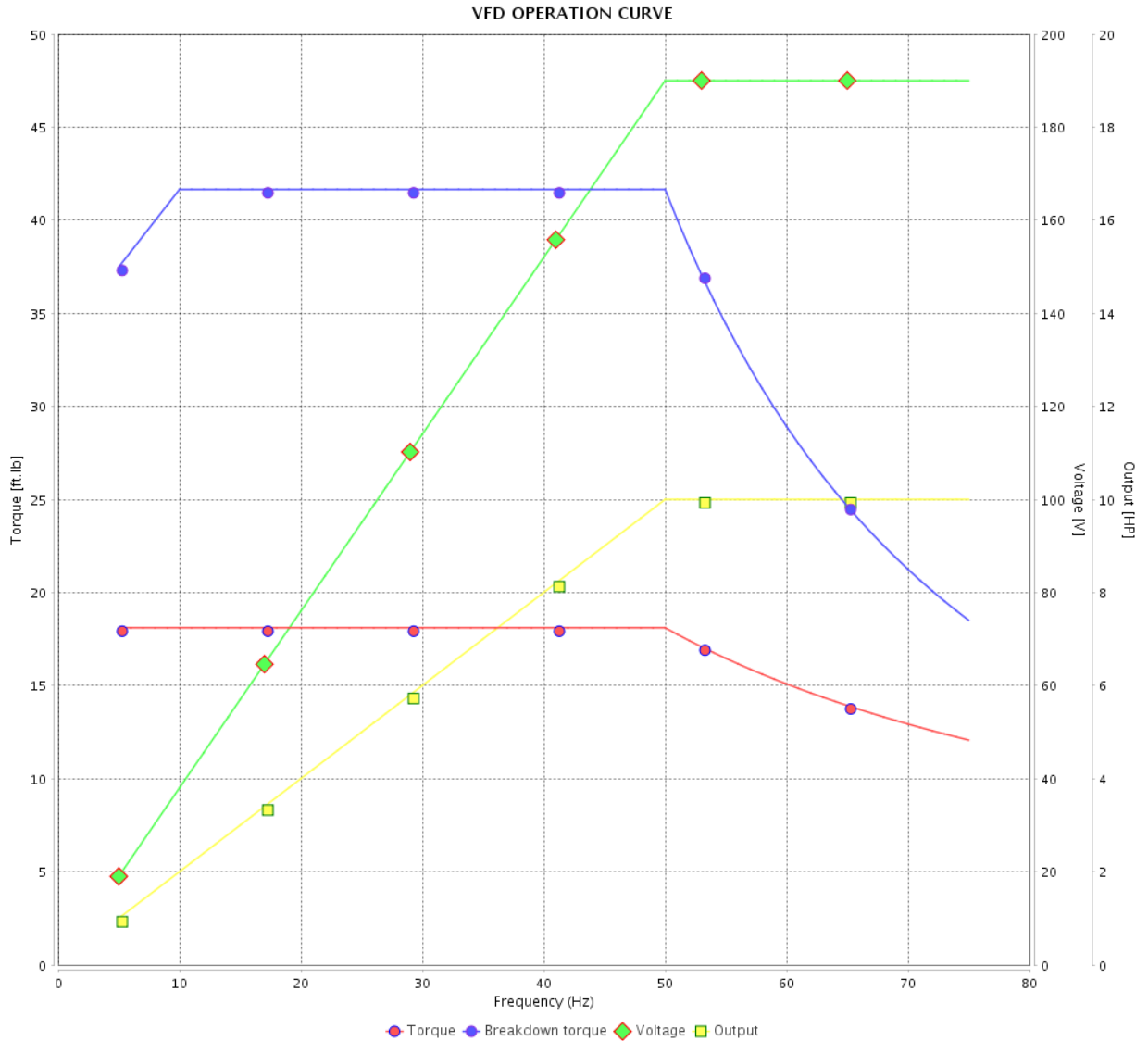
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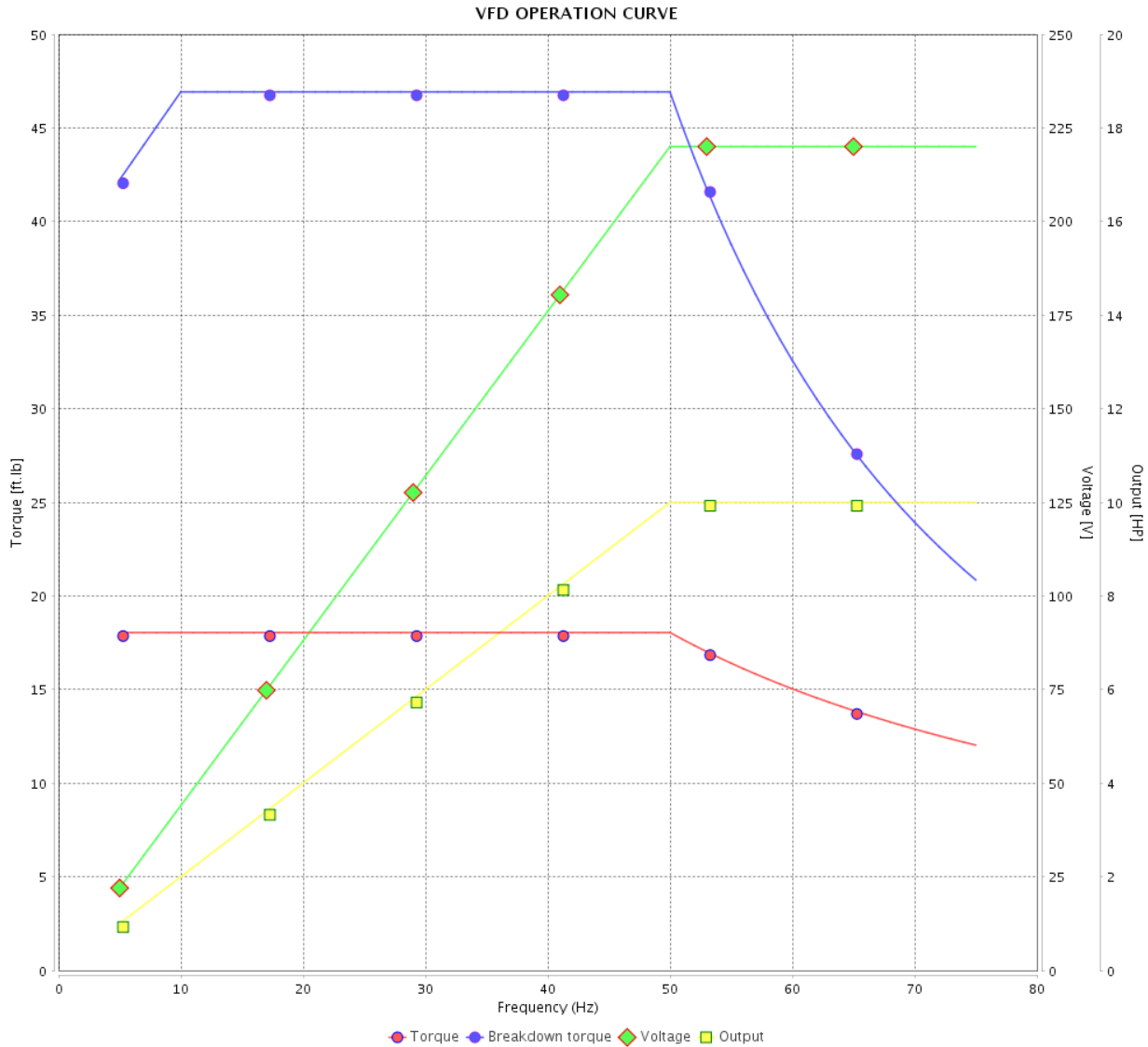


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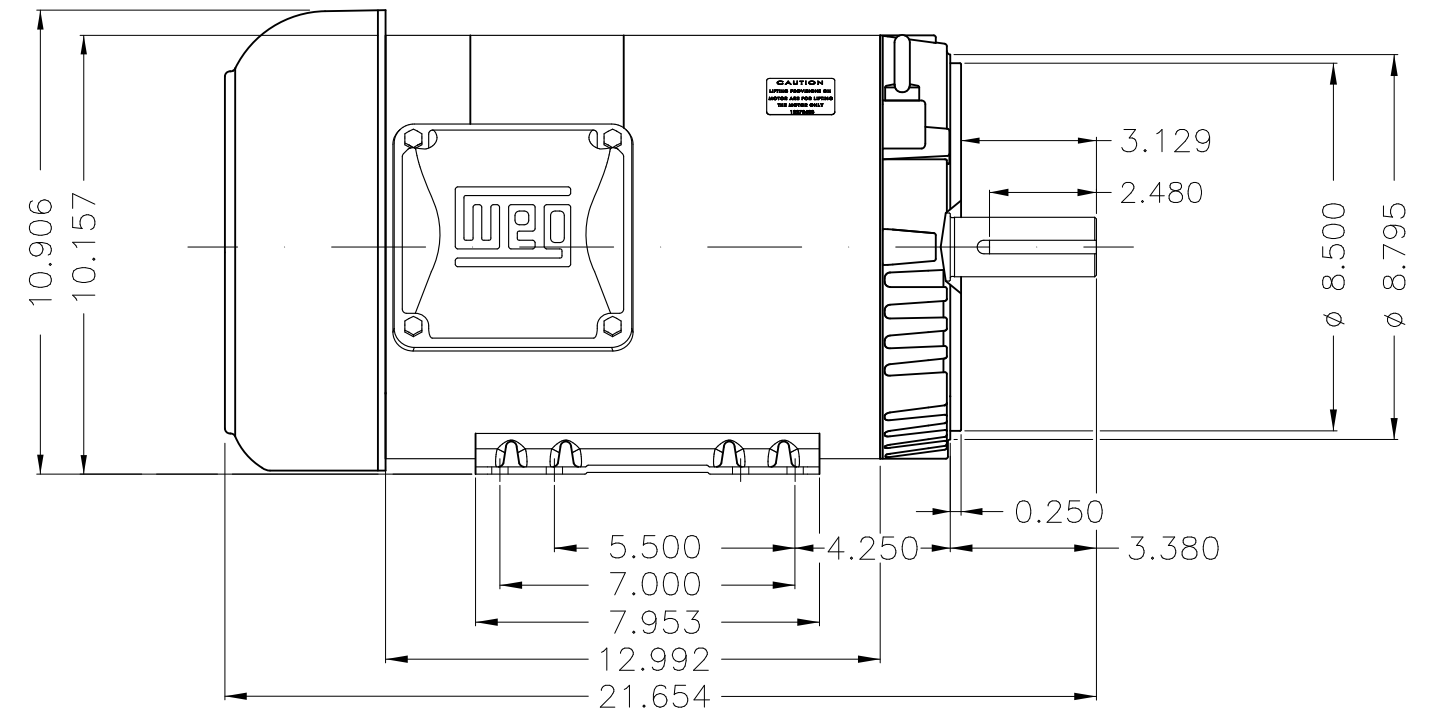
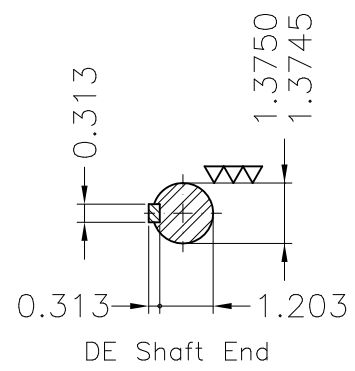
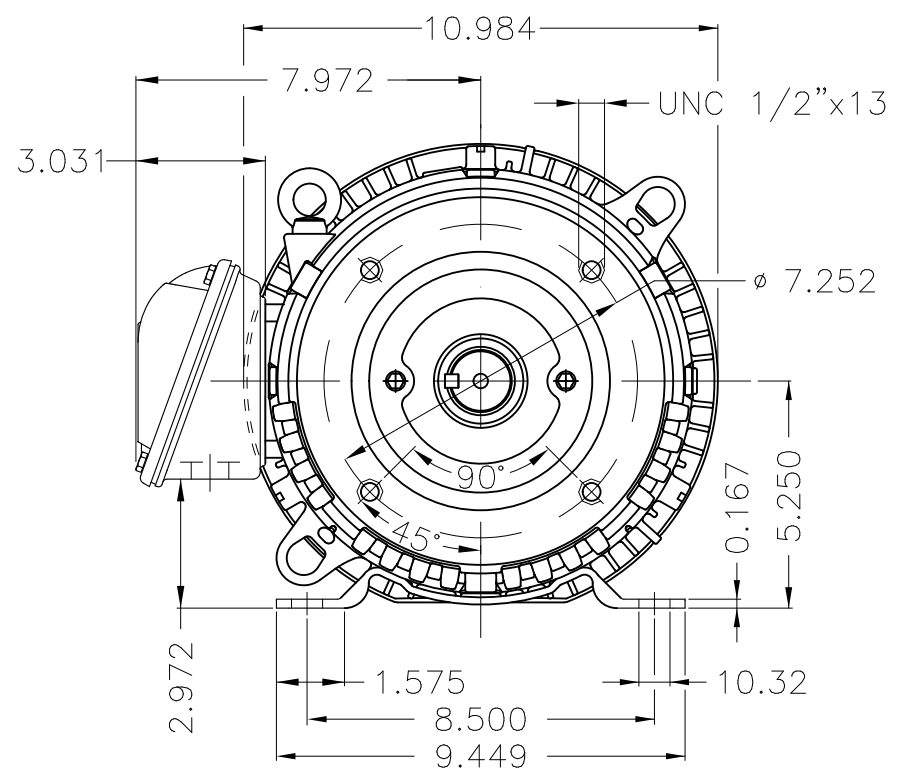
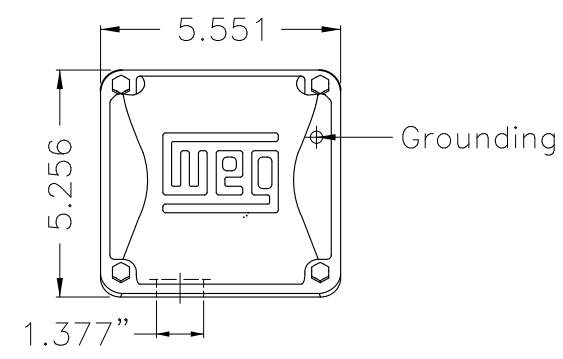
A

B

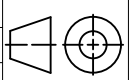
C

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		

10 HP 02 Poles 60 Hz

A

PREVIEW
WDD

