

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12675413	
Catalog # :	00312ET3E213T-S	
Frame	: 213/5T	
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 <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 125 lb	
Moment of inertia (J)	: 1.08 sq.ft.lb	
Output [HP]	3	
Poles	6	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	8.34/4.17	
L. R. Amperes [A]	53.4/26.7	
LRC [A]	6.4x(Code H)	
No load current [A]	4.71/2.36	
Rated speed [RPM]	1175	
Slip [%]	2.08	
Rated torque [ft.lb]	13.4	
Locked rotor torque [%]	229	
Breakdown torque [%]	290	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	82s (cold) 46s (hot)	
Noise level <sup>2</sup>	55.0 dB(A)	
Efficiency (%)	25%	84.3
	50%	85.5
	75%	88.5
	100%	89.5
Power Factor	25%	0.32
	50%	0.55
	75%	0.67
	100%	0.74
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 : 165 lb	
	Max. compression : 290 lb	
Notes USABLE @208V 9.22A SF 1.00 SFA 9.22A		
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



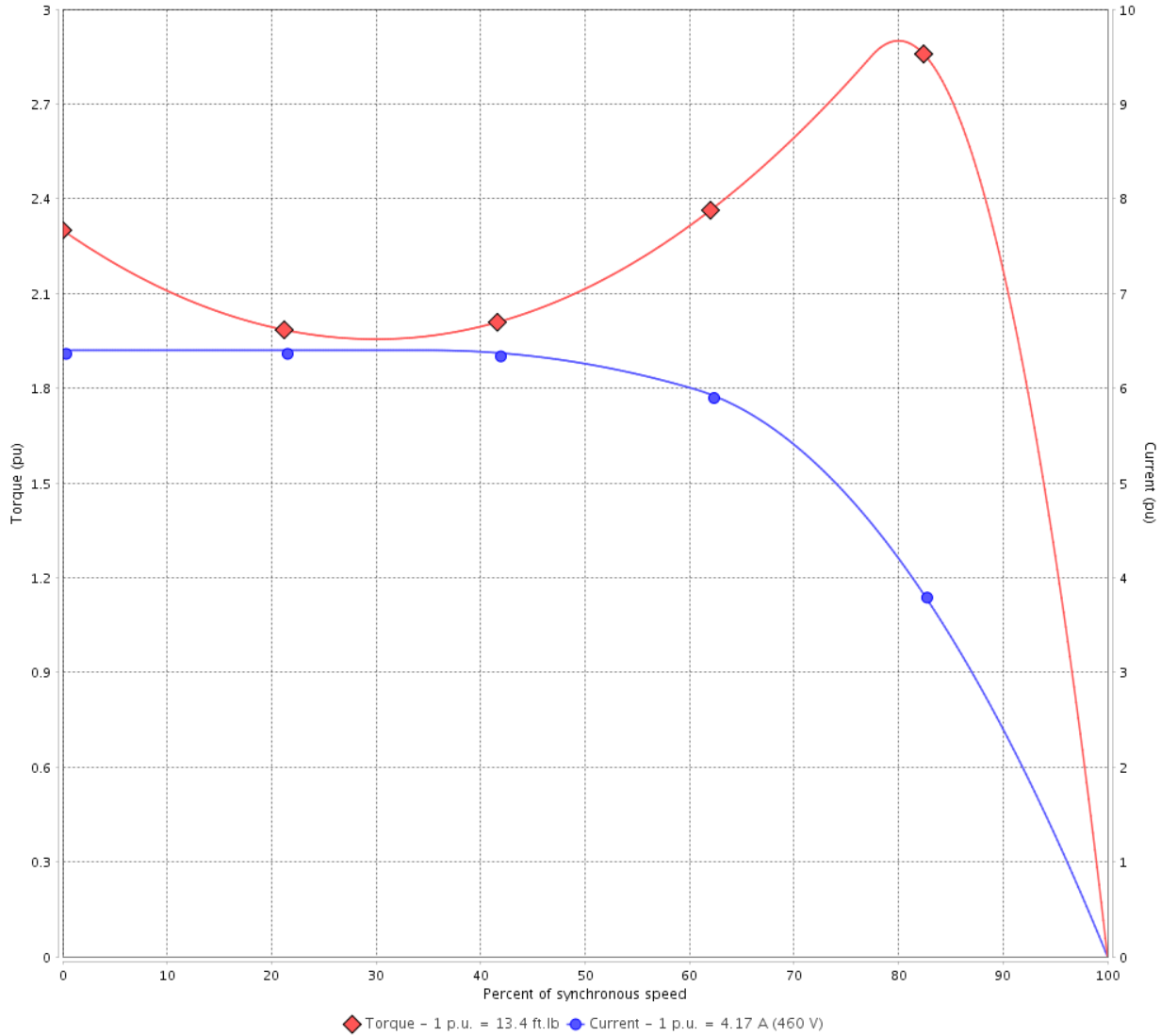
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675413

Catalog # : 00312ET3E213T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 8.34/4.17 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 82s (cold) 46s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



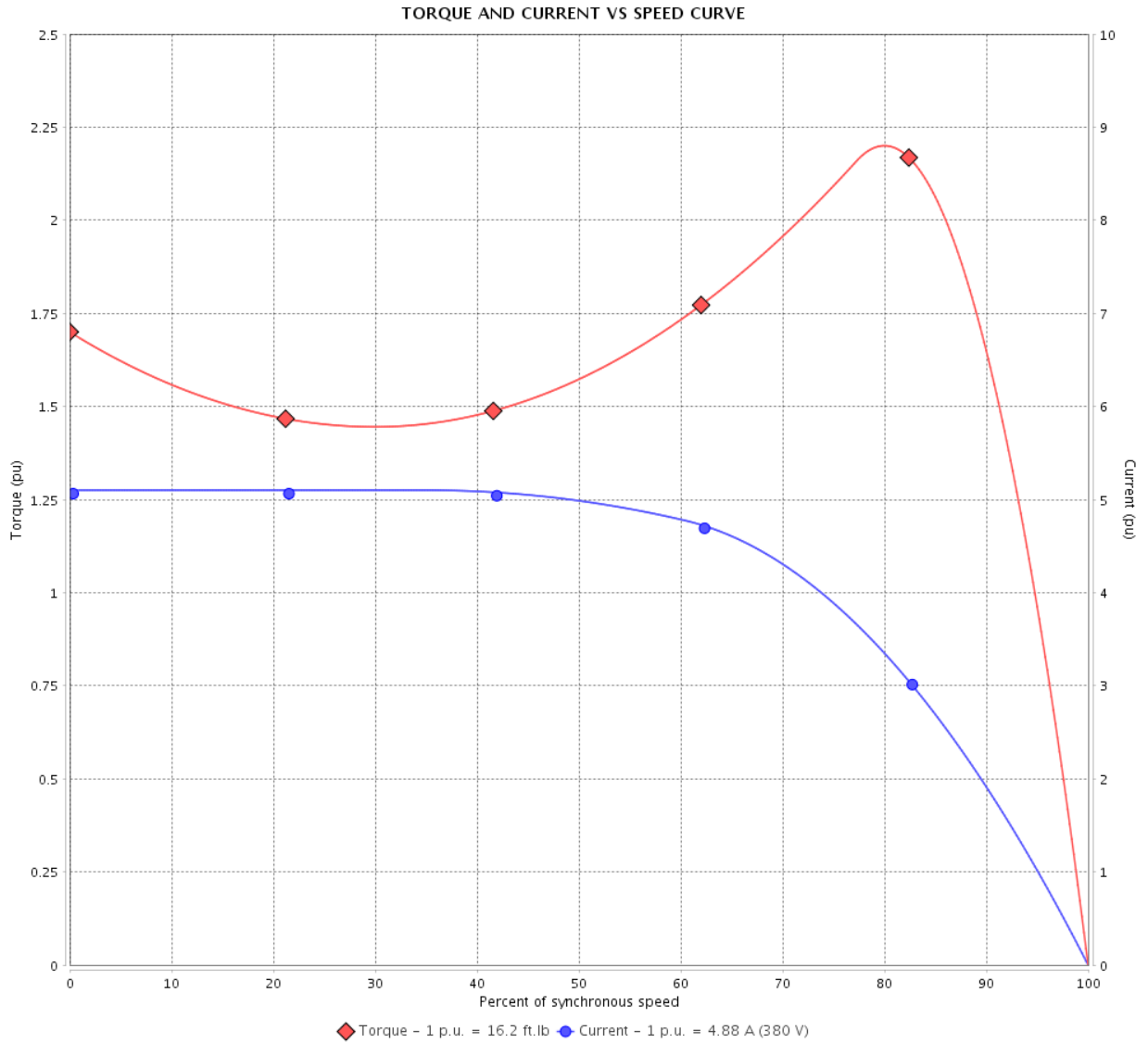
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675413

Catalog # : 00312ET3E213T-S



Performance : 190/380 V 50 Hz 6P

Rated current	: 9.76/4.88 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.1	Duty cycle	: Cont.(S1)
Rated torque	: 16.2 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	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



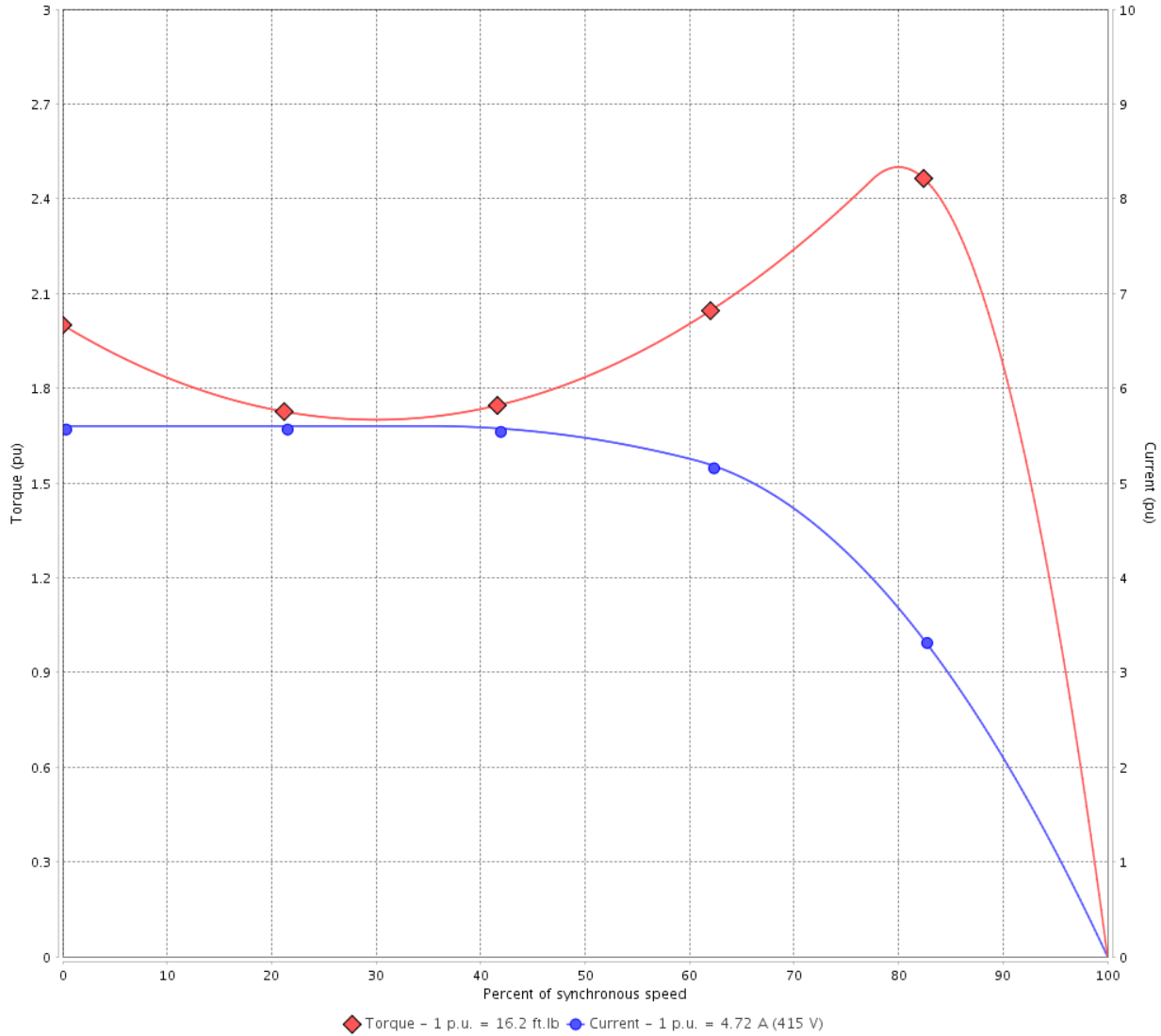
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675413

Catalog # : 00312ET3E213T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 8.90/4.72 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.6	Duty cycle	: Cont.(S1)
Rated torque	: 16.2 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 975 rpm	Design	: B

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

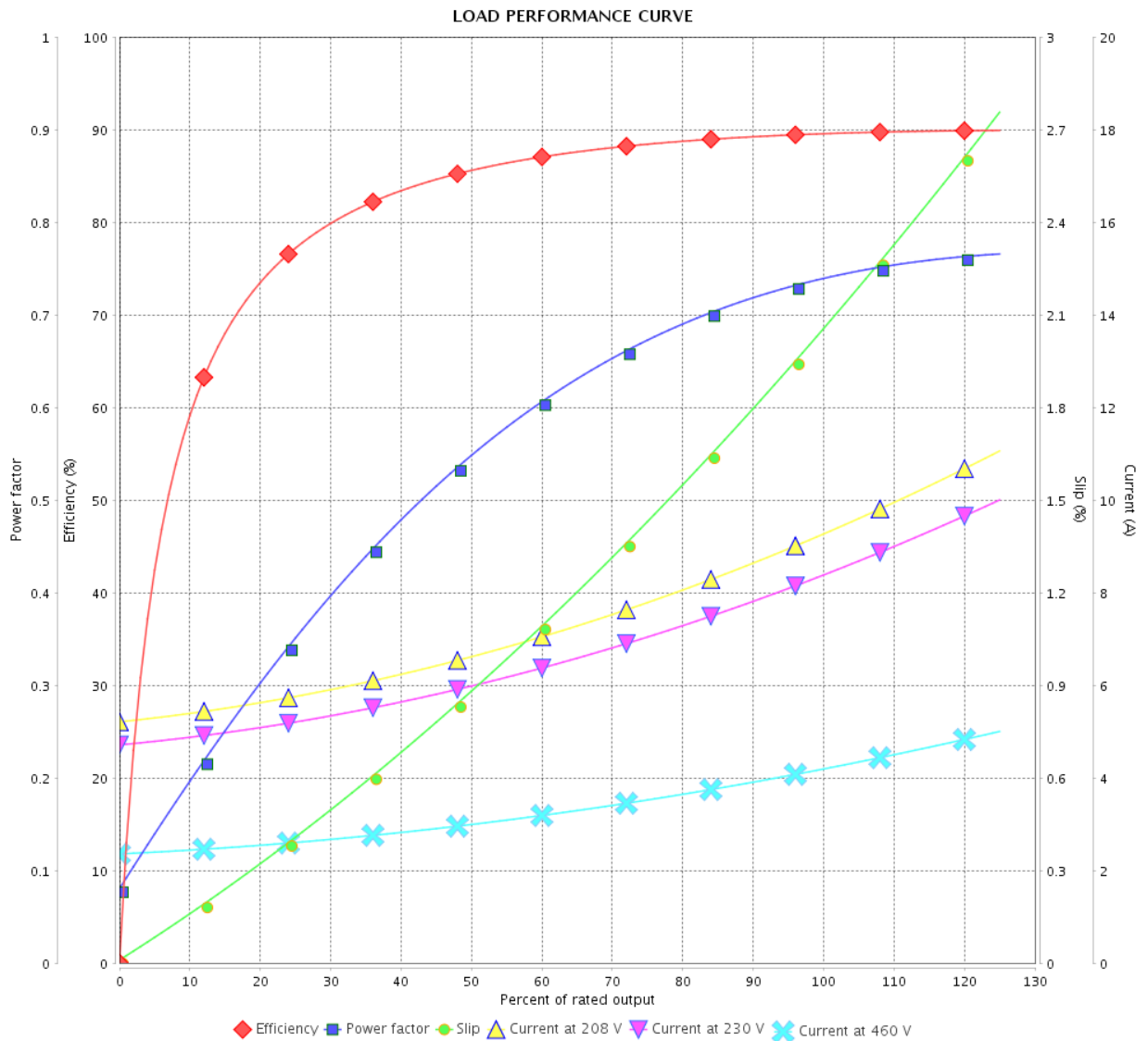


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675413

Catalog # : 00312ET3E213T-S



Performance : 230/460 V 60 Hz 6P

Rated current : 8.34/4.17 A  
 LRC : 6.4  
 Rated torque : 13.4 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 290 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



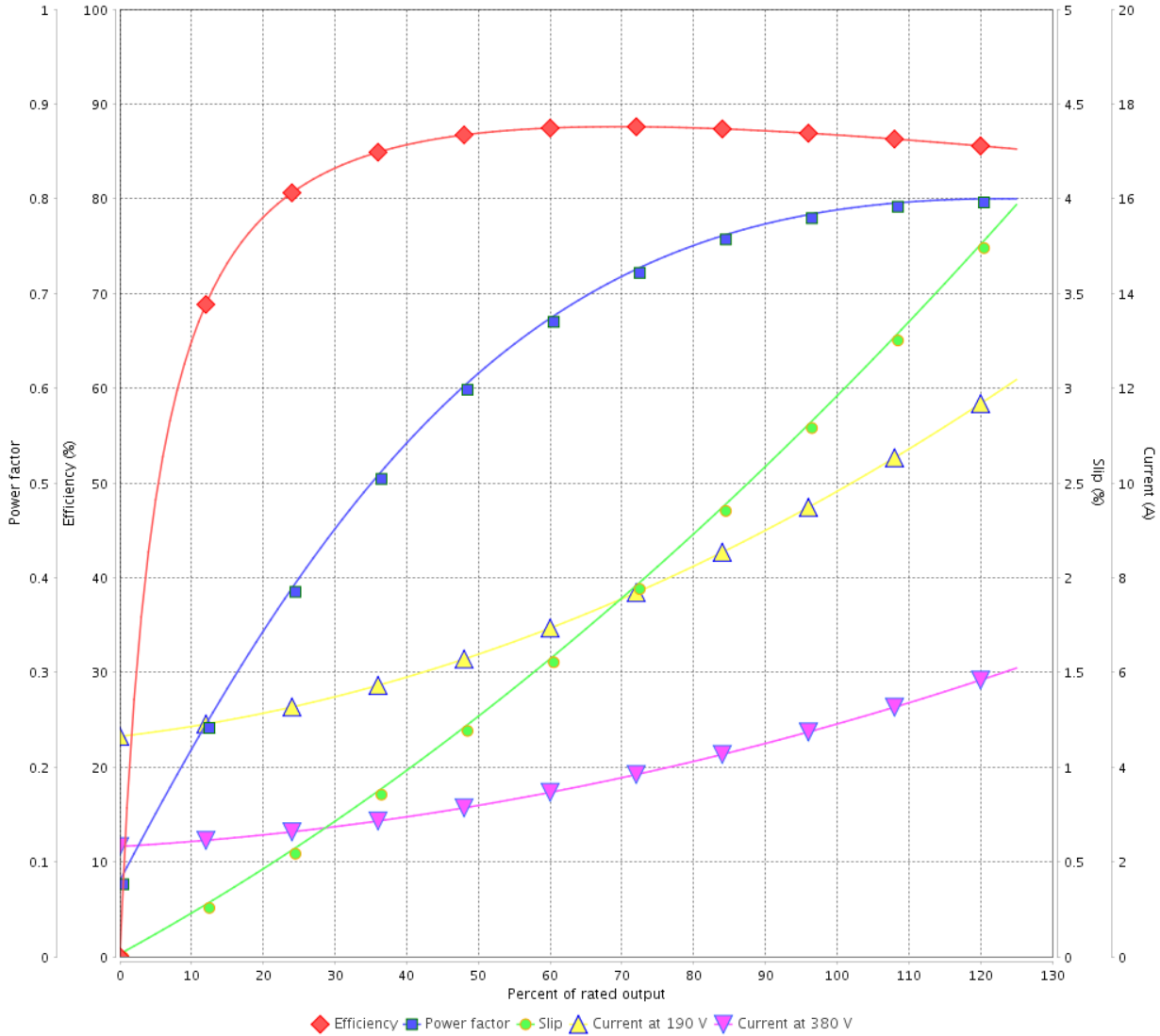
Customer :

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Product code : 12675413

Catalog # : 00312ET3E213T-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 9.76/4.88 A  
 LRC : 5.1  
 Rated torque : 16.2 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 220 %  
 Rated speed : 970 rpm

Moment of inertia (J) : 1.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

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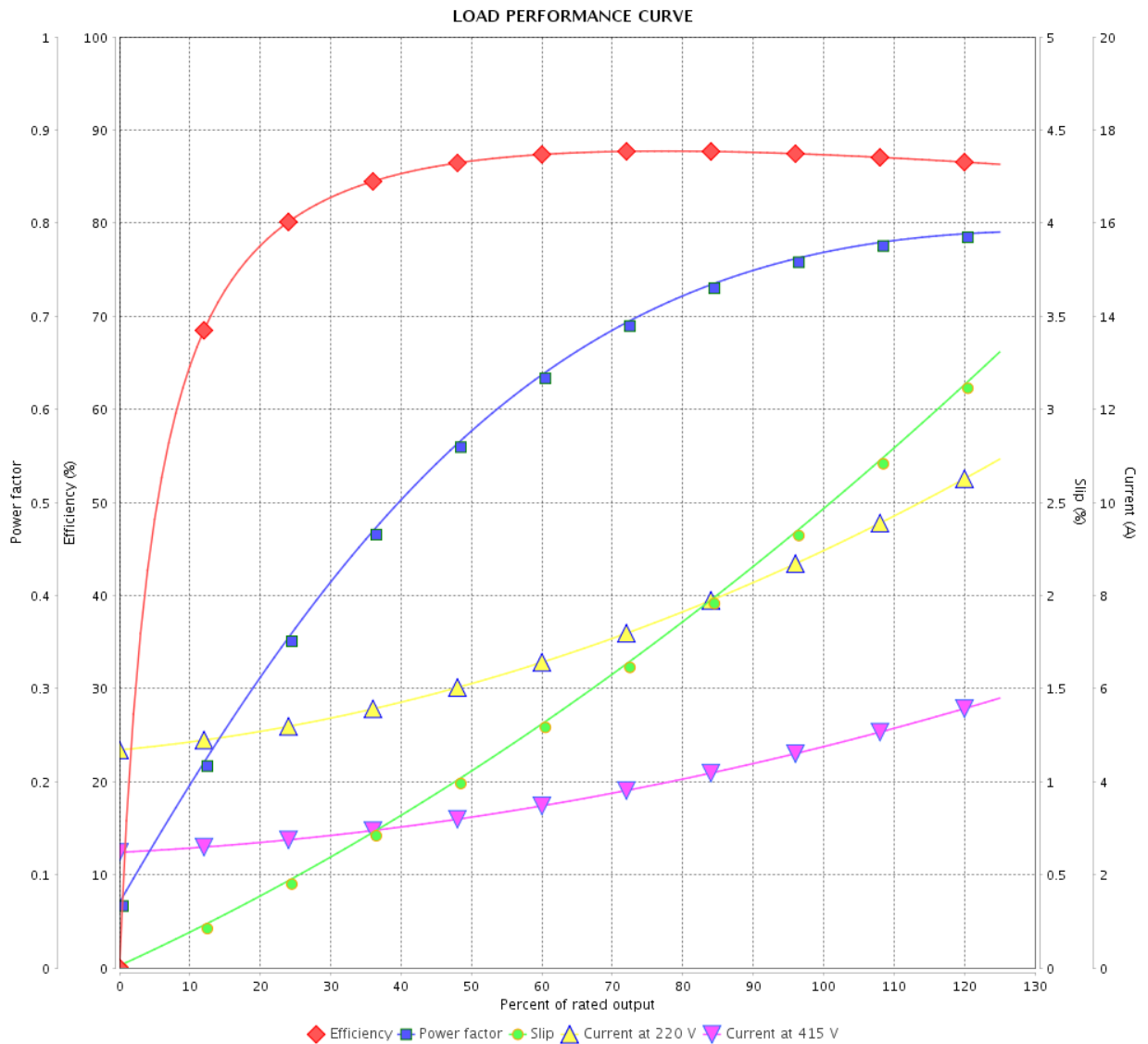


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Product line : NEMA Premium Efficiency Three-Phase

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Catalog # : 00312ET3E213T-S



Performance : 220/415 V 50 Hz 6P

Rated current : 8.90/4.72 A  
 LRC : 5.6  
 Rated torque : 16.2 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 975 rpm

Moment of inertia (J) : 1.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
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# THERMAL LIMIT CURVE

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Performance : 230/460 V 60 Hz 6P

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LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 13.4 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	: 1.15
Breakdown torque	: 290 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Heating constant

Cooling constant

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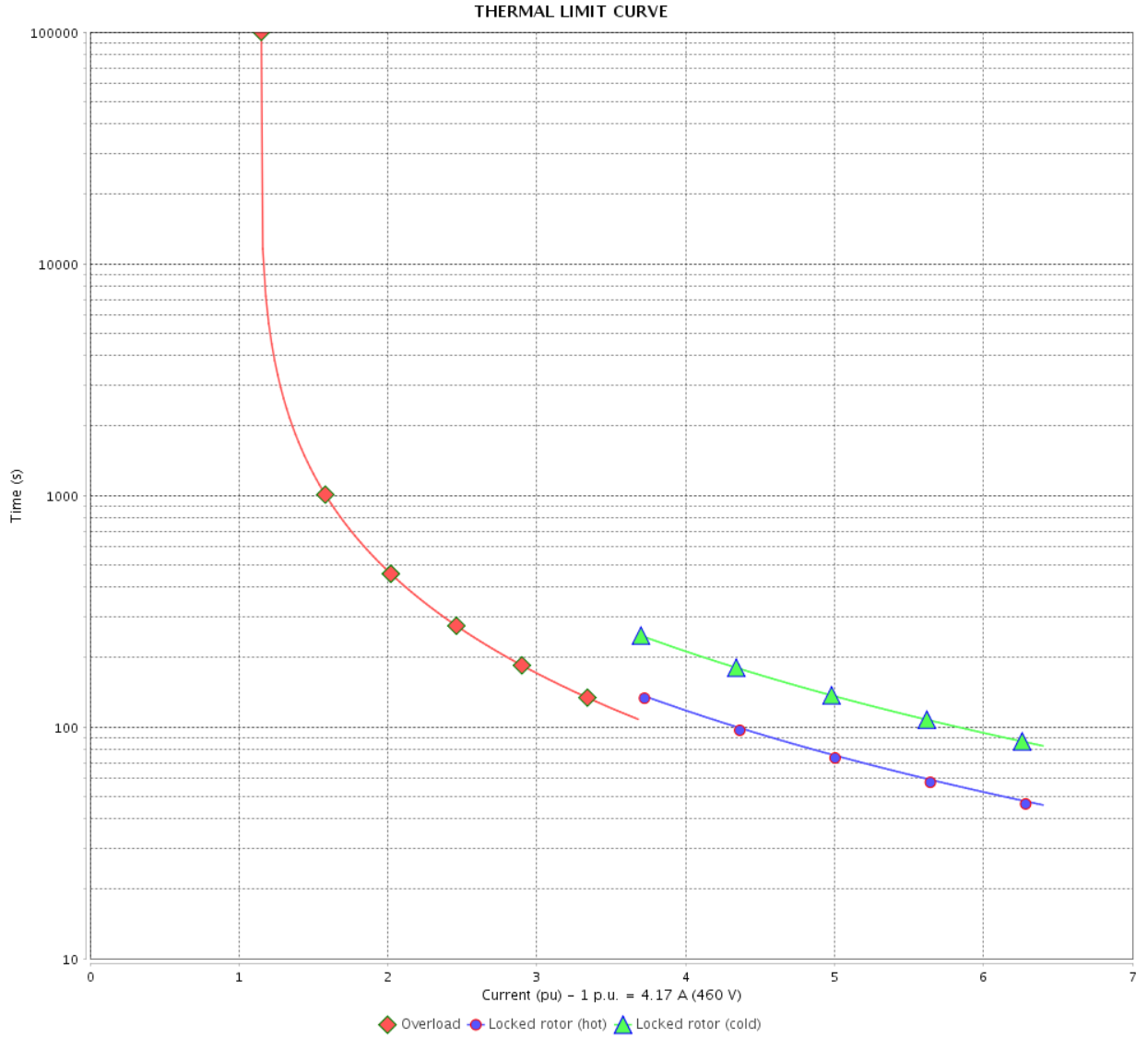


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Three Phase Induction Motor - Squirrel Cage



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Locked rotor torque	: 170 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 970 rpm	Design	: B

Heating constant

Cooling constant

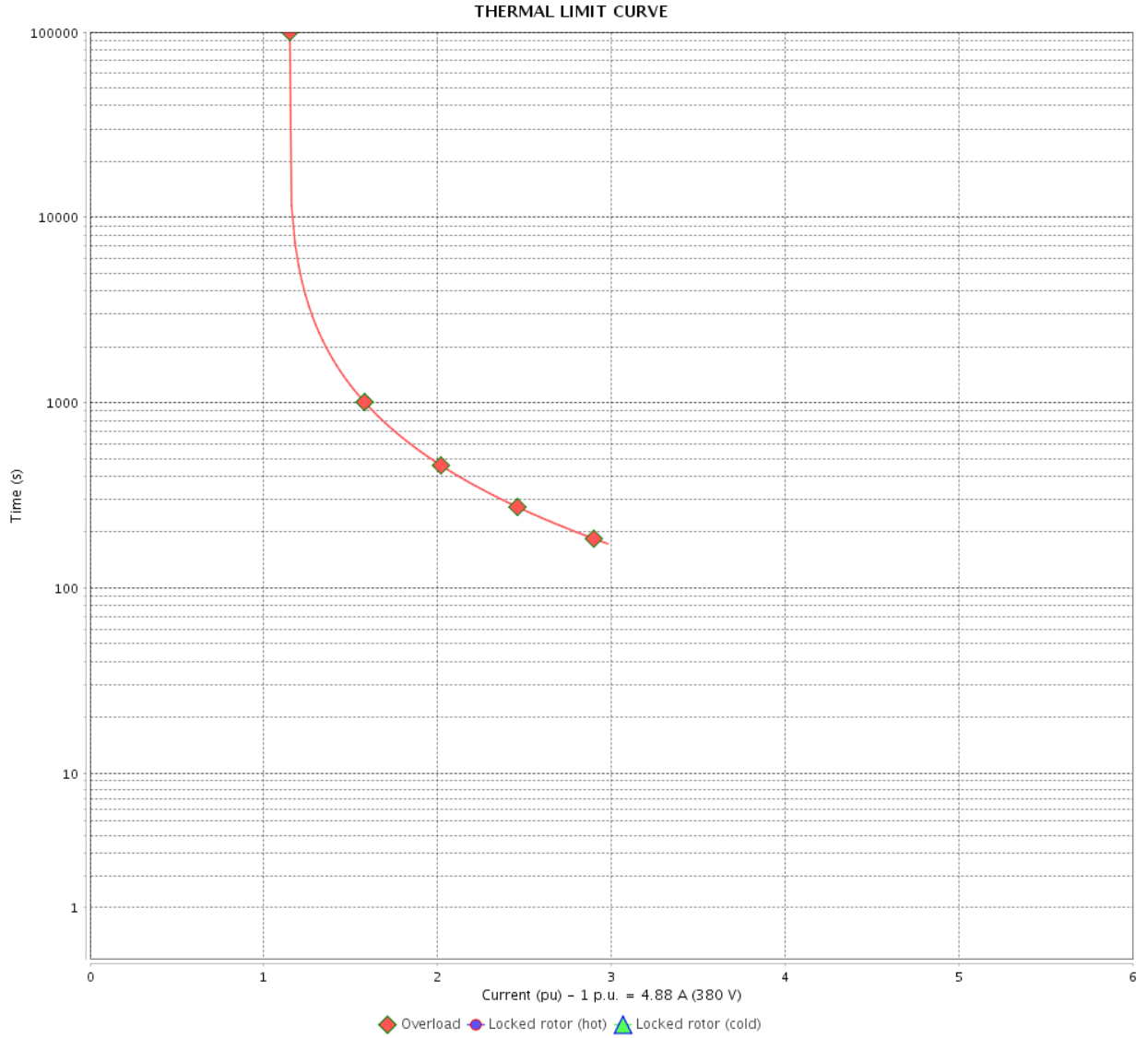
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Heating constant

Cooling constant

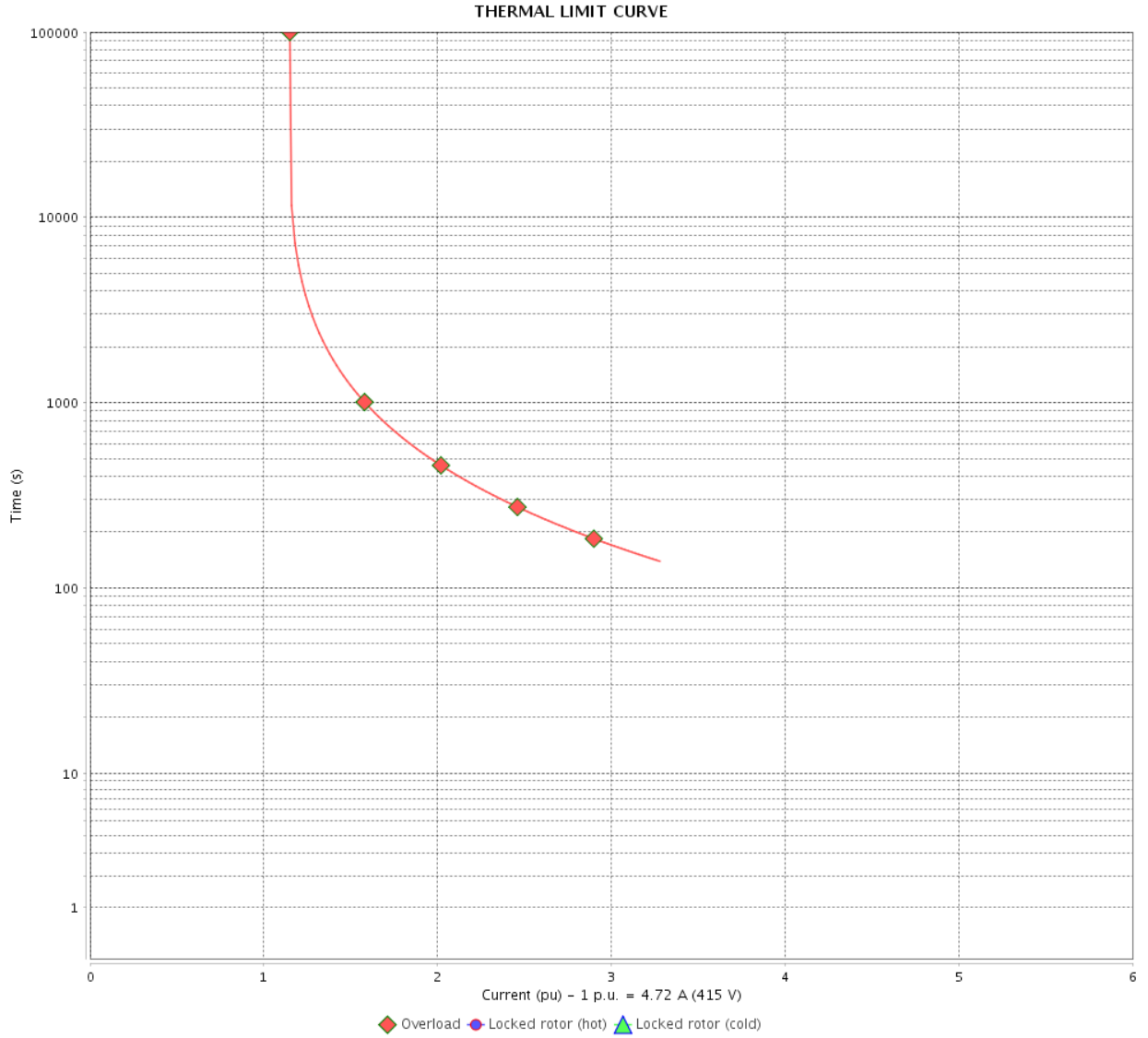
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Three Phase Induction Motor - Squirrel Cage



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

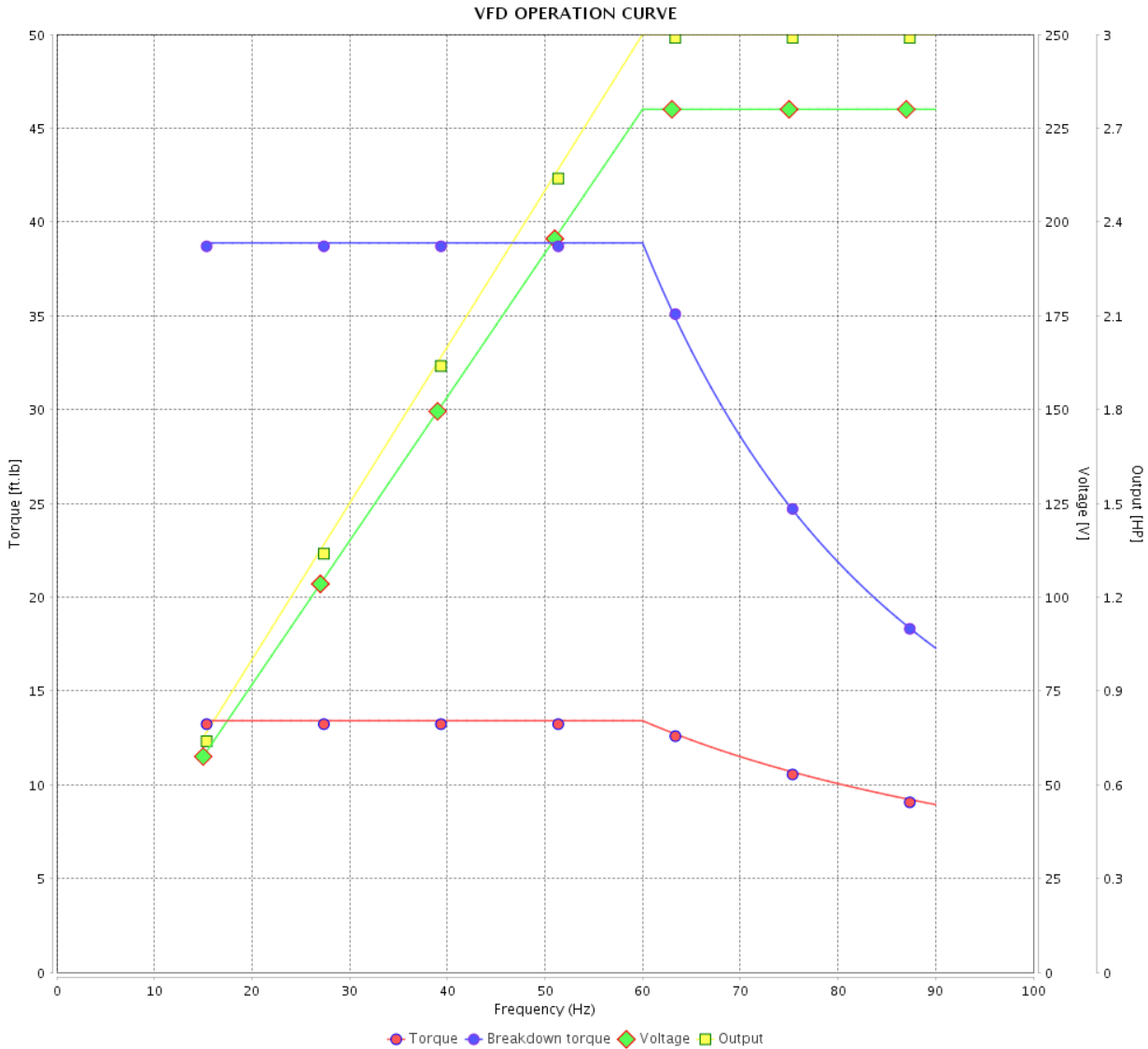


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 Insulation class : F  
 Service factor : 1.15  
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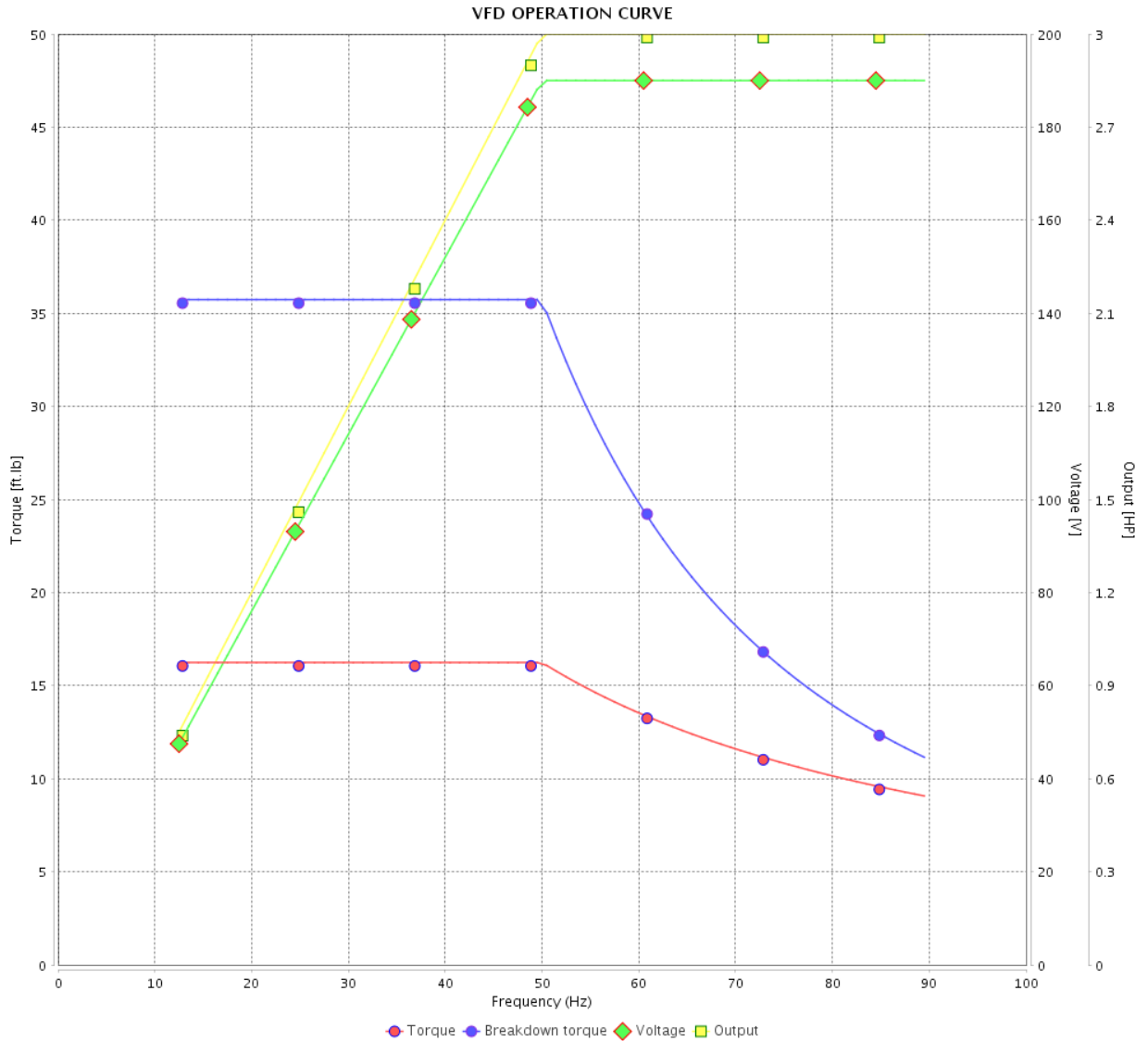


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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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Three Phase Induction Motor - Squirrel Cage

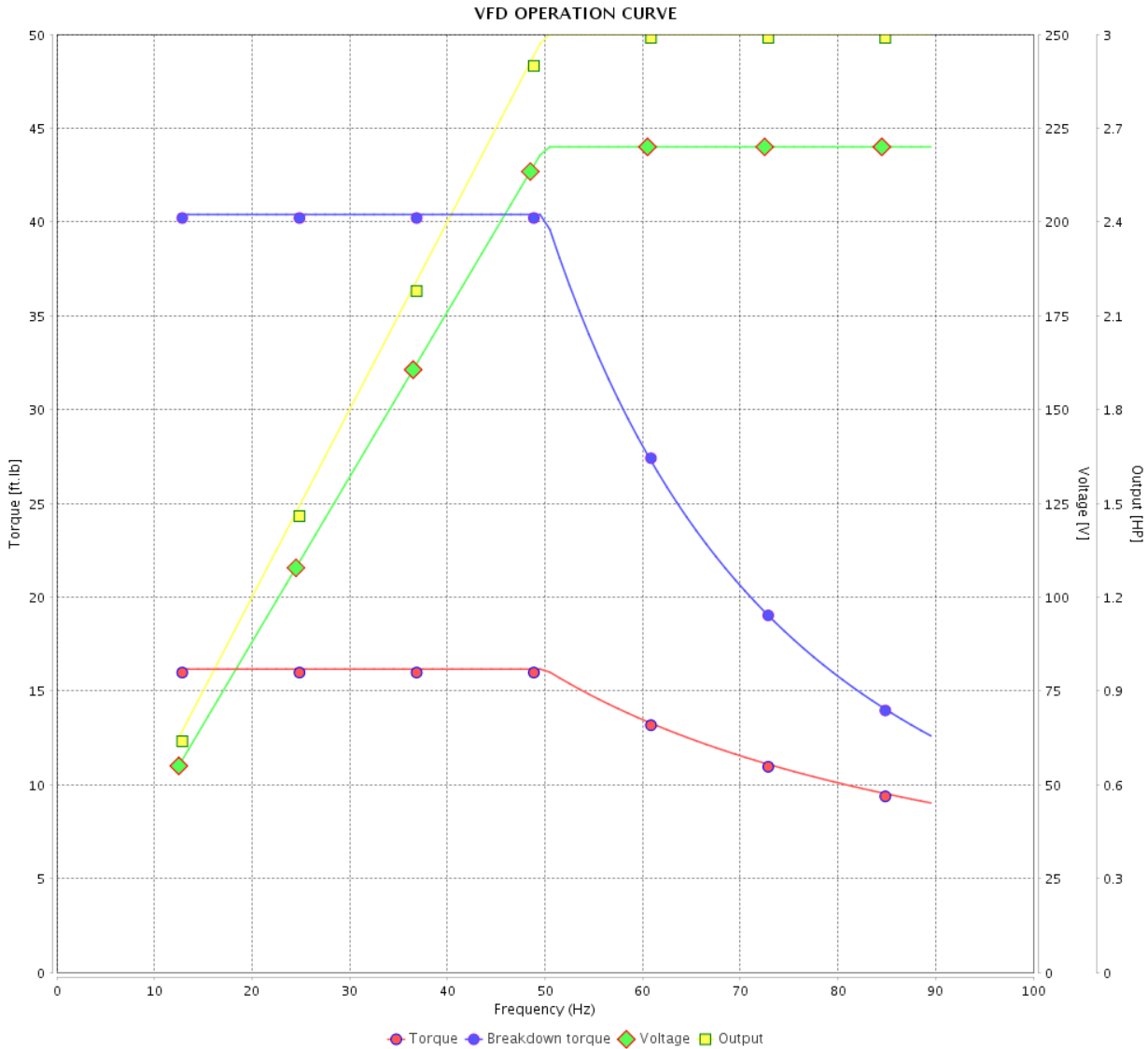


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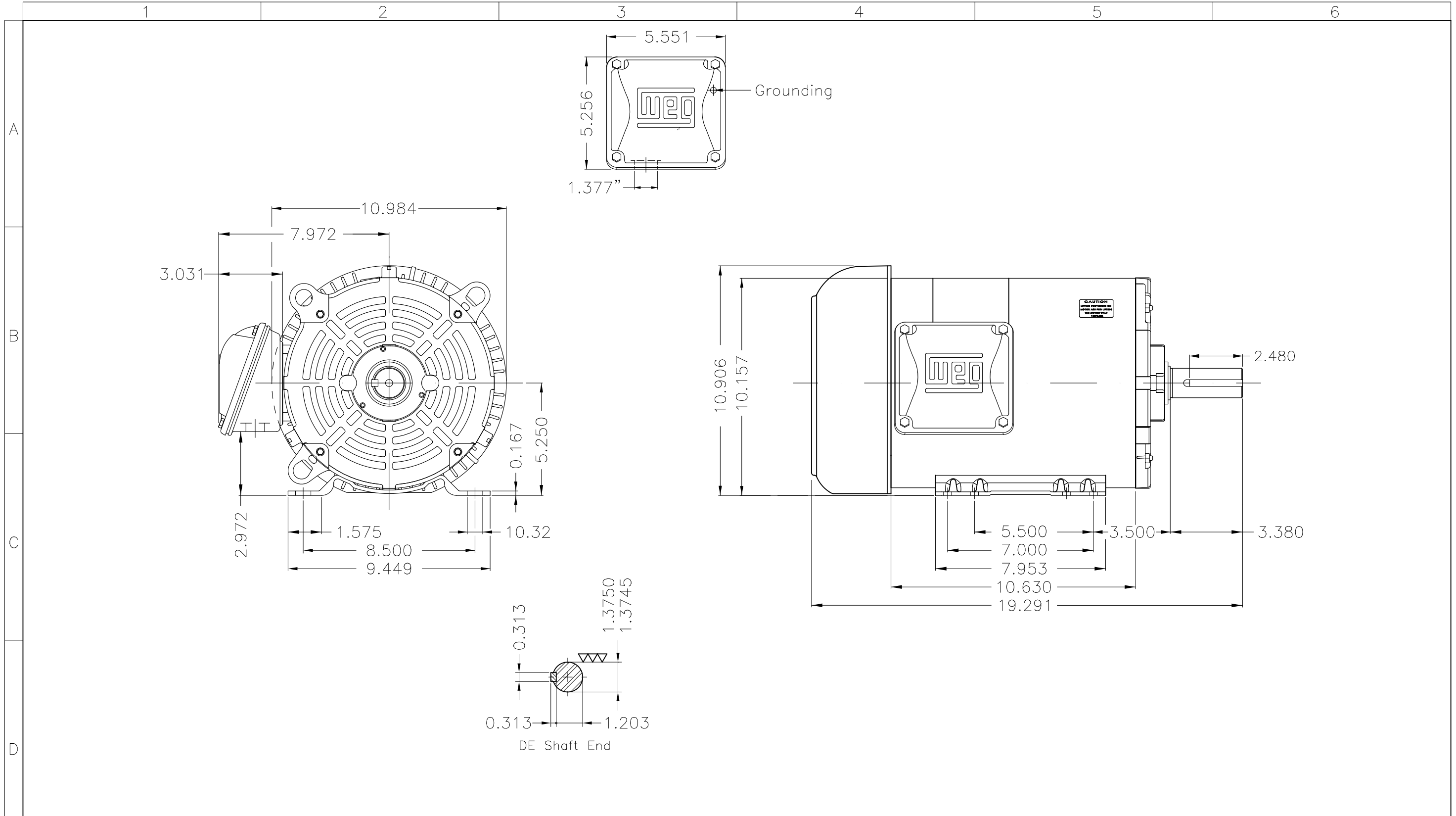
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Color Munsell N 1 matte black									
Painting plan 207N									
Mounting F-1/B3R(D)									
ECM	LOC	SUMMARY OF MODIFICATIONS			EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.				<b>PREVIEW</b> WDD			
CHECKED		FRAME 213/5T IP55 TEFC							
RELEASED									
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

3 HP 06 Poles 60 Hz

Dimensions in inches XME A3