

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	13163454	
Catalog # :	01536OT3E215TC-SG	
Frame	: 213/5TC	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
Cooling method	: IC01 - ODP	
Mounting	: F-1	
Rotation <sup>1</sup>	: Both (CW and CCW)	
Starting method	: Direct On Line	
Approx. weight <sup>2</sup>	: 142 lb	
Moment of inertia (J)	: 0.5512 sq.ft.lb	
Output [HP]	15	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	34.4/17.2	
L. R. Amperes [A]	234/117	
LRC [A]	6.8x(Code G)	
No load current [A]	12.3/6.17	
Rated speed [RPM]	3535	
Slip [%]	1.81	
Rated torque [ft.lb]	22.3	
Locked rotor torque [%]	210	
Breakdown torque [%]	280	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	14s (cold) 8s (hot)	
Noise level <sup>2</sup>	66.0 dB(A)	
Efficiency (%)	25%	90.1
	50%	90.2
	75%	90.2
	100%	90.2
Power Factor	25%	0.50
	50%	0.77
	75%	0.86
	100%	0.89
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: Without Without Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 280 lb Max. compression : 422 lb	
Notes USABLE @208V 38.0A SF 1.00 SFA 38.0A		
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



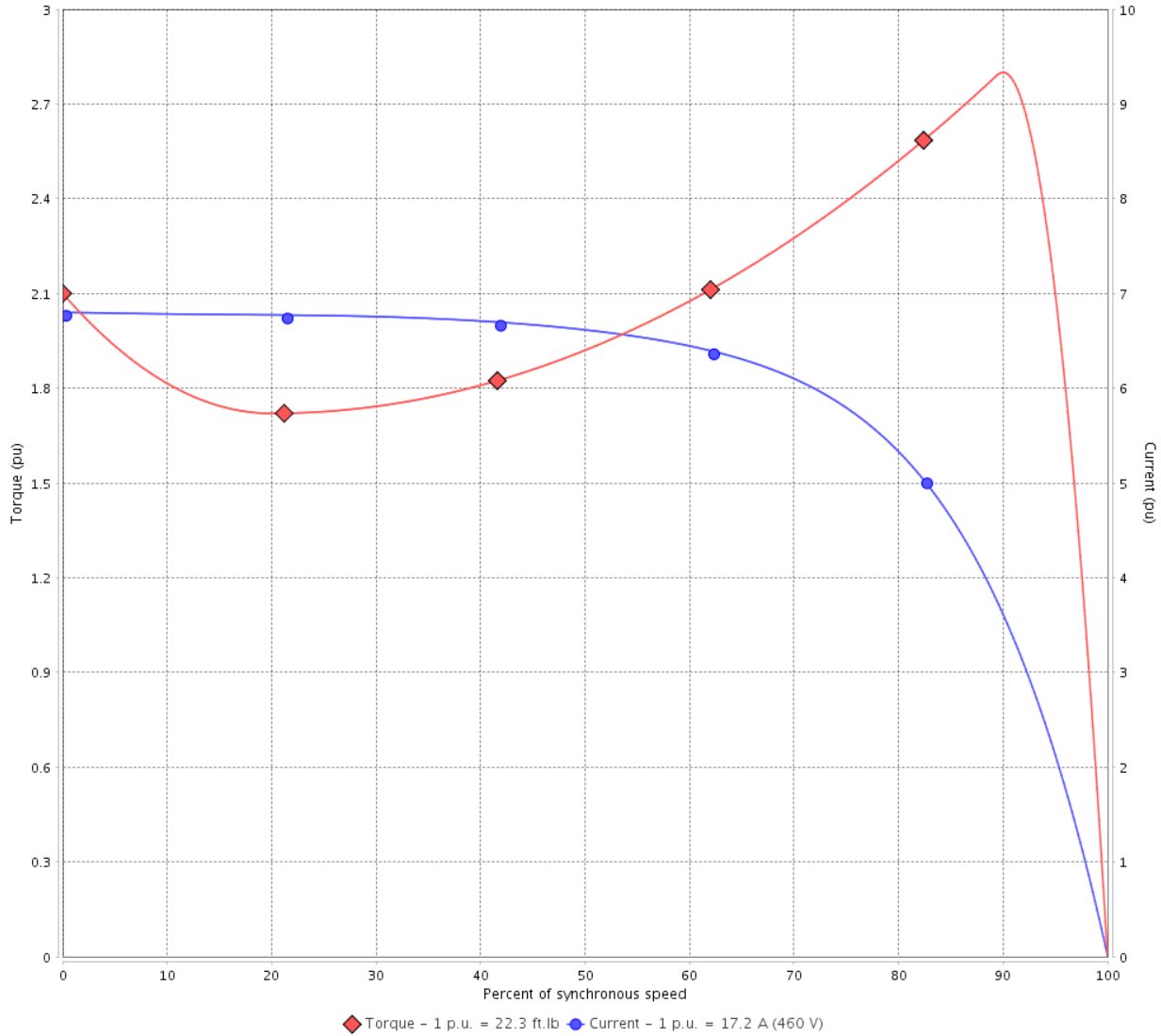
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163454

Catalog # : 015360T3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 34.4/17.2 A	Moment of inertia (J)	: 0.5512 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	Service factor	: 1.15
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 3535 rpm	Design	: B

Locked rotor time : 14s (cold) 8s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE



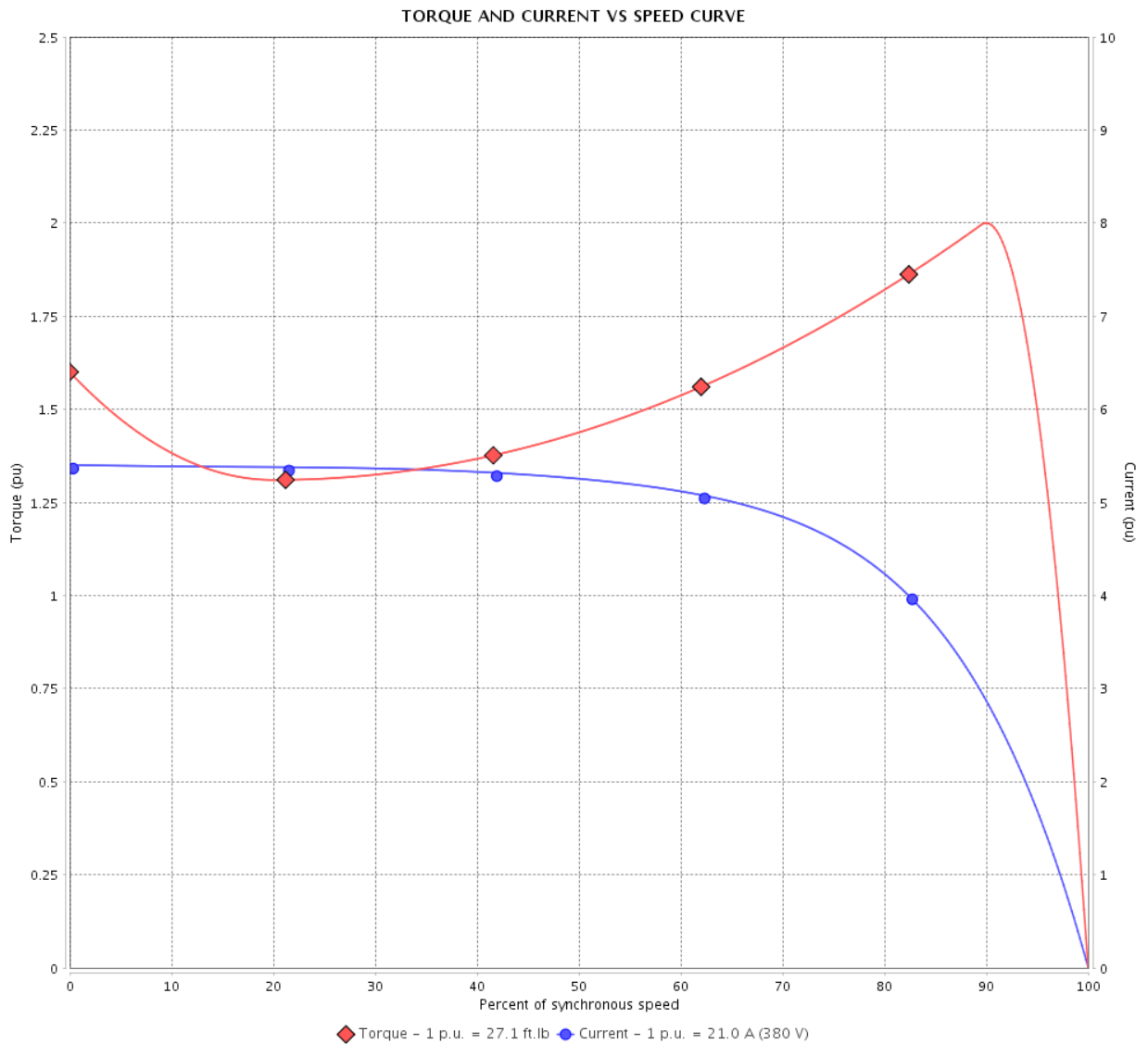
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163454

Catalog # : 01536OT3E215TC-SG



Performance : 190/380 V 50 Hz 2P

Rated current : 42.0/21.0 A  
 LRC : 5.4  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 200 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.5512 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



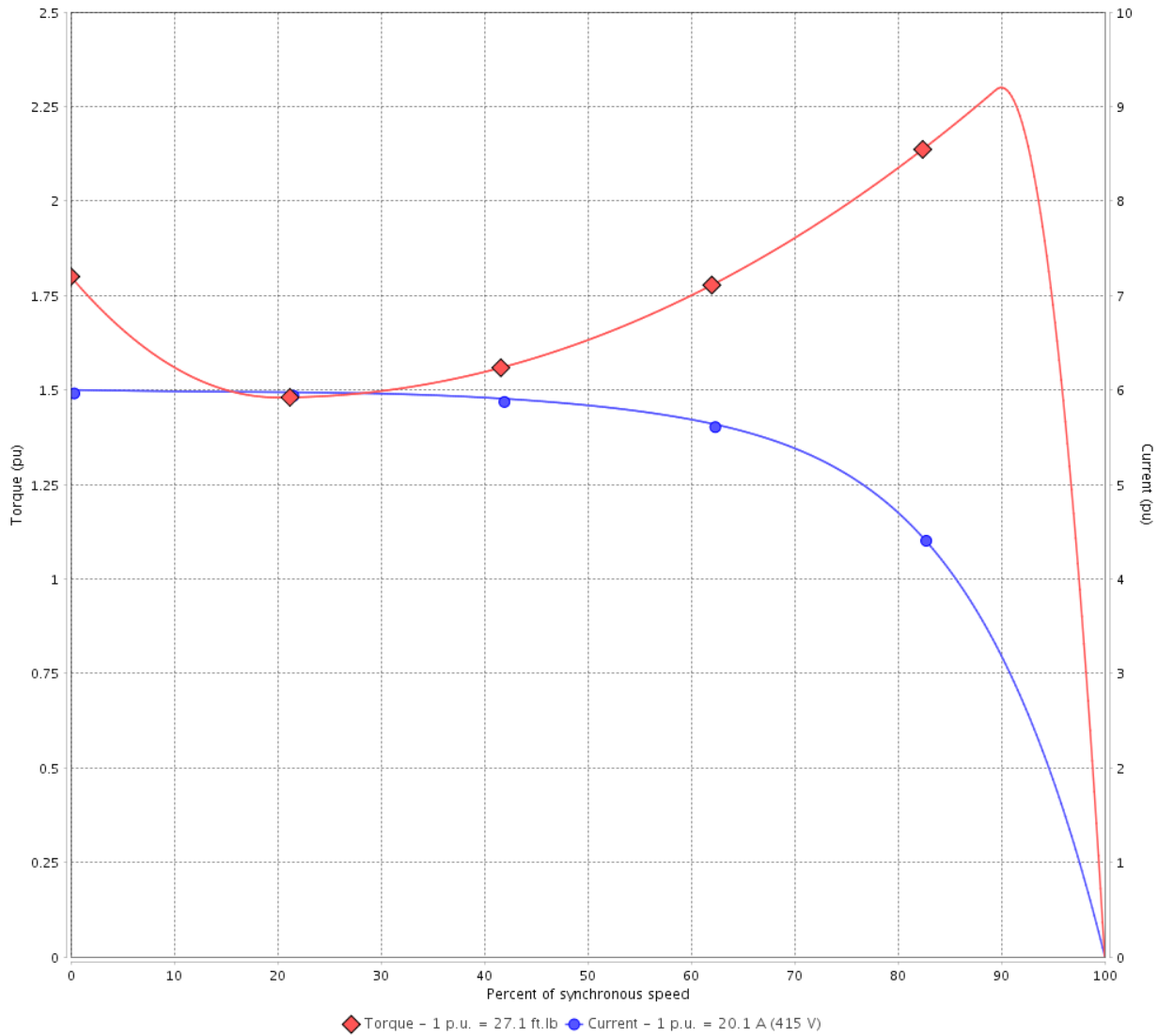
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163454

Catalog # : 015360T3E215TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 37.9/20.1 A	Moment of inertia (J)	: 0.5512 sq.ft.lb
LRC	: 6.0	Duty cycle	: Cont.(S1)
Rated torque	: 27.1 ft.lb	Insulation class	: F
Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 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

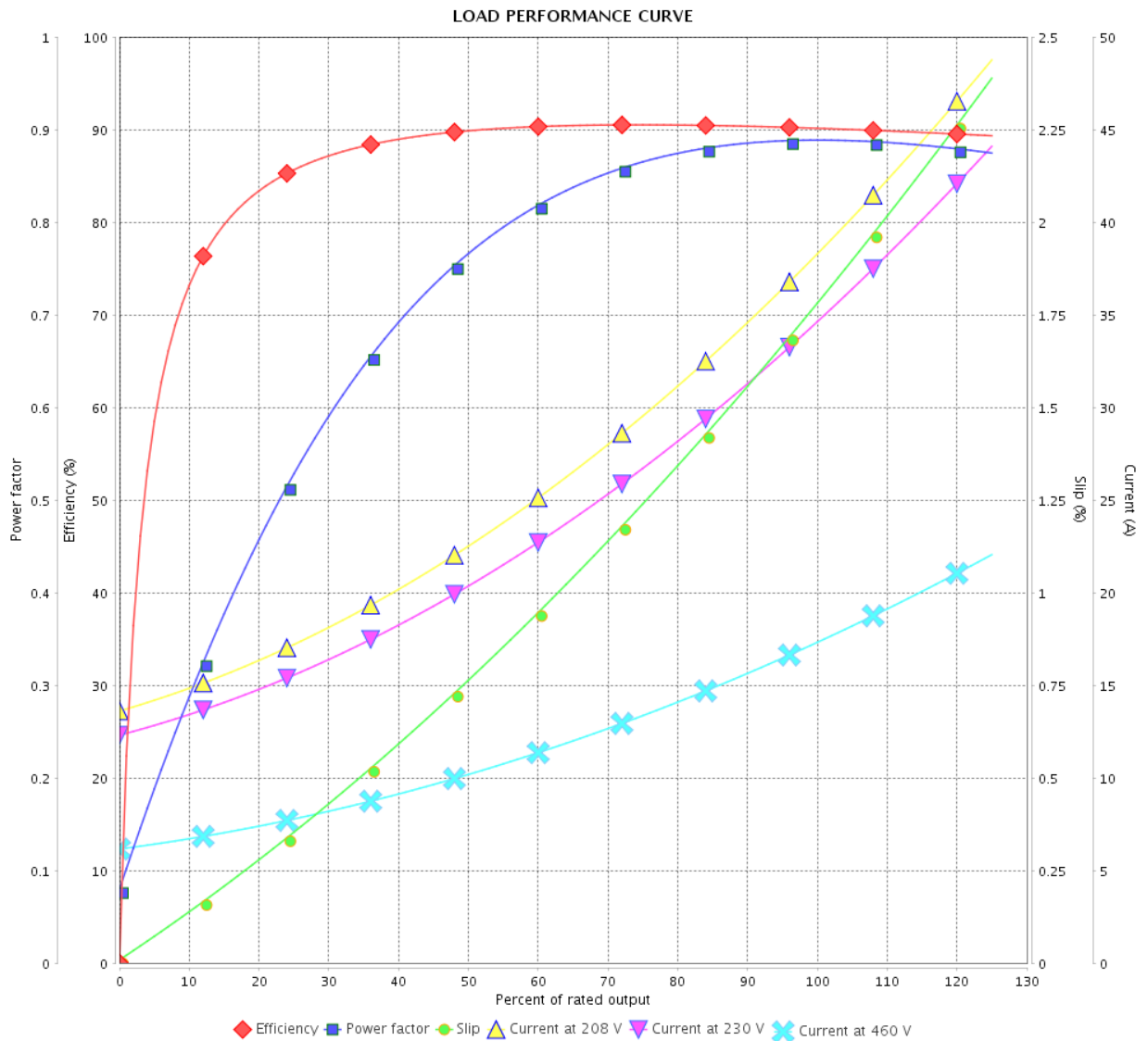


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163454

Catalog # : 01536OT3E215TC-SG



Performance : 230/460 V 60 Hz 2P

Rated current : 34.4/17.2 A  
 LRC : 6.8  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 280 %  
 Rated speed : 3535 rpm

Moment of inertia (J) : 0.5512 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



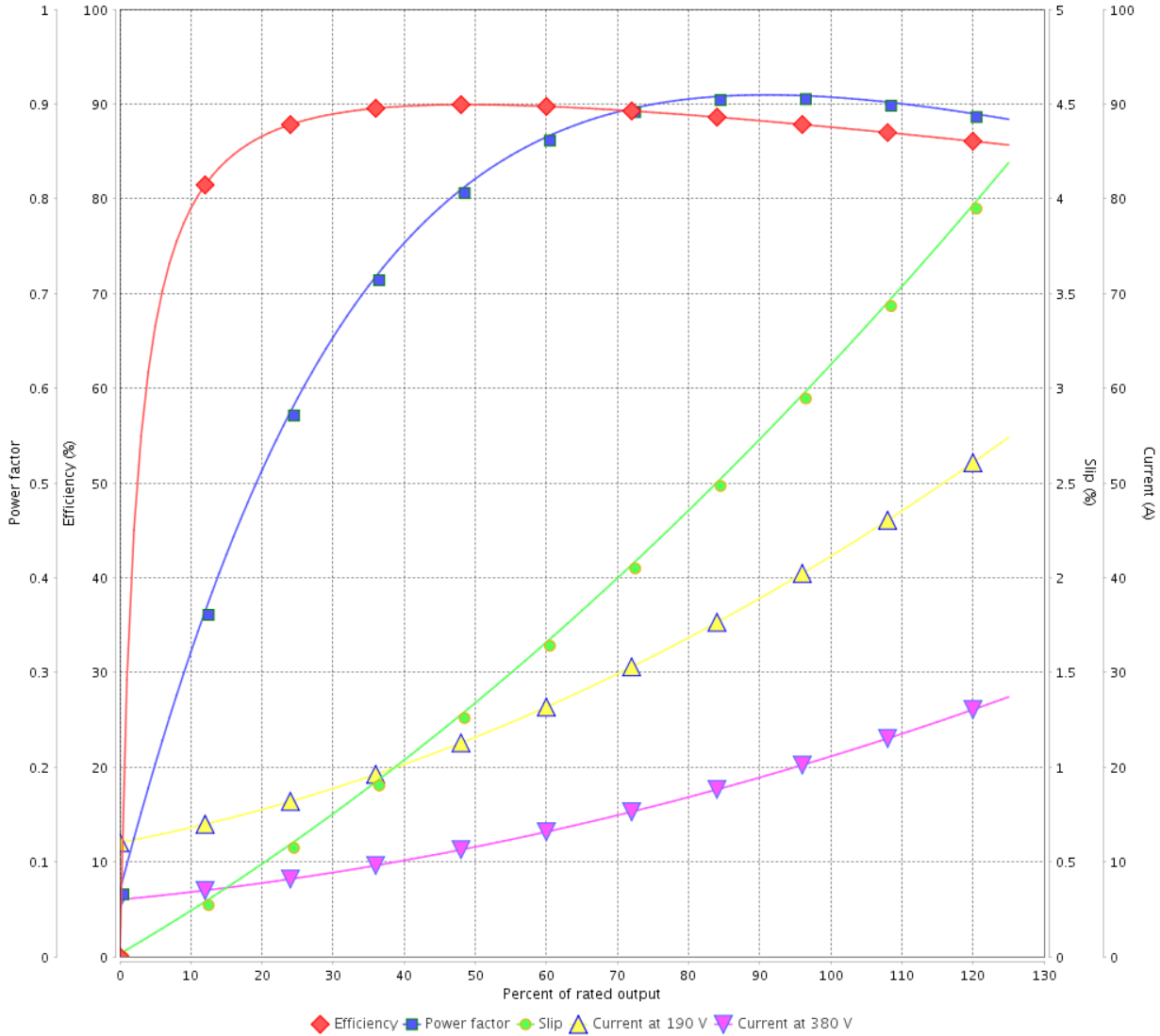
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Product code : 13163454

Catalog # : 015360T3E215TC-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 42.0/21.0 A  
 LRC : 5.4  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 200 %  
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.5512 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

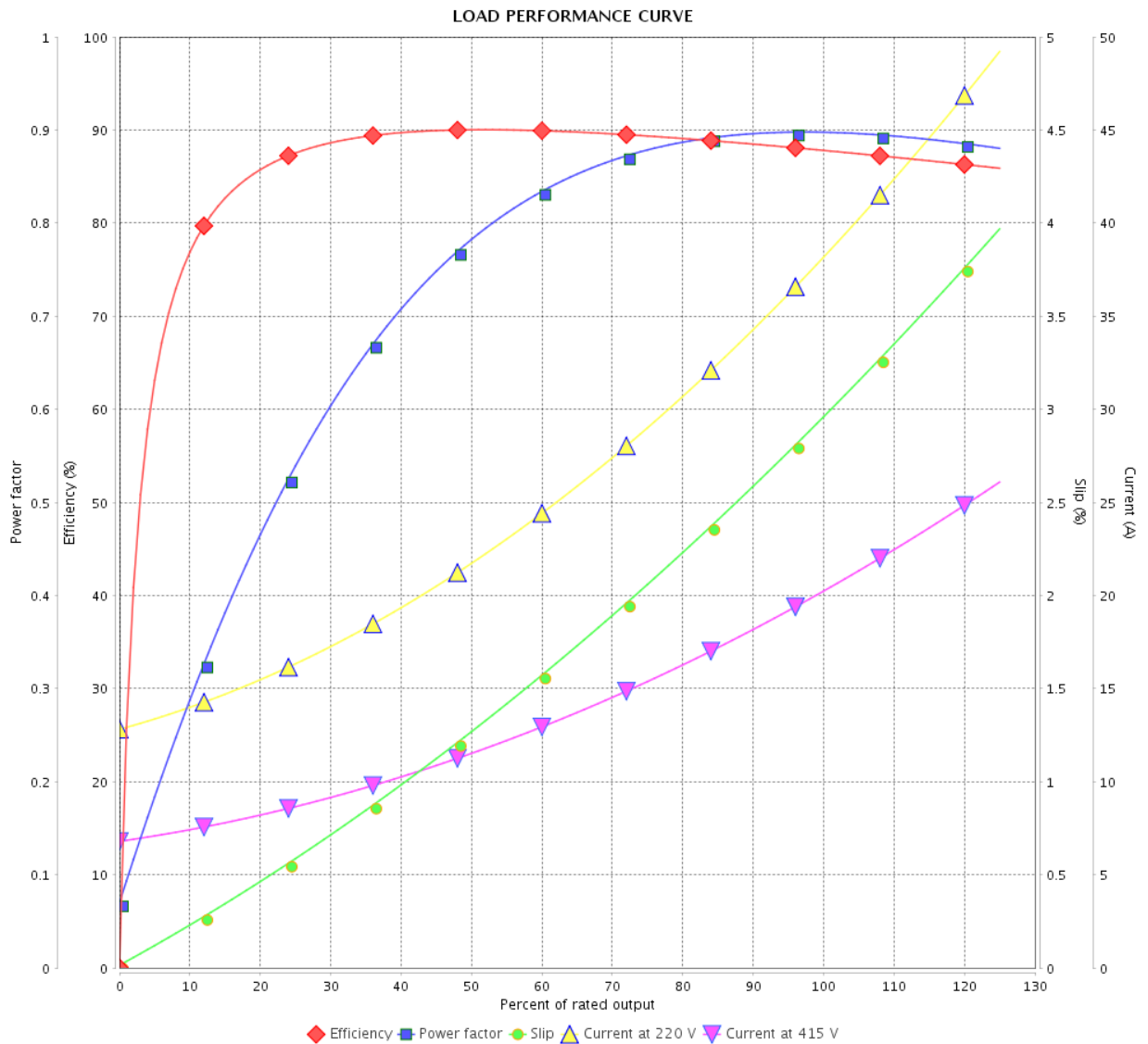


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Performance : 220/415 V 50 Hz 2P

Rated current : 37.9/20.1 A  
 LRC : 6.0  
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 Locked rotor torque : 180 %  
 Breakdown torque : 229 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.5512 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13163454  
Catalog # : 01536OT3E215TC-SG

Performance : 230/460 V 60 Hz 2P

Rated current	: 34.4/17.2 A	Moment of inertia (J)	: 0.5512 sq.ft.lb
LRC	: 6.8	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 210 %	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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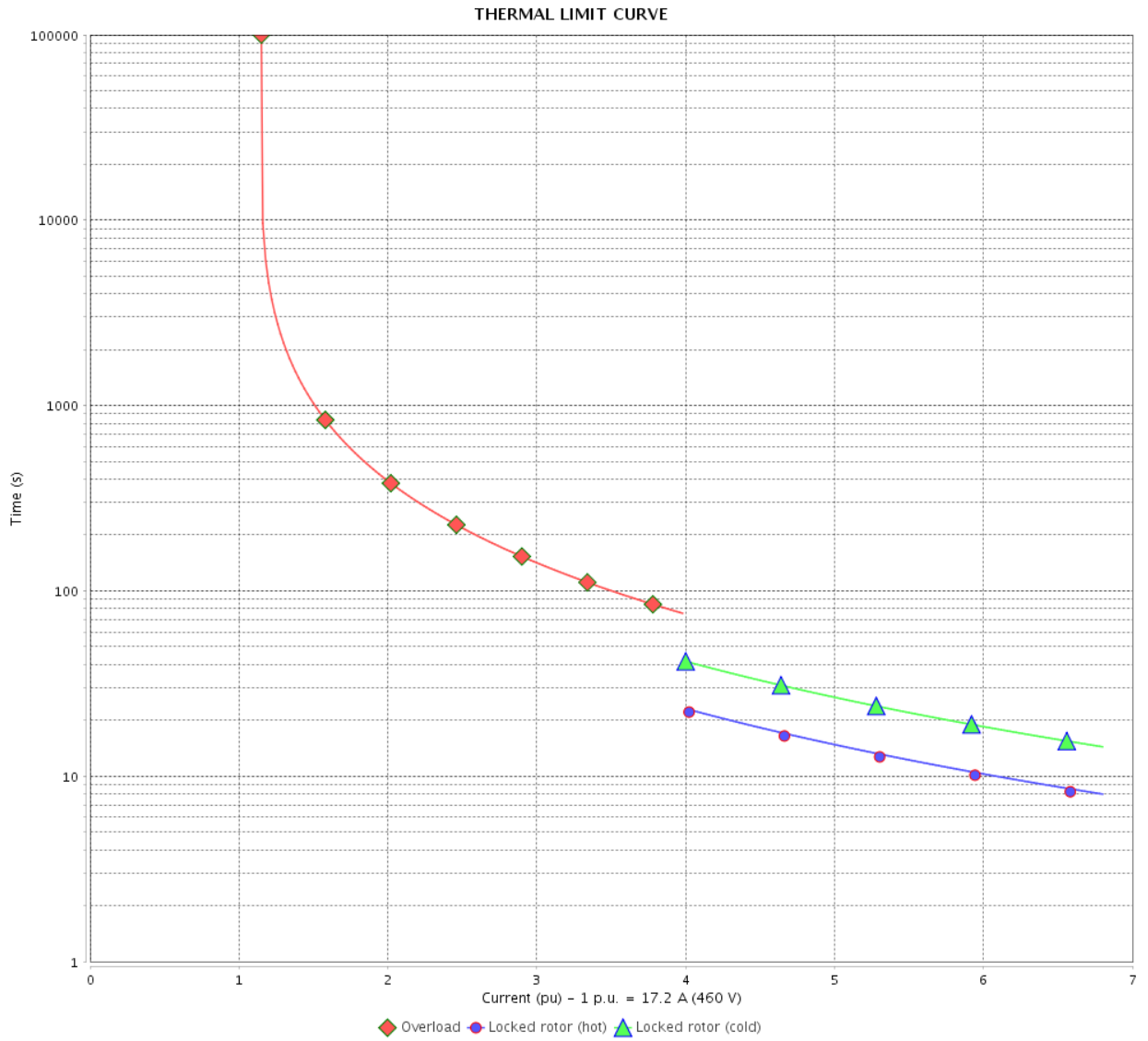


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE

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Performance : 190/380 V 50 Hz 2P

Rated current	: 42.0/21.0 A	Moment of inertia (J)	: 0.5512 sq.ft.lb
LRC	: 5.4	Duty cycle	: Cont.(S1)
Rated torque	: 27.1 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 2905 rpm	Design	: B

Heating constant

Cooling constant

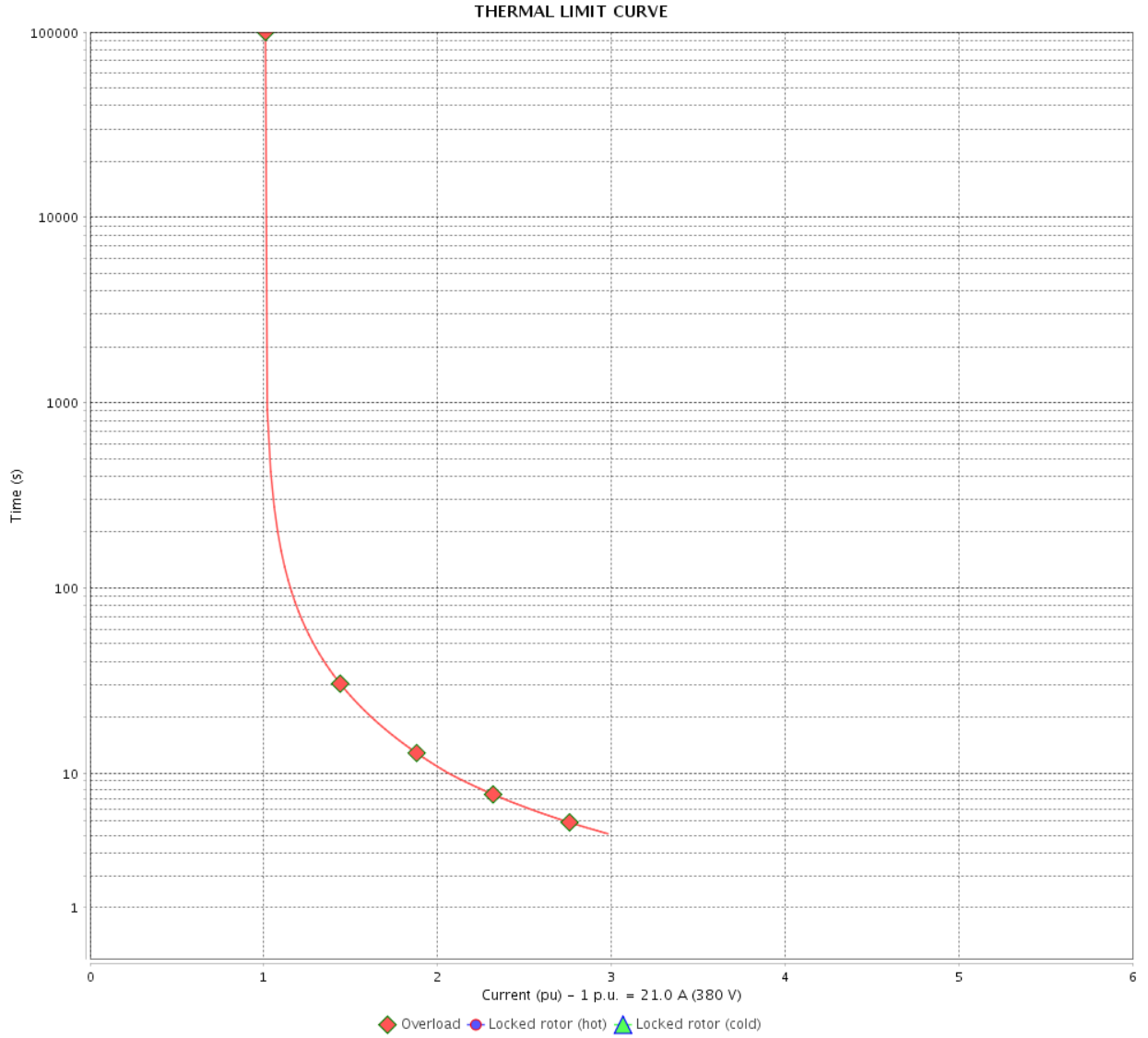
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# THERMAL LIMIT CURVE

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Locked rotor torque	: 180 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm	Design	: B

Heating constant

Cooling constant

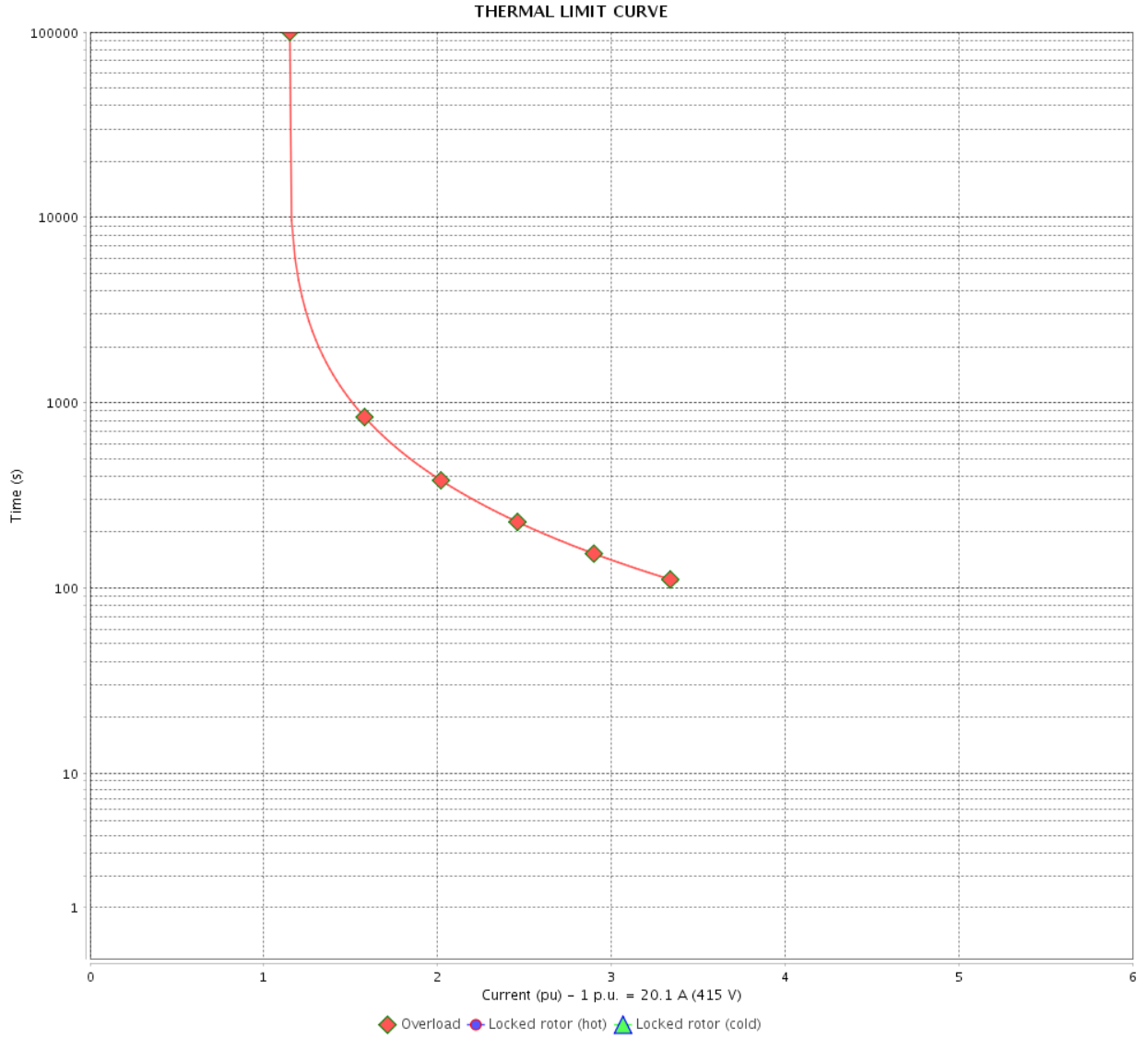
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



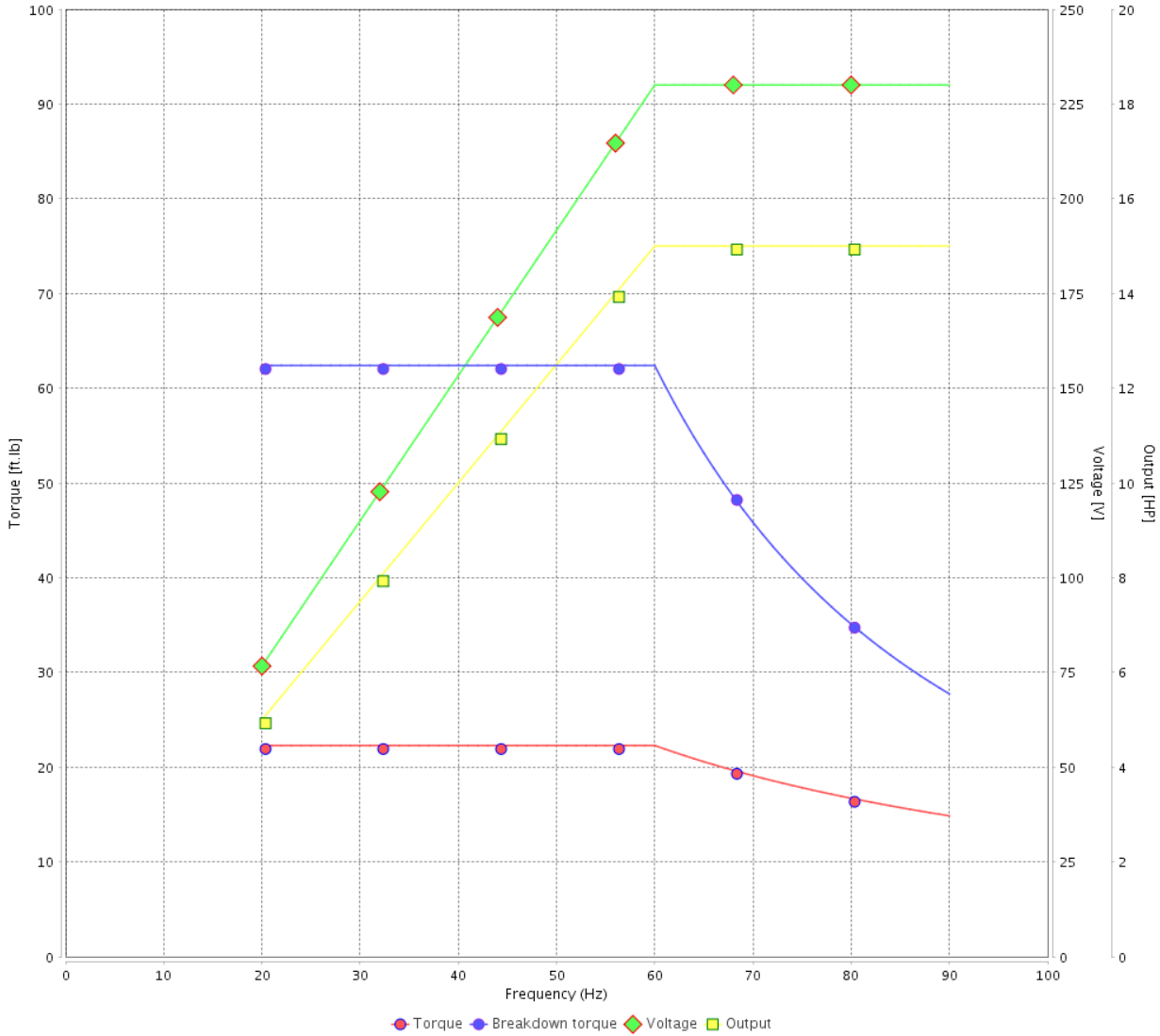
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163454

Catalog # : 015360T3E215TC-SG

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 34.4/17.2 A  
 LRC : 6.8  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 210 %  
 Breakdown torque : 280 %  
 Rated speed : 3535 rpm

Moment of inertia (J) : 0.5512 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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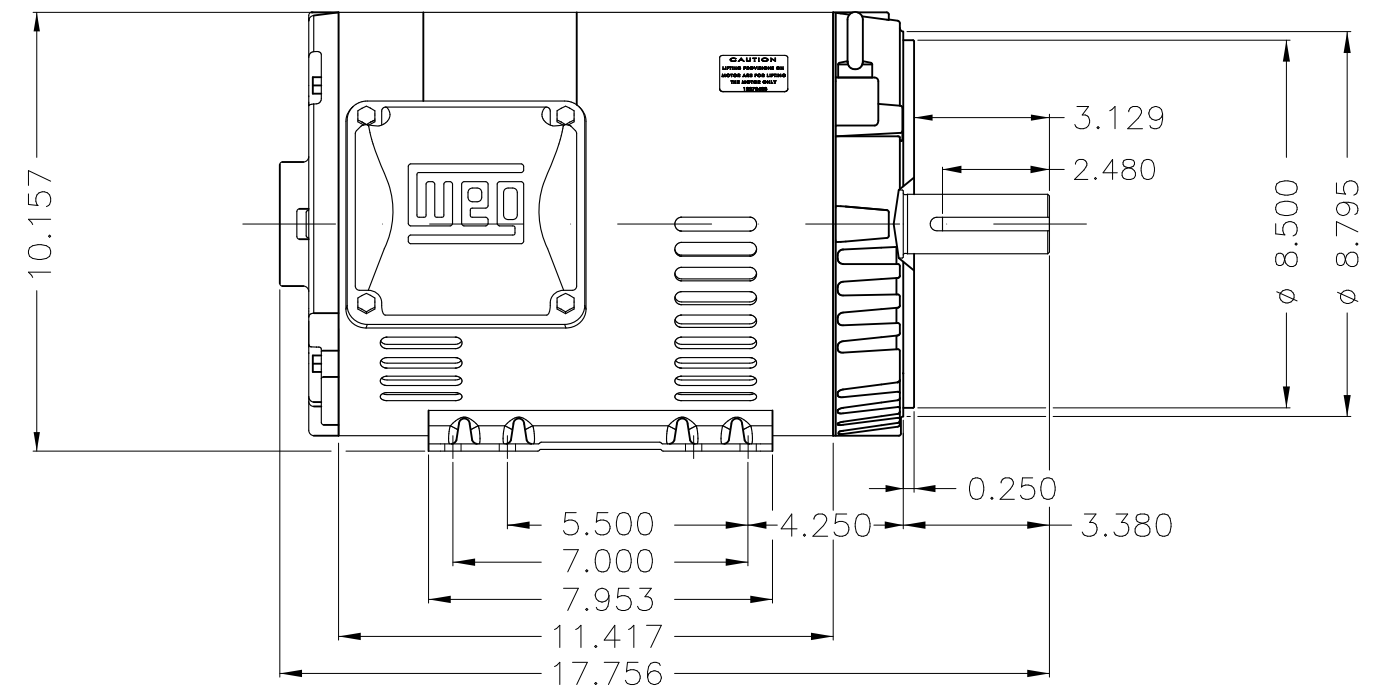
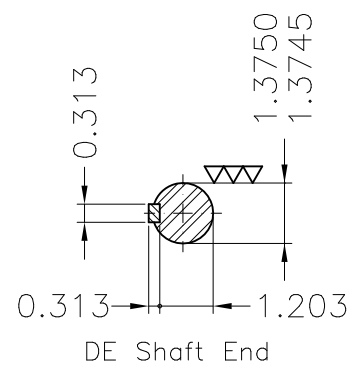
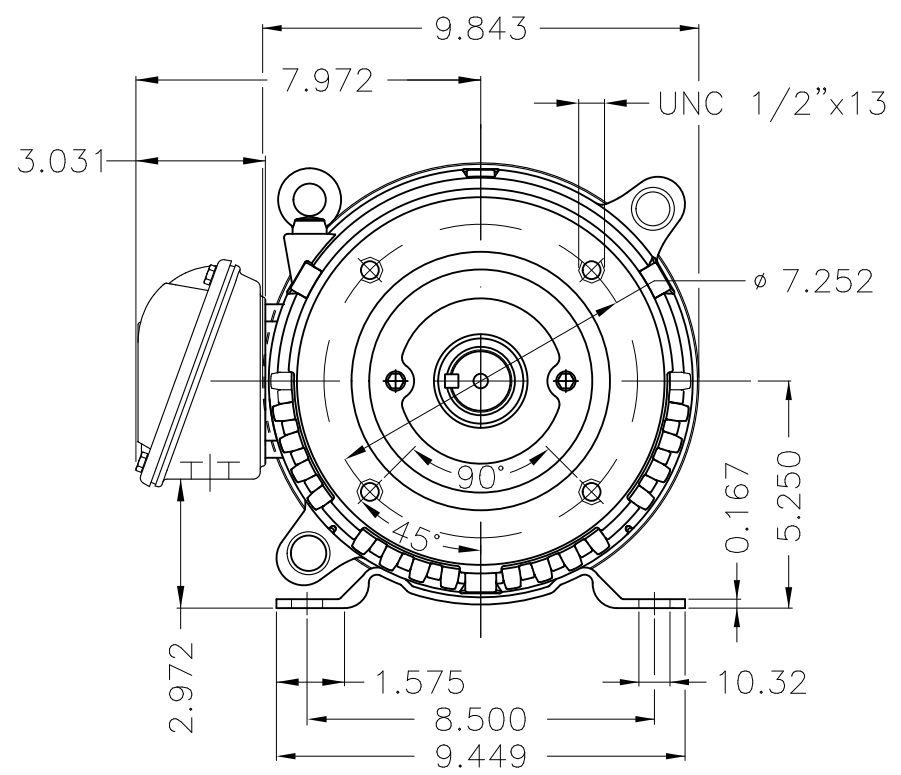
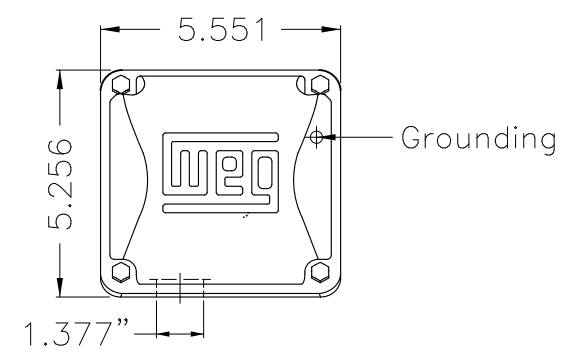
A

B

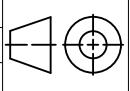

C

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		PREVIEW WDD 	

15 HP 02 Poles 60 Hz

Dimensions in inches XME A3