

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: Premium Efficiency Three-Phase	Product code :	12809663	
		Catalog # :	00136OT3E56C-S	
Frame	: 56C	Cooling method	: IC01 - ODP	
Insulation class	: F	Mounting	: F-1	
Duty cycle	: Cont.(S1)	Rotation <sup>1</sup>	: Both (CW and CCW)	
Ambient temperature	: -20°C to +40°C	Starting method	: Direct On Line	
Altitude	: 1000 m.a.s.l.	Approx. weight <sup>2</sup>	: 20.5 lb	
		Moment of inertia (J)	: 0.0517 sq.ft.lb	
Output [HP]	1	1	1	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	3.02/1.51	3.50/1.75	3.26/1.73	
L. R. Amperes [A]	19.3/9.66	17.2/8.58	17.0/9.00	
LRC [A]	6.4x(Code J)	4.9x(Code G)	5.2x(Code G)	
No load current [A]	1.60/0.800	1.50/0.750	2.06/1.09	
Rated speed [RPM]	3470	2820	2850	
Slip [%]	3.61	6.00	5.00	
Rated torque [ft.lb]	1.51	1.86	1.84	
Locked rotor torque [%]	229	160	190	
Breakdown torque [%]	260	190	220	
Service factor		1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	41s (cold) 23s (hot)	39s (cold) 22s (hot)	37s (cold) 21s (hot)	
Noise level <sup>2</sup>	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	68.3	73.8	70.3
	50%	70.0	72.9	70.5
	75%	75.5	74.9	74.1
	100%	77.0	73.2	73.7
Power Factor	25%	0.37	0.43	0.35
	50%	0.60	0.69	0.62
	75%	0.73	0.82	0.77
	100%	0.81	0.89	0.85
Bearing type	: Drive end 6204 ZZ Non drive end 6202 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 29 lb	
		Max. compression	: 50 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 3.34A SF 1.00 SFA 3.34A				
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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Performed by				
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# TORQUE AND CURRENT VS SPEED CURVE

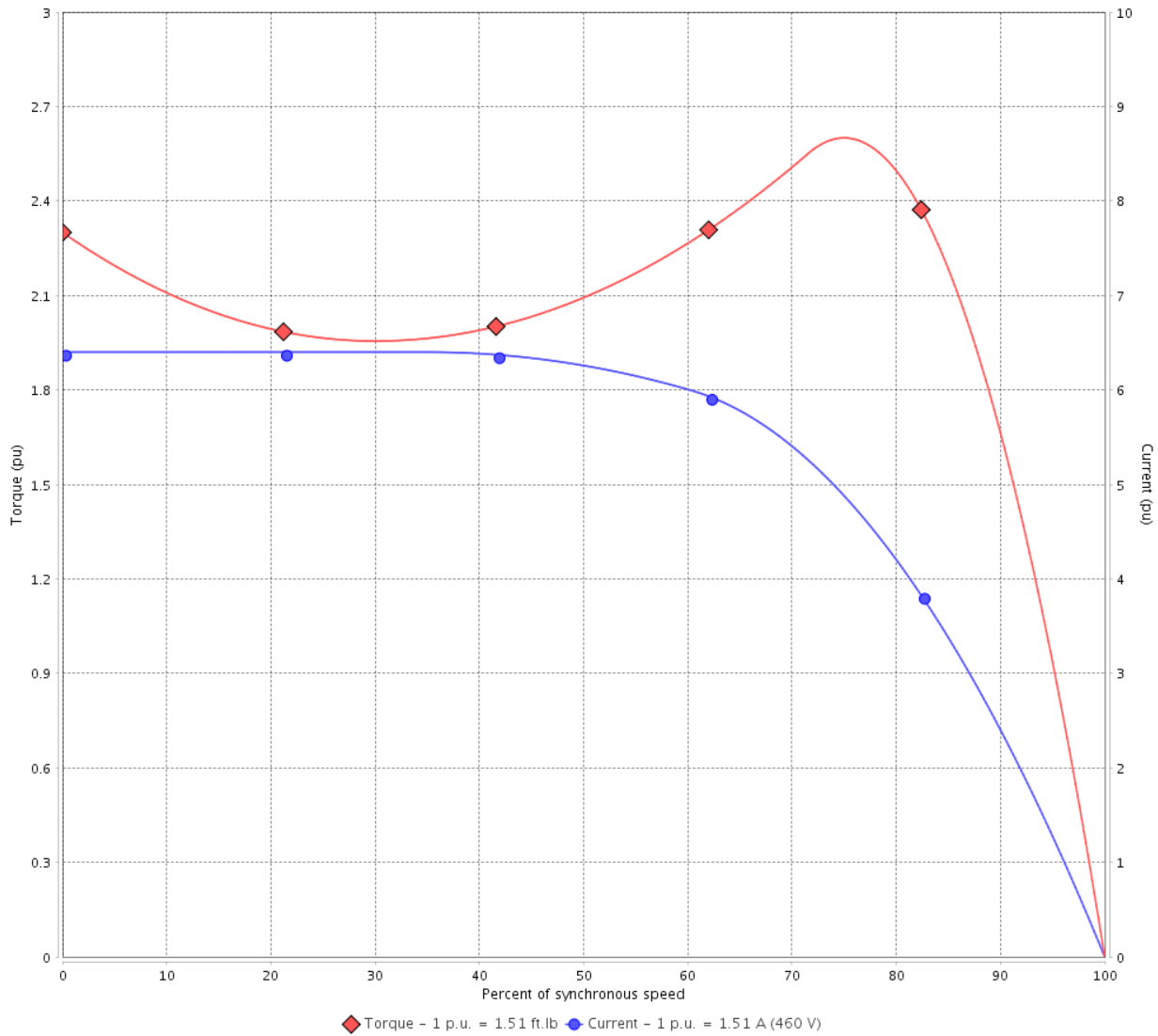
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 12809663  
 Catalog # : 001360T3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current	: 3.02/1.51 A	Moment of inertia (J)	: 0.0517 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 1.51 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 260 %	Temperature rise	: 80 K
Rated speed	: 3470 rpm		

Locked rotor time : 41s (cold) 23s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

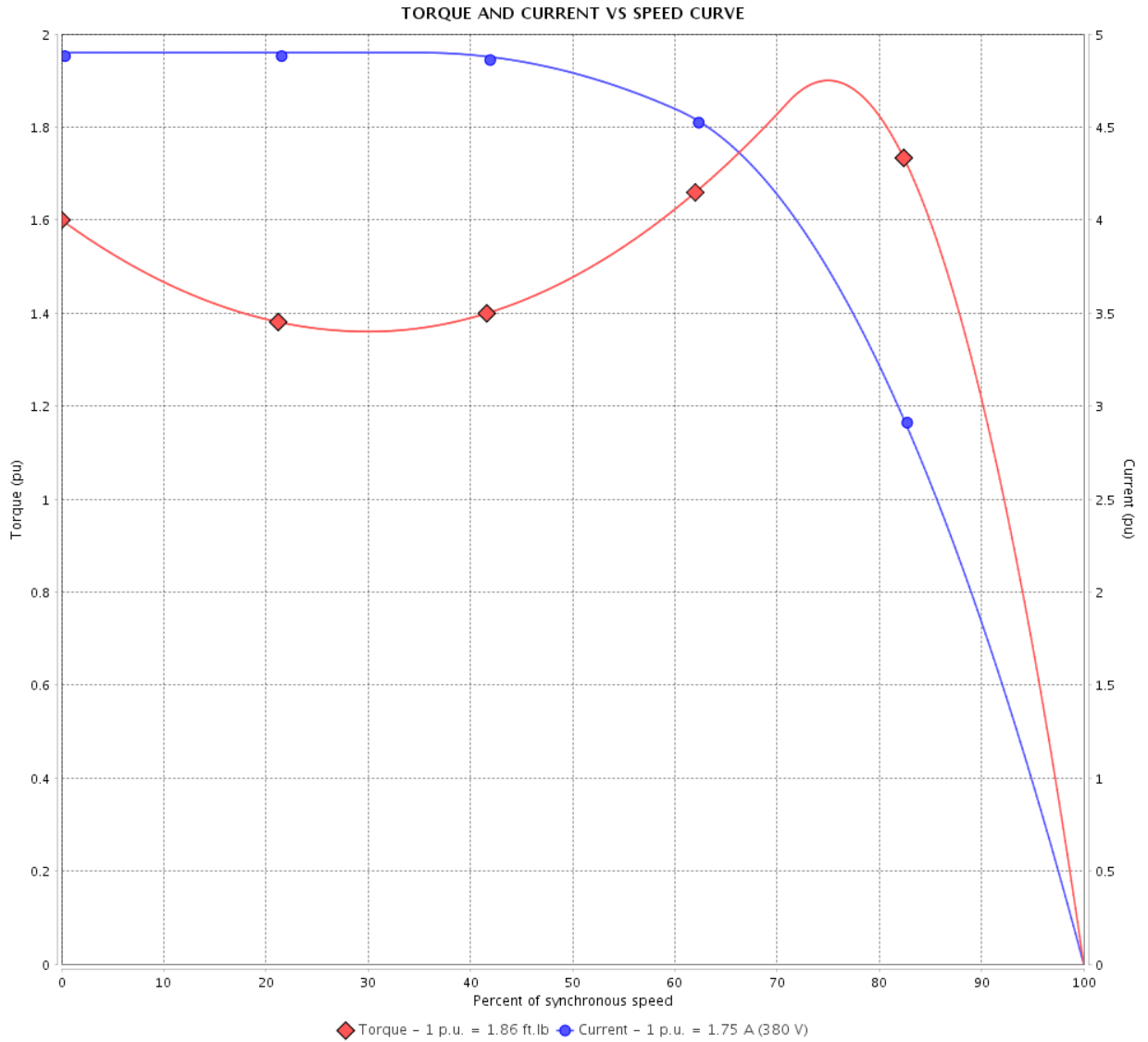
Product line : Premium Efficiency Three-Phase

Product code :

12809663

Catalog # :

00136OT3E56C-S



Performance : 190/380 V 50 Hz 2P

Rated current : 3.50/1.75 A  
 LRC : 4.9  
 Rated torque : 1.86 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

Locked rotor time : 39s (cold) 22s (hot)

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Date	11/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

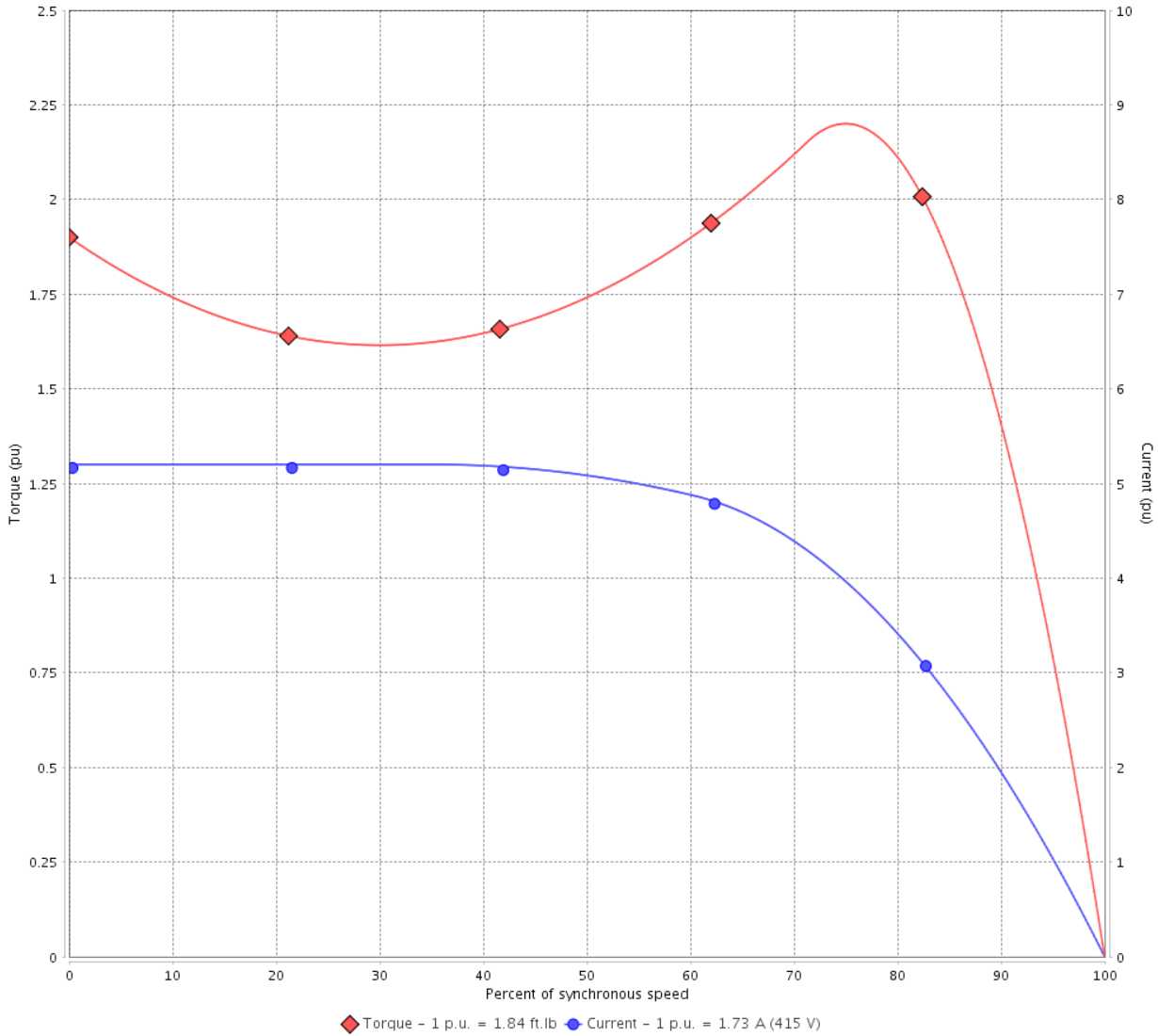
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 12809663  
 Catalog # : 001360T3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 3.26/1.73 A	Moment of inertia (J)	: 0.0517 sq.ft.lb
LRC	: 5.2	Duty cycle	: Cont.(S1)
Rated torque	: 1.84 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 220 %	Temperature rise	: 80 K
Rated speed	: 2850 rpm		

Locked rotor time : 37s (cold) 21s (hot)

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

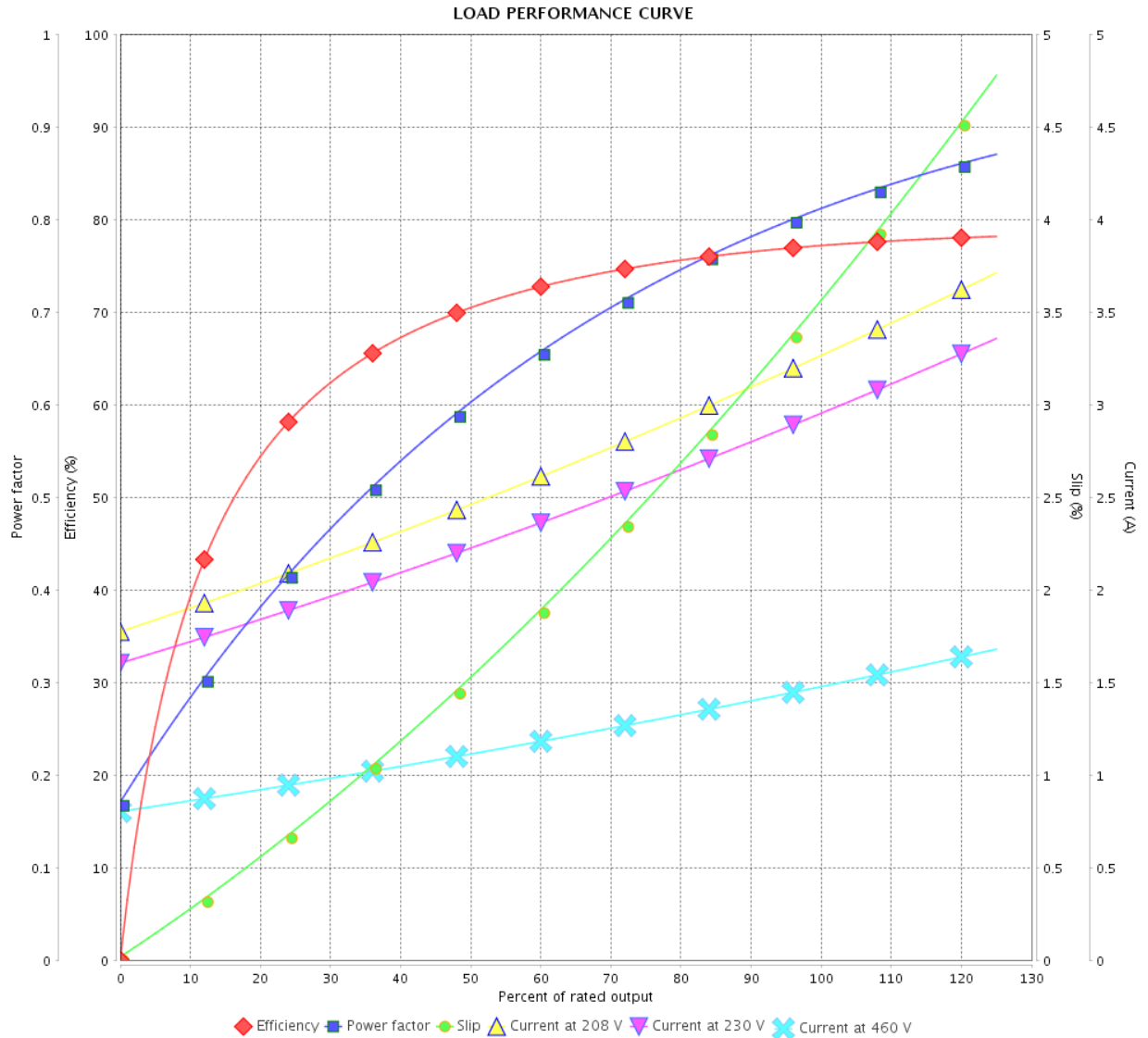
Product line : Premium Efficiency Three-Phase

Product code :

12809663

Catalog # :

00136OT3E56C-S



Performance : 230/460 V 60 Hz 2P

Rated current : 3.02/1.51 A  
 LRC : 6.4  
 Rated torque : 1.51 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 3470 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

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Date		11/04/2022		

# LOAD PERFORMANCE CURVE

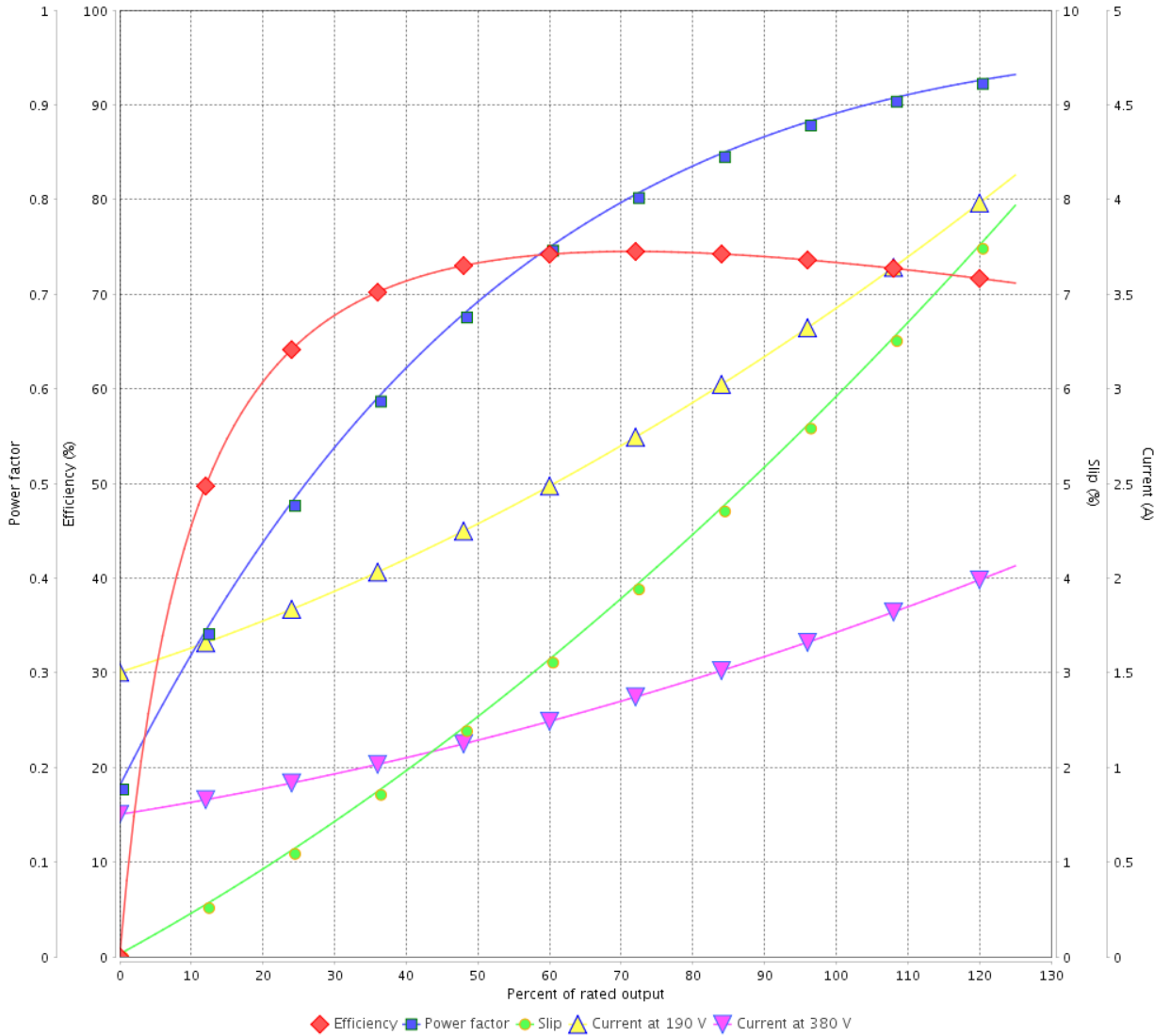
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase      Product code : 12809663  
 Catalog # : 001360T3E56C-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 3.50/1.75 A  
 LRC : 4.9  
 Rated torque : 1.86 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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Date				
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

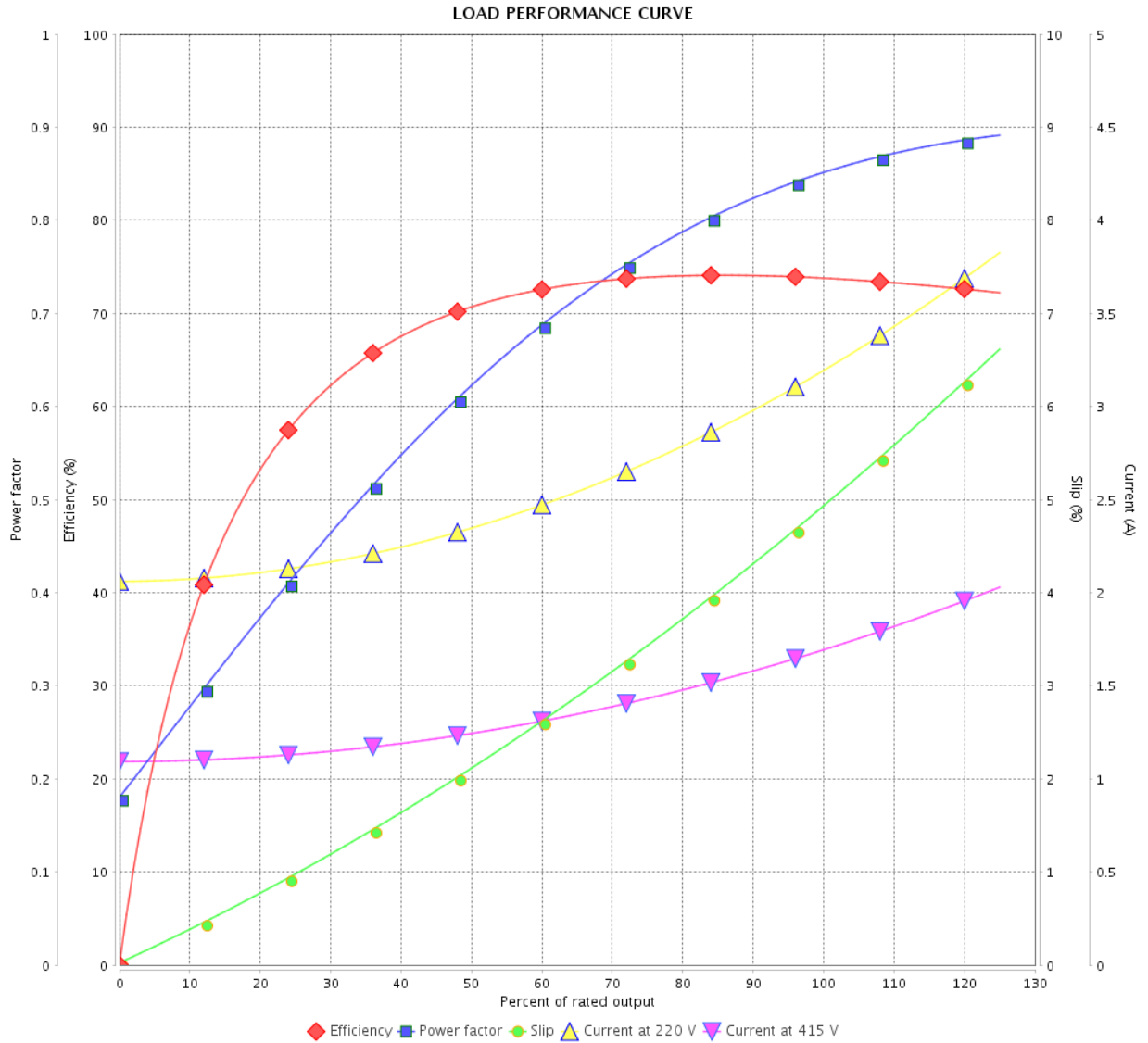
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Product code :

12809663

Catalog # :

00136OT3E56C-S



Performance : 220/415 V 50 Hz 2P

Rated current : 3.26/1.73 A  
 LRC : 5.2  
 Rated torque : 1.84 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 220 %  
 Rated speed : 2850 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



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

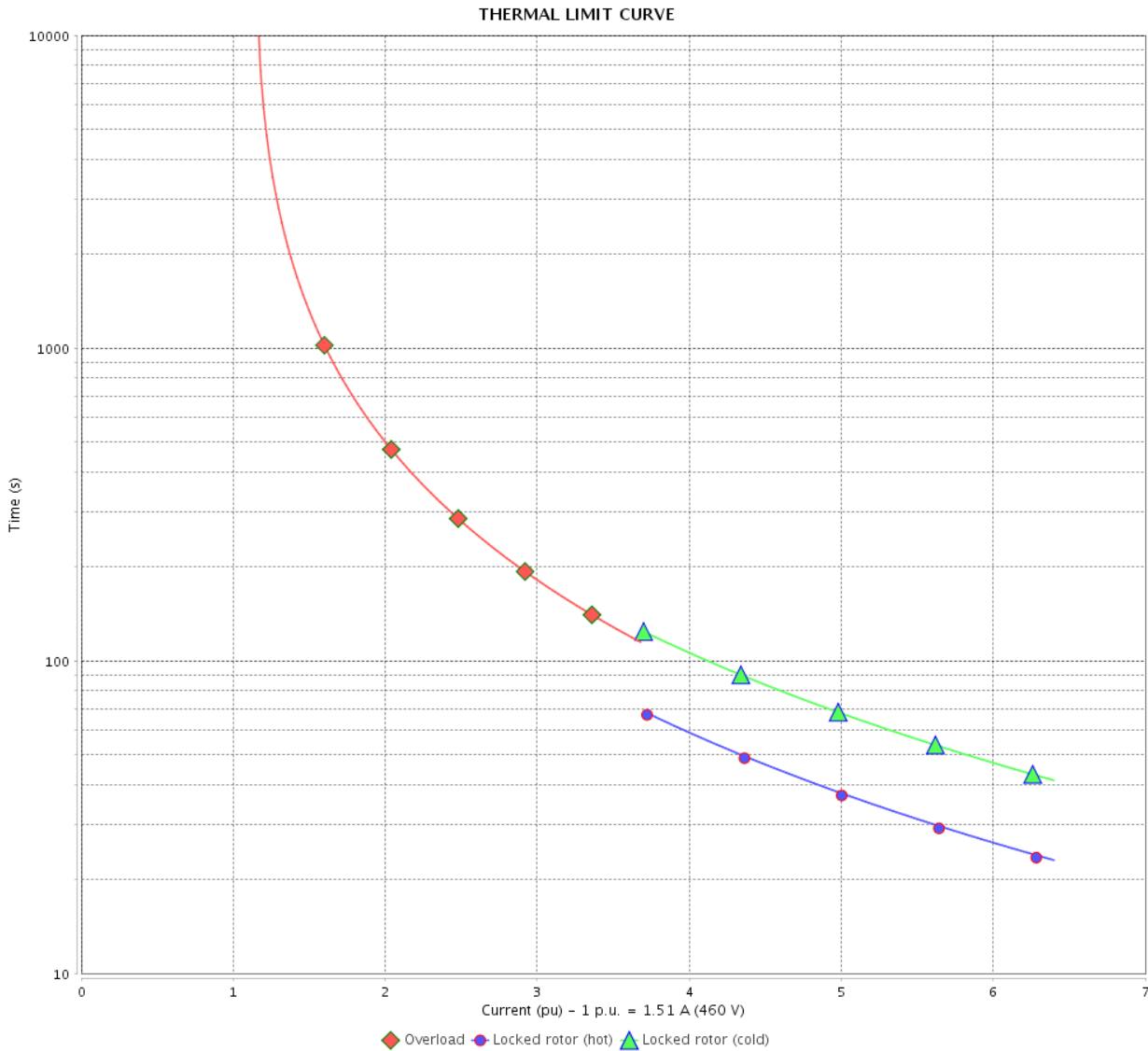
Product line : Premium Efficiency Three-Phase

Product code :

12809663

Catalog # :

00136OT3E56C-S



Performance : 230/460 V 60 Hz 2P

Rated current : 3.02/1.51 A  
 LRC : 6.4  
 Rated torque : 1.51 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 3470 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

Heating constant

Cooling constant

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Date				



# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

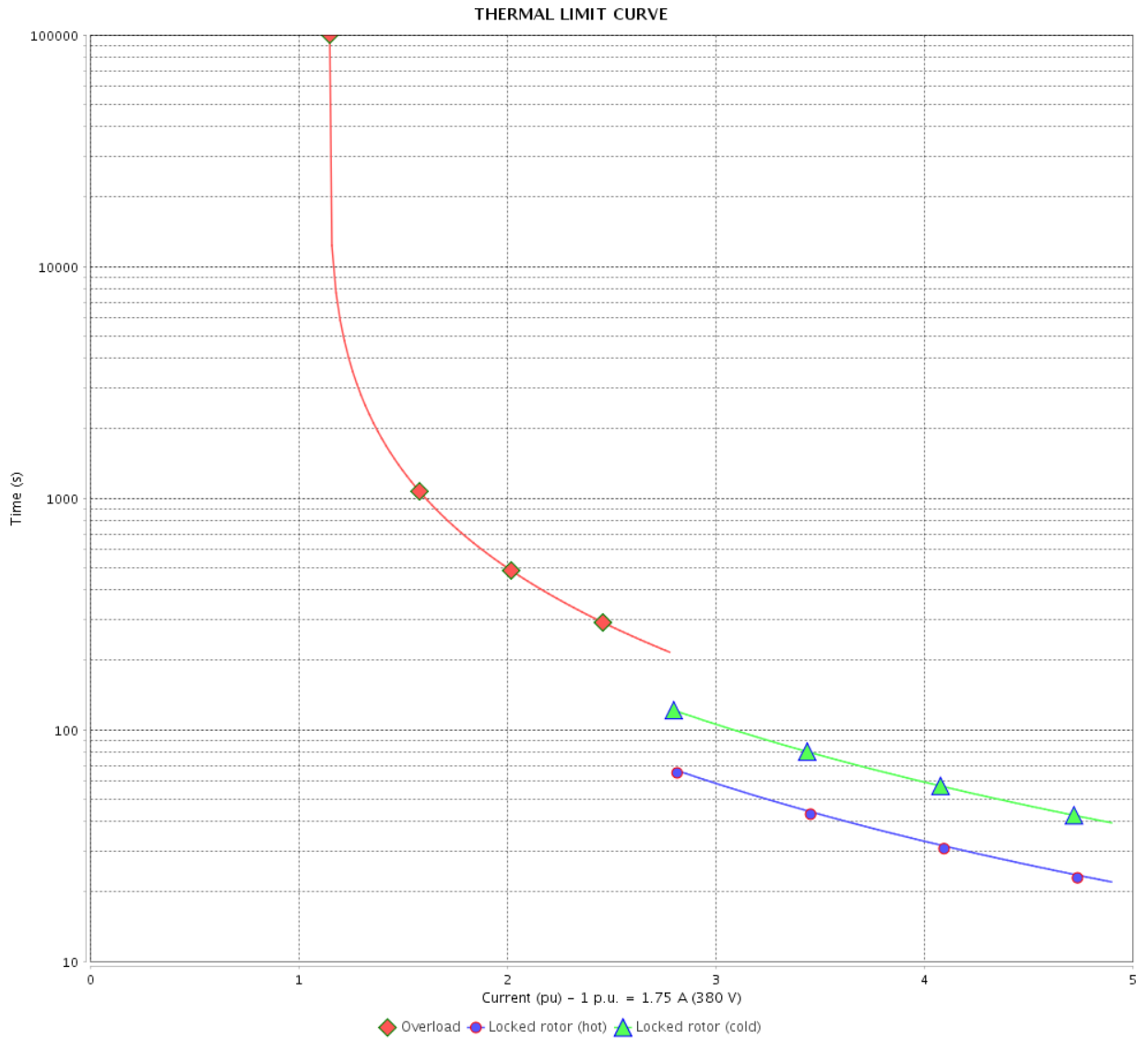
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 LRC : 4.9  
 Rated torque : 1.86 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 2820 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

Heating constant

Cooling constant

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Date		11/04/2022		

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

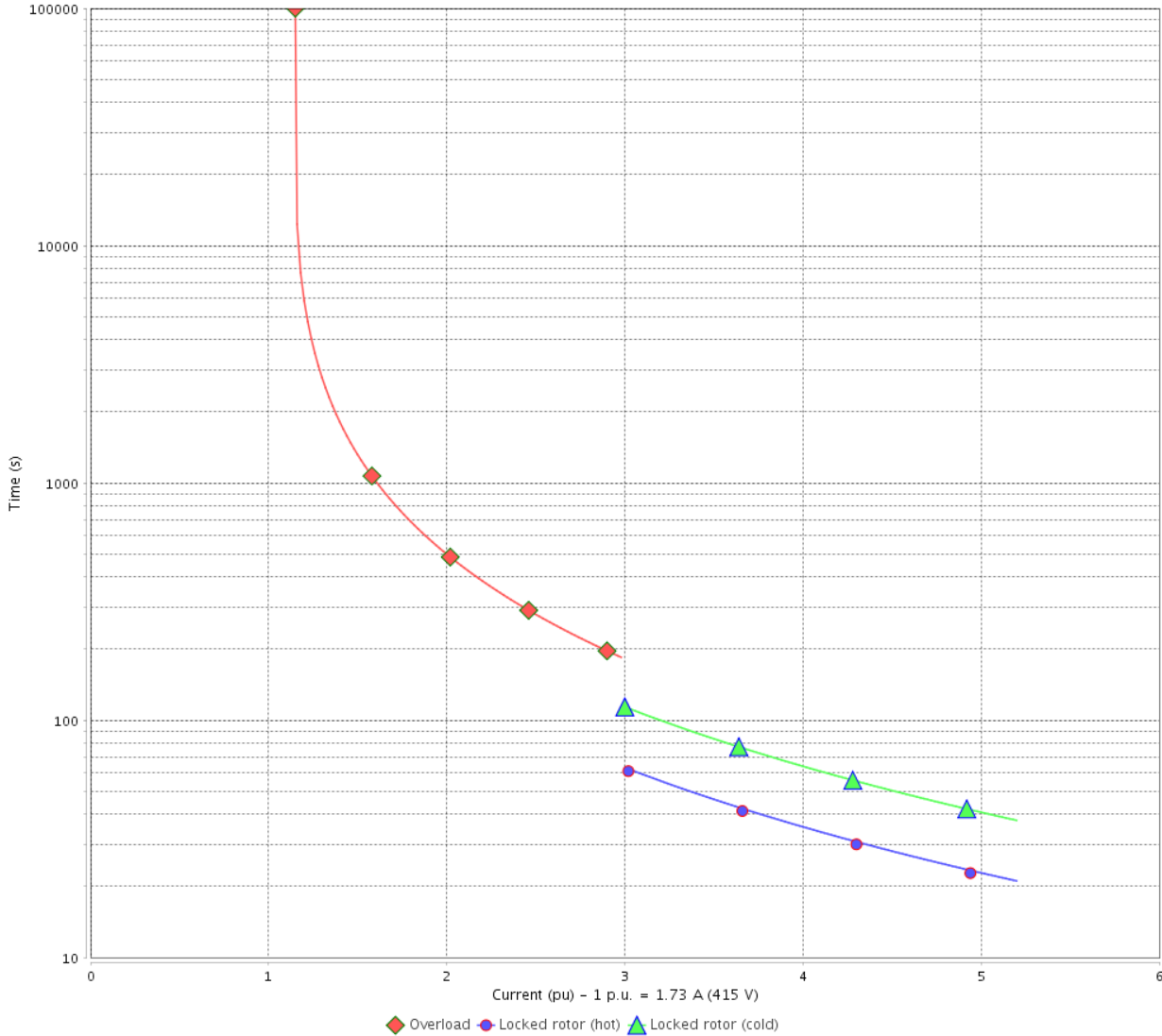
Product code :

12809663

Catalog # :

001360T3E56C-S

THERMAL LIMIT CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 3.26/1.73 A  
 LRC : 5.2  
 Rated torque : 1.84 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 220 %  
 Rated speed : 2850 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

Heating constant

Cooling constant

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Date	11/04/2022			

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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

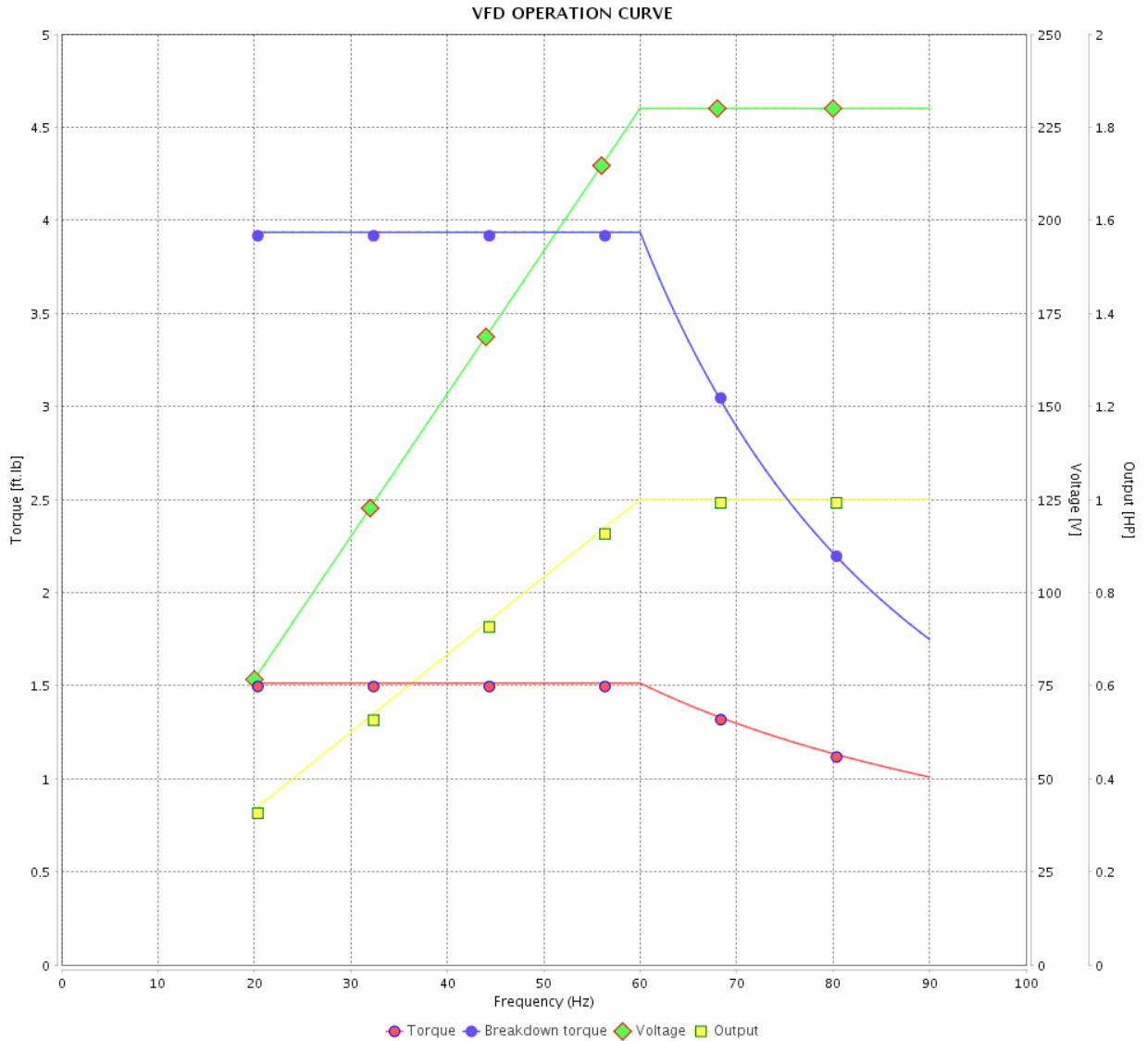
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Product code :

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Catalog # :

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Performance : 230/460 V 60 Hz 2P

Rated current : 3.02/1.51 A  
 LRC : 6.4  
 Rated torque : 1.51 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 3470 rpm

Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

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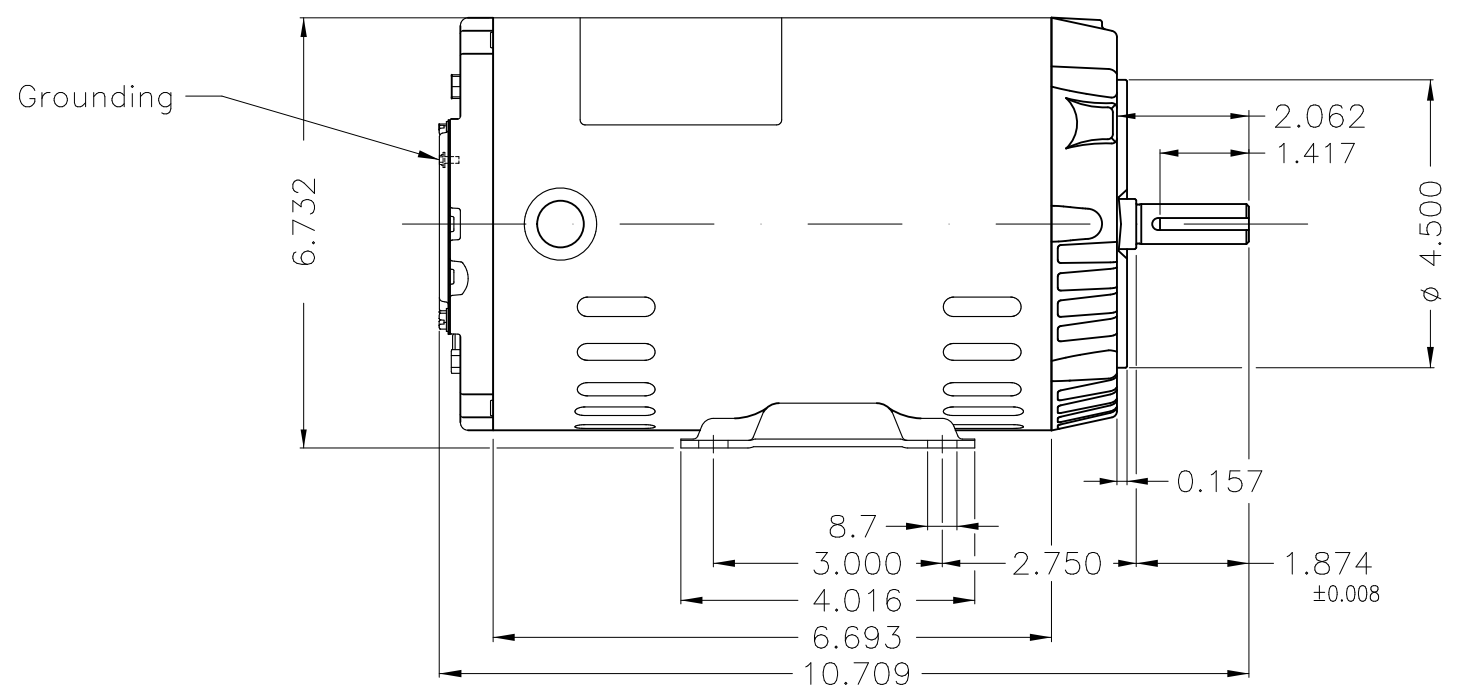
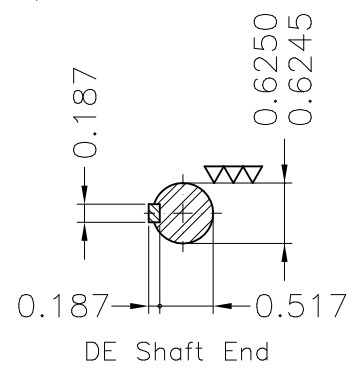
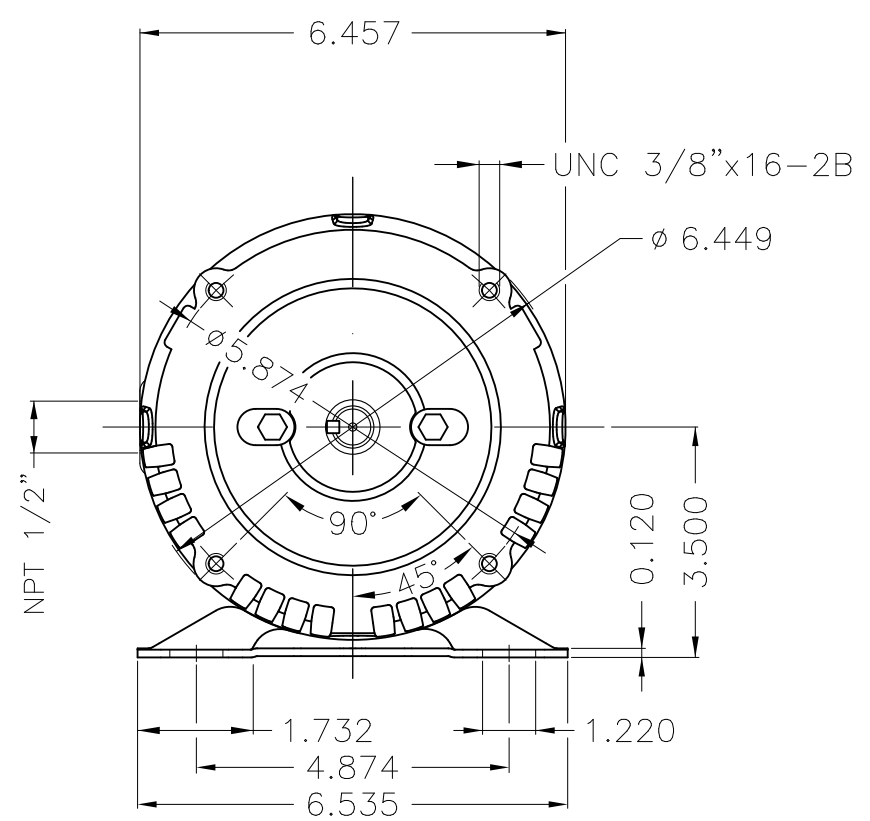
A

B

C

D

E



Dimensions in inches

Without coating										
Mounting F-1/B34R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					<b>PREVIEW</b> WDD			
CHECKED		FRAME 56C IP21 ODP								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

1 HP 02 Poles 60 Hz

A

XME A3