

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :				
Product line		: Premium Efficiency Three-Phase		Product code : 12808936
				Catalog # : .2536OT3E56C-S
Frame	: 56C	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	: 16.5 lb	
		Moment of inertia (J)	: 0.0389 sq.ft.lb	
Output [HP]	0.25	0.25	0.25	
Poles	2	2	2	
Frequency [Hz]	60	50	50	
Rated voltage [V]	208-230/460	190/380	220/415	
Rated current [A]	1.01-0.918/0.459	0.988/0.494	0.926/0.491	
L. R. Amperes [A]	7.00-6.33/3.17	5.43/2.72	5.37/2.85	
LRC [A]	6.9x(Code M)	5.5x(Code J)	5.8x(Code J)	
No load current [A]	0.604-0.700/0.350	0.638/0.319	0.662/0.351	
Rated speed [RPM]	3525	2900	2910	
Slip [%]	2.08	3.33	3.00	
Rated torque [ft.lb]	0.372	0.453	0.451	
Locked rotor torque [%]	240	180	200	
Breakdown torque [%]	330	270	300	
Service factor		1.35	1.35	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	77s (cold) 43s (hot)	97s (cold) 54s (hot)	88s (cold) 49s (hot)	
Noise level ²	62.0 dB(A)	60.0 dB(A)	60.0 dB(A)	
Efficiency (%)	25%	53.3	56.4	54.1
	50%	55.0	58.8	56.9
	75%	64.0	65.6	64.4
	100%	65.6	68.3	67.8
Power Factor	25%	0.31	0.36	0.33
	50%	0.56	0.62	0.58
	75%	0.66	0.73	0.69
	100%	0.75	0.81	0.78
Bearing type	: Drive end 6203 ZZ Non drive end 6202 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 5 lb	
		Max. compression	: 21 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V SF 1.00				
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			Page	Revision
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TORQUE AND CURRENT VS SPEED CURVE

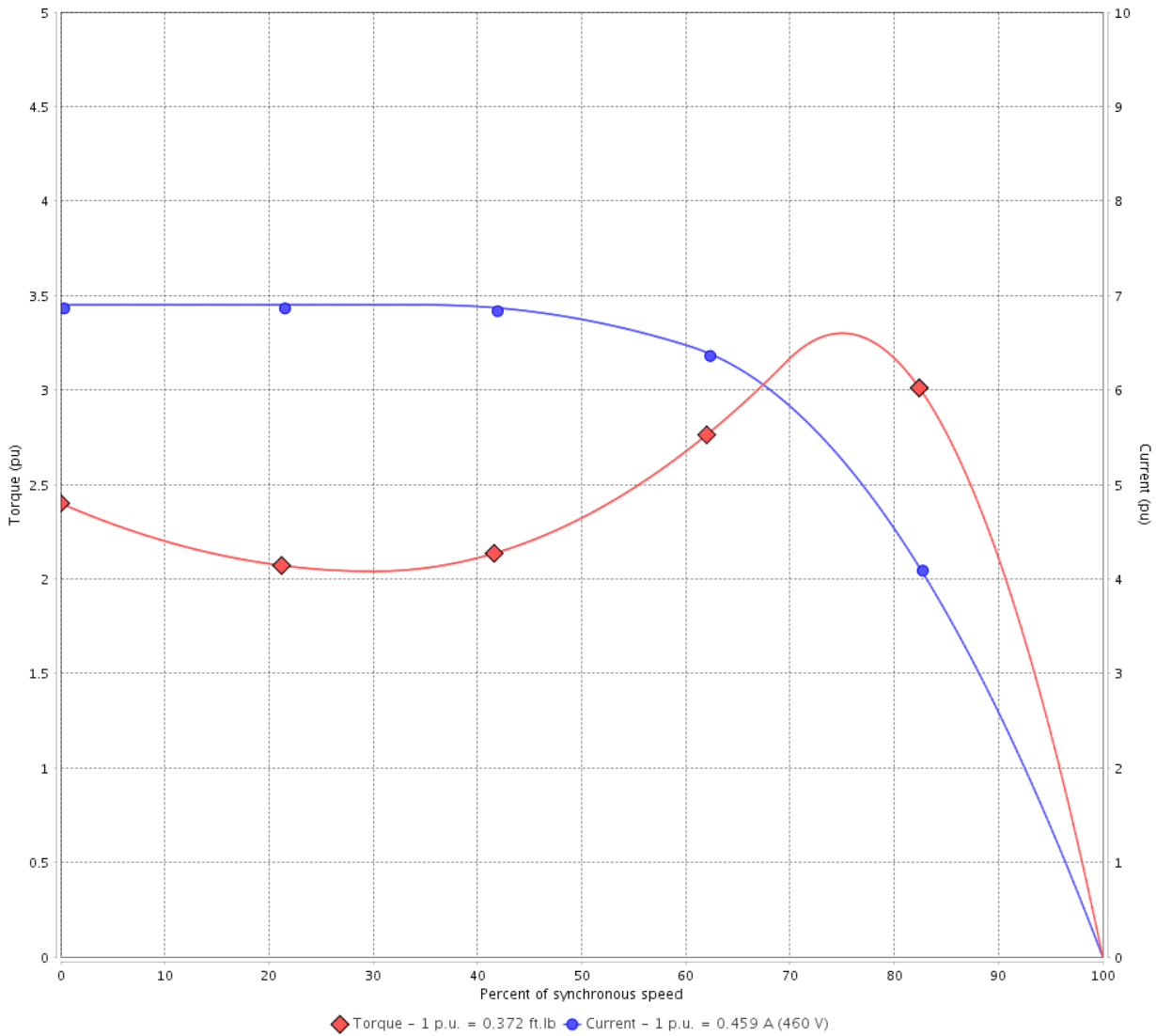
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12808936
 Catalog # : .2536OT3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 208-230/460 V 60 Hz 2P

Rated current	: 1.01-0.918/0.459 A	Moment of inertia (J)	: 0.0389 sq.ft.lb
LRC	: 6.9	Duty cycle	: Cont.(S1)
Rated torque	: 0.372 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	:
Breakdown torque	: 330 %	Temperature rise	: 80 K
Rated speed	: 3525 rpm		

Locked rotor time : 77s (cold) 43s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

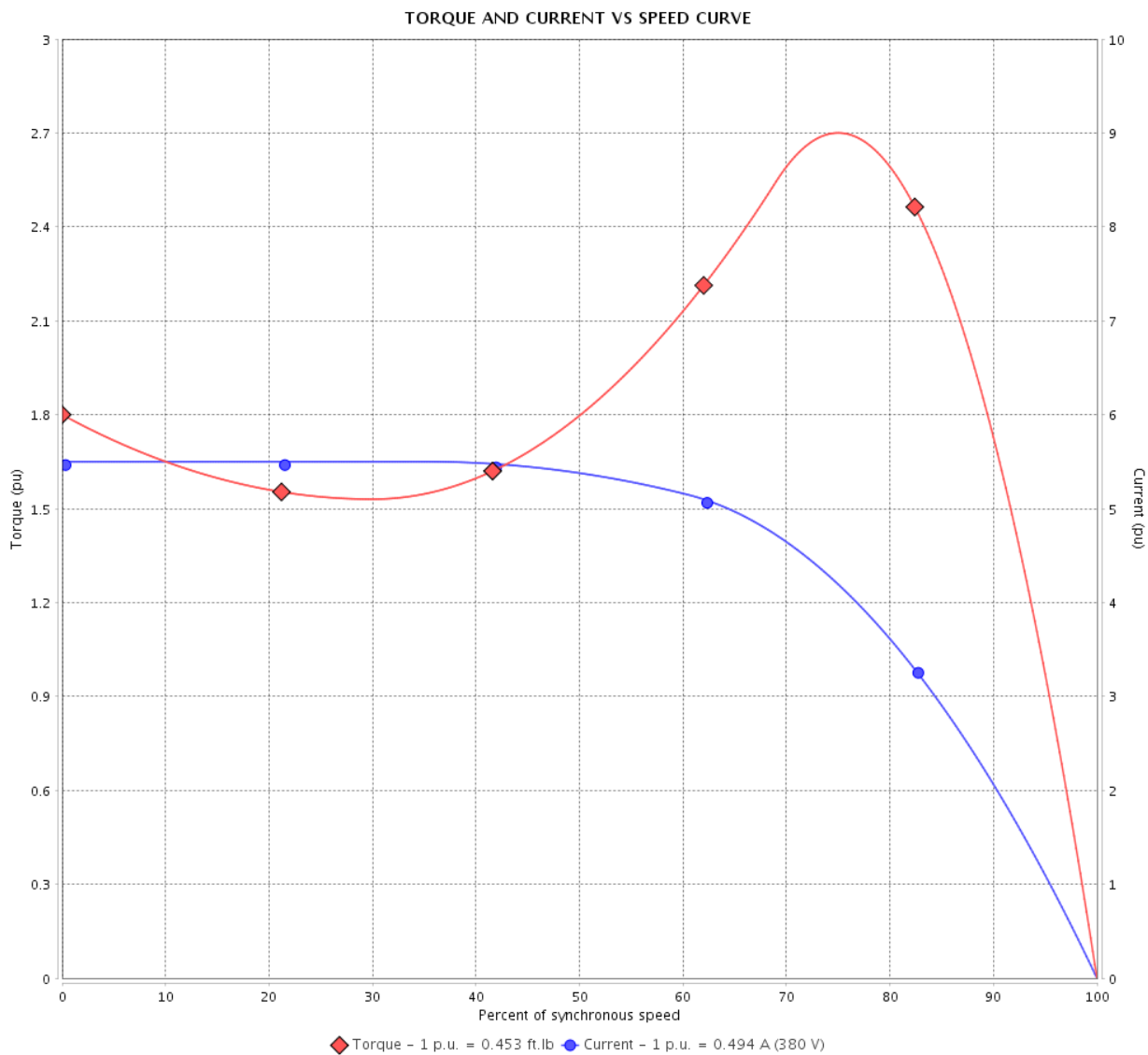
Product line : Premium Efficiency Three-Phase

Product code :

12808936

Catalog # :

.2536OT3E56C-S



Performance : 190/380 V 50 Hz 2P

Rated current : 0.988/0.494 A
 LRC : 5.5
 Rated torque : 0.453 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 270 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

Locked rotor time : 97s (cold) 54s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

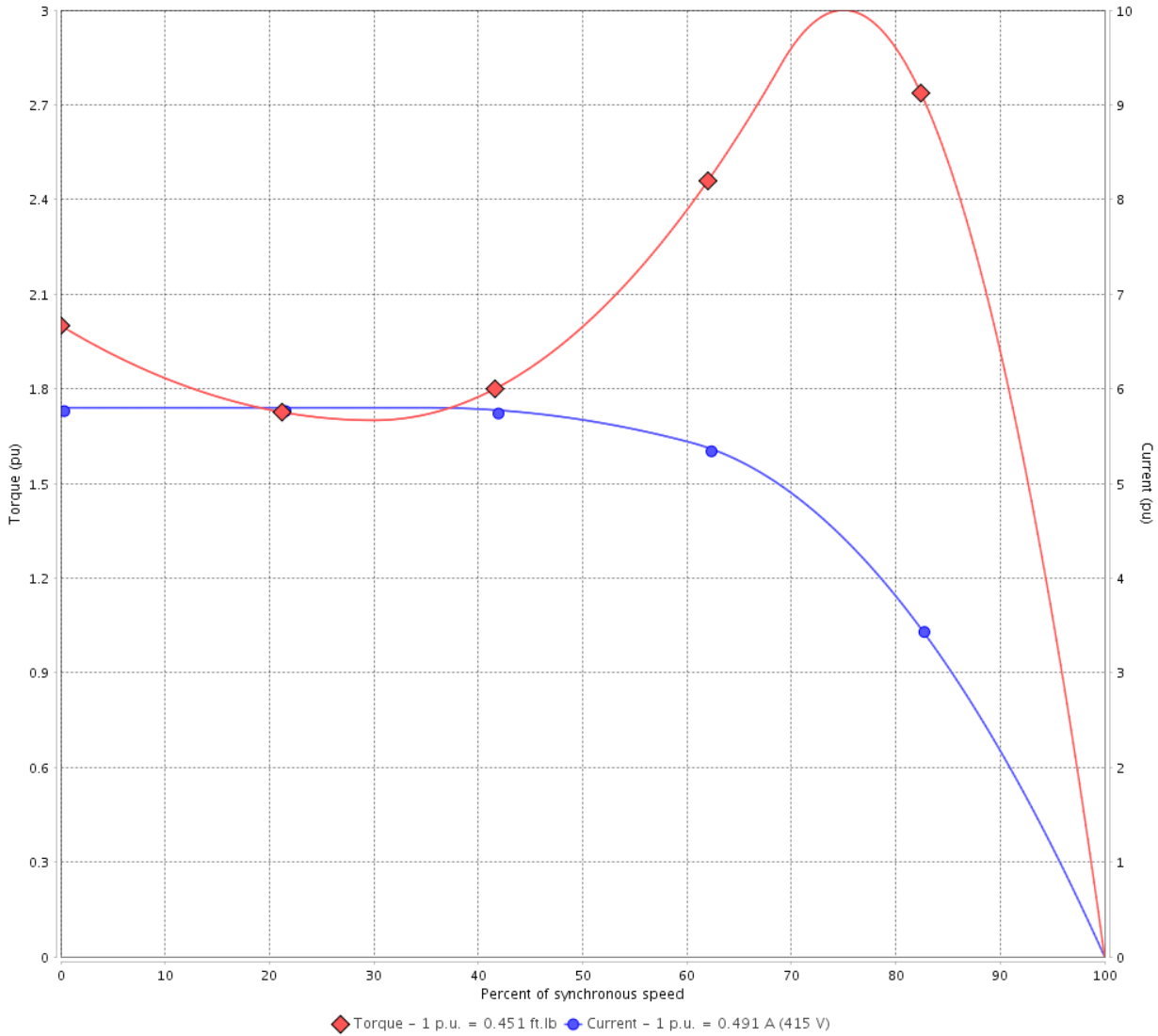
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase Product code : 12808936
 Catalog # : .2536OT3E56C-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current	: 0.926/0.491 A	Moment of inertia (J)	: 0.0389 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 0.451 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.35
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 2910 rpm		

Locked rotor time : 88s (cold) 49s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

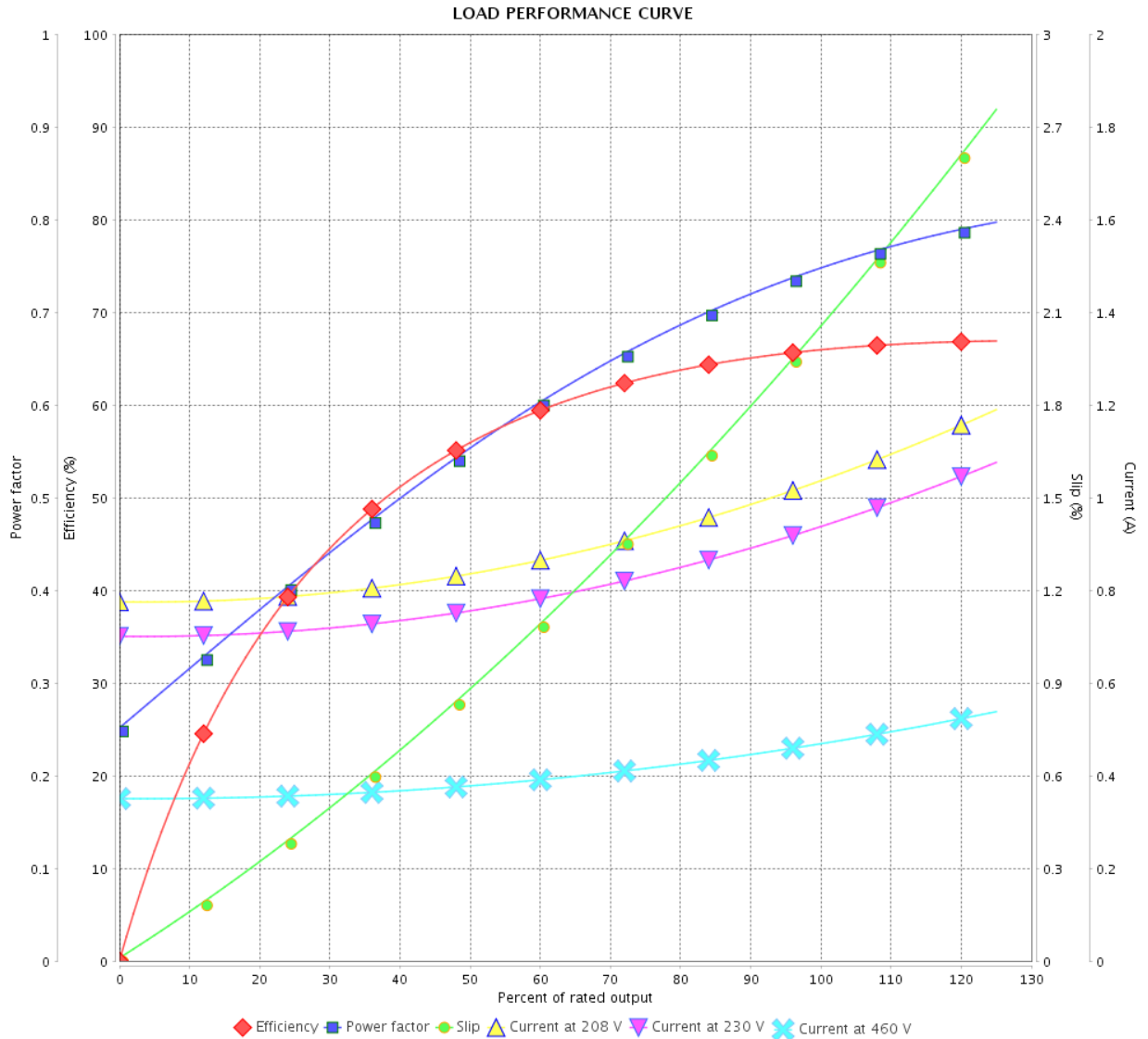
Product line : Premium Efficiency Three-Phase

Product code :

12808936

Catalog # :

.2536OT3E56C-S



Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.01-0.918/0.459 A
 LRC : 6.9
 Rated torque : 0.372 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
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Date				

LOAD PERFORMANCE CURVE

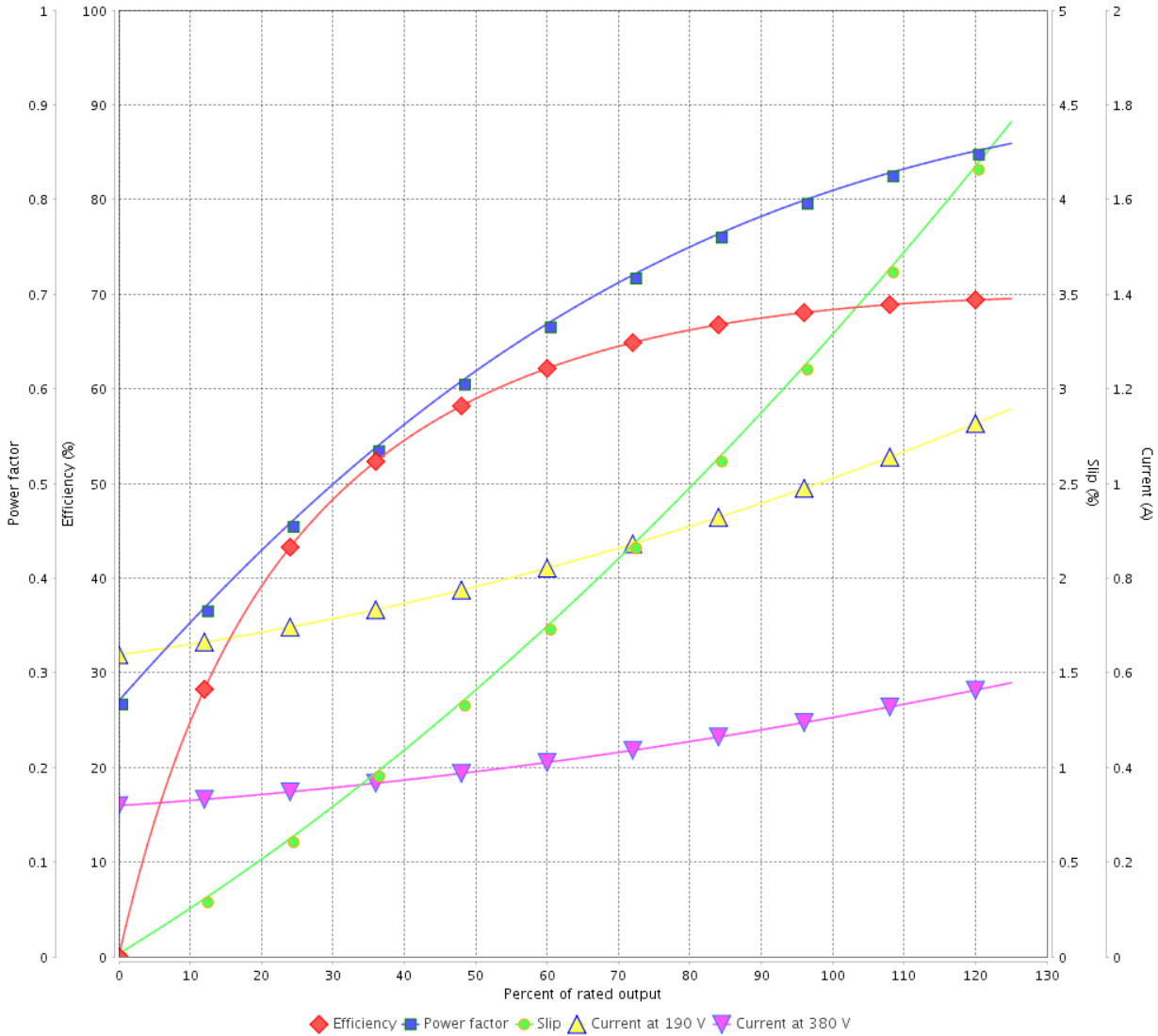
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 Catalog # : .2536OT3E56C-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 0.988/0.494 A
 LRC : 5.5
 Rated torque : 0.453 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 270 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

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Three Phase Induction Motor - Squirrel Cage



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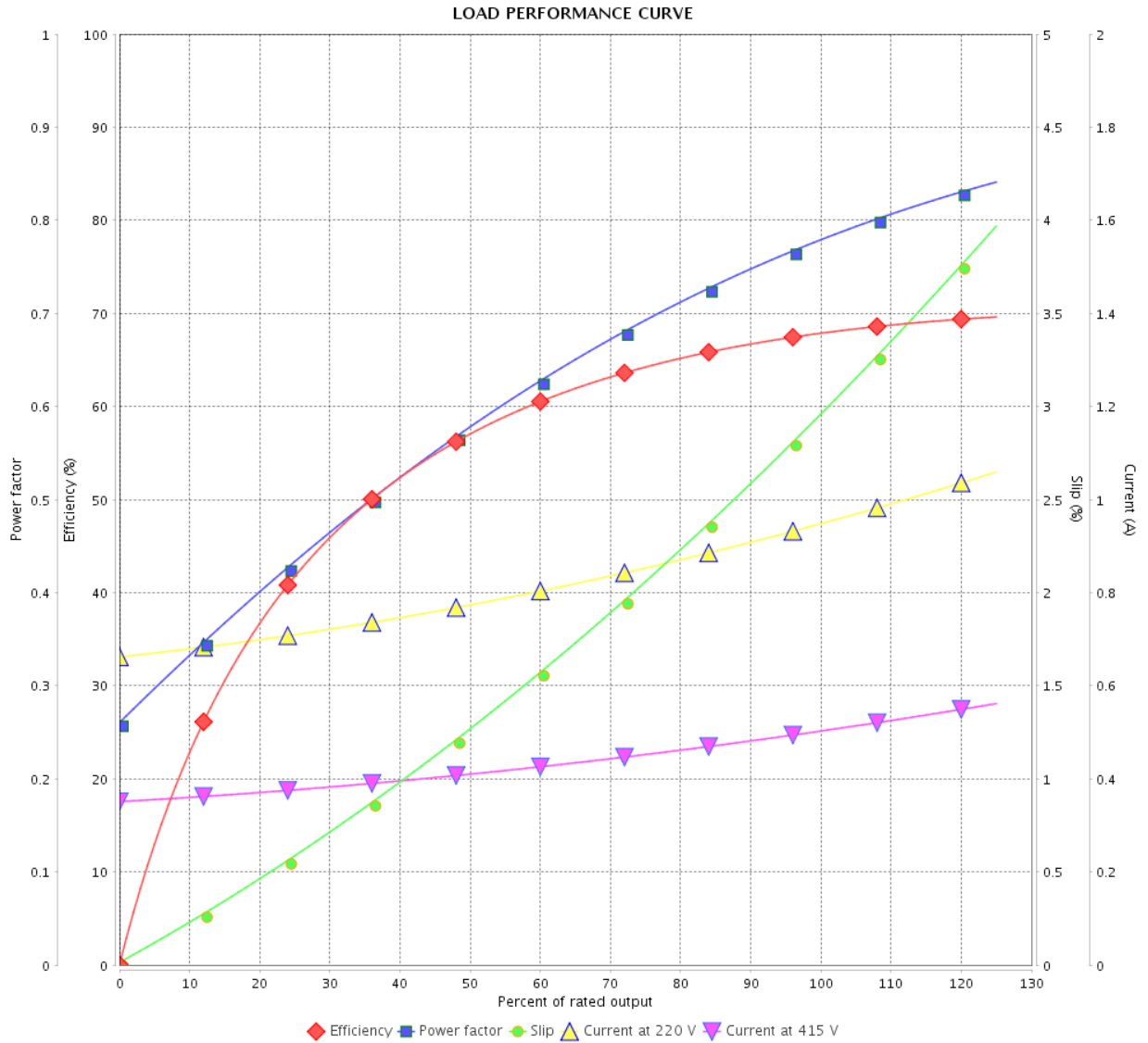
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Product code :

12808936

Catalog # :

.2536OT3E56C-S



Performance : 220/415 V 50 Hz 2P

Rated current : 0.926/0.491 A
 LRC : 5.8
 Rated torque : 0.451 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 300 %
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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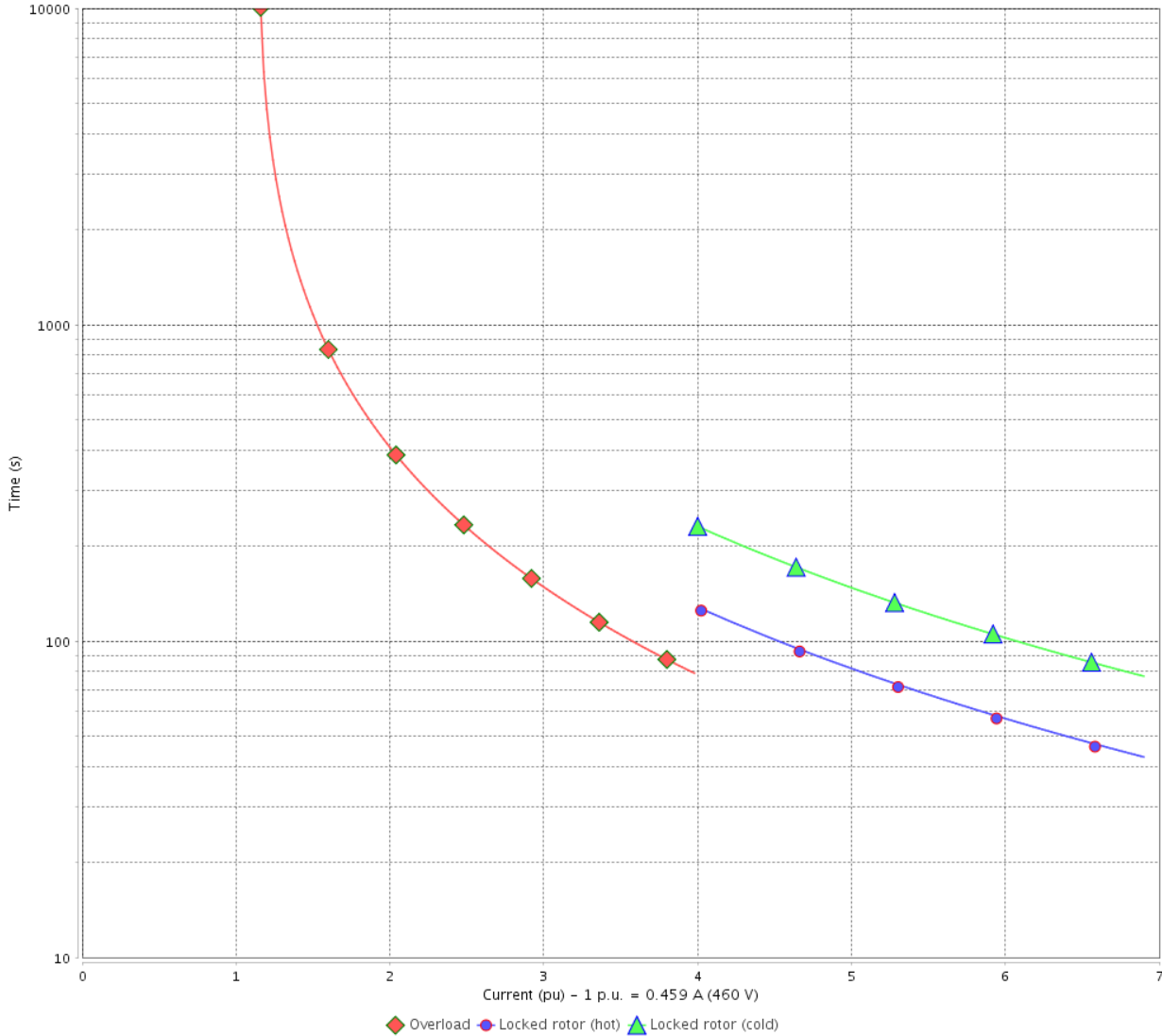
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THERMAL LIMIT CURVE



Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.01-0.918/0.459 A
 LRC : 6.9
 Rated torque : 0.372 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K

Heating constant

Cooling constant

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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____

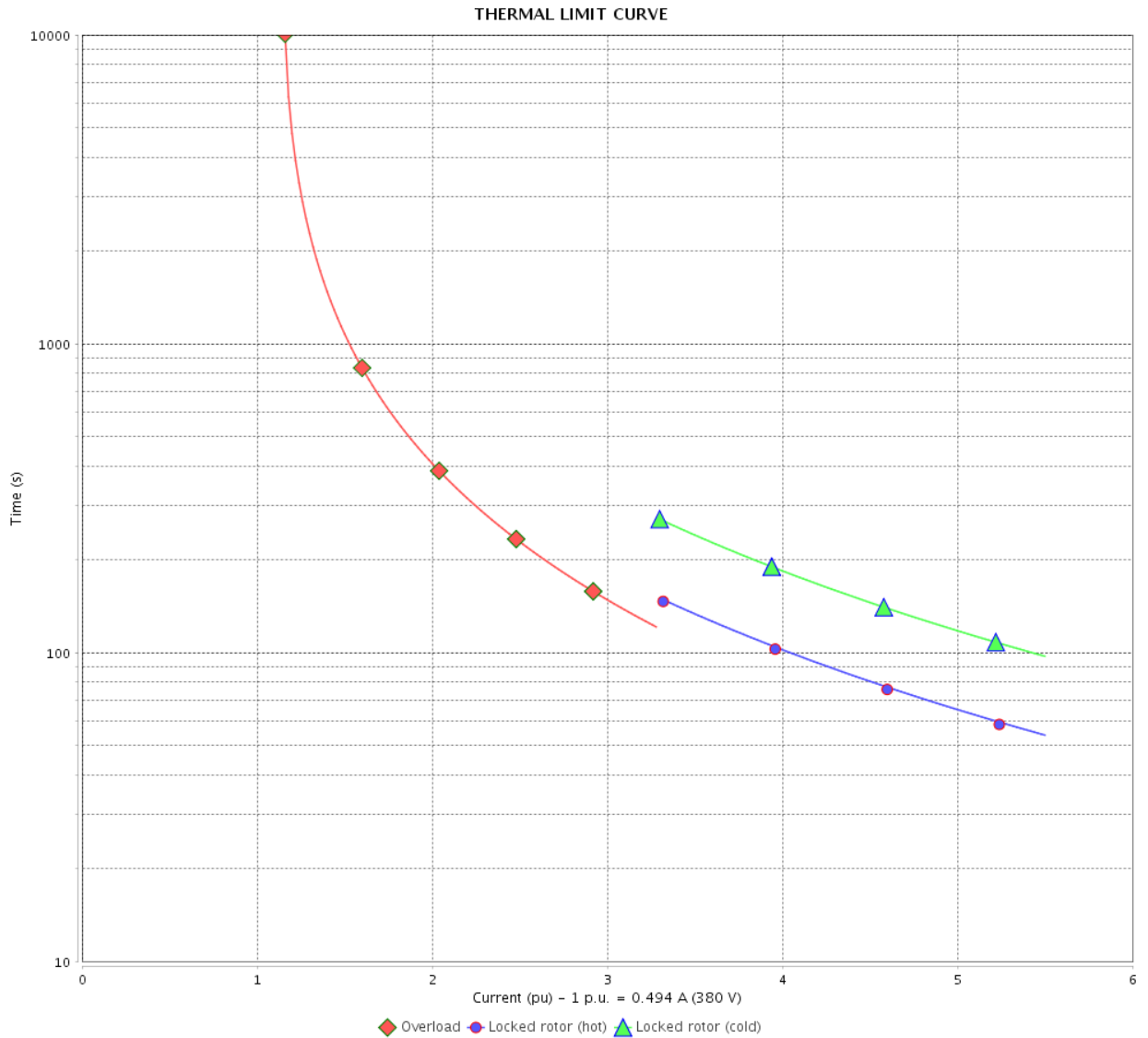
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Performance : 190/380 V 50 Hz 2P

Rated current : 0.988/0.494 A
 LRC : 5.5
 Rated torque : 0.453 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 270 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

Heating constant

Cooling constant

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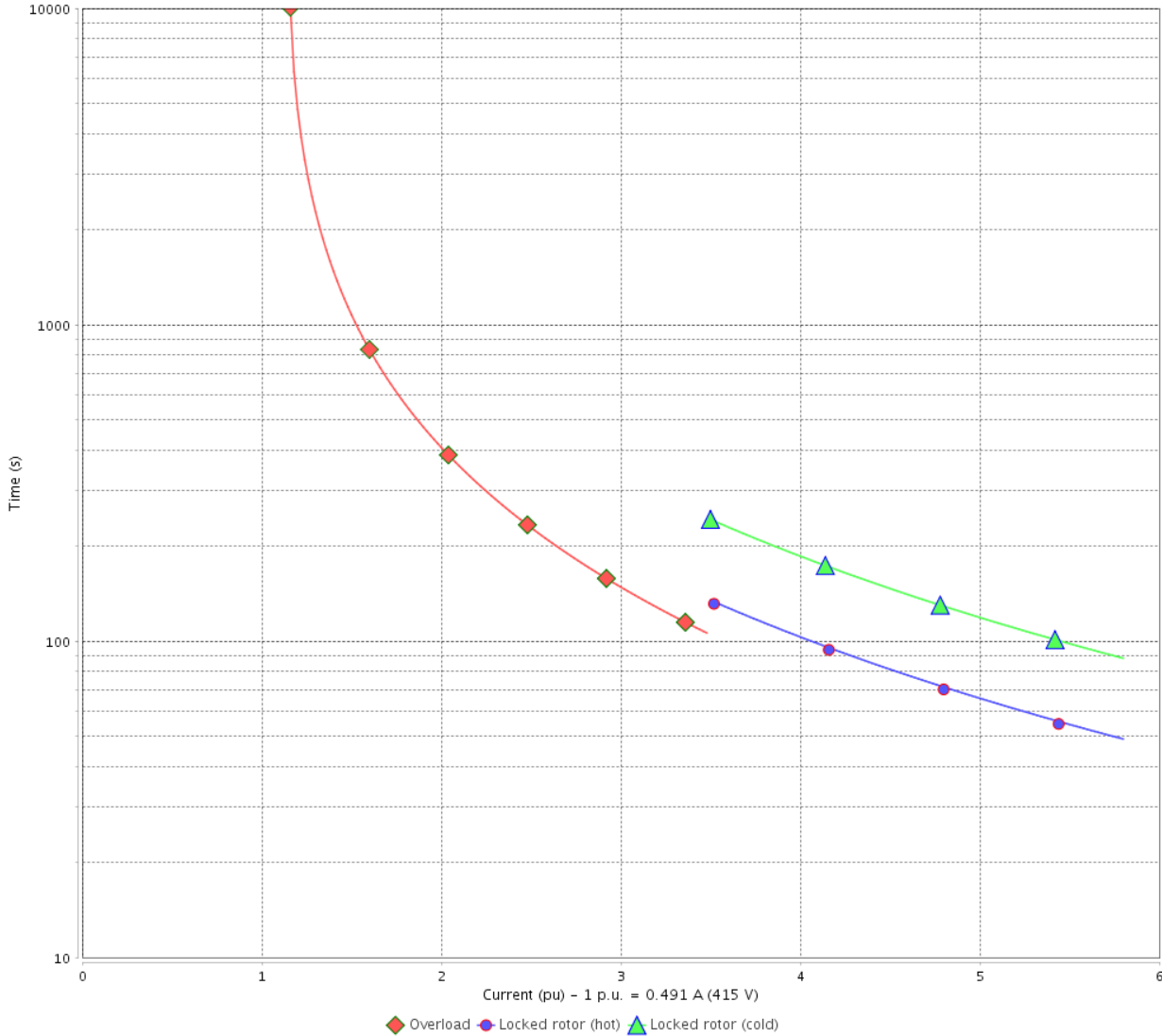
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Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

Heating constant

Cooling constant

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

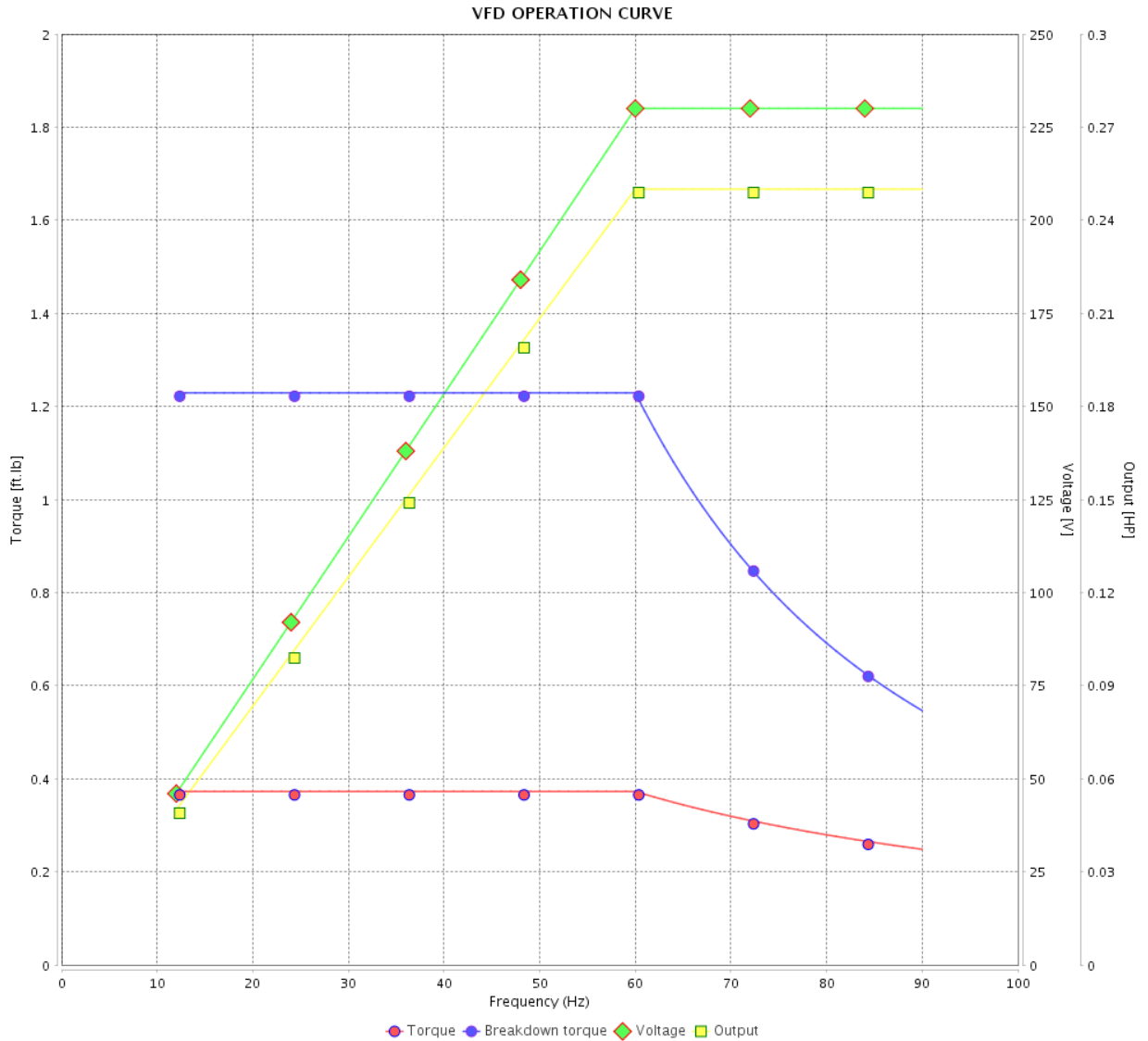
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Product code :

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Catalog # :

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Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.01-0.918/0.459 A
 LRC : 6.9
 Rated torque : 0.372 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 330 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K

Rev.	Changes Summary	Performed	Checked	Date
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Date				

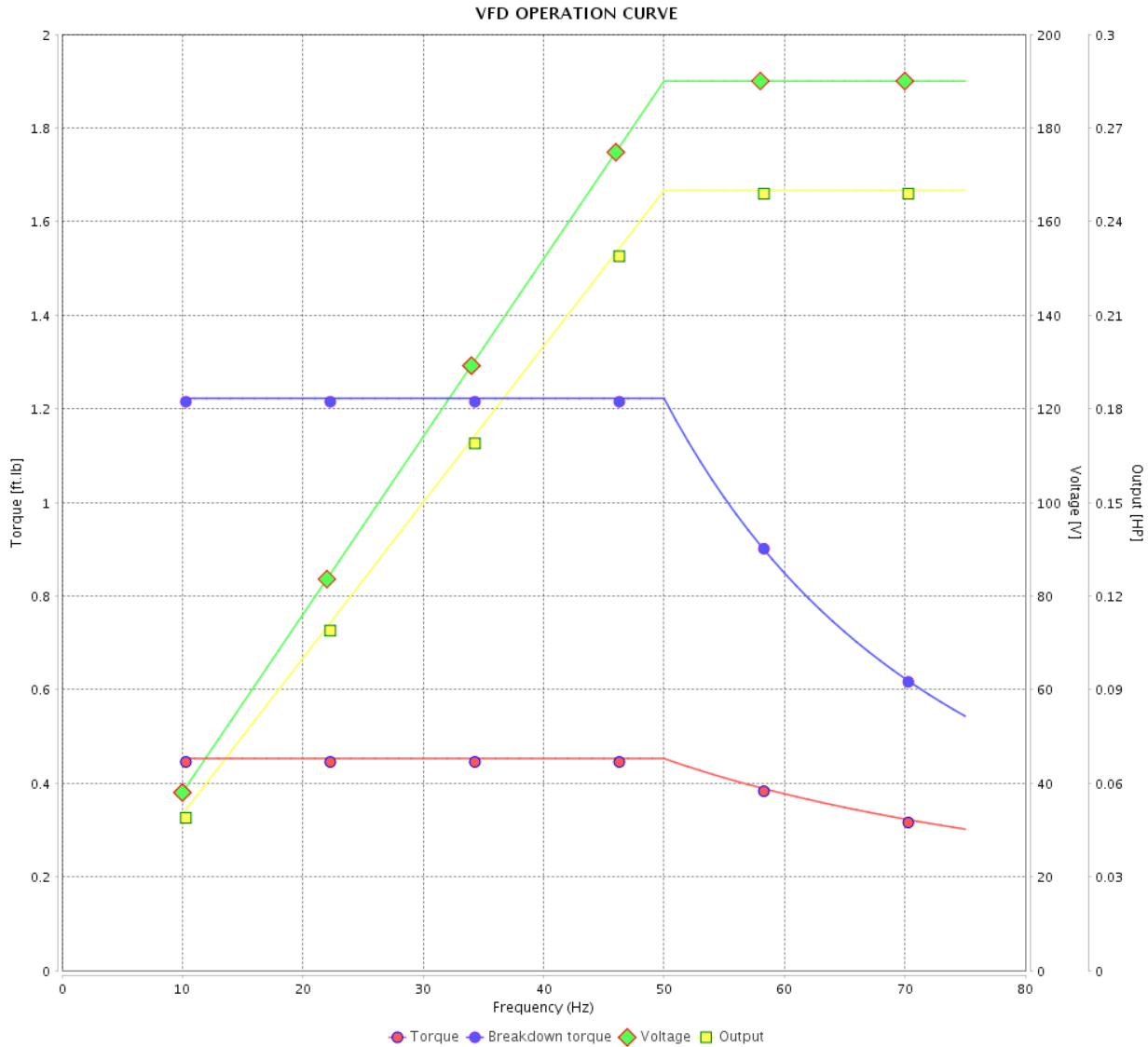
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 Breakdown torque : 270 %
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.0389 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.35
 Temperature rise : 80 K

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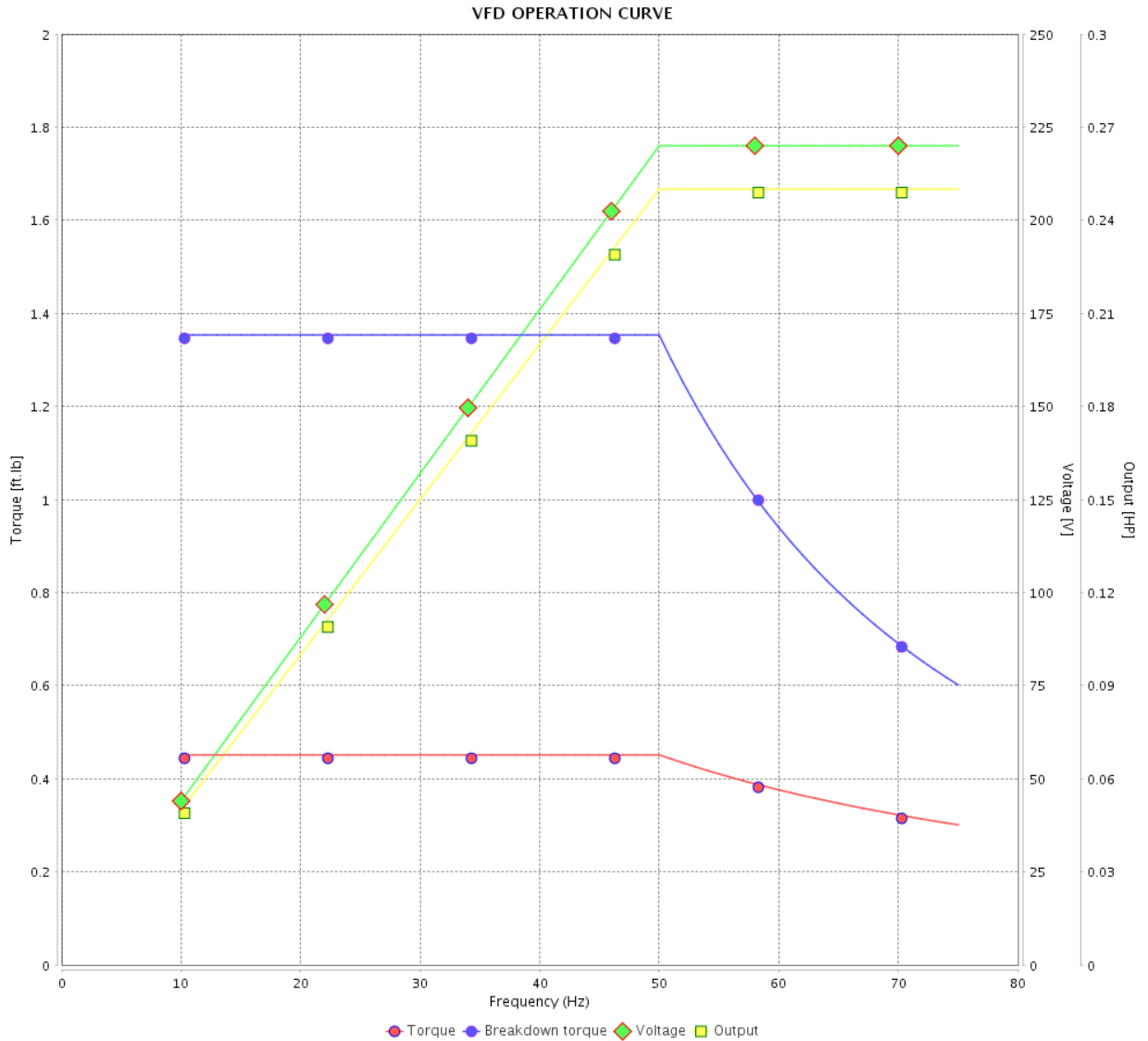
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 Temperature rise : 80 K

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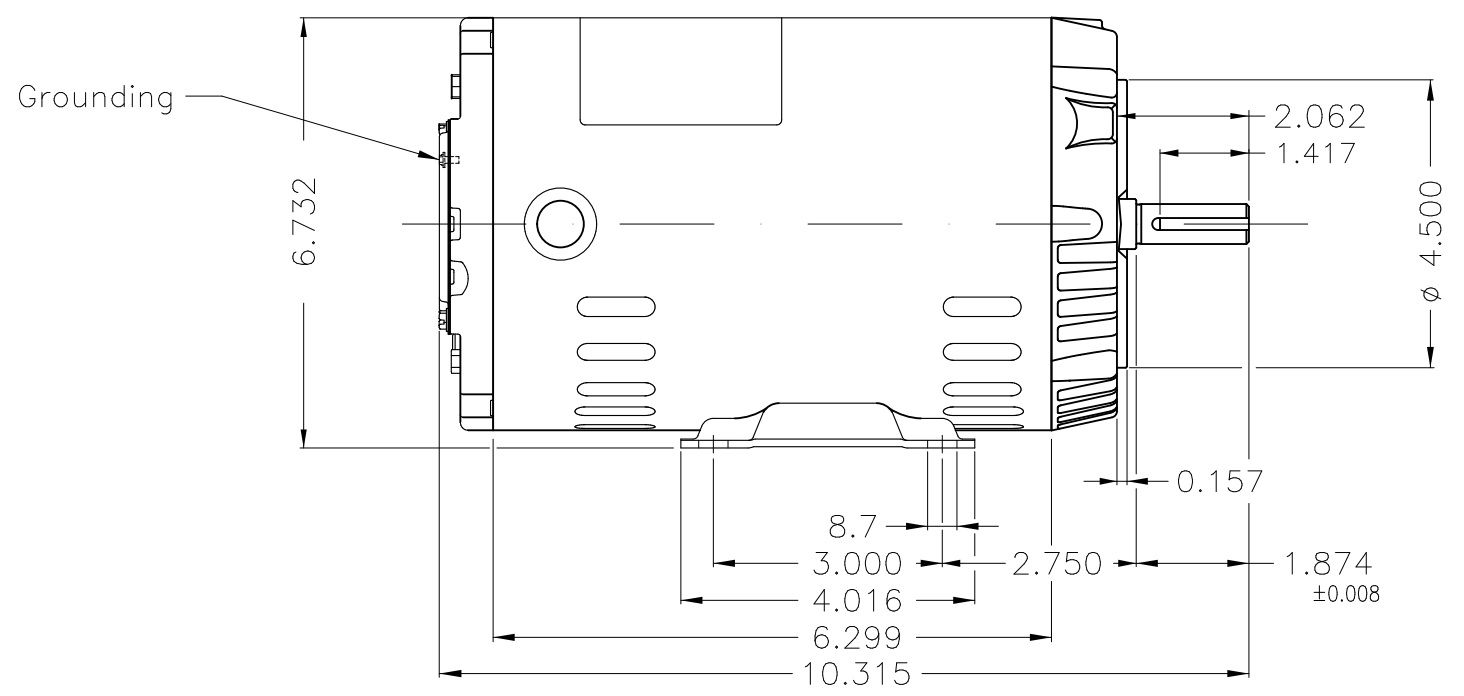
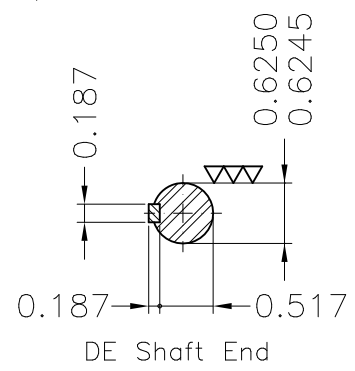
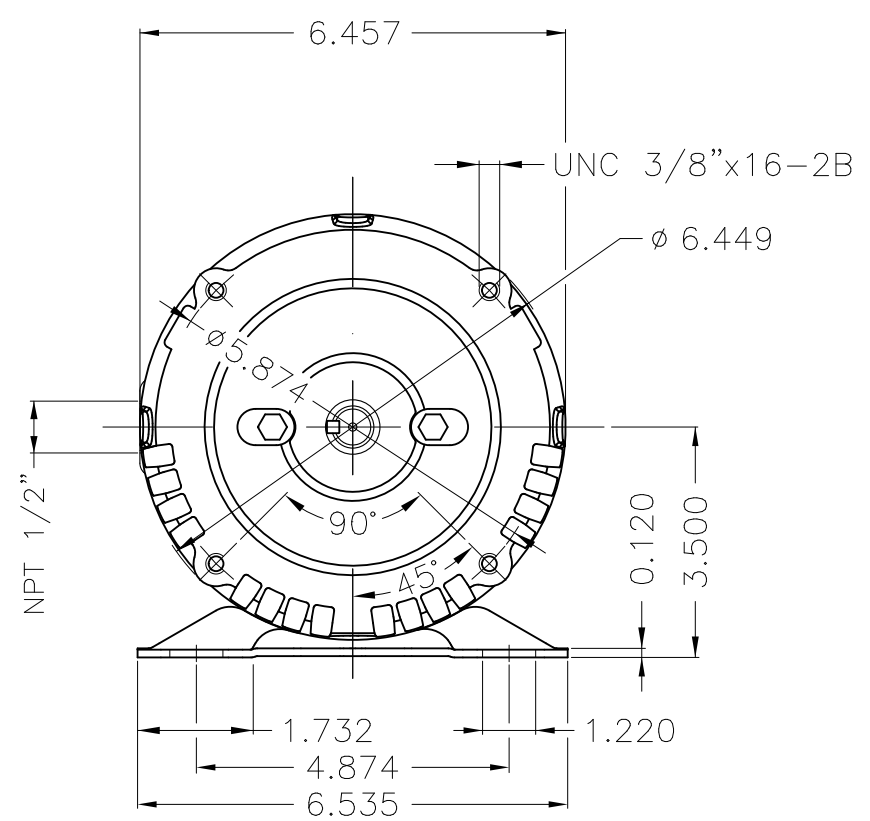
A

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.					PREVIEW WDD			
CHECKED		FRAME 56C IP21 ODP								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1				

0.25 HP 02 Poles 60 Hz

A

XME A3