

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: Premium Efficiency Three-Phase	
Product code :	12809664	
Catalog # :	00136OT3E56-S	
Frame	: 56	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
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>	: 20.0 lb	
Moment of inertia (J)	: 0.0517 sq.ft.lb	
Output [HP]	1	
Poles	2	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	3.02/1.51	
L. R. Amperes [A]	19.3/9.66	
LRC [A]	6.4x(Code J)	
No load current [A]	1.60/0.800	
Rated speed [RPM]	3470	
Slip [%]	3.61	
Rated torque [ft.lb]	1.51	
Locked rotor torque [%]	229	
Breakdown torque [%]	260	
Service factor		
Temperature rise	80 K	
Locked rotor time	41s (cold) 23s (hot)	
Noise level <sup>2</sup>	62.0 dB(A)	
Efficiency (%)	25%	68.3
	50%	70.0
	75%	75.5
	100%	77.0
Power Factor	25%	0.37
	50%	0.60
	75%	0.73
	100%	0.81
Bearing type	: Drive end 6204 ZZ Non drive end 6202 ZZ	
Sealing	: Without Without Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 29 lb	
	Max. compression : 49 lb	
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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Revision		

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

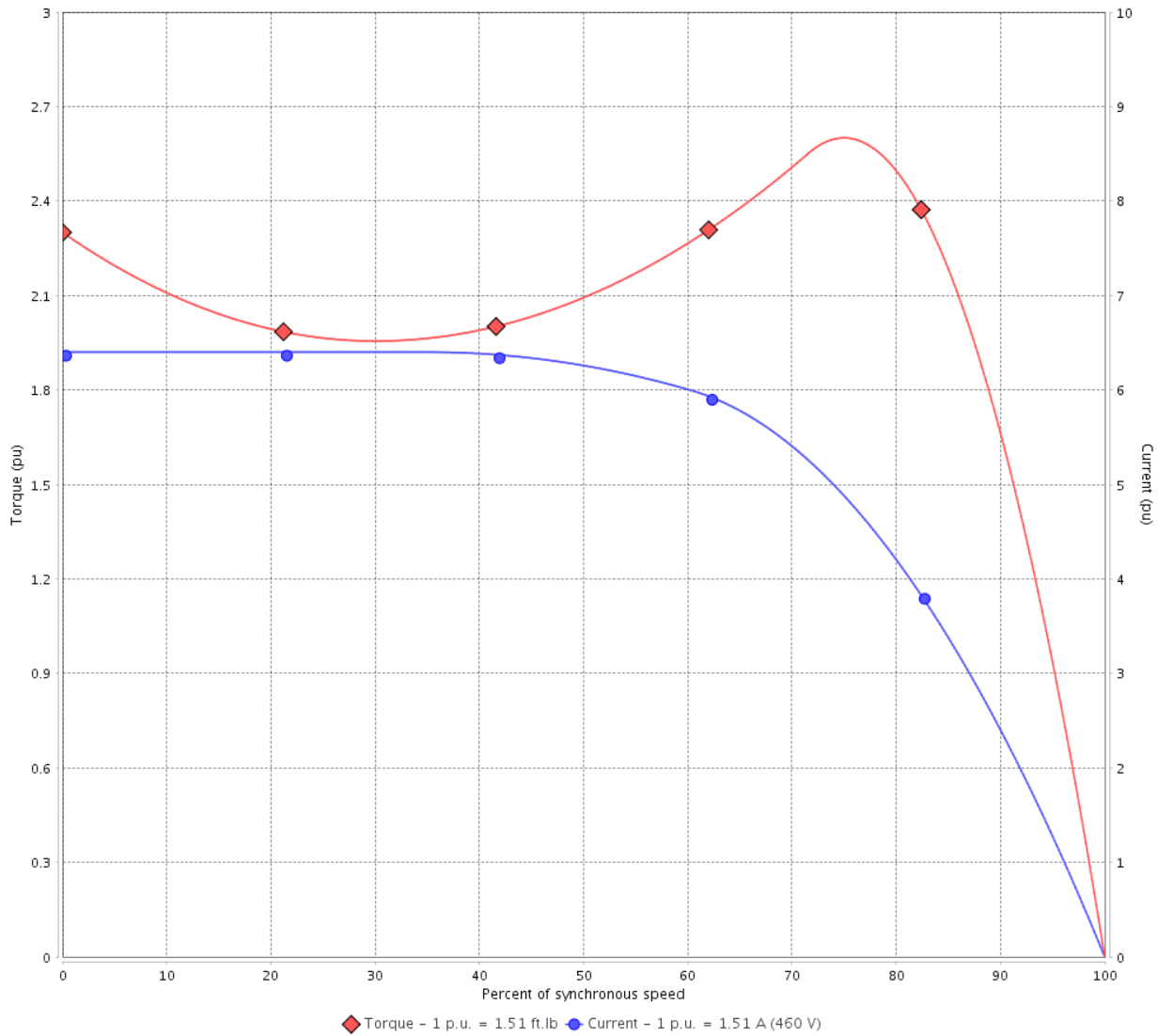
Product code :

12809664

Catalog # :

001360T3E56-S

TORQUE AND CURRENT VS SPEED CURVE



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

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

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# TORQUE AND CURRENT VS SPEED CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

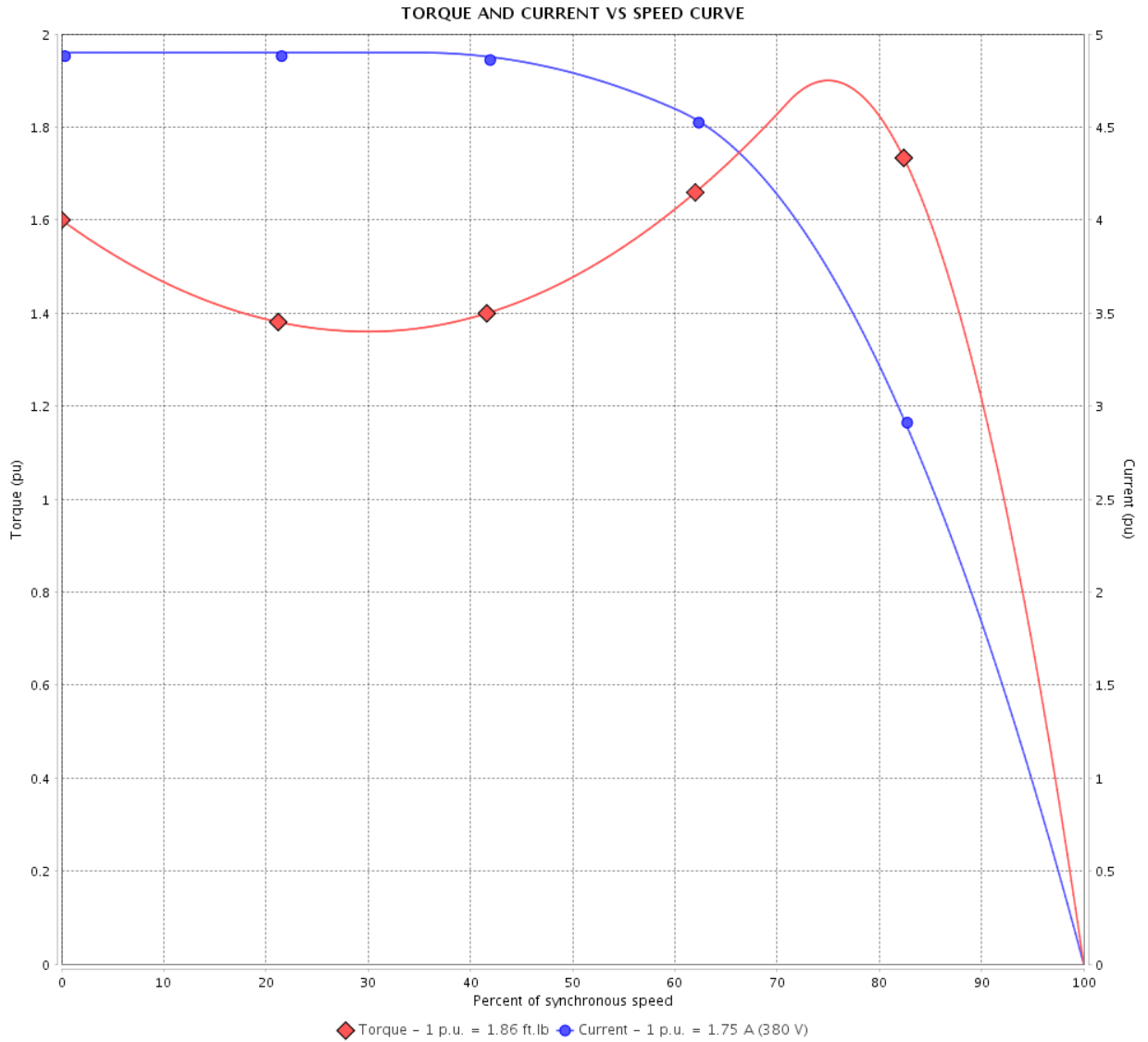
Product line : Premium Efficiency Three-Phase

Product code :

12809664

Catalog # :

00136OT3E56-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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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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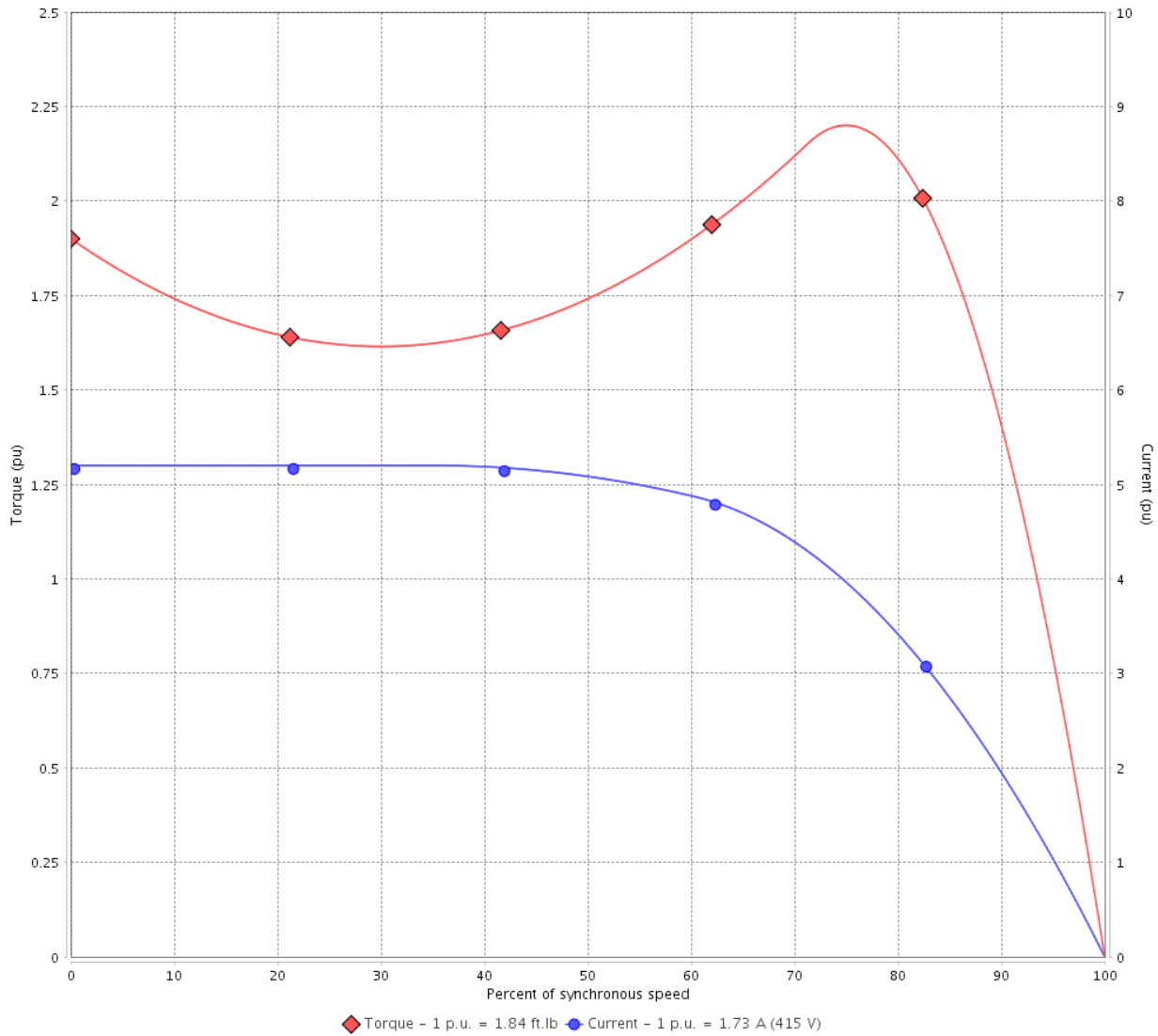
Product code :

12809664

Catalog # :

001360T3E56-S

TORQUE AND CURRENT VS SPEED 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

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

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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



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

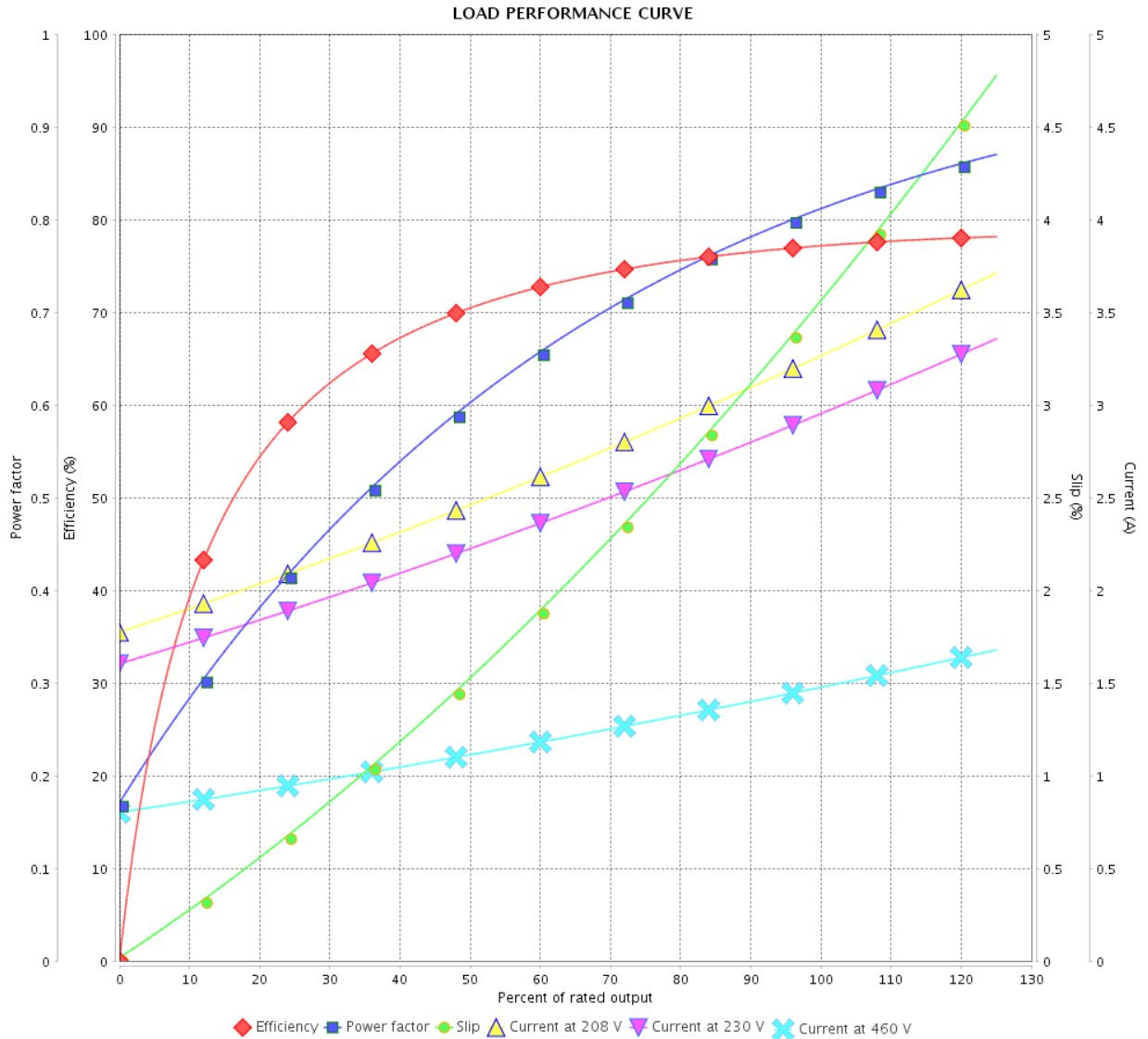
Product line : Premium Efficiency Three-Phase

Product code :

12809664

Catalog # :

00136OT3E56-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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# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

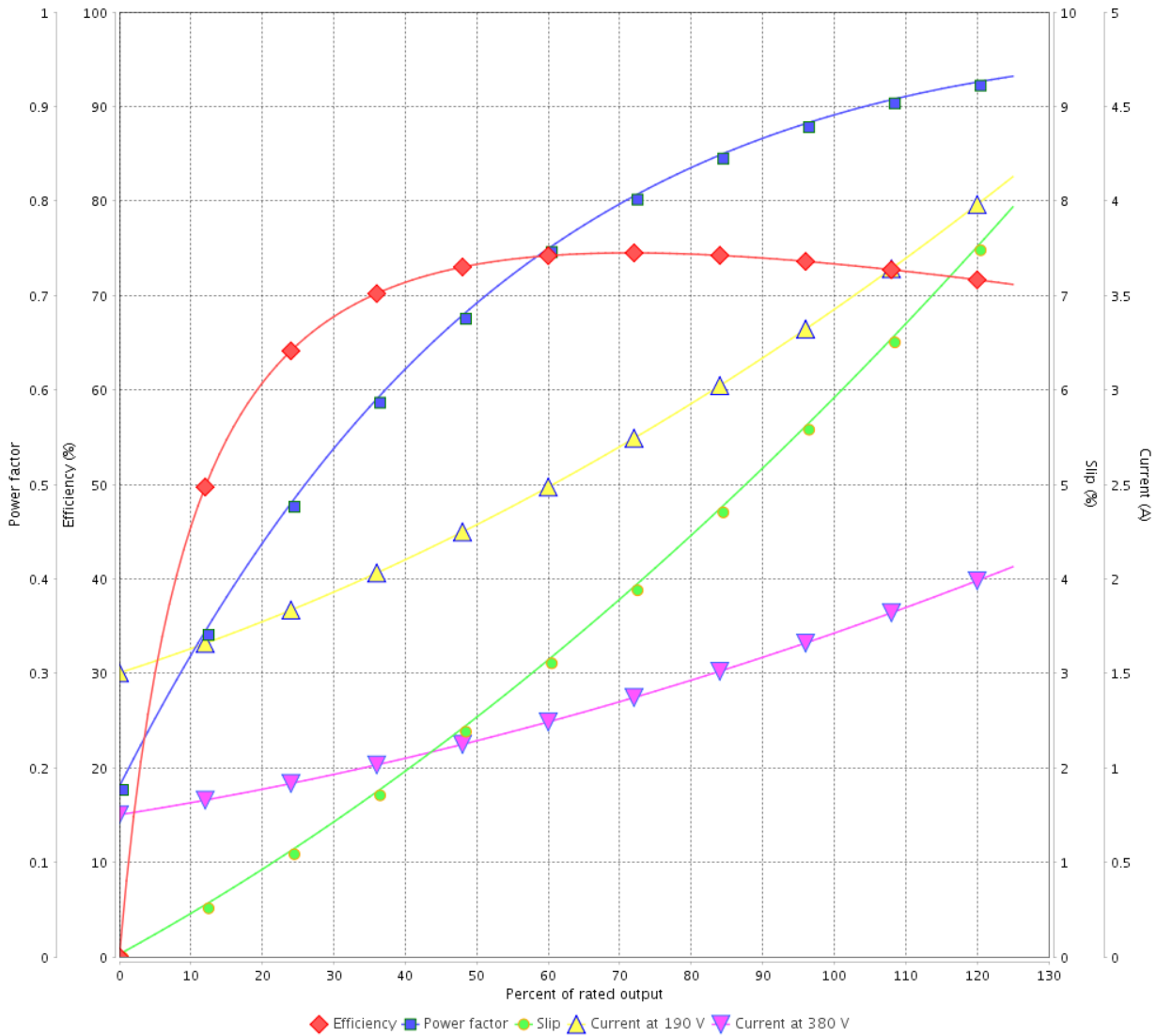
Product code :

12809664

Catalog # :

001360T3E56-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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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

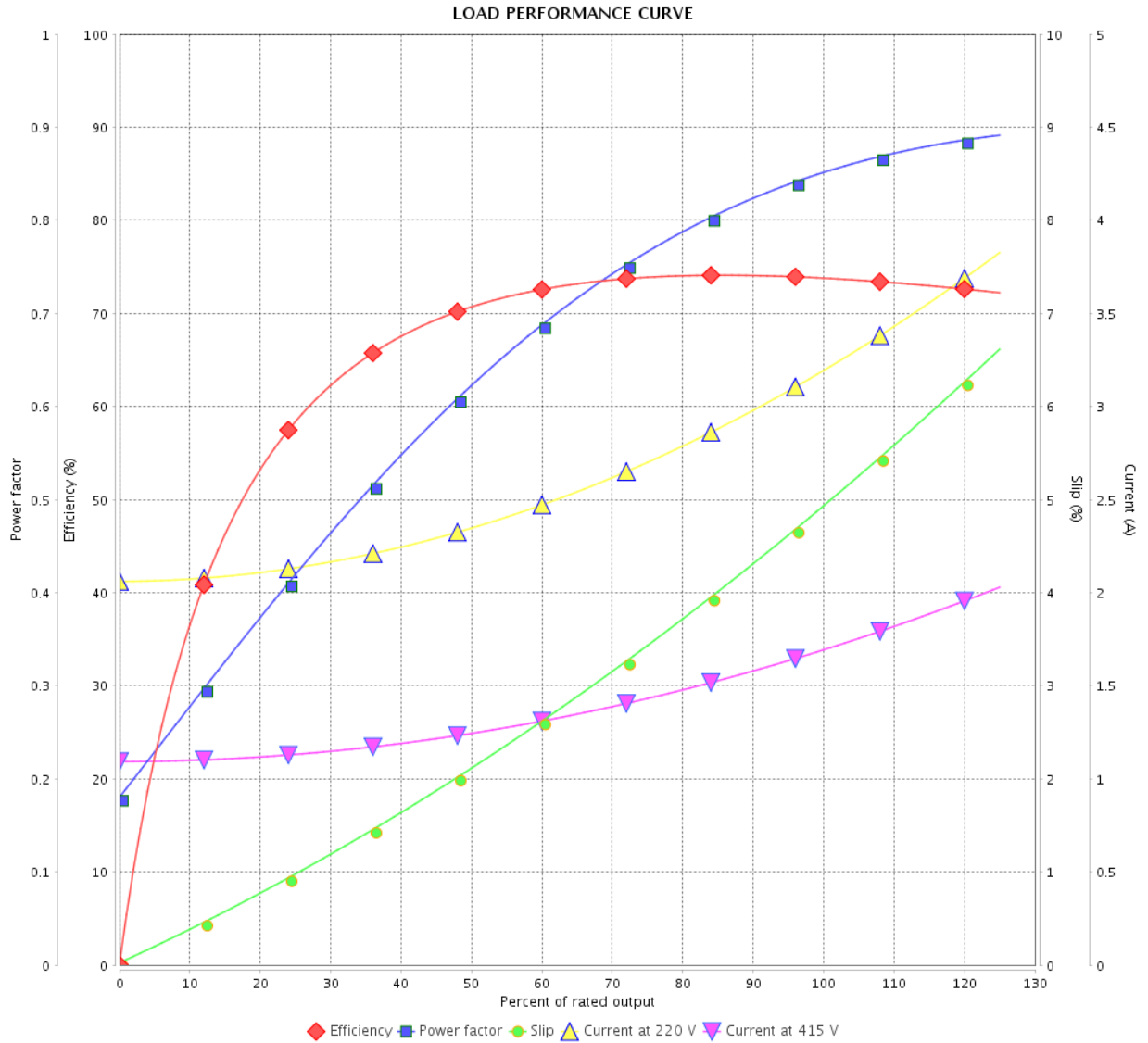
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Product code :

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 Duty cycle : Cont.(S1)  
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 Temperature rise : 80 K

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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

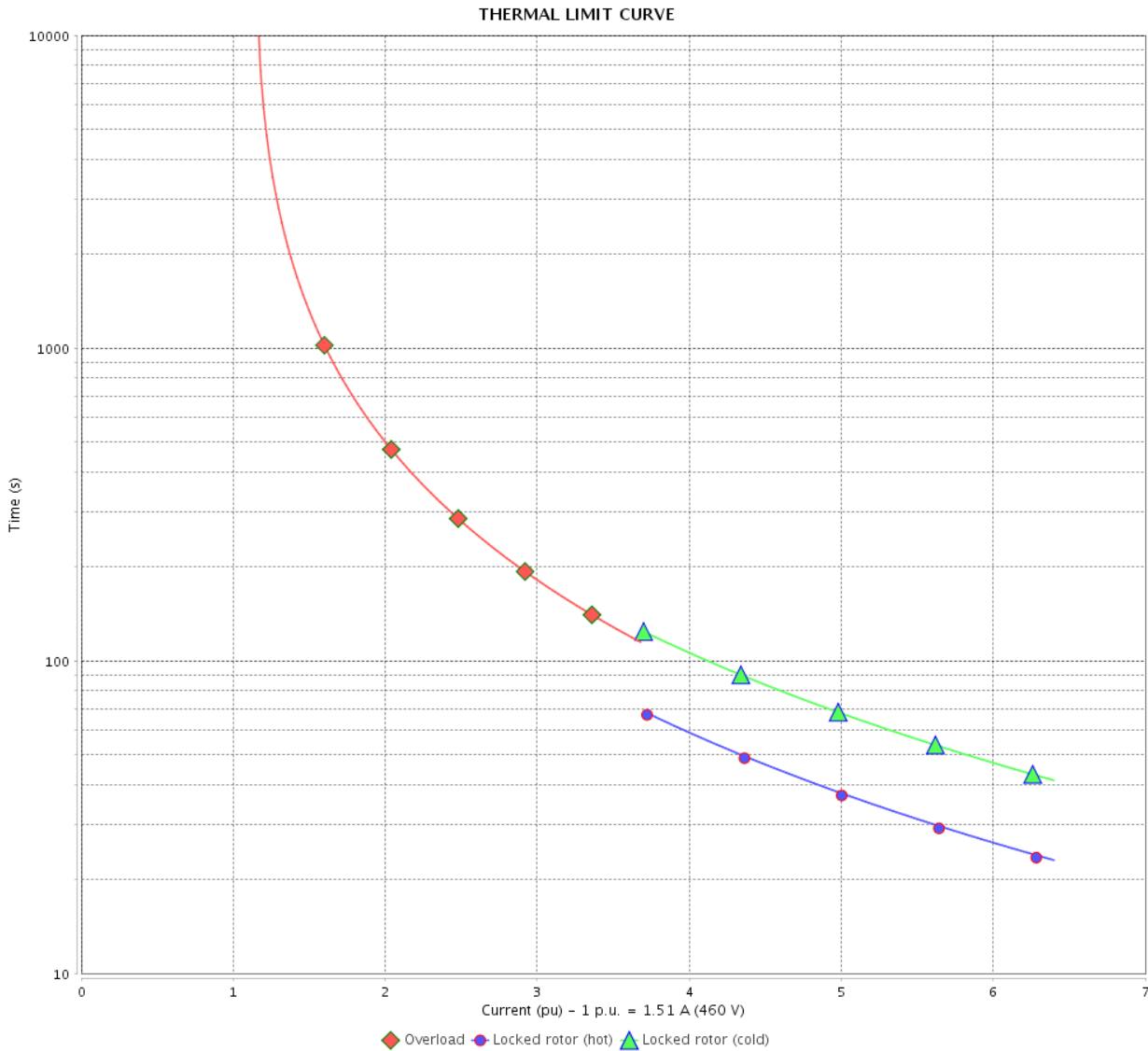
Product line : Premium Efficiency Three-Phase

Product code :

12809664

Catalog # :

001360T3E56-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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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

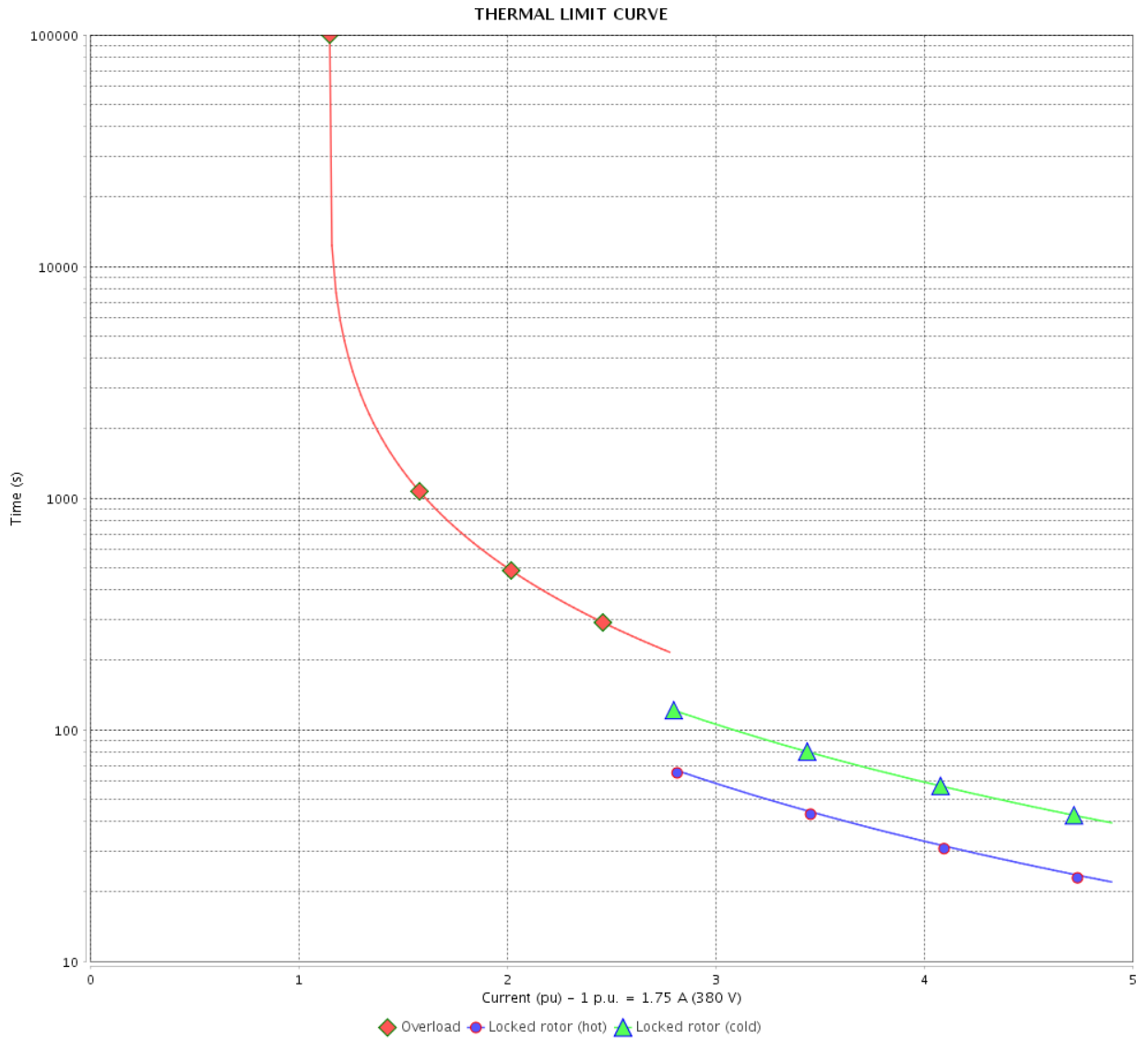
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 Rated speed : 2820 rpm

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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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

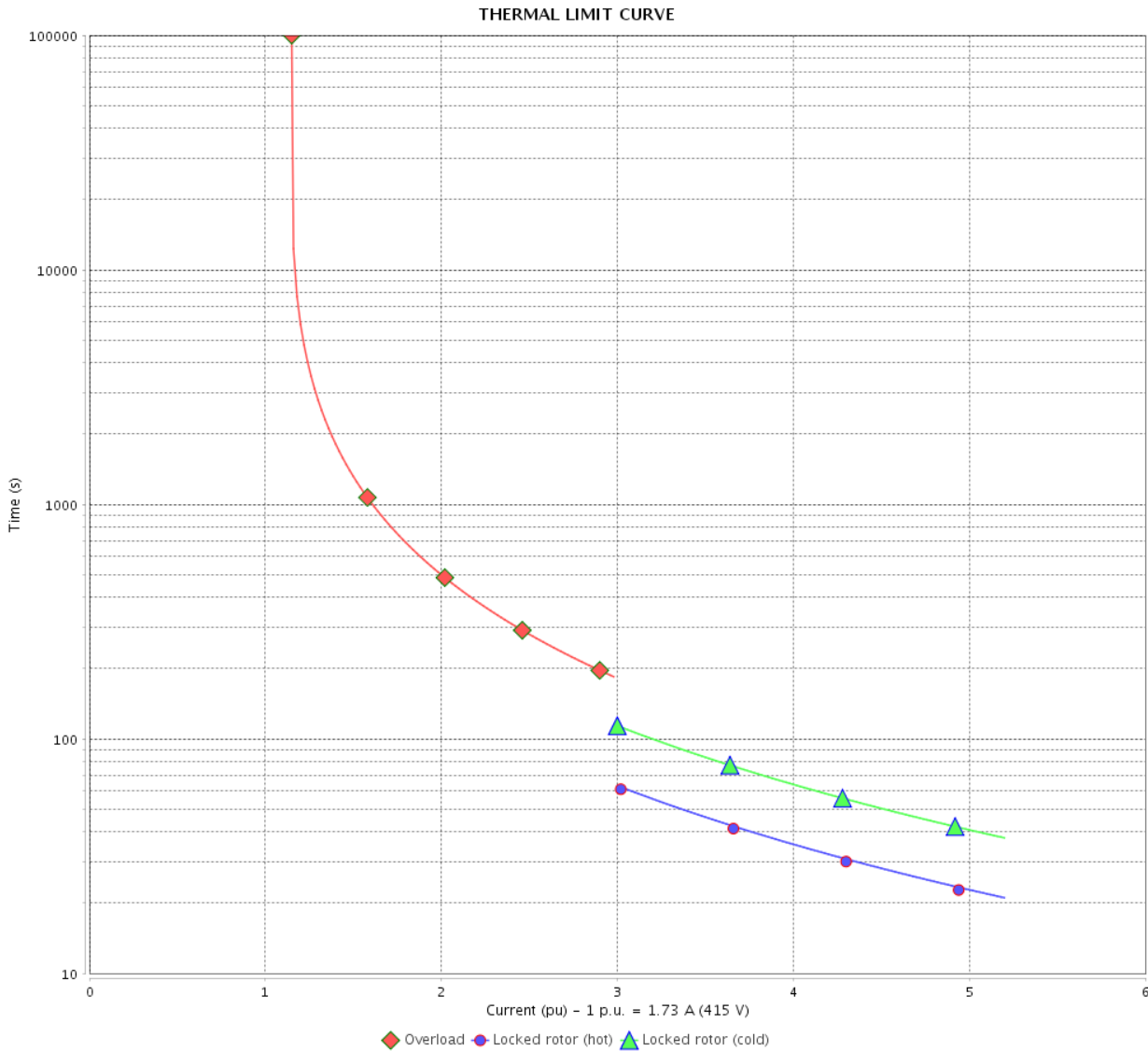
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Moment of inertia (J) : 0.0517 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

Heating constant

Cooling constant

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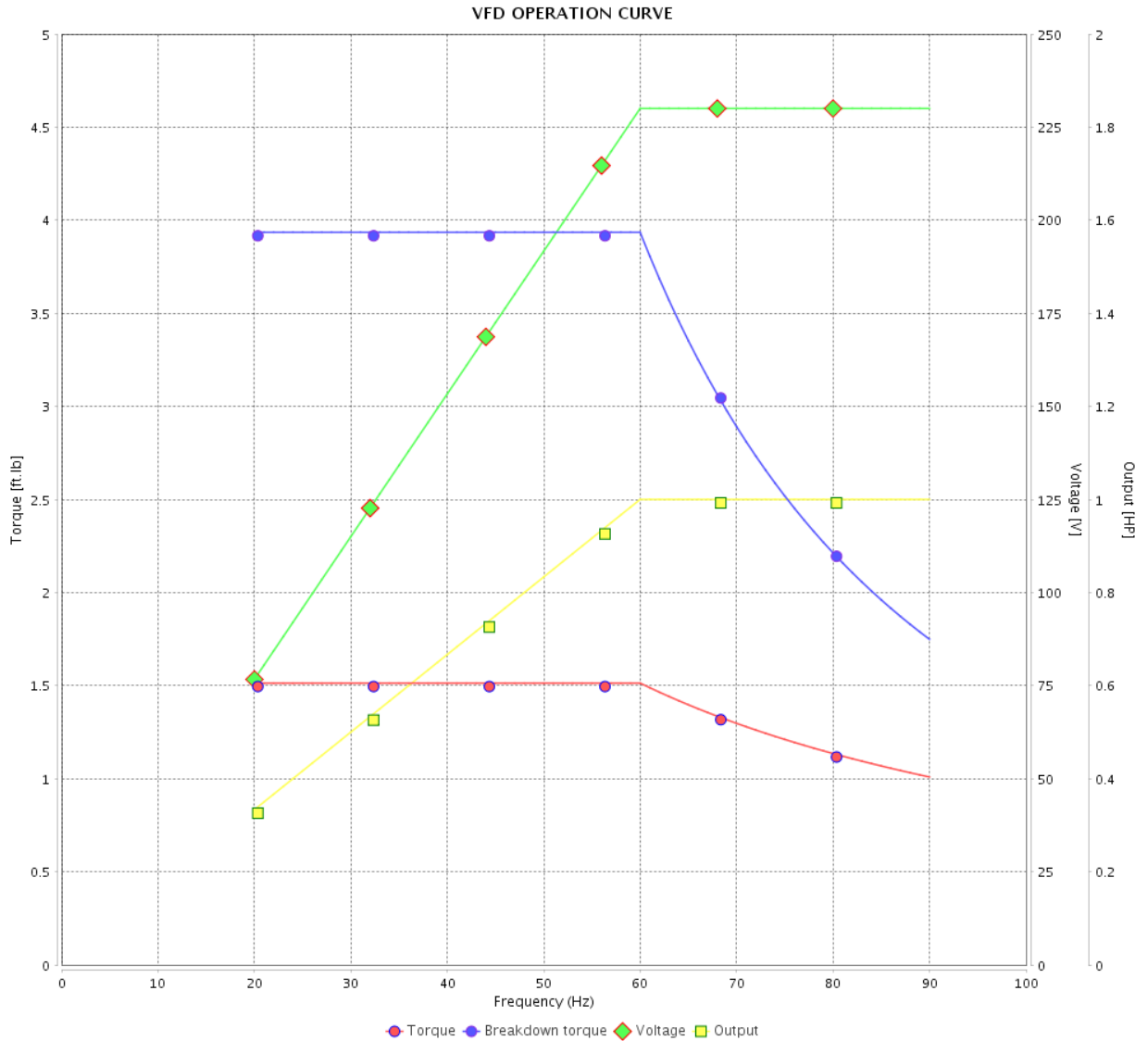
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : Premium Efficiency Three-Phase      Product code : 12809664  
 Catalog # : \_\_\_\_\_      Catalog # : 00136OT3E56-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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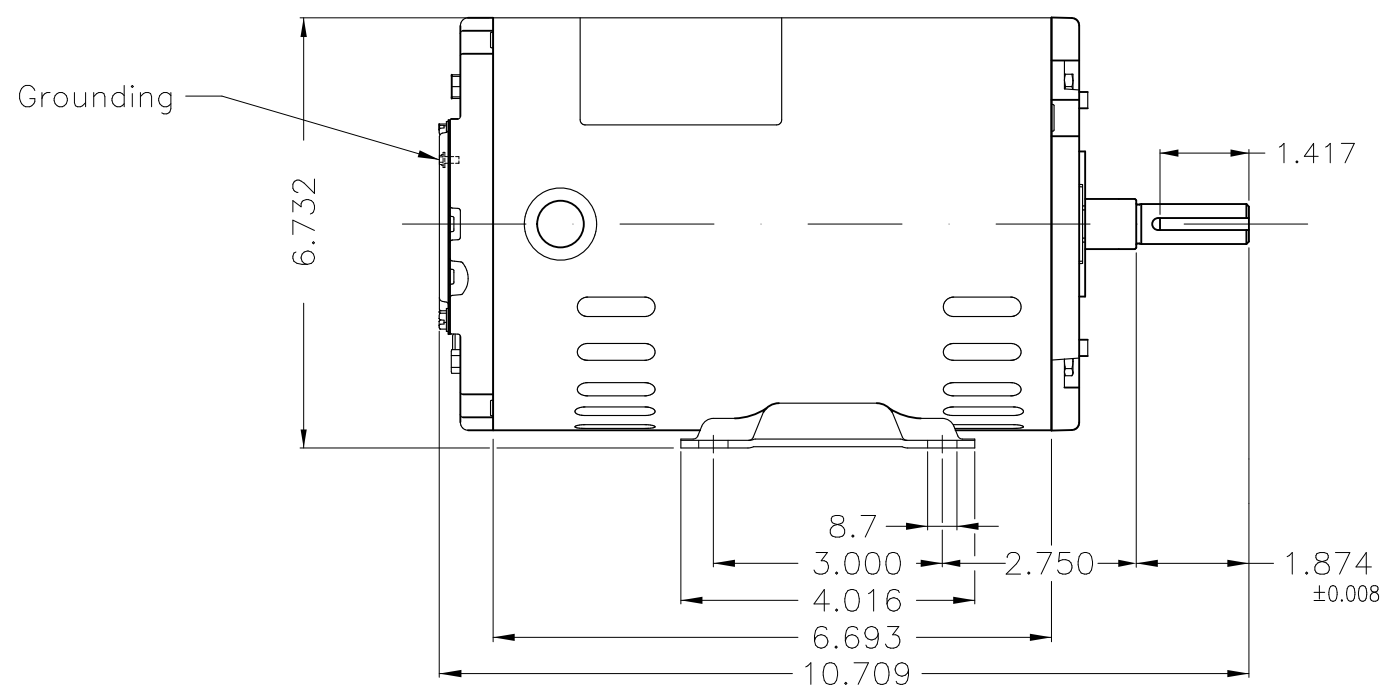
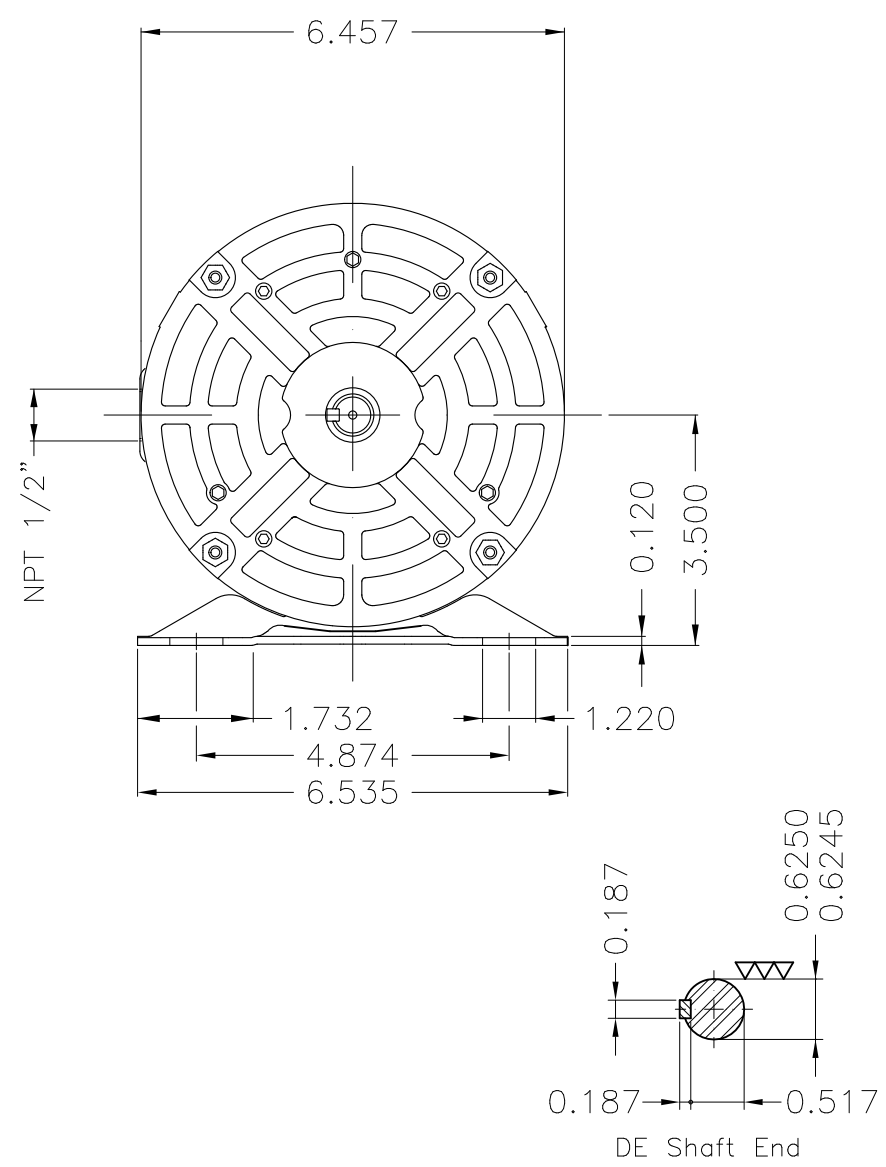
A

B

C

D

E



Without coating										
Mounting F-1/B3R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.				PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 56 IP21 ODP								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering						

1 HP 02 Poles 60 Hz

A

**NEMA**  
**Premium**

MADE IN MEXICO

**MAT: 12809664****W01.T00IC0X0X****MODEL 001360T3E56-S****24FEB2022 B/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 1.0</b>
<b>FR 56</b>		<b>KW 0.75</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 3.02/1.51</b>
<b>INS CL F AT 80K</b>		<b>SFA 3.77/1.89</b>
<b>AMB 40°C</b>	<b>DES -</b>	<b>SF 1.25</b>
<b>ENCL ODP</b>	<b>CODE J</b>	<b>PF 0.81</b>
<b>USABLE @ 208V 3.34A</b>		<b>RPM 3470</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 77.0%</b>

**ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.15**  
**3.50-3.30/1.75-1.75A 2820RPM EFF 73.2% (IE1) IEC 60034-1**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT

<b>DE 6204-ZZ</b>	<b>ODE 6202-ZZ</b>	<b>MOBIL POLYREX EM</b>
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T1-BLU T2-WHT  
 T3-ORG T4-YEL  
 T5-BLK T6-GRY  
 T7-PNK T8-RED  
 T9-BRK RED

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

**WARNING:** Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



**AVERTISSEMENT:** Le moteur doit être mis à la terre conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

