

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: 00021 Premium Efficiency Three-Phase	Product code :	13226522
		Catalog # :	.7518OT3ERB56-S
Frame	: 56	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>	: 27.9 lb
		Moment of inertia (J)	: 0.0712 sq.ft.lb
Output [HP]	0.75	0.75	0.75
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	208-230/460	190/380	220/415
Rated current [A]	2.54-2.30/1.15	2.62/1.31	2.43/1.29
L. R. Amperes [A]	18.5-16.8/8.40	14.9/7.47	15.1/8.00
LRC [A]	7.3x(Code K)	5.7x(Code H)	6.2x(Code J)
No load current [A]	1.38-1.60/0.800	1.53/0.763	1.59/0.844
Rated speed [RPM]	1760	1445	1450
Slip [%]	2.22	3.67	3.33
Rated torque [ft.lb]	2.24	2.73	2.72
Locked rotor torque [%]	250	170	190
Breakdown torque [%]	300	240	270
Service factor		1.25	1.25
Temperature rise	80 K	80 K	80 K
Locked rotor time	37s (cold) 21s (hot)	43s (cold) 24s (hot)	37s (cold) 21s (hot)
Noise level <sup>2</sup>	52.0 dB(A)	49.0 dB(A)	49.0 dB(A)
Efficiency (%)	25%	71.6	74.1
	50%	74.0	75.0
	75%	78.5	78.6
	100%	81.1	79.1
Power Factor	25%	0.29	0.31
	50%	0.52	0.55
	75%	0.65	0.69
	100%	0.74	0.78
Bearing type	: <u>Drive end</u> 6203 ZZ <u>Non drive end</u> 6202 ZZ	Foundation loads	
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 58 lb
		Max. compression	: 86 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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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



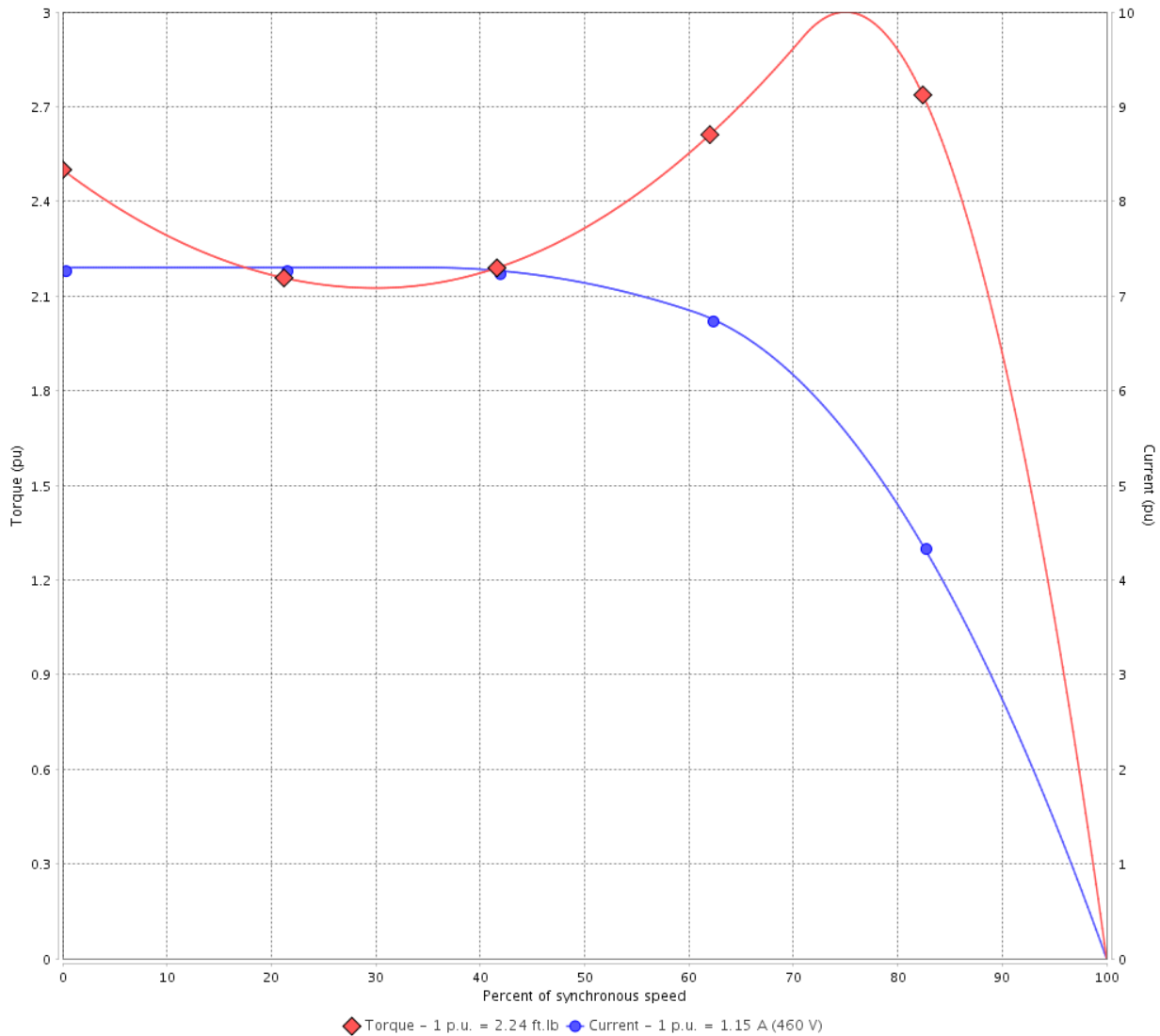
Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 208-230/460 V 60 Hz 4P

Rated current	: 2.54-2.30/1.15 A	Moment of inertia (J)	: 0.0712 sq.ft.lb
LRC	: 7.3	Duty cycle	: Cont.(S1)
Rated torque	: 2.24 ft.lb	Insulation class	: F
Locked rotor torque	: 250 %	Service factor	:
Breakdown torque	: 300 %	Temperature rise	: 80 K
Rated speed	: 1760 rpm		

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

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# TORQUE AND CURRENT VS SPEED CURVE



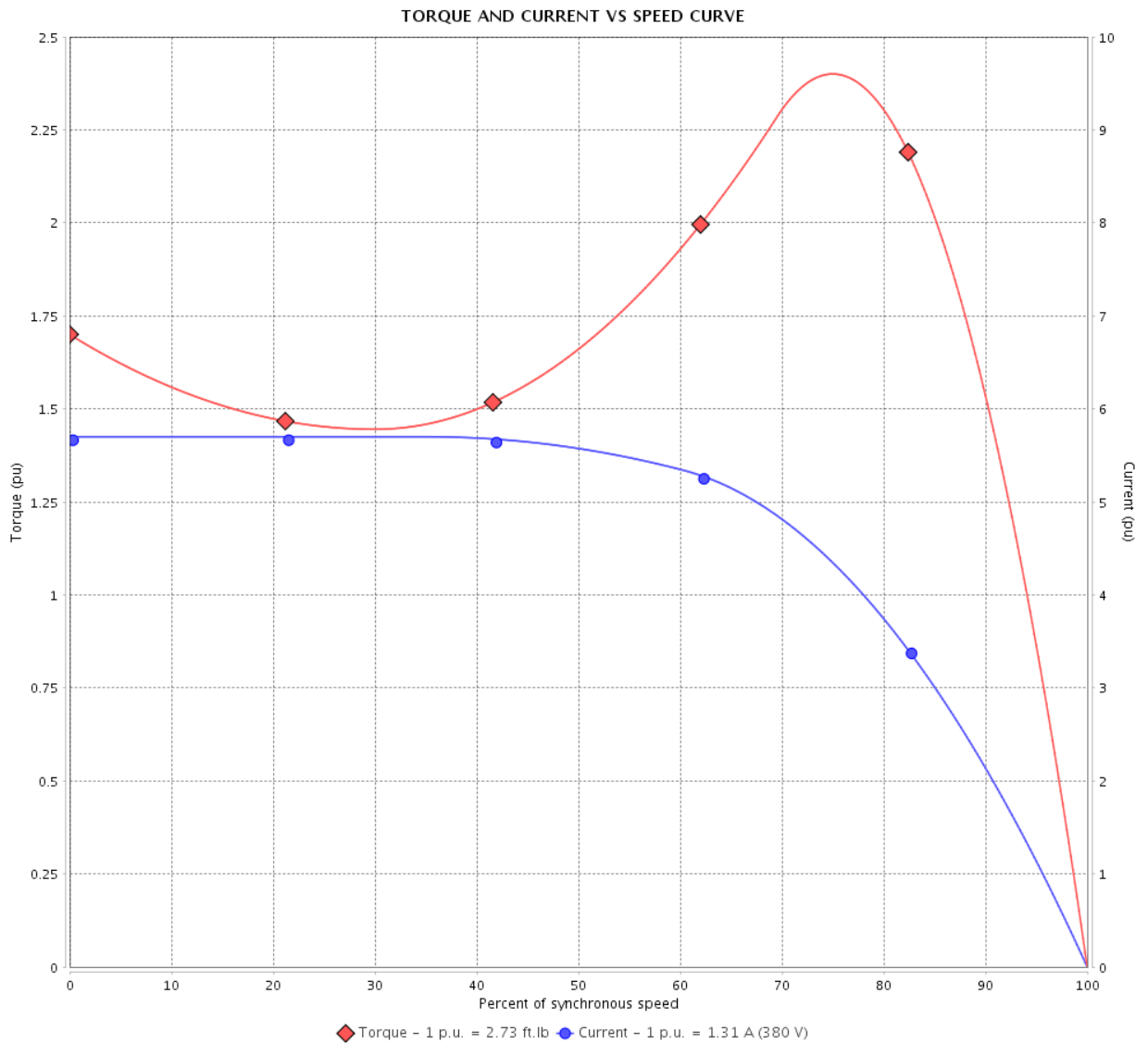
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S



Performance : 190/380 V 50 Hz 4P

Rated current : 2.62/1.31 A  
 LRC : 5.7  
 Rated torque : 2.73 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 240 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

Locked rotor time : 43s (cold) 24s (hot)

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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



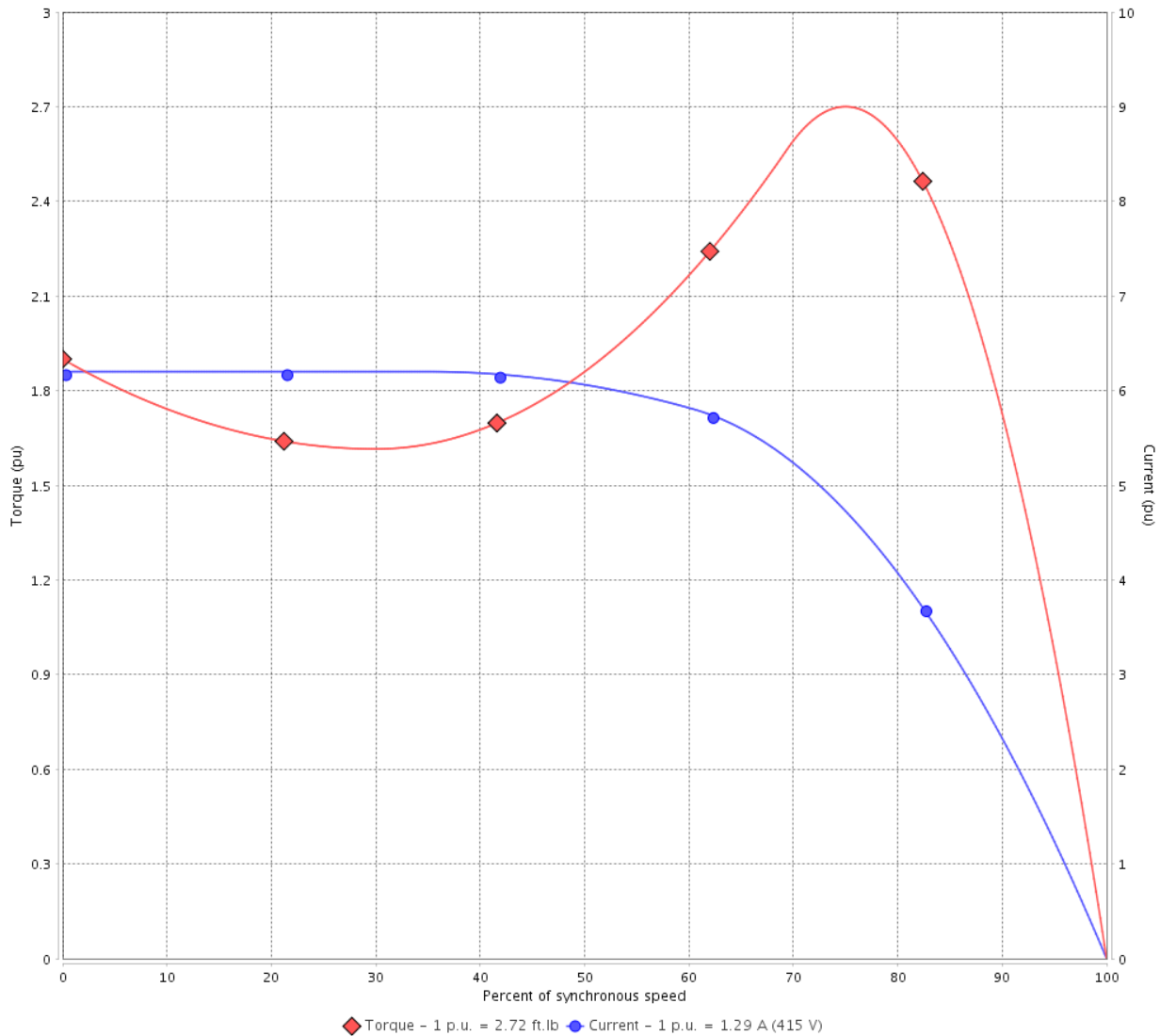
Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 2.43/1.29 A  
 LRC : 6.2  
 Rated torque : 2.72 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 270 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

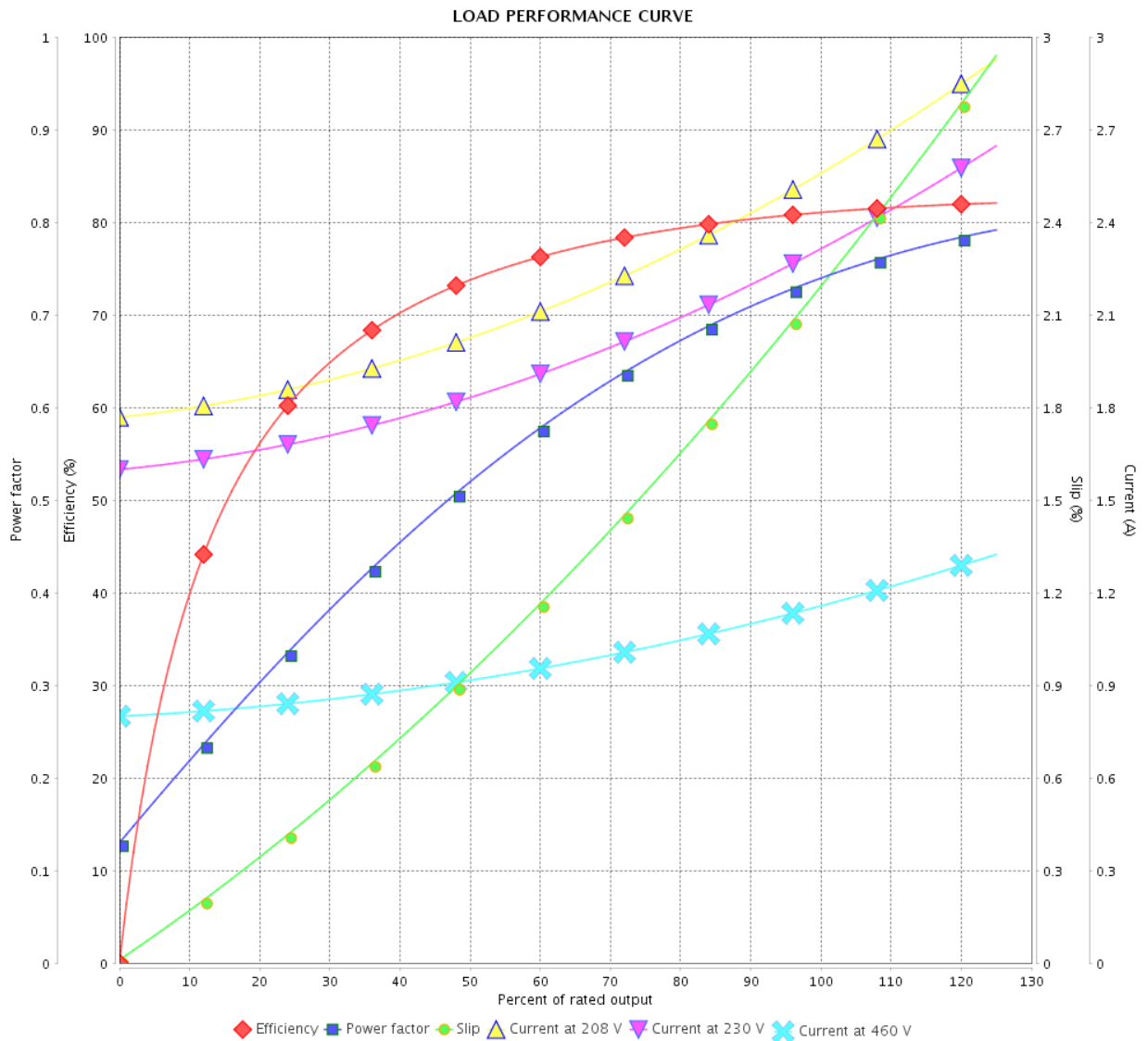


Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S



Performance : 208-230/460 V 60 Hz 4P

Rated current : 2.54-2.30/1.15 A  
 LRC : 7.3  
 Rated torque : 2.24 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0712 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



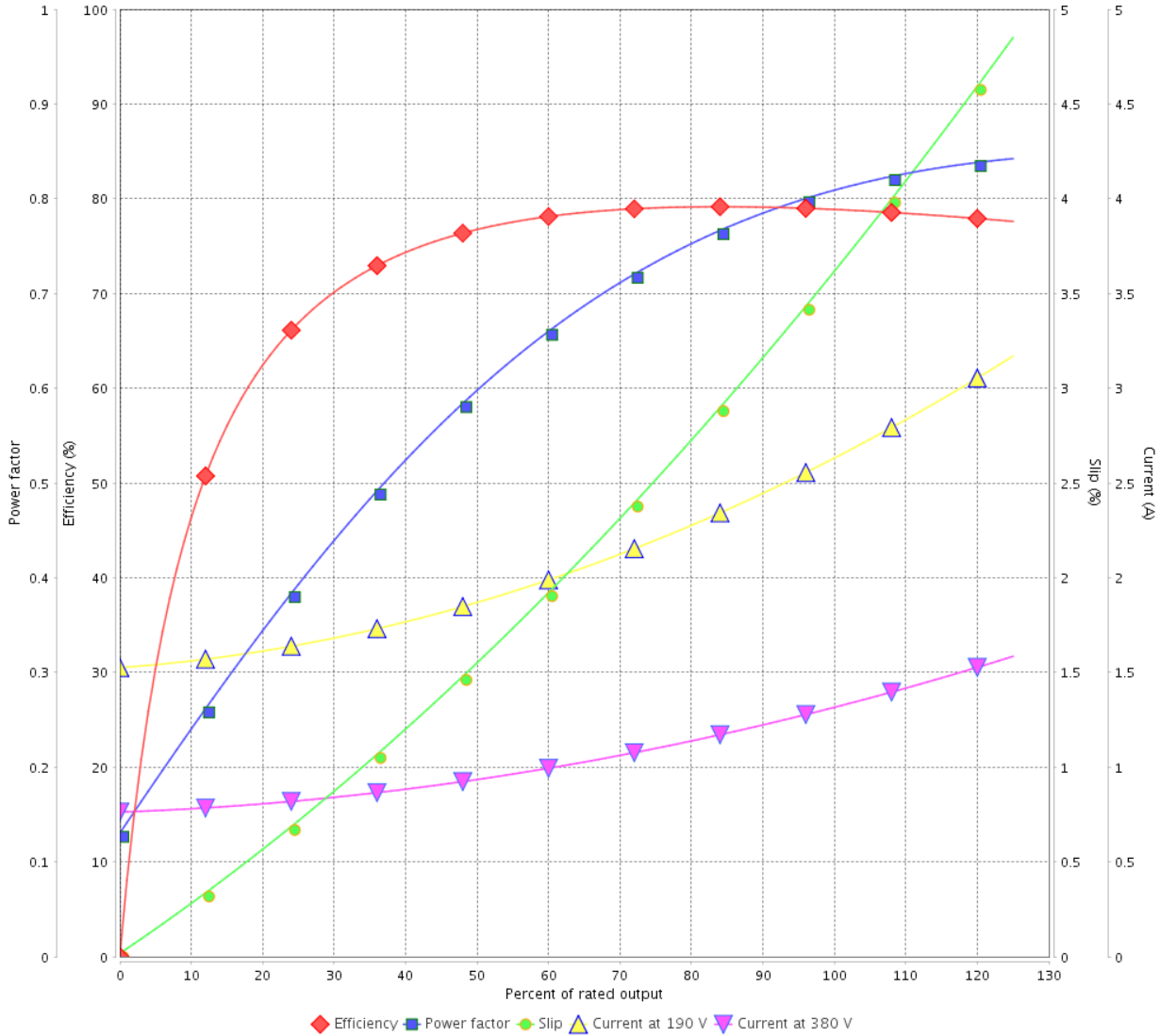
Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 2.62/1.31 A  
 LRC : 5.7  
 Rated torque : 2.73 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 240 %  
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

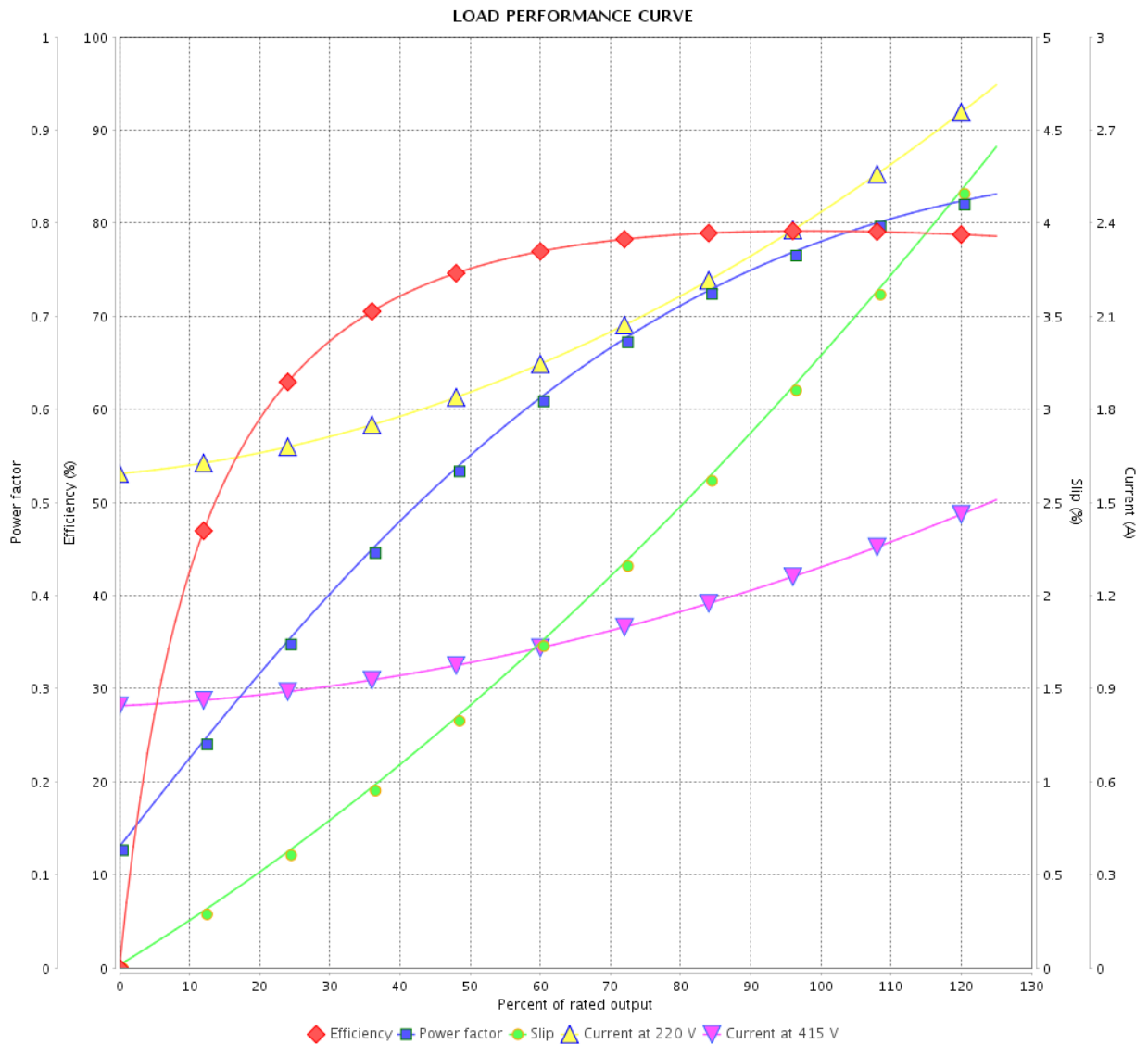


Customer :

Product line : 00021 Premium Efficiency Three-Phase

Product code : 13226522

Catalog # : .7518OT3ERB56-S



Performance : 220/415 V 50 Hz 4P

Rated current : 2.43/1.29 A  
 LRC : 6.2  
 Rated torque : 2.72 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 270 %  
 Rated speed : 1450 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : 00021 Premium Efficiency Three-Phase  
 Product code : 13226522  
 Catalog # : .7518OT3ERB56-S

Performance : 208-230/460 V 60 Hz 4P

Rated current : 2.54-2.30/1.15 A	Moment of inertia (J) : 0.0712 sq.ft.lb
LRC : 7.3	Duty cycle : Cont.(S1)
Rated torque : 2.24 ft.lb	Insulation class : F
Locked rotor torque : 250 %	Service factor :
Breakdown torque : 300 %	Temperature rise : 80 K
Rated speed : 1760 rpm	

Heating constant

Cooling constant

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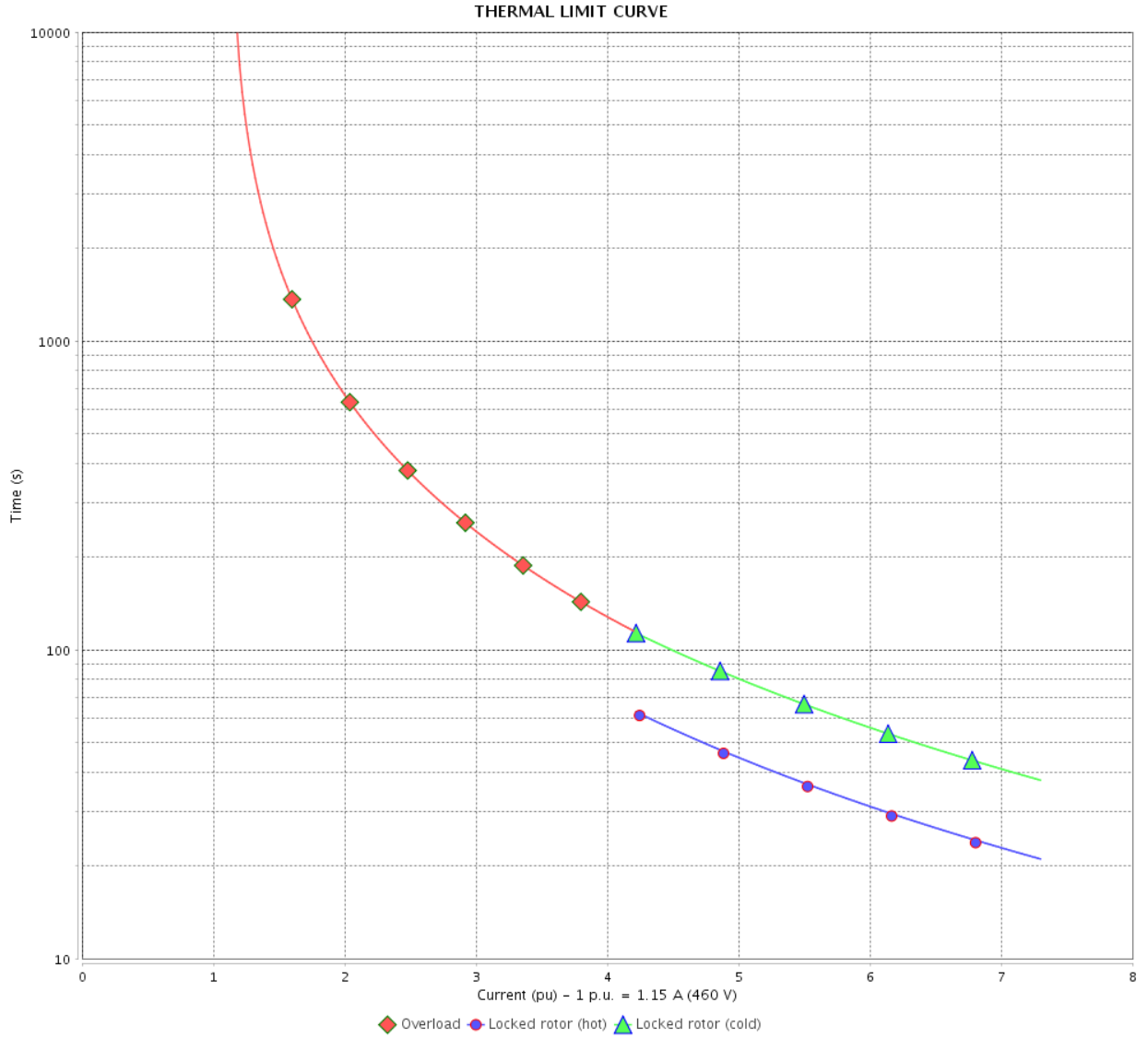


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : 00021 Premium Efficiency Three-Phase  
 Product code : 13226522  
 Catalog # : .7518OT3ERB56-S

Performance : 190/380 V 50 Hz 4P

Rated current : 2.62/1.31 A	Moment of inertia (J) : 0.0712 sq.ft.lb
LRC : 5.7	Duty cycle : Cont.(S1)
Rated torque : 2.73 ft.lb	Insulation class : F
Locked rotor torque : 170 %	Service factor : 1.25
Breakdown torque : 240 %	Temperature rise : 80 K
Rated speed : 1445 rpm	

Heating constant

Cooling constant

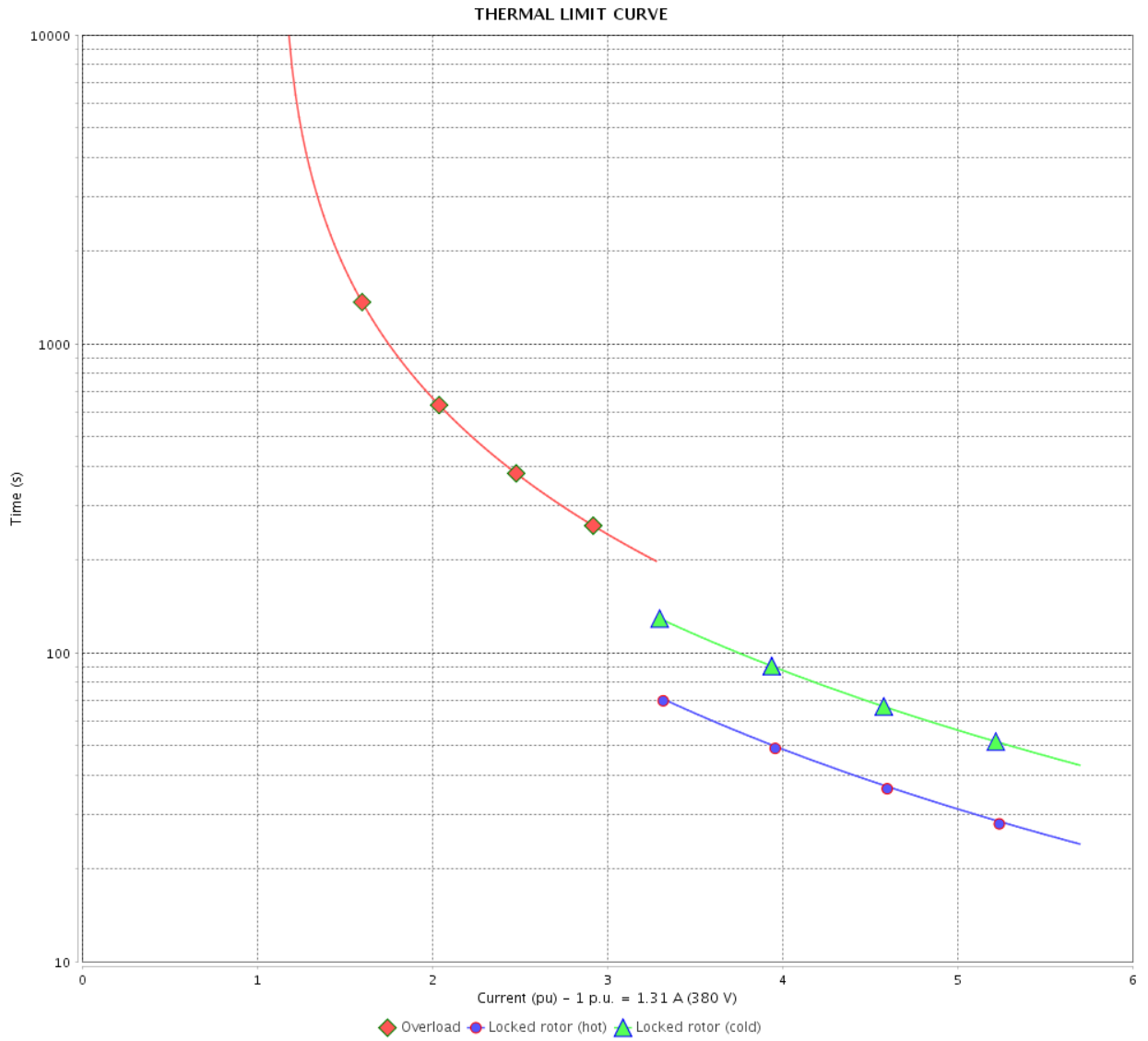
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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Product code : 13226522

Catalog # : .7518OT3ERB56-S

Performance : 220/415 V 50 Hz 4P

Rated current : 2.43/1.29 A  
LRC : 6.2  
Rated torque : 2.72 ft.lb  
Locked rotor torque : 190 %  
Breakdown torque : 270 %  
Rated speed : 1450 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.25  
Temperature rise : 80 K

Heating constant

Cooling constant

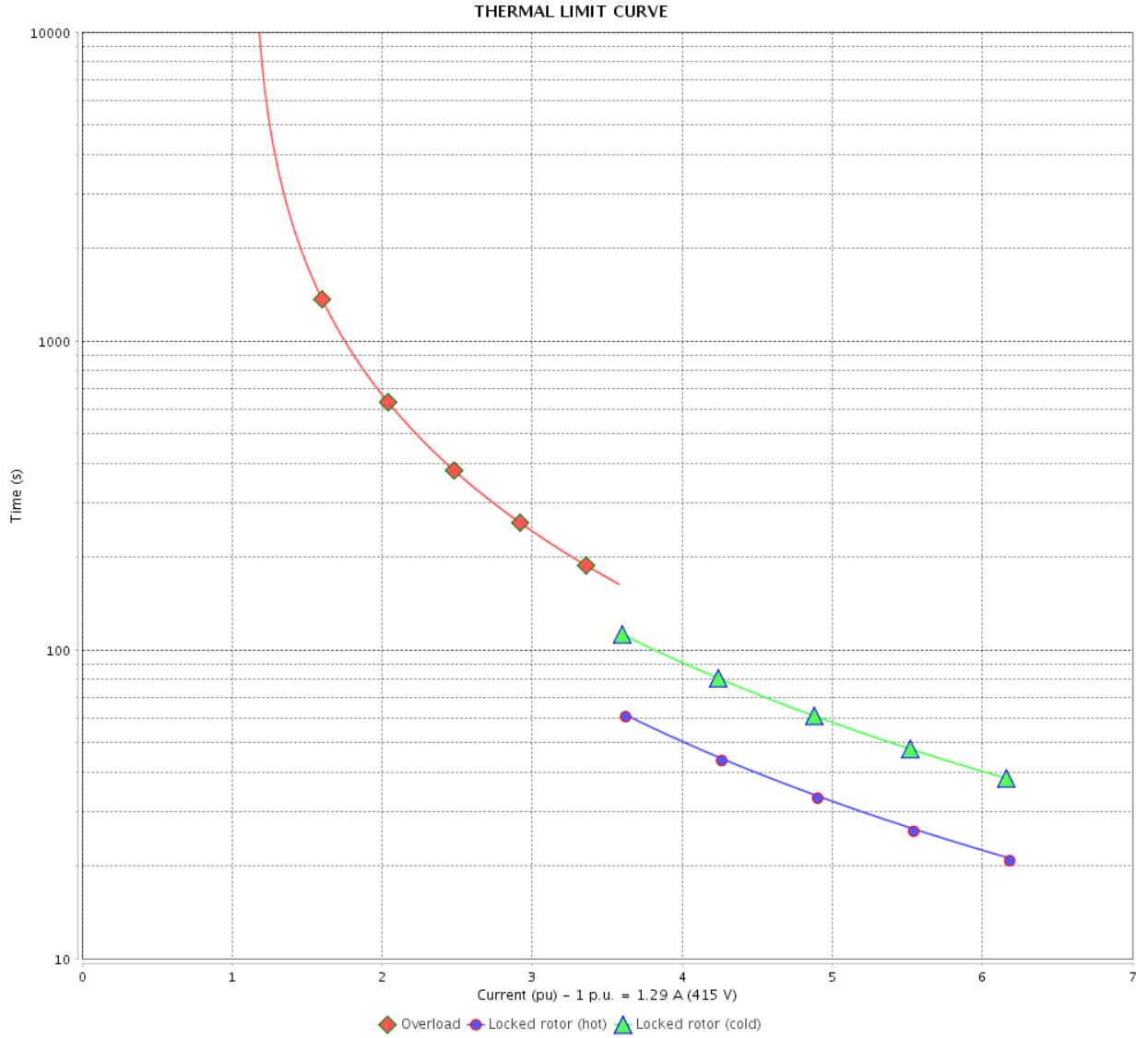
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



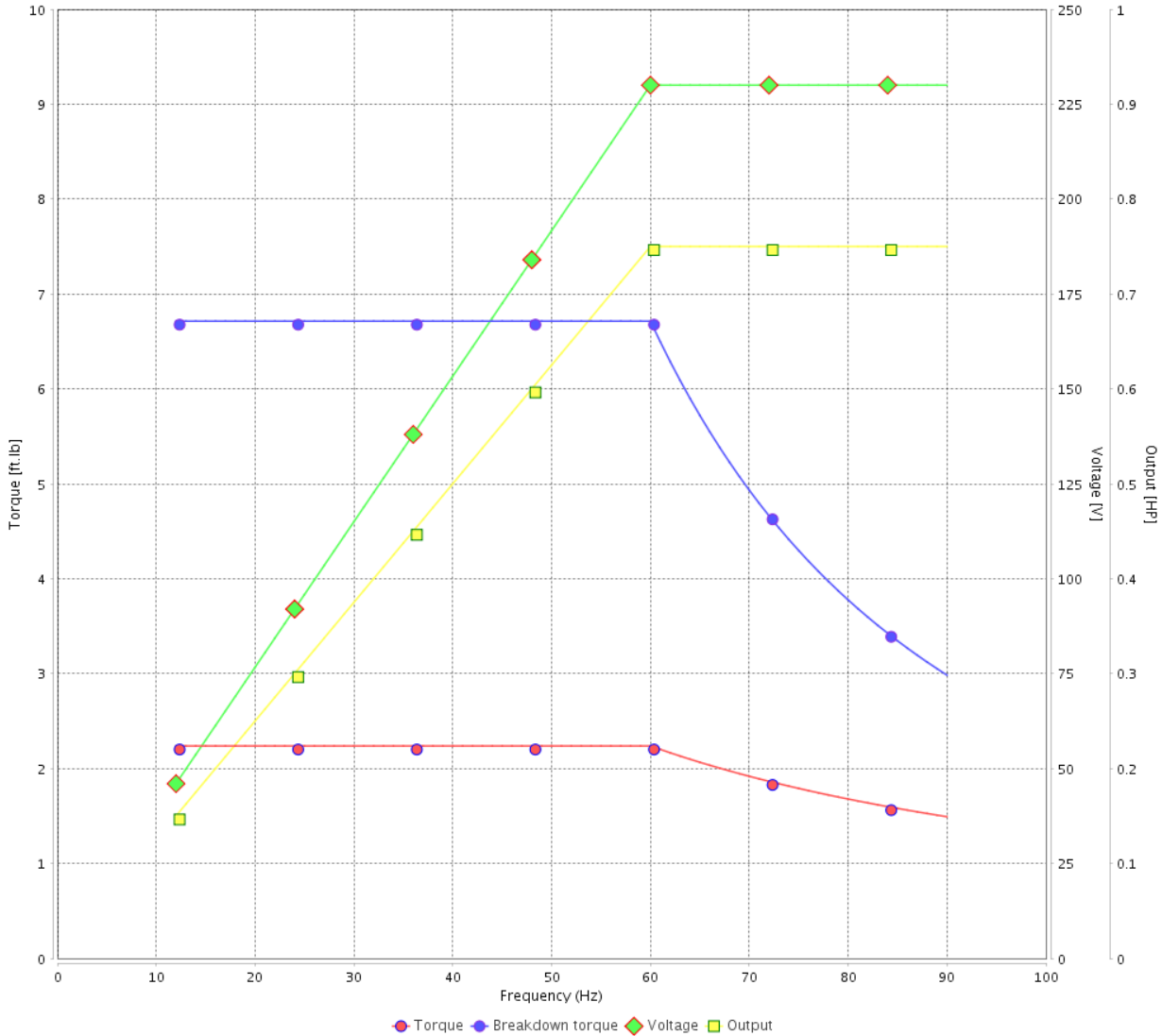
Customer :

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Product code : 13226522

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VFD OPERATION CURVE



Performance : 208-230/460 V 60 Hz 4P

Rated current : 2.54-2.30/1.15 A  
 LRC : 7.3  
 Rated torque : 2.24 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

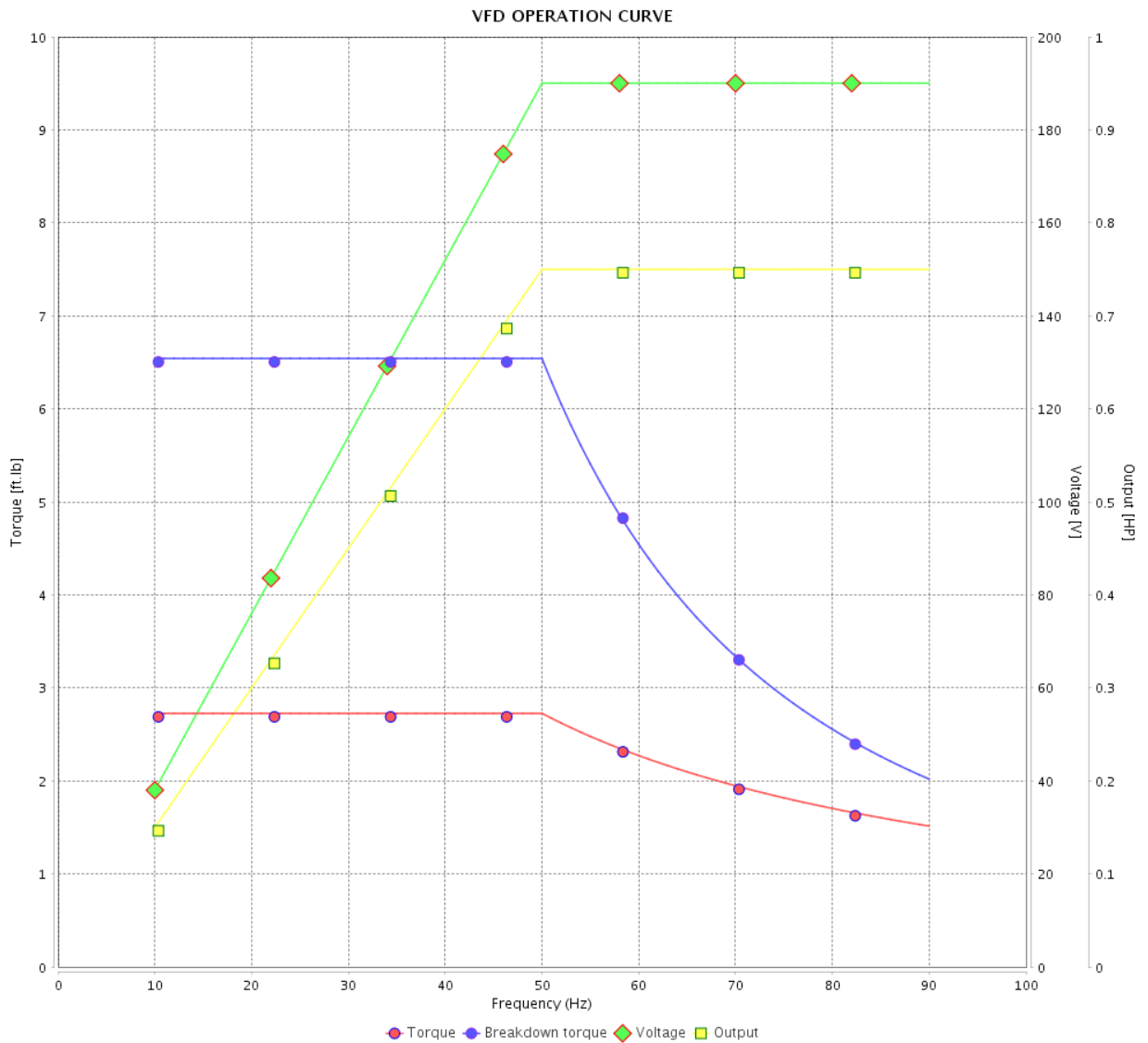


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Performance : 190/380 V 50 Hz 4P

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Moment of inertia (J) : 0.0712 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K

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				Revision

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



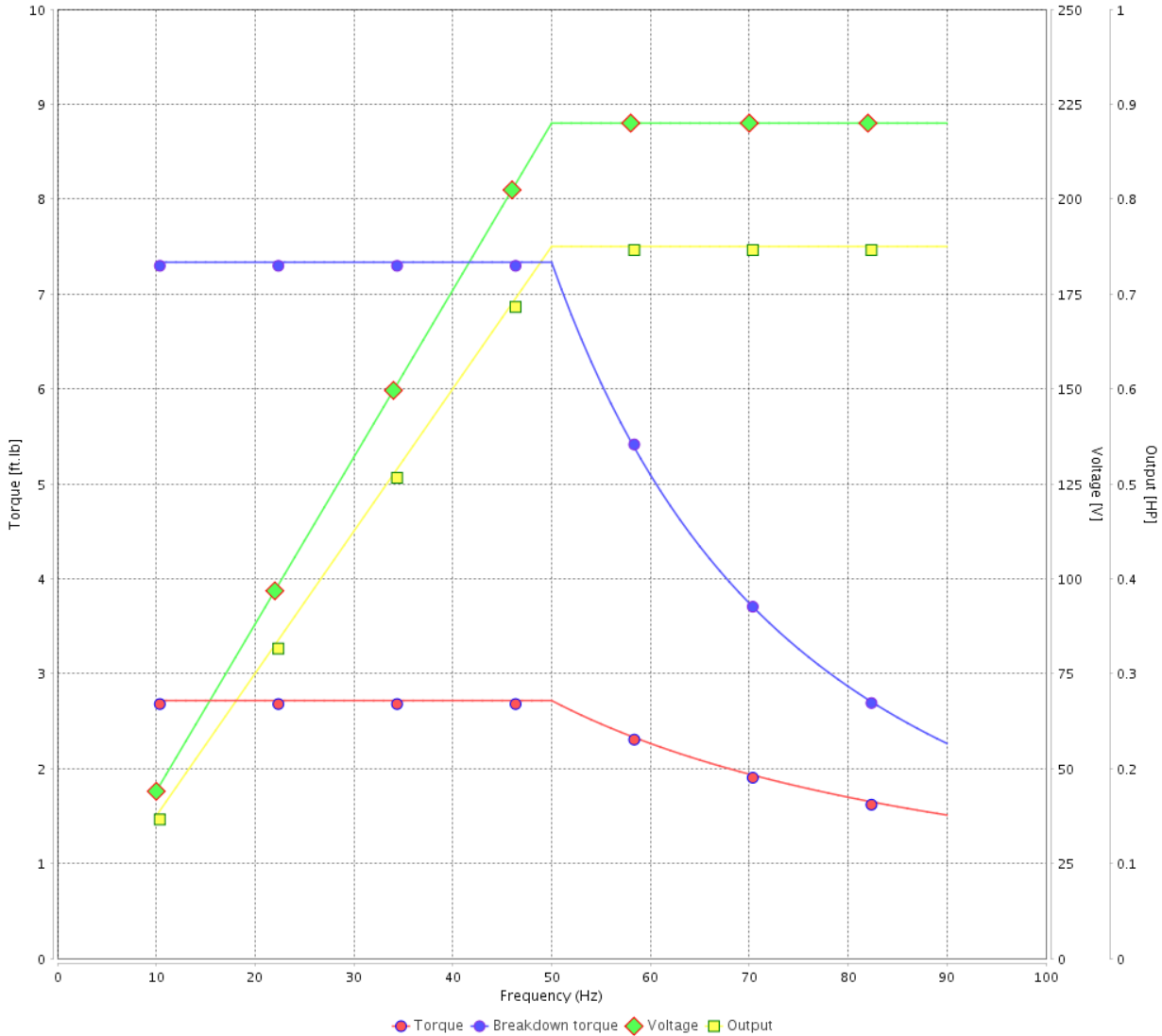
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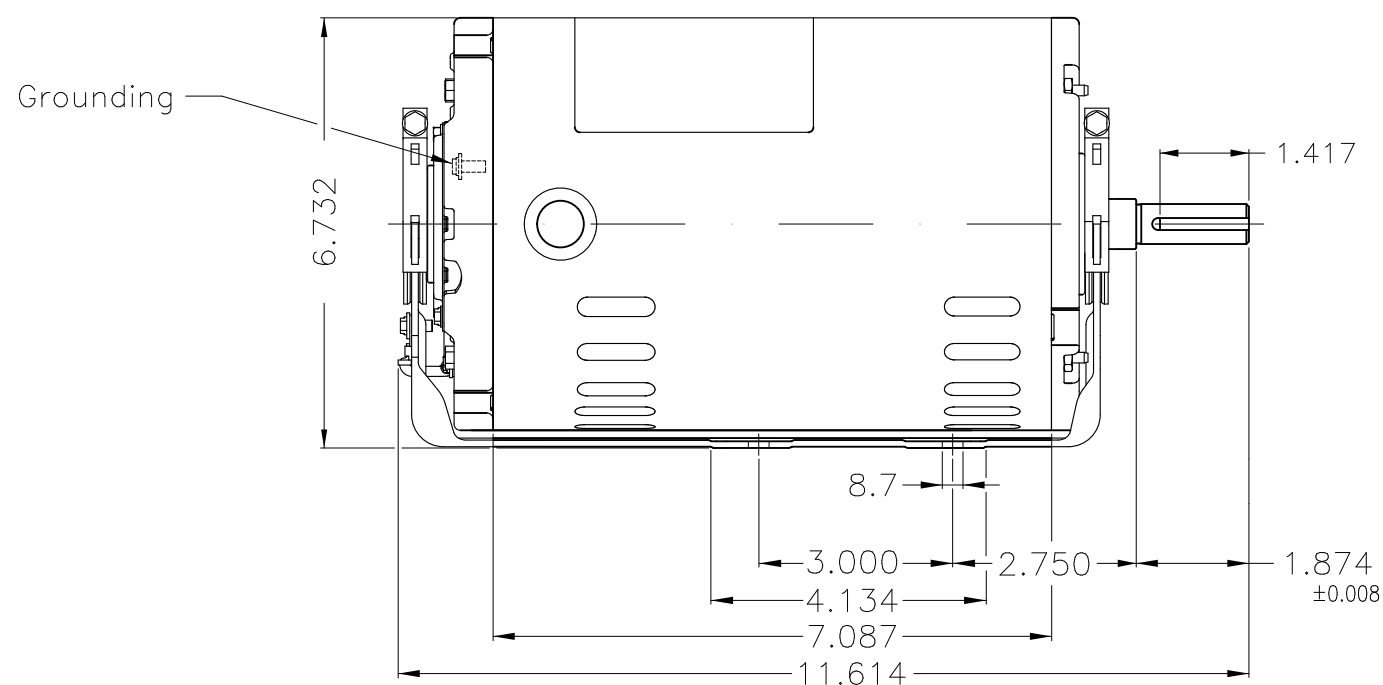
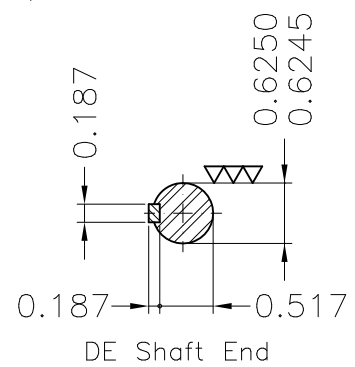
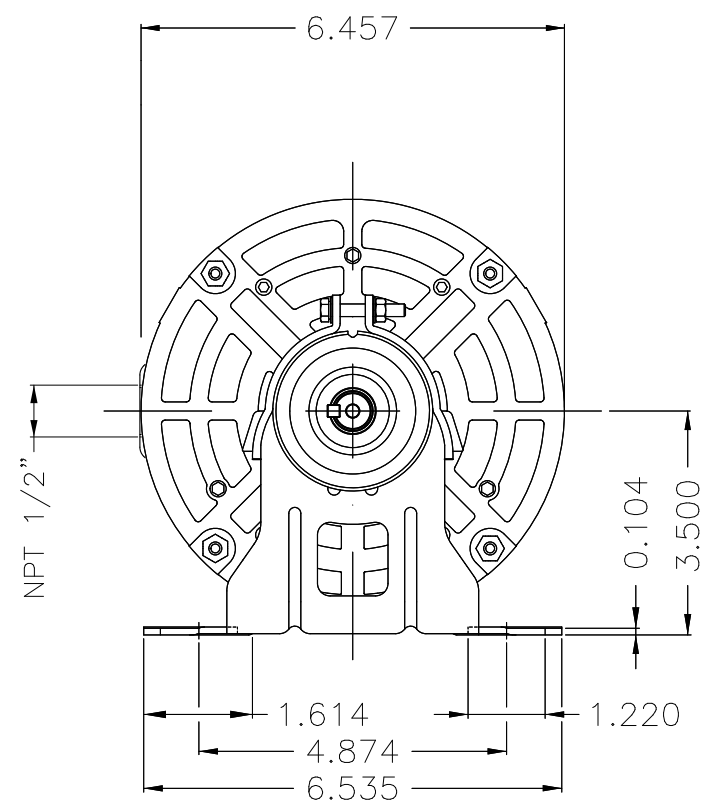
A

B

C

D

E



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

0.75 HP 04 Poles 60 Hz

A

PREVIEW  
WDD





**NEMA**  
**Premium**



3PT9



MADE IN MEXICO

**MAT: 13226522**

**W01.T00IC0X0X**

**MODEL 75180T3ERB56-S**

**04APR2022 B/N:**



PH 3	Hz 60	HP 0.75
FR 56		KW 0.55
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 2.30/1.15
INS CL F AT 80K		SFA 2.88/1.44
AMB 40°C	DES -	SF 1.25
ENCL ODP	CODE K	PF 0.74
USABLE @ 208V 2.54A		RPM 1760
SF1.00		AVG.F.L. 81.1% EFF.

**ALTERNATE RATING: 0.75HP 50Hz 190-220/380-415V SF1.25**  
**2.82-2.43/1.31-1.29A 1445RPM EFF 78.8% (IE2) IEC 60034-1**

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

DE 6203-ZZ	ODE 6202-ZZ	MOBIL POLYREX EM
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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.

