

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer	:		
Product line	: Premium Efficiency Three-Phase	Product code :	14799274
		Catalog # :	00336ET3E56-S
Frame	: 56H	Cooling method	: IC411 - TEFC
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>3</sup>	: 49.1 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1663 sq.ft.lb
Design	: B		
Output [HP]	3	3	3
Poles	2	2	2
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	7.02/3.51	8.50/4.25	7.62/4.04
L. R. Amperes [A]	66.7/33.3	62.9/31.5	63.3/33.5
LRC [A]	9.5x(Code L)	7.4x(Code J)	8.3x(Code K)
No load current [A]	2.56/1.28	2.52/1.26	2.57/1.36
Rated speed [RPM]	3500	2870	2885
Slip [%]	2.78	4.33	3.83
Rated torque [ft.lb]	4.49	5.49	5.46
Locked rotor torque [%]	300	229	270
Breakdown torque [%]	380	280	310
Service factor		1.15	1.15
Temperature rise	80 K	80 K	80 K
Locked rotor time	18s (cold) 10s (hot)	16s (cold) 9s (hot)	16s (cold) 9s (hot)
Noise level <sup>2</sup>	68.0 dB(A)	65.0 dB(A)	65.0 dB(A)
Efficiency (%)	25%	83.6	87.4
	50%	84.0	86.6
	75%	86.5	86.8
	100%	86.5	85.5
Power Factor	25%	0.51	0.53
	50%	0.78	0.80
	75%	0.87	0.89
	100%	0.91	0.92
Bearing type	: <u>Drive end</u> 6204 ZZ <u>Non drive end</u> 6202 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 142 lb
		Max. compression	: 191 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes			
USABLE @208V 7.76A SF 1.00 SFA 7.76A			
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.	
Rev.	Changes Summary	Performed	Checked
Performed by			
Checked by			
Date	13/04/2022		
		Page	Revision
		1 / 13	

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

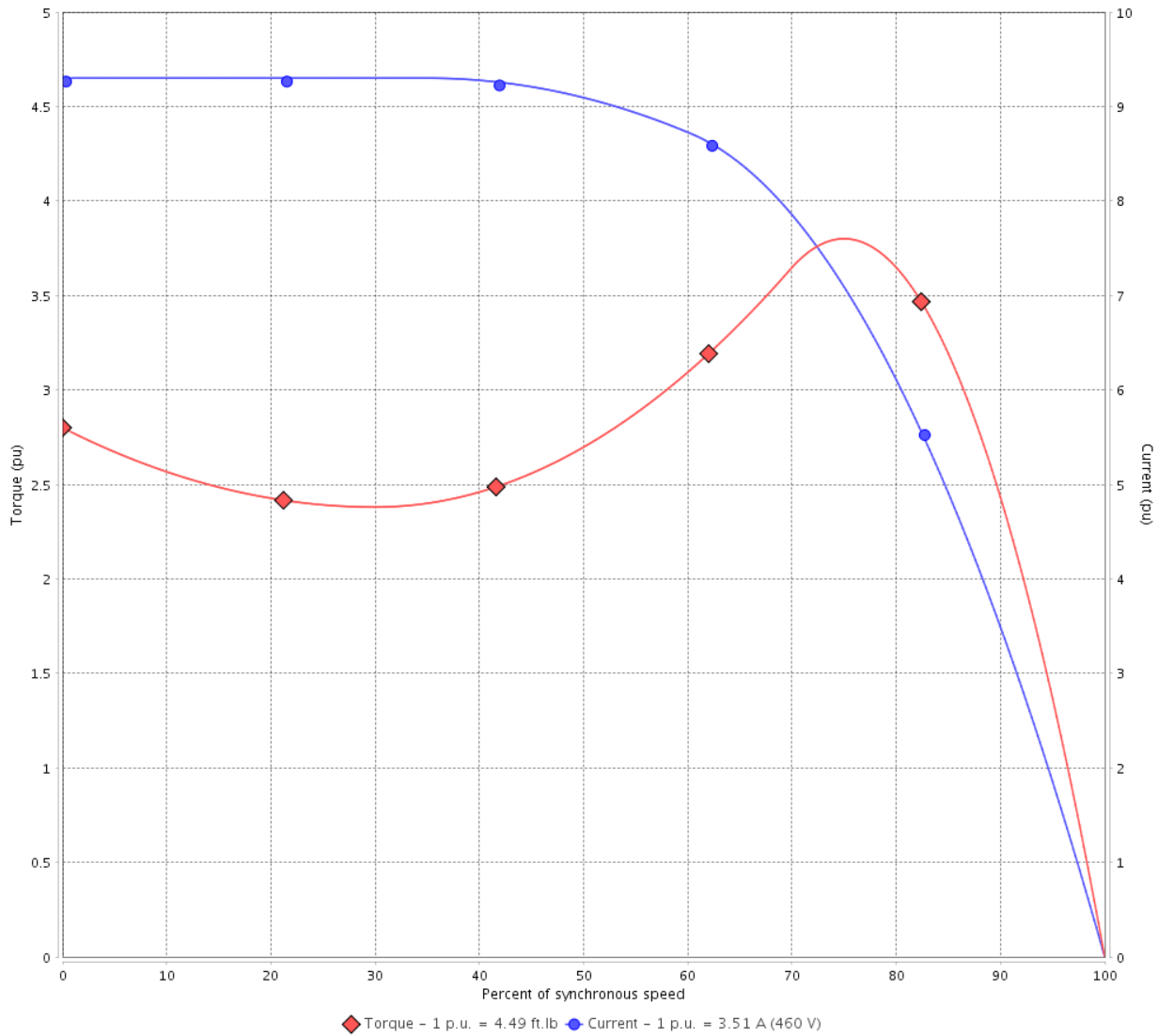
Product code :

14799274

Catalog # :

00336ET3E56-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 18s (cold) 10s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 13	Revision
Checked by				
Date	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



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

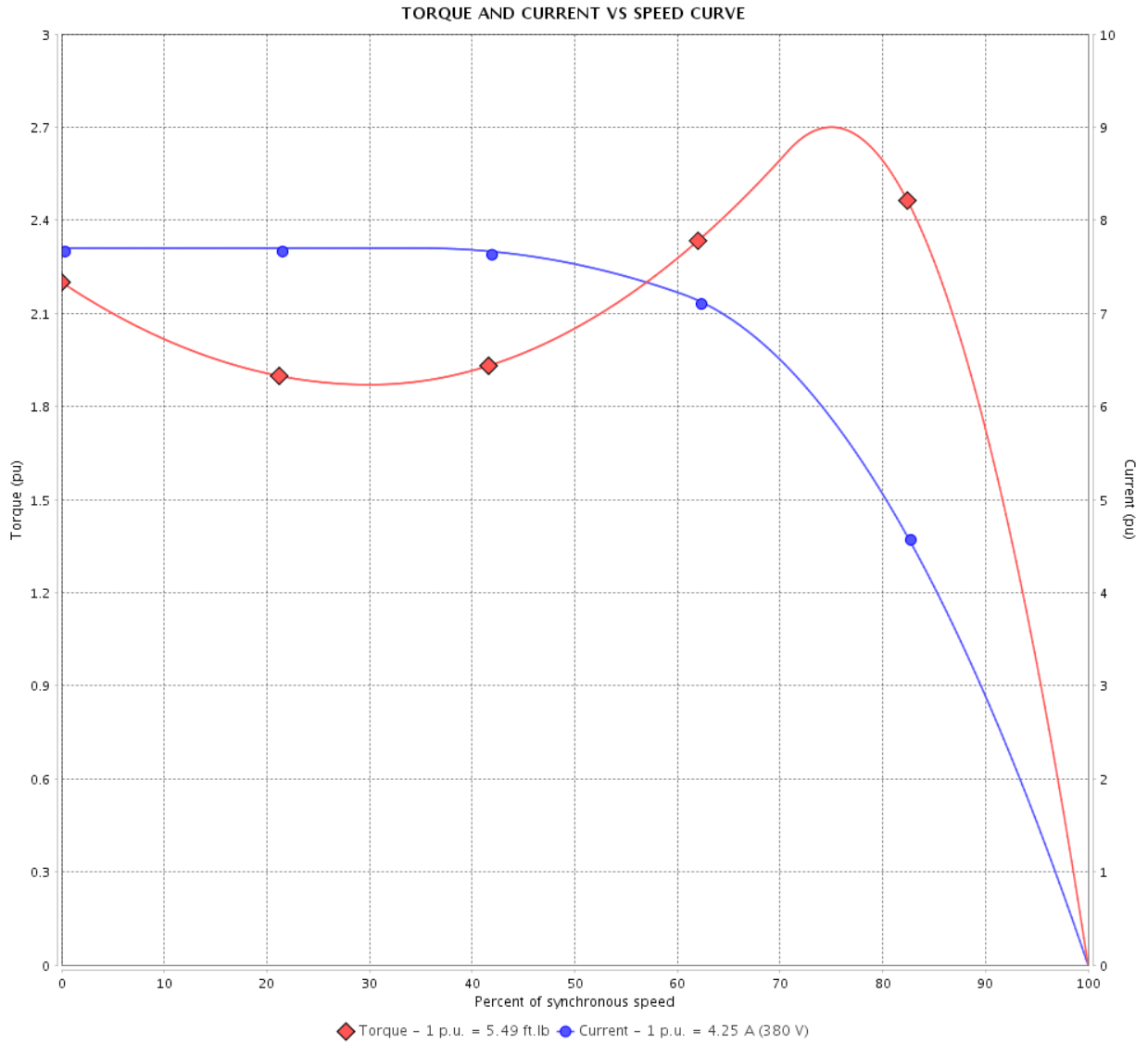
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 16s (cold) 9s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 13	Revision
Checked by				
Date	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

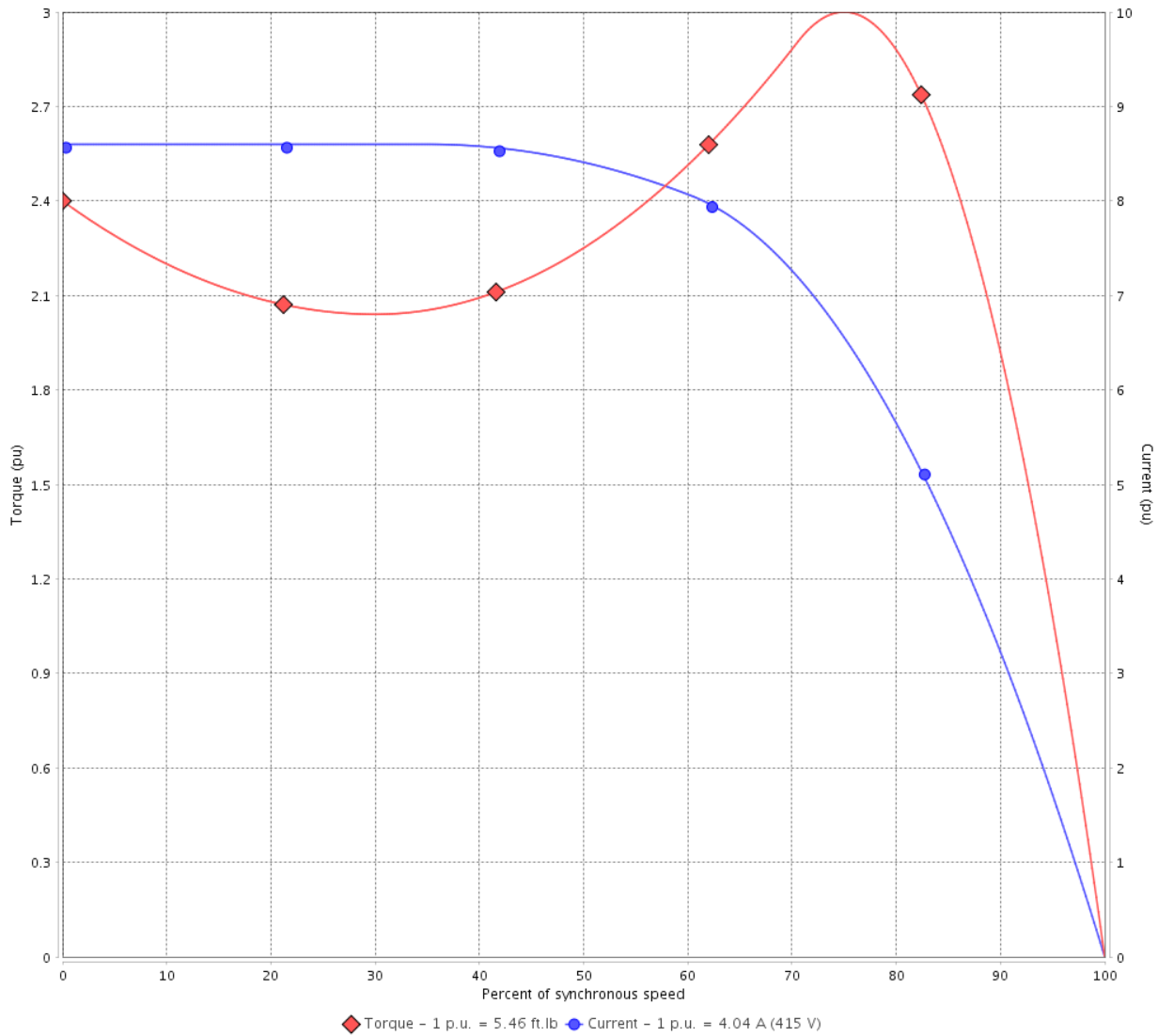
Product code :

14799274

Catalog # :

00336ET3E56-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Locked rotor time : 16s (cold) 9s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 13	Revision
Checked by				
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

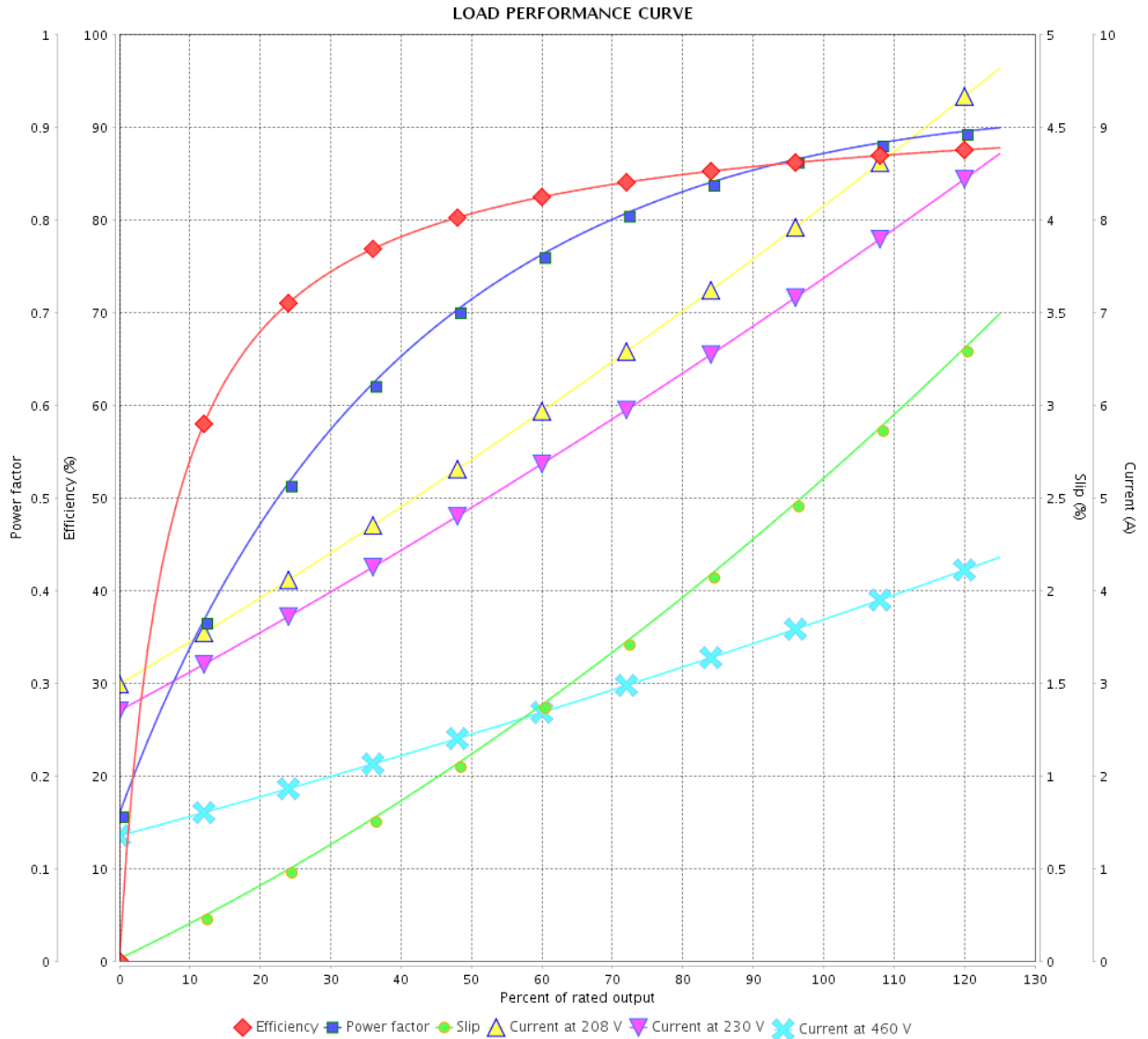
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

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

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

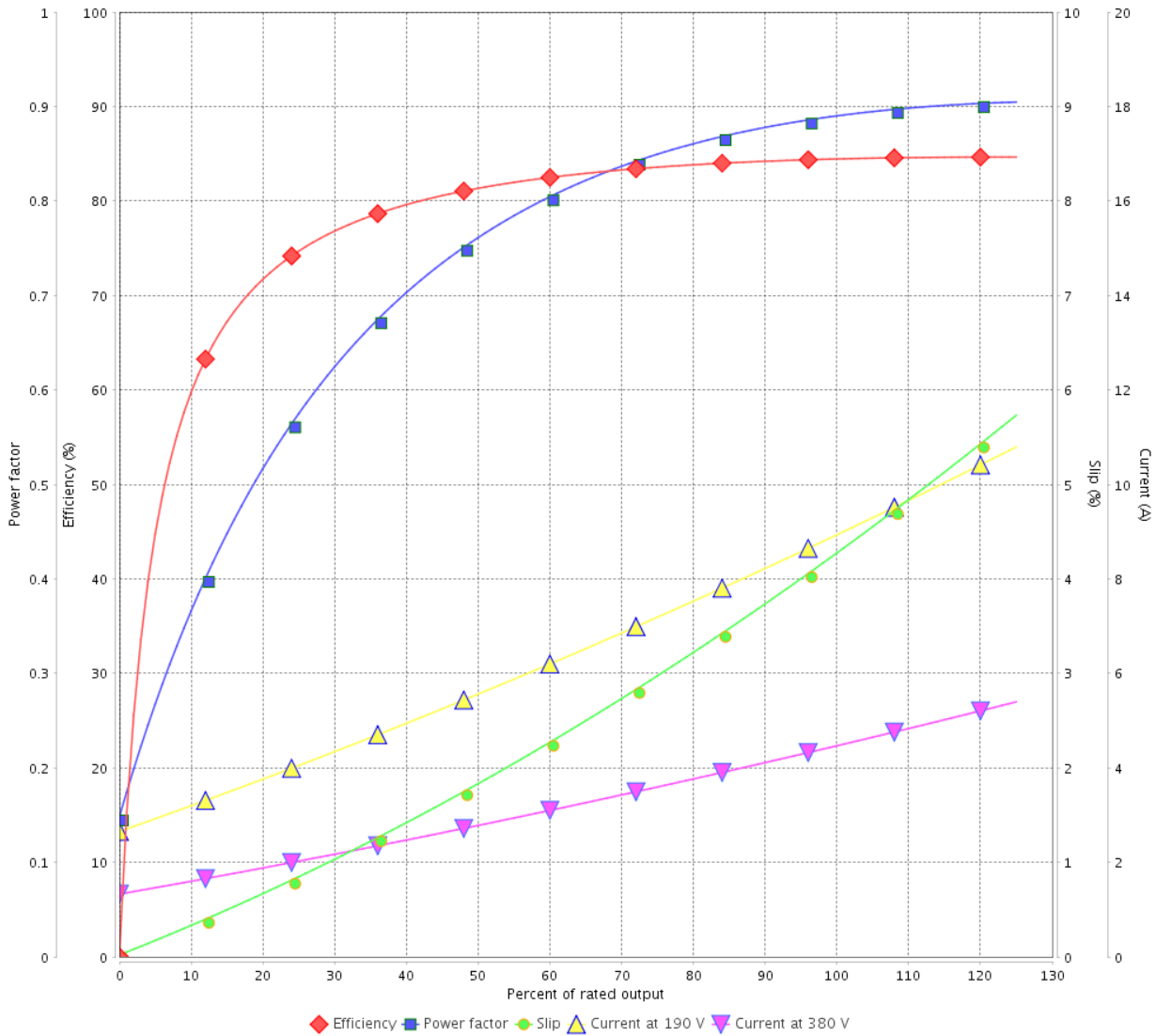
Product code :

14799274

Catalog # :

00336ET3E56-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



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

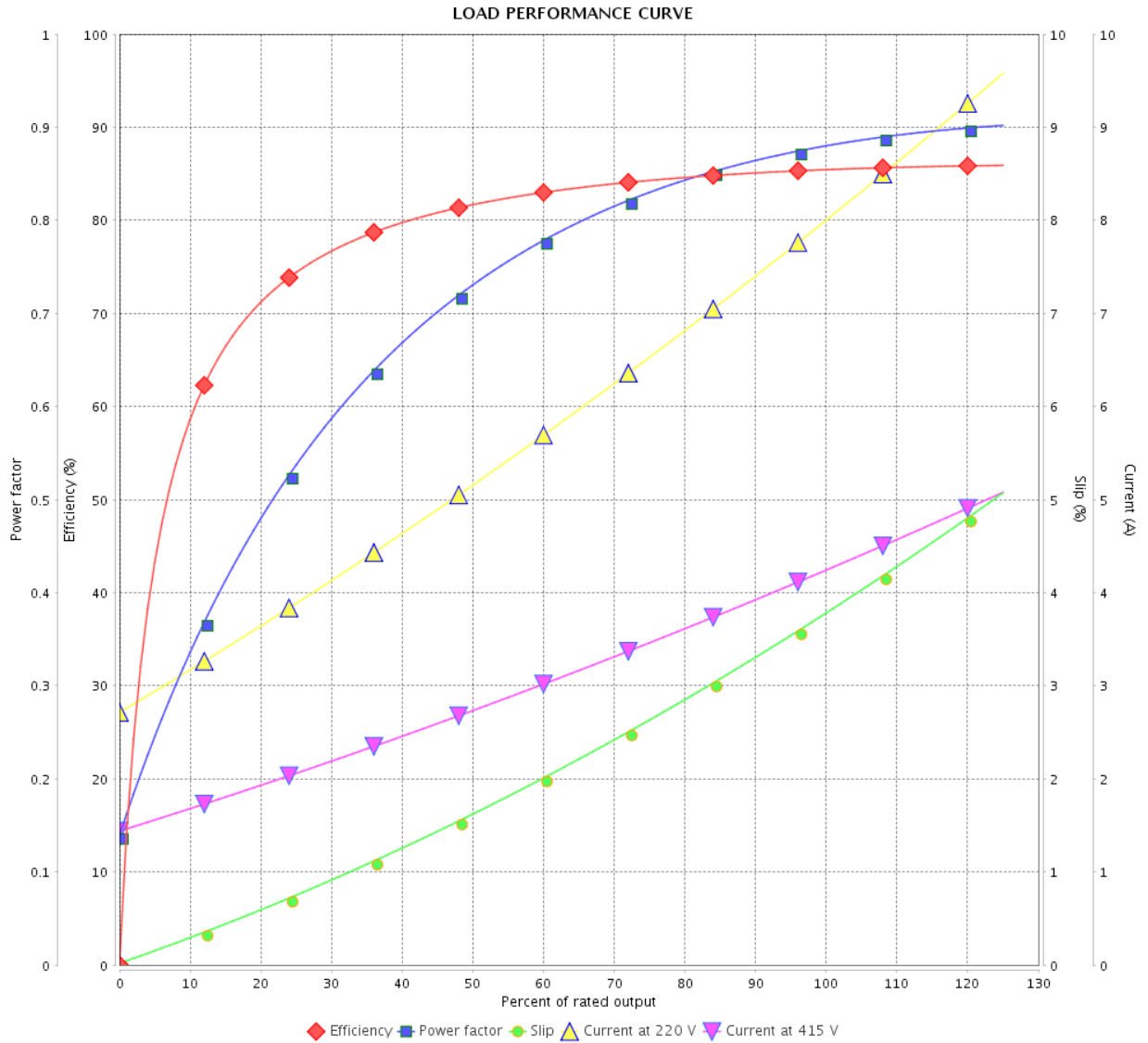
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 220/415 V 50 Hz 2P

Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

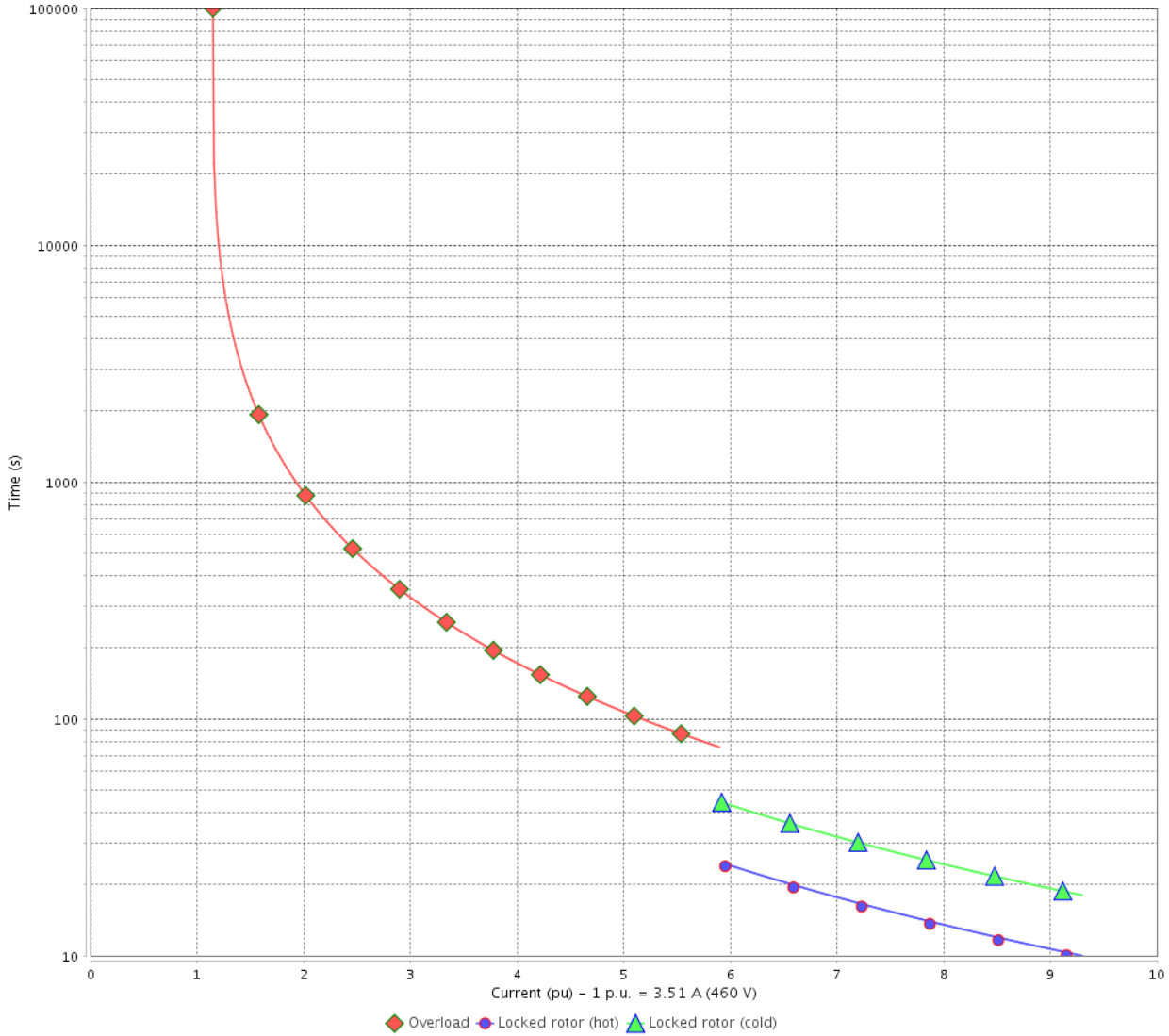
Product code :

14799274

Catalog # :

00336ET3E56-S

THERMAL LIMIT CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 8 / 13	Revision
Checked by				
Date	13/04/2022			



# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

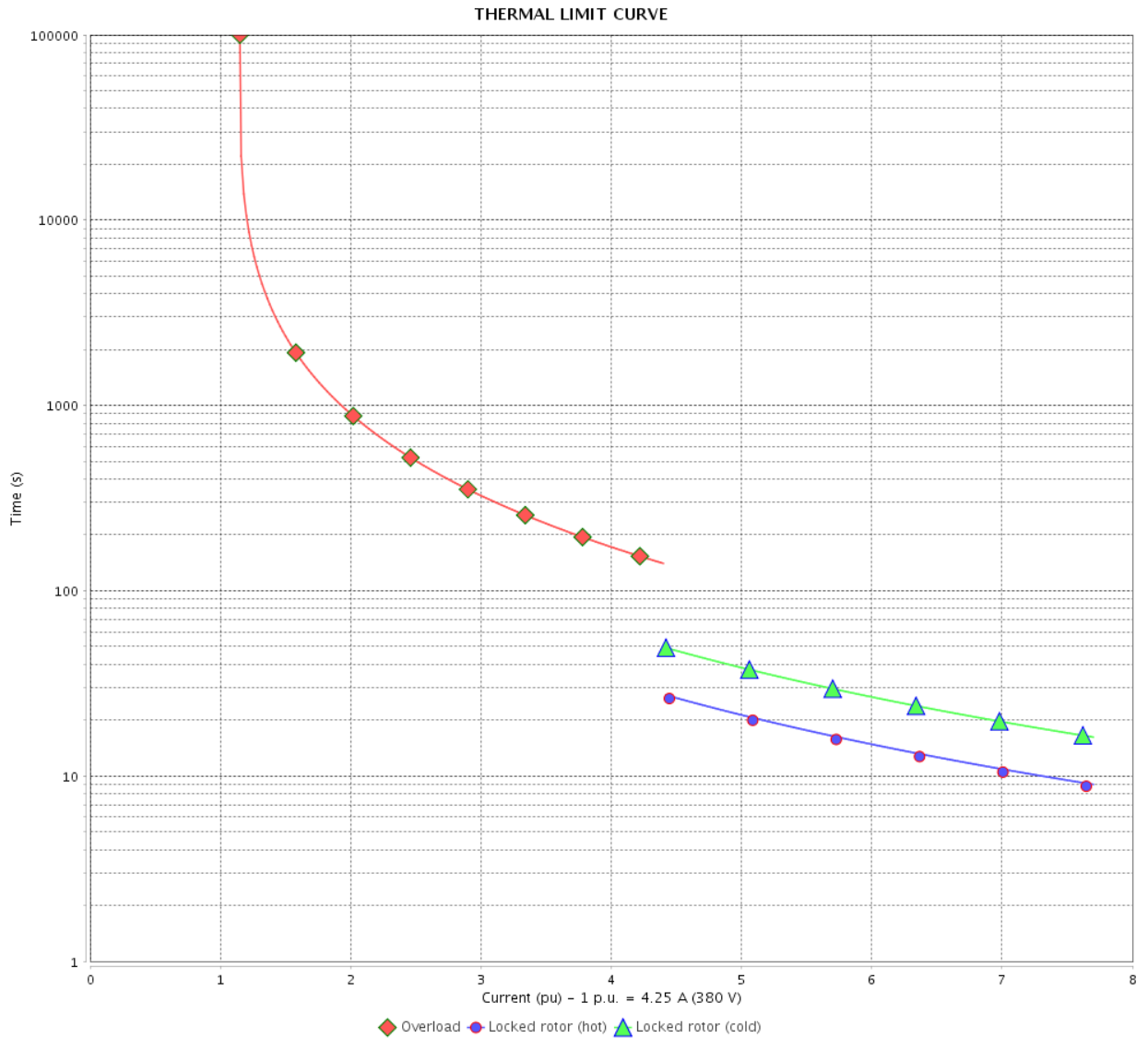
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by				
Date				
		Page	Revision	
		9 / 13		

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

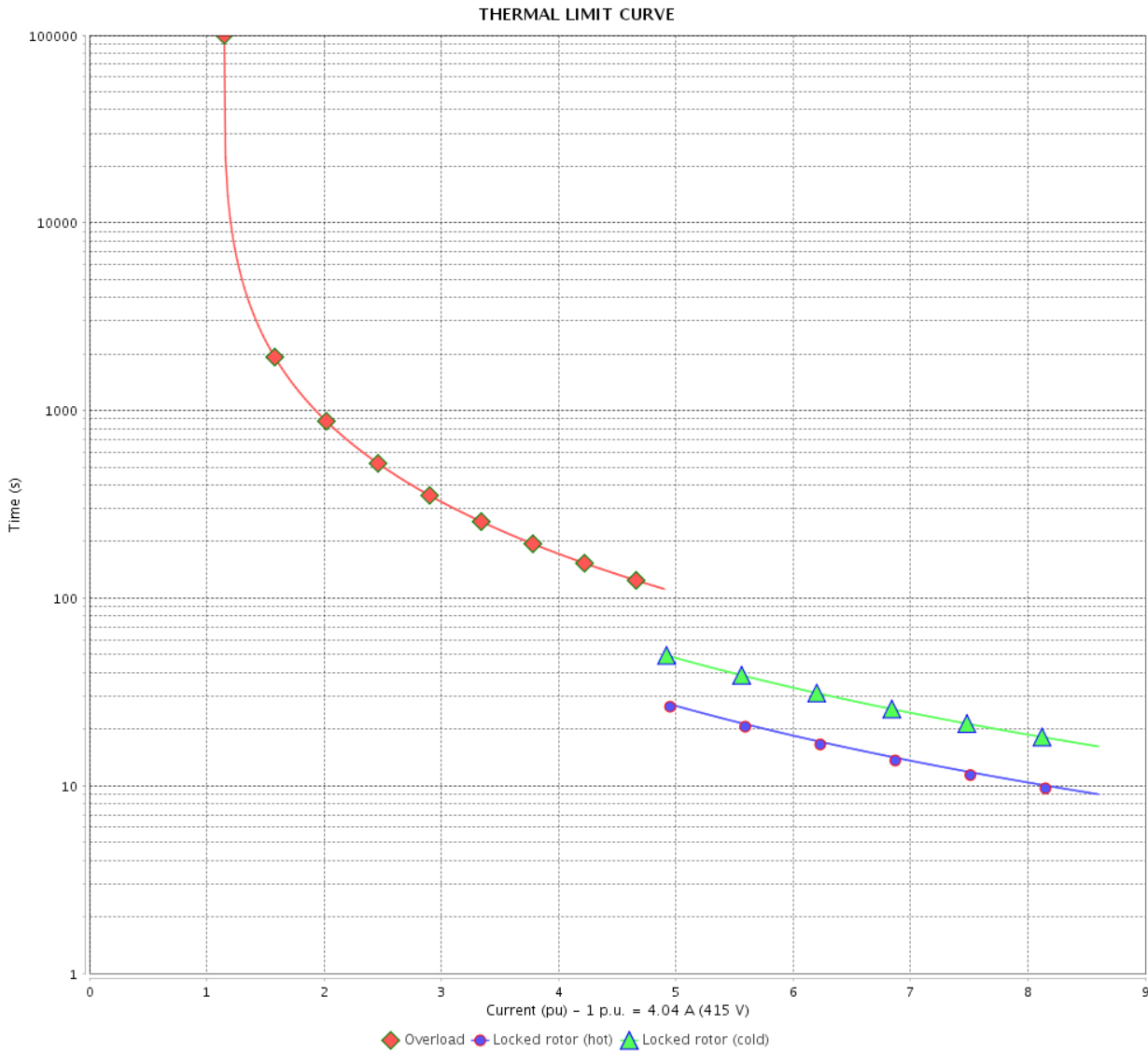
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 220/415 V 50 Hz 2P

Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Heating constant  
 Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by	13/04/2022	Page		Revision
Checked by		10 / 13		
Date				

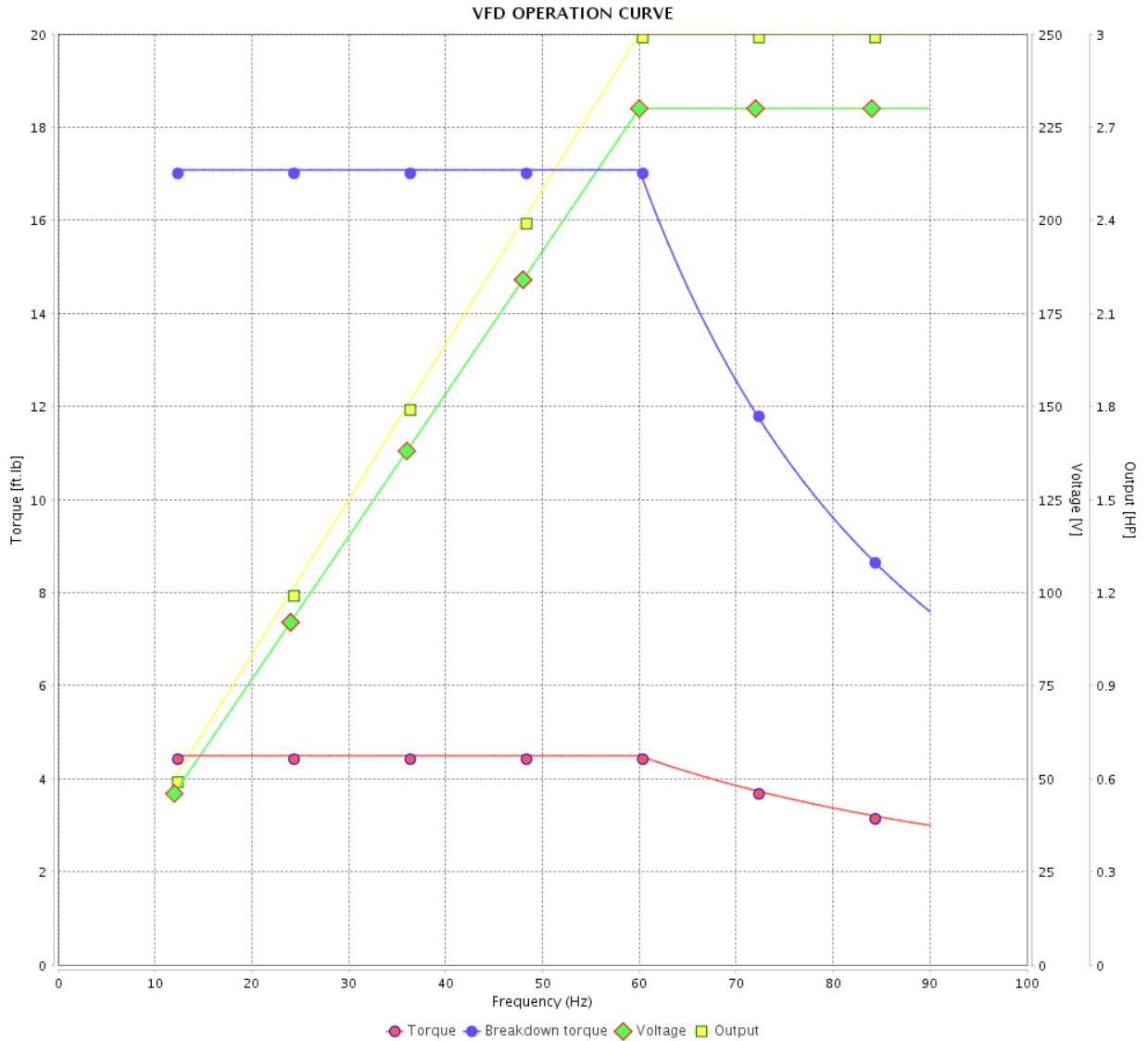
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : Premium Efficiency Three-Phase      Product code : 14799274  
 Catalog # : 00336ET3E56-S



Performance : 230/460 V 60 Hz 2P

Rated current : 7.02/3.51 A  
 LRC : 9.5  
 Rated torque : 4.49 ft.lb  
 Locked rotor torque : 300 %  
 Breakdown torque : 380 %  
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor :  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 11 / 13	Revision
Checked by				
Date	13/04/2022			

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



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

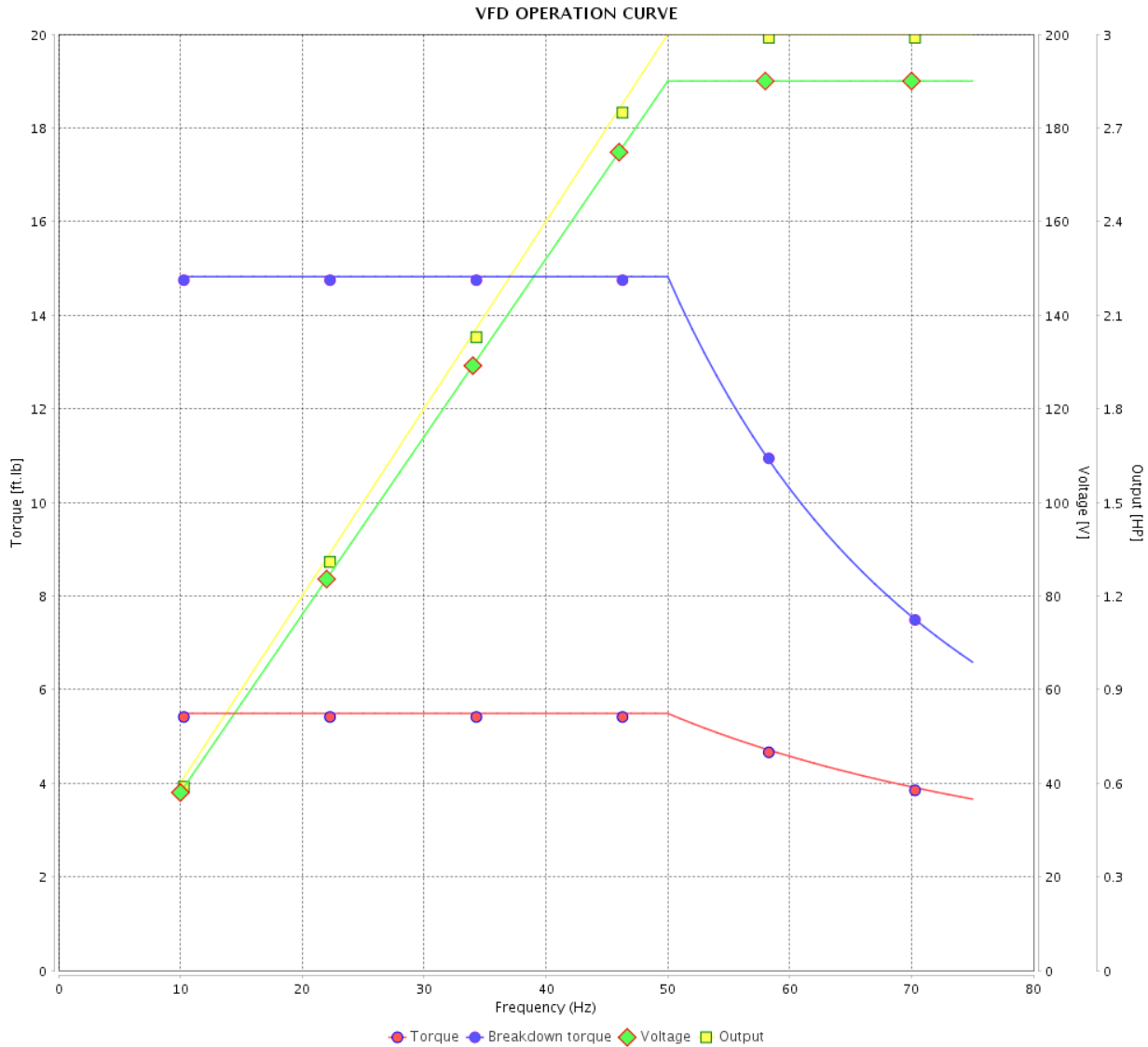
Product line : Premium Efficiency Three-Phase

Product code :

14799274

Catalog # :

00336ET3E56-S



Performance : 190/380 V 50 Hz 2P

Rated current : 8.50/4.25 A  
 LRC : 7.4  
 Rated torque : 5.49 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 2870 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 12 / 13	Revision
Checked by				
Date	13/04/2022			

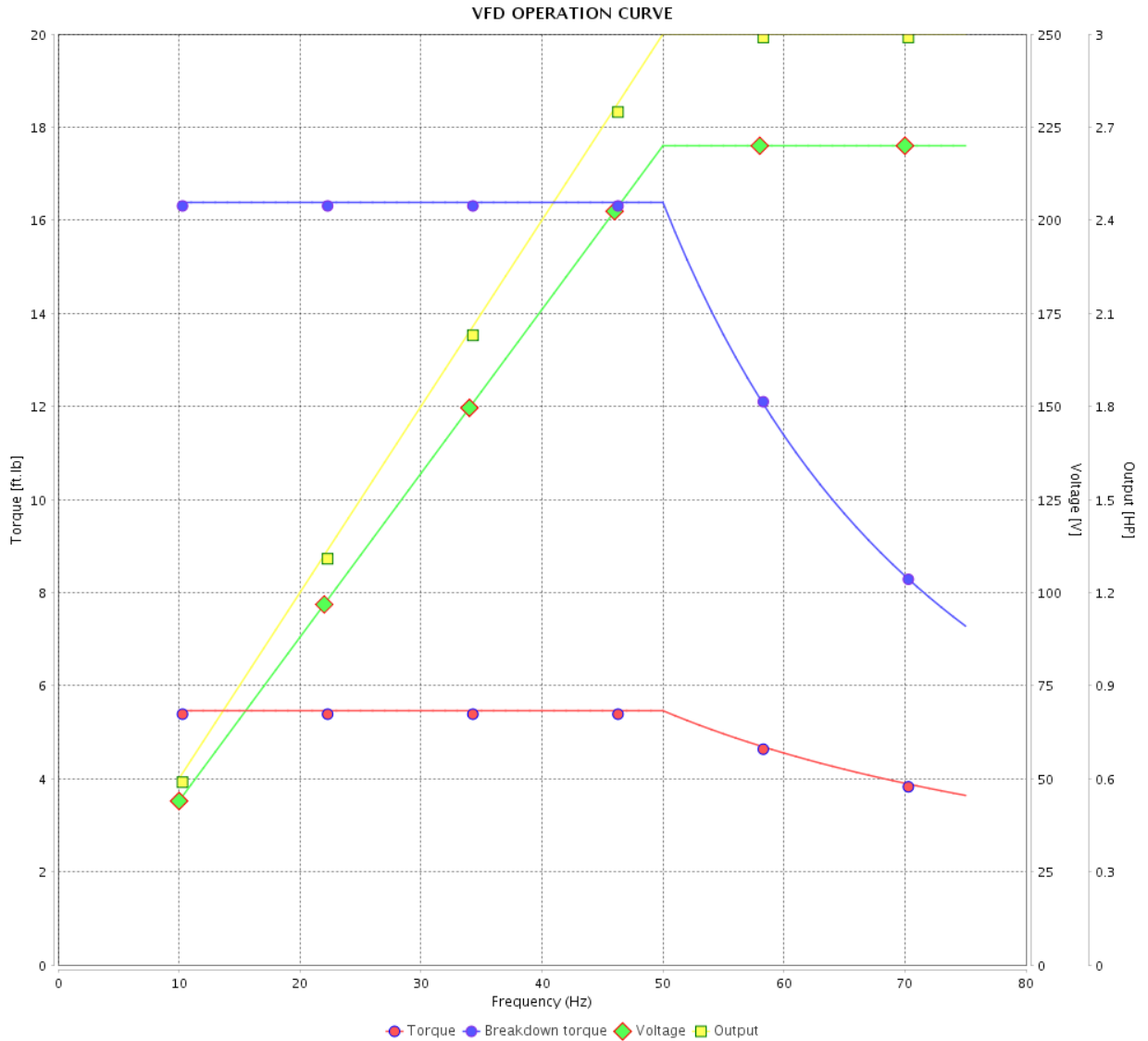
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



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

Product line : Premium Efficiency Three-Phase      Product code : 14799274  
 Catalog # : 00336ET3E56-S

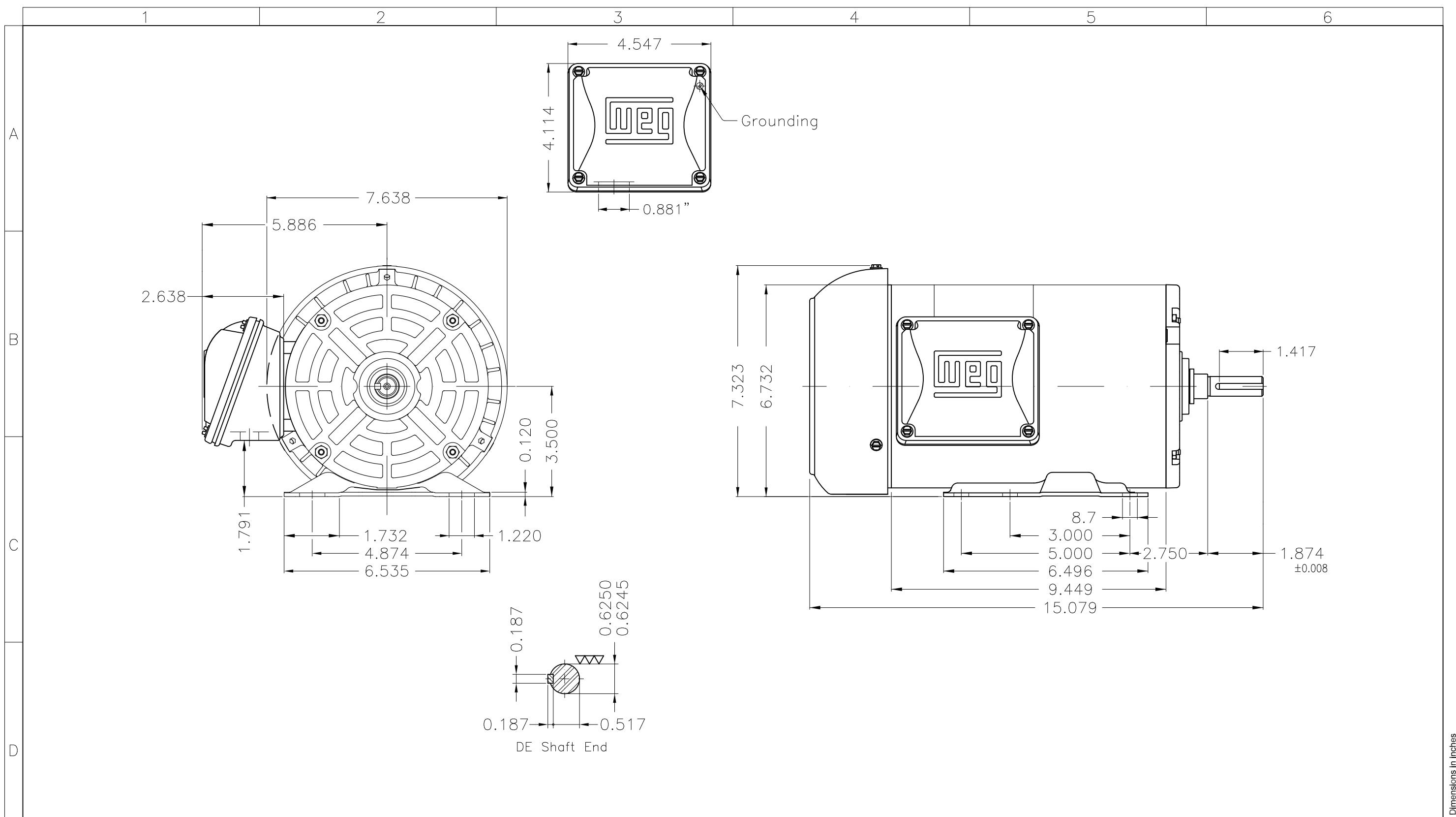



Performance : 220/415 V 50 Hz 2P

Rated current : 7.62/4.04 A  
 LRC : 8.3  
 Rated torque : 5.46 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1663 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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



Fan cover - steel plate										
Without coating										
Mounting F-1/B3R(D)										
ECM	LOC	SUMMARY OF MODIFICATIONS				EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.				PREVIEW	WDD	SHEET	1 / 1	
CHECKED		FRAME 56H IP55 TEFC								
RELEASED										
REL DT.		WMO	Jaragua do Sul	Product Engineering						

3 HP 02 Poles 60 Hz



**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 14799274 CC029A**  
**W01.TE0IC0X0X**  
**MODEL 00336ET3E56-S**  
**09NOV2021 B/N:**

**For 60Hz: Class I, Zone 2, IIC**  
**Class I, Div.2, Gr. A,B,C,D - T3**  
**Div 2 Inverter Duty (SF1.00)**  
**CT 2:1/VT 1000:1**

PH 3	Hz 60	HP 3.0
FR 56H		KW 2.2
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 7.34/3.67
INS CL F AT 80K	IP55	SFA 8.44/4.22
AMB 40°C	DES B	SF 1.15
ENCL TEFC	CODE L	PF 0.87
USABLE @ 208V 7.76A		RPM 3505
SF1.00		NEMA NOM. EFF 86.5%

**ALTERNATE RATING: 3.0HP 50Hz 190-220/380-415V SF1.15**  
**8.88-7.72/4.44-4.09A 2870RPM EFF 84.6% (IE2) IEC 60034-1**

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 5:1 CT

**DE 6204-ZZ ODE 6202-ZZ MOBIL POLYREX EM**



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.

