

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer		:	
Product line	: NEMA Premium Efficiency Three-Phase	Product code :	12675408
		Catalog # :	00112ET3E145T-S
Frame	: 143/5T	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>2</sup>	: 38.8 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.1597 sq.ft.lb
Design	: B		
Output [HP]	1	1	1
Poles	6	6	6
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	3.16/1.58	3.74/1.87	3.41/1.81
L. R. Amperes [A]	18.3/9.16	16.5/8.23	16.7/8.87
LRC [A]	5.8x(Code J)	4.4x(Code F)	4.9x(Code G)
No load current [A]	2.03/1.01	2.00/1.00	2.02/1.07
Rated speed [RPM]	1145	915	930
Slip [%]	4.58	8.50	7.00
Rated torque [ft.lb]	4.59	5.74	5.65
Locked rotor torque [%]	229	170	200
Breakdown torque [%]	280	200	229
Service factor		1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	55s (cold) 31s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level <sup>2</sup>	50.0 dB(A)	47.0 dB(A)	47.0 dB(A)
Efficiency (%)	25%	79.5	80.4
	50%	80.0	79.4
	75%	82.5	80.4
	100%	82.5	78.6
Power Factor	25%	0.28	0.31
	50%	0.50	0.54
	75%	0.63	0.68
	100%	0.72	0.76
Bearing type	: <u>Drive end</u> 6205 ZZ <u>Non drive end</u> 6203 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 93 lb
		Max. compression	: 132 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes			
USABLE @208V 3.49A SF 1.00 SFA 3.49A			
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
			Date
Performed by			
Checked by			Page
Date	11/04/2022		Revision
			1 / 16

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



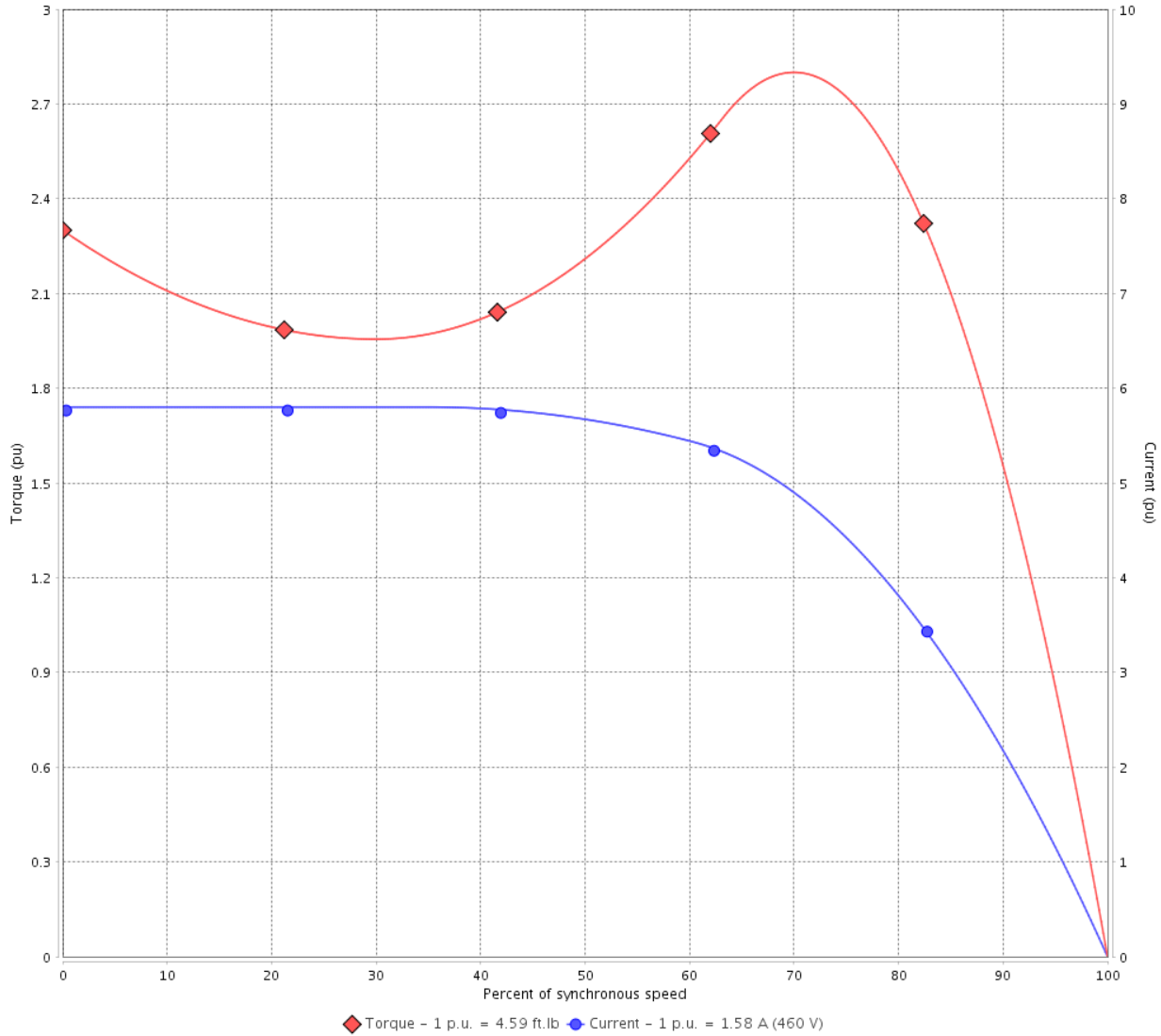
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 3.16/1.58 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.59 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1145 rpm	Design	: B

Locked rotor time : 55s (cold) 31s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 2 / 16	Revision
Checked by				
Date	11/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE



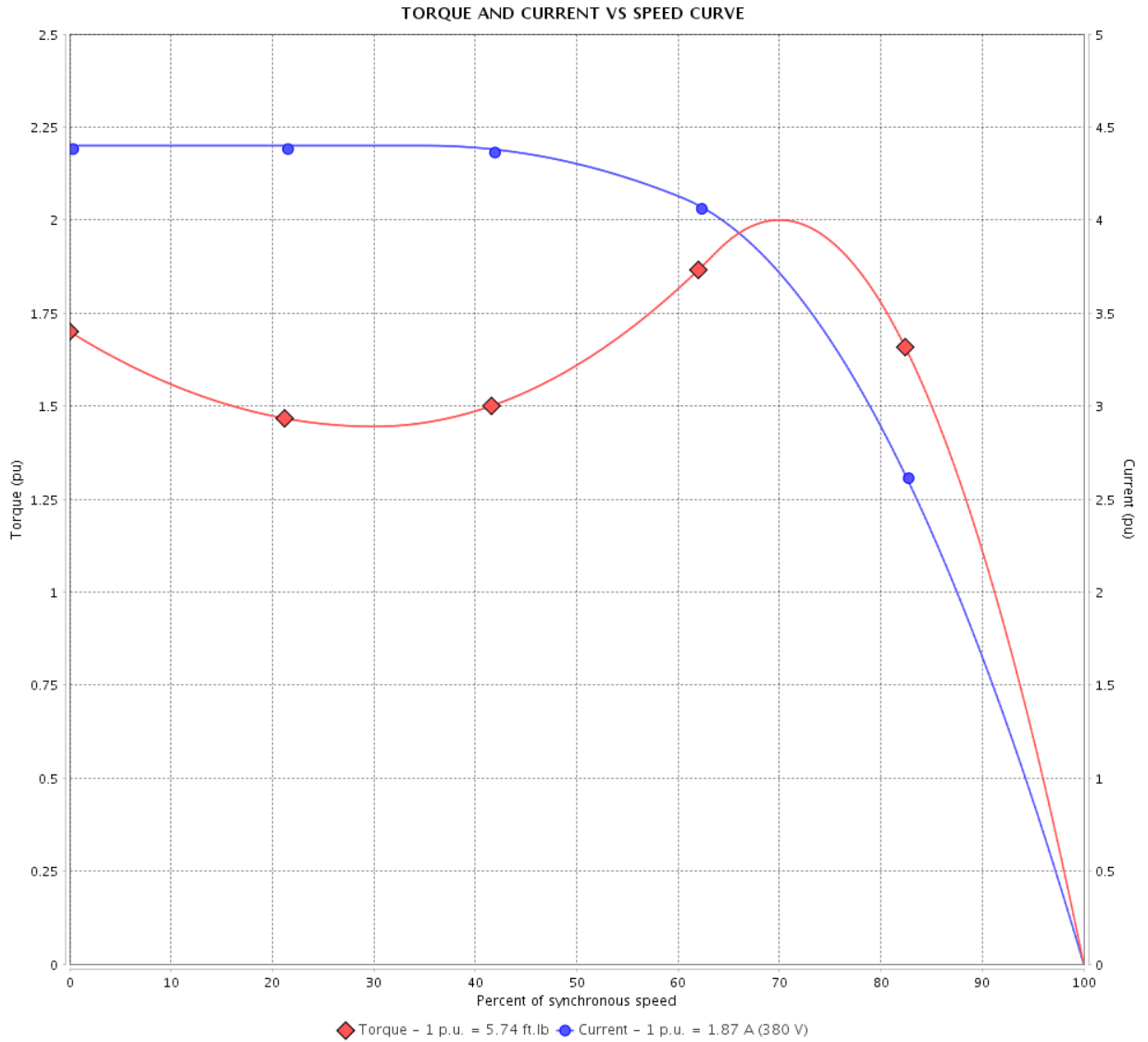
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 3 / 16	Revision
Checked by				
Date	11/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

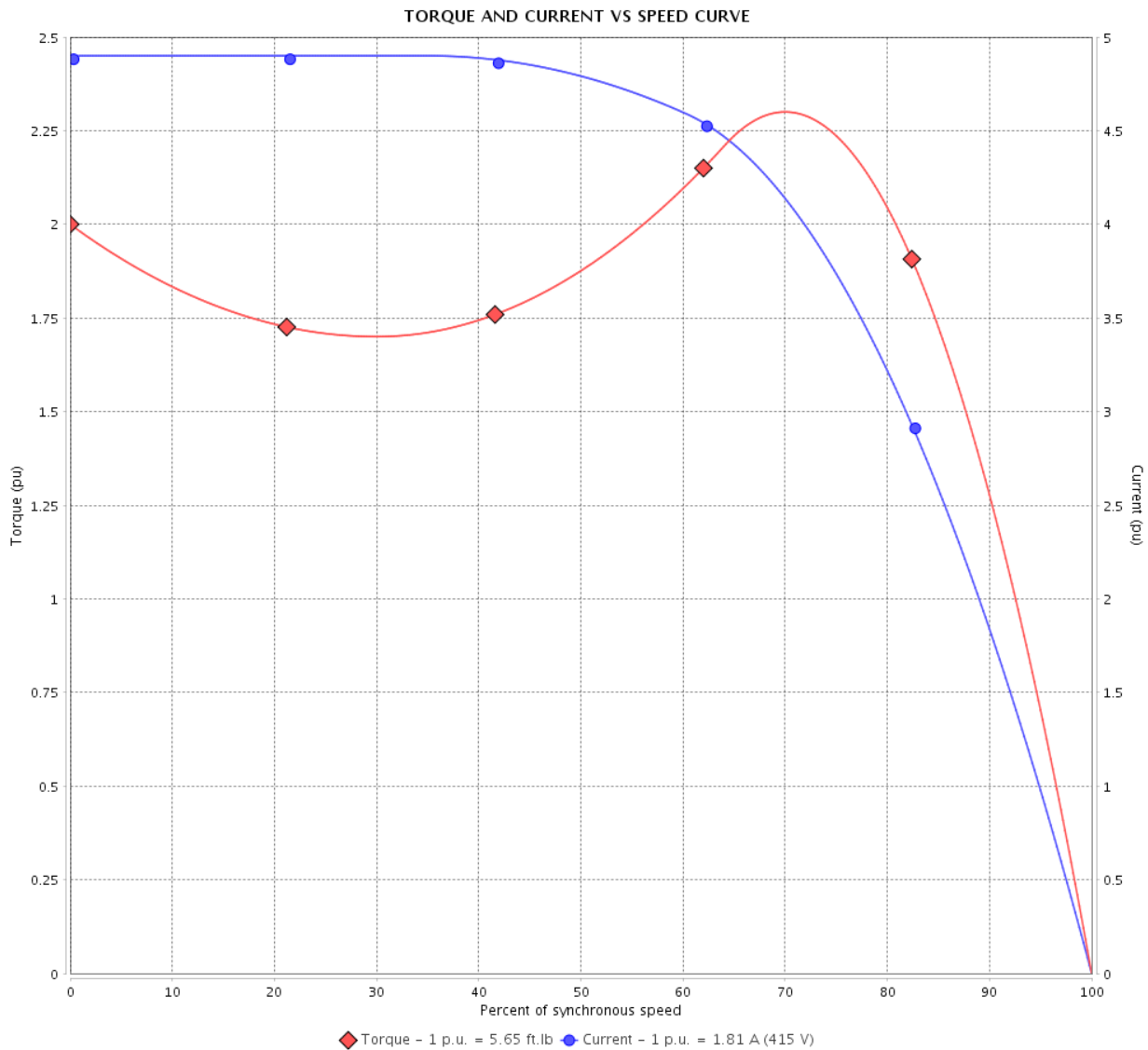


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S



Performance : 220/415 V 50 Hz 6P

Rated current	: 3.41/1.81 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.9	Duty cycle	: Cont.(S1)
Rated torque	: 5.65 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 229 %	Temperature rise	: 105 K
Rated speed	: 930 rpm	Design	: B

Locked rotor time : 0s (cold) 0s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 4 / 16	Revision
Checked by				
Date	11/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

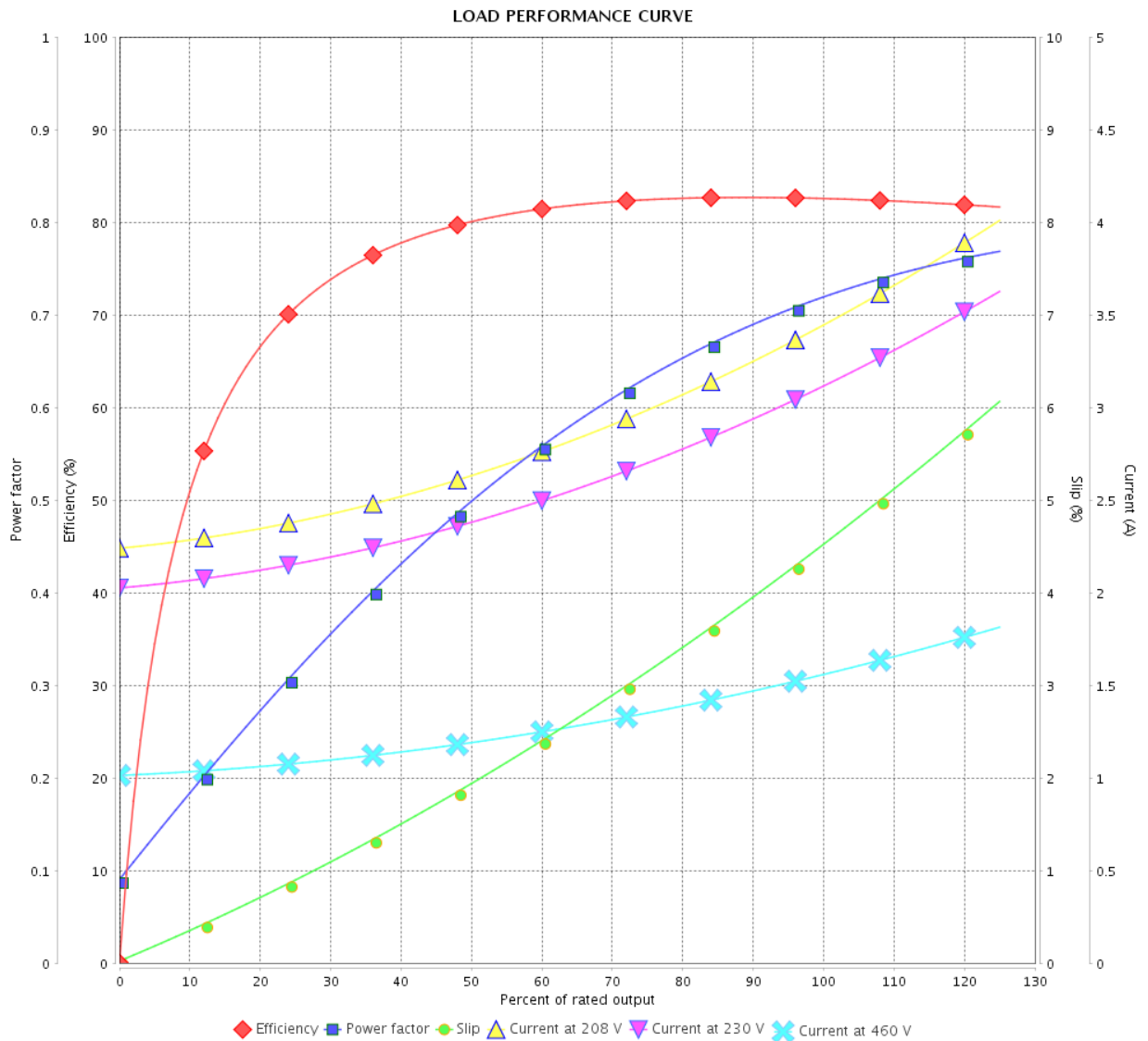


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 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



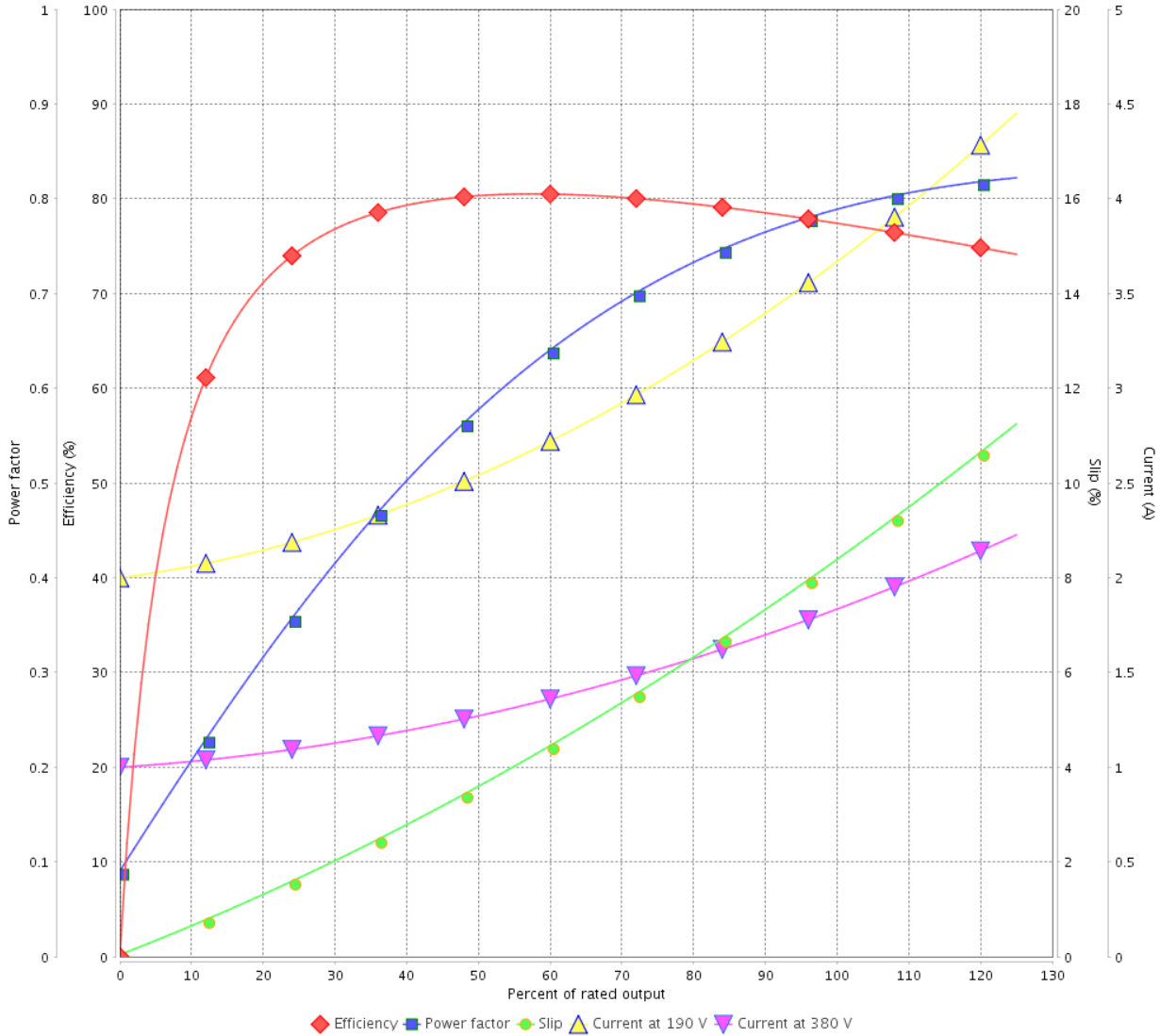
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 3.74/1.87 A  
 LRC : 4.4  
 Rated torque : 5.74 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 200 %  
 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page	Revision
Checked by			6 / 16	
Date	11/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

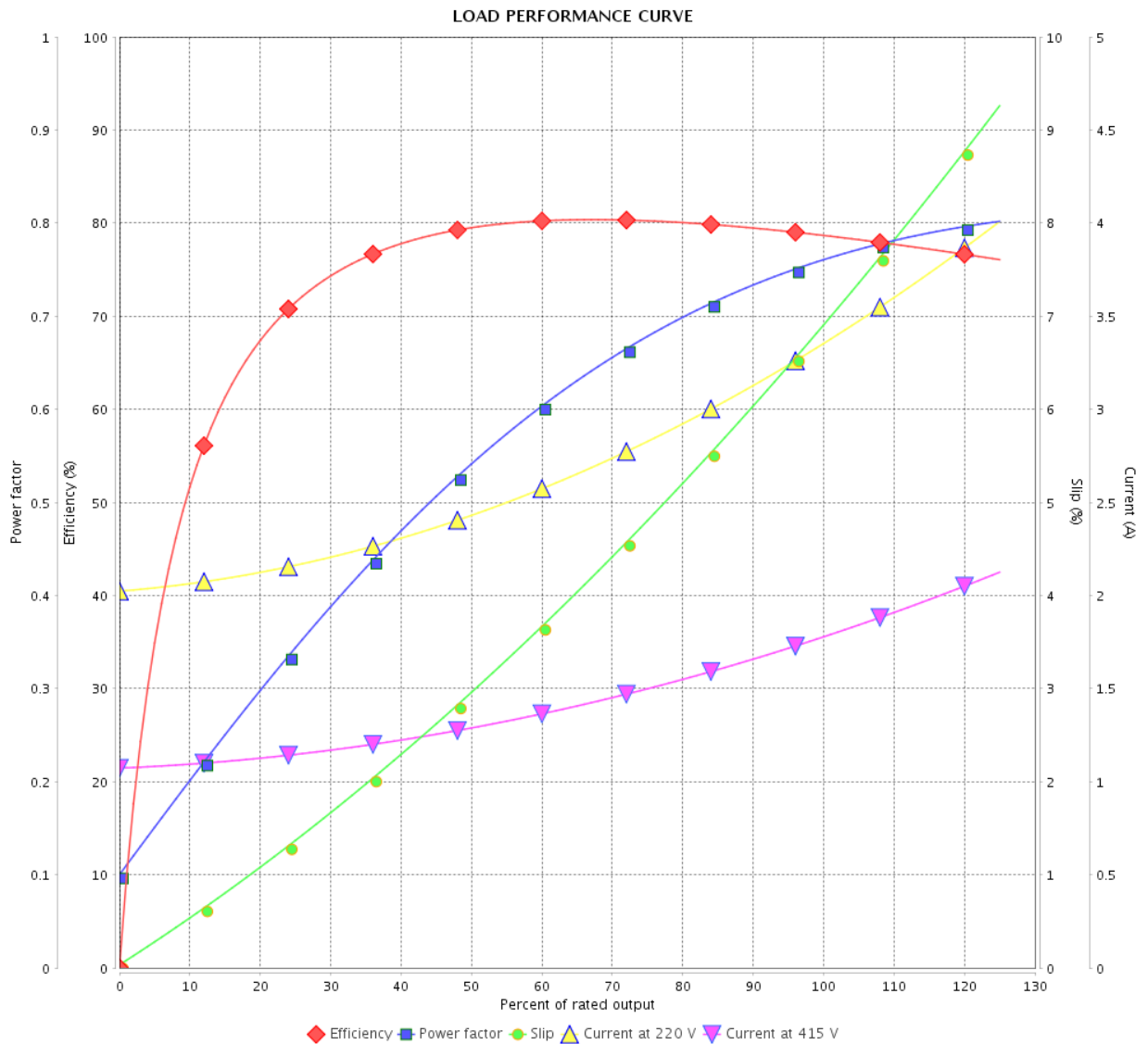


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Catalog # : 00112ET3E145T-S



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 Insulation class : F  
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 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		7 / 16		
Date		11/04/2022		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12675408  
Catalog # : 00112ET3E145T-S

Performance : 230/460 V 60 Hz 6P

Rated current	: 3.16/1.58 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 5.8	Duty cycle	: Cont.(S1)
Rated torque	: 4.59 ft.lb	Insulation class	: F
Locked rotor torque	: 229 %	Service factor	:
Breakdown torque	: 280 %	Temperature rise	: 80 K
Rated speed	: 1145 rpm	Design	: B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	11/04/2022		8 / 16	

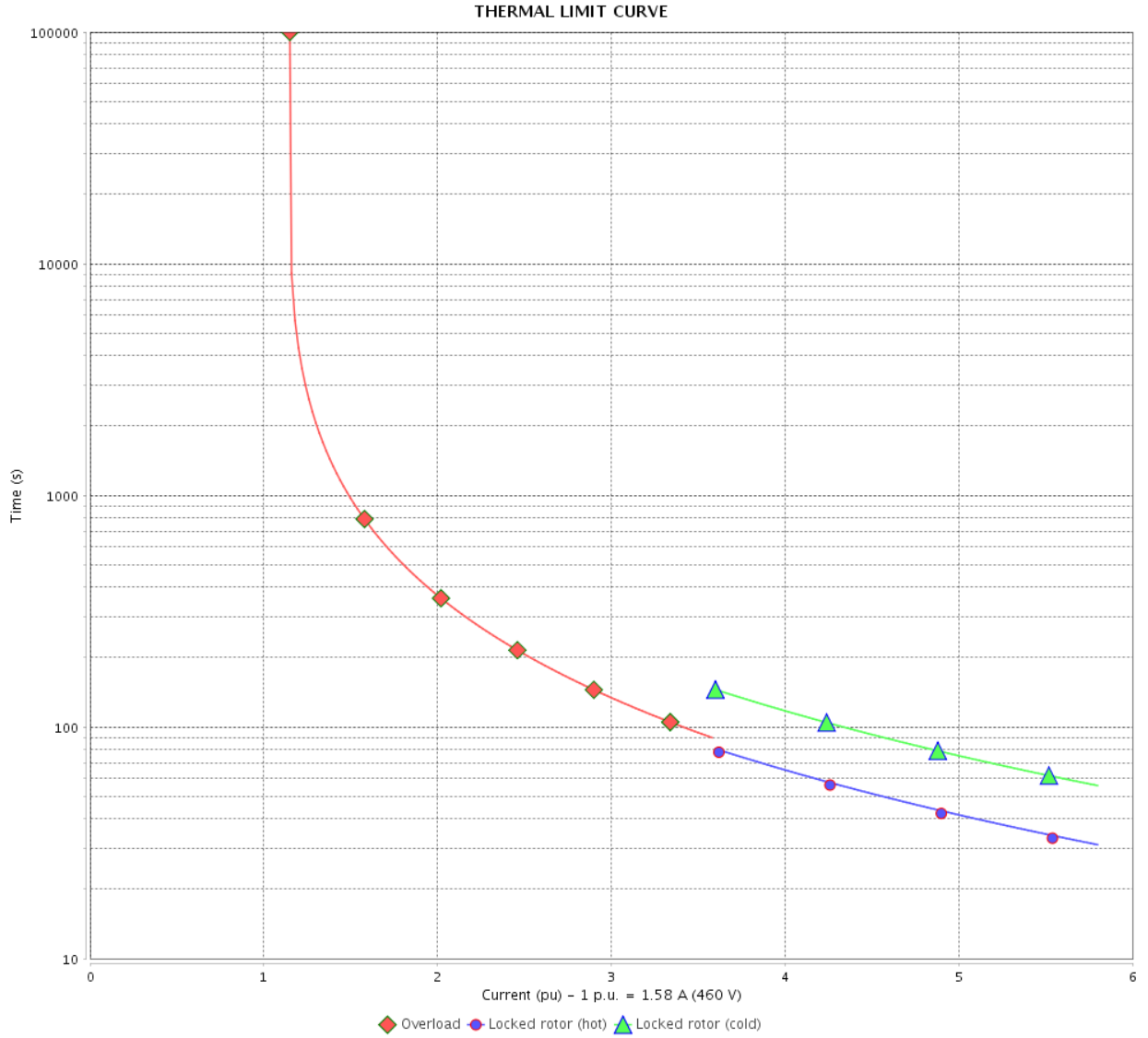


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



Rev.	Changes Summary	Performed	Checked	Date
Performed by				
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Date				
		Page	Revision	
		9 / 16		

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12675408  
Catalog # : 00112ET3E145T-S

Performance : 190/380 V 50 Hz 6P

Rated current	: 3.74/1.87 A	Moment of inertia (J)	: 0.1597 sq.ft.lb
LRC	: 4.4	Duty cycle	: Cont.(S1)
Rated torque	: 5.74 ft.lb	Insulation class	: F
Locked rotor torque	: 170 %	Service factor	: 1.00
Breakdown torque	: 200 %	Temperature rise	: 105 K
Rated speed	: 915 rpm	Design	: B

Heating constant

Cooling constant

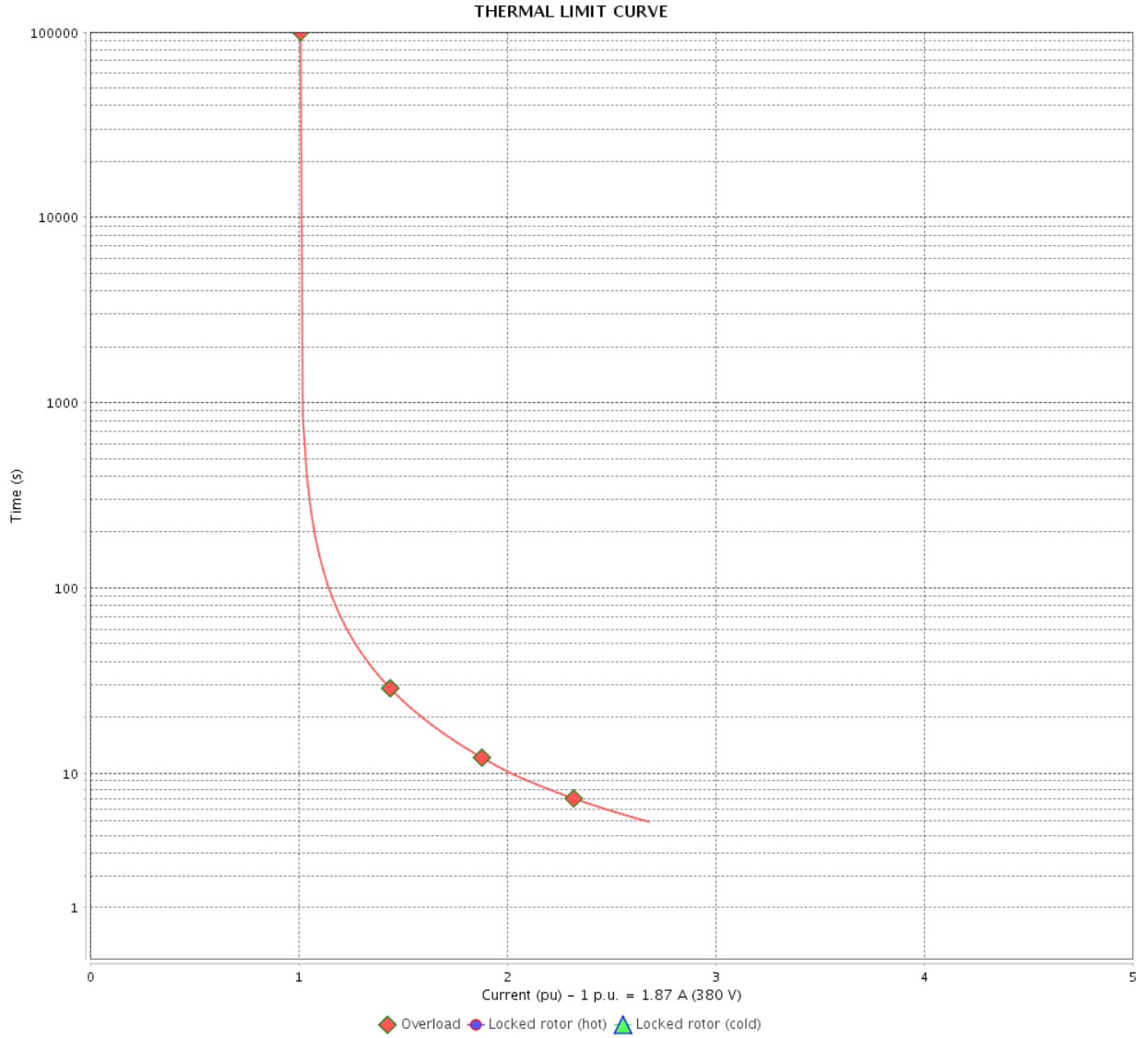
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	11/04/2022		10 / 16	

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Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		11 / 16		
Date		11/04/2022		

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Rated speed	: 930 rpm	Design	: B

Heating constant

Cooling constant

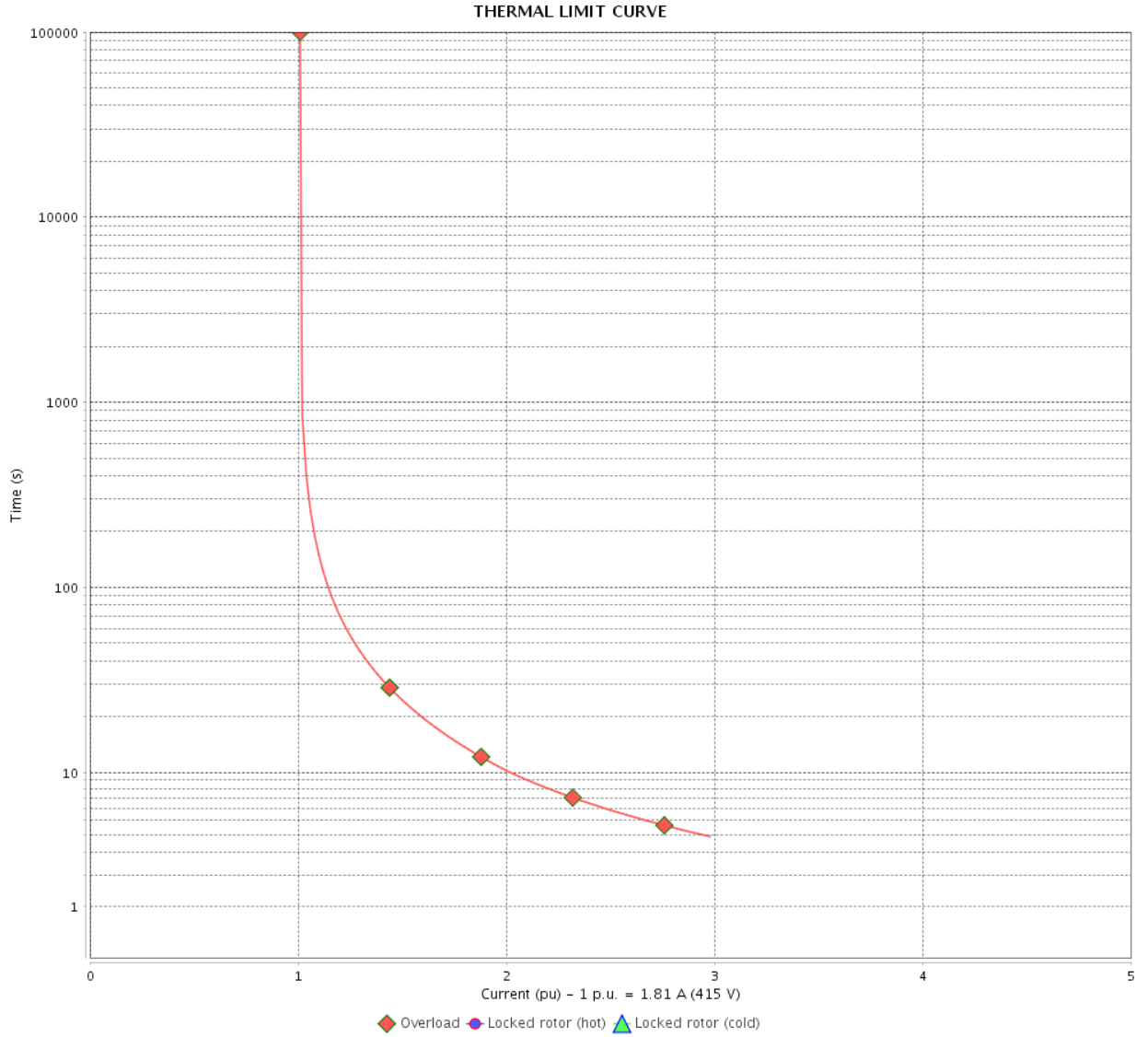
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	11/04/2022		12 / 16	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		13 / 16		
Date		11/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



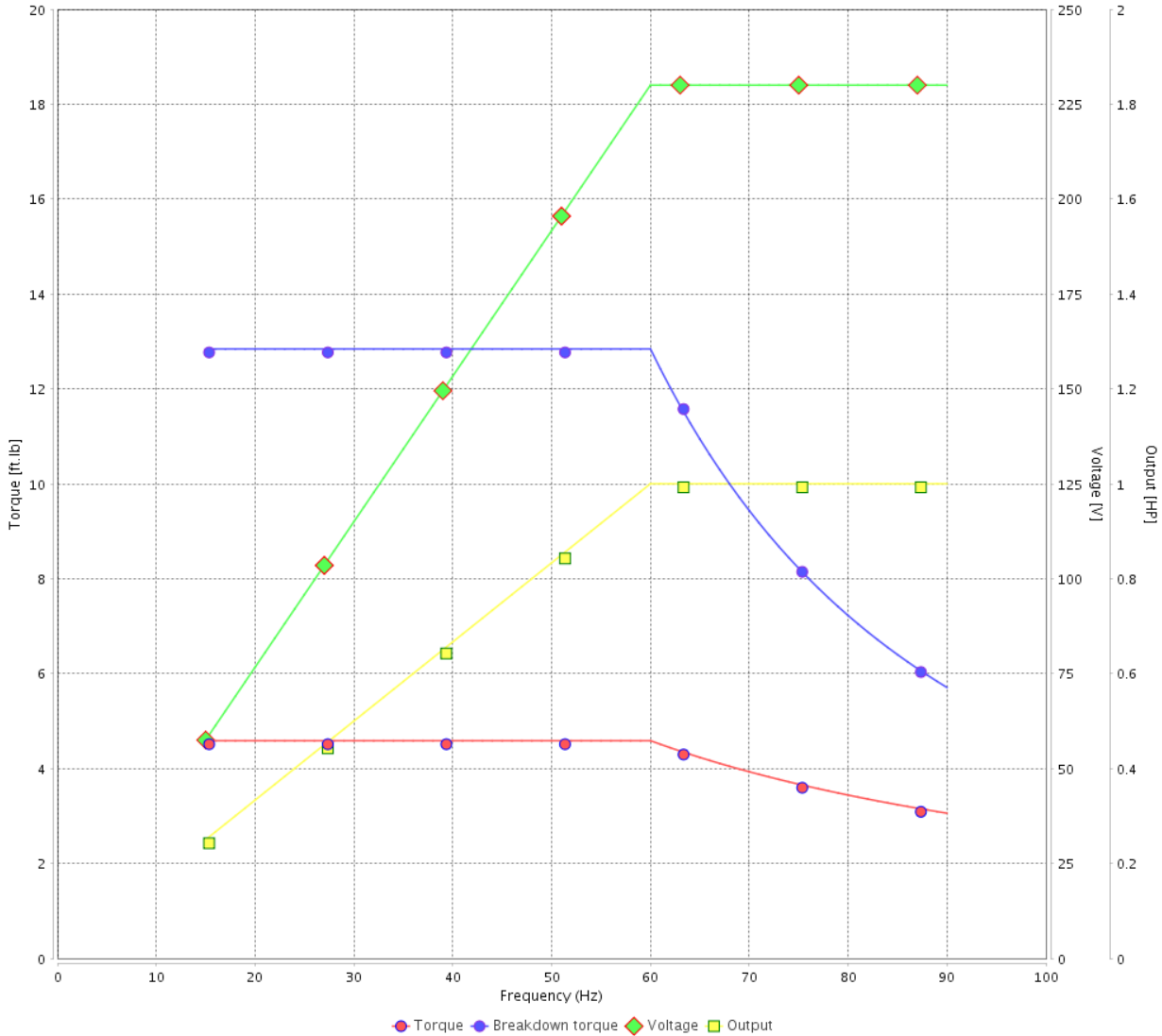
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12675408

Catalog # : 00112ET3E145T-S

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 3.16/1.58 A  
 LRC : 5.8  
 Rated torque : 4.59 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 280 %  
 Rated speed : 1145 rpm

Moment of inertia (J) : 0.1597 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				

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

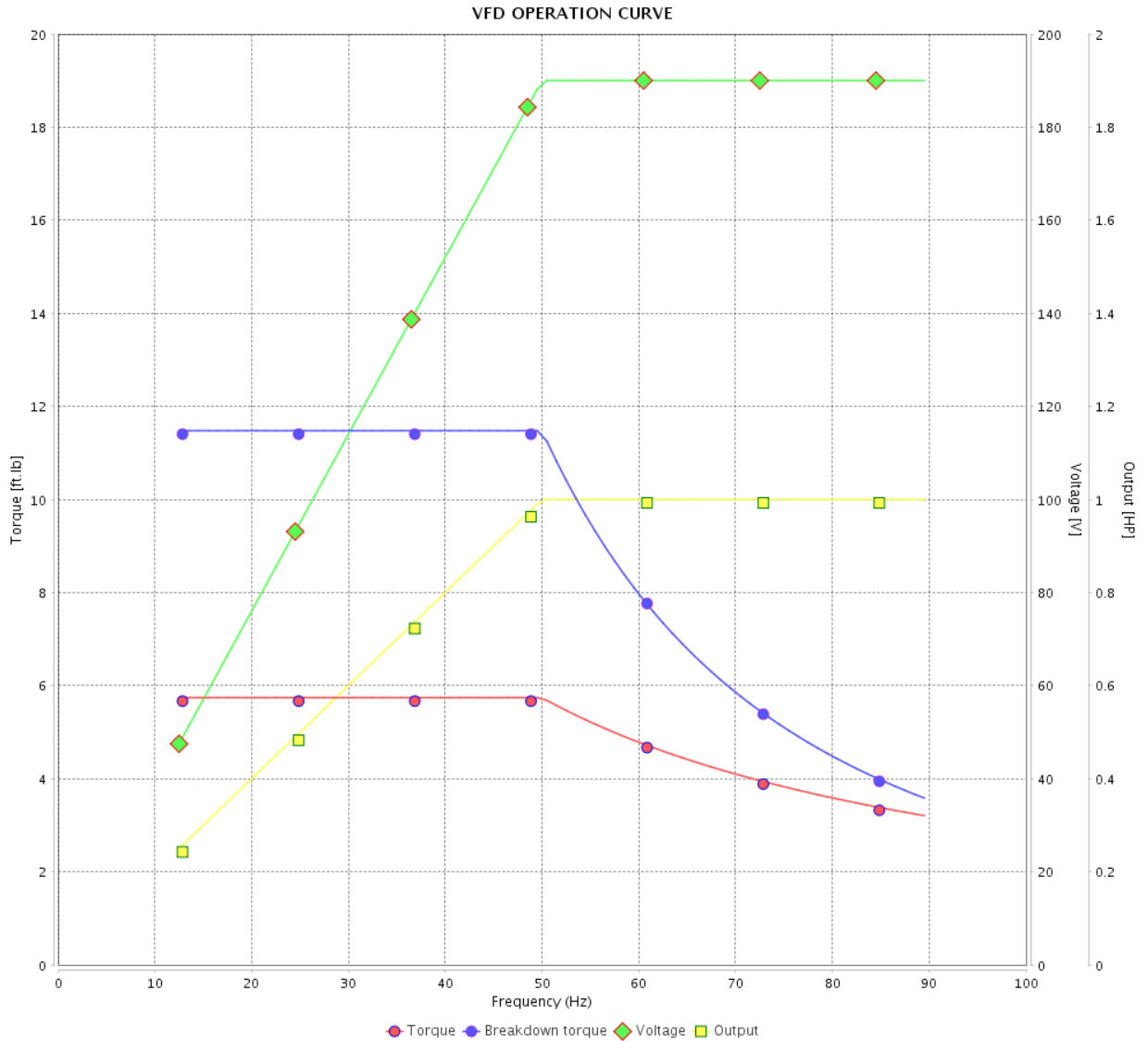


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 Rated speed : 915 rpm

Moment of inertia (J) : 0.1597 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 16		
Date		11/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



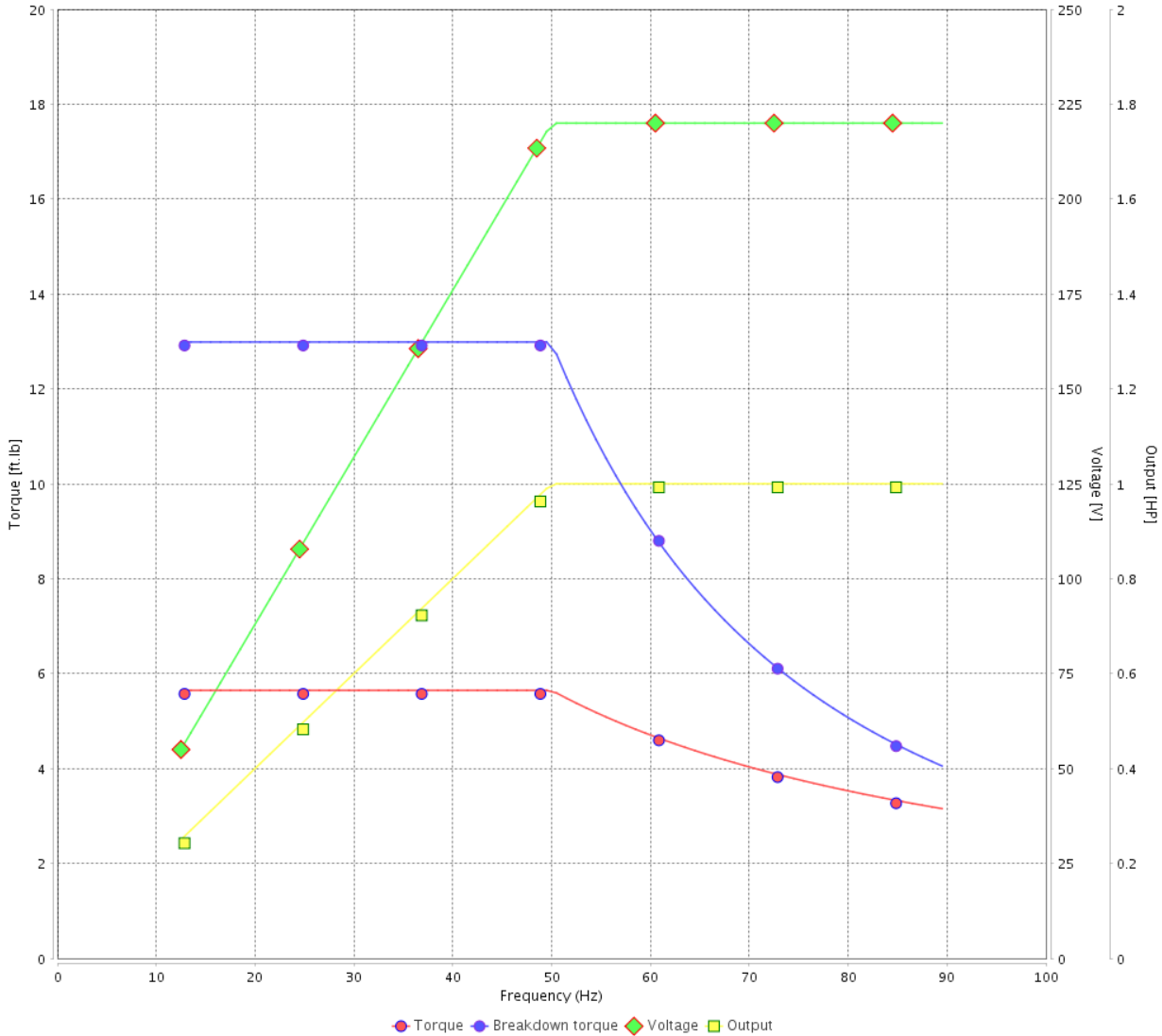
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	11/04/2022			



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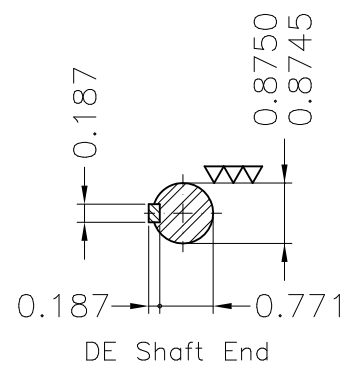
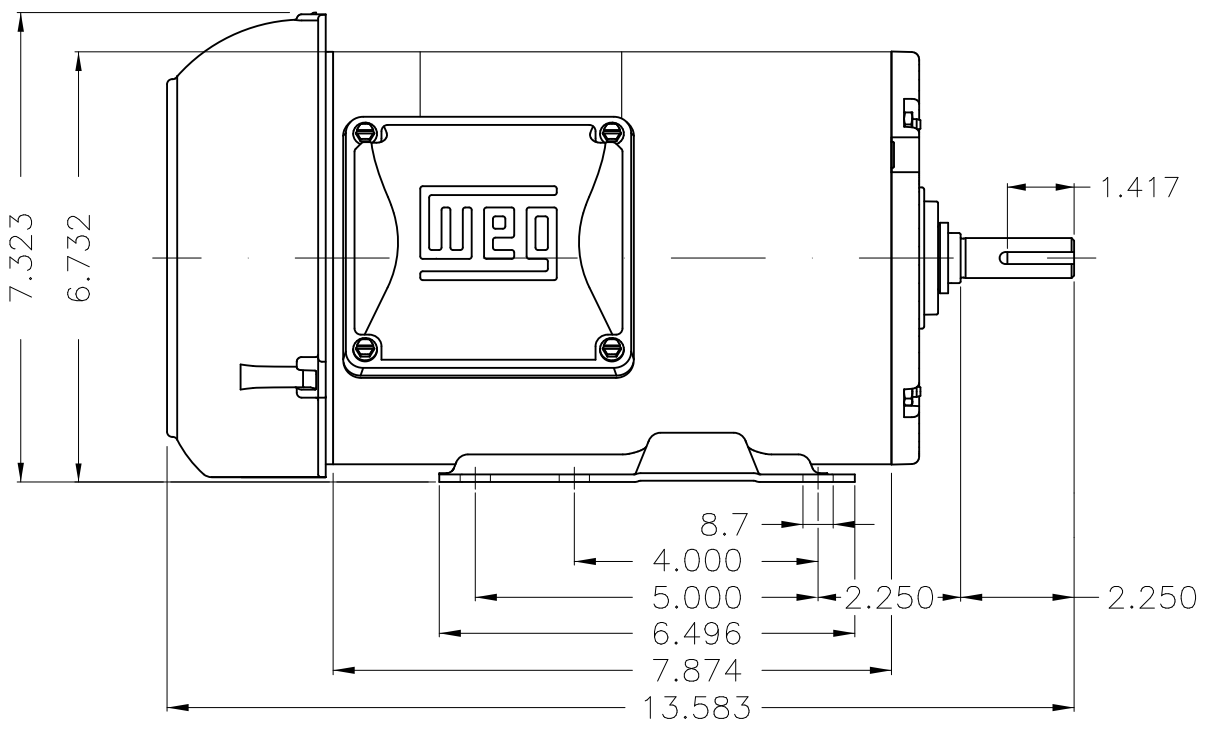
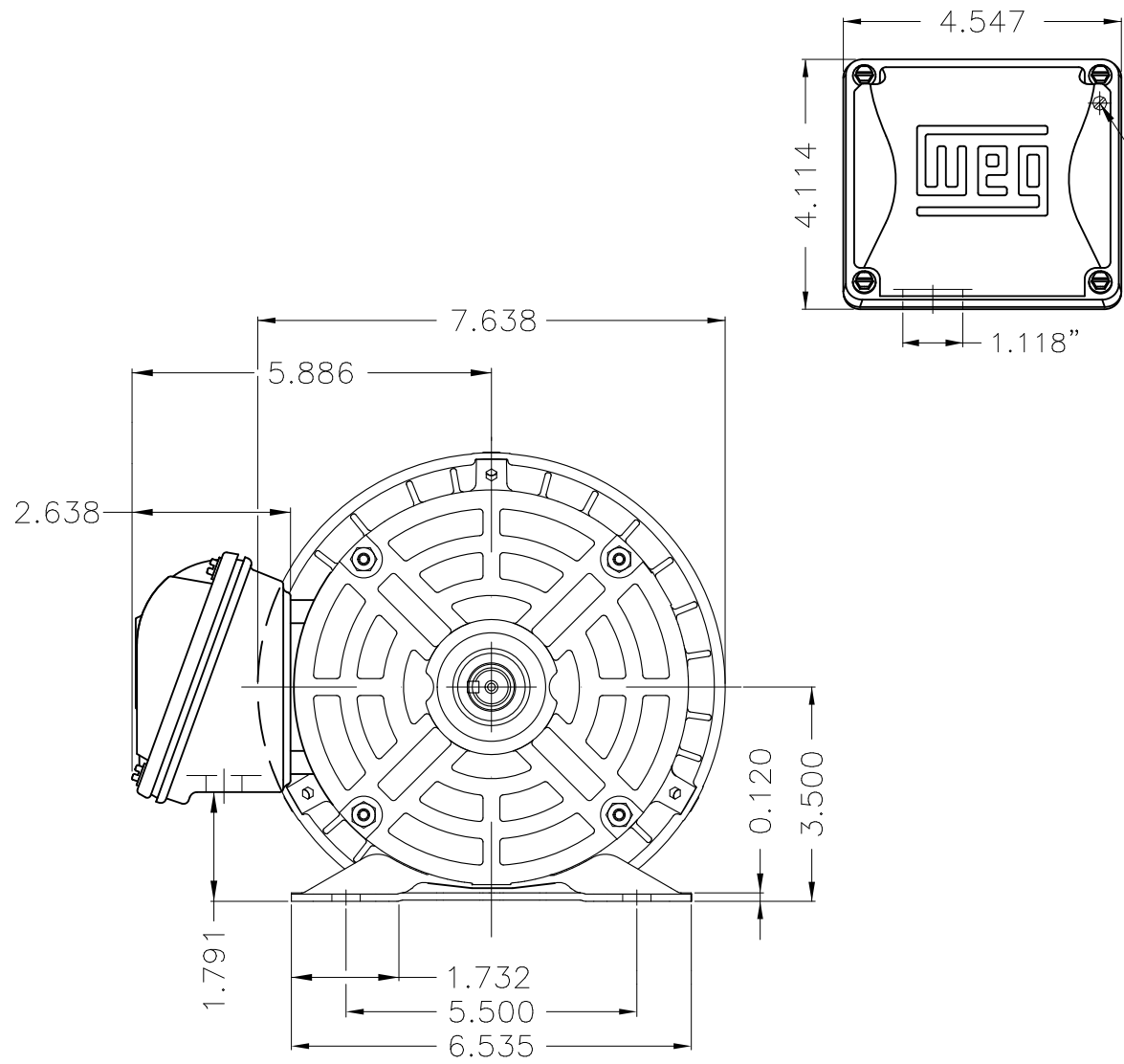
A

B

C

D

E



Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/B3R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL PREM. EFF.					
CHECKED		FRAME 143/5T IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

1 HP 06 Poles 60 Hz

A

PREVIEW  
 WDD





**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN BRAZIL

**MAT: 12675408 CC029A**  
**W01.TE0IC0X0N**  
**HT000406NPW01**  
**21JAN2022 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**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 1.0</b>
<b>FR 143/5T</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 3.16/1.58</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 3.63/1.82</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL TEFC</b>	<b>CODE J</b>	<b>PF 0.72</b>
<b>USABLE @ 208V 3.49A</b>		<b>RPM 1145</b>
<b>SF1.00</b>		<b>NEMA</b>
		<b>NOM. EFF 82.5%</b>

<b>ALTERNATE RATING: 1.0HP 50Hz 190-220/380-415V SF1.00</b>
<b>3.74-3.36/1.87-1.78A 915RPM EFF 77.3% (IE2) IEC 60034-1</b>

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 4:1 CT

<b>DE 6205-ZZ</b>	<b>ODE 6203-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.

