

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :		
Product line	: NEMA Premium Efficiency Three-Phase	
Product code :	12735312	
Catalog # :	00512OT3E215T-SG	
Frame	: 213/5T	
Insulation class	: F	
Duty cycle	: Cont.(S1)	
Ambient temperature	: -20°C to +40°C	
Altitude	: 1000 m.a.s.l.	
Design	: B	
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>	: 126 lb	
Moment of inertia (J)	: 1.08 sq.ft.lb	
Output [HP]	5	
Poles	6	
Frequency [Hz]	60	
Rated voltage [V]	230/460	
Rated current [A]	13.5/6.74	
L. R. Amperes [A]	79.5/39.8	
LRC [A]	5.9x(Code H)	
No load current [A]	7.10/3.55	
Rated speed [RPM]	1175	
Slip [%]	2.08	
Rated torque [ft.lb]	22.3	
Locked rotor torque [%]	220	
Breakdown torque [%]	250	
Service factor	1.15	
Temperature rise	80 K	
Locked rotor time	52s (cold) 29s (hot)	
Noise level <sup>2</sup>	55.0 dB(A)	
Efficiency (%)	25%	88.3
	50%	88.5
	75%	89.5
	100%	89.5
Power Factor	25%	0.34
	50%	0.58
	75%	0.70
	100%	0.77
Bearing type	: <u>Drive end</u> 6208 ZZ <u>Non drive end</u> 6206 ZZ	
Sealing	: Without Without Bearing Seal Bearing Seal	
Lubrication interval	: - -	
Lubricant amount	: - -	
Lubricant type	: Mobil Polyrex EM	
Foundation loads	Max. traction : 259 lb Max. compression : 385 lb	
Notes USABLE @208V 14.9A SF 1.00 SFA 14.9A		
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 by	Performed	
Checked by	Checked	
Date	Date	
13/04/2022		
Page	Revision	
1 / 16		

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



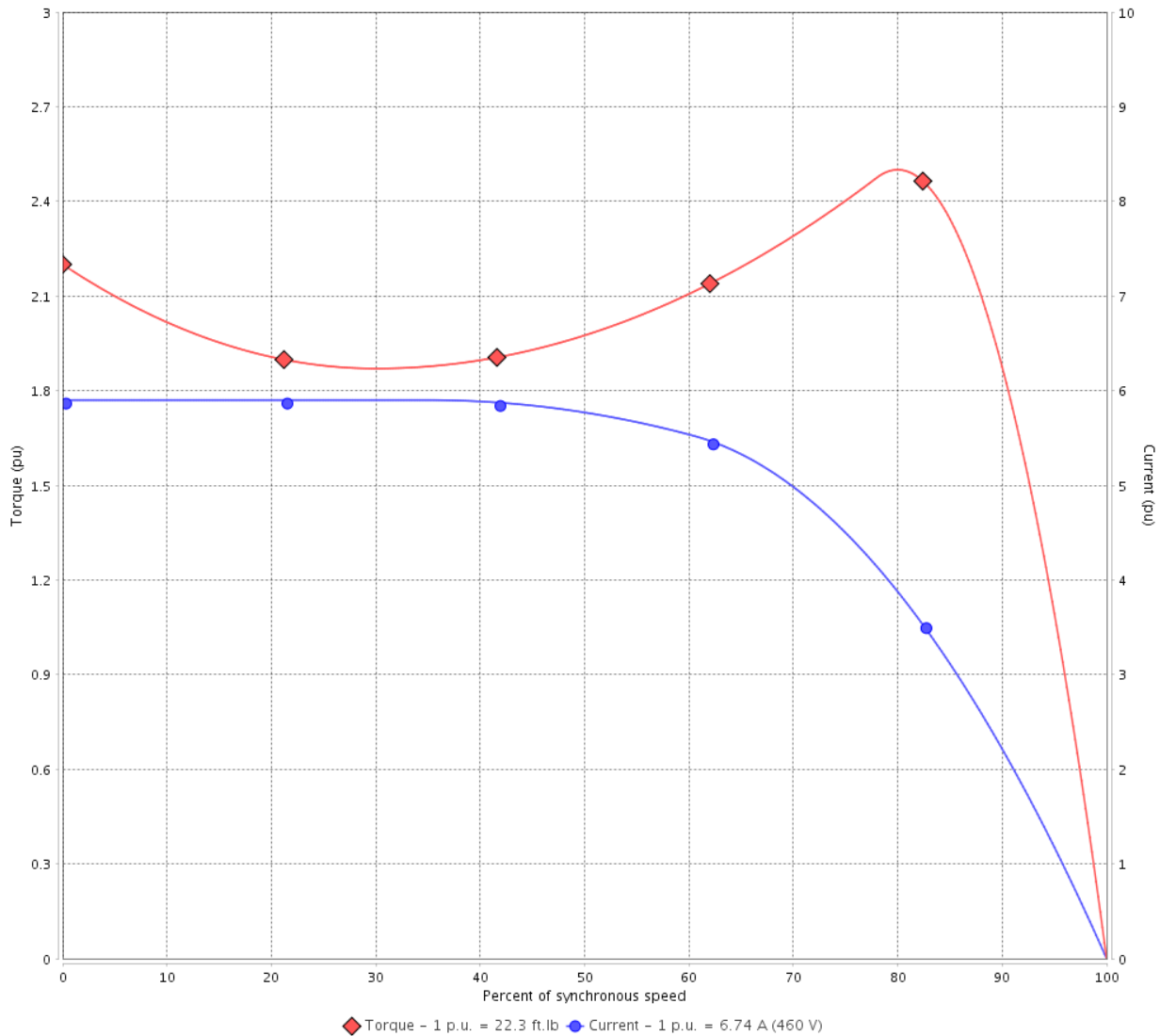
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735312

Catalog # : 005120T3E215T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 6P

Rated current	: 13.5/6.74 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Locked rotor time : 52s (cold) 29s (hot)

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		2 / 16		
Date	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE



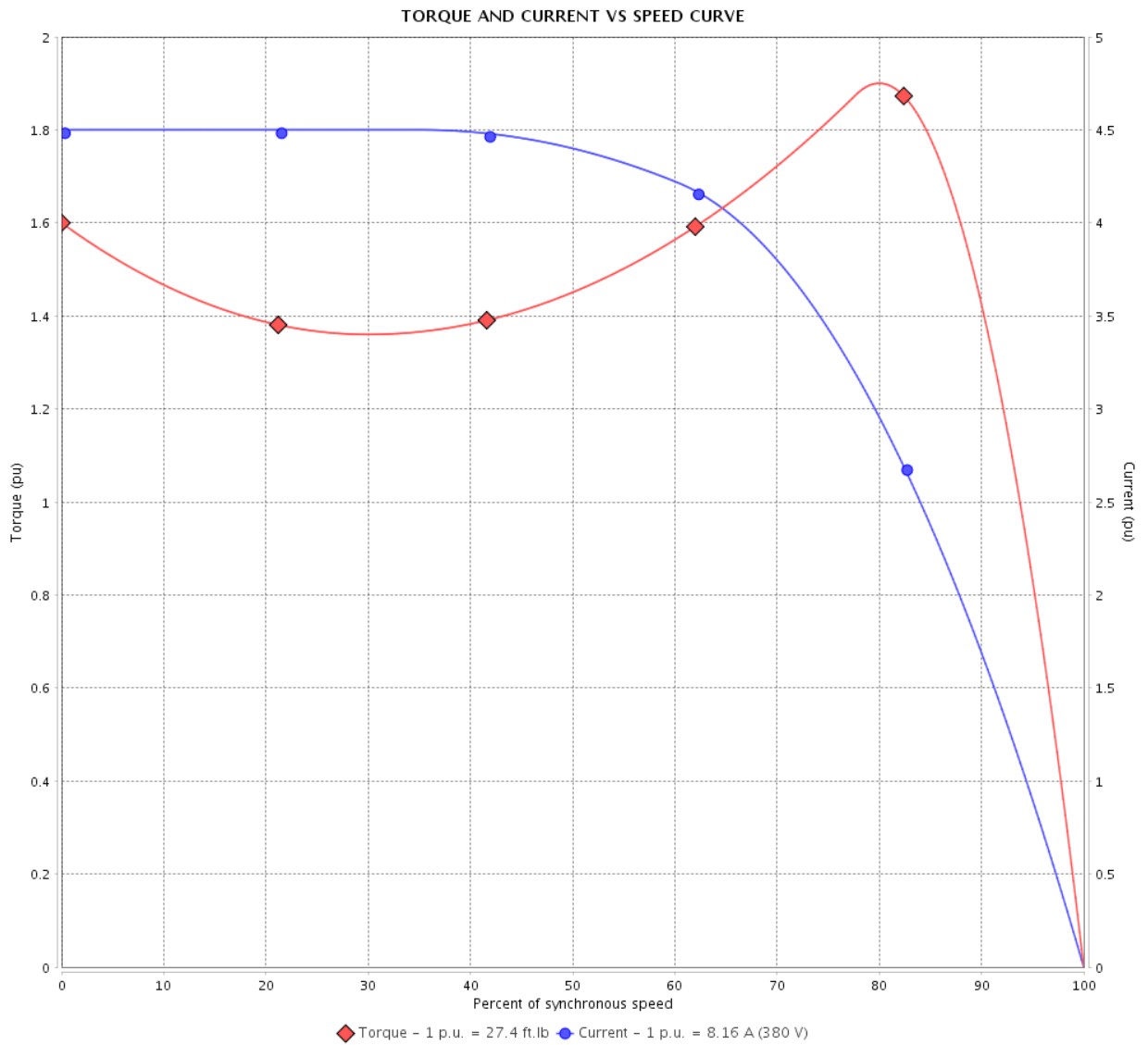
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735312

Catalog # : 00512OT3E215T-SG



Performance : 190/380 V 50 Hz 6P

Rated current : 16.3/8.16 A  
 LRC : 4.5  
 Rated torque : 27.4 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 960 rpm

Moment of inertia (J) : 1.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 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	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



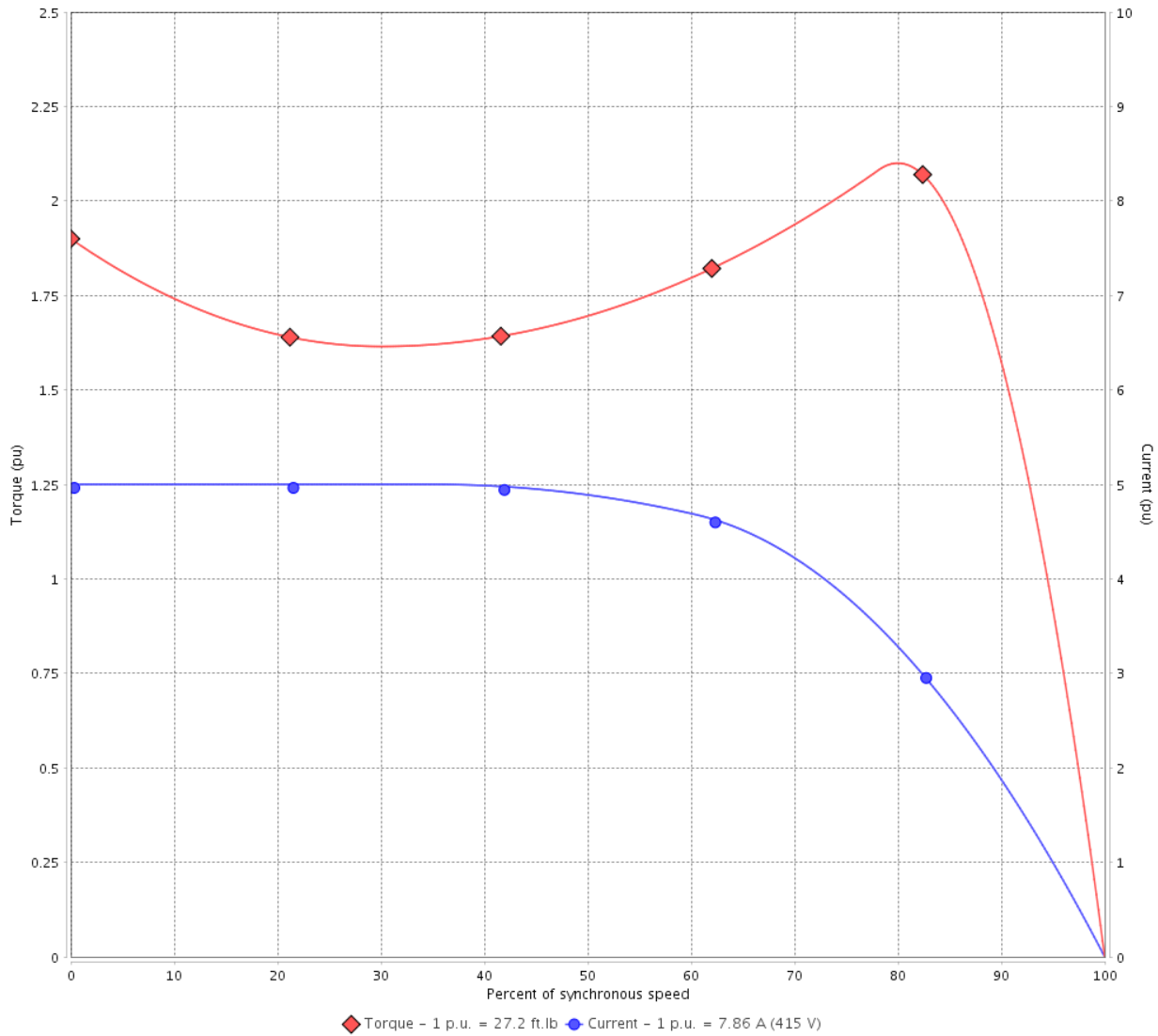
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735312

Catalog # : 005120T3E215T-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 6P

Rated current	: 14.8/7.86 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.0	Duty cycle	: Cont.(S1)
Rated torque	: 27.2 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 965 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	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

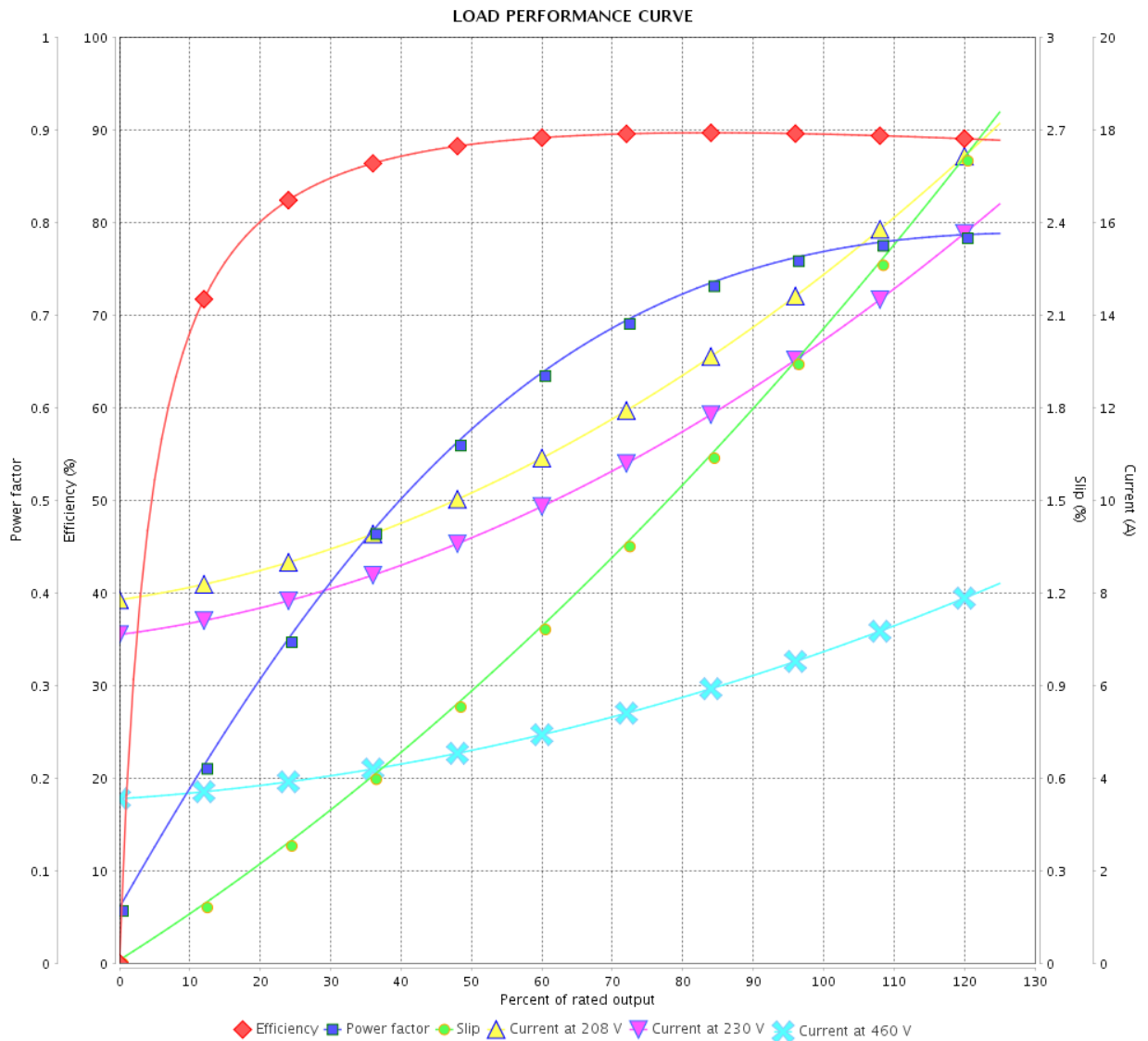


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735312

Catalog # : 00512OT3E215T-SG



Performance : 230/460 V 60 Hz 6P

Rated current : 13.5/6.74 A  
 LRC : 5.9  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.08 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		5 / 16		
Date		13/04/2022		

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



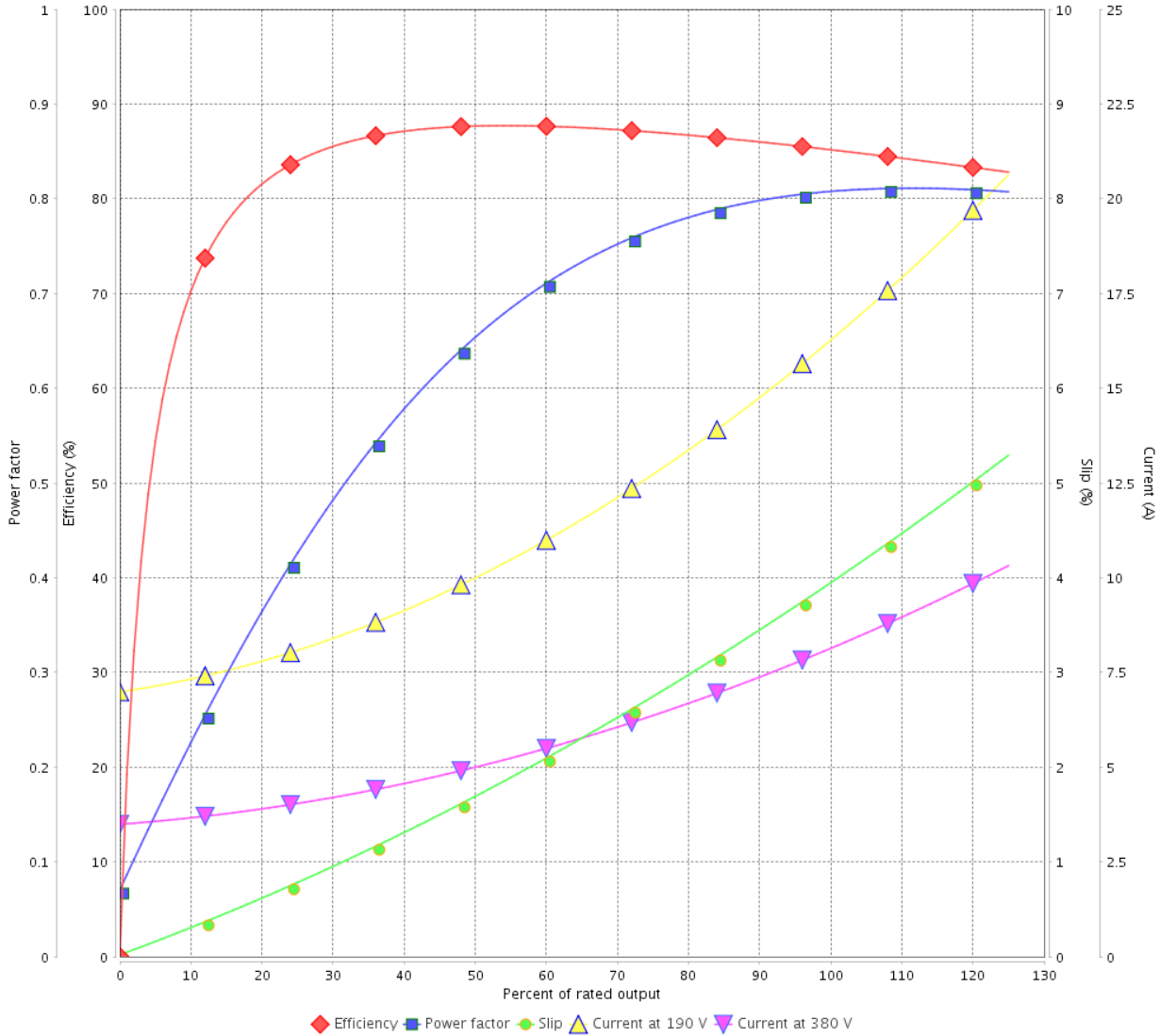
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12735312

Catalog # : 005120T3E215T-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 6P

Rated current : 16.3/8.16 A  
 LRC : 4.5  
 Rated torque : 27.4 ft.lb  
 Locked rotor torque : 160 %  
 Breakdown torque : 190 %  
 Rated speed : 960 rpm

Moment of inertia (J) : 1.08 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			6 / 16	
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

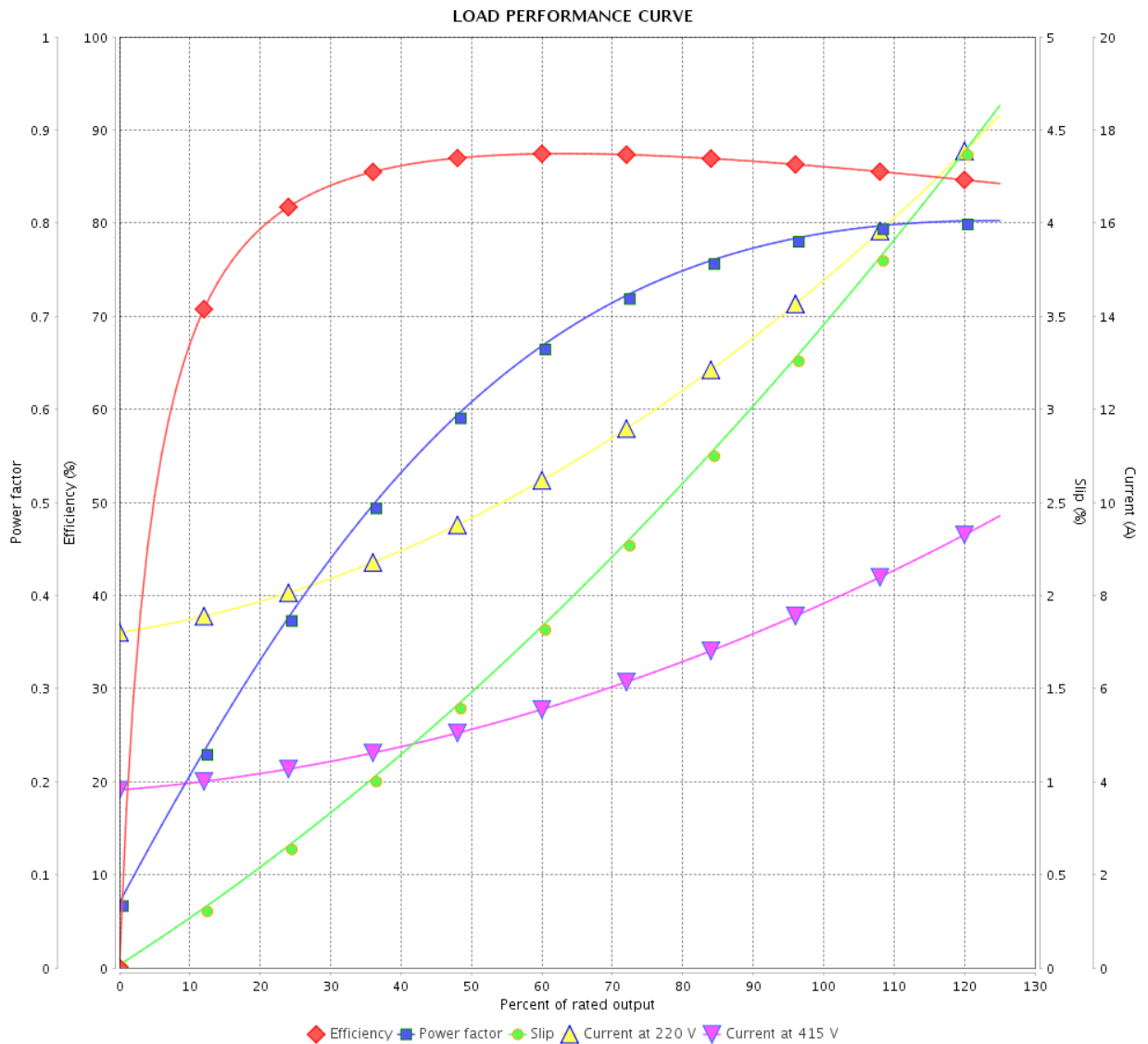


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Product code : 12735312

Catalog # : 005120T3E215T-SG



Performance : 220/415 V 50 Hz 6P

Rated current : 14.8/7.86 A  
 LRC : 5.0  
 Rated torque : 27.2 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 210 %  
 Rated speed : 965 rpm

Moment of inertia (J) : 1.08 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			7 / 16	
Date	13/04/2022			

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 12735312  
Catalog # : 00512OT3E215T-SG

Performance : 230/460 V 60 Hz 6P

Rated current	: 13.5/6.74 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 5.9	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 220 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1175 rpm	Design	: B

Heating constant

Cooling constant

Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		8 / 16	

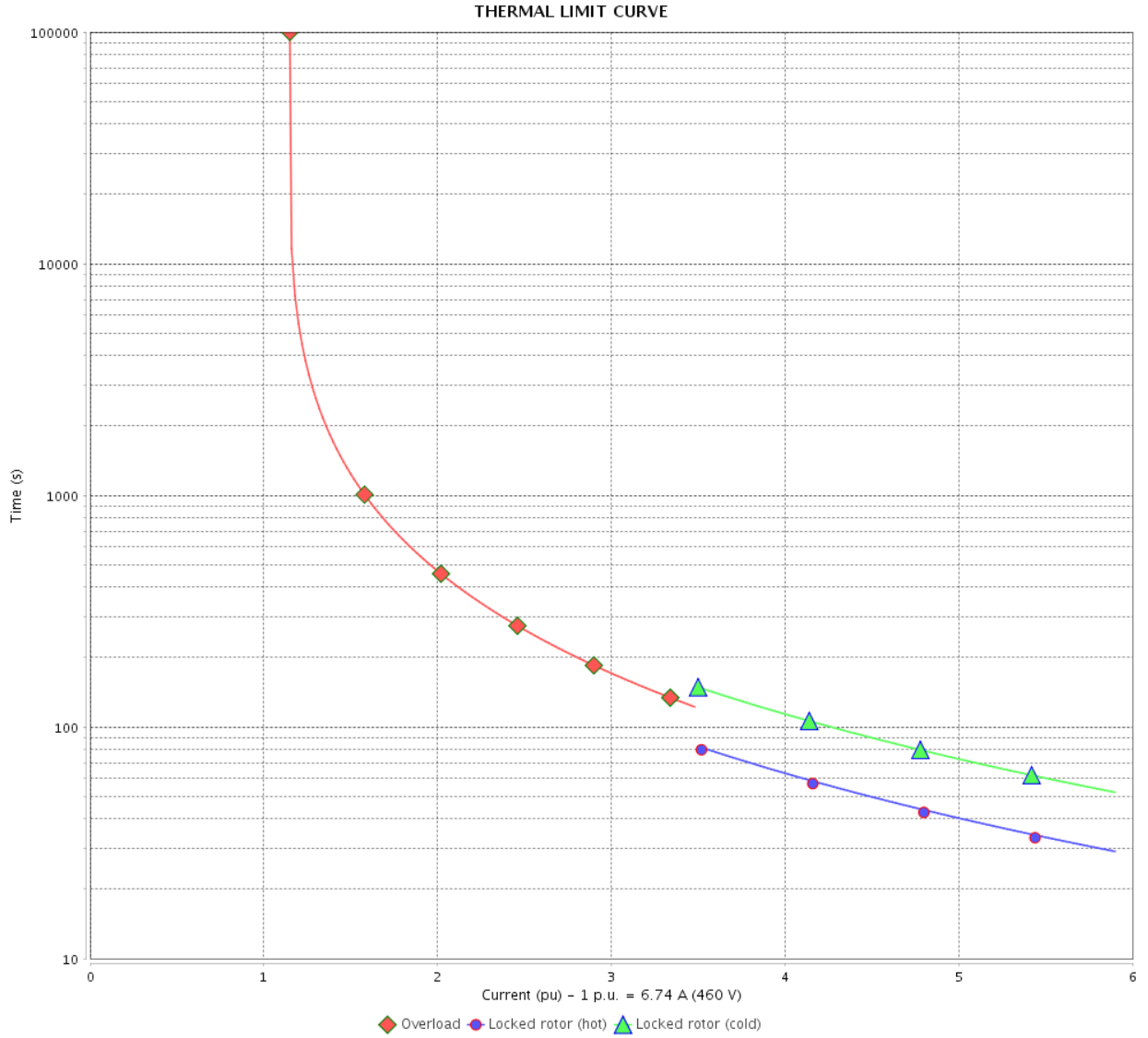


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Three Phase Induction Motor - Squirrel Cage



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



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

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## Three Phase Induction Motor - Squirrel Cage

Customer :

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Performance : 190/380 V 50 Hz 6P

Rated current	: 16.3/8.16 A	Moment of inertia (J)	: 1.08 sq.ft.lb
LRC	: 4.5	Duty cycle	: Cont.(S1)
Rated torque	: 27.4 ft.lb	Insulation class	: F
Locked rotor torque	: 160 %	Service factor	: 1.15
Breakdown torque	: 190 %	Temperature rise	: 80 K
Rated speed	: 960 rpm	Design	: B

Heating constant

Cooling constant

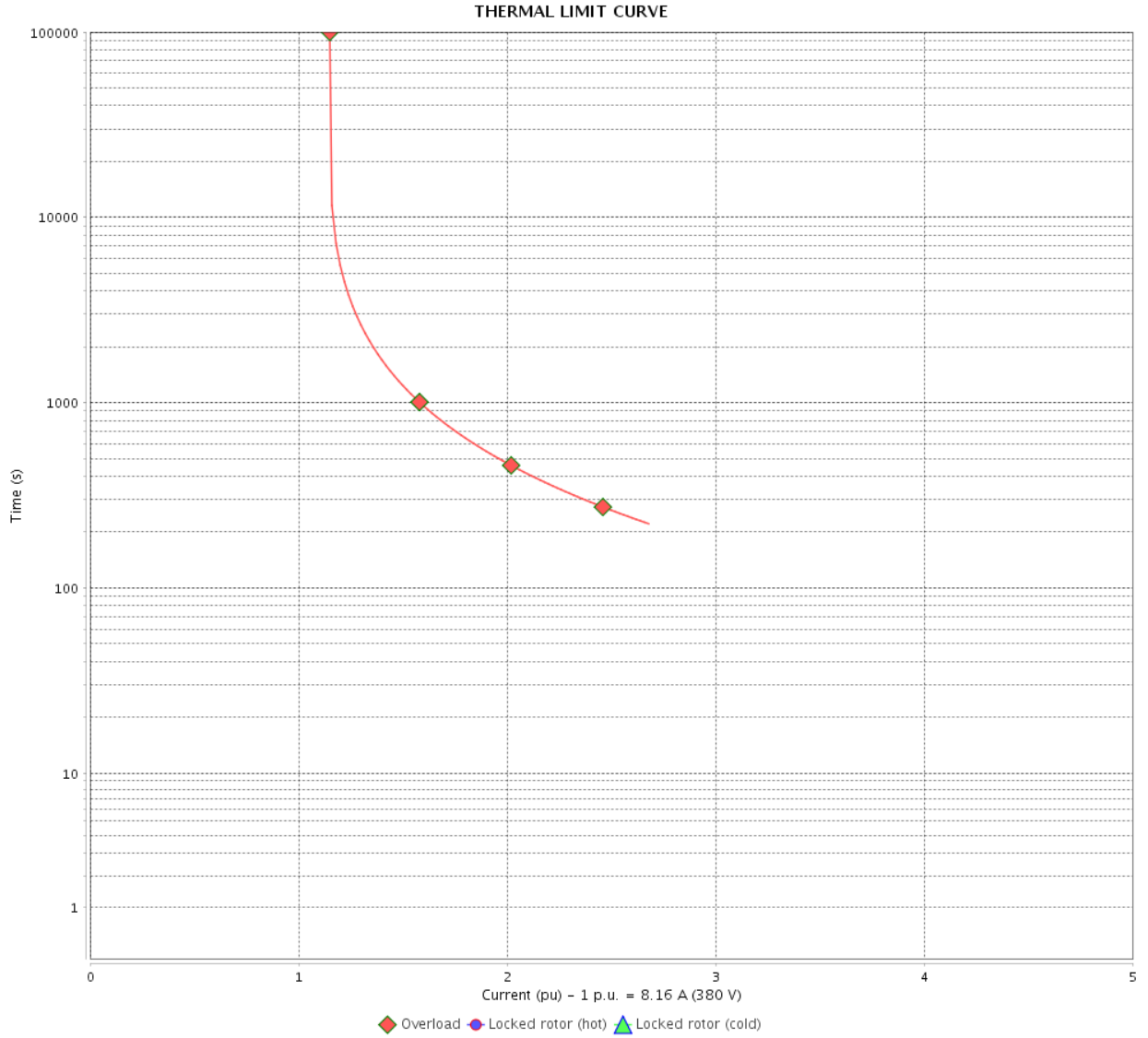
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
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Date	13/04/2022		10 / 16	

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Three Phase Induction Motor - Squirrel Cage



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Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 11 / 16		Revision
Checked by				
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Rated torque	: 27.2 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 210 %	Temperature rise	: 80 K
Rated speed	: 965 rpm	Design	: B

Heating constant

Cooling constant

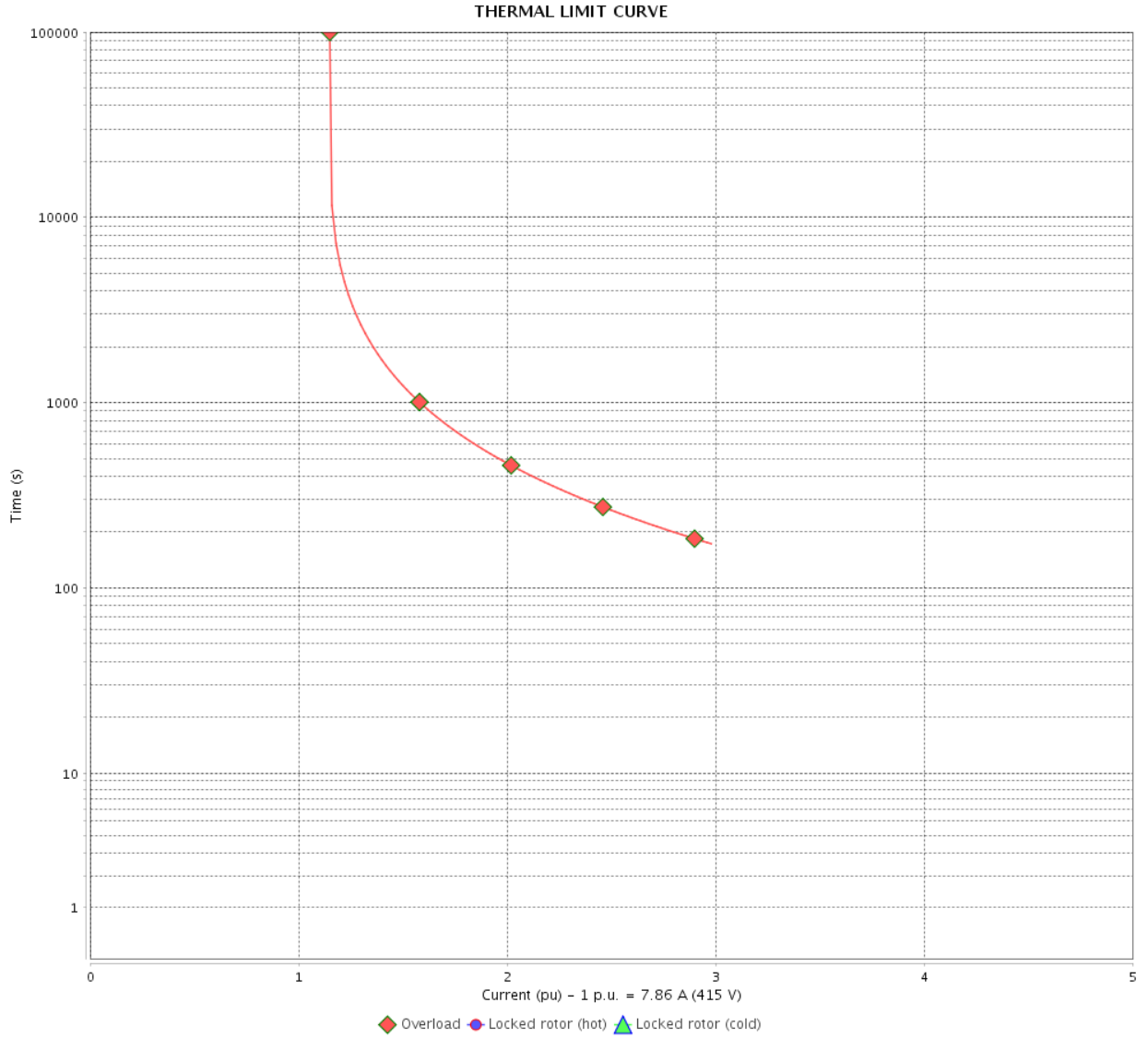
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		12 / 16	

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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		13 / 16		
Date		13/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



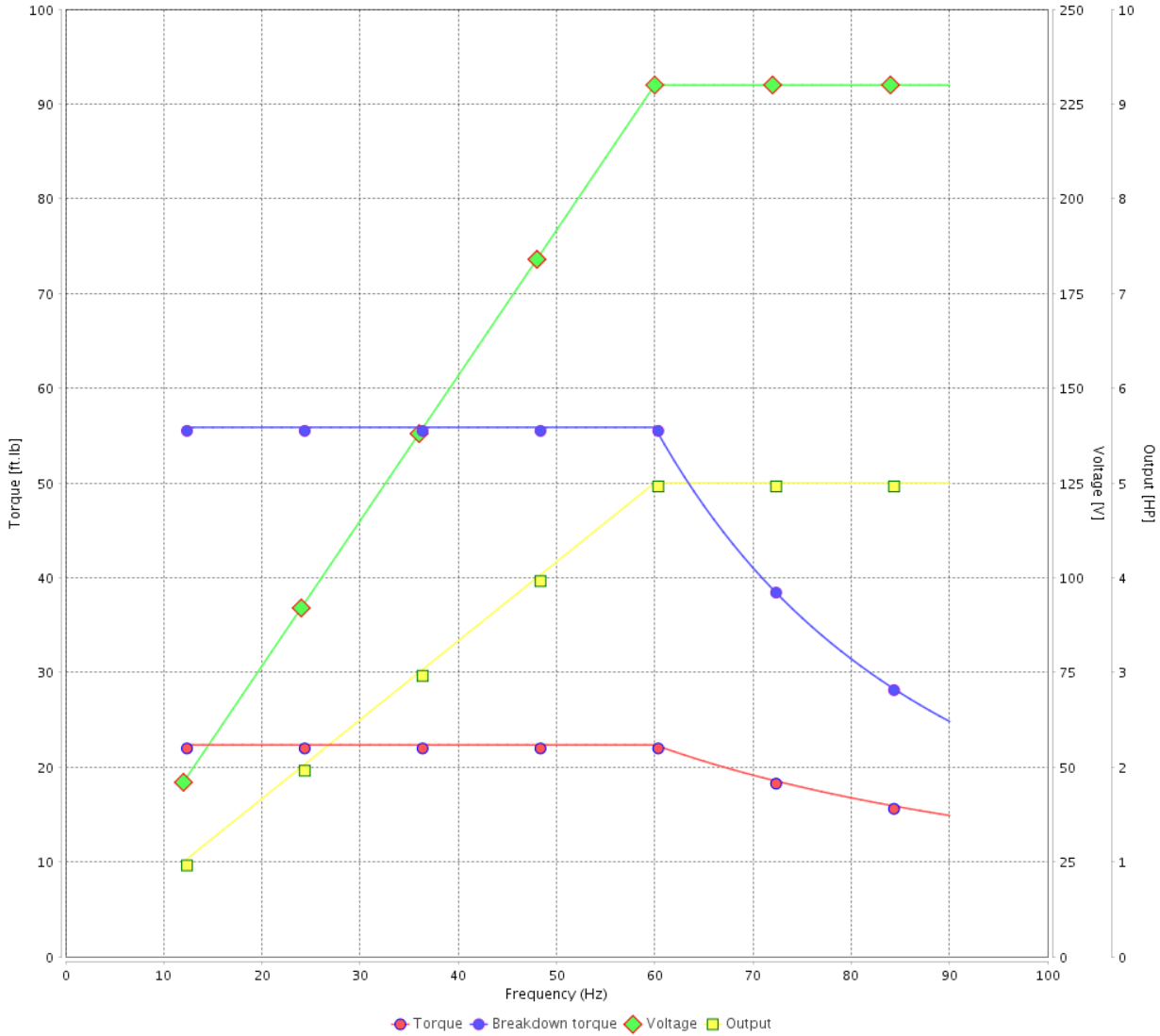
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Product code : 12735312

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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 6P

Rated current : 13.5/6.74 A  
 LRC : 5.9  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 250 %  
 Rated speed : 1175 rpm

Moment of inertia (J) : 1.08 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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Performed by			Page 14 / 16	Revision
Checked by				
Date	13/04/2022			

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

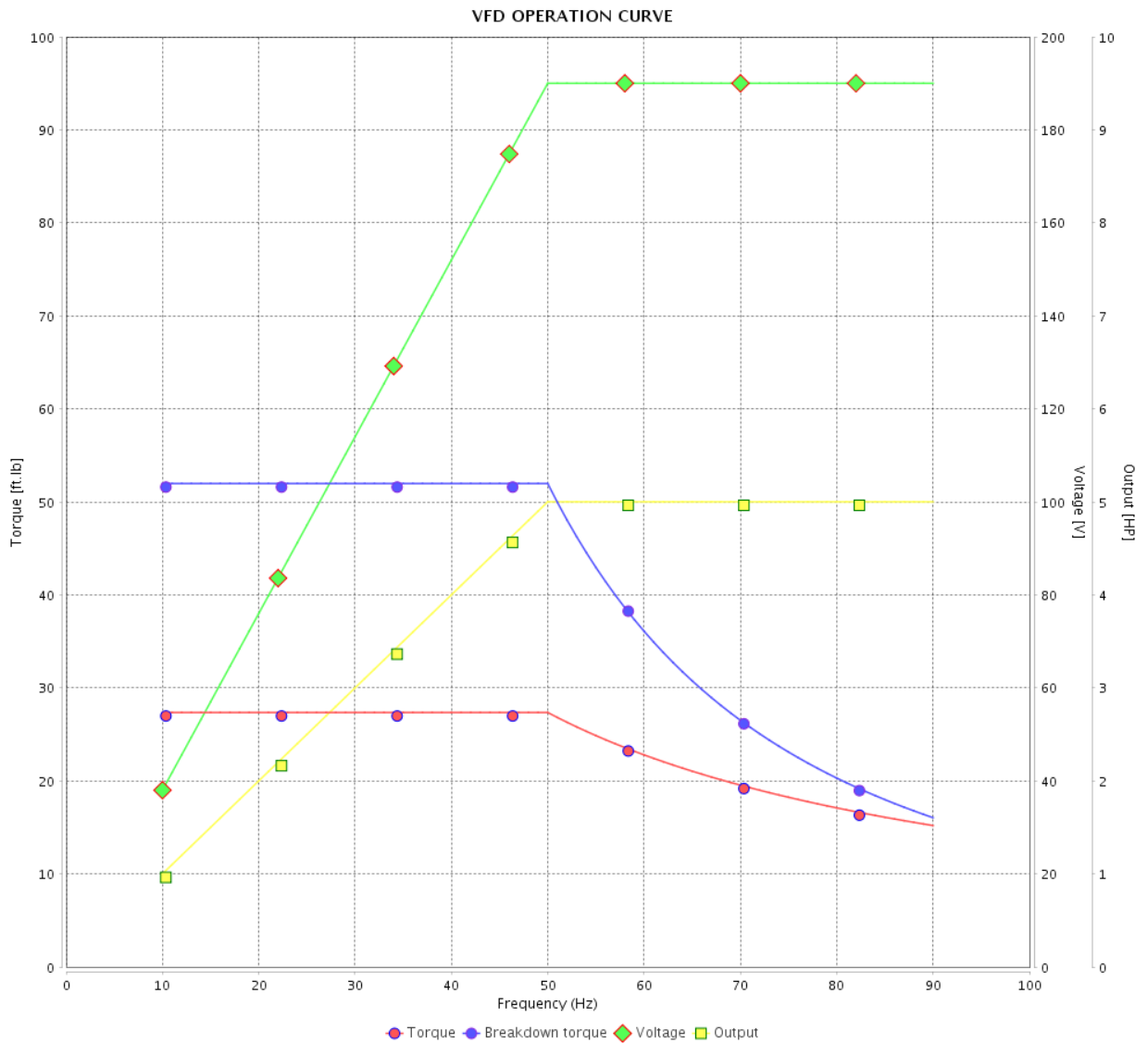


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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		15 / 16		
Date		13/04/2022		

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



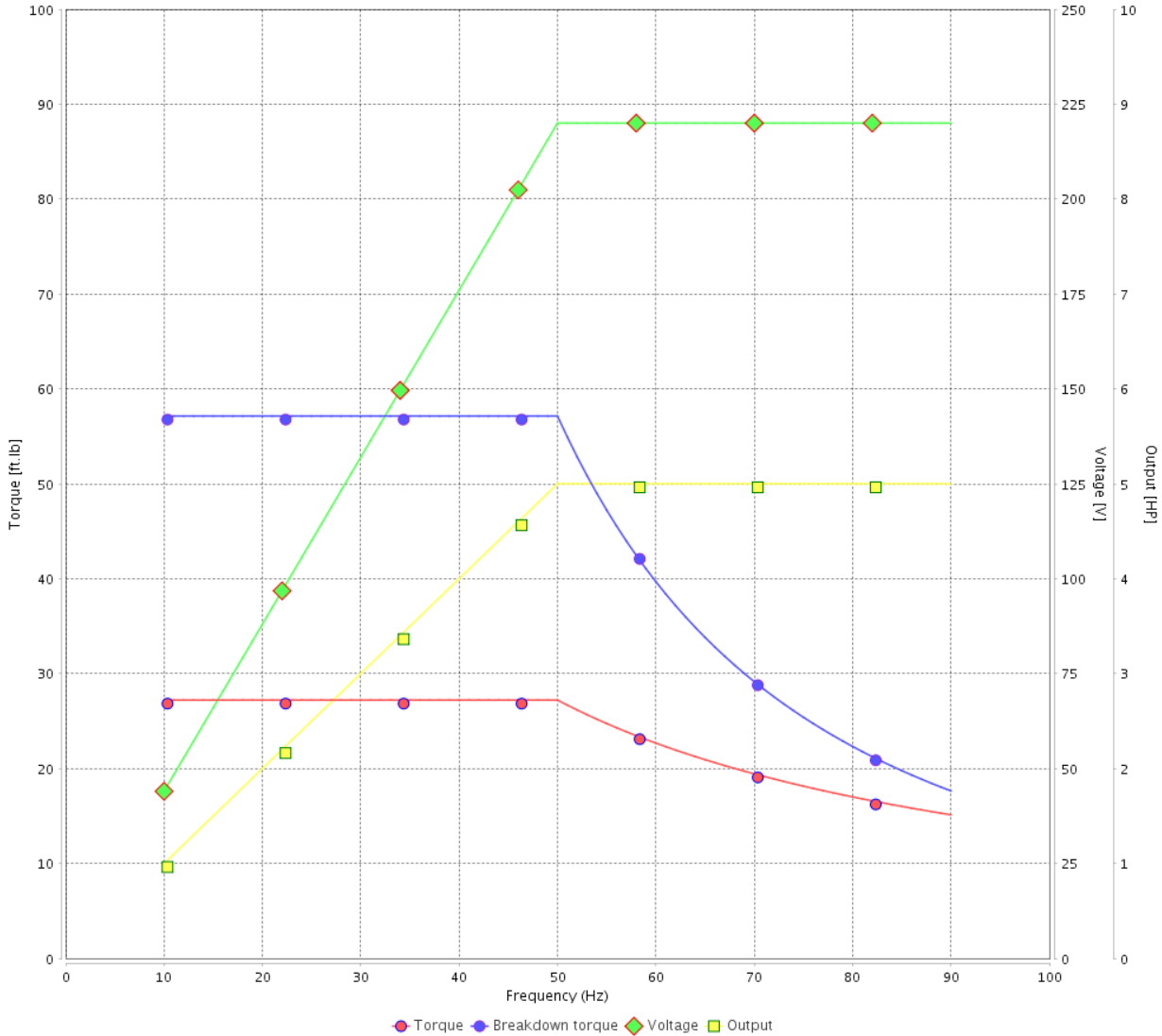
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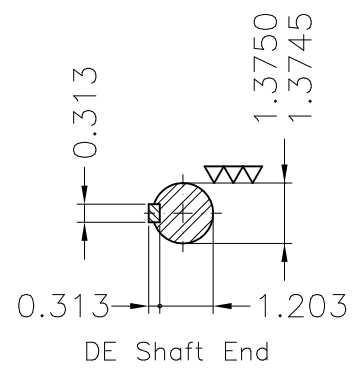
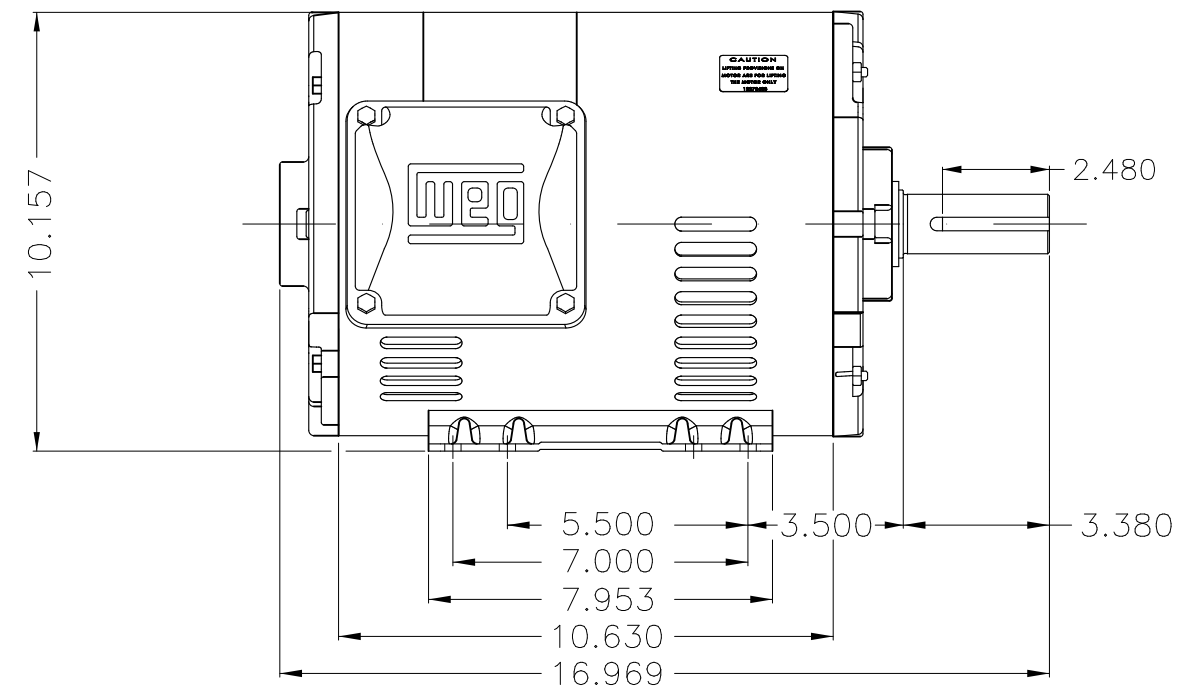
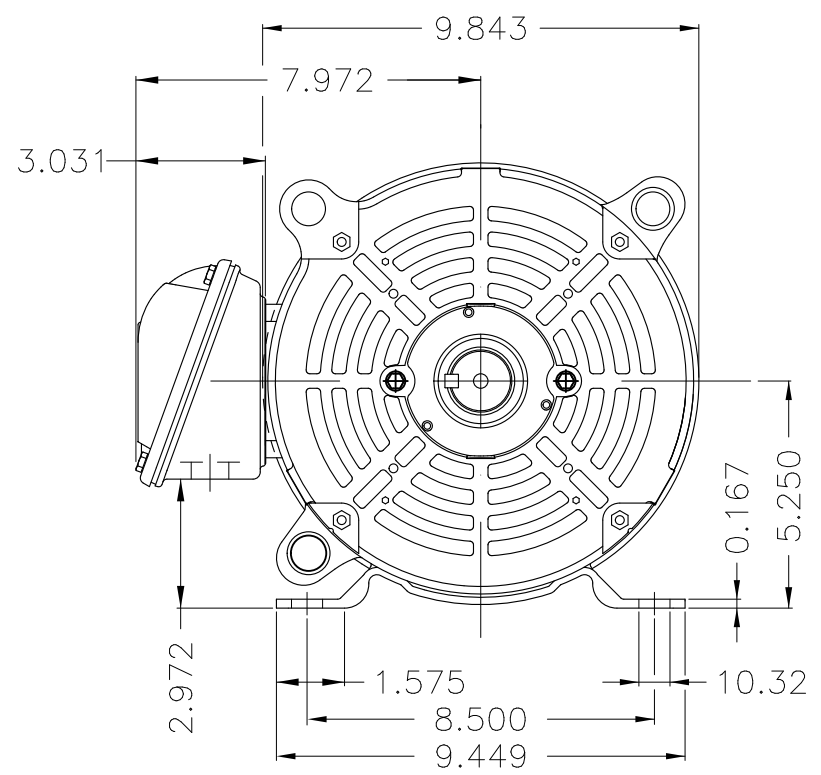
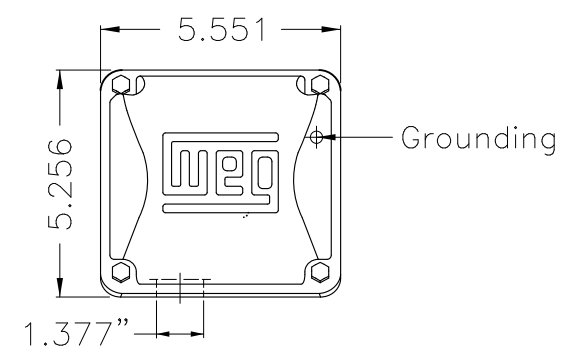
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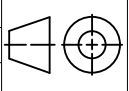


1 2 3 4 5 6

A  
B  
C  
D  
E



Bearing cap  
 Internal AEGIS ground ring on the DE  
 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. FRAME 213/5T IP21 ODP					
CHECKED							
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	SHEET	1 / 1		

5 HP 06 Poles 60 Hz

PREVIEW

WDD



Dimensions in inches XME A3

**NEMA**  
**Premium**

MADE IN MEXICO

MAT: 12735312 CC029A

W01.T00IC0X0N

MODEL 005120T3E215T-SG

21FEB2022 S/N:

PH 3	Hz 60	HP 5.0
FR 213/5T		KW 3.7
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l.		A 13.5/6.74
INS CL F AT 80K		SFA 15.5/7.75
AMB 40°C	DES B	SF 1.15
ENCL ODP	CODE H	PF 0.77
USABLE @ 208V 14.9A		RPM 1175
SF1.00		NEMA NOM. EFF 89.5%

ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.15  
 18.3-14.6/8.18-7.74A 960RPM EFF 85.1% (IE2) IEC 60034-1

DE 6208-ZZ ODE 6206-ZZ MOBIL POLYREX EM

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



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.

