

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

Customer :				
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	12687791	
		Catalog # :	00718OT3E213JM-SG	
Frame	: 213/5JM	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>	: 127 lb	
Design	: B	Moment of inertia (J)	: 1.03 sq.ft.lb	
Output [HP]	7.5	7.5	7.5	
Poles	4	4	4	
Frequency [Hz]	60	50	50	
Rated voltage [V]	230/460	190/380	220/415	
Rated current [A]	18.5/9.25	22.2/11.1	20.0/10.6	
L. R. Amperes [A]	133/66.6	129/64.4	130/68.9	
LRC [A]	7.2x(Code H)	5.8x(Code G)	6.5x(Code H)	
No load current [A]	8.79/4.39	8.64/4.32	8.88/4.71	
Rated speed [RPM]	1770	1455	1460	
Slip [%]	1.67	3.00	2.67	
Rated torque [ft.lb]	22.3	27.1	27.0	
Locked rotor torque [%]	240	170	190	
Breakdown torque [%]	320	229	250	
Service factor	1.15	1.15	1.15	
Temperature rise	80 K	80 K	80 K	
Locked rotor time	23s (cold) 13s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)	
Noise level <sup>2</sup>	59.0 dB(A)	56.0 dB(A)	56.0 dB(A)	
Efficiency (%)	25%	88.6	89.6	
	50%	89.5	88.9	
	75%	90.2	88.5	
	100%	91.0	87.4	
Power Factor	25%	0.39	0.42	
	50%	0.65	0.69	
	75%	0.77	0.80	
	100%	0.82	0.86	
Bearing type	: <u>Drive end</u> 6209 ZZ <u>Non drive end</u> 6206 ZZ	Foundation loads		
Sealing	: Without Without Bearing Seal Bearing Seal	Max. traction	: 317 lb	
		Max. compression	: 444 lb	
Lubrication interval	: - -			
Lubricant amount	: - -			
Lubricant type	: Mobil Polyrex EM			
Notes USABLE @208V 20.5A SF 1.00 SFA 20.5A				
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	Revision
Date	13/04/2022		1 / 16	

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



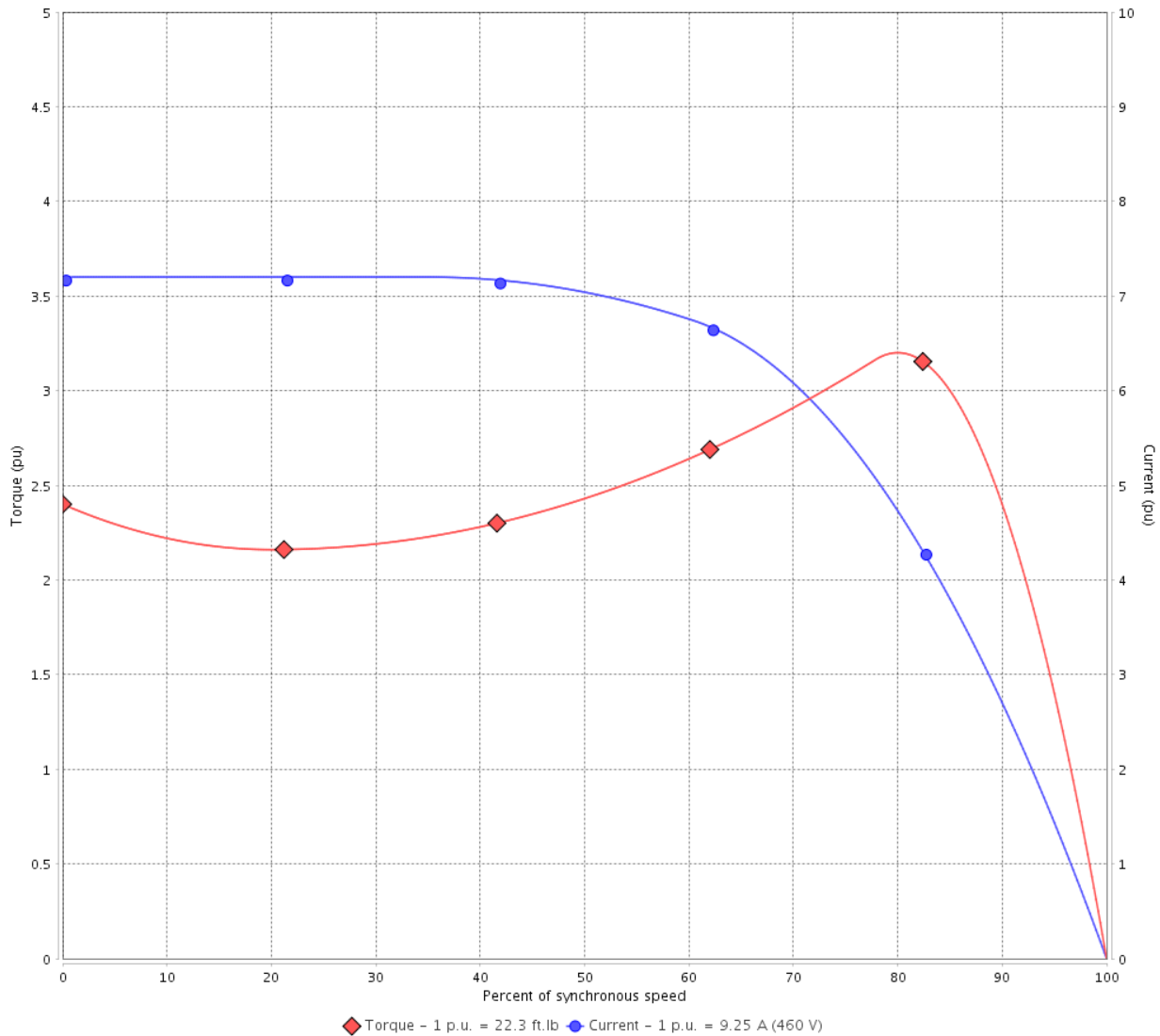
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12687791

Catalog # : 00718OT3E213JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current	: 18.5/9.25 A	Moment of inertia (J)	: 1.03 sq.ft.lb
LRC	: 7.2	Duty cycle	: Cont.(S1)
Rated torque	: 22.3 ft.lb	Insulation class	: F
Locked rotor torque	: 240 %	Service factor	: 1.15
Breakdown torque	: 320 %	Temperature rise	: 80 K
Rated speed	: 1770 rpm	Design	: B

Locked rotor time : 23s (cold) 13s (hot)

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

# TORQUE AND CURRENT VS SPEED CURVE



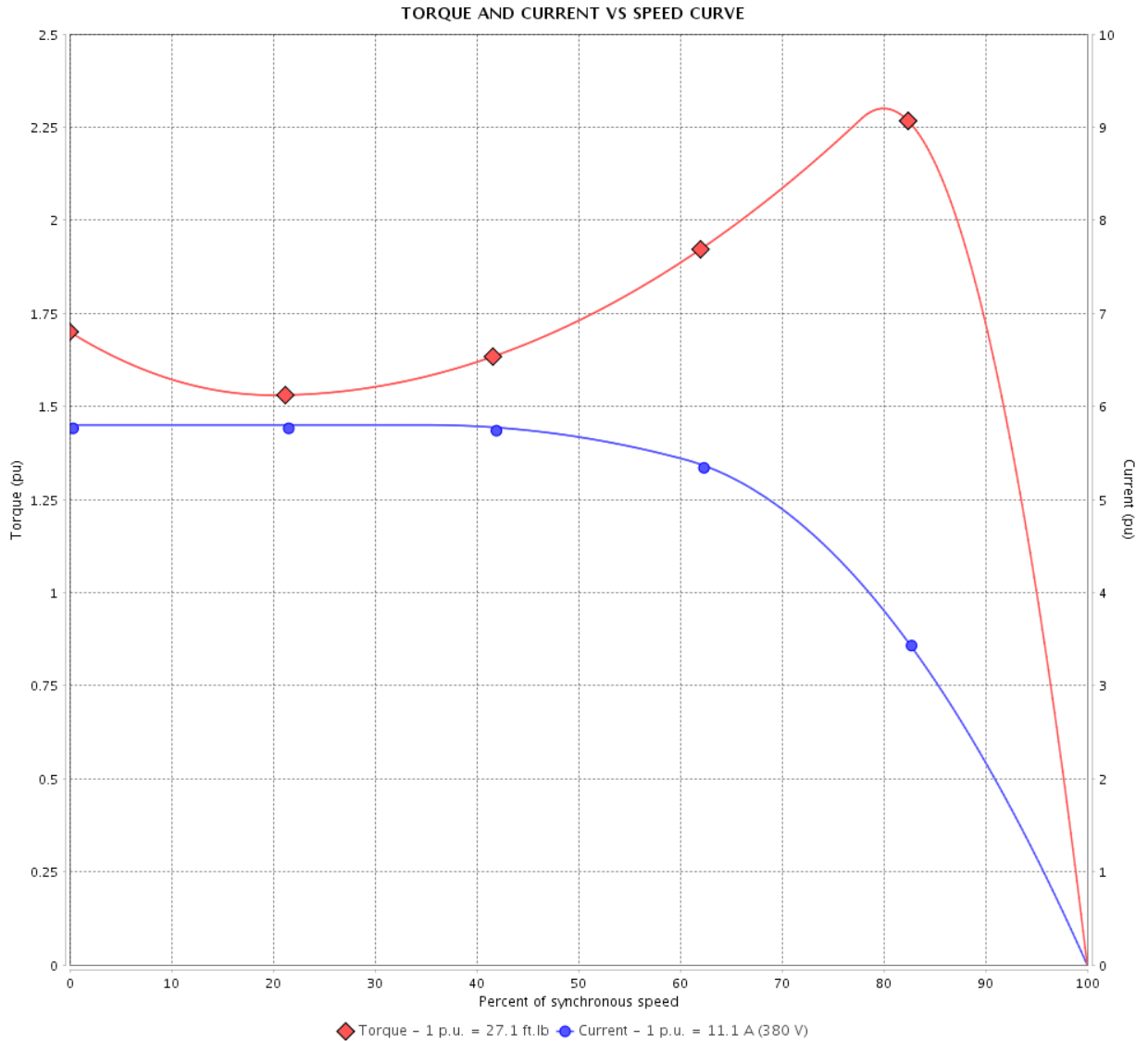
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12687791

Catalog # : 00718OT3E213JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 22.2/11.1 A  
 LRC : 5.8  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 1.03 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



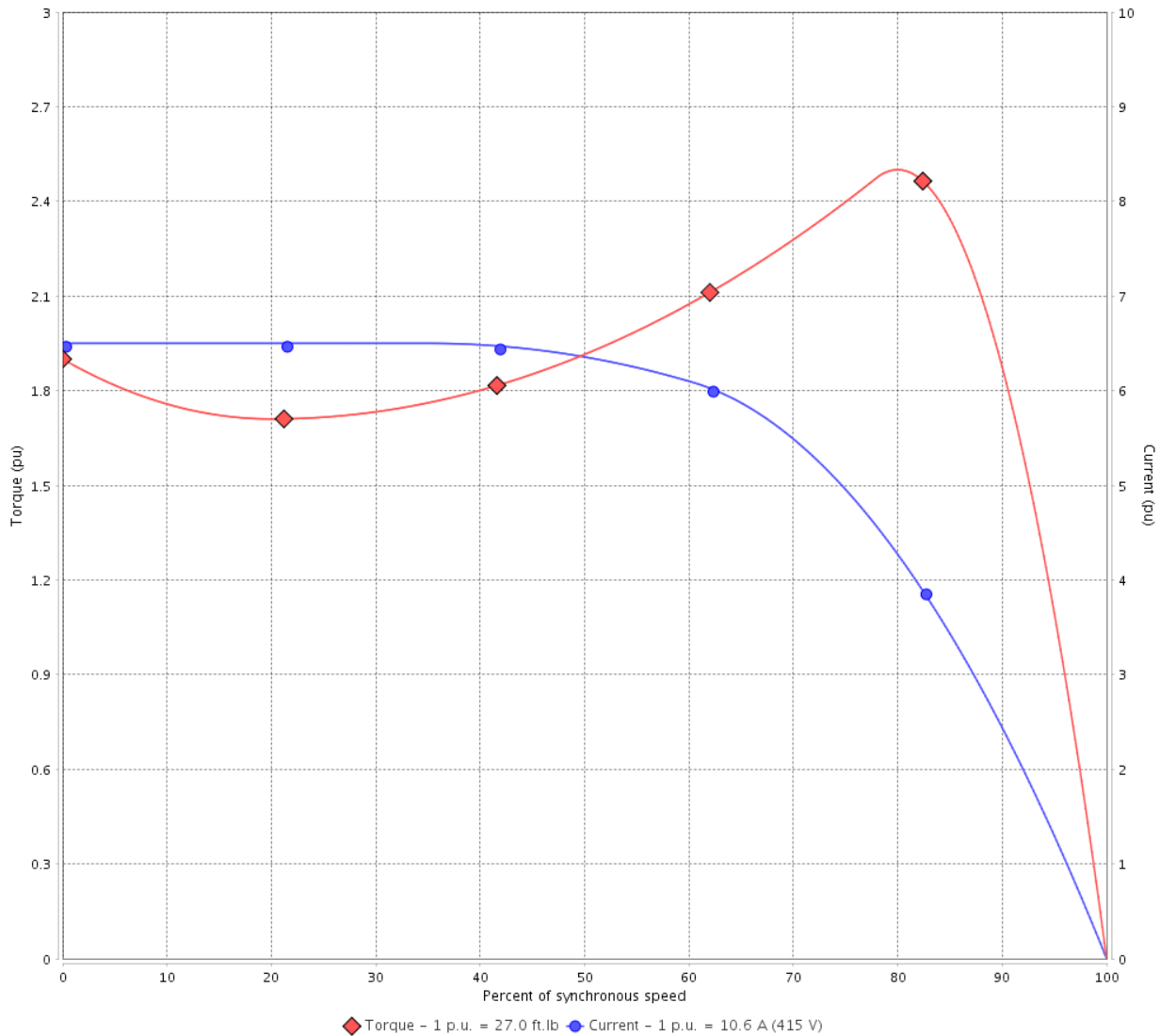
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12687791

Catalog # : 007180T3E213JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 20.0/10.6 A	Moment of inertia (J)	: 1.03 sq.ft.lb
LRC	: 6.5	Duty cycle	: Cont.(S1)
Rated torque	: 27.0 ft.lb	Insulation class	: F
Locked rotor torque	: 190 %	Service factor	: 1.15
Breakdown torque	: 250 %	Temperature rise	: 80 K
Rated speed	: 1460 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

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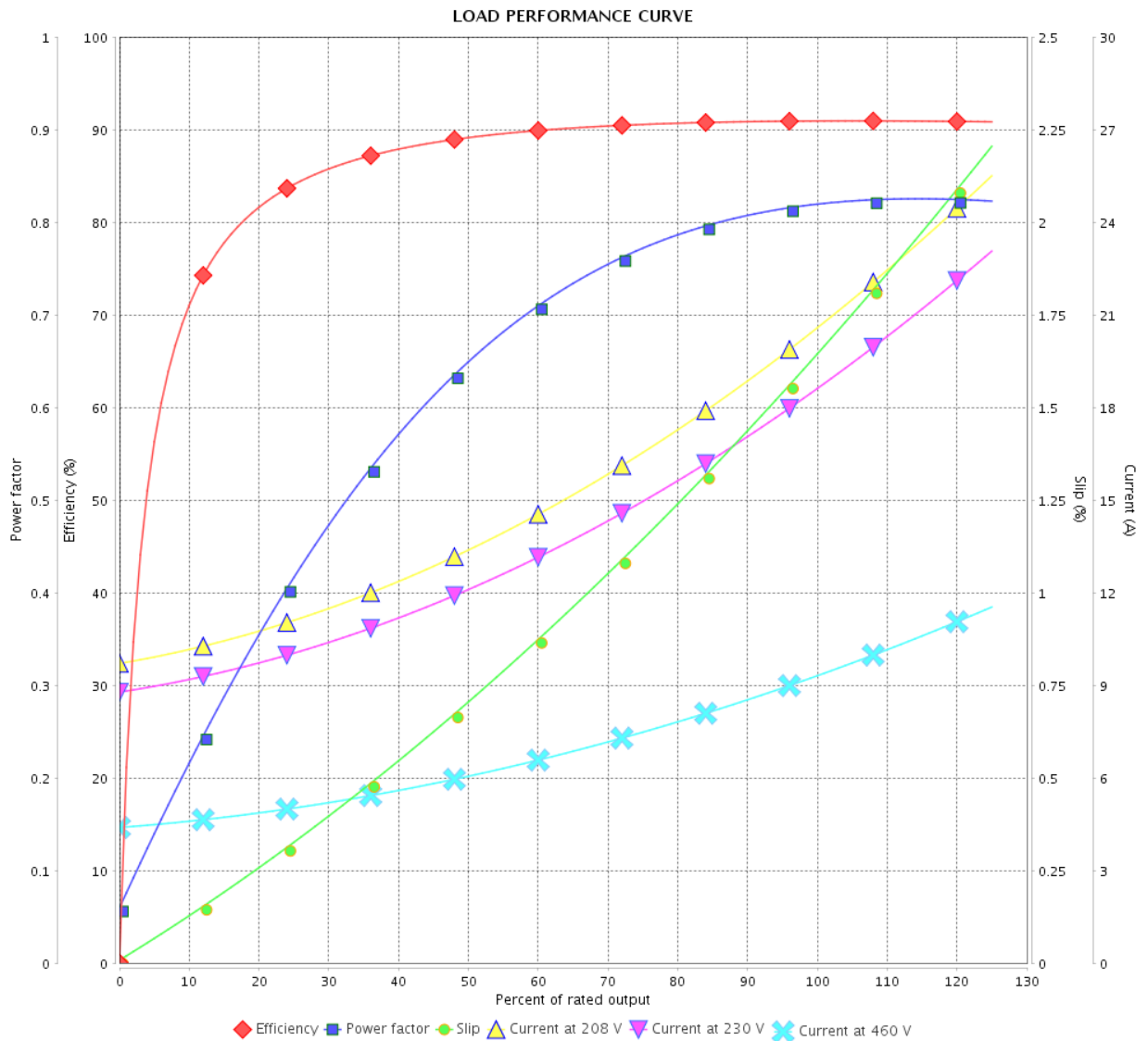


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Product code : 12687791

Catalog # : 00718OT3E213JM-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 18.5/9.25 A  
 LRC : 7.2  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 320 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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



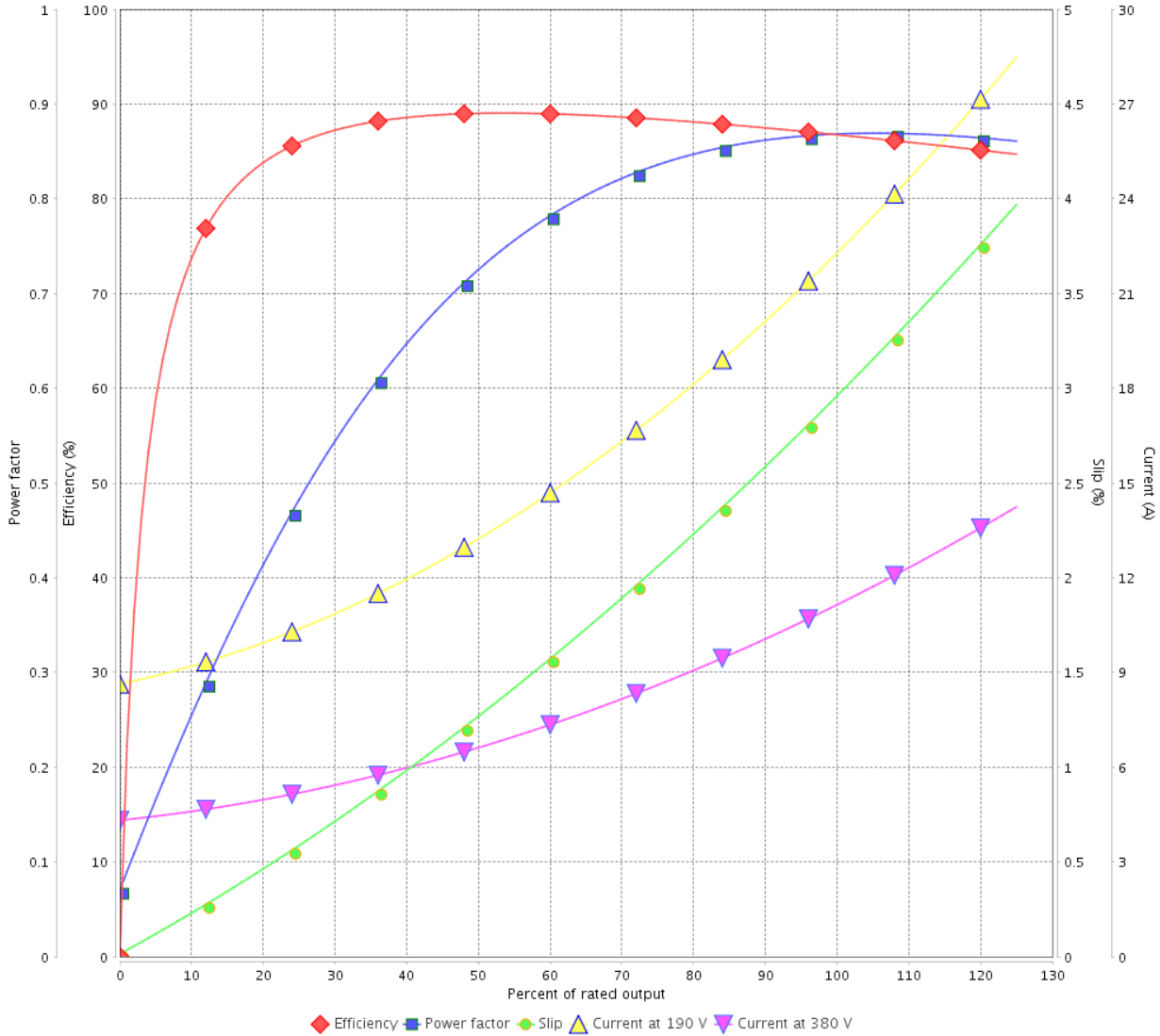
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Efficiency Three-Phase

Product code : 12687791

Catalog # : 007180T3E213JM-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 22.2/11.1 A  
 LRC : 5.8  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 1.03 sq.ft.lb  
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Performed by			Page	Revision
Checked by				
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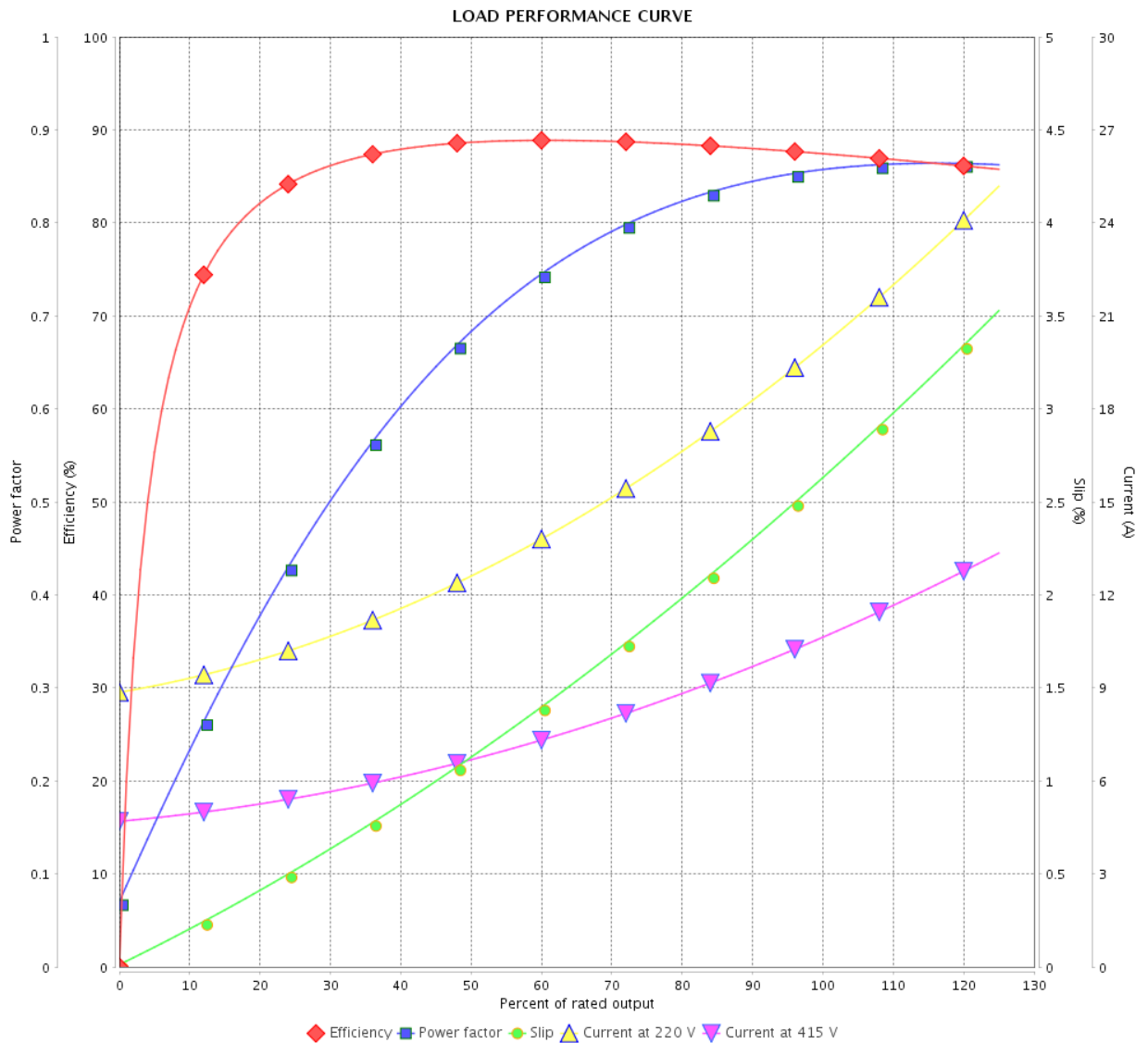


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Catalog # : 00718OT3E213JM-SG



Performance : 220/415 V 50 Hz 4P

Rated current : 20.0/10.6 A  
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 Breakdown torque : 250 %  
 Rated speed : 1460 rpm

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 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



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Performance : 230/460 V 60 Hz 4P

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LRC : 7.2  
Rated torque : 22.3 ft.lb  
Locked rotor torque : 240 %  
Breakdown torque : 320 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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			Page	Revision
Date	13/04/2022		8 / 16	

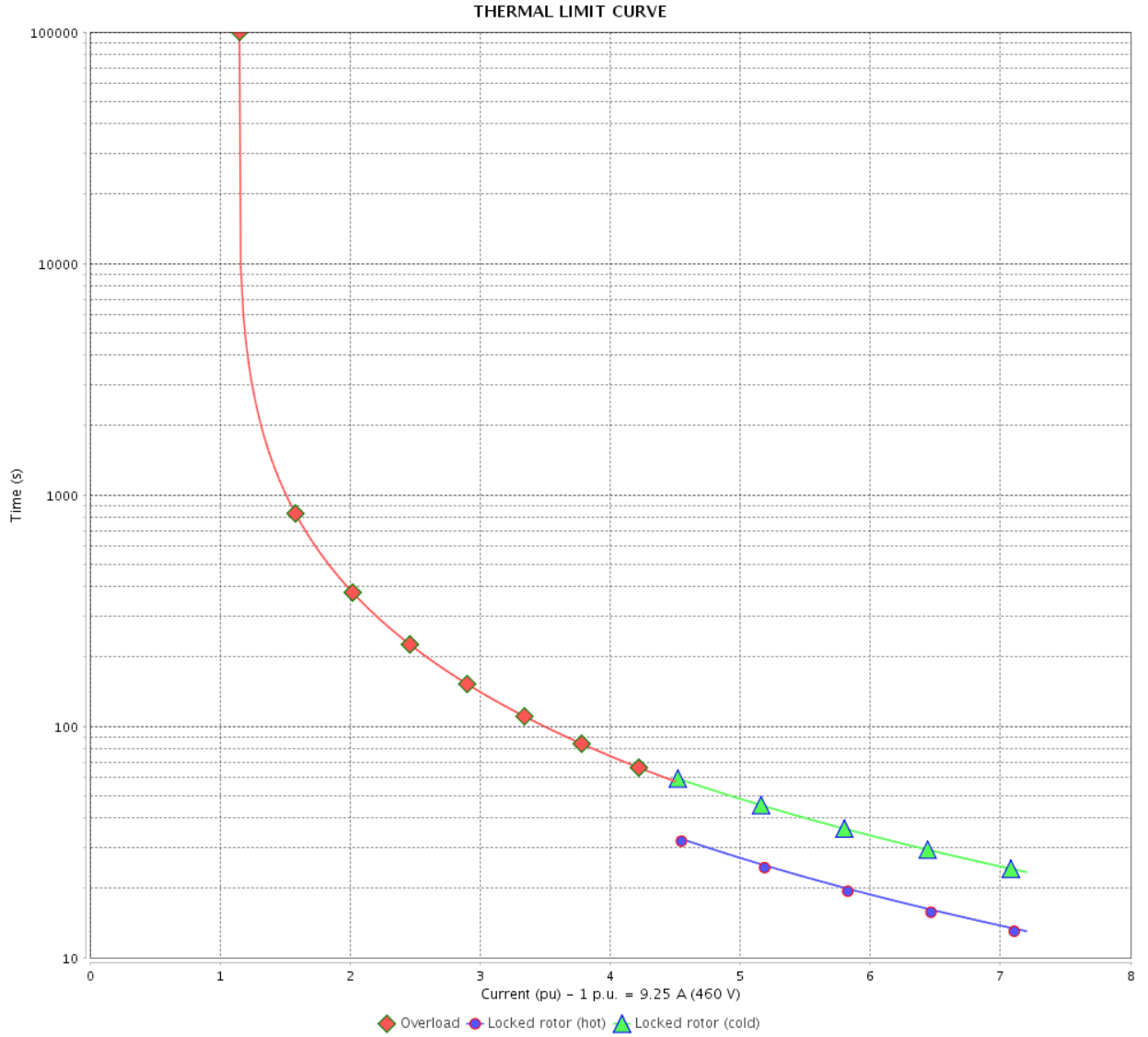


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

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Cooling constant

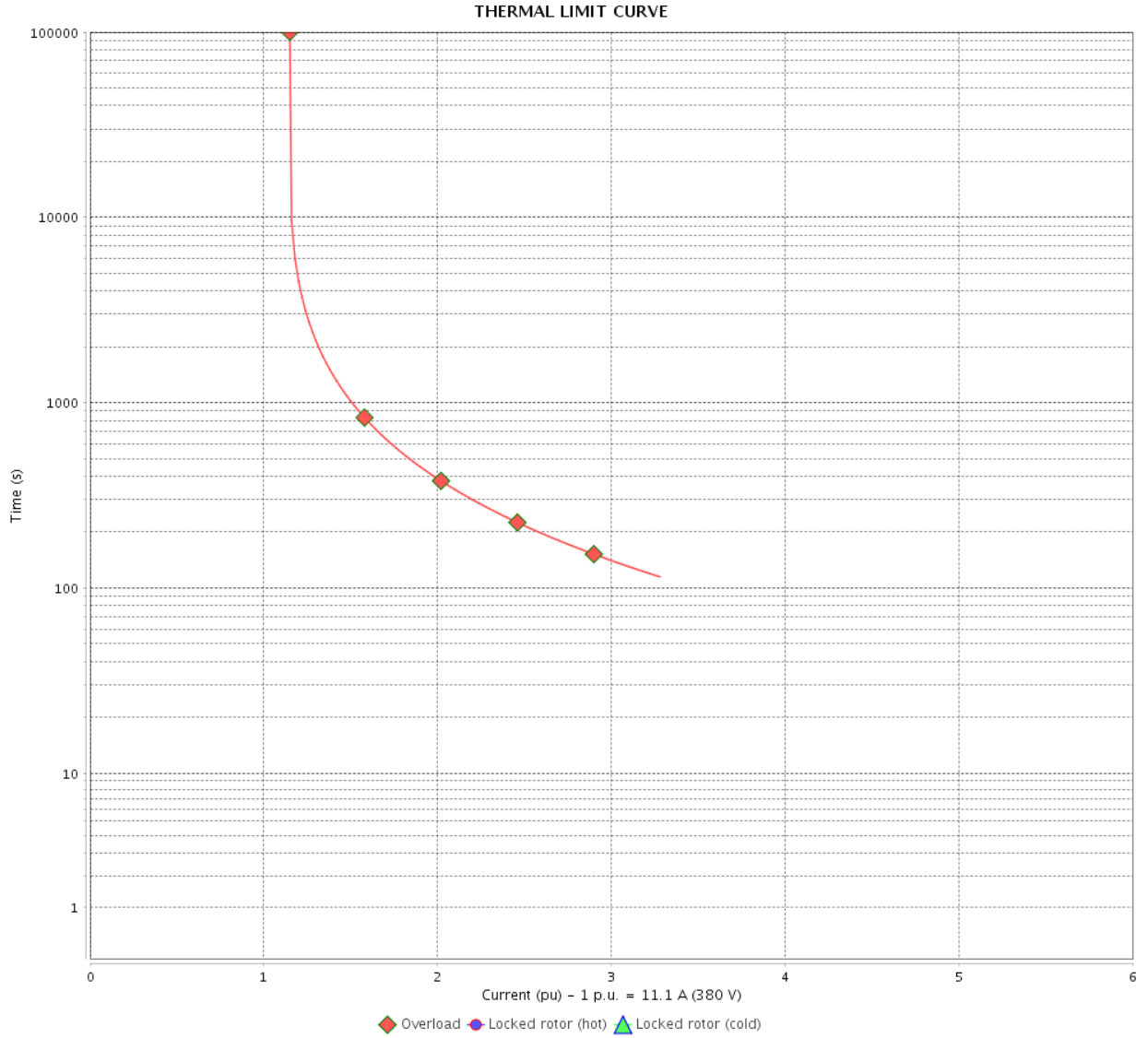
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 16	

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

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Design : B

Heating constant

Cooling constant

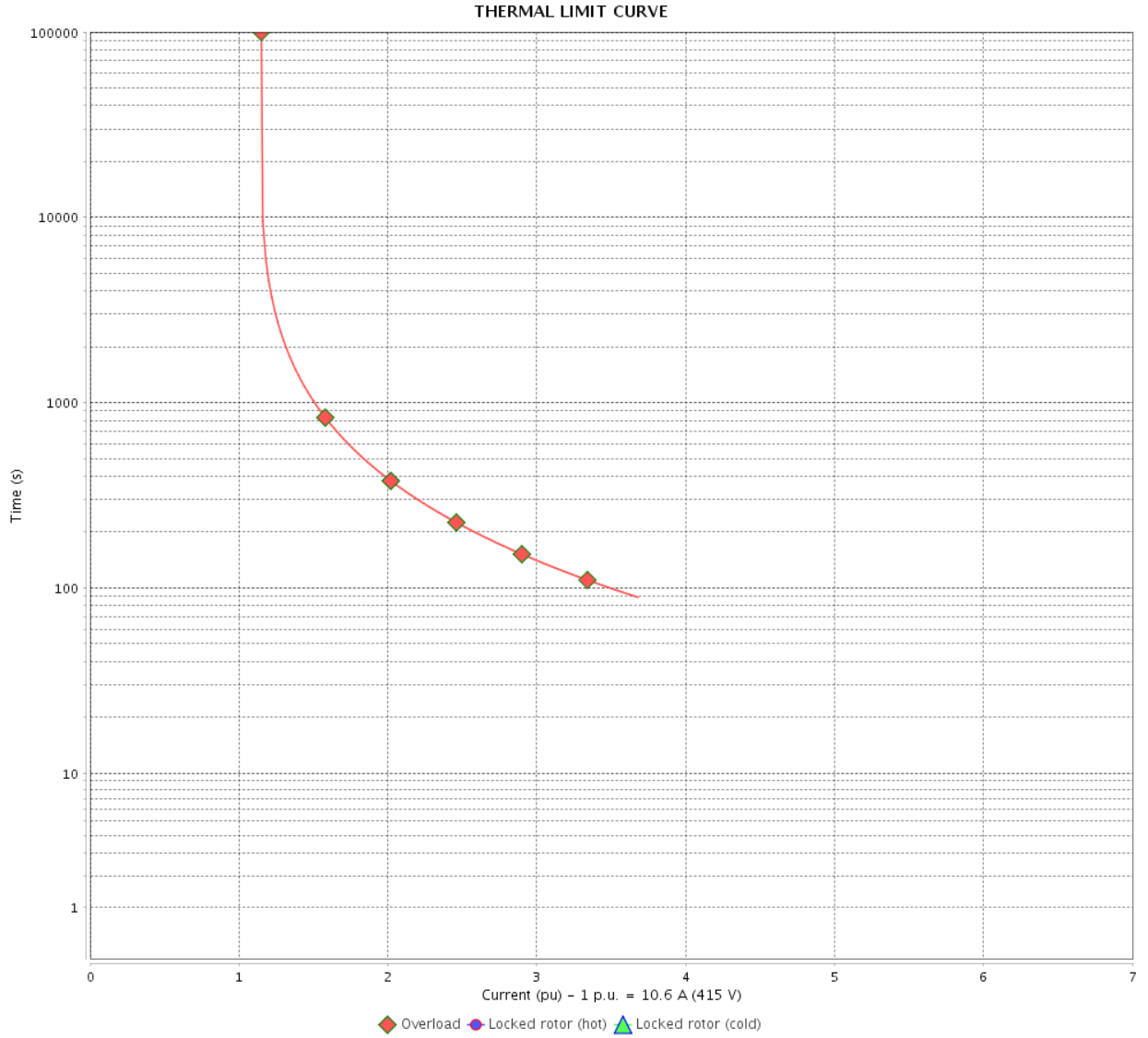
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		12 / 16	

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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



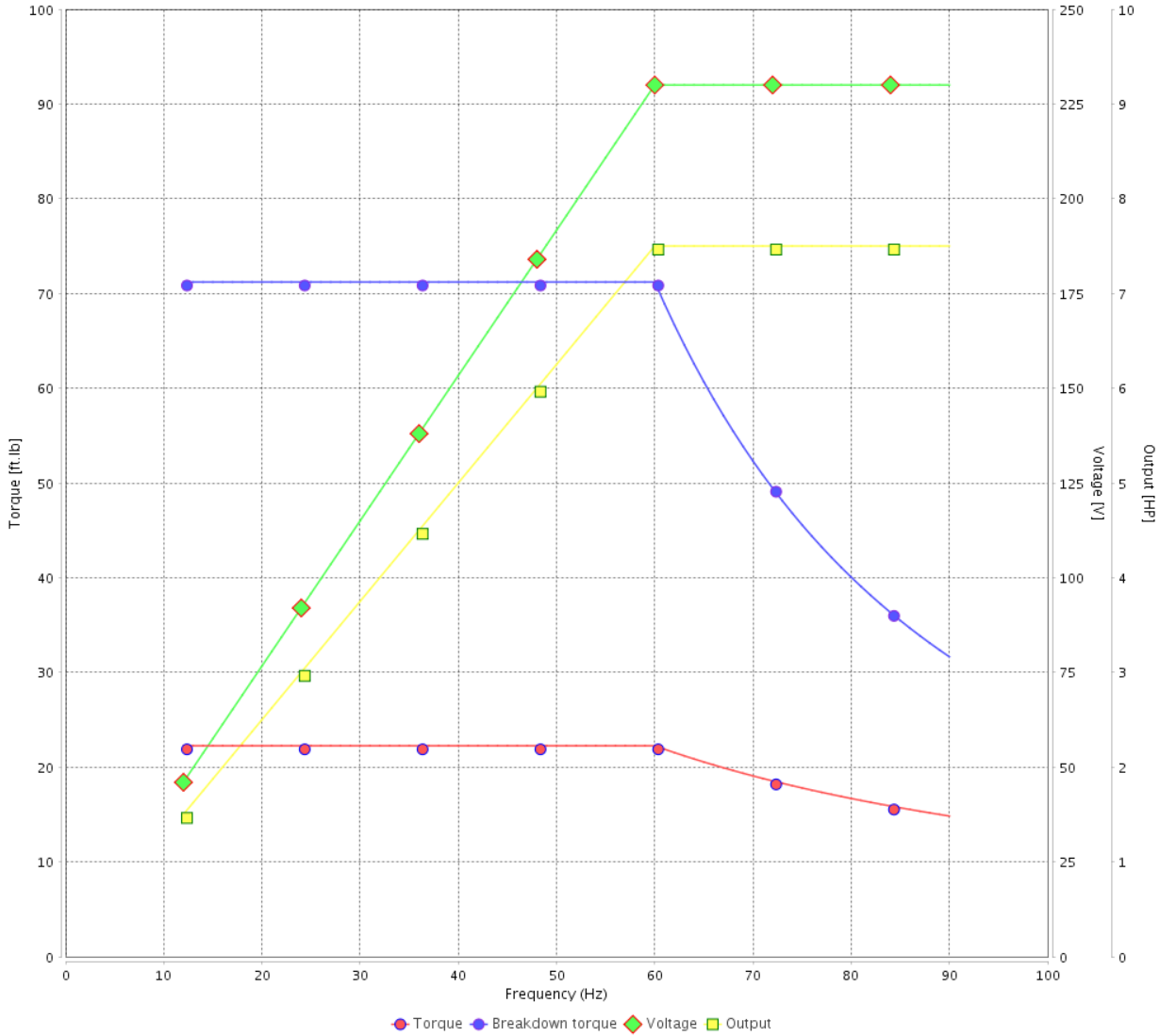
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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 18.5/9.25 A  
 LRC : 7.2  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 240 %  
 Breakdown torque : 320 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 1.03 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 14 / 16	Revision
Checked by				
Date	13/04/2022			

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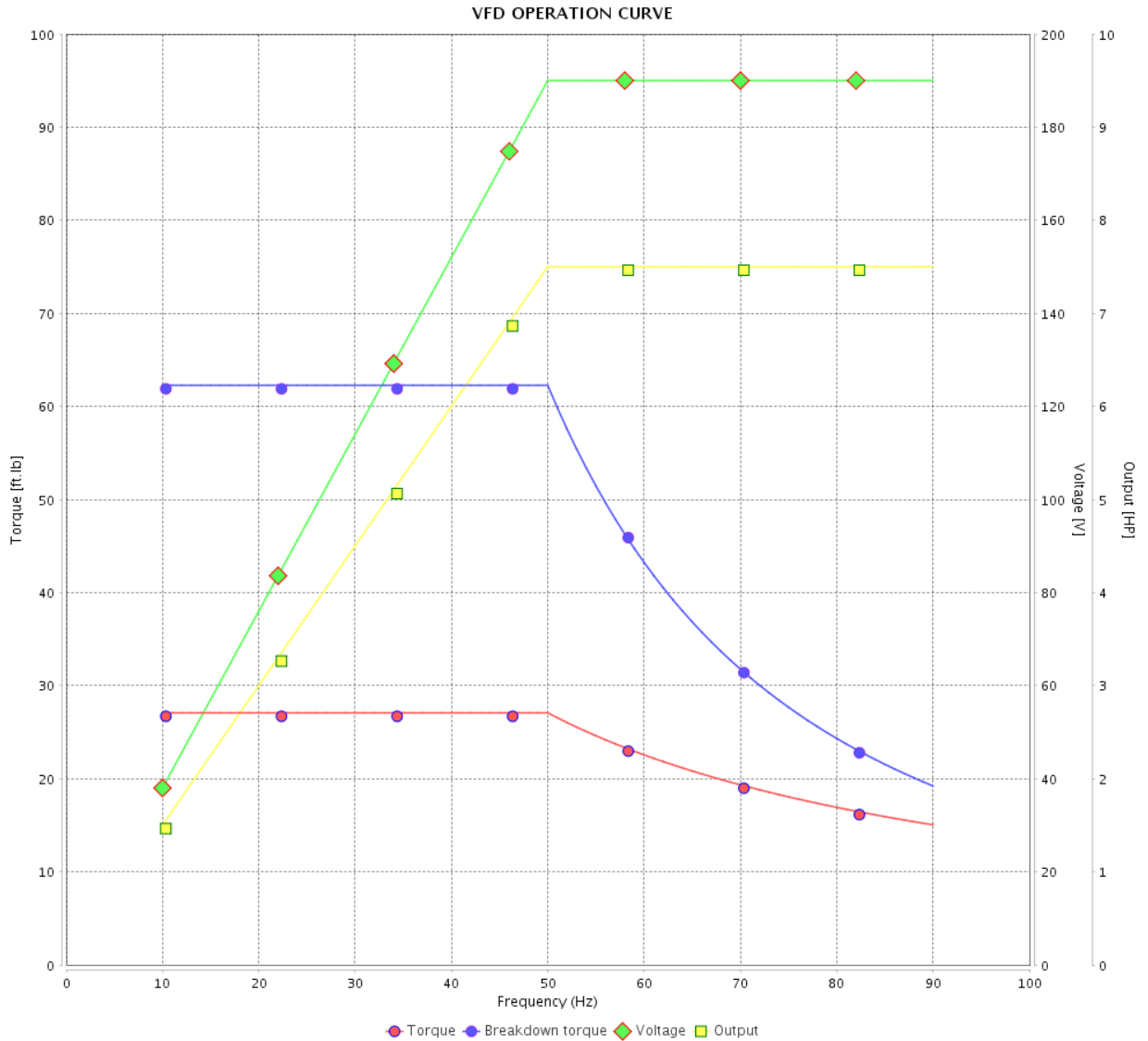


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 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

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



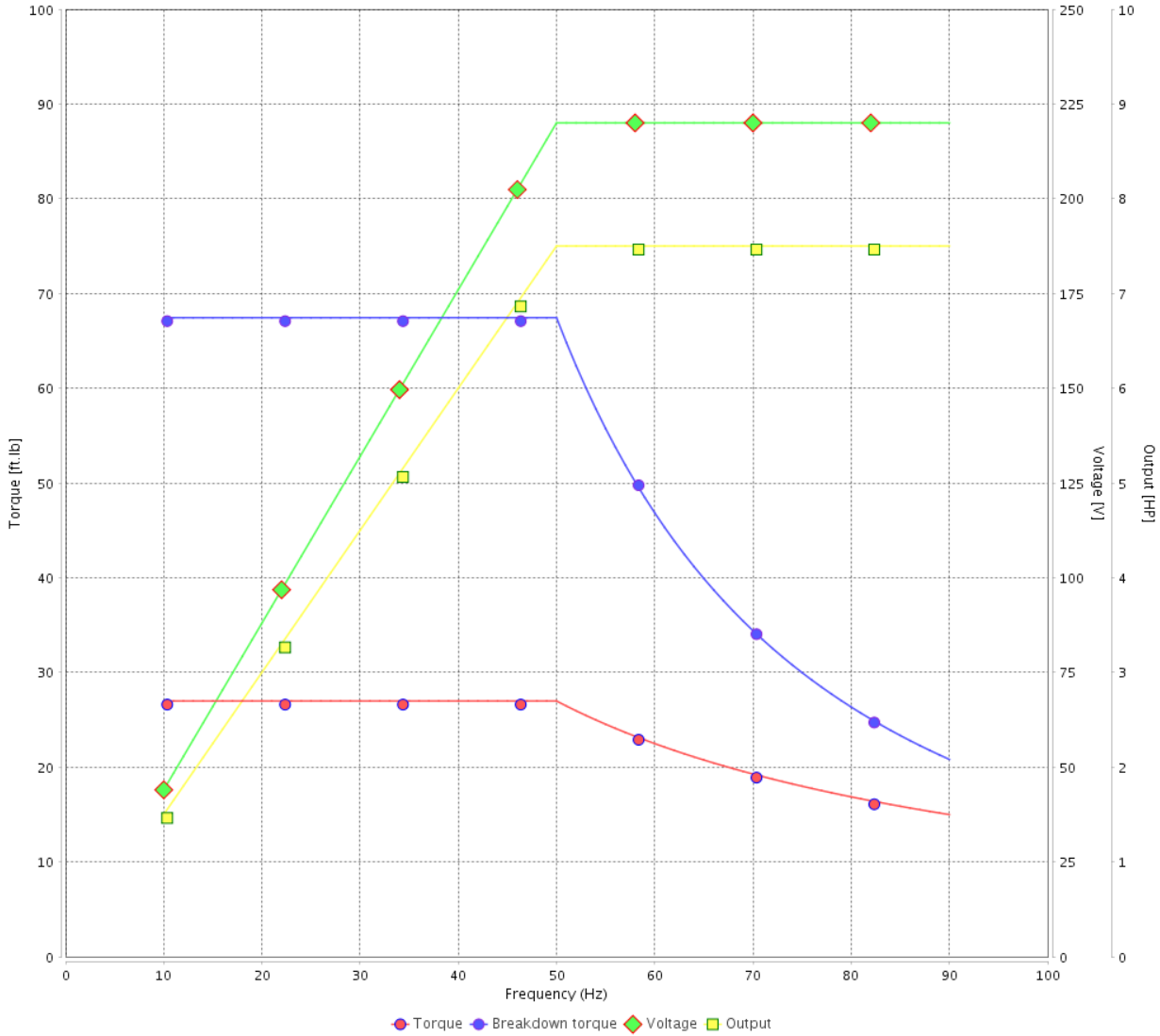
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Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 16 / 16	Revision
Checked by				
Date	13/04/2022			



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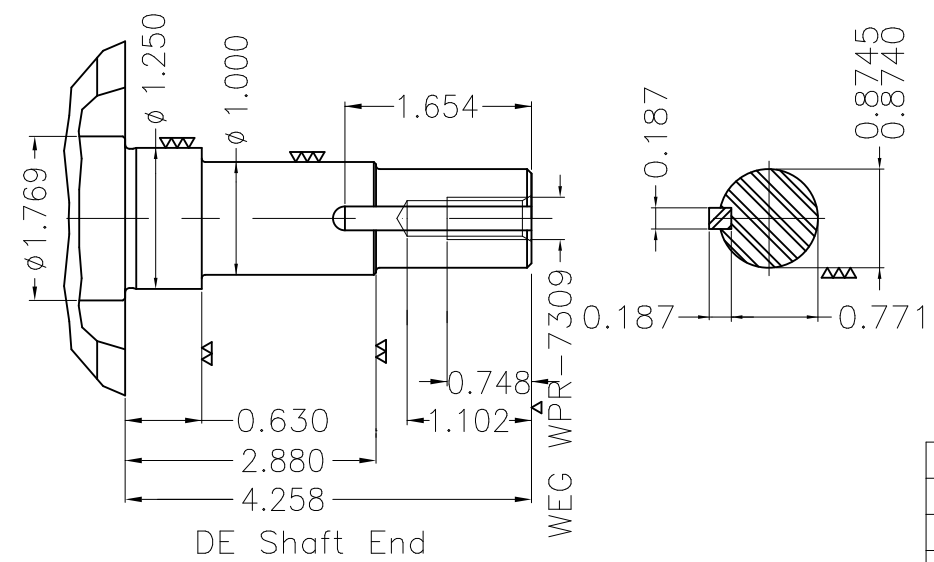
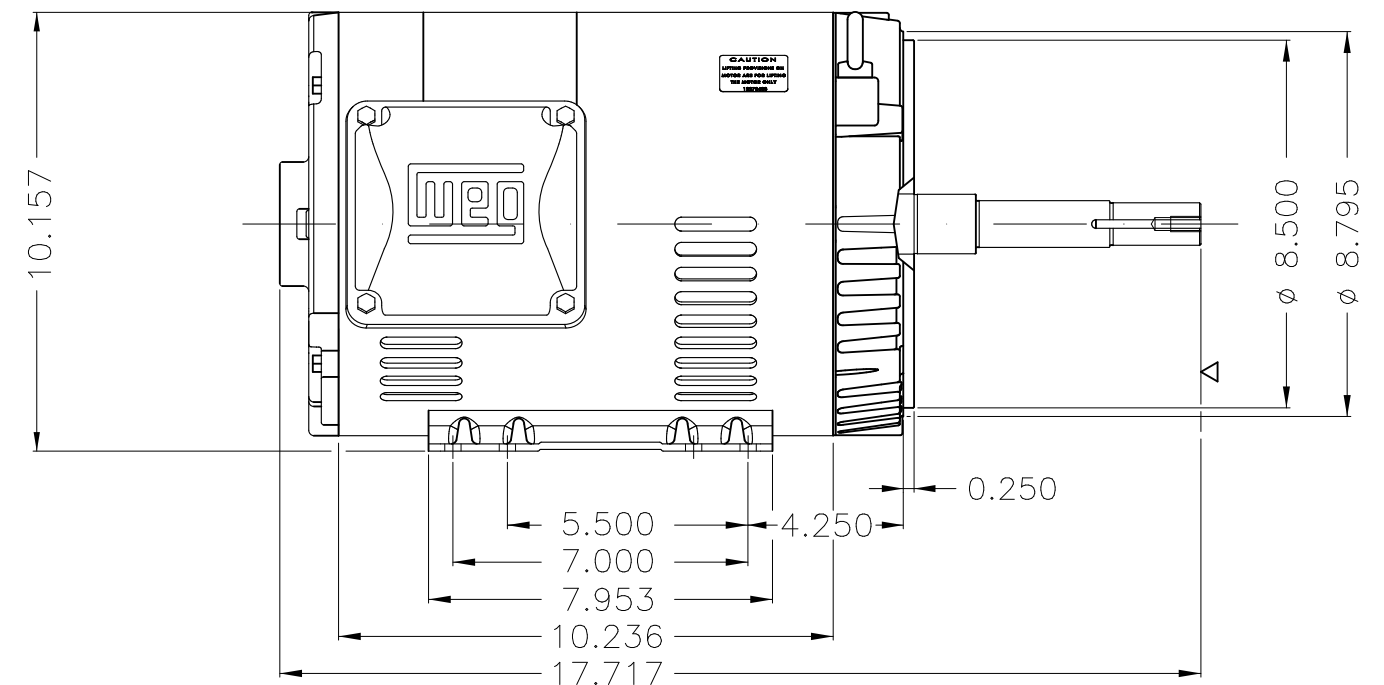
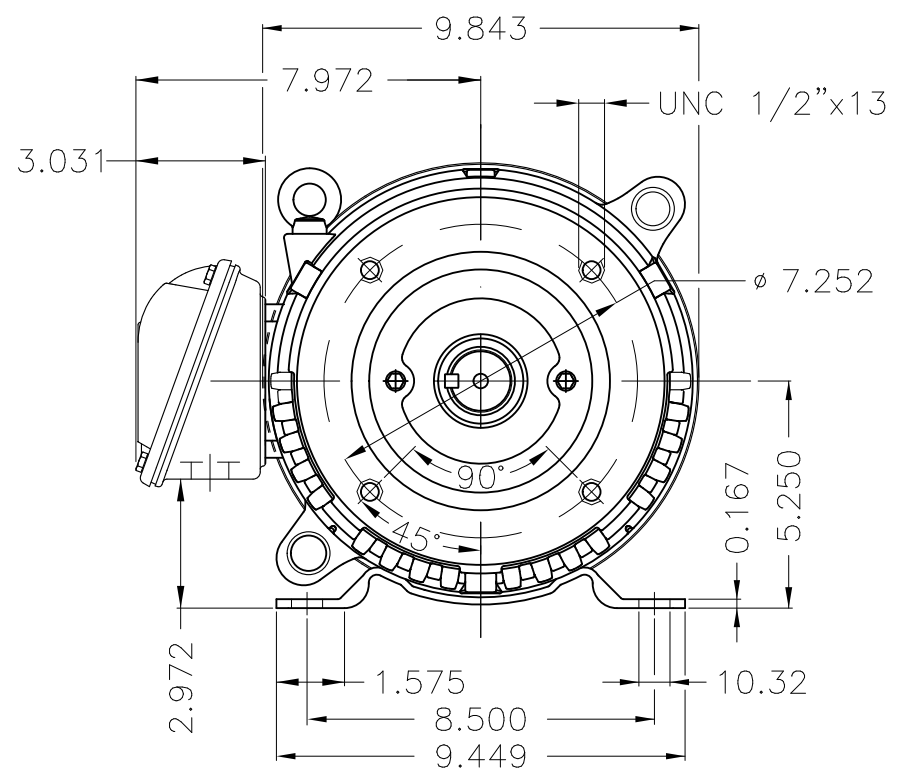
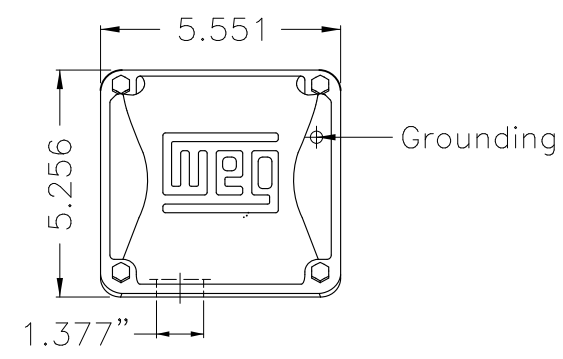
A

B

C

D

E



EUNC 3/8" - 16 WEG WPR-7309

Internal AEGIS ground ring on the DE  
 Color Munsell N 1 matte black  
 Painting plan 207N  
 Mounting F-1/B34R(D)

ECM	LOC	SUMMARY OF MODIFICATIONS	EXECUTED	CHECKED	RELEASED	DATE	VER
EXECUTED	PIRBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSE 1/2 HP					
CHECKED		FRAME 213/5JM IP21 ODP					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

7.5 HP 04 Poles 60 Hz





**NEMA**  
**Premium**



3PT9



Energy Verified

MADE IN MEXICO

**MAT: 12687791 CC029A**

**W01.T00IC0X0N**

**MODEL 007180T3E213JM-SG**

**19APR2022 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 7.5</b>
<b>FR 213/5JM</b>		<b>KW 5.5</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 18.5/9.25</b>
<b>INS CL F AT 80K</b>		<b>SFA 21.3/10.6</b>
<b>AMB 40°C</b>	<b>DES B</b>	<b>SF 1.15</b>
<b>ENCL ODP</b>	<b>CODE H</b>	<b>PF 0.82</b>
<b>USABLE @ 208V 20.5A</b>		<b>RPM 1770</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 91.0%</b>

**ALTERNATE RATING: 7.5HP 50Hz 190-220/380-415V SF1.15**  
**22.2-19.6/11.1-10.4A 1455RPM EFF 86.7% (IE1) IEC 60034-1**

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

**DE 6209-ZZ ODE 6206-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.

