

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer :			
Product line	: JM Pump NEMA Premium Efficiency Three-Phase	Product code :	13196705
		Catalog # :	00518ET3E184JM-SG
Frame	: 182/4JM	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>	: 84.0 lb
Protection degree	: IP55	Moment of inertia (J)	: 0.3080 sq.ft.lb
Design	: B		
Output [HP]	5	5	5
Poles	4	4	4
Frequency [Hz]	60	50	50
Rated voltage [V]	230/460	190/380	220/415
Rated current [A]	13.0/6.49	15.8/7.88	14.3/7.59
L. R. Amperes [A]	90.9/45.4	91.4/45.7	91.6/48.6
LRC [A]	7.0x(Code J)	5.8x(Code G)	6.4x(Code H)
No load current [A]	6.89/3.44	6.74/3.37	7.10/3.77
Rated speed [RPM]	1750	1425	1435
Slip [%]	2.78	5.00	4.33
Rated torque [ft.lb]	15.0	18.4	18.3
Locked rotor torque [%]	220	170	200
Breakdown torque [%]	300	229	260
Service factor	1.15	1.00	1.00
Temperature rise	80 K	105 K	105 K
Locked rotor time	28s (cold) 16s (hot)	0s (cold) 0s (hot)	0s (cold) 0s (hot)
Noise level <sup>2</sup>	56.0 dB(A)	53.0 dB(A)	53.0 dB(A)
Efficiency (%)	25%	88.2	88.2
	50%	88.5	87.2
	75%	89.5	87.3
	100%	89.5	85.8
Power Factor	25%	0.35	0.37
	50%	0.60	0.63
	75%	0.73	0.76
	100%	0.80	0.82
Bearing type	: <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ	Foundation loads	
Sealing	: V'Ring Without Bearing Seal	Max. traction	: 262 lb
		Max. compression	: 346 lb
Lubrication interval	: -		
Lubricant amount	: -		
Lubricant type	: Mobil Polyrex EM		
Notes USABLE @208V 14.4A SF 1.00 SFA 14.4A			
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	13/04/2022		Revision
			1 / 16

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



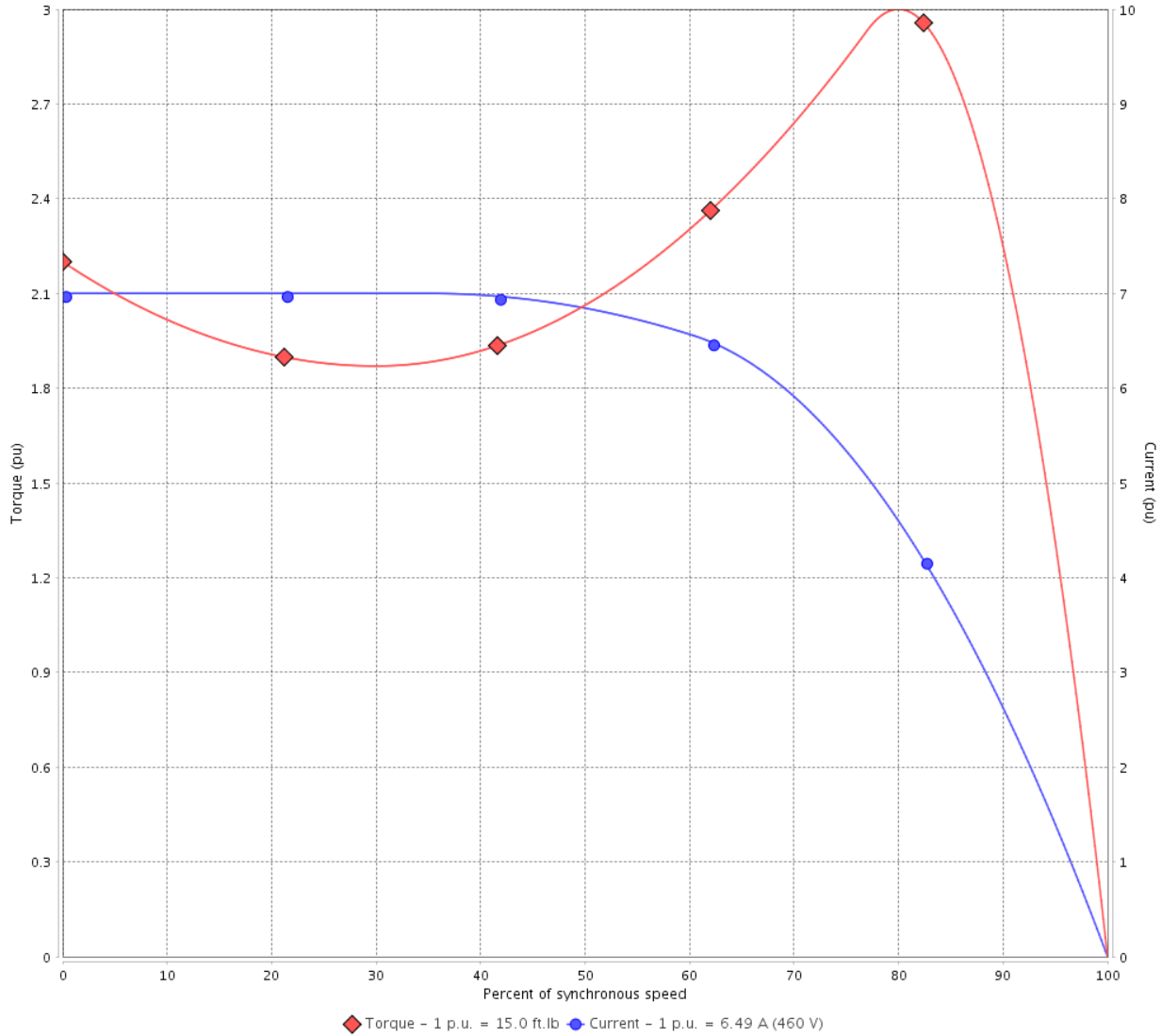
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
LRC : 7.0  
Rated torque : 15.0 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Locked rotor time : 28s (cold) 16s (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



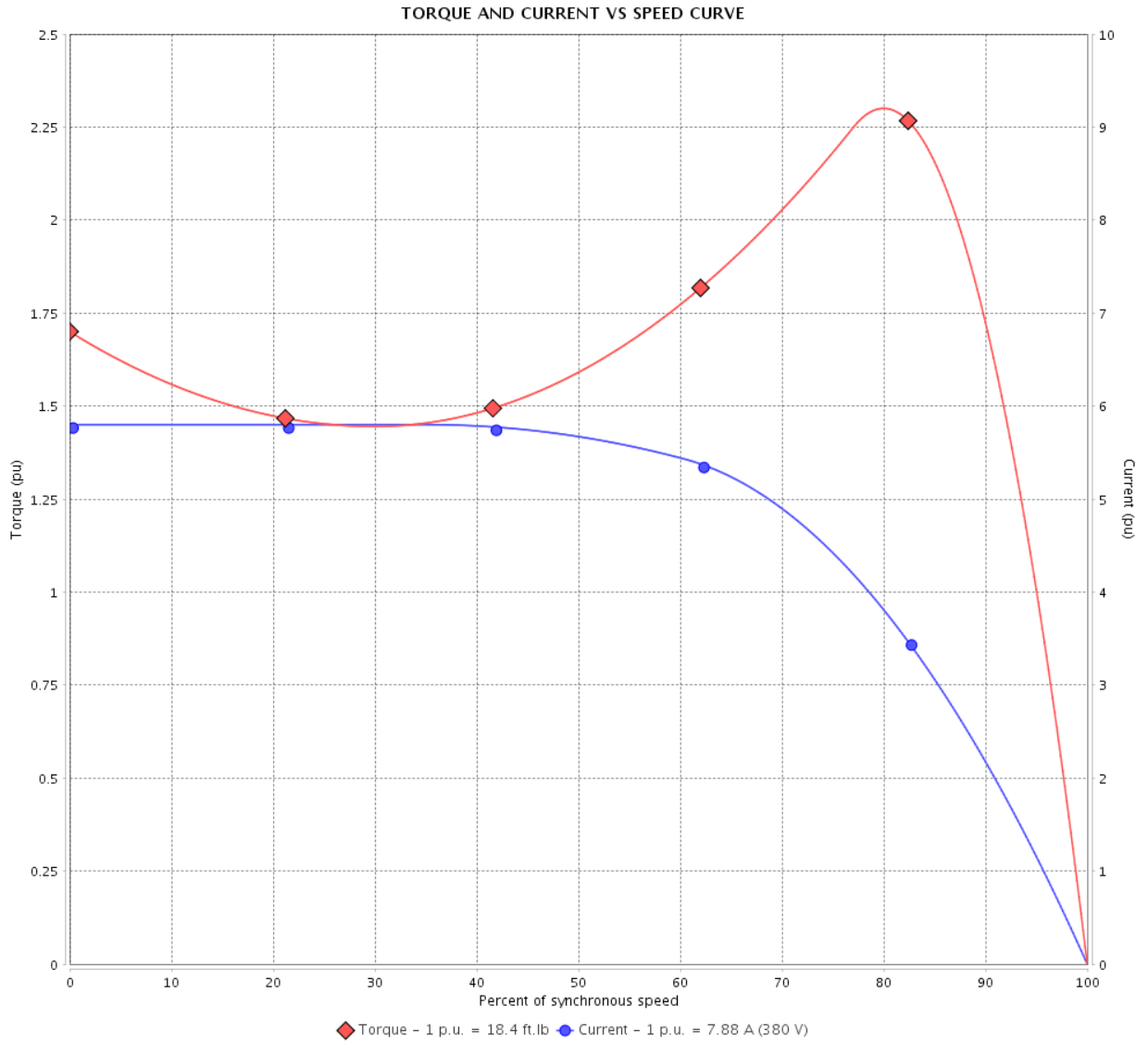
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A  
 LRC : 5.8  
 Rated torque : 18.4 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 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	13/04/2022			

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



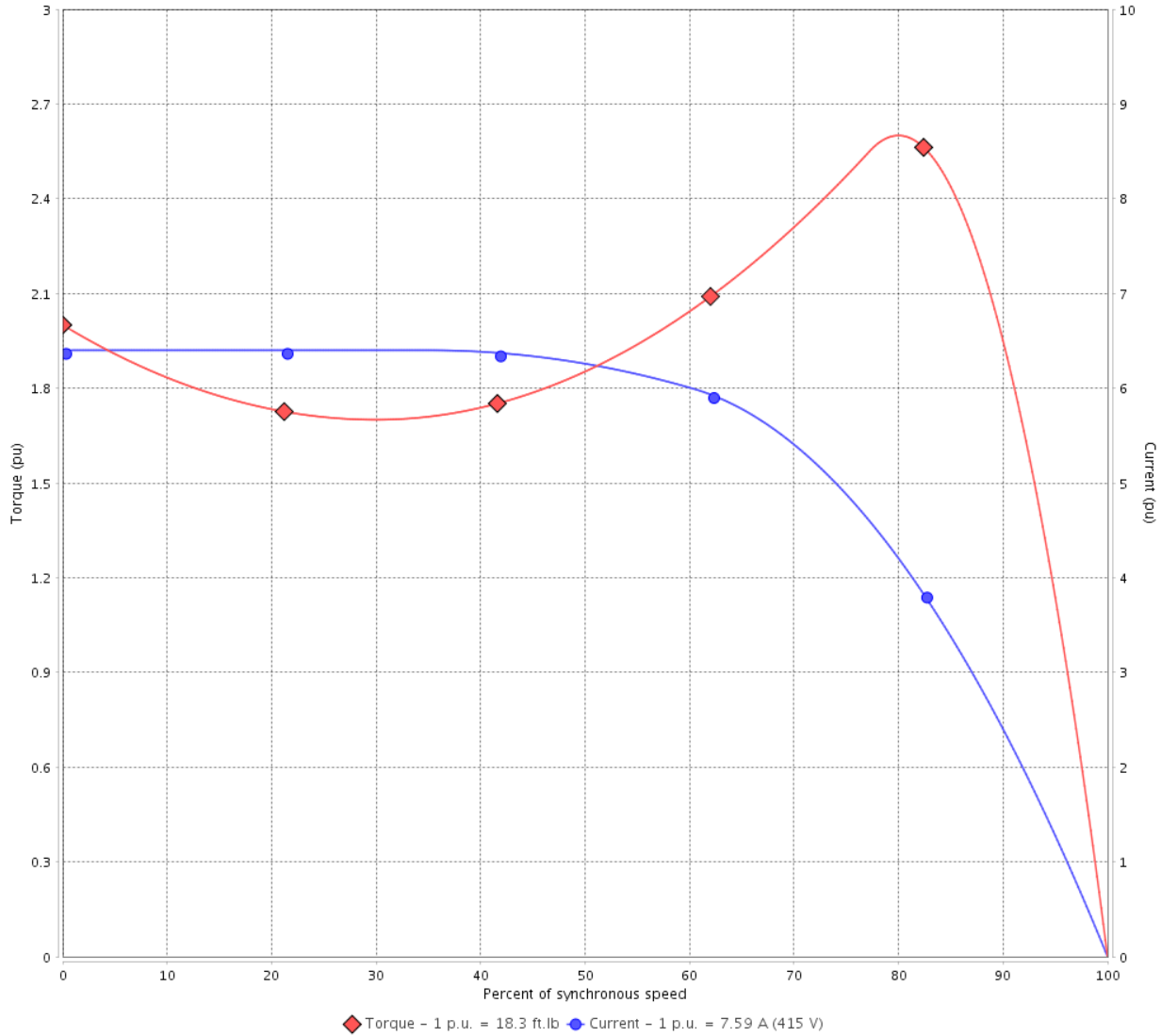
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

Rated current	: 14.3/7.59 A	Moment of inertia (J)	: 0.3080 sq.ft.lb
LRC	: 6.4	Duty cycle	: Cont.(S1)
Rated torque	: 18.3 ft.lb	Insulation class	: F
Locked rotor torque	: 200 %	Service factor	: 1.00
Breakdown torque	: 260 %	Temperature rise	: 105 K
Rated speed	: 1435 rpm	Design	: B

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

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page		Revision
Checked by		4 / 16		
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

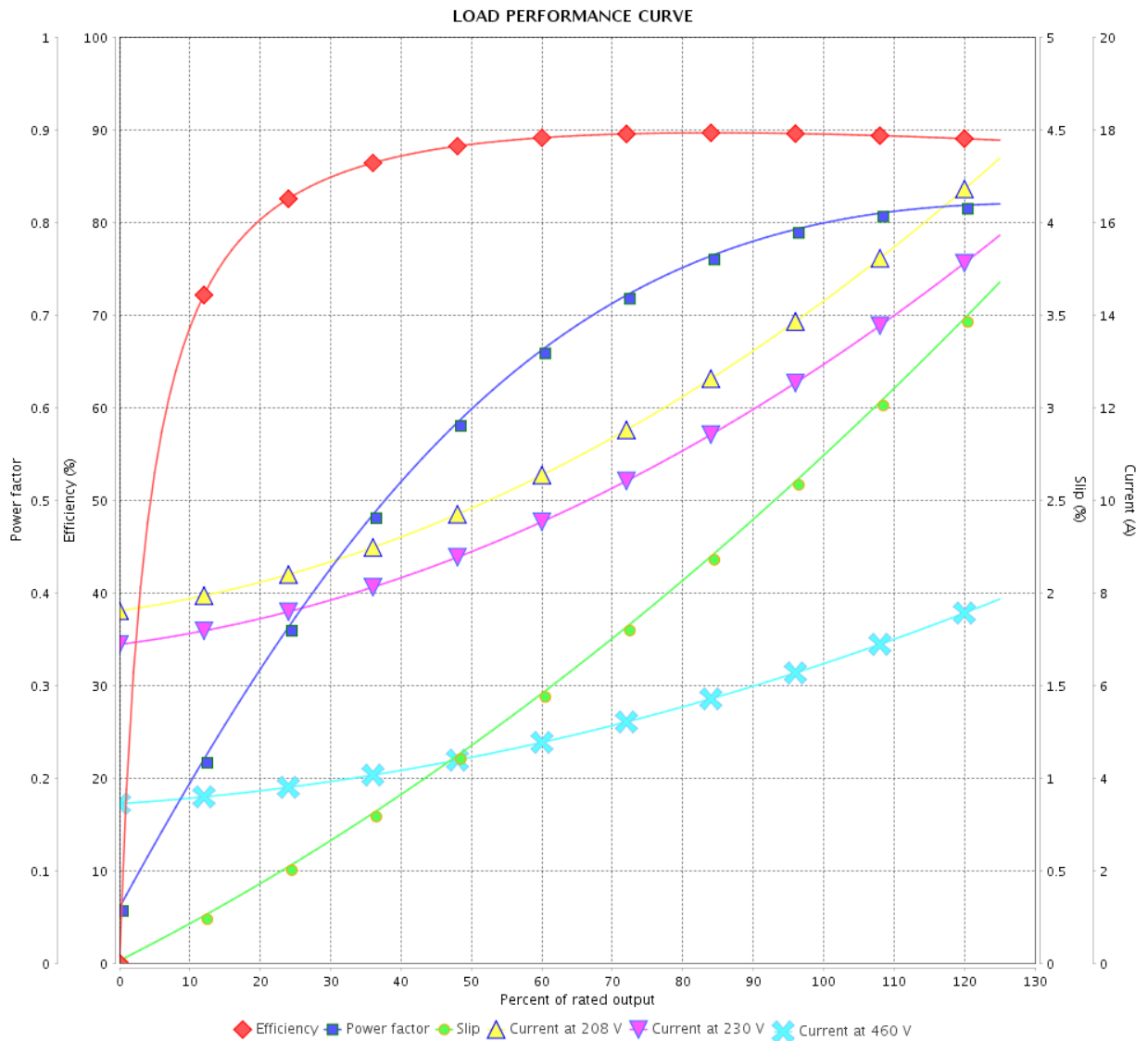


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
 LRC : 7.0  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 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



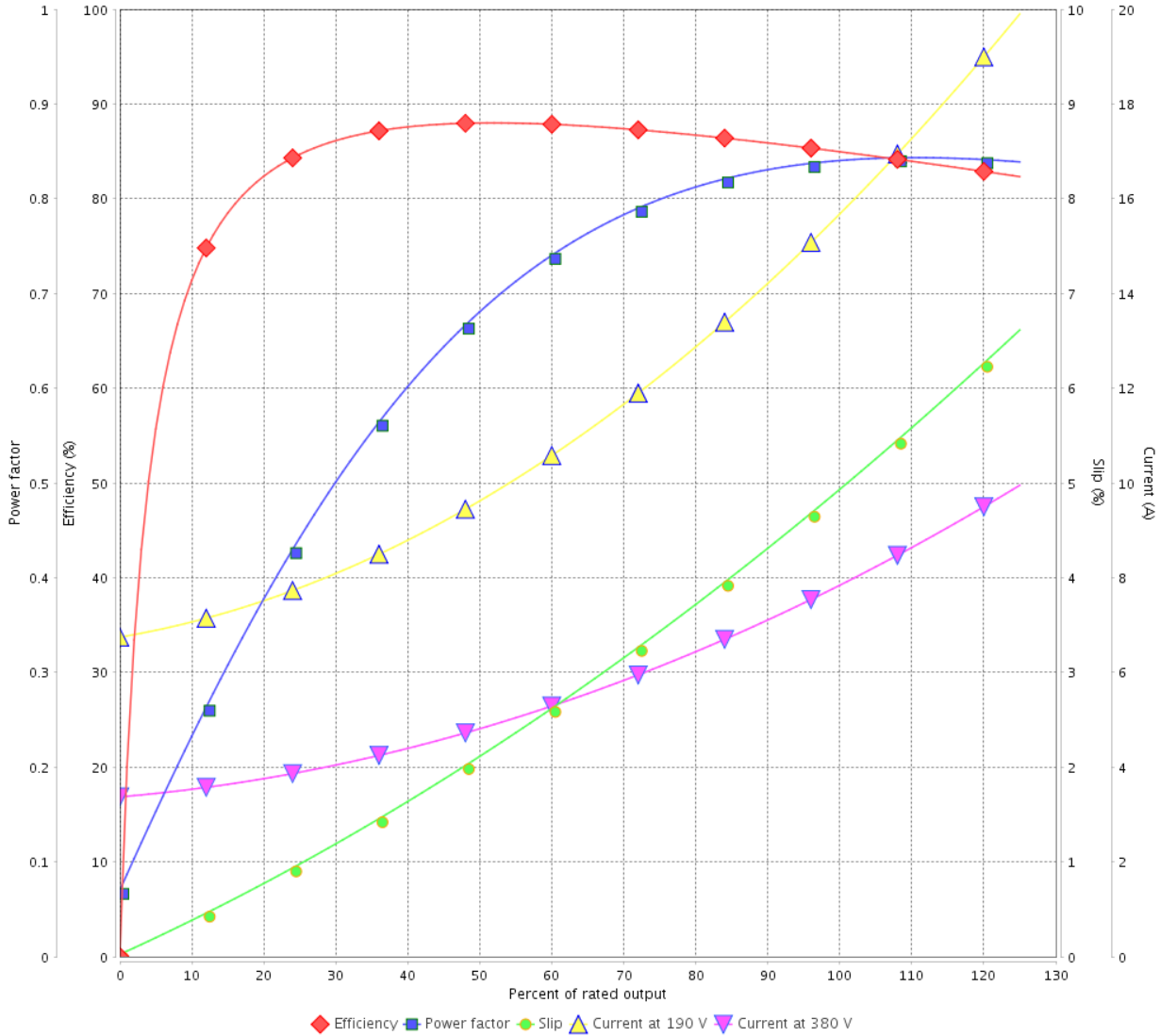
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

LOAD PERFORMANCE CURVE



Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A  
LRC : 5.8  
Rated torque : 18.4 ft.lb  
Locked rotor torque : 170 %  
Breakdown torque : 229 %  
Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 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 6 / 16	Revision
Checked by				
Date	13/04/2022			

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

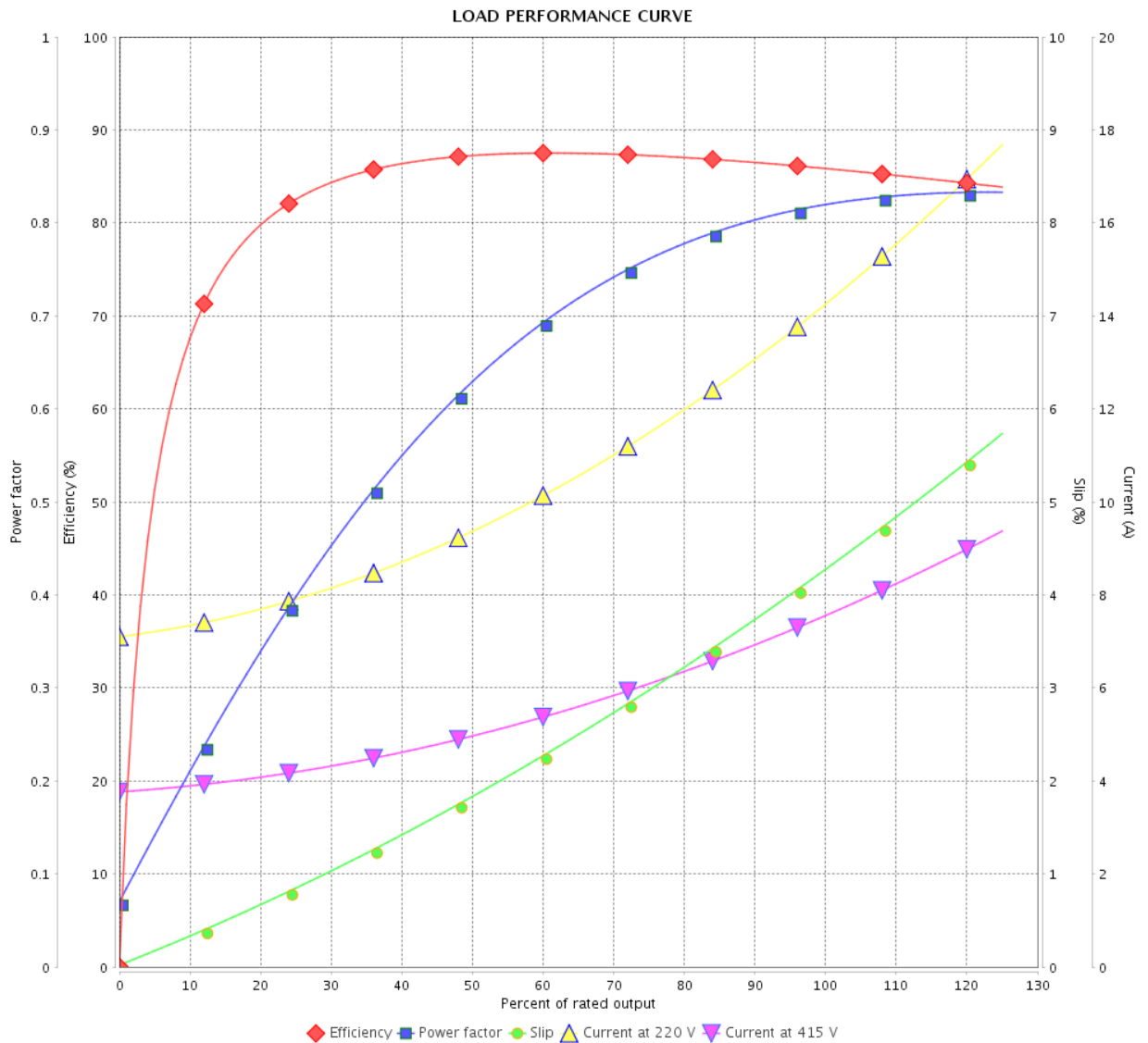


Customer : \_\_\_\_\_

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG



Performance : 220/415 V 50 Hz 4P

Rated current : 14.3/7.59 A  
 LRC : 6.4  
 Rated torque : 18.3 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 260 %  
 Rated speed : 1435 rpm

Moment of inertia (J) : 0.3080 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				
Date				
			7 / 16	

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
LRC : 7.0  
Rated torque : 15.0 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 300 %  
Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 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	

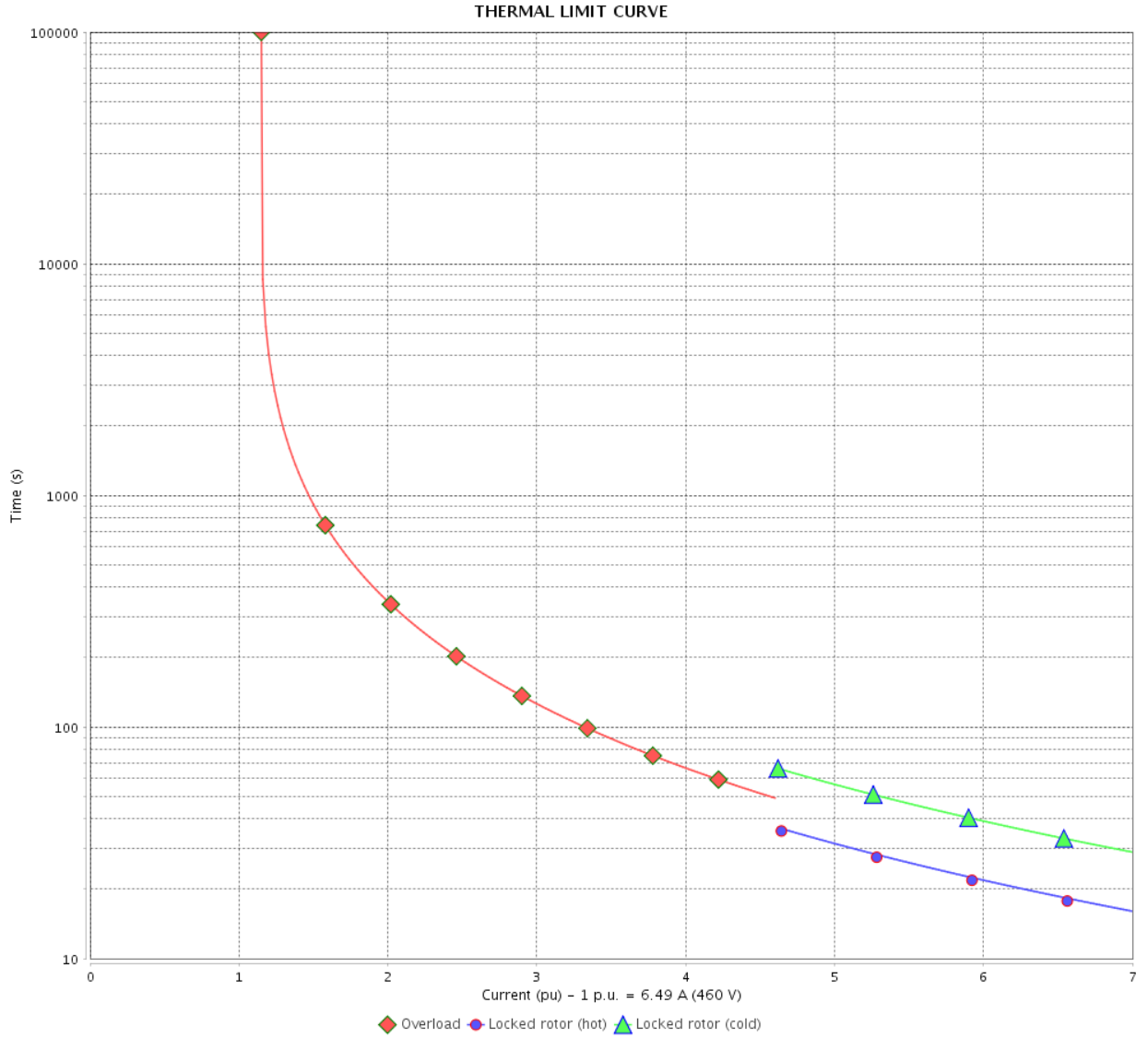


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A  
LRC : 5.8  
Rated torque : 18.4 ft.lb  
Locked rotor torque : 170 %  
Breakdown torque : 229 %  
Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

Heating constant

Cooling constant

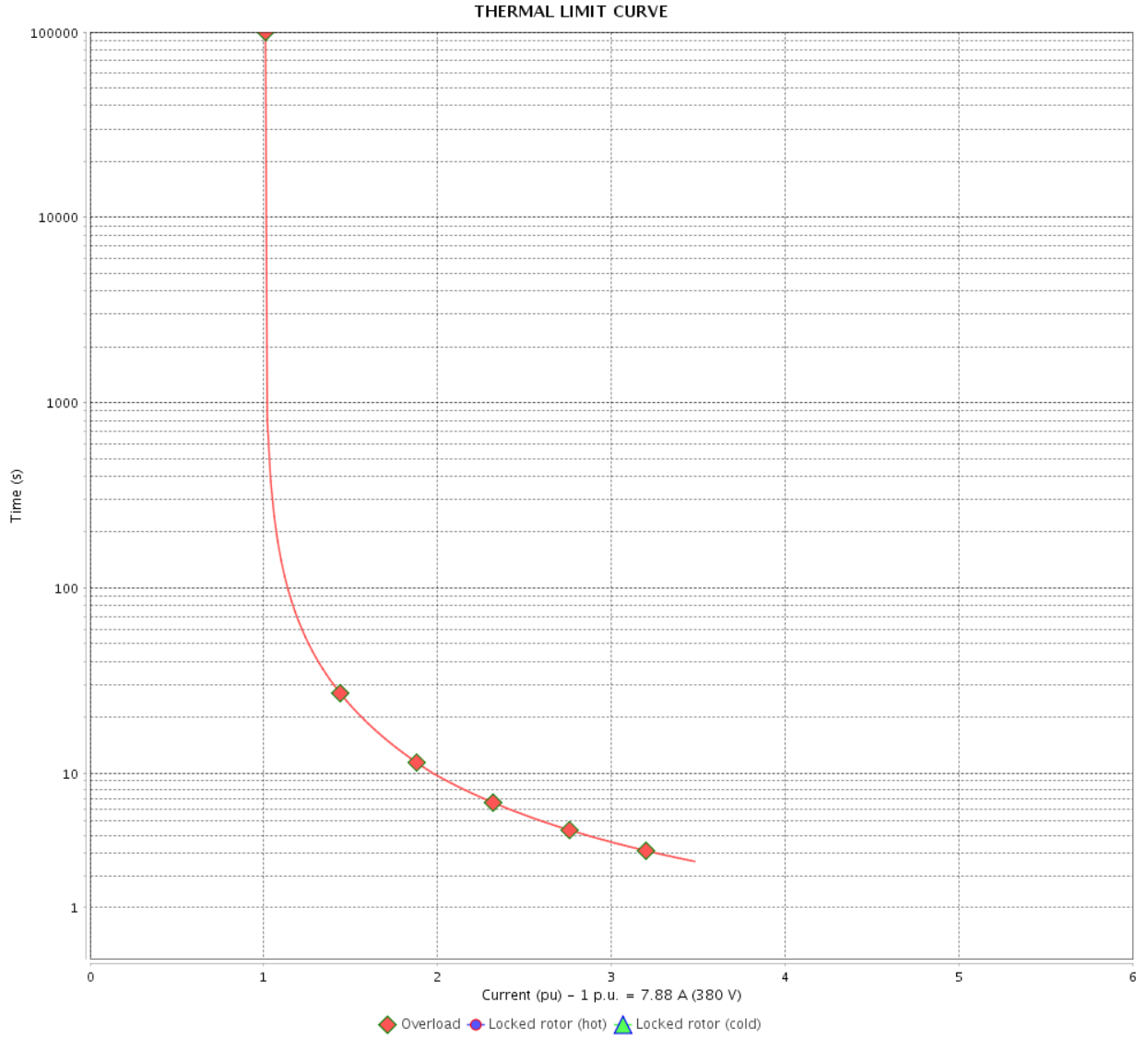
Rev.	Changes Summary	Performed	Checked	Date
Performed by				
Checked by			Page	Revision
Date	13/04/2022		10 / 16	

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

Performance : 220/415 V 50 Hz 4P

Rated current : 14.3/7.59 A  
LRC : 6.4  
Rated torque : 18.3 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 260 %  
Rated speed : 1435 rpm

Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

Heating constant

Cooling constant

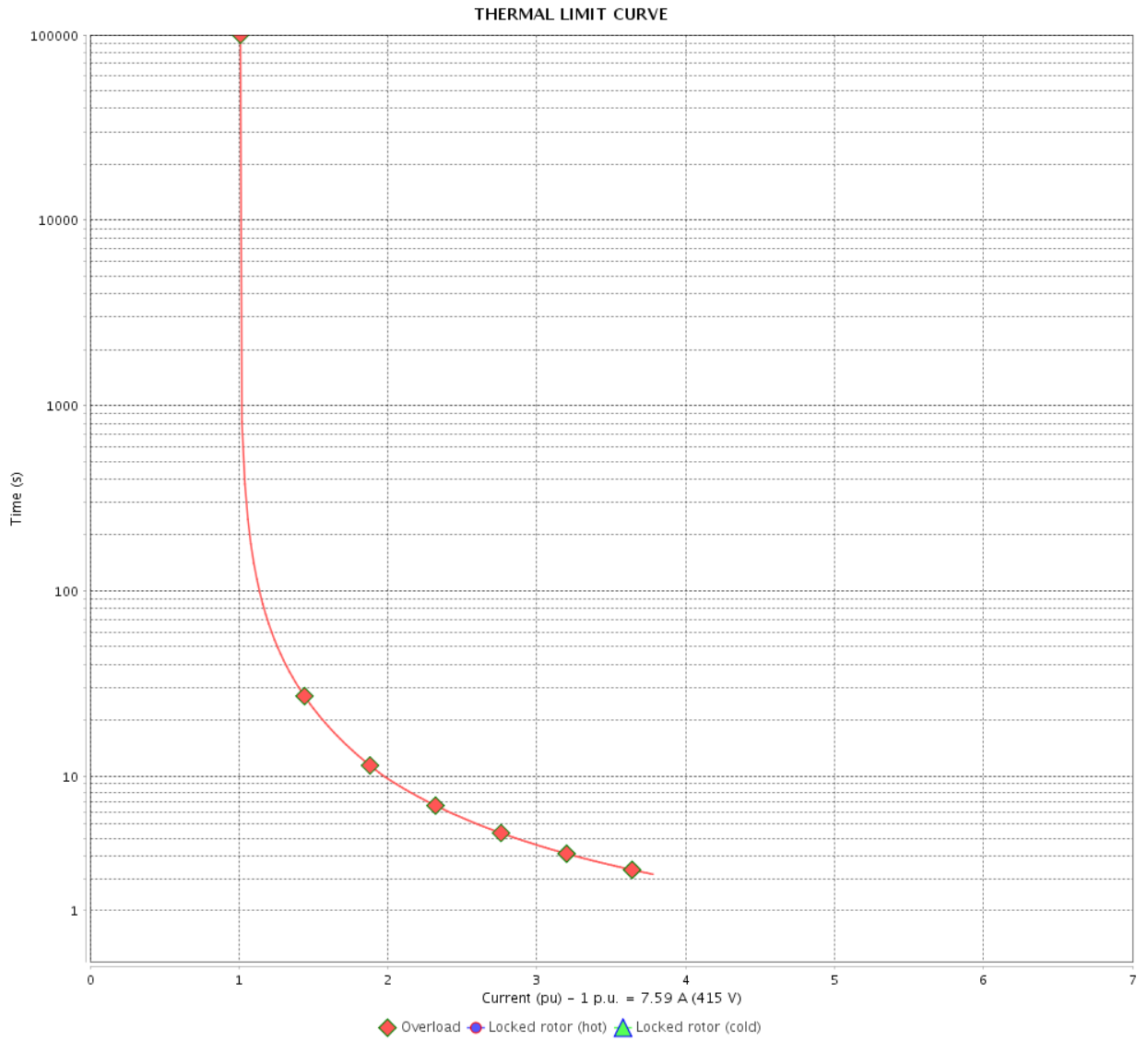
Rev.	Changes Summary	Performed	Checked	Date
Performed by			Page 12 / 16	Revision
Checked by				
Date	13/04/2022			

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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



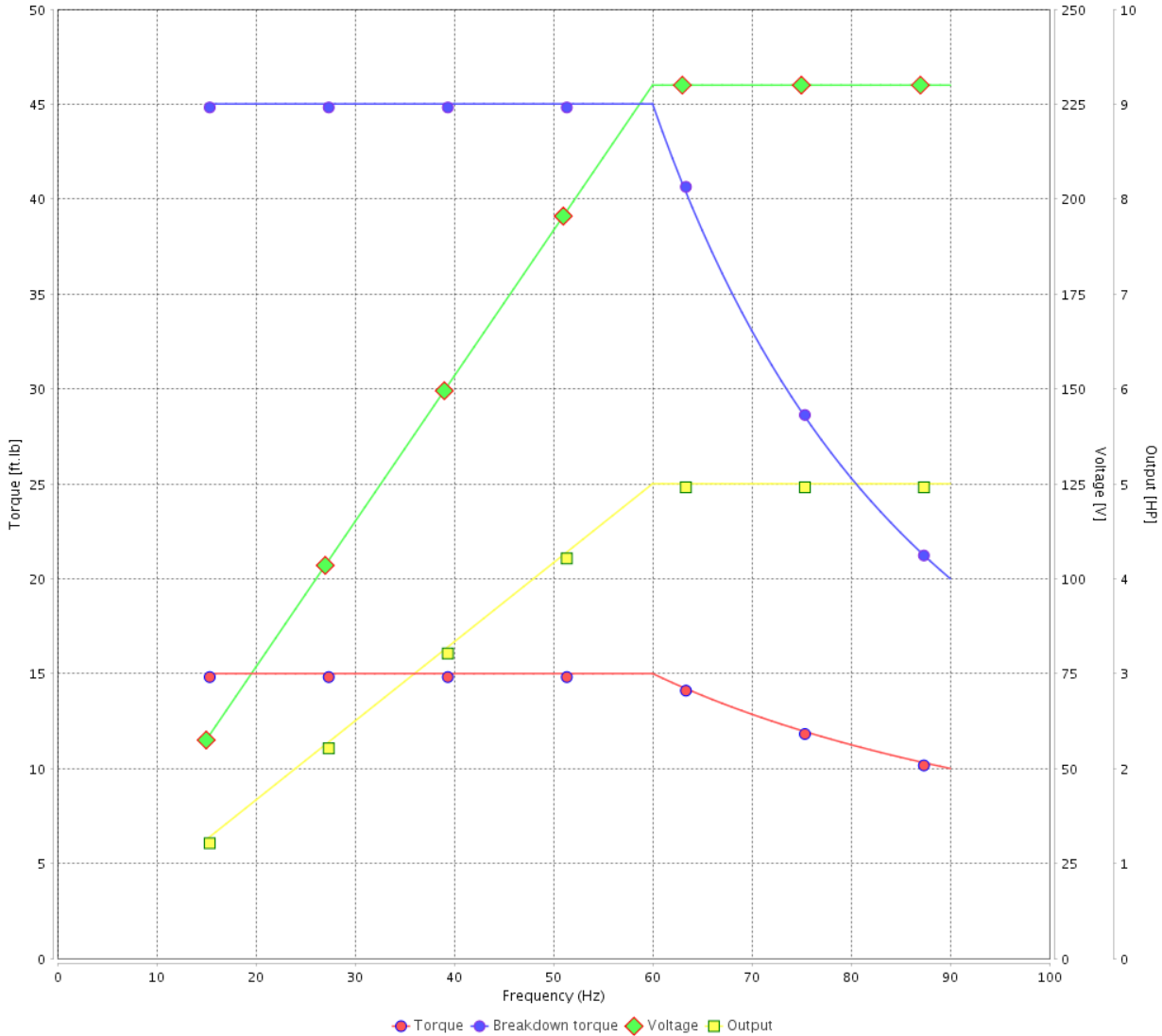
Customer : \_\_\_\_\_

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 13.0/6.49 A  
 LRC : 7.0  
 Rated torque : 15.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 300 %  
 Rated speed : 1750 rpm

Moment of inertia (J) : 0.3080 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			

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

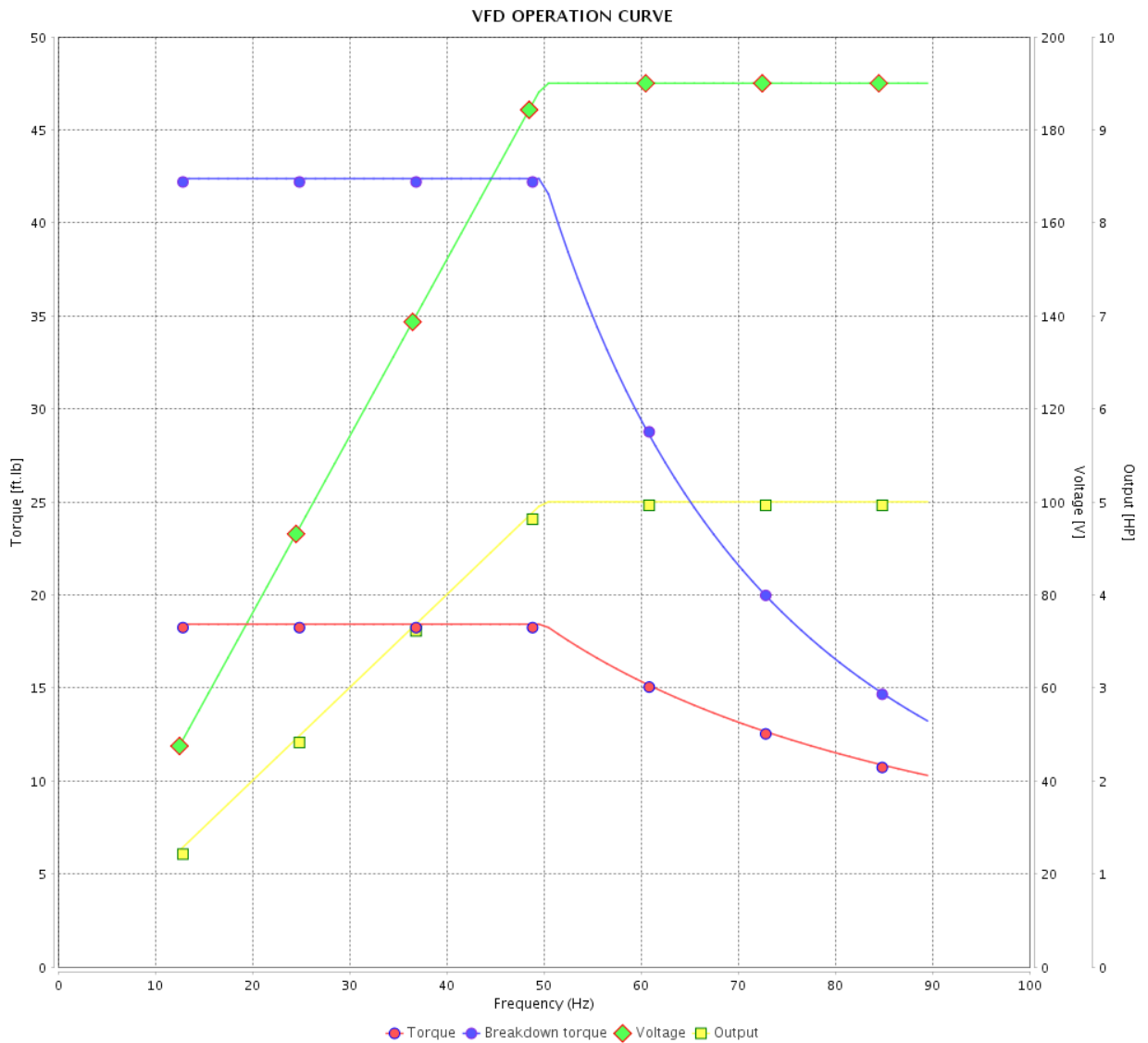


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 15.8/7.88 A  
 LRC : 5.8  
 Rated torque : 18.4 ft.lb  
 Locked rotor torque : 170 %  
 Breakdown torque : 229 %  
 Rated speed : 1425 rpm

Moment of inertia (J) : 0.3080 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				
Date				

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



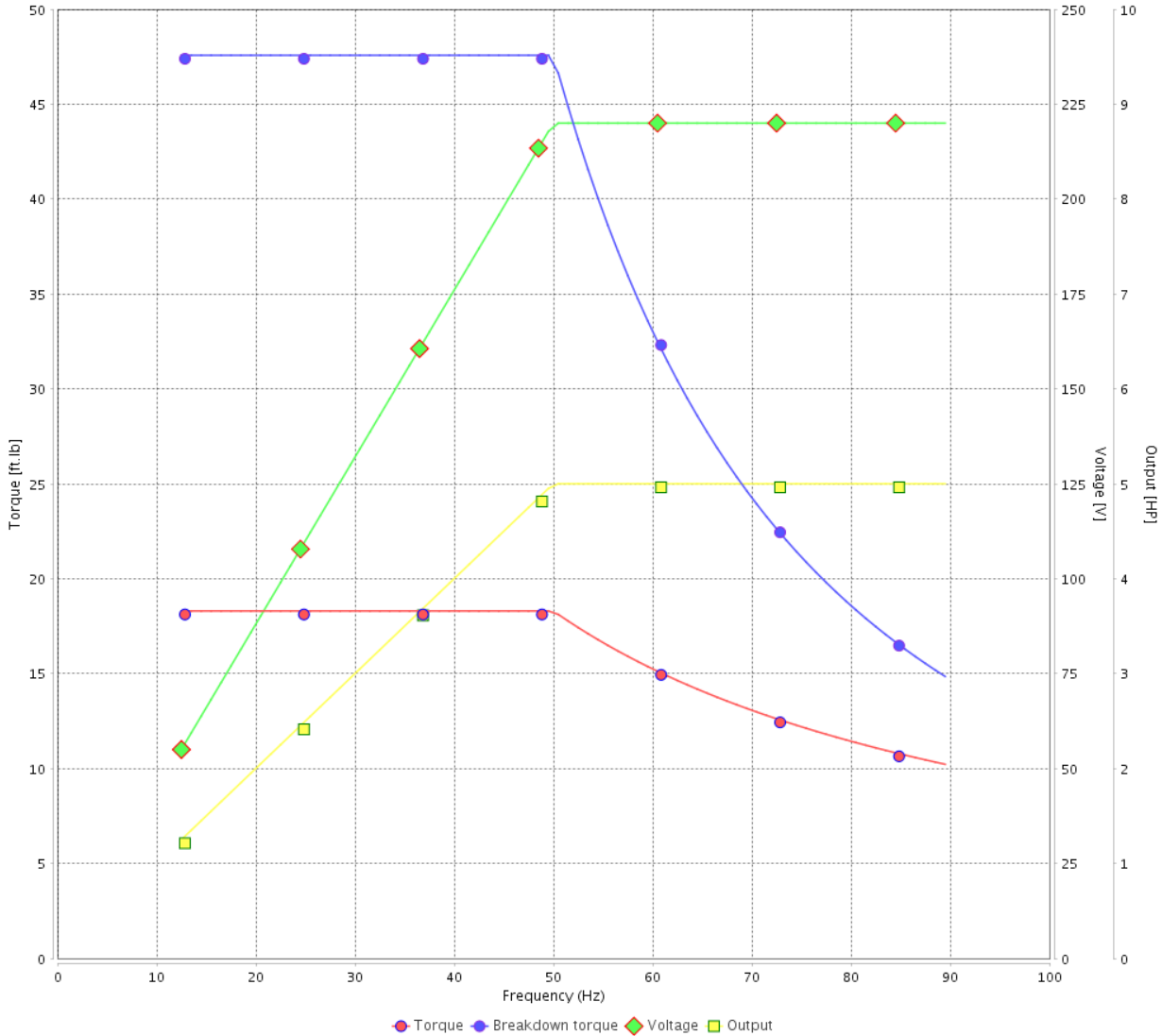
Customer : \_\_\_\_\_

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 13196705

Catalog # : 00518ET3E184JM-SG

VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 14.3/7.59 A  
LRC : 6.4  
Rated torque : 18.3 ft.lb  
Locked rotor torque : 200 %  
Breakdown torque : 260 %  
Rated speed : 1435 rpm

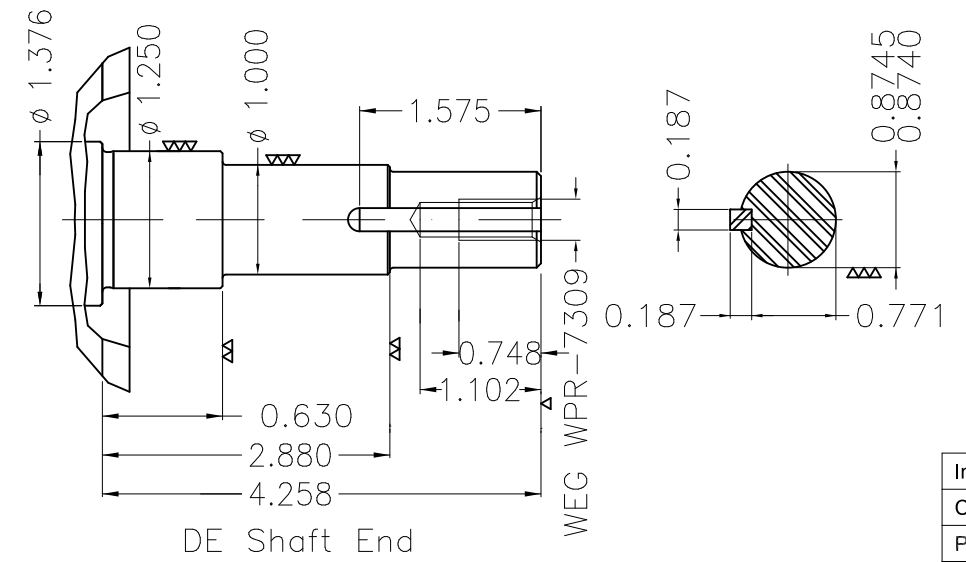
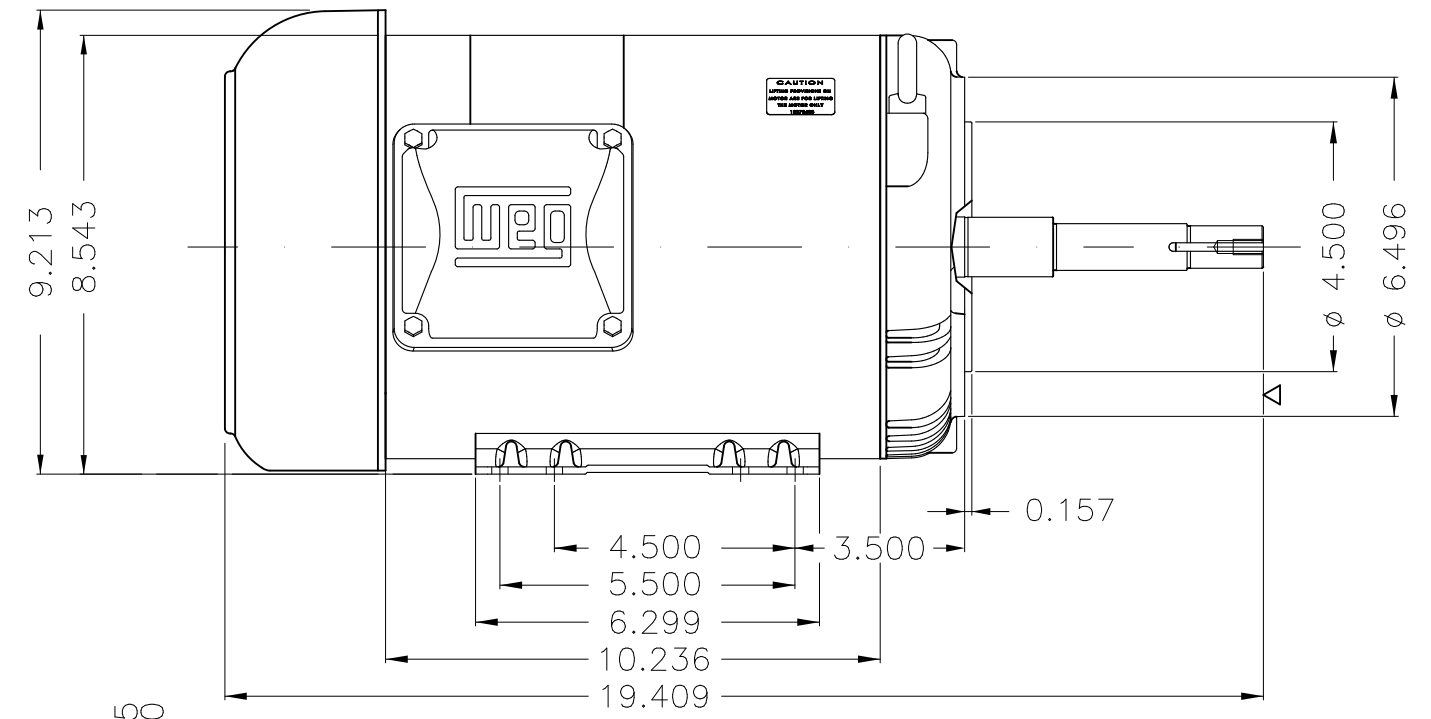
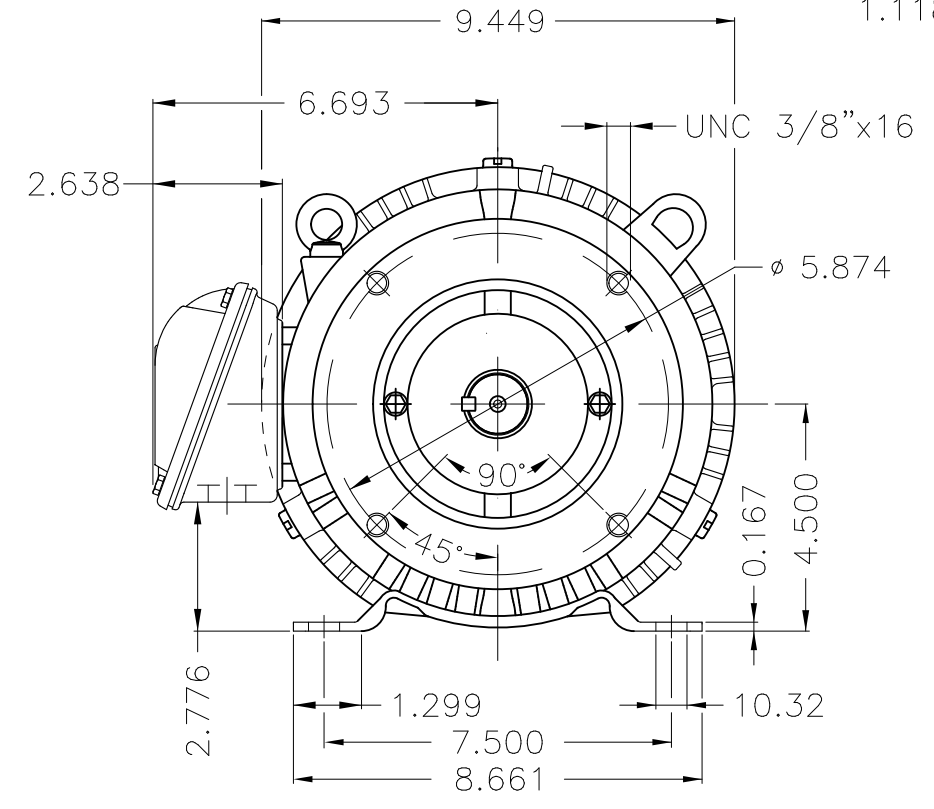
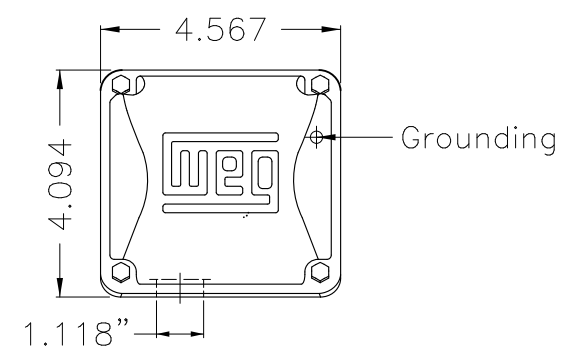
Moment of inertia (J) : 0.3080 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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



1 2 3 4 5 6

A  
B  
C  
D  
E



EUNC 3/8"-16 WEG WPR-7309

DE Shaft End

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	PIRWBUSER	THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSEF 575					
CHECKED		FRAME 182/4JM IP55 TEFC					
RELEASED							
REL DT.	WMO	Jaragua do Sul	Product Engineering	WDD	SHEET	1 / 1	

5 HP 04 Poles 60 Hz

Dimensions in inches XME A3





**NEMA**  
**Premium**



MADE IN MEXICO

**MAT: 13196705 CC029A**

**W01.TE0IC0X0N**

**MODEL 00518ET3E184JM-SG**

**11APR2022 S/N:**

<b>PH 3</b>	<b>Hz 60</b>	<b>HP 5.0</b>
<b>FR 182/4JM</b>		<b>KW 3.7</b>
<b>DUTY CONT.</b>		<b>V 230/460</b>
<b>ALT 1000 m.a.s.l.</b>		<b>A 13.0/6.49</b>
<b>INS CL F AT 80K</b>	<b>IP55</b>	<b>SFA 14.9/7.46</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 0.80</b>
<b>USABLE @ 208V 14.4A</b>		<b>RPM 1750</b>
<b>SF1.00</b>		<b>NEMA NOM. EFF 89.5%</b>

**ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.00**  
**15.8-14.17.88-7.47A 1425RPM EFF 84.9% (IE1) IEC 60034-1**

**Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 4:1 CT**

<b>DE 6207-ZZ</b>	<b>ODE 6205-ZZ</b>	<b>MOBIL POLYREX EM</b>
-------------------	--------------------	-------------------------



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.

