

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | |
|--|--|--|--------------------|----------|
| Customer : | | | | |
| Product line : JM Pump NEMA Premium Efficiency Three-Phase | Product code : 13482597 Catalog # : 00536OT3E182JMV-S | | | |
| Frame : 182/4JM | Cooling method : IC01 - ODP | | | |
| Insulation class : F | Mounting : W-6 | | | |
| Duty cycle : Cont.(S1) | Rotation ¹ : Both (CW and CCW) | | | |
| Ambient temperature : -20°C to +40°C | Starting method : Direct On Line | | | |
| Altitude : 1000 m.a.s.l. | Approx. weight ² : 61.2 lb | | | |
| Design : B | Moment of inertia (J) : 0.1386 sq.ft.lb | | | |
| Output [HP] | 5 | 5 | 5 | |
| Poles | 2 | 2 | 2 | |
| Frequency [Hz] | 60 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 190-220/380 | 415 | |
| Rated current [A] | 12.2/6.10 | 14.7-12.7/7.37 | 6.87 | |
| L. R. Amperes [A] | 92.7/46.4 | 85.5-73.8/42.7 | 47.4 | |
| LRC [A] | 7.6x(Code J) | 5.8x(Code G) | 6.9x(Code H) | |
| No load current [A] | 5.15/2.58 | 5.05-4.36/2.53 | 3.13 | |
| Rated speed [RPM] | 3510 | 2885 | 2905 | |
| Slip [%] | 2.50 | 3.83 | 3.17 | |
| Rated torque [ft.lb] | 7.48 | 9.10 | 9.04 | |
| Locked rotor torque [%] | 190 | 150 | 180 | |
| Breakdown torque [%] | 300 | 220 | 270 | |
| Service factor | 1.15 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 105 K | 80 K | |
| Locked rotor time | 21s (cold) 12s (hot) | 0s (cold) 0s (hot) | 0s (cold) 0s (hot) | |
| Noise level ² | 65.0 dB(A) | 63.0 dB(A) | 63.0 dB(A) | |
| Efficiency (%) | 25% | 85.2 | 88.3 | 86.0 |
| | 50% | 85.5 | 86.5 | 85.4 |
| | 75% | 86.5 | 86.0 | 86.2 |
| | 100% | 86.5 | 83.8 | 85.2 |
| Power Factor | 25% | 0.45 | 0.51 | 0.43 |
| | 50% | 0.73 | 0.79 | 0.71 |
| | 75% | 0.83 | 0.88 | 0.83 |
| | 100% | 0.88 | 0.91 | 0.88 |
| Bearing type : <u>Drive end</u> 6207 ZZ <u>Non drive end</u> 6205 ZZ | Foundation loads | | | |
| Sealing : Without Bearing Seal | Max. traction : 125 lb | | | |
| Lubrication interval : - | Max. compression : 186 lb | | | |
| Lubricant amount : - | | | | |
| Lubricant type : Mobil Polyrex EM | | | | |
| Notes USABLE @208V 13.5A SF 1.00 SFA 13.5A | | | | |
| 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 | 26/10/2022 | | 1 / | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

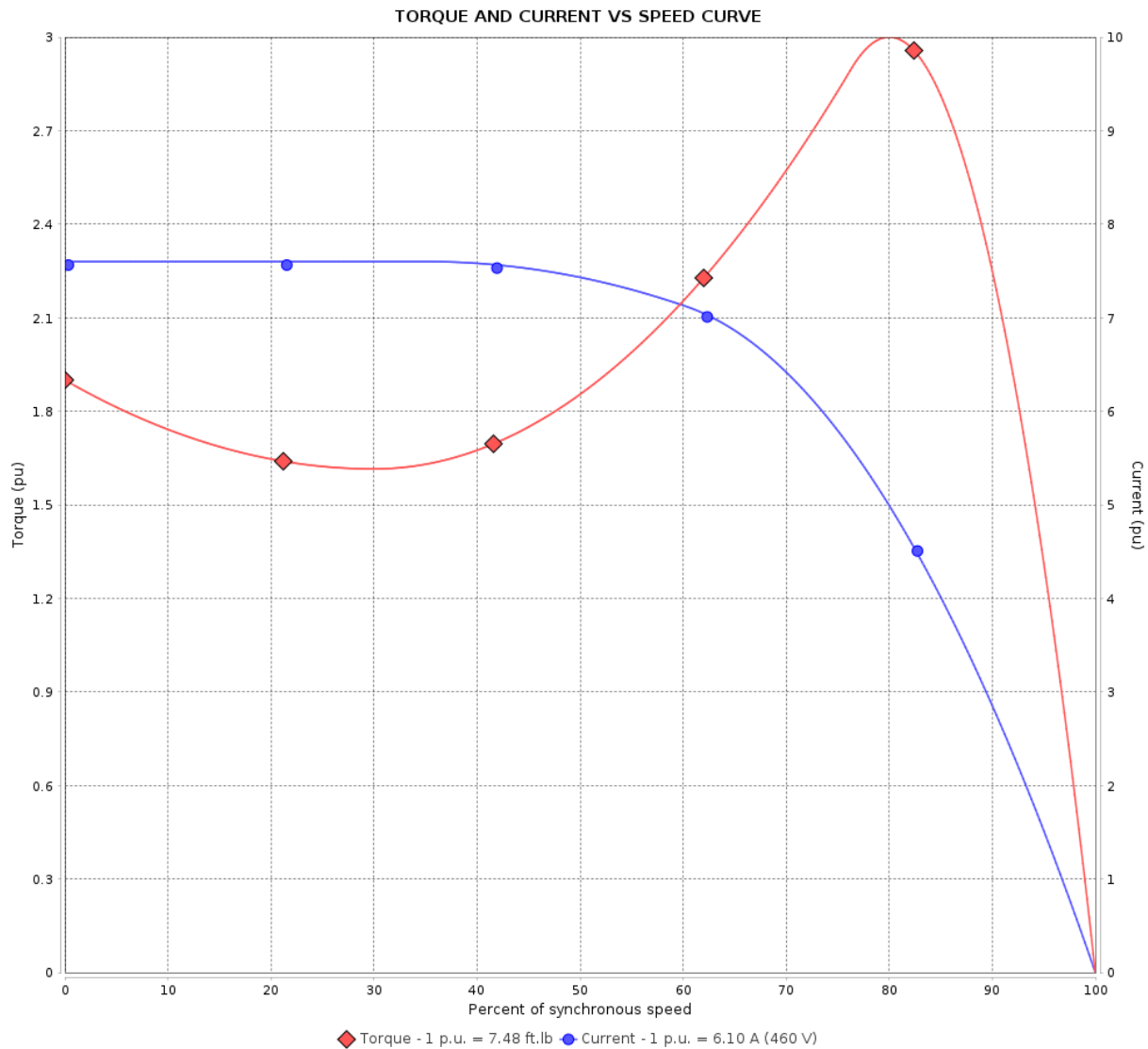


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 230/460 V 60 Hz 2P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 12.2/6.10 A | Moment of inertia (J) | : 0.1386 sq.ft.lb |
| LRC | : 7.6 | Duty cycle | : Cont.(S1) |
| Rated torque | : 7.48 ft.lb | Insulation class | : F |
| Locked rotor torque | : 190 % | Service factor | : 1.15 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 3510 rpm | Design | : B |

Locked rotor time : 21s (cold) 12s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-------------|----------|
| | | | | |
| Performed by | | | Page 2 / | Revision |
| Checked by | | | | |
| Date | 26/10/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE



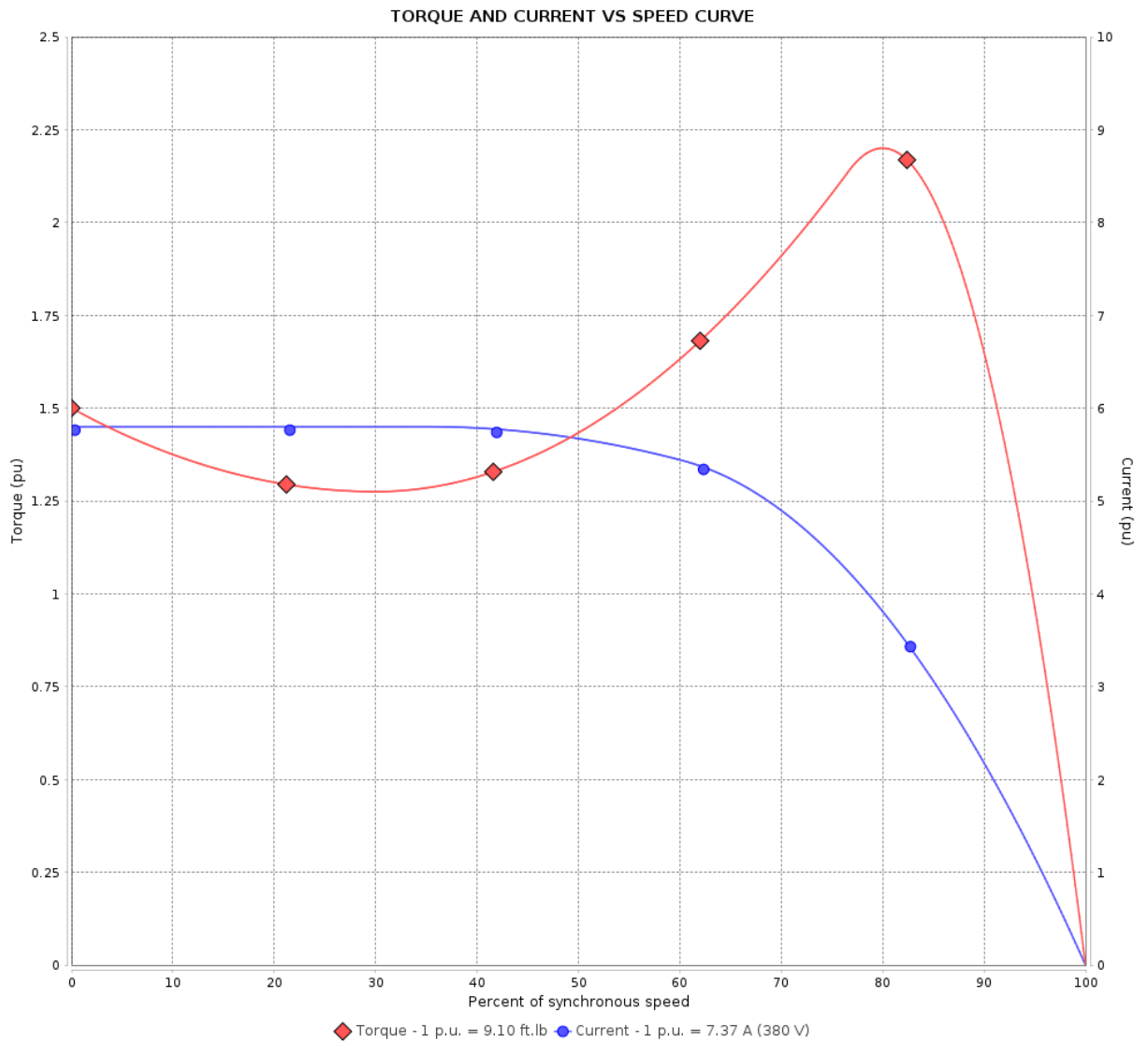
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 190-220/380 V 50 Hz 2P

| | | | |
|---------------------|--------------------|-----------------------|-------------------|
| Rated current | : 14.7-12.7/7.37 A | Moment of inertia (J) | : 0.1386 sq.ft.lb |
| LRC | : 5.8 | Duty cycle | : Cont.(S1) |
| Rated torque | : 9.10 ft.lb | Insulation class | : F |
| Locked rotor torque | : 150 % | Service factor | : 1.00 |
| Breakdown torque | : 220 % | Temperature rise | : 105 K |
| Rated speed | : 2885 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | Page | Revision |
| Checked by | | | 3 / | |
| Date | 26/10/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



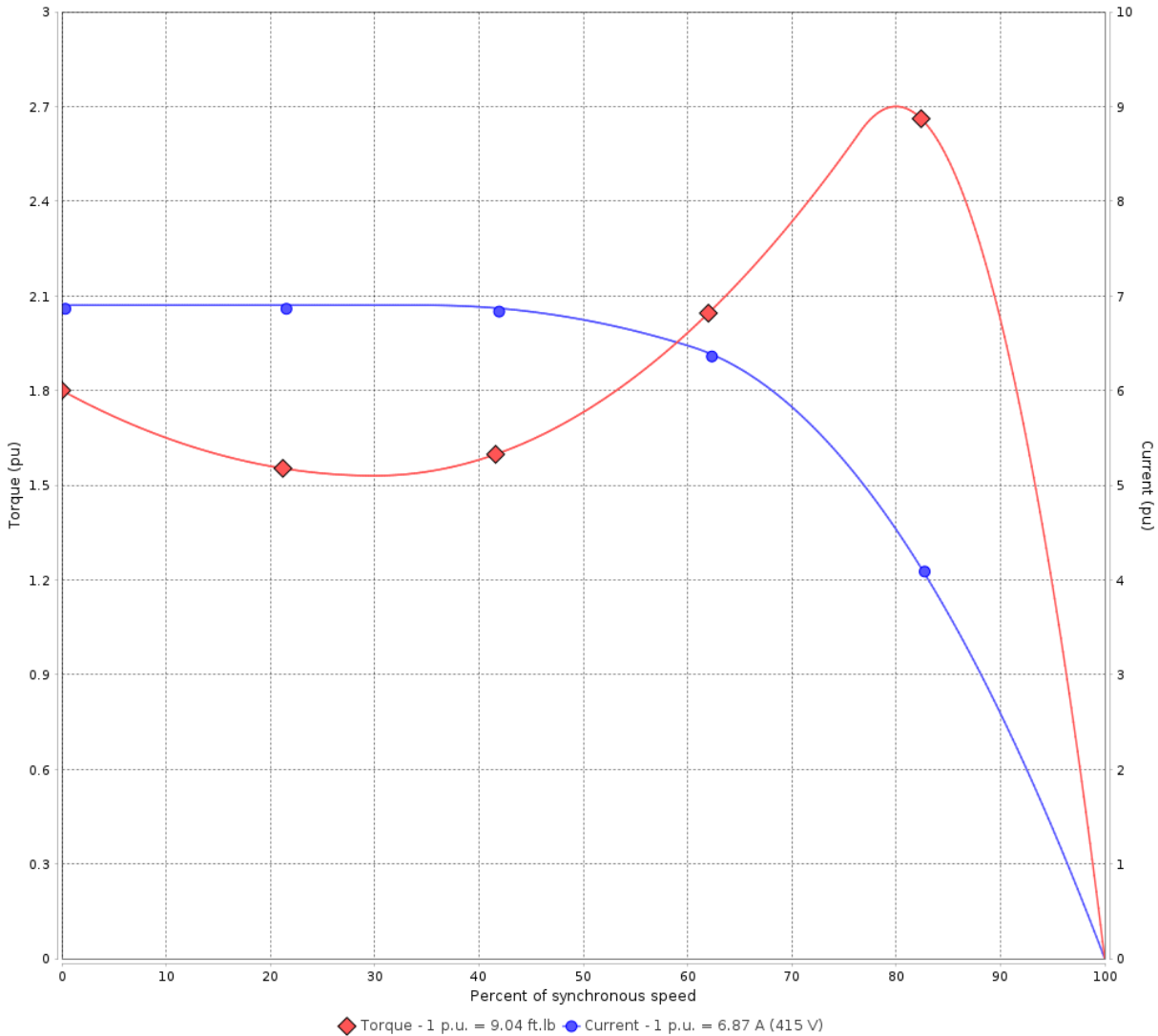
Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-------------------|
| Rated current | : 6.87 A | Moment of inertia (J) | : 0.1386 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 9.04 ft.lb | Insulation class | : F |
| Locked rotor torque | : 180 % | Service factor | : 1.00 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 2905 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 4 / | | |
| Date | 26/10/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

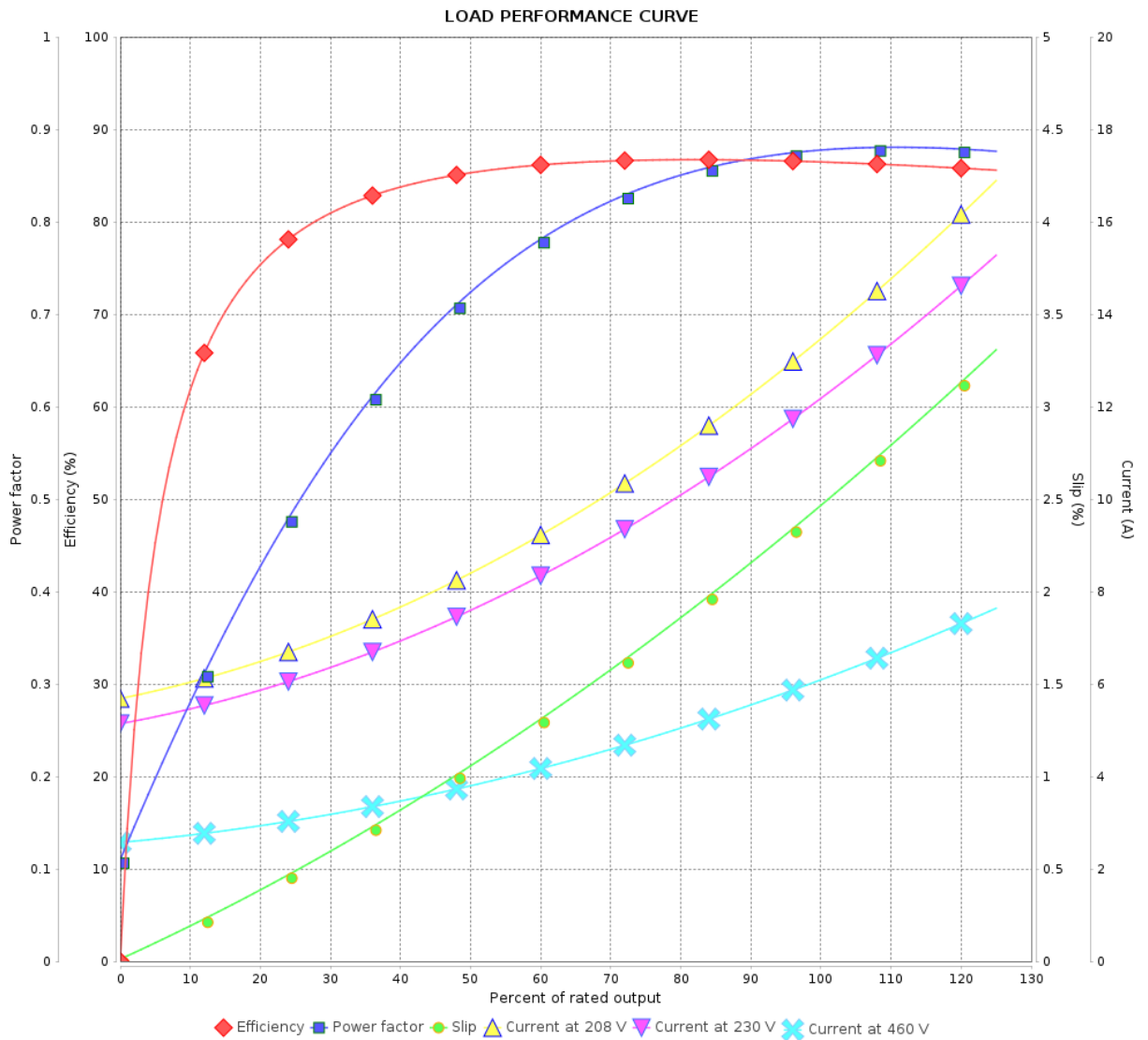


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 230/460 V 60 Hz 2P

Rated current : 12.2/6.10 A
 LRC : 7.6
 Rated torque : 7.48 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 300 %
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 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

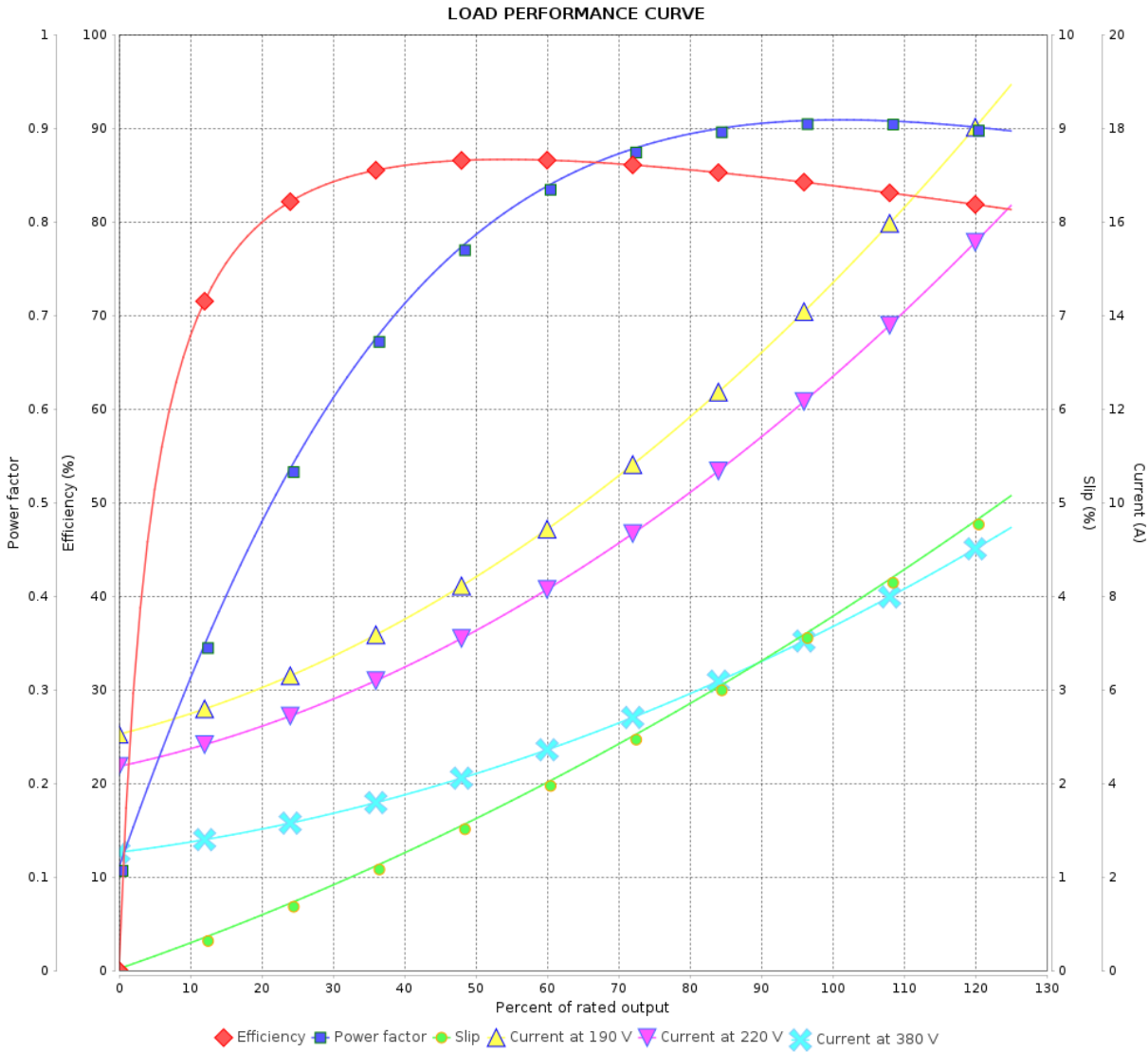


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 190-220/380 V 50 Hz 2P

Rated current : 14.7-12.7/7.37 A
 LRC : 5.8
 Rated torque : 9.10 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 220 %
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1386 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 / | |
| Date | 26/10/2022 | | | |

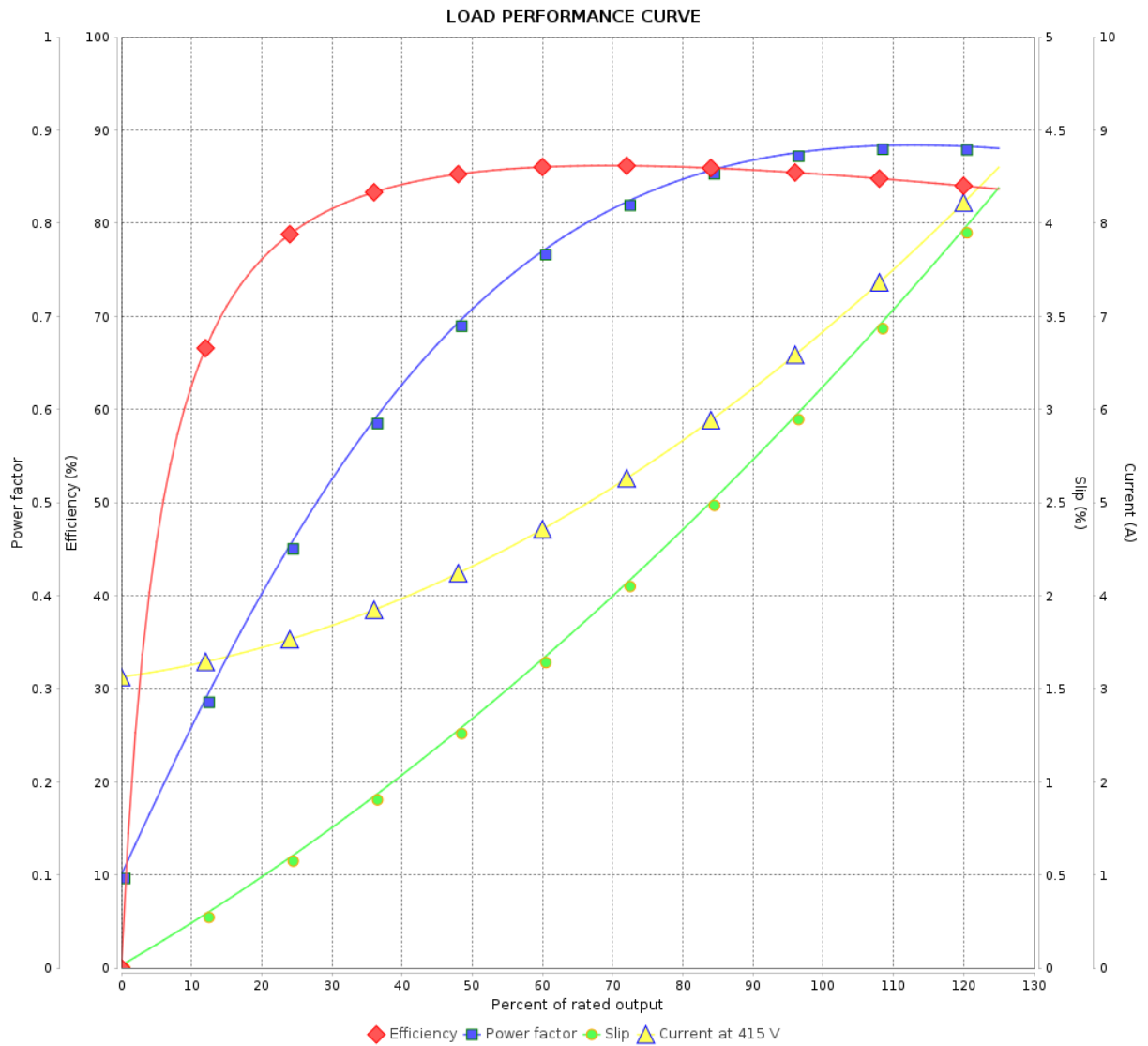
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase
 Product code : 13482597
 Catalog # : 00536OT3E182JMV-S



Performance : 415 V 50 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-------------------|
| Rated current | : 6.87 A | Moment of inertia (J) | : 0.1386 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 9.04 ft.lb | Insulation class | : F |
| Locked rotor torque | : 180 % | Service factor | : 1.00 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 2905 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-------------|----------|
| | | | | |
| Performed by | | | Page 7 / | Revision |
| Checked by | | | | |
| Date | 26/10/2022 | | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

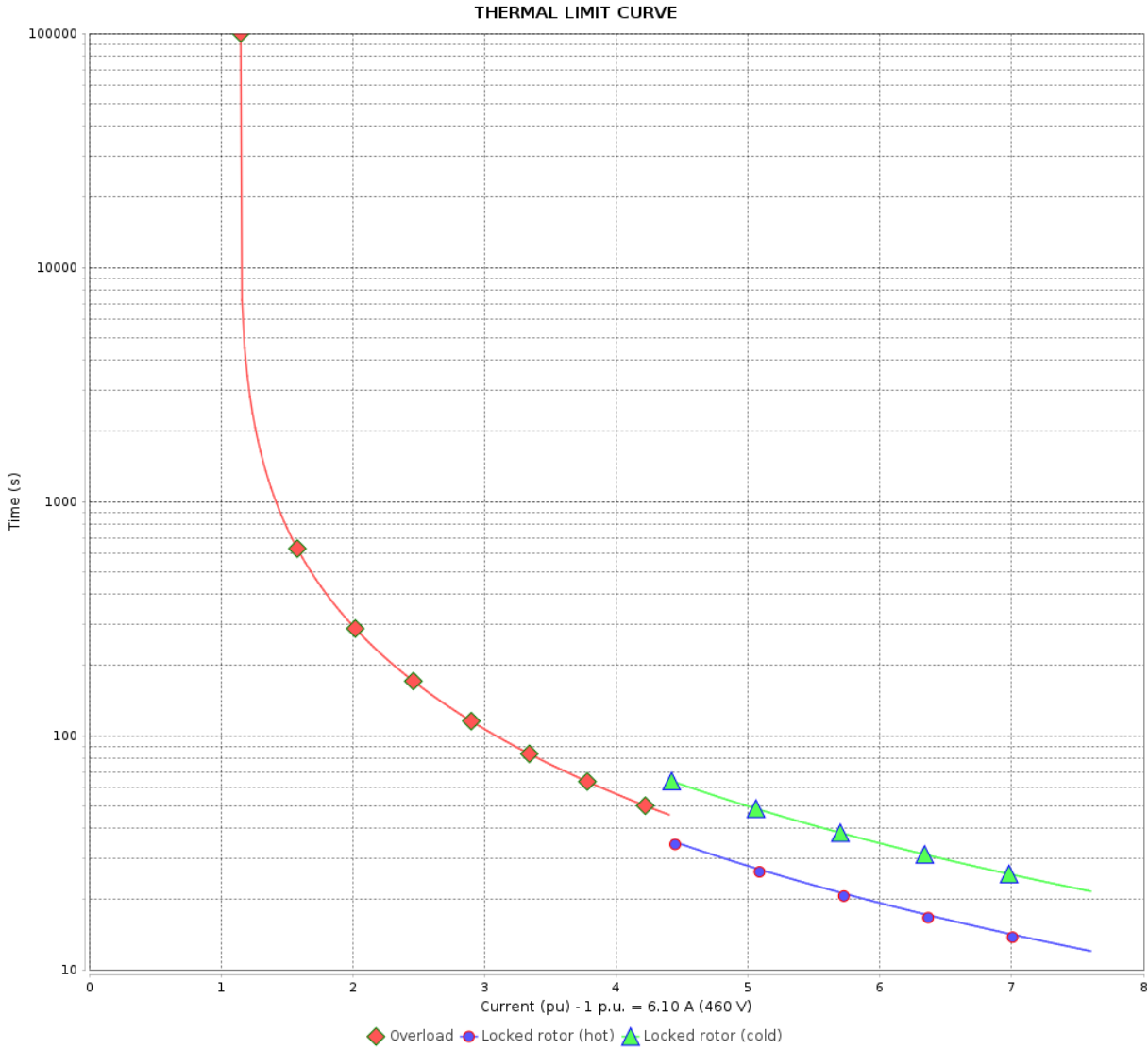


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 230/460 V 60 Hz 2P

Rated current : 12.2/6.10 A
 LRC : 7.6
 Rated torque : 7.48 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 300 %
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 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 | 26/10/2022 | Page | | Revision |
| Checked by | | 8 / | | |
| Date | | | | |

THERMAL LIMIT CURVE



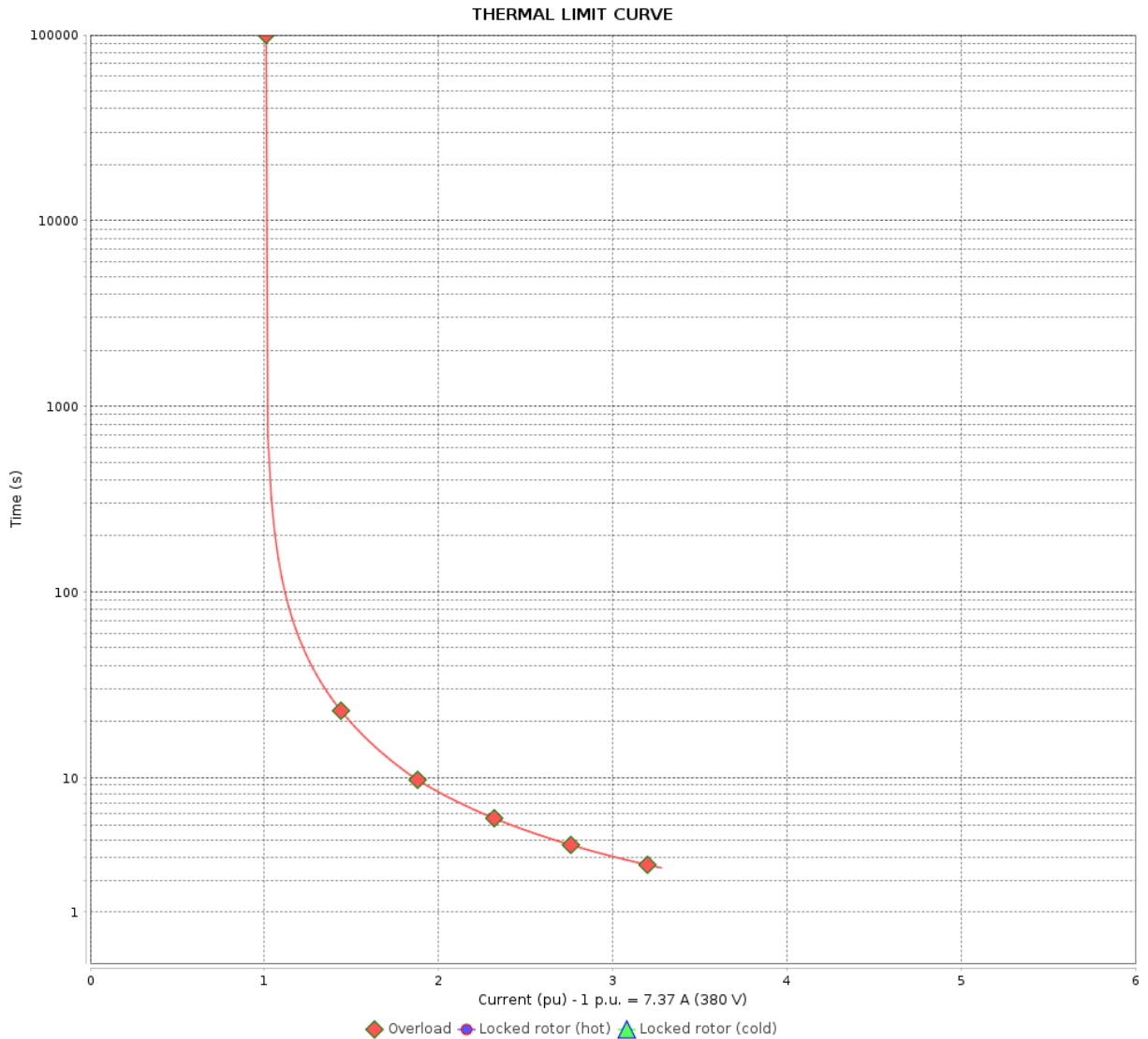
Three Phase Induction Motor - Squirrel Cage

Customer : _____

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 190-220/380 V 50 Hz 2P

Rated current : 14.7-12.7/7.37 A
 LRC : 5.8
 Rated torque : 9.10 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 220 %
 Rated speed : 2885 rpm

Moment of inertia (J) : 0.1386 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 | | | | |
| Date | | | | |
| | | Page | Revision | |
| | | 9 / | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage

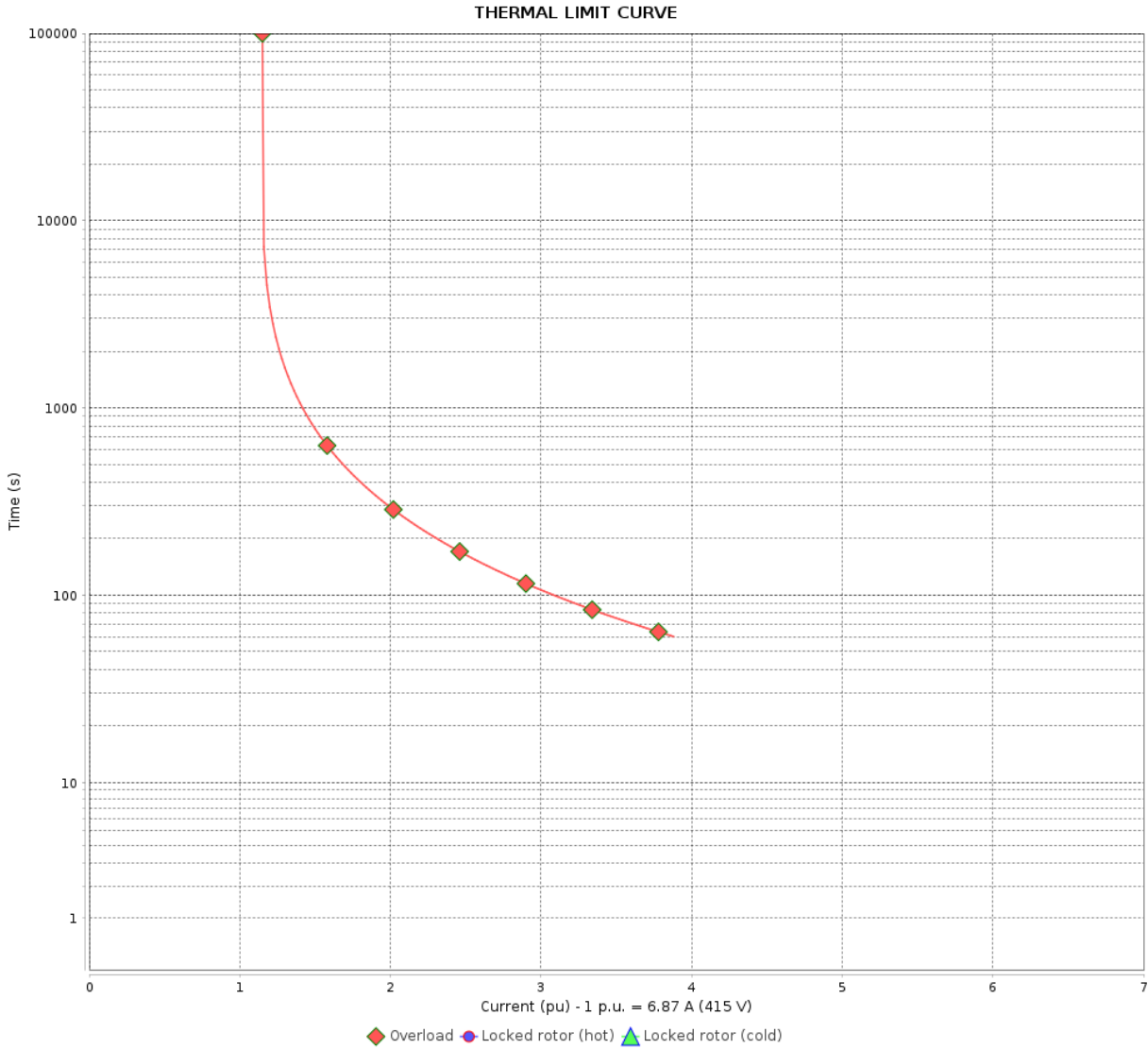


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 13482597

Catalog # : 00536OT3E182JMV-S



Performance : 415 V 50 Hz 2P

Rated current : 6.87 A
 LRC : 6.9
 Rated torque : 9.04 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 270 %
 Rated speed : 2905 rpm

Moment of inertia (J) : 0.1386 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

Heating constant

Cooling constant

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 10 / | | |
| Date | | 26/10/2022 | | |

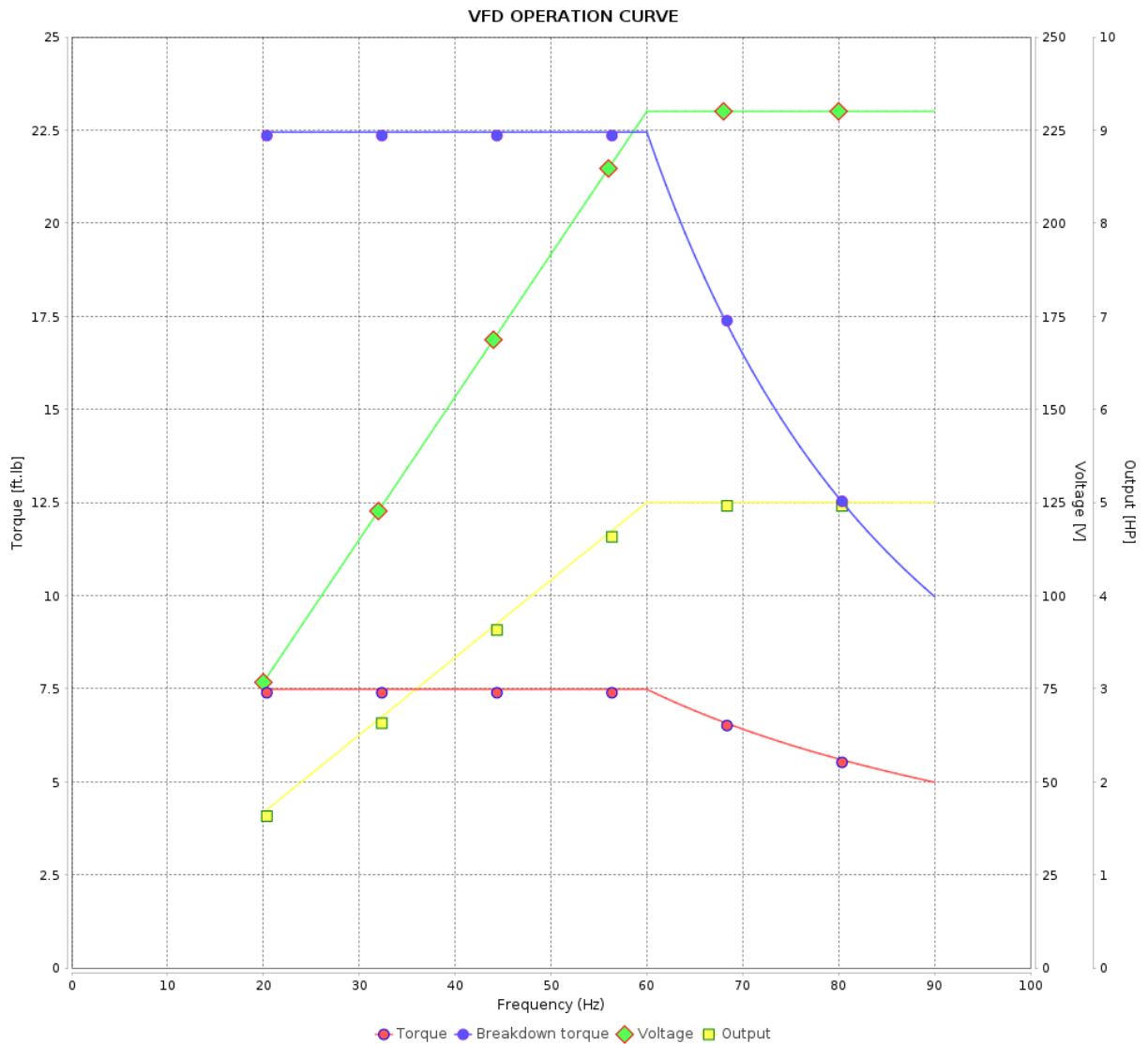
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase
 Product code : 13482597
 Catalog # : 00536OT3E182JMV-S



Performance : 230/460 V 60 Hz 2P

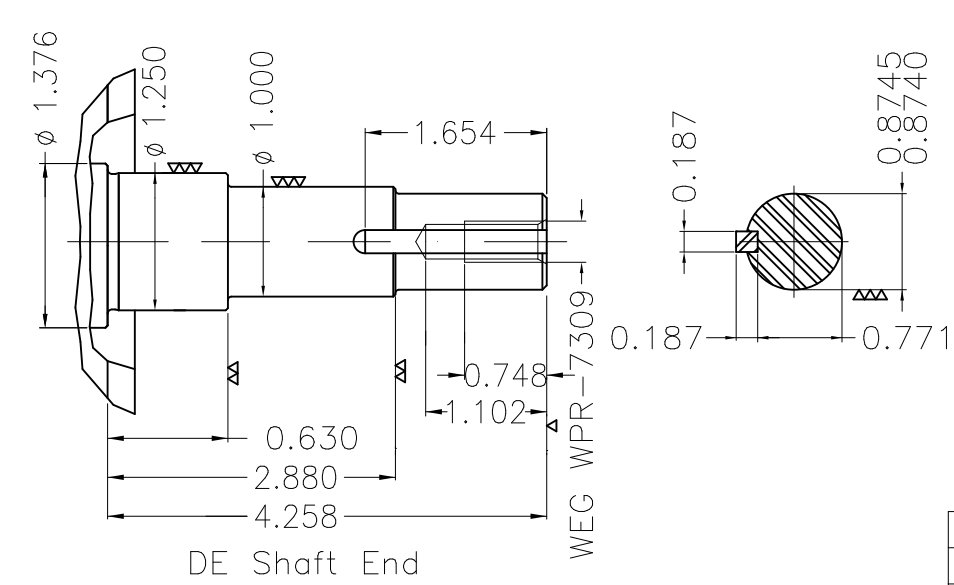
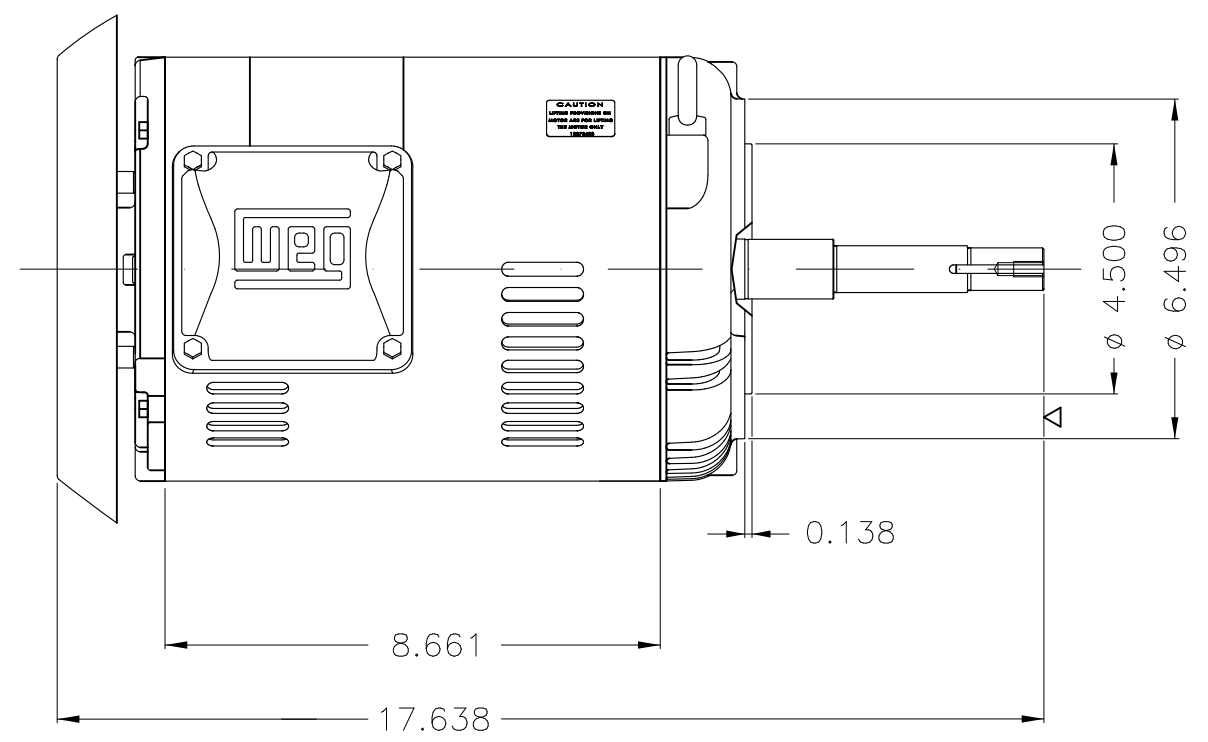
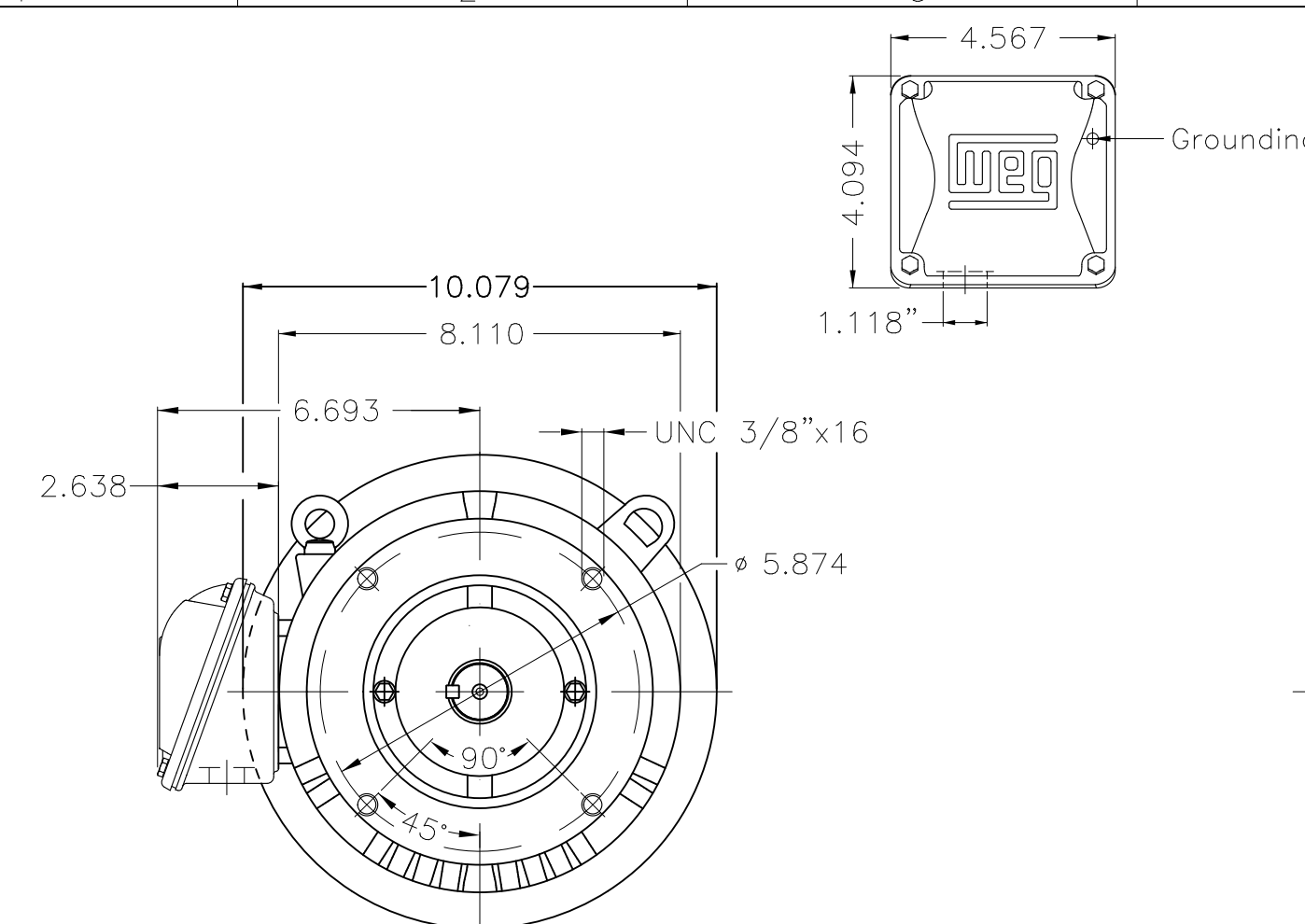
Rated current : 12.2/6.10 A
 LRC : 7.6
 Rated torque : 7.48 ft.lb
 Locked rotor torque : 190 %
 Breakdown torque : 300 %
 Rated speed : 3510 rpm

Moment of inertia (J) : 0.1386 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 11 / | Revision |
| Checked by | | | | |
| Date | 26/10/2022 | | | |

1 2 3 4 5 6

A
B
C
D
E



EUNC 3/8" - 16 WEG WPR-7309

DE Shaft End

| | | | | | | | | | |
|-------------------------------|------------|--|----------------|---------------------|------------|---------|----------|------|-----|
| Color Munsell N 1 matte black | | | | | | | | | |
| Painting plan 207N | | | | | | | | | |
| Mounting W-6/V18R(D) | | | | | | | | | |
| | | | | | | | | | |
| | | | | | HYBRISUSER | 00 | | | |
| ECM | LOC | SUMMARY OF MODIFICATIONS | | | EXECUTED | CHECKED | RELEASED | DATE | VER |
| EXECUTED | HYBRISUSER | THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP IN TYPE PFM AFF. | | | | | | | |
| CHECKED | | FRAME 182/4JM IP21 ODP | | | | | | | |
| RELEASED | | | | | | | | | |
| REL DT. | | WMO | Jaragua do Sul | Product Engineering | WDD | 00 | | | |
| | | | | | SHEET | 1 / 1 | | | |

5 HP 02 Poles 60 Hz

**NEMA**
Premium

MADE IN MEXICO

MAT: 13482597 CC029A

W01.T00IC0X0N

MODEL 005360T3E182JMV-S

23MAY2022 S/N:

| | | |
|---------------------|--------|------------------------|
| PH 3 | Hz 60 | HP 5.0 |
| FR 182/4JM | | KW 3.7 |
| DUTY CONT. | | V 230/460 |
| ALT 1000 m.a.s.l. | | A 12.2/6.10 |
| INS CL F AT 80K | | SFA 14.0/7.01 |
| AMB 40°C | DES B | SF 1.15 |
| ENCL ODP | CODE J | PF 0.88 |
| USABLE @ 208V 13.5A | | RPM 3510 |
| SF1.00 | | NEMA NOM. EFF 86.5% |

| |
|--|
| ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.00 |
| 14.7-13.0/7.37-6.87A 2885RPM EFF 83.8% (IE1) IEC 60034-1 |

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 CT

| | | |
|------------|-------------|------------------|
| DE 6207-ZZ | ODE 6205-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.

