

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|  |   |      |
|--|---|------|
| Customer :   |   |      |
| Product line   | : JM Pump NEMA Premium Efficiency Three-Phase           |      |
| Product code :   | 12969542  |      |
| Catalog # :  | 00718ET3E213JM-SG                                       |      |
| Frame  | : 213/5JM   |      |
| Insulation class   | : F   |      |
| Duty cycle   | : Cont.(S1)   |      |
| Ambient temperature  | : -20°C to +40°C  |      |
| Altitude   | : 1000 m.a.s.l.   |      |
| Protection degree  | : IP55  |      |
| Design   | : B   |      |
| Cooling method   | : IC411 - TEFC  |      |
| Mounting   | : F-1   |      |
| Rotation <sup>1</sup>  | : Both (CW and CCW)                                     |      |
| Starting method  | : Direct On Line  |      |
| Approx. weight <sup>2</sup>  | : 132 lb  |      |
| Moment of inertia (J)  | : 0.9380 sq.ft.lb                                       |      |
| Output [HP]  | 7.5   |      |
| Poles  | 4   |      |
| Frequency [Hz]   | 60  |      |
| Rated voltage [V]  | 230/460   |      |
| Rated current [A]  | 18.1/9.07   |      |
| L. R. Amperes [A]  | 132/66.2  |      |
| LRC [A]  | 7.3x(Code H)  |      |
| No load current [A]  | 8.81/4.41   |      |
| Rated speed [RPM]  | 1770  |      |
| Slip [%]   | 1.67  |      |
| Rated torque [ft.lb]   | 22.3  |      |
| Locked rotor torque [%]  | 260   |      |
| Breakdown torque [%]   | 300   |      |
| Service factor   | 1.15  |      |
| Temperature rise   | 80 K  |      |
| Locked rotor time  | 39s (cold) 22s (hot)                                    |      |
| Noise level <sup>2</sup>   | 60.0 dB(A)  |      |
| Efficiency (%)   | 25%   | 89.4 |
|  | 50%   | 90.2 |
|  | 75%   | 91.0 |
|  | 100%  | 91.7 |
| Power Factor   | 25%   | 0.39 |
|  | 50%   | 0.64 |
|  | 75%   | 0.76 |
|  | 100%  | 0.82 |
| Bearing type   | : <u>Drive end</u> 6209 ZZ <u>Non drive end</u> 6206 ZZ |      |
| Sealing  | : V'Ring Without Bearing Seal                           |      |
| Lubrication interval   | : -   |      |
| Lubricant amount   | : -   |      |
| Lubricant type   | : Mobil Polyrex EM                                      |      |
| Foundation loads   | Max. traction : 360 lb                                  |      |
|  | Max. compression : 492 lb                               |      |
| Notes<br>USABLE @208V 20.1A SF 1.00 SFA 20.1A  |   |      |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(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   | 13/04/2022  |      |
| Page   | 1 / 16  |      |
| Revision   |   |      |

# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage

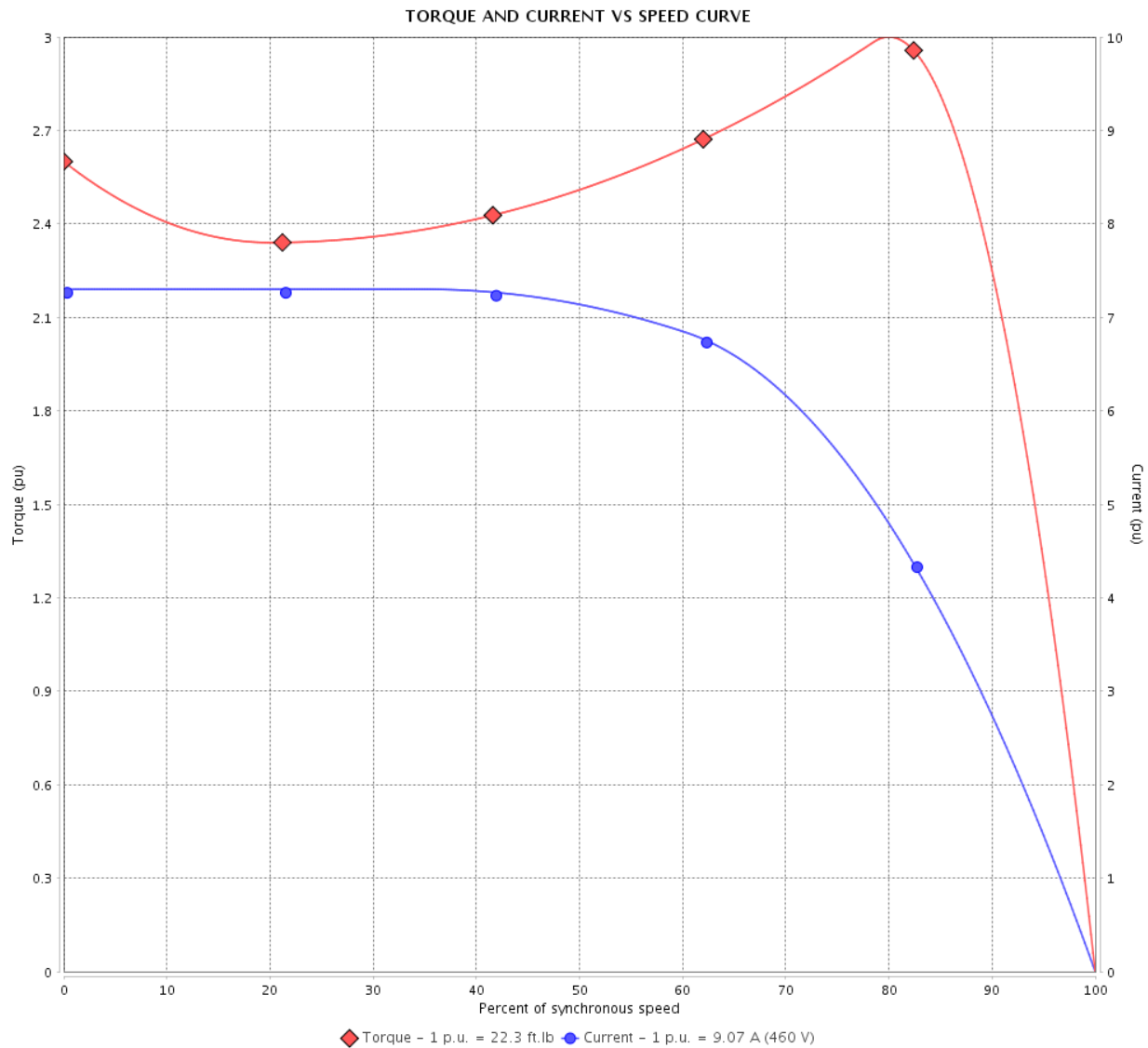


Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12969542

Catalog # : 00718ET3E213JM-SG



Performance : 230/460 V 60 Hz 4P

|                     |               |                       |                   |
|---------------------|---------------|-----------------------|-------------------|
| Rated current       | : 18.1/9.07 A | Moment of inertia (J) | : 0.9380 sq.ft.lb |
| LRC                 | : 7.3         | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 22.3 ft.lb  | Insulation class      | : F               |
| Locked rotor torque | : 260 %       | Service factor        | : 1.15            |
| Breakdown torque    | : 300 %       | Temperature rise      | : 80 K            |
| Rated speed         | : 1770 rpm    | Design                | : B               |

Locked rotor time : 39s (cold) 22s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>2 / 16 | Revision |
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| Date         | 13/04/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE



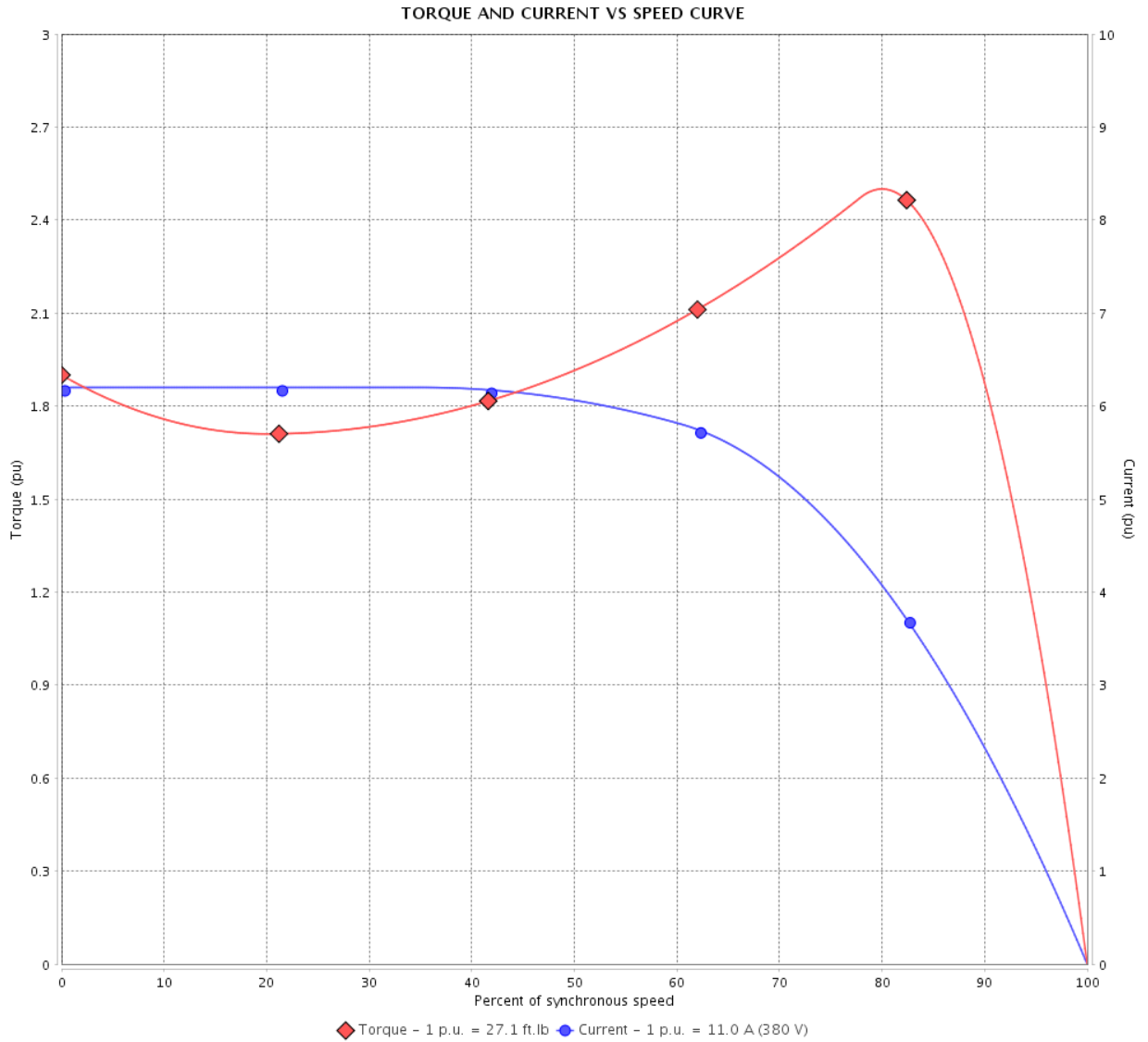
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12969542

Catalog # : 00718ET3E213JM-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A  
 LRC : 6.2  
 Rated torque : 27.1 ft.lb  
 Locked rotor torque : 190 %  
 Breakdown torque : 250 %  
 Rated speed : 1455 rpm

Moment of inertia (J) : 0.9380 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<br>3 / 16 | Revision |
| Checked by   |                 |           |                |          |
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



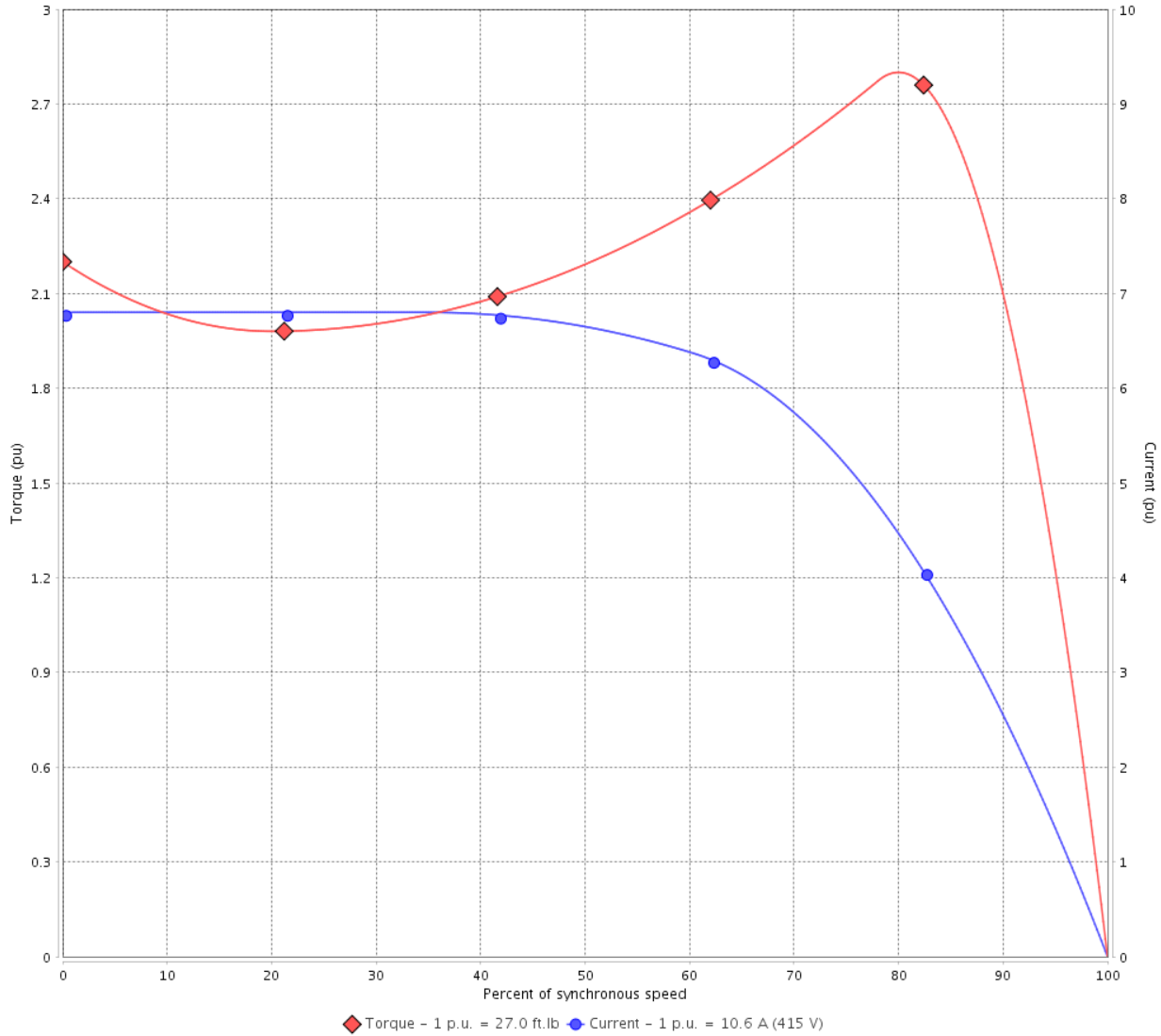
Customer :

Product line : JM Pump NEMA Premium  
Efficiency Three-Phase

Product code : 12969542

Catalog # : 00718ET3E213JM-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) | : 0.9380 sq.ft.lb |
| LRC                 | : 6.8         | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 27.0 ft.lb  | Insulation class      | : F               |
| Locked rotor torque | : 220 %       | Service factor        | : 1.00            |
| Breakdown torque    | : 280 %       | 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<br>4 / 16 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 13/04/2022      |           |                |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

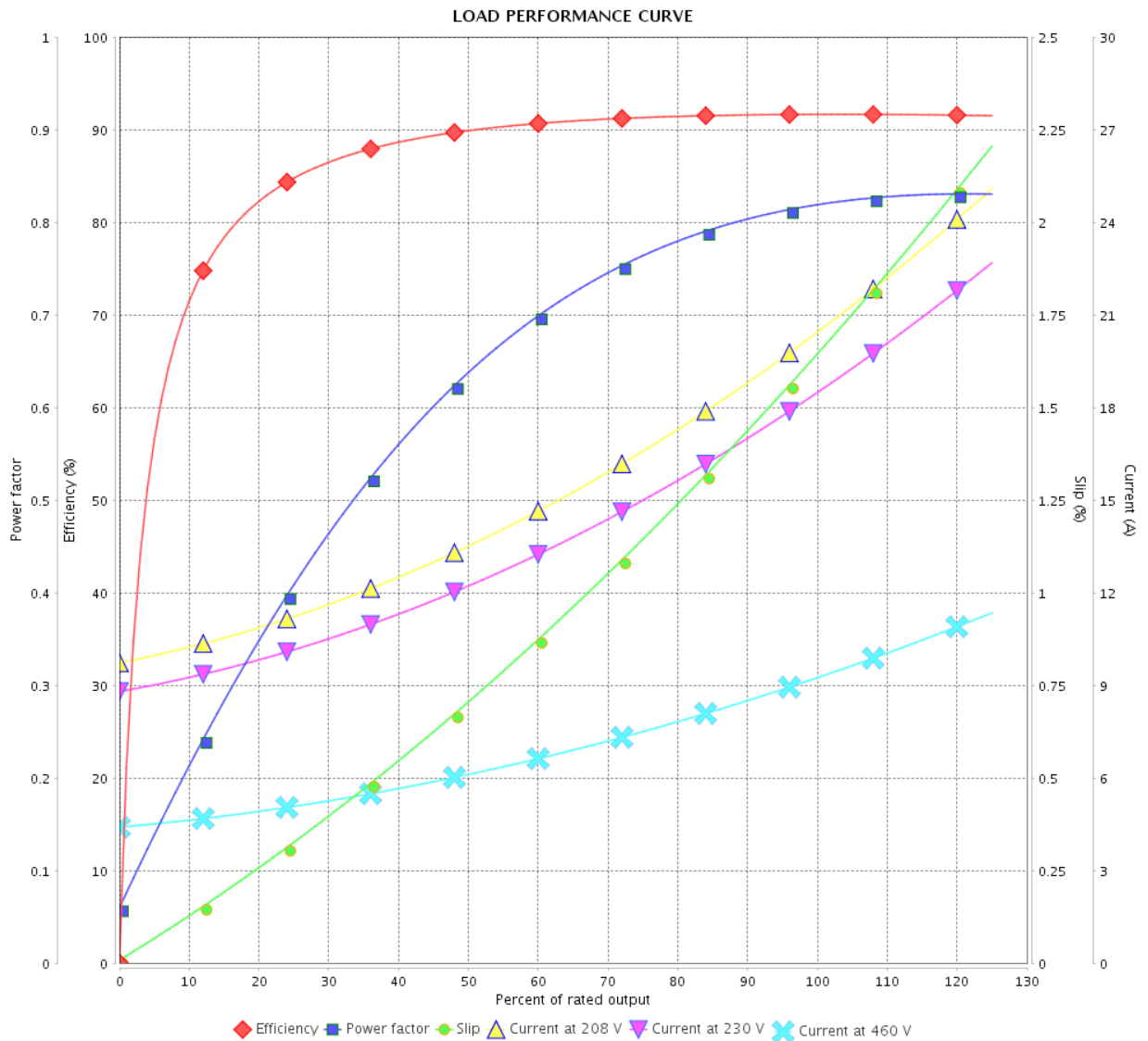


Customer :

Product line : JM Pump NEMA Premium Efficiency Three-Phase

Product code : 12969542

Catalog # : 00718ET3E213JM-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A  
 LRC : 7.3  
 Rated torque : 22.3 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

Moment of inertia (J) : 0.9380 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       |         | Revision |
| Checked by   |                 | 5 / 16     |         |          |
| Date         |                 | 13/04/2022 |         |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



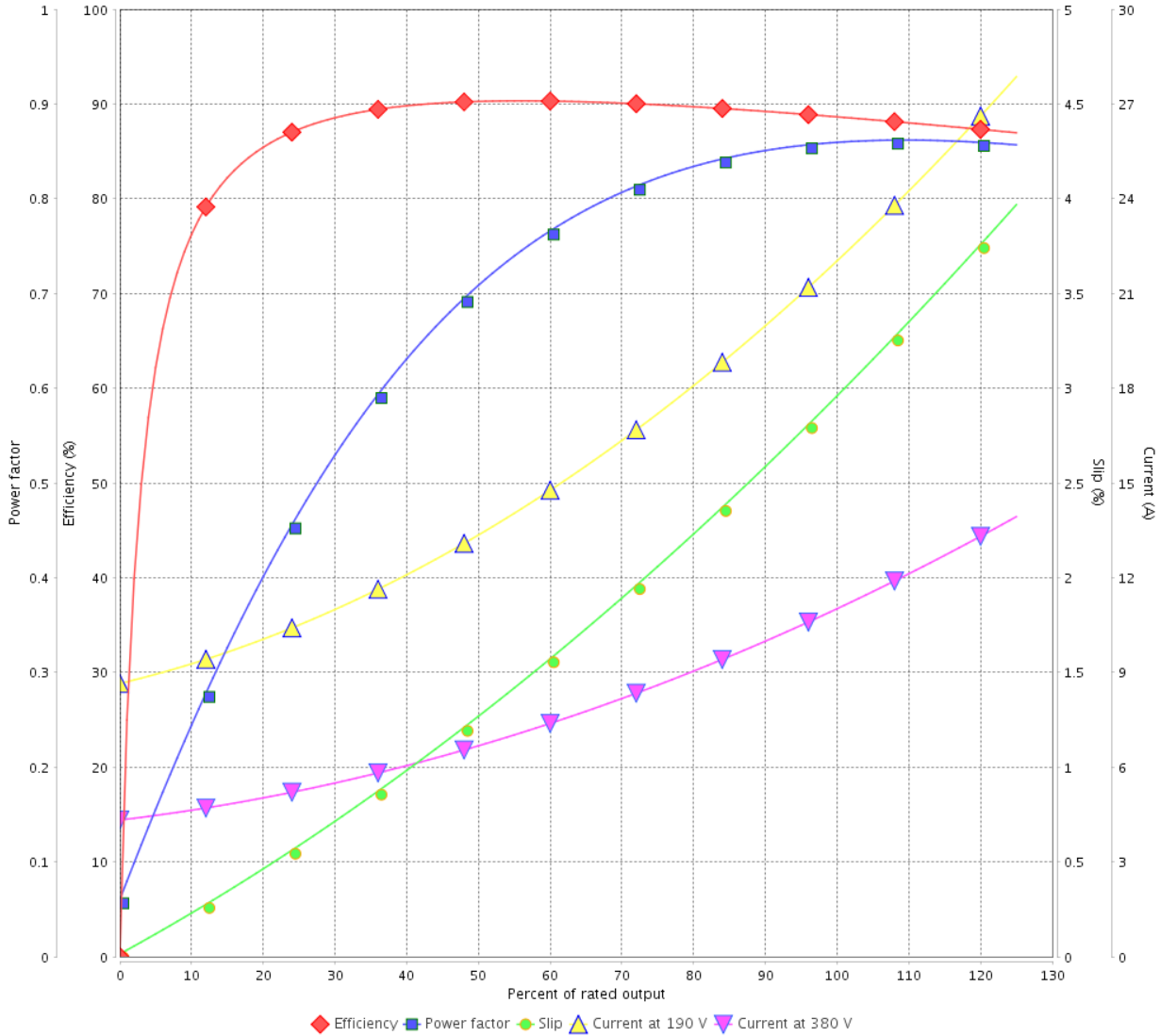
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LOAD PERFORMANCE CURVE



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Breakdown torque : 250 %  
Rated speed : 1455 rpm

Moment of inertia (J) : 0.9380 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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# LOAD PERFORMANCE CURVE

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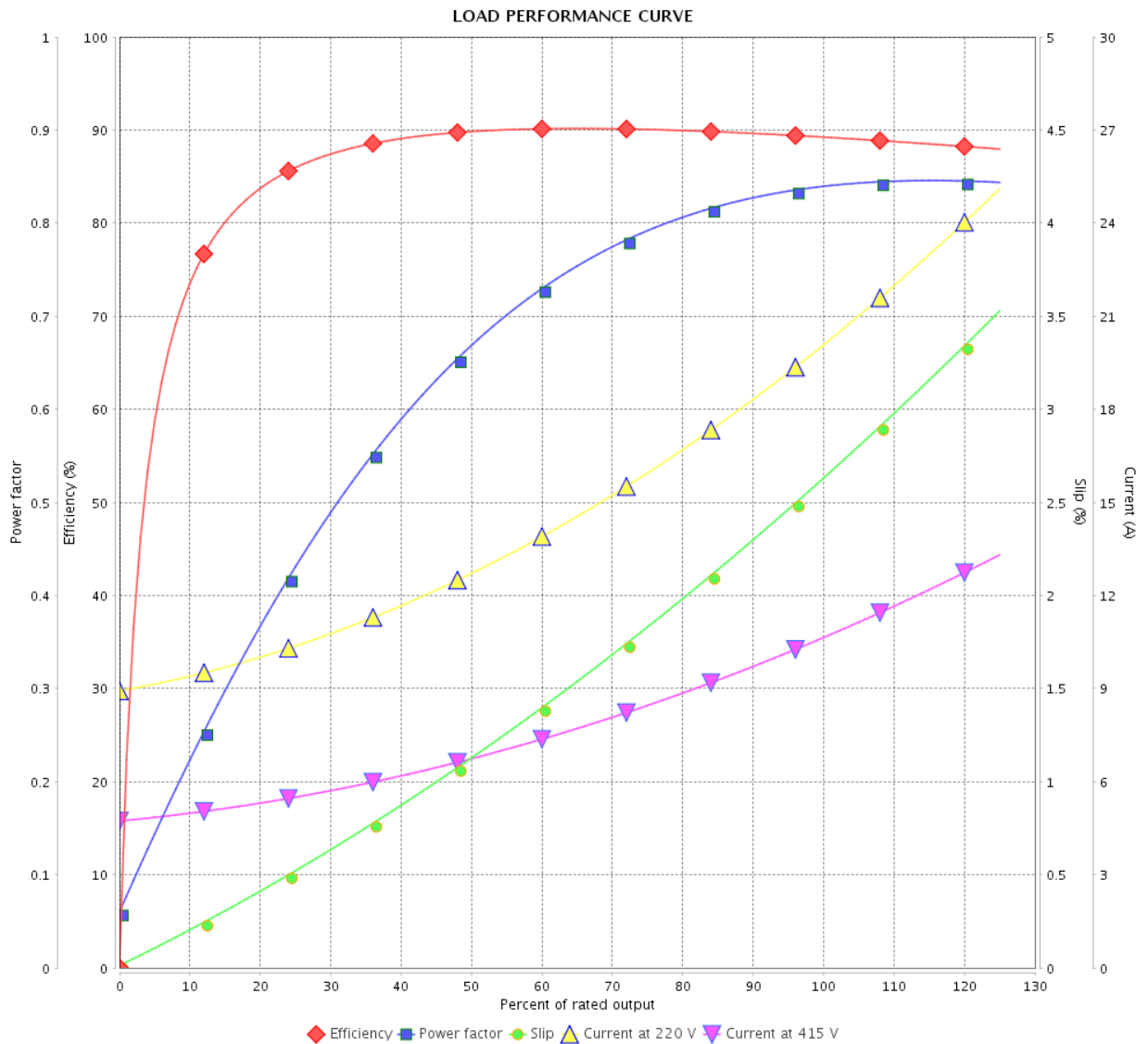


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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

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Breakdown torque : 300 %  
Rated speed : 1770 rpm

Moment of inertia (J) : 0.9380 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

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|              |                 |           |         |          |
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| Date         | 13/04/2022      |           | 8 / 16  |          |

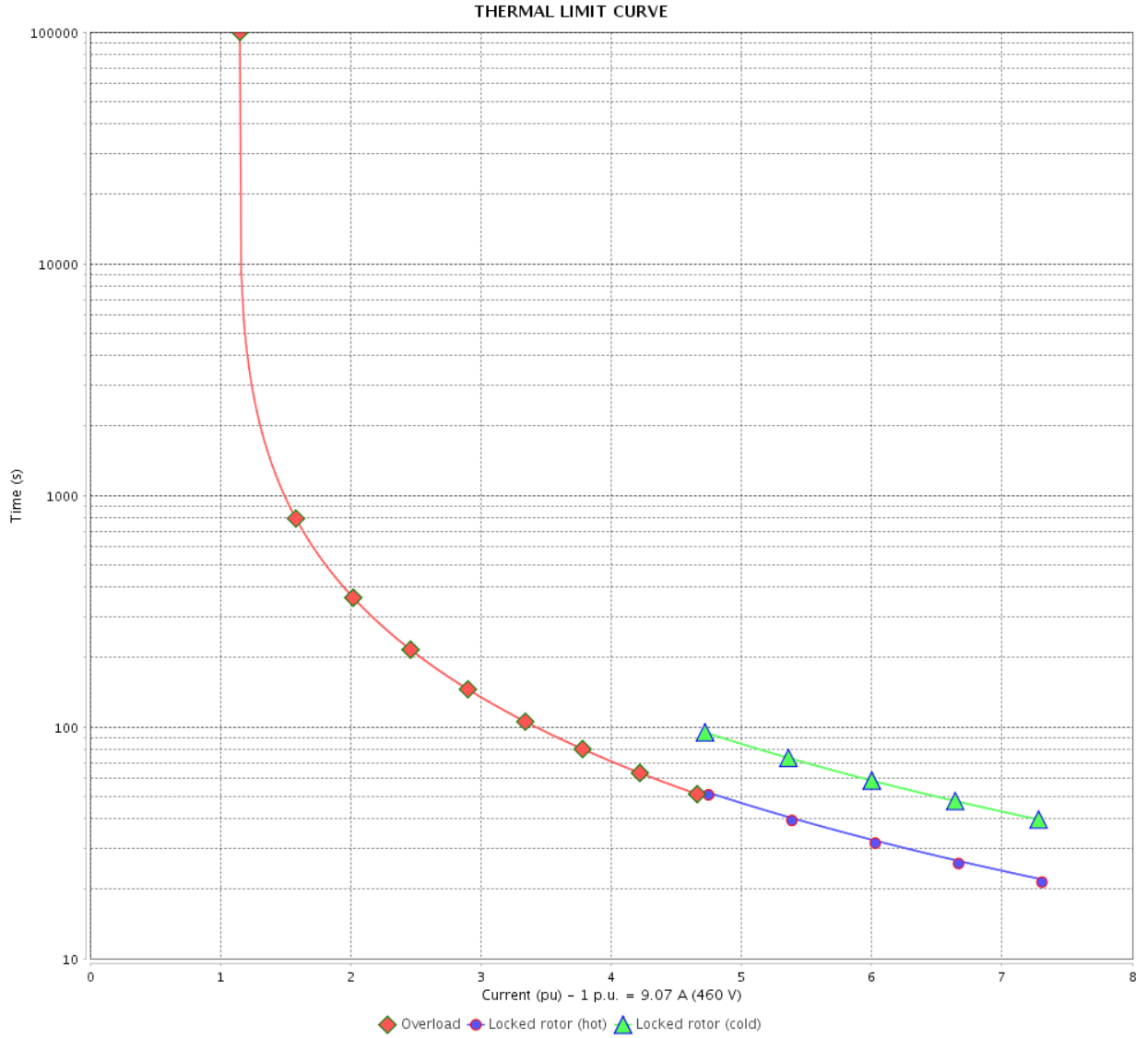


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 9 / 16     |         |          |
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Insulation class : F  
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Temperature rise : 105 K  
Design : B

Heating constant

Cooling constant

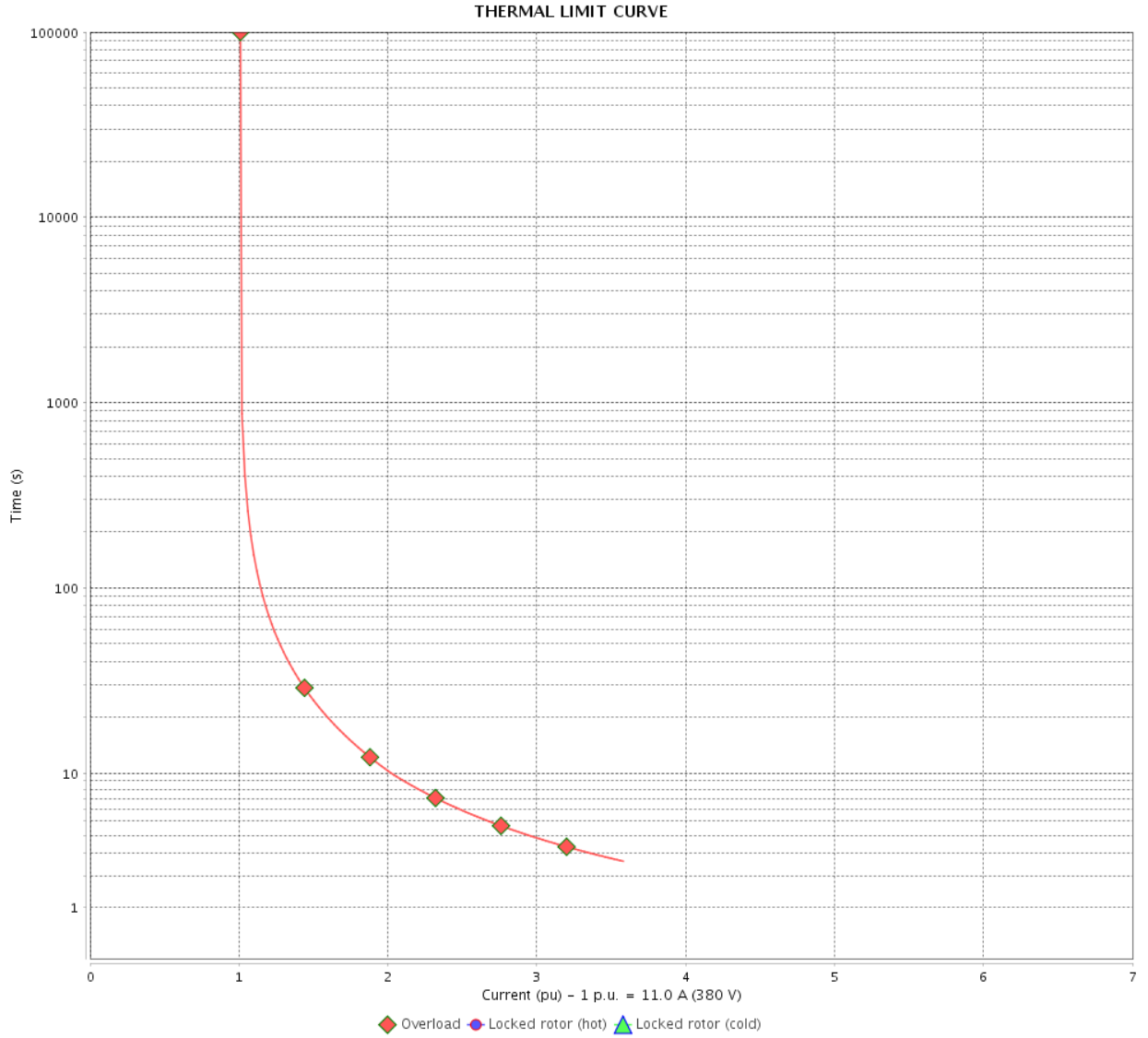
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| Date         | 13/04/2022      |           | 10 / 16 |          |

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Three Phase Induction Motor - Squirrel Cage



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| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
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| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 11 / 16    |         |          |
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Product code : 12969542

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LRC : 6.8  
Rated torque : 27.0 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 280 %  
Rated speed : 1460 rpm

Moment of inertia (J) : 0.9380 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 80 K  
Design : B

Heating constant

Cooling constant

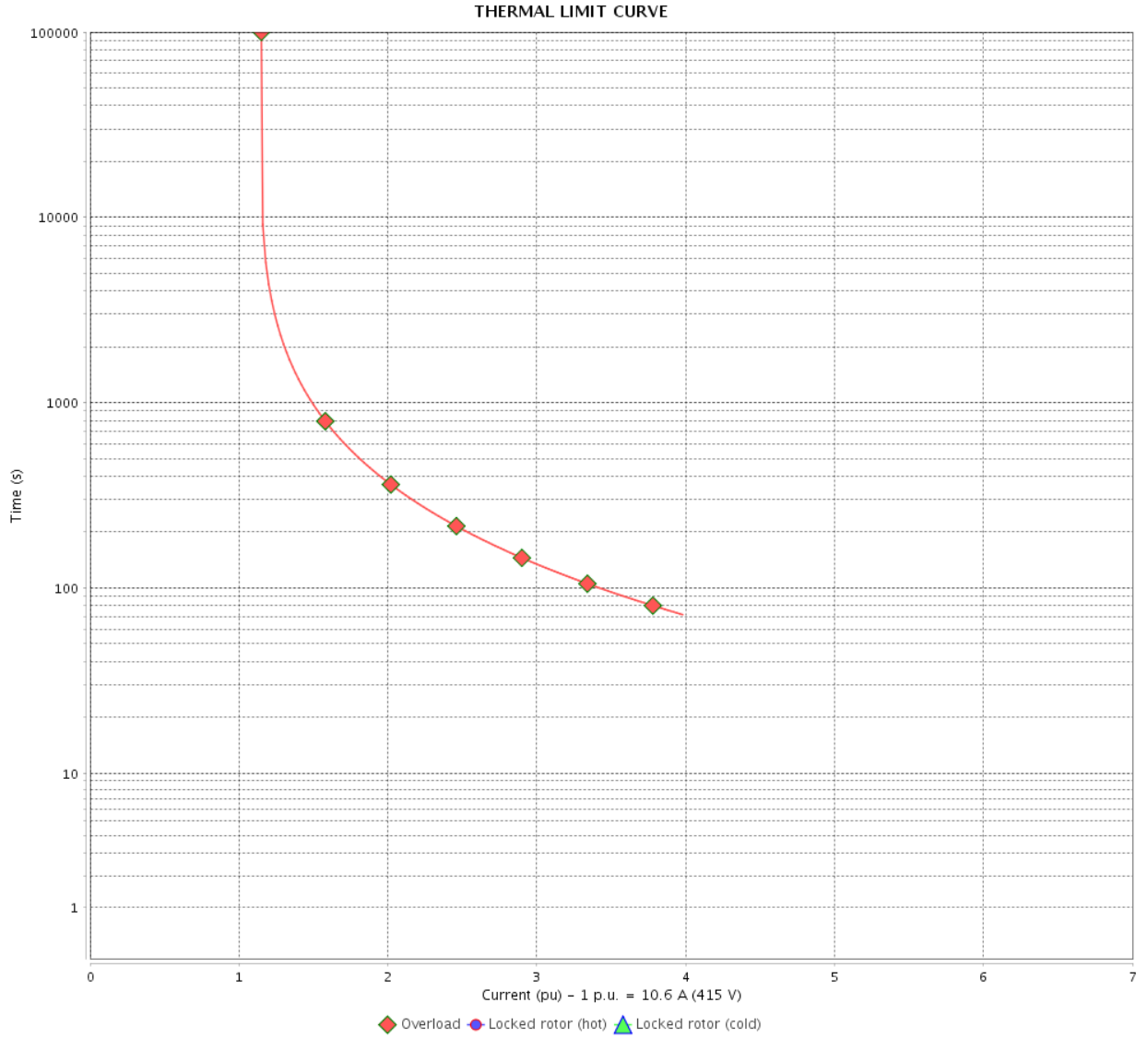
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| Checked by   |                 |           | Page    | Revision |
| Date         | 13/04/2022      |           | 12 / 16 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

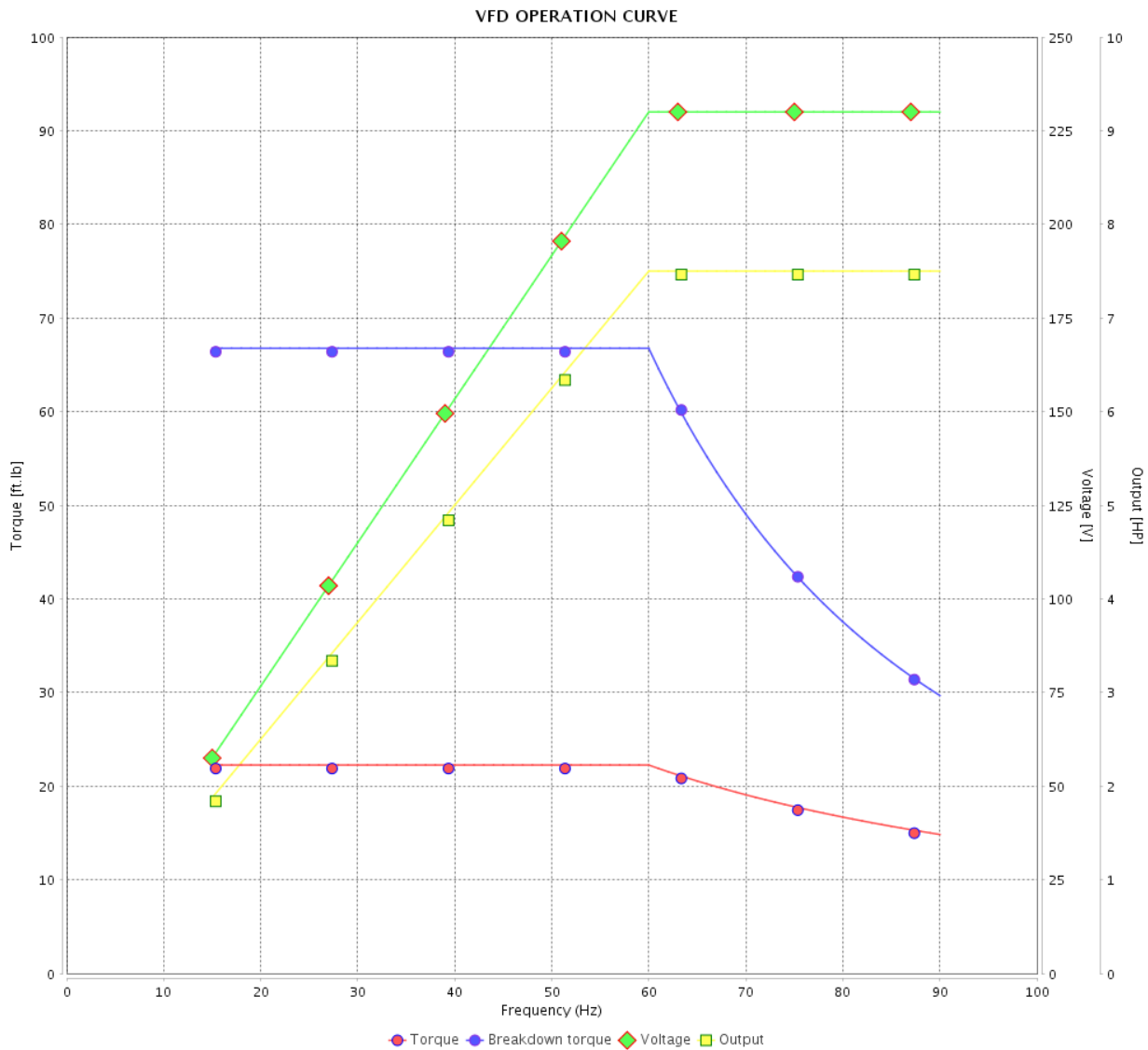


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Product code : 12969542

Catalog # : 00718ET3E213JM-SG



Performance : 230/460 V 60 Hz 4P

Rated current : 18.1/9.07 A  
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 Breakdown torque : 300 %  
 Rated speed : 1770 rpm

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

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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

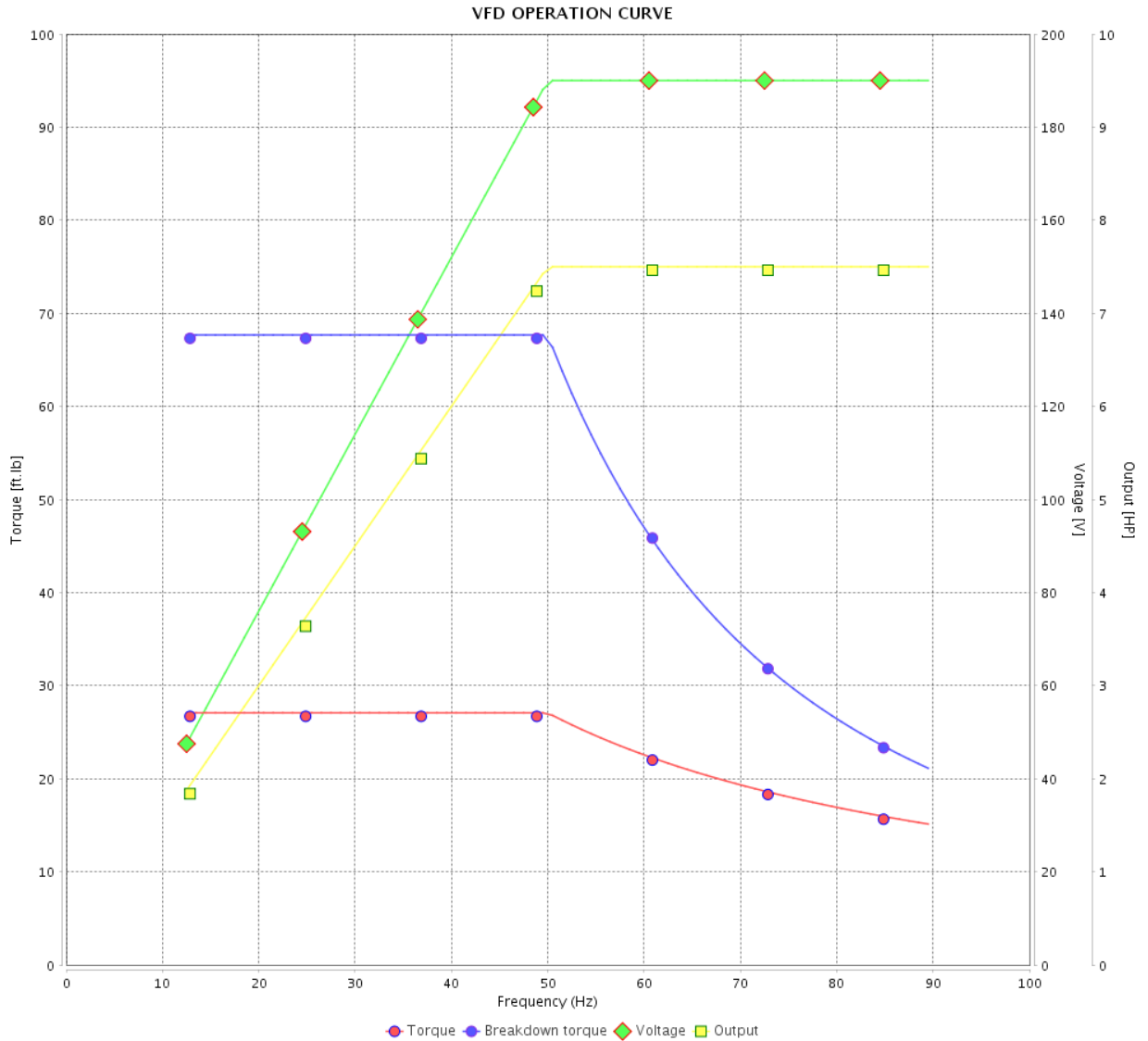


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Performance : 190/380 V 50 Hz 4P

Rated current : 22.0/11.0 A  
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Rated torque : 27.1 ft.lb  
Locked rotor torque : 190 %  
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Service factor : 1.00  
Temperature rise : 105 K  
Design : B

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|              |                 |           |         |          |
| Performed by |                 | Page      |         | Revision |
| Checked by   |                 | 15 / 16   |         |          |
| Date         | 13/04/2022      |           |         |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



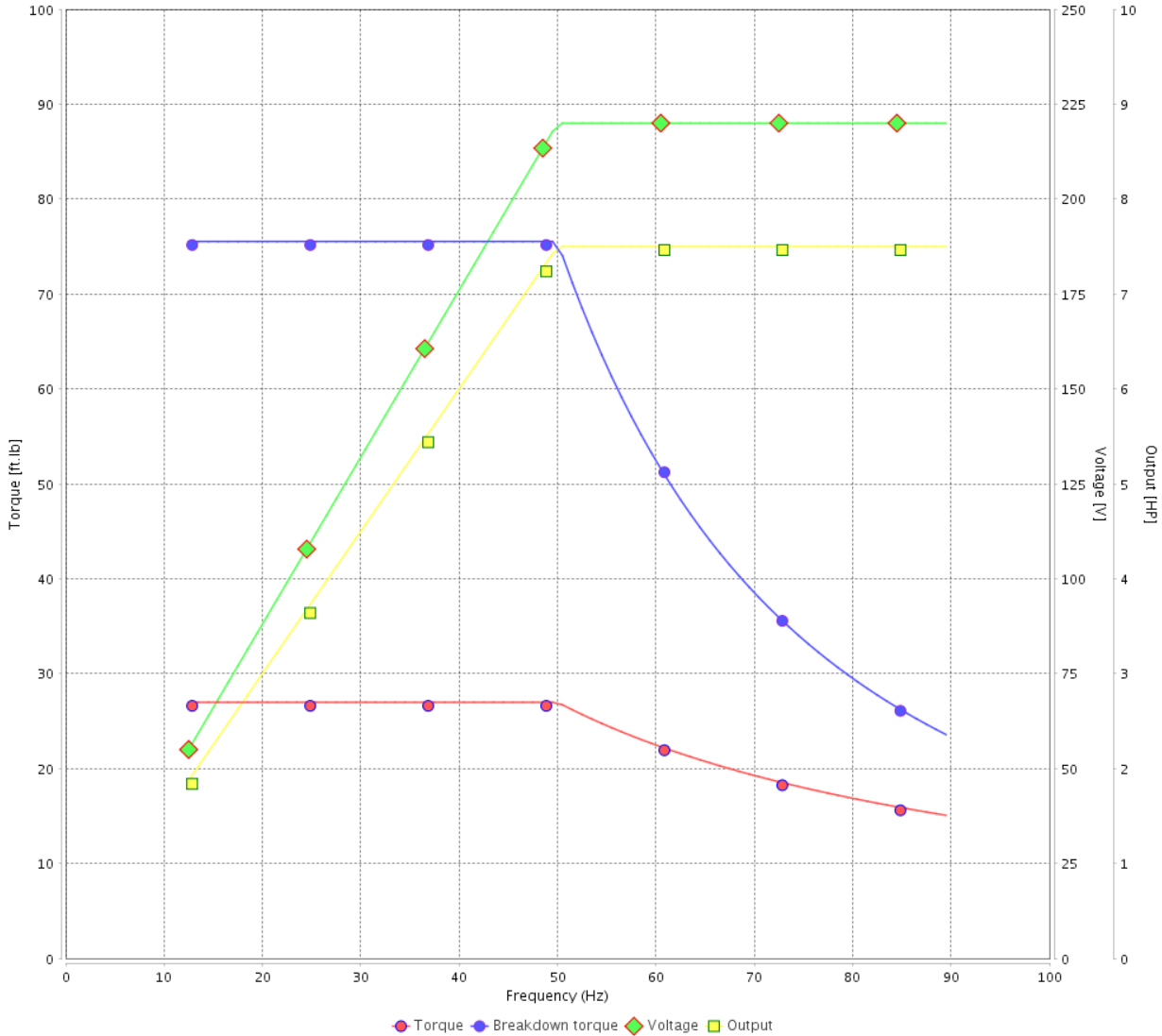
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VFD OPERATION CURVE



Performance : 220/415 V 50 Hz 4P

Rated current : 20.0/10.6 A  
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 Breakdown torque : 280 %  
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 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>16 / 16 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 13/04/2022      |           |                 |          |



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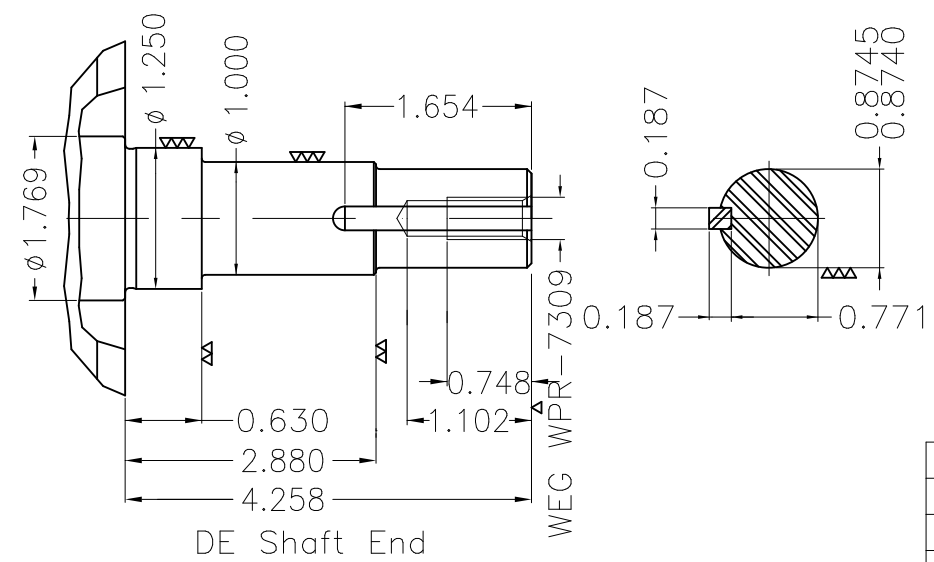
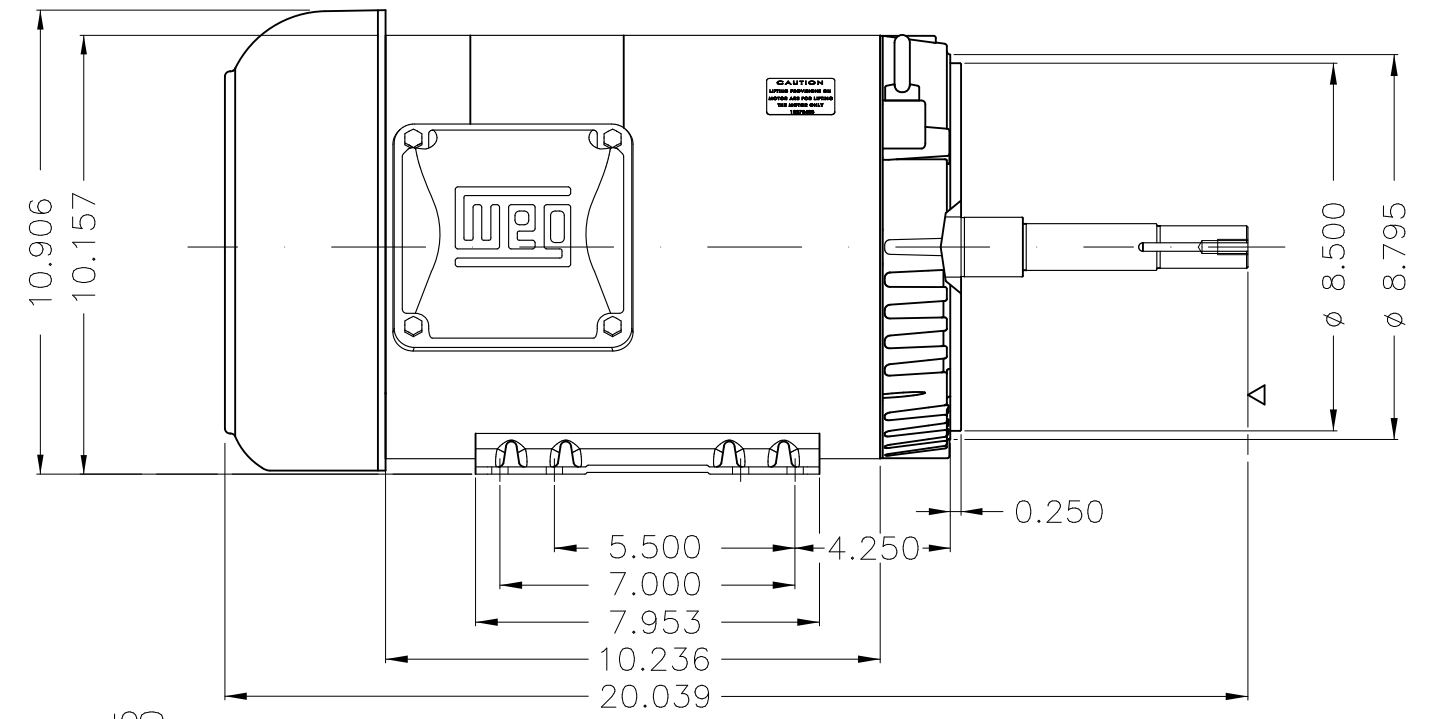
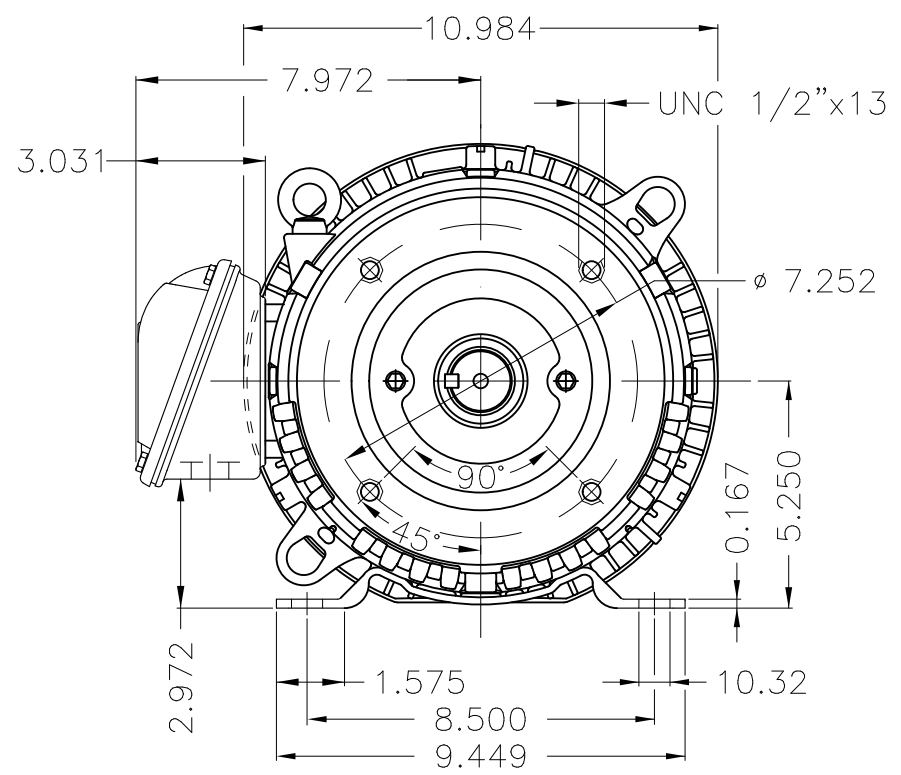
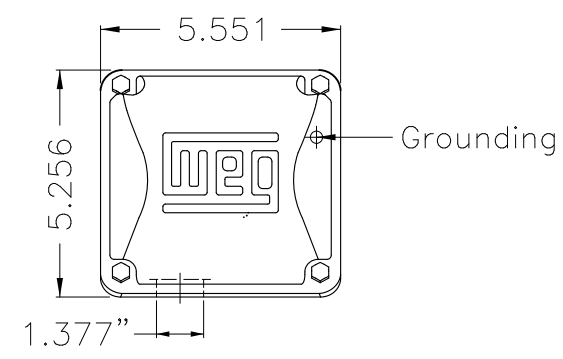
A

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 | PIRWBUSER | THREE PH. MOTOR ROLLED STEEL CLOSE COUPLED PUMP JN TYPE PSEF 575 |                     |         |          |       |     |
| CHECKED  |           | FRAME 213/5JM IP55 TEFC  |                     |         |          |       |     |
| RELEASED |           |  |                     |         |          |       |     |
| REL DT.  | WMO       | Jaragua do Sul   | Product Engineering | WDD     | SHEET    | 1 / 1 |     |

7.5 HP 04 Poles 60 Hz



**NEMA**  
**Premium**

MADE IN MEXICO

**MAT: 12969542 CC029A****W01.TE0IC0X0N****MODEL 00718ET3E213JM-SG****22MAR2022 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 18.1/9.07</b>             |
| <b>INS CL F AT 80K</b>     | <b>IP55</b>   | <b>SFA 20.8/10.4</b>           |
| <b>AMB 40°C</b>            | <b>DES B</b>  | <b>SF 1.15</b>                 |
| <b>ENCL TEFC</b>           | <b>CODE H</b> | <b>PF 0.82</b>                 |
| <b>USABLE @ 208V 20.1A</b> |               | <b>RPM 1770</b>                |
| <b>SF1.00</b>              |               | <b>NEMA<br/>NOM. EFF 91.7%</b> |

|   |
|---|
| <b>ALTERNATE RATING: 7.5HP 50Hz 190-220/380-415V SF1.00</b>     |
| <b>22.0-19.4/11.0-10.3A 1455RPM EFF 88.6% (IE2) IEC 60034-1</b> |

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

|                   |                    |                         |
|-------------------|--------------------|-------------------------|
| <b>DE 6209-ZZ</b> | <b>ODE 6206-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.

