

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|  |                                       |                             |                         |  |                         |                         |                         |
|--|---------------------------------------|-----------------------------|-------------------------|--|-------------------------|-------------------------|-------------------------|
| Customer   |                                       |                             |                         |  |                         |                         |                         |
| Product line   | : NEMA Premium Efficiency Three-Phase | Product code                | : 11535769              |  |                         |                         |                         |
|  |                                       | Catalog #                   | : 05018ET3E326JM-W22    |  |                         |                         |                         |
| Frame  | : 324/6JM                             | 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> | : 612 lb                |  |                         |                         |                         |
| Protection degree  | : IP55                                | Moment of inertia (J)       | : 9.16 sq.ft.lb         |  |                         |                         |                         |
| Design   | : B                                   |                             |                         |  |                         |                         |                         |
| Output [HP]  | 50                                    | 40                          | 40                      | 40   | 50                      | 50                      | 50                      |
| Poles  | 4                                     | 4                           | 4                       | 4  | 4                       | 4                       | 4                       |
| Frequency [Hz]   | 60                                    | 50                          | 50                      | 50   | 50                      | 50                      | 50                      |
| Rated voltage [V]  | 230/460                               | 380                         | 400                     | 415  | 380                     | 400                     | 415                     |
| Rated current [A]  | 118/59.2                              | 58.7                        | 57.1                    | 56.4   | 71.6                    | 68.4                    | 66.3                    |
| L. R. Amperes [A]  | 734/367                               | 376                         | 400                     | 417  | 372                     | 397                     | 411                     |
| LRC [A]  | 6.2x(Code G)                          | 6.4x(Code G)                | 7.0x(Code H)            | 7.4x(Code J)   | 5.2x(Code E)            | 5.8x(Code F)            | 6.2x(Code G)            |
| No load current [A]  | 47.0/23.5                             | 23.0                        | 24.0                    | 25.0   | 23.0                    | 24.0                    | 25.0                    |
| Rated speed [RPM]  | 1775                                  | 1470                        | 1475                    | 1478   | 1460                    | 1465                    | 1470                    |
| Slip [%]   | 1.39                                  | 2.00                        | 1.67                    | 1.47   | 2.67                    | 2.33                    | 2.00                    |
| Rated torque [ft.lb]   | 148                                   | 143                         | 142                     | 142  | 180                     | 179                     | 179                     |
| Locked rotor torque [%]  | 229                                   | 229                         | 250                     | 260  | 180                     | 200                     | 210                     |
| Breakdown torque [%]   | 270                                   | 260                         | 300                     | 330  | 210                     | 240                     | 260                     |
| Service factor   | 1.25                                  | 1.00                        | 1.00                    | 1.00   | 1.00                    | 1.00                    | 1.00                    |
| Temperature rise   | 80 K                                  | 80 K                        | 80 K                    | 80 K   | 105 K                   | 105 K                   | 105 K                   |
| Locked rotor time  | 27s (cold)<br>15s (hot)               | 19s (cold)<br>11s (hot)     | 19s (cold)<br>11s (hot) | 19s (cold)<br>11s (hot)  | 19s (cold)<br>11s (hot) | 19s (cold)<br>11s (hot) | 19s (cold)<br>11s (hot) |
| Noise level <sup>2</sup>   | 66.0 dB(A)                            | 63.0 dB(A)                  | 63.0 dB(A)              | 63.0 dB(A)   | 63.0 dB(A)              | 63.0 dB(A)              | 63.0 dB(A)              |
| Efficiency (%)   | 25%                                   |                             |                         |  |                         |                         |                         |
|  | 50%                                   | 93.0                        | 92.5                    | 91.5   | 91.5                    | 93.0                    | 92.4                    |
|  | 75%                                   | 94.1                        | 93.1                    | 92.8   | 93.0                    | 93.0                    | 93.0                    |
|  | 100%                                  | 94.5                        | 93.6                    | 93.6   | 93.6                    | 92.4                    | 93.0                    |
| Power Factor   | 25%                                   |                             |                         |  |                         |                         |                         |
|  | 50%                                   | 0.66                        | 0.64                    | 0.60   | 0.57                    | 0.72                    | 0.68                    |
|  | 75%                                   | 0.77                        | 0.77                    | 0.73   | 0.70                    | 0.81                    | 0.79                    |
|  | 100%                                  | 0.83                        | 0.83                    | 0.81   | 0.79                    | 0.85                    | 0.84                    |
| Bearing type   | : 6312 C3                             | 6212 C3                     | Foundation loads        |  |                         |                         |                         |
| Sealing  | : V'Ring                              | V'Ring                      | Max. traction           | : 1476 lb  |                         |                         |                         |
| Lubrication interval   | : 20000 h                             | 20000 h                     | Max. compression        | : 2088 lb  |                         |                         |                         |
| Lubricant amount   | : 21 g                                | 13 g                        |                         |  |                         |                         |                         |
| Lubricant type   | : Mobil Polyrex EM                    |                             |                         |  |                         |                         |                         |
| Notes  |                                       |                             |                         |  |                         |                         |                         |
| USABLE @208V 131A SF 1.15 SFA 151A   |                                       |                             |                         |  |                         |                         |                         |
| 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  | Checked                 | Date                    |                         |
| Performed by   |                                       |                             |                         |  |                         |                         |                         |
| Checked by   |                                       |                             |                         |  | Page                    | Revision                |                         |
| Date   | 12/04/2022                            |                             |                         |  | 1 / 36                  |                         |                         |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



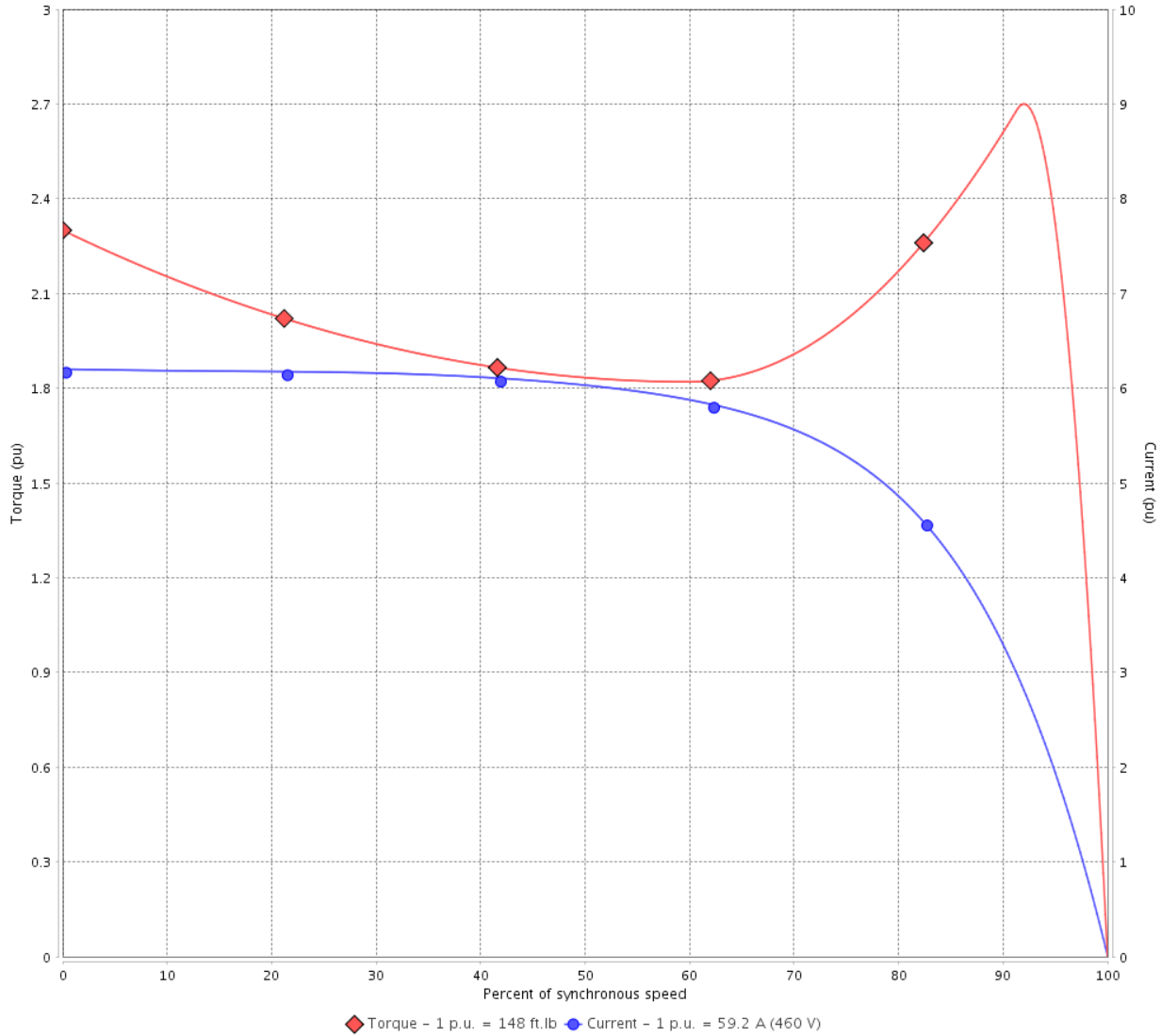
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

|                     |              |                       |                 |
|---------------------|--------------|-----------------------|-----------------|
| Rated current       | : 118/59.2 A | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 6.2        | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 148 ft.lb  | Insulation class      | : F             |
| Locked rotor torque | : 229 %      | Service factor        | : 1.25          |
| Breakdown torque    | : 270 %      | Temperature rise      | : 80 K          |
| Rated speed         | : 1775 rpm   | Design                | : B             |

Locked rotor time : 27s (cold) 15s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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| Checked by   |                 |           |                |          |
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# TORQUE AND CURRENT VS SPEED CURVE



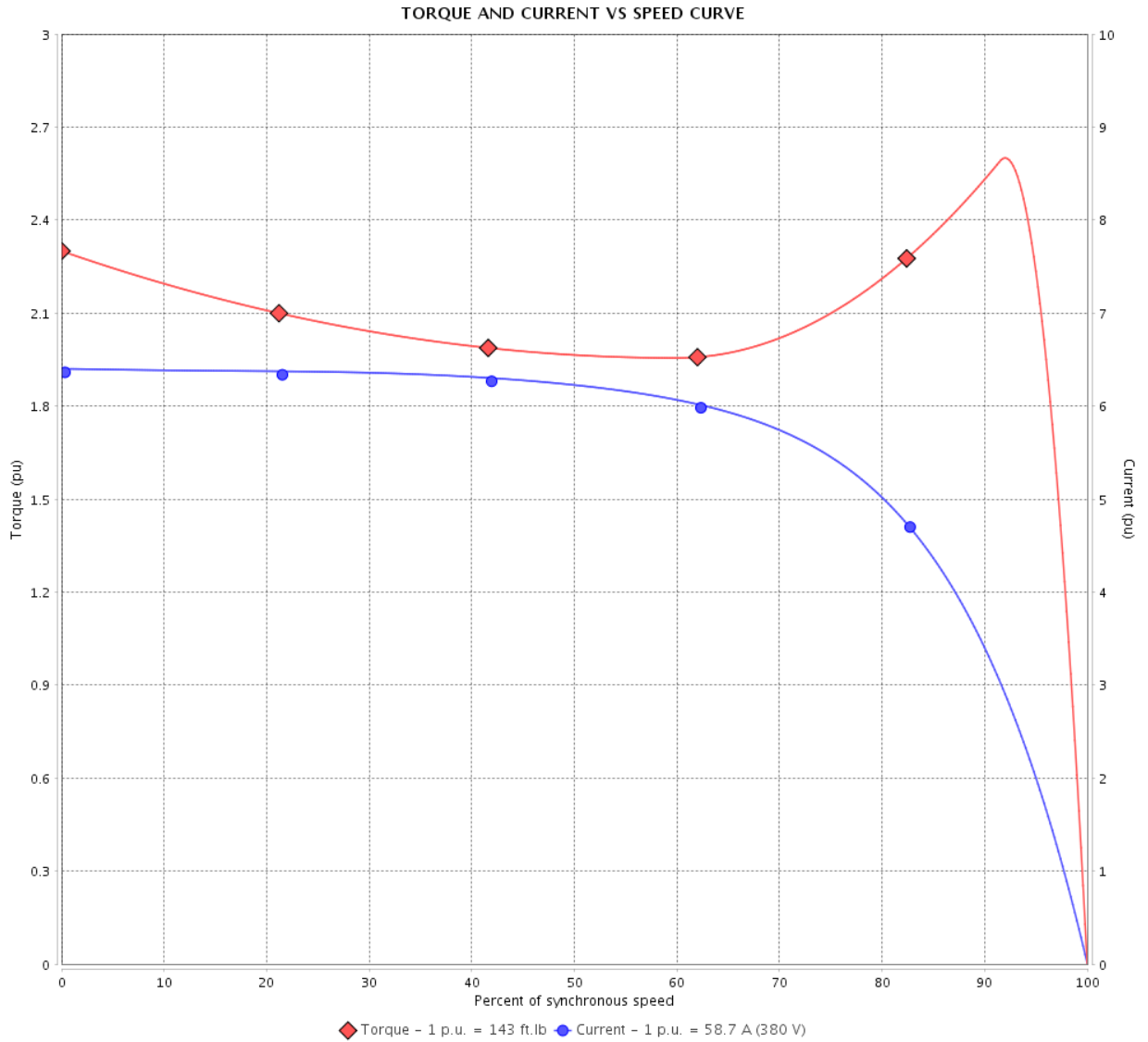
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 380 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 58.7 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 6.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 143 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 229 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1470 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



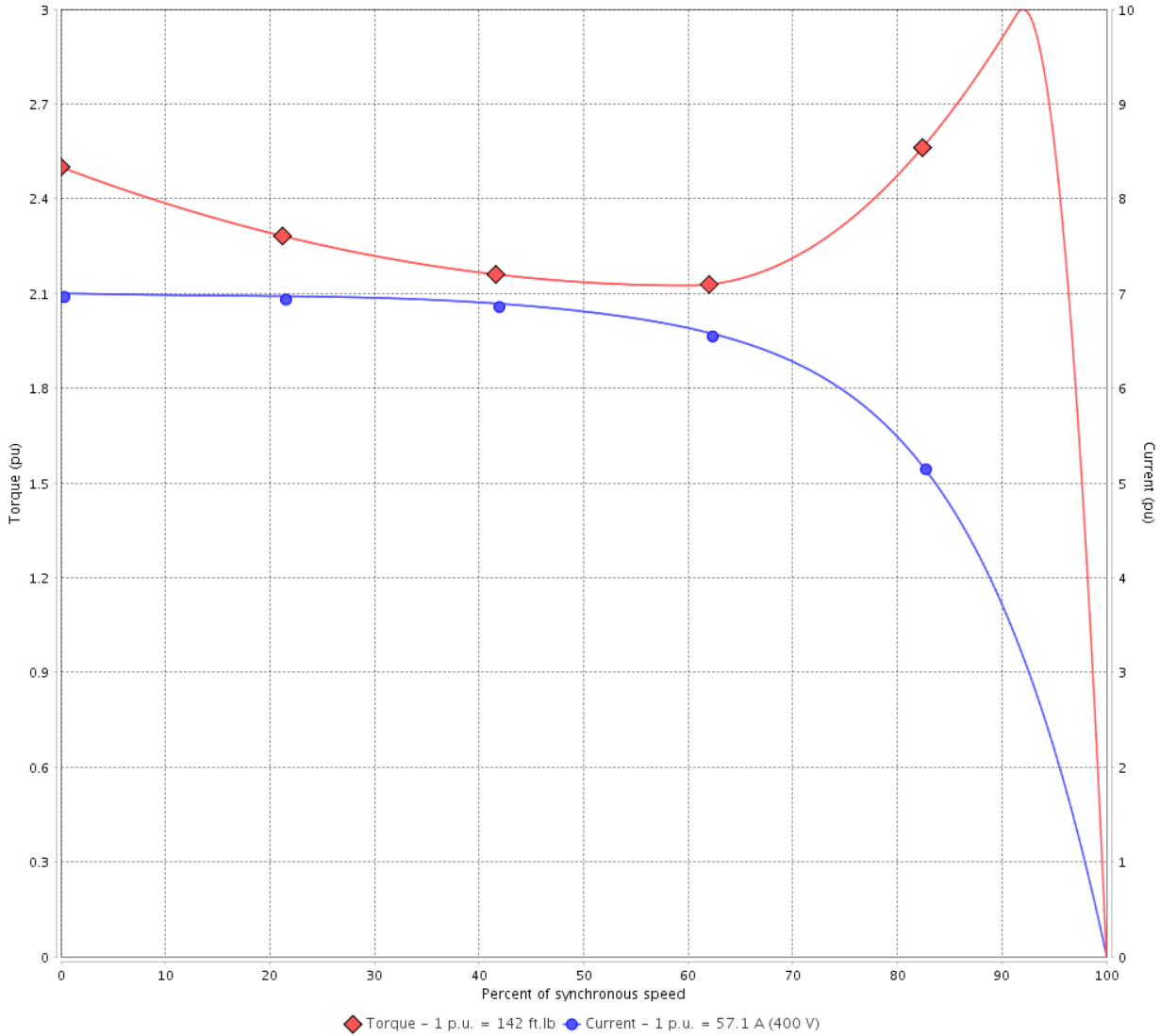
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 57.1 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 7.0       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 142 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 250 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 300 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1475 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# TORQUE AND CURRENT VS SPEED CURVE



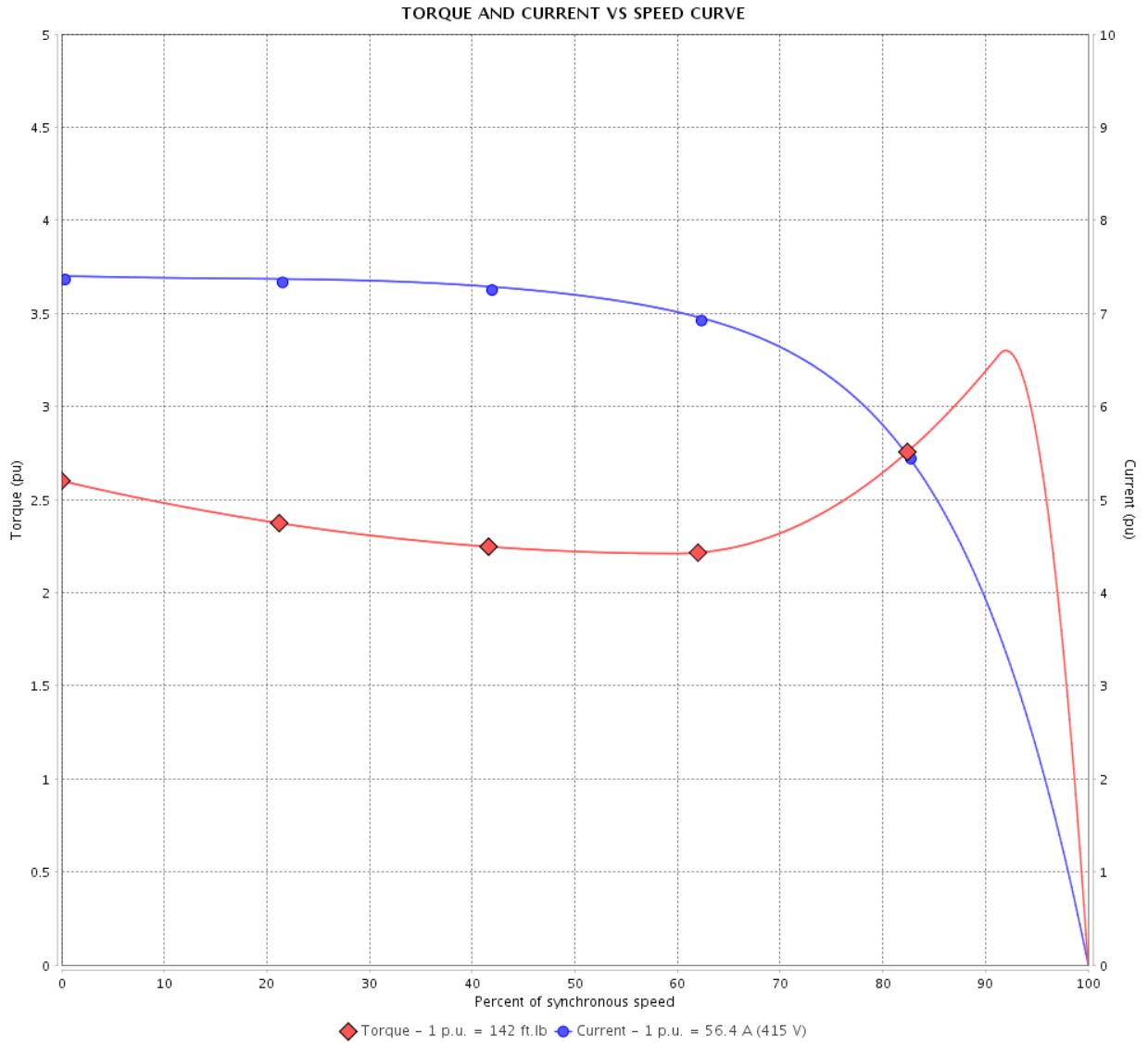
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 415 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 56.4 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 7.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 142 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 260 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 330 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1478 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# TORQUE AND CURRENT VS SPEED CURVE

## Three Phase Induction Motor - Squirrel Cage



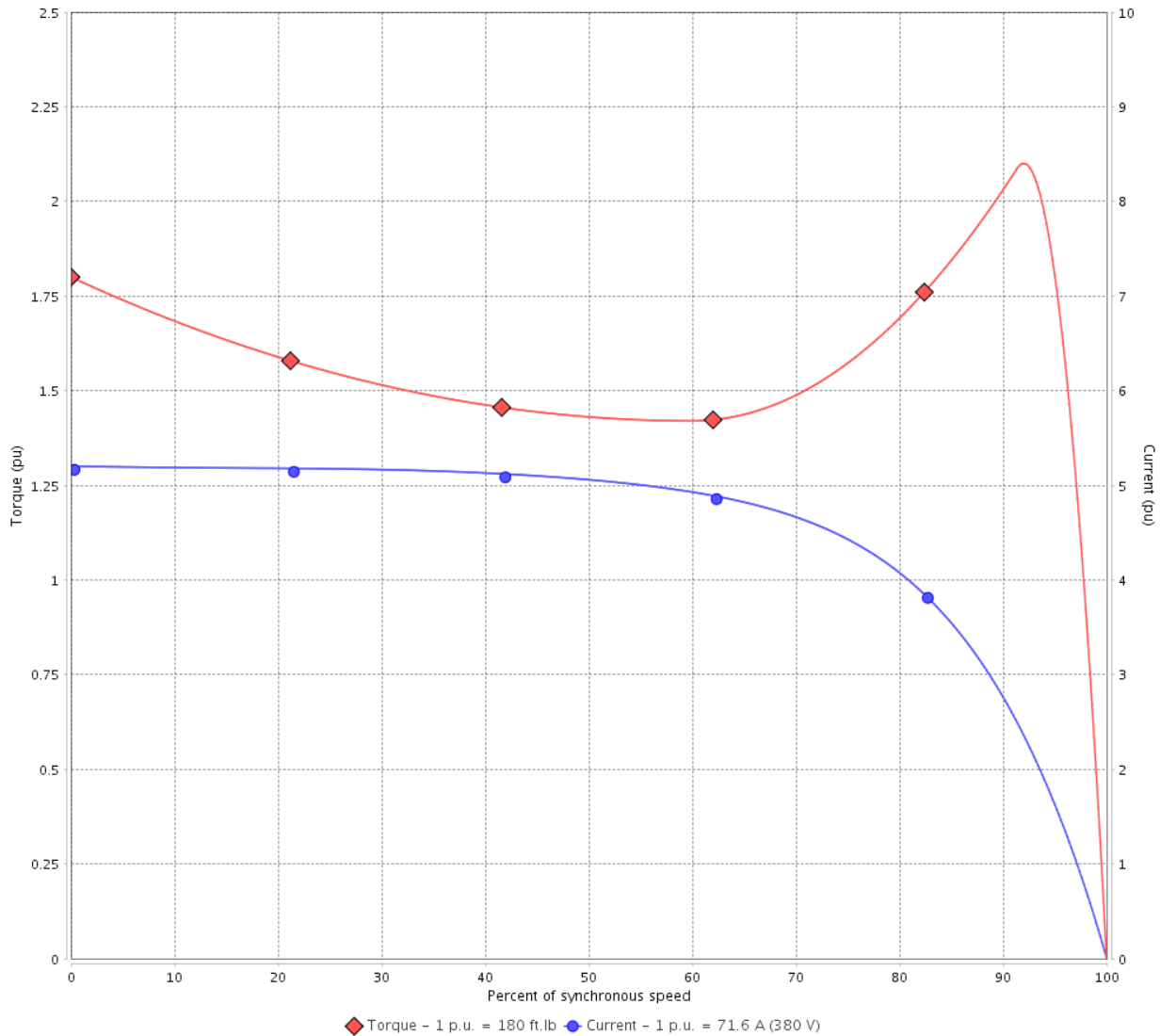
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 4P IE1

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 71.6 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 5.2       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 180 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 180 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 210 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1460 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# TORQUE AND CURRENT VS SPEED CURVE



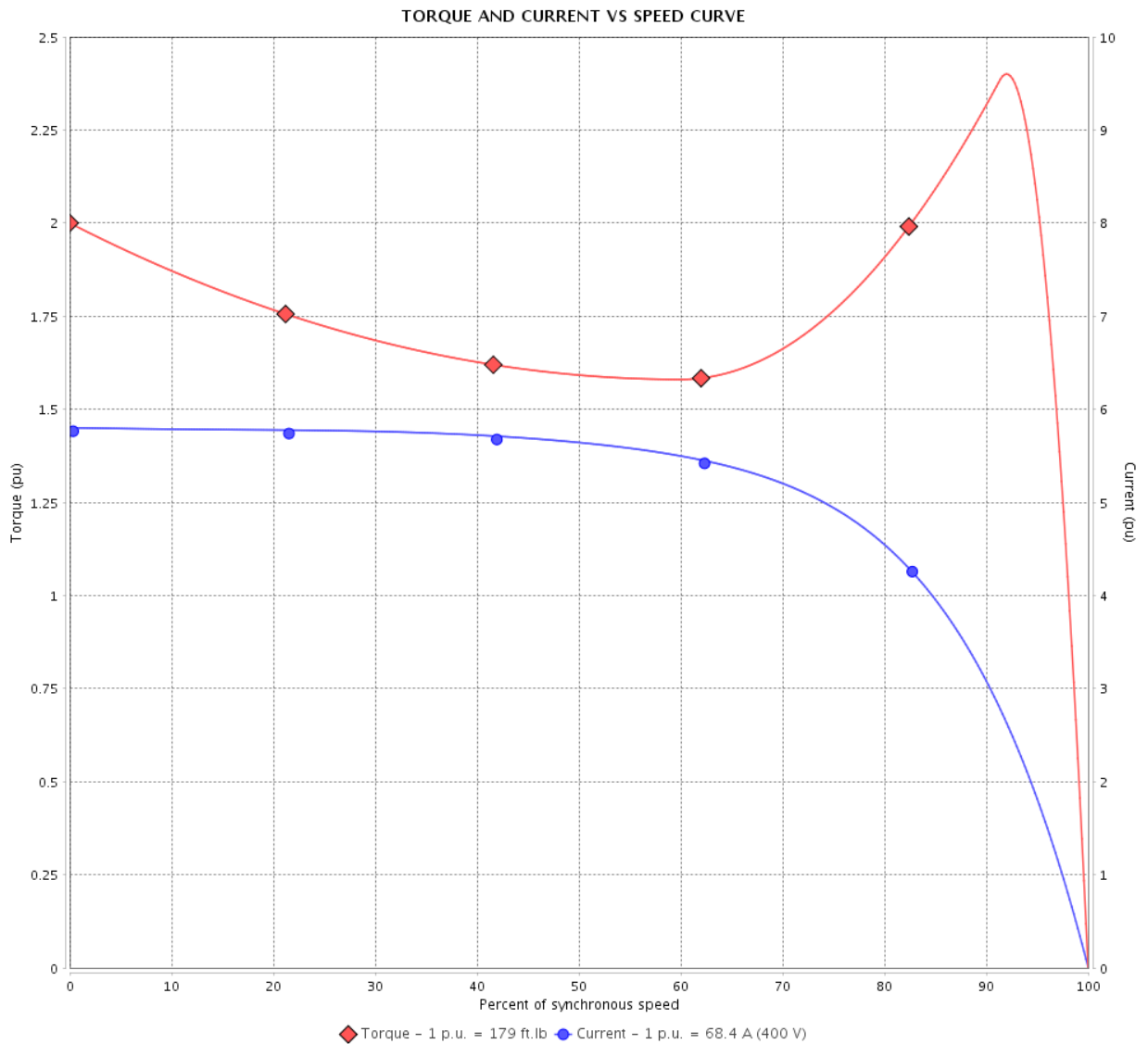
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 400 V 50 Hz 4P IE2

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 68.4 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 5.8       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 179 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 200 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 240 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1465 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



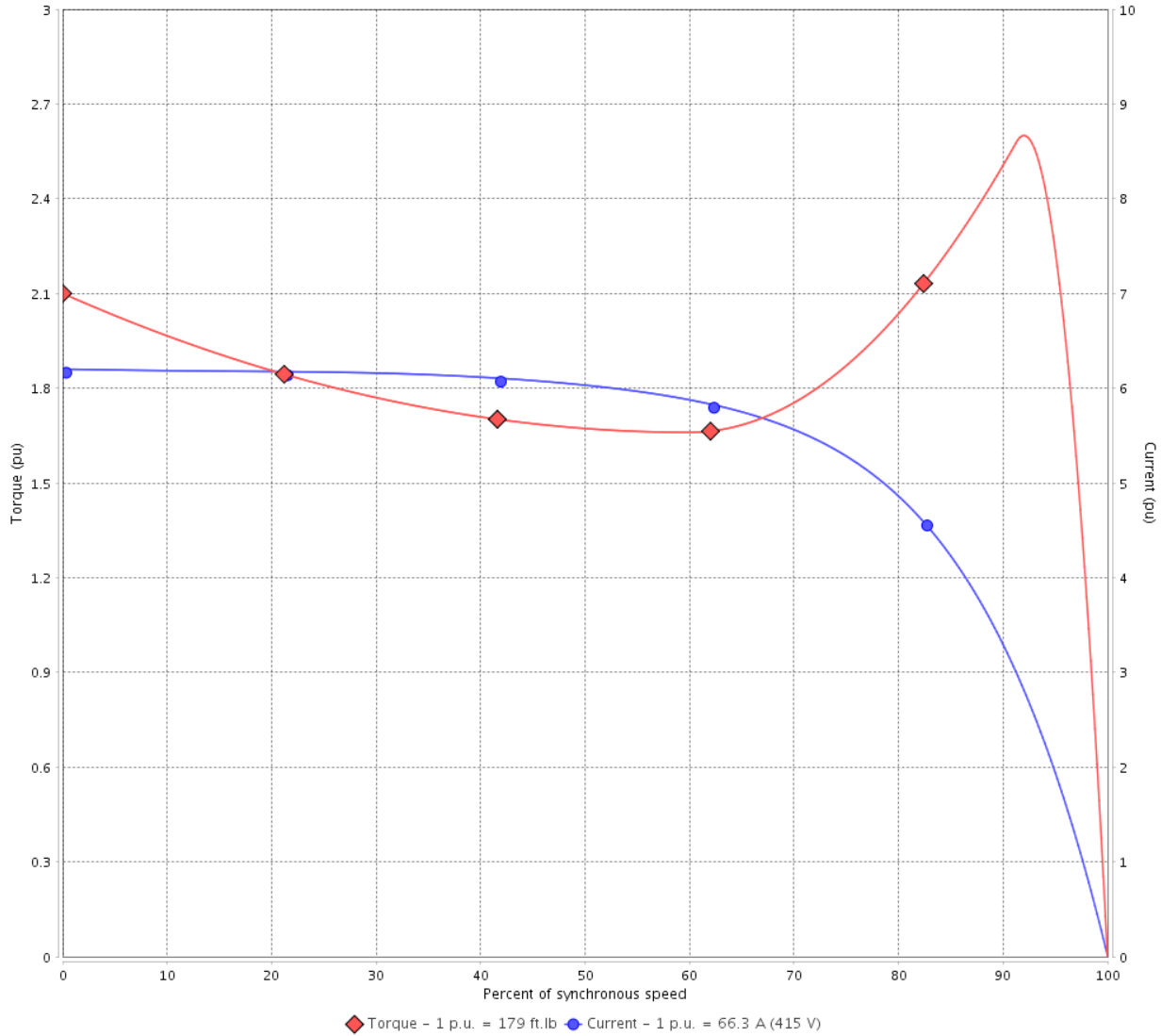
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 4P IE2

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 66.3 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 6.2       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 179 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 210 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1470 rpm  | Design                | : B             |

Locked rotor time : 19s (cold) 11s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

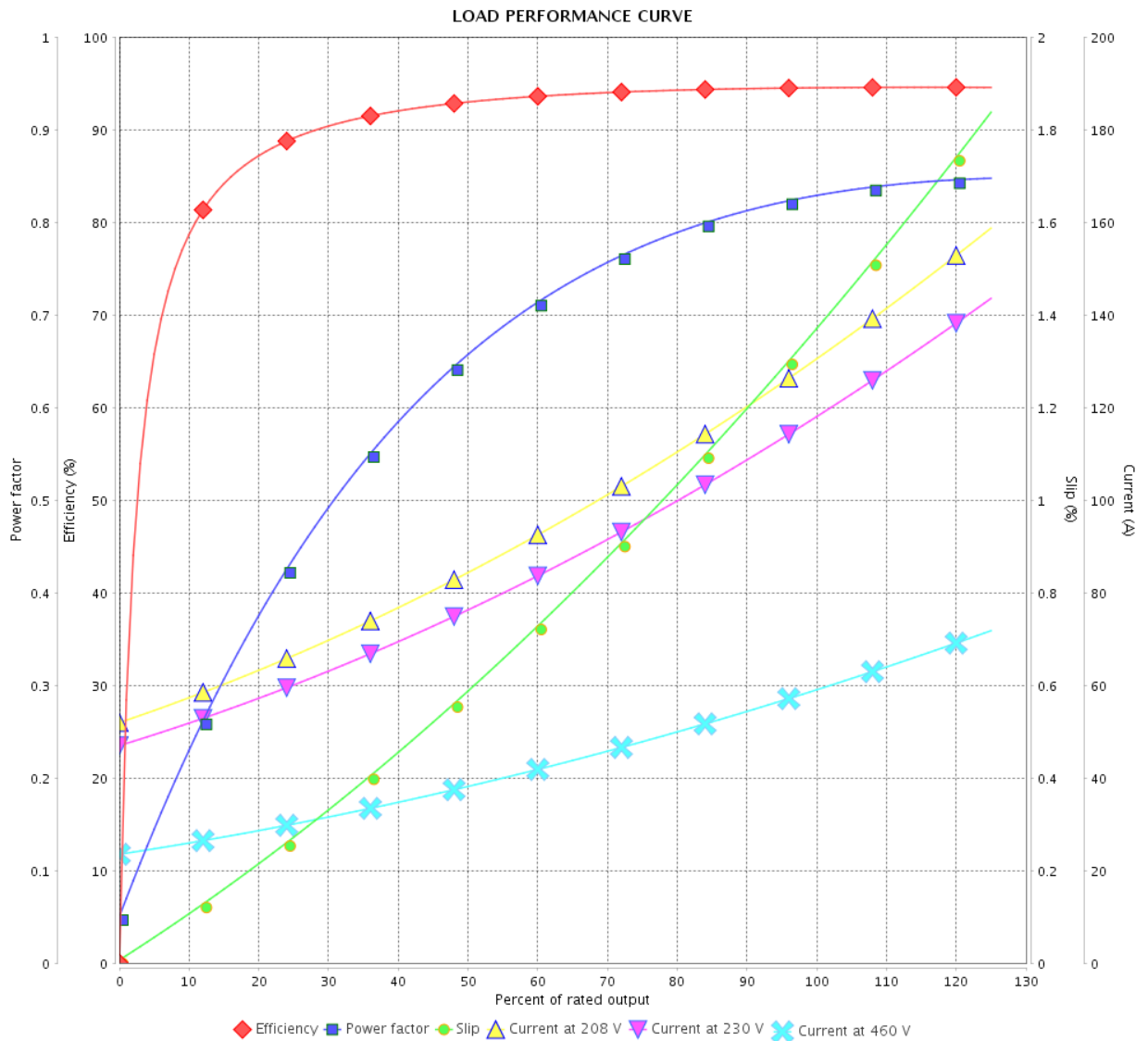


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 230/460 V 60 Hz 4P

Rated current : 118/59.2 A  
 LRC : 6.2  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 270 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



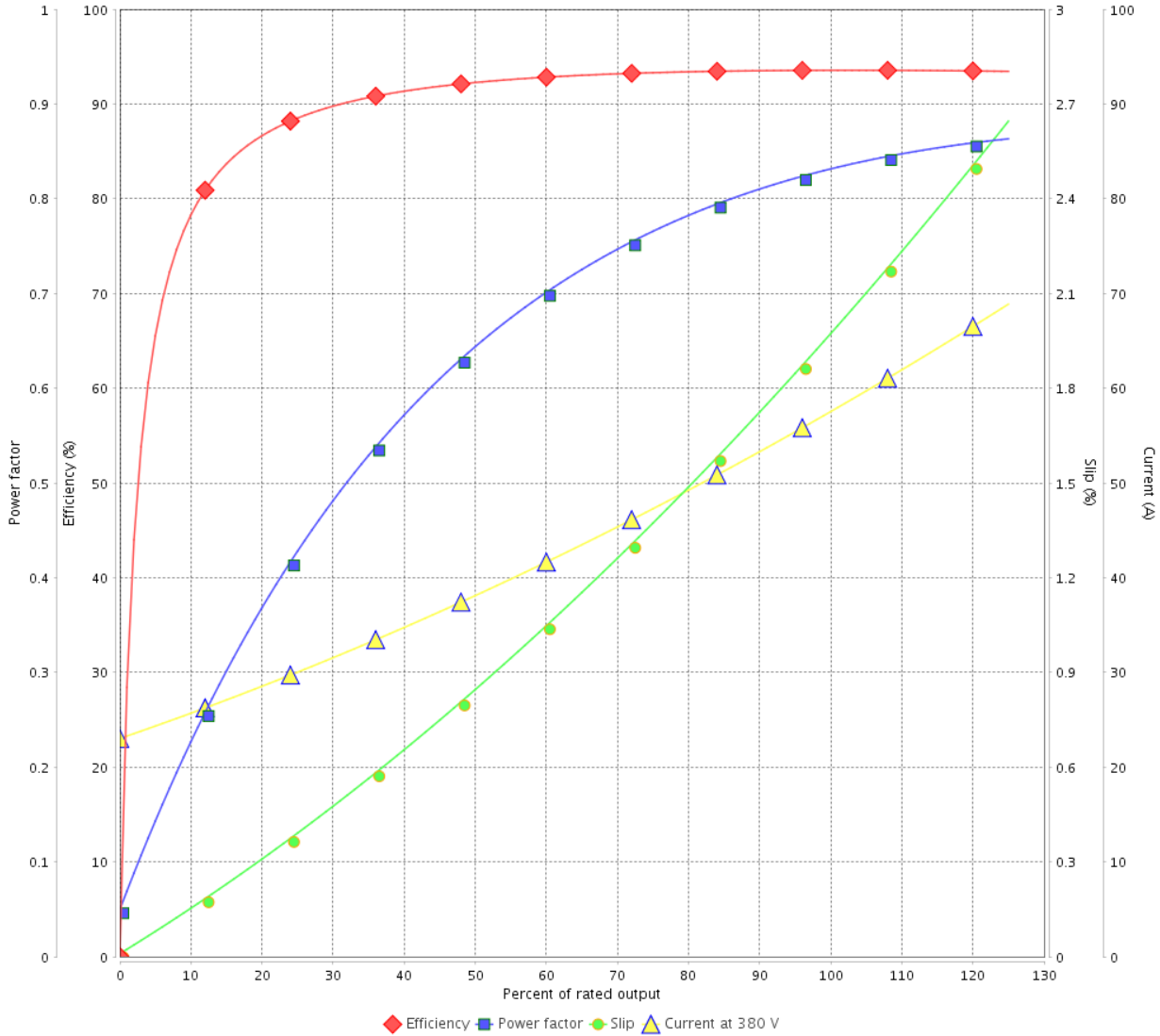
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

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LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 58.7 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 6.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 143 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 229 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1470 rpm  | Design                | : B             |

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

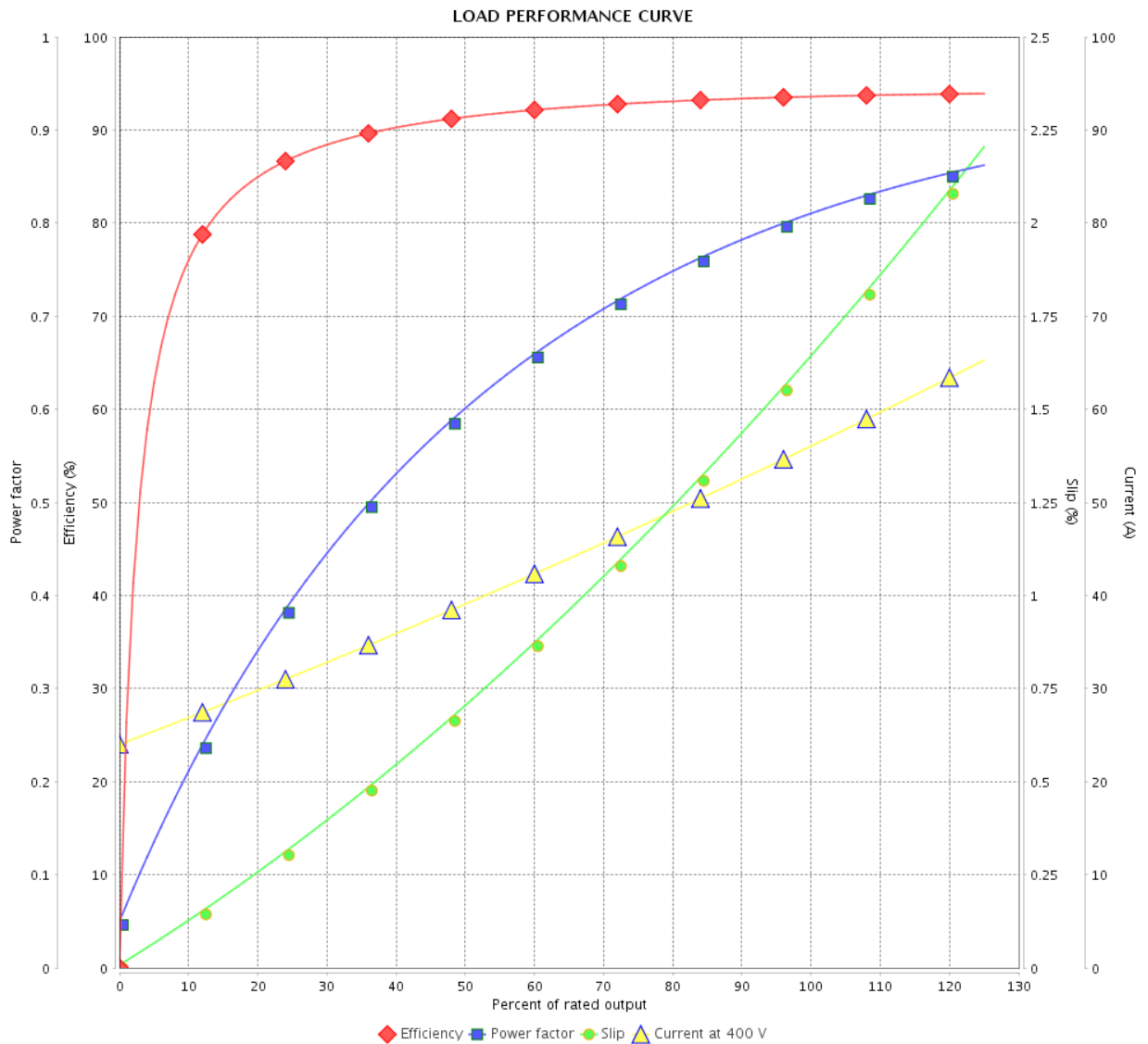


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 400 V 50 Hz 4P IE3

Rated current : 57.1 A  
 LRC : 7.0  
 Rated torque : 142 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 300 %  
 Rated speed : 1475 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage



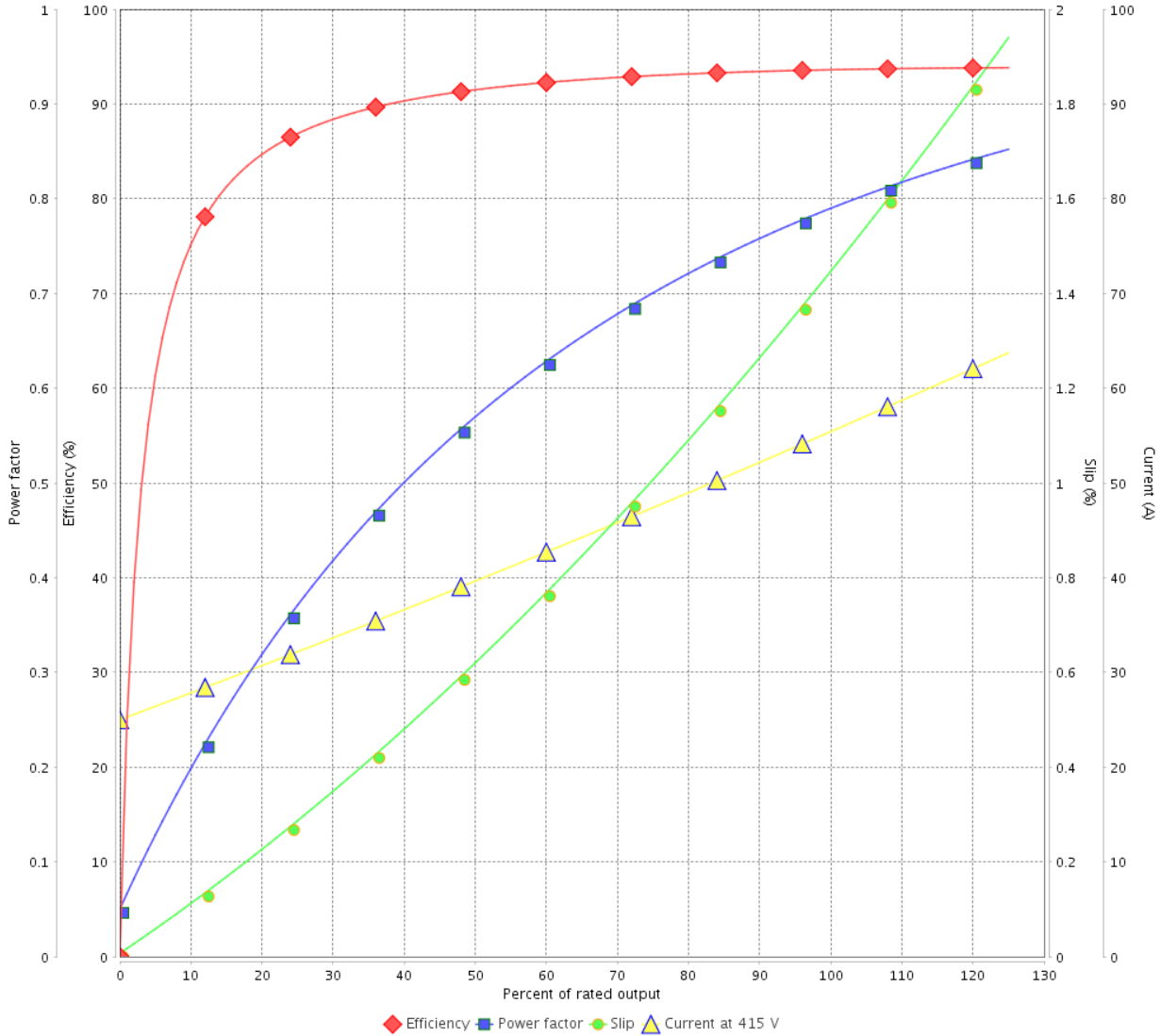
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LOAD PERFORMANCE CURVE



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 Locked rotor torque : 260 %  
 Breakdown torque : 330 %  
 Rated speed : 1478 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

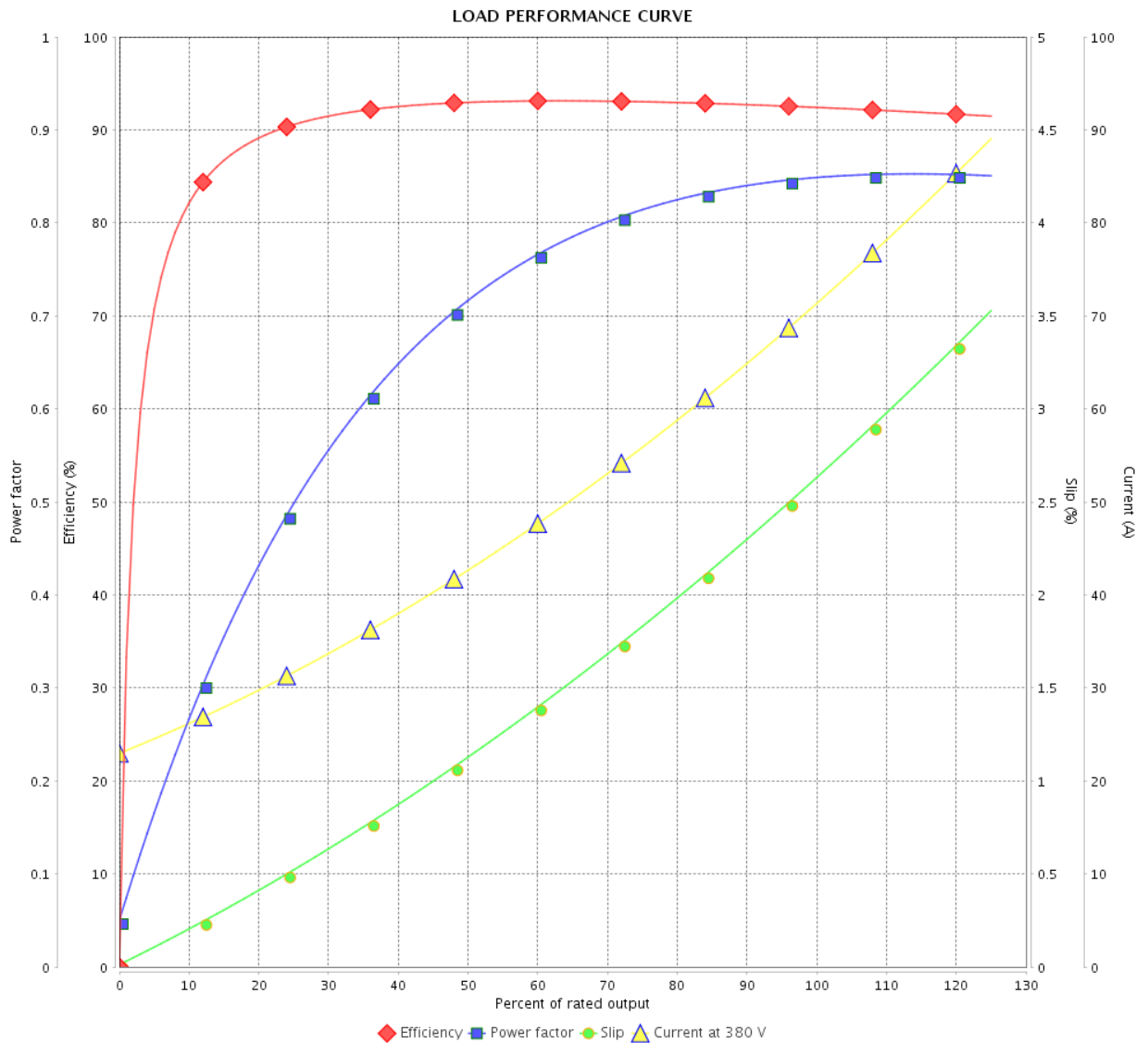


Customer : \_\_\_\_\_

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Performance : 380 V 50 Hz 4P IE1

Rated current : 71.6 A  
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 Rated torque : 180 ft.lb  
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 Breakdown torque : 210 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 9.16 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

Three Phase Induction Motor - Squirrel Cage



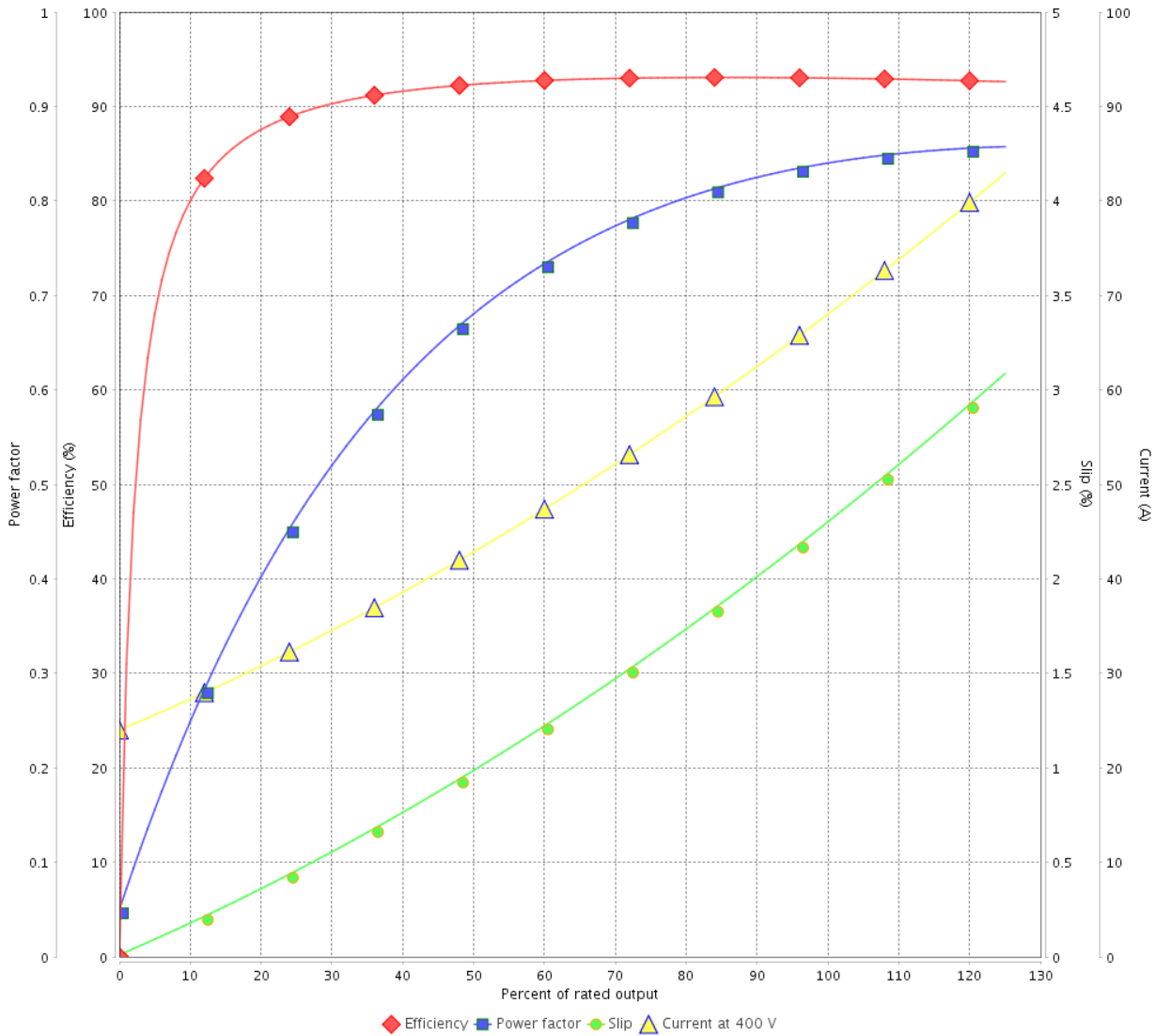
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 4P IE2

Rated current : 68.4 A  
 LRC : 5.8  
 Rated torque : 179 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 240 %  
 Rated speed : 1465 rpm

Moment of inertia (J) : 9.16 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     |
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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

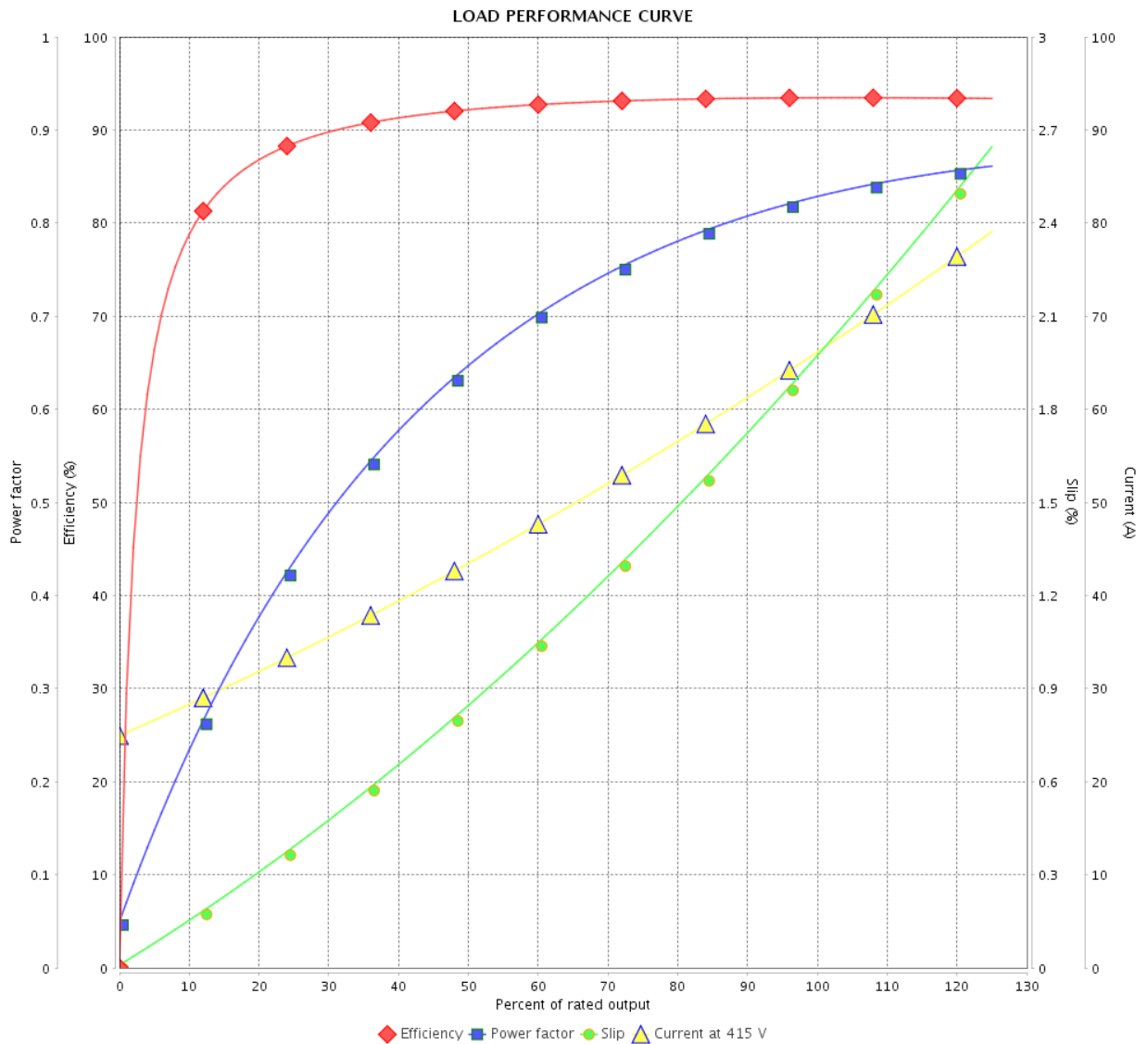


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| Date         | 12/04/2022      |           |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22

Performance : 230/460 V 60 Hz 4P

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 118/59.2 A  | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 6.2                   | Duty cycle : Cont.(S1)                |
| Rated torque : 148 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 229 % | Service factor : 1.25                 |
| Breakdown torque : 270 %    | Temperature rise : 80 K               |
| Rated speed : 1775 rpm      | Design : B                            |

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>16 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

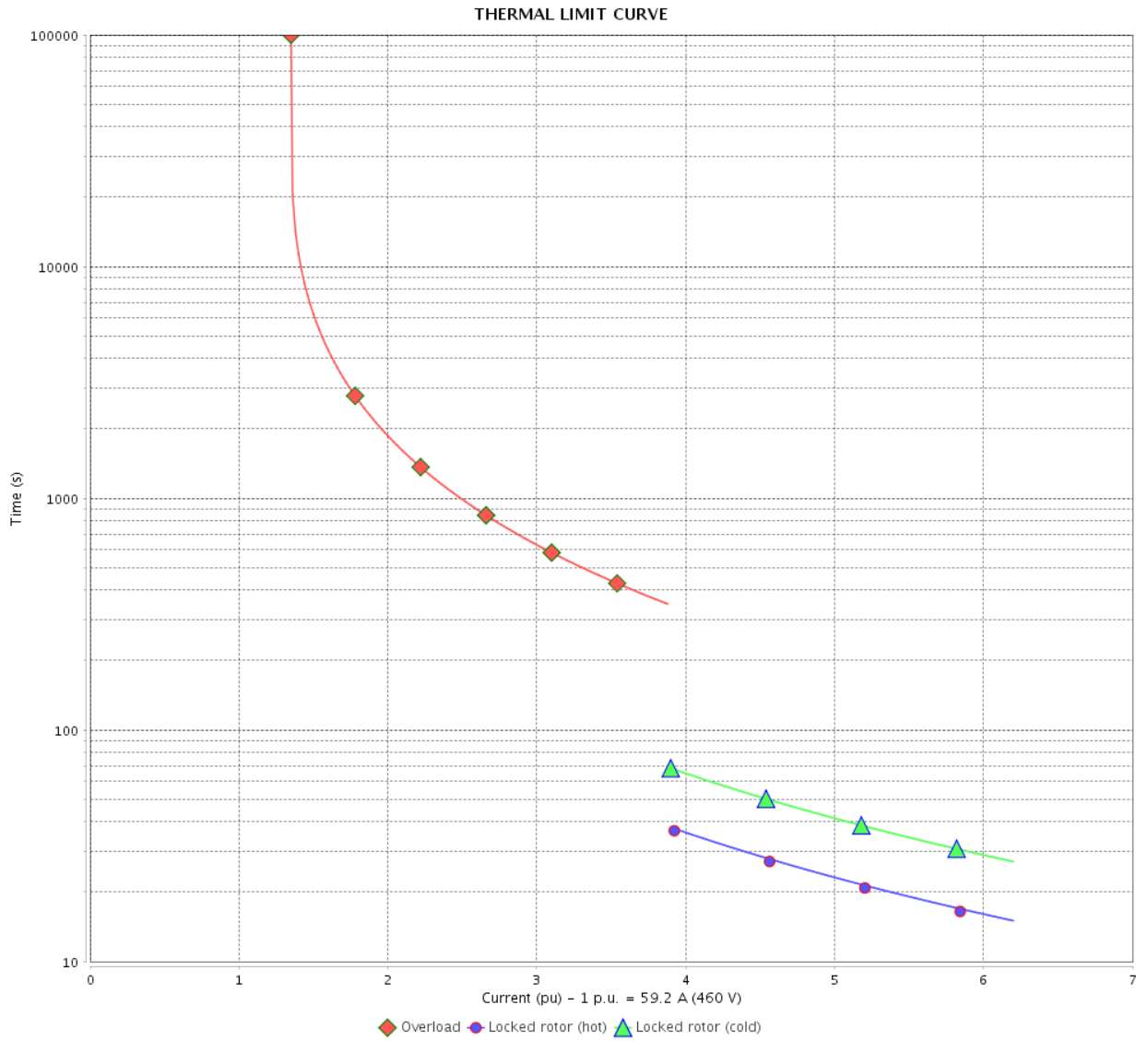


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
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| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22

Performance : 380 V 50 Hz 4P IE3

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 58.7 A      | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 6.4                   | Duty cycle : Cont.(S1)                |
| Rated torque : 143 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 229 % | Service factor : 1.00                 |
| Breakdown torque : 260 %    | Temperature rise : 80 K               |
| Rated speed : 1470 rpm      | Design : B                            |

Heating constant

Cooling constant

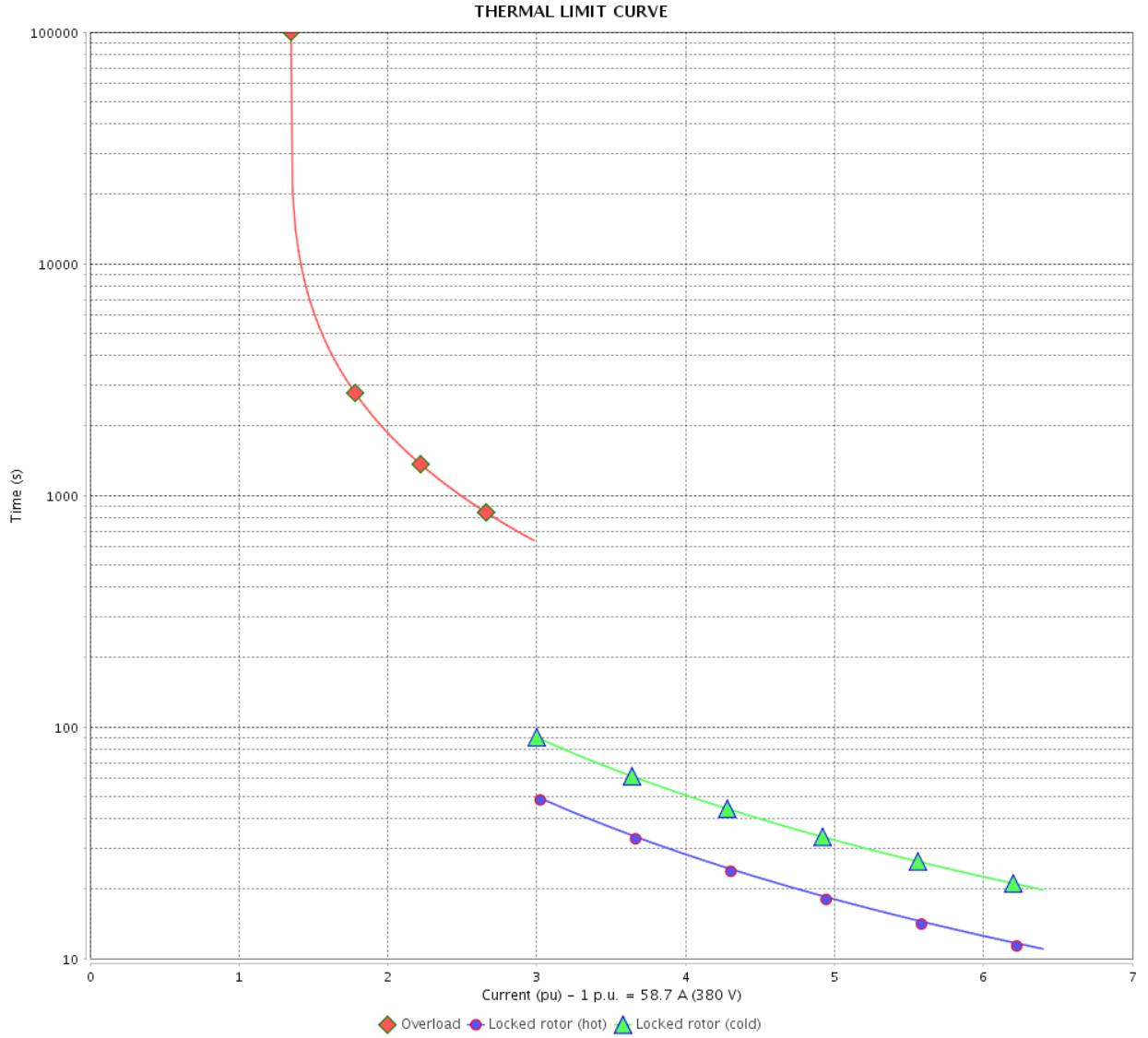
| Rev.         | Changes Summary | Performed | Checked         | Date     |
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| Performed by |                 |           | Page<br>18 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22

Performance : 400 V 50 Hz 4P IE3

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 57.1 A      | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 7.0                   | Duty cycle : Cont.(S1)                |
| Rated torque : 142 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 250 % | Service factor : 1.00                 |
| Breakdown torque : 300 %    | Temperature rise : 80 K               |
| Rated speed : 1475 rpm      | Design : B                            |

Heating constant

Cooling constant

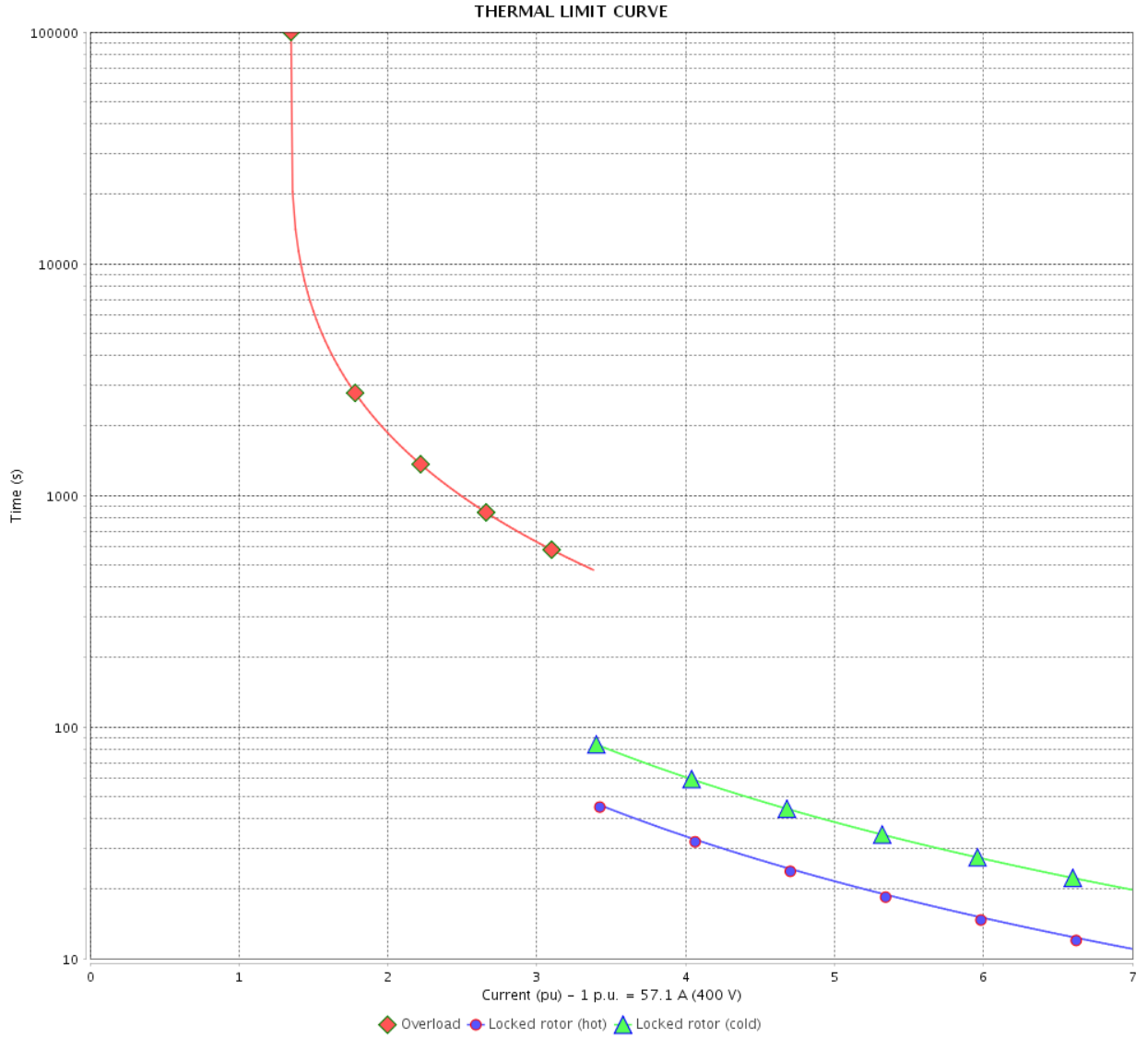
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| Performed by |                 |           | Page<br>20 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Checked by   |                 | 21 / 36    |         |          |
| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 11535769  
Catalog # : 05018ET3E326JM-W22

Performance : 415 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 56.4 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 7.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 142 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 260 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 330 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1478 rpm  | Design                | : B             |

Heating constant

Cooling constant

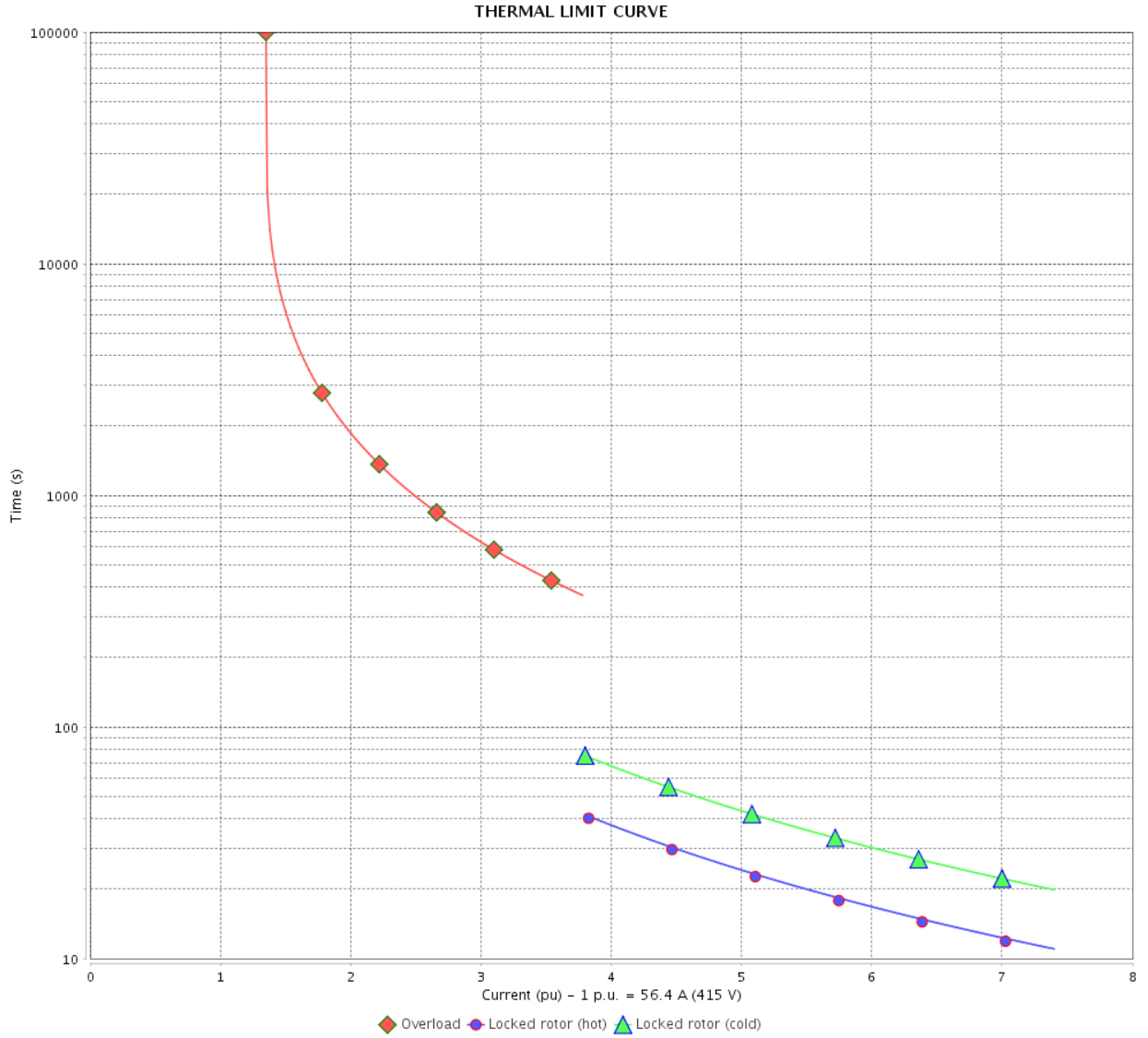
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| Checked by   |                 |           | Page    | Revision |
| Date         | 12/04/2022      |           | 22 / 36 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

Performance : 380 V 50 Hz 4P IE1

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 71.6 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 5.2       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 180 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 180 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 210 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1460 rpm  | Design                | : B             |

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
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| Checked by   |                 |           | Page    | Revision |
| Date         | 12/04/2022      |           | 24 / 36 |          |

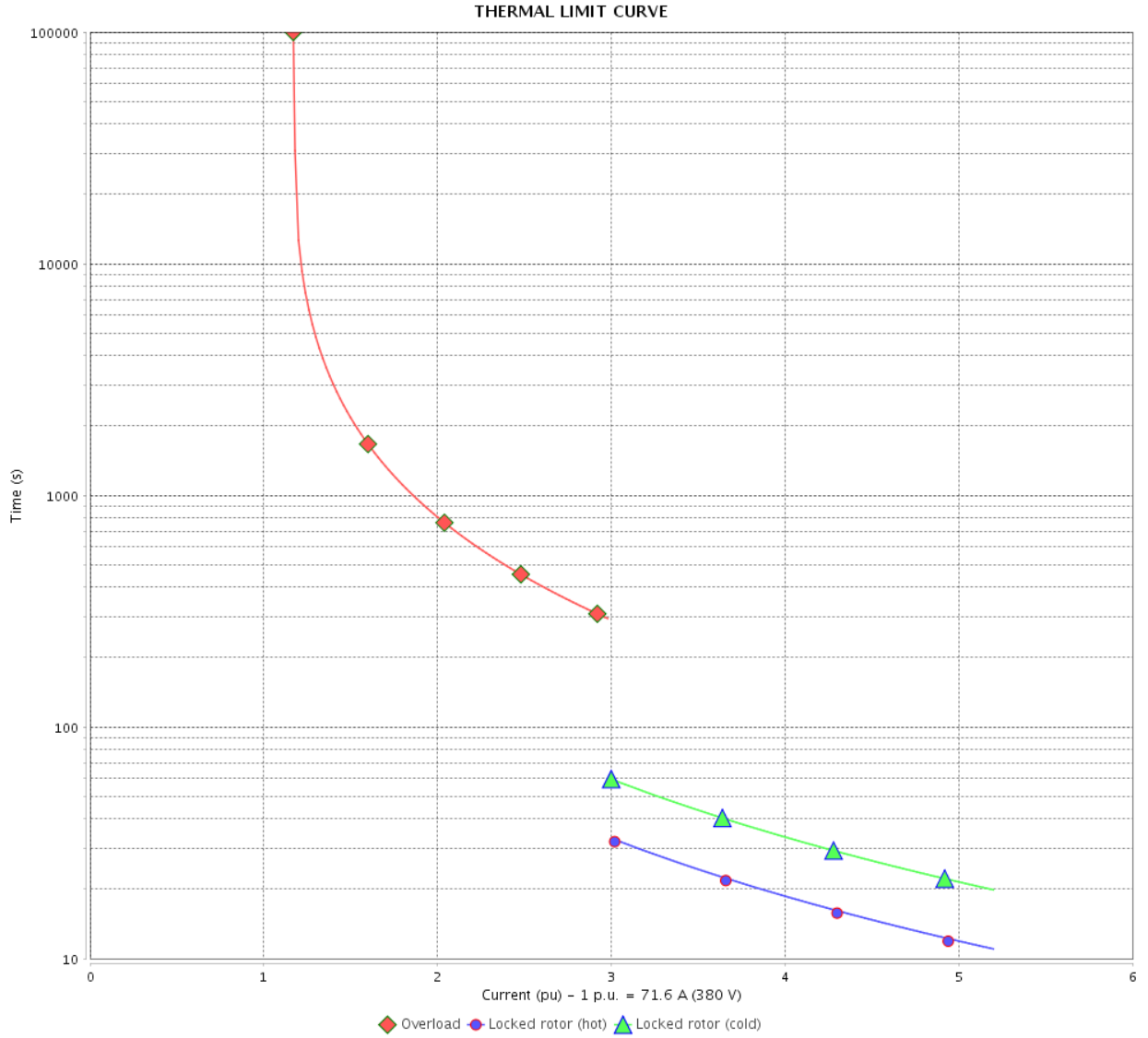


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Date         |                 | 12/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22

Performance : 400 V 50 Hz 4P IE2

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 68.4 A      | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 5.8                   | Duty cycle : Cont.(S1)                |
| Rated torque : 179 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 200 % | Service factor : 1.00                 |
| Breakdown torque : 240 %    | Temperature rise : 105 K              |
| Rated speed : 1465 rpm      | Design : B                            |

Heating constant

Cooling constant

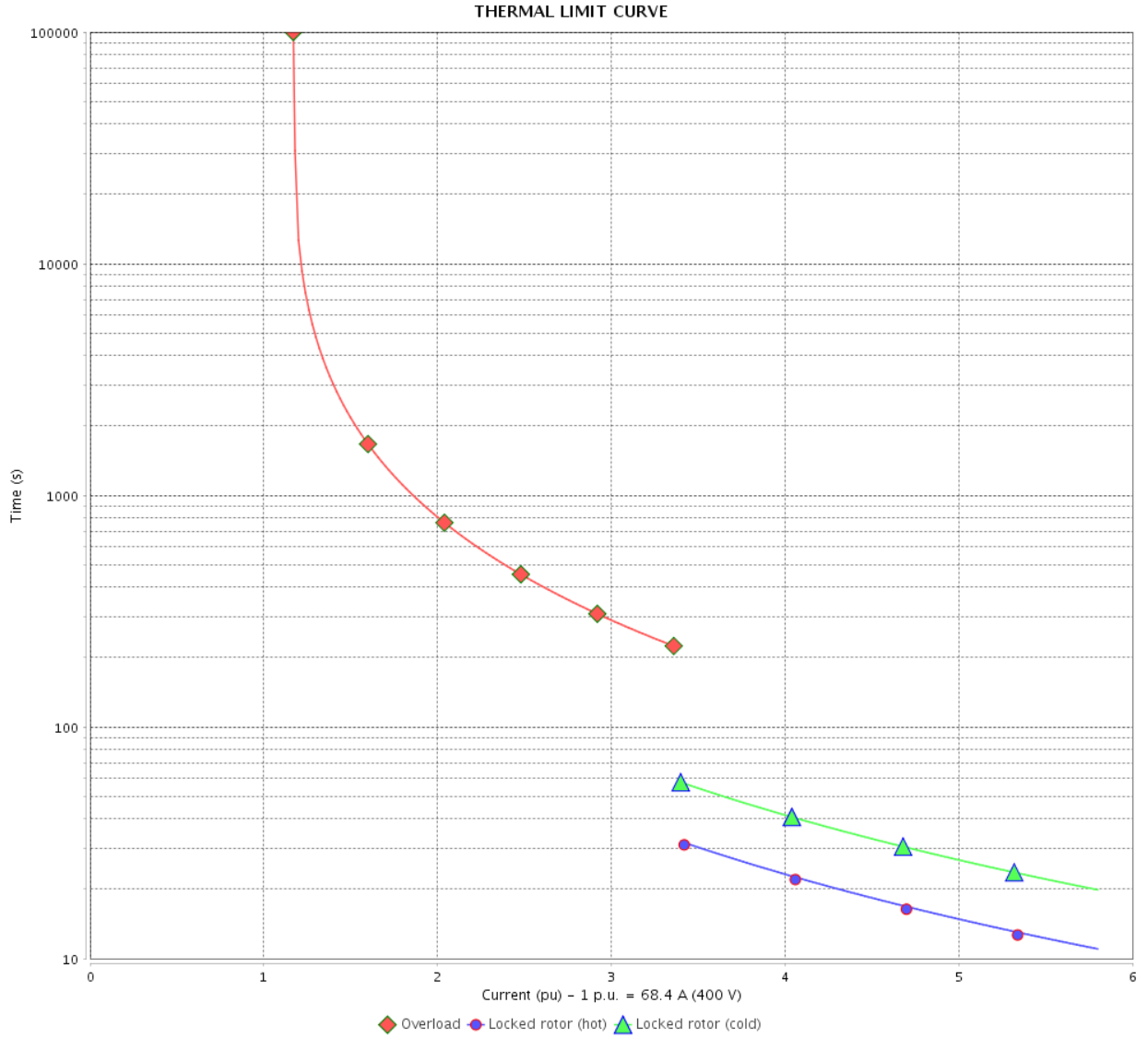
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| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed       | Checked | Date     |
|--------------|-----------------|-----------------|---------|----------|
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| Performed by |                 | Page<br>27 / 36 |         | Revision |
| Checked by   |                 |                 |         |          |
| Date         |                 |                 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22

Performance : 415 V 50 Hz 4P IE2

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 66.3 A      | Moment of inertia (J) : 9.16 sq.ft.lb |
| LRC : 6.2                   | Duty cycle : Cont.(S1)                |
| Rated torque : 179 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 210 % | Service factor : 1.00                 |
| Breakdown torque : 260 %    | Temperature rise : 105 K              |
| Rated speed : 1470 rpm      | Design : B                            |

Heating constant

Cooling constant

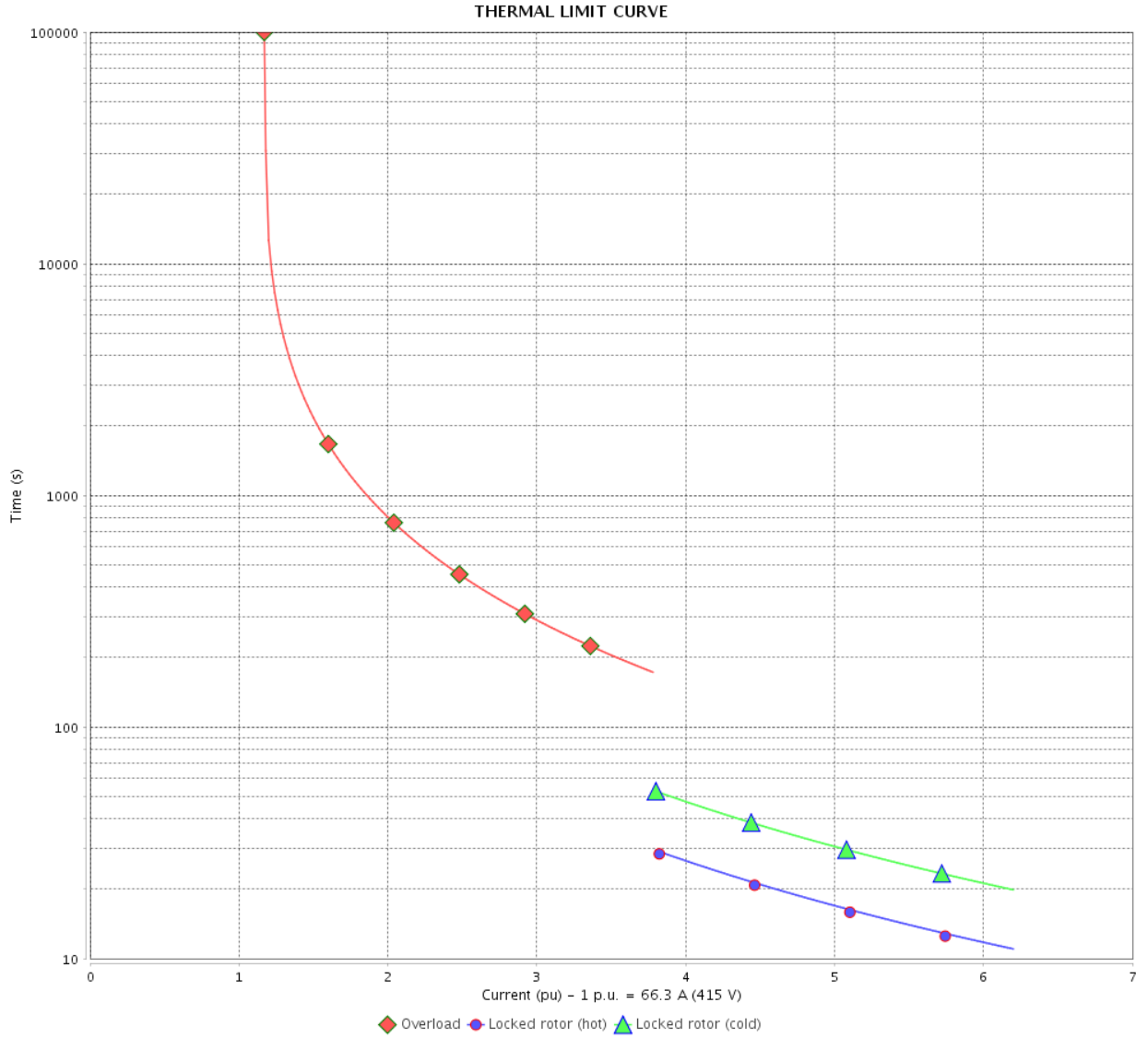
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| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed       | Checked | Date     |
|--------------|-----------------|-----------------|---------|----------|
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| Performed by |                 | Page<br>29 / 36 |         | Revision |
| Checked by   |                 |                 |         |          |
| Date         |                 |                 |         |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



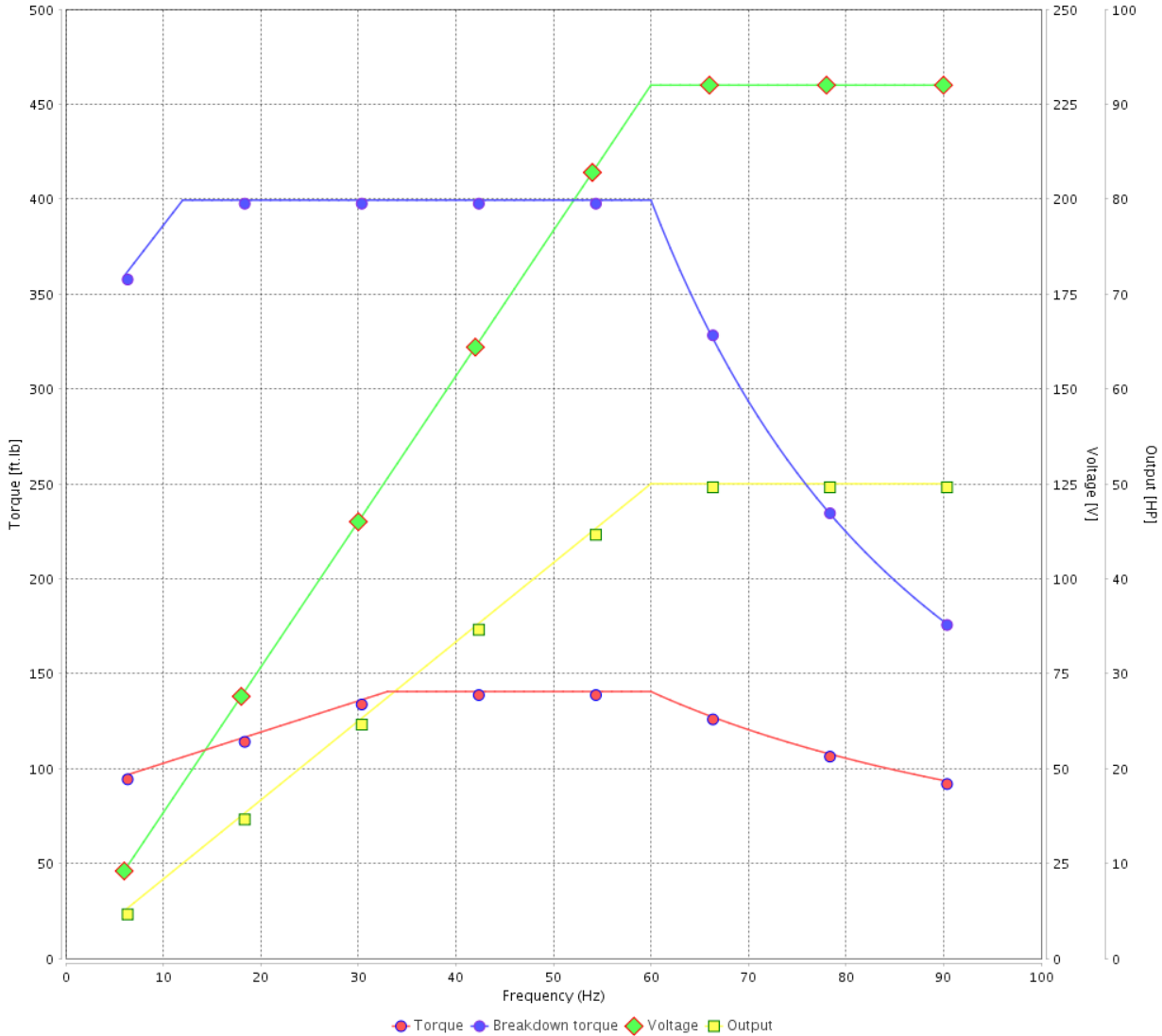
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 118/59.2 A  
 LRC : 6.2  
 Rated torque : 148 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 270 %  
 Rated speed : 1775 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
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| Performed by |                 |           | Page<br>30 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

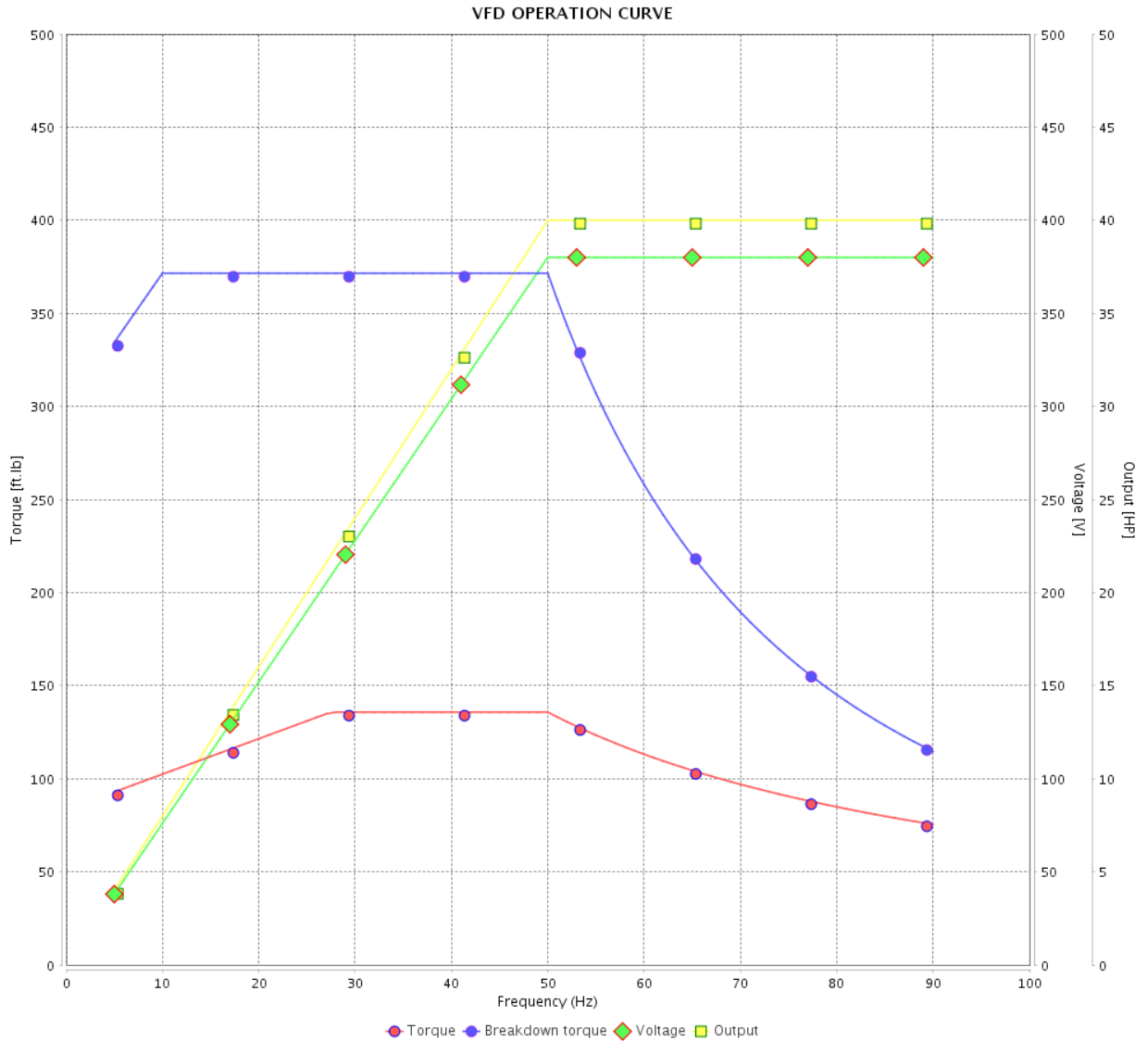


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 380 V 50 Hz 4P IE3

Rated current : 58.7 A  
 LRC : 6.4  
 Rated torque : 143 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 260 %  
 Rated speed : 1470 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
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| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |
|              |                 |           | 31 / 36 |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



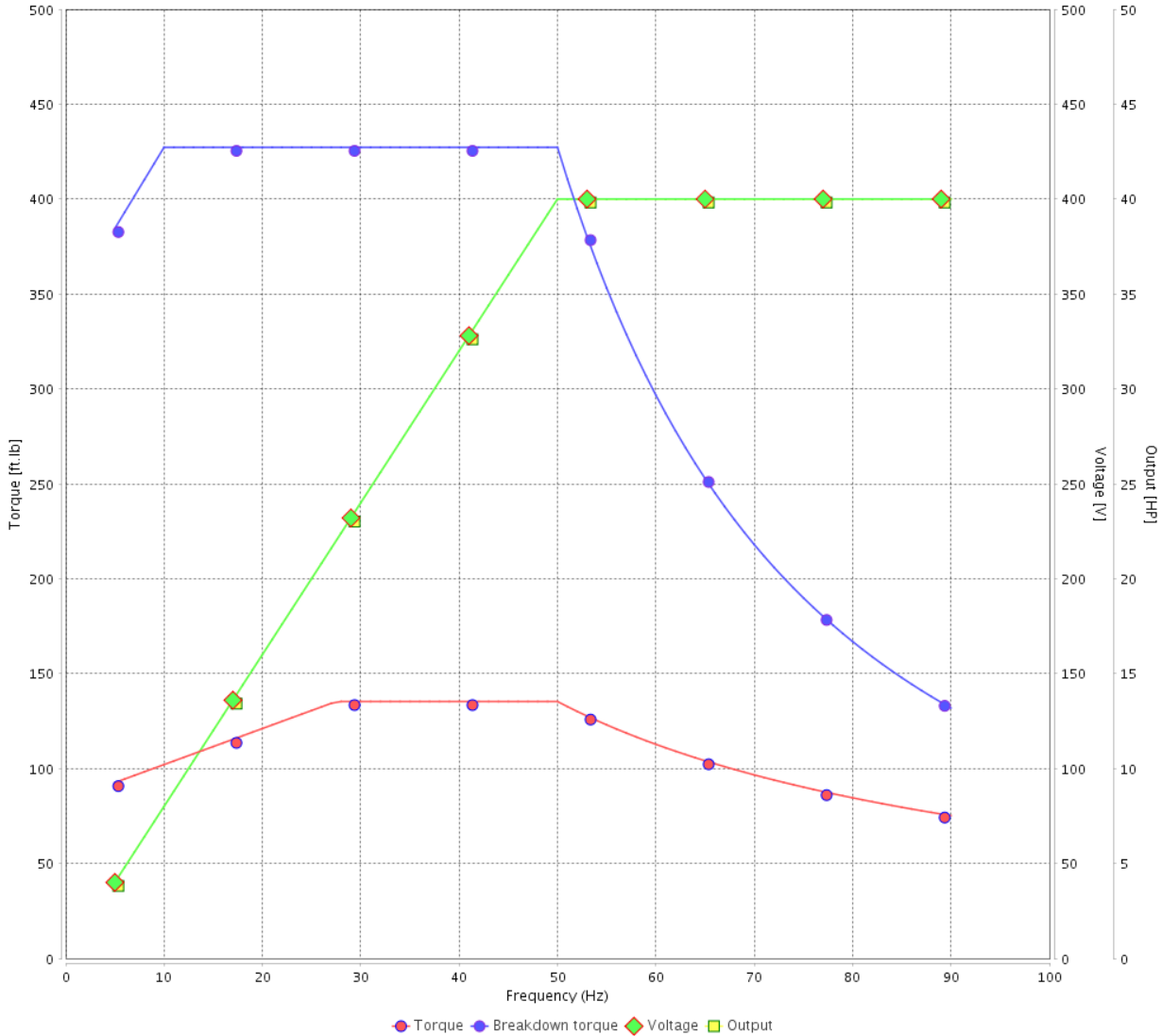
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 4P IE3

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 57.1 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 7.0       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 142 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 250 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 300 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1475 rpm  | Design                | : B             |

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>32 / 36 | Revision |
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| Date         | 12/04/2022      |           |                 |          |



# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

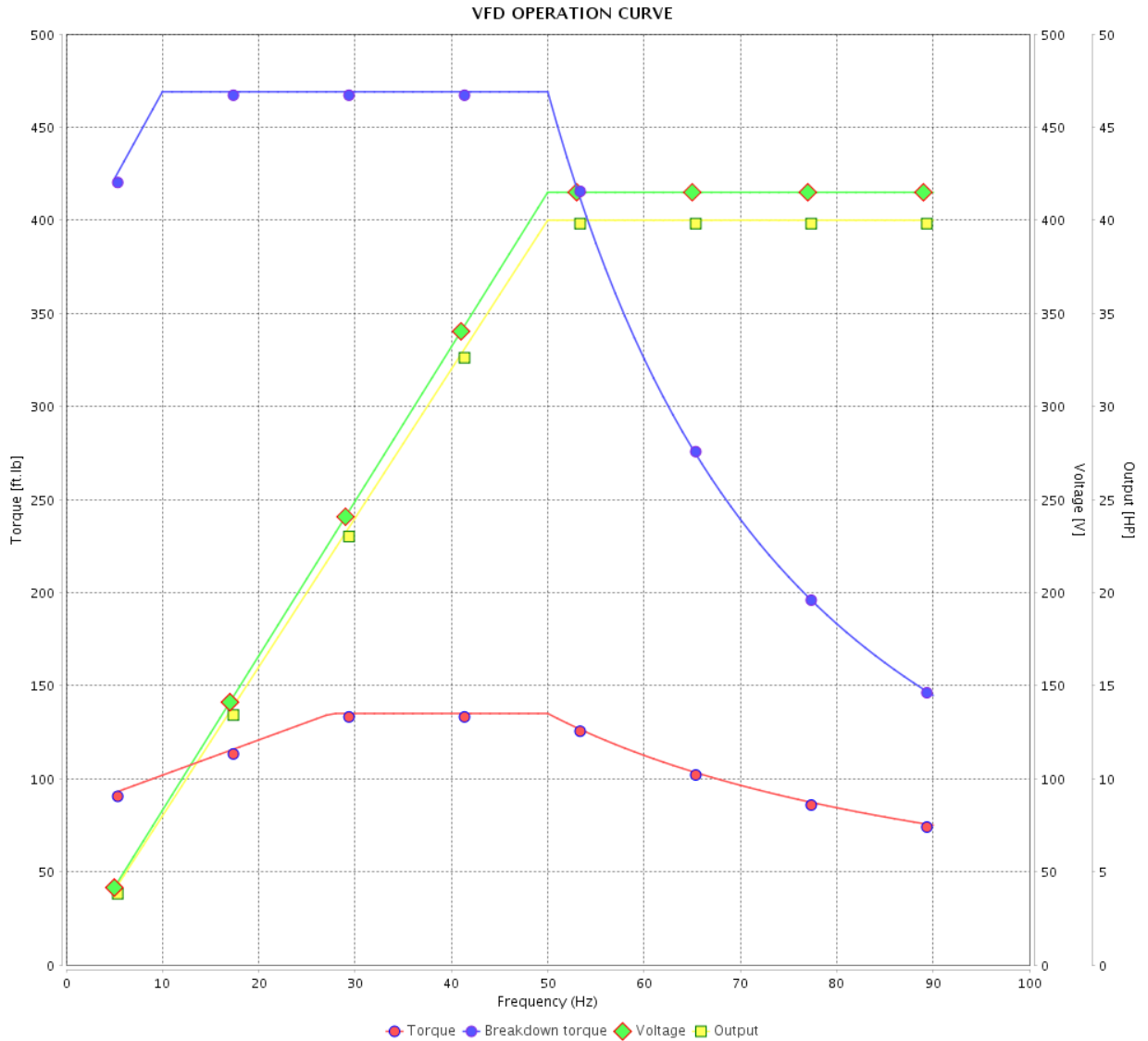


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22



Performance : 415 V 50 Hz 4P IE3

Rated current : 56.4 A  
 LRC : 7.4  
 Rated torque : 142 ft.lb  
 Locked rotor torque : 260 %  
 Breakdown torque : 330 %  
 Rated speed : 1478 rpm

Moment of inertia (J) : 9.16 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : B

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
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| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |
|              |                 |           | 33 / 36 |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



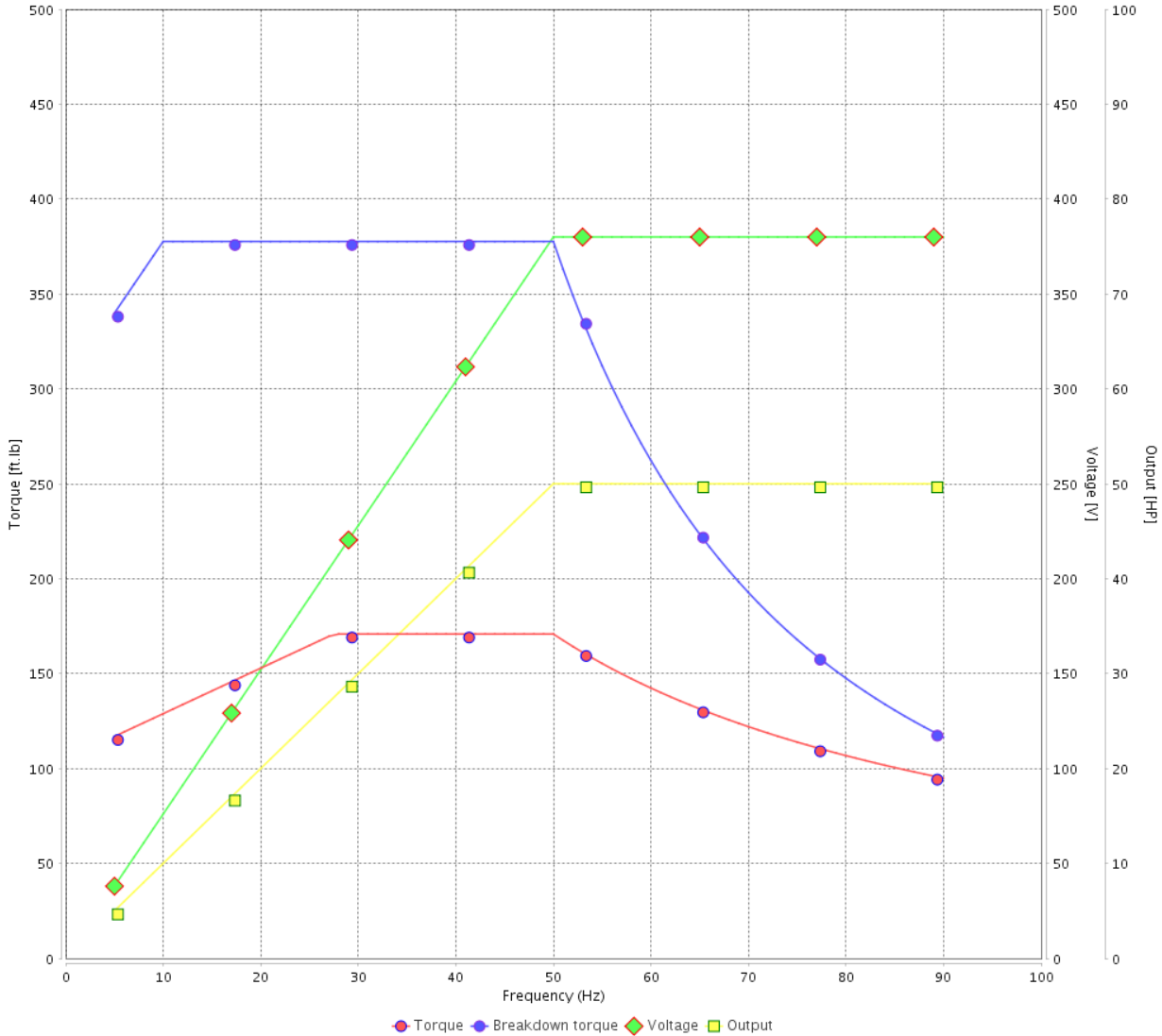
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

VFD OPERATION CURVE



Performance : 380 V 50 Hz 4P IE1

Rated current : 71.6 A  
 LRC : 5.2  
 Rated torque : 180 ft.lb  
 Locked rotor torque : 180 %  
 Breakdown torque : 210 %  
 Rated speed : 1460 rpm

Moment of inertia (J) : 9.16 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     |
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|              |                 |           |                 |          |
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| Checked by   |                 |           |                 |          |
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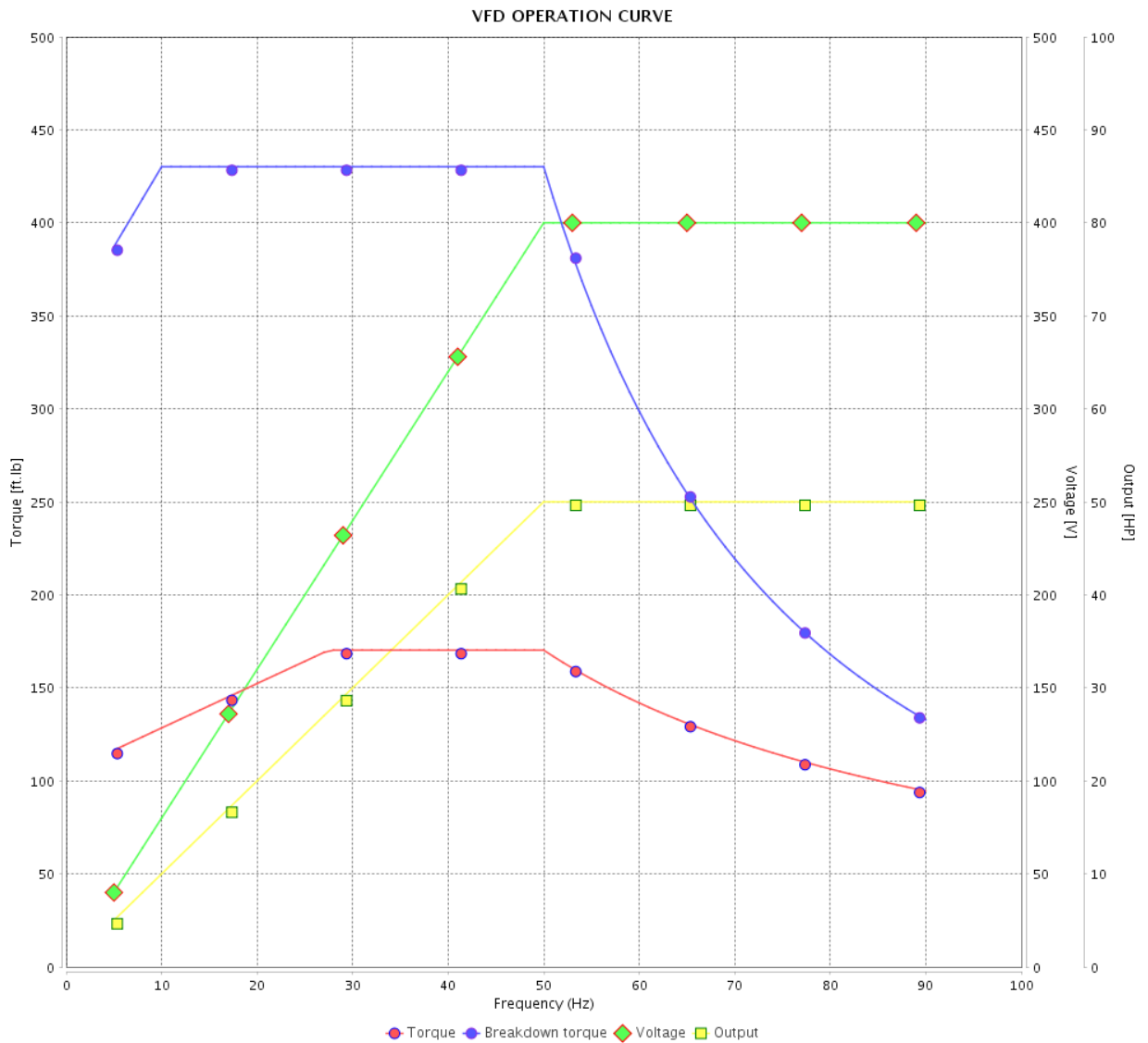
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 11535769  
 Catalog # : 05018ET3E326JM-W22



Performance : 400 V 50 Hz 4P IE2

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 68.4 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 5.8       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 179 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 200 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 240 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1465 rpm  | Design                | : B             |

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>35 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



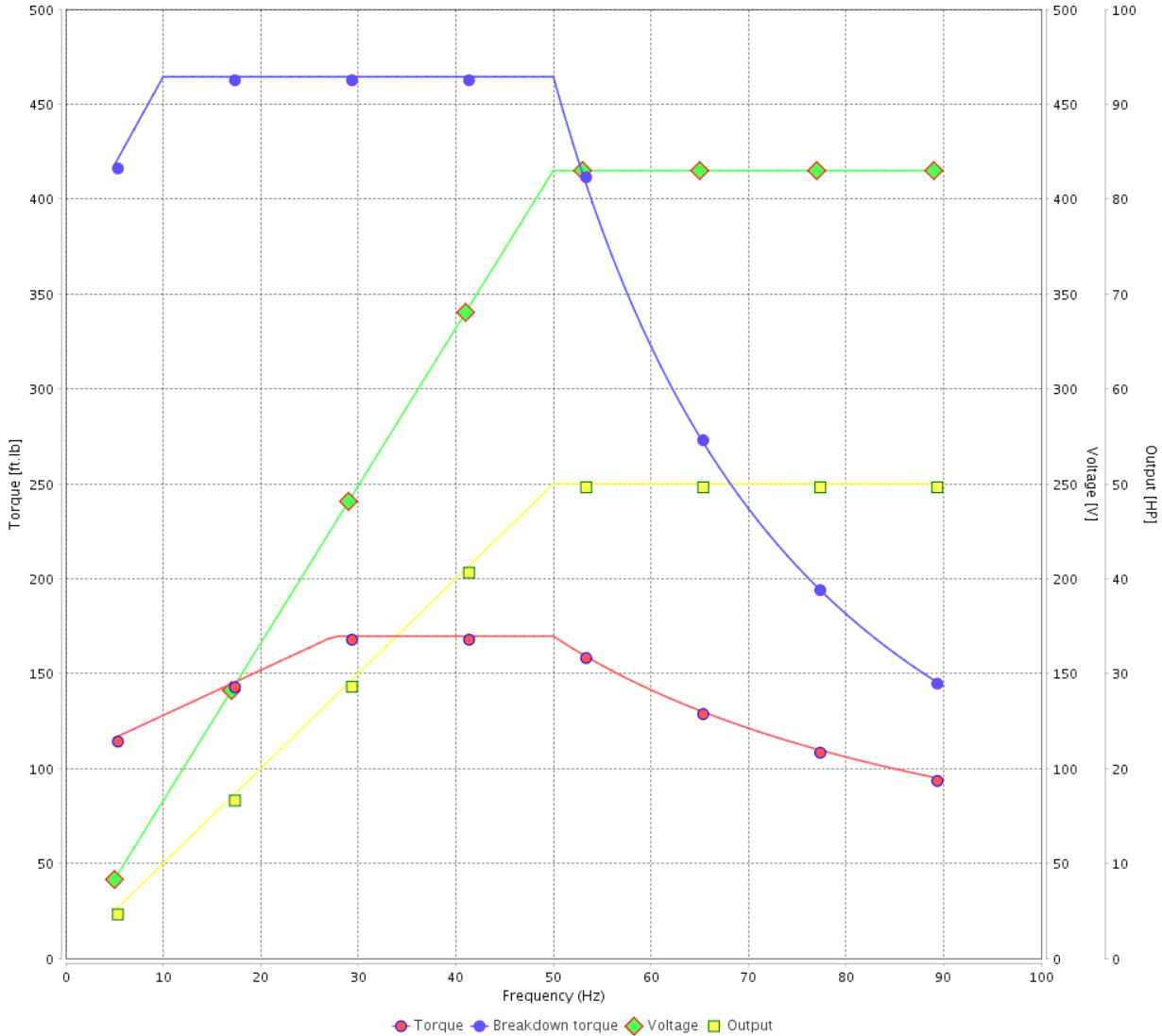
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11535769

Catalog # : 05018ET3E326JM-W22

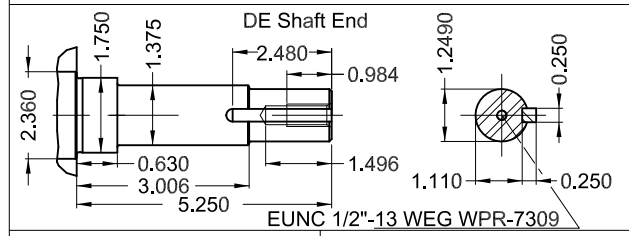
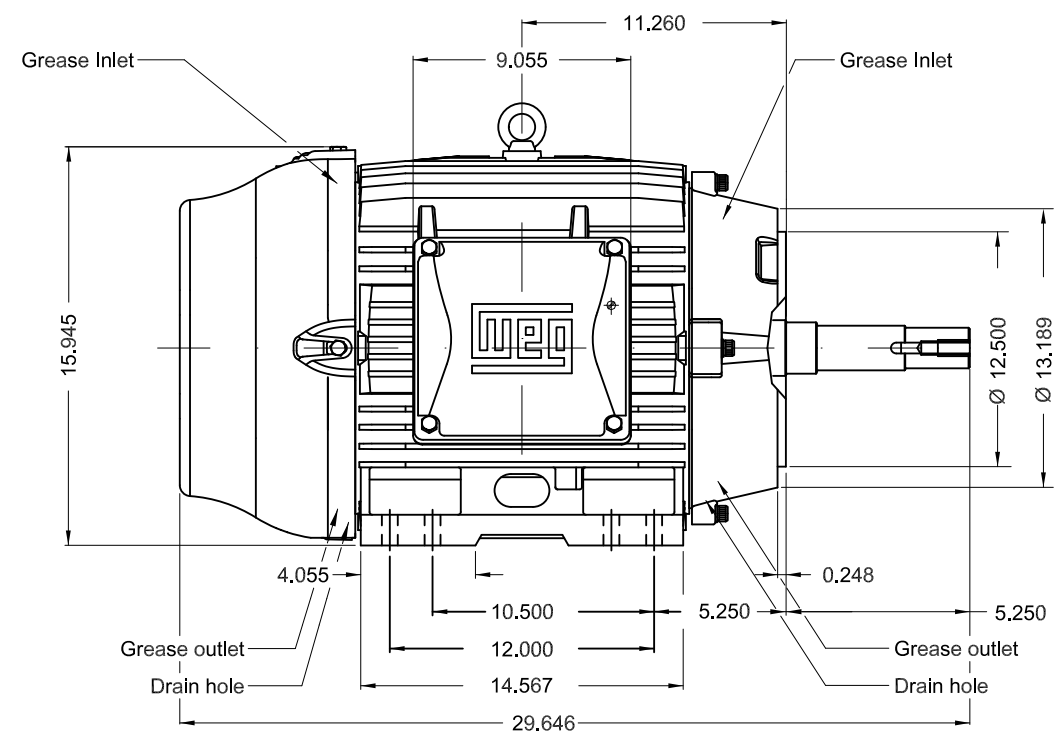
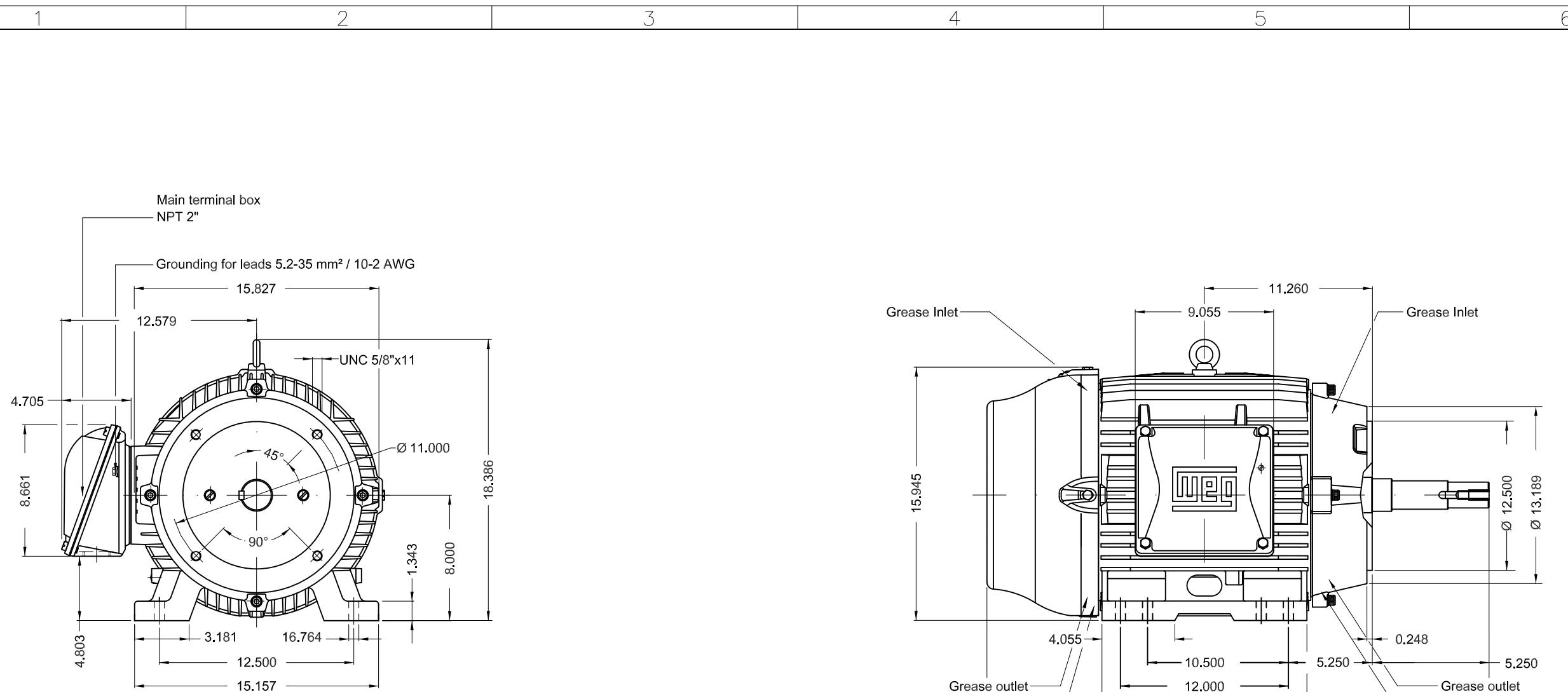
VFD OPERATION CURVE



Performance : 415 V 50 Hz 4P IE2

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 66.3 A    | Moment of inertia (J) | : 9.16 sq.ft.lb |
| LRC                 | : 6.2       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 179 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 210 %     | Service factor        | : 1.00          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 1470 rpm  | Design                | : B             |

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
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| Checked by   |                 |           |                 |          |
| Date         | 12/04/2022      |           |                 |          |



50 HP 04 Poles 60 Hz A

- Without vertical jackscrews
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B34R(D)

| ECM      | LOC       | SUMMARY OF MODIFICATIONS   | EXECUTED            | CHECKED | RELEASED    | DATE | VER |
|----------|-----------|--|---------------------|---------|-------------|------|-----|
| EXECUTED | PIRWBUSER | <br>THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF.<br>FRAME 324/6JM IP55 TEFC |                     |         |             |      |     |
| CHECKED  |           |  |                     |         |             |      |     |
| RELEASED |           |  |                     |         |             |      |     |
| REL DT.  |           |  |                     |         |             |      |     |
|          |           | WMO Jaragua do Sul   | Product Engineering |         | SHEET 1 / 1 |      |     |

PREVIEW

WDD

Dimensions in inches XME A3



FOR SAFE AREA  
MOD.TE1BFOXON



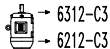
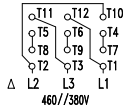
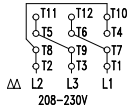
For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3  
Class I, Zone 2, IIC - T3

Class II, Div 2, Gr. F and G - T4

For 60Hz use on PWM, Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.0SF, T3A

MODEL 05018ET3E326JM-W22  
MADE IN BRAZIL  
11535769

|  |                            |                   |              |
|--|----------------------------|-------------------|--------------|
| PH 3   | FR 324/6JM                 | HP(kW) 50.0(37.0) | Hz 60        |
| V 230/460  | A 118/59.2                 | RPM 1775          | DES B        |
| NEMA NOM EFF 94.5 %                                      | INS. CL. F $\Delta$ T 80 K | IP55              |              |
| ENCL TEFC  | DUTY CONT.                 | AMB. 40°C         |              |
| CODE G   | PF 0.83                    | SF 1.25           | SFA 148/74.0 |
| USABLE @208V 131 A                                       | SF 1.15                    | SFA 151           |              |
| 50HP 37kW 50Hz 380V 71.6A 1460RPM SF1.00 EFF 92.4% (IE1) | ALT 1000 m.a.s.l.          | 613 Lbs           |              |



MOBIL POLYREX EM  
21 g 20000 h