

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|  |  |                             |                         |  |                         |                         |                         |      |
|--|--|-----------------------------|-------------------------|--|-------------------------|-------------------------|-------------------------|------|
| Customer :   |  |                             |                         |  |                         |                         |                         |      |
| Product line   | : W40 NEMA Premium Efficiency<br>Three-Phase | Product code :              | 13821179                |  |                         |                         |                         |      |
|  |  | Catalog # :                 | 70036OT3Q5010S-W40      |  |                         |                         |                         |      |
| Frame  | : 5010/11                                    | Cooling method              | : IC01 - ODP            |  |                         |                         |                         |      |
| Insulation class   | : F  | Mounting                    | : F-1                   |  |                         |                         |                         |      |
| Duty cycle   | : Cont.(S1)                                  | Rotation <sup>1</sup>       | : Both (CW and CCW)     |  |                         |                         |                         |      |
| Ambient temperature  | : -20°C to +40°C                             | Starting method             | : Direct On Line        |  |                         |                         |                         |      |
| Altitude   | : 1000 m.a.s.l.                              | Approx. weight <sup>2</sup> | : 3419 lb               |  |                         |                         |                         |      |
| Protection degree  | : IP23                                       | Moment of inertia (J)       | : 78.5 sq.ft.lb         |  |                         |                         |                         |      |
| Output [HP]  | 700  | 550                         | 550                     | 550  | 600                     | 600                     | 600                     |      |
| Poles  | 2  | 2                           | 2                       | 2  | 2                       | 2                       | 2                       |      |
| Frequency [Hz]   | 60   | 50                          | 50                      | 50   | 50                      | 50                      | 50                      |      |
| Rated voltage [V]  | 460  | 380                         | 400                     | 415  | 380                     | 400                     | 415                     |      |
| Rated current [A]  | 764  | 721                         | 701                     | 683  | 793                     | 771                     | 752                     |      |
| L. R. Amperes [A]  | 5195   | 5119                        | 5398                    | 5737   | 5155                    | 5474                    | 5790                    |      |
| LRC [A]  | 6.8x(Code G)                                 | 7.1x(Code G)                | 7.7x(Code H)            | 8.4x(Code J)   | 6.5x(Code G)            | 7.1x(Code H)            | 7.7x(Code H)            |      |
| No load current [A]  | 140  | 140                         | 156                     | 172  | 140                     | 156                     | 172                     |      |
| Rated speed [RPM]  | 3570   | 2970                        | 2970                    | 2975   | 2970                    | 2970                    | 2975                    |      |
| Slip [%]   | 0.83   | 1.00                        | 1.00                    | 0.83   | 1.00                    | 1.00                    | 0.83                    |      |
| Rated torque [ft.lb]   | 1030   | 972                         | 972                     | 971  | 1060                    | 1060                    | 1060                    |      |
| Locked rotor torque [%]  | 229  | 229                         | 250                     | 280  | 220                     | 229                     | 250                     |      |
| Breakdown torque [%]   | 240  | 240                         | 250                     | 260  | 220                     | 229                     | 240                     |      |
| Service factor   | 1.15   | 1.15                        | 1.15                    | 1.15   | 1.00                    | 1.00                    | 1.00                    |      |
| Temperature rise   | 80 K   | 105 K                       | 105 K                   | 105 K  | 105 K                   | 105 K                   | 105 K                   |      |
| Locked rotor time  | 28s (cold)<br>16s (hot)                      | 25s (cold)<br>14s (hot)     | 25s (cold)<br>14s (hot) | 25s (cold)<br>14s (hot)  | 25s (cold)<br>14s (hot) | 25s (cold)<br>14s (hot) | 25s (cold)<br>14s (hot) |      |
| Noise level <sup>2</sup>   | 89.0 dB(A)                                   |                             |                         |  |                         |                         |                         |      |
| Efficiency (%)   | 25%  | 94.9                        | 94.5                    | 94.5   | 94.3                    | 94.8                    | 94.8                    | 94.6 |
|  | 50%  | 95.4                        | 95.0                    | 95.0   | 94.8                    | 95.3                    | 95.3                    | 95.2 |
|  | 75%  | 95.8                        | 95.4                    | 95.4   | 95.3                    | 95.3                    | 95.3                    | 95.2 |
|  | 100%   | 96.2                        | 95.8                    | 95.8   | 95.8                    | 95.8                    | 95.8                    | 95.8 |
| Power Factor   | 25%  | 0.61                        | 0.60                    | 0.56   | 0.52                    | 0.62                    | 0.59                    | 0.56 |
|  | 50%  | 0.79                        | 0.78                    | 0.75   | 0.72                    | 0.80                    | 0.78                    | 0.75 |
|  | 75%  | 0.86                        | 0.85                    | 0.84   | 0.82                    | 0.86                    | 0.84                    | 0.83 |
|  | 100%   | 0.88                        | 0.88                    | 0.86   | 0.85                    | 0.88                    | 0.86                    | 0.85 |
| Bearing type   | : Drive end<br>6314 C3                       | Non drive end<br>6314 C3    | Foundation loads        |  |                         |                         |                         |      |
| Sealing  | : Without                                    | Without                     | Max. traction           |  |                         |                         |                         |      |
|  | Bearing Seal                                 |                             | Max. compression        |  |                         |                         |                         |      |
| Lubrication interval   | : 4500 h                                     | 4500 h                      |                         |  |                         |                         |                         |      |
| Lubricant amount   | : 27 g                                       | 27 g                        |                         |  |                         |                         |                         |      |
| Lubricant type   | : Mobil Polyrex EM                           |                             |                         |  |                         |                         |                         |      |
| Notes  |  |                             |                         |  |                         |                         |                         |      |
| 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   |  |                             |                         |  |                         |                         |                         |      |
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# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



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

### Thermal protection

| ID | Application | Type                 | Quantity  | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1  | Winding     | Thermistor - 2 wires | 1 x Phase | 155 °C              |

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



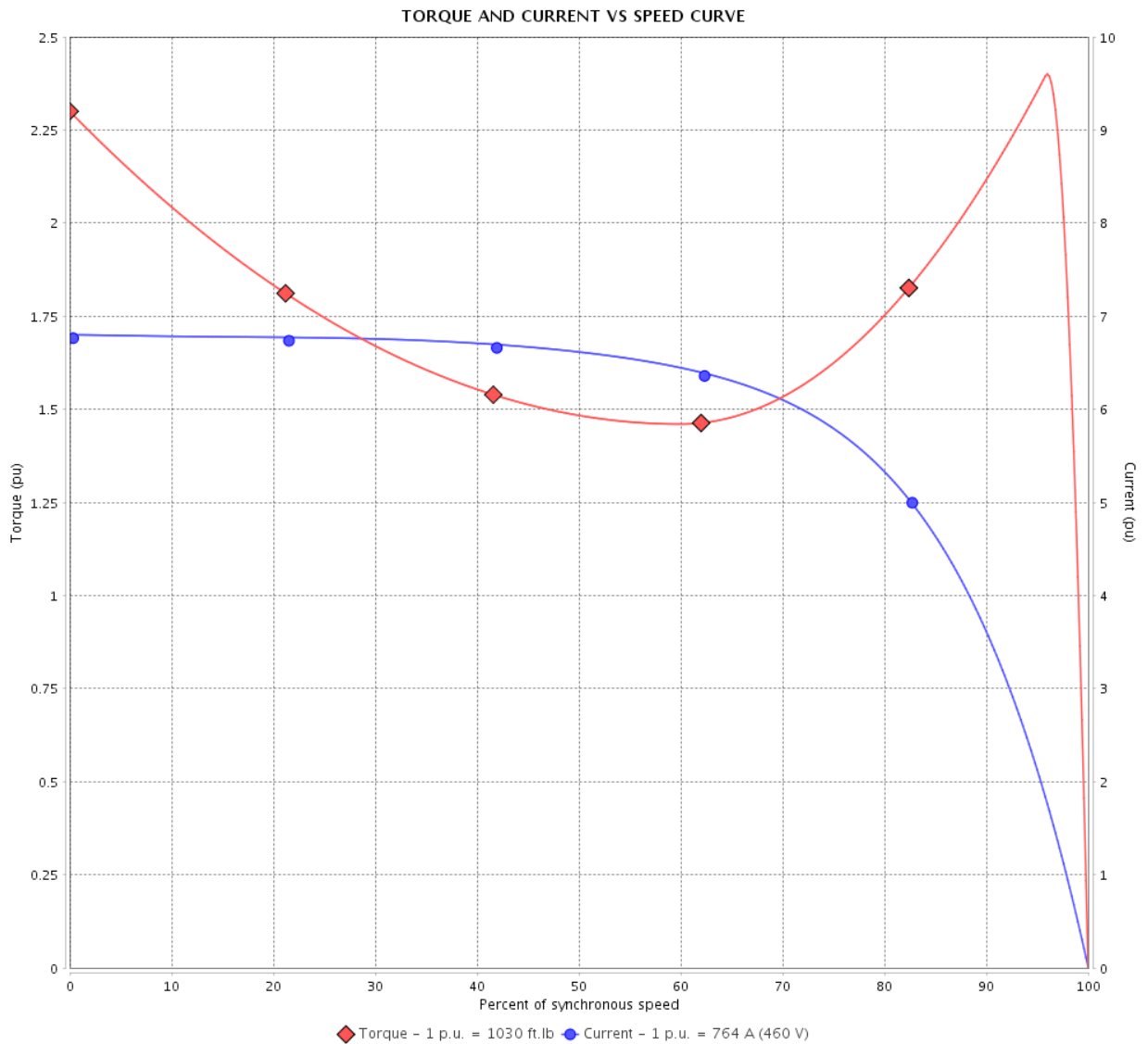
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 460 V 60 Hz 2P

Rated current : 764 A  
LRC : 6.8  
Rated torque : 1030 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 240 %  
Rated speed : 3570 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K

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

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

Three Phase Induction Motor - Squirrel Cage



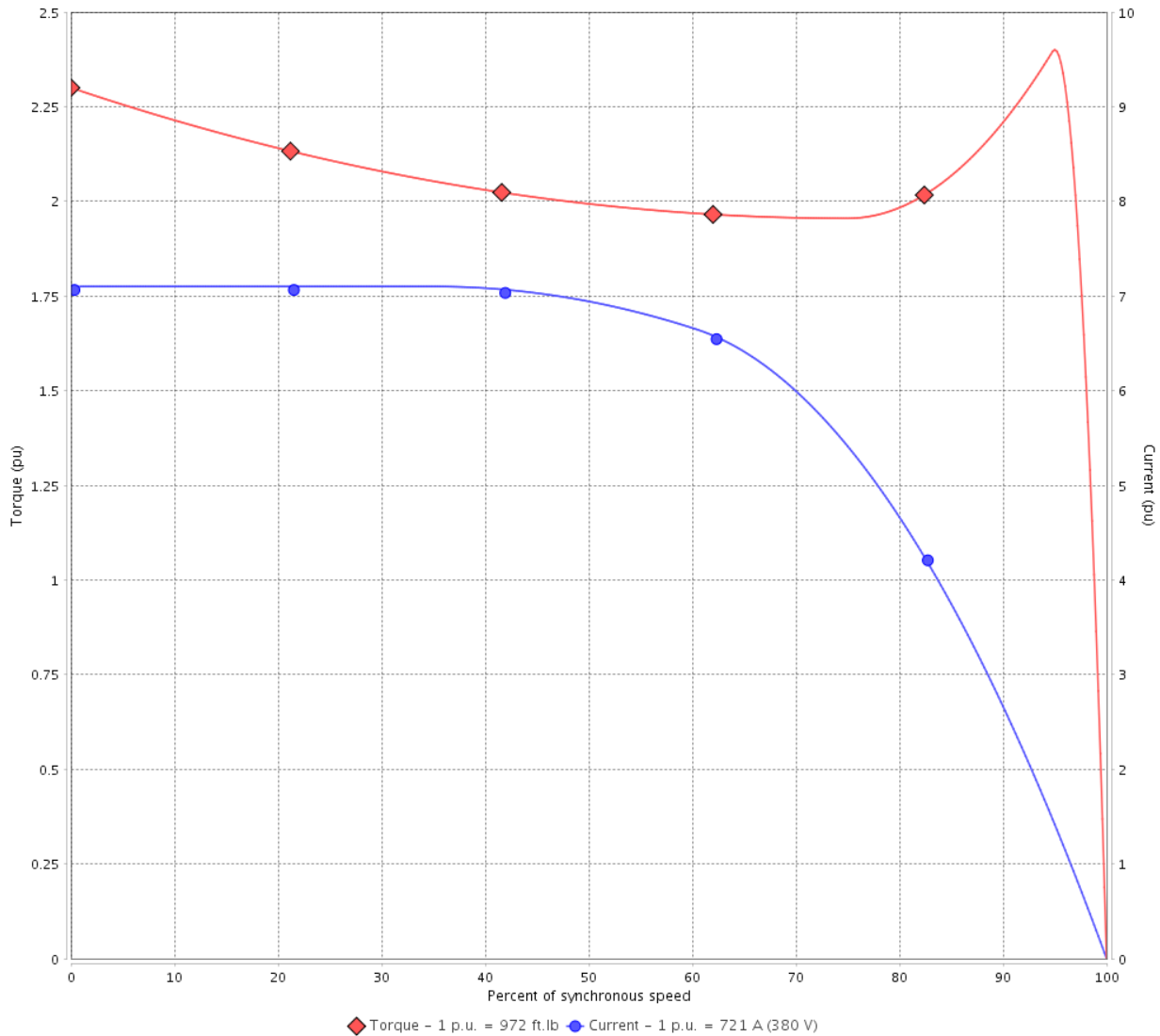
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P IE1

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 721 A     | Moment of inertia (J) | : 78.5 sq.ft.lb |
| LRC                 | : 7.1       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 972 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 229 %     | Service factor        | : 1.15          |
| Breakdown torque    | : 240 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 2970 rpm  |                       |                 |

Locked rotor time : 25s (cold) 14s (hot)

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



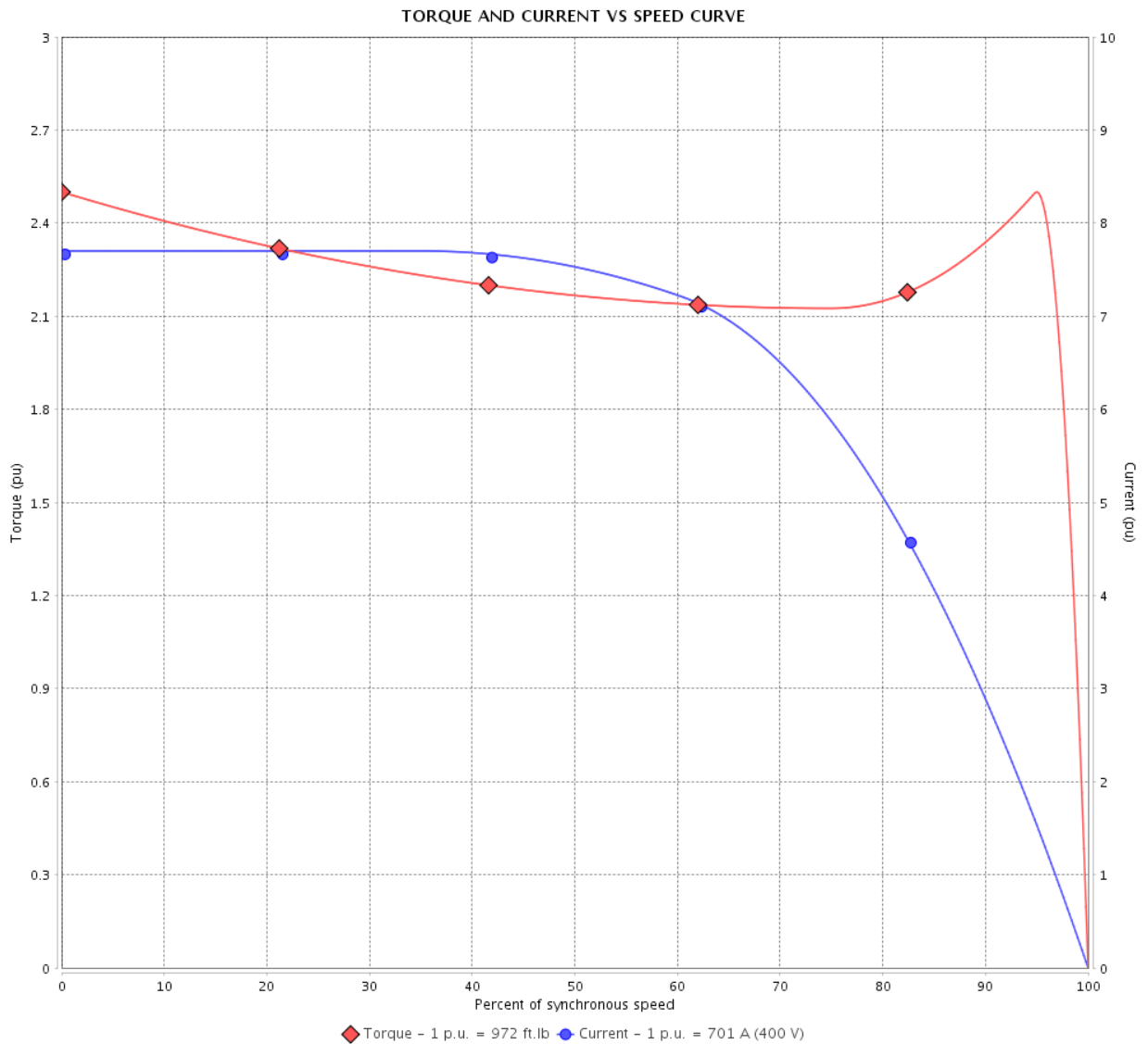
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 400 V 50 Hz 2P IE1

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 701 A     | Moment of inertia (J) | : 78.5 sq.ft.lb |
| LRC                 | : 7.7       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 972 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 250 %     | Service factor        | : 1.15          |
| Breakdown torque    | : 250 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 2970 rpm  |                       |                 |

Locked rotor time : 25s (cold) 14s (hot)

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

Three Phase Induction Motor - Squirrel Cage



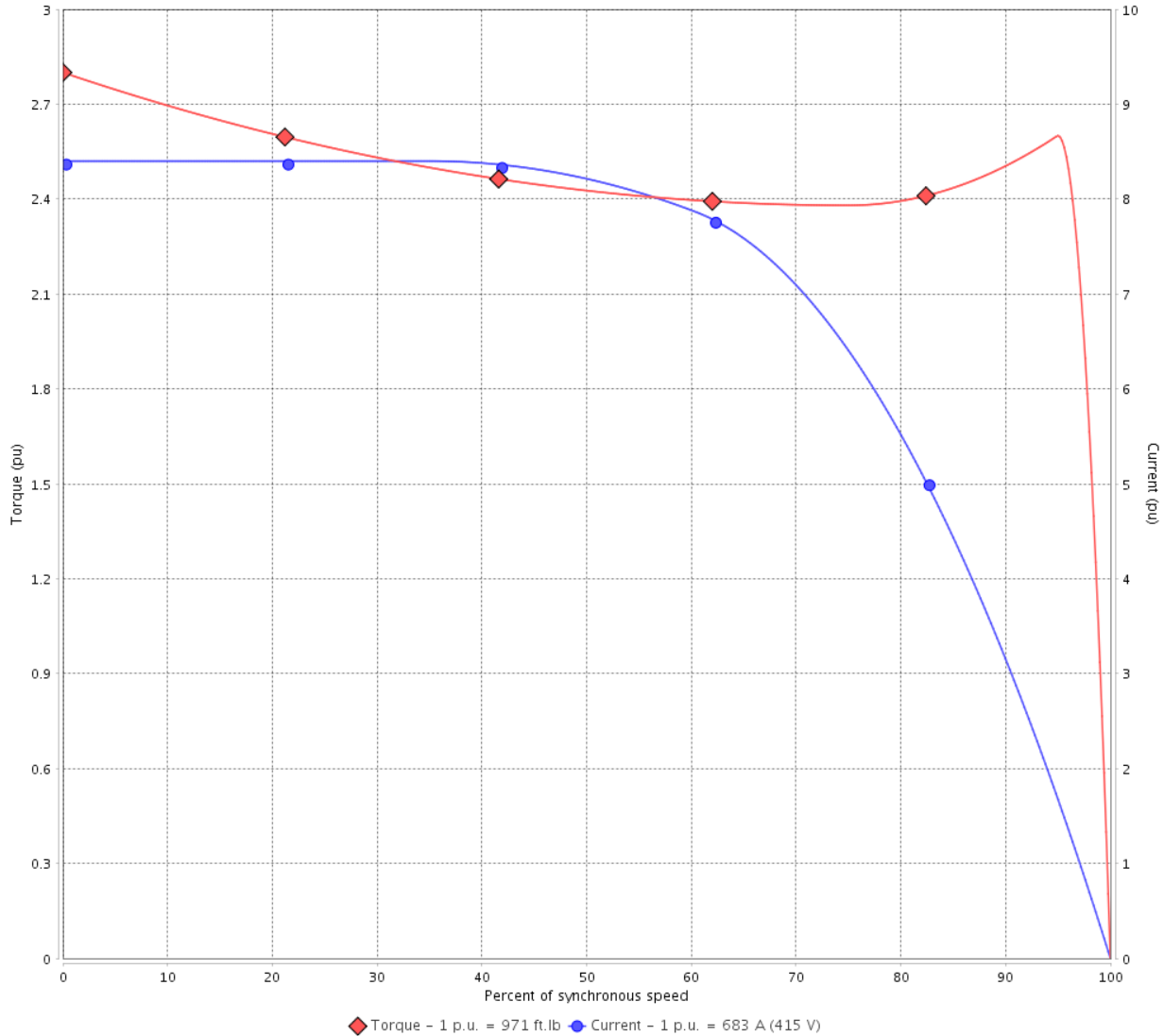
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE1

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 683 A     | Moment of inertia (J) | : 78.5 sq.ft.lb |
| LRC                 | : 8.4       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 971 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 280 %     | Service factor        | : 1.15          |
| Breakdown torque    | : 260 %     | Temperature rise      | : 105 K         |
| Rated speed         | : 2975 rpm  |                       |                 |

Locked rotor time : 25s (cold) 14s (hot)

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



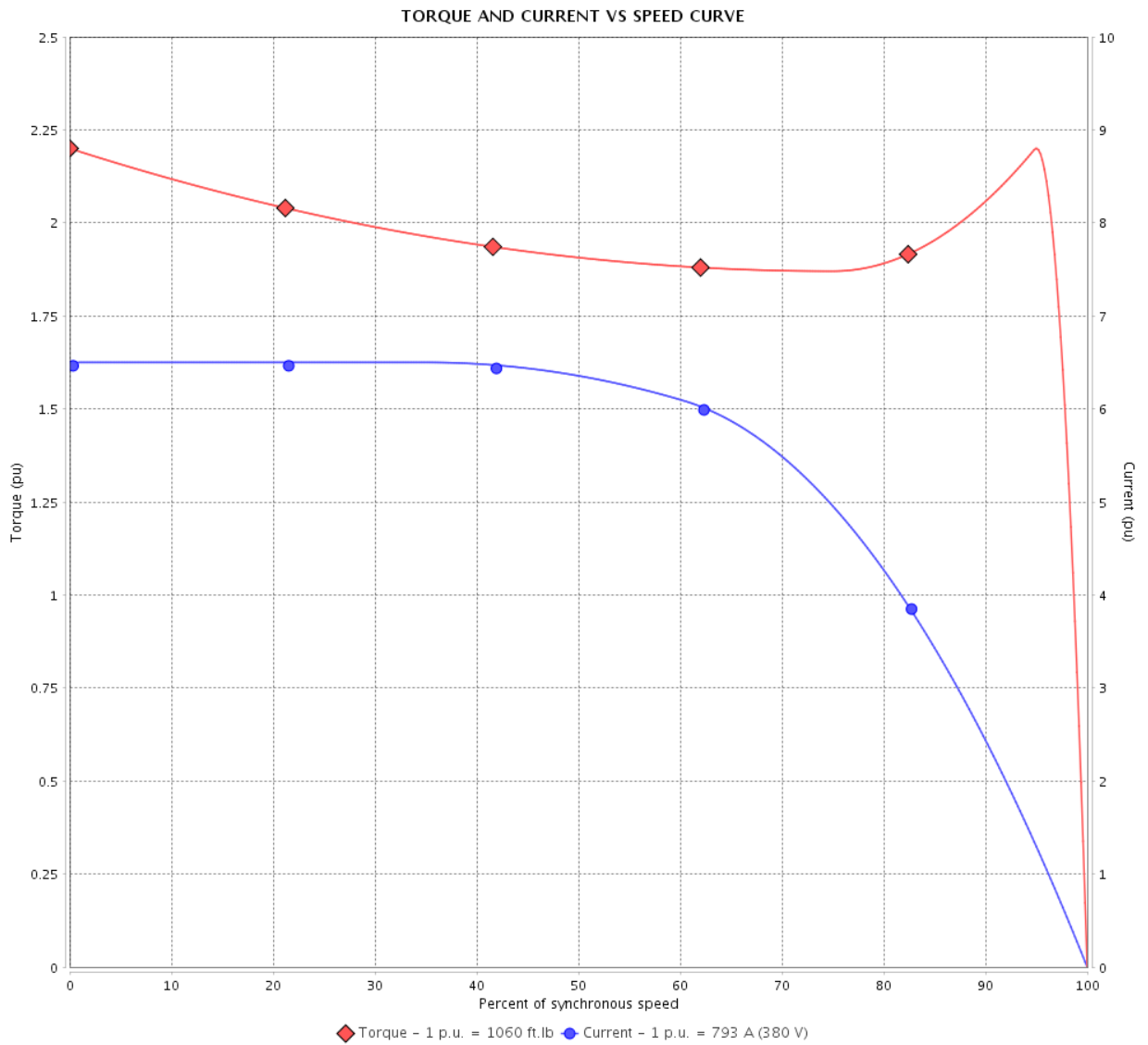
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 793 A  
LRC : 6.5  
Rated torque : 1060 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 220 %  
Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

Locked rotor time : 25s (cold) 14s (hot)

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

## Three Phase Induction Motor - Squirrel Cage



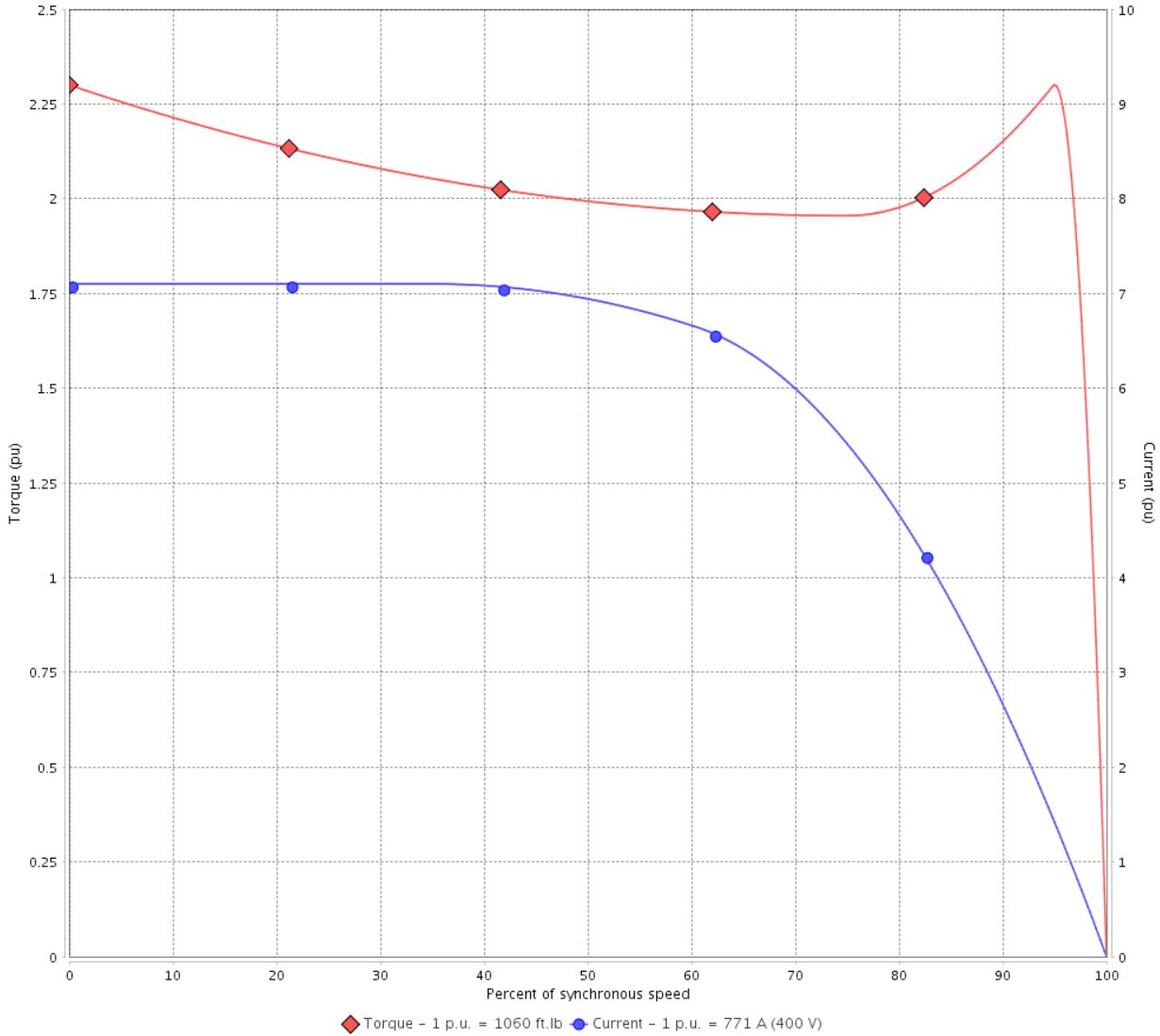
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Three-Phase

Product code : 13821179

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

|                     |              |                       |                 |
|---------------------|--------------|-----------------------|-----------------|
| Rated current       | : 771 A      | Moment of inertia (J) | : 78.5 sq.ft.lb |
| LRC                 | : 7.1        | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 1060 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 229 %      | Service factor        | : 1.00          |
| Breakdown torque    | : 229 %      | Temperature rise      | : 105 K         |
| Rated speed         | : 2970 rpm   |                       |                 |

Locked rotor time : 25s (cold) 14s (hot)

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



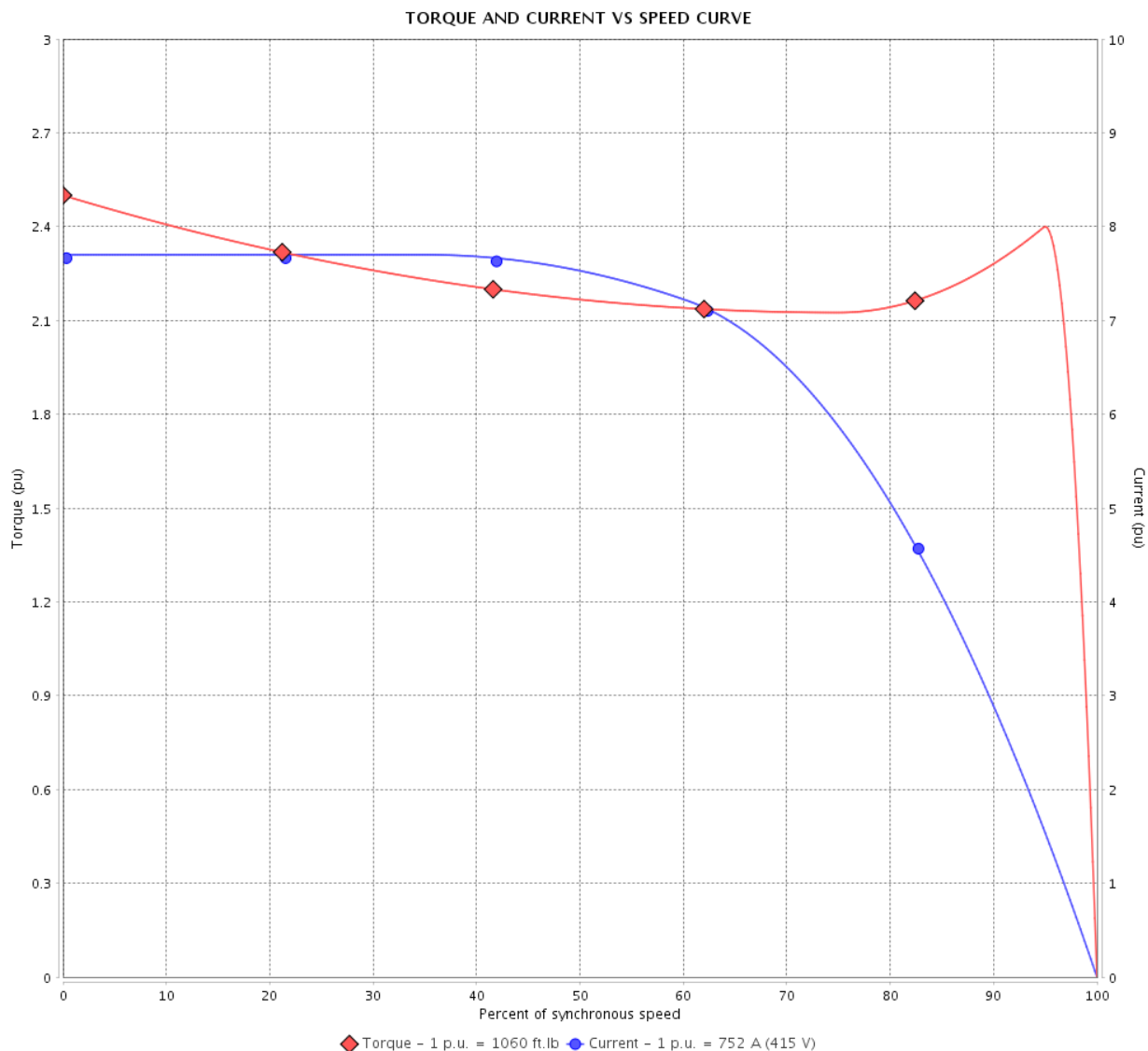
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 752 A  
LRC : 7.7  
Rated torque : 1060 ft.lb  
Locked rotor torque : 250 %  
Breakdown torque : 240 %  
Rated speed : 2975 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

Locked rotor time : 25s (cold) 14s (hot)

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

Three Phase Induction Motor - Squirrel Cage

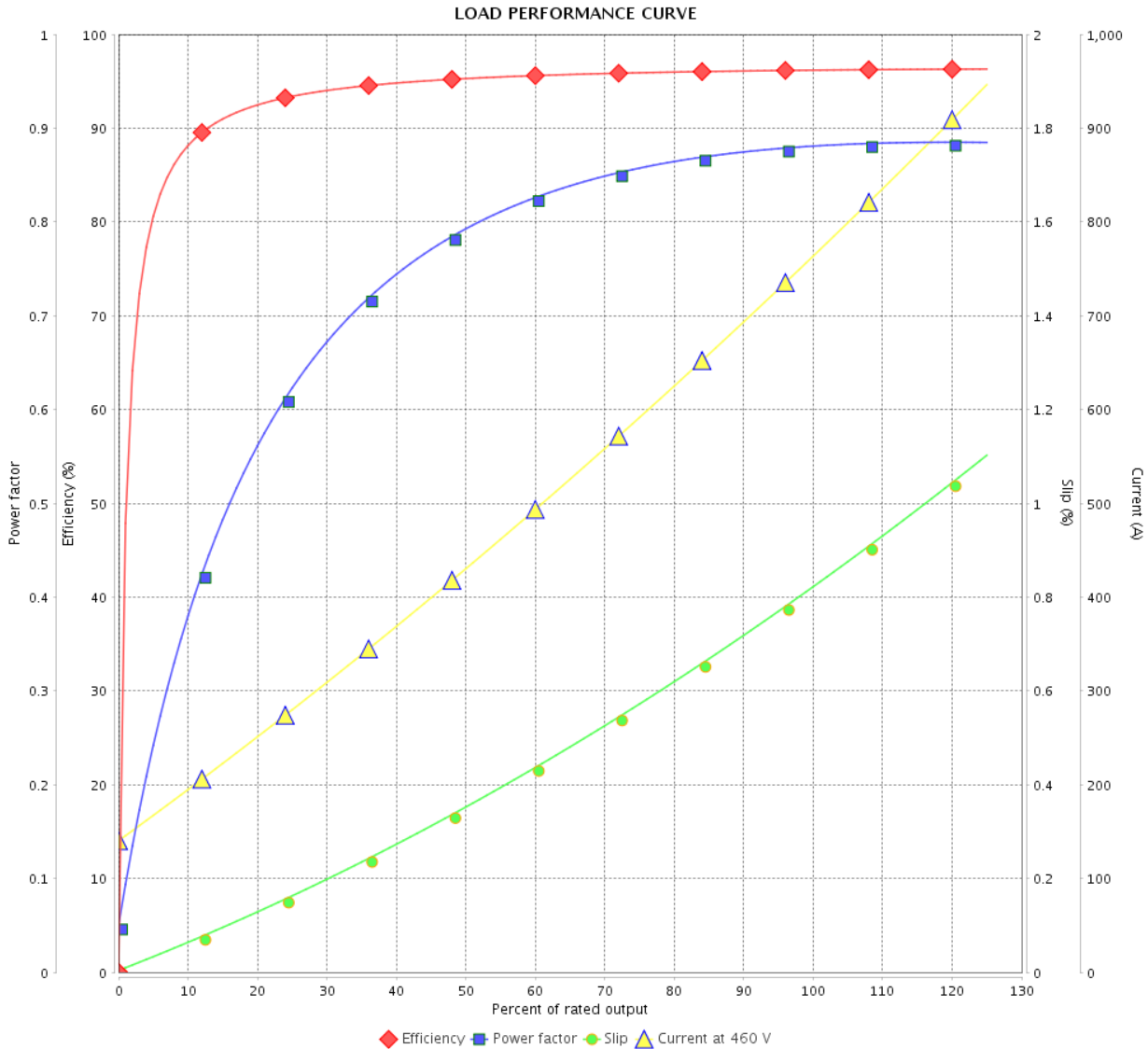


Customer : \_\_\_\_\_

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 460 V 60 Hz 2P

Rated current : 764 A  
 LRC : 6.8  
 Rated torque : 1030 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 240 %  
 Rated speed : 3570 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K

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

## Three Phase Induction Motor - Squirrel Cage

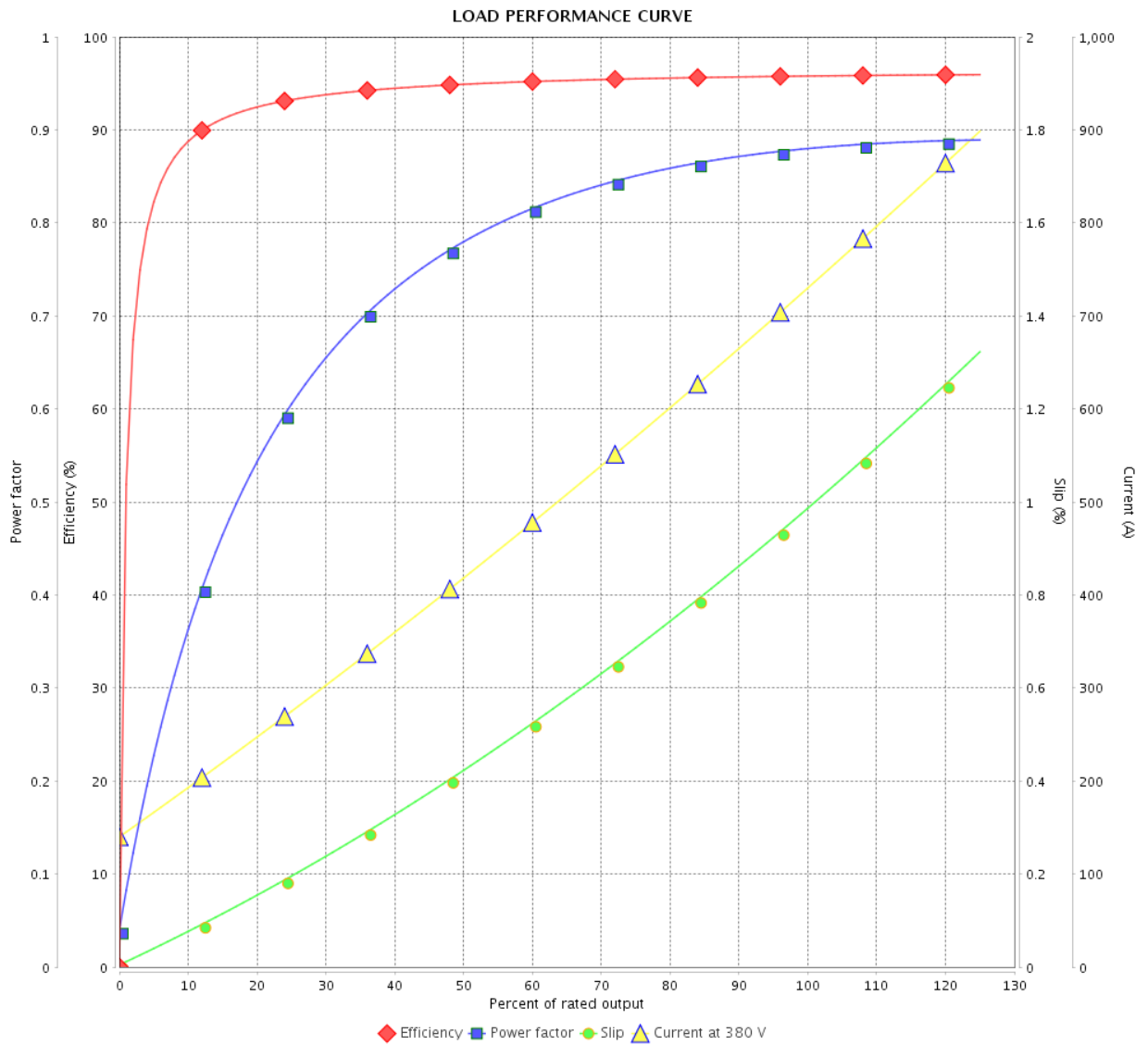


Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 380 V 50 Hz 2P IE1

Rated current : 721 A  
 LRC : 7.1  
 Rated torque : 972 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 240 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K

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

Three Phase Induction Motor - Squirrel Cage

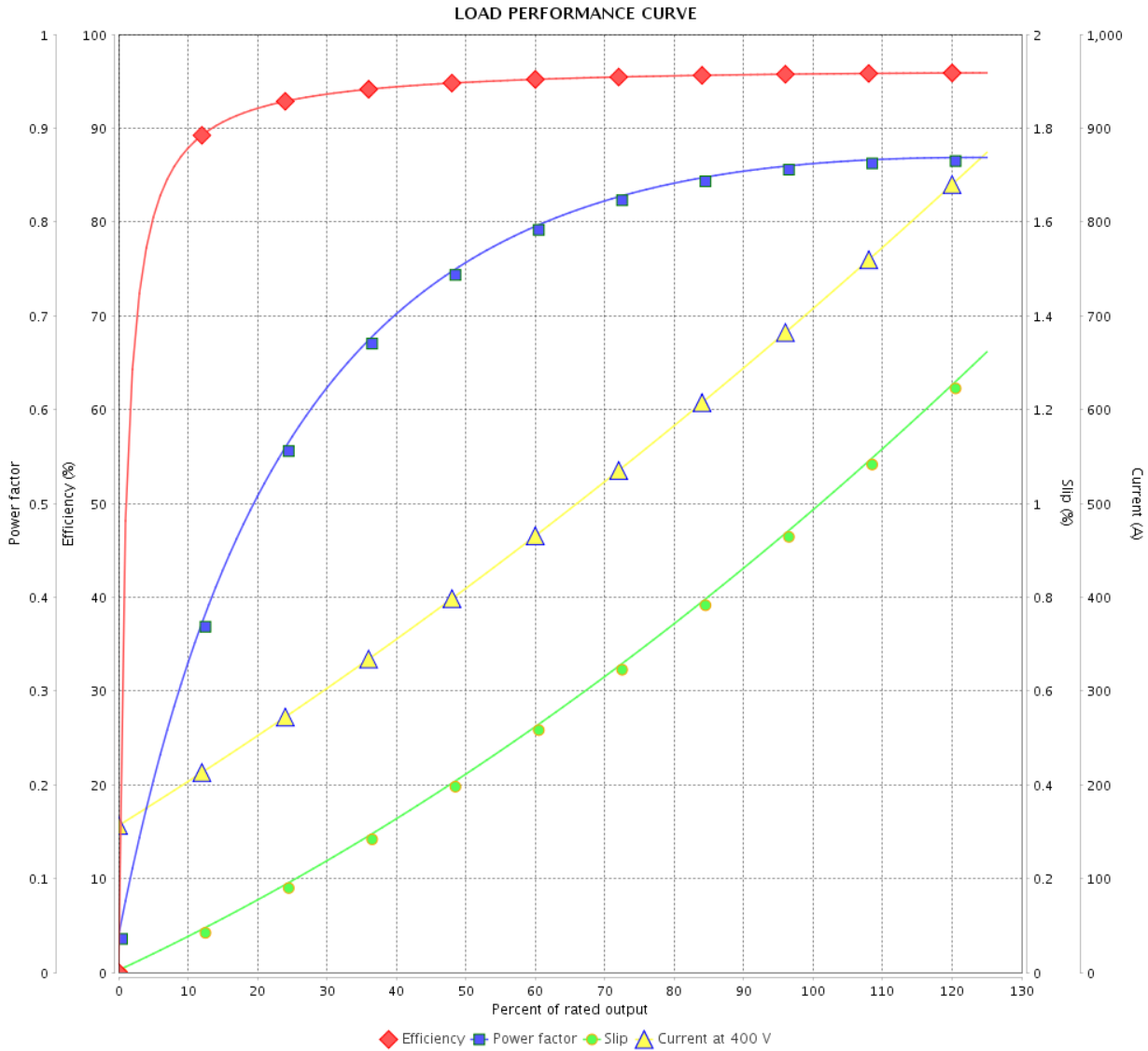


Customer : \_\_\_\_\_

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 400 V 50 Hz 2P IE1

Rated current : 701 A  
 LRC : 7.7  
 Rated torque : 972 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 250 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K

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

## Three Phase Induction Motor - Squirrel Cage

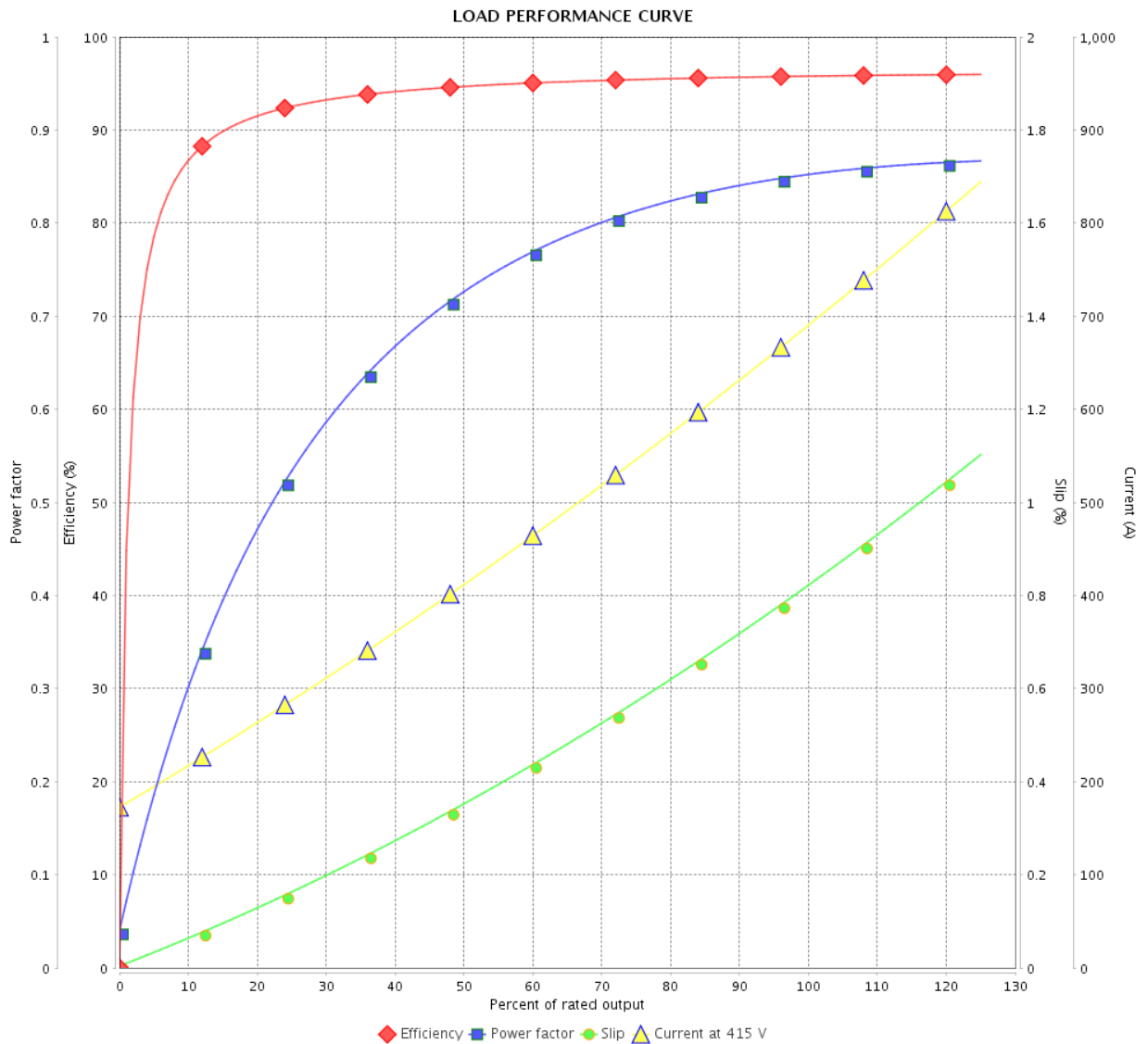


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Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 415 V 50 Hz 2P IE1

Rated current : 683 A  
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 Locked rotor torque : 280 %  
 Breakdown torque : 260 %  
 Rated speed : 2975 rpm

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 Duty cycle : Cont.(S1)  
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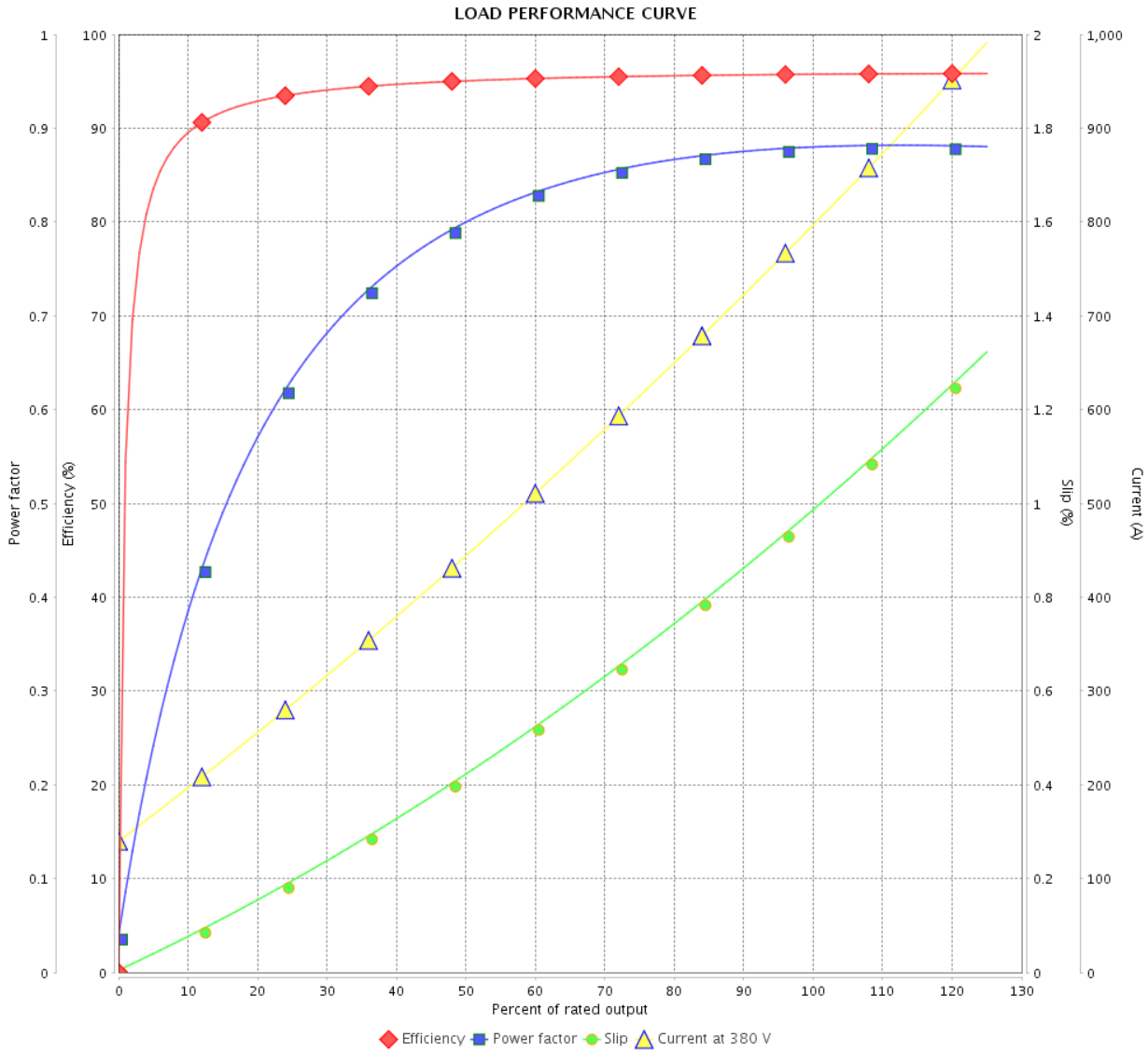


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# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

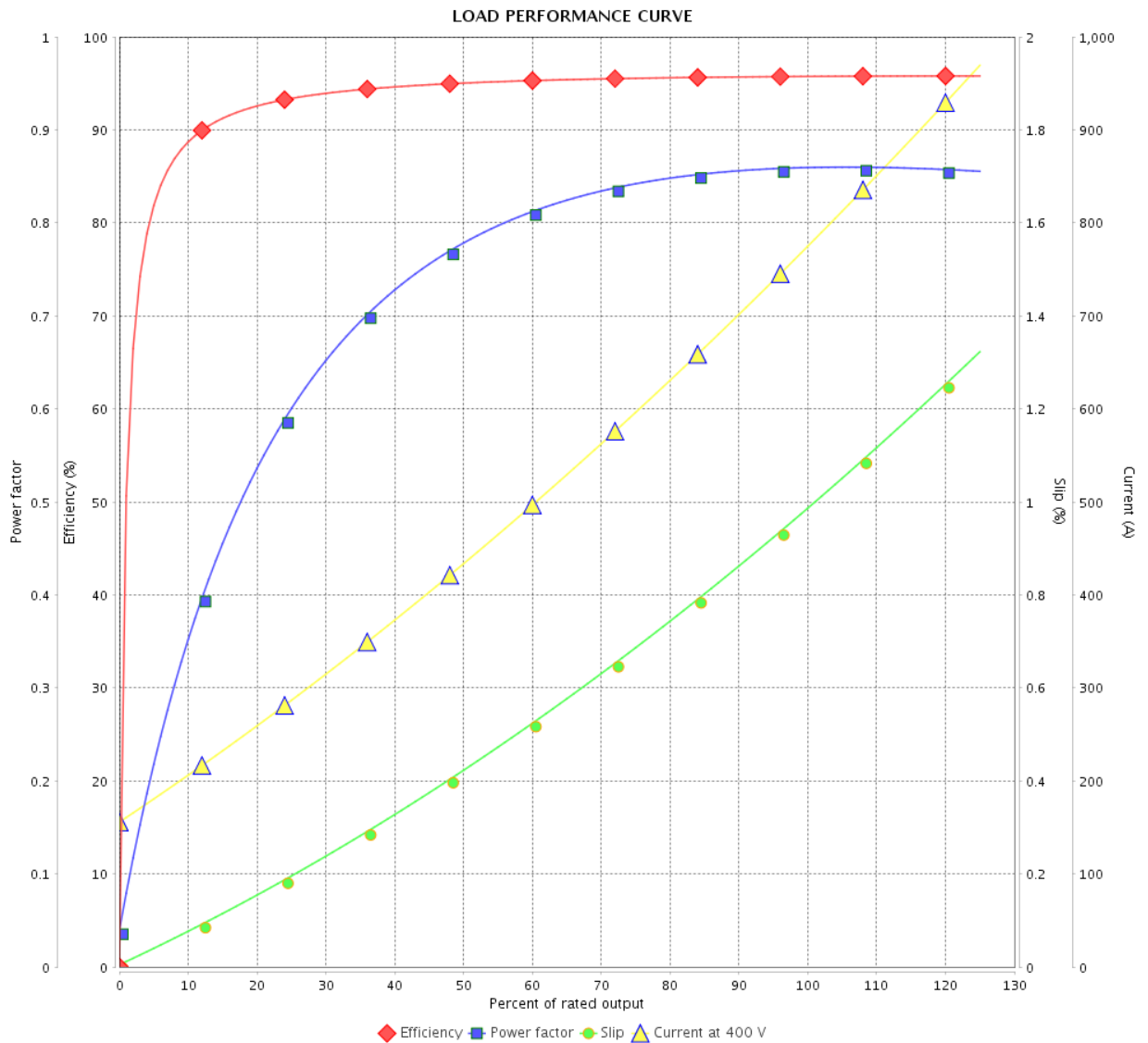


Customer : \_\_\_\_\_

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 400 V 50 Hz 2P IE3

Rated current : 771 A  
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 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Date         |                 | 13/04/2022 |         |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

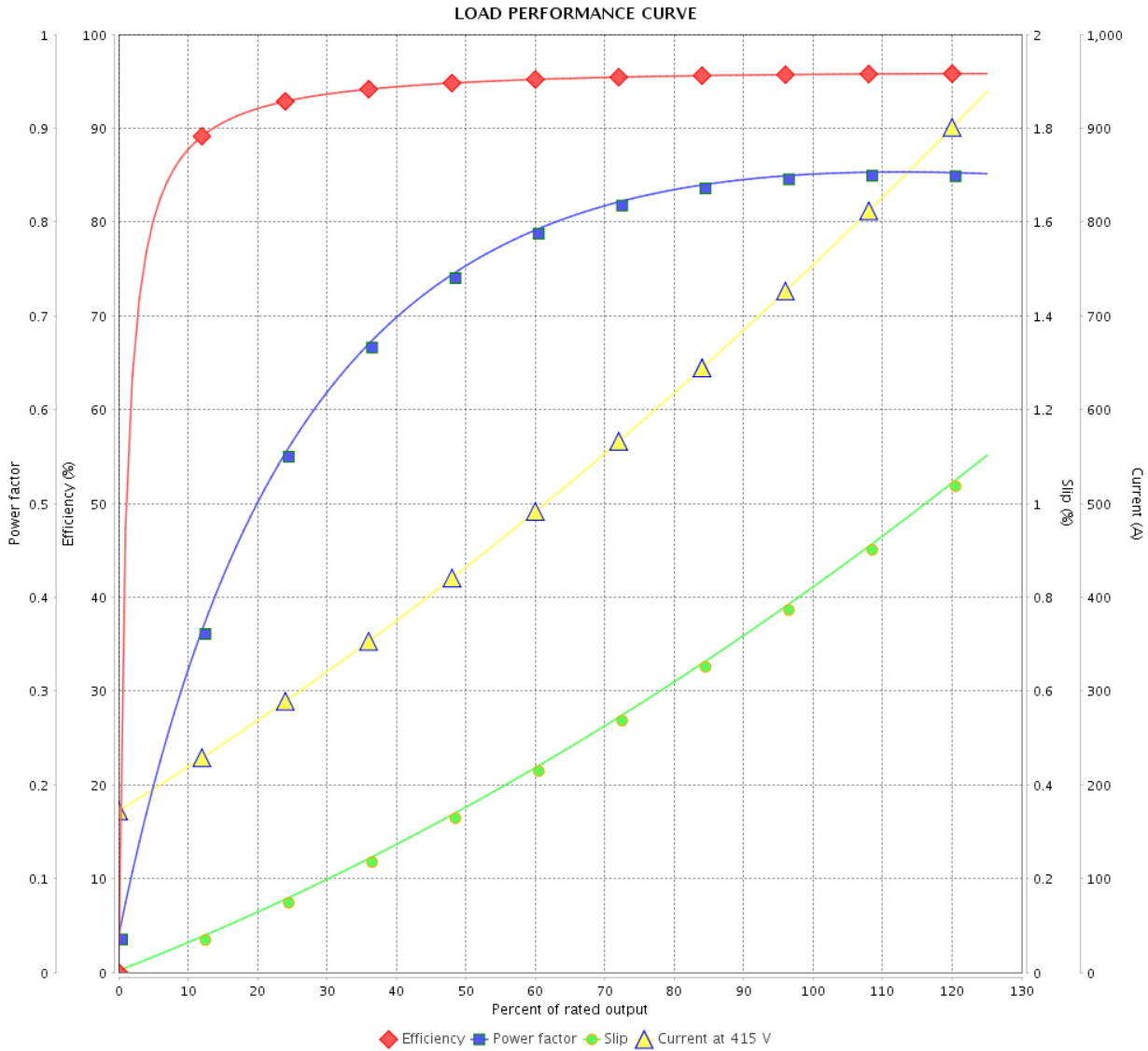


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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 13821179  
 Catalog # : 70036OT3Q5010S-W40

Performance : 460 V 60 Hz 2P

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 764 A       | Moment of inertia (J) : 78.5 sq.ft.lb |
| LRC : 6.8                   | Duty cycle : Cont.(S1)                |
| Rated torque : 1030 ft.lb   | Insulation class : F                  |
| Locked rotor torque : 229 % | Service factor : 1.15                 |
| Breakdown torque : 240 %    | Temperature rise : 80 K               |
| Rated speed : 3570 rpm      |                                       |

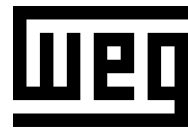
Heating constant

Cooling constant

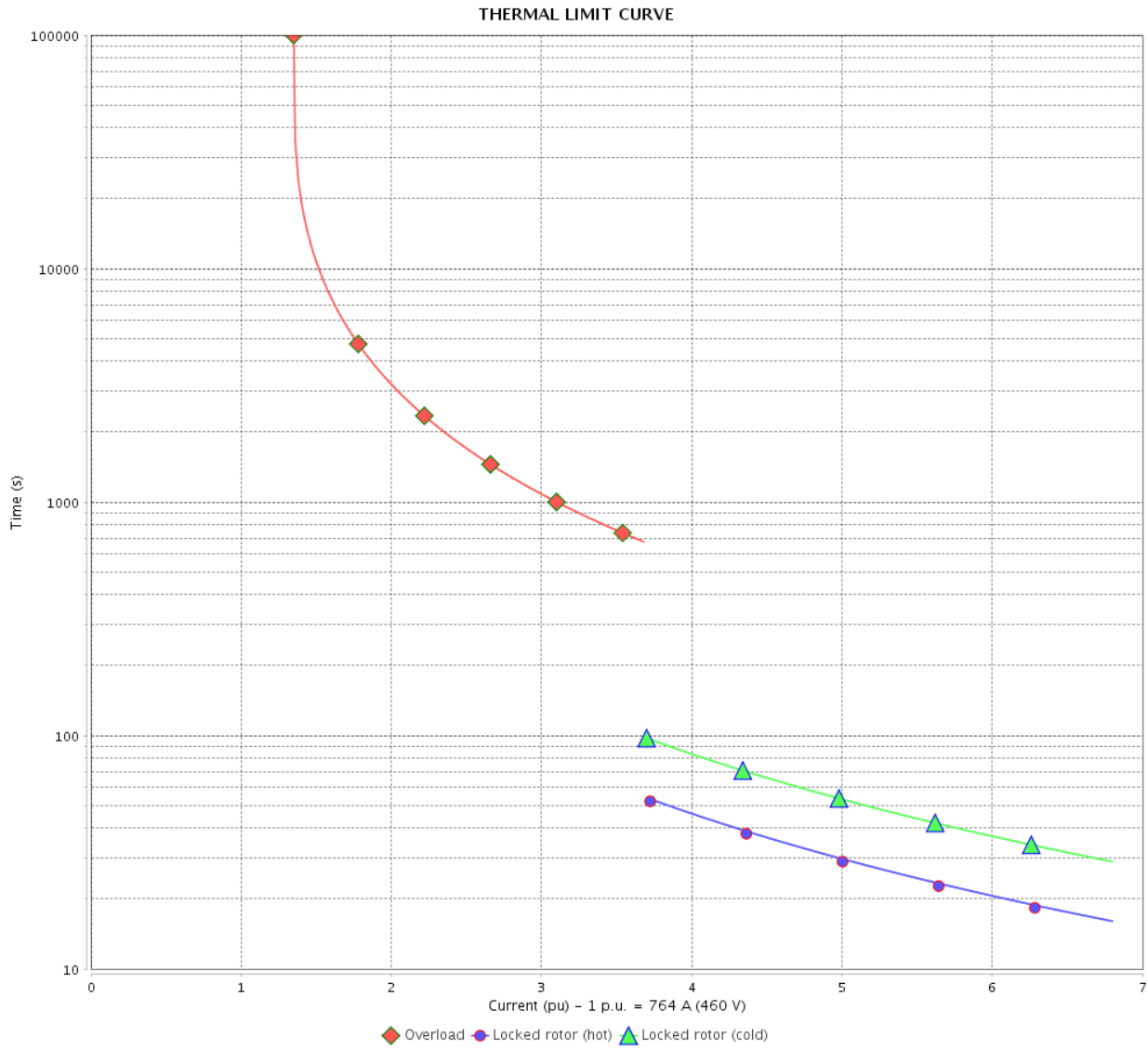
| Rev.         | Changes Summary | Performed | Checked | Date     |
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| Checked by   |                 |           |         |          |
| Date         | 13/04/2022      |           |         |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed | Checked | Date     |
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

Performance : 380 V 50 Hz 2P IE1

Rated current : 721 A  
LRC : 7.1  
Rated torque : 972 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 240 %  
Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K

Heating constant

Cooling constant

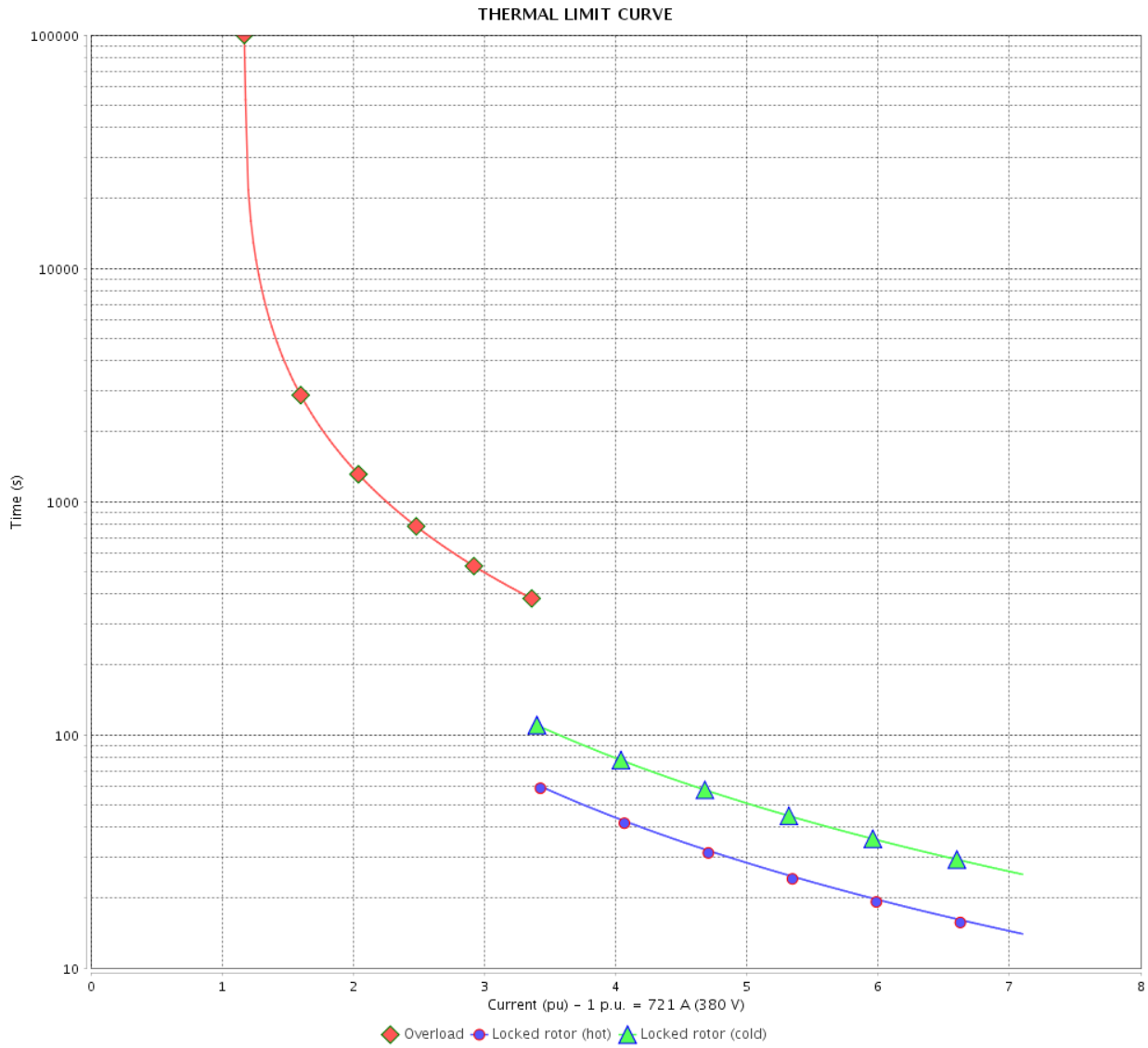
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase  
 Product code : 13821179  
 Catalog # : 70036OT3Q5010S-W40

Performance : 400 V 50 Hz 2P IE1

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 701 A       | Moment of inertia (J) : 78.5 sq.ft.lb |
| LRC : 7.7                   | Duty cycle : Cont.(S1)                |
| Rated torque : 972 ft.lb    | Insulation class : F                  |
| Locked rotor torque : 250 % | Service factor : 1.15                 |
| Breakdown torque : 250 %    | Temperature rise : 105 K              |
| Rated speed : 2970 rpm      |                                       |

Heating constant

Cooling constant

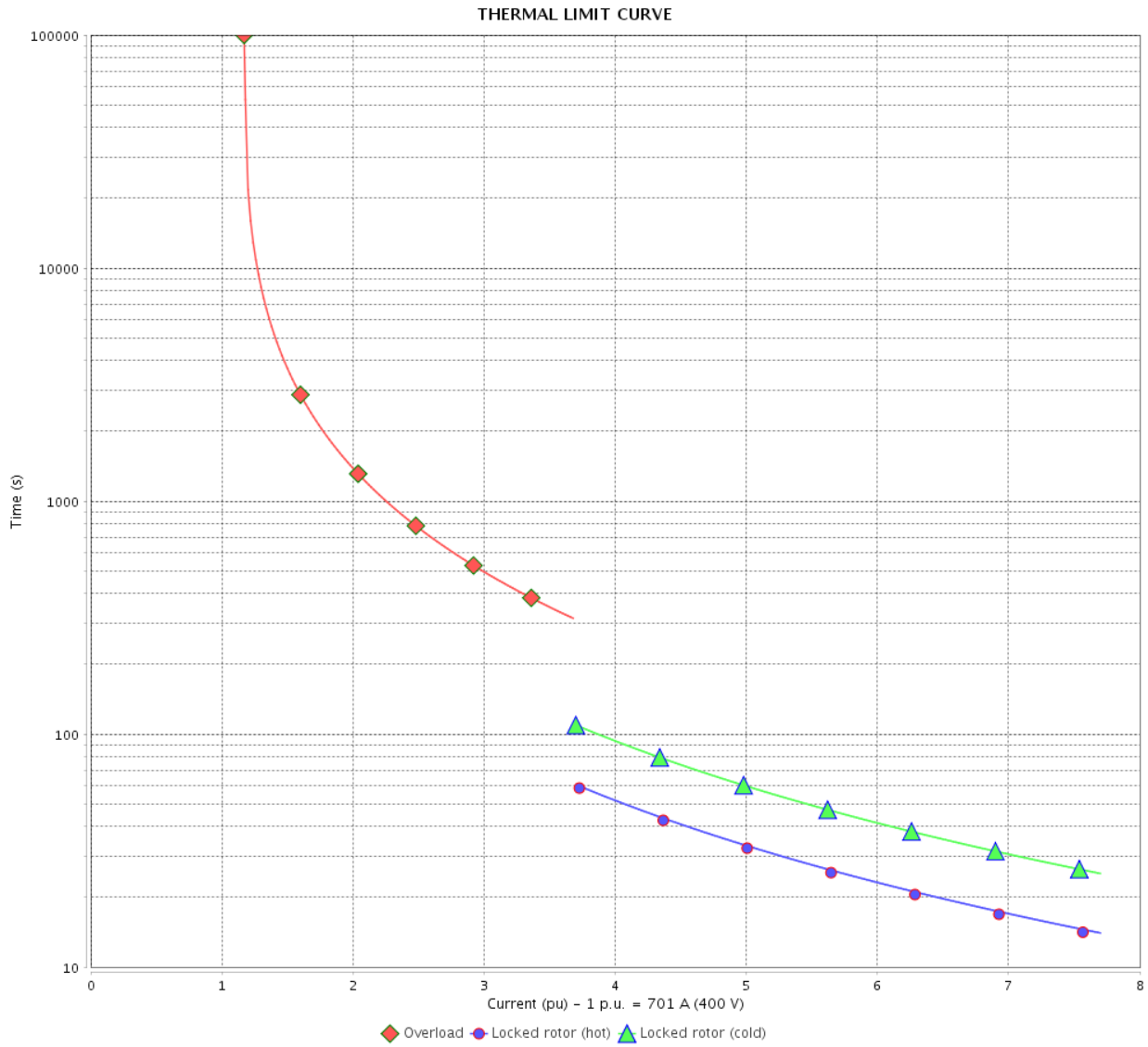
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

Performance : 415 V 50 Hz 2P IE1

Rated current : 683 A  
LRC : 8.4  
Rated torque : 971 ft.lb  
Locked rotor torque : 280 %  
Breakdown torque : 260 %  
Rated speed : 2975 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K

Heating constant

Cooling constant

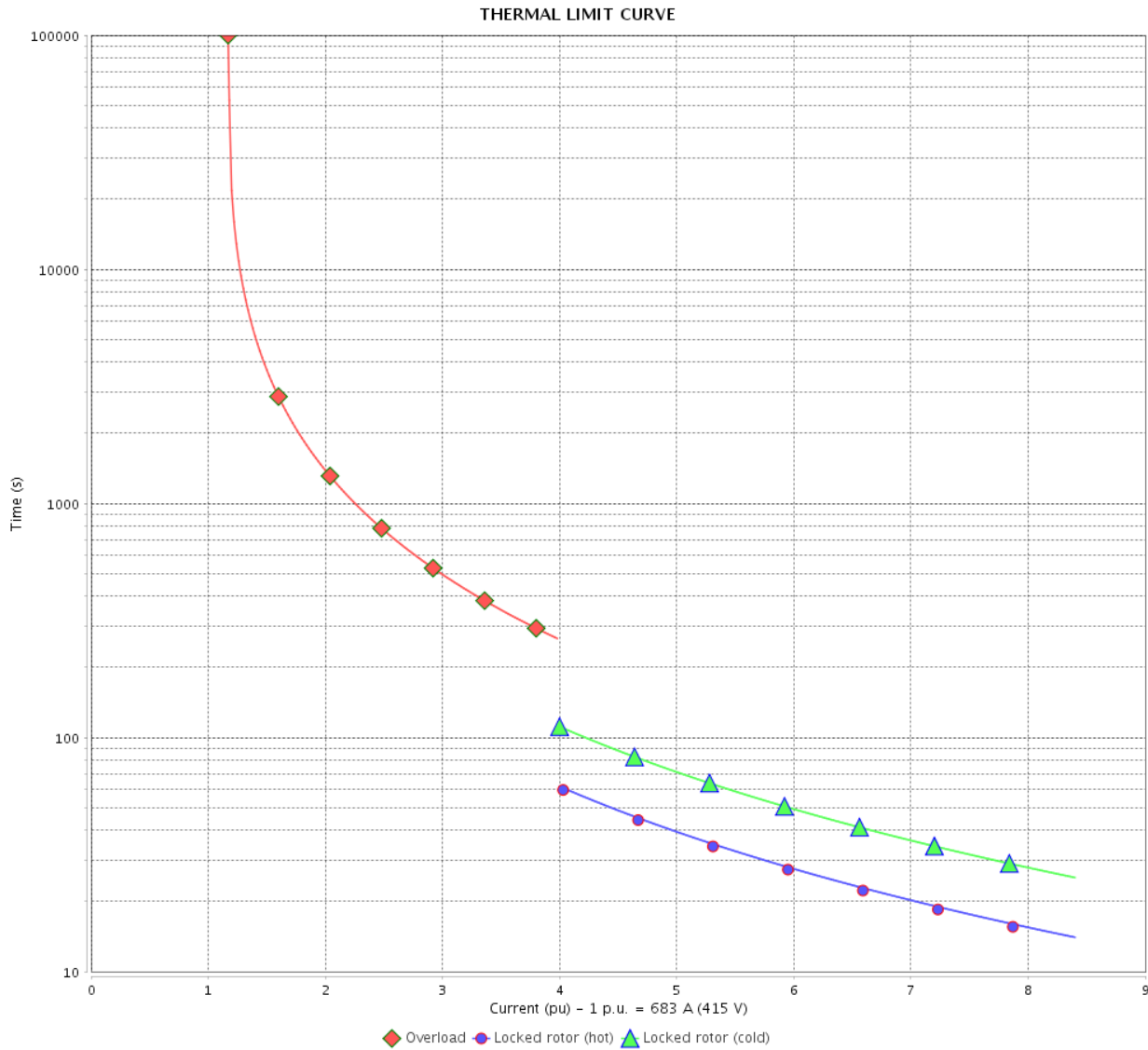
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

Performance : 380 V 50 Hz 2P IE3

Rated current : 793 A  
LRC : 6.5  
Rated torque : 1060 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 220 %  
Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

Heating constant

Cooling constant

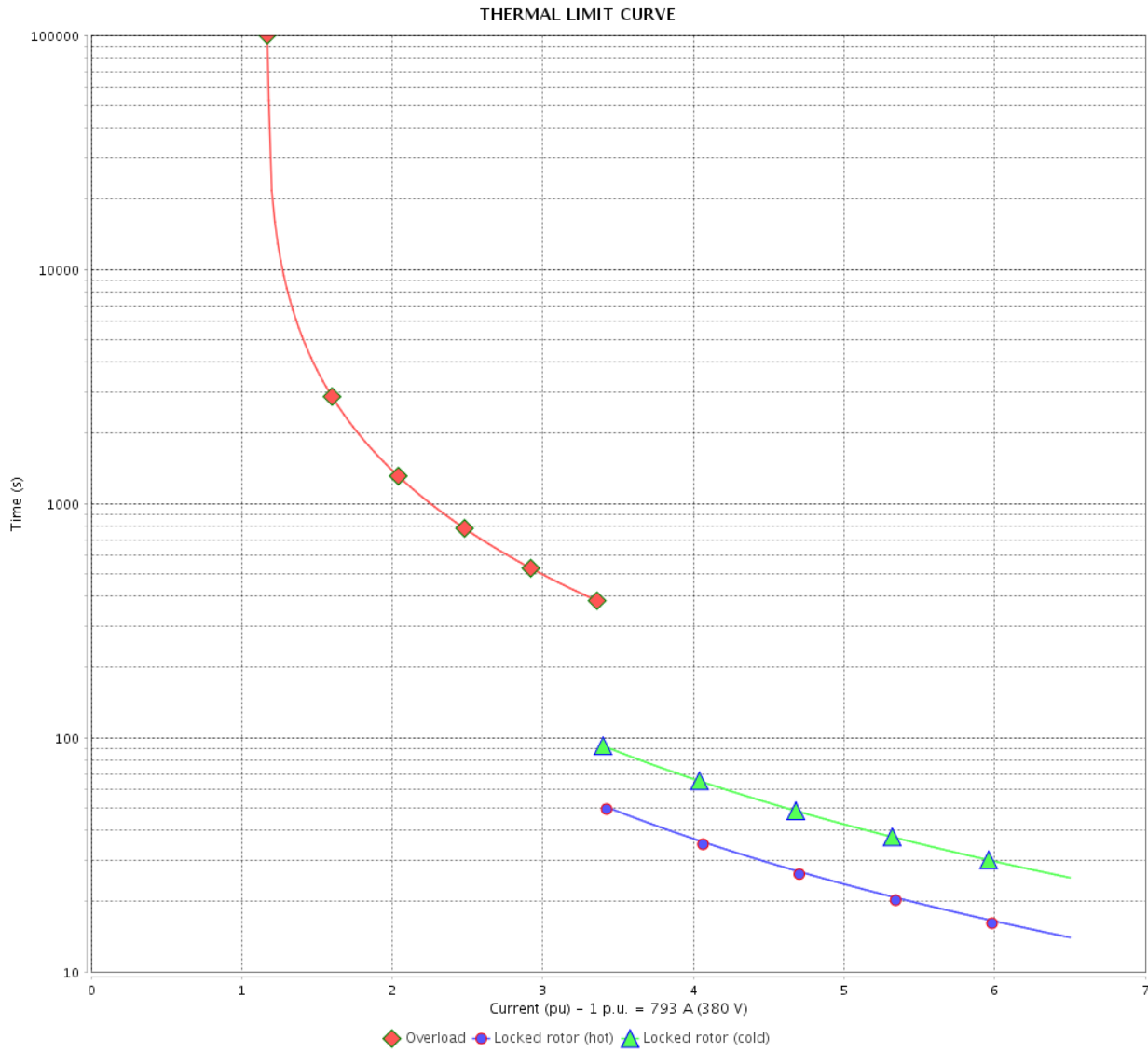
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase      Product code : 13821179  
 Catalog # : 70036OT3Q5010S-W40

Performance : 400 V 50 Hz 2P IE3

|                             |                                       |
|-----------------------------|---------------------------------------|
| Rated current : 771 A       | Moment of inertia (J) : 78.5 sq.ft.lb |
| LRC : 7.1                   | Duty cycle : Cont.(S1)                |
| Rated torque : 1060 ft.lb   | Insulation class : F                  |
| Locked rotor torque : 229 % | Service factor : 1.00                 |
| Breakdown torque : 229 %    | Temperature rise : 105 K              |
| Rated speed : 2970 rpm      |                                       |

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked         | Date     |
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| Checked by   |                 |           |                 |          |
| Date         | 13/04/2022      |           |                 |          |

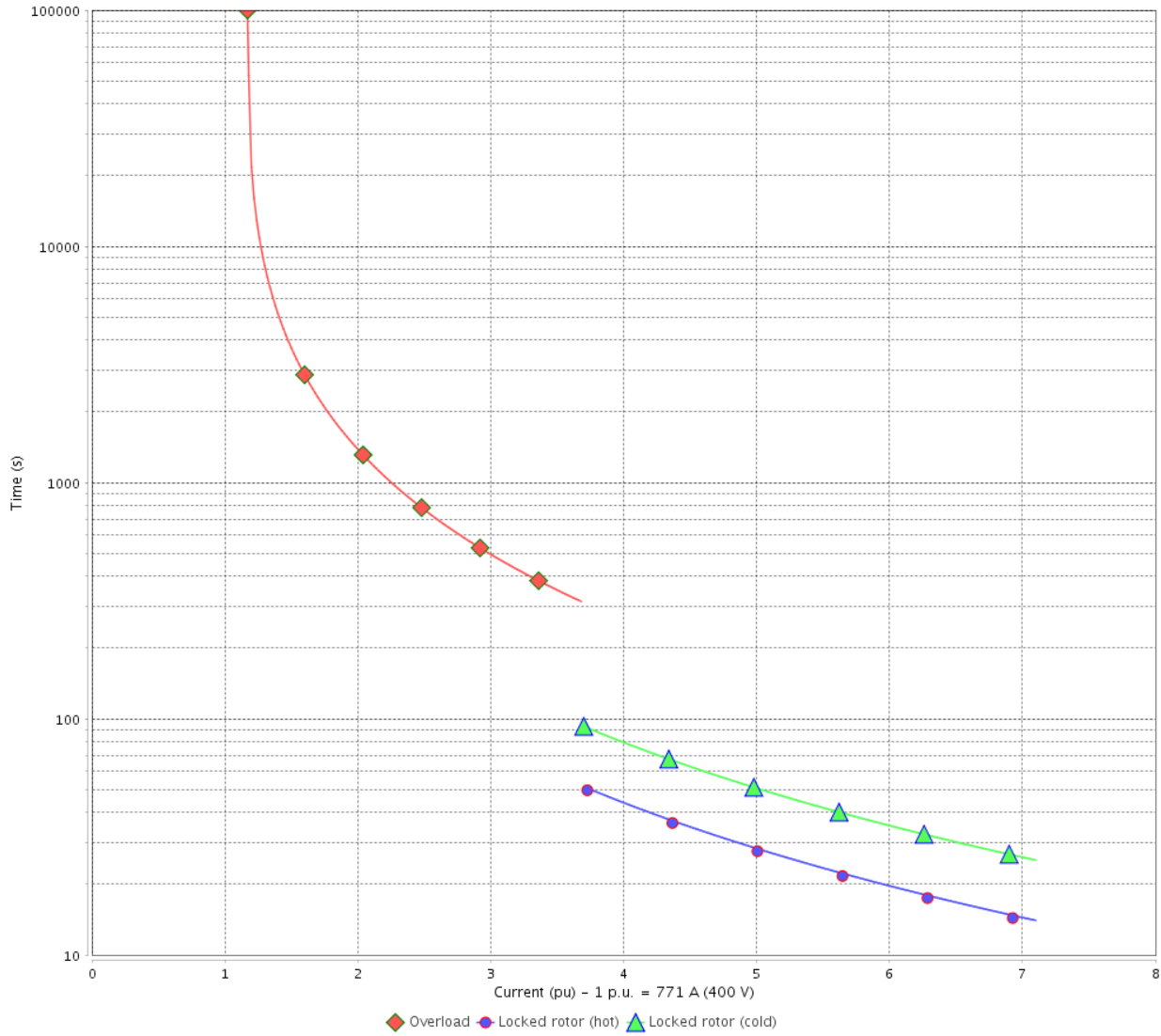
# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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

THERMAL LIMIT CURVE



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# THERMAL LIMIT CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

Performance : 415 V 50 Hz 2P IE3

Rated current : 752 A  
LRC : 7.7  
Rated torque : 1060 ft.lb  
Locked rotor torque : 250 %  
Breakdown torque : 240 %  
Rated speed : 2975 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

Heating constant

Cooling constant

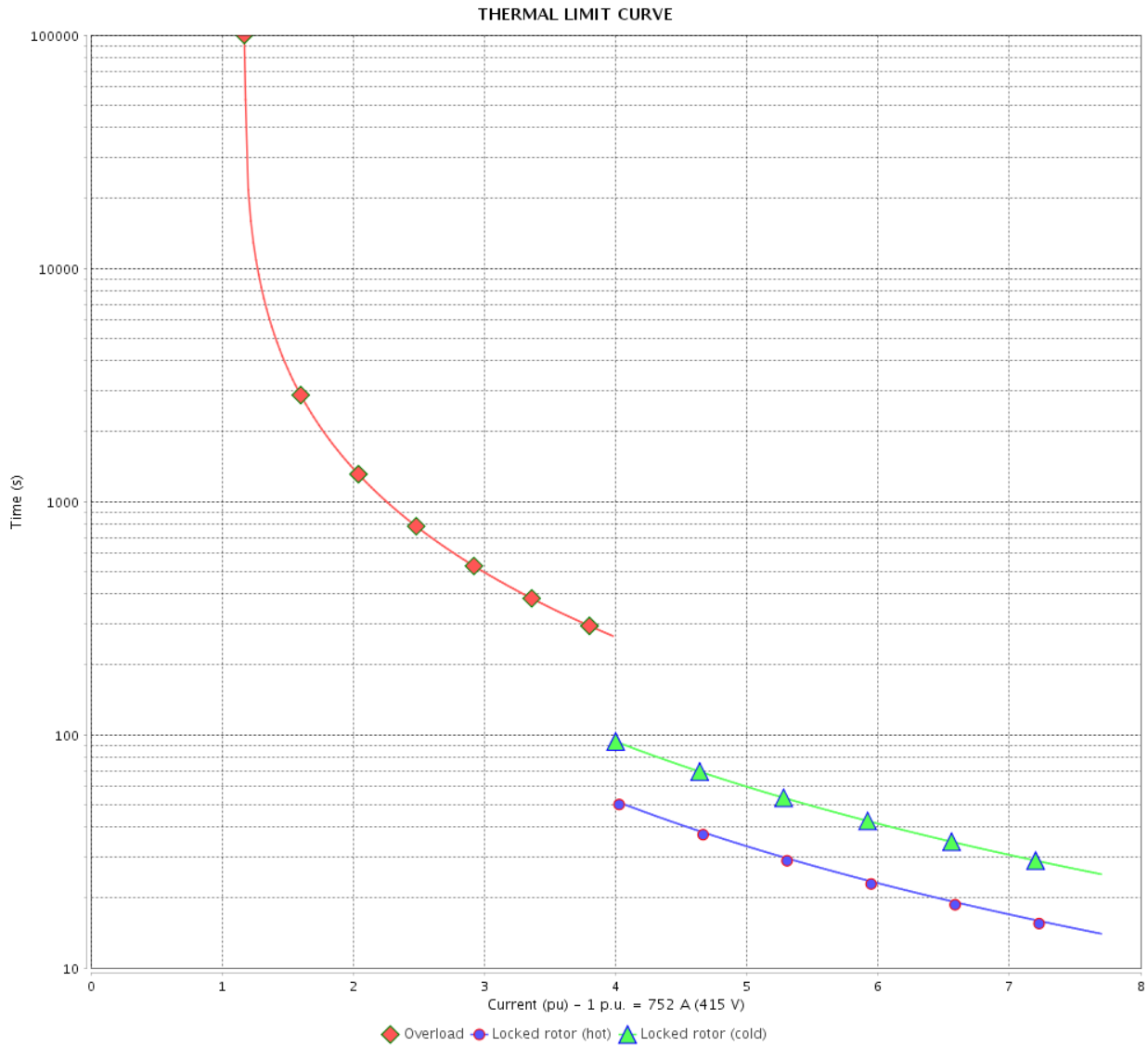
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

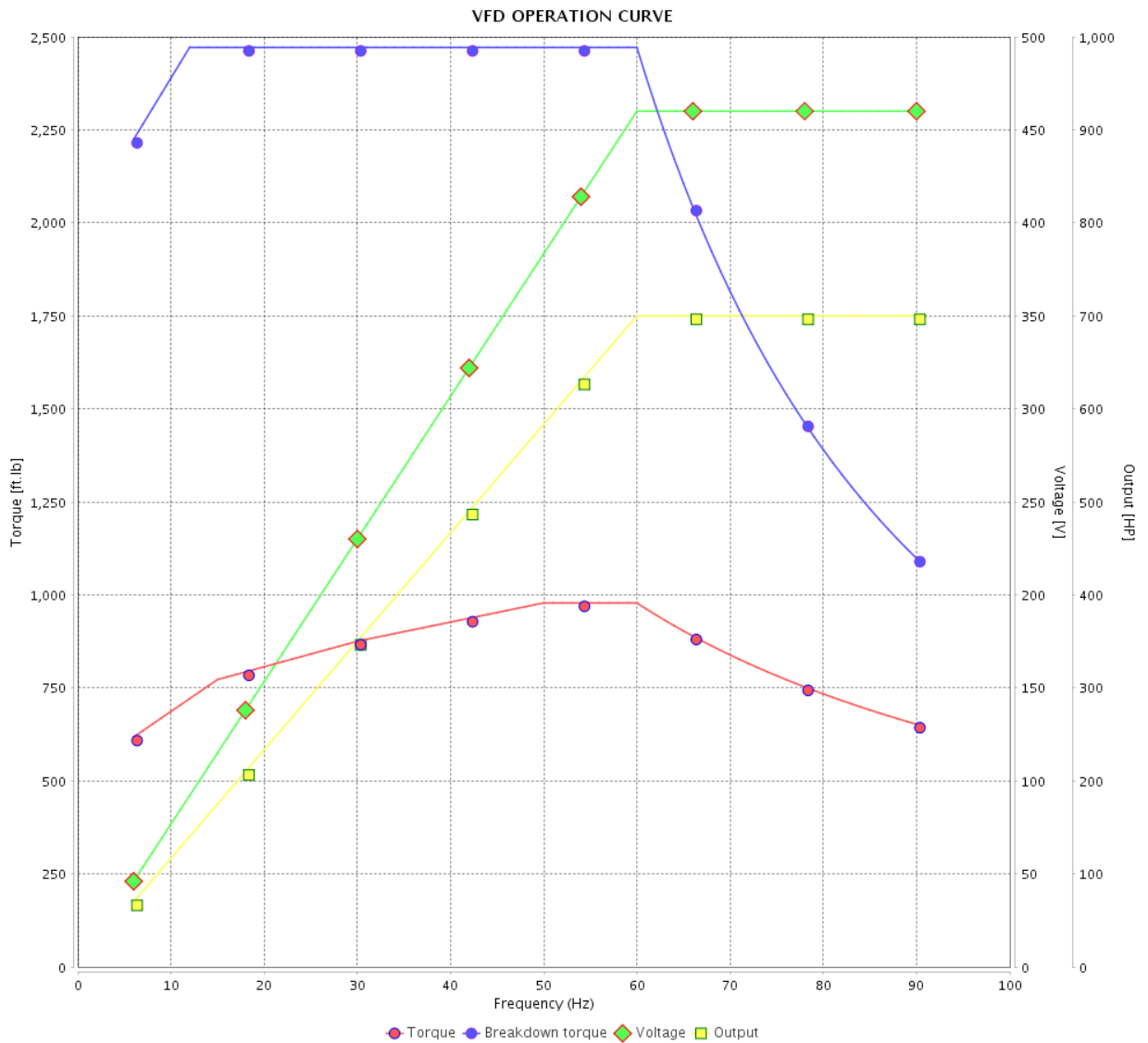


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 460 V 60 Hz 2P

Rated current : 764 A  
LRC : 6.8  
Rated torque : 1030 ft.lb  
Locked rotor torque : 229 %  
Breakdown torque : 240 %  
Rated speed : 3570 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



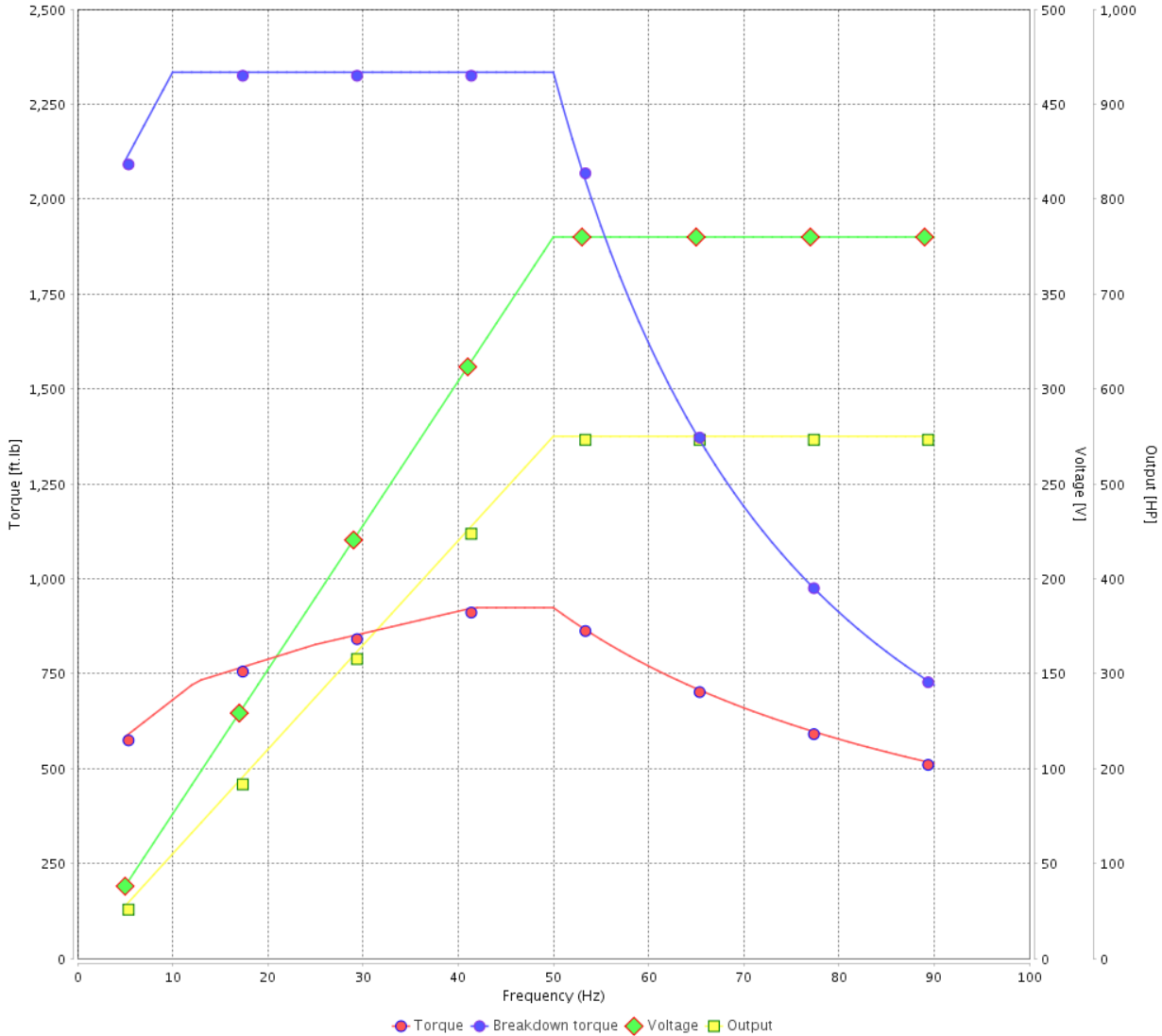
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P IE1

Rated current : 721 A  
 LRC : 7.1  
 Rated torque : 972 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 240 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

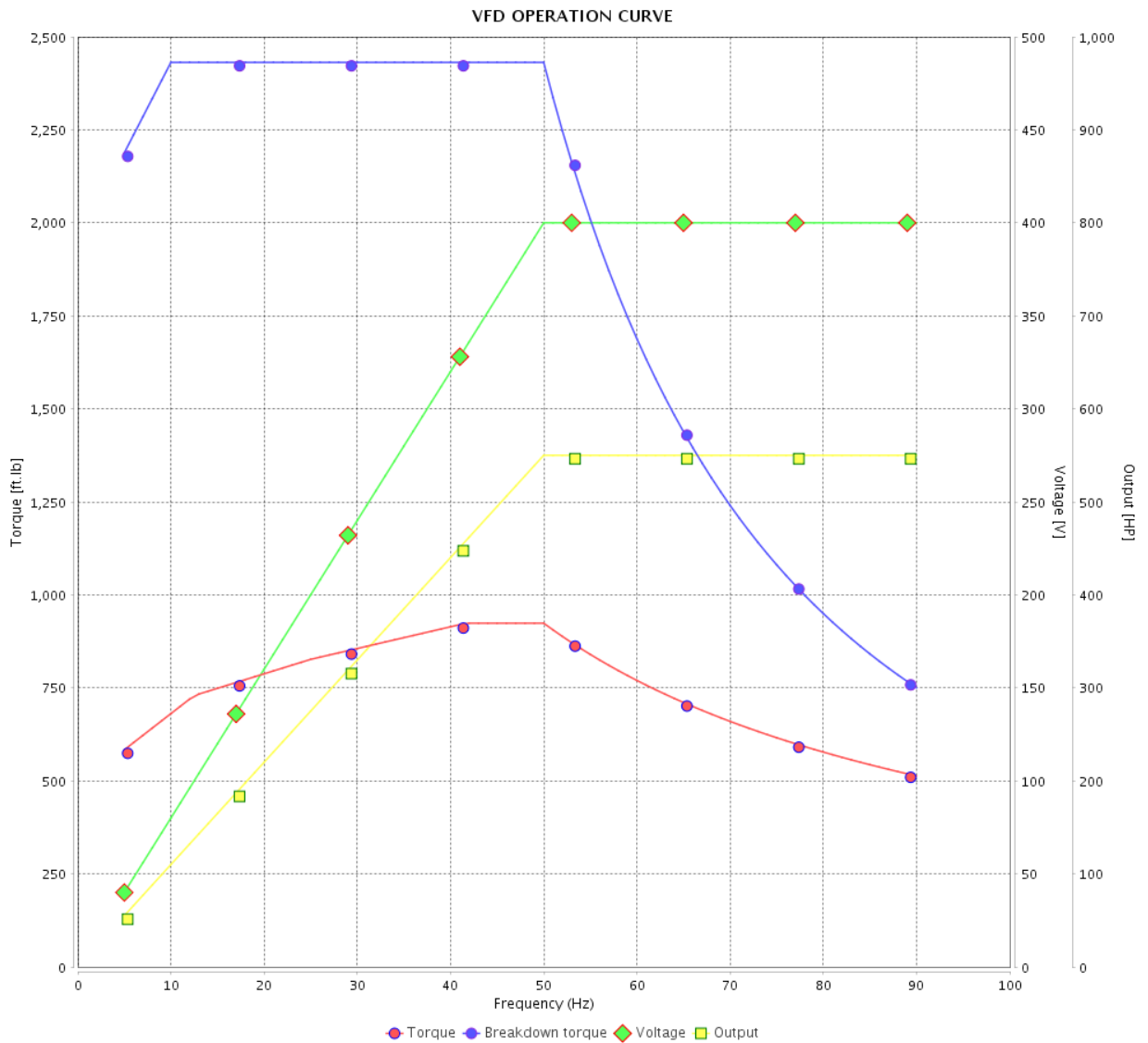


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 400 V 50 Hz 2P IE1

Rated current : 701 A  
 LRC : 7.7  
 Rated torque : 972 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 250 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 105 K

| Rev.         | Changes Summary | Performed | Checked         | Date     |
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| Date         | 13/04/2022      |           |                 |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



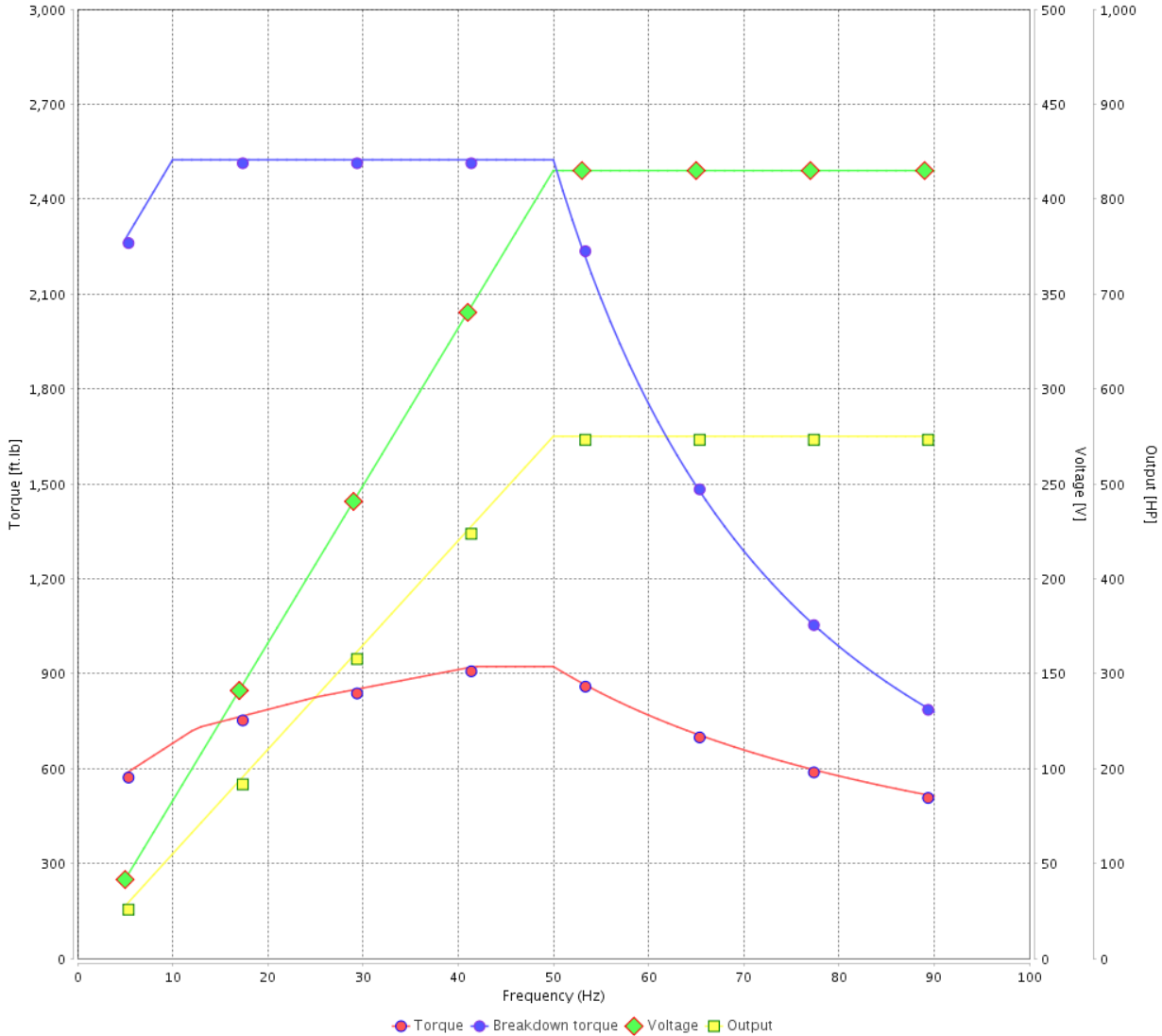
Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

VFD OPERATION CURVE



Performance : 415 V 50 Hz 2P IE1

Rated current : 683 A  
LRC : 8.4  
Rated torque : 971 ft.lb  
Locked rotor torque : 280 %  
Breakdown torque : 260 %  
Rated speed : 2975 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 105 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
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| Checked by   |                 |           |         |          |
| Date         |                 |           |         |          |

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

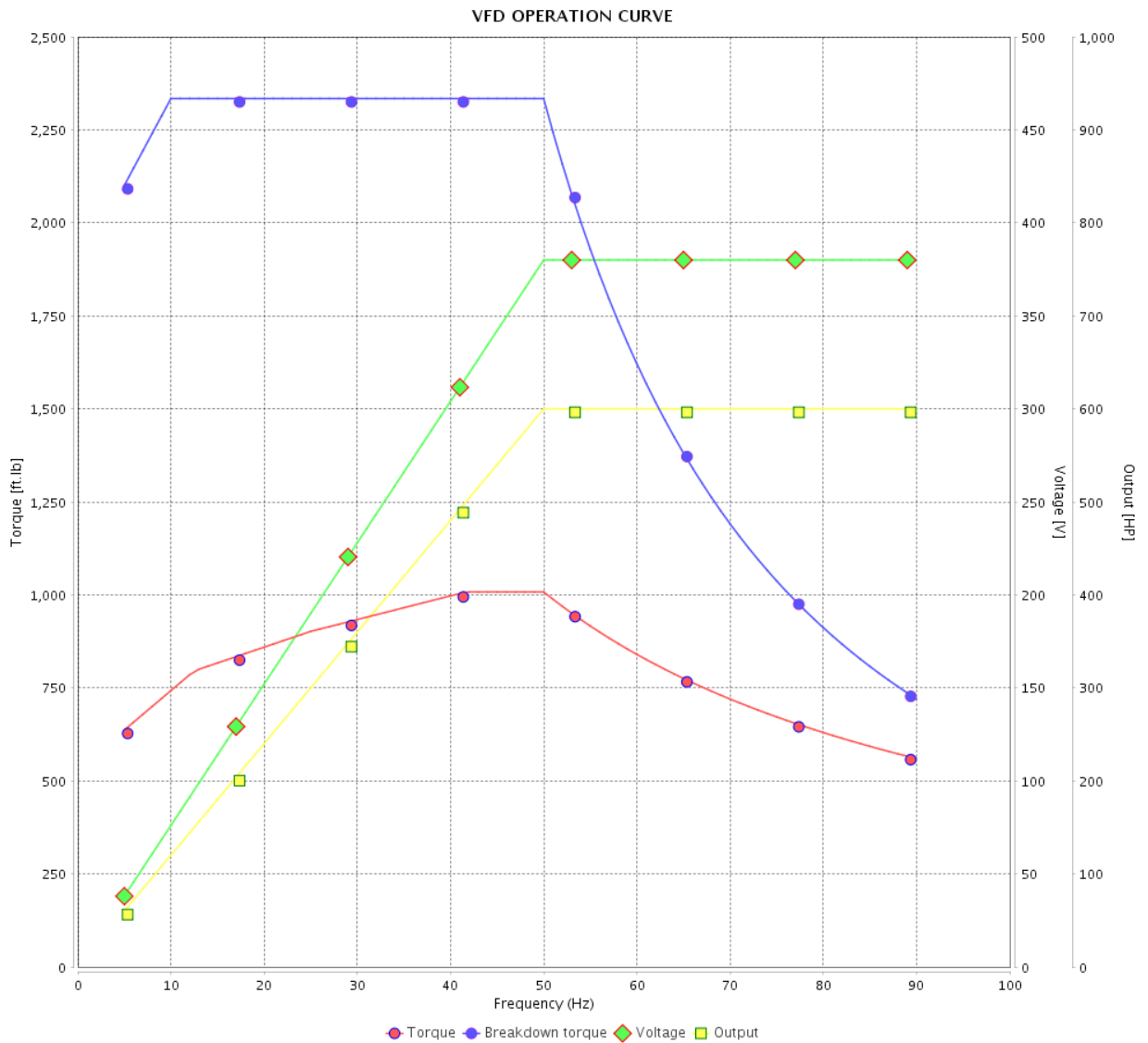


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 793 A  
LRC : 6.5  
Rated torque : 1060 ft.lb  
Locked rotor torque : 220 %  
Breakdown torque : 220 %  
Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

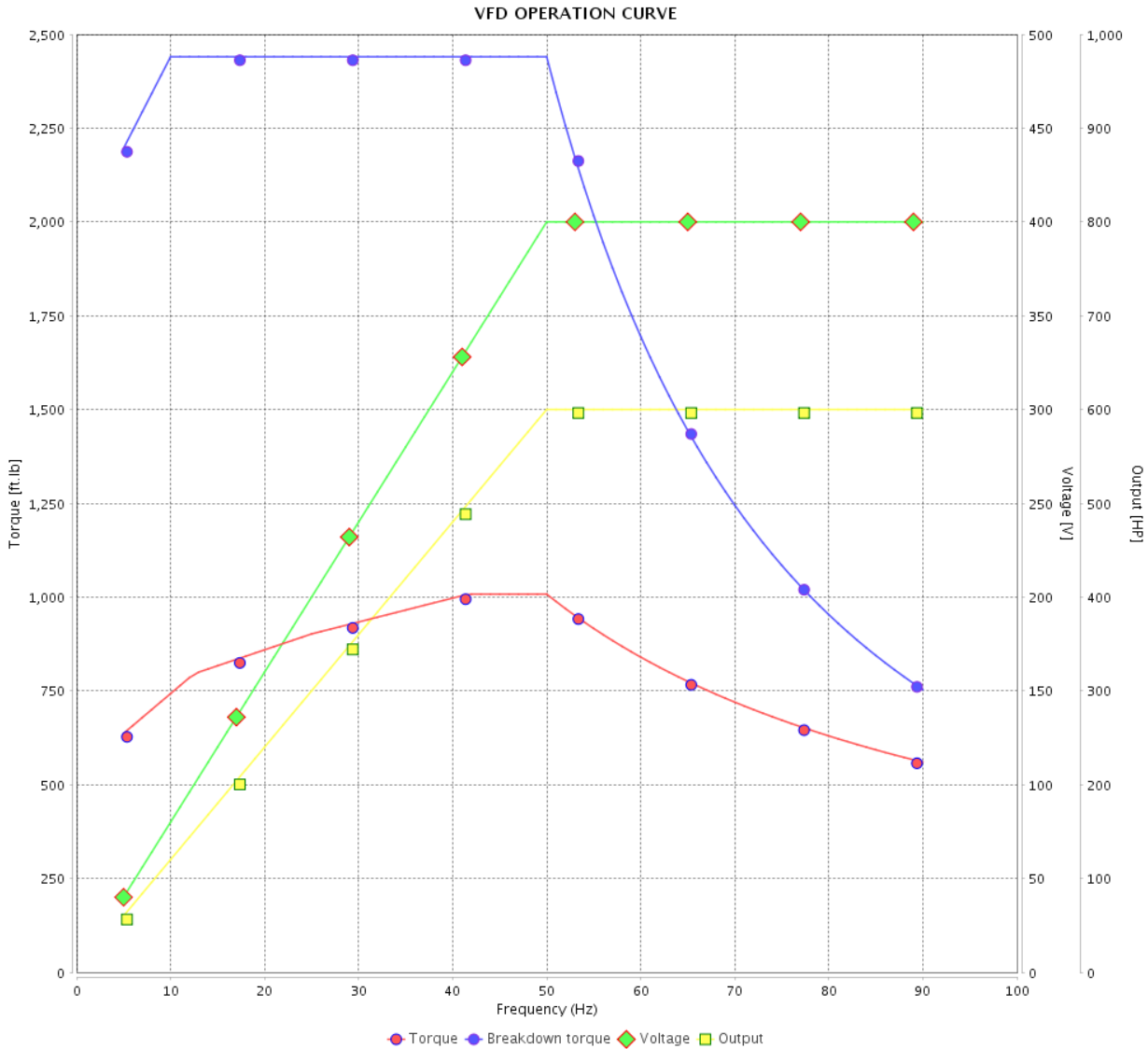


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40



Performance : 400 V 50 Hz 2P IE3

Rated current : 771 A  
 LRC : 7.1  
 Rated torque : 1060 ft.lb  
 Locked rotor torque : 229 %  
 Breakdown torque : 229 %  
 Rated speed : 2970 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 105 K

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
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# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

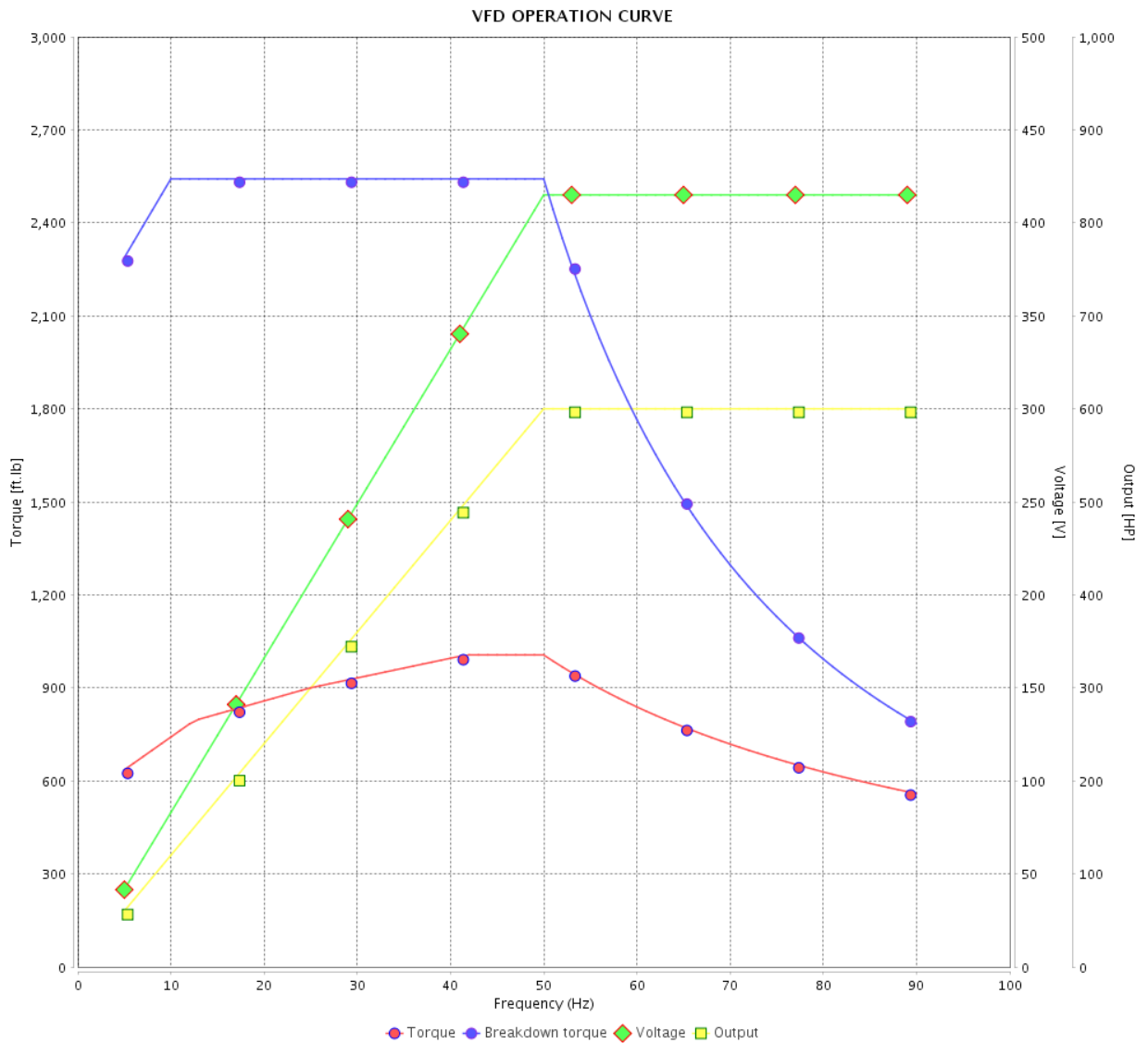


Customer :

Product line : W40 NEMA Premium Efficiency  
Three-Phase

Product code : 13821179

Catalog # : 70036OT3Q5010S-W40

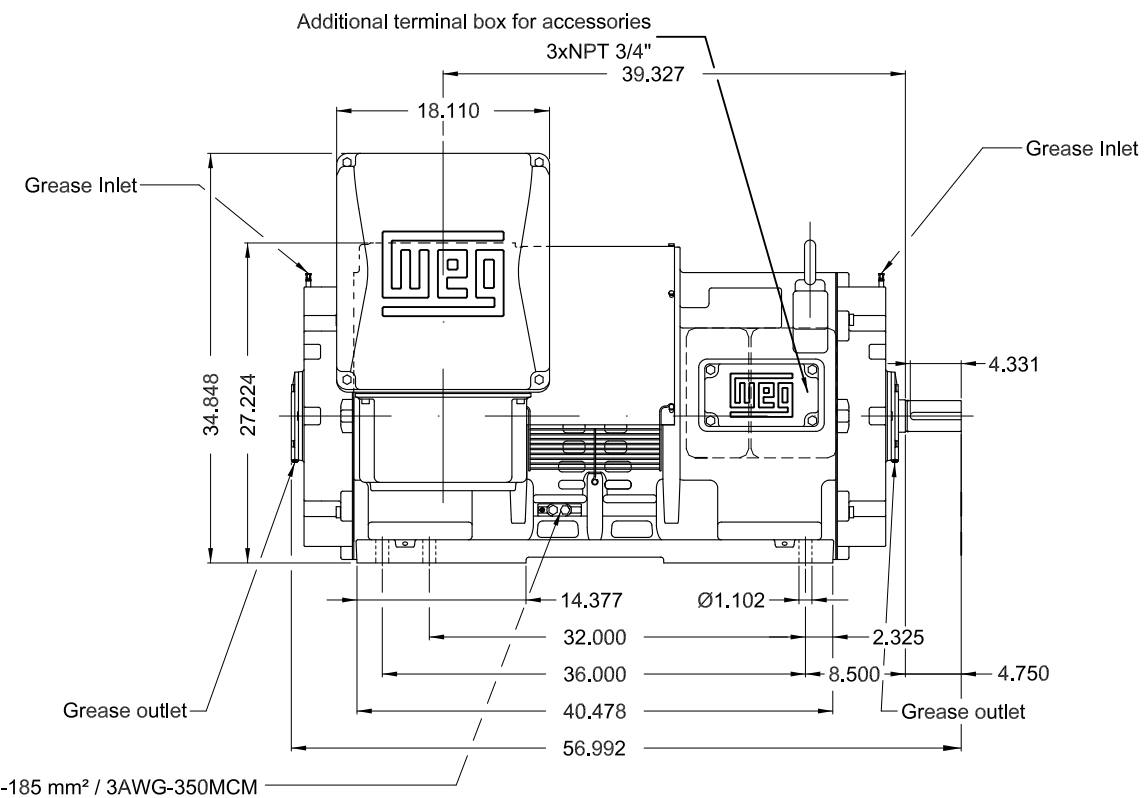
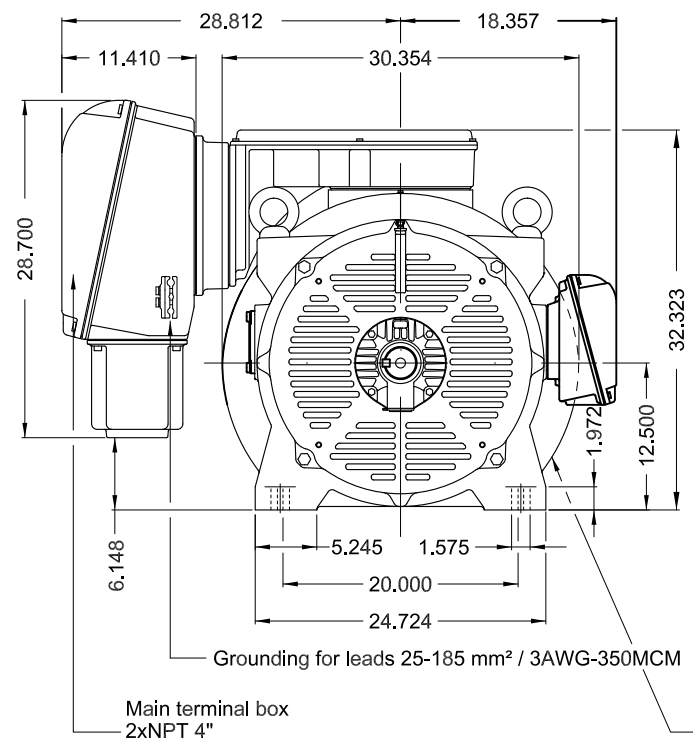


Performance : 415 V 50 Hz 2P IE3

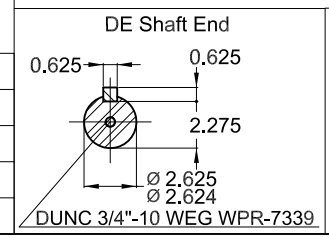
Rated current : 752 A  
LRC : 7.7  
Rated torque : 1060 ft.lb  
Locked rotor torque : 250 %  
Breakdown torque : 240 %  
Rated speed : 2975 rpm

Moment of inertia (J) : 78.5 sq.ft.lb  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.00  
Temperature rise : 105 K

| Rev.         | Changes Summary | Performed | Checked | Date            |
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- NDE endshield with electrically insulated bearing hub
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



700 HP 02 Poles 60 Hz

1:16

| ECM      | LOC      | SUMMARY OF MODIFICATIONS       |                |                     |       | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|----------|--------------------------------|----------------|---------------------|-------|----------|---------|----------|------|-----|
| EXECUTED | PIRWUSER | THREE PH. MOTOR W40 PREM. EFF. |                |                     |       |          |         |          |      |     |
| CHECKED  |          | FRAME 5010/11 IP23 ODP         |                |                     |       |          |         |          |      |     |
| RELEASED |          |                                |                |                     |       |          |         |          |      |     |
| REL DT.  |          | WMO                            | Jaragua do Sul | Product Engineering | SHEET | 1 / 1    |         |          |      |     |

PREVIEW

WDD

