

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



|                                                                                                                                                                                                                                                                                        |                         |                                       |                         |                                                                                                                          |                             |                         |                         |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------|-------------------------|------|
| Customer                                                                                                                                                                                                                                                                               |                         |                                       |                         |                                                                                                                          |                             |                         |                         |      |
| Product line                                                                                                                                                                                                                                                                           |                         | : NEMA Premium Efficiency Three-Phase |                         |                                                                                                                          | Product code :              |                         | 13418946                |      |
|                                                                                                                                                                                                                                                                                        |                         |                                       |                         |                                                                                                                          | Catalog # :                 |                         | 00736ET3E184JM-W22      |      |
| Frame                                                                                                                                                                                                                                                                                  |                         | : 182/4JM                             |                         |                                                                                                                          | Cooling method              |                         | : IC411 - TEFC          |      |
| Insulation class                                                                                                                                                                                                                                                                       |                         | : F                                   |                         |                                                                                                                          | Mounting                    |                         | : F-1                   |      |
| Duty cycle                                                                                                                                                                                                                                                                             |                         | : Cont.(S1)                           |                         |                                                                                                                          | Rotation <sup>1</sup>       |                         | : Both (CW and CCW)     |      |
| Ambient temperature                                                                                                                                                                                                                                                                    |                         | : -20°C to +40°C                      |                         |                                                                                                                          | Starting method             |                         | : Direct On Line        |      |
| Altitude                                                                                                                                                                                                                                                                               |                         | : 1000 m.a.s.l.                       |                         |                                                                                                                          | Approx. weight <sup>2</sup> |                         | : 101 lb                |      |
| Protection degree                                                                                                                                                                                                                                                                      |                         | : IP55                                |                         |                                                                                                                          | Moment of inertia (J)       |                         | : 0.2242 sq.ft.lb       |      |
| Design                                                                                                                                                                                                                                                                                 |                         | : A                                   |                         |                                                                                                                          |                             |                         |                         |      |
| Output [HP]                                                                                                                                                                                                                                                                            | 7.5                     | 5.5                                   | 5.5                     | 5.5                                                                                                                      | 7.5                         | 7.5                     | 7.5                     |      |
| Poles                                                                                                                                                                                                                                                                                  | 2                       | 2                                     | 2                       | 2                                                                                                                        | 2                           | 2                       | 2                       |      |
| Frequency [Hz]                                                                                                                                                                                                                                                                         | 60                      | 50                                    | 50                      | 50                                                                                                                       | 50                          | 50                      | 50                      |      |
| Rated voltage [V]                                                                                                                                                                                                                                                                      | 230/460                 | 380                                   | 400                     | 415                                                                                                                      | 380                         | 400                     | 415                     |      |
| Rated current [A]                                                                                                                                                                                                                                                                      | 17.5/8.76               | 7.84                                  | 7.62                    | 7.47                                                                                                                     | 10.9                        | 10.3                    | 10.0                    |      |
| L. R. Amperes [A]                                                                                                                                                                                                                                                                      | 144/71.8                | 65.1                                  | 69.3                    | 71.7                                                                                                                     | 68.7                        | 72.1                    | 74.0                    |      |
| LRC [A]                                                                                                                                                                                                                                                                                | 8.2x(Code J)            | 8.3x(Code J)                          | 9.1x(Code K)            | 9.6x(Code L)                                                                                                             | 6.3x(Code G)                | 7.0x(Code H)            | 7.4x(Code H)            |      |
| No load current [A]                                                                                                                                                                                                                                                                    | 5.80/2.90               | 2.70                                  | 3.00                    | 3.20                                                                                                                     | 2.70                        | 3.00                    | 3.20                    |      |
| Rated speed [RPM]                                                                                                                                                                                                                                                                      | 3485                    | 2900                                  | 2910                    | 2915                                                                                                                     | 2810                        | 2840                    | 2860                    |      |
| Slip [%]                                                                                                                                                                                                                                                                               | 3.19                    | 3.33                                  | 3.00                    | 2.83                                                                                                                     | 6.33                        | 5.33                    | 4.67                    |      |
| Rated torque [ft.lb]                                                                                                                                                                                                                                                                   | 11.3                    | 9.96                                  | 9.93                    | 9.91                                                                                                                     | 14.0                        | 13.9                    | 13.8                    |      |
| Locked rotor torque [%]                                                                                                                                                                                                                                                                | 270                     | 310                                   | 350                     | 370                                                                                                                      | 220                         | 250                     | 270                     |      |
| Breakdown torque [%]                                                                                                                                                                                                                                                                   | 330                     | 360                                   | 390                     | 430                                                                                                                      | 260                         | 280                     | 310                     |      |
| 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                                                                                                                     | 80 K                        | 80 K                    | 80 K                    |      |
| Locked rotor time                                                                                                                                                                                                                                                                      | 30s (cold)<br>17s (hot) | 28s (cold)<br>16s (hot)               | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot)                                                                                                  | 28s (cold)<br>16s (hot)     | 27s (cold)<br>15s (hot) | 27s (cold)<br>15s (hot) |      |
| Noise level <sup>2</sup>                                                                                                                                                                                                                                                               | 66.0 dB(A)              | 62.0 dB(A)                            | 62.0 dB(A)              | 62.0 dB(A)                                                                                                               | 62.0 dB(A)                  | 62.0 dB(A)              | 62.0 dB(A)              |      |
| Efficiency (%)                                                                                                                                                                                                                                                                         | 25%                     | 88.2                                  | 84.2                    | 85.1                                                                                                                     | 85.4                        | 88.8                    | 88.9                    | 89.0 |
|                                                                                                                                                                                                                                                                                        | 50%                     | 88.5                                  | 85.5                    | 85.9                                                                                                                     | 86.2                        | 87.0                    | 87.5                    | 88.0 |
|                                                                                                                                                                                                                                                                                        | 75%                     | 89.5                                  | 87.0                    | 87.6                                                                                                                     | 88.1                        | 87.0                    | 88.0                    | 88.5 |
|                                                                                                                                                                                                                                                                                        | 100%                    | 89.5                                  | 88.1                    | 88.1                                                                                                                     | 88.7                        | 84.5                    | 86.0                    | 87.0 |
| Power Factor                                                                                                                                                                                                                                                                           | 25%                     | 0.51                                  | 0.48                    | 0.43                                                                                                                     | 0.40                        | 0.58                    | 0.53                    | 0.50 |
|                                                                                                                                                                                                                                                                                        | 50%                     | 0.75                                  | 0.70                    | 0.66                                                                                                                     | 0.63                        | 0.80                    | 0.77                    | 0.74 |
|                                                                                                                                                                                                                                                                                        | 75%                     | 0.84                                  | 0.82                    | 0.79                                                                                                                     | 0.77                        | 0.88                    | 0.86                    | 0.84 |
|                                                                                                                                                                                                                                                                                        | 100%                    | 0.88                                  | 0.88                    | 0.86                                                                                                                     | 0.84                        | 0.91                    | 0.90                    | 0.88 |
| Bearing type                                                                                                                                                                                                                                                                           | : Drive end             | 6307 ZZ                               | Non drive end           | 6206 ZZ                                                                                                                  | Foundation loads            |                         |                         |      |
| Sealing                                                                                                                                                                                                                                                                                | : V'Ring                |                                       | V'Ring                  |                                                                                                                          | Max. traction               |                         | : 222 lb                |      |
| Lubrication interval                                                                                                                                                                                                                                                                   | : -                     |                                       | -                       |                                                                                                                          | Max. compression            |                         | : 323 lb                |      |
| Lubricant amount                                                                                                                                                                                                                                                                       | : -                     |                                       | -                       |                                                                                                                          |                             |                         |                         |      |
| 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                                                                                                                                                                                                                                                                           |                         |                                       |                         |                                                                                                                          |                             |                         |                         |      |
| Checked by                                                                                                                                                                                                                                                                             |                         |                                       |                         |                                                                                                                          | Page                        | Revision                |                         |      |
| Date                                                                                                                                                                                                                                                                                   | 01/07/2022              |                                       |                         |                                                                                                                          | 1 / 36                      |                         |                         |      |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



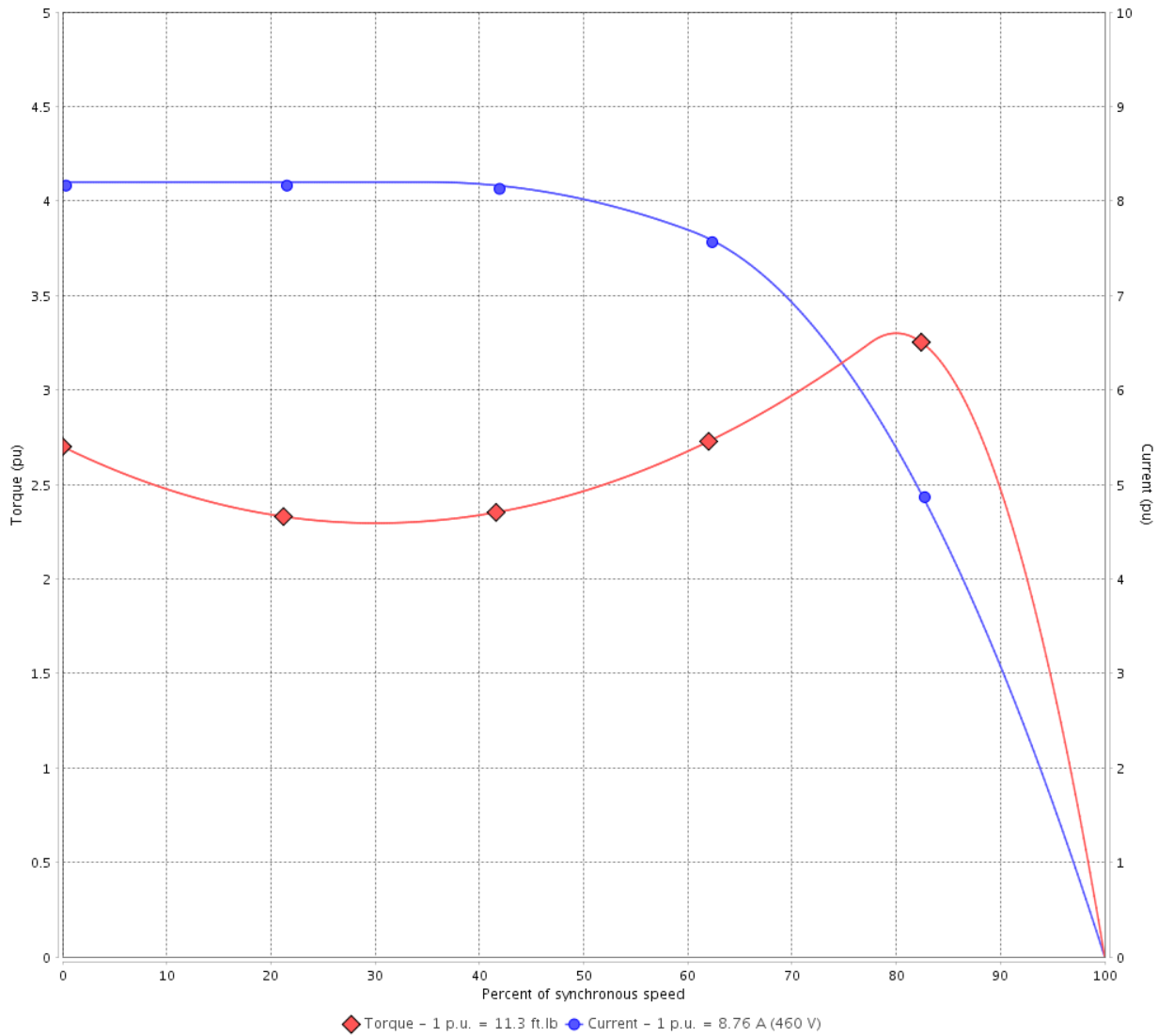
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

|                     |               |                       |                   |
|---------------------|---------------|-----------------------|-------------------|
| Rated current       | : 17.5/8.76 A | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 8.2         | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 11.3 ft.lb  | Insulation class      | : F               |
| Locked rotor torque | : 270 %       | Service factor        | : 1.25            |
| Breakdown torque    | : 330 %       | Temperature rise      | : 80 K            |
| Rated speed         | : 3485 rpm    | Design                | : A               |

Locked rotor time : 30s (cold) 17s (hot)

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>2 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE



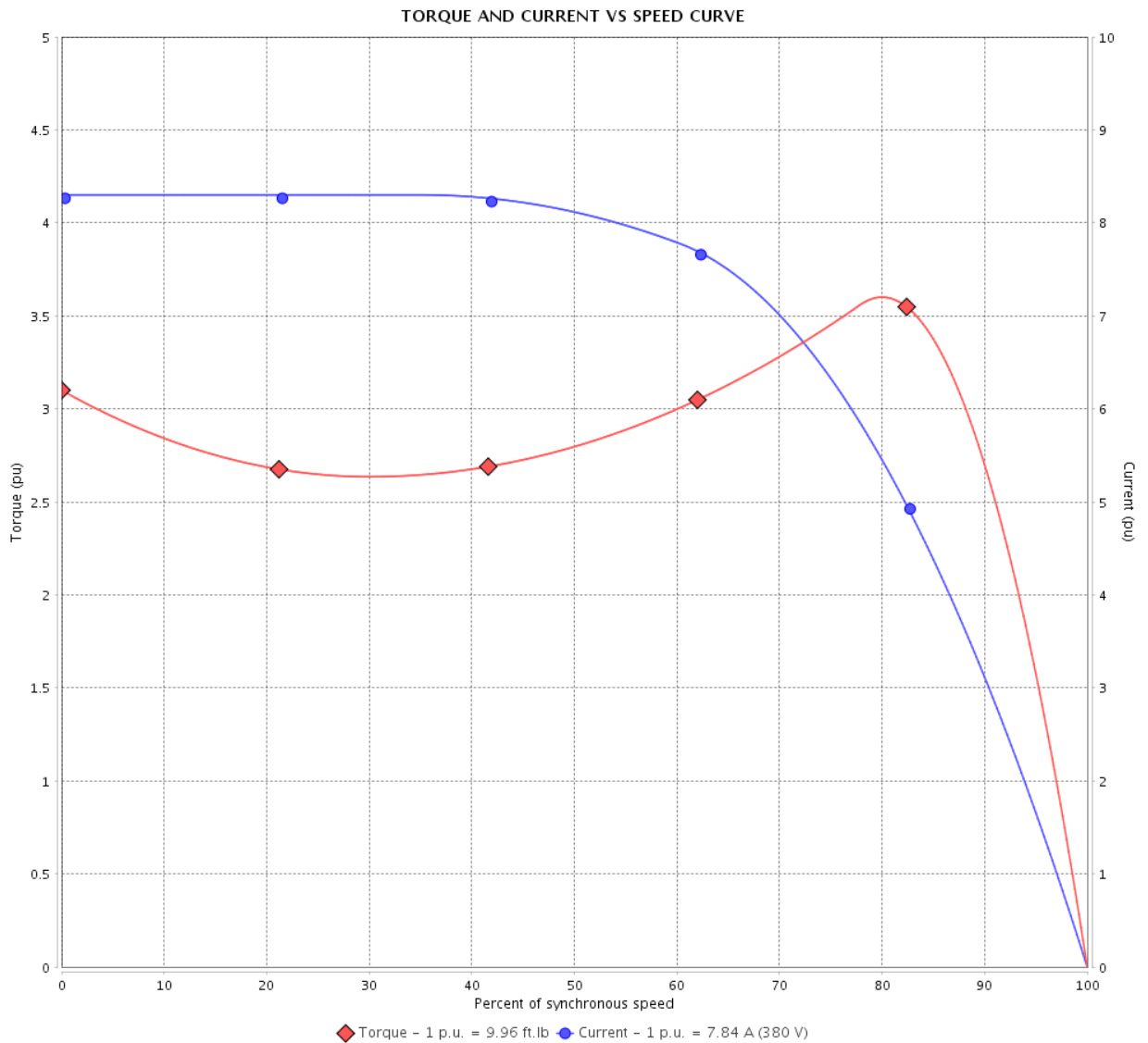
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 380 V 50 Hz 2P IE3

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 7.84 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 8.3        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 9.96 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 310 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 360 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2900 rpm   | Design                | : A               |

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

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           | 3 / 36  |          |
| Date         | 01/07/2022      |           |         |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



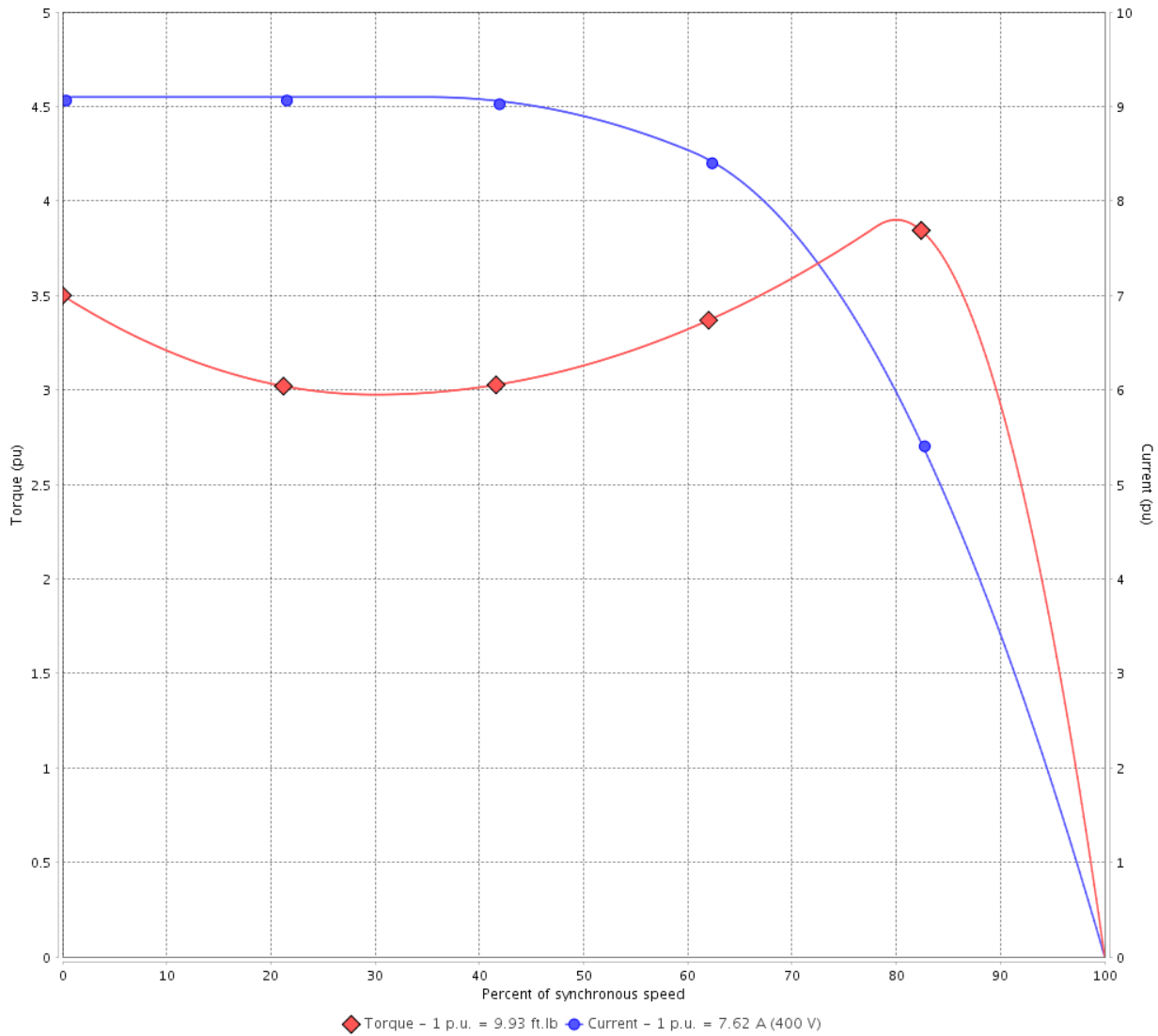
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 7.62 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 9.1        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 9.93 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 350 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 390 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2910 rpm   | Design                | : A               |

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>4 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE



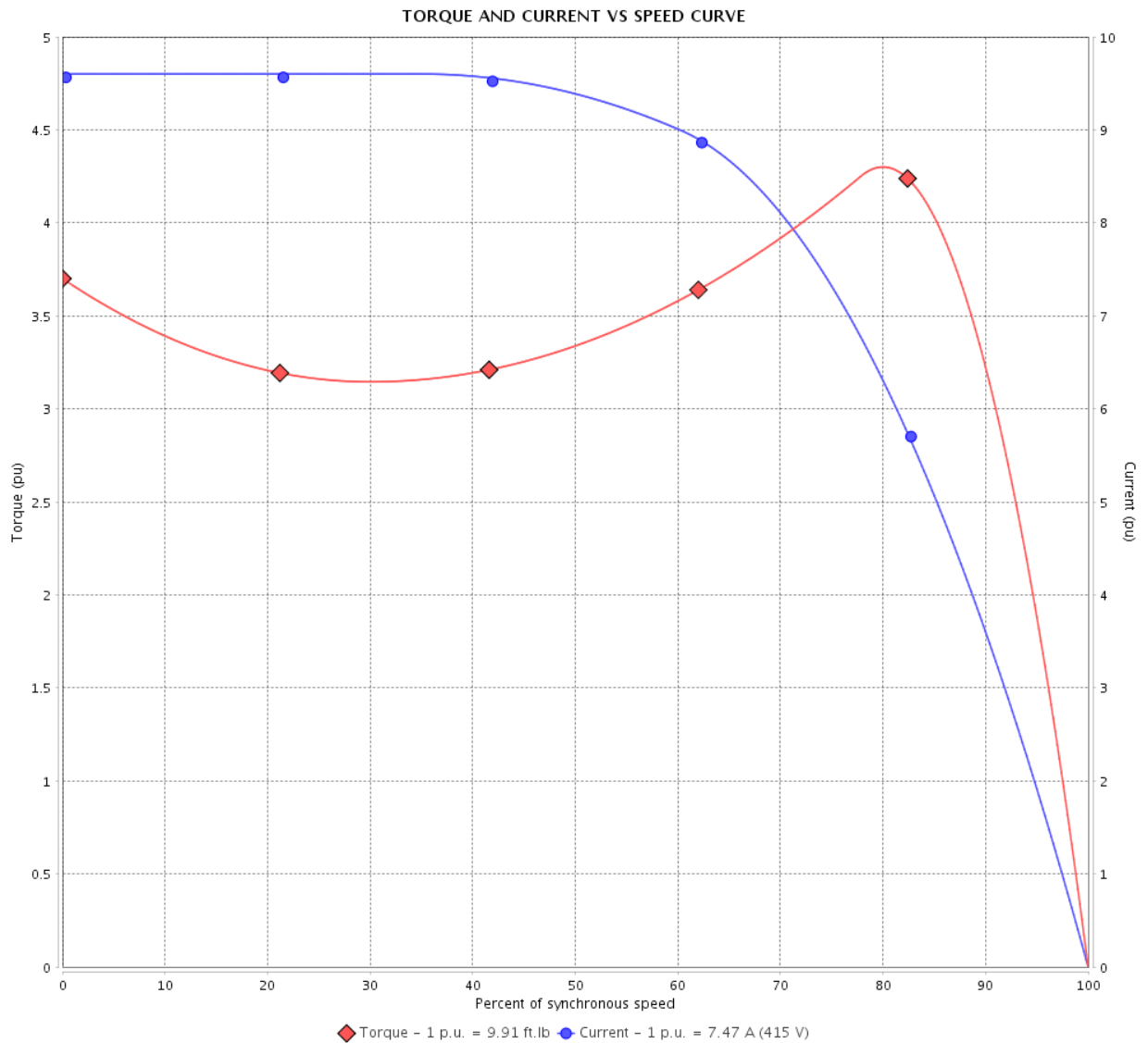
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 7.47 A  
 LRC : 9.6  
 Rated torque : 9.91 ft.lb  
 Locked rotor torque : 370 %  
 Breakdown torque : 430 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>5 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



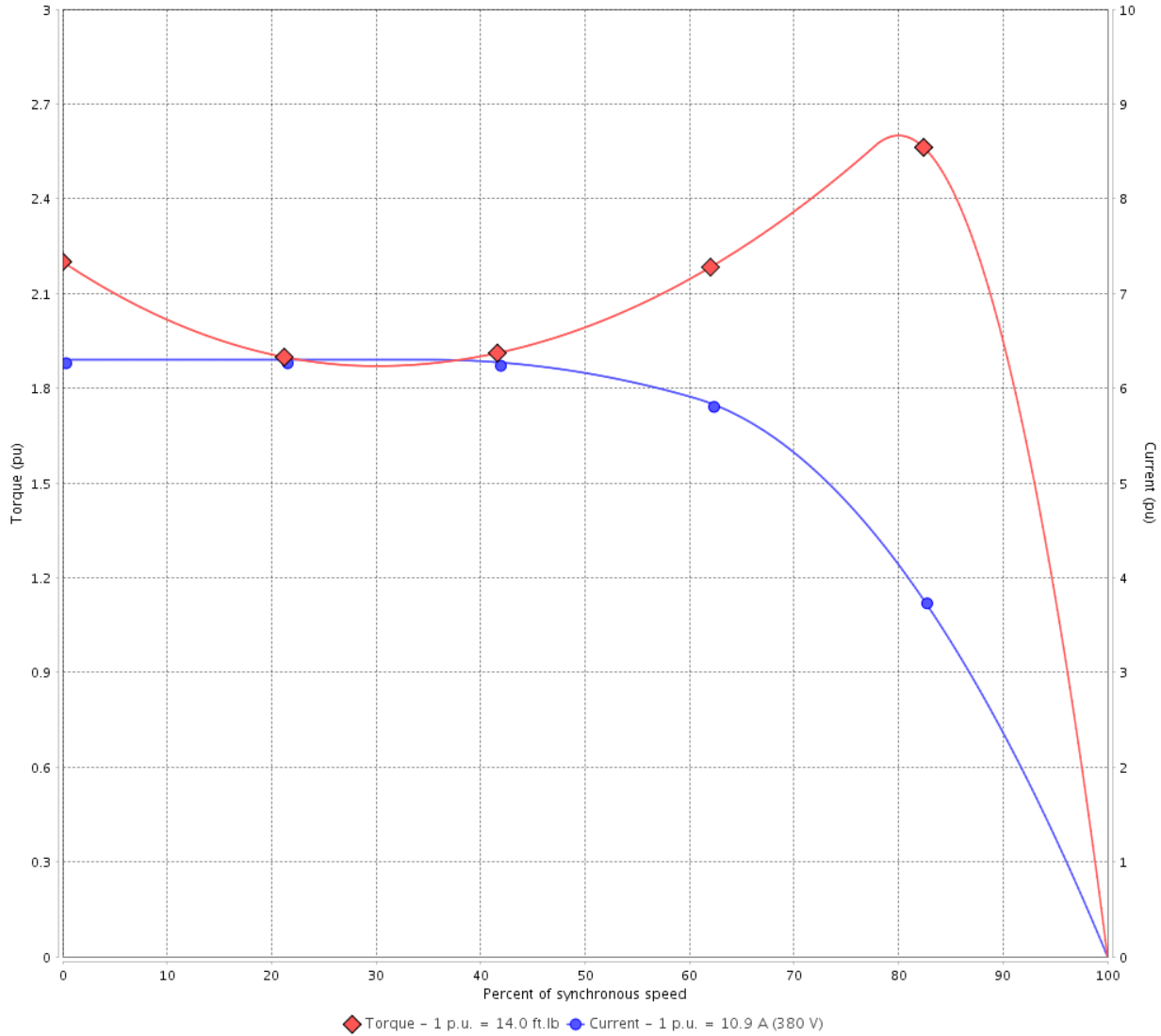
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 10.9 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 6.3        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 14.0 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 220 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 260 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2810 rpm   | Design                | : A               |

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>6 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE



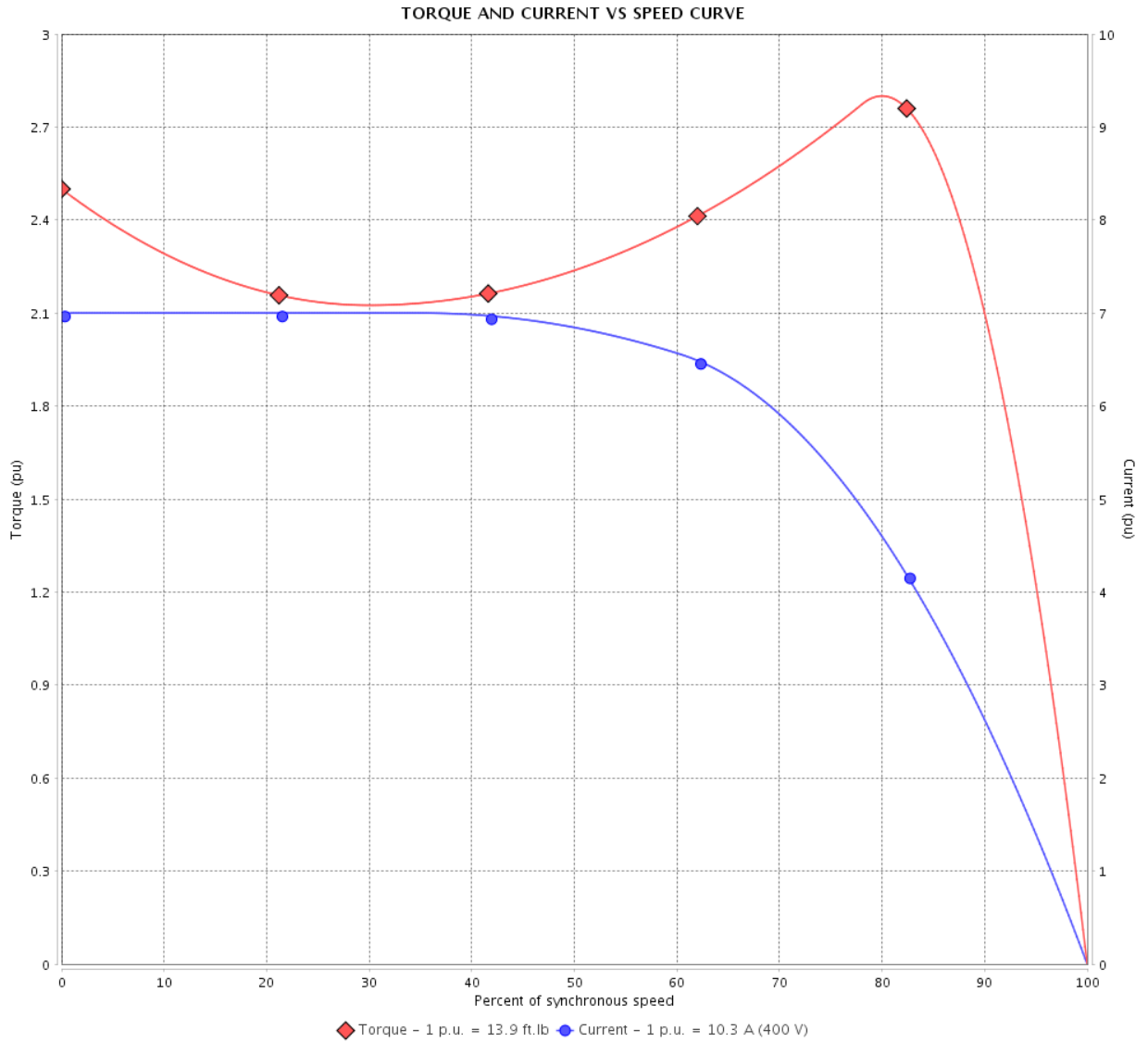
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 400 V 50 Hz 2P IE1

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 10.3 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 7.0        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 13.9 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 250 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 280 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2840 rpm   | Design                | : A               |

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>7 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |

# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



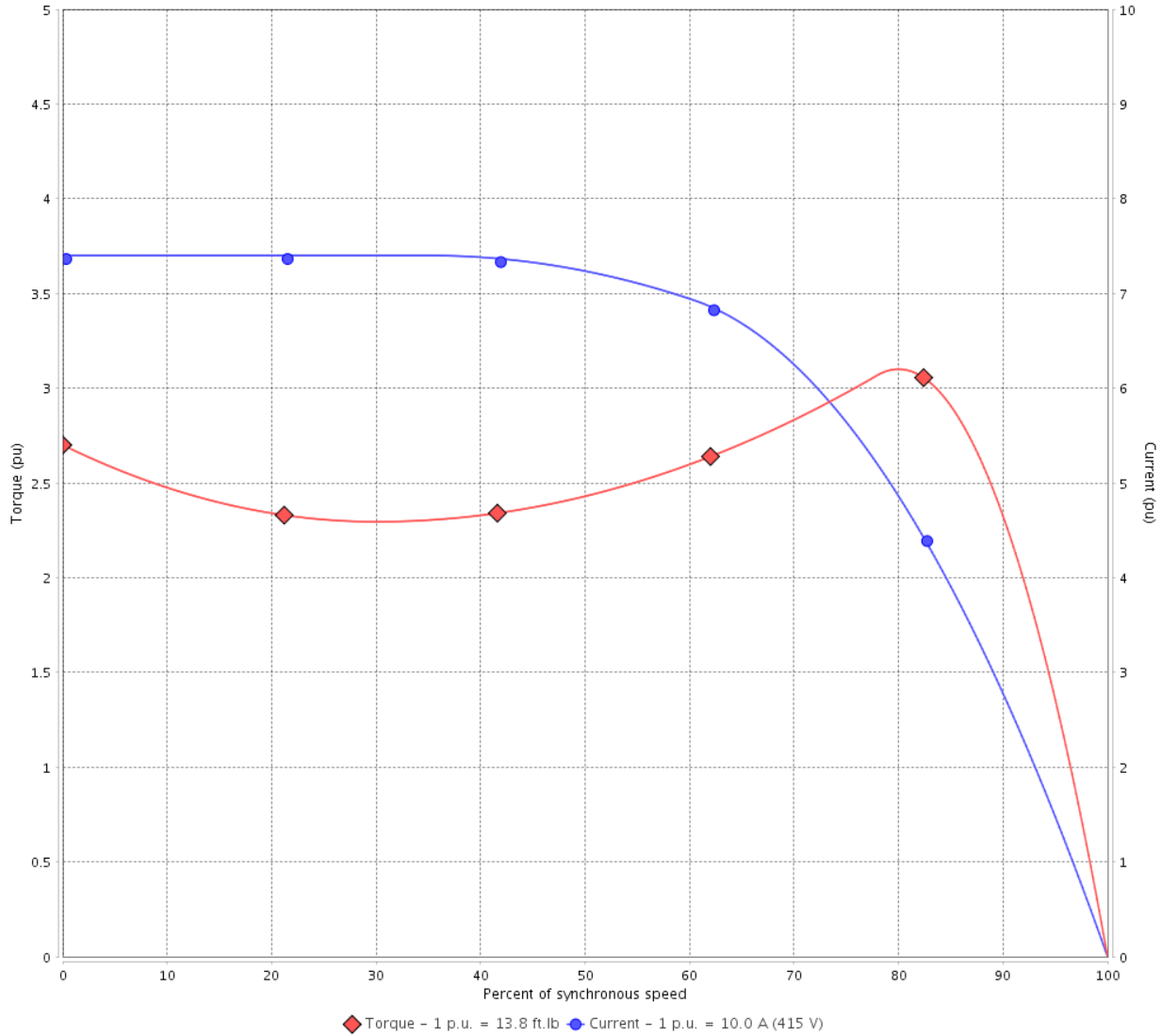
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE2

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 10.0 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 7.4        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 13.8 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 270 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 310 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2860 rpm   | Design                | : A               |

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

| Rev.         | Changes Summary | Performed | Checked        | Date     |
|--------------|-----------------|-----------|----------------|----------|
|              |                 |           |                |          |
| Performed by |                 |           | Page<br>8 / 36 | Revision |
| Checked by   |                 |           |                |          |
| Date         | 01/07/2022      |           |                |          |



# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

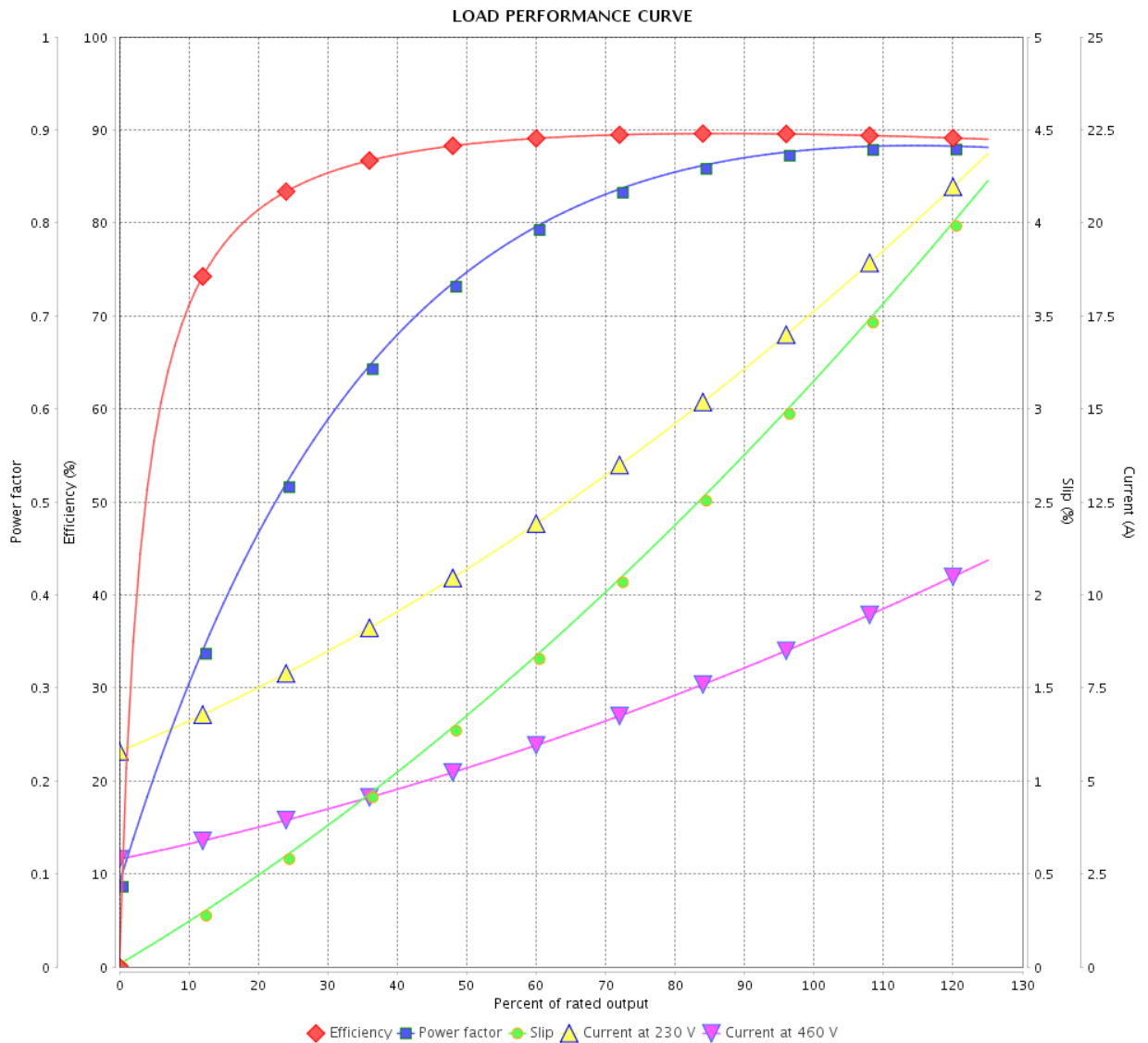


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 230/460 V 60 Hz 2P

Rated current : 17.5/8.76 A  
 LRC : 8.2  
 Rated torque : 11.3 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 3485 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 9 / 36     |         |          |
| Date         |                 | 01/07/2022 |         |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



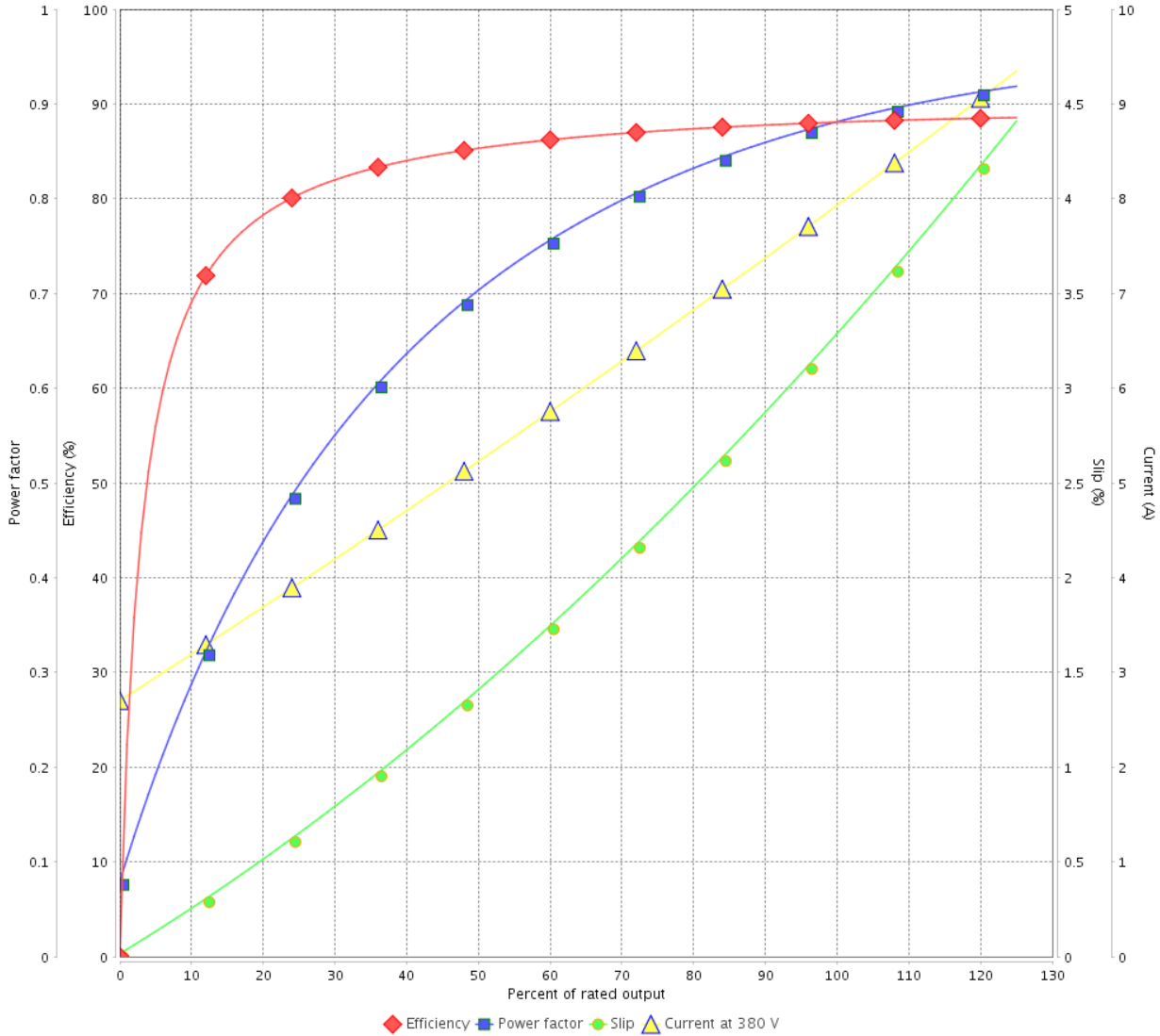
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE3

Rated current : 7.84 A  
 LRC : 8.3  
 Rated torque : 9.96 ft.lb  
 Locked rotor torque : 310 %  
 Breakdown torque : 360 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           | 10 / 36 |          |
| Date         | 01/07/2022      |           |         |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

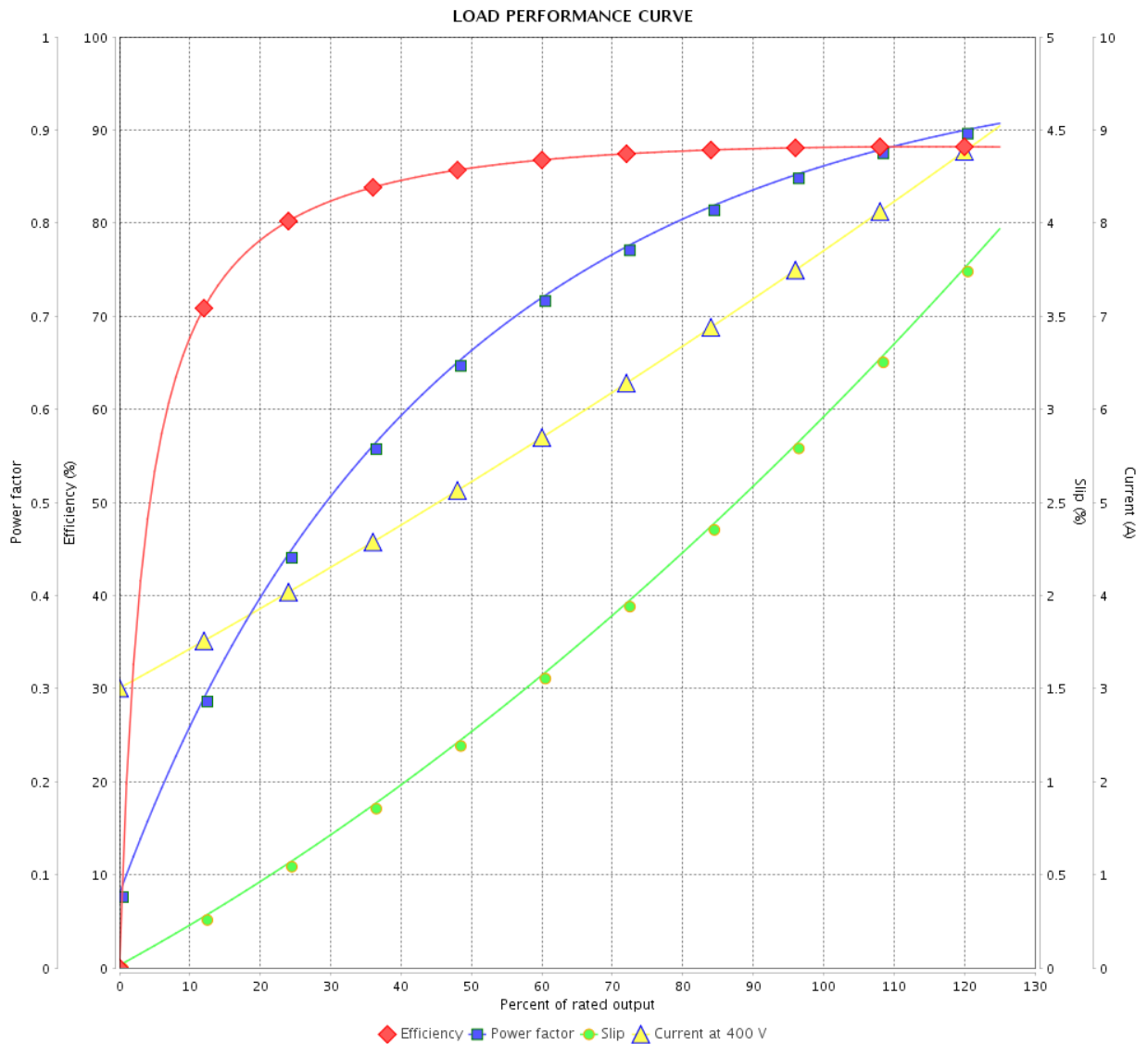


Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 400 V 50 Hz 2P IE3

Rated current : 7.62 A  
 LRC : 9.1  
 Rated torque : 9.93 ft.lb  
 Locked rotor torque : 350 %  
 Breakdown torque : 390 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

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|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 11 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



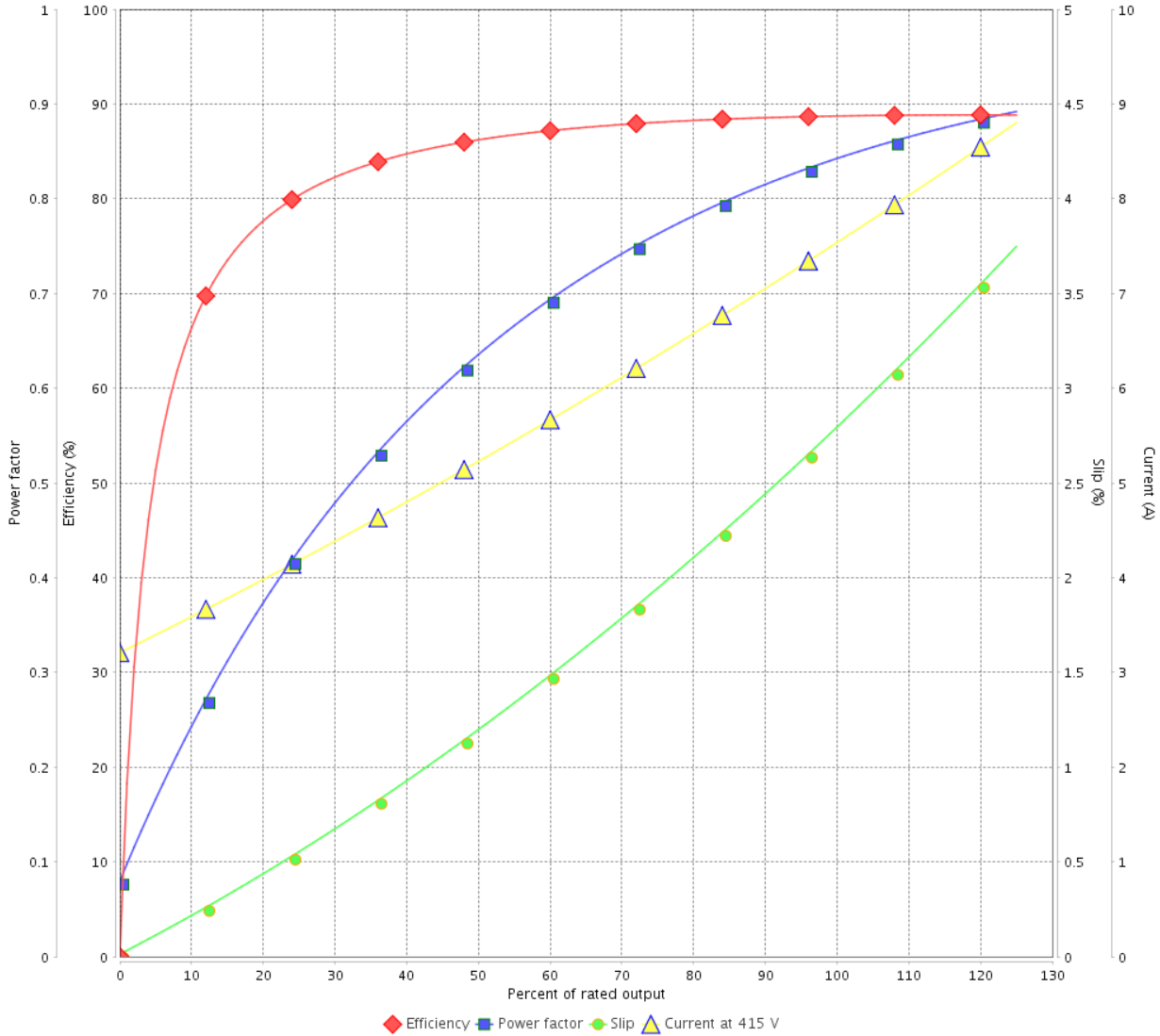
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 7.47 A  
 LRC : 9.6  
 Rated torque : 9.91 ft.lb  
 Locked rotor torque : 370 %  
 Breakdown torque : 430 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 | Page      |         | Revision |
| Checked by   |                 | 12 / 36   |         |          |
| Date         | 01/07/2022      |           |         |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

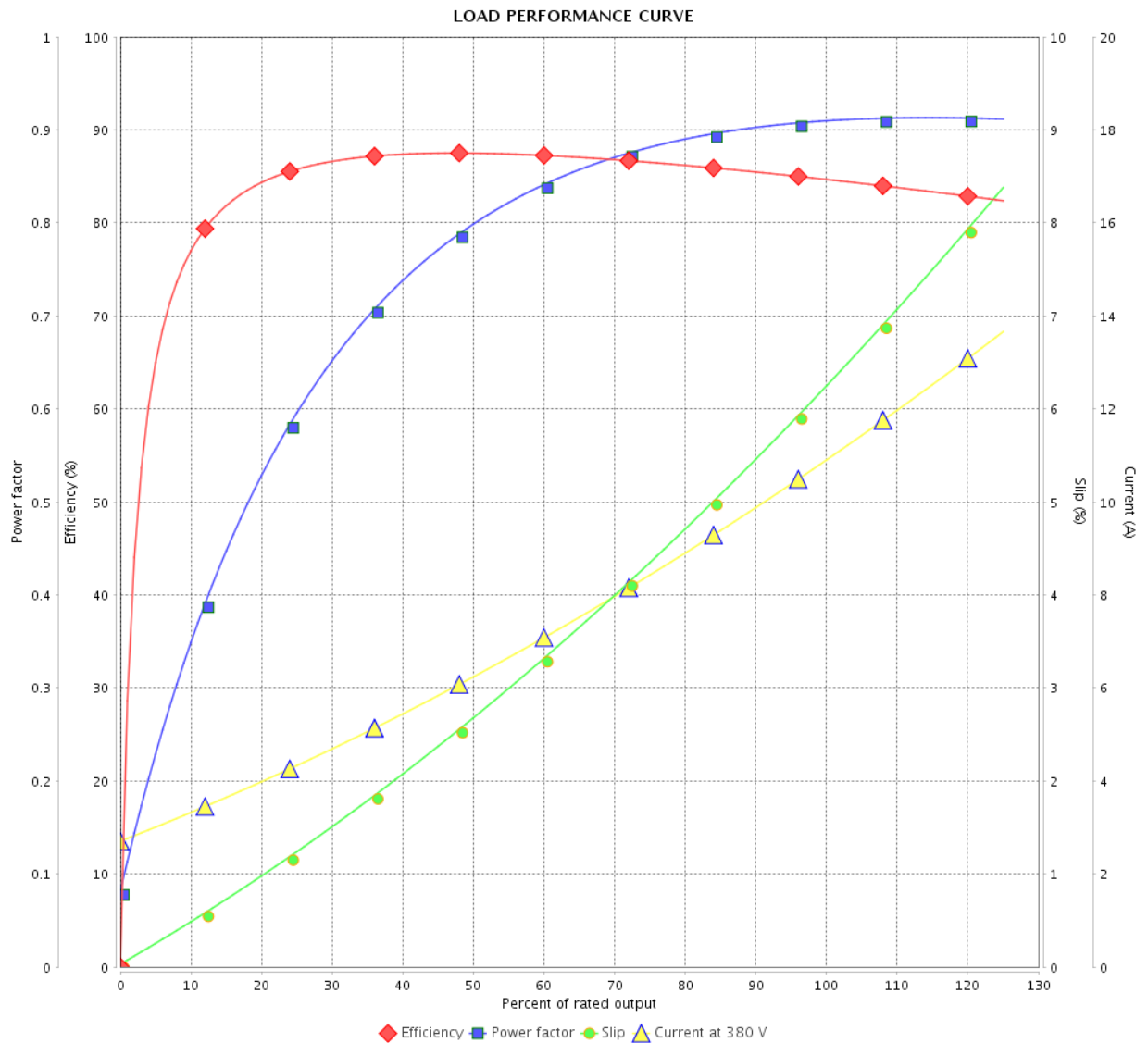


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 380 V 50 Hz 2P

Rated current : 10.9 A  
 LRC : 6.3  
 Rated torque : 14.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2810 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed  | Checked | Date     |
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|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 13 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



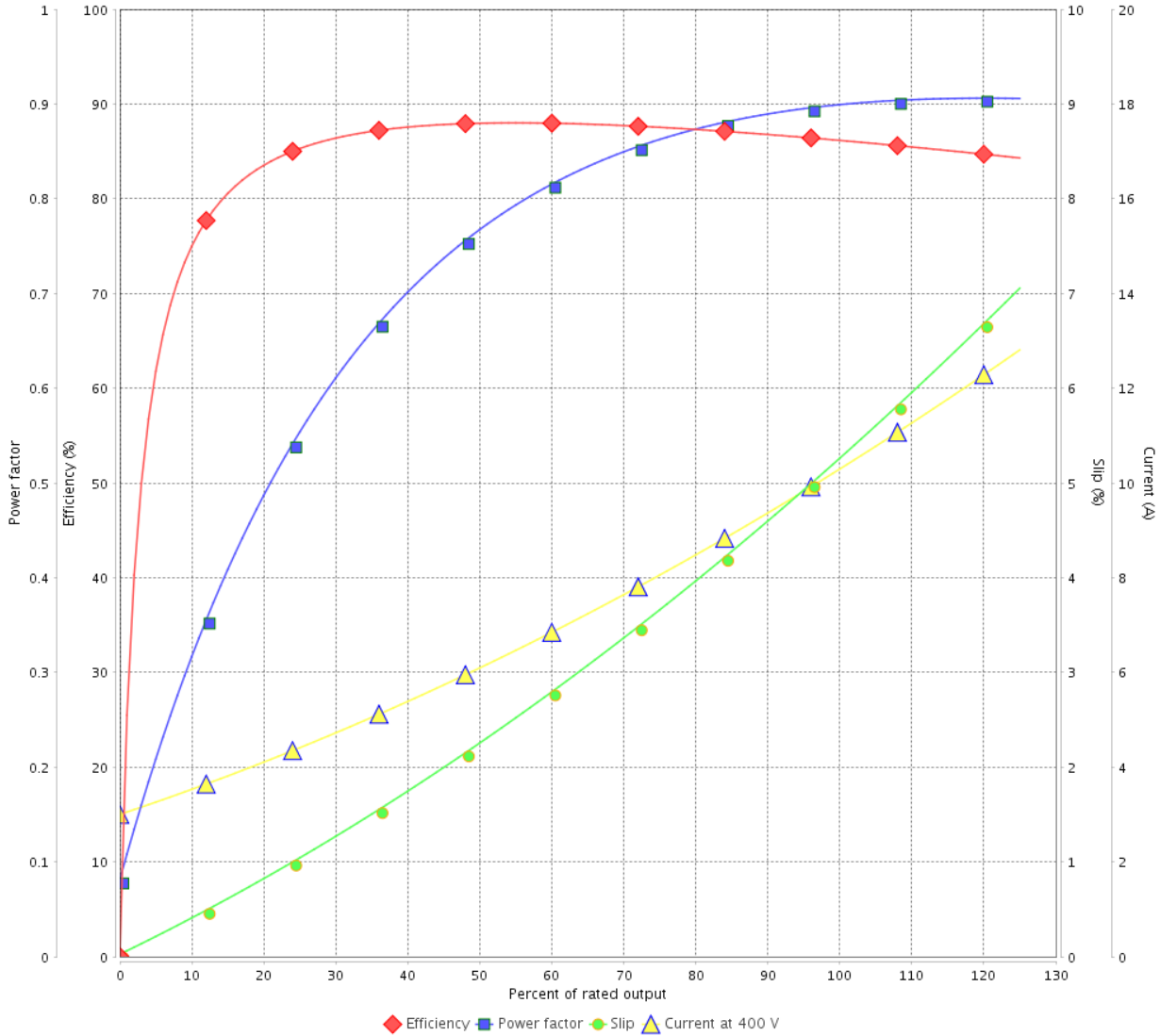
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Catalog # : 00736ET3E184JM-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE1

Rated current : 10.3 A  
 LRC : 7.0  
 Rated torque : 13.9 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 2840 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>14 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

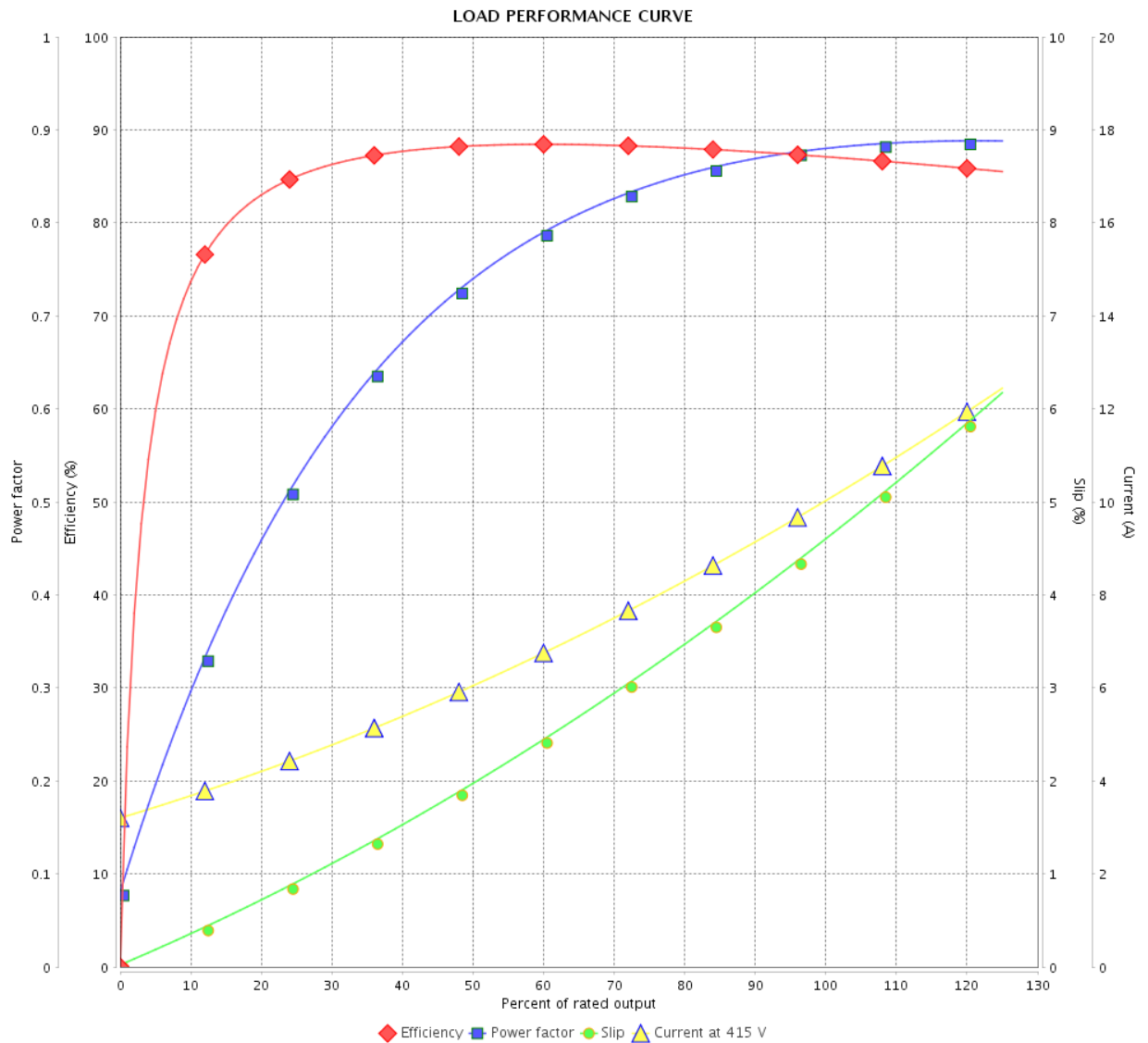


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 415 V 50 Hz 2P IE2

Rated current : 10.0 A  
 LRC : 7.4  
 Rated torque : 13.8 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2860 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 15 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 13418946  
 Catalog # : 00736ET3E184JM-W22

Performance : 230/460 V 60 Hz 2P

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Rated current : 17.5/8.76 A | Moment of inertia (J) : 0.2242 sq.ft.lb |
| LRC : 8.2                   | Duty cycle : Cont.(S1)                  |
| Rated torque : 11.3 ft.lb   | Insulation class : F                    |
| Locked rotor torque : 270 % | Service factor : 1.25                   |
| Breakdown torque : 330 %    | Temperature rise : 80 K                 |
| Rated speed : 3485 rpm      | Design : A                              |

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>16 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

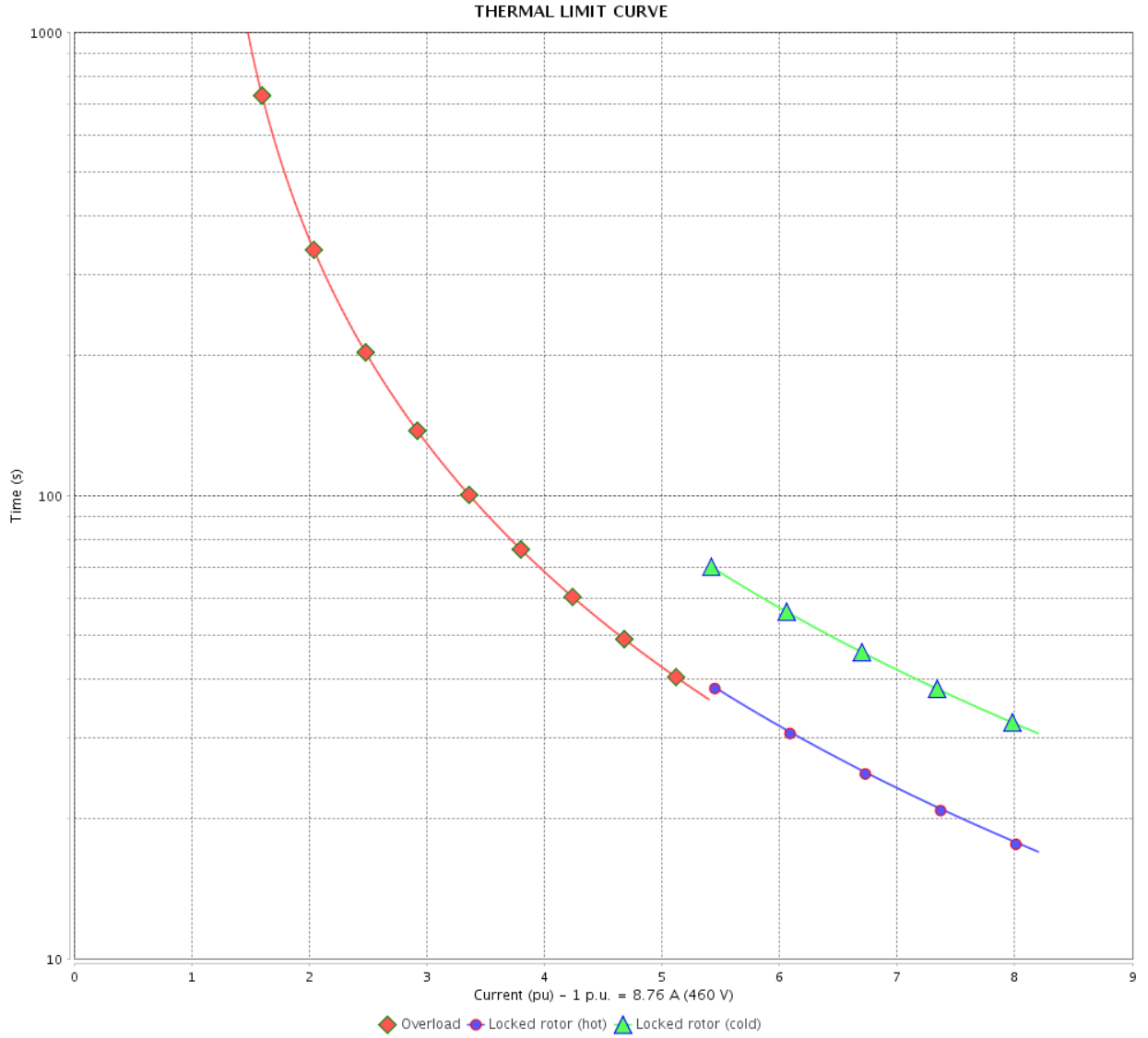


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 17 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 13418946  
 Catalog # : 00736ET3E184JM-W22

Performance : 380 V 50 Hz 2P IE3

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Rated current : 7.84 A      | Moment of inertia (J) : 0.2242 sq.ft.lb |
| LRC : 8.3                   | Duty cycle : Cont.(S1)                  |
| Rated torque : 9.96 ft.lb   | Insulation class : F                    |
| Locked rotor torque : 310 % | Service factor : 1.00                   |
| Breakdown torque : 360 %    | Temperature rise : 80 K                 |
| Rated speed : 2900 rpm      | Design : A                              |

Heating constant

Cooling constant

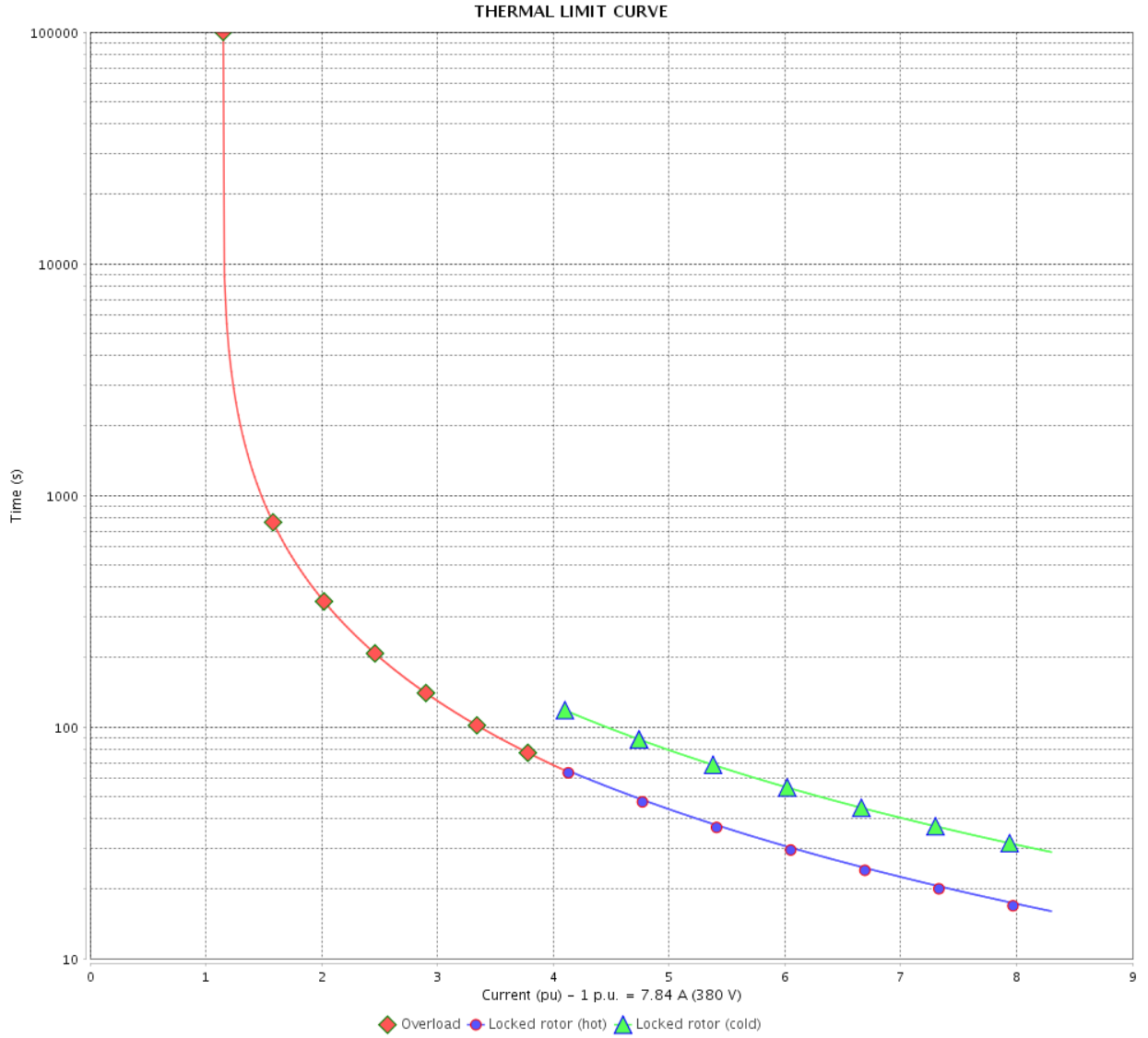
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| Performed by |                 |           | Page<br>18 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 19 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13418946  
Catalog # : 00736ET3E184JM-W22

Performance : 400 V 50 Hz 2P IE3

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 7.62 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 9.1        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 9.93 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 350 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 390 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2910 rpm   | Design                | : A               |

Heating constant

Cooling constant

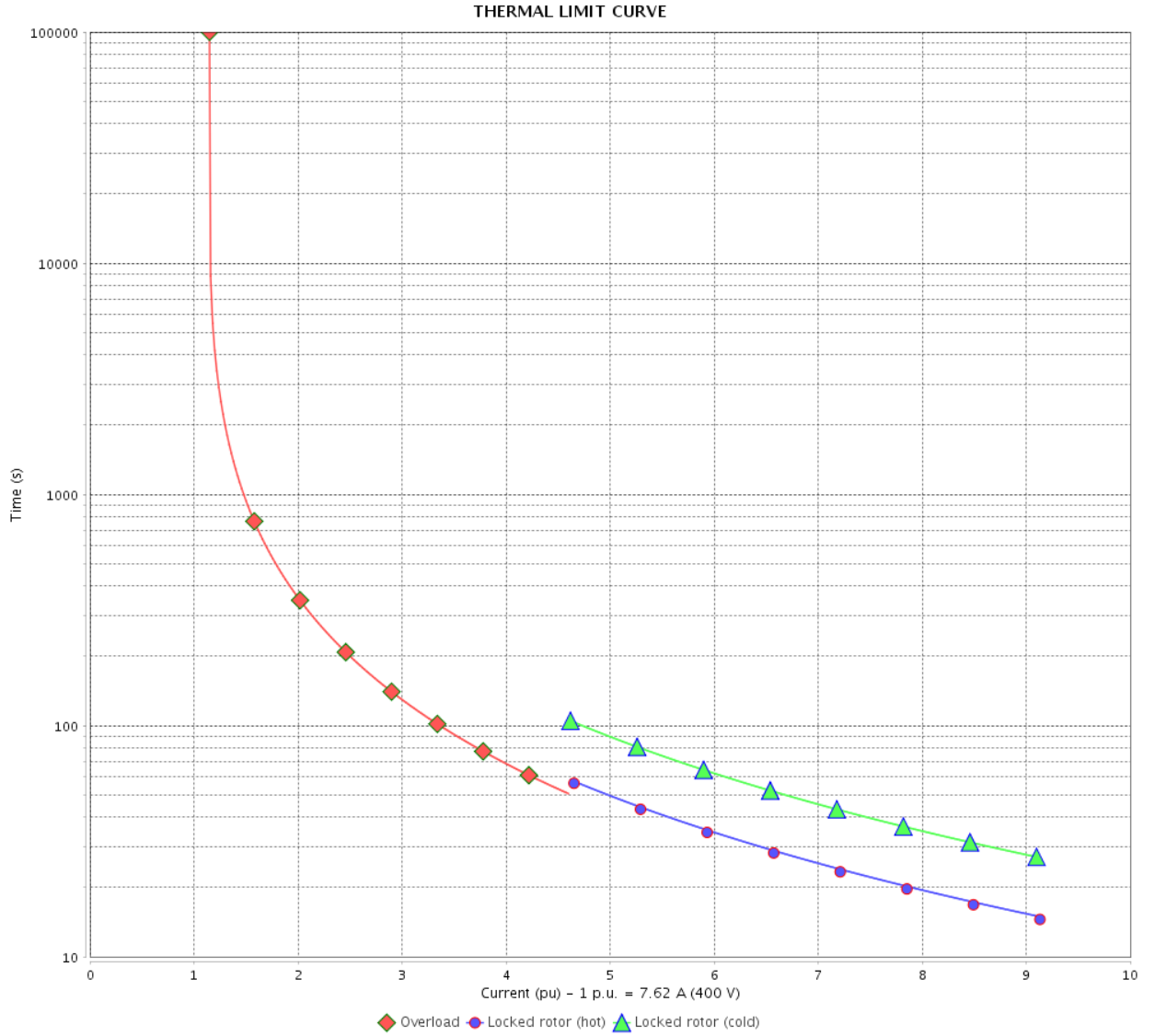
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| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           | Page<br>20 / 36 | Revision |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed       | Checked | Date     |
|--------------|-----------------|-----------------|---------|----------|
|              |                 |                 |         |          |
| Performed by |                 | Page<br>21 / 36 |         | Revision |
| Checked by   |                 |                 |         |          |
| Date         | 01/07/2022      |                 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13418946  
Catalog # : 00736ET3E184JM-W22

Performance : 415 V 50 Hz 2P IE3

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 7.47 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 9.6        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 9.91 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 370 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 430 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2915 rpm   | Design                | : A               |

Heating constant

Cooling constant

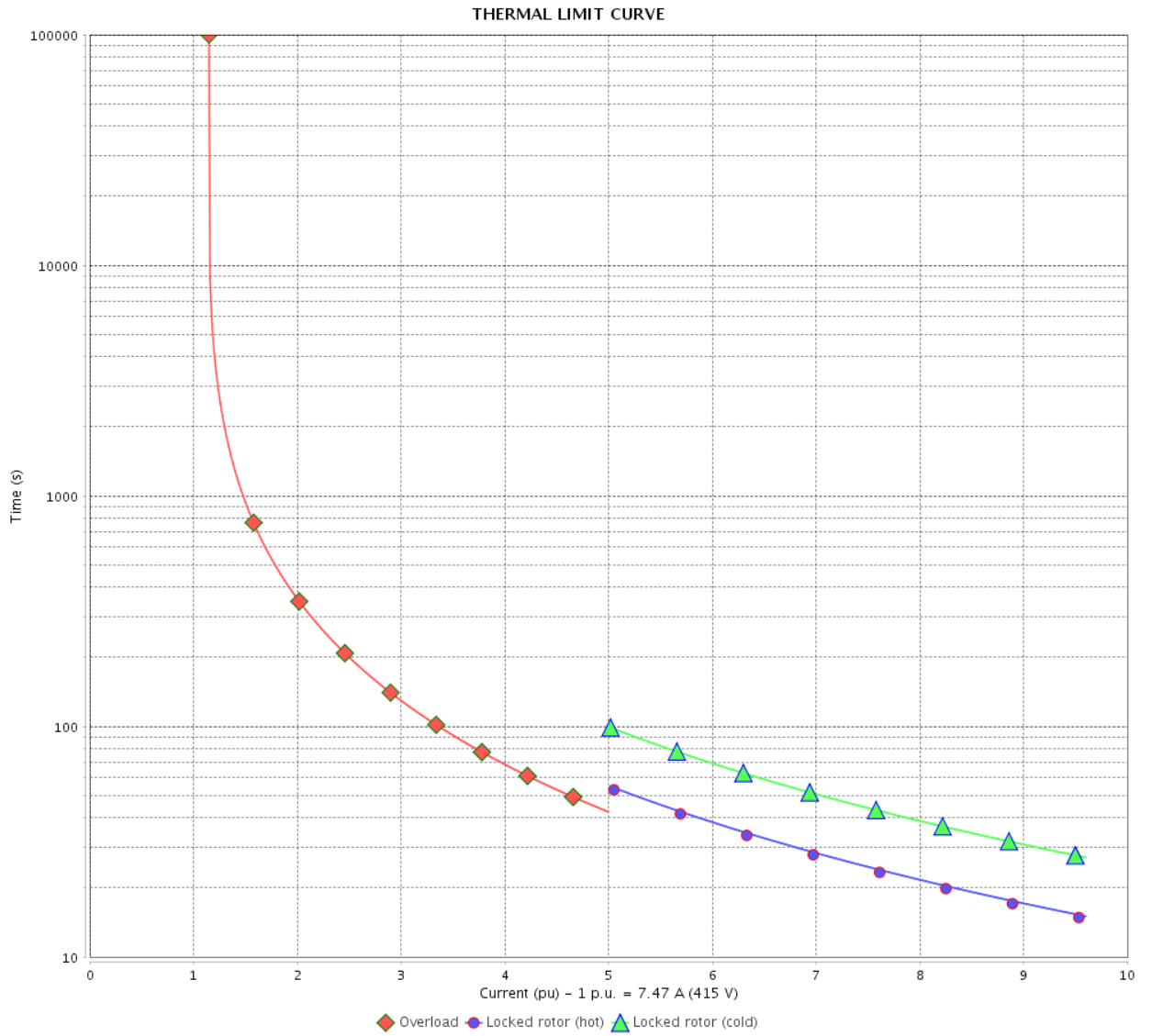
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| Checked by   |                 |           | Page    | Revision |
| Date         | 01/07/2022      |           | 22 / 36 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed       | Checked | Date     |
|--------------|-----------------|-----------------|---------|----------|
|              |                 |                 |         |          |
| Performed by |                 | Page<br>23 / 36 |         | Revision |
| Checked by   |                 |                 |         |          |
| Date         |                 |                 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
Product code : 13418946  
Catalog # : 00736ET3E184JM-W22

Performance : 380 V 50 Hz 2P

|                     |              |                       |                   |
|---------------------|--------------|-----------------------|-------------------|
| Rated current       | : 10.9 A     | Moment of inertia (J) | : 0.2242 sq.ft.lb |
| LRC                 | : 6.3        | Duty cycle            | : Cont.(S1)       |
| Rated torque        | : 14.0 ft.lb | Insulation class      | : F               |
| Locked rotor torque | : 220 %      | Service factor        | : 1.00            |
| Breakdown torque    | : 260 %      | Temperature rise      | : 80 K            |
| Rated speed         | : 2810 rpm   | Design                | : A               |

Heating constant

Cooling constant

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
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| Checked by   |                 |           | Page    | Revision |
| Date         | 01/07/2022      |           | 24 / 36 |          |

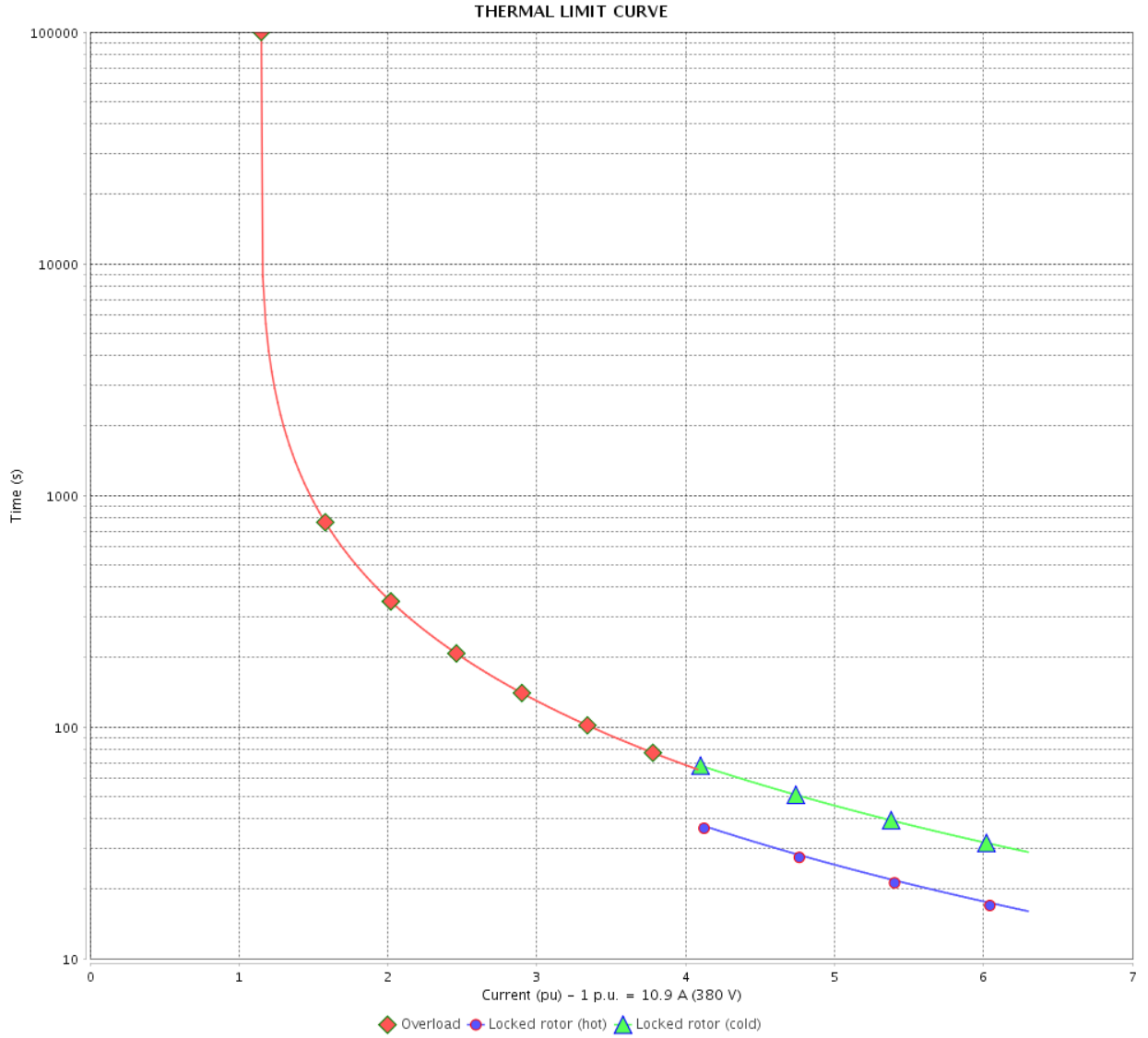


# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



| Rev.         | Changes Summary | Performed  | Checked | Date     |
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| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 25 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 13418946  
 Catalog # : 00736ET3E184JM-W22

Performance : 400 V 50 Hz 2P IE1

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Rated current : 10.3 A      | Moment of inertia (J) : 0.2242 sq.ft.lb |
| LRC : 7.0                   | Duty cycle : Cont.(S1)                  |
| Rated torque : 13.9 ft.lb   | Insulation class : F                    |
| Locked rotor torque : 250 % | Service factor : 1.00                   |
| Breakdown torque : 280 %    | Temperature rise : 80 K                 |
| Rated speed : 2840 rpm      | Design : A                              |

Heating constant

Cooling constant

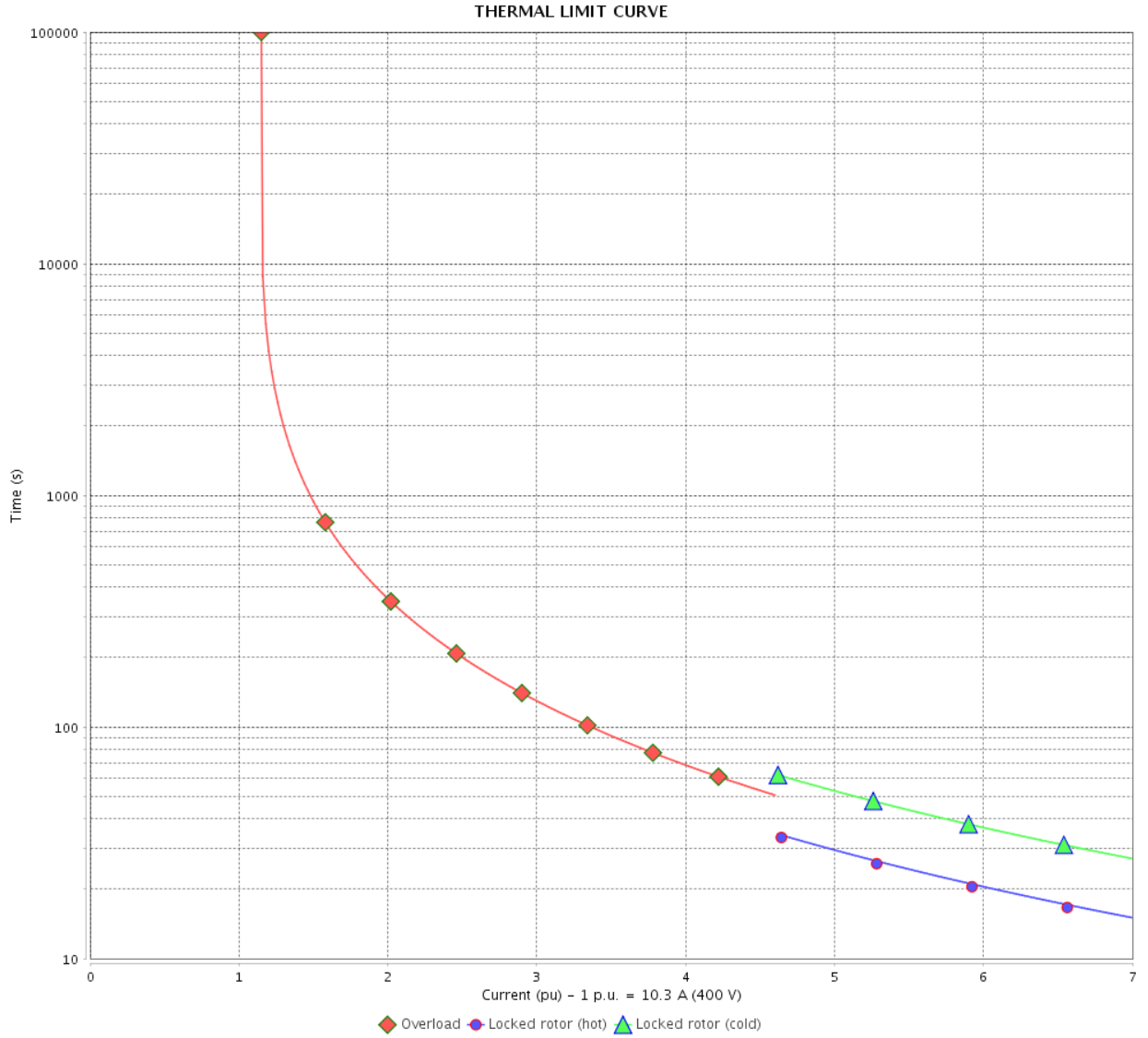
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| Date         |                 |           |         |          |
|              |                 | 26 / 36   |         |          |

# 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 : 13418946  
 Catalog # : 00736ET3E184JM-W22

Performance : 415 V 50 Hz 2P IE2

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Rated current : 10.0 A      | Moment of inertia (J) : 0.2242 sq.ft.lb |
| LRC : 7.4                   | Duty cycle : Cont.(S1)                  |
| Rated torque : 13.8 ft.lb   | Insulation class : F                    |
| Locked rotor torque : 270 % | Service factor : 1.00                   |
| Breakdown torque : 310 %    | Temperature rise : 80 K                 |
| Rated speed : 2860 rpm      | Design : A                              |

Heating constant

Cooling constant

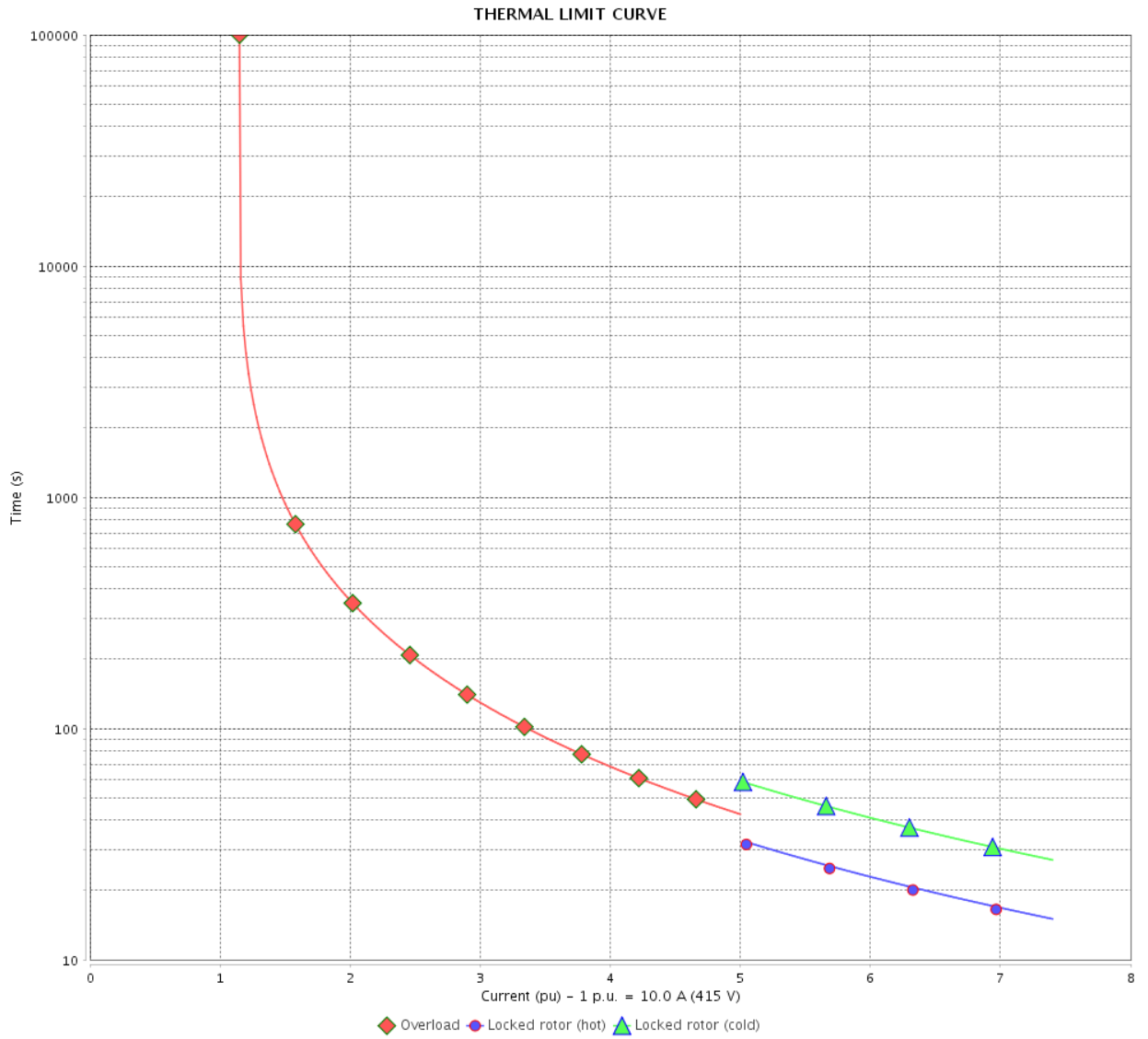
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| Performed by |                 |           | Page<br>28 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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



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

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



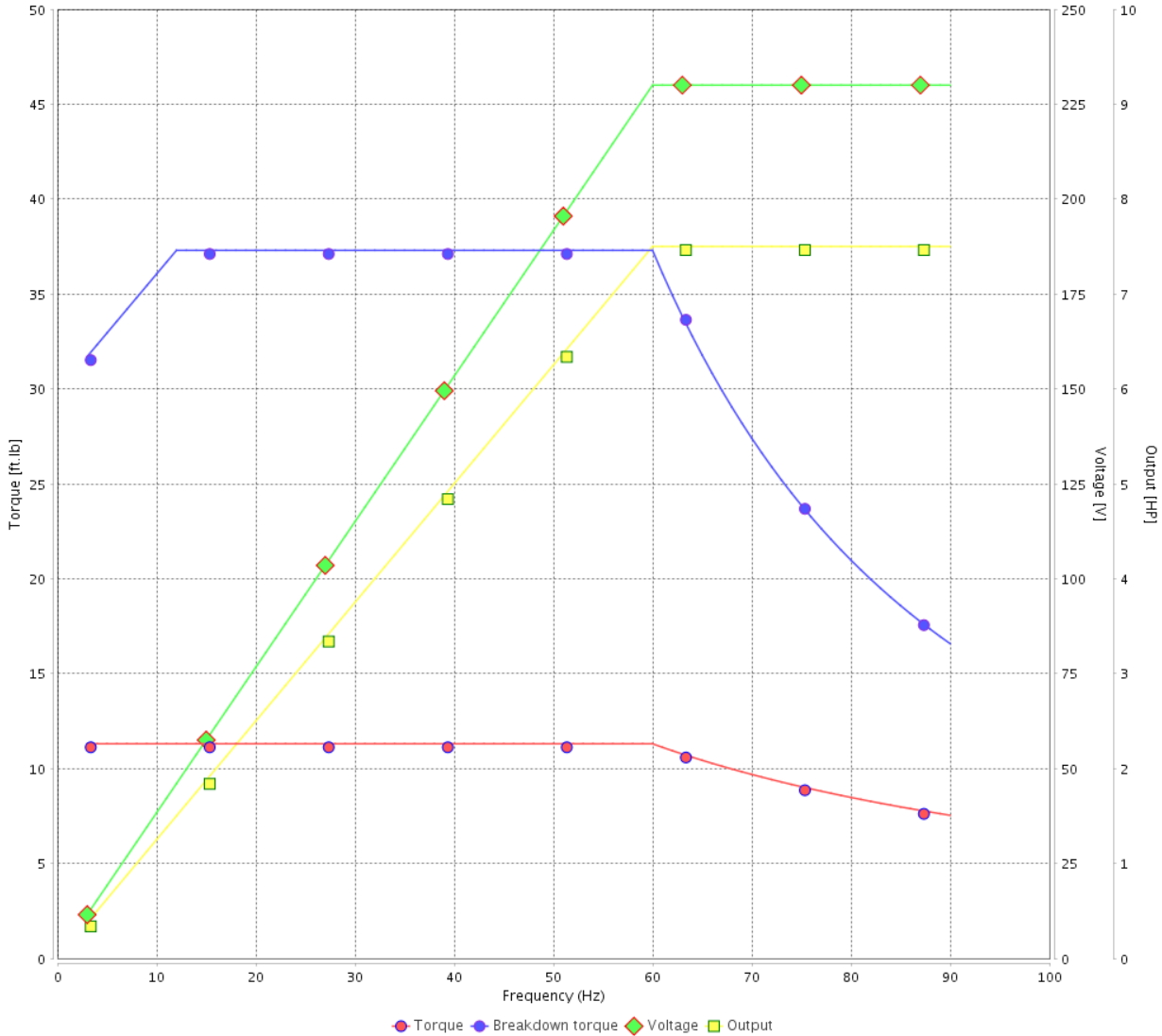
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 17.5/8.76 A  
 LRC : 8.2  
 Rated torque : 11.3 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 330 %  
 Rated speed : 3485 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.25  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
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| Performed by |                 |           | Page    | Revision |
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|              |                 |           | 30 / 36 |          |

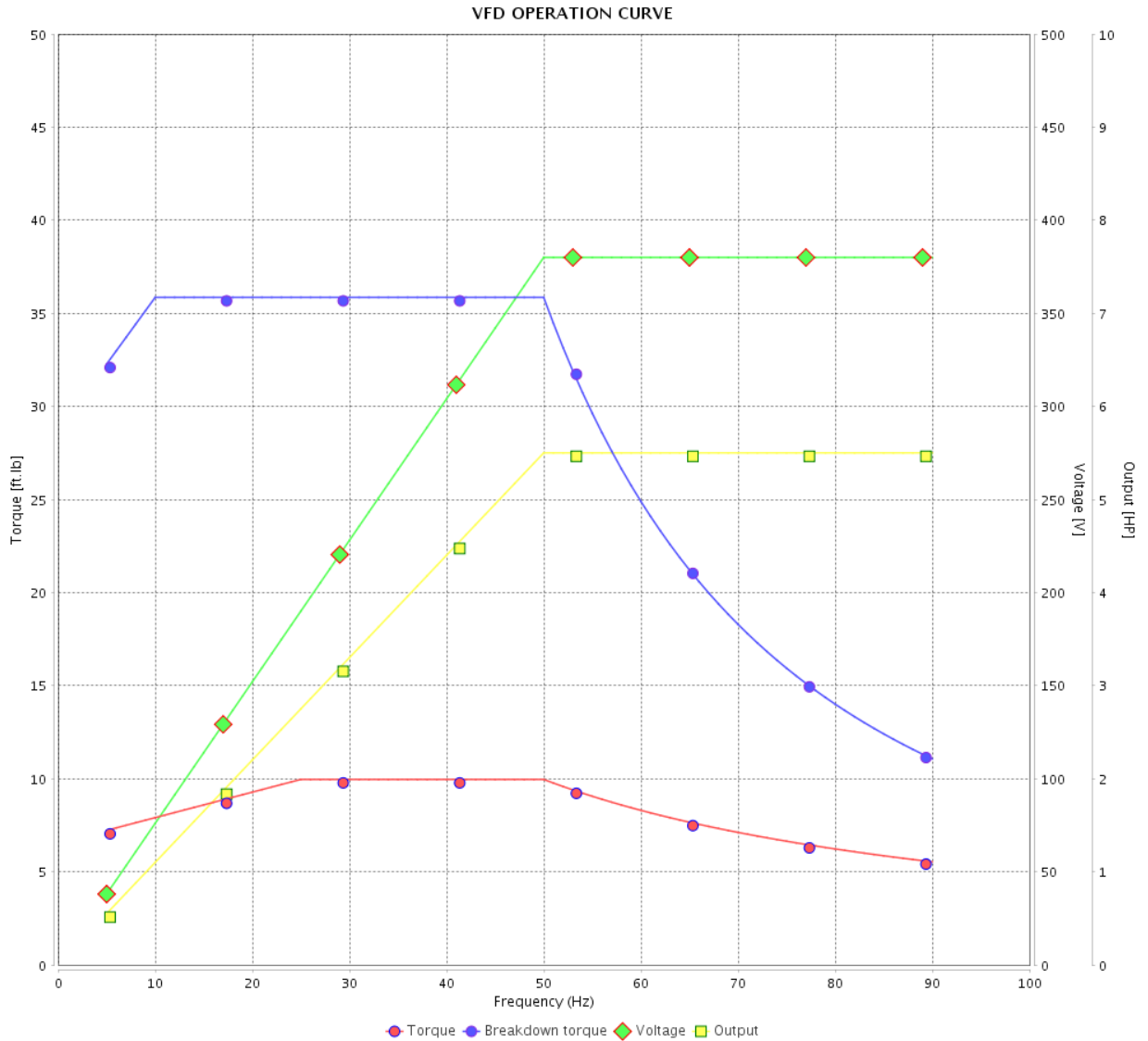
# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase  
 Product code : 13418946  
 Catalog # : 00736ET3E184JM-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 7.84 A  
 LRC : 8.3  
 Rated torque : 9.96 ft.lb  
 Locked rotor torque : 310 %  
 Breakdown torque : 360 %  
 Rated speed : 2900 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked | Date            |
|--------------|-----------------|-----------|---------|-----------------|
|              |                 |           |         |                 |
| Performed by |                 |           |         | Page<br>31 / 36 |
| Checked by   |                 |           |         |                 |
| Date         | 01/07/2022      |           |         |                 |
|              |                 |           |         | Revision        |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



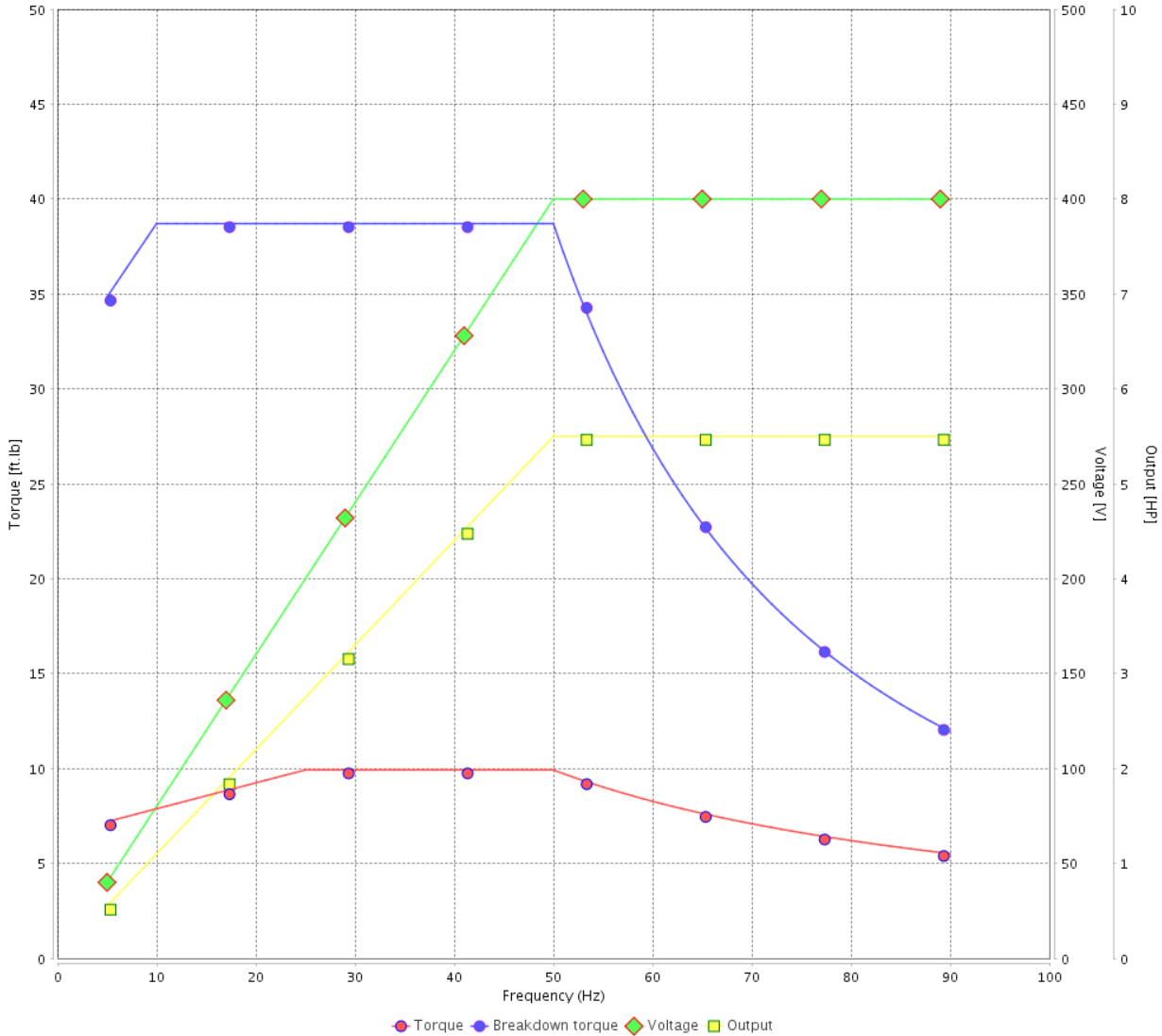
Customer : \_\_\_\_\_

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 7.62 A  
 LRC : 9.1  
 Rated torque : 9.93 ft.lb  
 Locked rotor torque : 350 %  
 Breakdown torque : 390 %  
 Rated speed : 2910 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>32 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |



# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

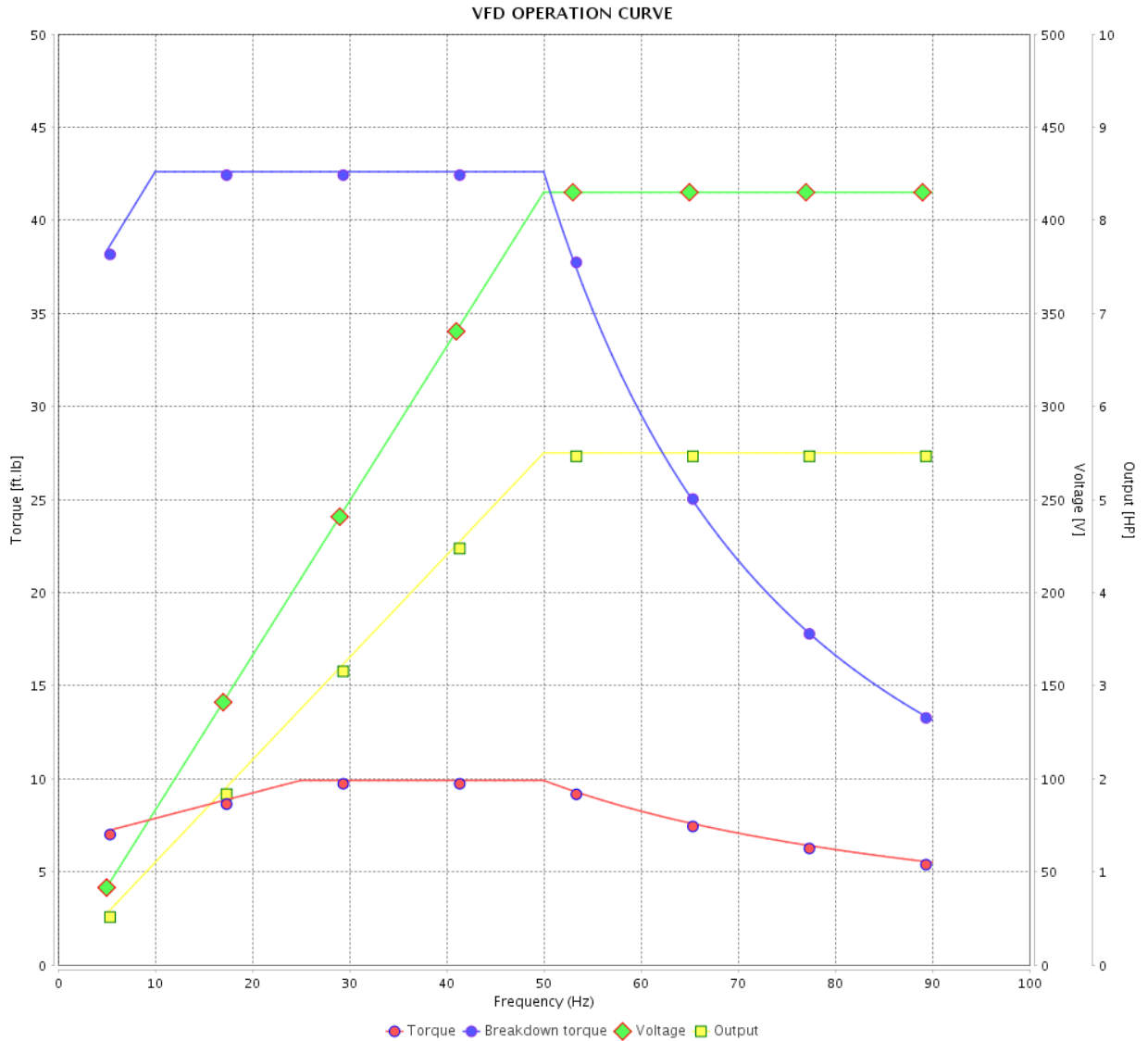


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 7.47 A  
 LRC : 9.6  
 Rated torque : 9.91 ft.lb  
 Locked rotor torque : 370 %  
 Breakdown torque : 430 %  
 Rated speed : 2915 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked         | Date     |
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| Performed by |                 |           | Page<br>33 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



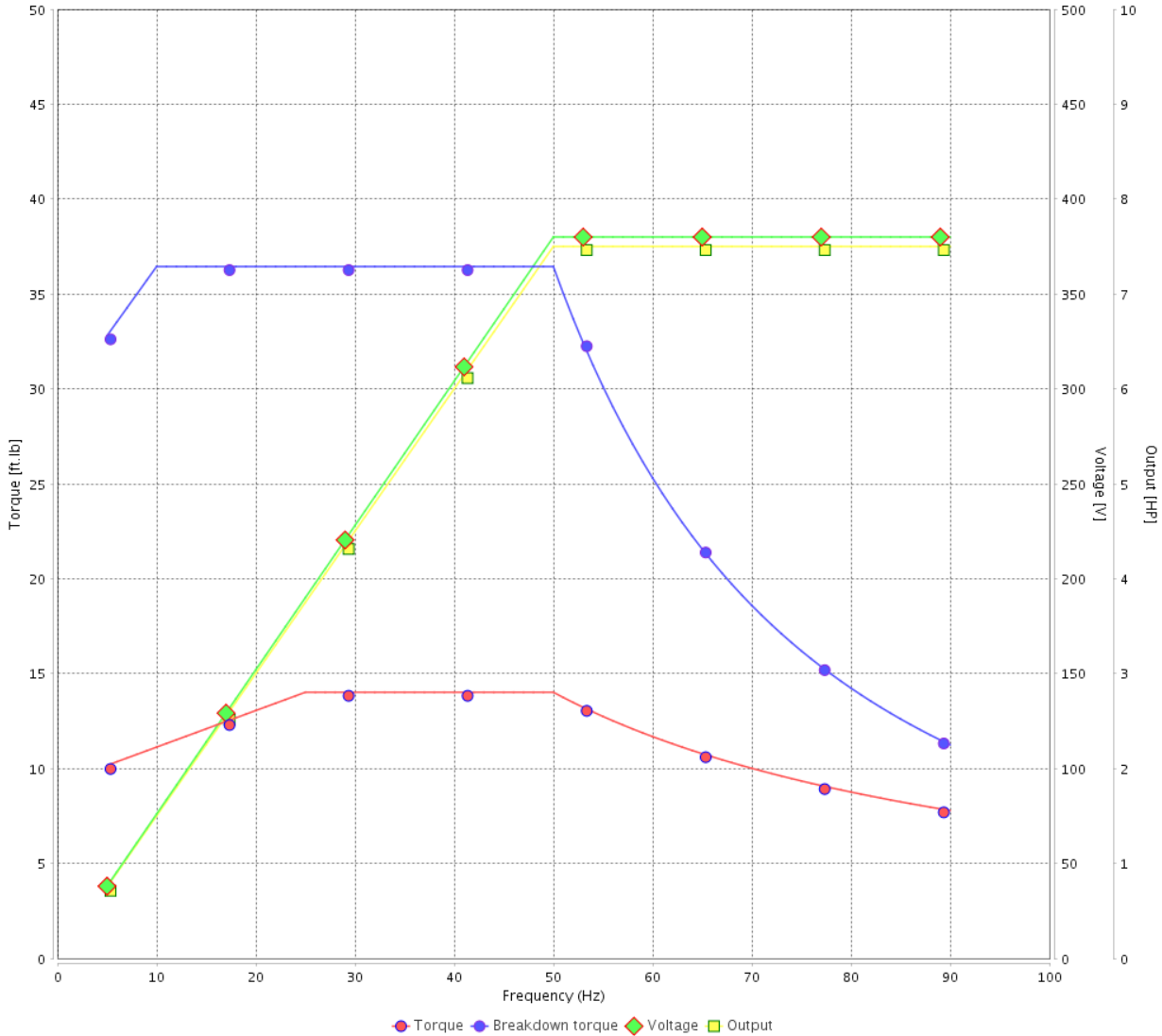
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

VFD OPERATION CURVE



Performance : 380 V 50 Hz 2P

Rated current : 10.9 A  
 LRC : 6.3  
 Rated torque : 14.0 ft.lb  
 Locked rotor torque : 220 %  
 Breakdown torque : 260 %  
 Rated speed : 2810 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
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| Performed by |                 |           | Page<br>34 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |

# VFD OPERATION CURVE

## Three Phase Induction Motor - Squirrel Cage

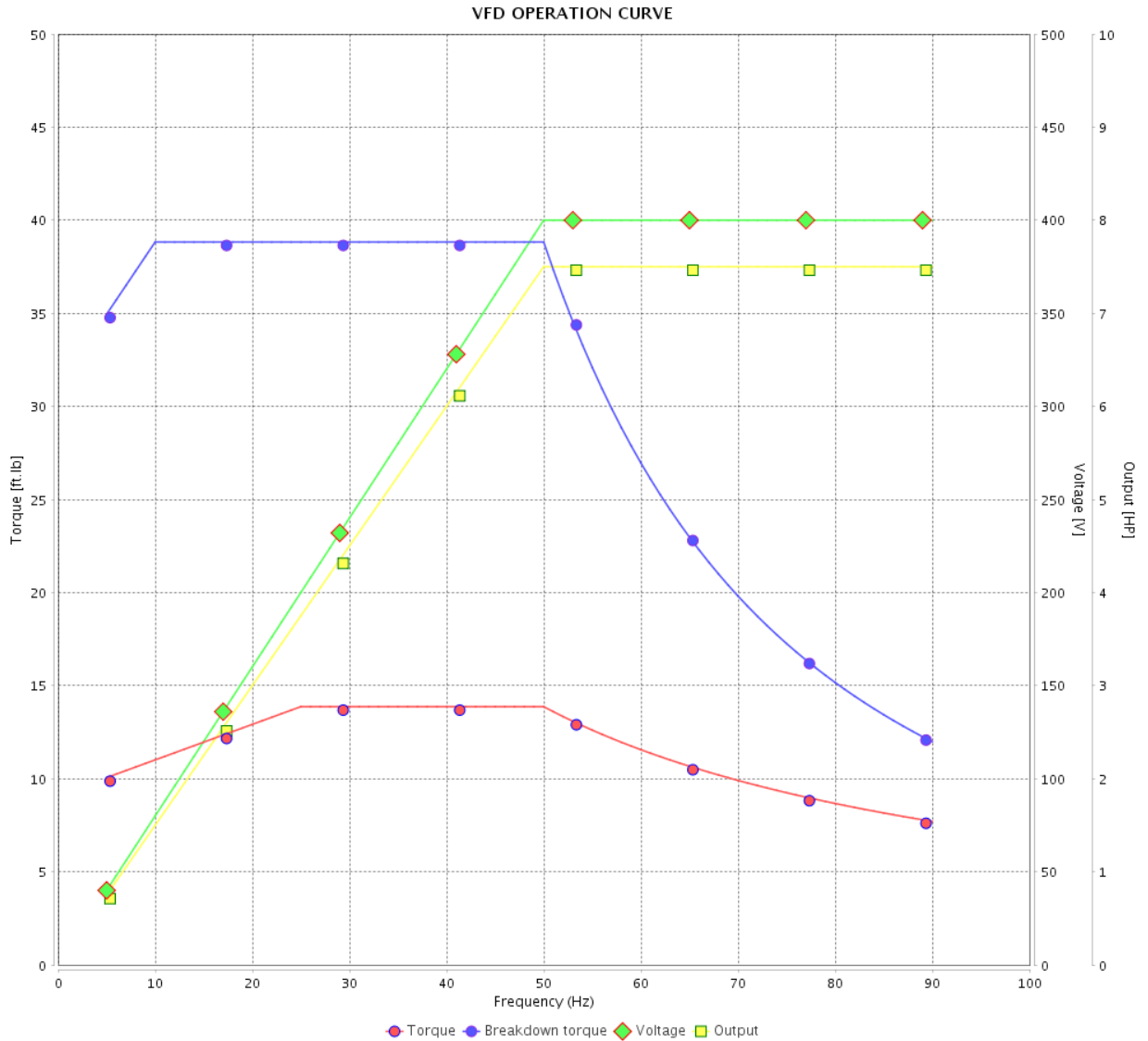


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22



Performance : 400 V 50 Hz 2P IE1

Rated current : 10.3 A  
 LRC : 7.0  
 Rated torque : 13.9 ft.lb  
 Locked rotor torque : 250 %  
 Breakdown torque : 280 %  
 Rated speed : 2840 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
|              |                 |            |         |          |
| Performed by |                 | Page       |         | Revision |
| Checked by   |                 | 35 / 36    |         |          |
| Date         |                 | 01/07/2022 |         |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



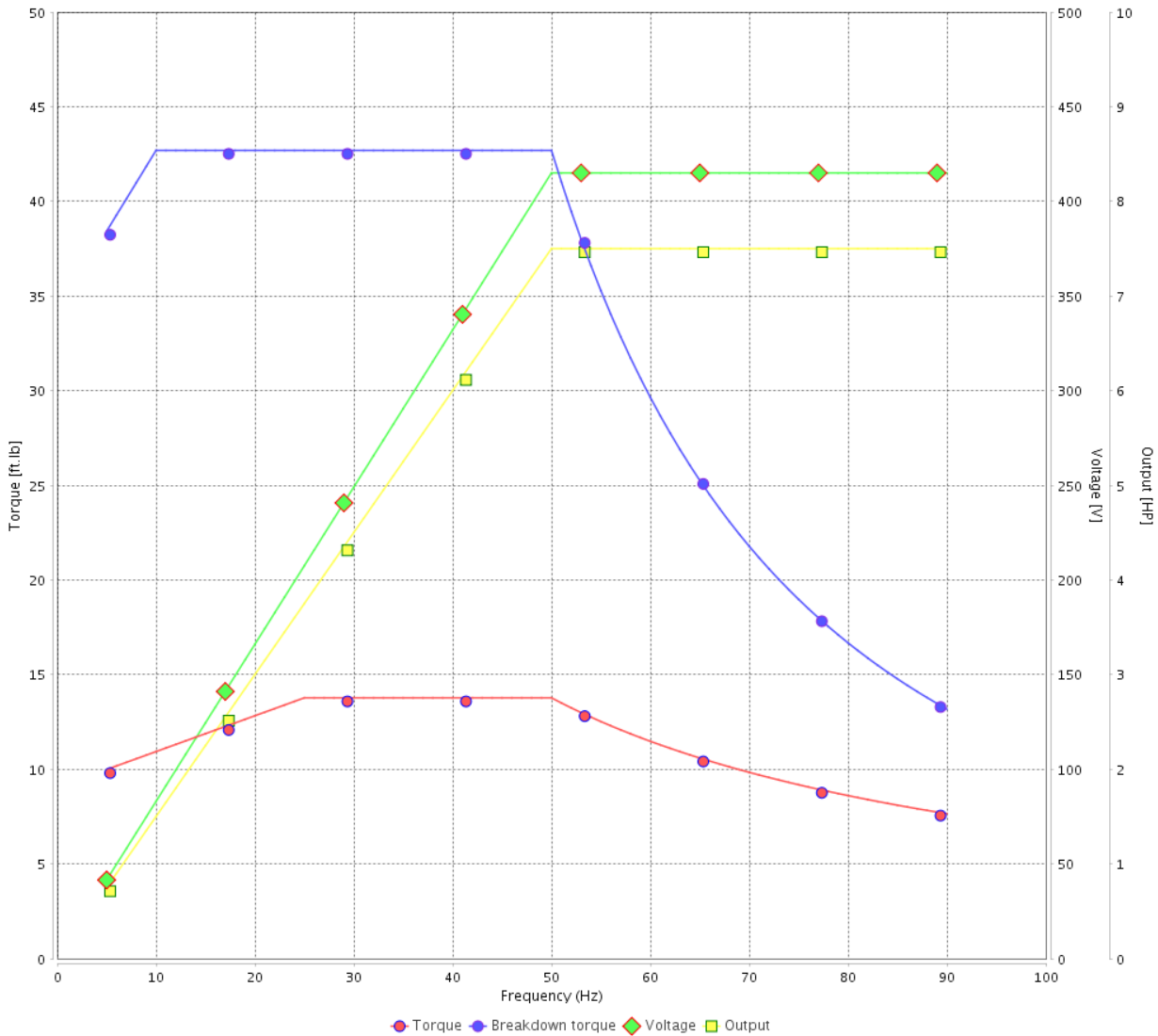
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13418946

Catalog # : 00736ET3E184JM-W22

VFD OPERATION CURVE

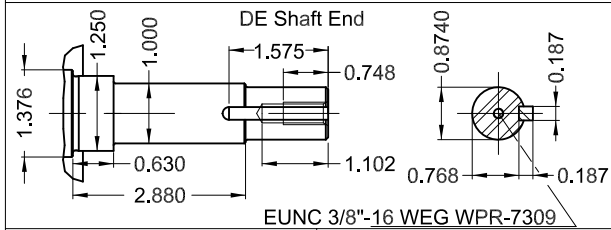
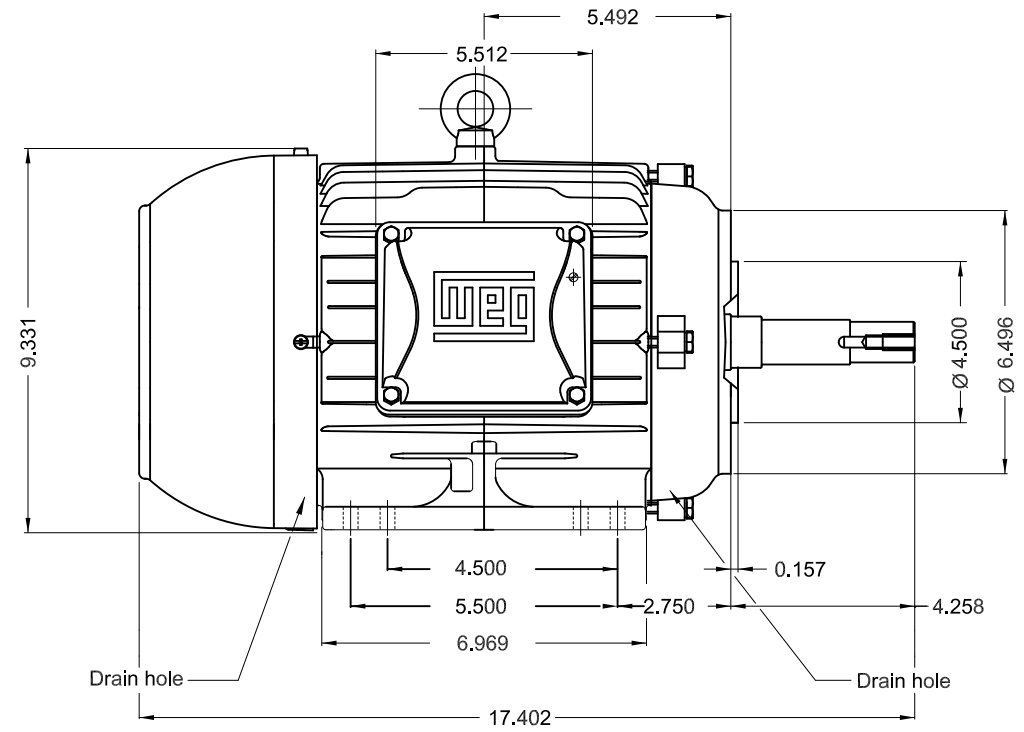
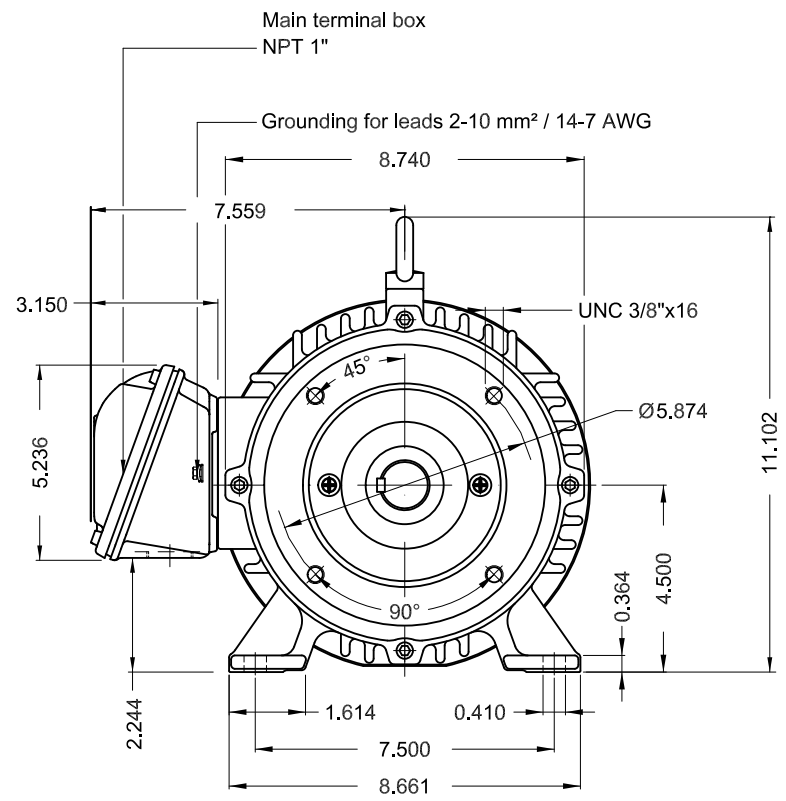


Performance : 415 V 50 Hz 2P IE2

Rated current : 10.0 A  
 LRC : 7.4  
 Rated torque : 13.8 ft.lb  
 Locked rotor torque : 270 %  
 Breakdown torque : 310 %  
 Rated speed : 2860 rpm

Moment of inertia (J) : 0.2242 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.00  
 Temperature rise : 80 K  
 Design : A

| Rev.         | Changes Summary | Performed | Checked         | Date     |
|--------------|-----------------|-----------|-----------------|----------|
|              |                 |           |                 |          |
| Performed by |                 |           | Page<br>36 / 36 | Revision |
| Checked by   |                 |           |                 |          |
| Date         | 01/07/2022      |           |                 |          |



7.5 HP 02 Poles 60 Hz A

Color RAL 5009  
 Painting plan 207A  
 Mounting NEMA F-1  
 Mounting B34R(D)

| ECM      | LOC        | SUMMARY OF MODIFICATIONS                                                 | EXECUTED       | CHECKED             | RELEASED | DATE | VER |
|----------|------------|--------------------------------------------------------------------------|----------------|---------------------|----------|------|-----|
| EXECUTED | HYBRISUSER | THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF.<br>FRAME 182/4JM IP55 TEFC |                |                     |          |      |     |
| CHECKED  |            |                                                                          |                |                     |          |      |     |
| RELEASED |            |                                                                          |                |                     |          |      |     |
| REL DT.  | WMO        |                                                                          | Jaragua do Sul | Product Engineering |          |      |     |

**PREVIEW**

WDD

SHEET 1 / 1

**W22**

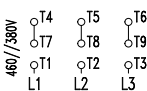
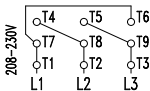
CC029A

® Inverter Duty Motor  
Severe Duty

13418946

MADE IN BRAZIL MODEL 00736ET3E184JM-W22

|                     |               |                     |                  |          |                                 |
|---------------------|---------------|---------------------|------------------|----------|---------------------------------|
| PH 3                | FR 182/4JM    | HP(kw) 7.5(5.5)     | Hz 60            | SF 1.25  | PF 0.88                         |
| V 230/460           | A 17.5/8.76   | RPM 3485            | INS. CL. F       | ΔT 80 K  | IP55                            |
| NEMA NOM EFF 89.5 % |               |                     | DES A DUTY CONT. |          | AMB 40°C                        |
| ENCL TEFC           | SFA 21.9/10.9 | USABLE @208V 19.4 A | SF 1.15          | SFA 22.3 |                                 |
| 7.5HP               | 5.5kW         | 50Hz                | 380V             | 10.9A    | 2810RPM SF1.00 EFF 84.5% CODE J |



→6307-ZZ

→6206-ZZ

MOBIL POLYREX EM

ALT 1000 m.a.s.l. | 99 Lbs

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 - T5  
 For use on PWM, Gr. A, B, C, D, F and G  
 VT1000:1, CT20:1, 1.0SF, T4A

FOR SAFE AREA  
MOD.TE1BFOXON