

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | | | | |
|--|---------------------------------------|-----------------------------|-------------------------|--|-------------------------|-------------------------|-------------------------|------|
| Customer : | | | | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 11676040 | | | | | |
| | | Catalog # : | 02036ET3E256JP-W22 | | | | | |
| Frame | : 254/6JP | Cooling method | : IC411 - TEFC | | | | | |
| Insulation class | : F | Mounting | : F-1 | | | | | |
| Duty cycle | : Cont.(S1) | Rotation ¹ | : Both (CW and CCW) | | | | | |
| Ambient temperature | : -20°C to +40°C | Starting method | : Direct On Line | | | | | |
| Altitude | : 1000 m.a.s.l. | Approx. weight ² | : 306 lb | | | | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 1.54 sq.ft.lb | | | | | |
| Design | : B | | | | | | | |
| Output [HP] | 20 | 15 | 15 | 15 | 20 | 20 | 20 | |
| 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] | 46.4/23.2 | 20.4 | 19.6 | 19.1 | 28.9 | 27.2 | 26.2 | |
| L. R. Amperes [A] | 283/142 | 141 | 151 | 155 | 147 | 155 | 160 | |
| LRC [A] | 6.1x(Code G) | 6.9x(Code G) | 7.7x(Code H) | 8.1x(Code J) | 5.1x(Code E) | 5.7x(Code F) | 6.1x(Code G) | |
| No load current [A] | 13.0/6.50 | 6.20 | 6.60 | 6.90 | 6.20 | 6.60 | 6.90 | |
| Rated speed [RPM] | 3525 | 2935 | 2945 | 2950 | 2885 | 2905 | 2915 | |
| Slip [%] | 2.08 | 2.17 | 1.83 | 1.67 | 3.83 | 3.17 | 2.83 | |
| Rated torque [ft.lb] | 29.8 | 26.9 | 26.8 | 26.8 | 36.3 | 36.2 | 36.0 | |
| Locked rotor torque [%] | 200 | 220 | 240 | 270 | 160 | 180 | 200 | |
| Breakdown torque [%] | 240 | 260 | 280 | 310 | 190 | 210 | 229 | |
| Service factor | 1.25 | 1.15 | 1.15 | 1.15 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | 105 K | 105 K | 105 K | |
| Locked rotor time | 37s (cold) 21s (hot) | 28s (cold) 16s (hot) | 28s (cold) 16s (hot) | 28s (cold) 16s (hot) | 28s (cold) 16s (hot) | 28s (cold) 16s (hot) | 28s (cold) 16s (hot) | |
| Noise level ² | 72.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | 67.0 dB(A) | |
| Efficiency (%) | 25% | 91.4 | 90.2 | 90.2 | 89.5 | 93.3 | 92.1 | 92.2 |
| | 50% | 91.0 | 90.6 | 90.4 | 89.8 | 91.0 | 91.0 | 91.0 |
| | 75% | 91.7 | 90.9 | 91.2 | 91.1 | 90.2 | 91.0 | 91.0 |
| | 100% | 91.0 | 91.2 | 91.2 | 91.2 | 87.5 | 89.5 | 89.5 |
| Power Factor | 25% | 0.57 | 0.54 | 0.50 | 0.48 | 0.63 | 0.60 | 0.57 |
| | 50% | 0.82 | 0.78 | 0.75 | 0.73 | 0.86 | 0.84 | 0.82 |
| | 75% | 0.87 | 0.87 | 0.85 | 0.84 | 0.89 | 0.88 | 0.87 |
| | 100% | 0.89 | 0.90 | 0.89 | 0.88 | 0.90 | 0.89 | 0.89 |
| Bearing type | : Drive end : 6309 C3 | Non drive end : 6209 C3 | Foundation loads | | | | | |
| Sealing | : V'Ring | V'Ring | Max. traction | : 244 lb | | | | |
| Lubrication interval | : 19000 h | 20000 h | Max. compression | : 550 lb | | | | |
| Lubricant amount | : 13 g | 9 g | | | | | | |
| Lubricant type | : Mobil Polyrex EM | | | | | | | |
| Notes USABLE @208V 51.3A SF 1.15 SFA 59.0A | | | | | | | | |
| This revision replaces and cancel the previous one, which must be eliminated. (1) Looking the motor from the shaft end. (2) Measured at 1m and with tolerance of +3dB(A). (3) Approximate weight subject to changes after manufacturing process. (4) At 100% of full load. | | | | These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1. | | | | |
| Rev. | Changes Summary | | | Performed | Checked | Date | | |
| Performed by | | | | | | | | |
| Checked by | | | | | Page | Revision | | |
| Date | 14/04/2022 | | | | 1 / 36 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



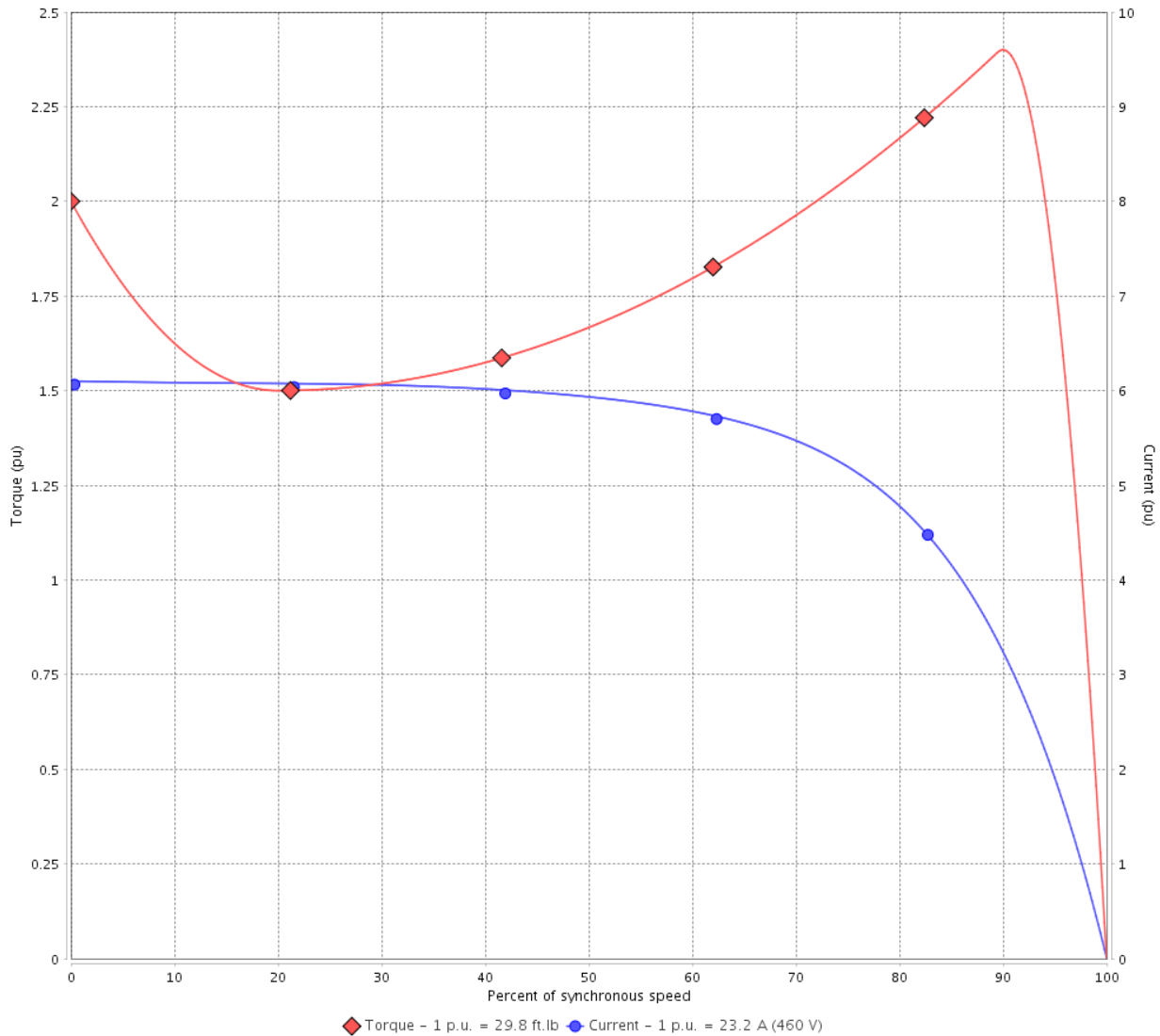
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

| | | | |
|---------------------|---------------|-----------------------|-----------------|
| Rated current | : 46.4/23.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 29.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 3525 rpm | Design | : B |

Locked rotor time : 37s (cold) 21s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 2 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE



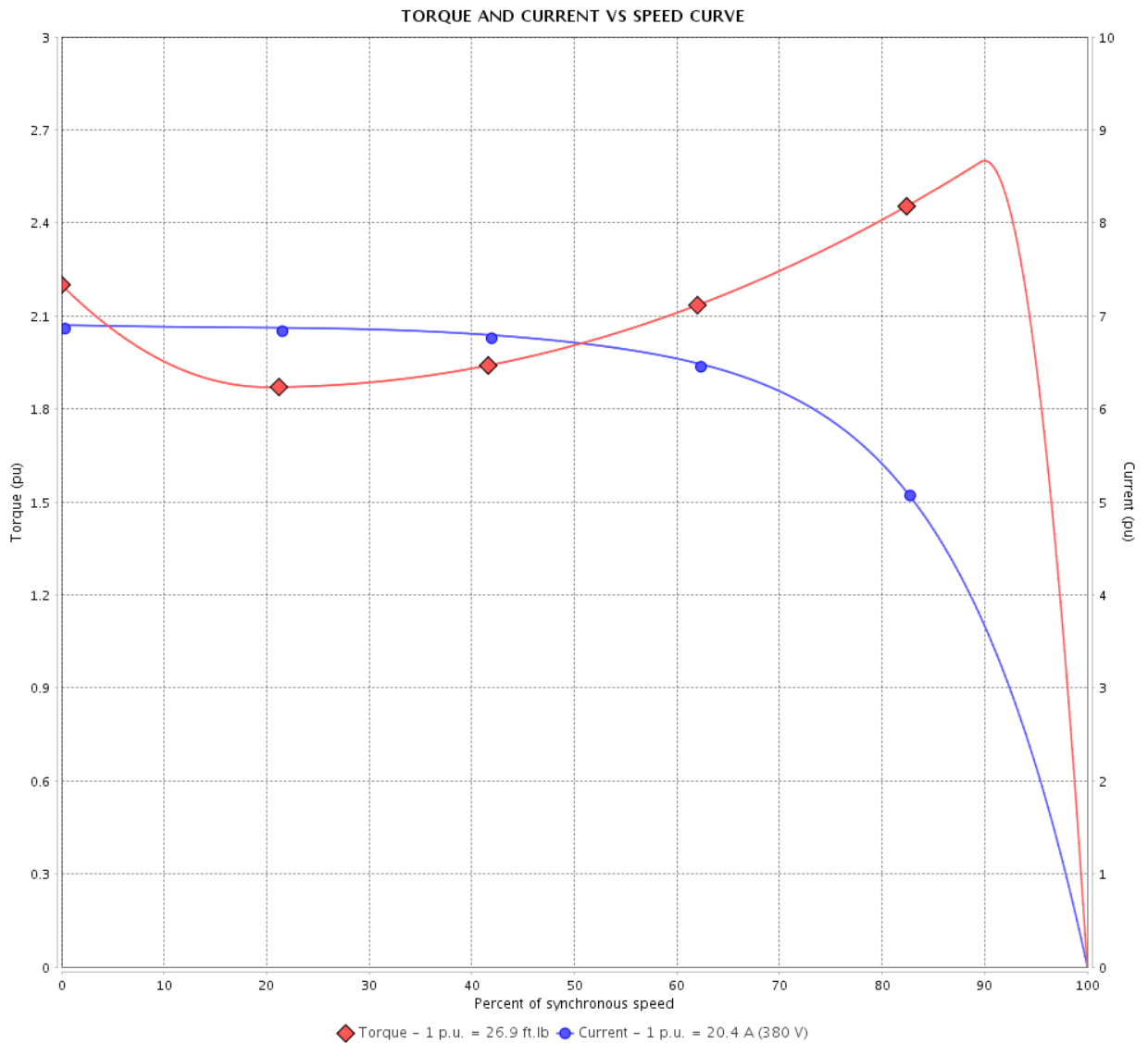
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 20.4 A
 LRC : 6.9
 Rated torque : 26.9 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 3 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



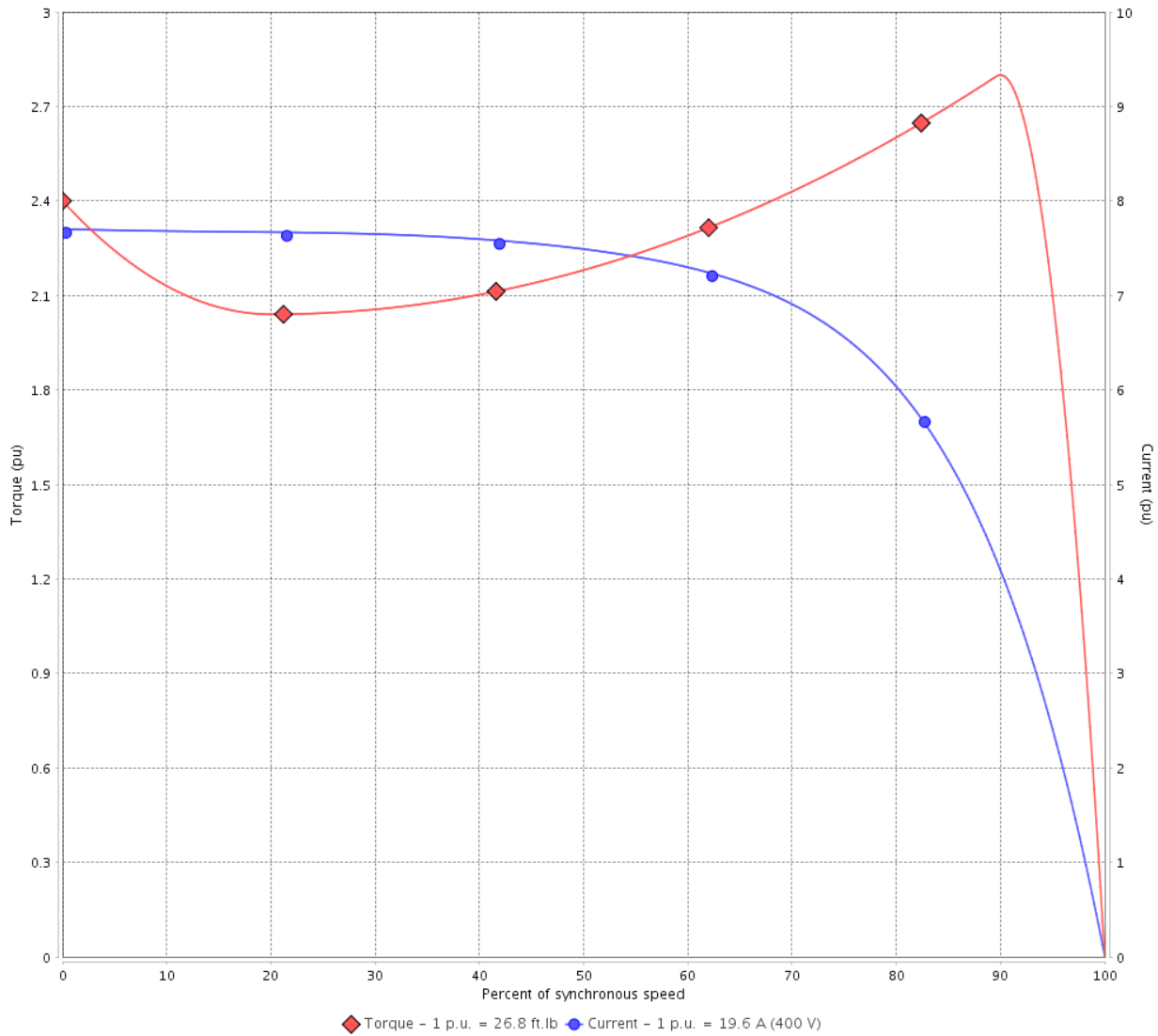
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 19.6 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 7.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 26.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 280 % | Temperature rise | : 80 K |
| Rated speed | : 2945 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 4 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE



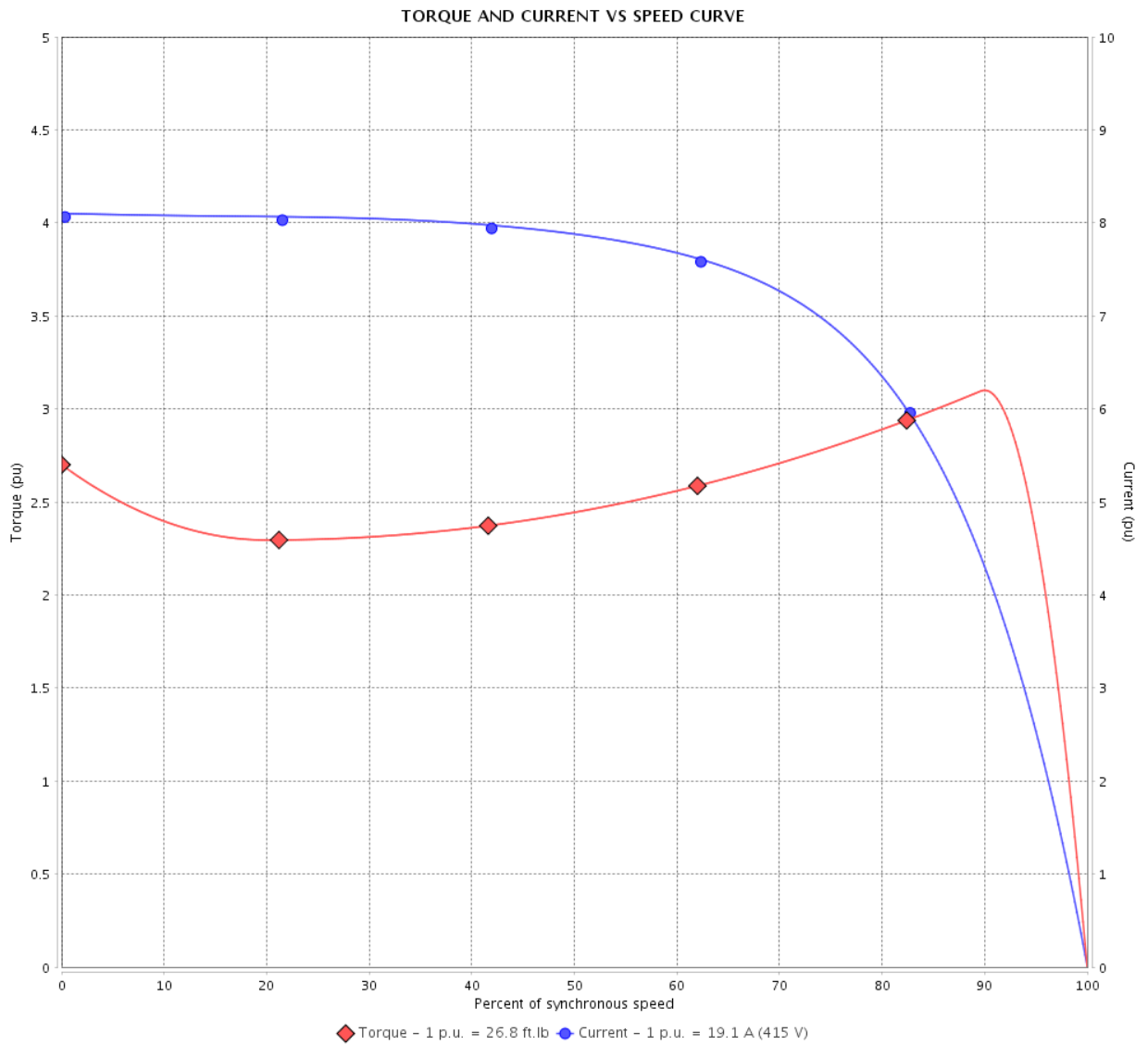
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 415 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 19.1 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 8.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 26.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 270 % | Service factor | : 1.15 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 2950 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 5 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



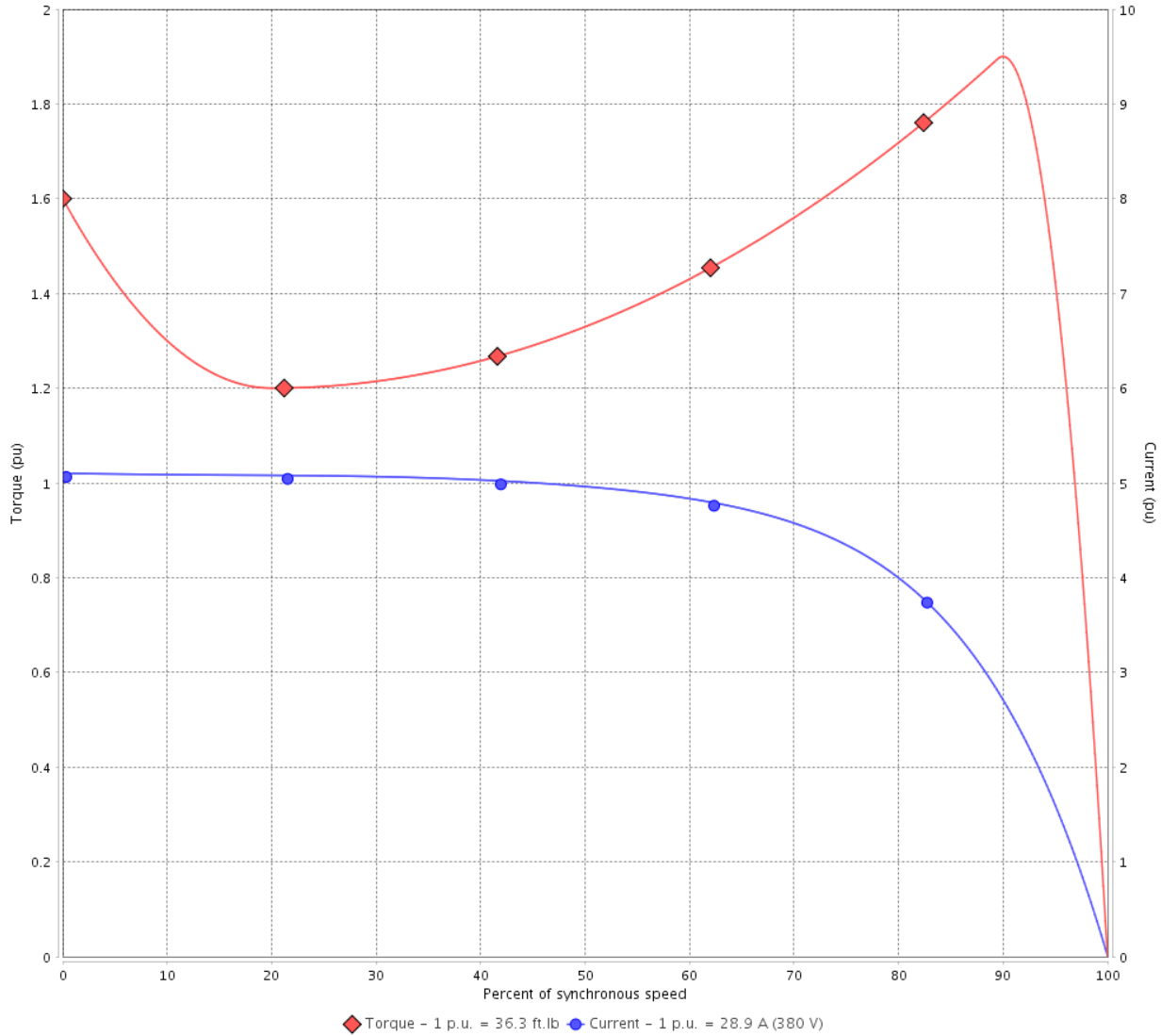
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 28.9 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 5.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.00 |
| Breakdown torque | : 190 % | Temperature rise | : 105 K |
| Rated speed | : 2885 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 6 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

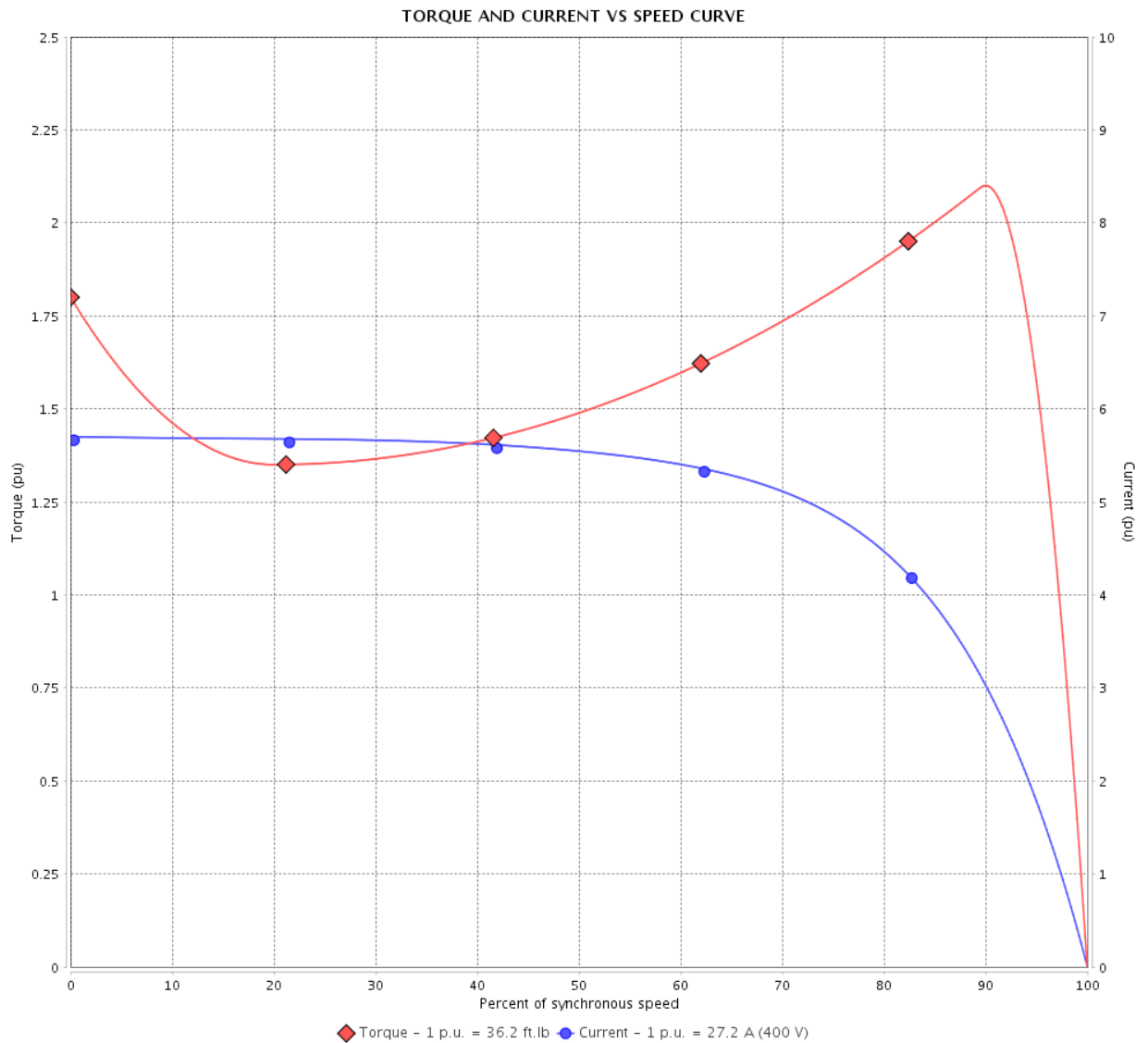
TORQUE AND CURRENT VS SPEED CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase Product code : 11676040
 Catalog # : 02036ET3E256JP-W22



Performance : 400 V 50 Hz 2P IE1

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 27.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 5.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.2 ft.lb | Insulation class | : F |
| Locked rotor torque | : 180 % | Service factor | : 1.00 |
| Breakdown torque | : 210 % | Temperature rise | : 105 K |
| Rated speed | : 2905 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 7 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



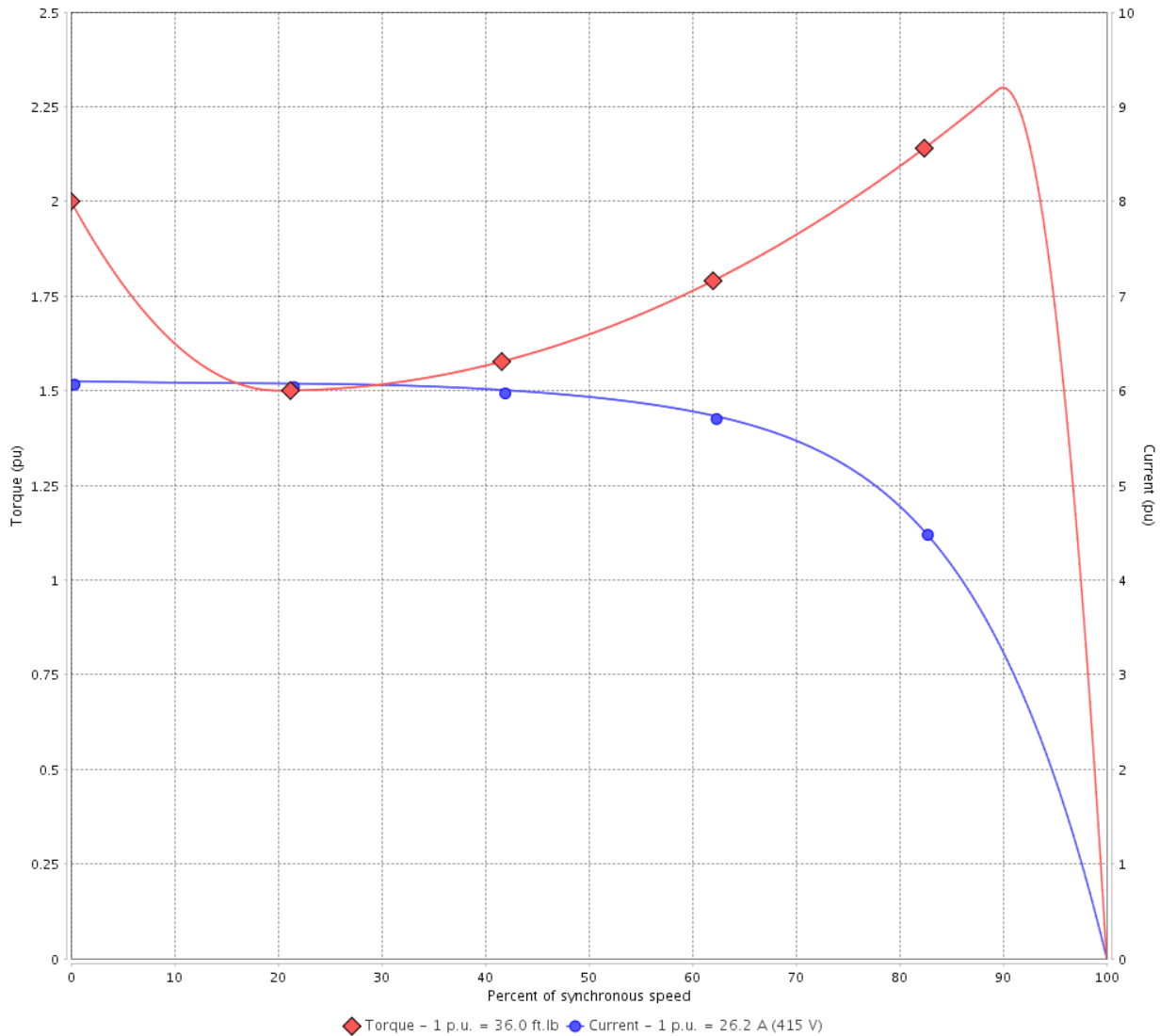
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 415 V 50 Hz 2P IE1

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 26.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.0 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 105 K |
| Rated speed | : 2915 rpm | Design | : B |

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

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|----------------|----------|
| | | | | |
| Performed by | | | Page 8 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

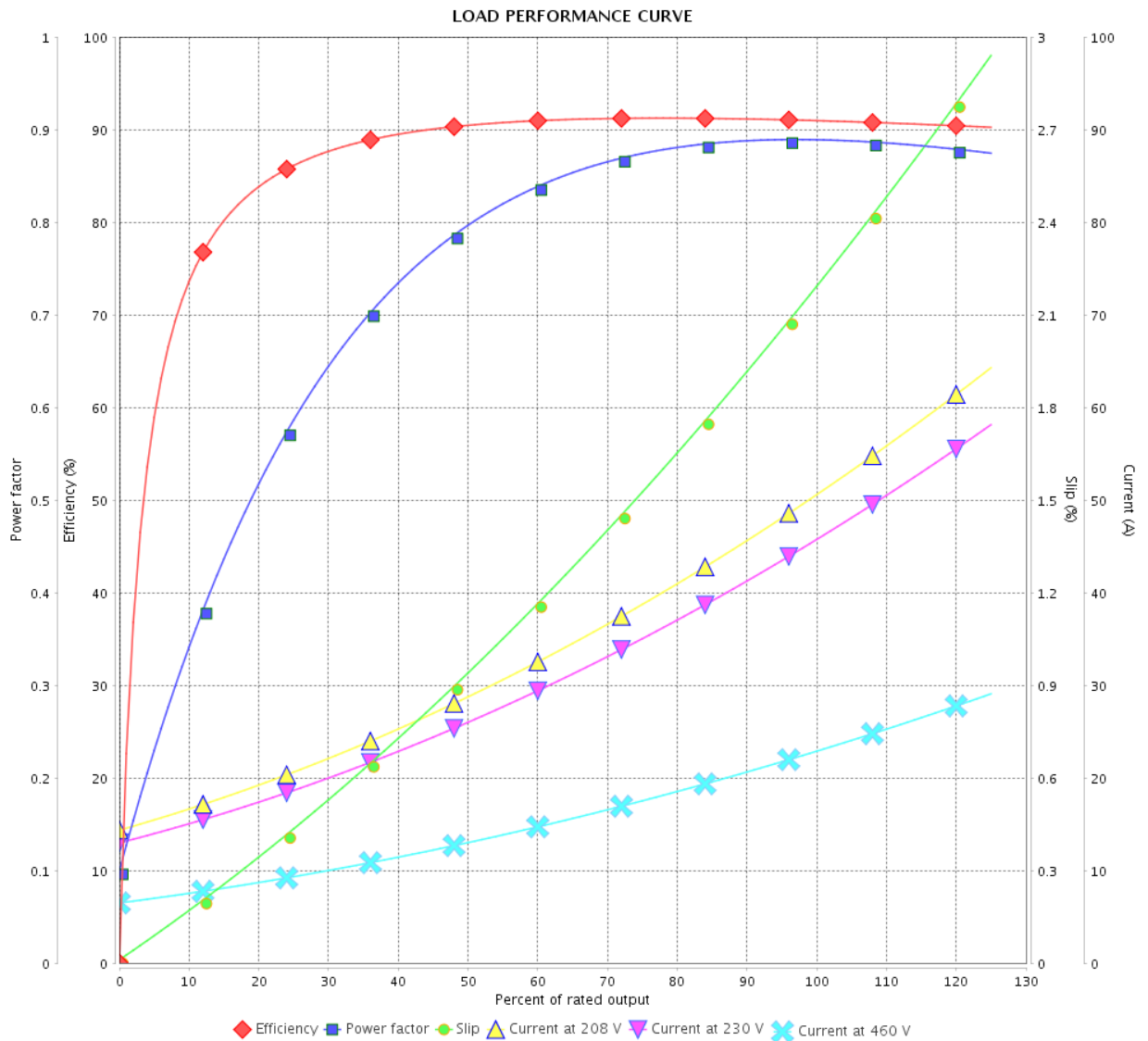


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 230/460 V 60 Hz 2P

Rated current : 46.4/23.2 A
 LRC : 6.1
 Rated torque : 29.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



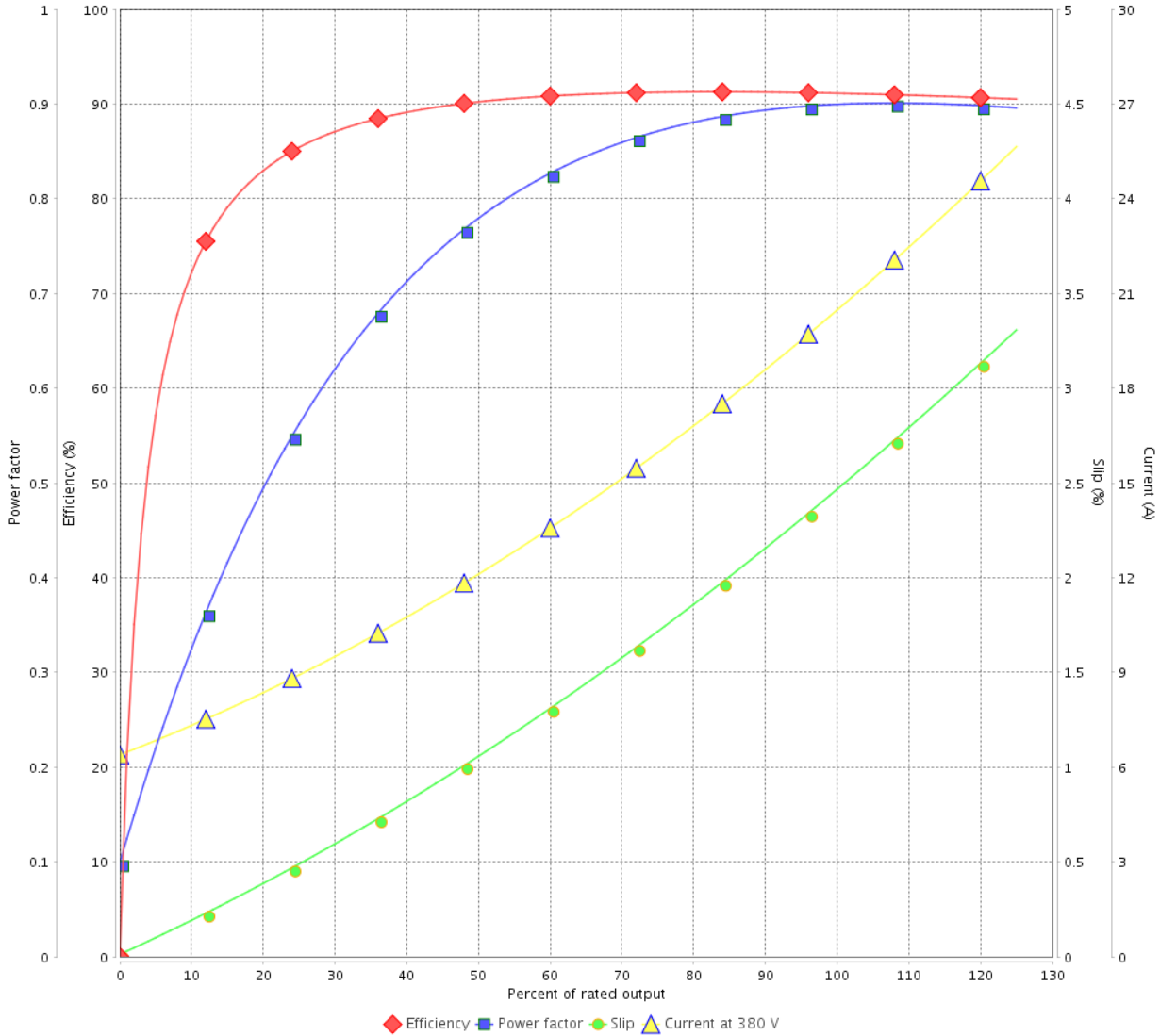
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 2P IE3

Rated current : 20.4 A
 LRC : 6.9
 Rated torque : 26.9 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 10 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

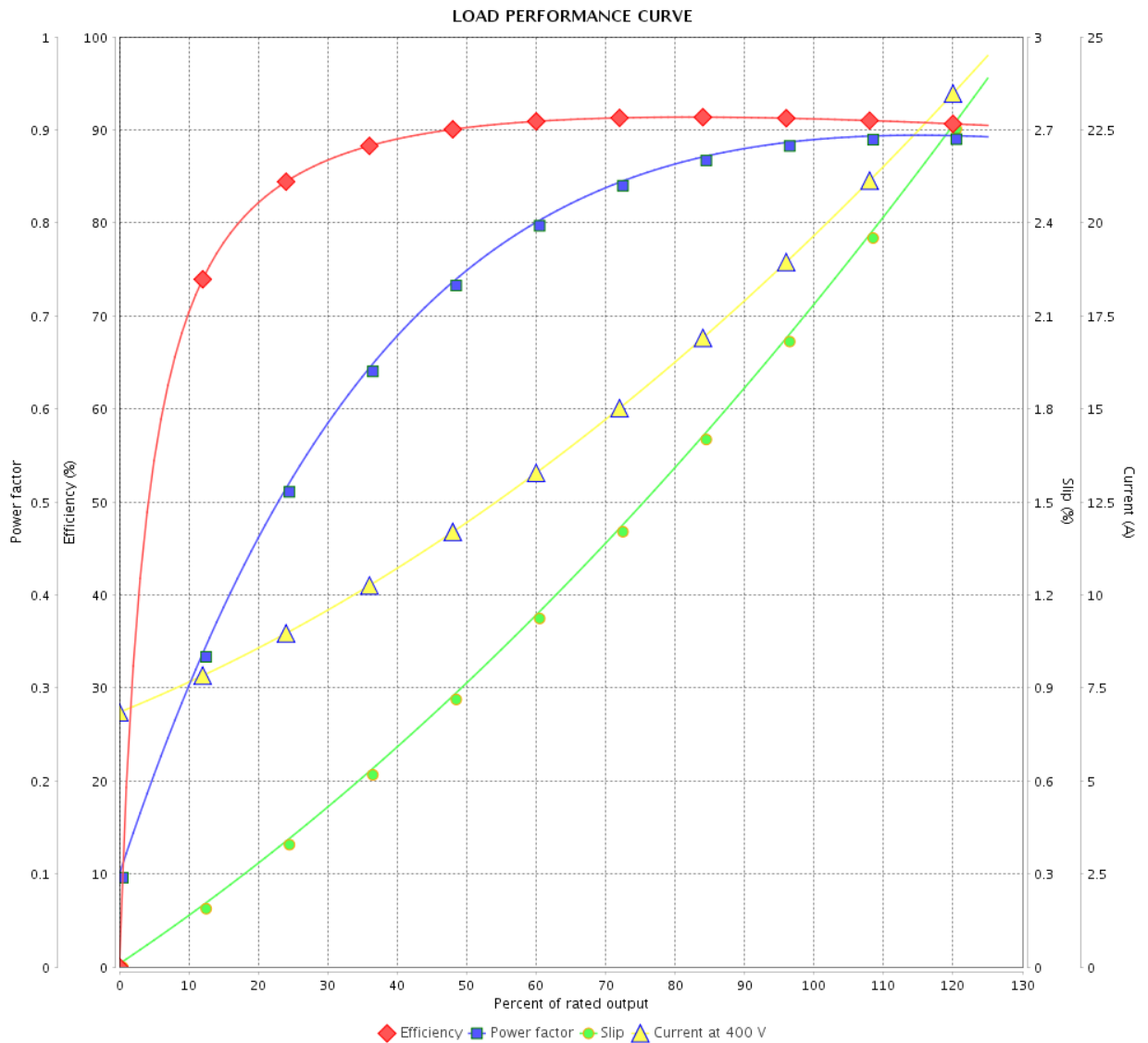


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 400 V 50 Hz 2P IE3

Rated current : 19.6 A
 LRC : 7.7
 Rated torque : 26.8 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 280 %
 Rated speed : 2945 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | Page | Revision |
| Checked by | | | 11 / 36 | |
| Date | 14/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



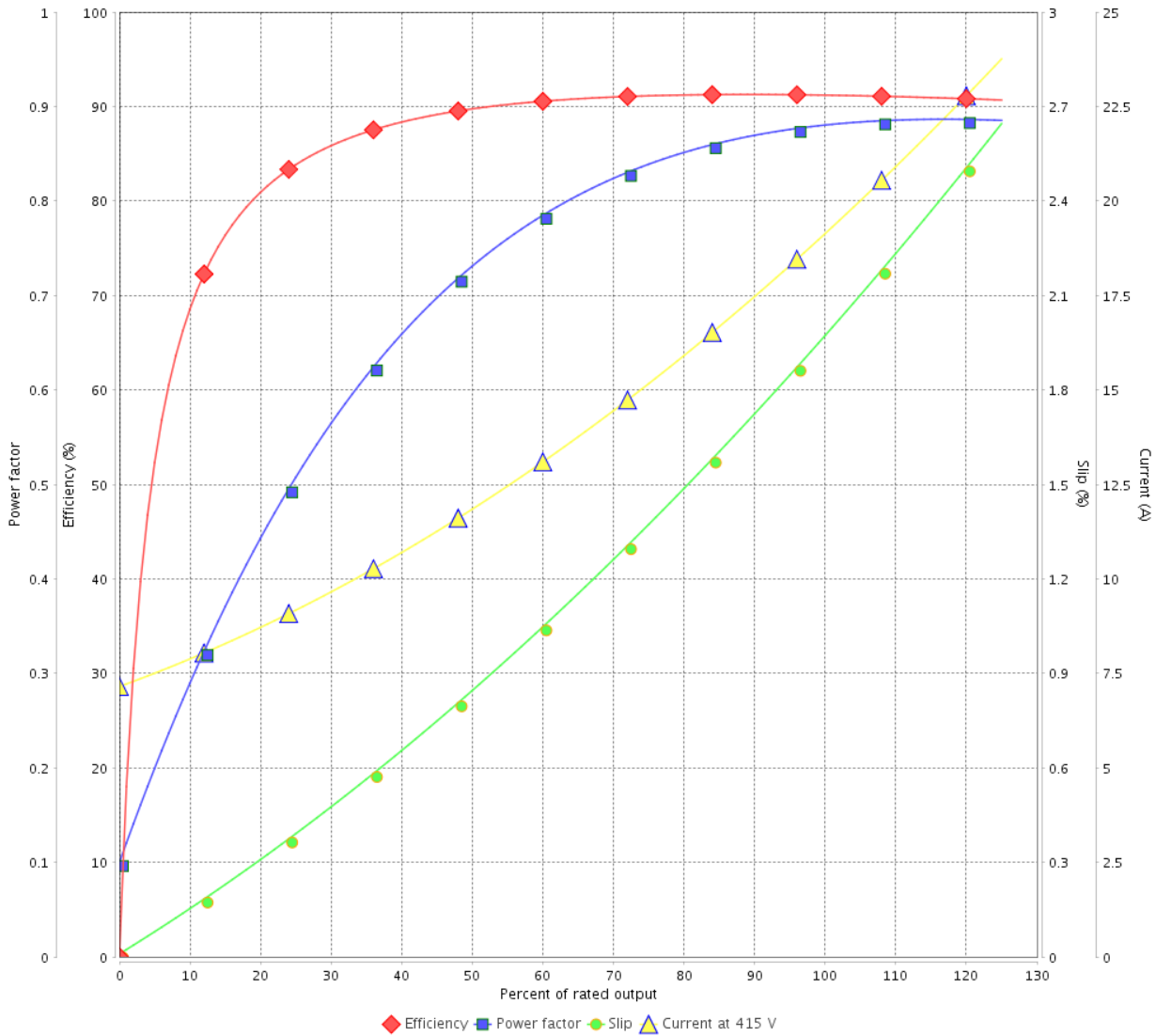
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

LOAD PERFORMANCE CURVE



Performance : 415 V 50 Hz 2P IE3

Rated current : 19.1 A
 LRC : 8.1
 Rated torque : 26.8 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 310 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 12 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

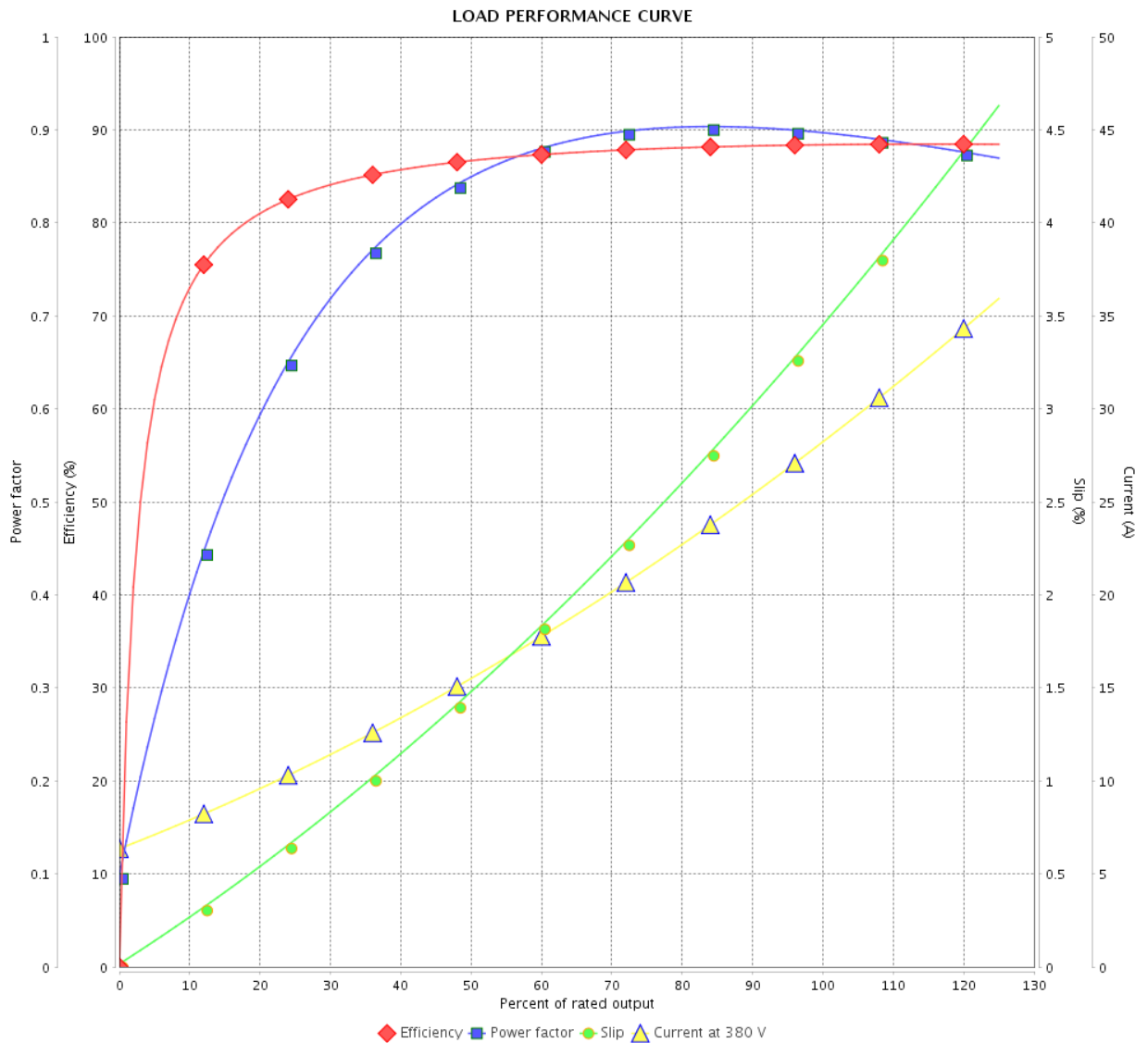


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 380 V 50 Hz 2P

Rated current : 28.9 A
 LRC : 5.1
 Rated torque : 36.3 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 190 %
 Rated speed : 2885 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 13 / 36 | | |
| Date | | 14/04/2022 | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



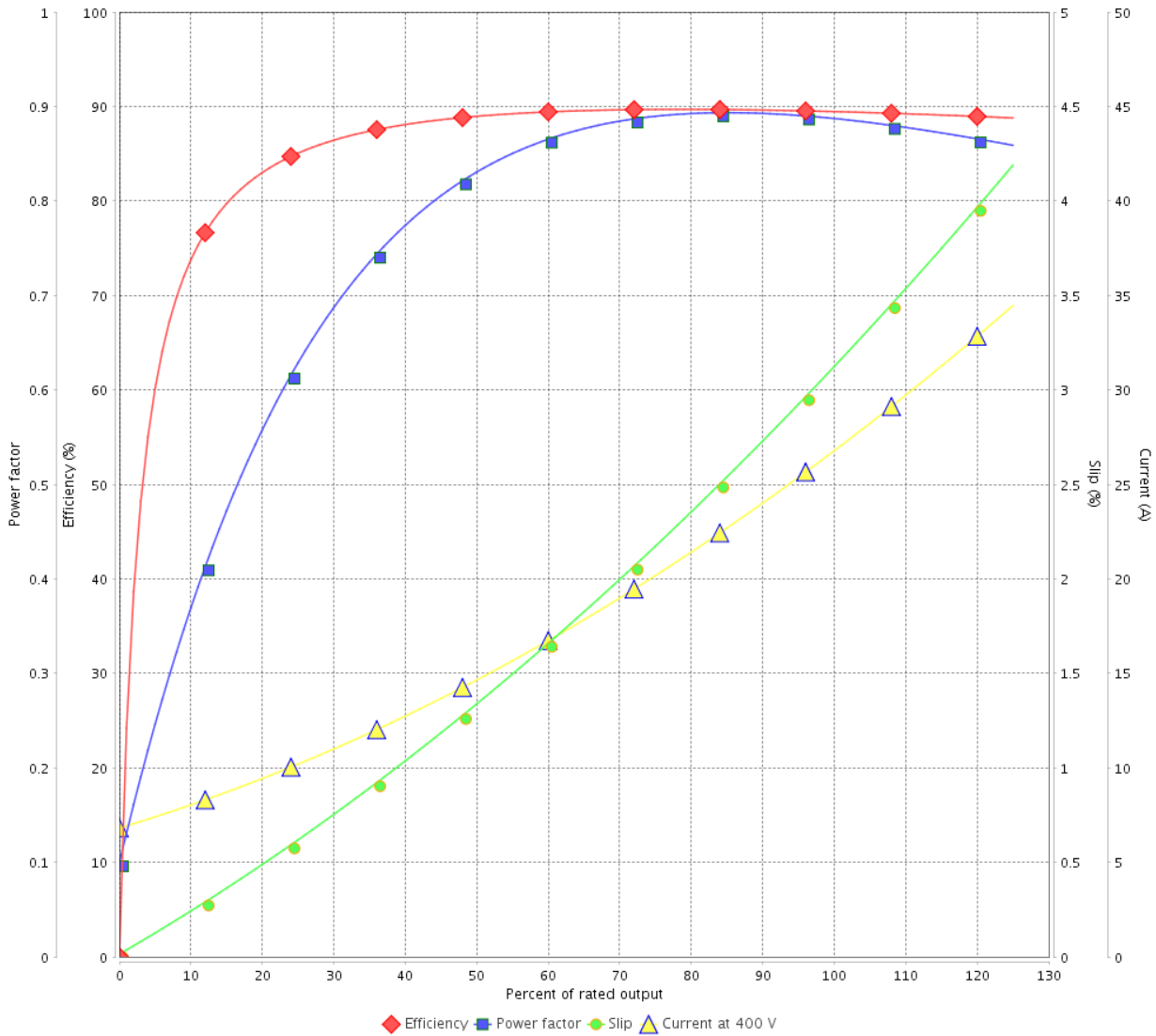
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE1

Rated current : 27.2 A
 LRC : 5.7
 Rated torque : 36.2 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 210 %
 Rated speed : 2905 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 14 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

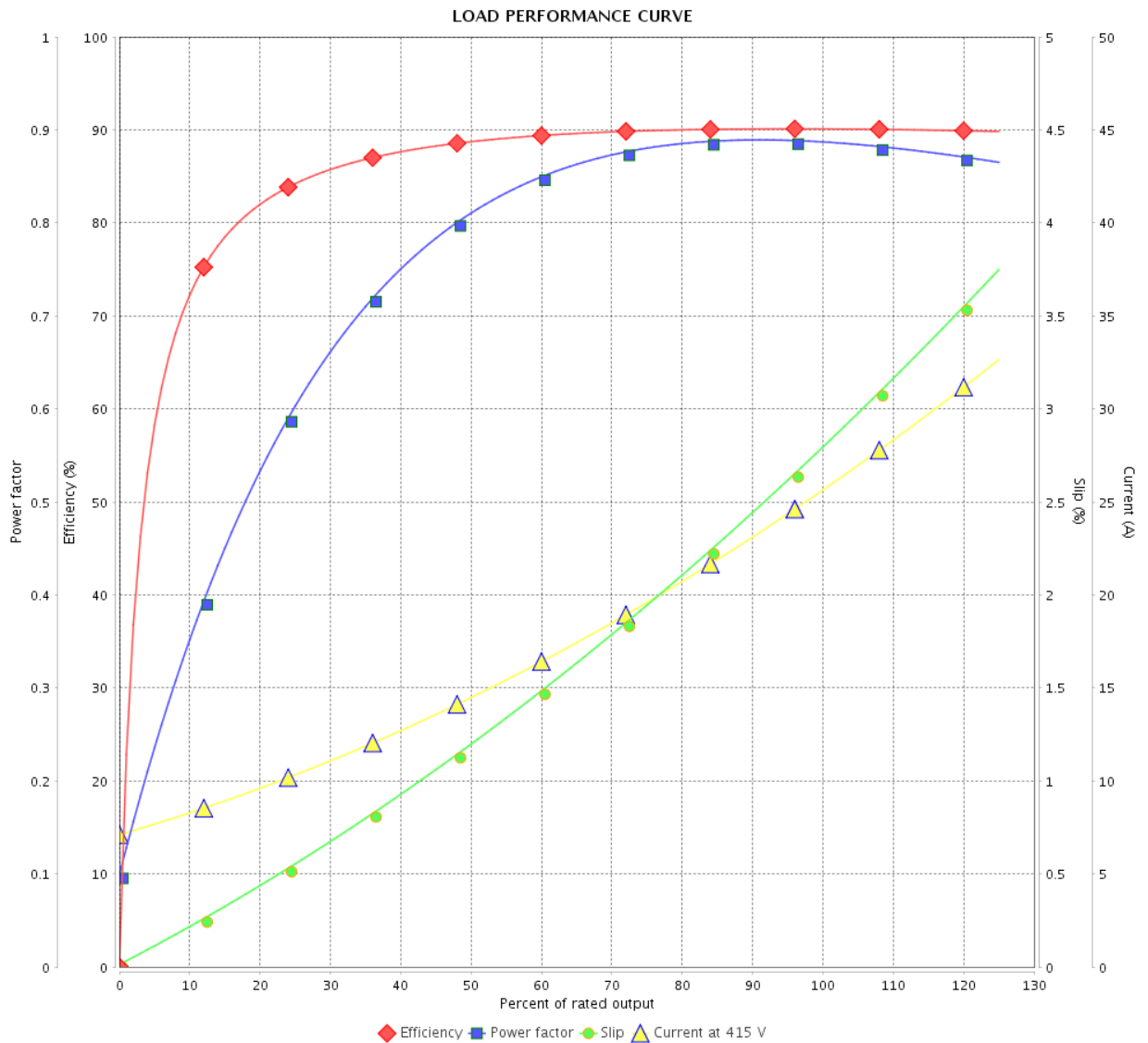


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 415 V 50 Hz 2P IE1

Rated current : 26.2 A
 LRC : 6.1
 Rated torque : 36.0 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 229 %
 Rated speed : 2915 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 15 / 36 | | |
| Date | | 14/04/2022 | | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 230/460 V 60 Hz 2P

| | | | |
|---------------------|---------------|-----------------------|-----------------|
| Rated current | : 46.4/23.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 29.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 3525 rpm | Design | : B |

Heating constant

Cooling constant

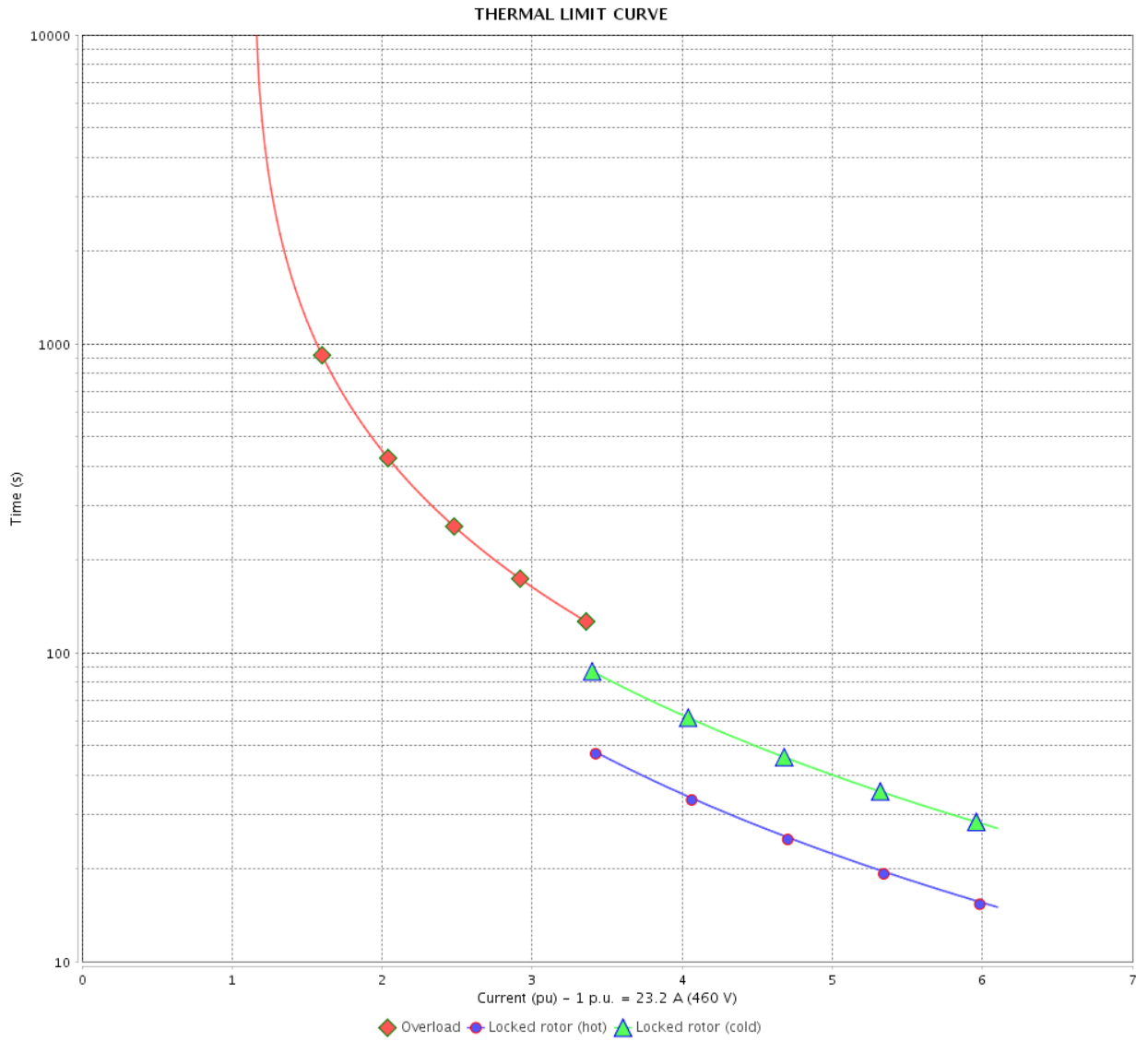
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 16 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 17 / 36 | | |
| Date | | 14/04/2022 | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 380 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 20.4 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 26.9 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.15 |
| Breakdown torque | : 260 % | Temperature rise | : 80 K |
| Rated speed | : 2935 rpm | Design | : B |

Heating constant

Cooling constant

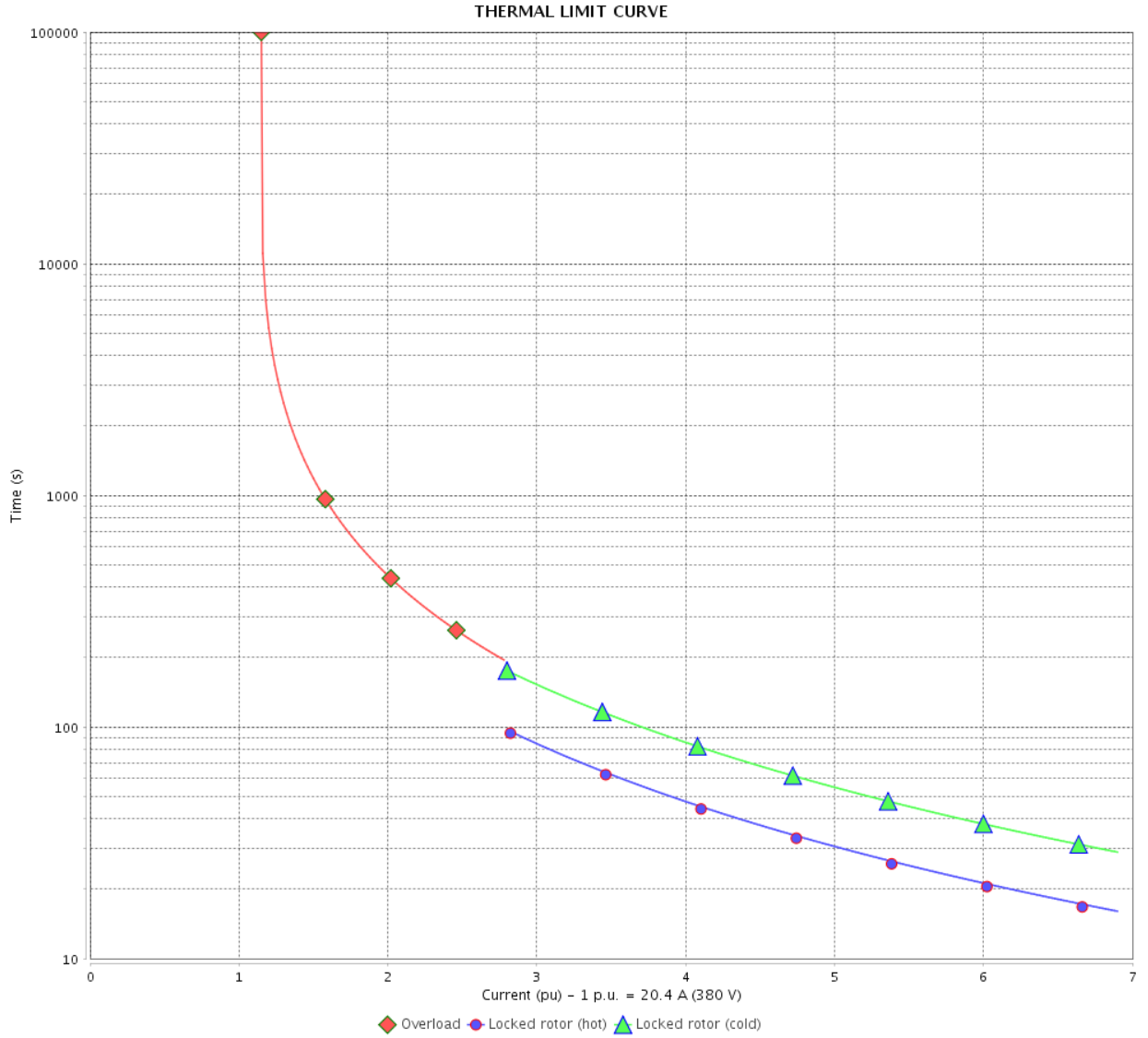
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 18 / 36 | |

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 | | 14/04/2022 | | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 400 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 19.6 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 7.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 26.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.15 |
| Breakdown torque | : 280 % | Temperature rise | : 80 K |
| Rated speed | : 2945 rpm | Design | : B |

Heating constant

Cooling constant

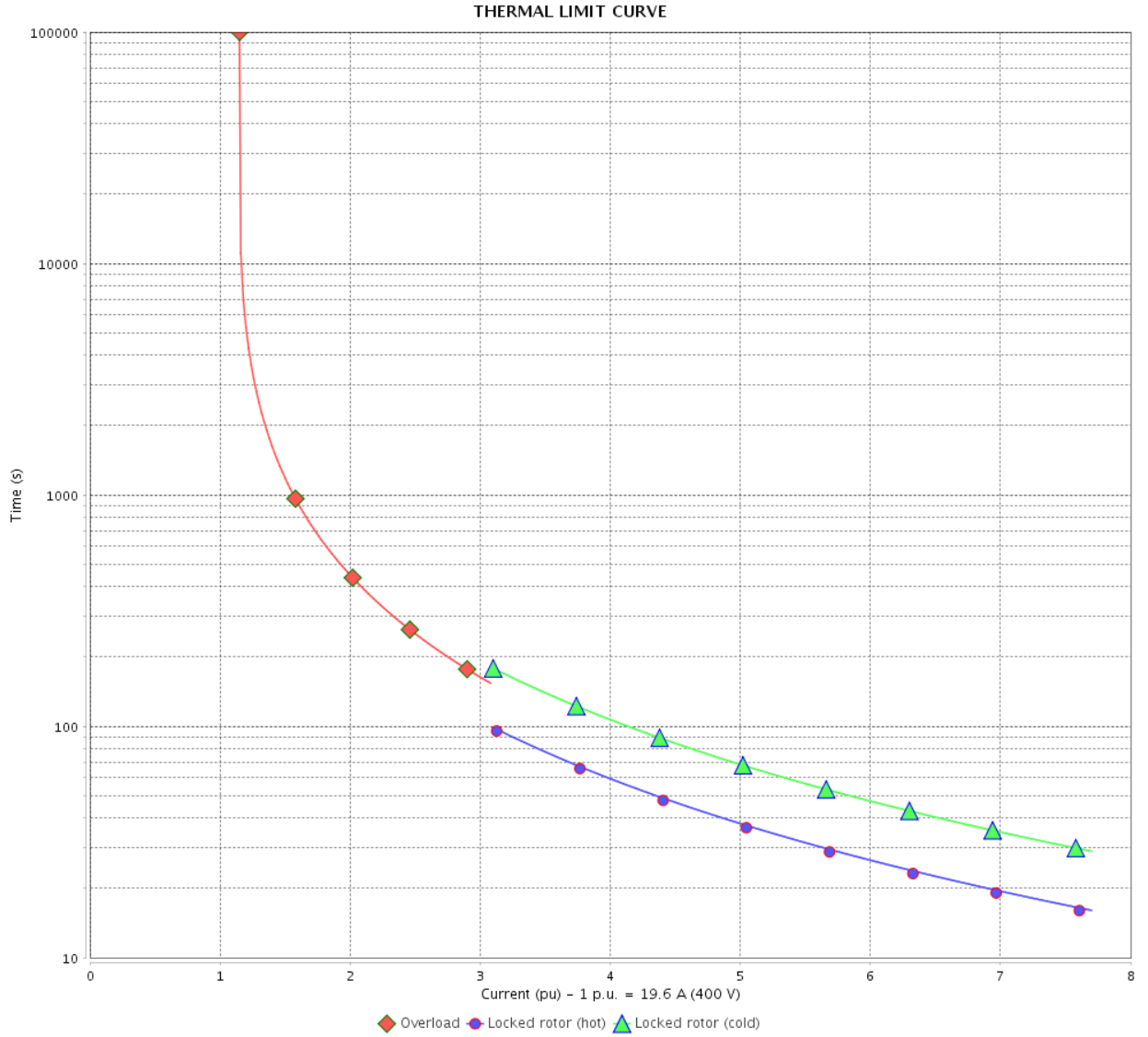
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 20 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------------|---------|----------|
| | | | | |
| Performed by | | Page 21 / 36 | | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 415 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 19.1 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 8.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 26.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 270 % | Service factor | : 1.15 |
| Breakdown torque | : 310 % | Temperature rise | : 80 K |
| Rated speed | : 2950 rpm | Design | : B |

Heating constant

Cooling constant

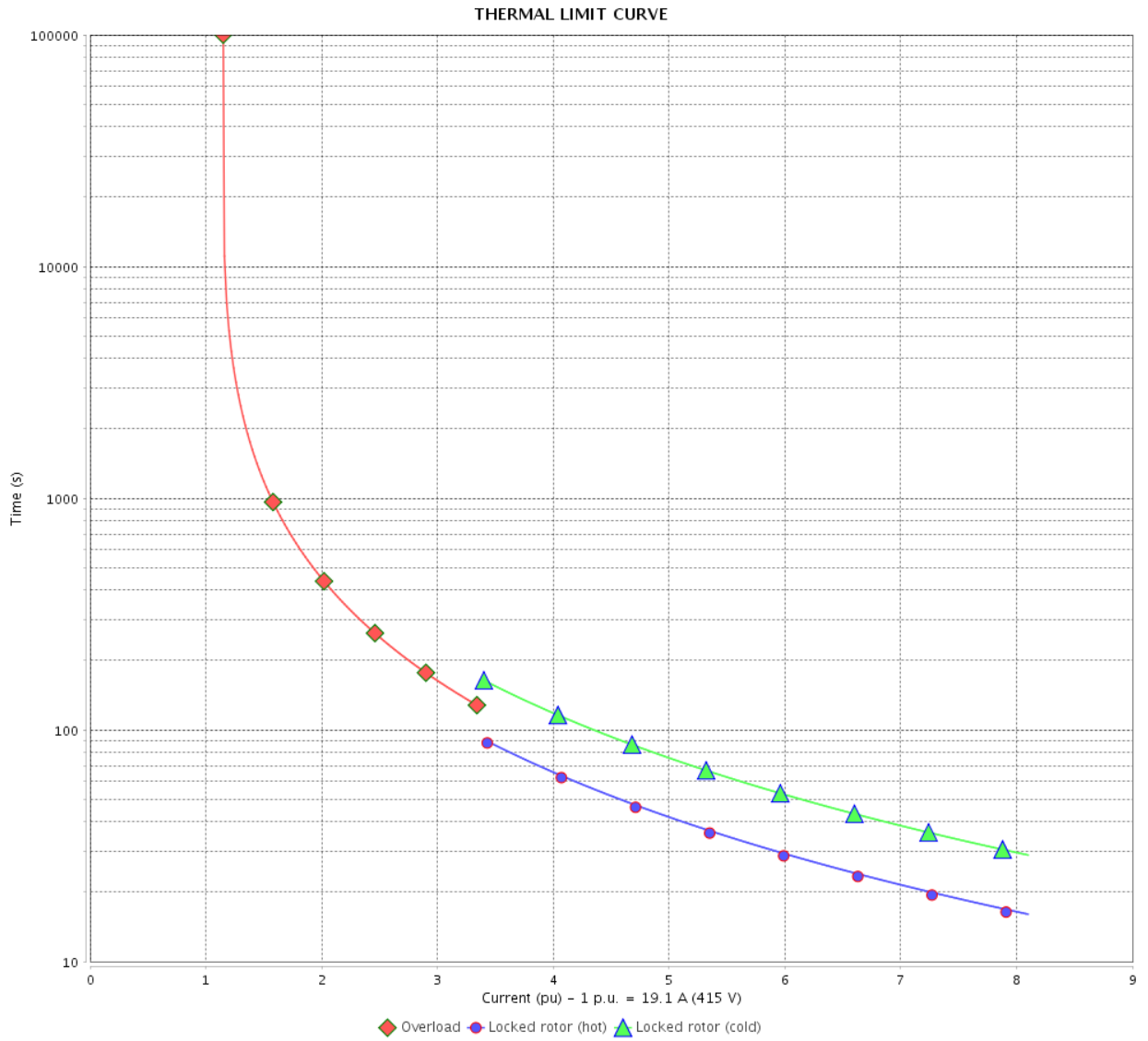
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 22 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|------------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 23 / 36 | | |
| Date | | 14/04/2022 | | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 380 V 50 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 28.9 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 5.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.00 |
| Breakdown torque | : 190 % | Temperature rise | : 105 K |
| Rated speed | : 2885 rpm | Design | : B |

Heating constant

Cooling constant

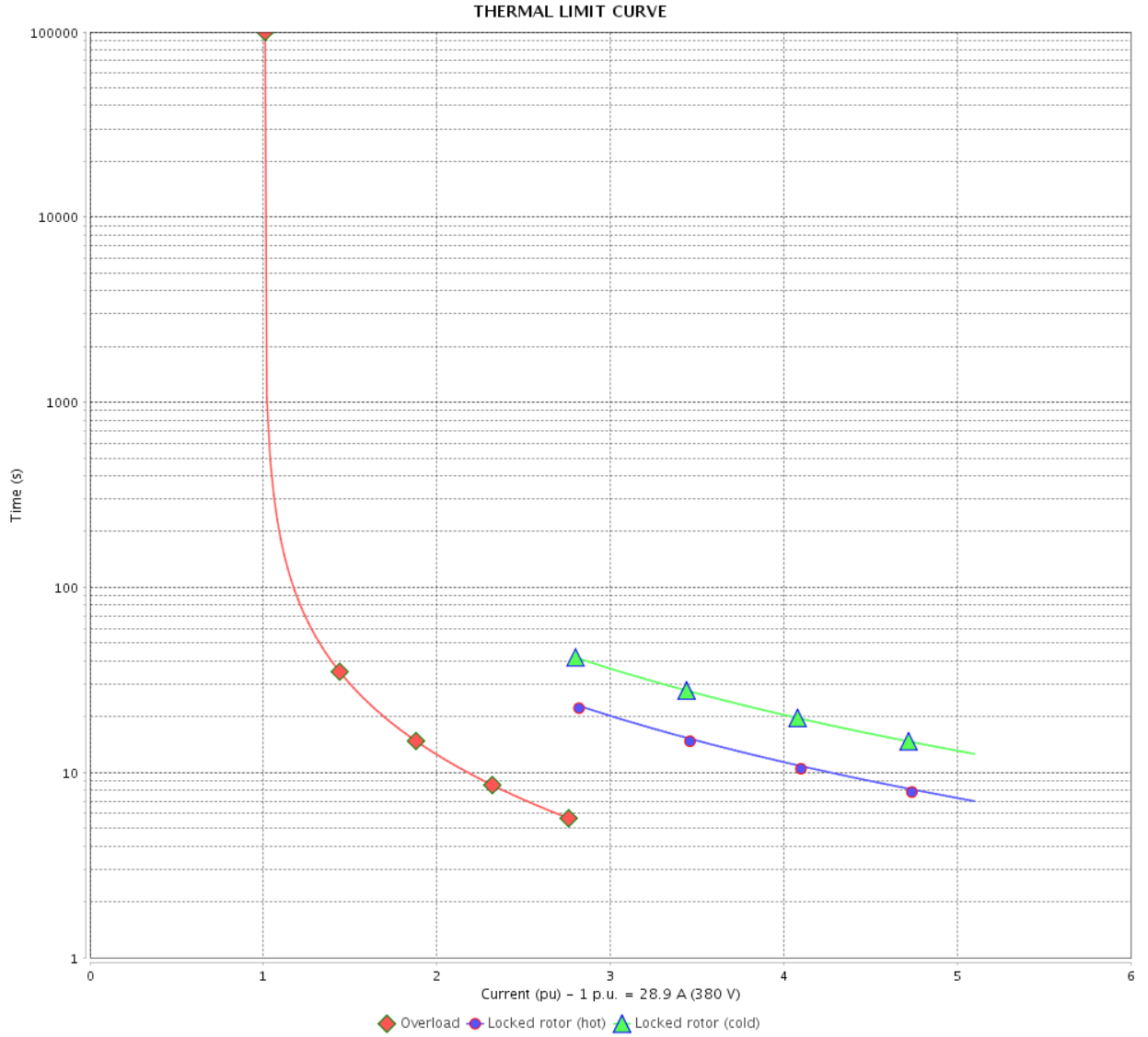
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 24 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | | |
| Date | | | | |
| | | | Page | Revision |
| | | | 25 / 36 | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 400 V 50 Hz 2P IE1

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 27.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 5.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.2 ft.lb | Insulation class | : F |
| Locked rotor torque | : 180 % | Service factor | : 1.00 |
| Breakdown torque | : 210 % | Temperature rise | : 105 K |
| Rated speed | : 2905 rpm | Design | : B |

Heating constant

Cooling constant

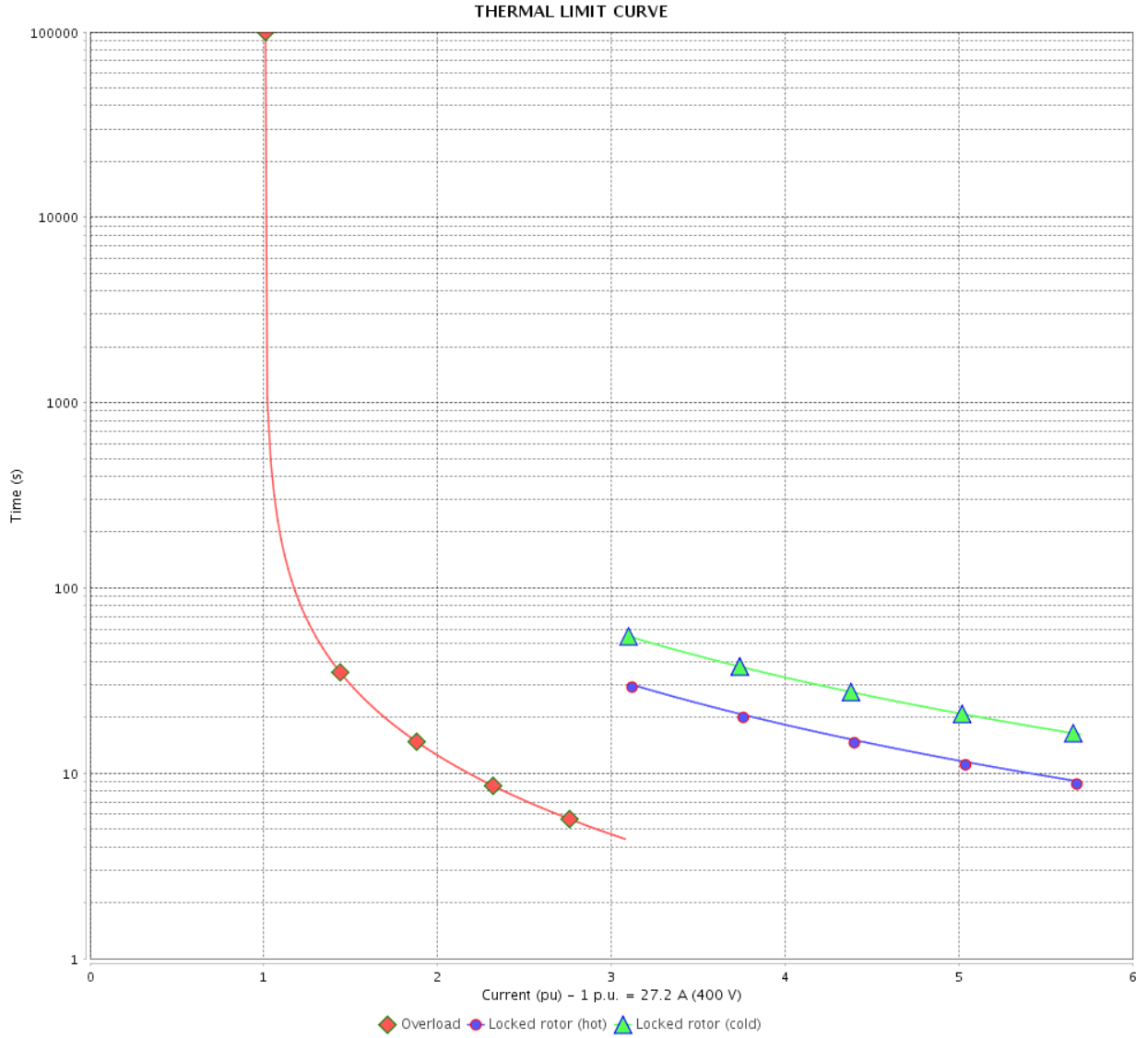
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 26 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------------|---------|----------|
| | | | | |
| Performed by | | Page 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 : 11676040
Catalog # : 02036ET3E256JP-W22

Performance : 415 V 50 Hz 2P IE1

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 26.2 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.0 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 105 K |
| Rated speed | : 2915 rpm | Design | : B |

Heating constant

Cooling constant

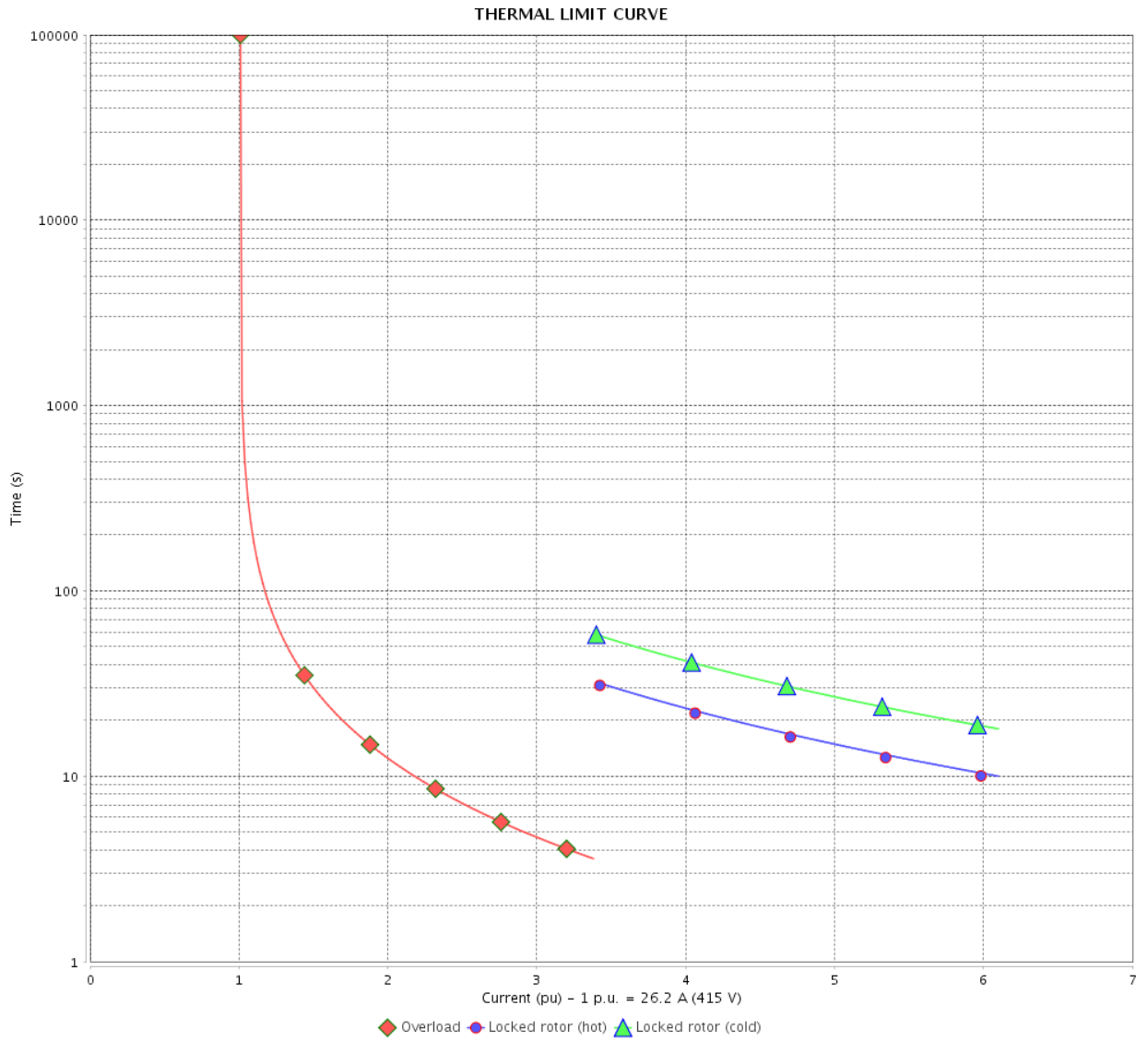
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | | | |
| Checked by | | | Page | Revision |
| Date | 14/04/2022 | | 28 / 36 | |

THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

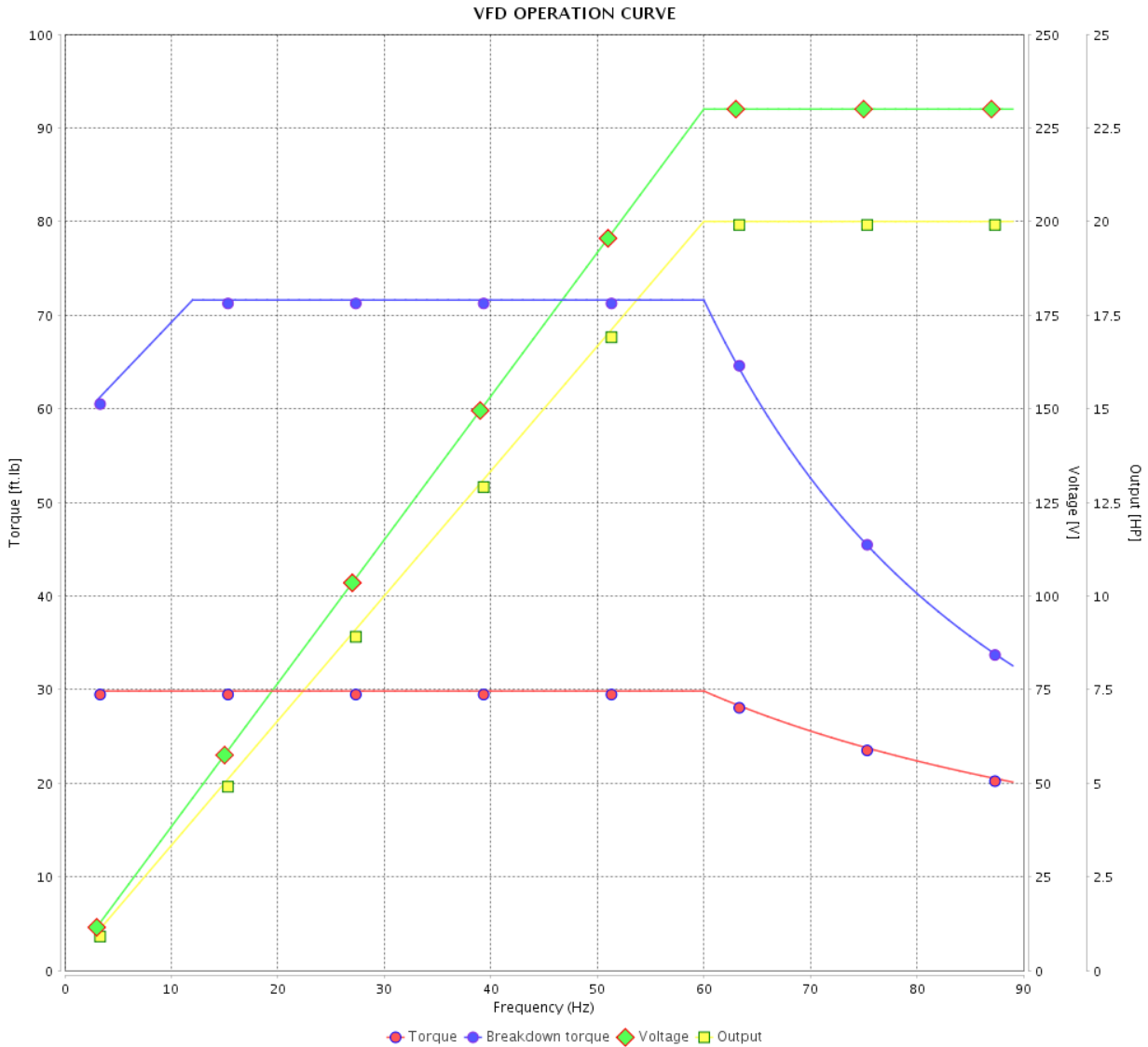


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 230/460 V 60 Hz 2P

Rated current : 46.4/23.2 A
 LRC : 6.1
 Rated torque : 29.8 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 240 %
 Rated speed : 3525 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 30 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

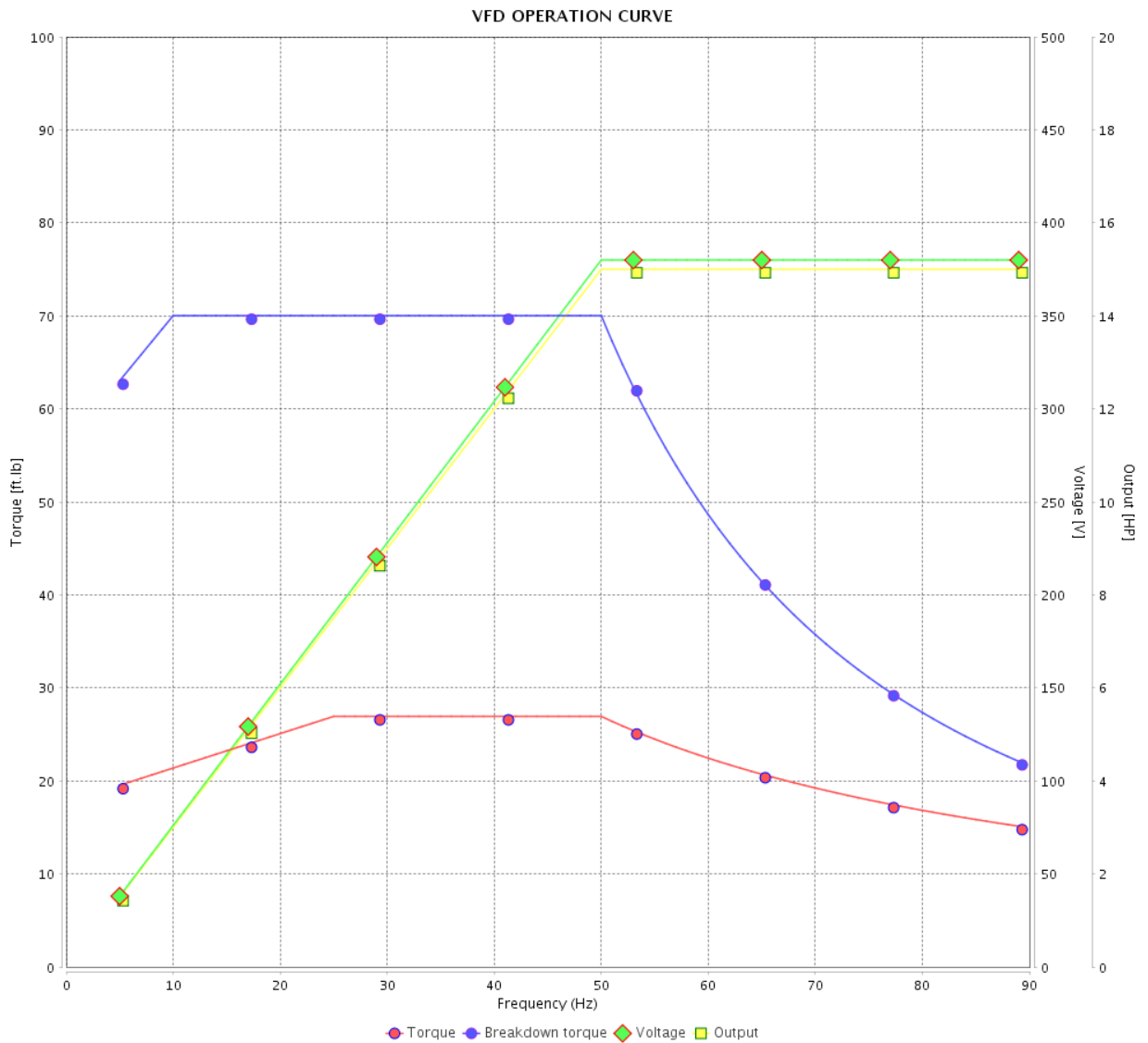


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 380 V 50 Hz 2P IE3

Rated current : 20.4 A
 LRC : 6.9
 Rated torque : 26.9 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 260 %
 Rated speed : 2935 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 31 / 36 | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



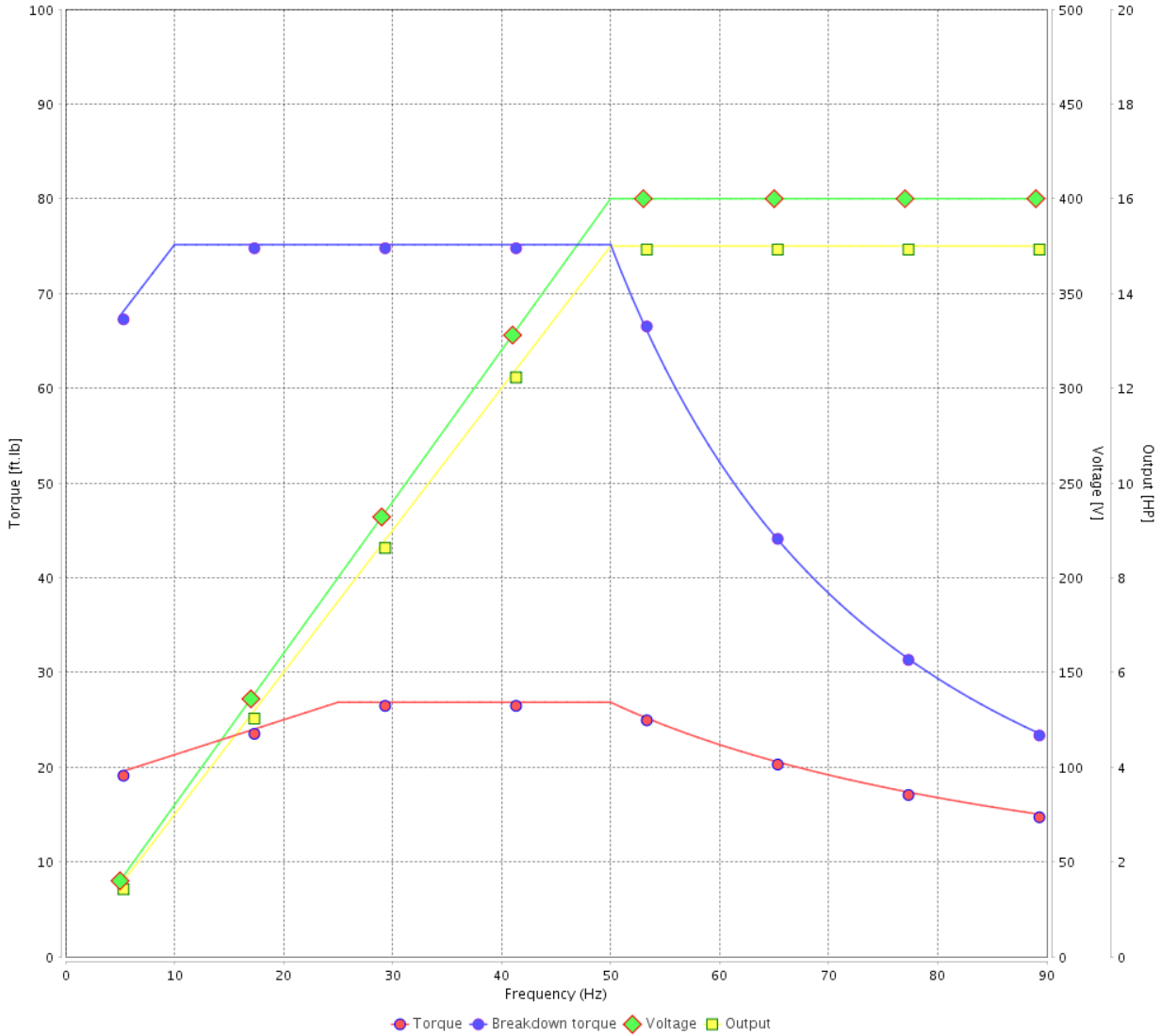
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22

VFD OPERATION CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 19.6 A
 LRC : 7.7
 Rated torque : 26.8 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 280 %
 Rated speed : 2945 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 32 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

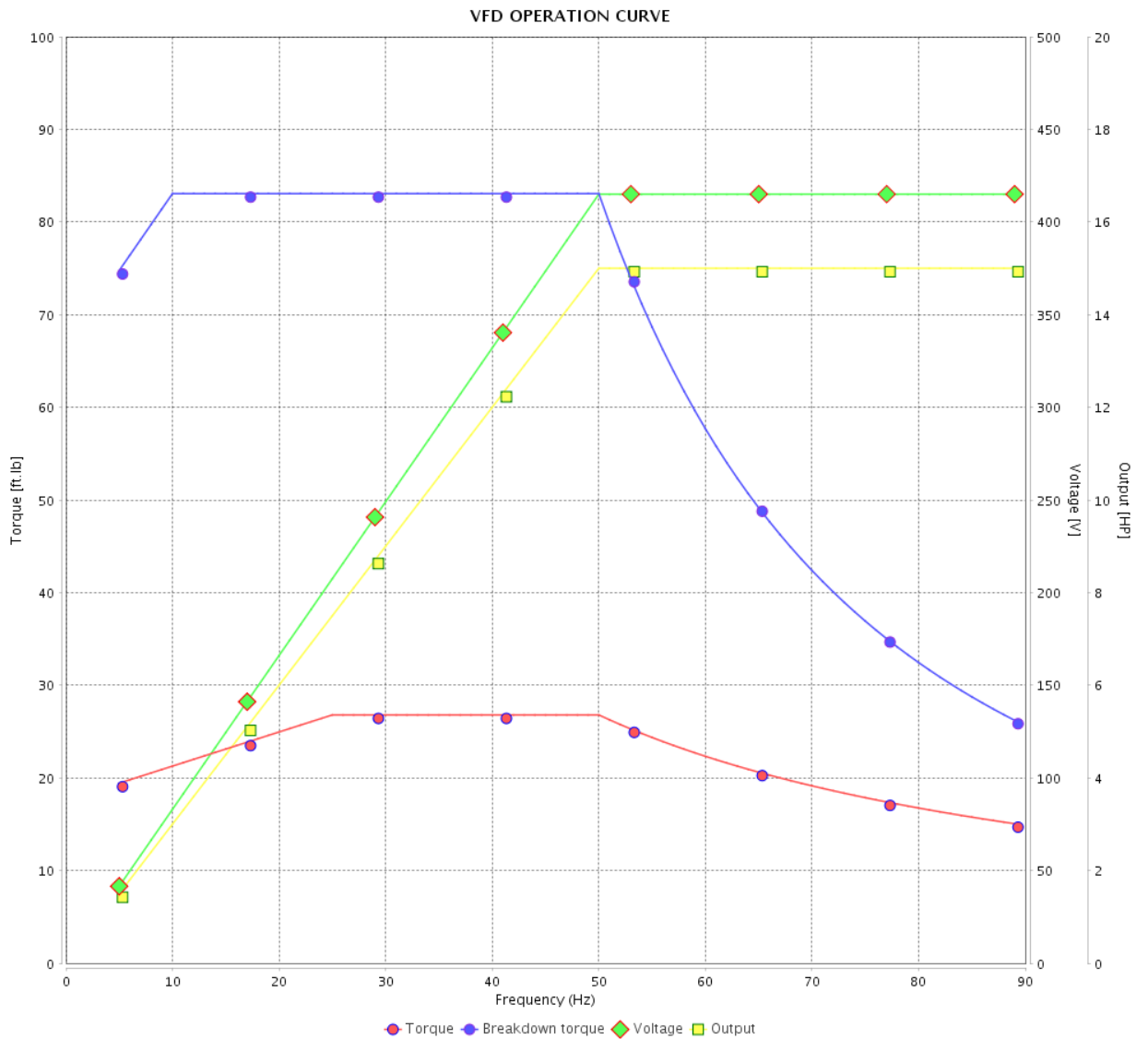


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 415 V 50 Hz 2P IE3

Rated current : 19.1 A
 LRC : 8.1
 Rated torque : 26.8 ft.lb
 Locked rotor torque : 270 %
 Breakdown torque : 310 %
 Rated speed : 2950 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 33 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

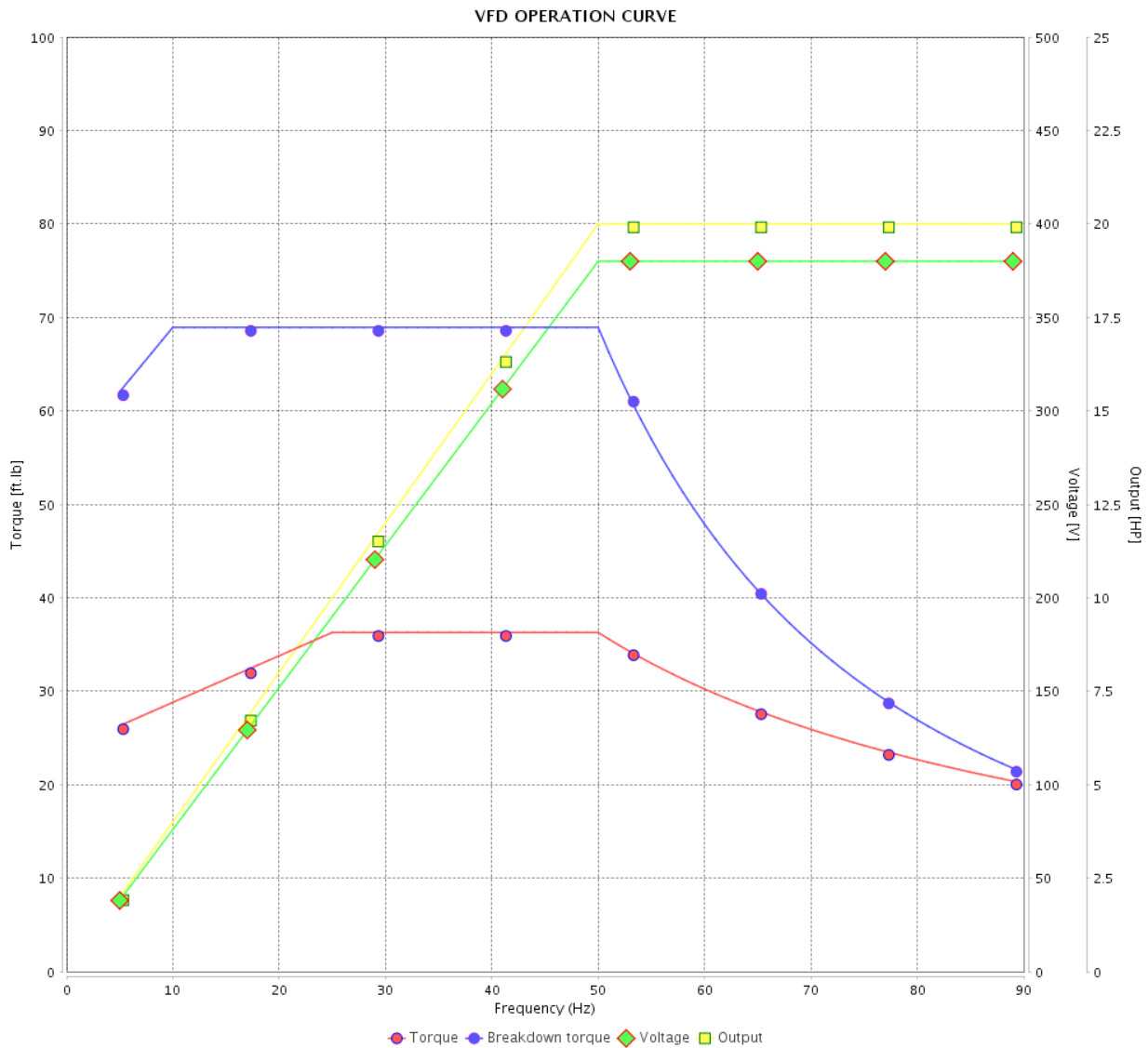


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 380 V 50 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 28.9 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 5.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 36.3 ft.lb | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.00 |
| Breakdown torque | : 190 % | Temperature rise | : 105 K |
| Rated speed | : 2885 rpm | Design | : B |

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 34 / 36 | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

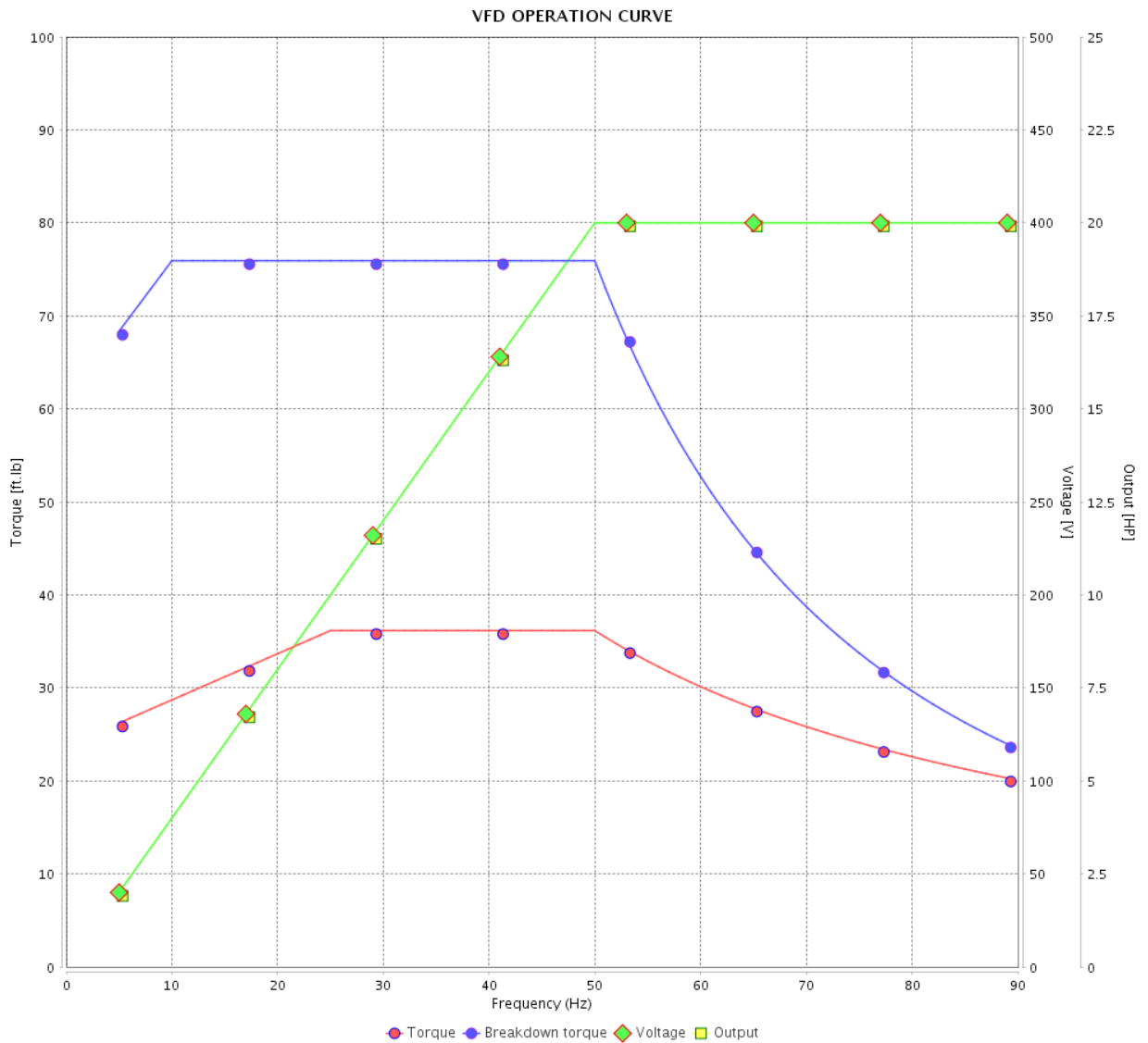


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 400 V 50 Hz 2P IE1

Rated current : 27.2 A
 LRC : 5.7
 Rated torque : 36.2 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 210 %
 Rated speed : 2905 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|---------|----------|
| | | | | |
| Performed by | | Page | | Revision |
| Checked by | | 35 / 36 | | |
| Date | 14/04/2022 | | | |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

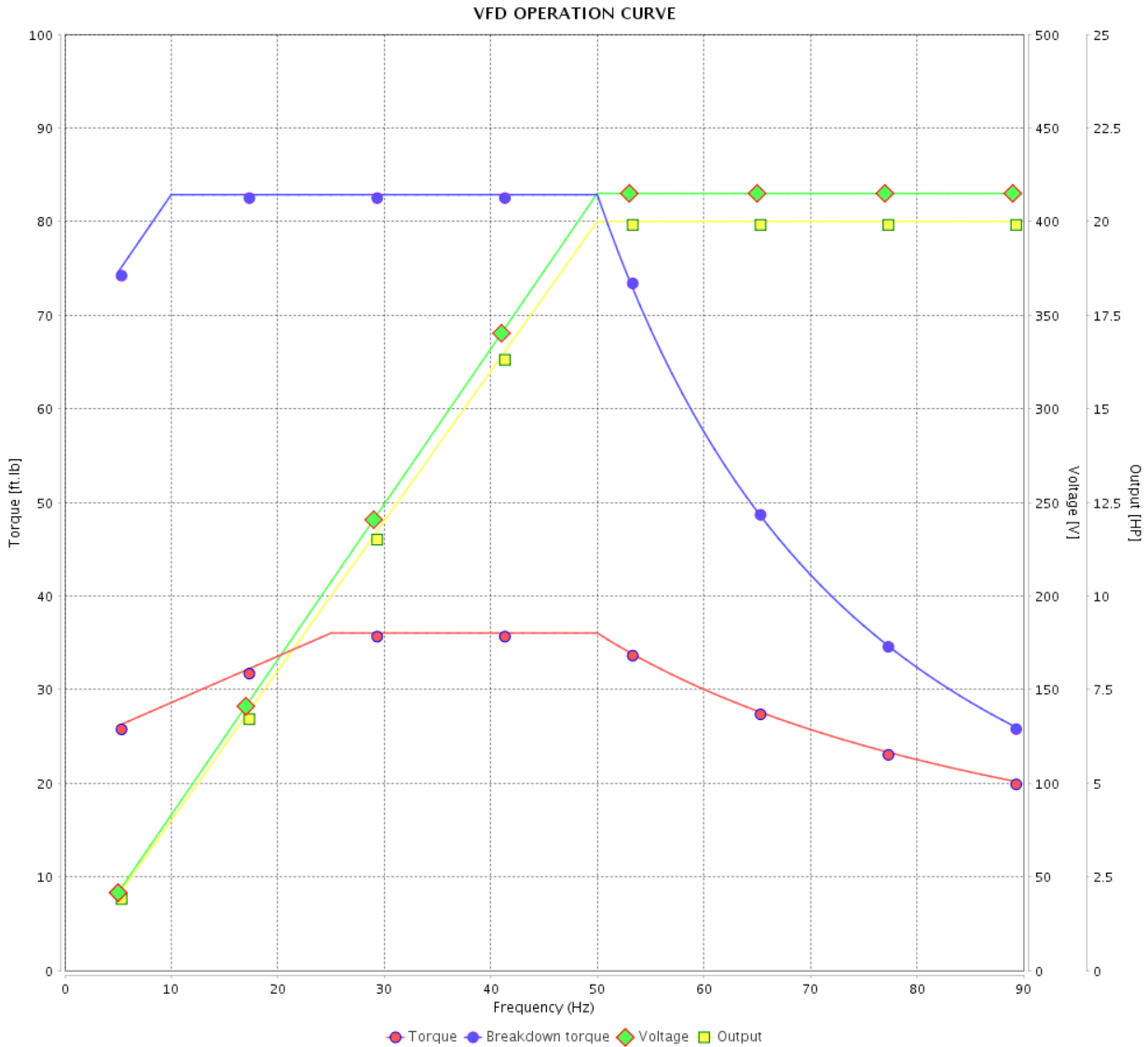


Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11676040

Catalog # : 02036ET3E256JP-W22



Performance : 415 V 50 Hz 2P IE1

Rated current : 26.2 A
 LRC : 6.1
 Rated torque : 36.0 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 229 %
 Rated speed : 2915 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

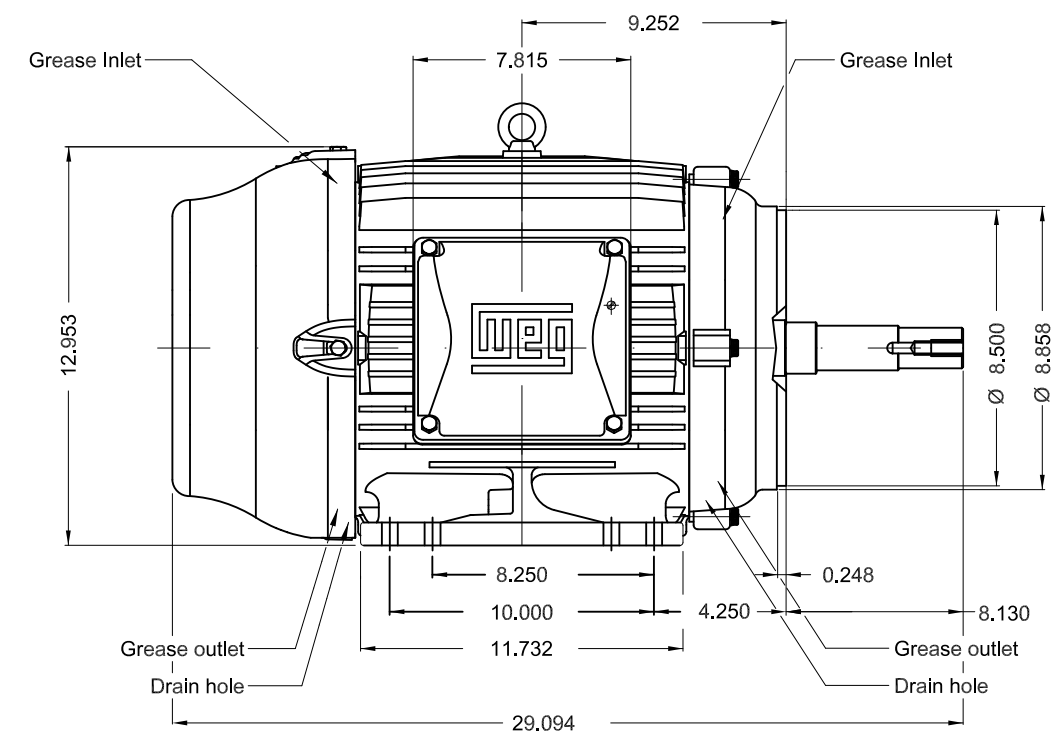
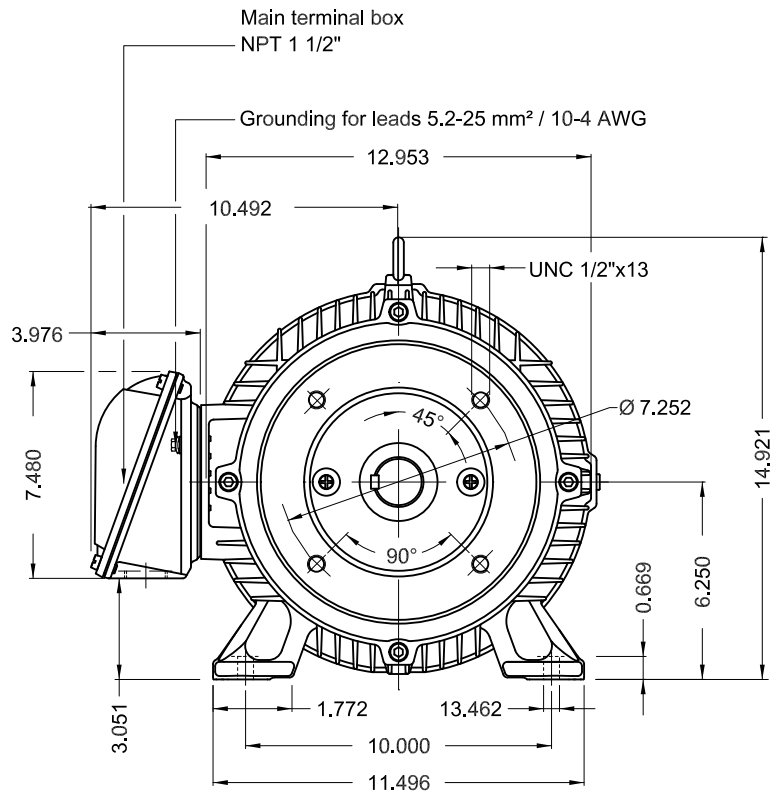
| Rev. | Changes Summary | Performed | Checked | Date |
|--------------|-----------------|-----------|-----------------|----------|
| | | | | |
| Performed by | | | Page 36 / 36 | Revision |
| Checked by | | | | |
| Date | 14/04/2022 | | | |

1 2 3 4 5 6

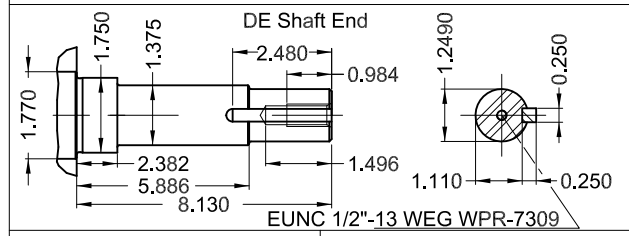
A

B

C



D



E

Without vertical jackscrews
 Color RAL 5009
 Painting plan 203A
 Mounting B34R(D)

20 HP 02 Poles 60 Hz A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|----------|---|---------------------|---------|----------|------|-----|
| EXECUTED | PIRBUSER | THREE PH. MOTOR JM/JP/JET PUMP W22 PREM. EFF. | | | | | |
| CHECKED | | FRAME 254/6JP IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
 WDD



WEG **W22 NEMA**
CC029A Premium

*Inverter Duty Motor
 Severe Duty*



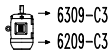
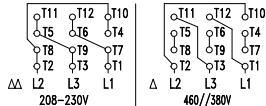
FOR SAFE AREA
 MOD.TE1BFOXON



For 60Hz: Class I, Div 2, Gr. A, B, C and D - T3
 Class I, Zone 2, IIC - T3
 Class II, Div 2, Gr. F and G - T4
 For 60Hz use on PWM, Gr. A, B, C, D and F,
 VT 1000:1, CT 20:1, 1.0SF, T3A

MODEL 02036ET3E256JP-W22
 MADE IN MEXICO
 11676040

| | | | |
|---------------------|--------------------|-------------------|---------------|
| PH 3 | FR 254/6JP | HP(kW) 20.0(15.0) | Hz 60 |
| V 230/460 | A 46.4/23.2 | RPM 3520 | DES B |
| NEMA NOM EFF 91.0 % | INS. CL. F ΔT 80 K | IP55 | |
| ENCL TEFC | DUTY CONT. | AMB. 40°C | |
| CODE G | PF 0.89 | SF 1.25 | SFA 58.0/29.0 |
| USABLE @208V | 51.3 A | SF 1.15 | SFA 59.0 |
| 20HP 15kW 50Hz 380V | 28.6A 2895RPM | SF1.00 | EFF 88.5% |



MOBIL POLYREX EM
 13 g 19000 h

ALT 1000 m.a.s.l. 306 Lbs