

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|--|--|--------------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line | : W40 NEMA Premium Efficiency Three-Phase | Product code : | 14497425 | | |
| | | Catalog # : | 06036OT3E326TS-W40 | | |
| Frame | : 324/6TS | Cooling method | : IC01 - ODP | | |
| 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 | : 473 lb | | |
| Protection degree | : IP23 | Moment of inertia (J) | : 3.82 sq.ft.lb | | |
| Design | : B | | | | |
| Output [HP] | 60 | 50 | 50 | 50 | |
| Poles | 2 | 2 | 2 | 2 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | |
| Rated current [A] | 142/71.0 | 69.8 | 68.7 | 69.5 | |
| L. R. Amperes [A] | 895/447 | 482 | 460 | 473 | |
| LRC [A] | 6.3x(Code G) | 6.9x(Code H) | 6.7x(Code H) | 6.8x(Code H) | |
| No load current [A] | 50.0/25.0 | 23.0 | 27.0 | 30.0 | |
| Rated speed [RPM] | 3560 | 2960 | 2960 | 2965 | |
| Slip [%] | 1.11 | 1.33 | 1.33 | 1.17 | |
| Rated torque [ft.lb] | 88.5 | 88.7 | 88.7 | 88.6 | |
| Locked rotor torque [%] | 220 | 220 | 240 | 260 | |
| Breakdown torque [%] | 229 | 229 | 250 | 270 | |
| Service factor | 1.25 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 27s (cold) 15s (hot) | 28s (cold) 16s (hot) | 25s (cold) 14s (hot) | 23s (cold) 13s (hot) | |
| Noise level ² | 75.0 dB(A) | | | | |
| Efficiency (%) | 25% | 91.7 | 88.9 | 89.0 | 89.2 |
| | 50% | 92.4 | 90.5 | 90.6 | 90.7 |
| | 75% | 93.0 | 92.0 | 92.1 | 92.2 |
| | 100% | 93.6 | 93.7 | 93.7 | 93.7 |
| Power Factor | 25% | 0.48 | 0.50 | 0.43 | 0.38 |
| | 50% | 0.73 | 0.73 | 0.67 | 0.60 |
| | 75% | 0.82 | 0.82 | 0.77 | 0.72 |
| | 100% | 0.85 | 0.86 | 0.83 | 0.79 |
| Bearing type | : <u>Drive end</u> 6312 Z C3 | <u>Non drive end</u> 6211 Z C3 | Foundation loads | | |
| Sealing | : Without | Without | Max. traction | | |
| | Bearing Seal | Bearing Seal | Max. compression | | |
| Lubrication interval | : 19658 h | 20000 h | | | |
| Lubricant amount | : 21 g | 11 g | | | |
| Lubricant type | : Mobil Polyrex EM | | | | |
| Notes USABLE @208V 157A SF 1.15 SFA 181A | | | | | |
| 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 |
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| Checked by | | | | Page | Revision |
| Date | 13/04/2022 | | | 1 / 21 | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

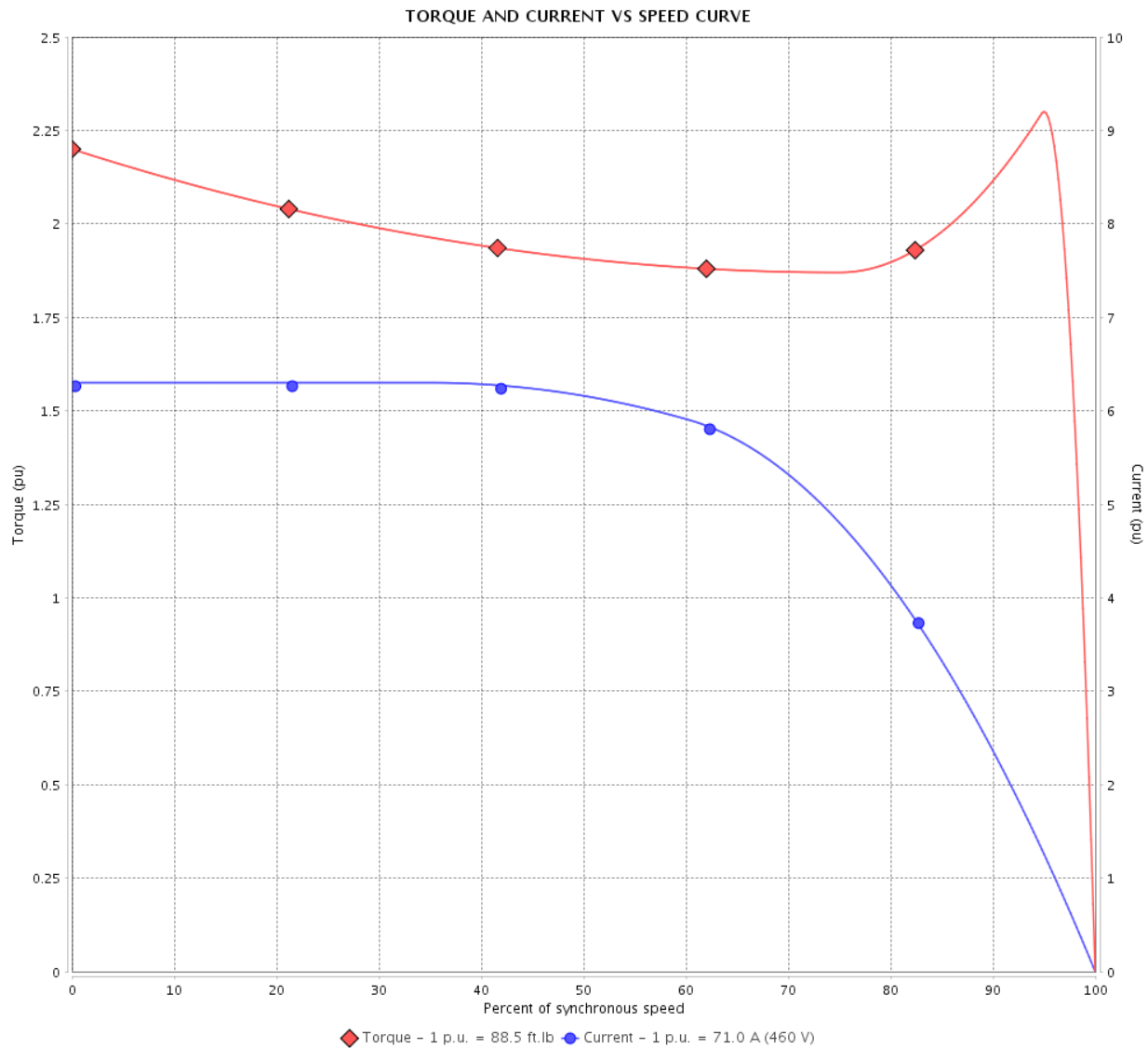


Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40



Performance : 230/460 V 60 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 142/71.0 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.3 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.5 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.25 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 3560 rpm | Design | : B |

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

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



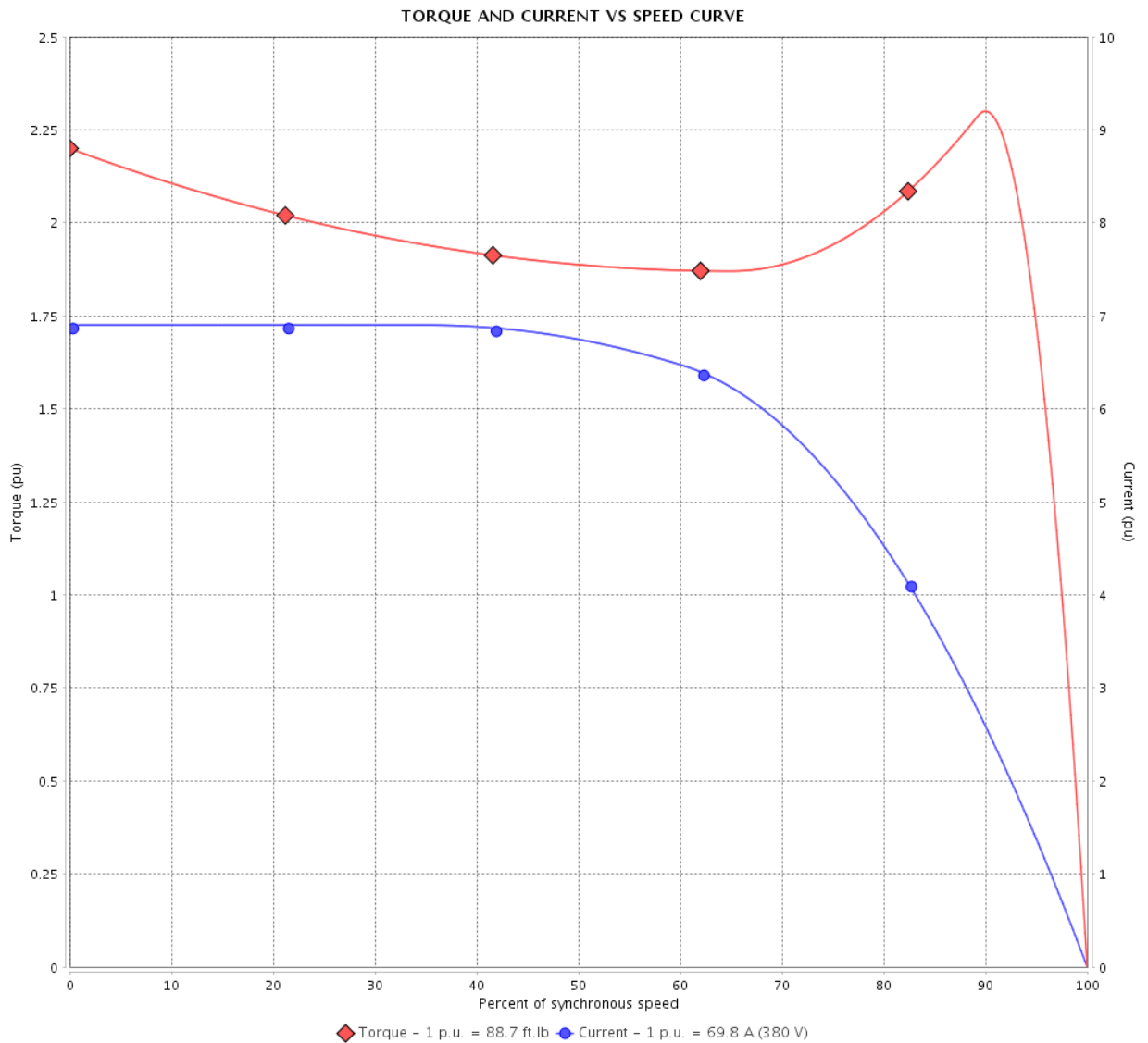
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40



Performance : 380 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 69.8 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.7 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 2960 rpm | Design | : B |

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

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

Three Phase Induction Motor - Squirrel Cage



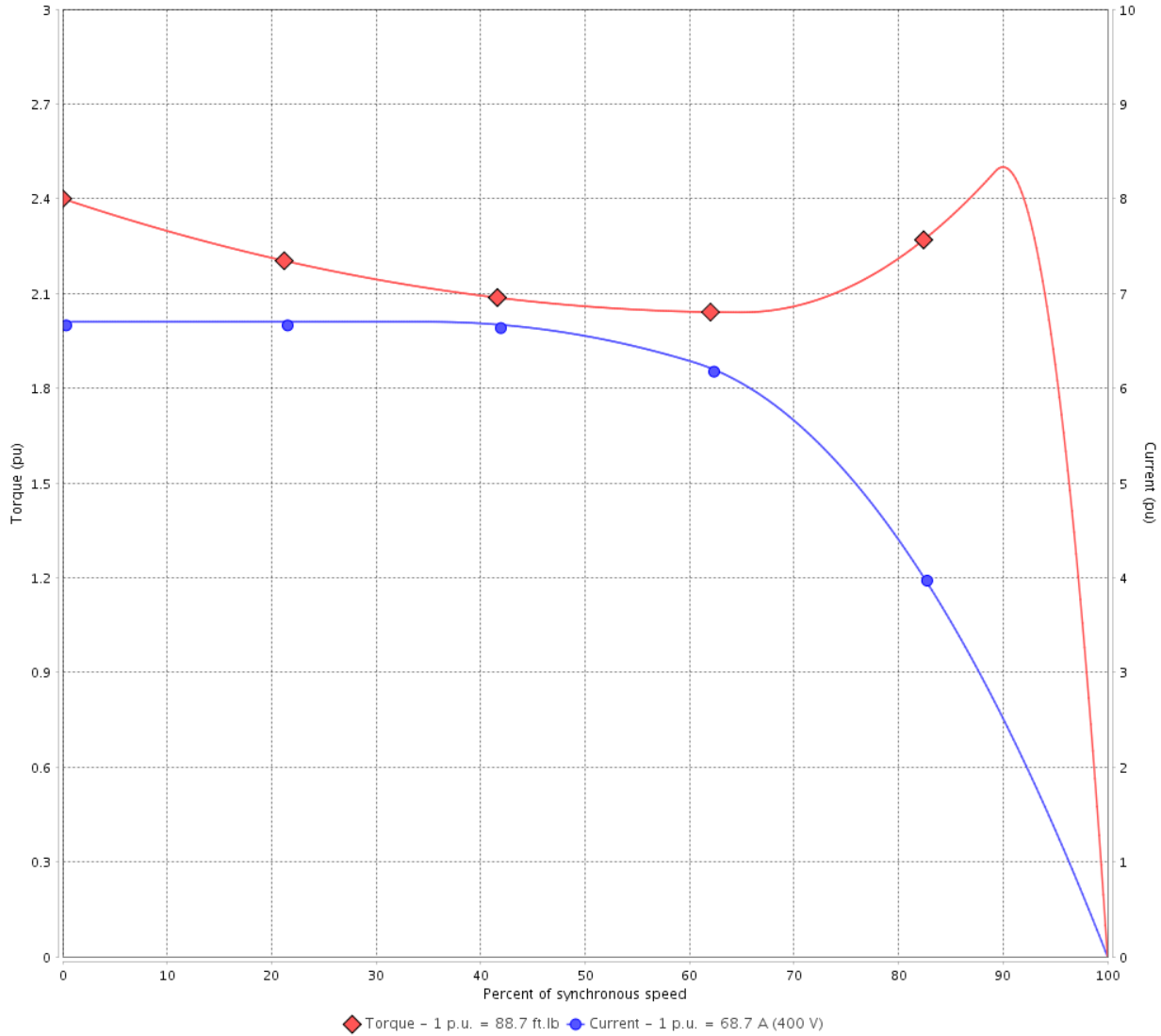
Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

TORQUE AND CURRENT VS SPEED CURVE



Performance : 400 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 68.7 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.7 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.00 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 2960 rpm | Design | : B |

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

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TORQUE AND CURRENT VS SPEED CURVE



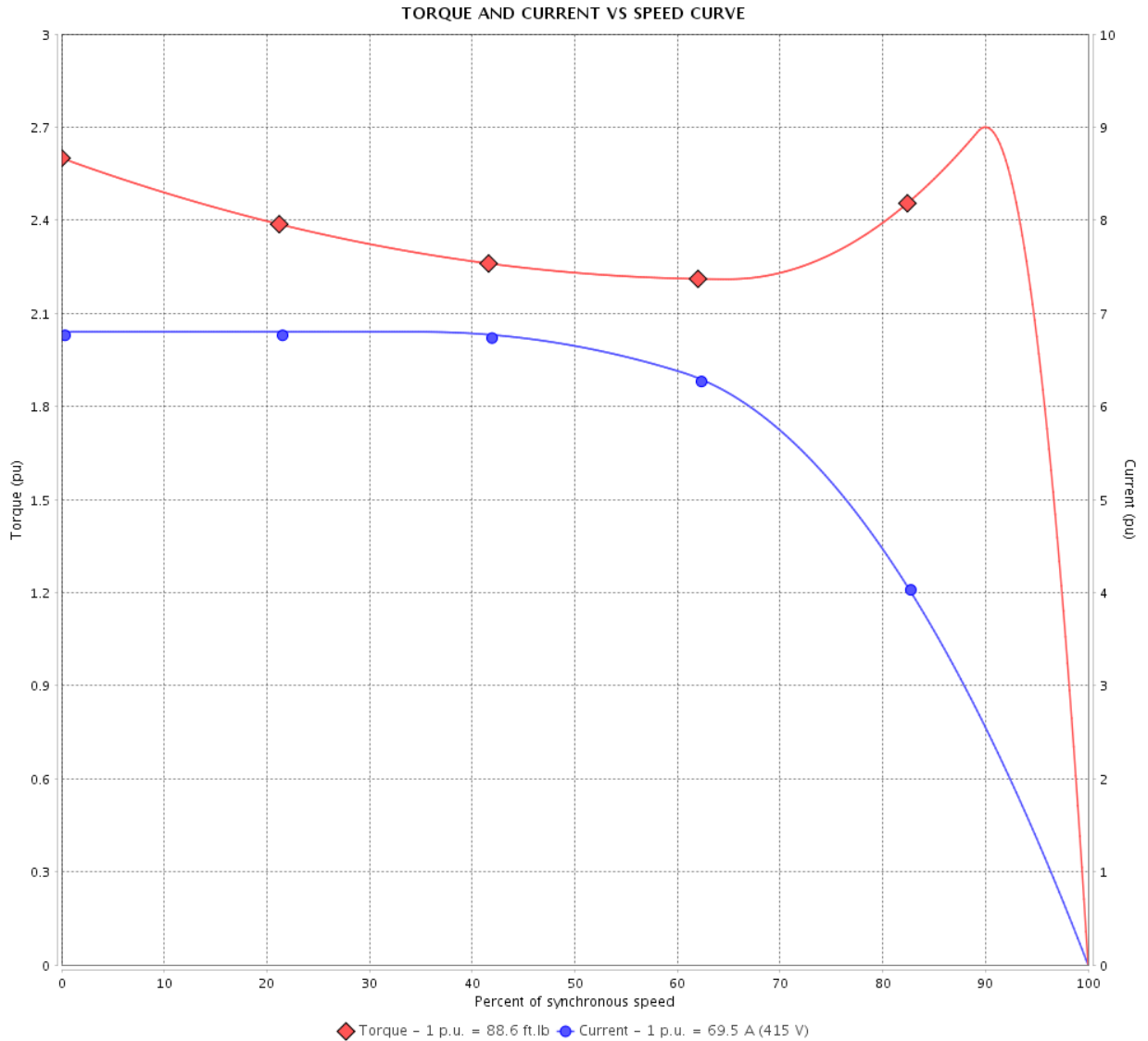
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 69.5 A
LRC : 6.8
Rated torque : 88.6 ft.lb
Locked rotor torque : 260 %
Breakdown torque : 270 %
Rated speed : 2965 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.00
Temperature rise : 80 K
Design : B

Locked rotor time : 23s (cold) 13s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



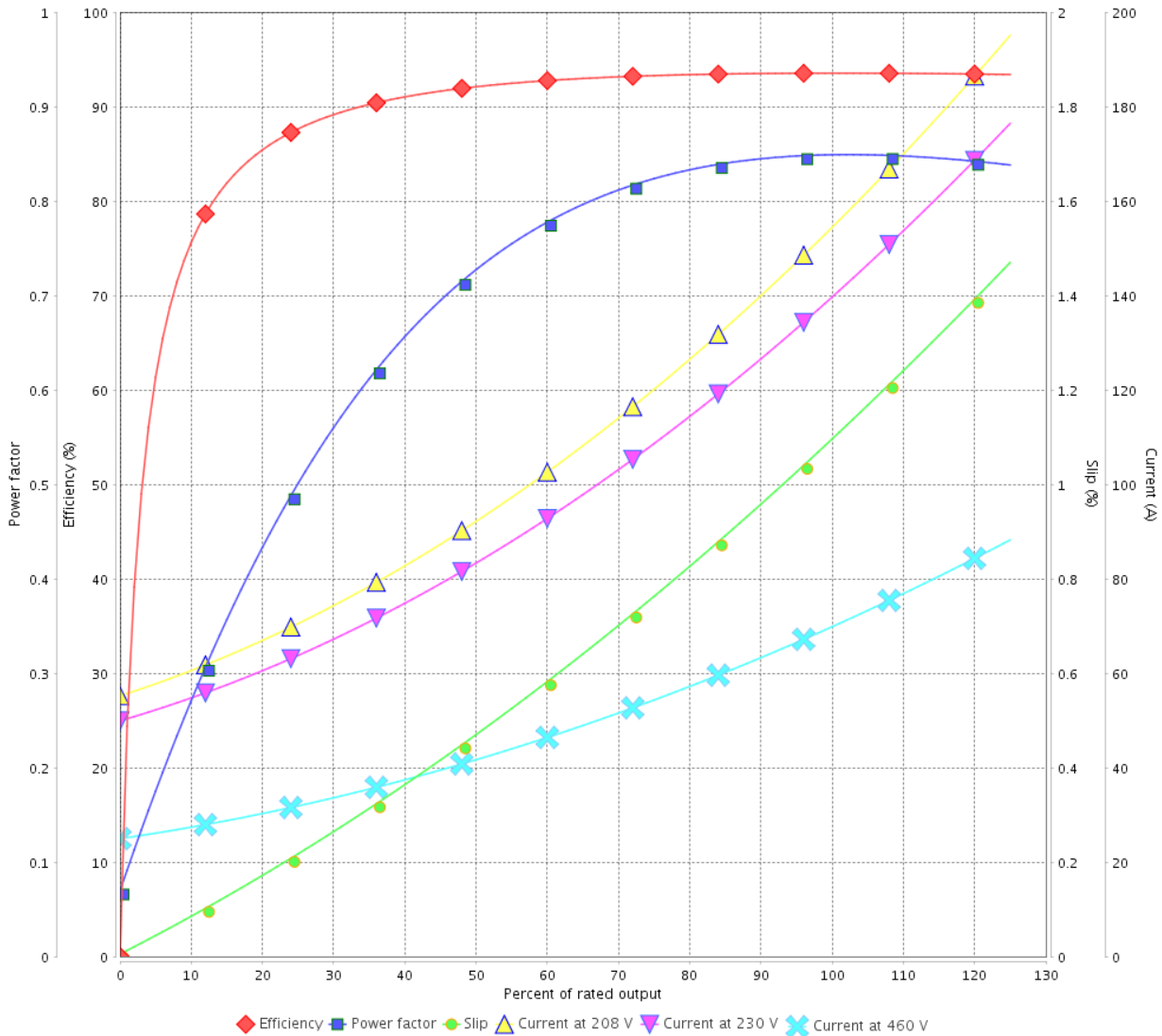
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

LOAD PERFORMANCE CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 142/71.0 A
 LRC : 6.3
 Rated torque : 88.5 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 3560 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

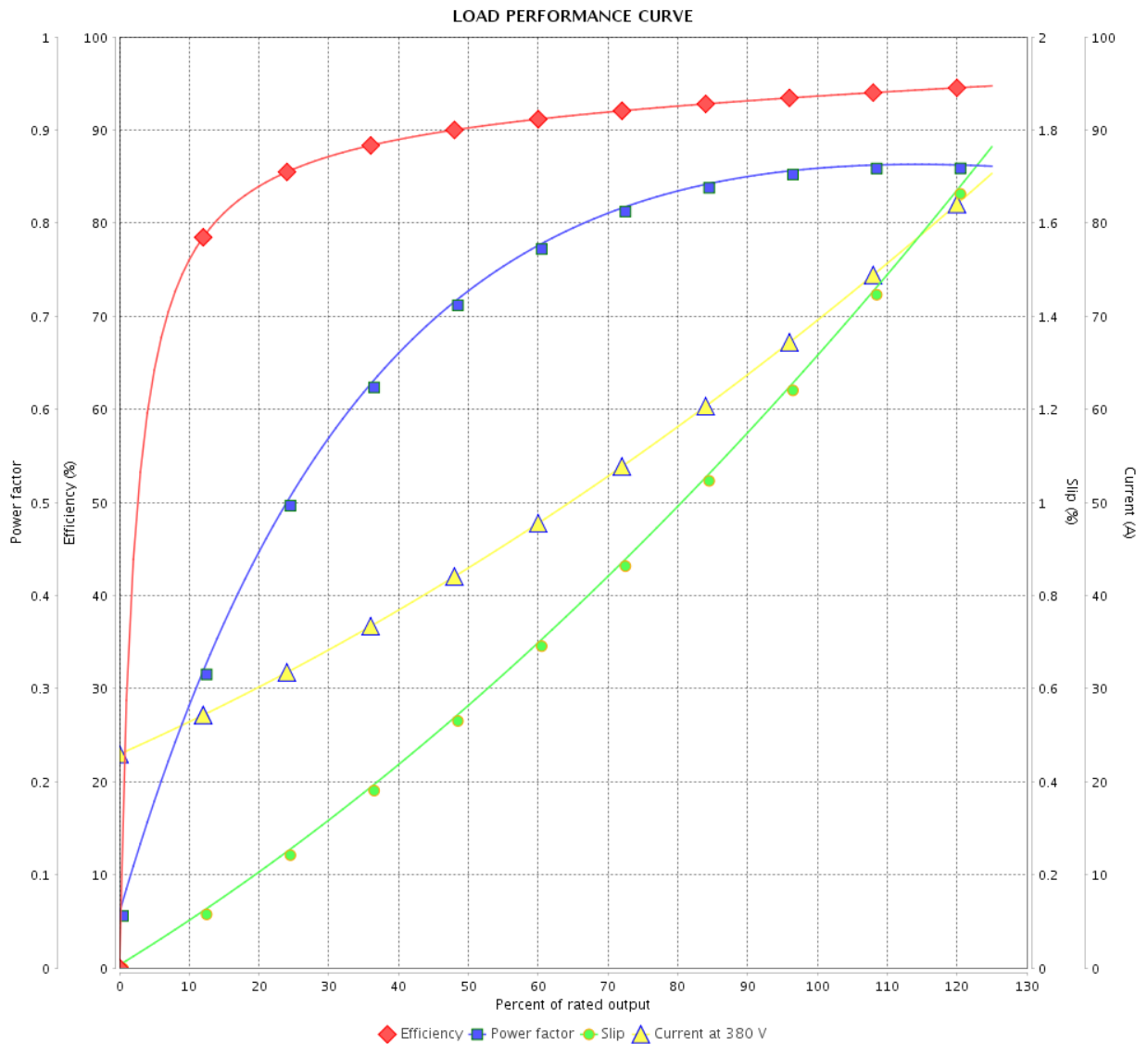


Customer :

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Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40



Performance : 380 V 50 Hz 2P IE3

Rated current : 69.8 A
 LRC : 6.9
 Rated torque : 88.7 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 229 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



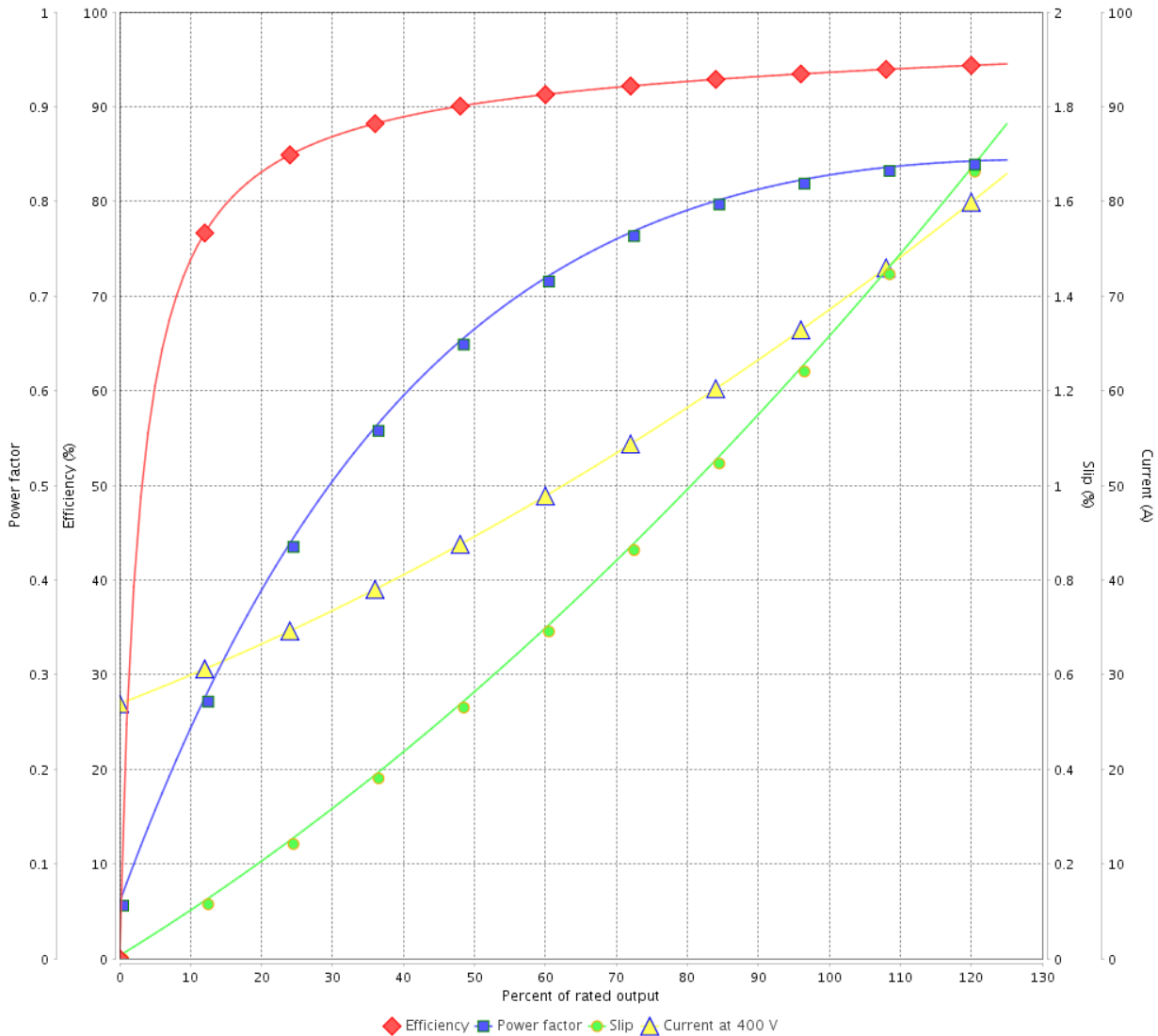
Customer :

Product line : W40 NEMA Premium Efficiency Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

LOAD PERFORMANCE CURVE



Performance : 400 V 50 Hz 2P IE3

Rated current : 68.7 A
 LRC : 6.7
 Rated torque : 88.7 ft.lb
 Locked rotor torque : 240 %
 Breakdown torque : 250 %
 Rated speed : 2960 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage

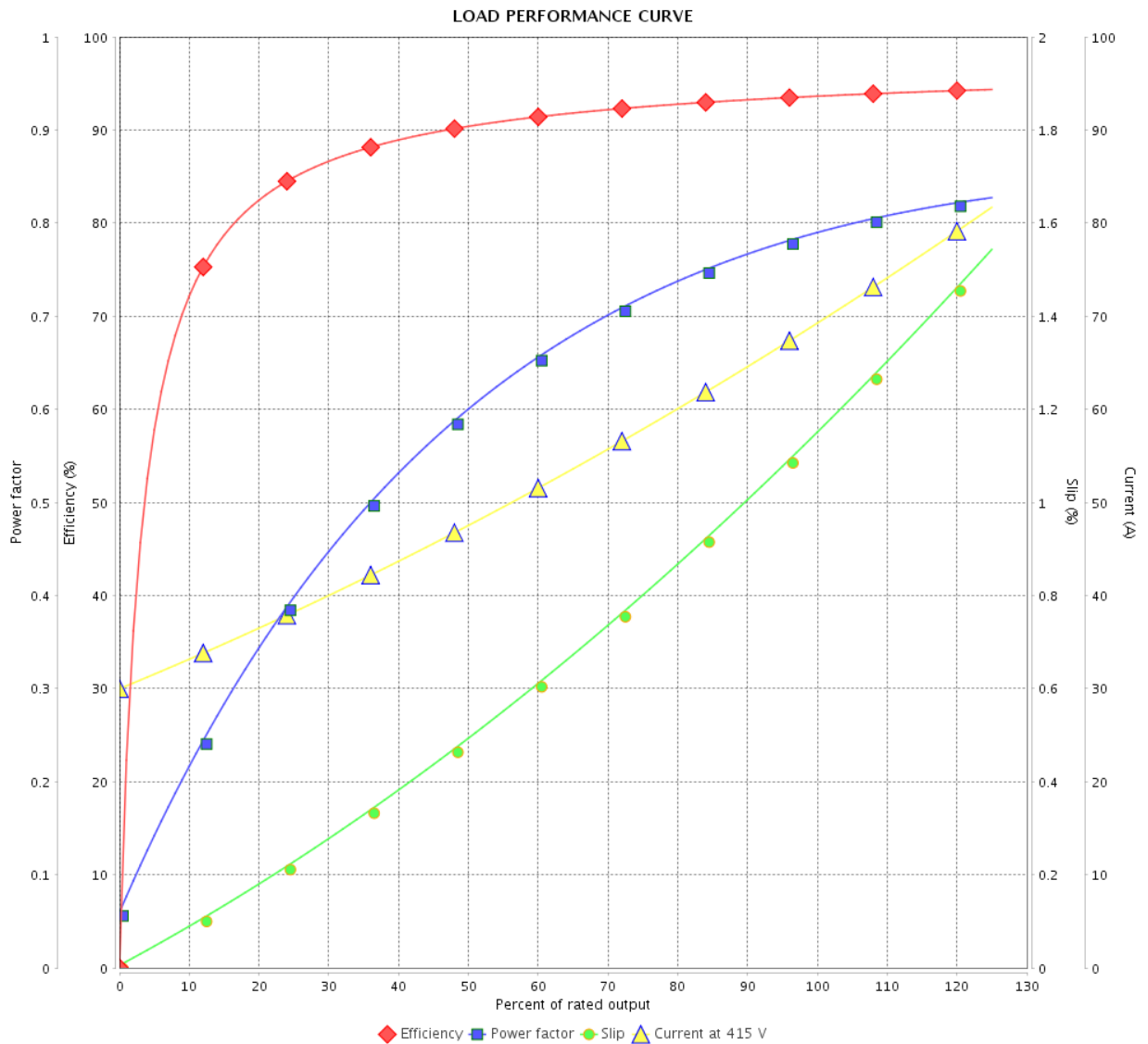


Customer :

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Product code : 14497425

Catalog # : 06036OT3E326TS-W40



Performance : 415 V 50 Hz 2P IE3

Rated current : 69.5 A
 LRC : 6.8
 Rated torque : 88.6 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 2965 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

Performance : 230/460 V 60 Hz 2P

Rated current : 142/71.0 A
LRC : 6.3
Rated torque : 88.5 ft.lb
Locked rotor torque : 220 %
Breakdown torque : 229 %
Rated speed : 3560 rpm

Moment of inertia (J) : 3.82 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor : 1.25
Temperature rise : 80 K
Design : B

Heating constant

Cooling constant

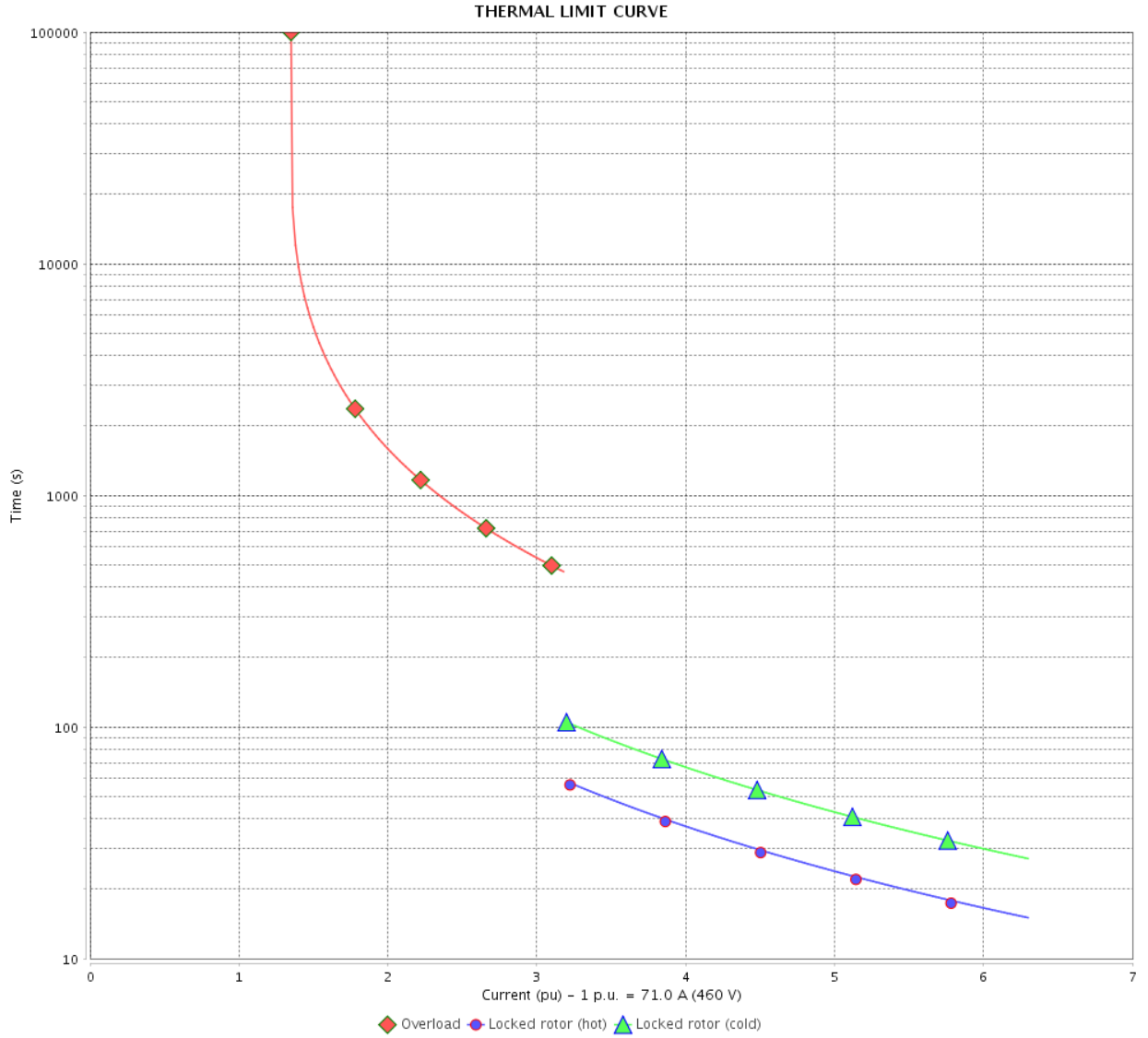
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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Three-Phase

Product code : 14497425

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Performance : 380 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 69.8 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.9 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.7 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.00 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 2960 rpm | Design | : B |

Heating constant

Cooling constant

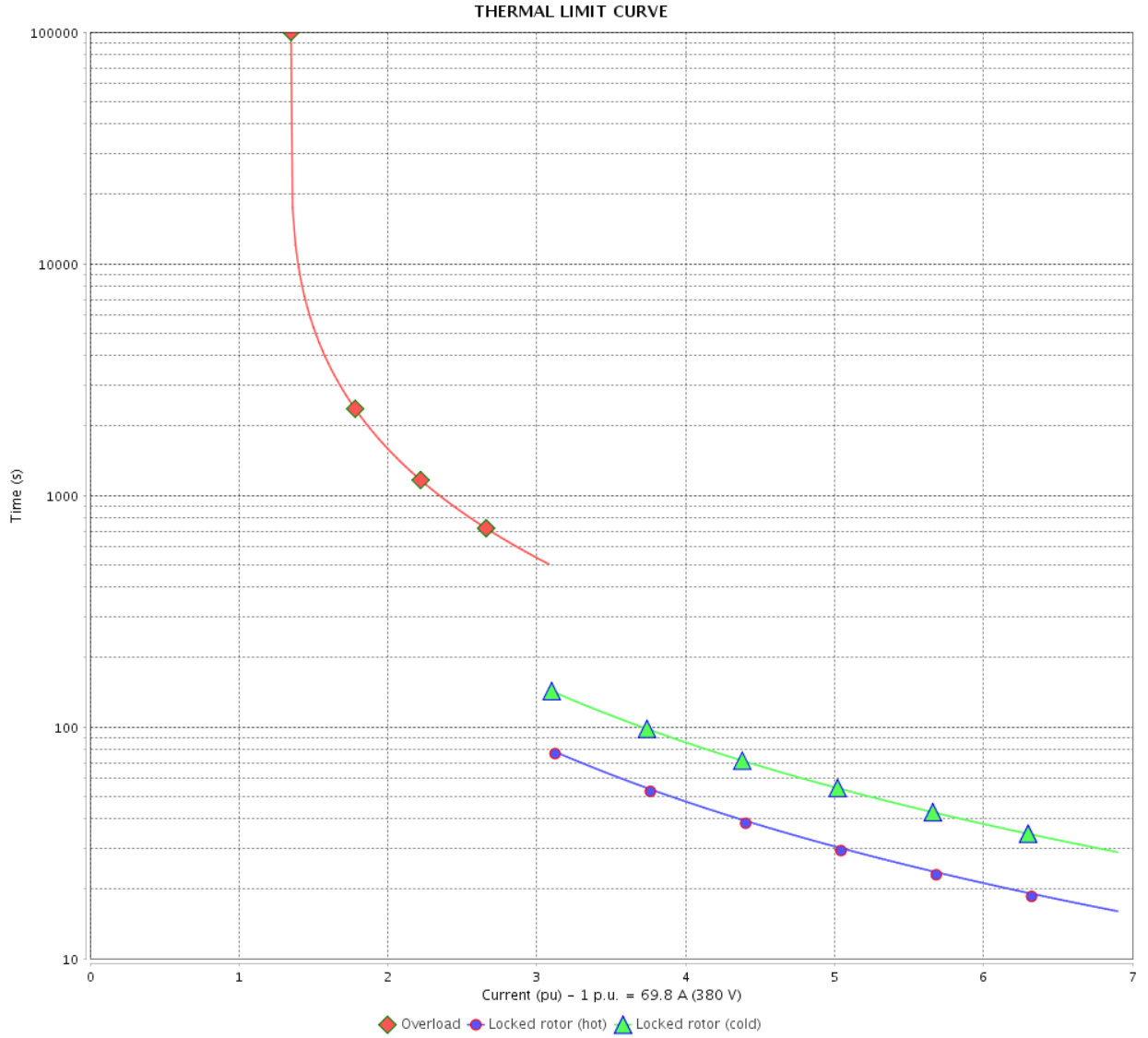
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

Performance : 400 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 68.7 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.7 ft.lb | Insulation class | : F |
| Locked rotor torque | : 240 % | Service factor | : 1.00 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 2960 rpm | Design | : B |

Heating constant

Cooling constant

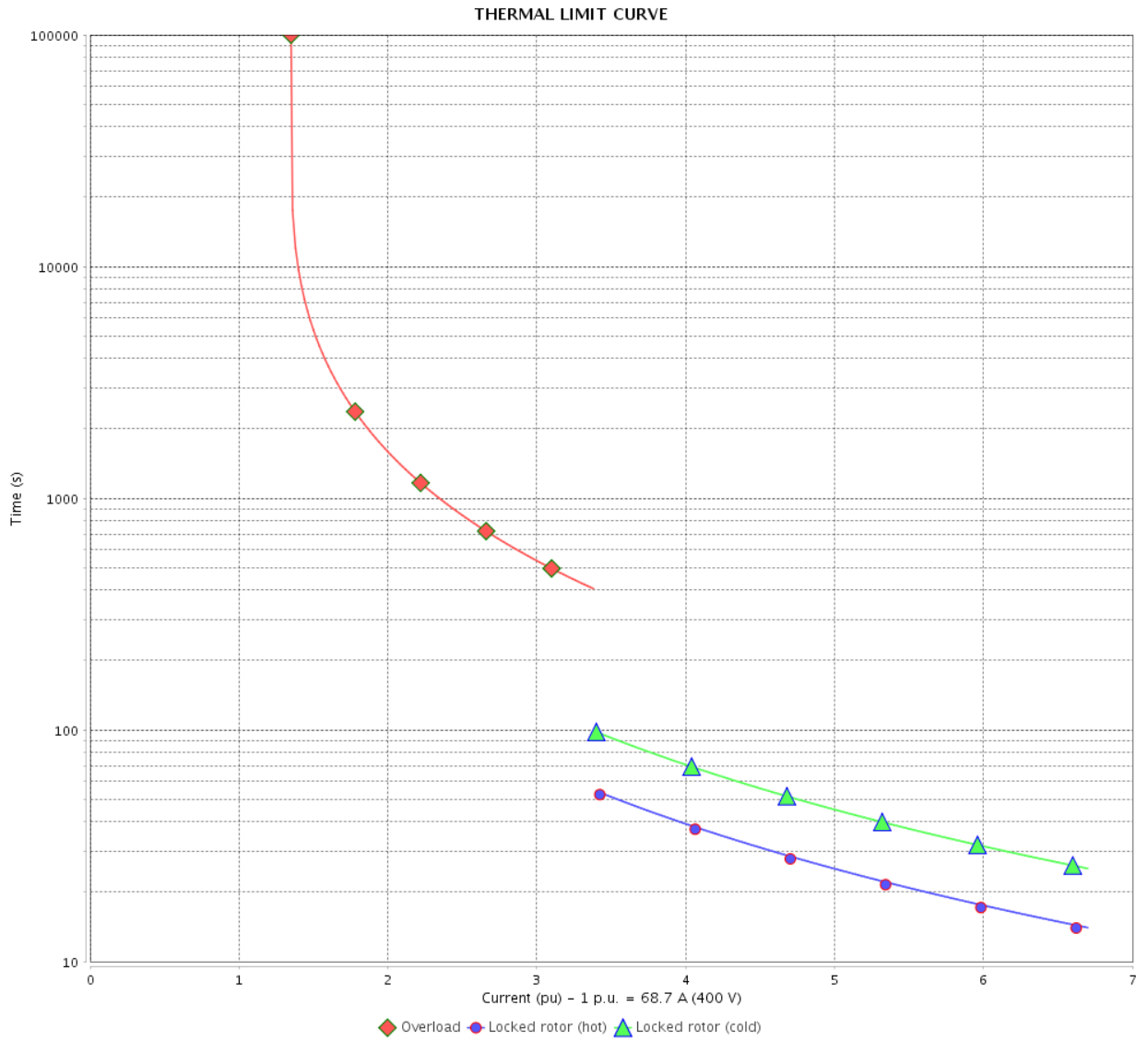
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W40 NEMA Premium Efficiency
Three-Phase

Product code : 14497425

Catalog # : 06036OT3E326TS-W40

Performance : 415 V 50 Hz 2P IE3

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 69.5 A | Moment of inertia (J) | : 3.82 sq.ft.lb |
| LRC | : 6.8 | Duty cycle | : Cont.(S1) |
| Rated torque | : 88.6 ft.lb | Insulation class | : F |
| Locked rotor torque | : 260 % | Service factor | : 1.00 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 2965 rpm | Design | : B |

Heating constant

Cooling constant

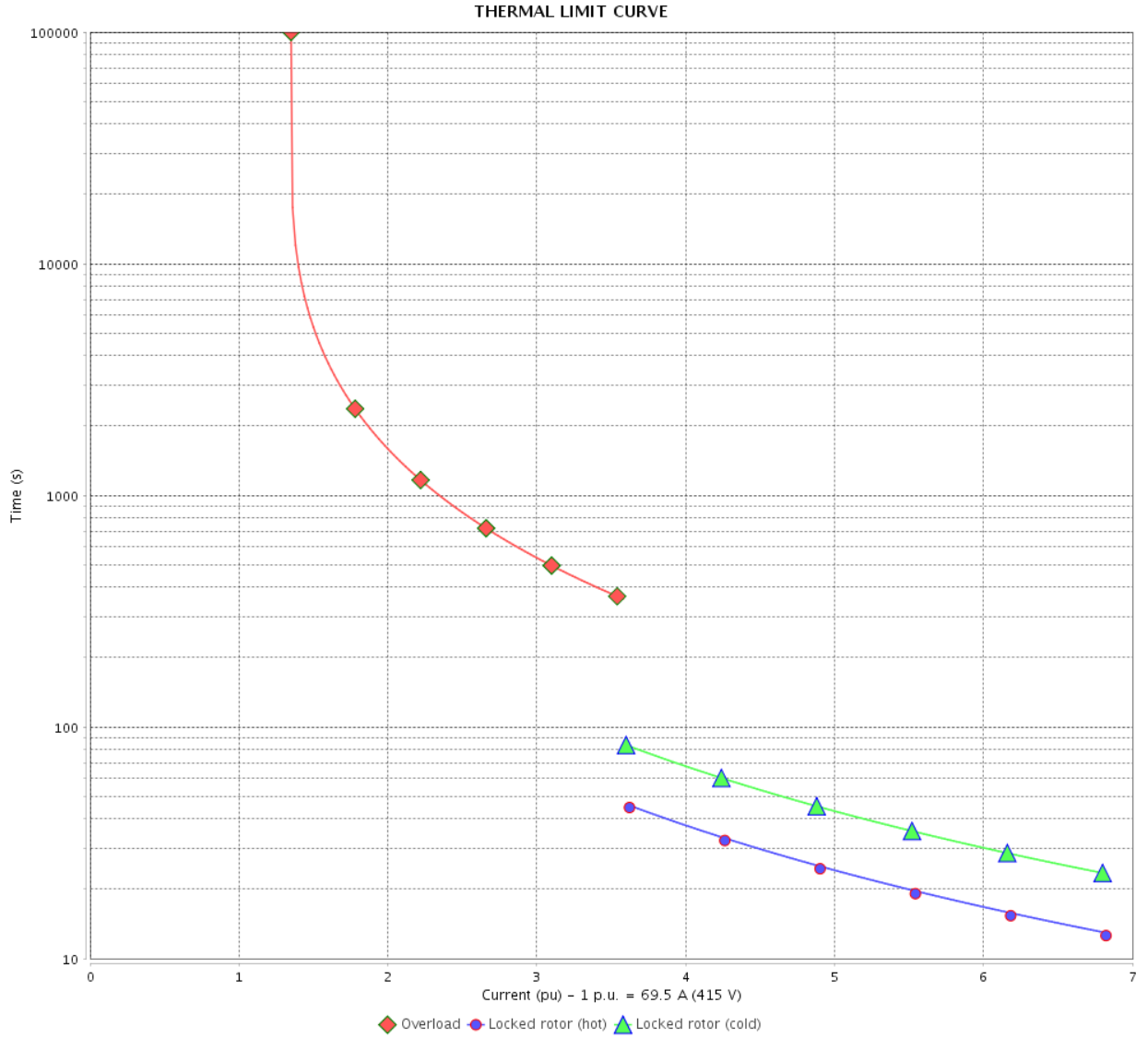
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



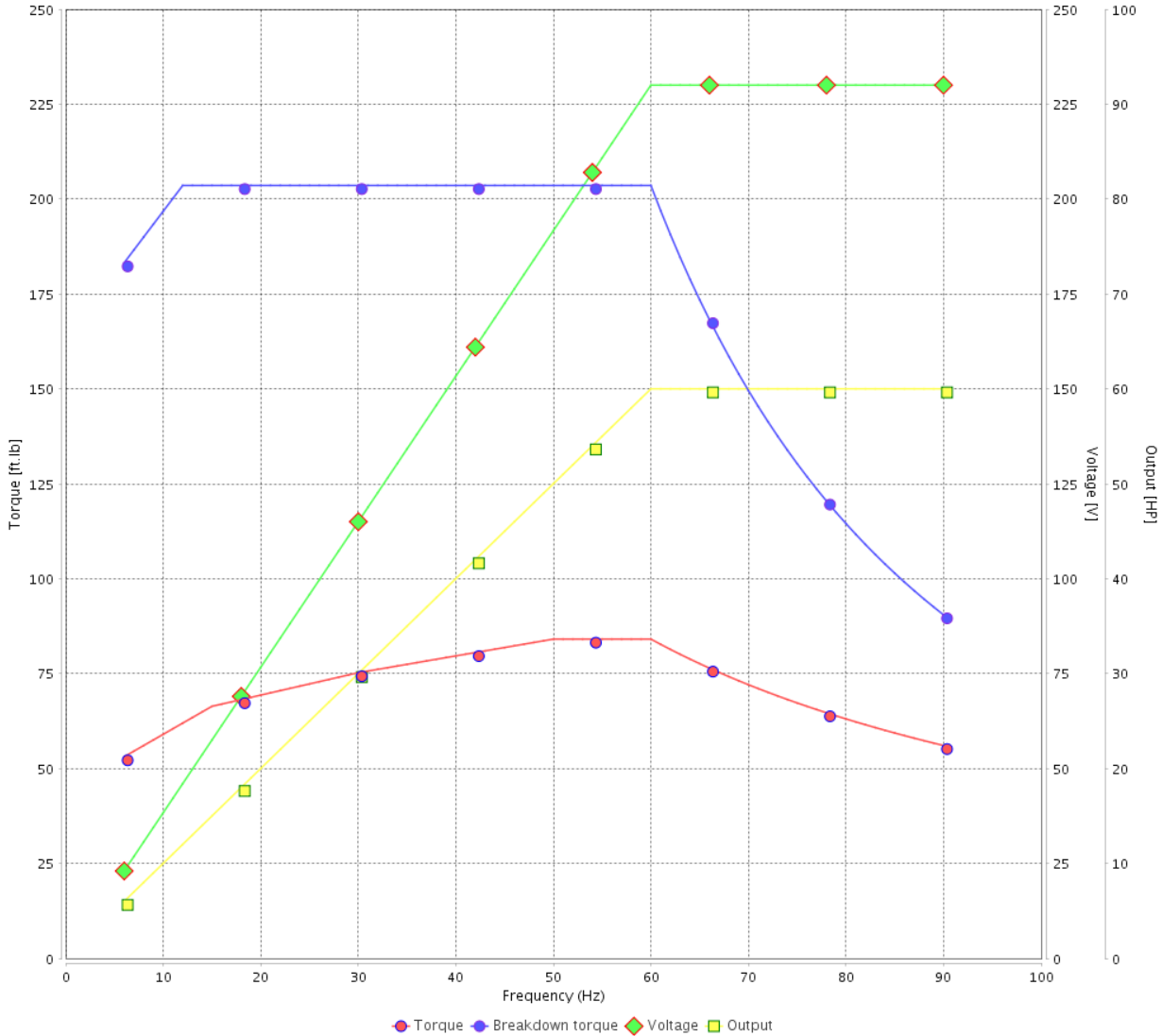
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VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 142/71.0 A
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 Rated speed : 3560 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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

Three Phase Induction Motor - Squirrel Cage

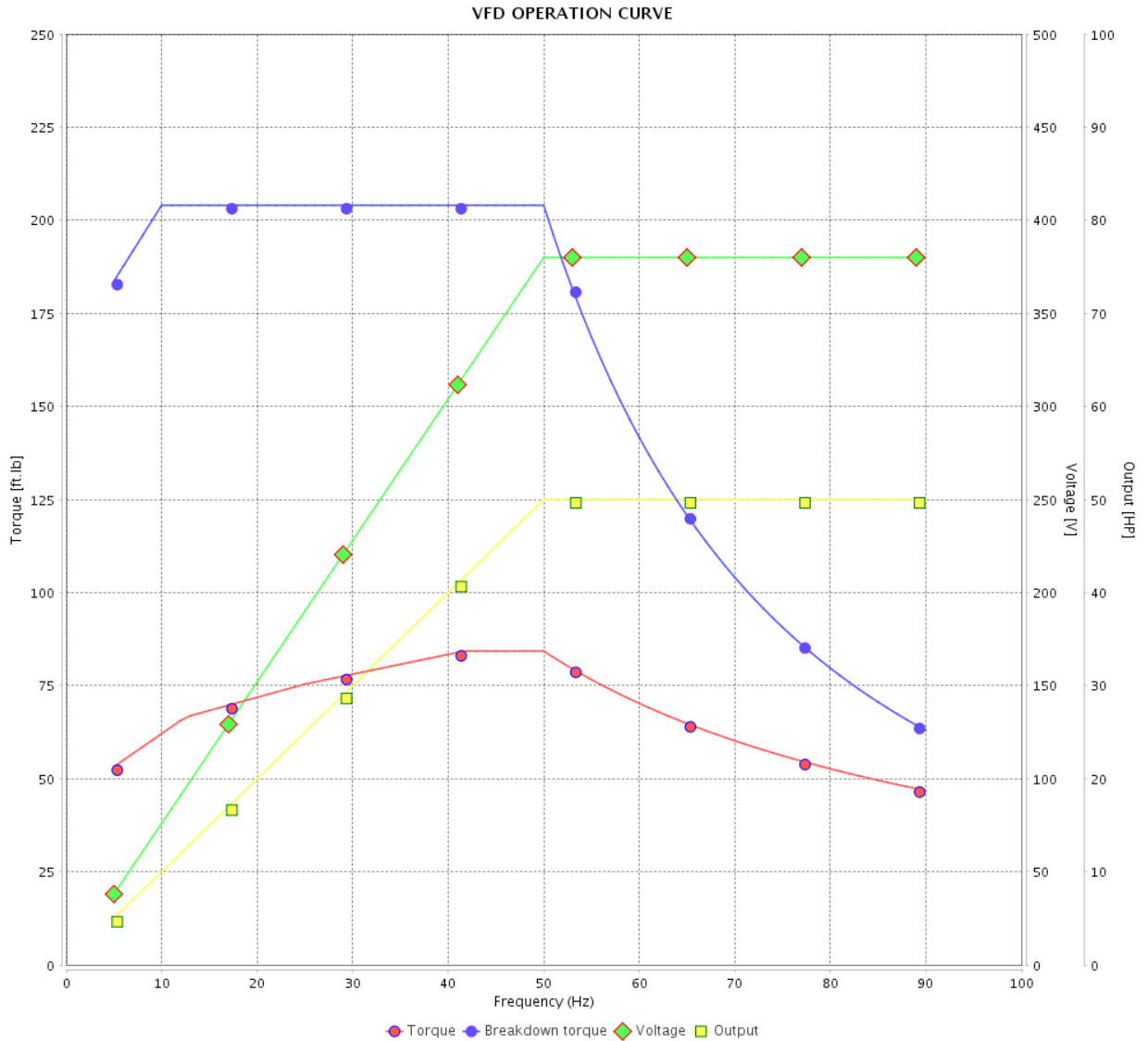


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



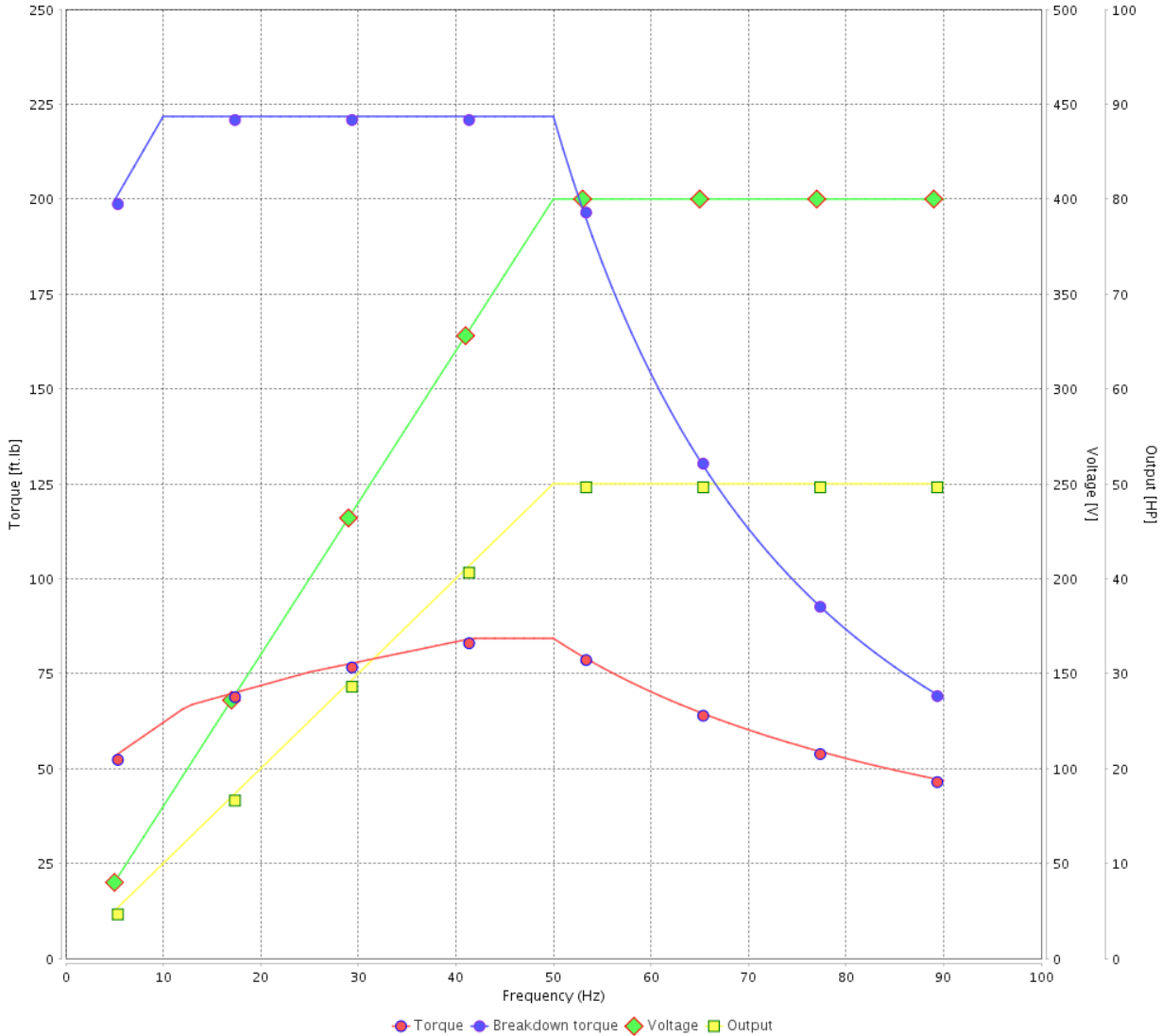
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

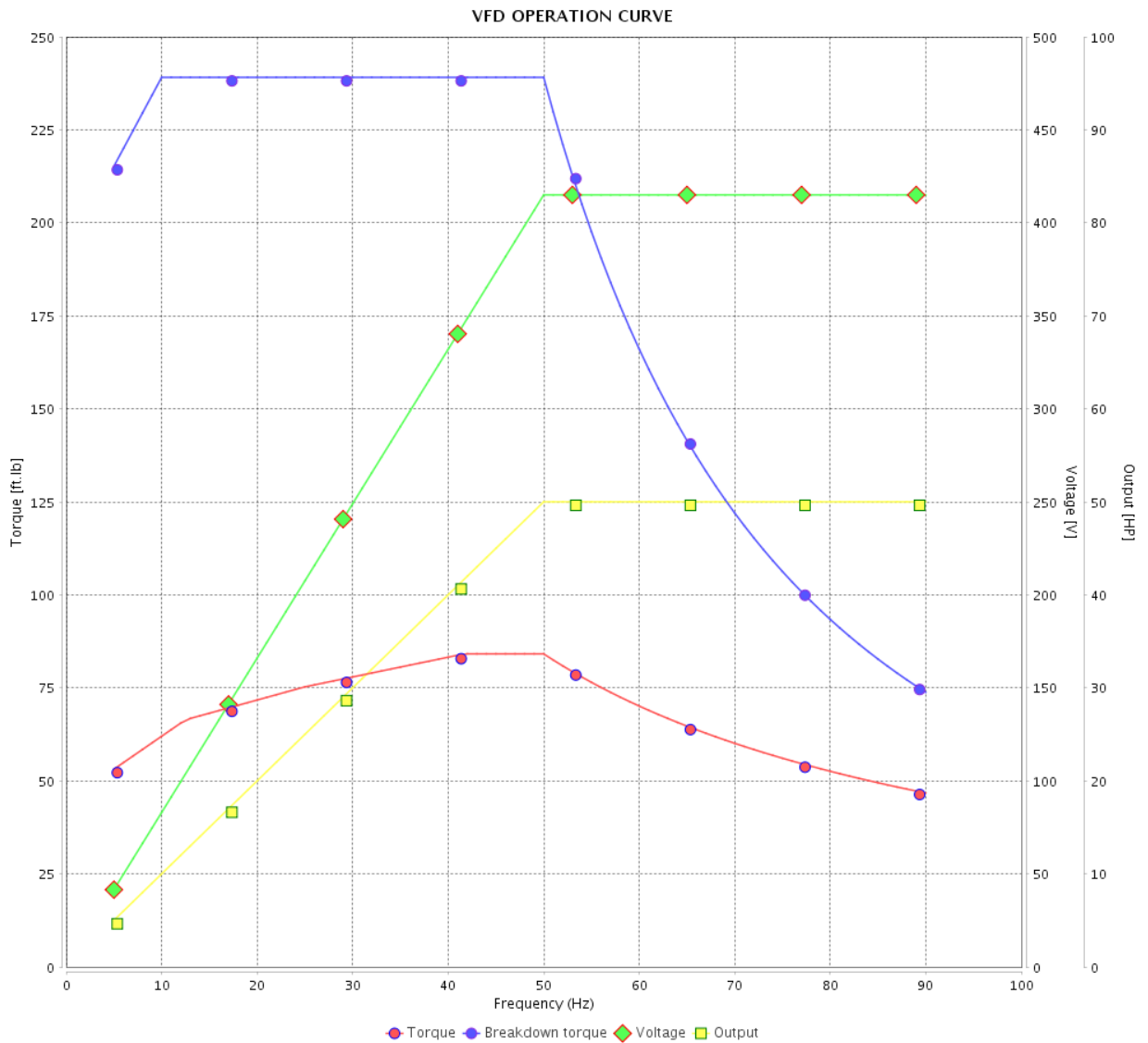


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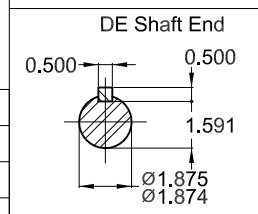
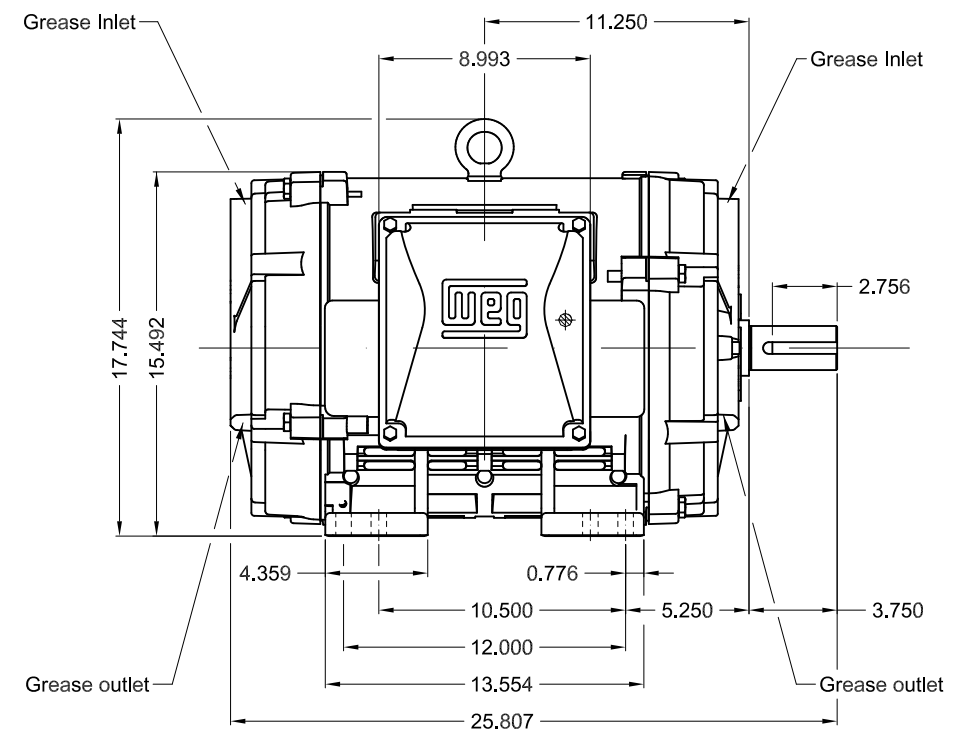
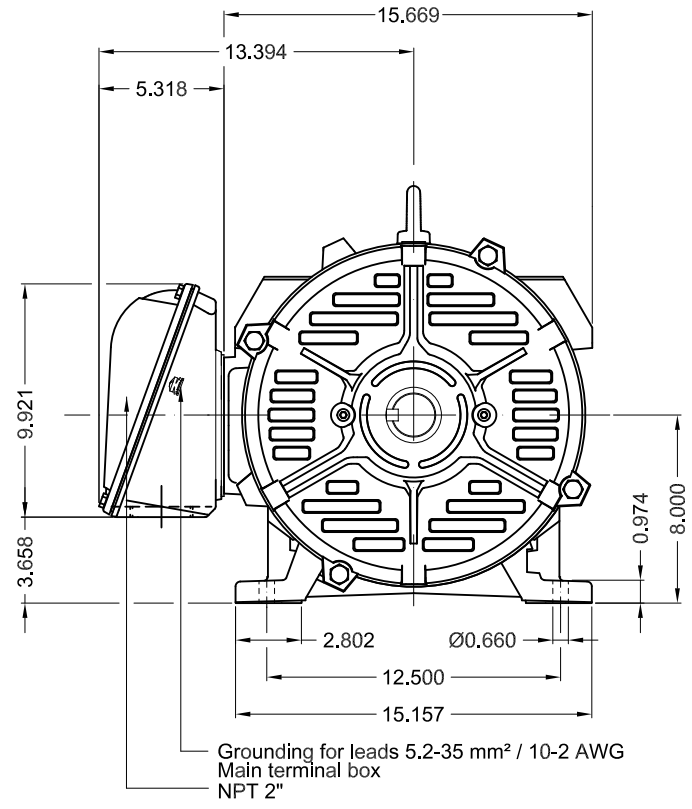


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Duty cycle : Cont.(S1)
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Temperature rise : 80 K
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| Date | 13/04/2022 | | | |



Color RAL 5009
Painting plan 203A
Mounting NEMA F-1
Mounting B3R(D)

60 HP 02 Poles 60 Hz A

1:8

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W40 PREM. EFF. | | | | | |
| CHECKED | | FRAME 324/6TS IP23 ODP | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
WDD



WEG **W40 NEMA**
CC029A Premium
Inverter Duty Motor



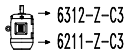
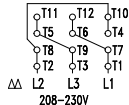
IEC 60034-1
 MOD.T01#FOXON



For 60Hz use on PWM, VT 1000:1, CT 3:1, 1.0SF

MODEL 060360T3E326TS-W40
 MADE IN BRAZIL
 14497425

| | | | |
|--|----------------------------|-------------------|--------------|
| PH 3 | FR 324/6TS | HP(kW) 60.0(45.0) | Hz 60 |
| V 230/460 | A 142/71.0 | RPM 3560 | DES B |
| NEMA NOM EFF 93.6 % | INS. CL. F Δ T 80 K | IP23 | |
| ENCL ODP | DUTY CONT. | AMB. 40°C | |
| CODE G | PF 0.85 | SF 1.25 | SFA 178/88.8 |
| USABLE @208V 157 A | SF 1.15 | SFA 181 | |
| 50HP 37kW 50Hz 380V 69.8A 2960RPM SF1.00 EFF 93.7% (IE3) | ALT 1000 m.a.s.l. | 461 Lbs | |



MOBIL POLYREX EM
 21 g 19658 h