

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|--|---|-----------------------------|--|----------------------|----------|
| Customer : | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 14325198 | | |
| | | Catalog # : | 00212XT3E184T | | |
| Frame | : 182/4T | 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 | : 135 lb | | |
| Protection degree | : IP55 | Moment of inertia (J) | : 0.5323 sq.ft.lb | | |
| Design | : B | | | | |
| Output [HP] | 2 | 2 | 2 | 2 | |
| Poles | 6 | 6 | 6 | 6 | |
| Frequency [Hz] | 60 | 50 | 50 | 50 | |
| Rated voltage [V] | 230/460 | 380 | 400 | 415 | |
| Rated current [A] | 6.26/3.13 | 3.66 | 3.59 | 3.56 | |
| L. R. Amperes [A] | 46.9/23.5 | 22.0 | 24.1 | 25.3 | |
| LRC [A] | 7.5x(Code L) | 6.0x(Code J) | 6.7x(Code K) | 7.1x(Code L) | |
| No load current [A] | 4.00/2.00 | 1.80 | 1.95 | 2.05 | |
| Rated speed [RPM] | 1165 | 955 | 960 | 965 | |
| Slip [%] | 2.92 | 4.50 | 4.00 | 3.50 | |
| Rated torque [ft.lb] | 9.02 | 11.0 | 10.9 | 10.9 | |
| Locked rotor torque [%] | 300 | 220 | 260 | 300 | |
| Breakdown torque [%] | 330 | 240 | 270 | 300 | |
| Service factor | 1.15 | 1.00 | 1.00 | 1.00 | |
| Temperature rise | 80 K | 80 K | 80 K | 80 K | |
| Locked rotor time | 82s (cold) 46s (hot) | 95s (cold) 53s (hot) | 84s (cold) 47s (hot) | 75s (cold) 42s (hot) | |
| Noise level ² | 52.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | 49.0 dB(A) | |
| Efficiency (%) | 25% | 82.5 | 87.5 | 86.1 | 85.1 |
| | 50% | 84.5 | 87.0 | 86.5 | 85.5 |
| | 75% | 86.5 | 87.5 | 87.5 | 87.5 |
| | 100% | 88.5 | 86.5 | 87.5 | 87.5 |
| Power Factor | 25% | 0.26 | 0.32 | 0.29 | 0.27 |
| | 50% | 0.47 | 0.53 | 0.49 | 0.46 |
| | 75% | 0.58 | 0.65 | 0.62 | 0.59 |
| | 100% | 0.68 | 0.72 | 0.69 | 0.67 |
| Bearing type | : <u>Drive end</u> 6307 2RS <u>Non drive end</u> 6206 2RS | Foundation loads | | | |
| Sealing | : Oil Seal Lip Seal | Max. traction | : 141 lb | | |
| Lubrication interval | : - - | Max. compression | : 276 lb | | |
| Lubricant amount | : - - | | | | |
| Lubricant type | : Mobil Polyrex EM | | | | |
| Notes USABLE @208V 6.92A SF 1.15 SFA 7.96A | | | | | |
| 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. | | |
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Thermal protection

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

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TORQUE AND CURRENT VS SPEED CURVE



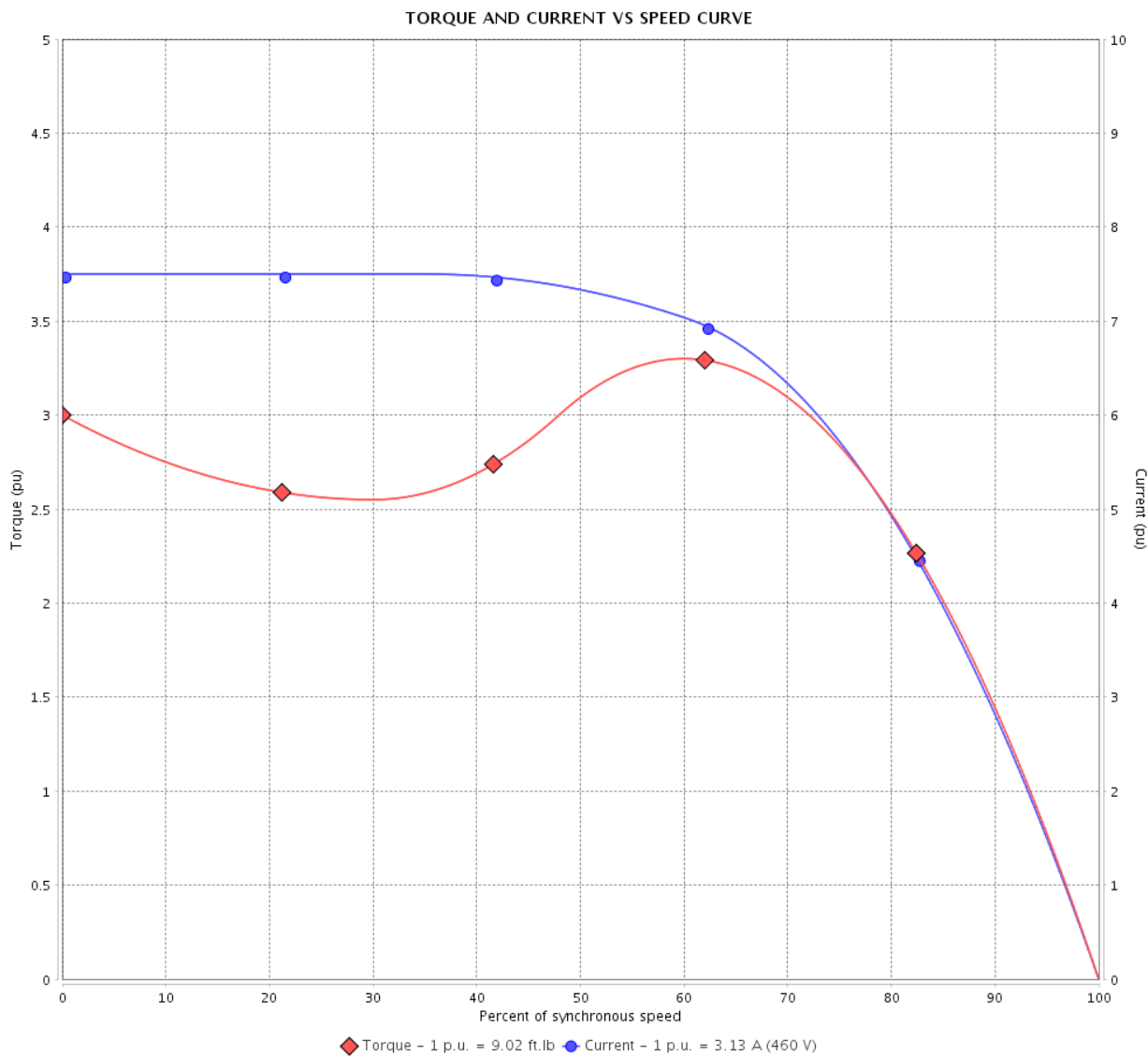
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14325198

Catalog # : 00212XT3E184T



Performance : 230/460 V 60 Hz 6P

Rated current : 6.26/3.13 A
 LRC : 7.5
 Rated torque : 9.02 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.5323 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 82s (cold) 46s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



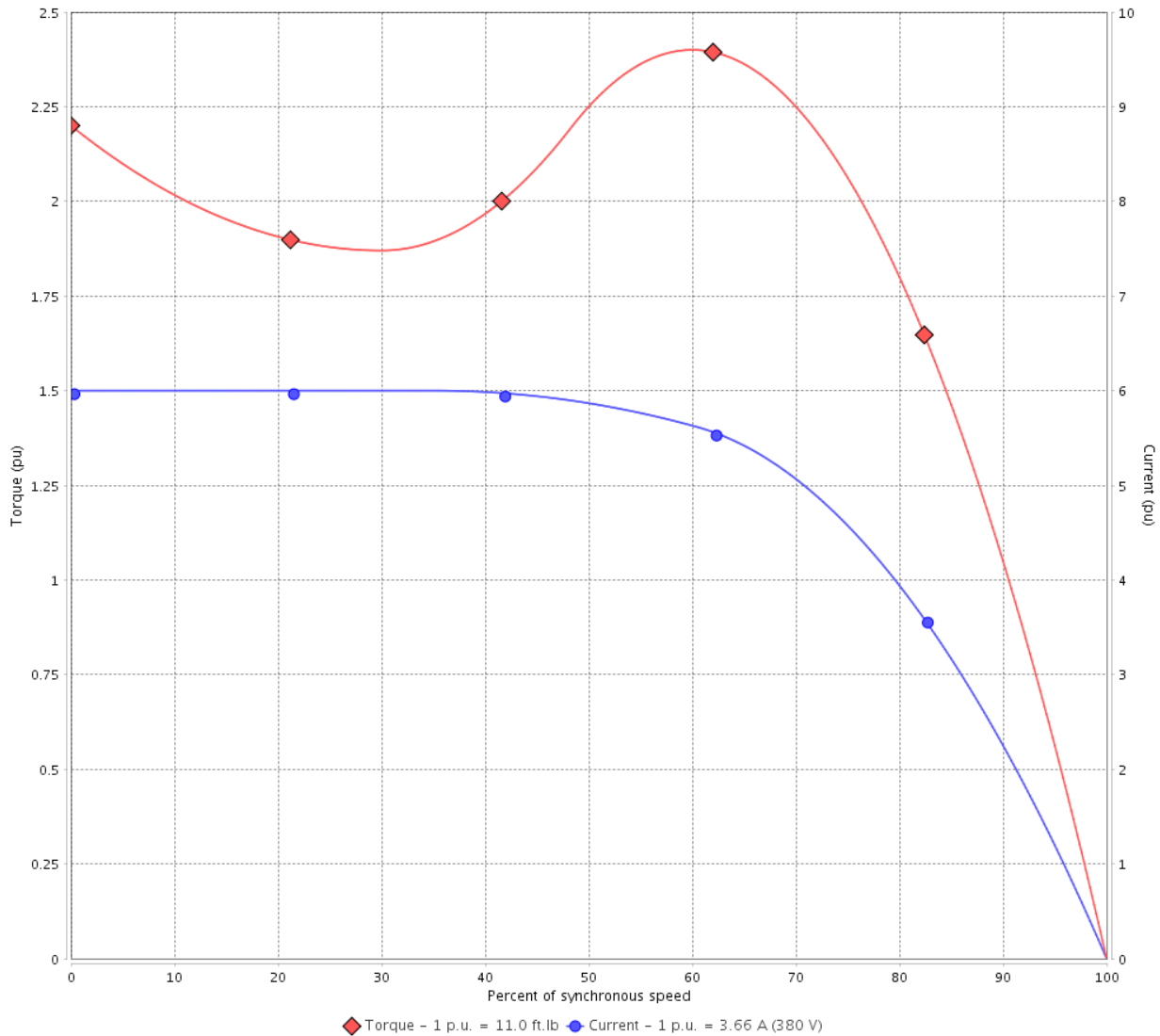
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14325198

Catalog # : 00212XT3E184T

TORQUE AND CURRENT VS SPEED CURVE



Performance : 380 V 50 Hz 6P IE4

| | | | |
|---------------------|--------------|-----------------------|-------------------|
| Rated current | : 3.66 A | Moment of inertia (J) | : 0.5323 sq.ft.lb |
| LRC | : 6.0 | Duty cycle | : Cont.(S1) |
| Rated torque | : 11.0 ft.lb | Insulation class | : F |
| Locked rotor torque | : 220 % | Service factor | : 1.00 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 955 rpm | Design | : B |

Locked rotor time : 95s (cold) 53s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



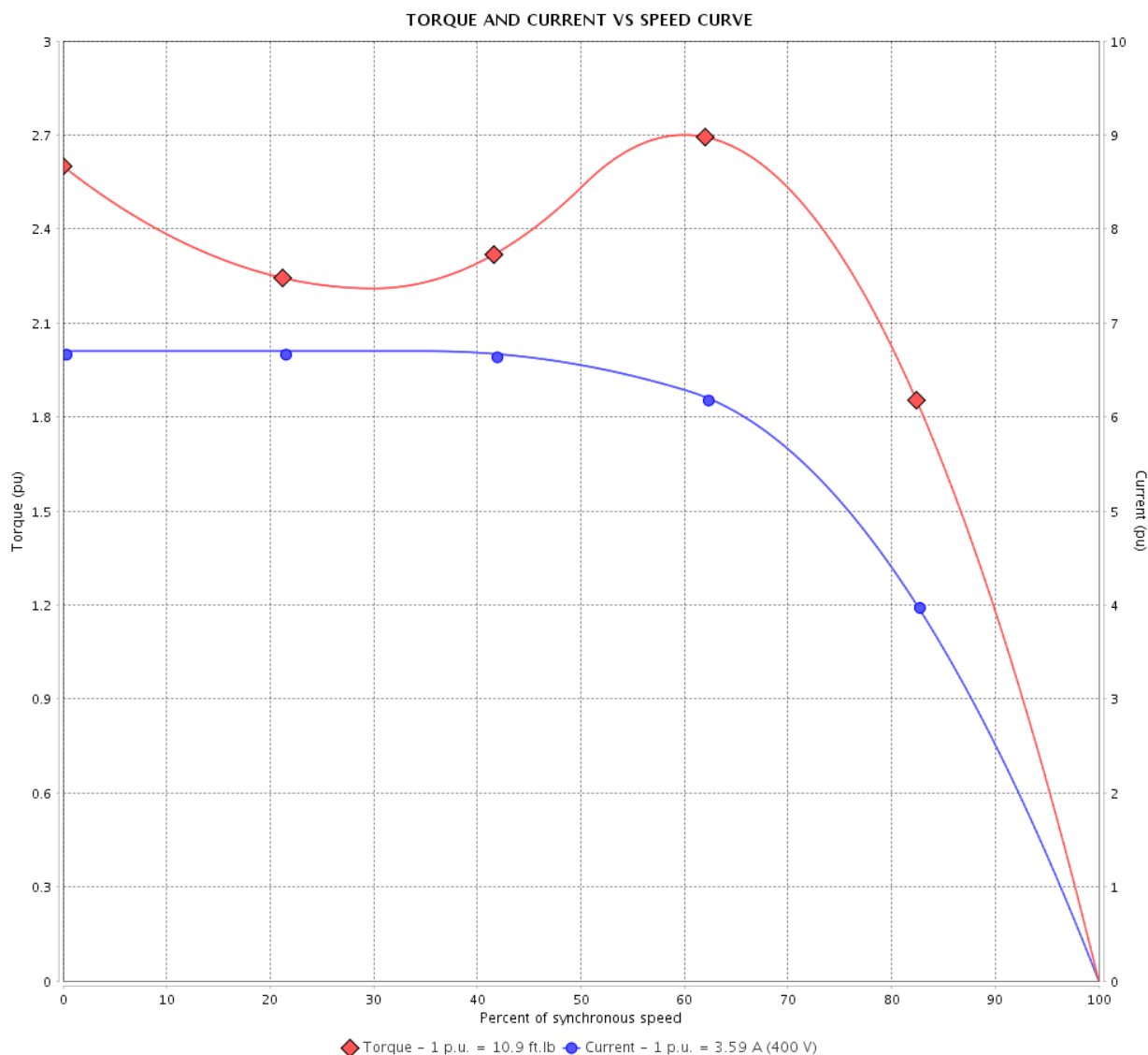
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14325198

Catalog # : 00212XT3E184T



Performance : 400 V 50 Hz 6P IE4

| | | | |
|---------------------|--------------|-----------------------|-------------------|
| Rated current | : 3.59 A | Moment of inertia (J) | : 0.5323 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 10.9 ft.lb | Insulation class | : F |
| Locked rotor torque | : 260 % | Service factor | : 1.00 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 960 rpm | Design | : B |

Locked rotor time : 84s (cold) 47s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage

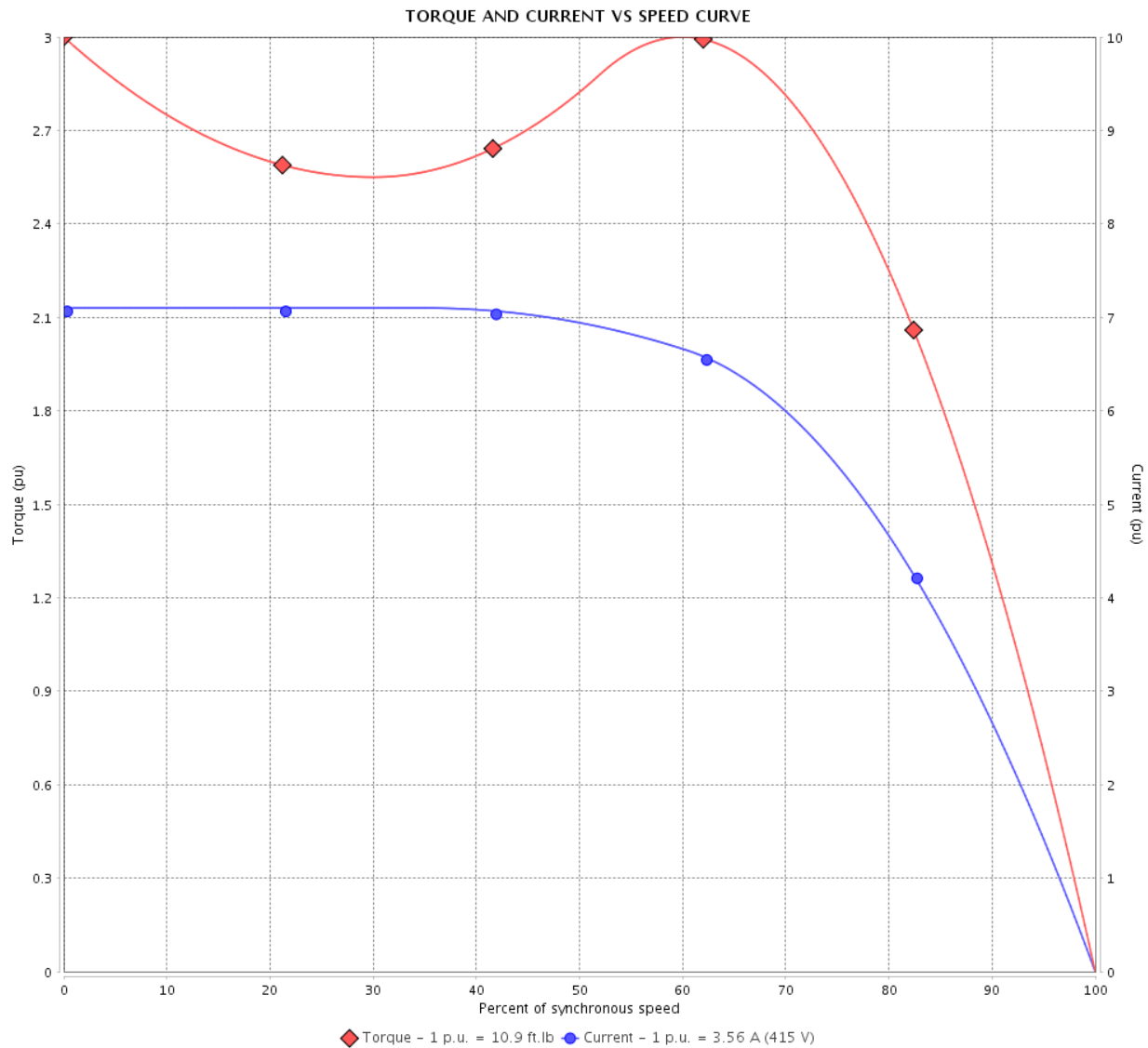


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Performance : 415 V 50 Hz 6P IE4

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| LRC | : 7.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 10.9 ft.lb | Insulation class | : F |
| Locked rotor torque | : 300 % | Service factor | : 1.00 |
| Breakdown torque | : 300 % | Temperature rise | : 80 K |
| Rated speed | : 965 rpm | Design | : B |

Locked rotor time : 75s (cold) 42s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

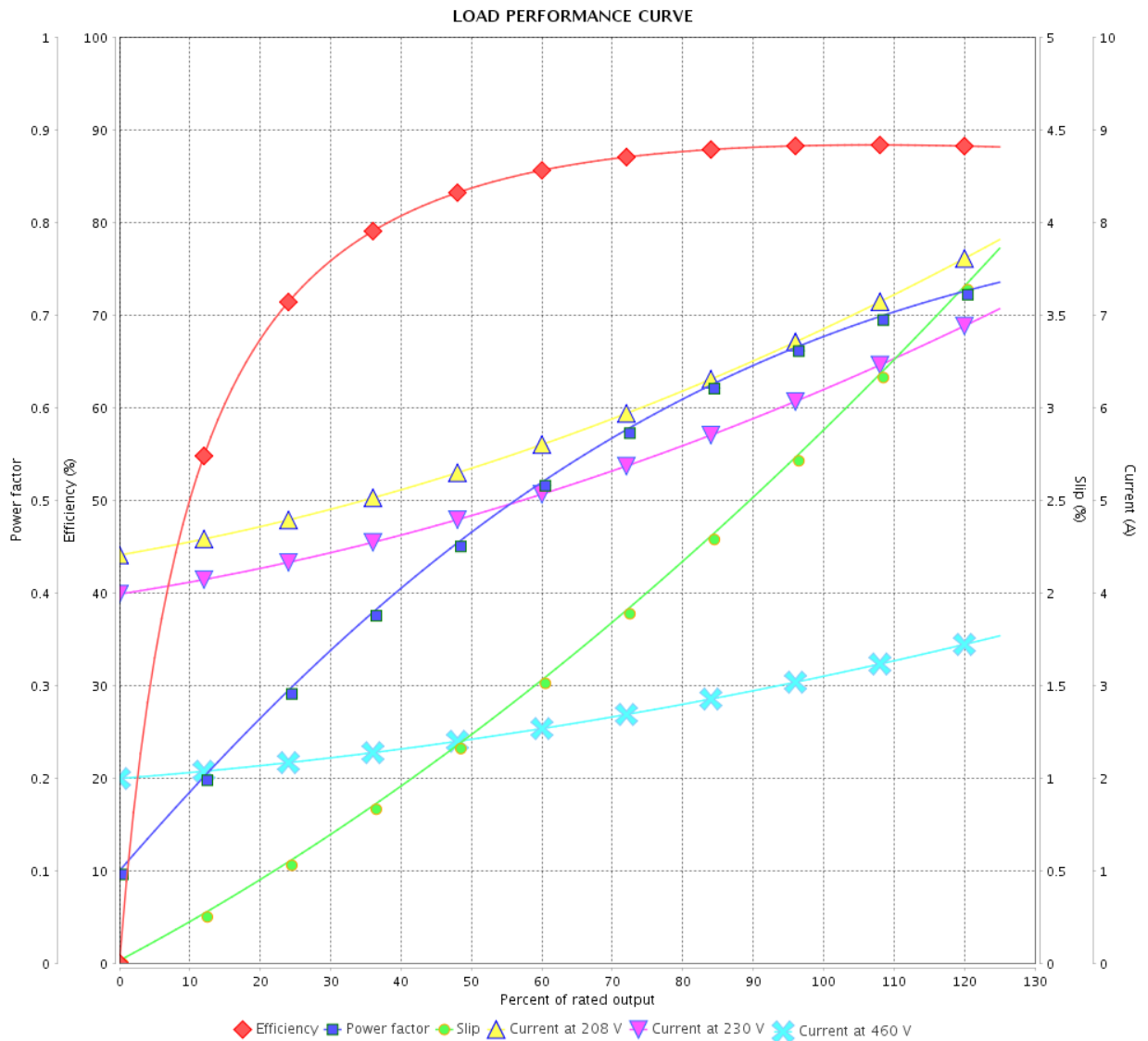


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 14325198

Catalog # : 00212XT3E184T



Performance : 230/460 V 60 Hz 6P

Rated current : 6.26/3.13 A
 LRC : 7.5
 Rated torque : 9.02 ft.lb
 Locked rotor torque : 300 %
 Breakdown torque : 330 %
 Rated speed : 1165 rpm

Moment of inertia (J) : 0.5323 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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Three Phase Induction Motor - Squirrel Cage



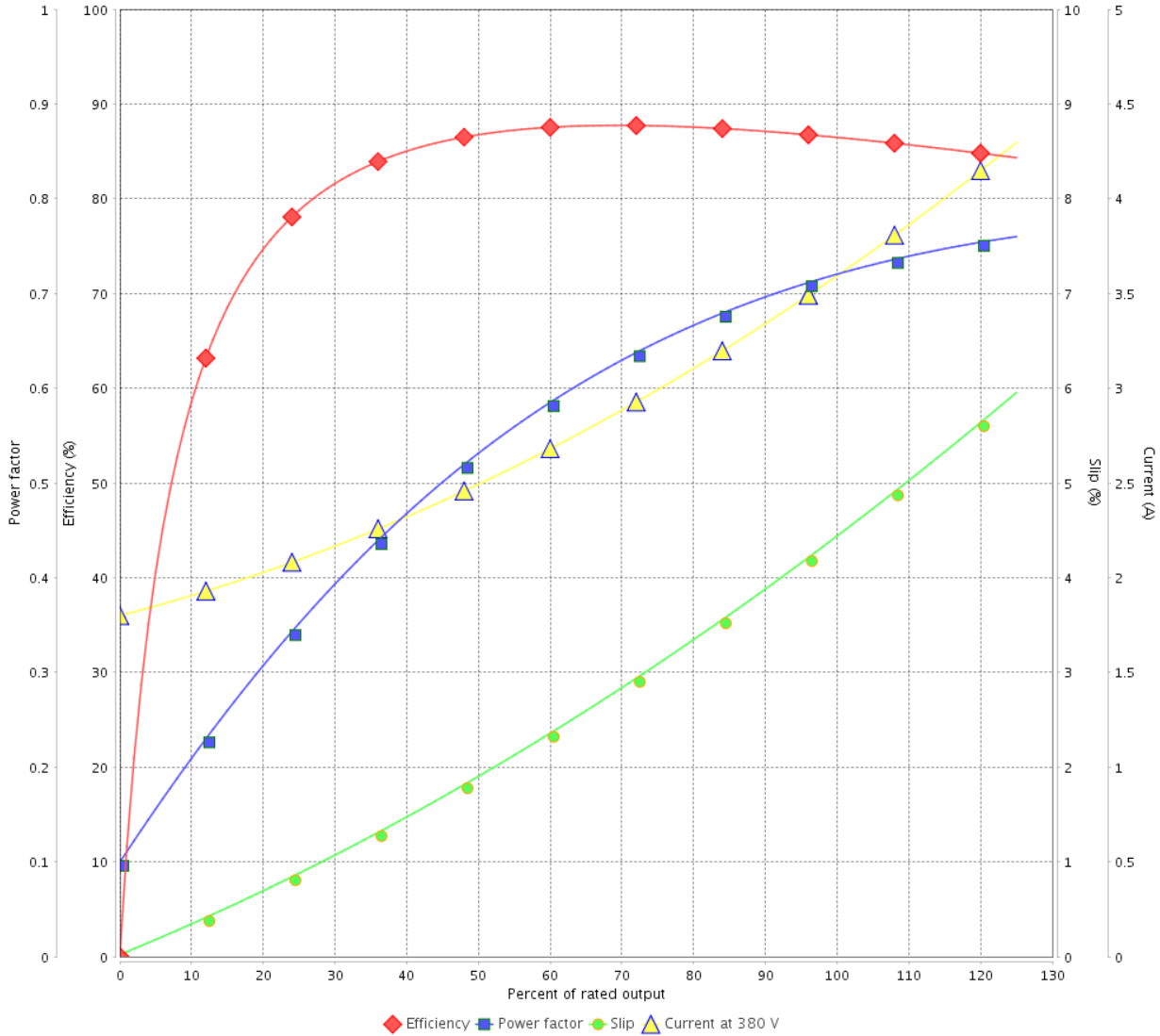
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Product line : NEMA Premium Efficiency Three-Phase

Product code : 14325198

Catalog # : 00212XT3E184T

LOAD PERFORMANCE CURVE



Performance : 380 V 50 Hz 6P IE4

Rated current : 3.66 A
 LRC : 6.0
 Rated torque : 11.0 ft.lb
 Locked rotor torque : 220 %
 Breakdown torque : 240 %
 Rated speed : 955 rpm

Moment of inertia (J) : 0.5323 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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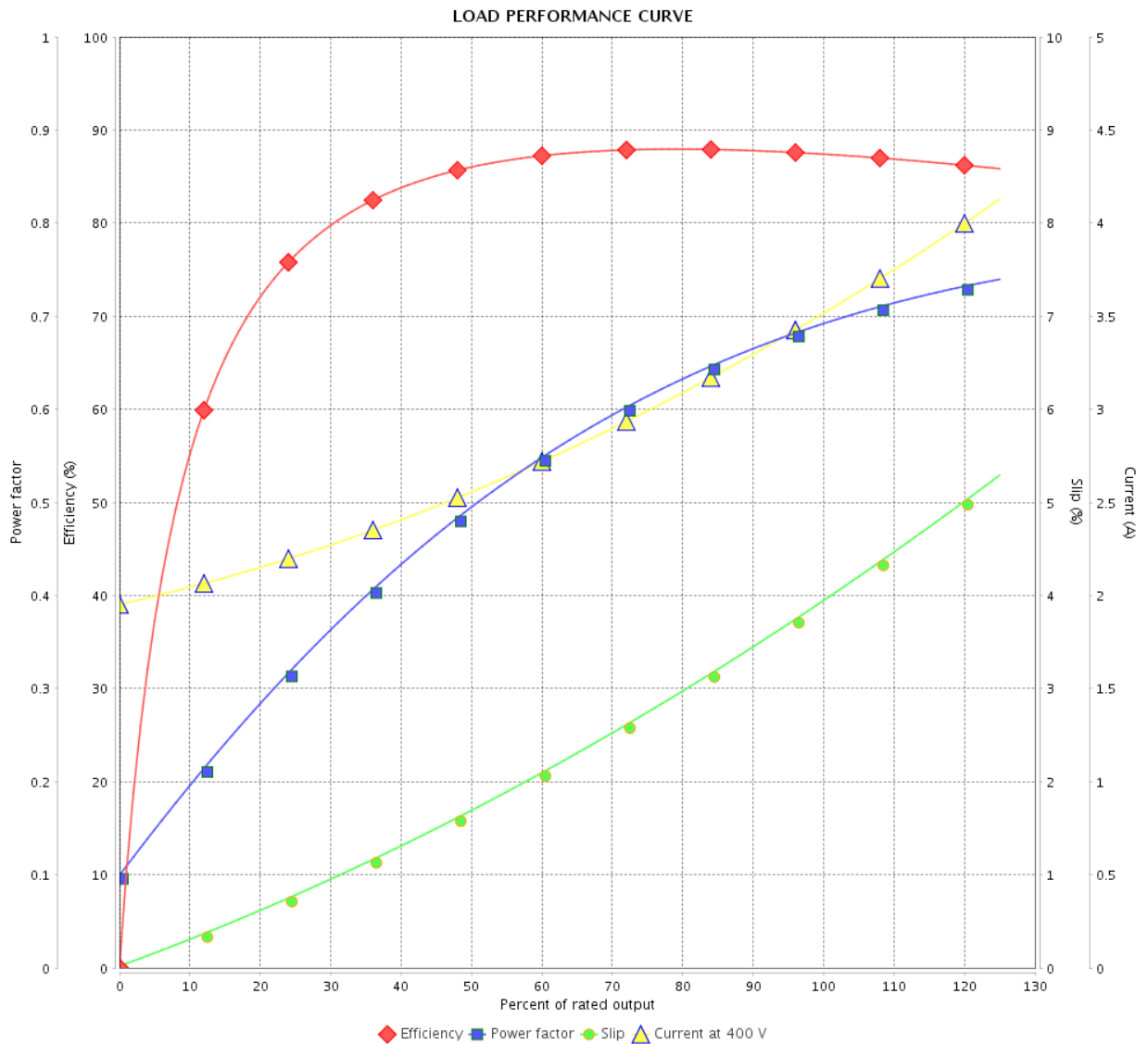


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Product code : 14325198

Catalog # : 00212XT3E184T



Performance : 400 V 50 Hz 6P IE4

Rated current : 3.59 A
 LRC : 6.7
 Rated torque : 10.9 ft.lb
 Locked rotor torque : 260 %
 Breakdown torque : 270 %
 Rated speed : 960 rpm

Moment of inertia (J) : 0.5323 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 80 K
 Design : B

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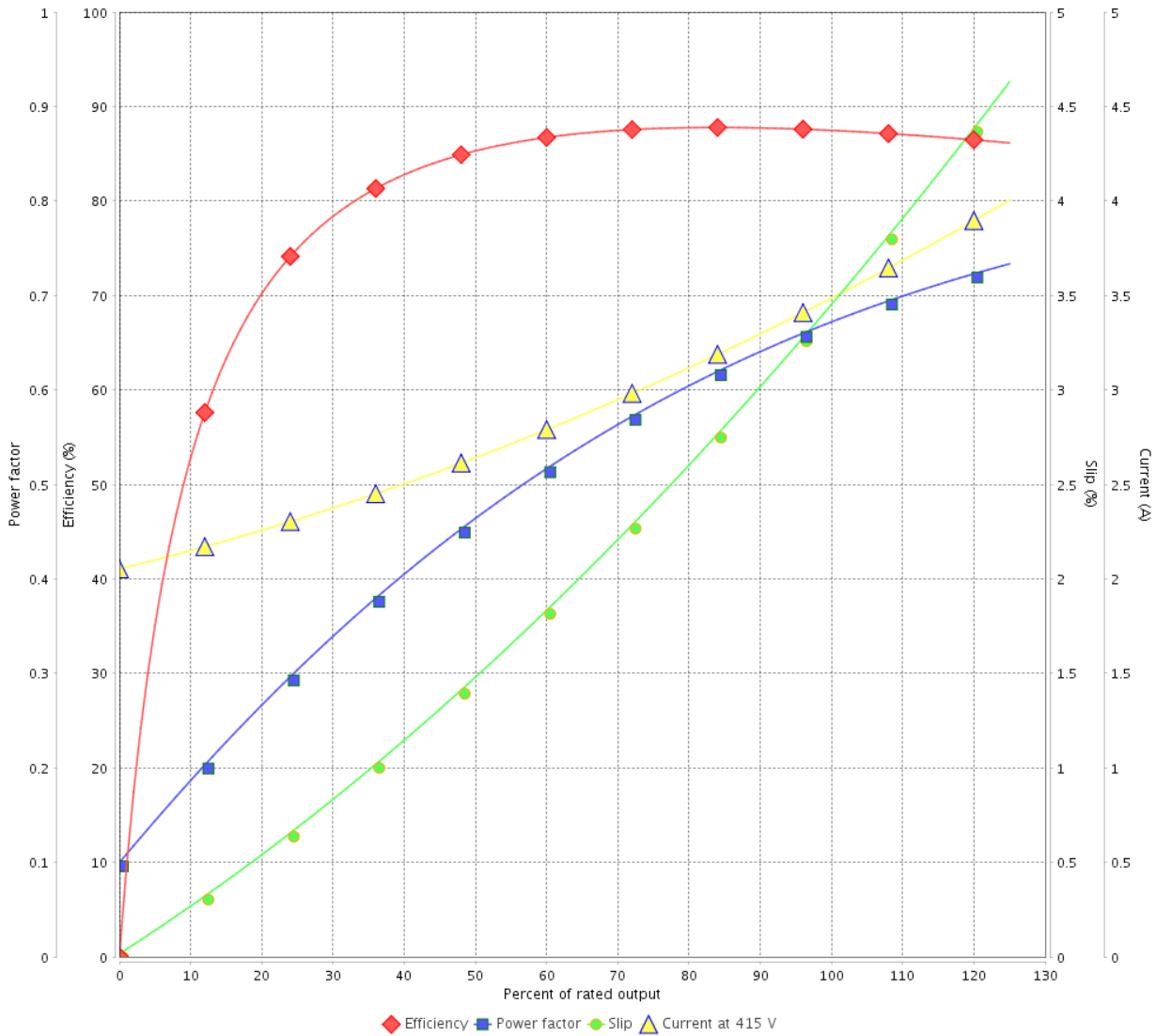
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Performance : 415 V 50 Hz 6P IE4

Rated current : 3.56 A
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 Locked rotor torque : 300 %
 Breakdown torque : 300 %
 Rated speed : 965 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
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THERMAL LIMIT CURVE



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Customer :

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 Product code : 14325198
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Performance : 230/460 V 60 Hz 6P

| | |
|-----------------------------|---|
| Rated current : 6.26/3.13 A | Moment of inertia (J) : 0.5323 sq.ft.lb |
| LRC : 7.5 | Duty cycle : Cont.(S1) |
| Rated torque : 9.02 ft.lb | Insulation class : F |
| Locked rotor torque : 300 % | Service factor : 1.15 |
| Breakdown torque : 330 % | Temperature rise : 80 K |
| Rated speed : 1165 rpm | Design : B |

Heating constant

Cooling constant

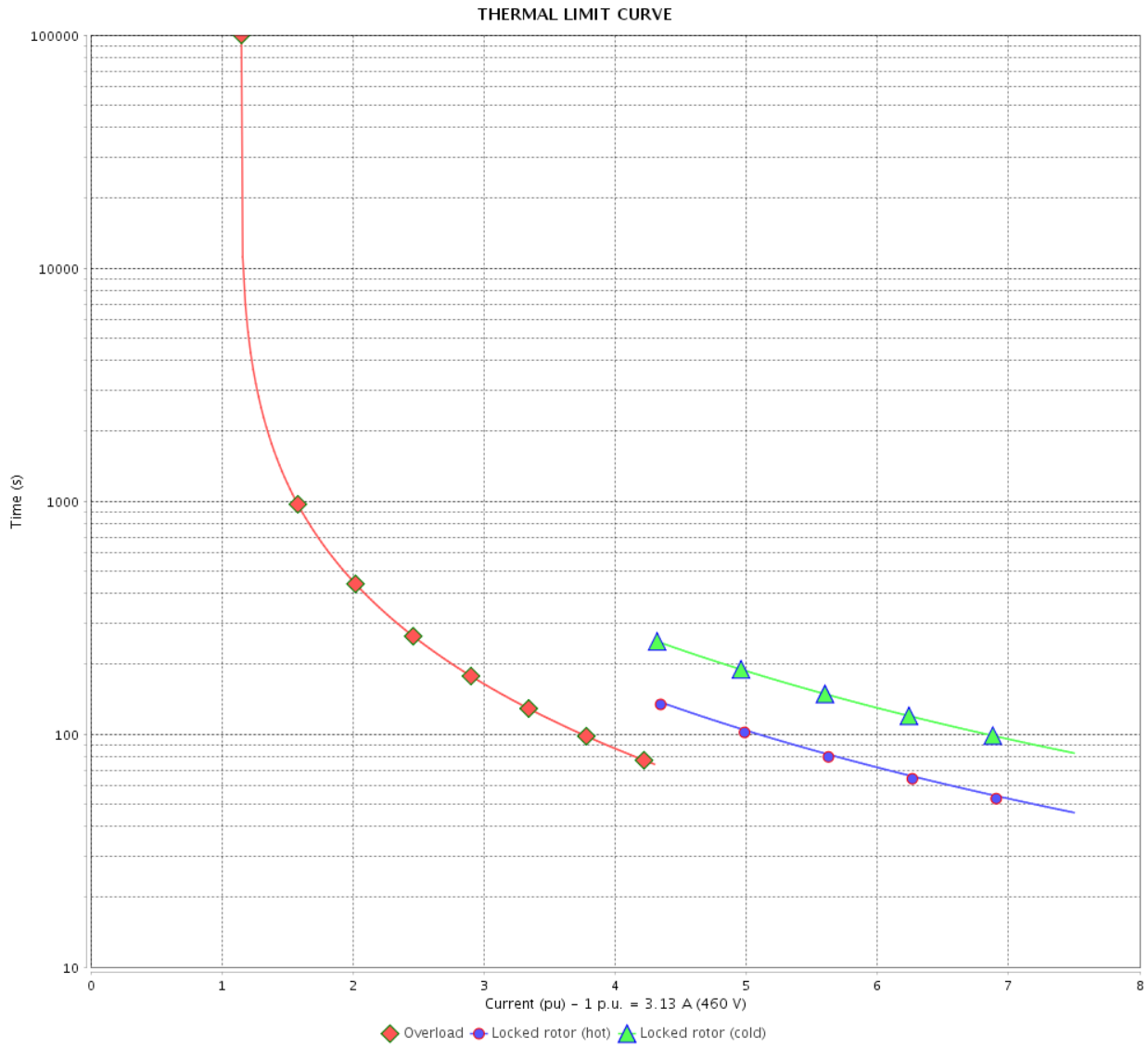
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THERMAL LIMIT CURVE

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THERMAL LIMIT CURVE



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Customer :

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 Product code : 14325198
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Performance : 380 V 50 Hz 6P IE4

| | |
|-----------------------------|---|
| Rated current : 3.66 A | Moment of inertia (J) : 0.5323 sq.ft.lb |
| LRC : 6.0 | Duty cycle : Cont.(S1) |
| Rated torque : 11.0 ft.lb | Insulation class : F |
| Locked rotor torque : 220 % | Service factor : 1.00 |
| Breakdown torque : 240 % | Temperature rise : 80 K |
| Rated speed : 955 rpm | Design : B |

Heating constant

Cooling constant

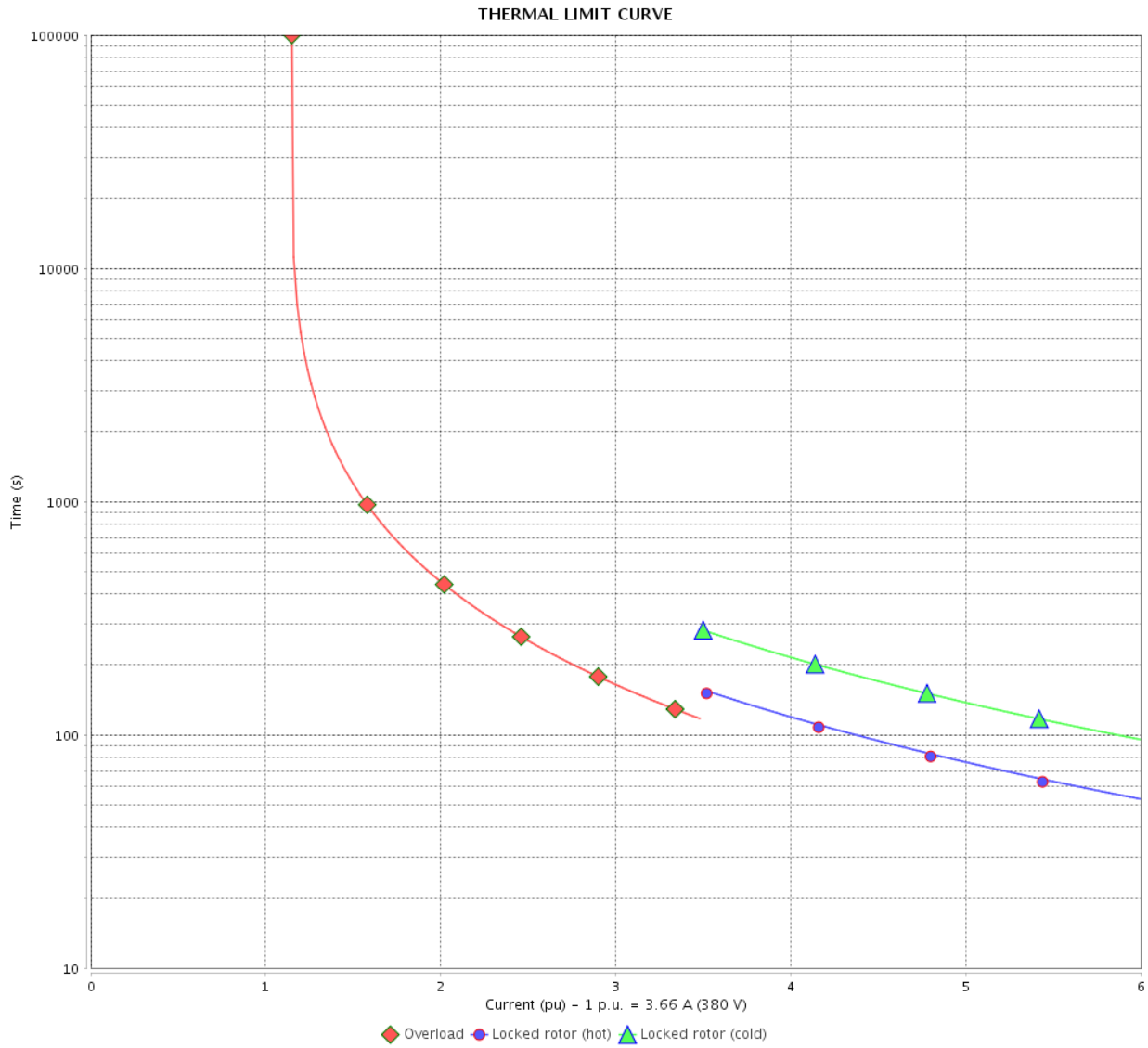
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Performance : 400 V 50 Hz 6P IE4

| | | | |
|---------------------|--------------|-----------------------|-------------------|
| Rated current | : 3.59 A | Moment of inertia (J) | : 0.5323 sq.ft.lb |
| LRC | : 6.7 | Duty cycle | : Cont.(S1) |
| Rated torque | : 10.9 ft.lb | Insulation class | : F |
| Locked rotor torque | : 260 % | Service factor | : 1.00 |
| Breakdown torque | : 270 % | Temperature rise | : 80 K |
| Rated speed | : 960 rpm | Design | : B |

Heating constant

Cooling constant

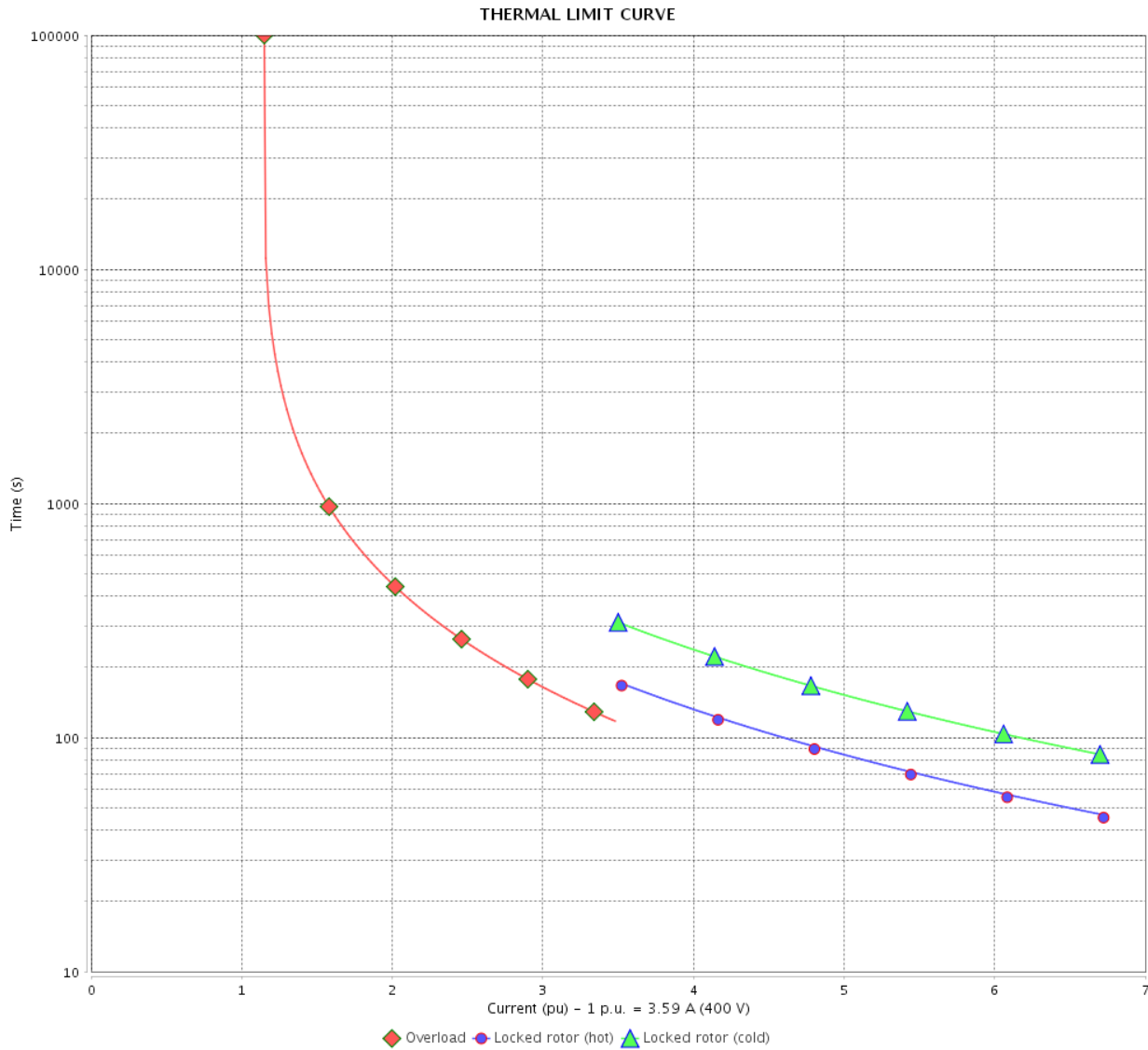
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THERMAL LIMIT CURVE



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| LRC : 7.1 | Duty cycle : Cont.(S1) |
| Rated torque : 10.9 ft.lb | Insulation class : F |
| Locked rotor torque : 300 % | Service factor : 1.00 |
| Breakdown torque : 300 % | Temperature rise : 80 K |
| Rated speed : 965 rpm | Design : B |

Heating constant

Cooling constant

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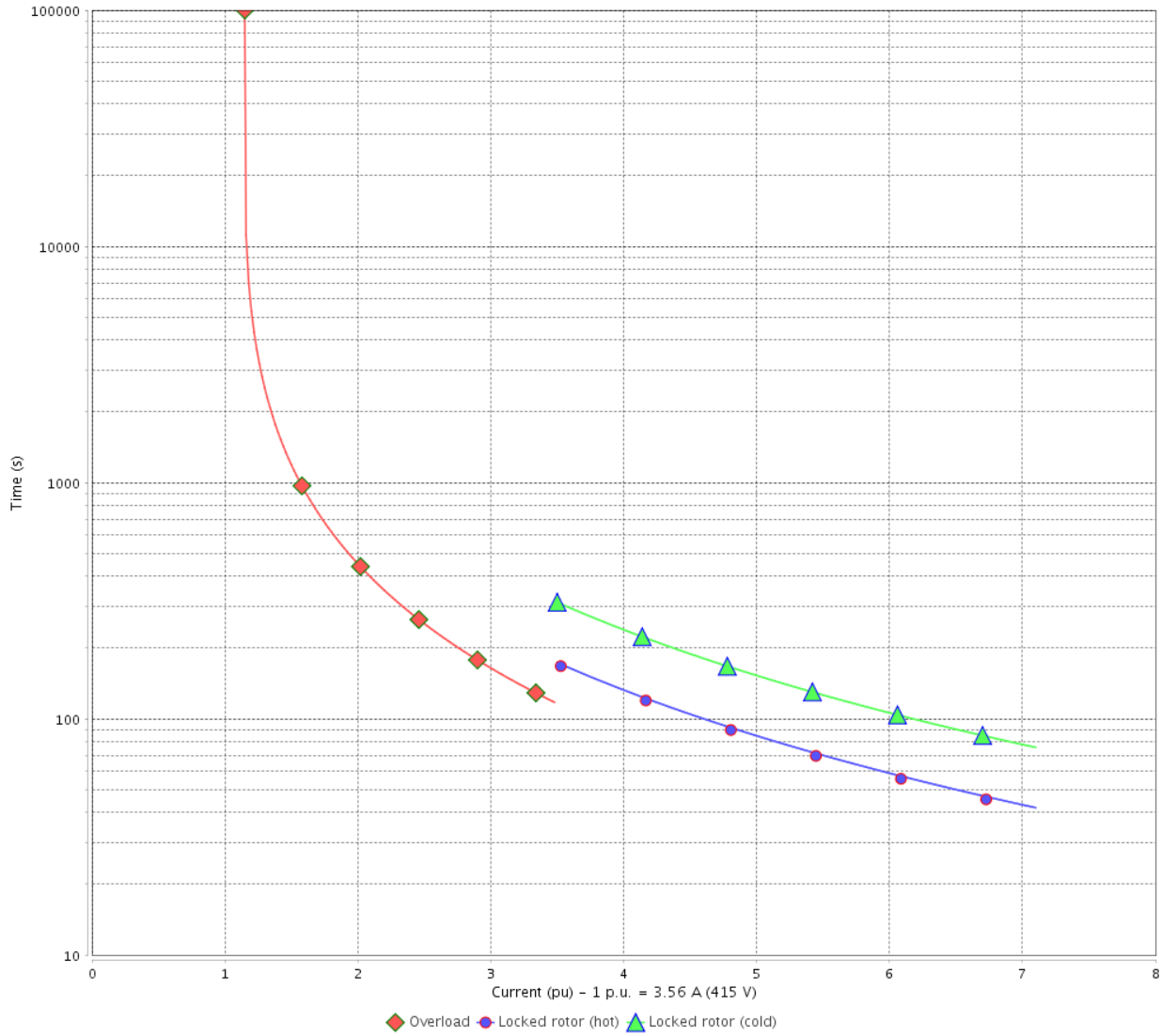
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Three Phase Induction Motor - Squirrel Cage



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THERMAL LIMIT CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

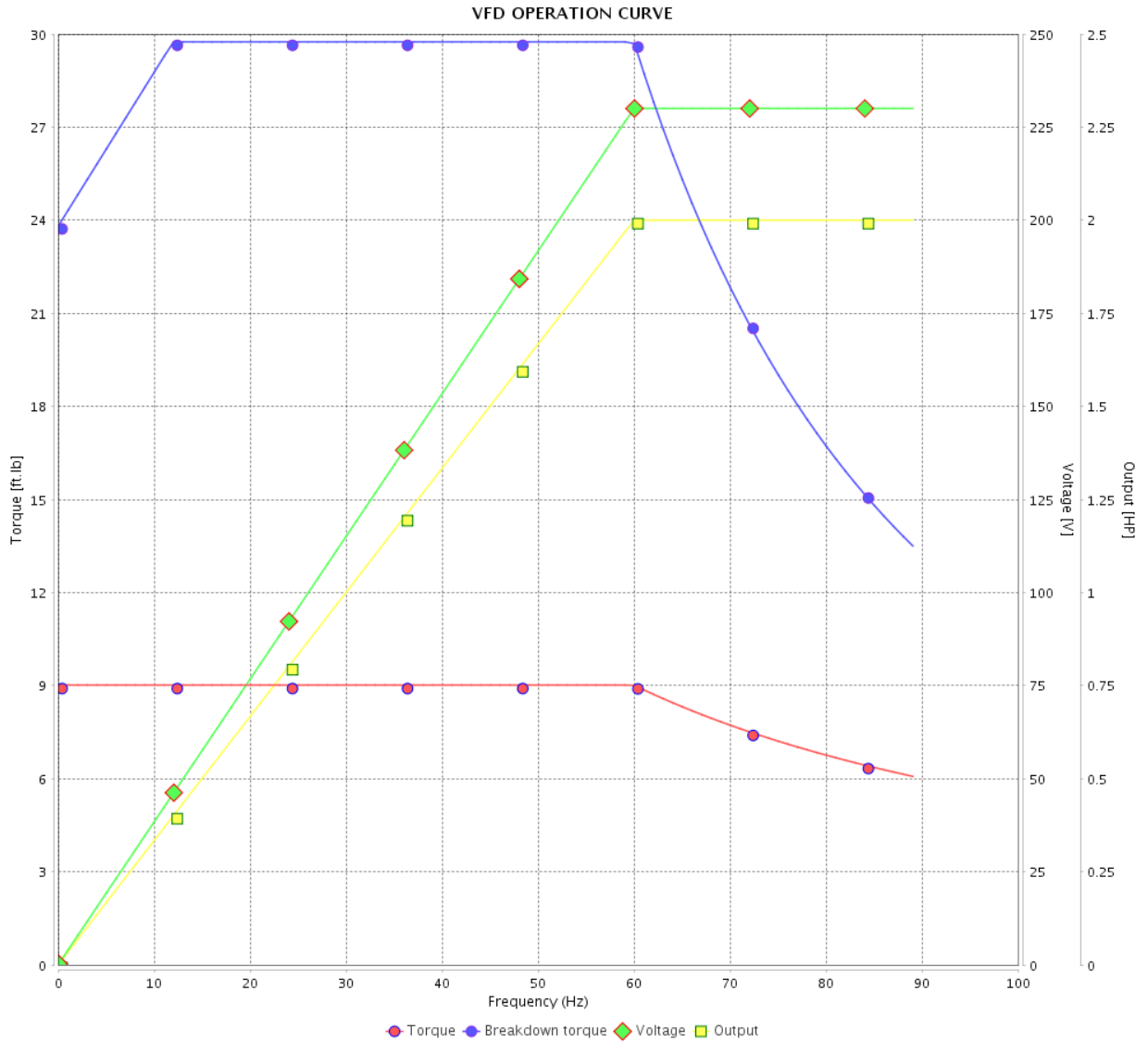


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



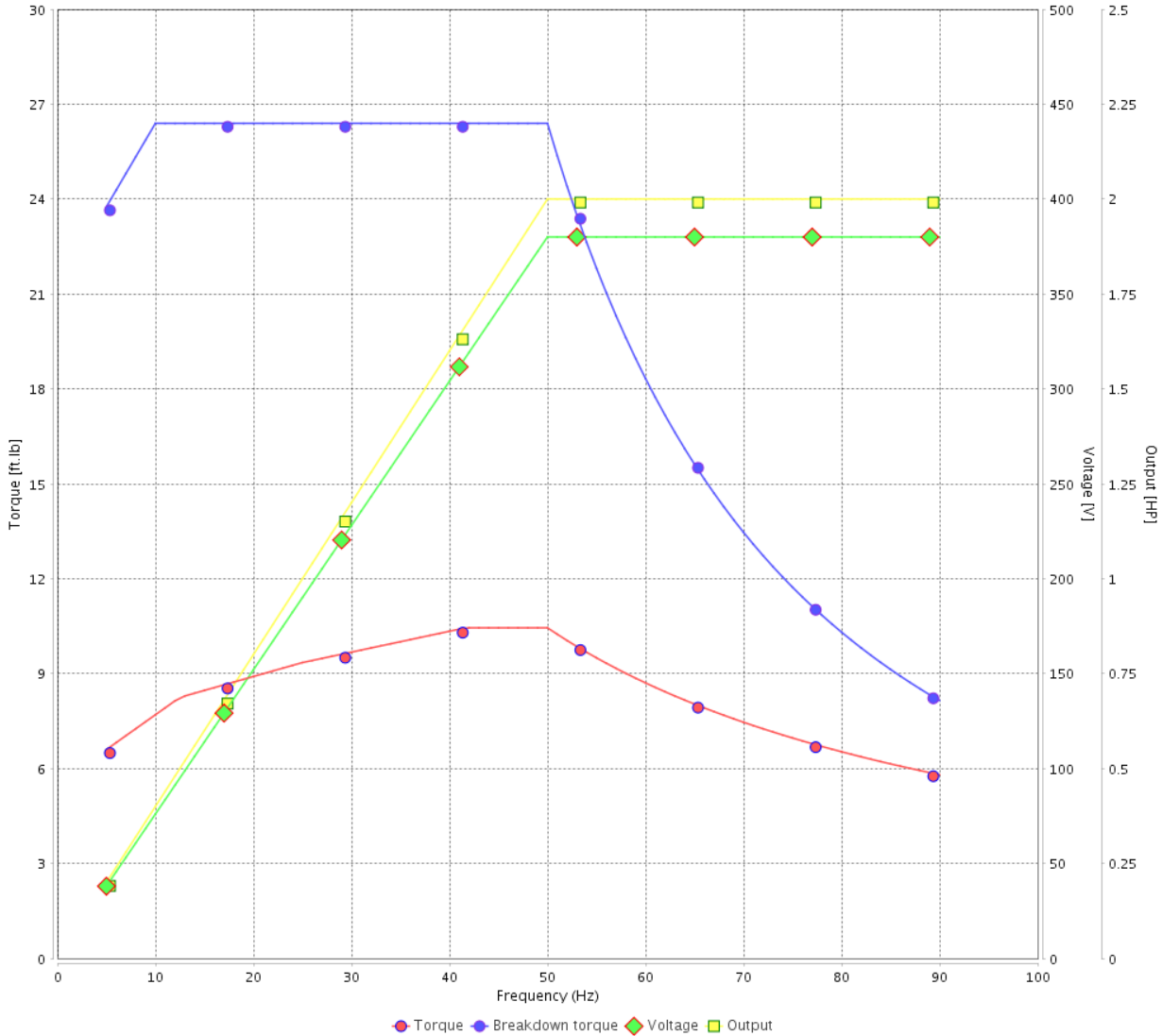
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VFD OPERATION CURVE



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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

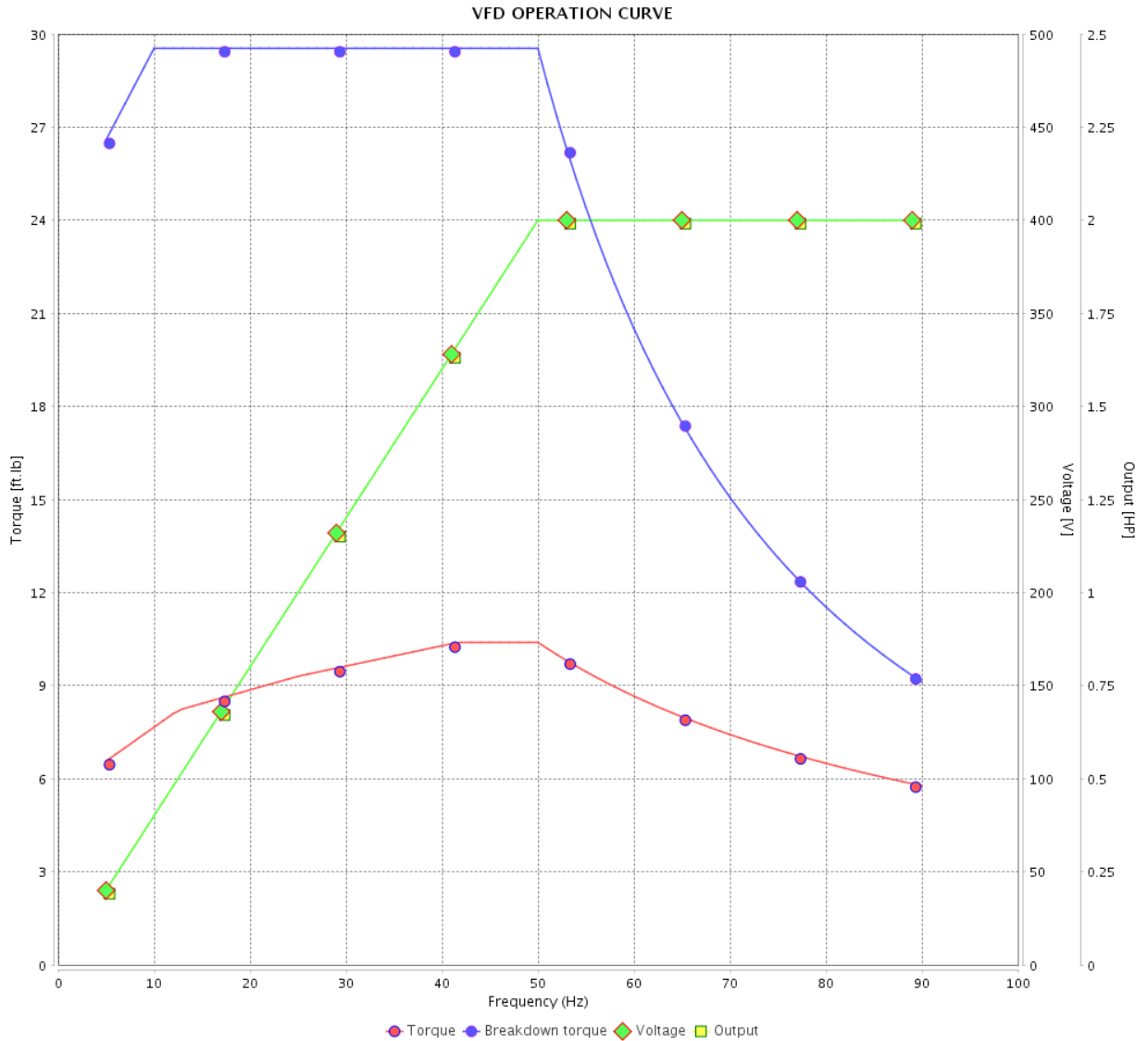


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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



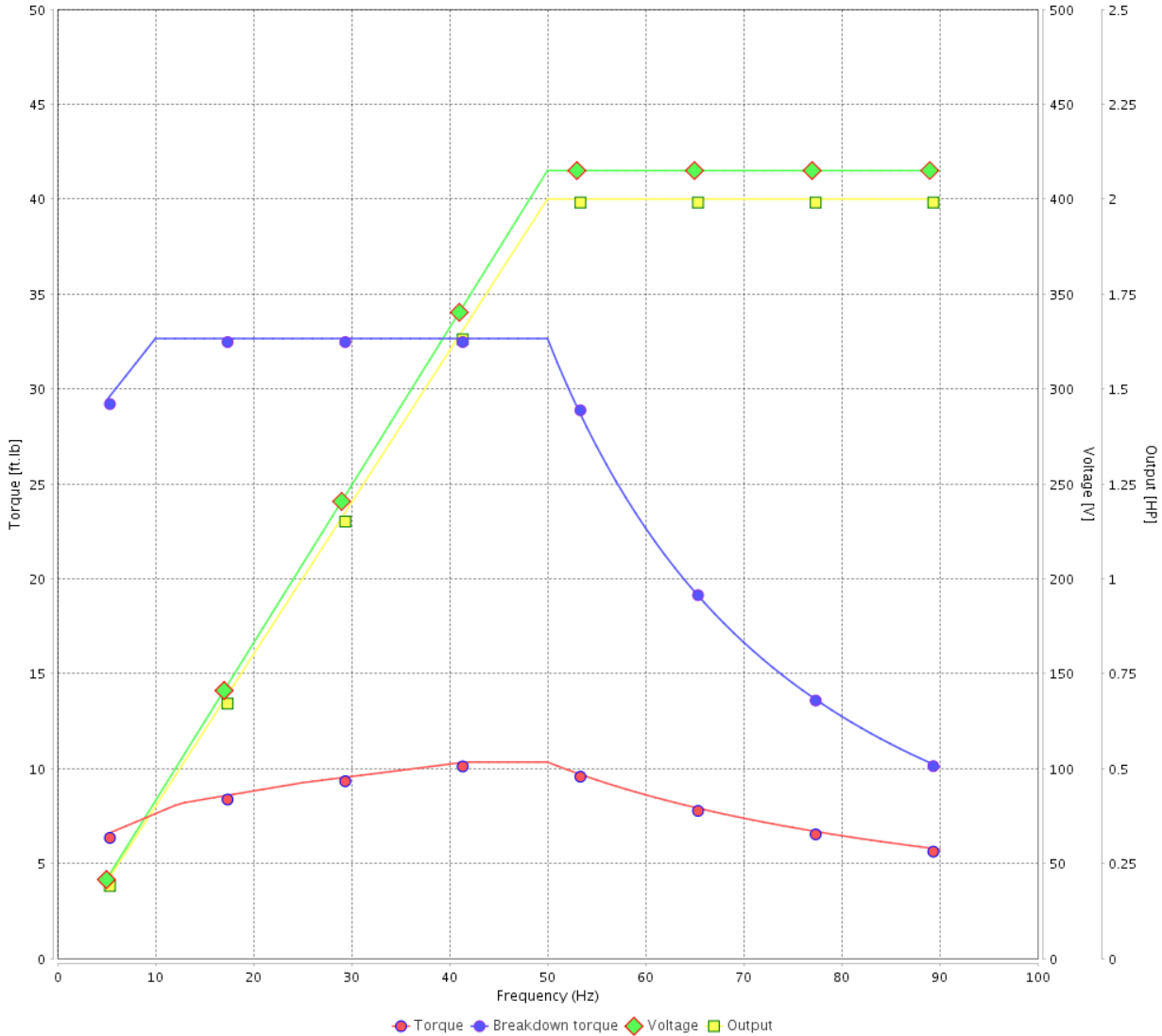
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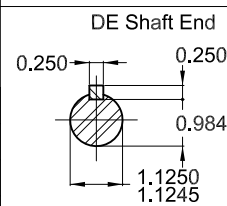
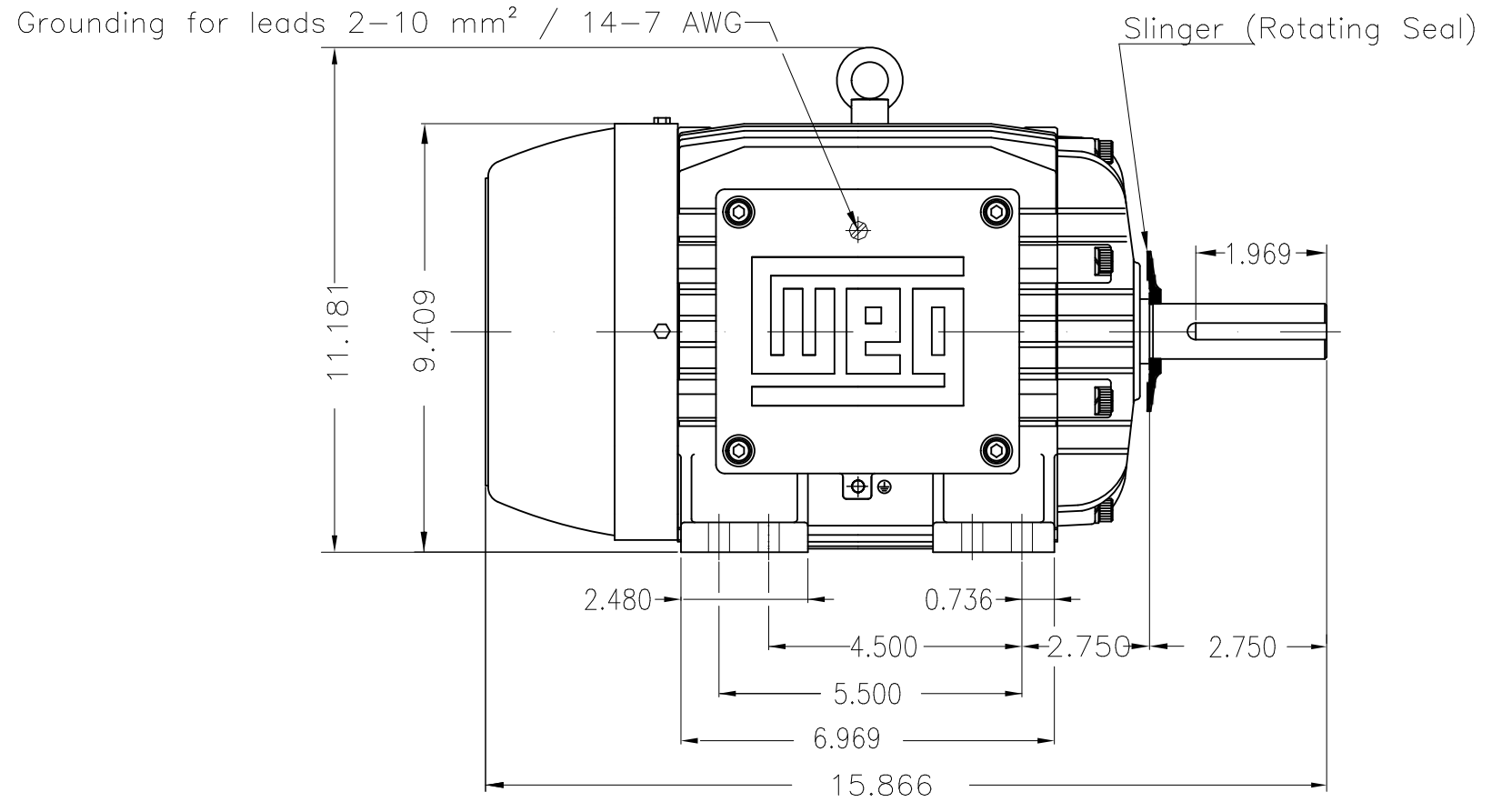
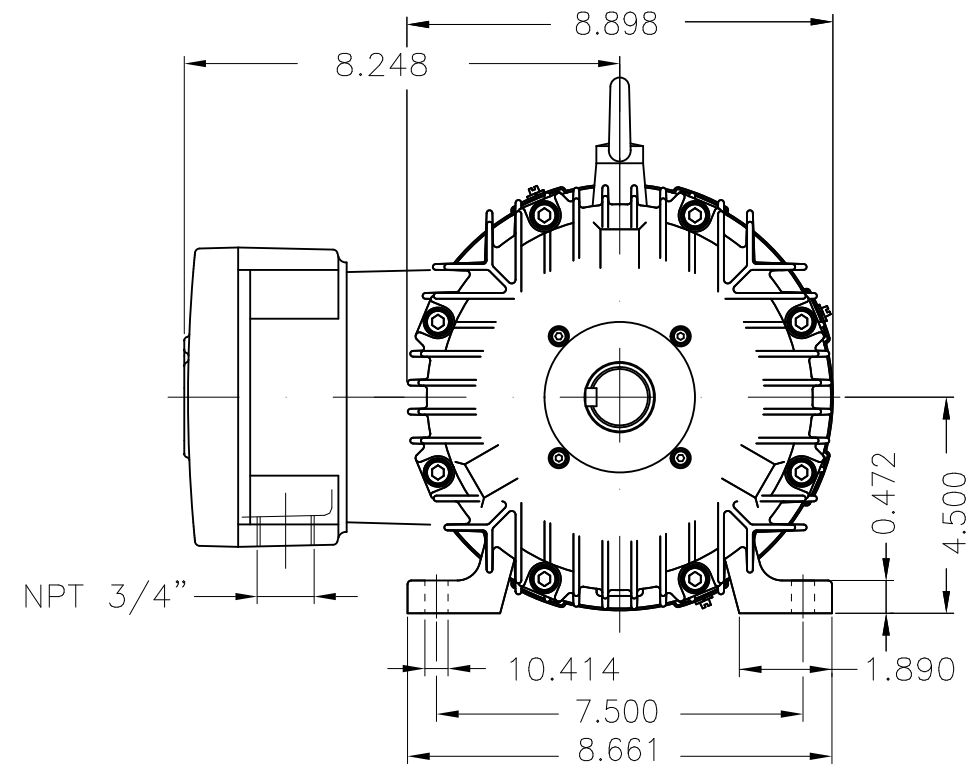


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Color RAL 5009
 Painting plan 202P
 Mounting NEMA F-1
 Mounting B3R(D)

2 HP 06 Poles 60 Hz

A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR EXPLOSION PROOF PREM. EFF. | | | | | |
| CHECKED | | FRAME 182/4T IP55 TEFC | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | | |

PREVIEW
 WDD



SHEET 1 / 1

MADE IN BRAZIL

**W21X NEMA**
Premium

14325198

CC029A

Inverter Duty Motor
Severe Duty

LISTED

MODEL 00212XT3E184T

PH 3 FR 182/4T

HP(kW) 2.0(1.5)

HZ 60

IP55

V 230/460

A 6.26/3.13

RPM 1165

NEMA NOM EFF 88.5%

PF 0.68

SFA 7.20/3.60

DES B

INS CL F Δ T 80 K SF 1.15

ENCL TEFC

DUTY CONT.

CODE L

ALT 1000

m.a.s.l.

AMB 40°C

USABLE @208V

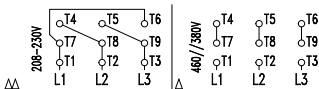
6.92 A

SF 1.15

SFA 7.96

AMB 55°C SF1.0

2.0HP 1.5kW 50Hz 380V 3.66A 955RPM SF1.00 EFF 86.5% (IE4)



→ 6307-2RS MOBIL POLYREX EM

→ 6206-2RS

134 Lbs

TEMP CODE T3C
CSA/UL: Class I - Div. 1 - Groups C and D
CSA: Class II - Div. 1 - Groups F and G
CSA: Class I - Zone 1 - IIB

EXPLOSION PROOF MOTOR

FOR USE ON VPWM VFD 1000:1VT, 20:1CT, 1.0SF, T3C, AMB 40°C.