

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | | | | |
|--|---|----------------------------------|--|---------------|----------|
| Customer : | | | | | |
| Product line | | : Premium Efficiency Three-Phase | Product code : | 12809009 | |
| | | | Catalog # : | .3312OT3E56-S | |
| Frame | : 56 | 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 | : 18.3 lb | | |
| | | Moment of inertia (J) | : 0.0710 sq.ft.lb | | |
| Output [HP] | 0.33 | 0.33 | 0.33 | | |
| Poles | 6 | 6 | 6 | | |
| Frequency [Hz] | 60 | 50 | 50 | | |
| Rated voltage [V] | 208-230/460 | 190/380 | 220/415 | | |
| Rated current [A] | 1.54-1.40/0.698 | 1.51/0.756 | 1.44/0.761 | | |
| L. R. Amperes [A] | 7.72-6.98/3.49 | 6.20/3.10 | 6.17/3.27 | | |
| LRC [A] | 5.0x(Code K) | 4.1x(Code G) | 4.3x(Code H) | | |
| No load current [A] | 1.03-1.20/0.600 | 1.14/0.568 | 1.16/0.617 | | |
| Rated speed [RPM] | 1160 | 945 | 950 | | |
| Slip [%] | 3.33 | 5.50 | 5.00 | | |
| Rated torque [ft.lb] | 1.49 | 1.83 | 1.82 | | |
| Locked rotor torque [%] | 210 | 160 | 180 | | |
| Breakdown torque [%] | 280 | 210 | 240 | | |
| Service factor | | 1.25 | 1.25 | | |
| Temperature rise | 80 K | 80 K | 80 K | | |
| Locked rotor time | 63s (cold) 35s (hot) | 68s (cold) 38s (hot) | 61s (cold) 34s (hot) | | |
| Noise level ² | 50.0 dB(A) | | 48.0 dB(A) | | |
| Efficiency (%) | 25% | 55.6 | 61.4 | 58.2 | |
| | 50% | 59.5 | 62.7 | 60.2 | |
| | 75% | 66.0 | 67.9 | 66.6 | |
| | 100% | 71.4 | 68.8 | 68.7 | |
| Power Factor | 25% | 0.23 | 0.27 | 0.25 | |
| | 50% | 0.42 | 0.50 | 0.47 | |
| | 75% | 0.53 | 0.63 | 0.59 | |
| | 100% | 0.63 | 0.73 | 0.69 | |
| Bearing type | : Drive end 6203 ZZ Non drive end 6202 ZZ | Foundation loads | | | |
| Sealing | : Without Without Bearing Seal Bearing Seal | Max. traction | : 33 lb | | |
| | | Max. compression | : 52 lb | | |
| Lubrication interval | : - - | | | | |
| Lubricant amount | : - - | | | | |
| Lubricant type | : Mobil Polyrex EM | | | | |
| Notes USABLE @208V SF 1.00 | | | | | |
| 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 | 11/04/2022 | | | 1 / 10 | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Premium Efficiency Three-Phase

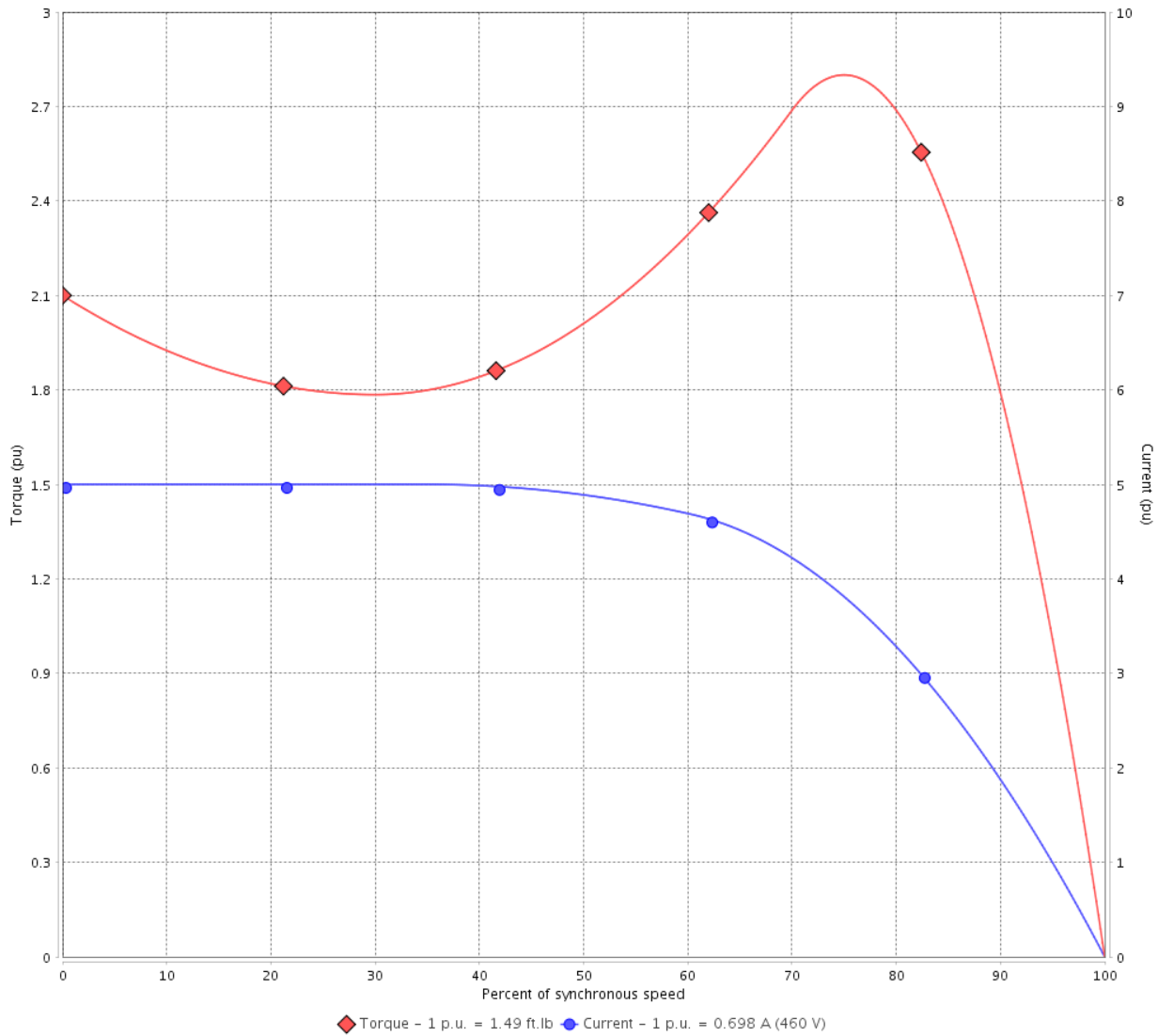
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Catalog # :

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TORQUE AND CURRENT VS SPEED CURVE



Performance : 208-230/460 V 60 Hz 6P

Rated current : 1.54-1.40/0.698 A
 LRC : 5.0
 Rated torque : 1.49 ft.lb
 Locked rotor torque : 210 %
 Breakdown torque : 280 %
 Rated speed : 1160 rpm

Moment of inertia (J) : 0.0710 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor :
 Temperature rise : 80 K

Locked rotor time : 63s (cold) 35s (hot)

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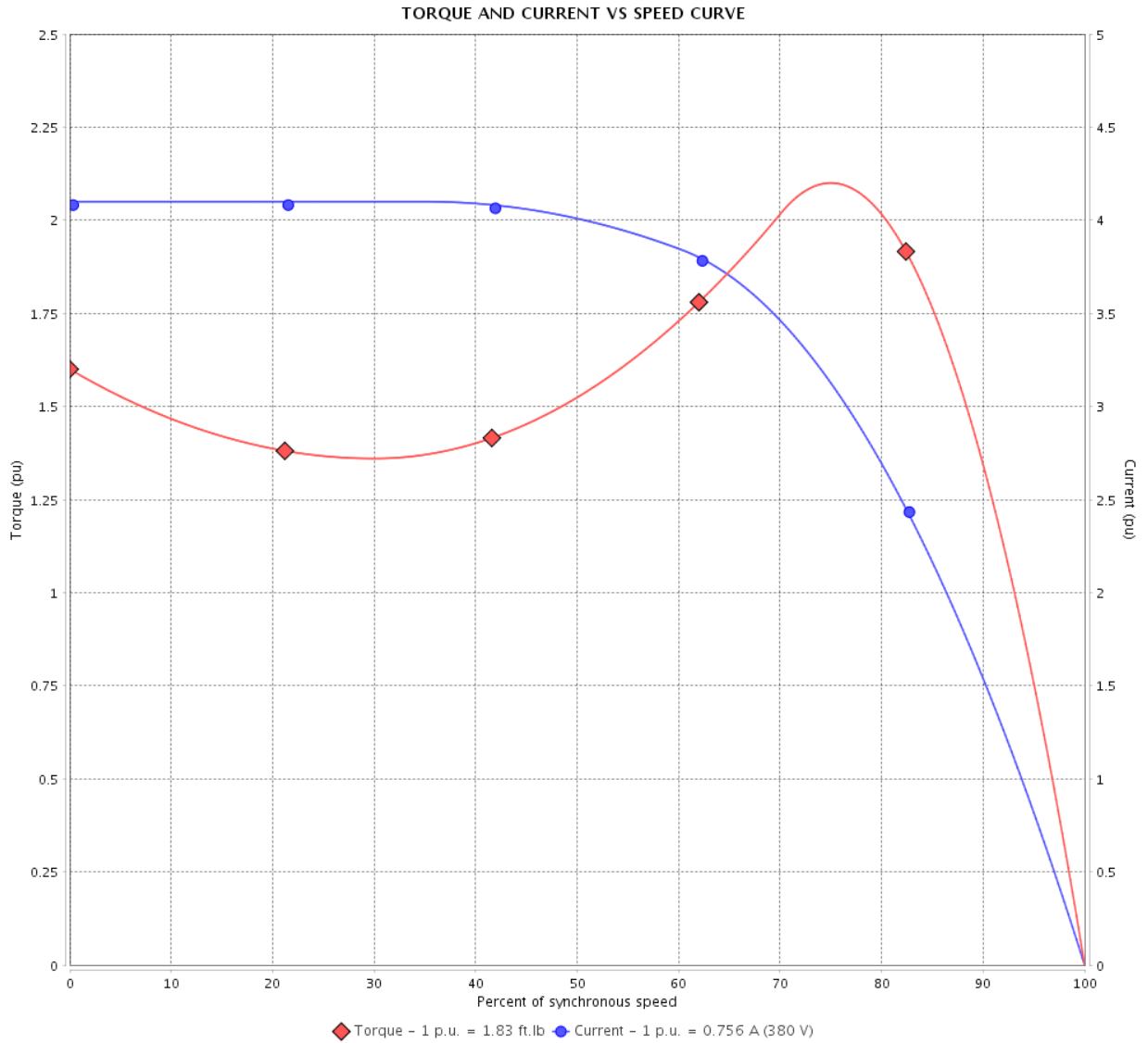
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Performance : 190/380 V 50 Hz 6P

Rated current : 1.51/0.756 A
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 Rated torque : 1.83 ft.lb
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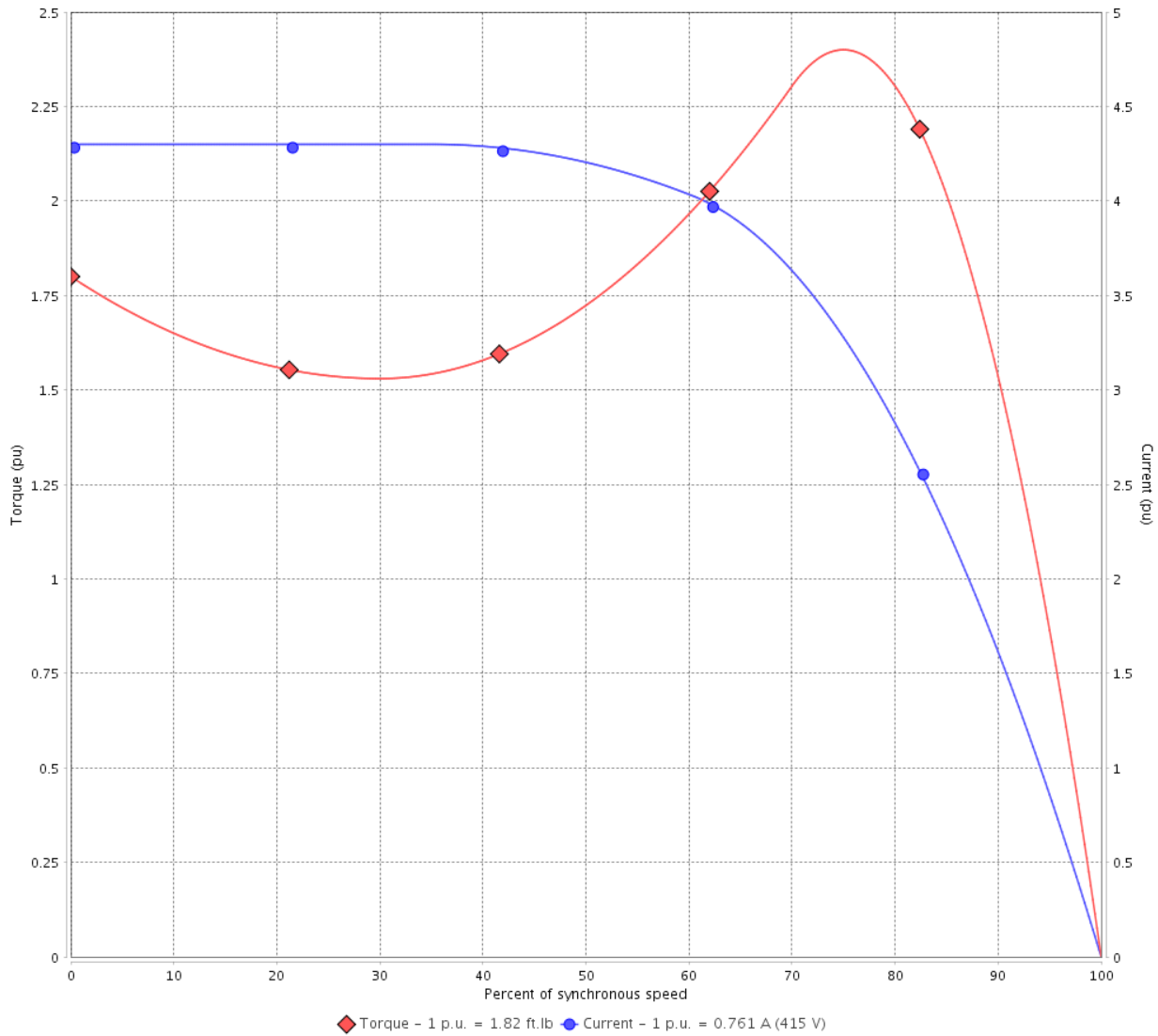
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 Breakdown torque : 240 %
 Rated speed : 950 rpm

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LOAD PERFORMANCE CURVE

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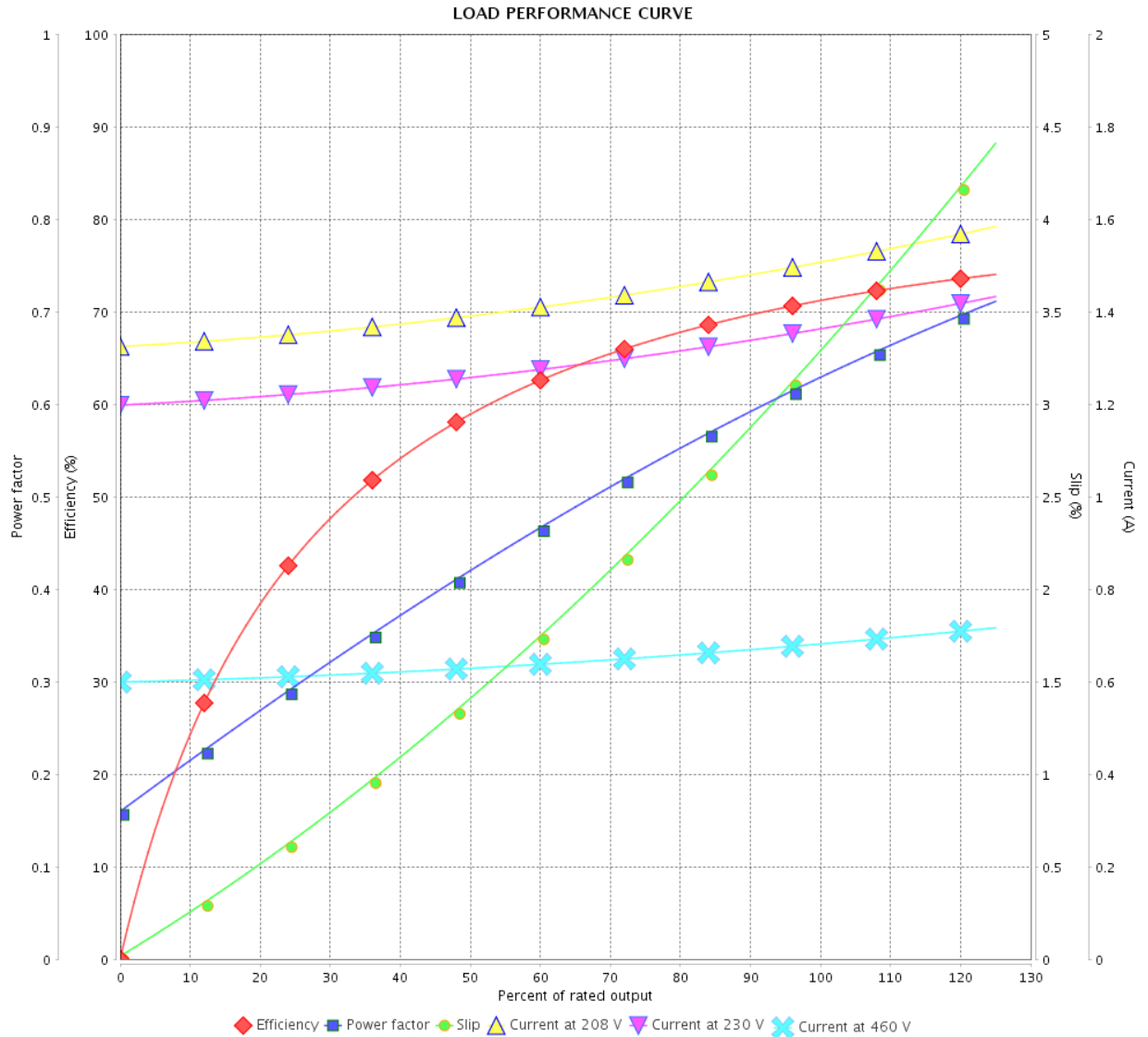
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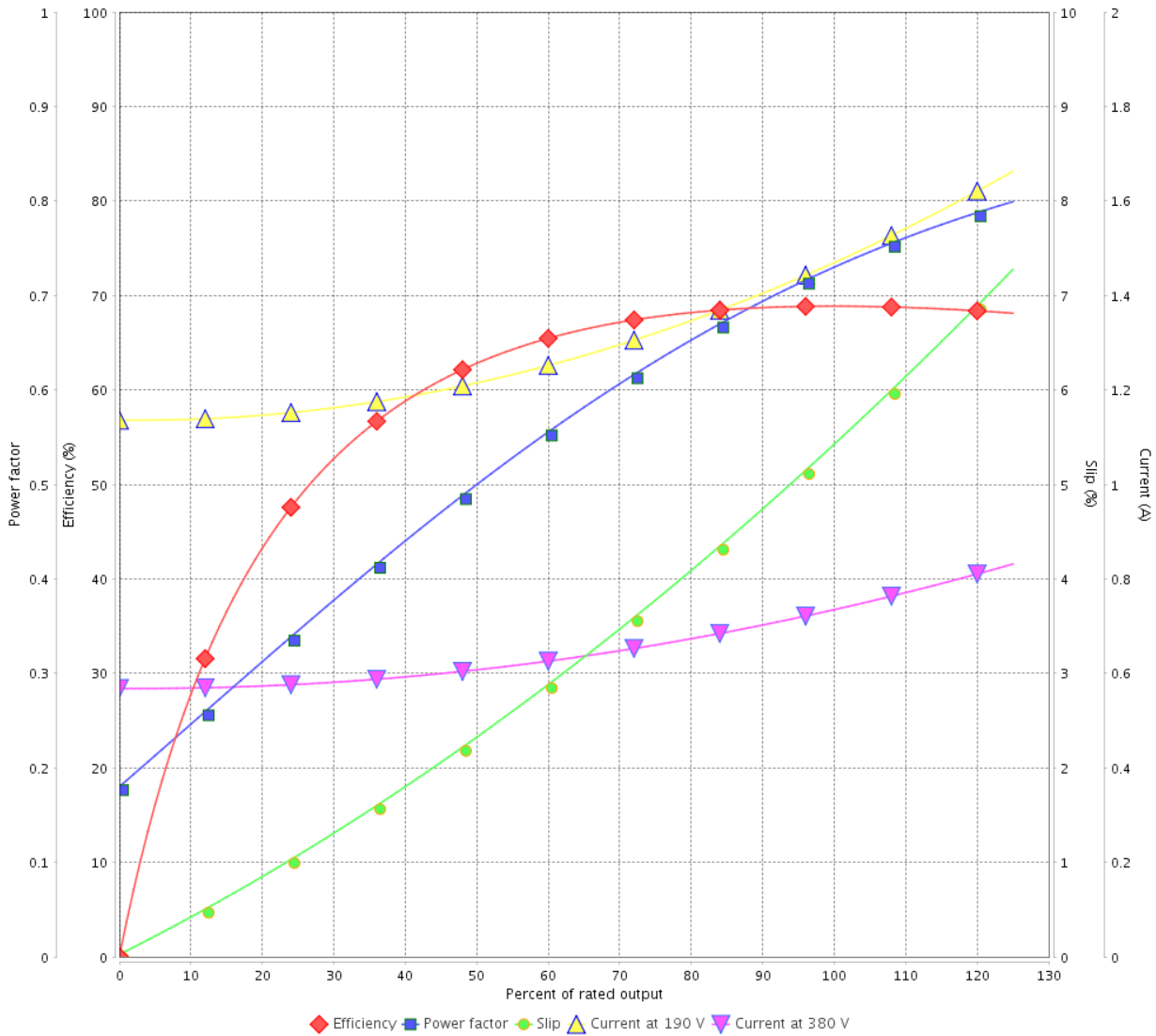
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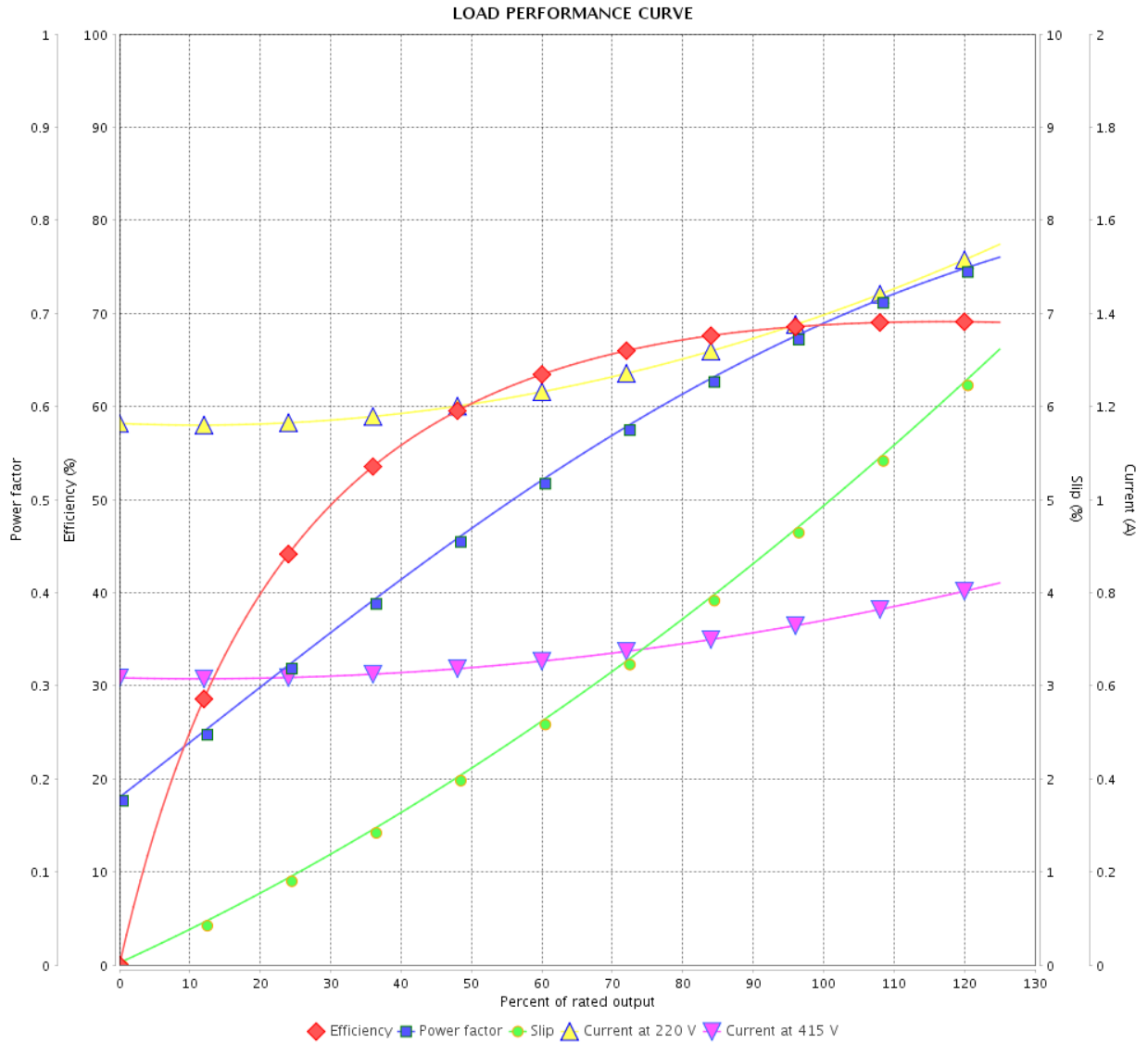
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THERMAL LIMIT CURVE

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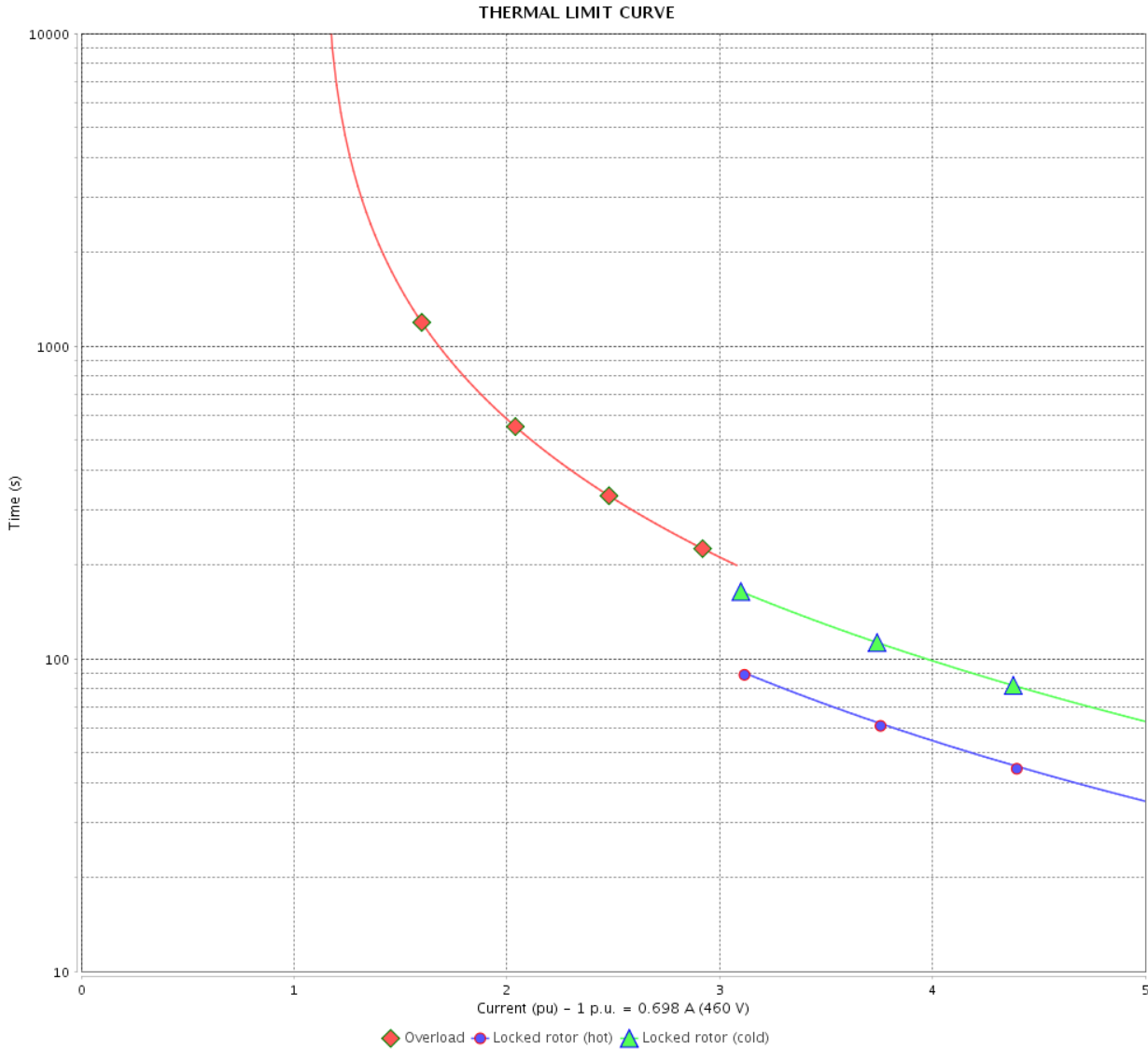
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Heating constant

Cooling constant

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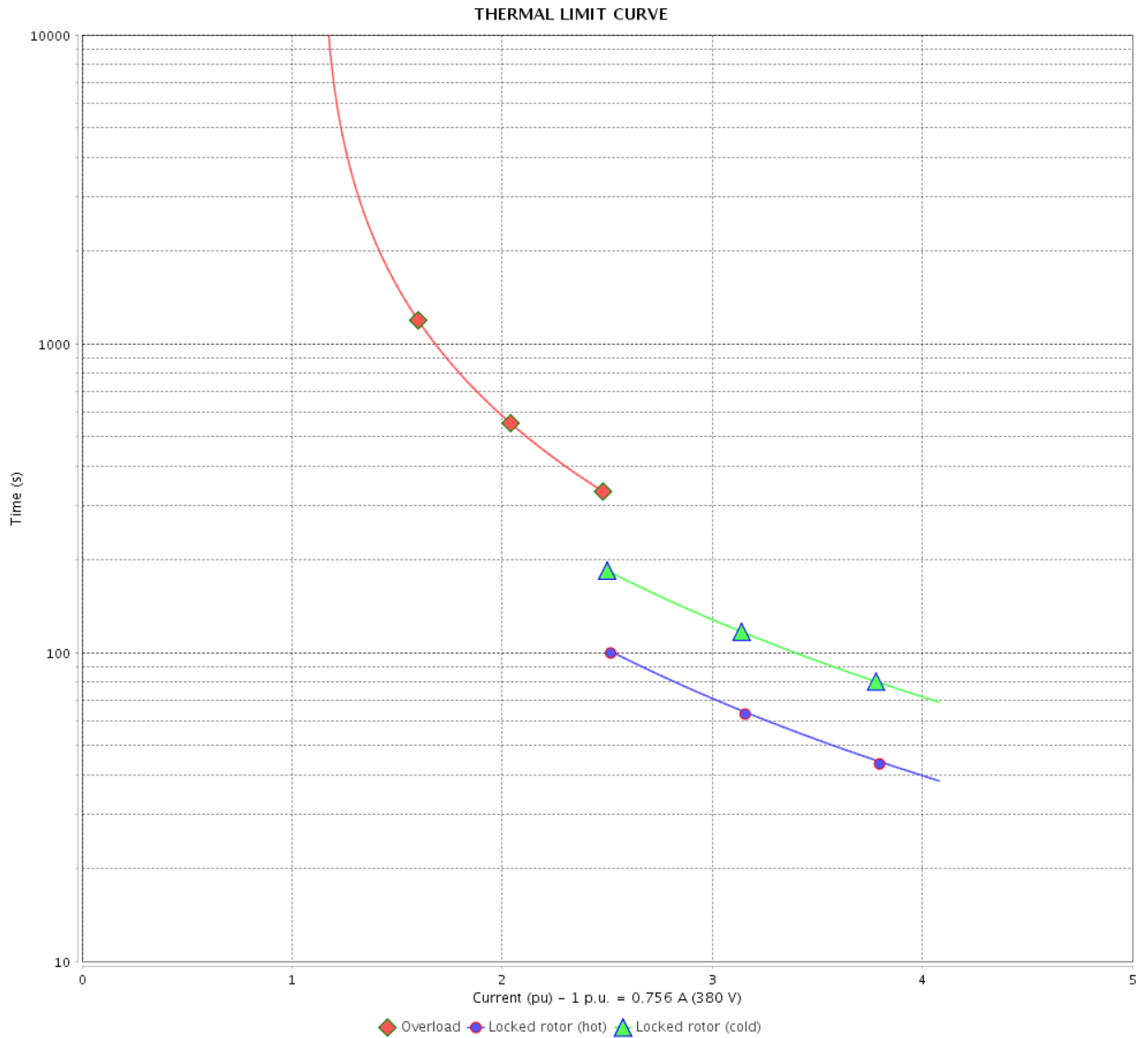
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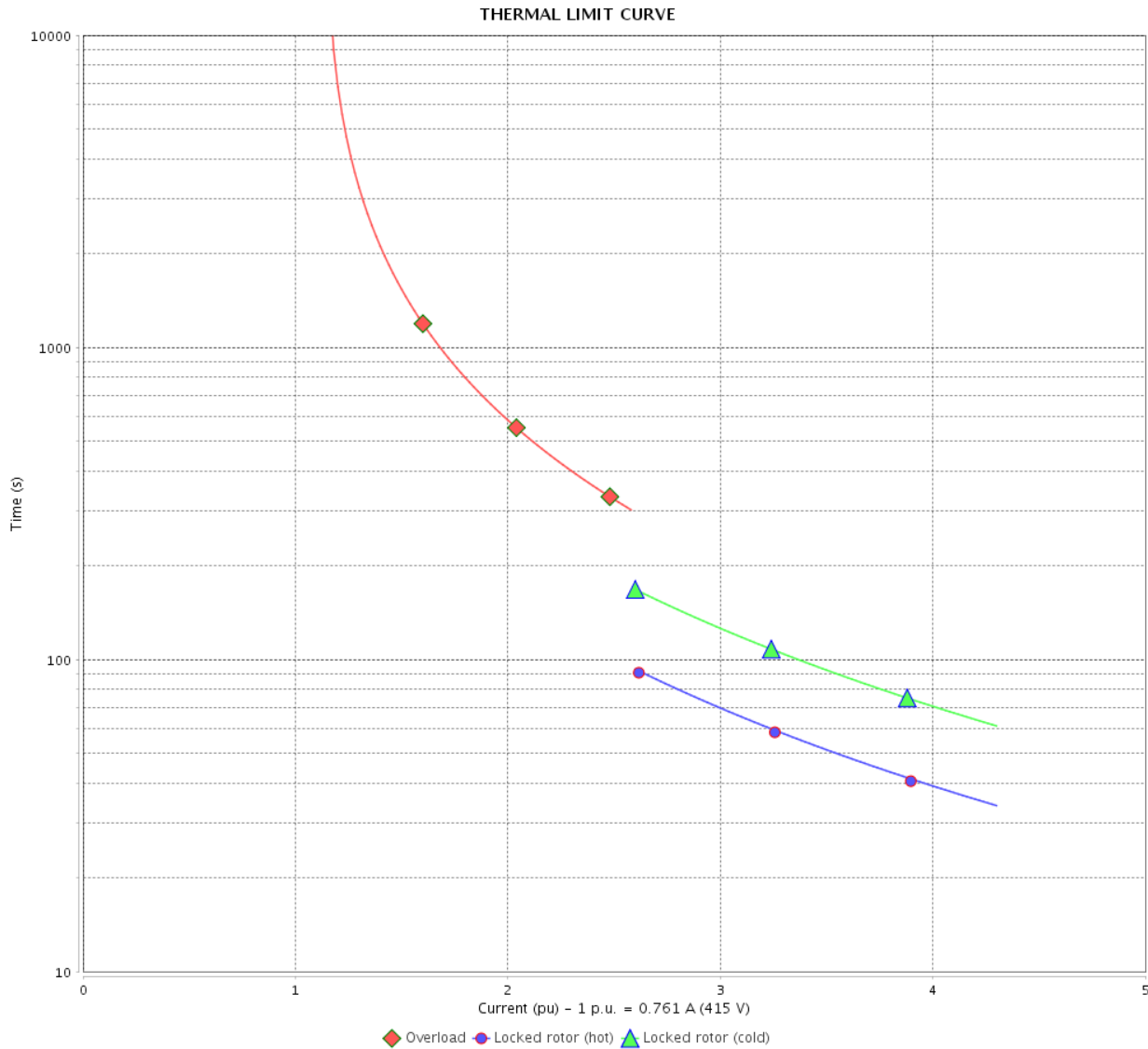
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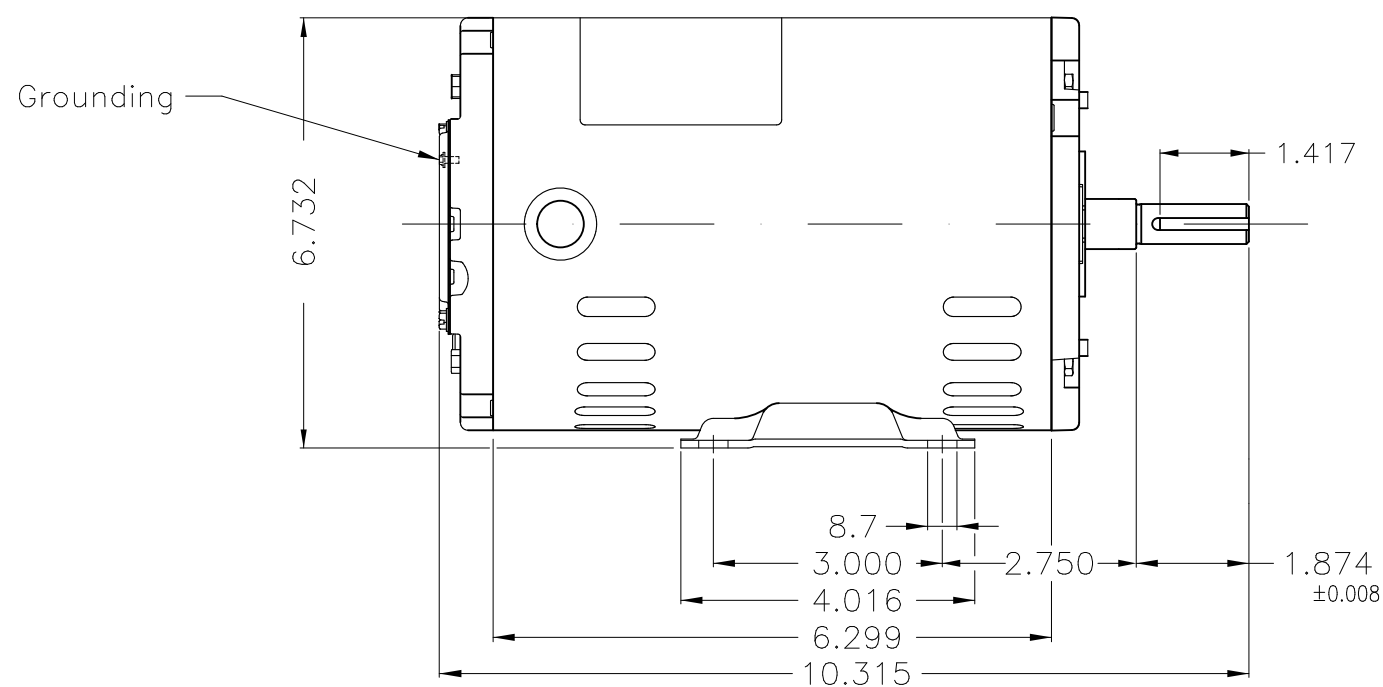
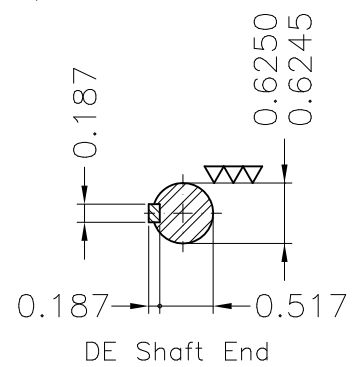
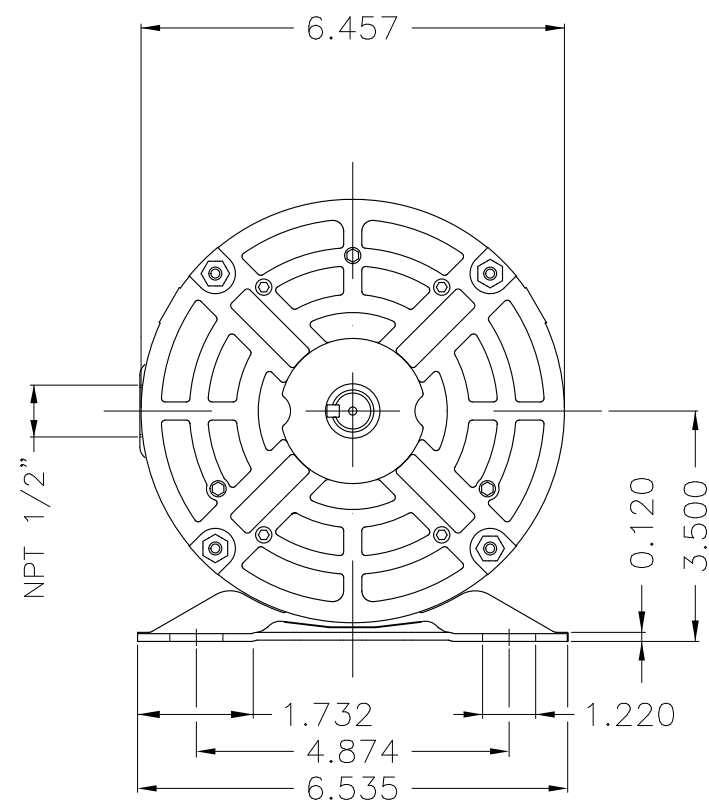
A

B

C

D

E



| | | | | | | | | | | |
|---------------------|----------|---|----------------|---------------------|-------|----------|-----------------------|----------|------|-----|
| Without coating | | | | | | | | | | |
| Mounting F-1/B3R(D) | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| ECM | LOC | SUMMARY OF MODIFICATIONS | | | | EXECUTED | CHECKED | RELEASED | DATE | VER |
| EXECUTED | PIRWUSER | THREE PH. MOTOR ROLLED STEEL PREM. EFF. | | | | | PREVIEW WDD | | | |
| CHECKED | | FRAME 56 IP21 ODP | | | | | | | | |
| RELEASED | | | | | | | | | | |
| REL DT. | | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | | | |

0.33 HP 06 Poles 60 Hz

A



NEMA
Premium



3PT9



Energy Verified

MADE IN MEXICO

MAT: 12809009

W01.T00IC0X0X

MODEL 33120T3E56-S

24MAR2022 B/N:



| | | |
|----------------------------|---------------|-----------------------|
| PH 3 | Hz 60 | HP 0.33 |
| FR 56 | | KW 0.25 |
| DUTY CONT. | | V 230/460 |
| ALT 1000 m.a.s.l. | | A 1.40/0.698 |
| INS CL F AT 80K | | SFA 1.89/0.942 |
| AMB 40°C | DES - | SF 1.35 |
| ENCL ODP | CODE K | PF 0.63 |
| USABLE @ 208V 1.54A | | RPM 1160 |
| SF1.00 | | AVG.F.L. 71.4% |

ALTERNATE RATING: 0.33HP 50Hz 190-220/380-415V SF1.25
1.51-1.48/0.758-0.774A 945RPM EFF 88.1% (IE2) IEC 60034-1

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 5:1 CT

| | | |
|-------------------|--------------------|-------------------------|
| DE 6203-ZZ | ODE 6202-ZZ | MOBIL POLYREX EM |
|-------------------|--------------------|-------------------------|



T1-BLU T2-WHT
 T3-ORG T4-YEL
 T5-BLK T6-GRY
 T7-PNK T8-RED
 T9-BRK RED

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



AVERTISSEMENT: Le moteur doit être mis à la terre

conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

