

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------|
| Customer : | | |
| Product line | : NEMA Premium Efficiency Three-Phase | |
| Product code : | 13163347 | |
| Catalog # : | 00518OT3E184TC-SG | |
| Frame | : 182/4TC | |
| Insulation class | : F | |
| Duty cycle | : Cont.(S1) | |
| Ambient temperature | : -20°C to +40°C | |
| Altitude | : 1000 m.a.s.l. | |
| Design | : B | |
| Cooling method | : IC01 - ODP | |
| Mounting | : F-1 | |
| Rotation ¹ | : Both (CW and CCW) | |
| Starting method | : Direct On Line | |
| Approx. weight ² | : 90.5 lb | |
| Moment of inertia (J) | : 0.4003 sq.ft.lb | |
| Output [HP] | 5 | |
| Poles | 4 | |
| Frequency [Hz] | 60 | |
| Rated voltage [V] | 230/460 | |
| Rated current [A] | 12.7/6.33 | |
| L. R. Amperes [A] | 91.2/45.6 | |
| LRC [A] | 7.2x(Code J) | |
| No load current [A] | 6.29/3.15 | |
| Rated speed [RPM] | 1760 | |
| Slip [%] | 2.22 | |
| Rated torque [ft.lb] | 14.9 | |
| Locked rotor torque [%] | 200 | |
| Breakdown torque [%] | 310 | |
| Service factor | 1.15 | |
| Temperature rise | 80 K | |
| Locked rotor time | 21s (cold) 12s (hot) | |
| Noise level ² | 55.0 dB(A) | |
| Efficiency (%) | 25% | 87.5 |
| | 50% | 88.5 |
| | 75% | 88.5 |
| | 100% | 89.5 |
| Power Factor | 25% | 0.38 |
| | 50% | 0.63 |
| | 75% | 0.76 |
| | 100% | 0.82 |
| Bearing type | : <u>Drive end</u> 6206 ZZ <u>Non drive end</u> 6205 ZZ | |
| Sealing | : Without Without | |
| | : Bearing Seal Bearing Seal | |
| Lubrication interval | : - - | |
| Lubricant amount | : - - | |
| Lubricant type | : Mobil Polyrex EM | |
| Foundation loads | | |
| Max. traction | : 244 lb | |
| Max. compression | : 334 lb | |
| Notes | | |
| USABLE @208V 14.0A SF 1.00 SFA 14.0A | | |
| 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 by | Performed | |
| Checked by | Checked | |
| Date | 12/04/2022 | |
| Page | 1 / 16 | |
| Revision | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



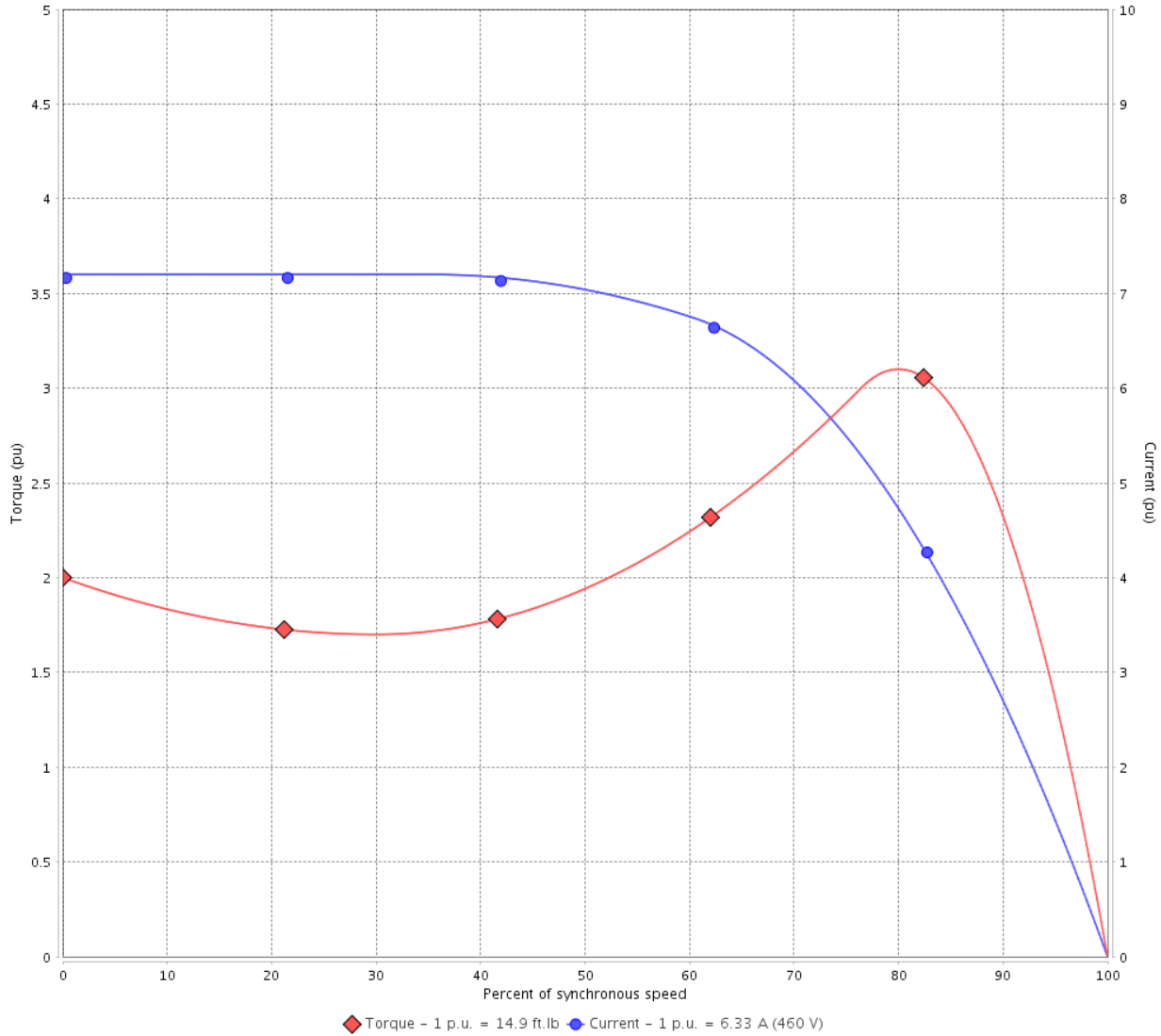
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163347

Catalog # : 00518OT3E184TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 4P

Rated current : 12.7/6.33 A
 LRC : 7.2
 Rated torque : 14.9 ft.lb
 Locked rotor torque : 200 %
 Breakdown torque : 310 %
 Rated speed : 1760 rpm

Moment of inertia (J) : 0.4003 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 21s (cold) 12s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



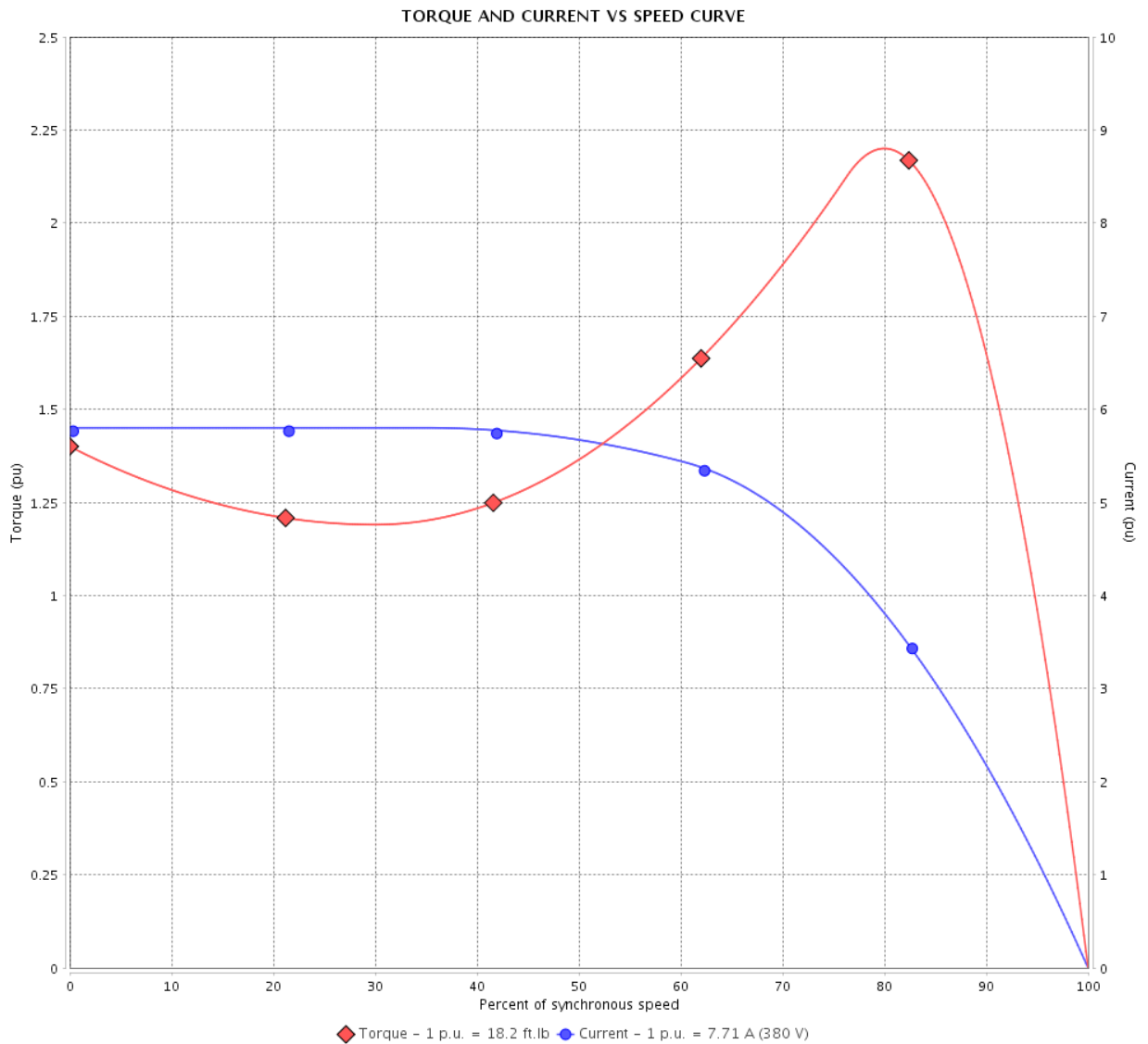
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163347

Catalog # : 00518OT3E184TC-SG



Performance : 190/380 V 50 Hz 4P

Rated current : 15.4/7.71 A
 LRC : 5.8
 Rated torque : 18.2 ft.lb
 Locked rotor torque : 140 %
 Breakdown torque : 220 %
 Rated speed : 1445 rpm

Moment of inertia (J) : 0.4003 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 0s (cold) 0s (hot)

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

Three Phase Induction Motor - Squirrel Cage



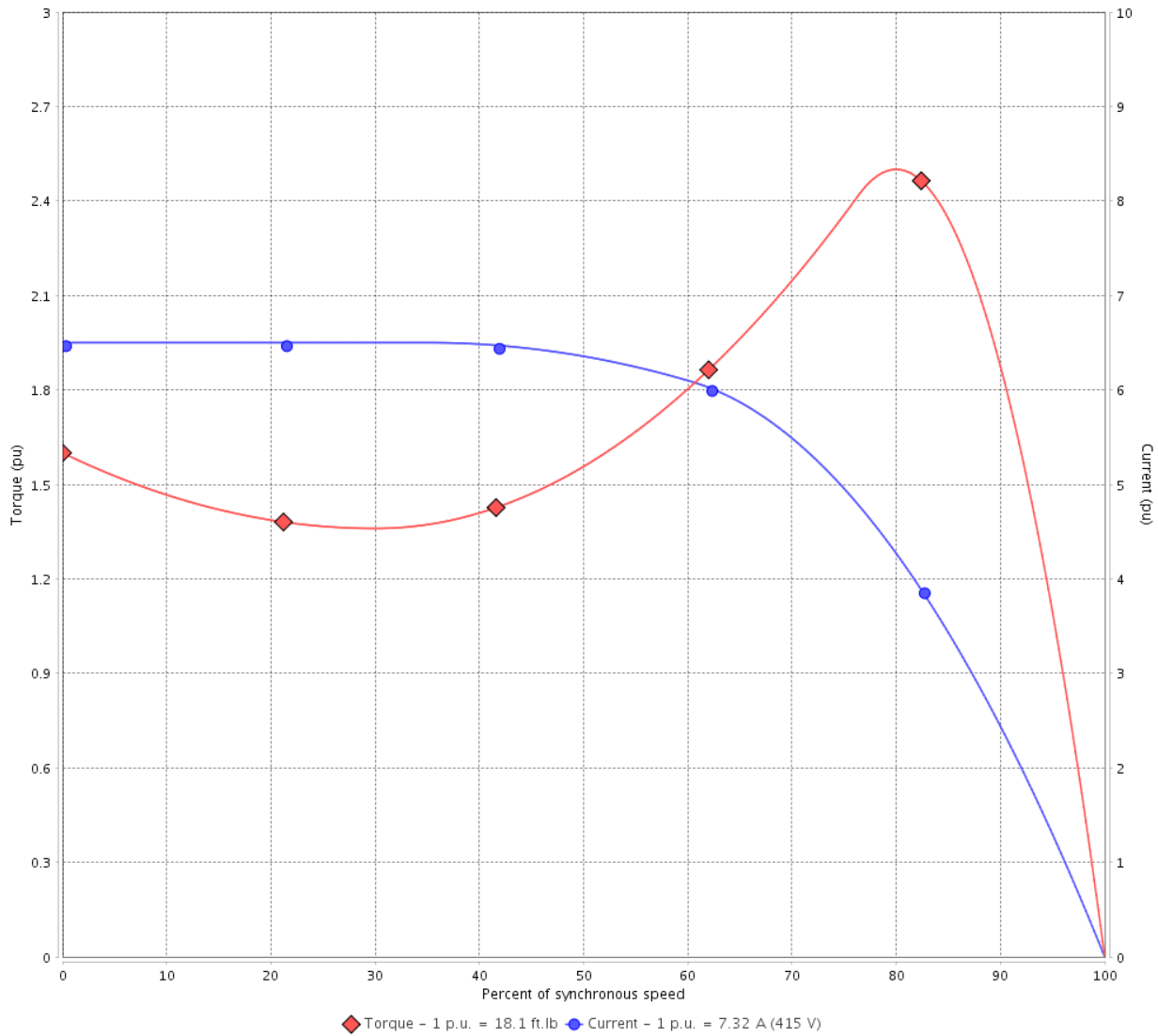
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 13163347

Catalog # : 005180T3E184TC-SG

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 4P

| | | | |
|---------------------|---------------|-----------------------|-------------------|
| Rated current | : 13.8/7.32 A | Moment of inertia (J) | : 0.4003 sq.ft.lb |
| LRC | : 6.5 | Duty cycle | : Cont.(S1) |
| Rated torque | : 18.1 ft.lb | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.15 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 1450 rpm | Design | : B |

Locked rotor time : 0s (cold) 0s (hot)

| Rev. | Changes Summary | Performed | Checked | Date |
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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

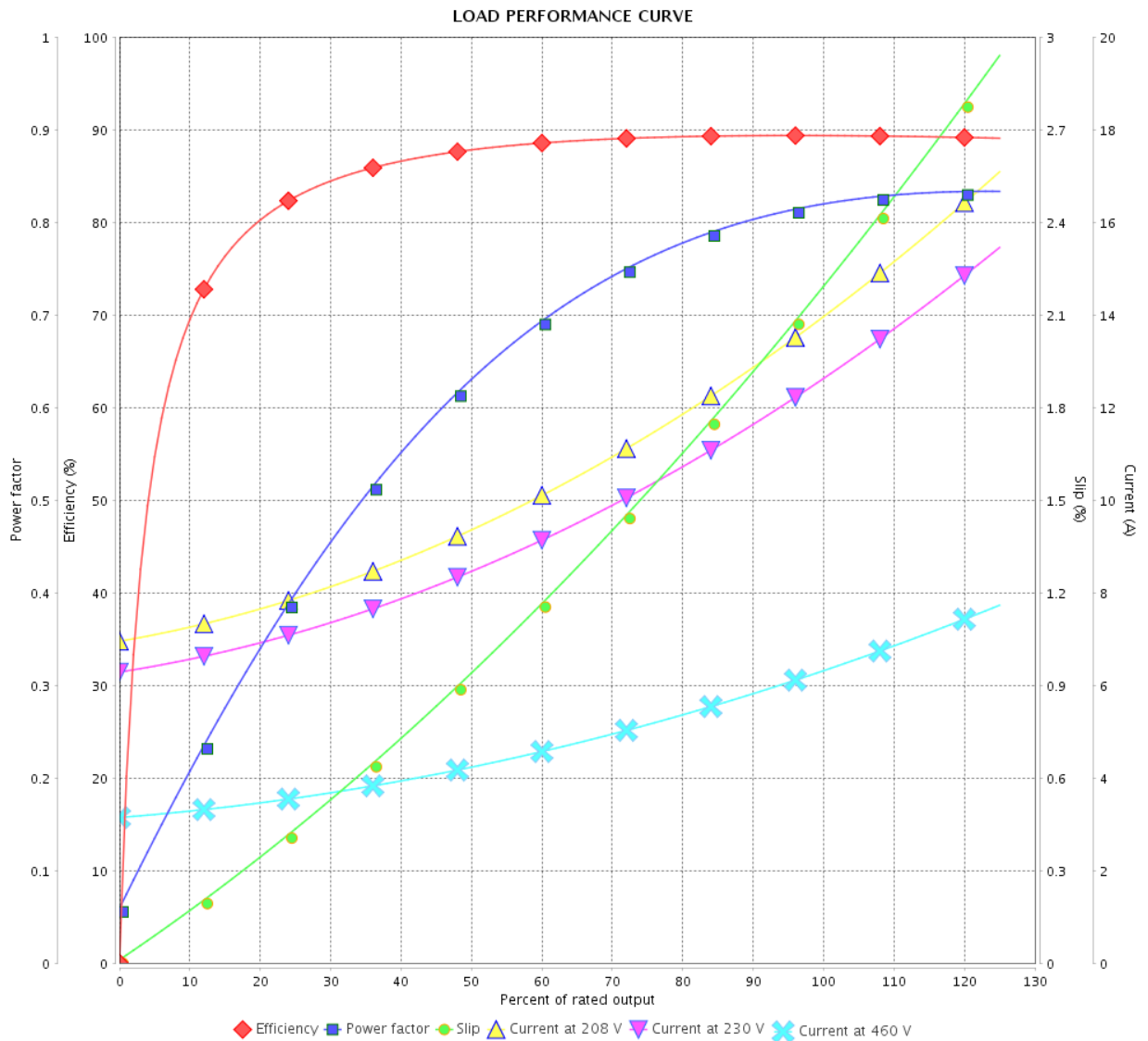


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Three Phase Induction Motor - Squirrel Cage



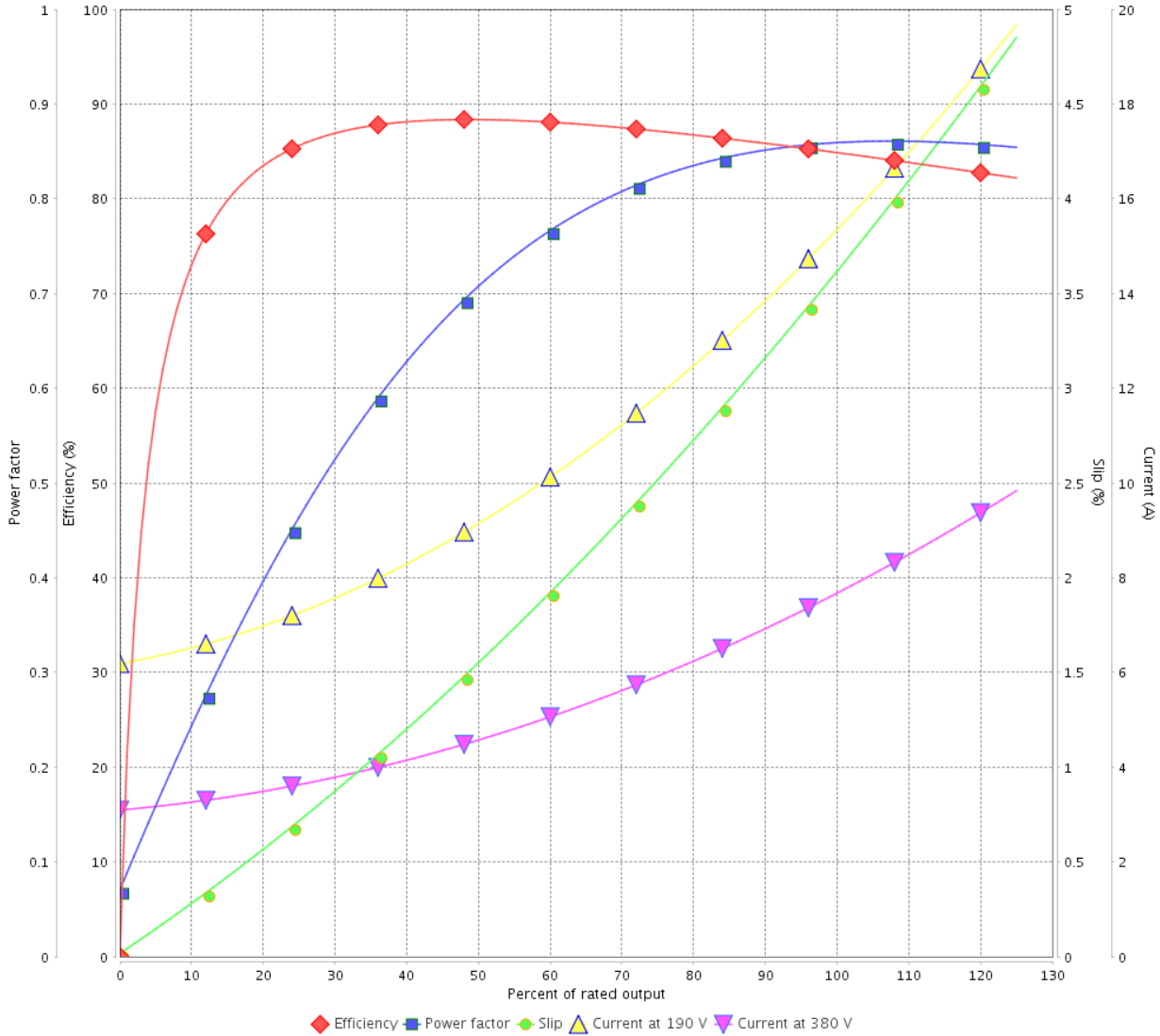
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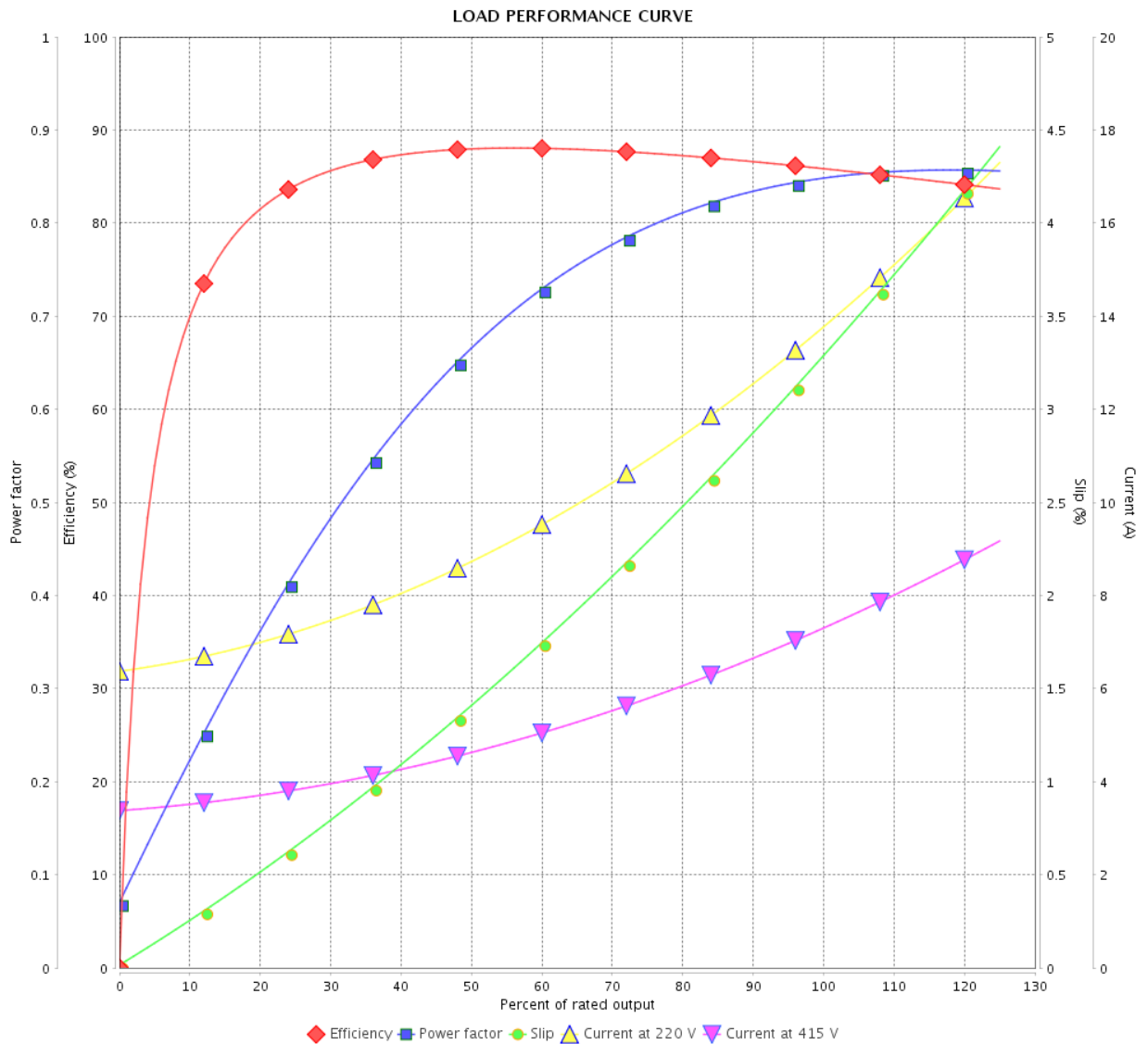


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 LRC : 6.5
 Rated torque : 18.1 ft.lb
 Locked rotor torque : 160 %
 Breakdown torque : 250 %
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : NEMA Premium Efficiency Three-Phase
Product code : 13163347
Catalog # : 00518OT3E184TC-SG

Performance : 230/460 V 60 Hz 4P

| | |
|-----------------------------|-----------------------------------------|
| Rated current : 12.7/6.33 A | Moment of inertia (J) : 0.4003 sq.ft.lb |
| LRC : 7.2 | Duty cycle : Cont.(S1) |
| Rated torque : 14.9 ft.lb | Insulation class : F |
| Locked rotor torque : 200 % | Service factor : 1.15 |
| Breakdown torque : 310 % | Temperature rise : 80 K |
| Rated speed : 1760 rpm | Design : B |

Heating constant

Cooling constant

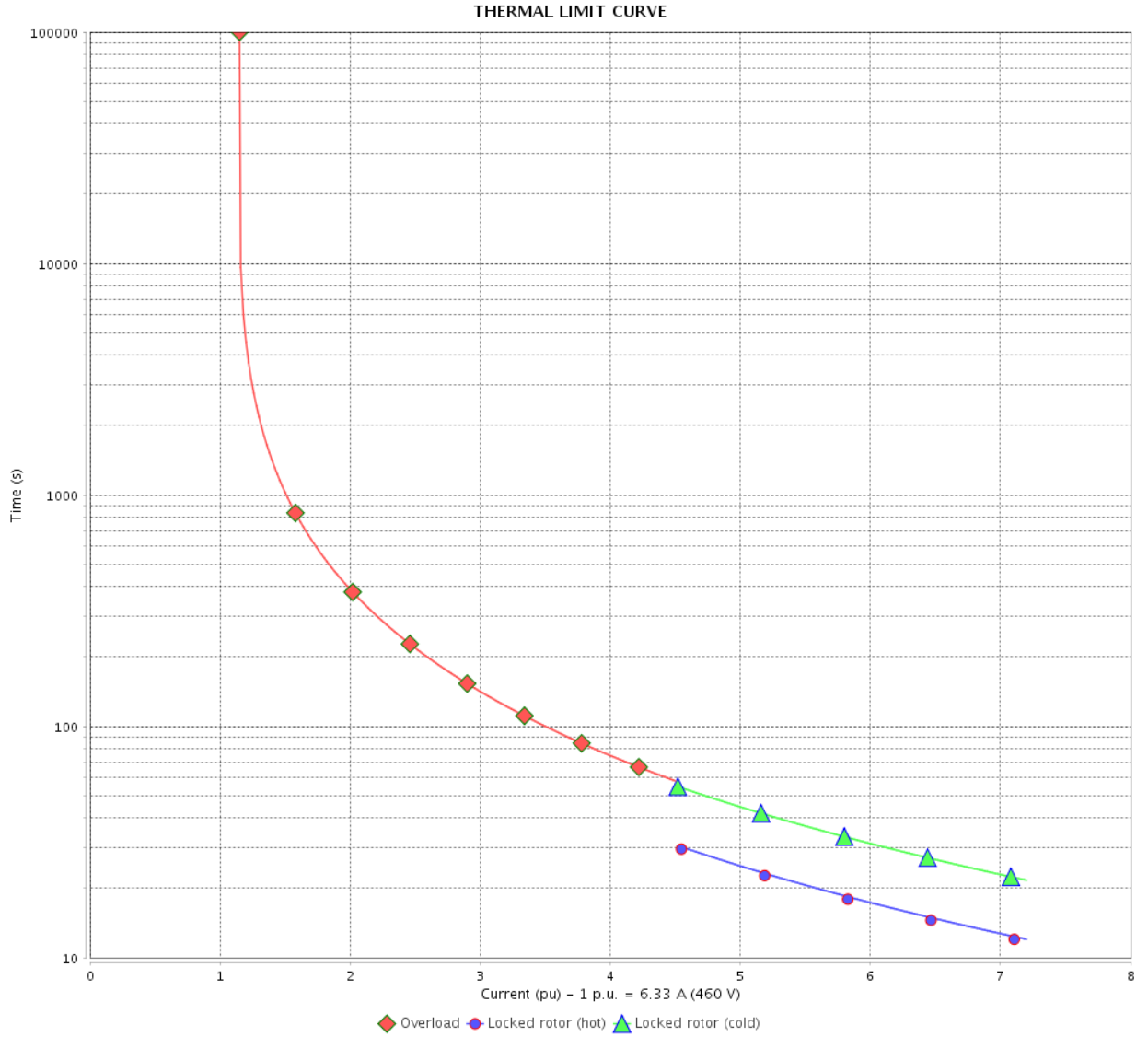
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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| Rated torque : 18.2 ft.lb | Insulation class : F |
| Locked rotor torque : 140 % | Service factor : 1.15 |
| Breakdown torque : 220 % | Temperature rise : 80 K |
| Rated speed : 1445 rpm | Design : B |

Heating constant

Cooling constant

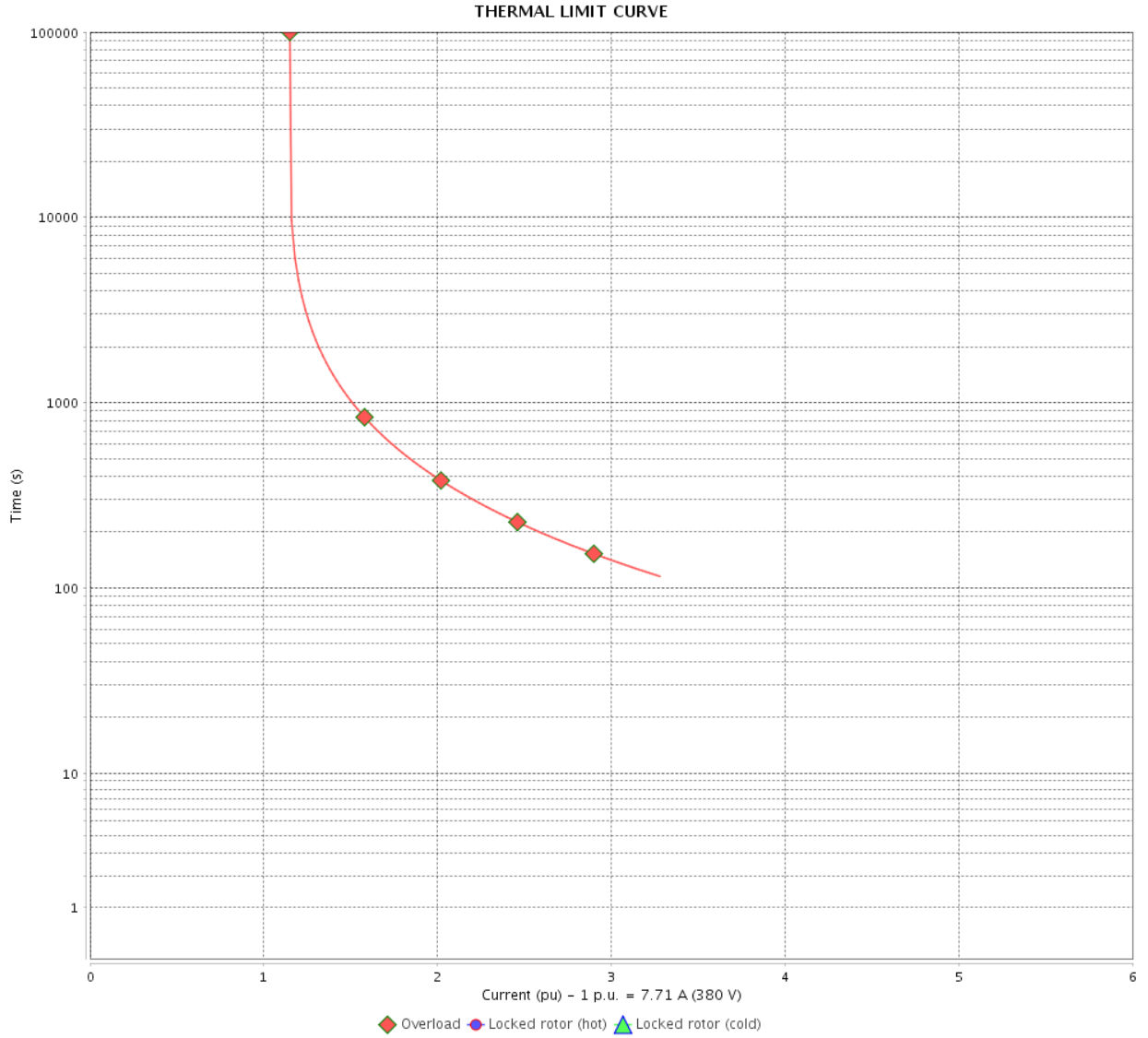
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| Rated torque | : 18.1 ft.lb | Insulation class | : F |
| Locked rotor torque | : 160 % | Service factor | : 1.15 |
| Breakdown torque | : 250 % | Temperature rise | : 80 K |
| Rated speed | : 1450 rpm | Design | : B |

Heating constant

Cooling constant

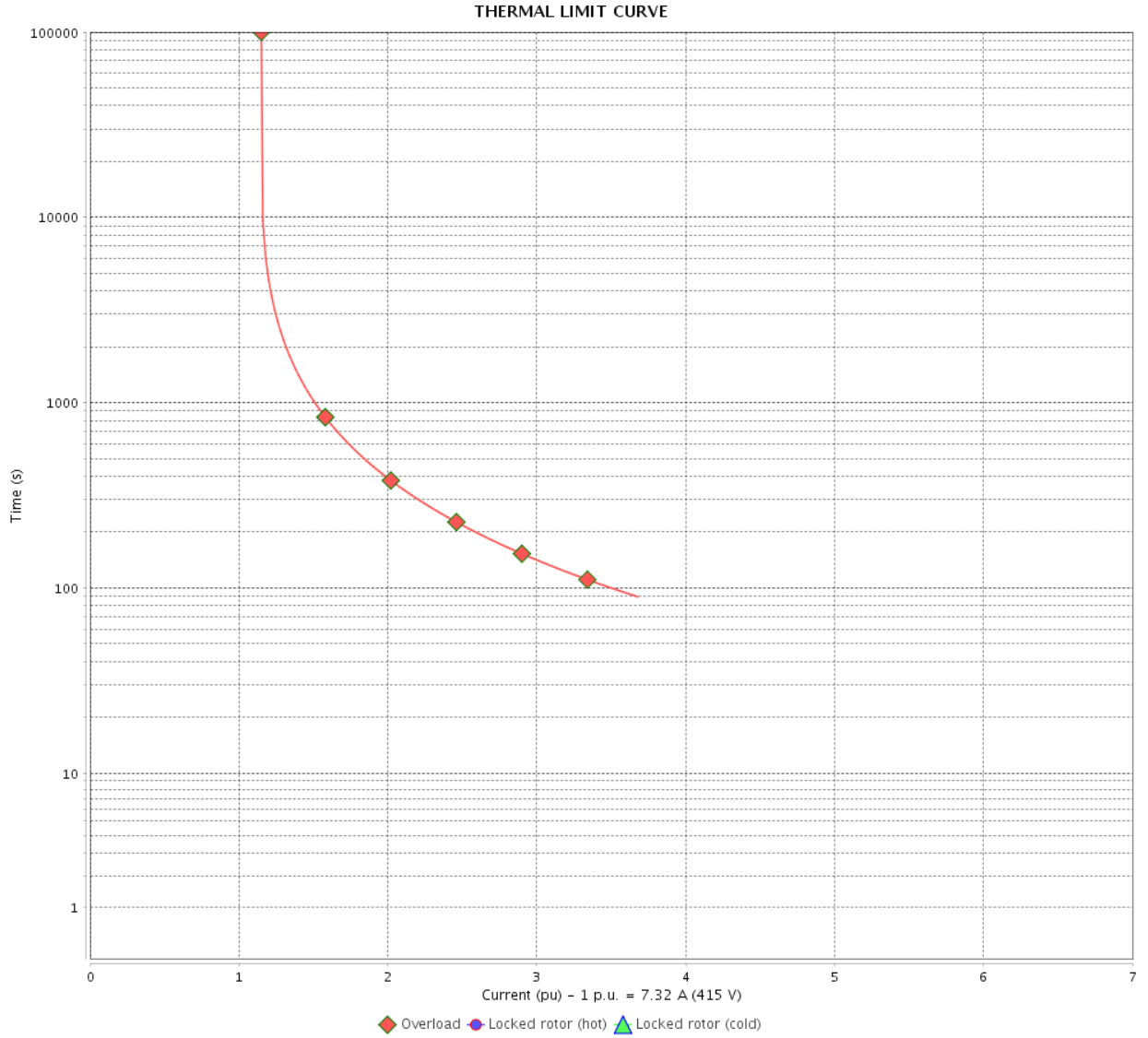
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



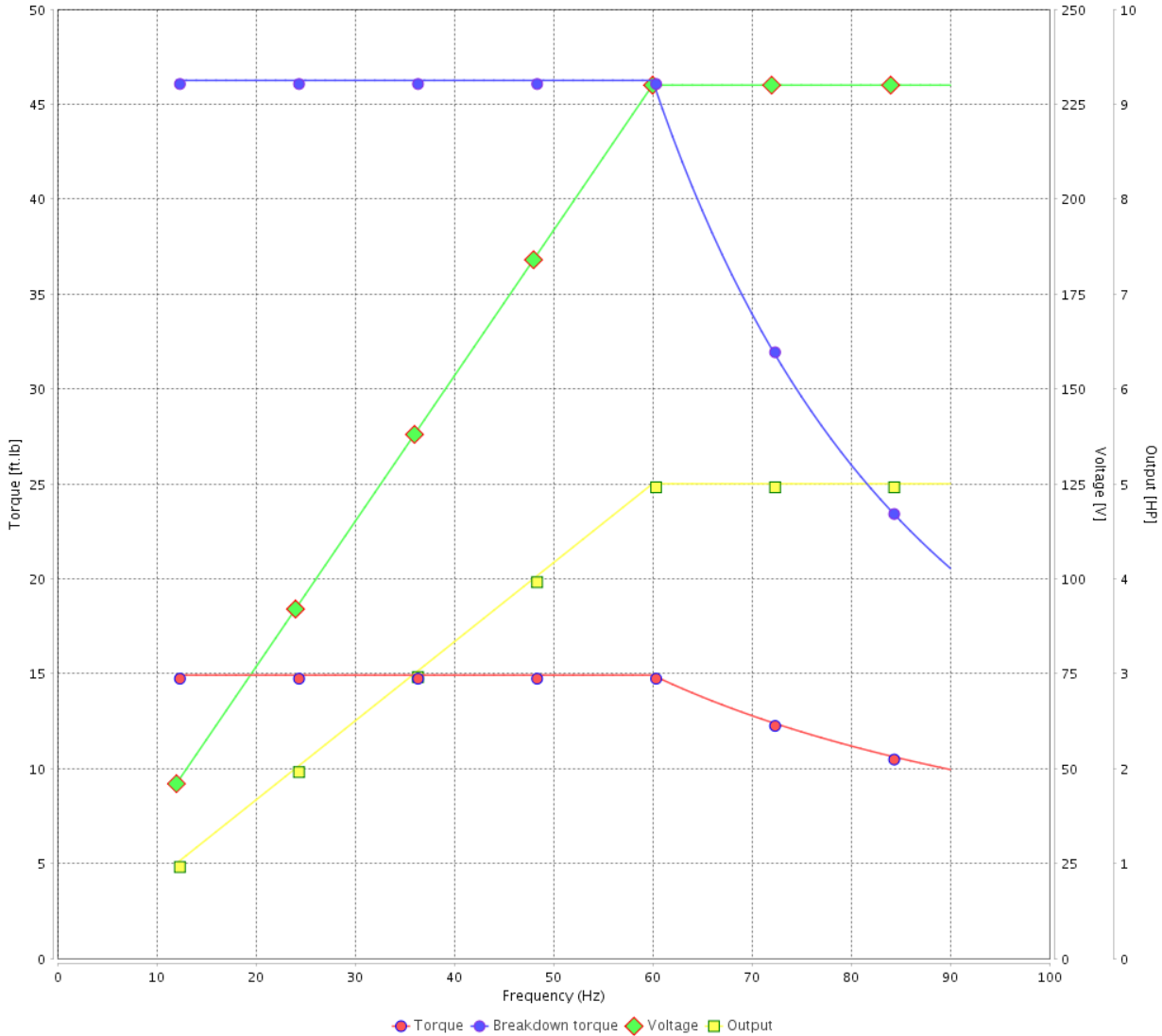
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Product code : 13163347

Catalog # : 00518OT3E184TC-SG

VFD OPERATION CURVE



Performance : 230/460 V 60 Hz 4P

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 LRC : 7.2
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 Locked rotor torque : 200 %
 Breakdown torque : 310 %
 Rated speed : 1760 rpm

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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

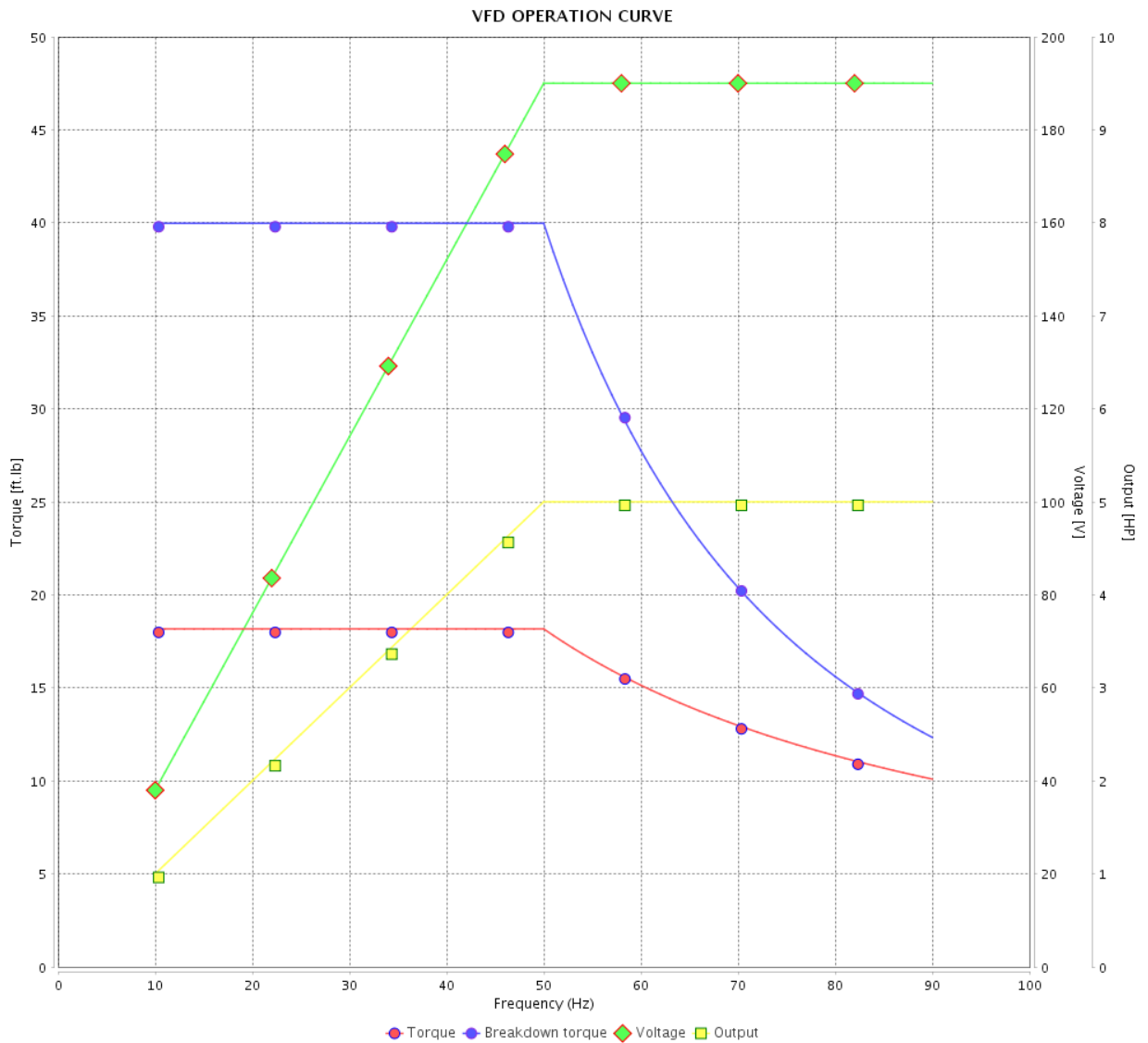


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 Breakdown torque : 220 %
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 Service factor : 1.15
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| | | | | Revision |

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



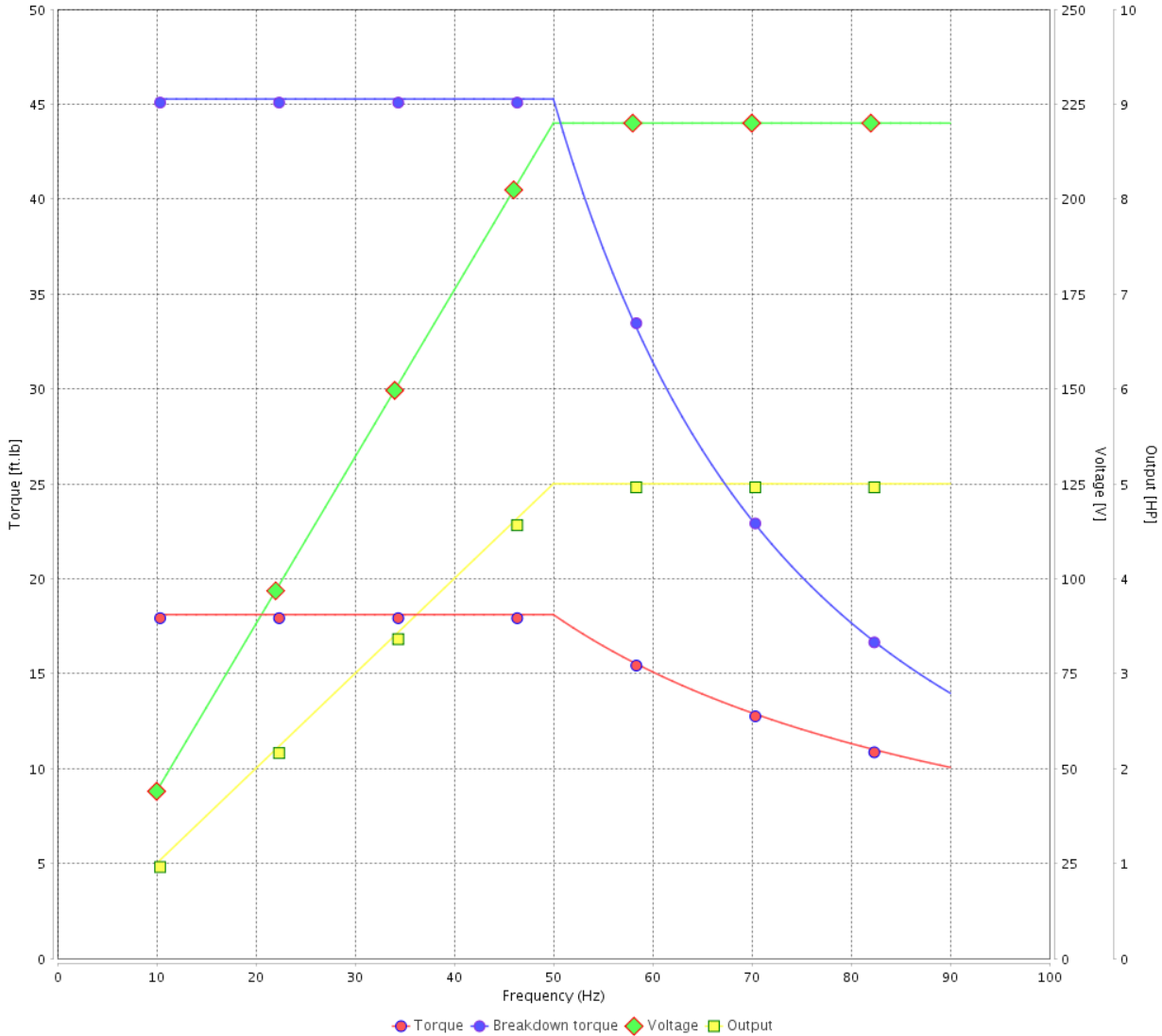
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VFD OPERATION CURVE

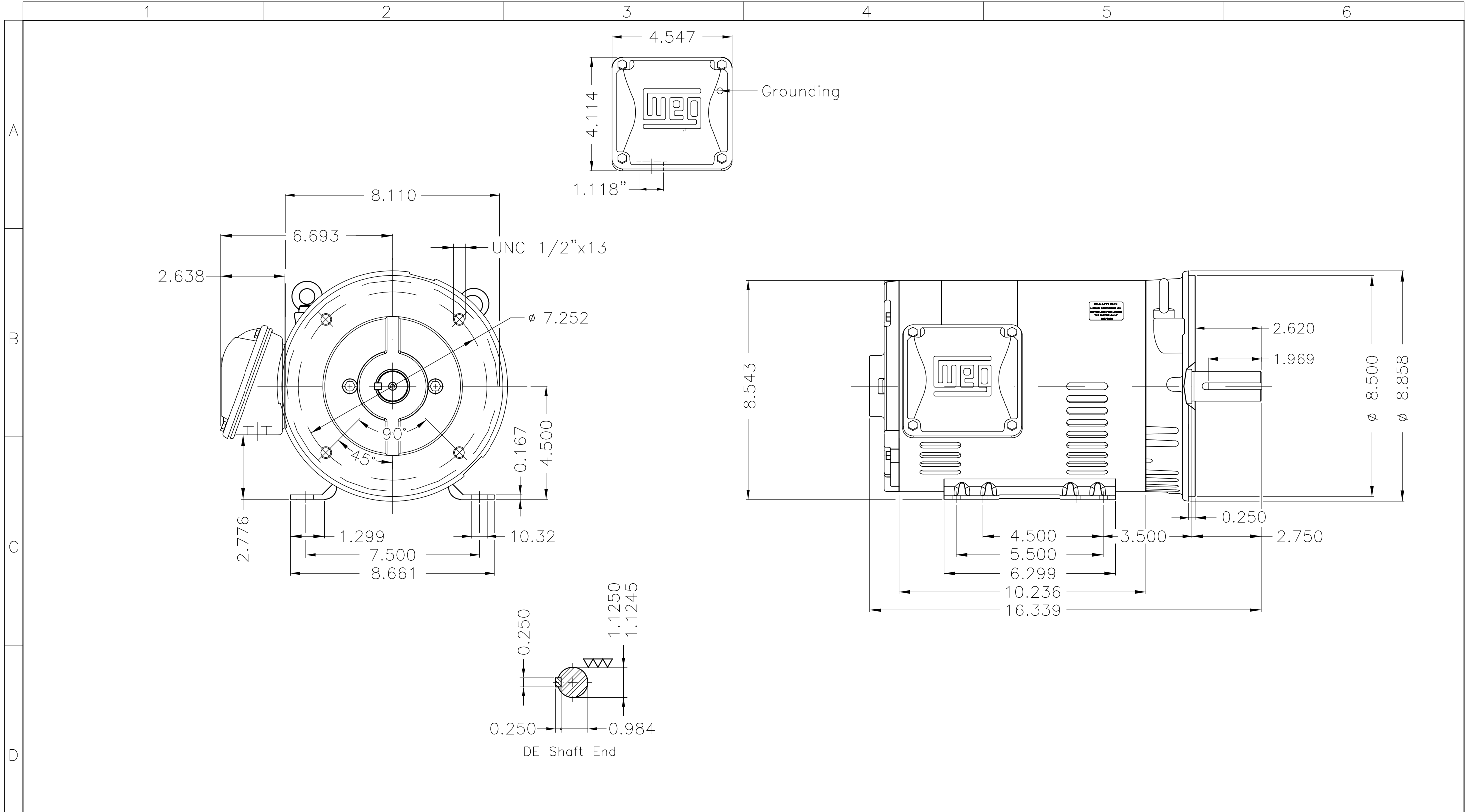


Performance : 220/415 V 50 Hz 4P

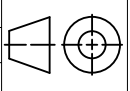
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Internal AEGIS ground ring on the DE
 Color Munsell N 1 matte black
 Painting plan 207N
 Mounting F-1/B34R(D)

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER |  THREE PH. MOTOR ROLLED STEEL PREM. EFF. FRAME 182/4TC IP21 ODP | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

5 HP 04 Poles 60 Hz

A

PREVIEW

WDD



**NEMA**
Premium

MADE IN MEXICO

MAT: 13163347 CC029A

W01.T00IC0X0N

MODEL 005180T3E184TC-SG

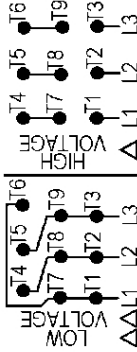
22APR2022 S/N:

| | | |
|---------------------|--------|------------------------|
| PH 3 | Hz 60 | HP 5.0 |
| FR 182/4TC | | KW 3.7 |
| DUTY CONT. | | V 230/460 |
| ALT 1000 m.a.s.l. | | A 12.7/6.33 |
| INS CL F AT 80K | | SFA 14.6/7.28 |
| AMB 40°C | DES B | SF 1.15 |
| ENCL ODP | CODE J | PF 0.82 |
| USABLE @ 208V 14.0A | | RPM 1760 |
| SF1.00 | | NEMA NOM. EFF 89.5% |

| |
|---------------------------------------------------------|
| ALTERNATE RATING: 5.0HP 50Hz 190-220/380-415V SF1.15 |
| 15.4-13.57.71-7.18A 1445RPM EFF 84.8% (IE1) IEC 60034-1 |

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

DE 6206-ZZ ODE 6205-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.

