

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



| | | |
|--|---|------|
| Customer : | | |
| Product line | : NEMA Premium Efficiency Three-Phase | |
| Product code : | 12751147 | |
| Catalog # : | 00736OT3E184TC-S | |
| 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 | : 80.4 lb | |
| Moment of inertia (J) | : 0.1818 sq.ft.lb | |
| Output [HP] | 7.5 | |
| Poles | 2 | |
| Frequency [Hz] | 60 | |
| Rated voltage [V] | 230/460 | |
| Rated current [A] | 17.3/8.67 | |
| L. R. Amperes [A] | 128/64.2 | |
| LRC [A] | 7.4x(Code H) | |
| No load current [A] | 6.43/3.22 | |
| Rated speed [RPM] | 3500 | |
| Slip [%] | 2.78 | |
| Rated torque [ft.lb] | 11.3 | |
| Locked rotor torque [%] | 180 | |
| Breakdown torque [%] | 290 | |
| Service factor | 1.15 | |
| Temperature rise | 80 K | |
| Locked rotor time | 18s (cold) 10s (hot) | |
| Noise level ² | 65.0 dB(A) | |
| Efficiency (%) | 25% | 88.3 |
| | 50% | 88.5 |
| | 75% | 88.5 |
| | 100% | 88.5 |
| Power Factor | 25% | 0.49 |
| | 50% | 0.76 |
| | 75% | 0.85 |
| | 100% | 0.90 |
| 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 : 169 lb Max. compression : 250 lb | |
| Notes USABLE @208V 19.2A SF 1.00 SFA 19.2A | | |
| 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 | Date | |
| 12/04/2022 | | |
| Page | Revision | |
| 1 / | | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



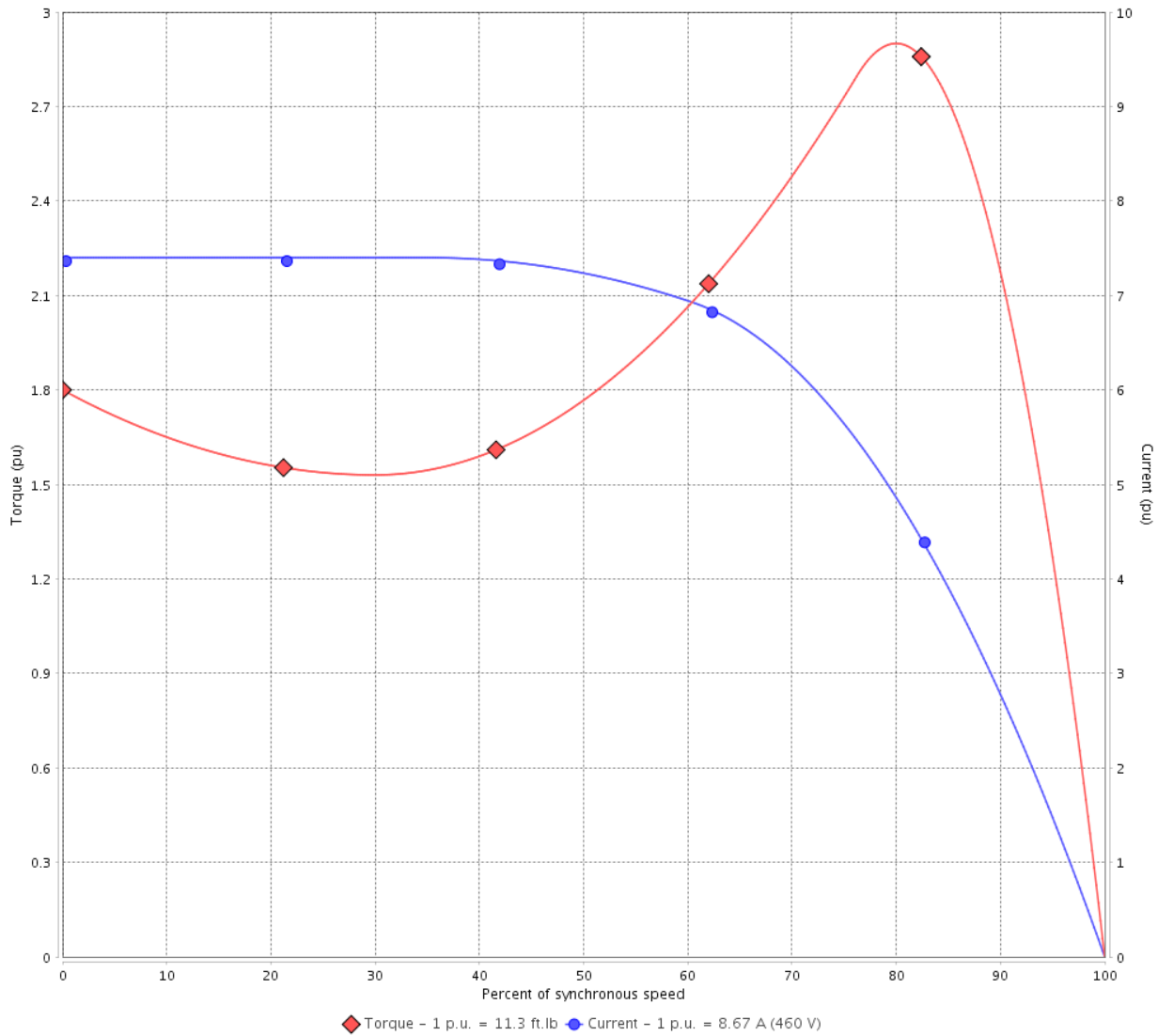
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751147

Catalog # : 007360T3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 230/460 V 60 Hz 2P

Rated current : 17.3/8.67 A
 LRC : 7.4
 Rated torque : 11.3 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 290 %
 Rated speed : 3500 rpm

Moment of inertia (J) : 0.1818 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.15
 Temperature rise : 80 K
 Design : B

Locked rotor time : 18s (cold) 10s (hot)

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TORQUE AND CURRENT VS SPEED CURVE



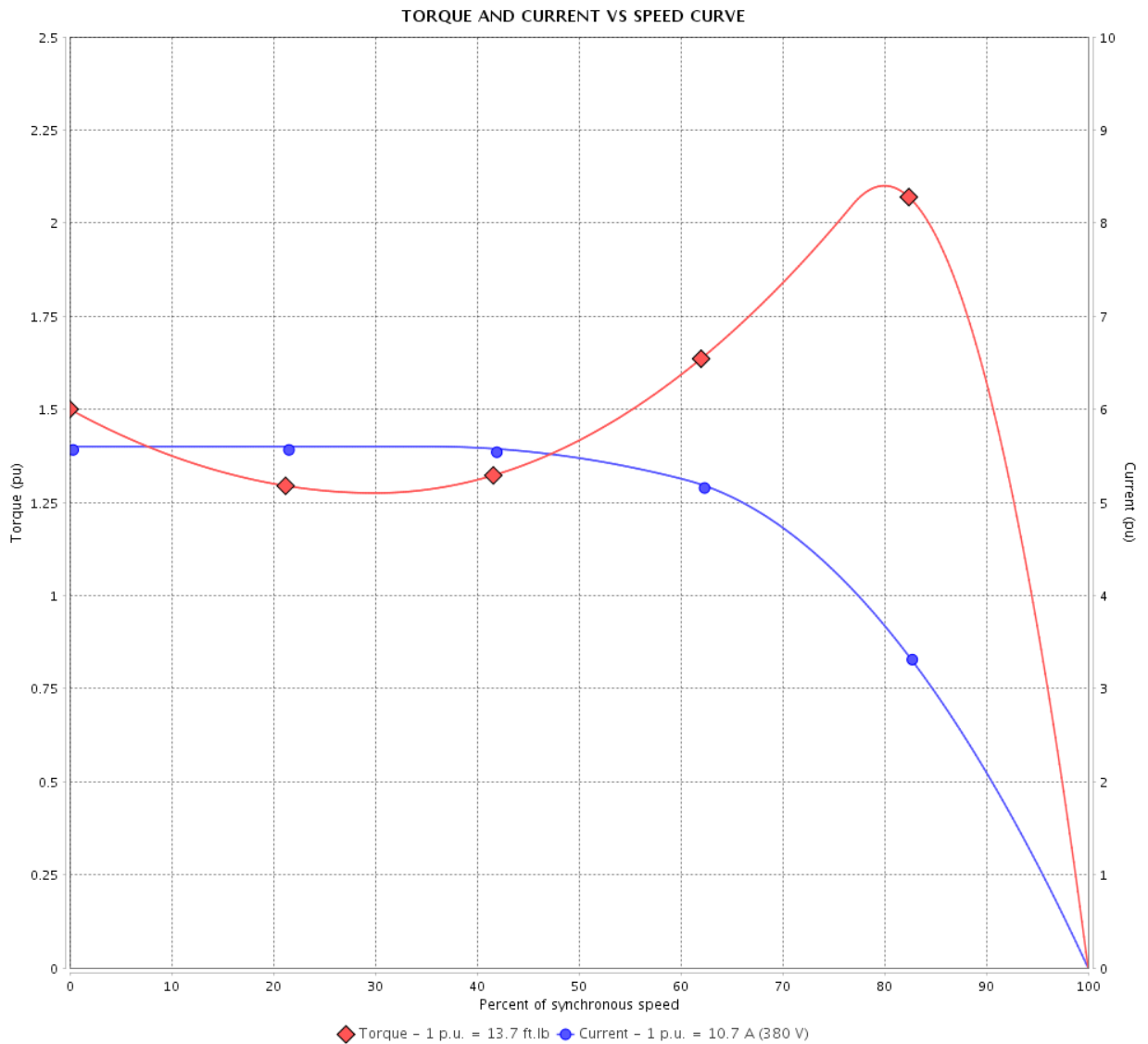
Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12751147

Catalog # : 007360T3E184TC-S



Performance : 190/380 V 50 Hz 2P

Rated current : 21.4/10.7 A
 LRC : 5.6
 Rated torque : 13.7 ft.lb
 Locked rotor torque : 150 %
 Breakdown torque : 210 %
 Rated speed : 2865 rpm

Moment of inertia (J) : 0.1818 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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

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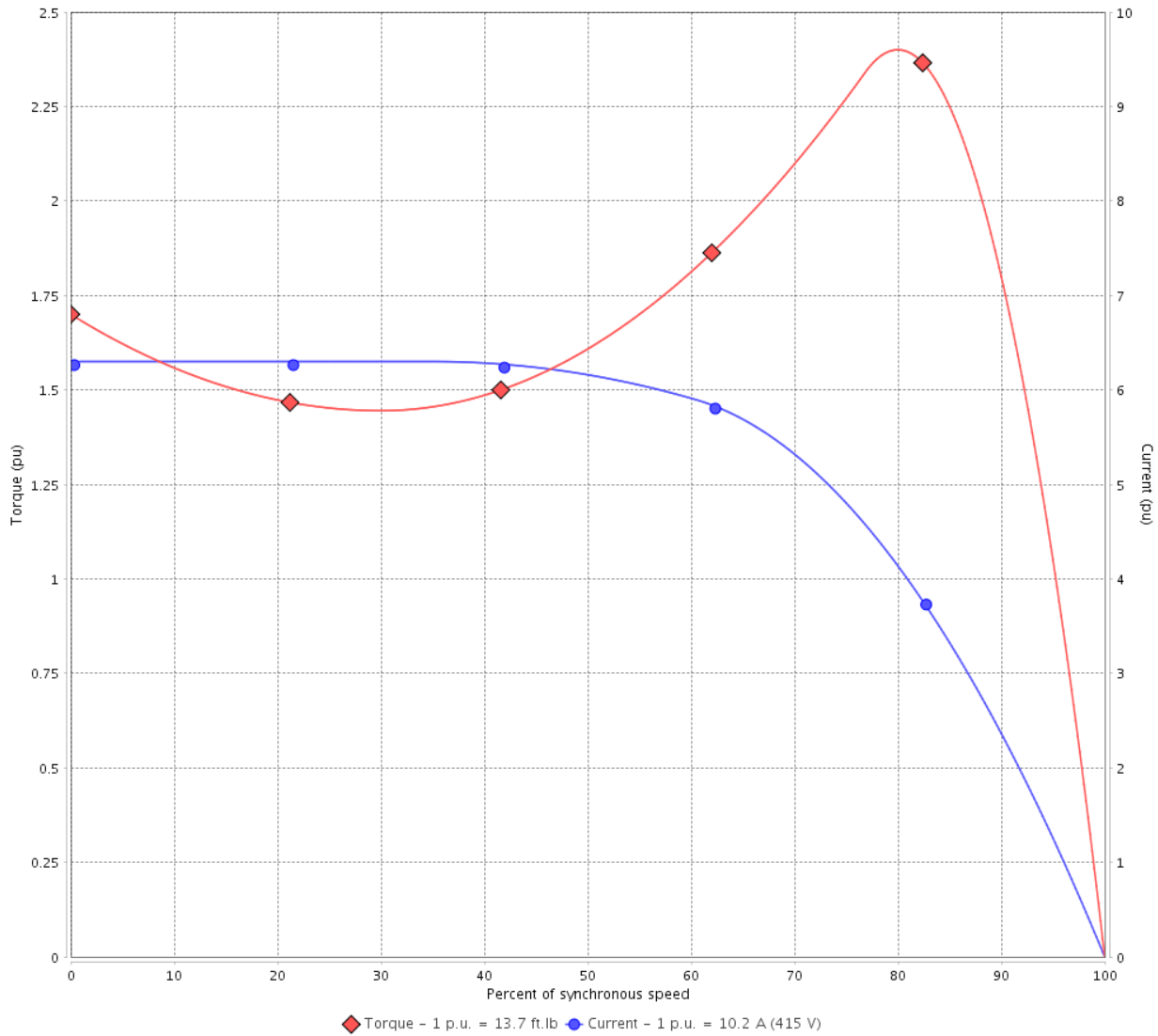
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Product code : 12751147

Catalog # : 007360T3E184TC-S

TORQUE AND CURRENT VS SPEED CURVE



Performance : 220/415 V 50 Hz 2P

Rated current : 19.2/10.2 A
 LRC : 6.3
 Rated torque : 13.7 ft.lb
 Locked rotor torque : 170 %
 Breakdown torque : 240 %
 Rated speed : 2880 rpm

Moment of inertia (J) : 0.1818 sq.ft.lb
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 Service factor : 1.00
 Temperature rise : 105 K
 Design : B

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

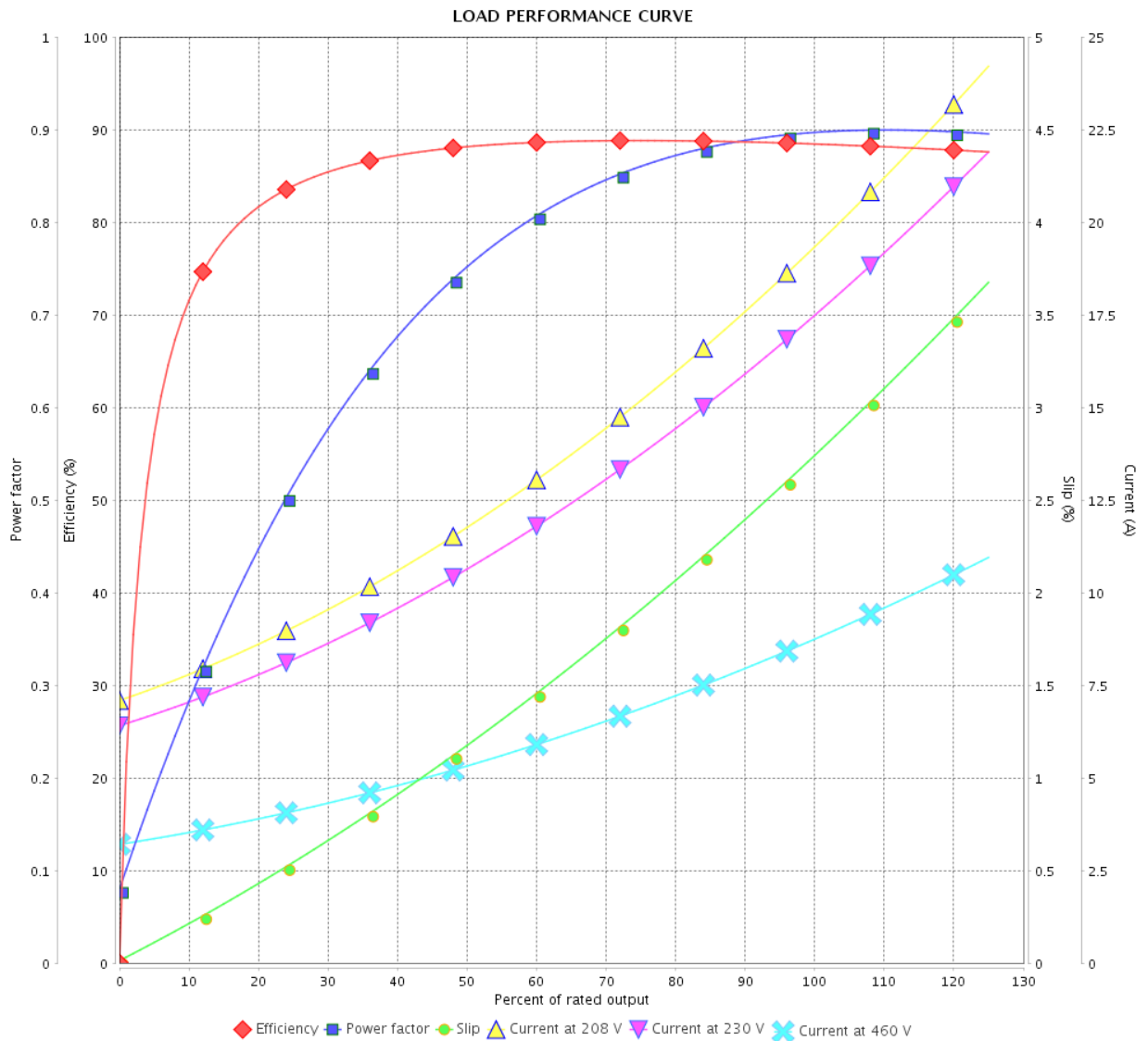


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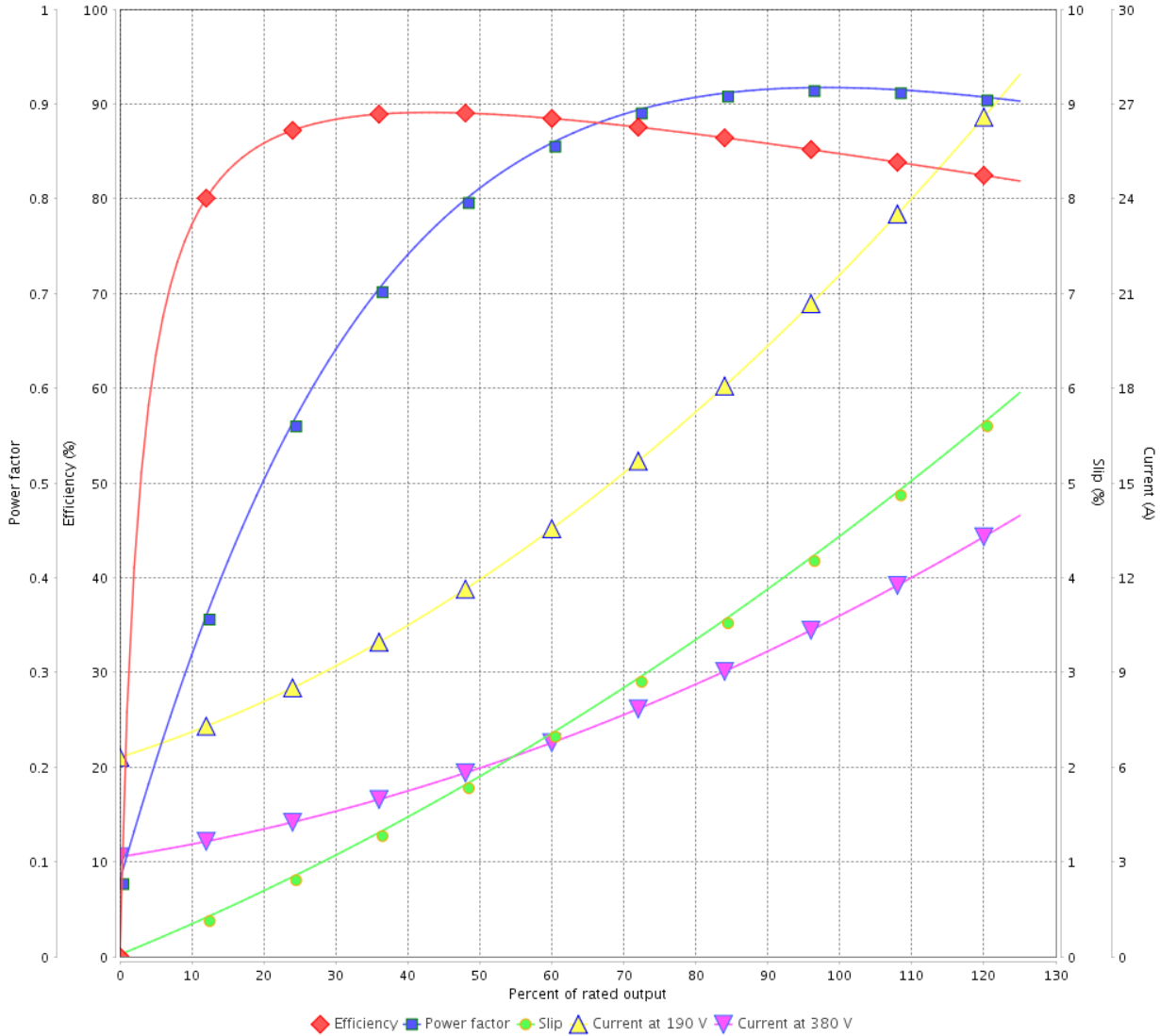
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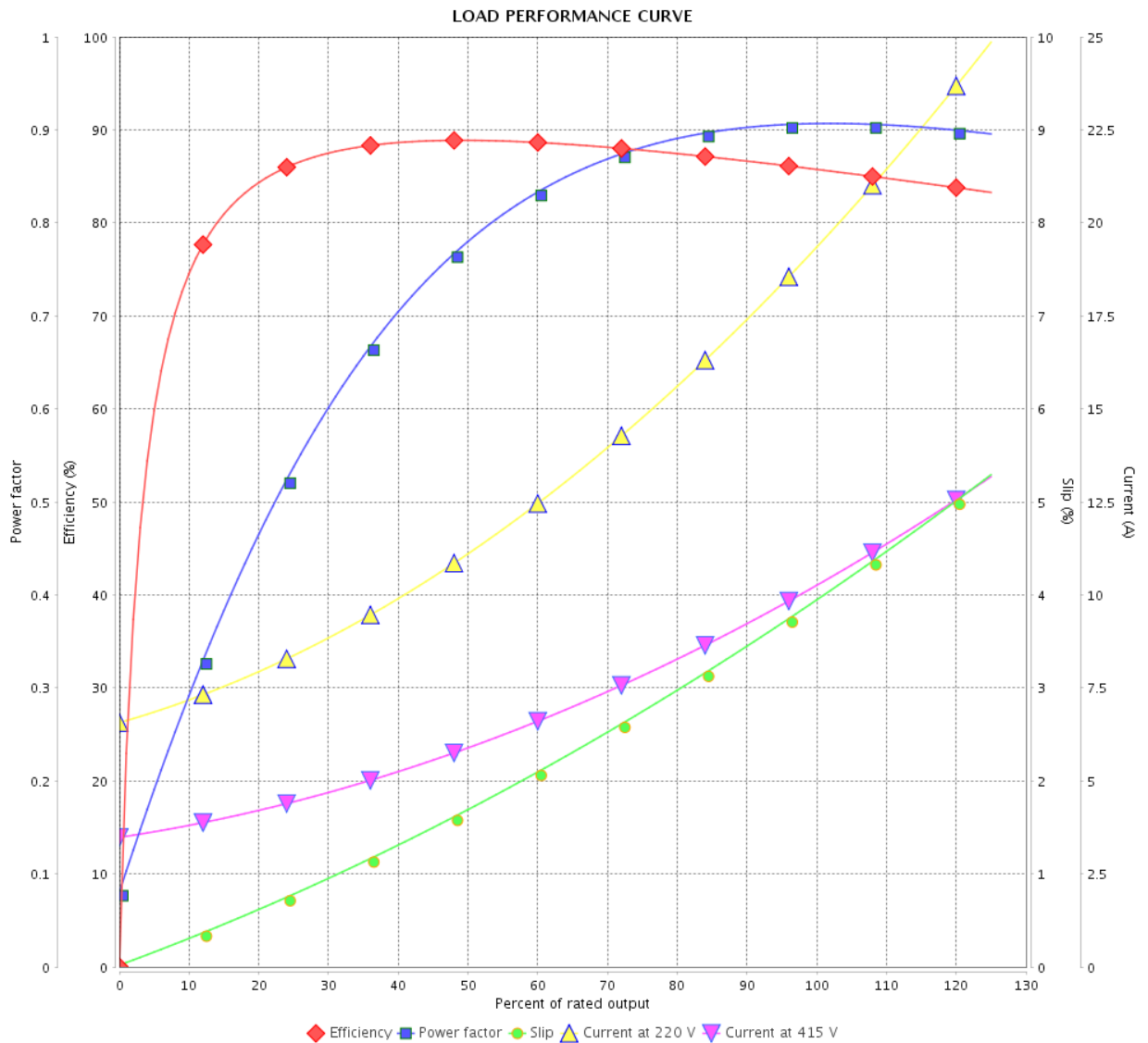


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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

Customer :

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 Product code : 12751147
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Performance : 230/460 V 60 Hz 2P

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| LRC : 7.4 | Duty cycle : Cont.(S1) |
| Rated torque : 11.3 ft.lb | Insulation class : F |
| Locked rotor torque : 180 % | Service factor : 1.15 |
| Breakdown torque : 290 % | Temperature rise : 80 K |
| Rated speed : 3500 rpm | Design : B |

Heating constant

Cooling constant

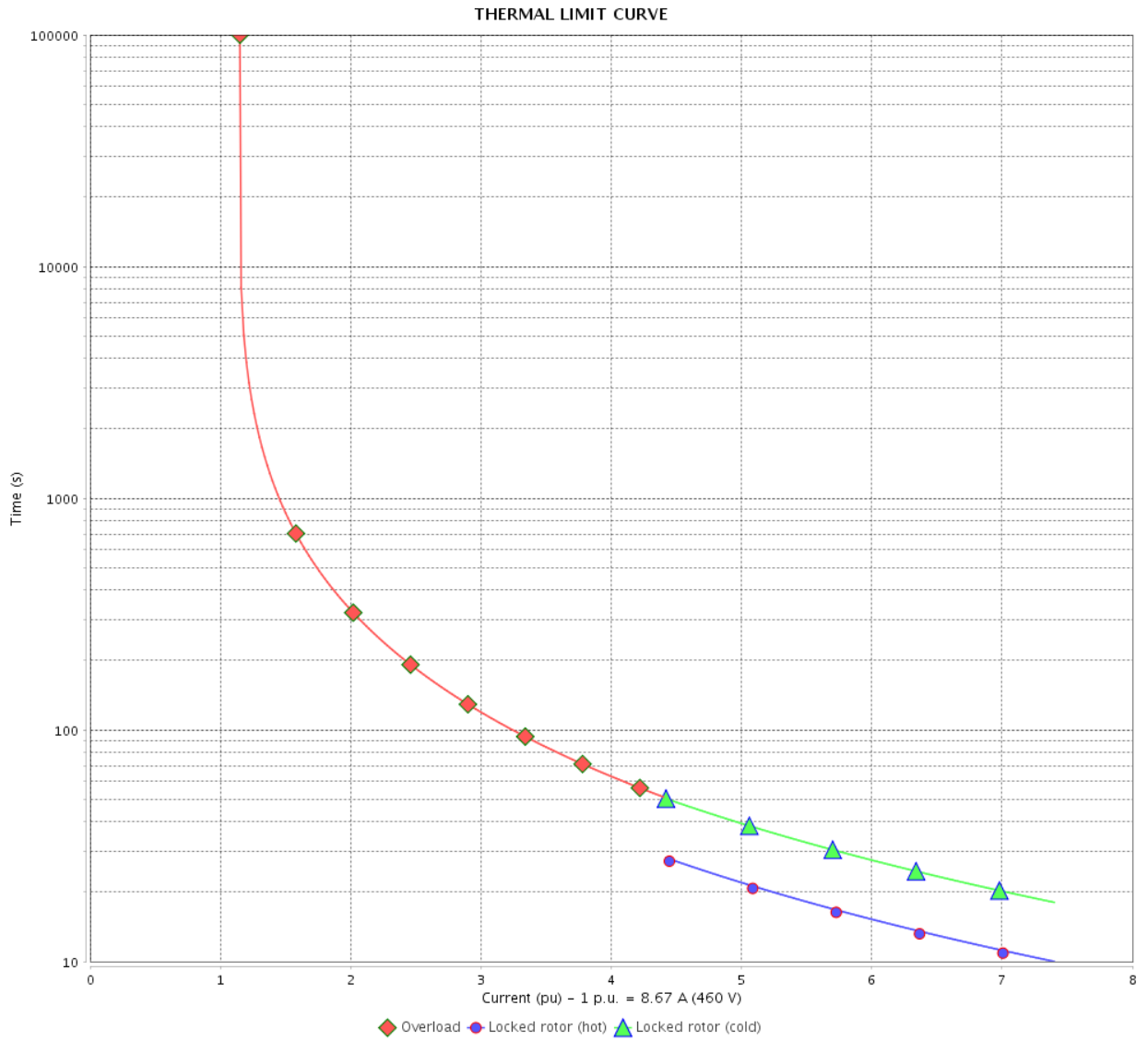
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THERMAL LIMIT CURVE

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| Locked rotor torque | : 150 % | Service factor | : 1.00 |
| Breakdown torque | : 210 % | Temperature rise | : 105 K |
| Rated speed | : 2865 rpm | Design | : B |

Heating constant

Cooling constant

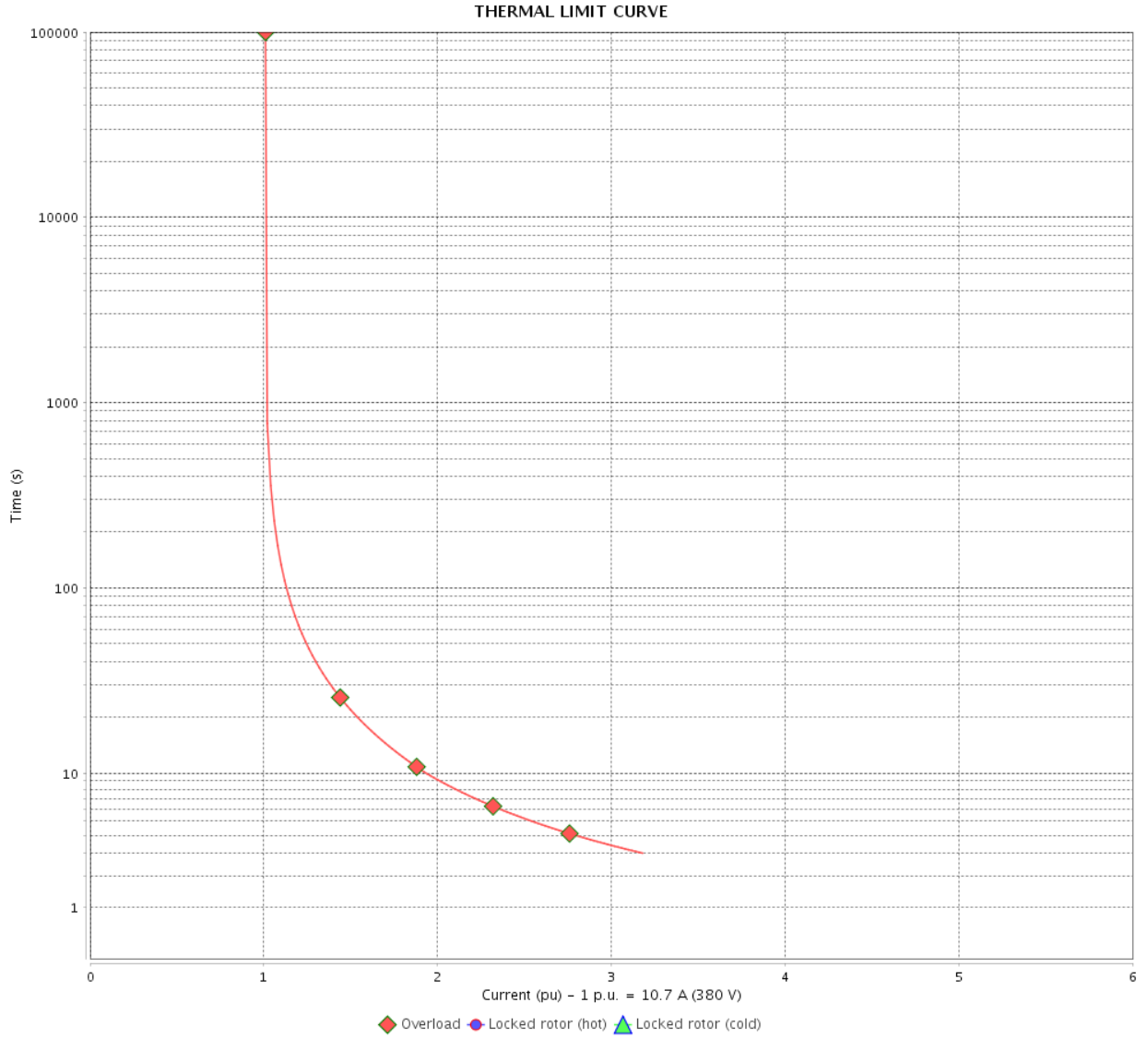
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| Rated torque : 13.7 ft.lb | Insulation class : F |
| Locked rotor torque : 170 % | Service factor : 1.00 |
| Breakdown torque : 240 % | Temperature rise : 105 K |
| Rated speed : 2880 rpm | Design : B |

Heating constant

Cooling constant

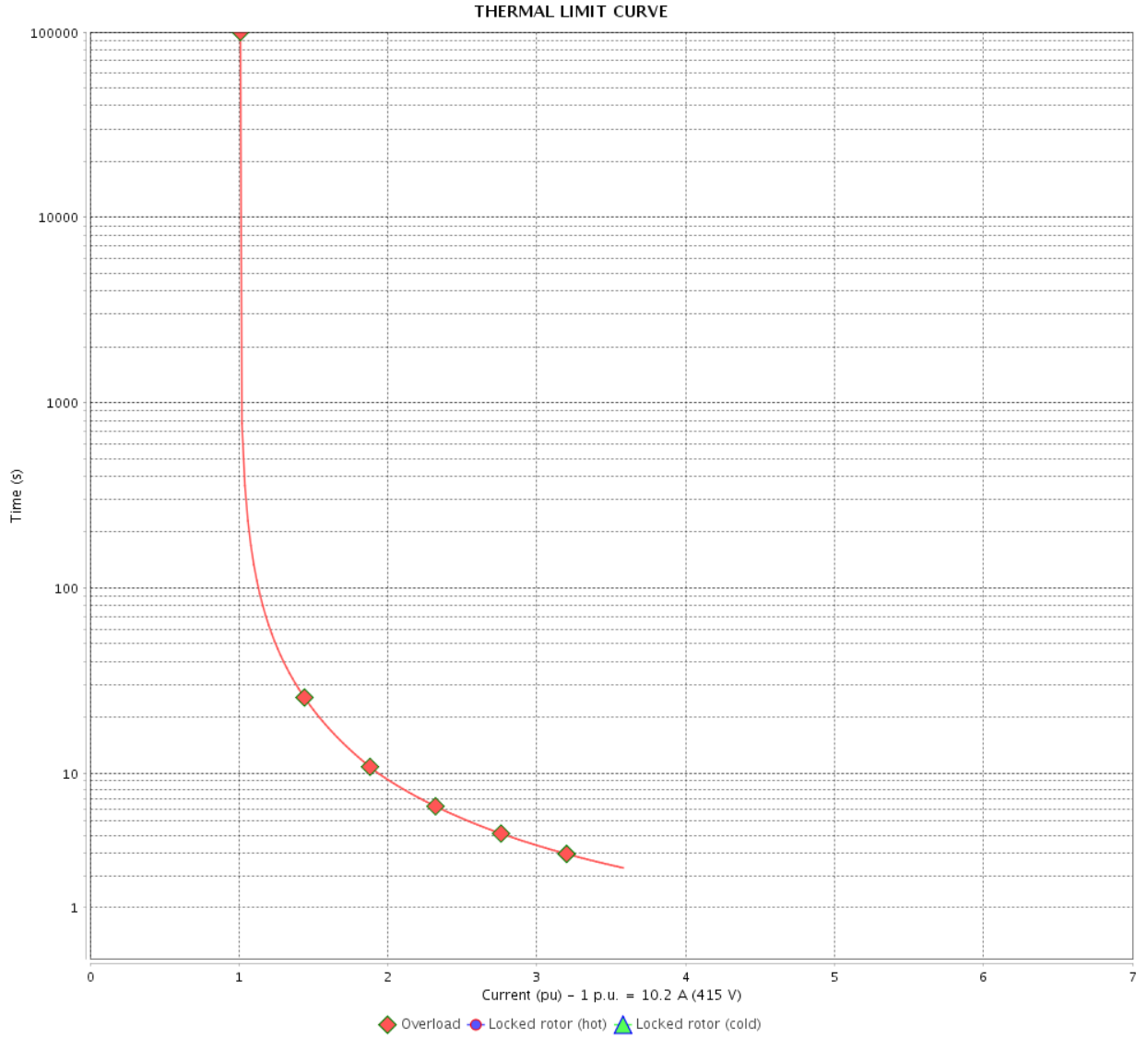
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VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



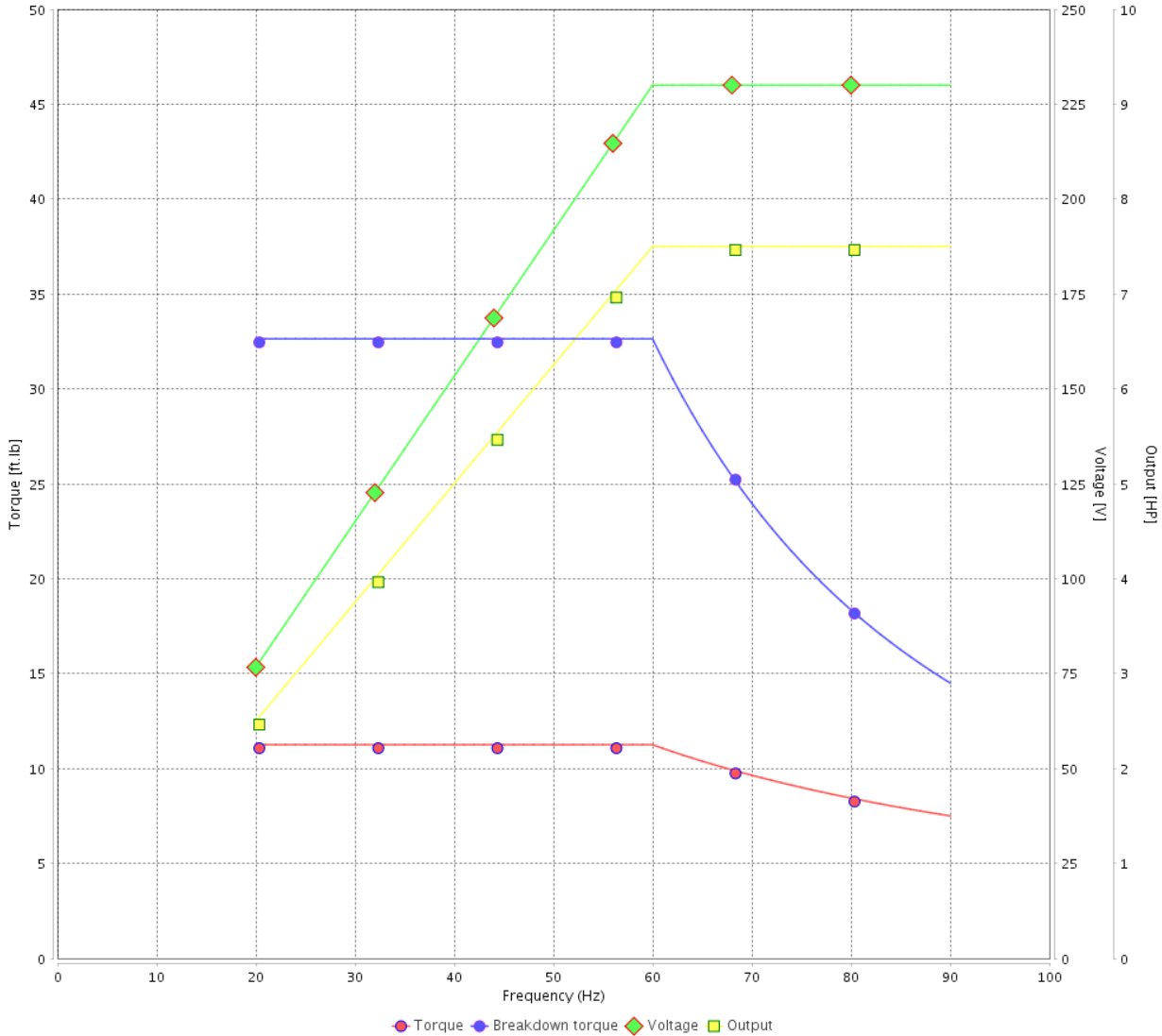
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Product code : 12751147

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VFD OPERATION CURVE

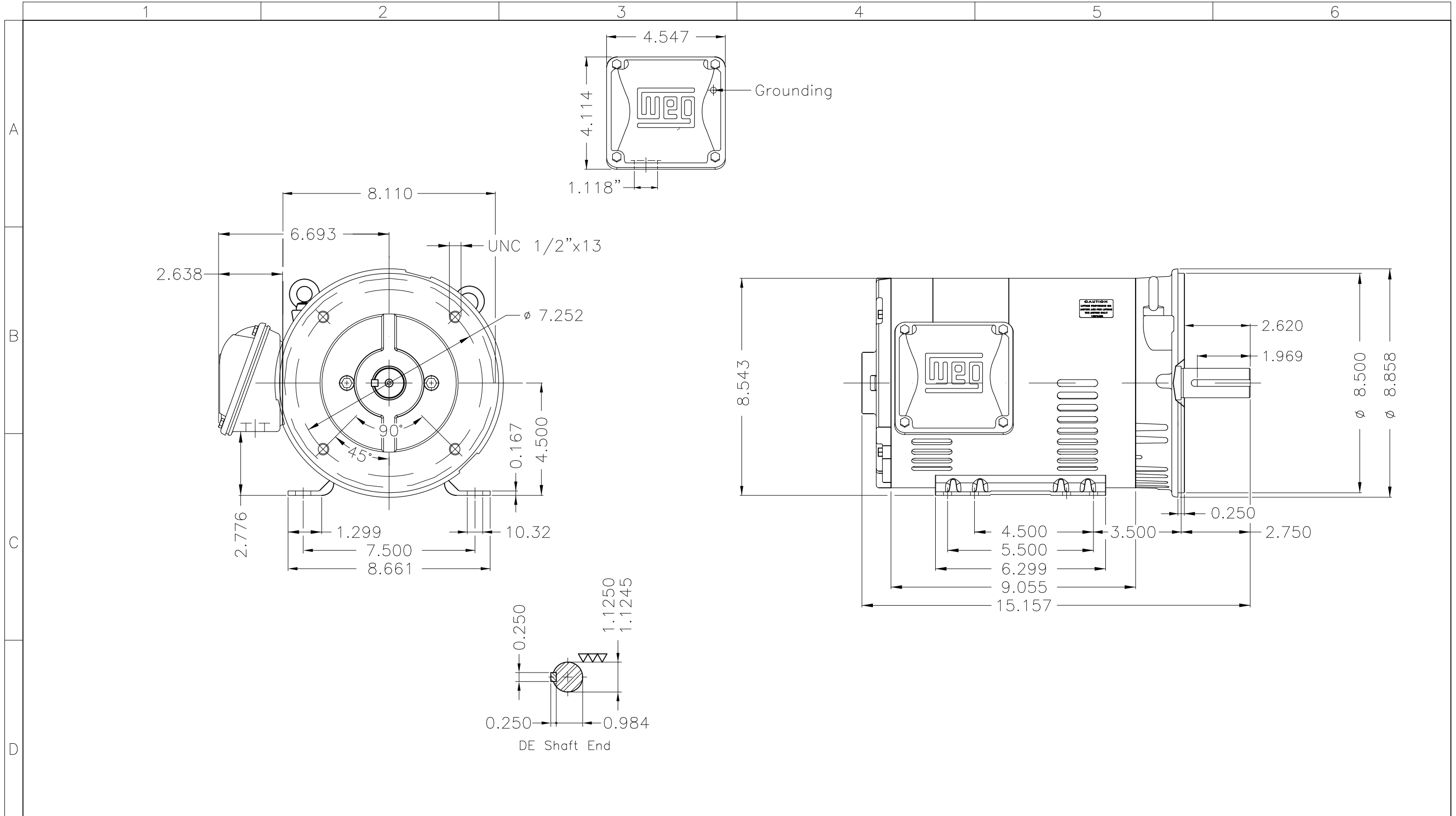



Performance : 230/460 V 60 Hz 2P

Rated current : 17.3/8.67 A
 LRC : 7.4
 Rated torque : 11.3 ft.lb
 Locked rotor torque : 180 %
 Breakdown torque : 290 %
 Rated speed : 3500 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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| | | | | | | | | | | |
|-------------------------------|-----------|---|---------------------|--|--|----------|---------|----------|-------|---|
| 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. | | | | PREVIEW | WDD | SHEET | 1 / 1 |  |
| CHECKED | | FRAME 182/4TC IP21 ODP | | | | | | | | |
| RELEASED | | | | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | | | | | | | |

7.5 HP 02 Poles 60 Hz

A

**NEMA**
Premium

MADE IN MEXICO

MAT: 12751147 CC029A**W01.T00IC0X0N****CP007402NPW01****15FEB2022 S/N:**

| | | |
|----------------------------|---------------|--------------------------------|
| PH 3 | Hz 60 | HP 7.5 |
| FR 182/4TC | | KW 5.5 |
| DUTY CONT. | | V 230/460 |
| ALT 1000 m.a.s.l. | | A 17.3/8.67 |
| INS CL F AT 80K | | SFA 19.9/9.97 |
| AMB 40°C | DES B | SF 1.15 |
| ENCL ODP | CODE H | PF 0.90 |
| USABLE @ 208V 19.2A | | RPM 3500 |
| SF1.00 | | NEMA NOM. EFF 88.5% |

| |
|---|
| ALTERNATE RATING: 7.5HP 50Hz 190-220/380-415V SF1.00 |
| 21.4-18.6/10.7-8.84A 2865RPM EFF 84.7% (IE1) IEC 60034-1 |

Inverter duty motor For 80Hz use on VPWM 1000:1 VT, 3:1 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.

