

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | |
|---|--|-----------|---------|----------|
| Customer : | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | | | |
| Product code : | 11432092 | | | |
| Catalog # : | 02036ST3HIE256T-W22 | | | |
| Frame : 254/6T Output : 20 HP (15 kW) Poles : 2 Frequency : 60 Hz Rated voltage : 575 V Rated current : 18.6 A L. R. Amperes : 113 A LRC : 6.1x(Code G) No load current : 5.20 A Rated speed : 3520 rpm Slip : 2.22 % Rated torque : 29.8 ft.lb Locked rotor torque : 200 % Breakdown torque : 240 % Insulation class : F Service factor : 1.25 Moment of inertia (J) : 1.54 sq.ft.lb Design : B | Locked rotor time : 37s (cold) 21s (hot) Temperature rise : 80 K Duty cycle : Cont.(S1) Ambient temperature : -20°C to +40°C Altitude : 1000 m.a.s.l. Protection degree : IP55 Cooling method : IC411 - TEFC Mounting : F-1 Rotation ¹ : Both (CW and CCW) Noise level ² : 72.0 dB(A) Starting method : Direct On Line Approx. weight ³ : 305 lb | | | |
| Output | 25% 50% 75% 100% | | | |
| Efficiency (%) | 91.4 91.0 91.7 91.0 | | | |
| Power Factor | 0.57 0.82 0.87 0.89 | | | |
| Foundation loads | | | | |
| Max. traction | : 191 lb | | | |
| Max. compression | : 496 lb | | | |
| Bearing type | : <u>Drive end</u> 6309 C3 <u>Non drive end</u> 6209 C3 | | | |
| Sealing | : Inpro/Seal Inpro/Seal | | | |
| Lubrication interval | : 19000 h 20000 h | | | |
| Lubricant amount | : 13 g 9 g | | | |
| Lubricant type | : Mobil Polyrex EM | | | |
| Notes | | | | |
| 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 | 14/04/2022 | | 1 / 6 | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



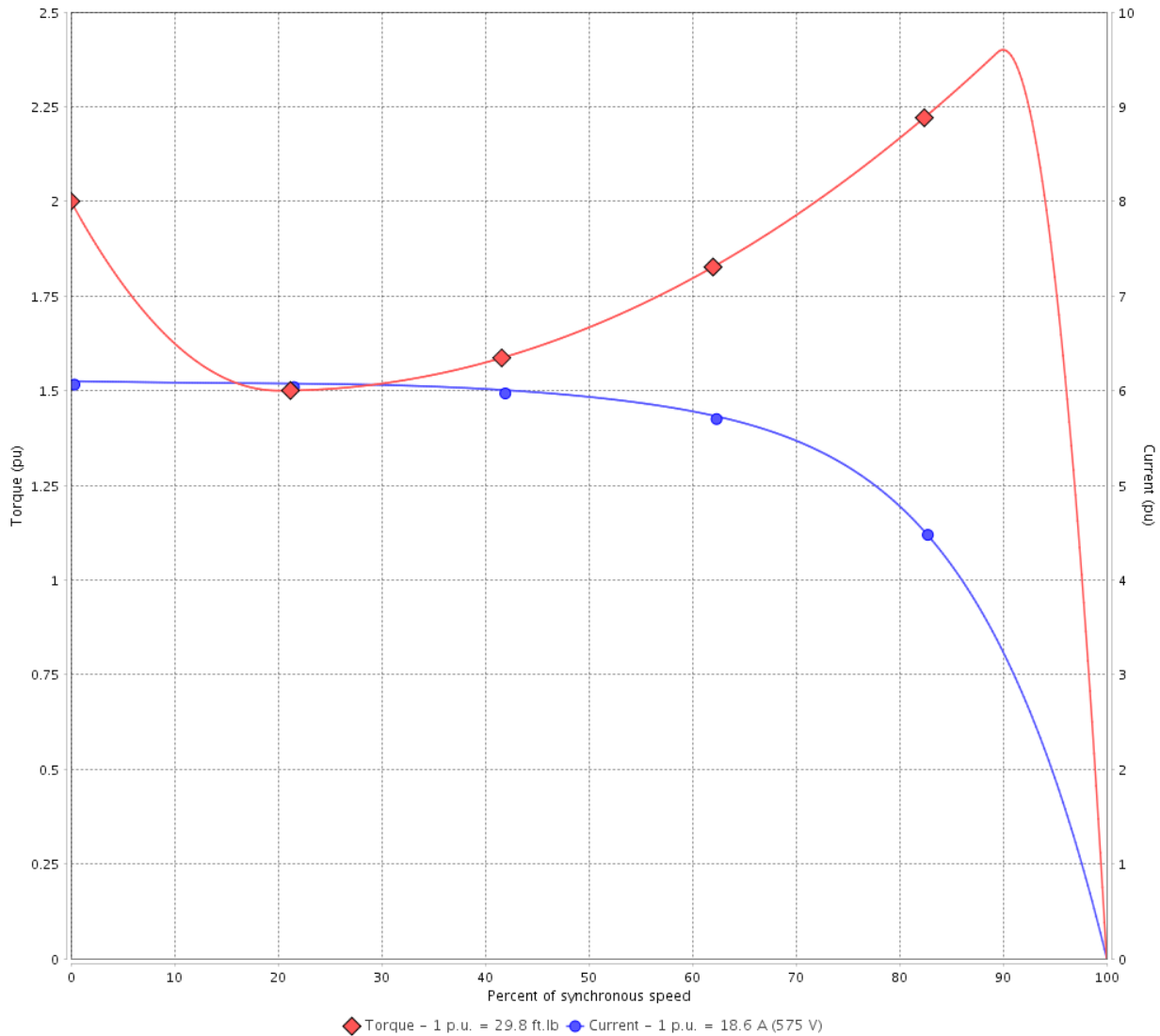
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11432092

Catalog # : 02036ST3HIE256T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 2P

| | | | |
|---------------------|--------------|-----------------------|-----------------|
| Rated current | : 18.6 A | Moment of inertia (J) | : 1.54 sq.ft.lb |
| LRC | : 6.1 | Duty cycle | : Cont.(S1) |
| Rated torque | : 29.8 ft.lb | Insulation class | : F |
| Locked rotor torque | : 200 % | Service factor | : 1.25 |
| Breakdown torque | : 240 % | Temperature rise | : 80 K |
| Rated speed | : 3520 rpm | Design | : B |

Locked rotor time : 37s (cold) 21s (hot)

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LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

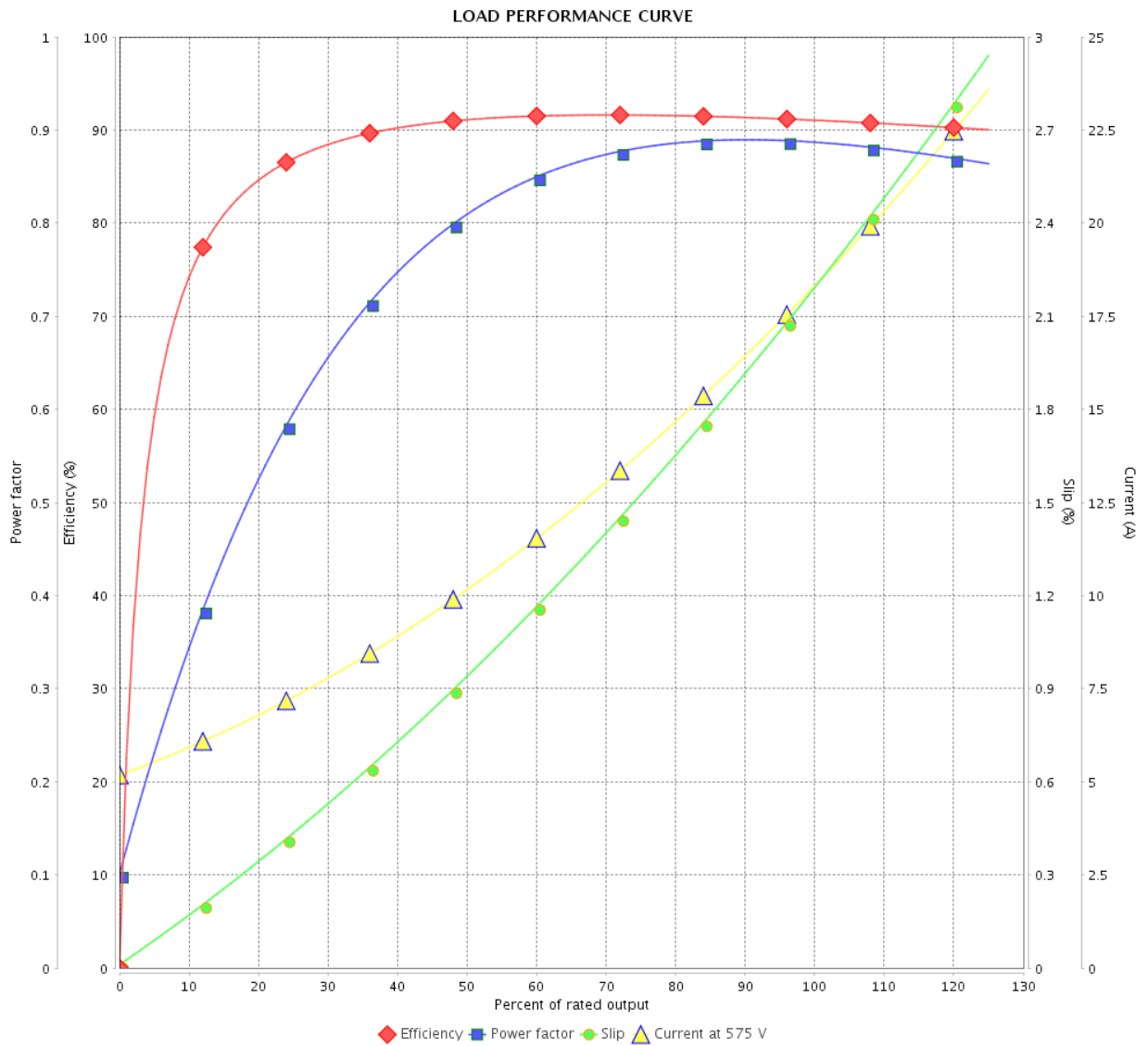


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11432092

Catalog # : 02036ST3HIE256T-W22



Performance : 575 V 60 Hz 2P

Rated current : 18.6 A
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 Breakdown torque : 240 %
 Rated speed : 3520 rpm

Moment of inertia (J) : 1.54 sq.ft.lb
 Duty cycle : Cont.(S1)
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 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

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THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Heating constant

Cooling constant

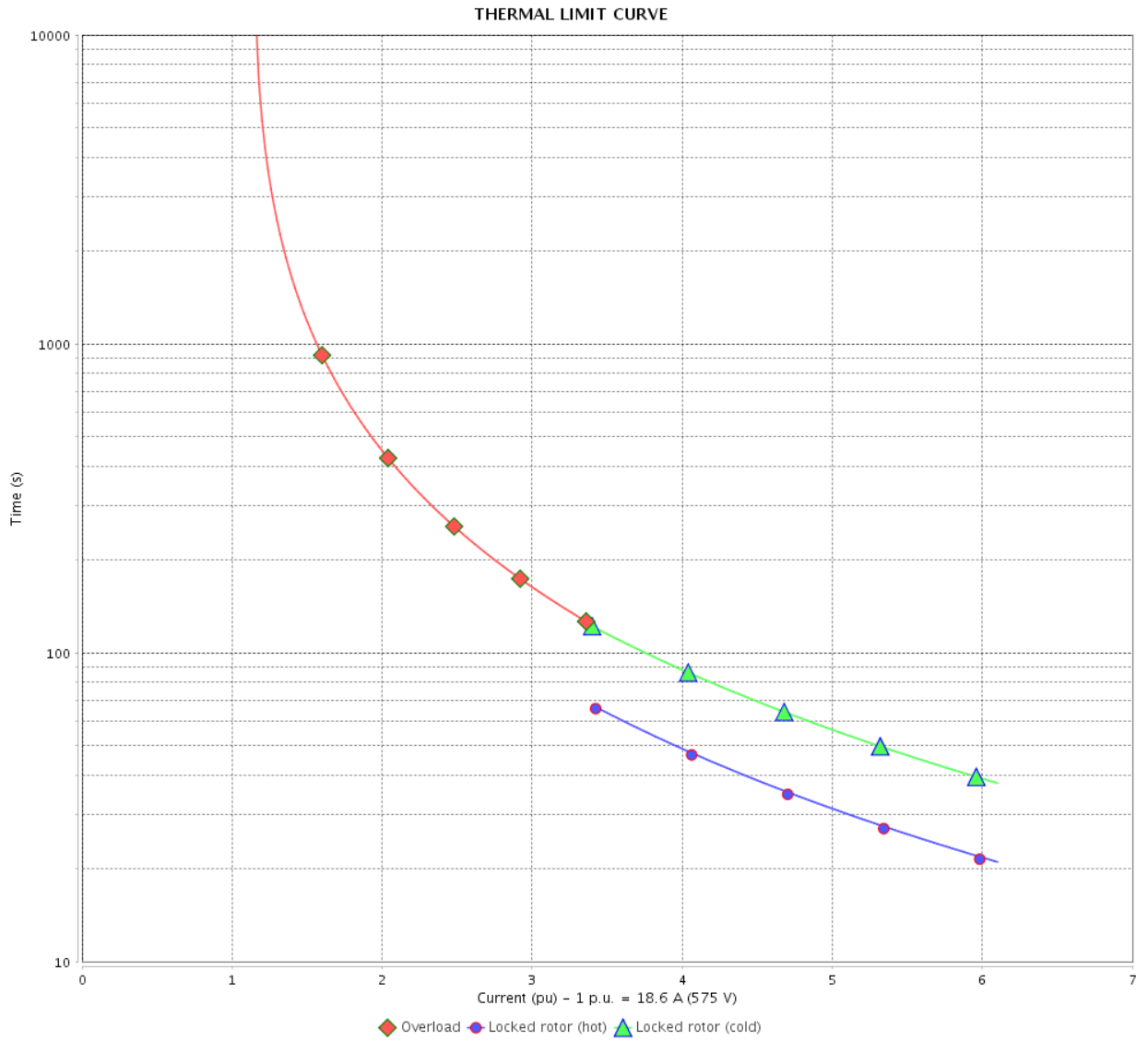
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THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : _____



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

Three Phase Induction Motor - Squirrel Cage

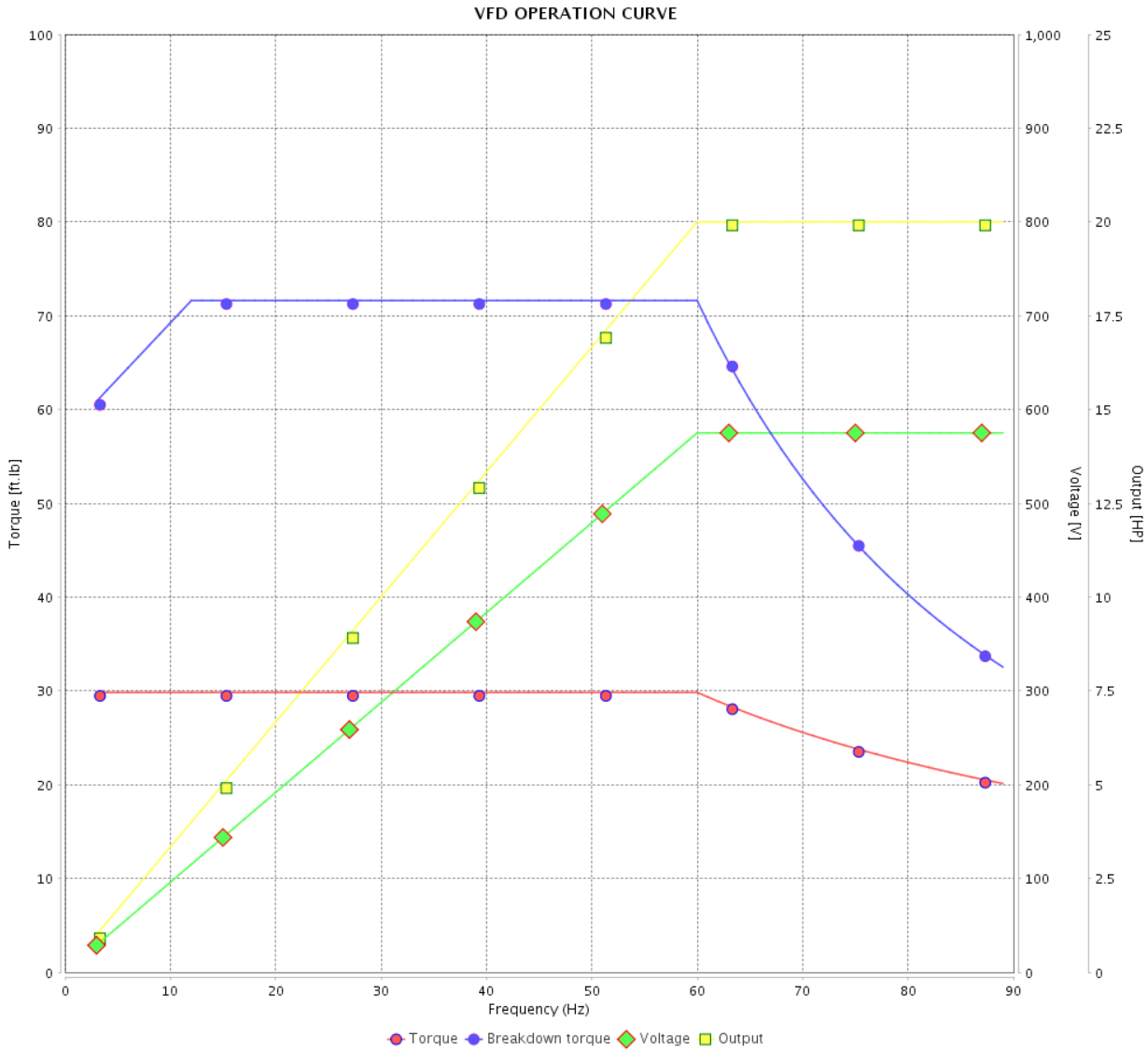


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 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

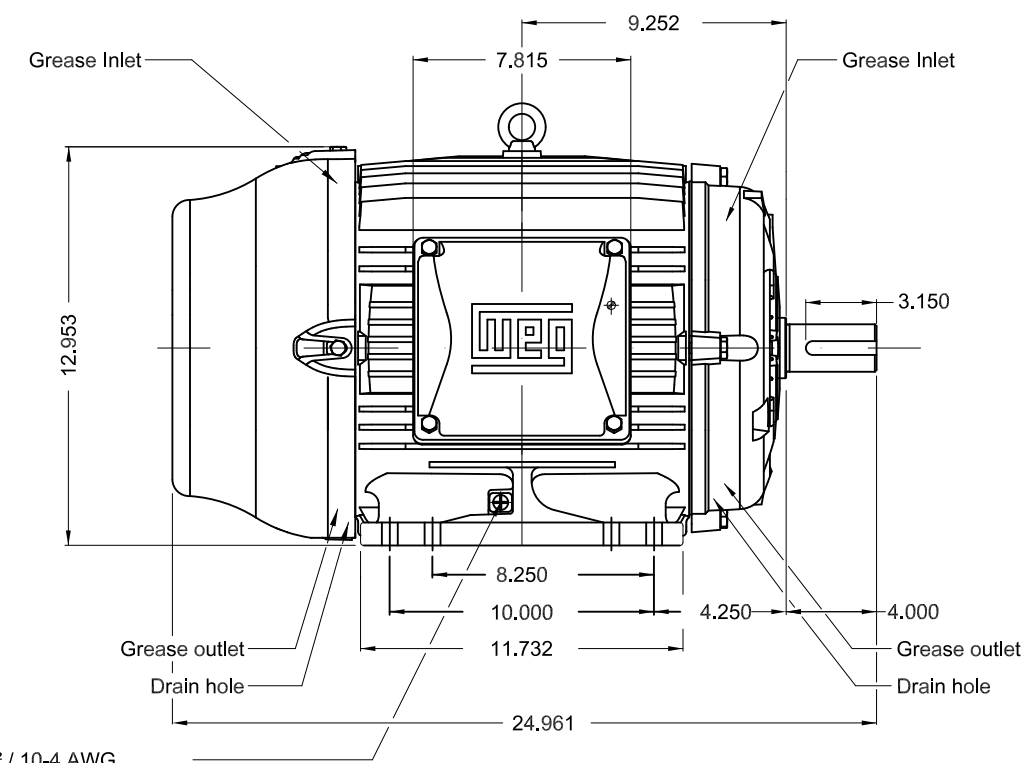
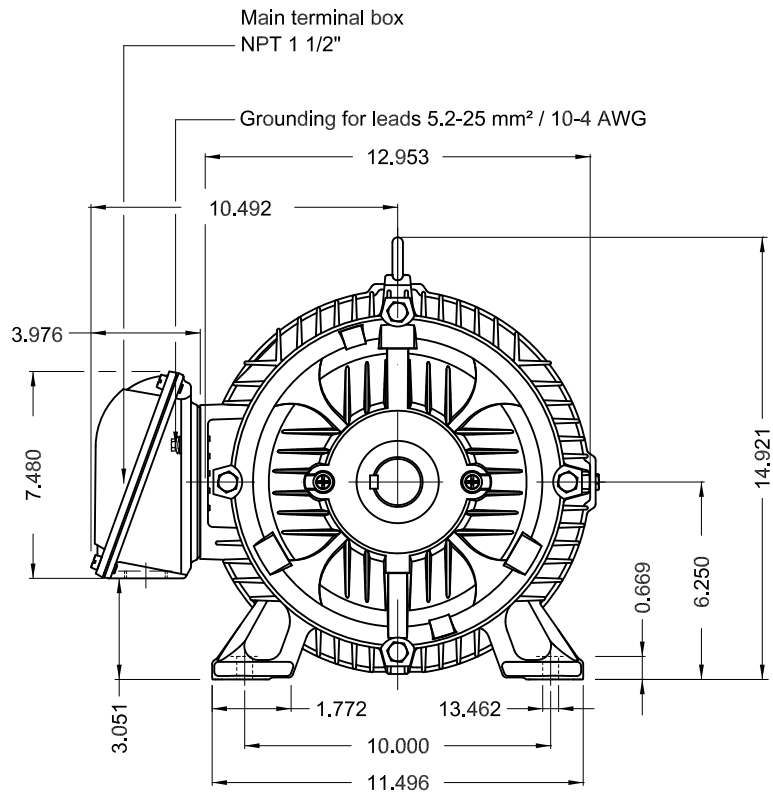
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1 2 3 4 5 6

A

B

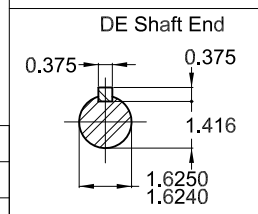
C



Grounding for leads 5.2-25 mm² / 10-4 AWG

D

E



Color RAL 5009
 Painting plan 202E
 Mounting B3R(D)

20 HP 02 Poles 60 Hz A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|---|---------------------|-------------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR IEEE 841 W22 PREM. EFF. FRAME 254/6T IP55 TEFC | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET 1 / 1 | | | |

PREVIEW
WDD



Dimensions in inches

XME A3



NEMA
Premium
W22



FOR SAFE AREA
Mod.TE1BFOXON
CC029A



Class I, Div 2, Gr A, B, C and D - T3
Class I, Zone 2, IIC - T3
Class II, Div 2, Gr F and G - T4
For use on PWM: Gr. A, B, C, D and F,
VT 1000:1, CT 20:1, 1.00SF - T3A

IE020502W22IS



Inverter Duty Motor
Severe Duty

MADE IN BRAZIL
11432092

PH3 60Hz Fr. 254/6T 1000m.a.s.l. IP55 TEFC 309lb

V 575

A 18.6

HP 20

kW 15

SF 1.25

SFA 23.3

RPM 3520

PF 0.89

AMB 40°C

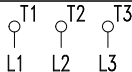
INS cl. F DT80K

NEMA NOM EFF 91.0%

DUTY CONT.

DES B Code G

GUARANT. EFF 89.5%



575V



→ 6309-C3 (13g) 45BC03X30

→ 6209-C3 (9g) 45BC02X30



MOBIL POLYREX EM (19000h)

