



# TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



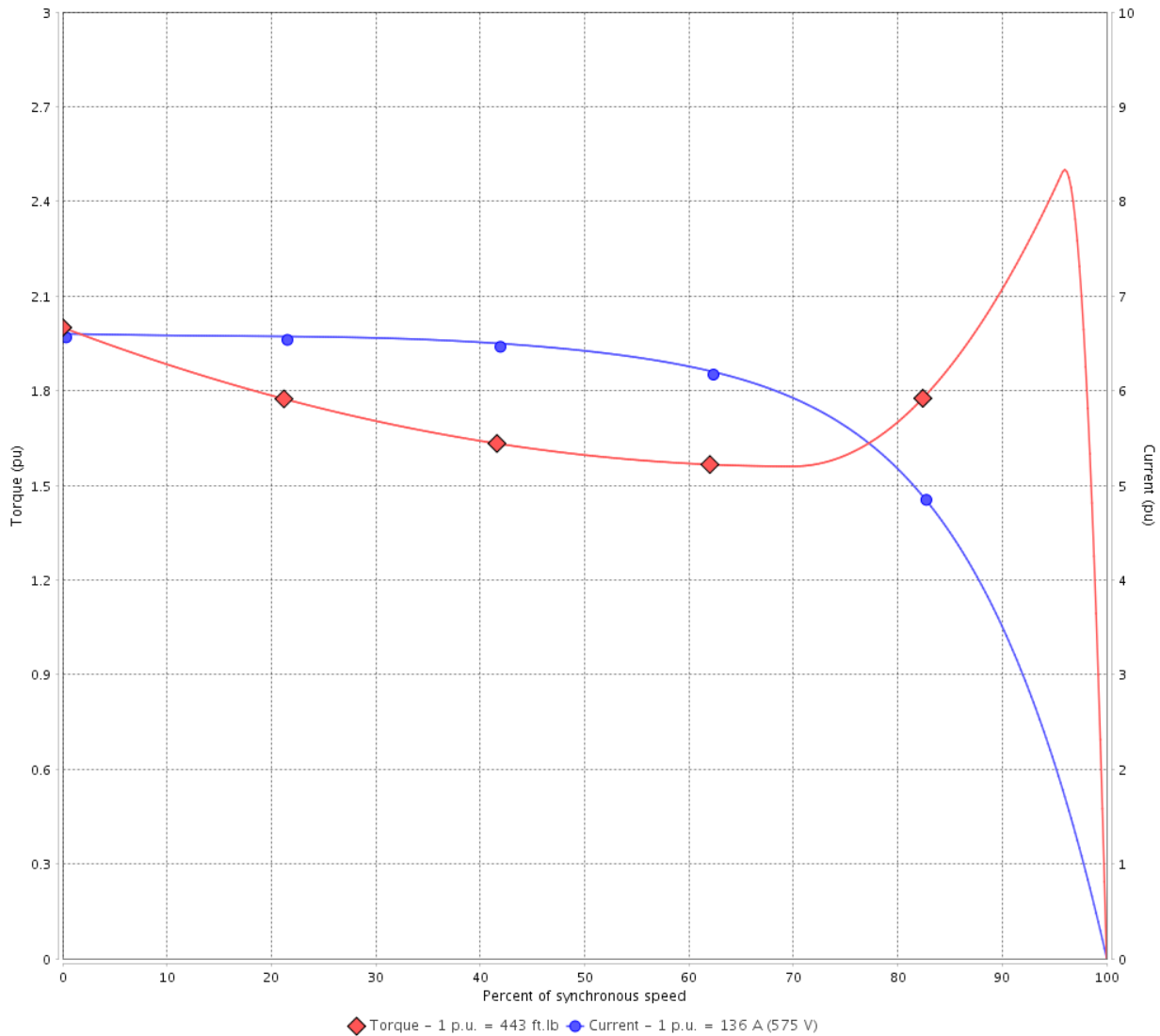
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11434630

Catalog # : 15018ST3HIE445T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 4P

|                     |             |                       |                 |
|---------------------|-------------|-----------------------|-----------------|
| Rated current       | : 136 A     | Moment of inertia (J) | : 66.7 sq.ft.lb |
| LRC                 | : 6.6       | Duty cycle            | : Cont.(S1)     |
| Rated torque        | : 443 ft.lb | Insulation class      | : F             |
| Locked rotor torque | : 200 %     | Service factor        | : 1.15          |
| Breakdown torque    | : 250 %     | Temperature rise      | : 80 K          |
| Rated speed         | : 1780 rpm  | Design                | : B             |

Locked rotor time : 48s (cold) 27s (hot)

| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>2 / 6 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 13/04/2022      |           |               |          |

# LOAD PERFORMANCE CURVE

## Three Phase Induction Motor - Squirrel Cage

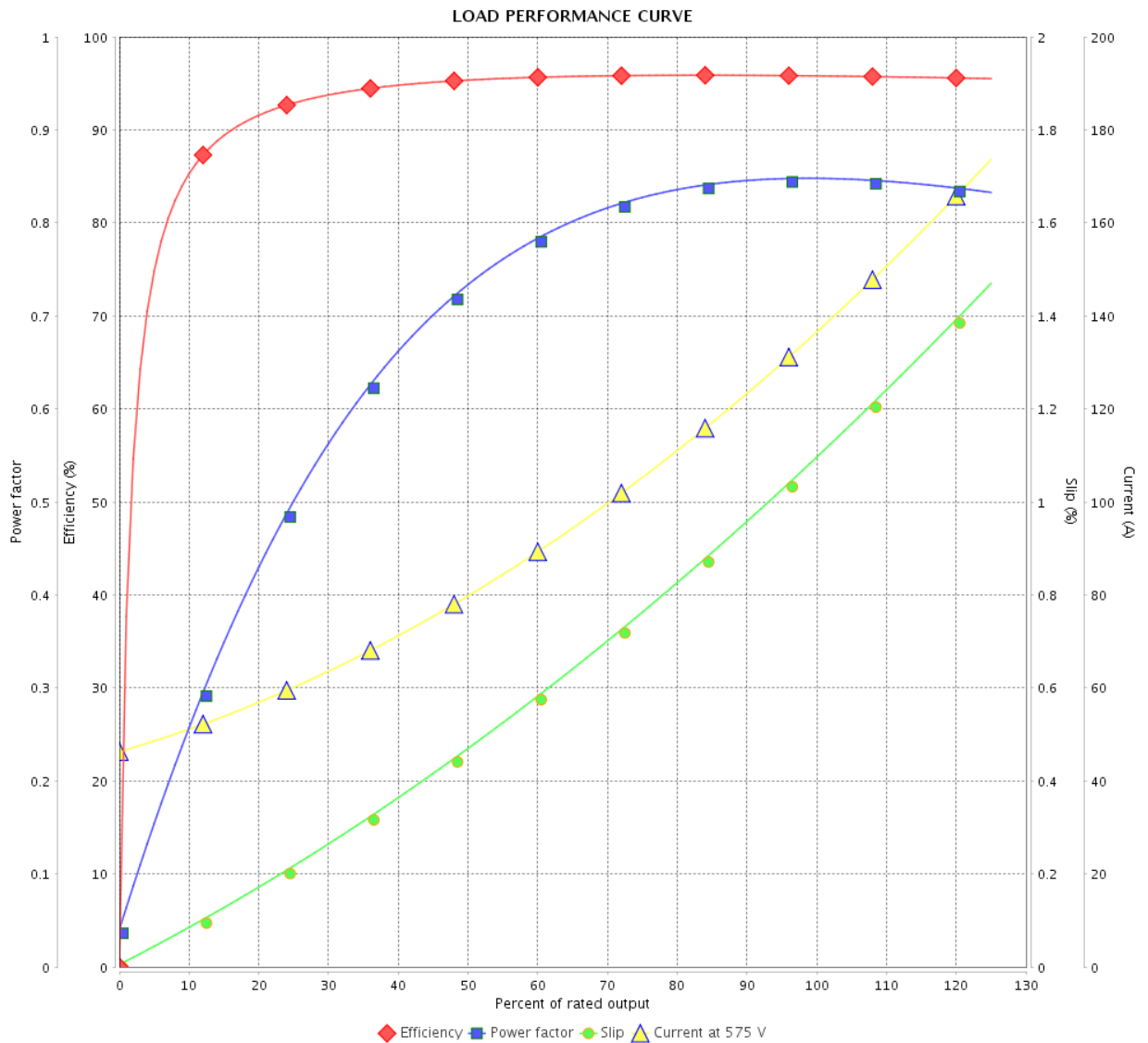


Customer :

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

| Rev.         | Changes Summary | Performed  | Checked | Date     |
|--------------|-----------------|------------|---------|----------|
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| Checked by   |                 | 3 / 6      |         |          |
| Date         |                 | 13/04/2022 |         |          |

# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

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Heating constant

Cooling constant

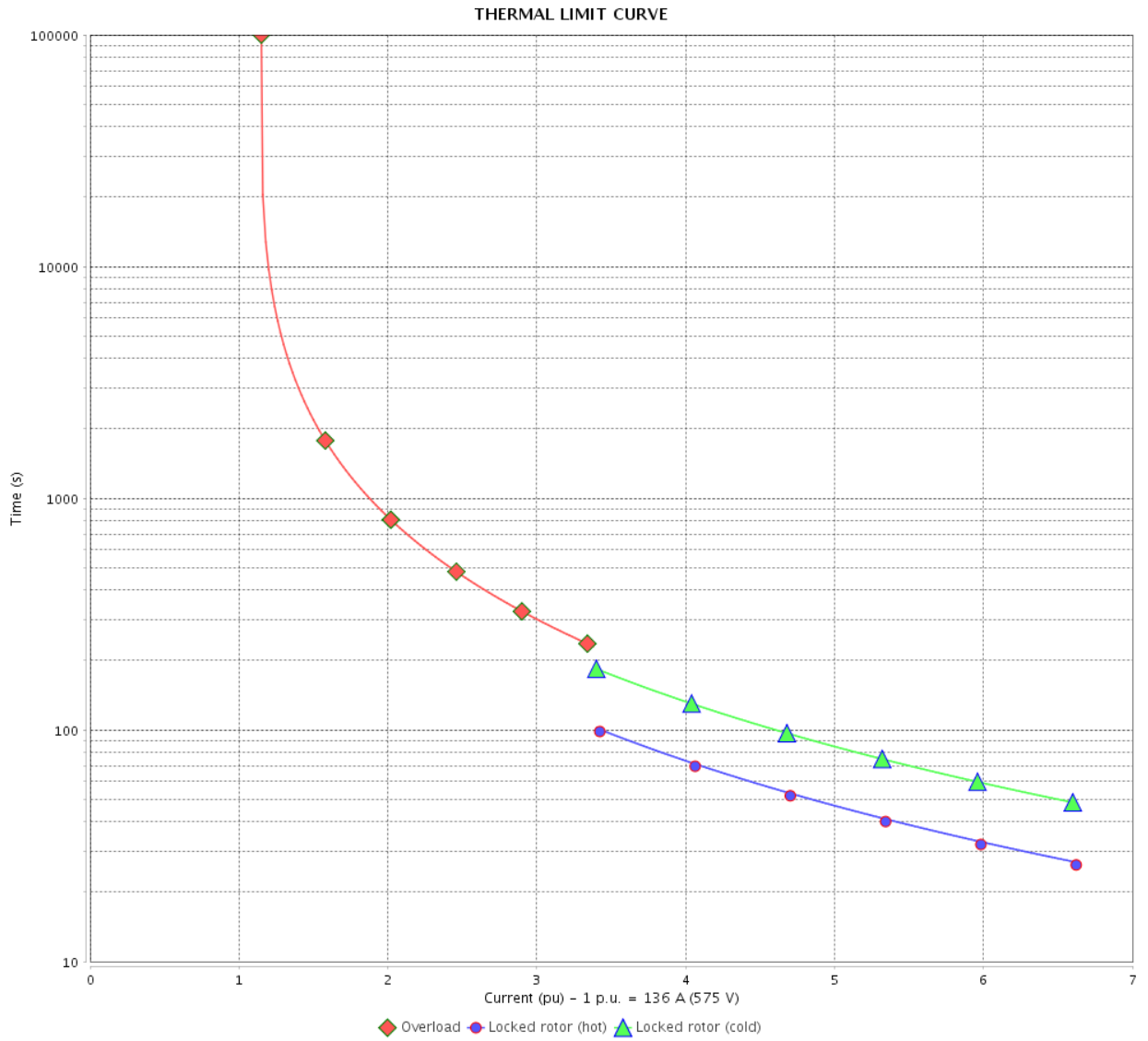
| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
| Performed by |                 |           |         |          |
| Checked by   |                 |           | Page    | Revision |
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



| Rev.         | Changes Summary | Performed     | Checked | Date     |
|--------------|-----------------|---------------|---------|----------|
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| Performed by |                 | Page<br>5 / 6 |         | Revision |
| Checked by   |                 |               |         |          |
| Date         |                 |               |         |          |

# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



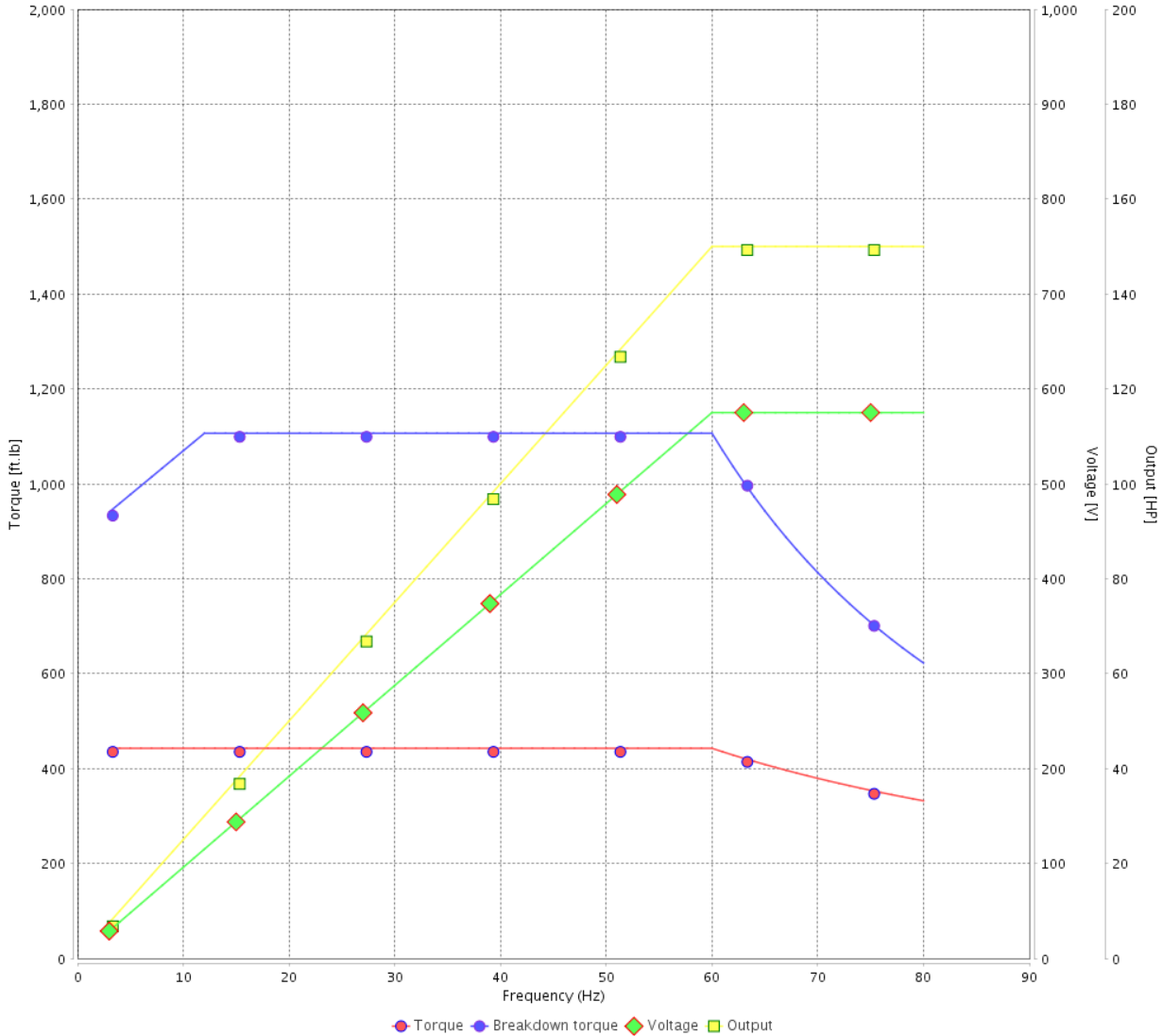
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 11434630

Catalog # : 15018ST3HIE445T-W22

VFD OPERATION CURVE



Performance : 575 V 60 Hz 4P

Rated current : 136 A  
 LRC : 6.6  
 Rated torque : 443 ft.lb  
 Locked rotor torque : 200 %  
 Breakdown torque : 250 %  
 Rated speed : 1780 rpm

Moment of inertia (J) : 66.7 sq.ft.lb  
 Duty cycle : Cont.(S1)  
 Insulation class : F  
 Service factor : 1.15  
 Temperature rise : 80 K  
 Design : B

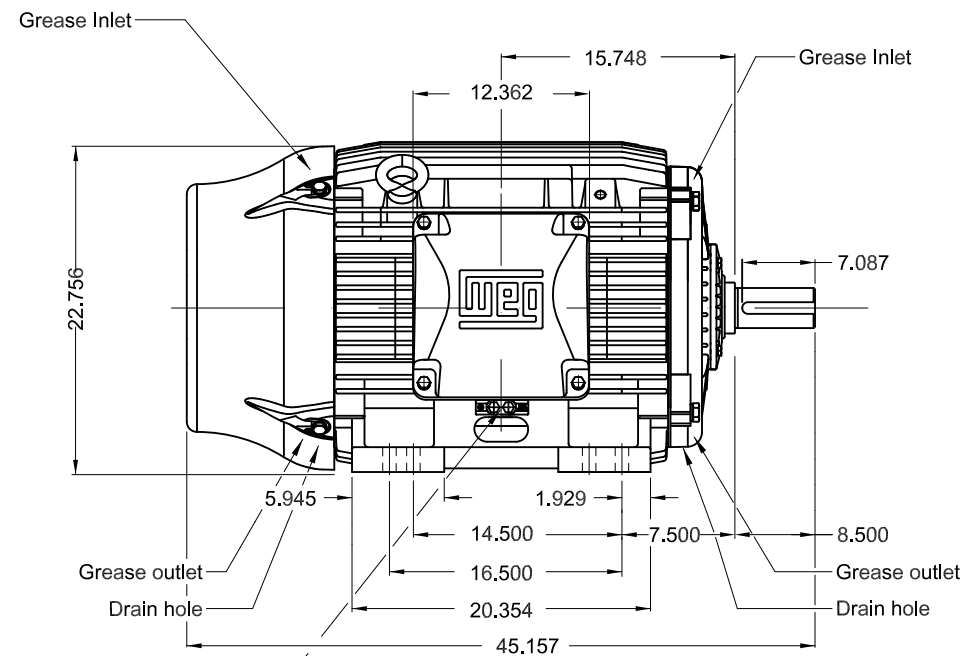
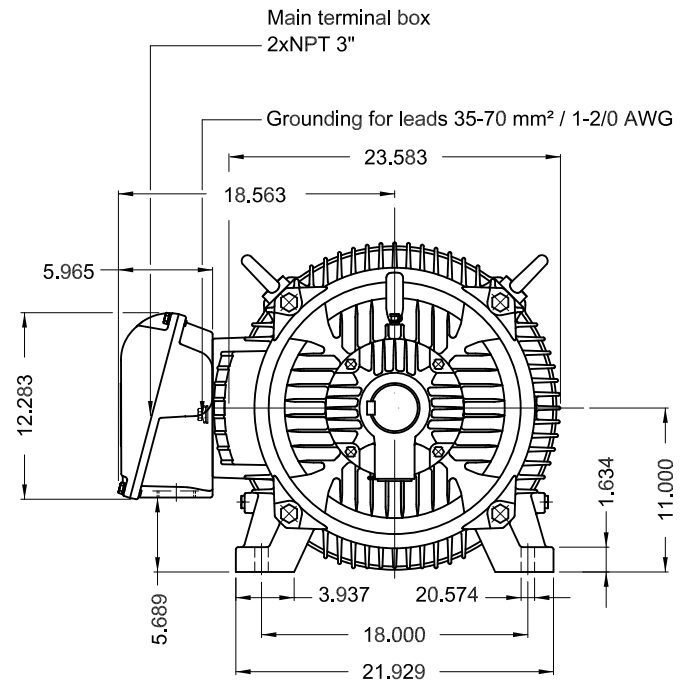
| Rev.         | Changes Summary | Performed | Checked       | Date     |
|--------------|-----------------|-----------|---------------|----------|
|              |                 |           |               |          |
| Performed by |                 |           | Page<br>6 / 6 | Revision |
| Checked by   |                 |           |               |          |
| Date         | 13/04/2022      |           |               |          |

1 2 3 4 5 6

A

B

C

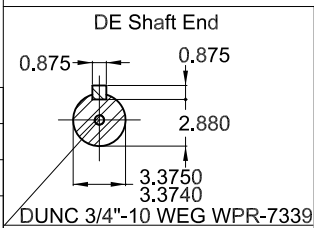


Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

Without vertical jackscrews  
 Color RAL 5009  
 Painting plan 202E  
 Mounting B3R(D)



150 HP 04 Poles 60 Hz A

| ECM      | LOC       | SUMMARY OF MODIFICATIONS                | EXECUTED            | CHECKED | RELEASED | DATE | VER |
|----------|-----------|---|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR IEEE 841 W22 PREM. EFF. |                     |         |          |      |     |
| CHECKED  |           | FRAME 444/5T IP55 TEFC                  |                     |         |          |      |     |
| 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 - T3C  
For use on PWM: Gr. A, B, C, D and F,  
VT 1000:1, CT 20:1, 1.00SF - T3A

MODEL 15018ST3HIE445T-W22

Inverter Duty Motor  
Severe Duty



MADE IN BRAZIL  
11434630

PH3 60Hz Fr. 444/5T 1000m.a.s.l. IP55 TEFC 1855lb

V 575

A 136

HP 150

kW 110

SF 1.15

SFA 156

RPM 1780

PF 0.85

AMB 40°C

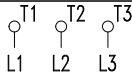
INS cl. F DT80K

NEMA NOM EFF 95.8%

DUTY CONT.

DES B Code G

GUARANT. EFF 95.0%



575V



→ 6319-C3 (45g) 95BC03X30

→ 6316-C3 (34g) 80BC03X30



MOBIL POLYREX EM (8000h)

