

DATA SHEET



Three Phase Induction Motor - Squirrel Cage

| | | | | | |
|--|---------------------------------------|-----------------------------|------------------------|----------------------|----------|
| Customer : | | | | | |
| Product line | : NEMA Premium Efficiency Three-Phase | Product code : | 12974983 | | |
| | | Catalog # : | 07512ET3H405T-W22 | | |
| Frame | : 404/5T | Locked rotor time | : 30s (cold) 17s (hot) | | |
| Output | : 75 HP (55 kW) | Temperature rise | : 80 K | | |
| Poles | : 6 | Duty cycle | : Cont.(S1) | | |
| Frequency | : 60 Hz | Ambient temperature | : -20°C to +40°C | | |
| Rated voltage | : 575 V | Altitude | : 1000 m.a.s.l. | | |
| Rated current | : 67.9 A | Protection degree | : IP55 | | |
| L. R. Amperes | : 435 A | Cooling method | : IC411 - TEFC | | |
| LRC | : 6.4x(Code G) | Mounting | : F-1 | | |
| No load current | : 24.0 A | Rotation ¹ | : Both (CW and CCW) | | |
| Rated speed | : 1184 rpm | Noise level ² | : 68.0 dB(A) | | |
| Slip | : 1.33 % | Starting method | : Direct On Line | | |
| Rated torque | : 333 ft.lb | Approx. weight ³ | : 1183 lb | | |
| Locked rotor torque | : 229 % | | | | |
| Breakdown torque | : 229 % | | | | |
| Insulation class | : F | | | | |
| Service factor | : 1.25 | | | | |
| Moment of inertia (J) | : 40.2 sq.ft.lb | | | | |
| Design | : B | | | | |
| Output | 25% | 50% | 75% | 100% | |
| Efficiency (%) | 94.0 | 94.1 | 94.5 | 94.5 | |
| Power Factor | 0.49 | 0.74 | 0.83 | 0.86 | |
| Foundation loads | | | | | |
| Max. traction : 1705 lb | | | | | |
| Max. compression : 2888 lb | | | | | |
| | | <u>Drive end</u> | | <u>Non drive end</u> | |
| Bearing type | : | 6316 C3 | | 6314 C3 | |
| Sealing | : | WSeal | | WSeal | |
| Lubrication interval | : | 16000 h | | 17000 h | |
| Lubricant amount | : | 34 g | | 27 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 | 13/04/2022 | | | 1 / 6 | |

TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



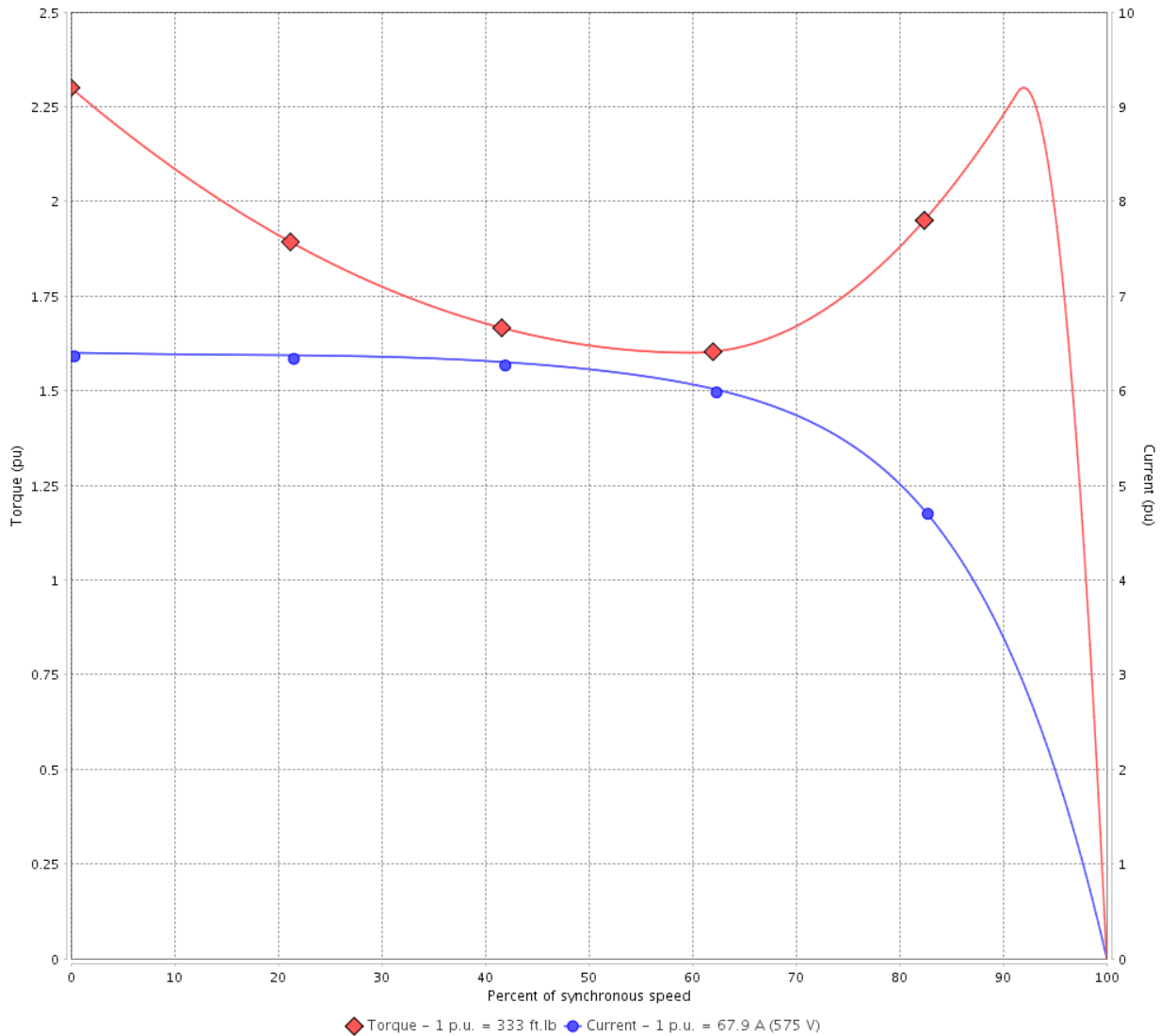
Customer :

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12974983

Catalog # : 07512ET3H405T-W22

TORQUE AND CURRENT VS SPEED CURVE



Performance : 575 V 60 Hz 6P

| | | | |
|---------------------|-------------|-----------------------|-----------------|
| Rated current | : 67.9 A | Moment of inertia (J) | : 40.2 sq.ft.lb |
| LRC | : 6.4 | Duty cycle | : Cont.(S1) |
| Rated torque | : 333 ft.lb | Insulation class | : F |
| Locked rotor torque | : 229 % | Service factor | : 1.25 |
| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 1184 rpm | Design | : B |

Locked rotor time : 30s (cold) 17s (hot)

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

LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

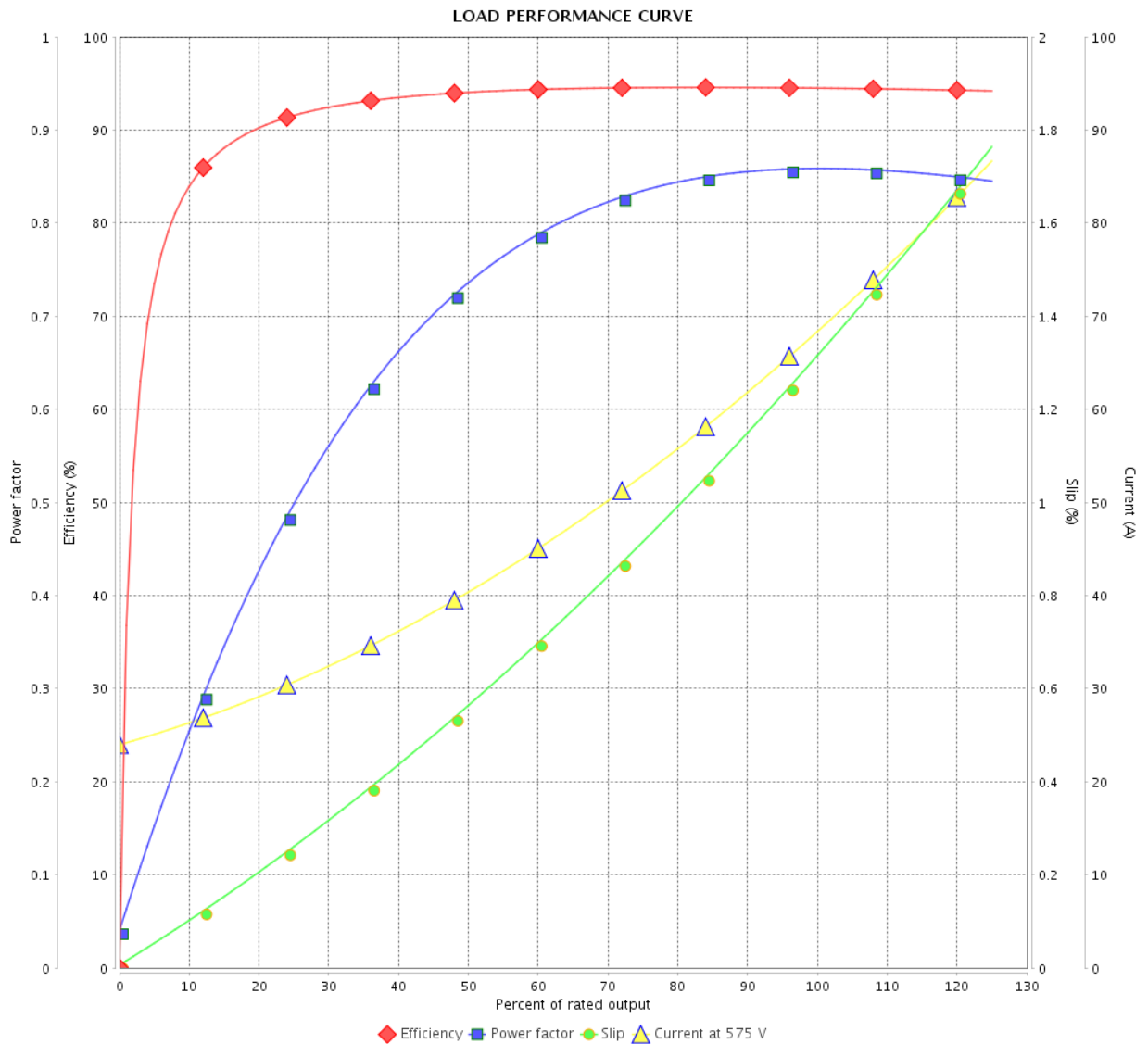


Customer : _____

Product line : NEMA Premium Efficiency Three-Phase

Product code : 12974983

Catalog # : 07512ET3H405T-W22



Performance : 575 V 60 Hz 6P

Rated current : 67.9 A
 LRC : 6.4
 Rated torque : 333 ft.lb
 Locked rotor torque : 229 %
 Breakdown torque : 229 %
 Rated speed : 1184 rpm

Moment of inertia (J) : 40.2 sq.ft.lb
 Duty cycle : Cont.(S1)
 Insulation class : F
 Service factor : 1.25
 Temperature rise : 80 K
 Design : B

| Rev. | Changes Summary | Performed | Checked | Date |
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| Date | | 13/04/2022 | | |

THERMAL LIMIT CURVE



Three Phase Induction Motor - Squirrel Cage

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Heating constant

Cooling constant

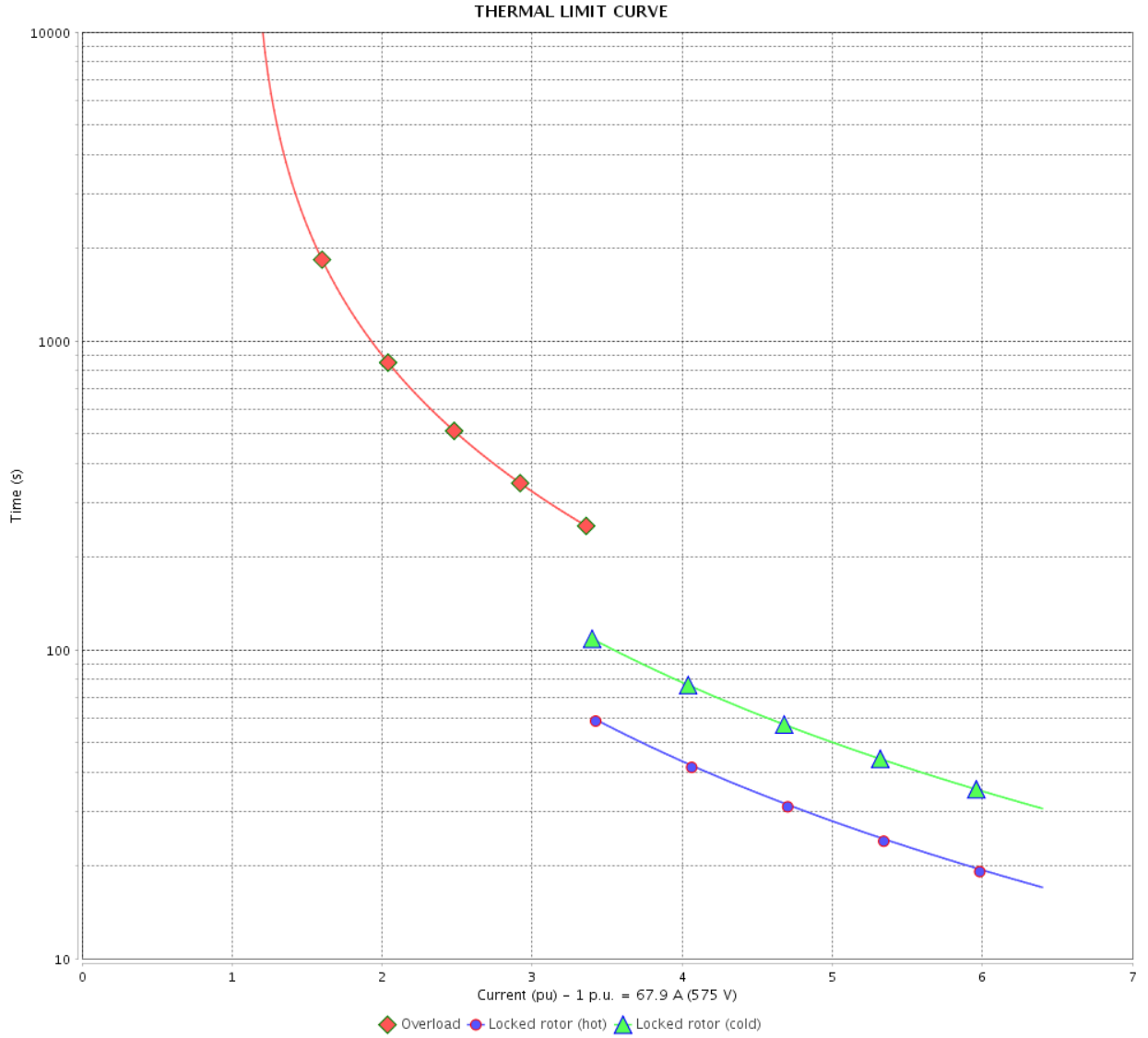
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THERMAL LIMIT CURVE

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



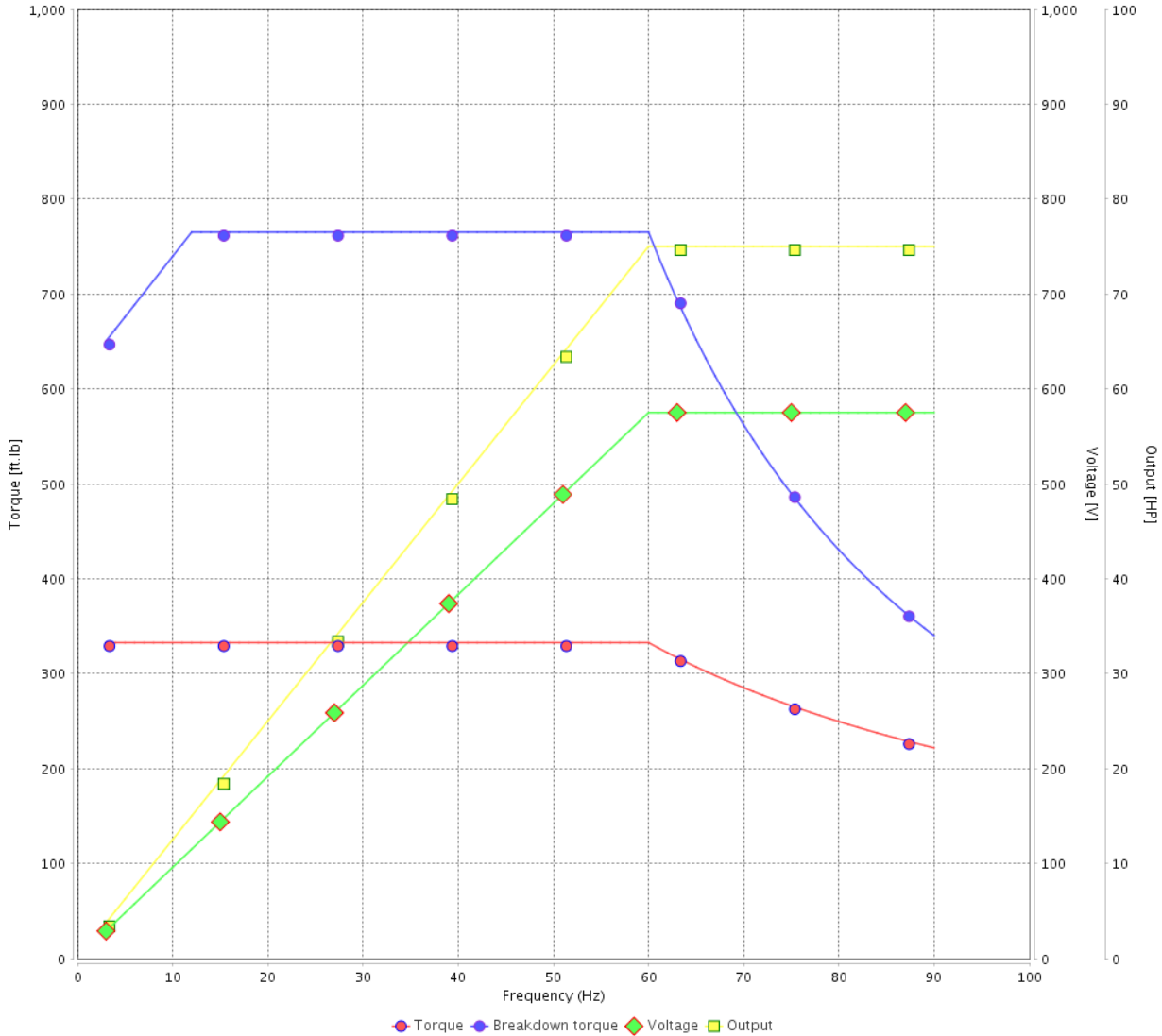
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VFD OPERATION CURVE



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| Breakdown torque | : 229 % | Temperature rise | : 80 K |
| Rated speed | : 1184 rpm | Design | : B |

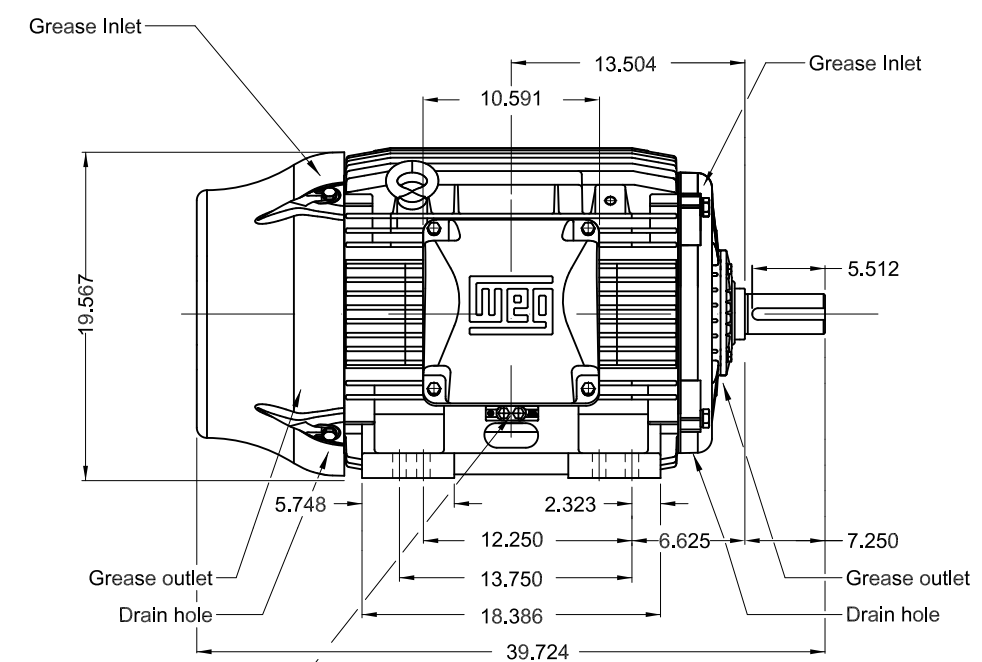
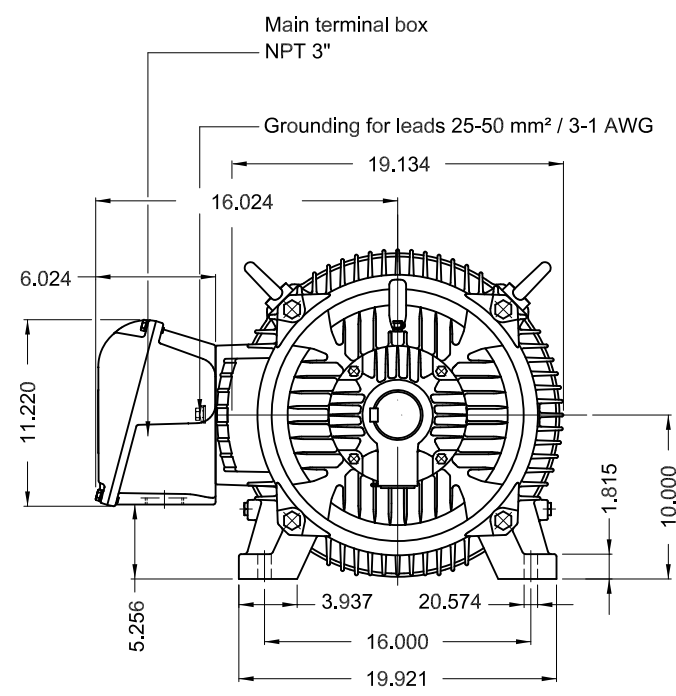
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1 2 3 4 5 6

A

B

C

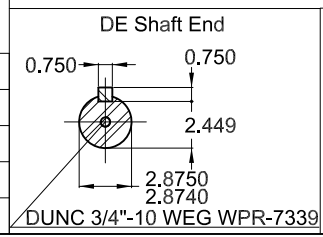


Grounding for leads 25-185 mm² / 3AWG-350MCM

D

E

- Without vertical jackscrews
- Color RAL 5009
- Painting plan 203A
- Mounting NEMA F-1
- Mounting B3R(D)



75 HP 06 Poles 60 Hz A

| ECM | LOC | SUMMARY OF MODIFICATIONS | EXECUTED | CHECKED | RELEASED | DATE | VER |
|----------|-----------|--|---------------------|---------|----------|------|-----|
| EXECUTED | PIRWBUSER | THREE PH. MOTOR W22 PREM. EFF. FRAME 404/5T IP55 TEFC | | | | | |
| CHECKED | | | | | | | |
| RELEASED | | | | | | | |
| REL DT. | WMO | Jaragua do Sul | Product Engineering | SHEET | 1 / 1 | | |

PREVIEW
WDD



MADE IN BRAZIL
12974983



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

HT075506NPBBW22

Inverter Duty Motor
Severe Duty

PH3 60Hz Fr. 404/5T 1000m.a.s.l. IP55 TEFC 1189lb

V 575

A 67.9

HP 75

kW 55

SF 1.25

SFA 84.9

RPM 1184

PF 0.86

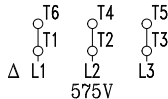
AMB 40°C

INS cl. F DT80K

NEMA NOM EFF 94.5%

DUTY CONT.

DES B Code G



→ 6316-C3 (34g)

→ 6314-C3 (27g)



MOBIL POLYREX EM (16000h)

