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# Explosion Proof Motors

**Model No:** 449TSTGS16506
**Catalog No:** E595A

Explosion Proof Motor, 250 & 200 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 447/449TS Frame, EPFC

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## Product Information Packet: Model No: 449TSTGS16506, Catalog No: E595A  Explosion Proof Motor, 250 & 200 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 RPM, 447/449TS Frame, EPFC

### Nameplate Specifications

| | | | |
|---|---|---|---|
| Phase | **3** | Output HP | **250 & 200 Hp** |
| Output KW | **187.0 & 149.0 kW** | Voltage | **460 & 380 V** |
| Speed | **3575 & 2976 r/min** | Synchronous RPM | **3600 & 3000 r/min** |
| Service Factor | **1.00 & 1.00** | Frame | **447/449TS** |
| Enclosure | **Explosion Proof Fan cooled** | Thermal Protection | **Thermostat** |
| Efficiency | **95.8 & 95.4 %** | Ambient Temperature | **40 °C** |
| Frequency | **60 & 50 Hz** | Current | **270 & 265 A** |
| Power Factor | **89** | Duty | **Continuous** |
| Insulation Class | **F** | Design Code | **B** |
| KVA Code | **G** | Drive End Bearing Size | **6313** |
| Opp Drive End Bearing Size | **6313** | UL | **Listed** |
| CSA | **N** | CE | **N** |
| IP Code | **54** | Number of Speeds | **1** |
| Hazardous Location | **DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B** | | |

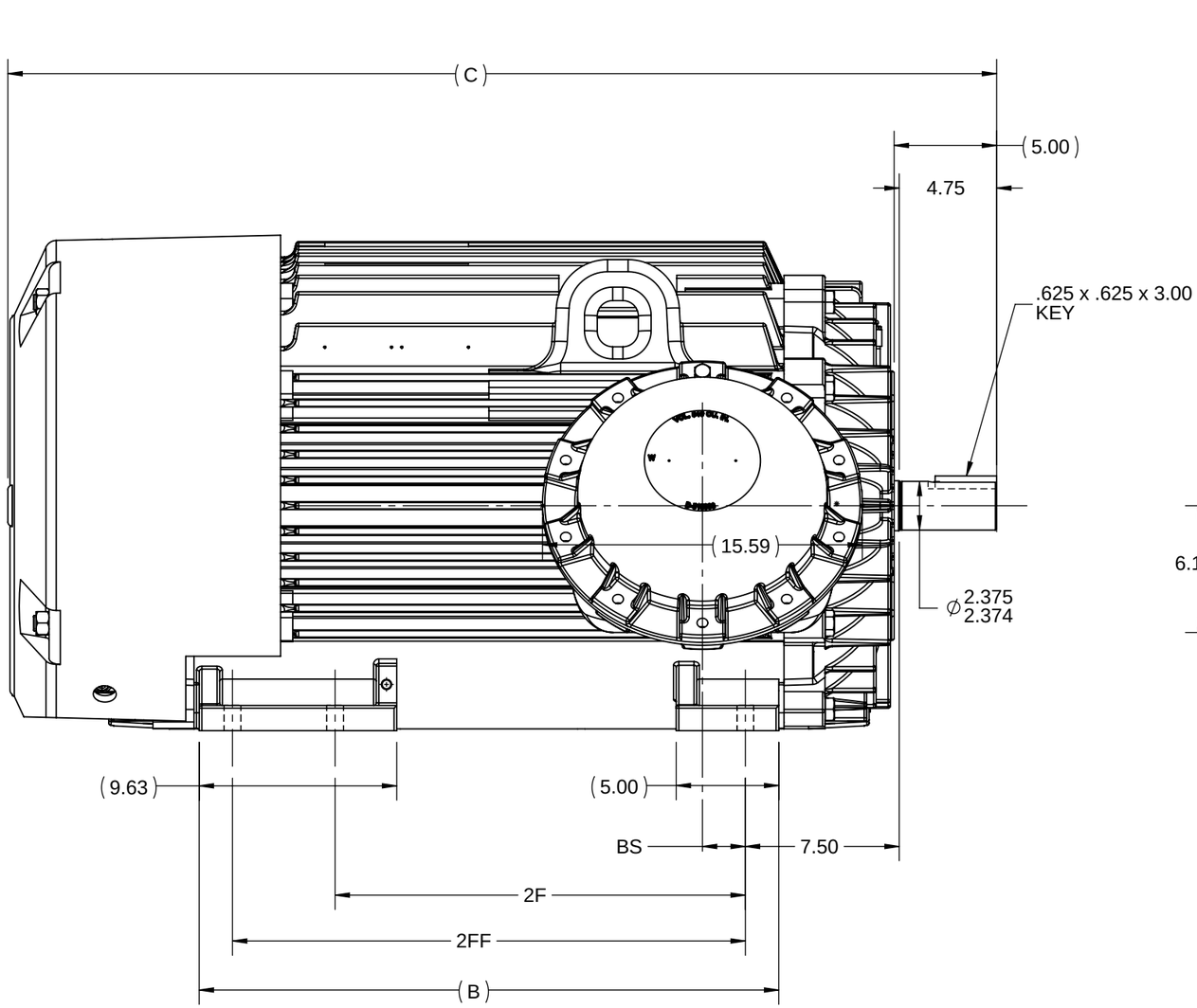
### Technical Specifications

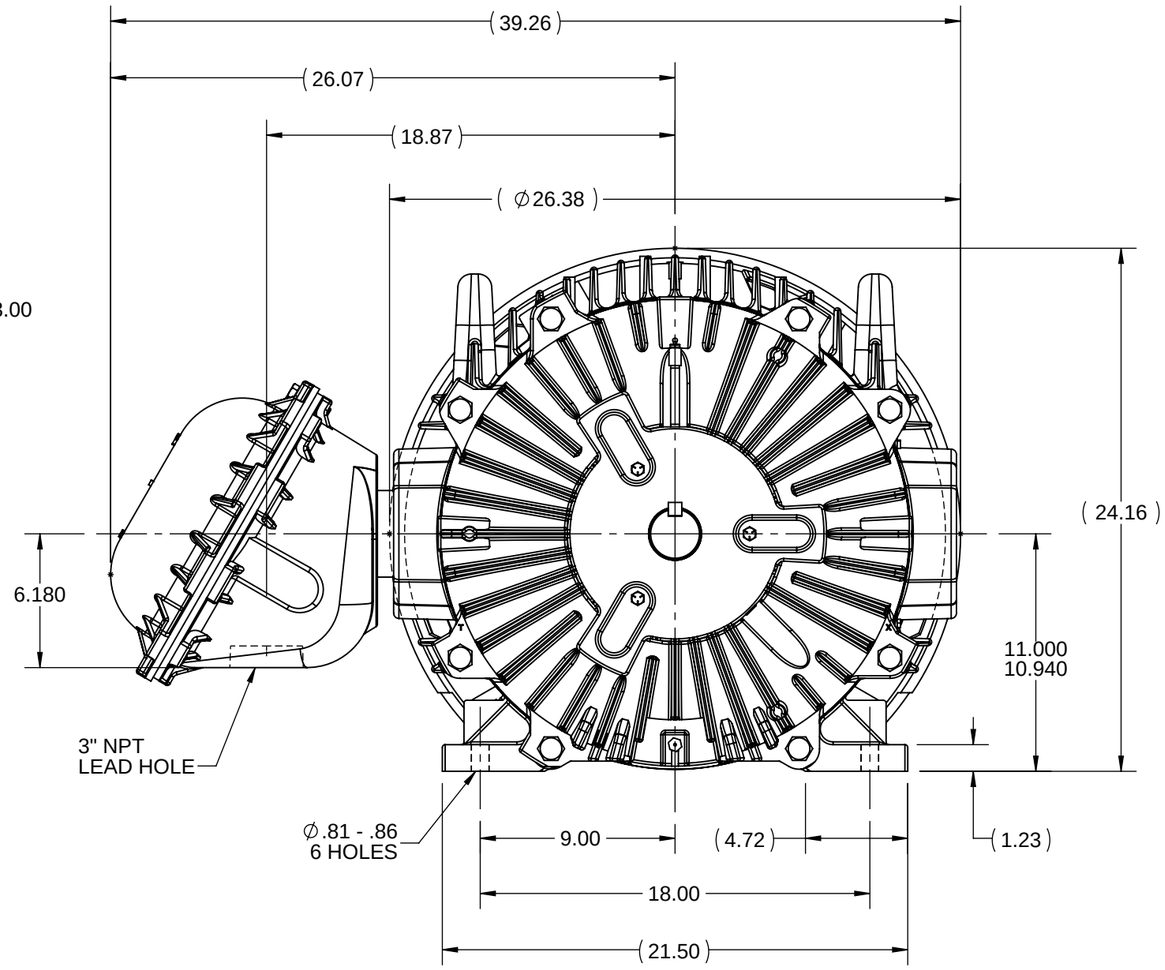
| | | | |
|---|---|---|---|
| Electrical Type | **Squirrel Cage Inverter Rated** | Starting Method | **Line Or Inverter** |
| Poles | **2** | Rotation | **Reversible** |
| Resistance Main | **.0086 O** | Mounting | **Rigid Base** |
| Motor Orientation | **Horizontal** | Drive End Bearing | **Ball** |
| Opp Drive End Bearing | **Ball** | Frame Material | **Cast Iron** |
| Shaft Type | **TS** | Overall Length | **28.25 in** |
| Frame Length | **28.77 in** | Shaft Diameter | **2 3/8 in** |
| Shaft Extension | **5.00 in** | Assembly/Box Mounting | **F1 Only** |
| Inverter Load | **Constant 10:1** | | |

### Drawings

| | | | |
|---|---|---|---|
| Connection Drawing | **EE7300S** | Outline Drawing | **SS515927-2875** |

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NOTES:
1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| DASH | FRAME | B | C | 2F | 2FF | BS |
|---|---|---|---|---|---|---|
| 2875 | 447TS | 28.25 | 48.19 | 20.00 | - - - | 2.09 |
| 2875 | 449TS | 28.25 | 48.19 | - - - | 25.00 | 2.09 |

| | | |
|---|---|---|
| DRAWING REVISION: F | REVISION BY: SV | REV DATE/© DATE: 05/21/2026 |
| REQUEST NUMBER: CR-0026353 | APPROVED BY: RMS | DATE: 05/21/2026 |
| REQUEST NUMBER DESCRIPTION: DRAWING TITLE BLOCK UPDATED | | |

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TOLERANCES (EXCEPT AS NOTED):

| DEC. | INCH | mm | ANGLE |
|---|---|---|---|
| .X | ±0.1 | [±3] | ±7' 30" |
| .XX | ±0.03 | [±0.8] | |
| .XXX | ±0.005 | [±0.13] | |
| .XXXX | ±0.0005 | [±0.013] | |

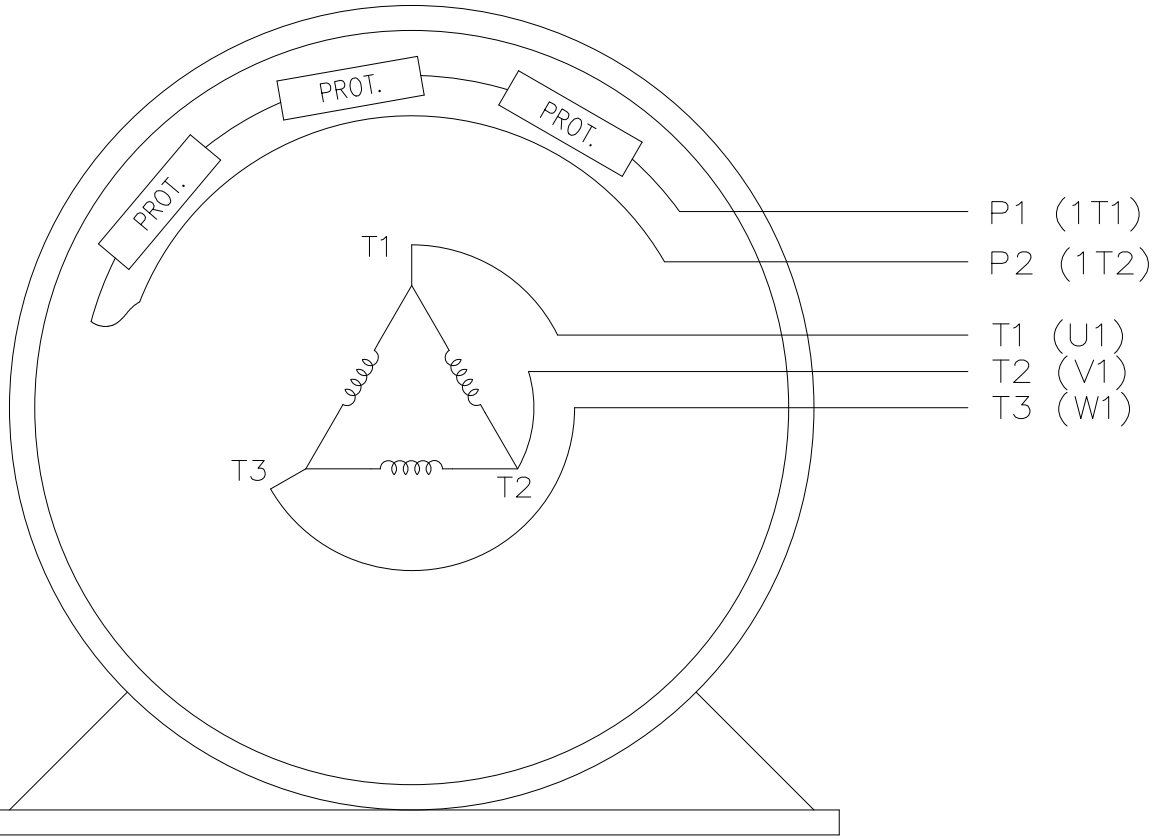
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°
CORNER FILLETS: R.02 [.5]
MACHINED SURFACES: 200 / 5.1 / INCH / mm
mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

| | |
|---|---|
| DRAWN BY: CM | marathon™ |
| DATE: 3-10-2014 | DESCRIPTION: OUTLINE 447/449TS FR. - TEFC - STD. - EX. PR. |
| APPROVED BY: DJK | |
| DATE: 3-14-2014 | |
| REFERENCE | MATERIAL / PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE: B / DRAWING NUMBER: SS515927 / SHEET: 1 OF 1 |

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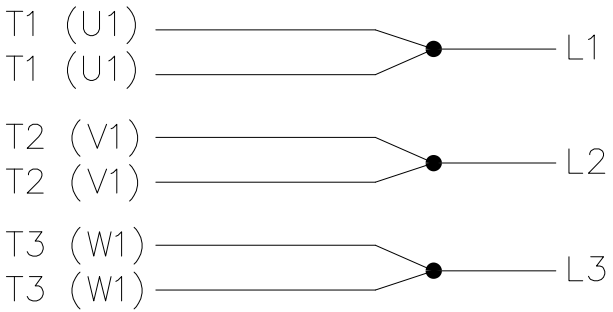
THREE PHASE – SINGLE VOLTAGE MOTOR

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS




VIEW OF TERMINAL END

IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S




A–9806 DECAL

| DRAWING REVISION | REVISION BY | REV DATE/ © DATE |
|---|---|---|
| G | SB | 08/04/2025 |
| REQUEST NUMBER | APPROVED BY | DATE |
| CR-0023654 | SBD | 08/04/2025 |

REQUEST NUMBER DESCRIPTION
DRAWING TITLE BLOCK UPDATED

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PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

| | |
|---|---|
| DRAWN BY | KL |
| DATE | 12/15/1999 |
| APPROVED BY | DJK |
| DATE | 12/15/1999 |
| REFERENCE | |
| THIRD ANGLE PROJECTION | |

marathon™

DESCRIPTION
CONNECTION DIAGRAM-EXTERNAL
SINGLE VOLTAGE 3Ø MOTOR

| MATERIAL | PROCESS/FINISH |
|---|---|
| | |

| SIZE | DRAWING NUMBER | SHEET |
|---|---|---|
| A | 4 of 5 EE7300S | 1 OF 1 |

# Data Sheet

**Date:** 11/29/2018
**Customer:**
**Attention:**
**Submitted by:** FAREEDA DUDEKULA

marathon® electric

449TSTGS16506

**Submittal**

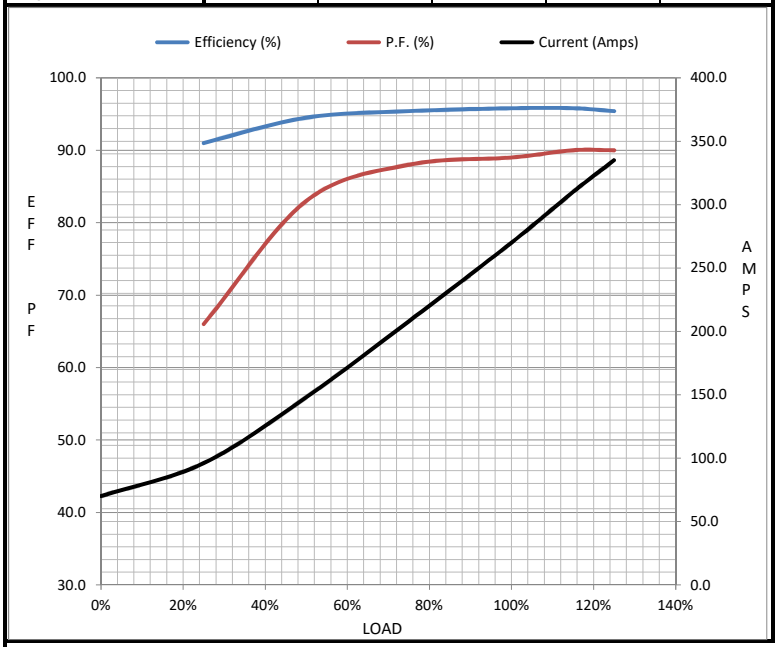
Data @ 460 V

## Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR | |
|---|---|---|---|---|---|---|---|---|---|
| Current (Amps) | 70.0 | 96.0 | 148 | 208 | 270 | 310 | 335 | 1,825 | |
| Torque (ft-lb) | 0.00 | 91.5 | 183 | 275 | 367 | 423 | 460 | 650 | |
| RPM | 3600 | 3595 | 3588 | 3582 | 3575 | 3,572 | 3570 | 0 | |
| Efficiency (%) | | 91.0 | 94.5 | 95.4 | 95.8 | 95.8 | 95.4 | | |
| P.F. (%) | 6.0 | 66.0 | 83.0 | 88.0 | 89.0 | 90.0 | 90.0 | 25.0 | |

## Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|---|---|---|---|---|---|
| Speed (RPM) | 0 | 1800 | 3420 | 3575 | 3600 |
| Current (Amps) | 1,825 | 1,775 | 1,200 | 270 | 70.0 |
| Torque (ft-lb) | 650 | 575 | 1,050 | 367 | 0.00 |




## Information Block

| | | |
|---|---|---|
| HP | 250.0 | |
| Sync. RPM | 3600 | |
| Frame | 449 | |
| Enclosure | EPFC | |
| Construction | TGS | |
| Voltage | 460#380 | V |
| Frequency | 60 | Hz |
| Design | A | |
| LR Code letter | G | |
| Service Factor | 1 | |
| Temp Rise @ FL | 65 | ° C |
| Duty | CONT | |
| Ambient | 40 | ° C |
| Elevation | 1,000 | feet |
| Rotor/Shaft wk² | 51.0 | Lb-Ft² |
| Ref Wdg | T4492120 NONE | |
| Sound Pressure @ 1M | 82 | dBA |
| VFD Rating | CONSTANT 2:1 | |
| Outline Dwg | B-SS515927-2875 | |
| Conn. Diag | A-EE7300S | |
| Additional Specifications: | | |
| 0 | | |
| 0 | | |

EQUIV CKT (OHMS / PHASE)

| R1 | R2 | X1 | X2 | Xm |
|---|---|---|---|---|
| 0.0070 | 0.0070 | 0.0850 | 0.0870 | 3.7800 |

## Speed -Torque Curve

