

PRODUCT INFORMATION PACKET

Model No: 449TTGS16537

Catalog No: E591

Hazardous Duty® Explosion Proof Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, EPFC



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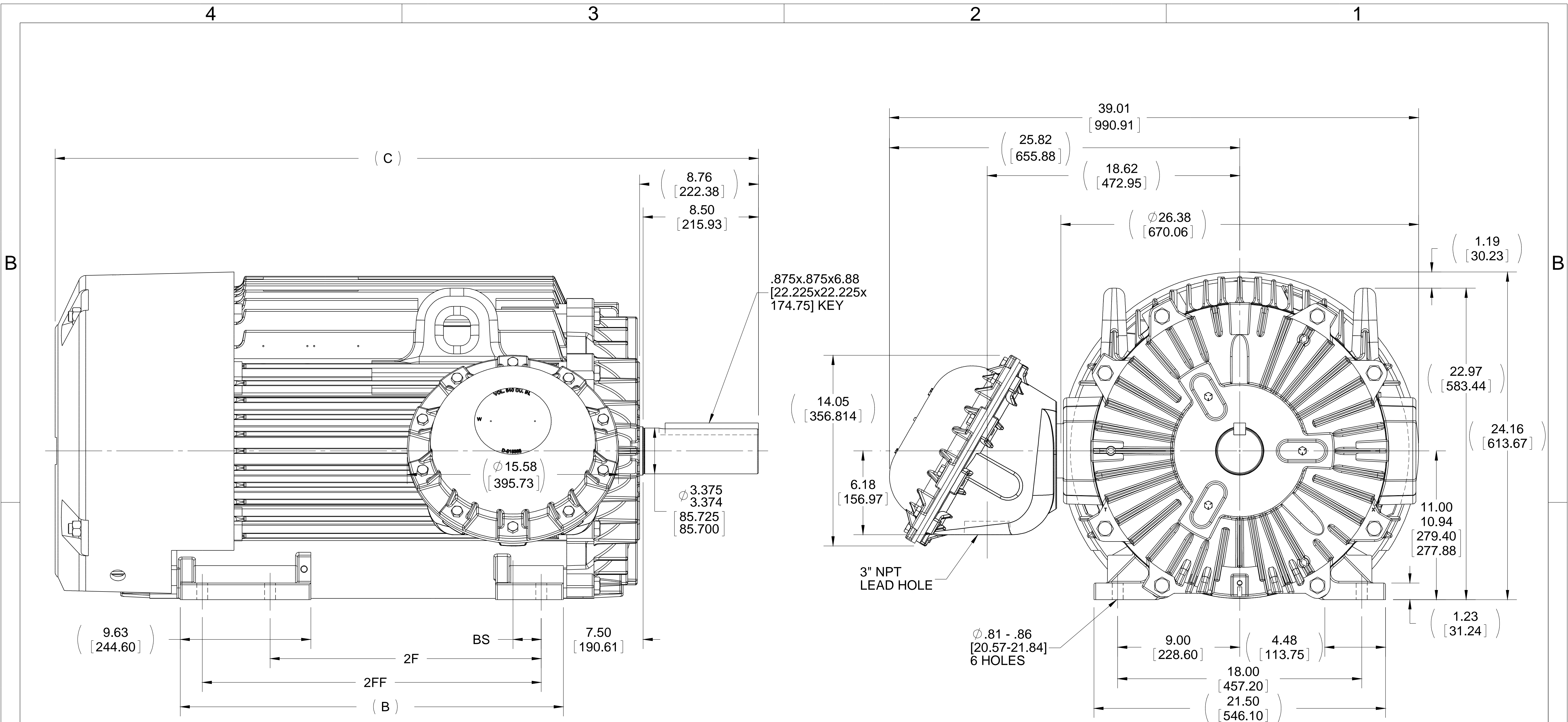
Nameplate Specifications

| | | | |
|------------------------|---|----------------------------|---|
| Phase | 3 | Output HP | 250 Hp |
| Output KW | 187.0 kW | Voltage | 460 V |
| Speed | 1785 rpm | Service Factor | 1.15 |
| Frame | 449T | Enclosure | Explosion Proof Fan cooled |
| Thermal Protection | Thermostat | Efficiency | 96.5 % |
| Ambient Temperature | 40 °C | Frequency | 60 Hz |
| Current | 285.0 A | Power Factor | 86 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Drive End Bearing Size | NU319 | Opp Drive End Bearing Size | 6318 |
| UL | UL Listed; also, UL Certified for Canada | 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 | 4 | Rotation | Reversible |
| Resistance Main | .0107 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Roller |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 51.85 in |
| Frame Length | 28.75 in | Shaft Diameter | 3.375 in |
| Shaft Extension | 8.76 in | Assembly/Box Mounting | F1 ONLY |
| Inverter Load | CONSTANT 10:1 | | |
| Connection Drawing | A-EE7300T | Outline Drawing | B-SS515578-2875 |

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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 | 447T | 28.25 [717.55] | 51.85 [1316.99] | 20.00 [508.00] | ----- | 2.09 [53.09] |
| 2875 | 449T | 28.25 [717.55] | 51.85 [1316.99] | ----- | 25.00 [635.00] | 2.09 [53.09] |

| | | |
|---|--------------------|--------------------|
| DRAWING REVISION C | REVISION BY AJW | DATE 03-31-2015 |
| ECO ECO-0074730 | APPROVED BY TDB | DATE 04-01-2015 |
| ECO DESCRIPTION UPDATED TO CURRENT STANDARDS | | |
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

| DEC. | INCH | mm | ANGLE |
|-------|---------|-----------|---------|
| .X | ±0.1 | [±2.5] | ±7° 30" |
| .XX | ±0.03 | [±0.76] | |
| .XXX | ±0.005 | [±0.127] | |
| .XXXX | ±0.0005 | [±0.0127] | |

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°
 CORNER FILLETS: R.02 [51]
 MACHINED SURFACES: 200 INCH/mm 5.1
 mm SHOWN IN [BRACKETS]

| |
|------------------------|
| DRAWN BY SMC |
| DATE 04-15-1996 |
| APPROVED BY JPN |
| DATE 04-19-1996 |
| REFERENCE |
| THIRD ANGLE PROJECTION |

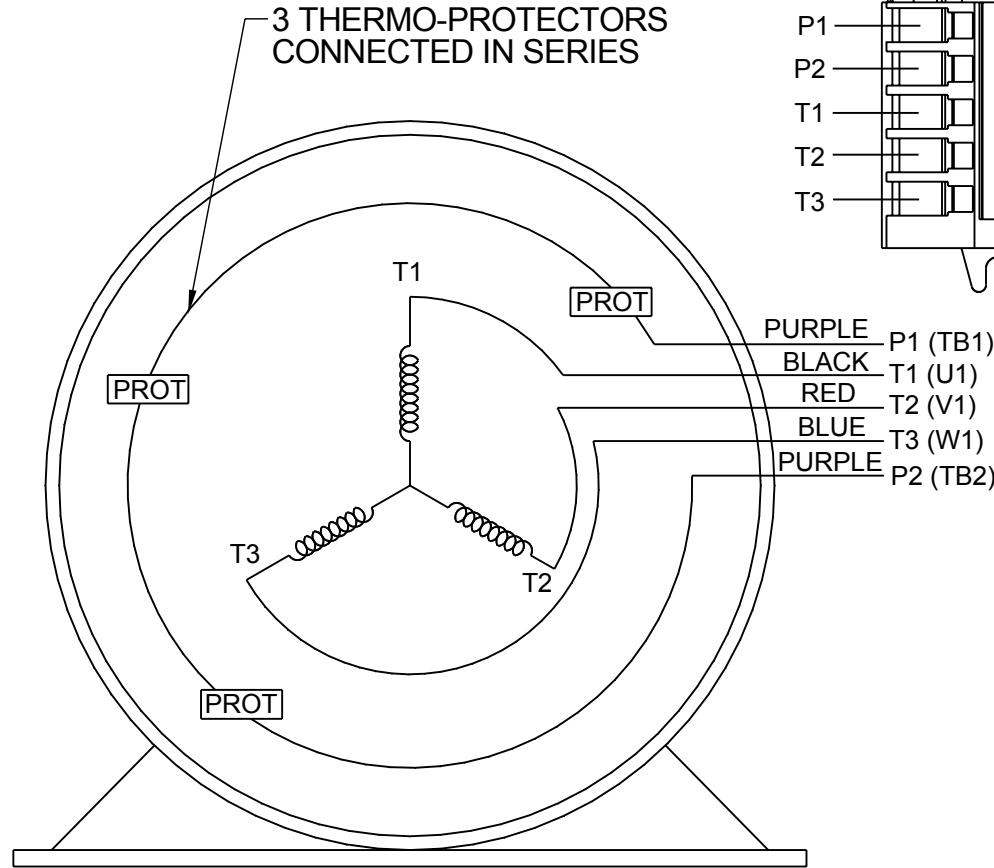
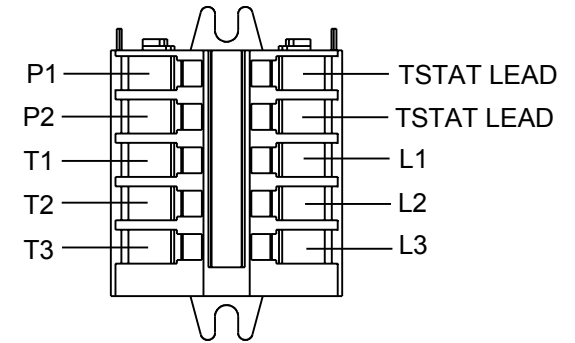
| | |
|--|-----------------------------------|
| REGAL ™ Regal Beloit America, Inc. | |
| DESCRIPTION OUTLINE 447/449T FR. -EXP. PR. - STD. | |
| MATERIAL | PROCESS/FINISH |
| SIZE B | DRAWING NUMBER SS515578 |
| SHEET 1 OF 1 | |

**THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS**

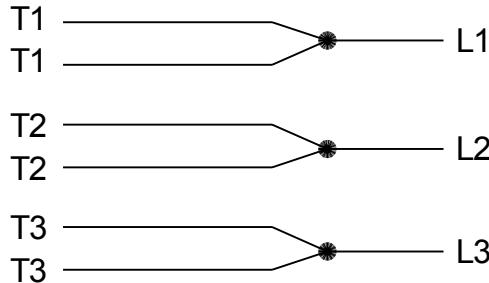
**NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1**

TERMINAL BLOCK WHEN SPECIFIED



VIEW OF TERMINAL END

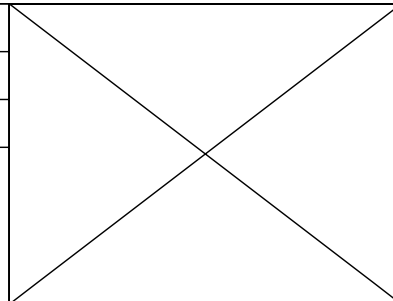
**IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S**



A-9806 DECAL

- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

| | | |
|---|----------------------|--------------------|
| DRAWING REVISION AB | REVISION BY AJW | DATE 07-17-2015 |
| ECO ECO-0081632 | APPROVED BY T.VUE | DATE 07-17-2015 |
| ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8 | | |
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| |
|---------------------------|
| DRAWN BY LZ |
| DATE 01-04-1994 |
| APPROVED BY GK |
| DATE 01-20-1994 |
| REFERENCE |
| THIRD ANGLE PROJECTION |

| | |
|--|----------------------------------|
| Regal Beloit America, Inc. | |
| DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR | |
| MATERIAL | PROCESS/FINISH |
| SIZE A | DRAWING NUMBER EE7300T |
| SHEET 1 OF 1 | |

Data Sheet

Date: 20-06-2017
Customer: _____
Attention: _____
Submitted by: FAREEDA DUDEKULA



449TGS16537

Submittal

Data @ **460 V**

Motor Load Data

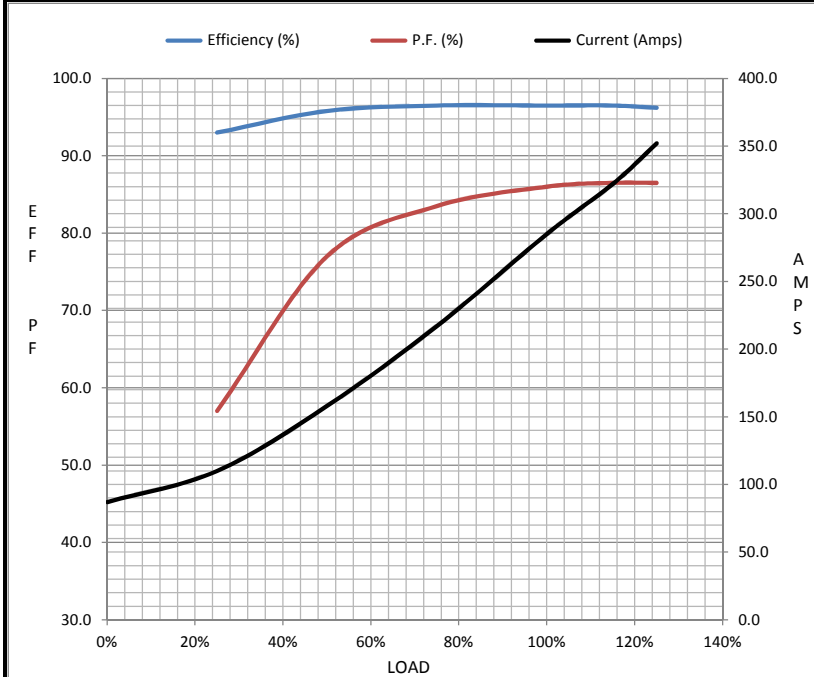
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|-------|
| Current (Amps) | 87.0 | 110 | 158 | 217 | 285 | 322 | 352 | 1,825 |
| Torque (ft-lb) | 0.00 | 183 | 366 | 550 | 736 | 846 | 920 | 1,450 |
| RPM | 1800 | 1796 | 1794 | 1790 | 1785 | 1,782 | 1780 | 0 |
| Efficiency (%) | | 93.0 | 95.8 | 96.5 | 96.5 | 96.5 | 96.2 | |
| P.F. (%) | 4.5 | 57.0 | 77.0 | 83.5 | 86.0 | 86.5 | 86.5 | 31.0 |

Motor Speed Data

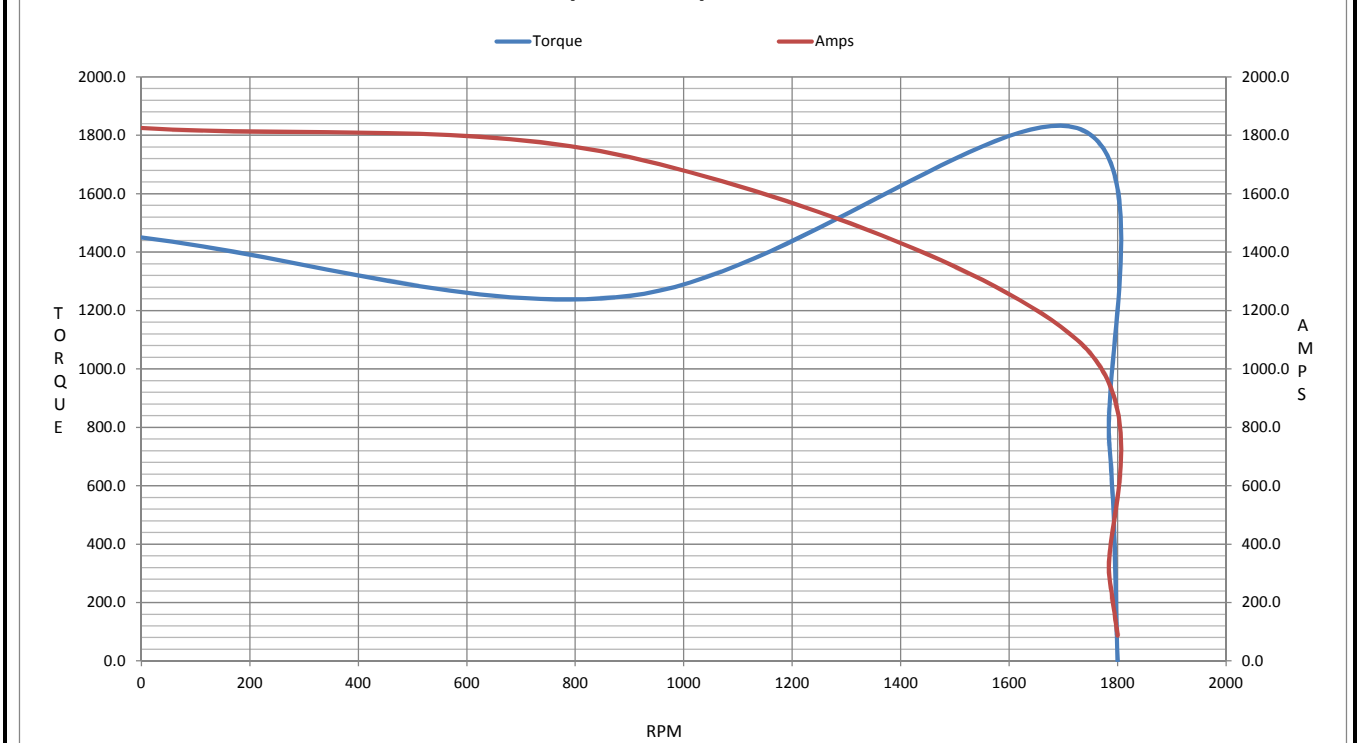
| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-------|---------|-------|-------|------|
| Speed (RPM) | 0 | 900 | 1725 | 1785 | 1800 |
| Current (Amps) | 1,825 | 1,725 | 1,100 | 285 | 87.0 |
| Torque (ft-lb) | 1,450 | 1,250 | 1,825 | 736 | 0.00 |

Information Block

| | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 250.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 449 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | A | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 65 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 81.0 Lb-Ft ² | | | |
| Ref Wdg | T449446 NONE | | | |
| Sound Pressure @ 1M | 80 dBA | | | |
| VFD Rating | CONSTANT 10:1 | | | |
| Outline Dwg | B-SS515578-2875 | | | |
| Conn. Diag | A-EE7300T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0070 | 0.0070 | 0.0920 | 0.1300 | 2.9720 |



Speed - Torque Curve



CERTIFICATE OF COMPLIANCE

Certificate Number 20220524- E12044
Report Reference E12044-19970314
Issue Date 2022-MAY-24

Issued to: REGAL BELOIT AMERICA INC
1946 W COOK RD
FORT WAYNE IN 46818

Tradename: Marathon

**This certificate confirms that
representative samples of**

MOTORS FOR USE IN HAZARDOUS LOCATIONS
Electric motors for use in hazardous locations; Class I,
Groups C and D; Class II, Groups F and G; Inclusive of
Model Number 449TTGS16537 (may have prefix and/or
suffix characters).

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 674 - Electric Motors and Generators for Use in Division
1 Hazardous (Classified) Locations,
CSA C22.2 No. 145, Electric Motors and Generators for
Use in Hazardous (Classified) Locations

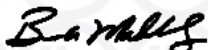
Additional Information: See the UL Online Certifications Directory at
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Bruce Mahrenholz, Director North American Certification Program

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