

# PRODUCT INFORMATION PACKET

Model No: 404TTGS6588

Catalog No: E574

Hazardous Duty® Explosion Proof Motor, 60 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 404T Frame, EPFC



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### Nameplate Specifications

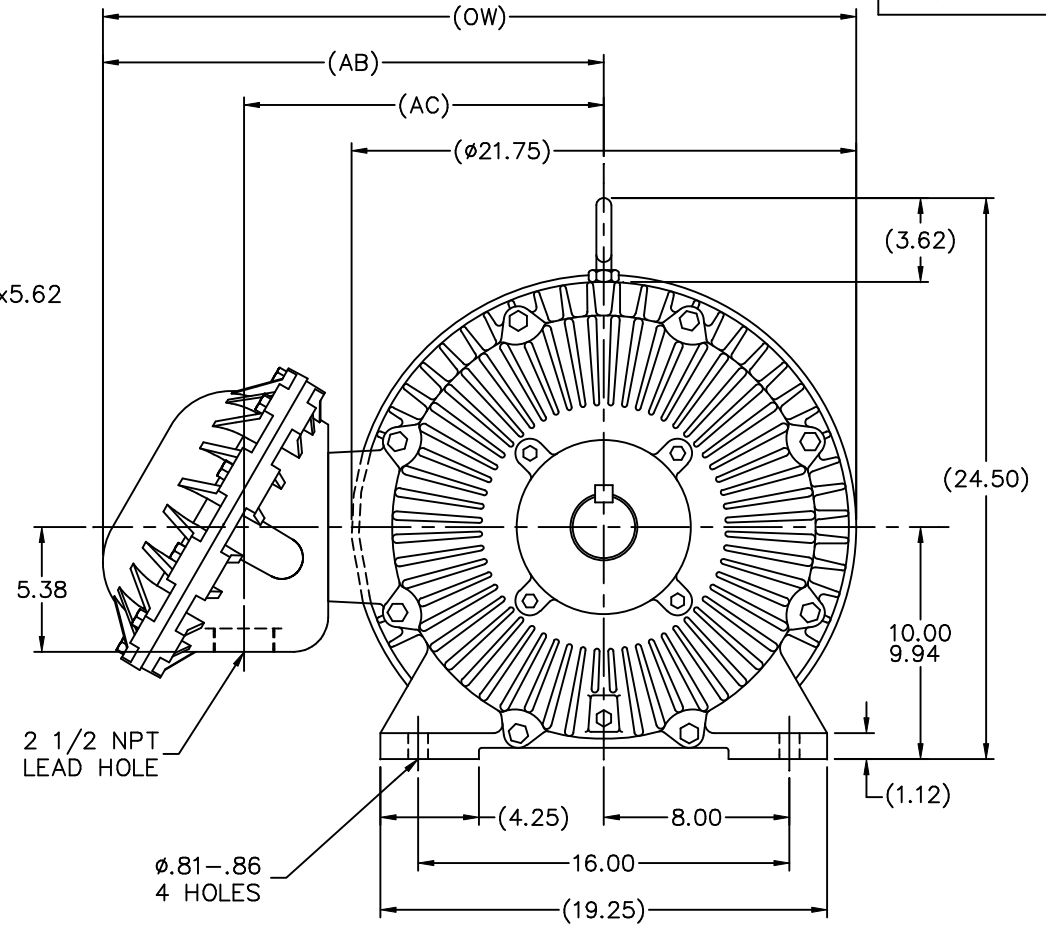
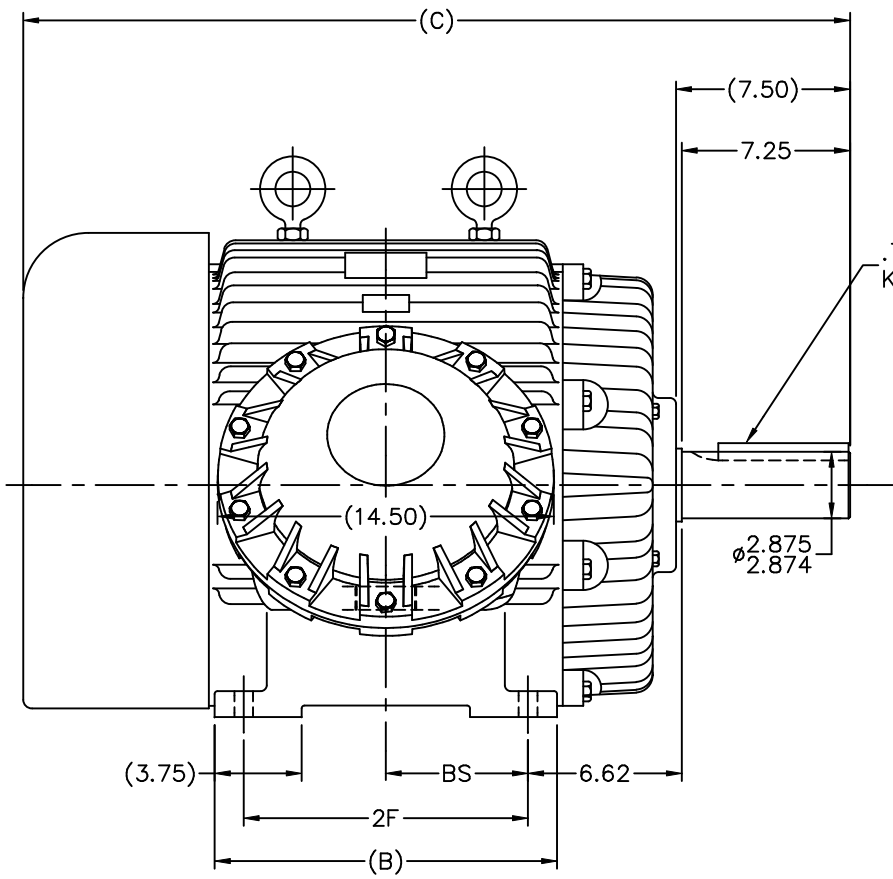
|                        |                                    |                            |   |
|------------------------|------------------------------------|----------------------------|---|
| Phase                  | <b>3</b>                           | Output HP                  | <b>60 Hp</b>                                      |
| Output KW              | <b>45.0 kW</b>                     | Voltage                    | <b>230/460 V</b>                                  |
| Speed                  | <b>1185 rpm</b>                    | Service Factor             | <b>1.00</b>                                       |
| Frame                  | <b>404T</b>                        | Enclosure                  | <b>Explosion Proof Fan cooled</b>                 |
| Thermal Protection     | <b>Thermostat</b>                  | Efficiency                 | <b>94.5 %</b>                                     |
| Ambient Temperature    | <b>50 °C</b>                       | Frequency                  | <b>60 Hz</b>                                      |
| Current                | <b>144.0/72.0 A</b>                | Power Factor               | <b>83</b>   |
| Duty                   | <b>Continuous</b>                  | Insulation Class           | <b>F</b>  |
| Design Code            | <b>B</b>                           | KVA Code                   | <b>G</b>  |
| Drive End Bearing Size | <b>6316</b>                        | Opp Drive End Bearing Size | <b>6313</b>                                       |
| UL                     | <b>UL Listed And CSA Certified</b> | CSA                        | <b>Y</b>  |
| CE                     | <b>N</b>                           | IP Code                    | <b>54</b>   |
| Number of Speeds       | <b>1</b>                           | Hazardous Location         | <b>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C</b> |

### Technical Specifications

|                       |                                     |                       |                         |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method       | <b>Line Or Inverter</b> |
| Poles                 | <b>6</b>                            | Rotation              | <b>Reversible</b>       |
| Resistance Main       | <b>.111 Ohms</b>                    | Mounting              | <b>Rigid Base</b>       |
| Motor Orientation     | <b>Horizontal</b>                   | Drive End Bearing     | <b>Ball</b>             |
| Opp Drive End Bearing | <b>Ball</b>                         | Frame Material        | <b>Cast Iron</b>        |
| Shaft Type            | <b>T</b>                            | Overall Length        | <b>35.62 in</b>         |
| Frame Length          | <b>15.25 in</b>                     | Shaft Diameter        | <b>2.875 in</b>         |
| Shaft Extension       | <b>7.5 in</b>                       | Assembly/Box Mounting | <b>F1 ONLY</b>          |
| Inverter Load         | <b>CONSTANT 10:1</b>                |                       |                         |
| Outline Drawing       | <b>B-SS518777-1525</b>              | Connection Drawing    | <b>A-EE7308AD</b>       |



SS518777



.75x.75x5.62  
KEY

ø2.875  
2.874

5.38

2 1/2 NPT  
LEAD HOLE

ø.81-.86  
4 HOLES

NOTES:

1. BOX CAN BE ROTATED IN 90° STEPS
2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

| DASH | FRAME | B     | C     | 2F    | AB    | AC    | BS   | OW    |
|------|-------|-------|-------|-------|-------|-------|------|-------|
| 1525 | 404T  | 14.75 | 35.62 | 12.25 | 21.50 | 15.50 | 6.12 | 32.38 |
| 1675 | 405T  | 16.25 | 37.12 | 13.75 | 22.50 | 16.50 | 6.88 | 33.38 |

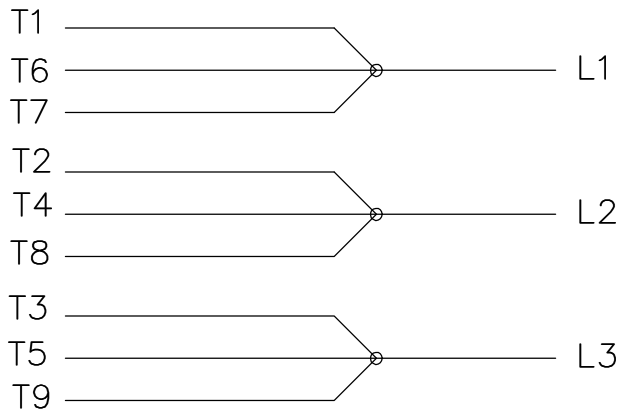
|  |  | TOLERANCES UNLESS SPECIFIED |            | MARATHON ELECTRIC         |     | DRAWN DRS 12-17-2001 |                          |
|--|--|-----------------------------|------------|---------------------------|-----|----------------------|--------------------------|
|  |  | DEC.                        | INCHES     |                           |     | CHK                  | JHL 013-19-2002          |
|  |  | .X                          | ±.1        |                           |     | APPD                 | JES 03-20-2002           |
|  |  | .XX                         | ±.03       | TITLE OUTLINE             |     | SCALE 3=16           |                          |
| 2 REDRAWN IN AUTOCAD   |  | TAT                         | 06-29-2004 | 400T FR. - EXP.PR. - STD. |     | REF                  |                          |
| 1 NEW DRAWING  |  | CN                          | 34593      | MATL                      |     | FMF                  |                          |
| NO. REVISION   |  | BY & DATE                   |            | CHK                       | ANG | PREV                 |                          |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT |  | RFP                         |            | CAD FILE ss518777         |     | SIZE                 | DRAWING NO. PAGE OF REV. |
|  |  | DIST WA                     |            |                           |     | B                    | SS518777 2               |

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ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--
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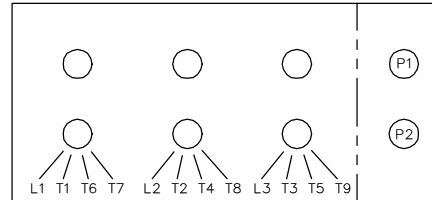
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STACK:
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/Pscript_WinNT_Compat  
-dictionary-
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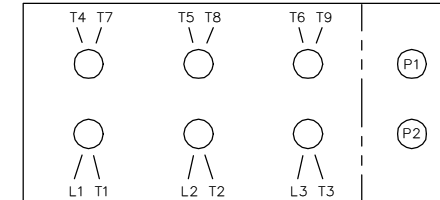
LOW VOLTAGE



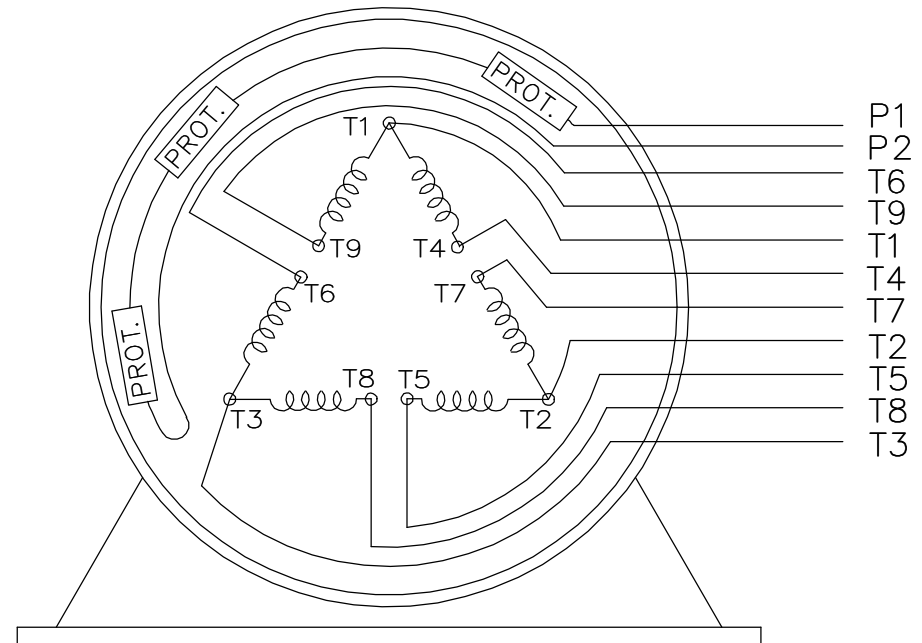
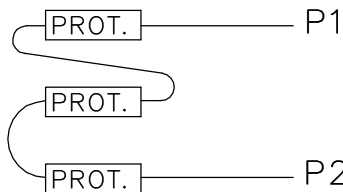
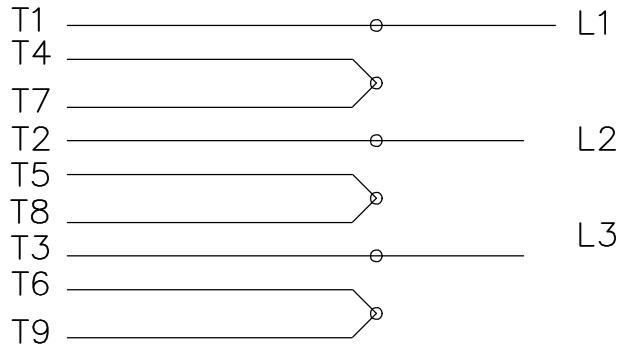
LOW VOLTAGE



HIGH VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

|  |                          |                                      |  |                           |                            |                |
|--|--------------------------|--------------------------------------|--|---------------------------|----------------------------|----------------|
| DRAWING REVISION<br><b>L</b>   | REVISION BY<br><b>JP</b> | REV DATE/© DATE<br><b>06-21-2019</b> | TOLERANCES (EXCEPT AS NOTED):<br>DEC.    INCH    mm    ANGLE<br>.X       ±0.1     [±3]<br>.XX      ±0.02    [±0.5]<br>.XXX     ±0.005    [±0.13]<br>.XXXX    ±0.0005   [±0.013]<br>REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°<br>CORNER FILLETS: R.02 [.5]<br>MACHINED SURFACES: 200/ 5.1 INCH/mm<br>mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY | DRAWN BY<br><b>MJD</b>    | Regal Beloit America, Inc. |                |
| ECO<br><b>ECO-0168744</b>  | APPROVED BY<br><b>MH</b> | DATE<br><b>06-21-2019</b>            |  | DATE<br><b>12-19-1997</b> |                            |                |
| ECO DESCRIPTION<br><b>UPDATED TO CURRENT STANDARDS</b>   |                          |                                      | DESCRIPTION<br><b>CONN DIAGRAM-EXTERNAL</b>  | APPROVED BY<br><b>GK</b>  | MATERIAL                   | PROCESS/FINISH |
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|  |                          |                                      | THIRD ANGLE PROJECTION   | SIZE<br><b>A</b>          |                            |                |

**CERTIFICATION DATA SHEET**

**Model#:** 404TTGS6588 AR      **WINDING#:** T404640 NONE 1  
**CONN. DIAGRAM:** A-EE7308AD      **ASSEMBLY:** F1 ONLY  
**OUTLINE:** B-SS518777-1525

**TYPICAL MOTOR PERFORMANCE DATA**

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|----|-----------|----------|-------|-----------|----------|--------|
| 60 | 45 | 1200      | 1185     | 404T  | EPFC      | G        | B      |

| PH | Hz | VOLTS   | FL AMPS | START TYPE          | DUTY           | INSL | S.F  | AMB°C | ELEVATION |
|----|----|---------|---------|---------------------|----------------|------|------|-------|-----------|
| 3  | 60 | 230/460 | 144/72  | LINE OR<br>INVERTER | CONTINUOU<br>S | F1   | 1.15 | 40    | 3300      |

| FULL LOAD EFF: 94.5 | 3/4 LOAD EFF: 95  | 1/2 LOAD EFF: 95 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
|---------------------|-------------------|------------------|----------|-------------------|--------------|
| FULL LOAD PF: 83    | 3/4 LOAD PF: 78.5 | 1/2 LOAD PF: 70  | 94.1     | SQ CAGE INV RATED | 53 / 26.5    |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE   | B.D. TORQUE   | F.L. RISE°C |
|-------------|-------------------|---------------|---------------|-------------|
| 266 LB-FT   | 870 / 435         | 535 LB-FT 201 | 650 LB-FT 244 | 60          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2   | MAX. WK^2    | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|--------------|--------------|-----------------|--------------|-------------------|
| 68 dBA                 | 78 dBA      | 33.5 LB-FT^2 | 1000 LB-FT^2 | 25 SEC.         | 2            | 1125 LBS.         |

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY         | HAZARDOUS LOCATION                     | DRIP COVER | SCREENS | PAINT        |
|-----------------|------------------|------------|-------------|---------------------|--|------------|---------|--------------|
| STANDARD        | STANDARD         | RIGID      | HORIZONTAL  | PREMIUM SEVERE DUTY | EXP PROOF CL I GR C&D CL II GR F&G T3B | FALSE      | NONE    | BLUE (EPOXY) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | OPE  |            |            |            |             |                         |                |
| BALL     | BALL | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |
| 6316     | 6313 |            |            |            |             |                         |                |

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |                  |
| TSTATS (N/C)      | NOT        | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS       |

If Inverter equals NONE, contact factory for further information

|                                       |
|---------------------------------------|
| INVERTER TORQUE: CONSTANT 10:1        |
| INV. HP SPEED RANGE: 1.5 X BASE SPEED |
| ENCODER: NONE                         |
| NONE NONE                             |
| NONE NONE PPR                         |
| BRAKE: NONE NONE                      |
| NONE P/N NONE                         |
| NONE NONE                             |
| - FT-LB NONE V NONE Hz                |

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\*

DATE: 06/21/2017 08:07:51 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 6/20/2017

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

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



404TTGS6588

Submittal

Data @ 460 V

Motor Load Data

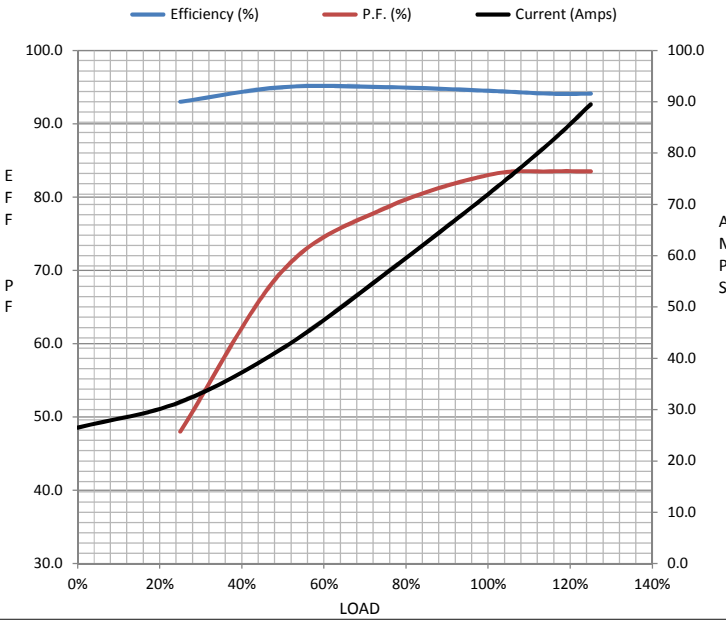
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 26.5 | 31.5 | 42.0 | 56.5 | 72.0 | 82.0  | 89.5 | 435  |
| Torque (ft-lb) | 0.00 | 65.5 | 132  | 199  | 266  | 306   | 333  | 535  |
| RPM            | 1200 | 1196 | 1194 | 1188 | 1185 | 1,182 | 1180 | 0    |
| Efficiency (%) |      | 93.0 | 95.0 | 95.0 | 94.5 | 94.1  | 94.1 |      |
| P.F. (%)       | 4.5  | 48.0 | 70.0 | 78.5 | 83.0 | 83.5  | 83.5 | 36.0 |

Motor Speed Data

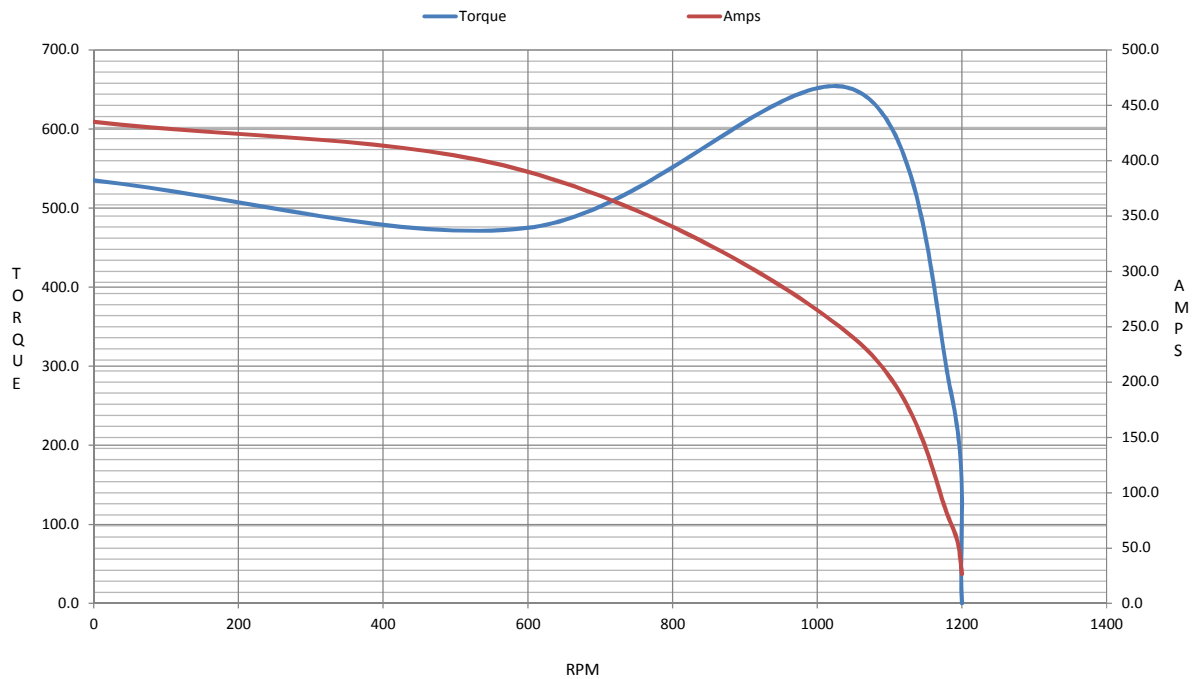
|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 600     | 1050 | 1185  | 1200 |
| Current (Amps) | 435 | 390     | 240  | 72.0  | 26.5 |
| Torque (ft-lb) | 535 | 475     | 650  | 266   | 0.00 |

Information Block

|                             |                         |        |        |        |
|-----------------------------|-------------------------|--------|--------|--------|
| HP                          | 60.0                    |        |        |        |
| Sync. RPM                   | 1200                    |        |        |        |
| Frame                       | 404                     |        |        |        |
| Enclosure                   | TEFC                    |        |        |        |
| Construction                | TFS                     |        |        |        |
| Voltage                     | 230/460 V               |        |        |        |
| Frequency                   | 60 Hz                   |        |        |        |
| Design                      | B                       |        |        |        |
| LR Code letter              | G                       |        |        |        |
| Service Factor              | 1.15                    |        |        |        |
| Temp Rise @ FL              | 60 °C                   |        |        |        |
| Duty                        | CONT                    |        |        |        |
| Ambient                     | 40 °C                   |        |        |        |
| Elevation                   | 1,000 feet              |        |        |        |
| Rotor/Shaft wk <sup>2</sup> | 33.5 Lb-Ft <sup>2</sup> |        |        |        |
| Ref Wdg                     | T404640 NONE            |        |        |        |
| Sound Pressure @ 1M         | 68 dBA                  |        |        |        |
| VFD Rating                  | CONSTANT 10:1           |        |        |        |
| Outline Dwg                 | B-SS518777-1525         |        |        |        |
| Conn. Diag                  | A-EE7308AD              |        |        |        |
| Additional Specifications:  |                         |        |        |        |
| 0                           |                         |        |        |        |
| 0                           |                         |        |        |        |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |        |
| R1                          | R2                      | X1     | X2     | Xm     |
| 0.0710                      | 0.0430                  | 0.3940 | 0.5270 | 9.5450 |



Speed - Torque Curve





# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20220524- E12044  
**Report Reference** E12044-19750529  
**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 404TTGS6588 (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

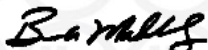
**Additional Information:** See the UL Online Certifications Directory at  
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This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up  
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Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's  
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This is to certify that representative samples of the product as specified on this certificate were tested  
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Bruce Mahrenholz, Director North American Certification Program

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