

# PRODUCT INFORMATION PACKET

Model No: 324TTDBD6012

Catalog No: GT2476

Close-Coupled Pump Motor, 50 HP, 3 Ph, 60 Hz, 208-230/460 V, 3600 RPM, 324JP Frame, DP



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**Nameplate Specifications**

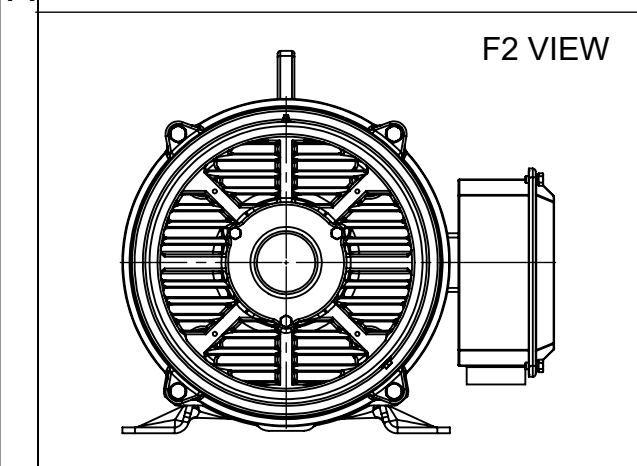
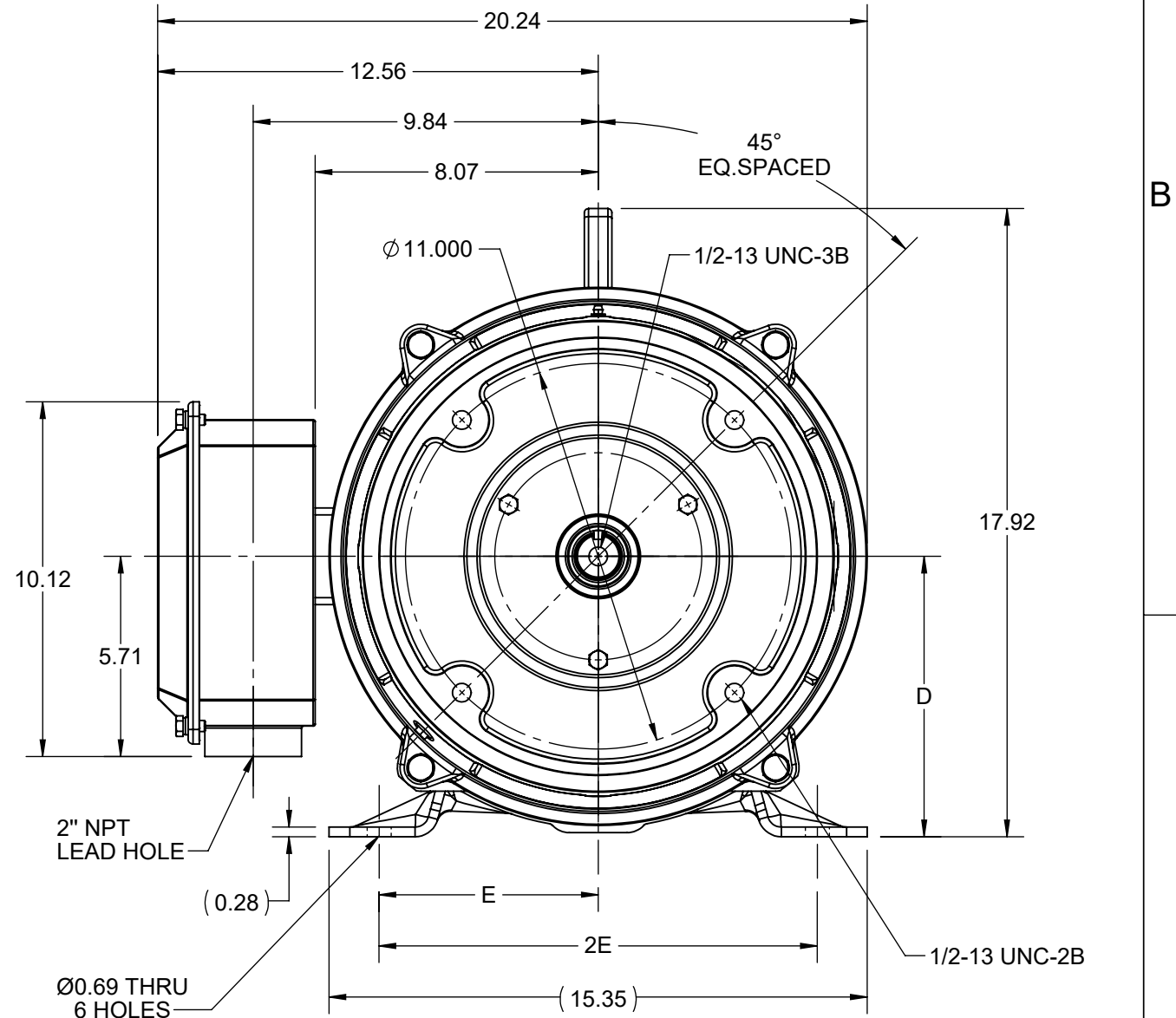
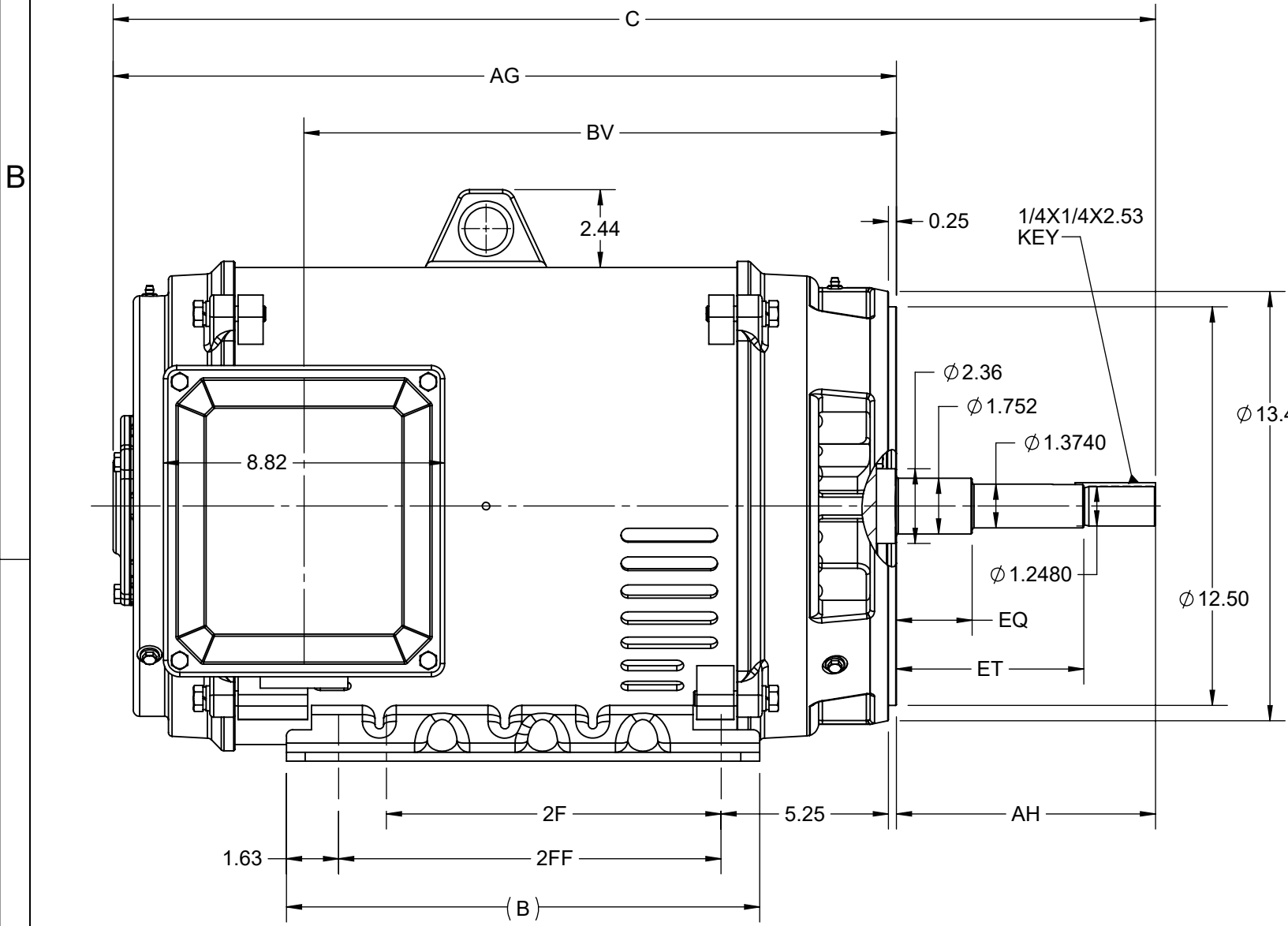
|                        |                           |                            |                      |
|------------------------|---------------------------|----------------------------|----------------------|
| Output HP              | <b>50 Hp</b>              | Output KW                  | <b>37.0 kW</b>       |
| Frequency              | <b>60 Hz</b>              | Voltage                    | <b>208-230/460 V</b> |
| Current                | <b>127.2-115.0/57.5 A</b> | Speed                      | <b>3565 rpm</b>      |
| Service Factor         | <b>1.15</b>               | Phase                      | <b>3</b>             |
| Efficiency             | <b>93 %</b>               | Power Factor               | <b>87.5</b>          |
| Duty                   | <b>Continuous</b>         | Insulation Class           | <b>F</b>             |
| Design Code            | <b>B</b>                  | KVA Code                   | <b>F</b>             |
| Frame                  | <b>324JP</b>              | Enclosure                  | <b>Drip Proof</b>    |
| Thermal Protection     | <b>No Protection</b>      | Ambient Temperature        | <b>40 °C</b>         |
| Drive End Bearing Size | <b>6312</b>               | Opp Drive End Bearing Size | <b>6212</b>          |
| UL                     | <b>Recognized</b>         | CSA                        | <b>Y</b>             |
| CE                     | <b>Y</b>                  | IP Code                    | <b>22</b>            |
| Number of Speeds       | <b>1</b>                  |                            |                      |

**Technical Specifications**

|                       |                                     |                       |   |
|-----------------------|-------------------------------------|-----------------------|---|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method       | <b>Part Wdg Start Low Volt Only &amp; Wye Start Delta Run Or Inverter</b> |
| Poles                 | <b>2</b>                            | Rotation              | <b>Selective Clockwise</b>  |
| Resistance Main       | <b>.1708 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>Rolled Steel</b>   |
| Shaft Type            | <b>JP</b>                           | Overall Length        | <b>31.82 in</b>   |
| Frame Length          | <b>14.56 in</b>                     | Shaft Diameter        | <b>1.249 in</b>   |
| Shaft Extension       | <b>8.37 in</b>                      | Assembly/Box Mounting | <b>F1/F2 CAPABLE</b>  |
| Inverter Load         | <b>CONSTANT 2:1/VARIABLE 10:1</b>   |                       |   |
| Outline Drawing       | <b>SS620812-100</b>                 | Connection Drawing    | <b>EE7308AA</b>   |



| DASH NO. | 4     |       |      |      | 3     |       |       |       | 2     |       |      |      | 1        |       |
|----------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|------|------|----------|-------|
|          | B     | C     | D    | E    | 2E    | 2F    | 2FF   | AG    | AH    | BV    | EQ   | ET   | MOUNTING | FRAME |
| 100      | 14.85 | 31.47 | 8.00 | 6.25 | 12.50 | 10.50 | 12.00 | 23.35 | 8.126 | 17.40 | 2.37 | 5.87 | F1 OR F2 | 324JP |
| 200      |       | 32.69 |      |      |       |       |       | 24.57 |       | 18.58 |      |      |          | 326JP |



|   |                    |                               |
|---|--------------------|-------------------------------|
| DRAWING REVISION<br>C   | REVISION BY<br>BS  | REV DATE/© DATE<br>27/01/2022 |
| REQUEST NUMBER<br>CR-0006568  | APPROVED BY<br>SBD | DATE<br>27/01/2022            |
| REQUEST NUMBER DESCRIPTION<br>VIEWS UPDATED AS PER 3D   |                    |                               |
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mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

|                        |   |
|------------------------|---|
| DRAWN BY<br>XZ         | <br>Regal Beloit America, Inc.                            |
| DATE<br>25/02/2016     |   |
| APPROVED BY<br>YW      | DESCRIPTION<br><b>OUTLINE</b><br>324/326JP FR NEMA ODP RS |
| DATE<br>25/02/2016     | MATERIAL  |
| REFERENCE              | PROCESS/FINISH  |
| THIRD ANGLE PROJECTION | SIZE<br>B   |
|                        | DRAWING NUMBER<br><b>SS620812</b>                         |
|                        | SHEET<br>1 OF 1   |



### LOW VOLTAGE



### HIGH VOLTAGE



### VIEW OF TERMINAL END

|  |                              |                           |
|--|------------------------------|---------------------------|
| DRAWING REVISION<br><b>K</b>   | REVISION BY<br><b>AJW</b>    | DATE<br><b>07-17-2015</b> |
| ECO<br><b>ECO-0081632</b>  | APPROVED BY<br><b>T. VUE</b> | DATE<br><b>07-17-2015</b> |
| ECO DESCRIPTION<br><b>REV'D IEC MARKINGS PER IEC 60034-8</b>   |                              |                           |
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|                           |   |                                   |
|---------------------------|---|-----------------------------------|
| DRAWN BY<br><b>LZ</b>     | <b>Regal Beloit America, Inc.</b>   |                                   |
| DATE<br><b>01-12-1994</b> |   |                                   |
| APPROVED BY<br><b>GK</b>  | DESCRIPTION<br><b>CONN DIAGRAM-EXTERNAL</b><br><b>3Ø-2/1 DELTA-12 LEADS</b> |                                   |
| DATE<br><b>01-14-1994</b> |   |                                   |
| REFERENCE                 | MATERIAL  | PROCESS/FINISH                    |
| THIRD ANGLE PROJECTION    | SIZE<br><b>A</b>  | DRAWING NUMBER<br><b>EE7308AA</b> |
|                           |   | SHEET<br><b>1 OF 1</b>            |



**P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311**

**CERTIFICATION DATA SHEET**

**CUSTOMER:**

**CUSTOMER PO#:**

**ORDER #:**

**MODEL #:** 324TTDBD6012 AA

**CONN. DIAGRAM:** EE7308AA

**CUSTOMER PART #:**

**OUTLINE:** SS620812-324T

**MOUNTING:** F1/F2 CAPABLE

**WINDING #:** HE32002009 2

**TYPICAL MOTOR PERFORMANCE DATA**

| HP    | kW        | SYNC. RPM | F.L. RPM  | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-------|-----------|-----------|-----------|-------|-----------|----------|--------|
| 50&40 | 37.0&30.0 | 3600      | 3565&2965 | 324JP | DP        | F        | B      |

| PH | Hz    | VOLTS           | AMPS            | START TYPE           | DUTY       | INSL | S.F.      | AMB°C |
|----|-------|-----------------|-----------------|----------------------|------------|------|-----------|-------|
| 3  | 60/50 | 230/460&190/380 | 115/57.5&112/56 | Y START D RUN OR INV | CONTINUOUS | F4   | 1.15/1.15 | 40    |

| FULL LOAD EFF: | 93&92.7 | 3/4 LOAD EFF: | 93.6 | 1/2 LOAD EFF: | 92.4 | GTD. EFF | ELEC. TYPE        |
|----------------|---------|---------------|------|---------------|------|----------|-------------------|
| FULL LOAD PF:  | 87.5&88 | 3/4 LOAD PF:  | 85   | 1/2 LOAD PF:  | 78   | 92.4     | SQ CAGE INV RATED |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE°C |
|-------------|-------------------|-----------------|-----------------|-------------|
| 73.8 LB-FT  | 680 / 340         | 126 LB-FT 170 % | 178 LB-FT 240 % | 35          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2  | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|-----------|-----------------|---------------|-------------------|
| 78 dBA                 | 88 dBA      | 4.8 LB-FT^2 | - LB-FT^2 | 15 SEC.         | 2             | 450 LBS.          |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT         |
|-----------------|------------------|------------|-------------|-------------|--------------------|------------|---------|---------------|
| C-FACE          | STANDARD         | RIGID      | HORIZONTAL  | FALSE       | NONE               | FALSE      | NONE    | BLUE (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  |            |            |            |             |                         |                |
| BALL     | BALL | POLYREX EM | JP         | NONE       | NONE        | 1045 HOT ROLLED (C-204) | ROLLED STEEL   |
| 6312     | 6212 |            |            |            |             |                         |                |

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------------|------------|----------|----------|-------------|---------|---------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |               |
| NONE              | NOT        | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS    |

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| <b>INVERTER</b><br>TORQUE: CONSTANT 4:1/VARIABLE 20:1<br>INV. HP SPEED RANGE: NONE |
| <b>ENCODER:</b> NONE<br>NONE NONE<br>NONE NONE PPR                                 |
| <b>BRAKE:</b> NONE NONE<br>NONE P/N NONE<br>NONE NONE<br>NONE FT-LB NONE V NONE Hz |

**PREPARED BY:** Anusha Muthyala  
**DATE:** 05/04/2018 12:37:05 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

Data Sheet

Date: 12/2/2021  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



324TTDBD6012

Submittal

Data @ 460 V

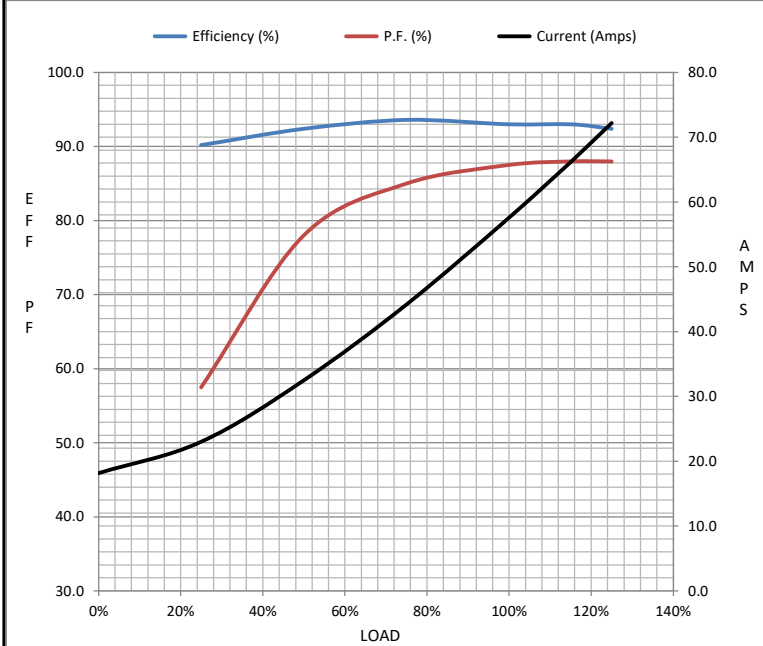
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 18.2 | 23.0 | 32.5 | 44.2 | 57.6 | 66.2  | 72.2 | 340  |
| Torque (ft-lb) | 0.00 | 18.3 | 36.7 | 55.0 | 73.8 | 85.0  | 92.5 | 126  |
| RPM            | 3600 | 3592 | 3584 | 3575 | 3565 | 3,560 | 3555 | 0    |
| Efficiency (%) |      | 90.2 | 92.4 | 93.6 | 93.0 | 93.0  | 92.4 |      |
| P.F. (%)       | 7.5  | 57.5 | 78.0 | 85.0 | 87.5 | 88.0  | 88.0 | 33.0 |

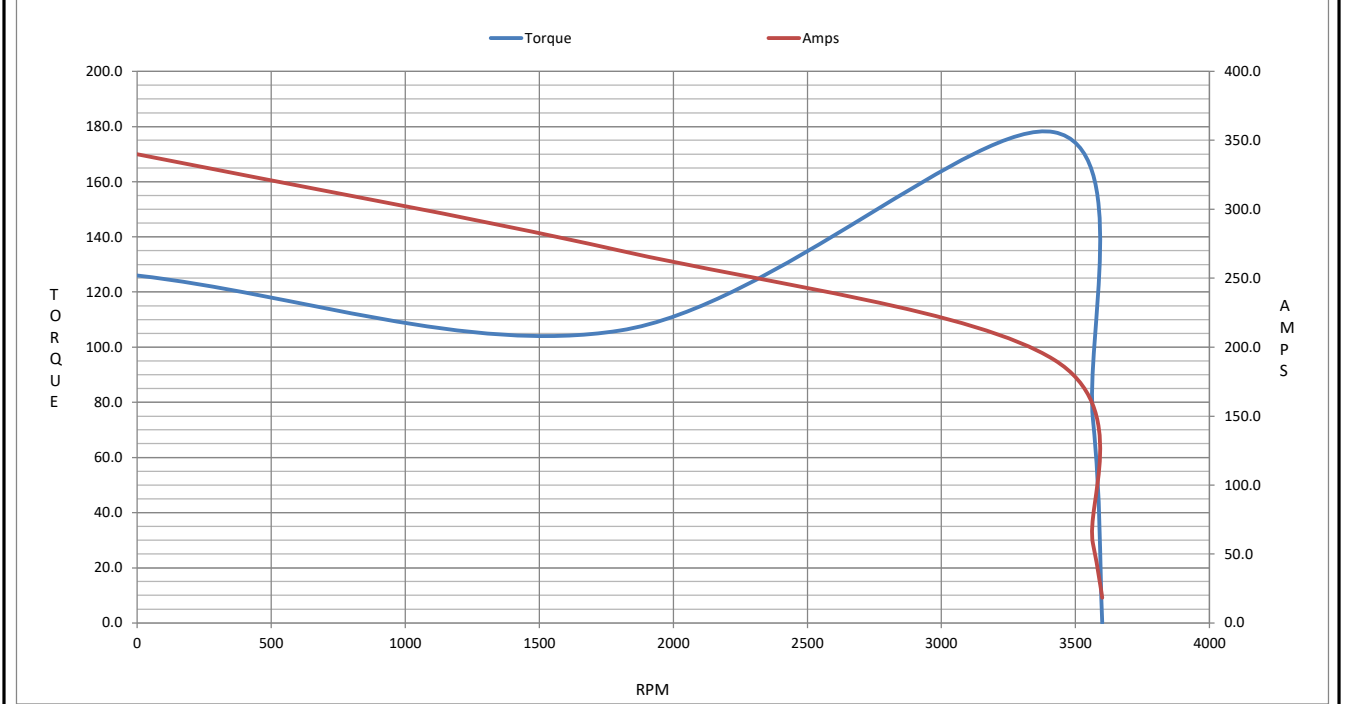
Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 1800    | 3420 | 3565  | 3600 |
| Current (Amps) | 340 | 270     | 191  | 57.6  | 18.2 |
| Torque (ft-lb) | 126 | 106     | 178  | 73.8  | 0.00 |

| Information Block           |                            |        |        |         |
|-----------------------------|----------------------------|--------|--------|---------|
| HP                          | 50.0                       |        |        |         |
| Sync. RPM                   | 3600                       |        |        |         |
| Frame                       | 324                        |        |        |         |
| Enclosure                   | DP                         |        |        |         |
| Construction                | TDB                        |        |        |         |
| Voltage                     | 208-230/460#190/380 V      |        |        |         |
| Frequency                   | 60 Hz                      |        |        |         |
| Design                      | B                          |        |        |         |
| LR Code letter              | F                          |        |        |         |
| Service Factor              | 1.15                       |        |        |         |
| Temp Rise @ FL              | 35 ° C                     |        |        |         |
| Duty                        | CONT                       |        |        |         |
| Ambient                     | 40 ° C                     |        |        |         |
| Elevation                   | 3,300 feet                 |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 4.8 Lb-F <sup>2</sup>      |        |        |         |
| Ref Wdg                     | HA32002009 NONE            |        |        |         |
| Sound Pressure @ 1M         | 78 dBA                     |        |        |         |
| VFD Rating                  | CONSTANT 4:1/VARIABLE 20:1 |        |        |         |
| Outline Dwg                 | SS620812-100               |        |        |         |
| Conn. Diag                  | EE7308AA                   |        |        |         |
| Additional Specifications:  |                            |        |        |         |
| 0                           |                            |        |        |         |
| 0                           |                            |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                            |        |        |         |
| R1                          | R2                         | X1     | X2     | Xm      |
| 0.0960                      | 0.0450                     | 0.4820 | 0.5330 | 14.8410 |



Speed - Torque Curve



## EC Declaration of Conformity

The undersigned representing  
the manufacturer:

Regal Beloit America  
100 East Randolph St.  
Wausau, WI 54401

and the authorized representative  
established within the Community:

Marathon Electric UK  
6F Thistleton Road Ind. Estate  
Market Overton  
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 324TTDBD6012

(Model No. may contain prefix and/or suffix characters)

Catalog No : GT2476

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon  
Vice President, Technology

Authorized Representative in the Community:



Julian Clark  
Marketing Engineer

Created on 09/01/2022

**CE 22**