

# PRODUCT INFORMATION PACKET

Model No: 215TTFCD16847

Catalog No: E479B-P

XRI®-SD Severe Duty Motor, 10 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 215T Frame, TEFC



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### Nameplate Specifications

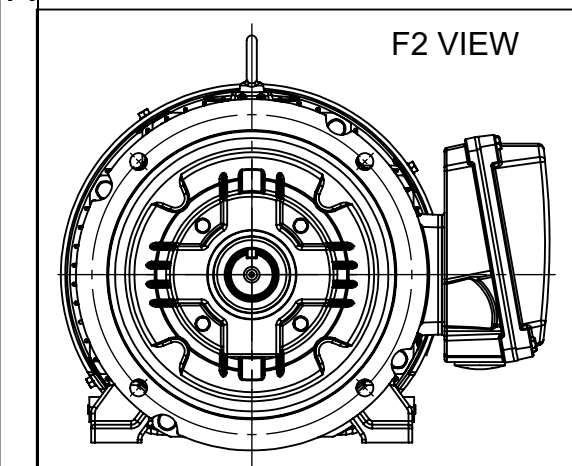
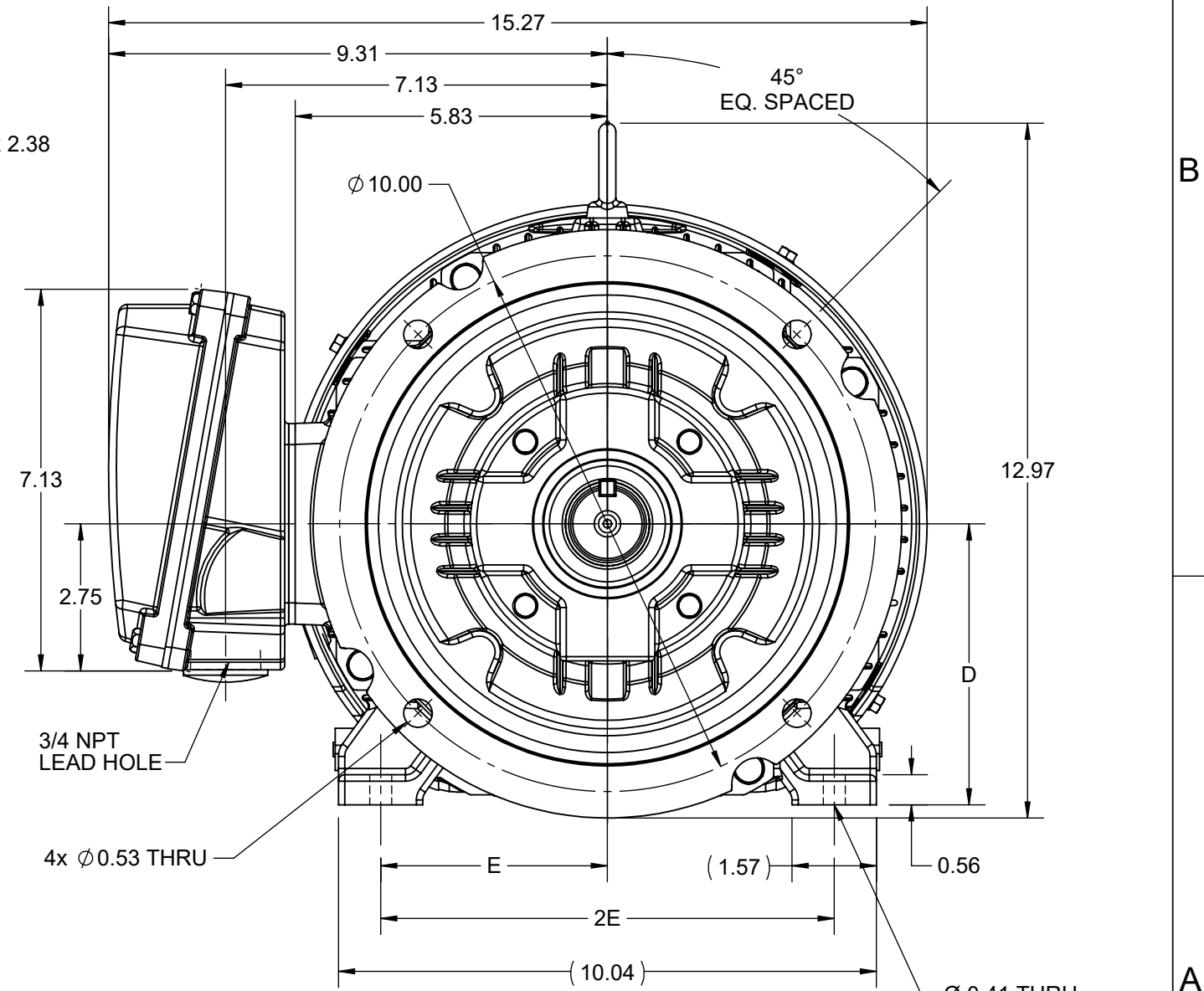
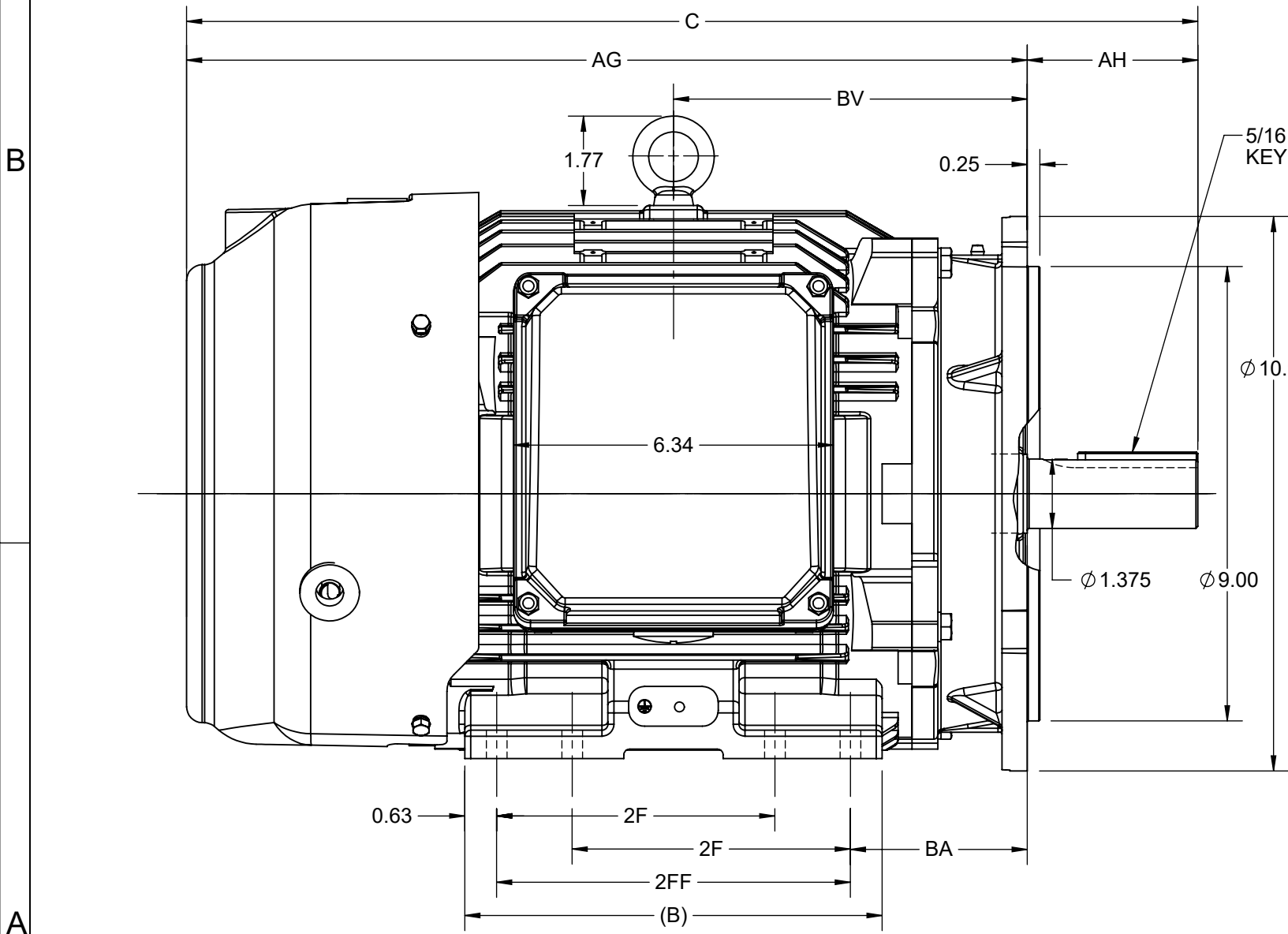
|                        |                      |                            |                                    |
|------------------------|----------------------|----------------------------|------------------------------------|
| Phase                  | <b>3</b>             | Output HP                  | <b>10 Hp</b>                       |
| Output KW              | <b>7.5 kW</b>        | Voltage                    | <b>230/460 V</b>                   |
| Speed                  | <b>1762 rpm</b>      | Service Factor             | <b>1.15</b>                        |
| Frame                  | <b>215T</b>          | Enclosure                  | <b>Totally Enclosed Fan Cooled</b> |
| Thermal Protection     | <b>No Protection</b> | Efficiency                 | <b>91.7 %</b>                      |
| Ambient Temperature    | <b>40 °C</b>         | Frequency                  | <b>60 Hz</b>                       |
| Current                | <b>25.0/12.5 A</b>   | Power Factor               | <b>81.3</b>                        |
| Duty                   | <b>Continuous</b>    | Insulation Class           | <b>H</b>                           |
| Design Code            | <b>B</b>             | KVA Code                   | <b>H</b>                           |
| Drive End Bearing Size | <b>6308</b>          | Opp Drive End Bearing Size | <b>6208</b>                        |
| UL                     | <b>Recognized</b>    | CSA                        | <b>Y</b>                           |
| CE                     | <b>Y</b>             | IP Code                    | <b>55</b>                          |
| Number of Speeds       | <b>1</b>             |                            |                                    |

### Technical Specifications

|                       |                                     |                    |                                    |
|-----------------------|-------------------------------------|--------------------|------------------------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method    | <b>Line Or Inverter</b>            |
| Poles                 | <b>4</b>                            | Rotation           | <b>Reversible</b>                  |
| Resistance Main       | <b>1.155 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>                            | Shaft Diameter     | <b>1.375 in</b>                    |
| Assembly/Box Mounting | <b>F1/F2 CAPABLE</b>                | Inverter Load      | <b>CONSTANT 10:1/VARIABLE 10:1</b> |
| Outline Drawing       | <b>SS810116-200</b>                 | Connection Drawing | <b>EE7308</b>                      |

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| DASH NO. | B    | C     | D    | E    | 2E   | 2F   | 2FF  | AG    | AH   | BA   | BV   | MOUNTING | FRAME     |
|----------|------|-------|------|------|------|------|------|-------|------|------|------|----------|-----------|
| 100      | 6.76 | 18.53 | 5.25 | 4.25 | 8.50 | ---  | 5.50 | 15.15 | 3.38 | 3.50 | 6.26 | F1 OR F2 | 213TD     |
| 200      | 8.26 | 20.03 |      |      |      | 5.50 | 7.00 | 16.65 |      |      | 7.00 |          | 213/215TD |



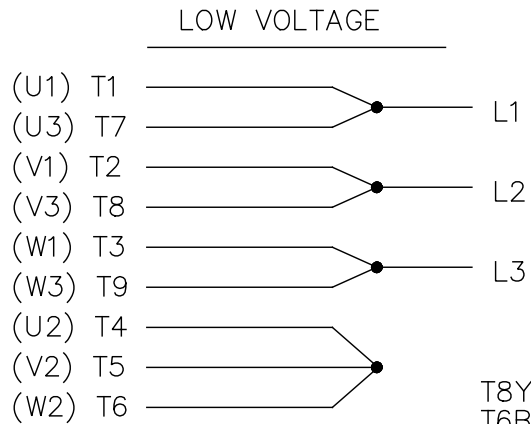
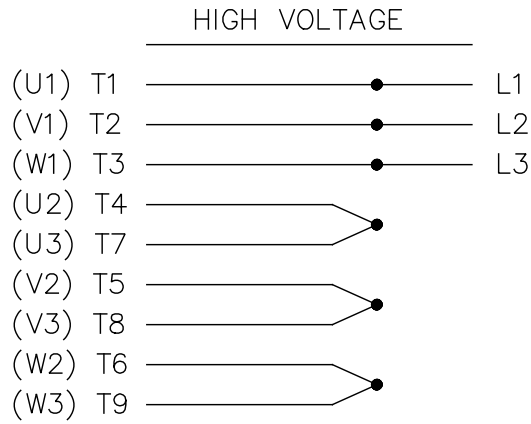
|   |                    |                               |
|---|--------------------|-------------------------------|
| DRAWING REVISION<br>A   | REVISION BY<br>RAM | REV DATE/© DATE<br>29/06/2022 |
| REQUEST NUMBER<br>CR-0009883  | APPROVED BY<br>SBD | DATE<br>29/06/2022            |
| REQUEST NUMBER DESCRIPTION<br>NEW DRAWING RELEASE   |                    |                               |
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|                        |  |
|------------------------|--|
| DRAWN BY<br>RAM        | <br>Regal Beloit America, Inc.   |
| DATE<br>29/06/2022     |  |
| APPROVED BY<br>SBD     | DESCRIPTION<br><b>OUTLINE</b><br>213/215TD FR NEMA SD & IEEE841 D-FLANGE KIT |
| DATE<br>29/06/2022     | MATERIAL   |
| REFERENCE<br>SS810116  | PROCESS/FINISH   |
| THIRD ANGLE PROJECTION | SIZE<br>B  |
|                        | DRAWING NUMBER<br><b>SS810116B</b>   |
|                        | SHEET<br>1 OF 1  |

EE7308

THREE PHASE  
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.  
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G  
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD  
CONNECTION

L1 — WHITE  
L2 — RED  
L3 — BLACK

| NO.  | REVISION                                       | BY & DATE      | CHK | ANG   | TOLERANCES<br>UNLESS SPECIFIED |        | FINISH                   | DRAWN RM 11/20/1990 |        |                    |           |        |
|--|--|----------------|-----|-------|--------------------------------|--------|--------------------------|---------------------|--------|--------------------|-----------|--------|
|  |  |                |     |       | DEC.                           | INCHES |                          |                     |        |                    |           |        |
| 5  | CHG TO REGAL LOGO                              | SL 09/10/2015  | AB  |       |                                |        |                          | CHK ML 11/21/1990   |        |                    |           |        |
| 4  | REVISED IEC NOTATIONS                          | MSG 11/15/2011 | CMN | .X    | ±.1                            |        |                          | APPD SAS 04/24/2003 |        |                    |           |        |
| 3  | ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194 | MSG 5/10/2010  | MJS | .XX   | ±.02                           |        | TITLE CONNECTION DIAGRAM | SCALE 1=1           |        |                    |           |        |
| 2  | ADDED THE OPTIONAL CORD CONNECTION MU46318     | RDH 04/24/2003 | DRS | .XXX  | ±.005                          |        | 3Ø - DUAL VOLTAGE MOTOR  | REF                 |        |                    |           |        |
| 1  | REDRAWN  | RM 11/20/1990  |     | .XXXX | ±.0005                         |        | MAT'L.                   | FMF                 |        |                    |           |        |
|  |  |                |     |       | ±7'30"                         |        |                          | PREV                |        |                    |           |        |
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|  |  |                |     |       |                                |        | DIST WP                  |                     |        |                    |           |        |



Regal Beloit America, Inc.



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7308  
 REFERENCE MODEL #: 215TTFCD16847  
 OUTLINE: SS810116  
 CAT #: E479B-P  
 WINDING: HA31324013 NONE 2  
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW  | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|-----|----------|--------|-------|-----------|------|----------|--------|
| 10 | 7.5 | 1800     | 1762   | 215T  | TEFC      | TFC  | H        | B      |

| PH | HZ | VOLTS   | AMPS    | START TYPE       | DUTY | INSL | S.F. | AMB (° C) | ELEV. (Ft) |
|----|----|---------|---------|------------------|------|------|------|-----------|------------|
| 3  | 60 | 230/460 | 25/12.5 | LINE OR INVERTER | CONT | H    | 1.15 | 40        | 3300       |

| F.L. EFF | 91.7 | 3/4 LD EFF | 91.6 | 1/2 LD EFF | 90.8 | GTD EFF | ELECT. TYPE       |
|----------|------|------------|------|------------|------|---------|-------------------|
| F.L. PF  | 81.3 | 3/4 LD PF  | 76.6 | 1/2 LD PF  | 66.0 | 91.0    | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE (° C) |
|-------------|---------|-----------------|-----------------|-----------------|
| 29.8 LB-FT  | 79.0    | 59.0 LB-FT 198% | 74.0 LB-FT 248% | 60              |

| SOUND PRESSURE | SOUND  | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | APROX.  |
|----------------|--------|-------------|---------------|-----------------|-------------|---------|
| 62 dBA         | 71 dBA | 1.10 LB-FT² | 85 LB-FT²     | 25 SEC.         | 2           | 212 LB. |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY         | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT        |
|-----------------|------------------|------------|-------------------|---------------------|--------------------|------------|---------|--------------|
| STANDARD        | STANDARD         | RIGID      | HORIZONTAL        | PREMIUM SEVERE DUTY | NONE               | NO         | NONE    | BLUE (EPOXY) |

| BEARINGS  |           | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|-----------|-----------|------------|------------|------------|-------------|-------------------------|----------------|
| DE        | ODE       | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |
| BALL 6308 | BALL 6208 |            |            |            |             |                         |                |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE        | NOT        | NONE      | NONE      | NONE        | FALSE   | NA            |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.741        | 0.466        | 2.147        | 2.579        | 46.775       | 0.080              | ODE   |

|                                 |  |  |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|--|--|
| *<br>N<br>O<br>T<br>E<br>S<br>* | If Inverter equals NONE, contact factory for further information |  |  |  |  |  |  |
|                                 | INVERTER TORQUE: CONSTANT 10:1/VARIABLE 10:1                     |  |  |  |  |  |  |
|                                 | INV. HP SPEED RANGE: NONE  |  |  |  |  |  |  |
|                                 | ENCODER: NONE  |  |  |  |  |  |  |
| NONE                            |  |  |  |  |  |  |  |
| NONE PPR                        |  |  |  |  |  |  |  |

|                    |                   |
|--------------------|-------------------|
| PREPARED BY: _____ | BRAKE: NONE       |
| DATE: 5/13/2020    | NONE NONE         |
|                    | FT-LB: NA         |
|                    | VOLTAGE: NONE HZ: |

FORM: 3531 REV\_4 2/27/06  
 \*\* Subject to change without notice.

Data Sheet

Date: 5/6/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_

215TTFCD16847



Submittal

Data @ 460 V

Motor Load Data

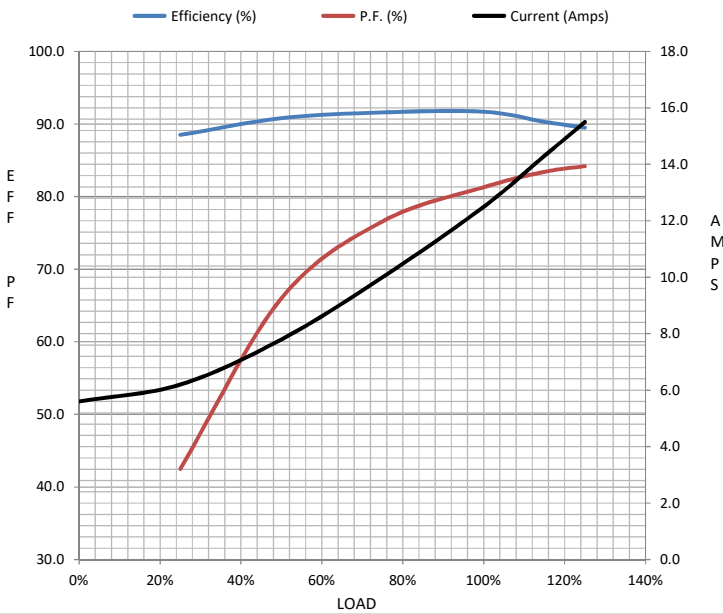
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 5.6  | 6.2  | 7.8  | 10.0 | 12.5 | 14.3  | 15.5 | 79.0 |
| Torque (ft-lb) | 0.00 | 7.3  | 14.7 | 22.2 | 29.8 | 34.4  | 37.4 | 59.0 |
| RPM            | 1800 | 1792 | 1782 | 1772 | 1762 | 1,756 | 1752 | 0    |
| Efficiency (%) |      | 88.5 | 90.8 | 91.6 | 91.7 | 90.3  | 89.5 |      |
| P.F. (%)       | 9.0  | 42.5 | 66.0 | 76.6 | 81.3 | 83.4  | 84.2 | 44.0 |

Motor Speed Data

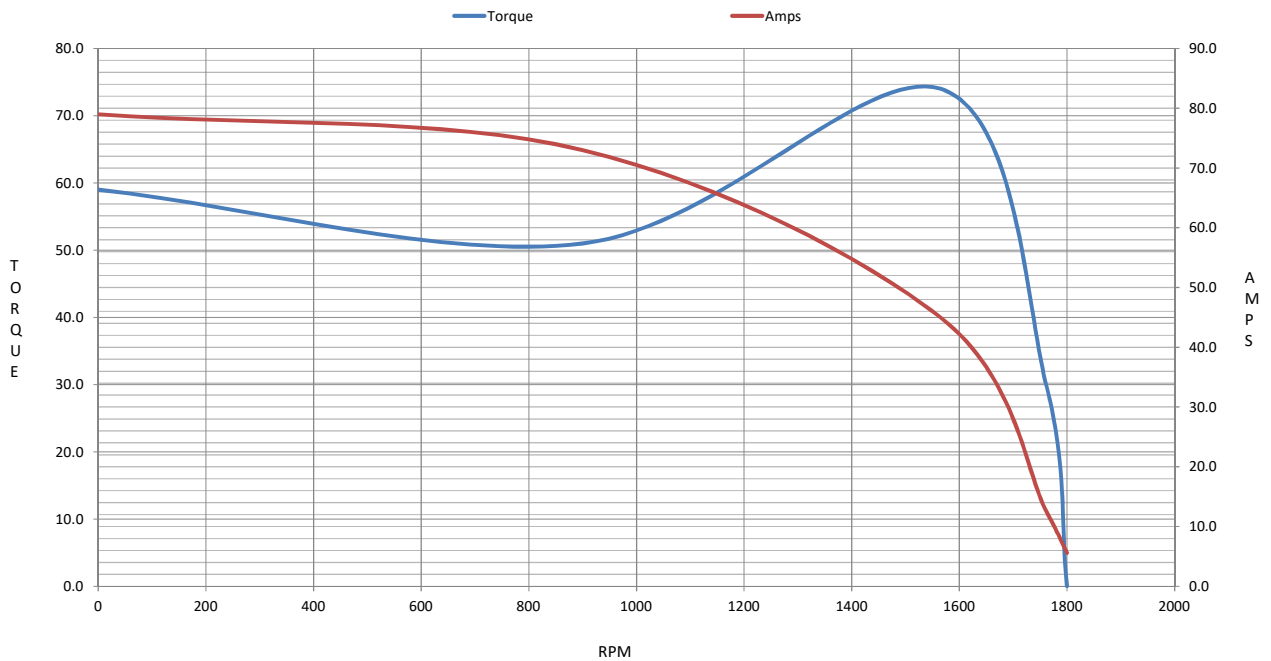
|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 900     | 1565 | 1762  | 1800 |
| Current (Amps) | 79.0 | 73.0    | 45.0 | 12.5  | 5.6  |
| Torque (ft-lb) | 59.0 | 51.0    | 74.0 | 29.8  | 0.00 |

Information Block

|                             |                             |        |        |         |
|-----------------------------|-----------------------------|--------|--------|---------|
| HP                          | 10.0                        |        |        |         |
| Sync. RPM                   | 1800                        |        |        |         |
| Frame                       | 215                         |        |        |         |
| Enclosure                   | TEFC                        |        |        |         |
| Construction                | TFC                         |        |        |         |
| Voltage                     | 230/460 V                   |        |        |         |
| Frequency                   | 60 Hz                       |        |        |         |
| Design                      | B                           |        |        |         |
| LR Code letter              | H                           |        |        |         |
| Service Factor              | 1.15                        |        |        |         |
| Temp Rise @ FL              | 60 °C                       |        |        |         |
| Duty                        | CONT                        |        |        |         |
| Ambient                     | 40 °C                       |        |        |         |
| Elevation                   | 3,300 feet                  |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 1.10 Lb-Ft <sup>2</sup>     |        |        |         |
| Ref Wdg                     | HA31324013 NONE             |        |        |         |
| Sound Pressure @ 1M         | 62 dBA                      |        |        |         |
| VFD Rating                  | CONSTANT 10:1/VARIABLE 10:1 |        |        |         |
| Outline Dwg                 | SS810116                    |        |        |         |
| Conn. Diag                  | EE7308                      |        |        |         |
| Additional Specifications:  |                             |        |        |         |
| 0                           |                             |        |        |         |
| 0                           |                             |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                             |        |        |         |
| R1                          | R2                          | X1     | X2     | Xm      |
| 0.7410                      | 0.4660                      | 2.1470 | 2.5790 | 46.7750 |



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 : 215TTFC16847

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

Catalog No : E479B-P

Rework No : N/A

Directives :

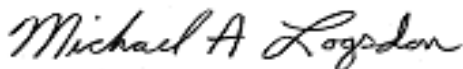
Low Voltage Directive 2014/35/EU

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**