

# PRODUCT INFORMATION PACKET



Model No: B199016.00

Catalog No: B199016.00

Ultimate e™ General Purpose Motor, 15 & 10 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1800 & 1500 RPM, 254T Frame, TEFC



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## Nameplate Specifications

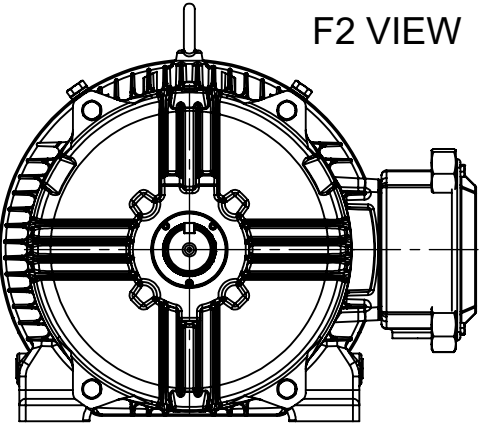
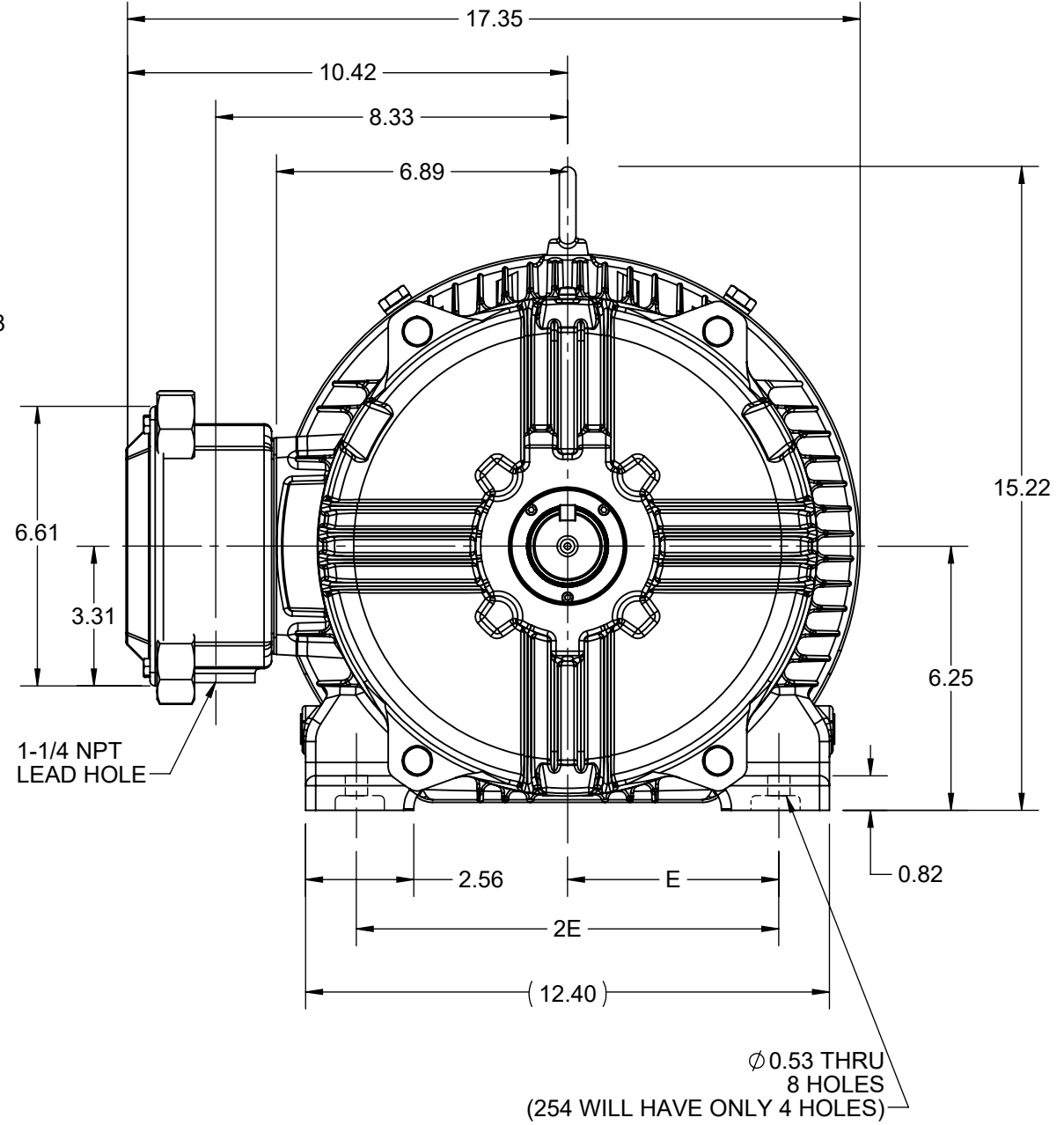
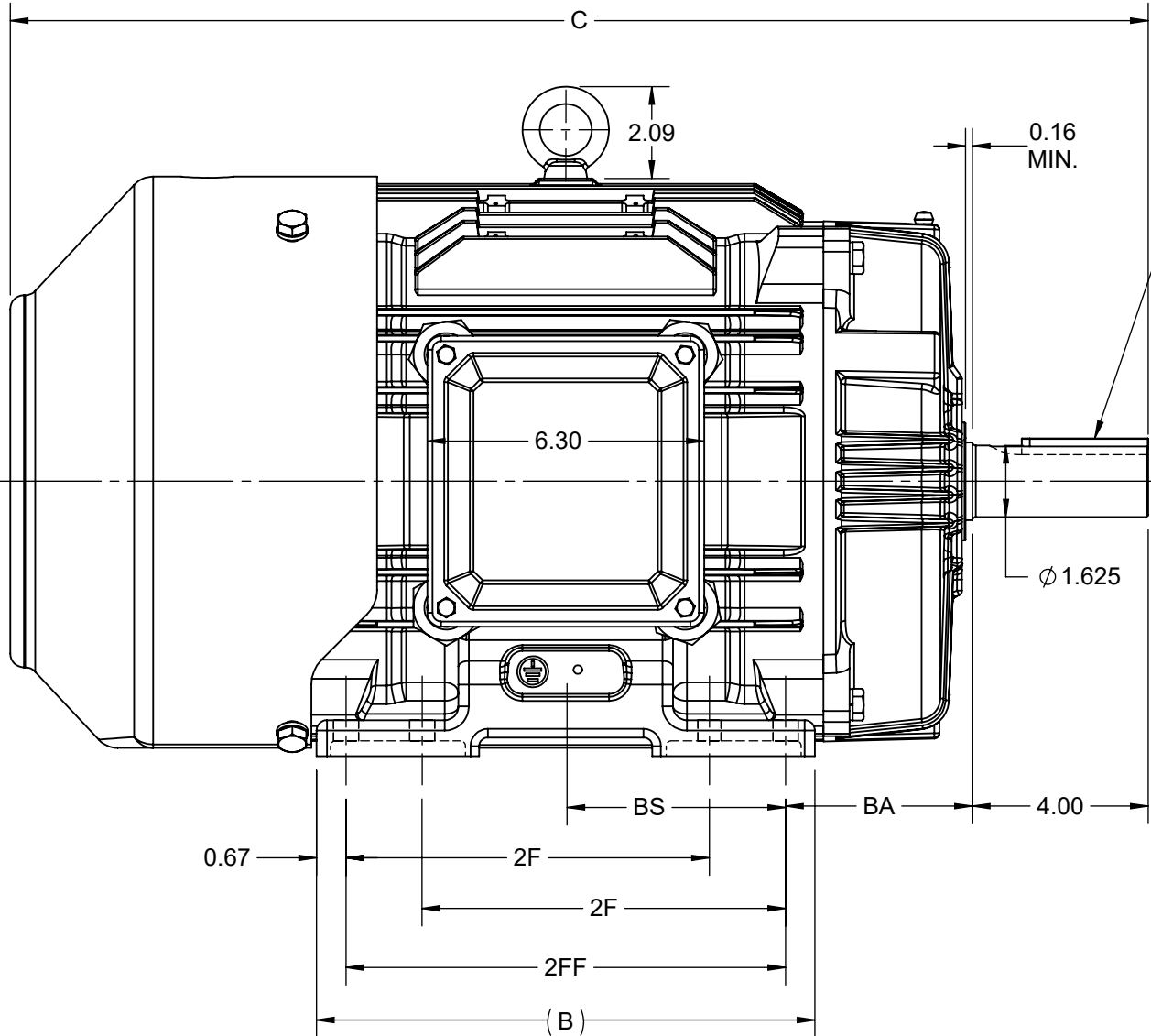
|                        |                         |                            |                             |
|------------------------|-------------------------|----------------------------|-----------------------------|
| Phase                  | 3                       | Output HP                  | 15 & 10 Hp                  |
| Output KW              | 11.2 & 7.5 kW           | Voltage                    | 230/460 & 190/380 V         |
| Speed                  | 1772 & 1478 rpm         | Service Factor             | 1.15 & 1.15                 |
| Frame                  | 254T                    | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No Protection           | Efficiency                 | 92.4 & 92.1 %               |
| Ambient Temperature    | 40 °C                   | Frequency                  | 60 & 50 Hz                  |
| Current                | 37.5/18.8 & 31.5/15.7 A | Power Factor               | 82                          |
| Duty                   | Continuous              | Insulation Class           | F                           |
| Design Code            | B                       | KVA Code                   | G                           |
| Drive End Bearing Size | 6309                    | Opp Drive End Bearing Size | 6209                        |
| UL                     | Listed                  | CSA                        | Y                           |
| CE                     | Y                       | IP Code                    | 55                          |
| Number of Speeds       | 1                       |                            |                             |

## Technical Specifications

|                       |                              |                       |                  |
|-----------------------|------------------------------|-----------------------|------------------|
| Electrical Type       | Squirrel Cage Inverter Rated | Starting Method       | Line Or Inverter |
| Poles                 | 4                            | Rotation              | Reversible       |
| Resistance Main       | .6738 Ohms                   | Mounting              | Rigid Base       |
| Motor Orientation     | Horizontal                   | Drive End Bearing     | Ball             |
| Opp Drive End Bearing | Ball                         | Frame Material        | Cast Iron        |
| Shaft Type            | T                            | Overall Length        | 24.15 in         |
| Frame Length          | 10.00 in                     | Shaft Diameter        | 1.625 in         |
| Shaft Extension       | 4 in                         | Assembly/Box Mounting | F1/F2 CAPABLE    |
| Inverter Load         | CONSTANT 20:1/VARIABLE 20:1  |                       |                  |
| Connection Drawing    | EE7308K                      | Outline Drawing       | SS620703-254T    |



| 4        |       |       |      |       | 3    |       |      |      |          |          |  |
|----------|-------|-------|------|-------|------|-------|------|------|----------|----------|--|
| DASH NO. | B     | C     | E    | 2E    | 2F   | 2FF   | BA   | BS   | MOUNTING | FRAME    |  |
| 100      | 9.60  | 24.15 | 5.00 | 10.00 | -    | 8.25  | 4.25 | 4.13 | F1 OR F2 | 254T     |  |
| 200      | 11.34 | 25.89 |      |       | 8.25 | 10.00 |      | 5.00 |          | 254/256T |  |



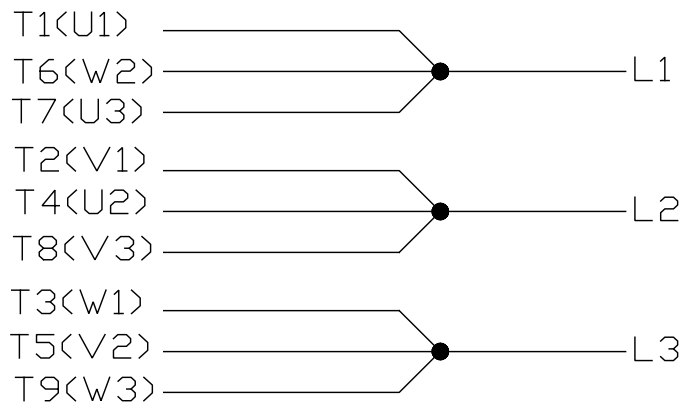
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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------|
| DRAWING REVISION<br>D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | REVISION BY<br>SVP | REV DATE/© DATE<br>04/06/2021 |
| ECO<br>CR-0001991                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | APPROVED BY<br>AK  | DATE<br>04/06/2021            |
| ECO DESCRIPTION<br>DXF FILE RELEASED TO IDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                               |
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

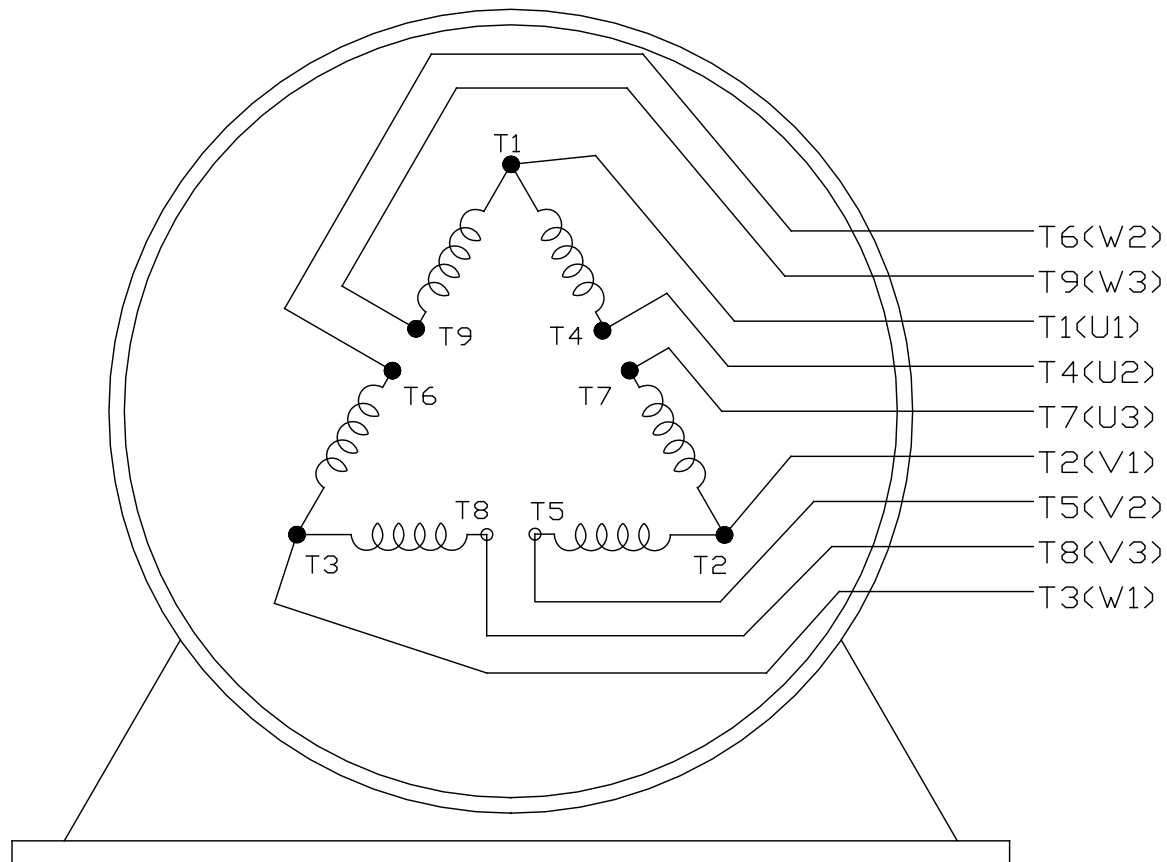
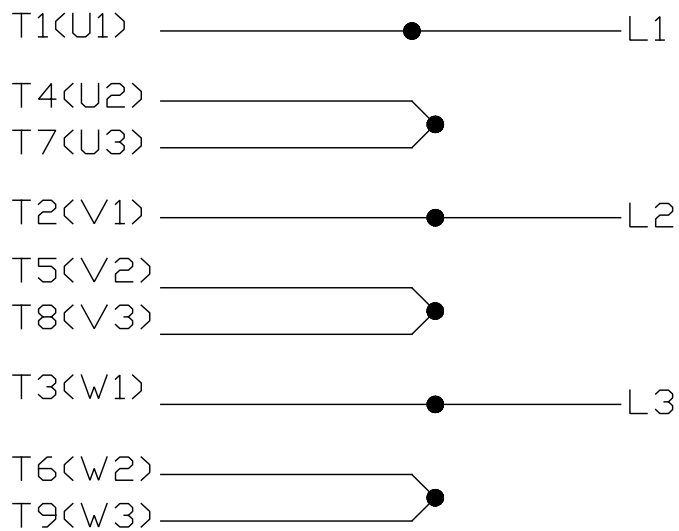
|                           |                                                                                                                  |                            |
|---------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|
| DRAWN BY<br>MR            |  Regal Beloit America, Inc. |                            |
| DATE<br>4/5/2015          |                                                                                                                  |                            |
| APPROVED BY<br>KRK        | DESCRIPTION<br>OUTLINE                                                                                           |                            |
| DATE<br>4/5/2015          | 254/256T FR-TEFC-CAST IRON                                                                                       |                            |
| REFERENCE                 | MATERIAL                                                                                                         | PROCESS/FINISH             |
| THIRD ANGLE<br>PROJECTION | SIZE<br>B                                                                                                        | DRAWING NUMBER<br>SS620703 |
|                           |                                                                                                                  | SHEET<br>1 OF 1            |

LOW VOLTAGE

EE7308K



## HIGH VOLTAGE



VIEW OF TERMINAL END

|                                                                                                                                                                                                                                        |                                           |                |      |                                |                  |                                                                                                                         |  |                      |               |      |    |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------|------|--------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------|--|----------------------|---------------|------|----|------|
|                                                                                                                                                                                                                                        |                                           |                |      | TOLERANCES<br>UNLESS SPECIFIED |                  |  <b>REGAL - BELOIT CORPORATION</b> |  | DRAWN PGK 06-04-1997 |               |      |    |      |
| E                                                                                                                                                                                                                                      | CORRECTED IEC MARKINGS ECD-0111208        | WGJ 01-23-2017 | EMH  | DEC.                           | INCHES           |                                                                                                                         |  | CHK                  | ML 06-05-1997 |      |    |      |
| D                                                                                                                                                                                                                                      | RE-DRAWN WITH REGAL LOGO ECD-0110493      | WGJ 09-30-2016 | EMH  | .X                             | ±.1              |                                                                                                                         |  | APPD                 | GK 06-15-1997 |      |    |      |
| 8                                                                                                                                                                                                                                      | ADDED IEC DESIGNATIONS MU95020            | TJW 4/30/2010  | MJS  | .XX                            | ±.02             | TITLE CONNECTION DIAGRAM<br>DELTA CON. - 3Ø - 9 LEADS                                                                   |  | SCALE                |               |      |    |      |
| 7                                                                                                                                                                                                                                      | REVISD HIGH VOLTAGE L2 WAS L3 CN52600-354 | MRB 09-21-1998 |      | .XXX                           | ±.005            |                                                                                                                         |  | REF                  |               |      |    |      |
| 6                                                                                                                                                                                                                                      | REDRAWN ON CADD                           | PGK 06-05-1997 |      | .XXXX                          | ±.0005           | MAT'L.                                                                                                                  |  | FMF                  |               |      |    |      |
| NO.                                                                                                                                                                                                                                    | REVISION                                  | BY & DATE      | CHK  | ANG                            | ± 7'30"          | FINISH                                                                                                                  |  | PREV                 |               |      |    |      |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT<br>IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED<br>THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT |                                           |                | RFP  |                                | CAD FILE EE7308K |                                                                                                                         |  | SIZE                 | DRAWING NO.   | PAGE | OF | REV. |
|                                                                                                                                                                                                                                        |                                           |                | DIST |                                |                  |                                                                                                                         |  | A                    | EE7308K       |      |    | E    |



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

DATA VOLTS: 460

### CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7308K  
OUTLINE: SS620703  
WINDING: HE31604011

CAT #: B199016.00

NONE 2

### TYPICAL MOTOR PERFORMANCE DATA

| HP | KW   | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|-----------|------|----------|--------|
| 15 | 11.2 | 1800     | 1772   | 254T  | TEFC      | TFC  | G        | B      |

| PH | HZ    | VOLTS           | AMPS                | START TYPE       | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|---------------------|------------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 37.5/18.8&31.5/15.7 | LINE OR INVERTER | CONT | F    | 1.15 | 40  | 3300  |

| F.L. EFF | 92.4 | 3/4 LD EFF | 92.4 | 1/2 LD EFF | 91.7 | GTD EFF | ELECT. TYPE       |
|----------|------|------------|------|------------|------|---------|-------------------|
| F.L. PF  | 82.0 | 3/4 LD PF  | 76.5 | 1/2 LD PF  | 65.5 | 91.7    | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE    | F.L. RISE (°C) |
|-------------|-----------------|-----------------|----------------|----------------|
| 44.5 LB-FT  | 113             | 91.0 LB-FT 204% | 118 LB-FT 265% | 50             |

| PRESSURE @ 3 | POWER  | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|--------|-------------|---------------|-----------------|-------------|-----------|
| 65 dBA       | 74 dBA | 2.40 LB-FT² | 110 LB-FT²    | 20 SEC.         | 2           | 400 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        | NO          | NONE               | NO         | NONE    | BLUE (ENAMEL) |

| BEARINGS  | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|-----------|------------|------------|------------|-------------|-------------------------|----------------|
| DE ODE    |            |            |            |             |                         |                |
| BALL BALL | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | CAST IRON      |
| 6309 6209 |            |            |            |             |                         |                |

| 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 |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.44         | 0.244        | 1.304        | 1.467        | 31.563       | 0.080              | ODE   |

|                                 |                                      |                                                                           |
|---------------------------------|--------------------------------------|---------------------------------------------------------------------------|
| *<br>N<br>O<br>T<br>E<br>S<br>* |                                      | <b>INVERTER TORQUE: CONSTANT 20:1</b><br><b>INV. HP SPEED RANGE: NONE</b> |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 |                                      |                                                                           |
|                                 | <b>ENCODER: NONE</b><br>NONE<br>NONE | NONE PPR                                                                  |

DATE: 1/24/2018

**BRAKE: NONE**  
 NONE  
 NONE  
**FT-LB: NA**  
**VOLTAGE: NONE**  
**UL: Y-(LEESON UL REC)**  
**HZ:**

## Data Sheet

Date: 1/24/2018

B199016.00



Data @ 460 V

## Motor Load Data

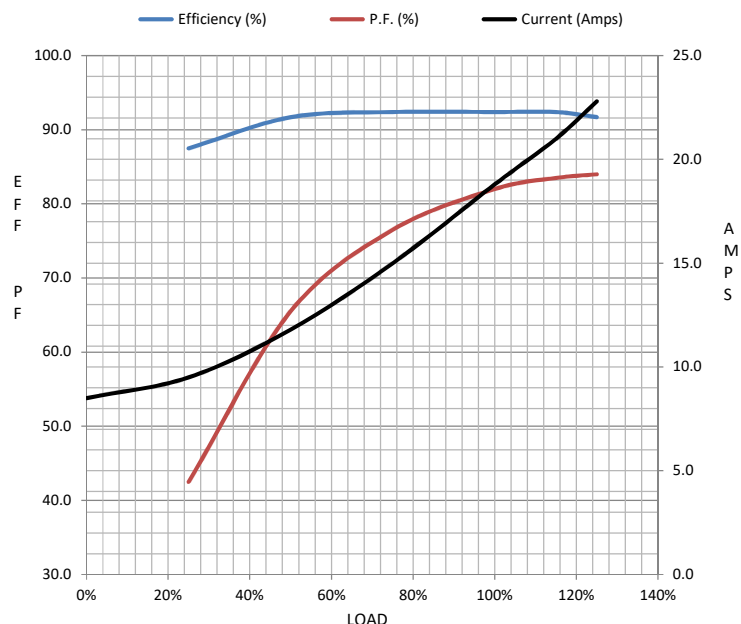
| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115% | 125% | LR   |  |
|----------------|------|------|------|------|------|------|------|------|--|
| Current (Amps) | 8.5  | 9.5  | 11.8 | 15.0 | 18.8 | 21.0 | 22.8 | 113  |  |
| Torque (ft-lb) | 0.00 | 11.0 | 22.0 | 33.5 | 44.5 | 51.5 | 56.0 | 91.0 |  |
| RPM            | 1800 | 1792 | 1785 | 1780 | 1772 | 1768 | 1762 | 0    |  |
| Efficiency (%) |      | 87.5 | 91.7 | 92.4 | 92.4 | 92.4 | 91.7 |      |  |
| P.F. (%)       | 5.0  | 42.5 | 65.5 | 76.5 | 82.0 | 83.5 | 84.0 | 41.0 |  |

## Motor Speed Data

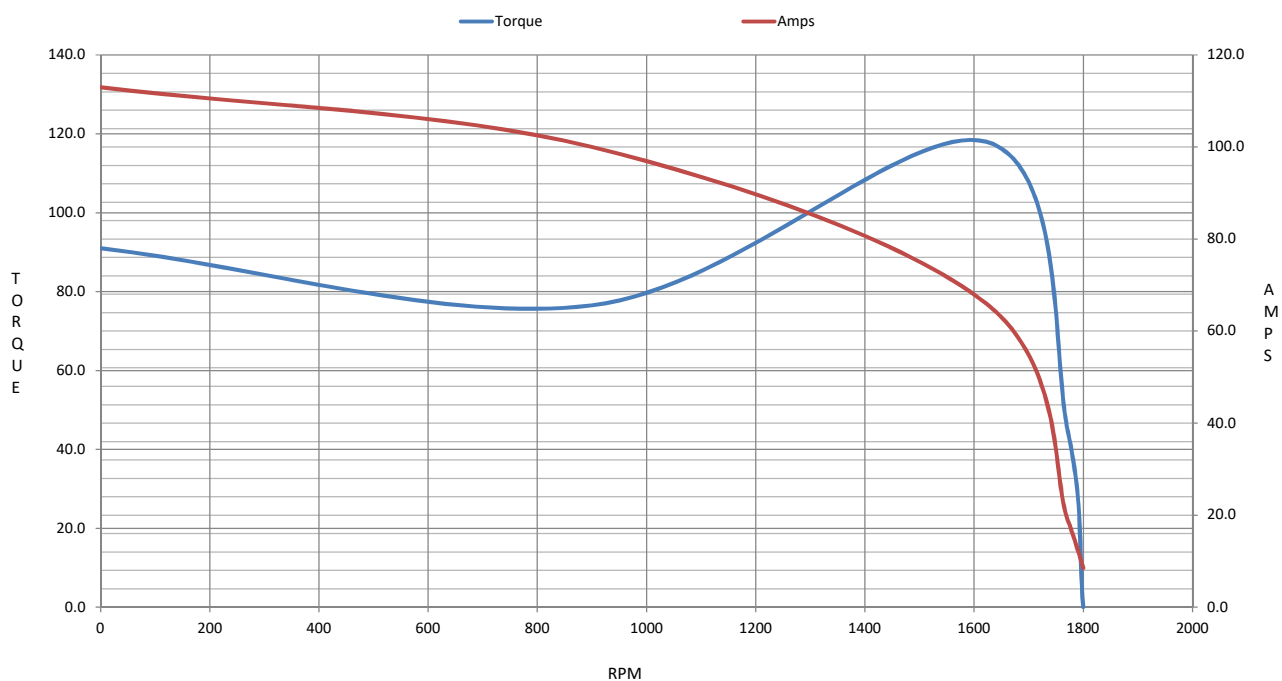
|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 900     | 1622 | 1772  | 1800 |
| Current (Amps) | 113  | 100     | 66.0 | 18.8  | 8.5  |
| Torque (ft-lb) | 91.0 | 76.5    | 118  | 44.5  | 0.00 |

## Information Block

|                            |                   |        |        |         |
|----------------------------|-------------------|--------|--------|---------|
| HP                         | 15.0              |        |        |         |
| Sync. RPM                  | 1800              |        |        |         |
| Frame                      | 254               |        |        |         |
| Enclosure                  | TEFC              |        |        |         |
| Construction               | TFC               |        |        |         |
| Voltage                    | 230/460#190/380 V |        |        |         |
| Frequency                  | 60 Hz             |        |        |         |
| Design                     | B                 |        |        |         |
| LR Code letter             | G                 |        |        |         |
| Service Factor             | 1.15              |        |        |         |
| Temp Rise @ FL             | 50 ° C            |        |        |         |
| Duty                       | CONT              |        |        |         |
| Ambient                    | 40 ° C            |        |        |         |
| Elevation                  | 1,000 feet        |        |        |         |
| Rotor/Shaft wk²            | 2.40 Lb-Ft²       |        |        |         |
| Ref Wdg                    | HE31604011 NONE   |        |        |         |
| Sound Pressure @ 1M        | 65 dBA            |        |        |         |
| VFD Rating                 | CONSTANT 20:1     |        |        |         |
| Outline Dwg                | SS620703          |        |        |         |
| Conn. Diag                 | EE7308K           |        |        |         |
| Additional Specifications: |                   |        |        |         |
| 0                          |                   |        |        |         |
| 0                          |                   |        |        |         |
| EQUIV CKT (OHMS / PHASE)   |                   |        |        |         |
| R1                         | R2                | X1     | X2     | Xm      |
| 0.4400                     | 0.2440            | 1.3040 | 1.4670 | 31.5630 |



## 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 : B199016.00

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

Catalog No : B199016.00

Rework No : N/A

### Directives :

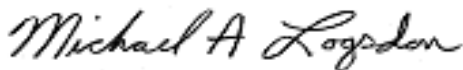
Low Voltage Directive 2014/35/EU

### 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 11/01/2022

**CE 22**