

# PRODUCT INFORMATION PACKET



Model No: LM16755

Catalog No: LM16755

General Purpose Motor, 10 & 7.5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM,  
215TC Frame, TEFC



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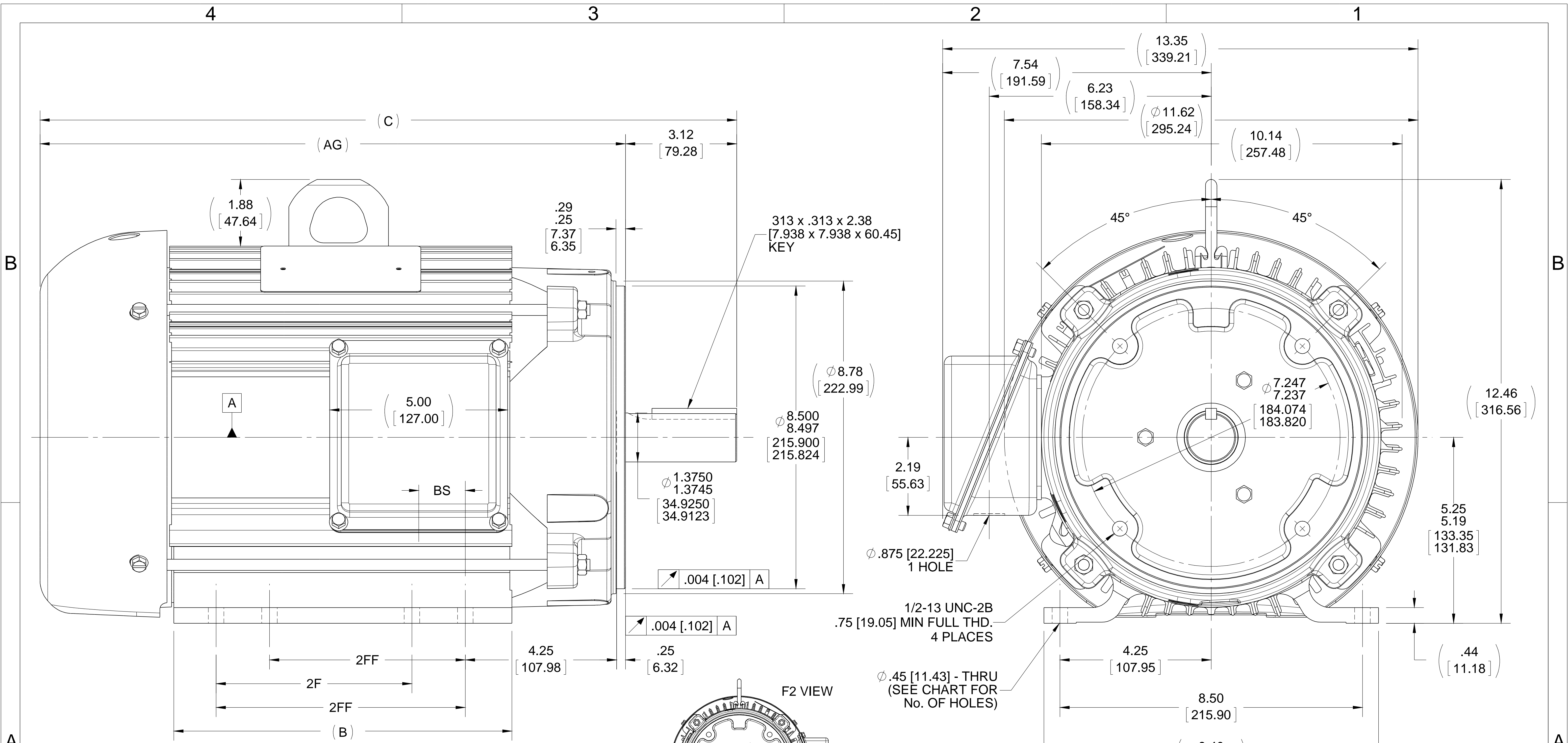
### Nameplate Specifications

|                        |                                  |                            |                                    |
|------------------------|----------------------------------|----------------------------|------------------------------------|
| Phase                  | <b>3</b>                         | Output HP                  | <b>10 &amp; 7.5 Hp</b>             |
| Output KW              | <b>7.5 &amp; 5.6 kW</b>          | Voltage                    | <b>230/460 &amp; 190/380 V</b>     |
| Speed                  | <b>3535 &amp; 2950 rpm</b>       | Service Factor             | <b>1.25 &amp; 1.15</b>             |
| Frame                  | <b>215TC</b>                     | Enclosure                  | <b>Totally Enclosed Fan Cooled</b> |
| Thermal Protection     | <b>No Protection</b>             | Efficiency                 | <b>91.7 &amp; 92 %</b>             |
| Ambient Temperature    | <b>40 °C</b>                     | Frequency                  | <b>60 &amp; 50 Hz</b>              |
| Current                | <b>23.6/11.8 &amp; 21/10.5 A</b> | Power Factor               | <b>87</b>                          |
| Duty                   | <b>Continuous</b>                | Insulation Class           | <b>F</b>                           |
| Design Code            | <b>B</b>                         | KVA Code                   | <b>H</b>                           |
| Drive End Bearing Size | <b>208</b>                       | Opp Drive End Bearing Size | <b>206</b>                         |
| UL                     | <b>Recognized</b>                | CSA                        | <b>Y</b>                           |
| CE                     | <b>Y</b>                         | IP Code                    | <b>43</b>                          |
| Number of Speeds       | <b>1</b>                         |                            |                                    |

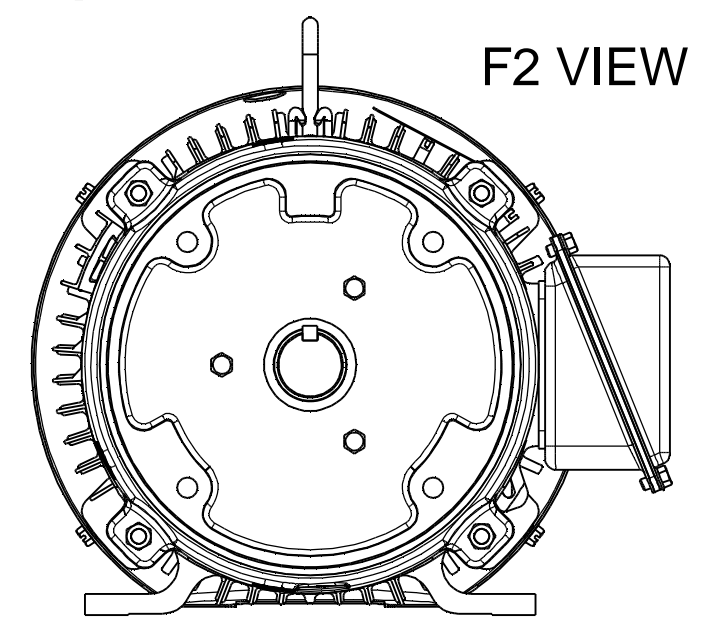
### Technical Specifications

|                       |                                     |                       |                         |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type       | <b>Squirrel Cage Inverter Rated</b> | Starting Method       | <b>Line Or Inverter</b> |
| Poles                 | <b>2</b>                            | Rotation              | <b>Reversible</b>       |
| Resistance Main       | <b>.8 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>Aluminum</b>         |
| Shaft Type            | <b>T</b>                            | Overall Length        | <b>20.57 in</b>         |
| Frame Length          | <b>10.50 in</b>                     | Shaft Diameter        | <b>1.375 in</b>         |
| Shaft Extension       | <b>3.12 in</b>                      | Assembly/Box Mounting | <b>F1/F2 CAPABLE</b>    |
| Inverter Load         | <b>VARIABLE 20:1</b>                |                       |                         |
| Outline Drawing       | <b>SS330102LN-1050</b>              | Connection Drawing    | <b>EE7308-LN</b>        |





NOTES:  
 1- BOX CAN BE ROTATED IN 90° STEPS.  
 2- NAMEPLATE TO BE READ FROM C'BOX SIDE OF MOTOR.



| DASH | FRAME   | B                 | C                 | AG                | 2F               | 2FF              | BS              | No. OF MTG HOLES |
|------|---------|-------------------|-------------------|-------------------|------------------|------------------|-----------------|------------------|
| 800  | 213TC   | 8.12<br>[206.25]  | 18.07<br>[458.98] | 14.95<br>[379.73] | 5.50<br>[139.70] | ---              | 1.33<br>[33.76] | 4                |
| 950  | 213/5TC | 9.62<br>[244.35]  | 19.57<br>[497.08] | 16.45<br>[417.83] | 5.50<br>[139.70] | 7.00<br>[177.80] | 1.33<br>[33.76] | 8                |
| 1050 | 215TC   | 10.62<br>[269.75] | 20.57<br>[522.48] | 17.45<br>[443.23] | 7.00<br>[177.80] | 8.00<br>[203.20] | 1.33<br>[33.76] | 8                |

DRAWING REVISION F  
 ECO ECO-0073312  
 ECO DESCRIPTION  
 UPDATED TO CURRENT STADNARDS  
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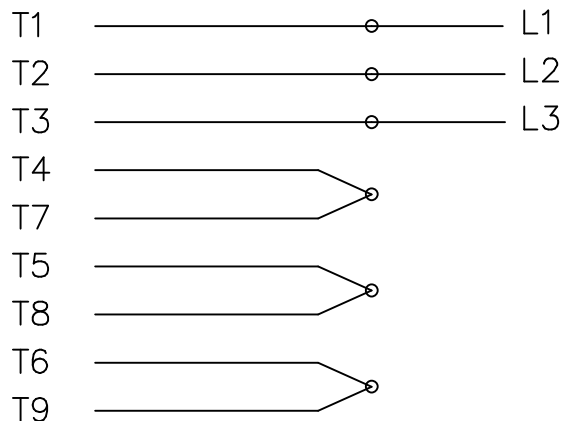
TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 DEC. INCH mm ANGLE  
 .X ±0.1 [±2.5] ±7° 30"  
 .XX ±0.03 [±0.76]  
 .XXX ±0.005 [±0.127]  
 .XXXX ±0.0005 [±0.0127]  
 REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45°  
 CORNER FILLETS: R.02 [.51]  
 MACHINED SURFACES: 200 INCH mm 5.1  
 mm SHOWN IN [BRACKETS]

DRAWN BY MJK  
 DATE 08-30-2004  
 APPROVED BY JPL  
 DATE 09-02-2004  
 REFERENCE  
 THIRD ANGLE PROJECTION

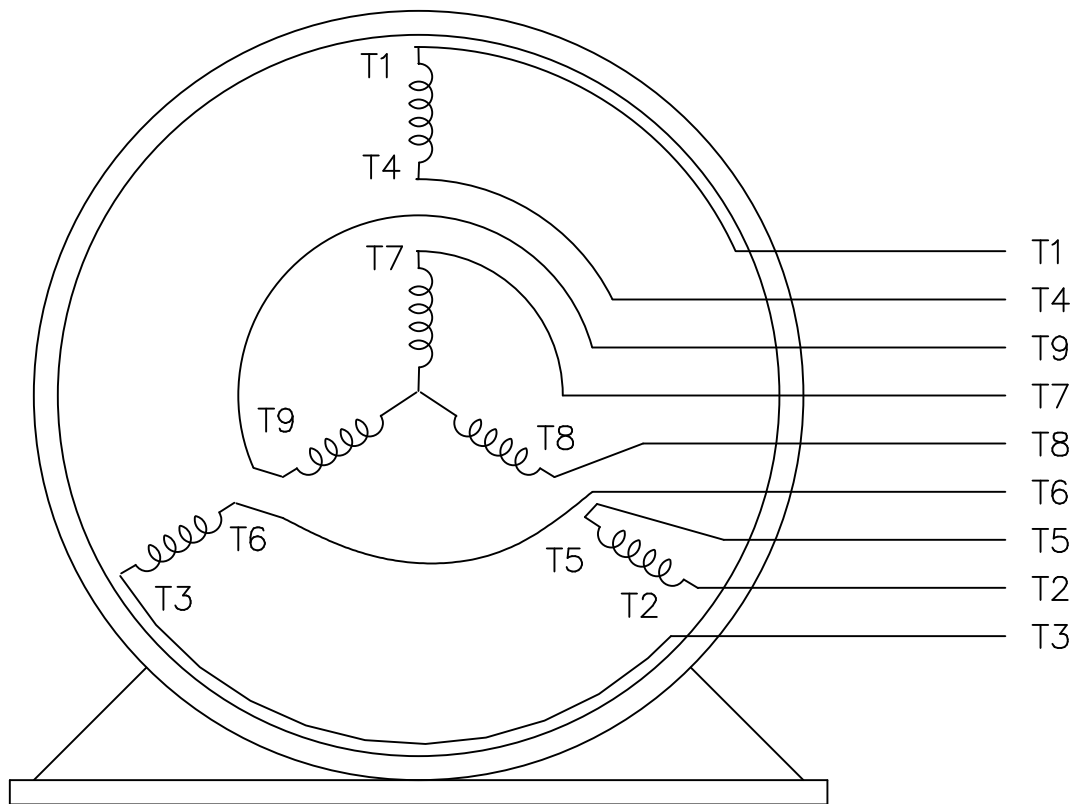
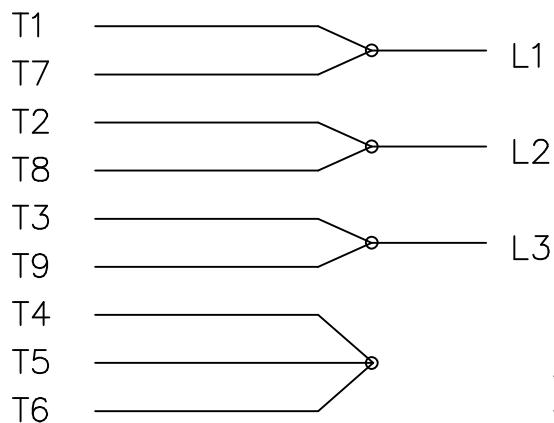
**REGAL**™ Regal Beloit America, Inc.  
 DESCRIPTION  
**OUTLINE**  
 210TC FR - ALUM FR - TEFC  
 MATERIAL PROCESS/FINISH  
 SIZE B DRAWING NUMBER **SS330102LN** SHEET 1 OF 1

THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE



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 | TOLERANCES UNLESS SPECIFIED |                   | FINISH                   | DRAWN | DATE          |                       |           |        |
|--|--|----------------|-----|-----------------------------|-------------------|--------------------------|-------|---------------|-----------------------|-----------|--------|
|  |  |                |     | DEC.                        | INCHES            |                          |       |               |                       |           |        |
|  |  |                |     | .X                          | ±.1               |                          | BLR   | 06/11/1999    |                       |           |        |
|  |  |                |     |                             |                   |                          | CHK   | ML 06/18/1999 |                       |           |        |
|  |  |                |     |                             |                   |                          | APPD  | GK 06/18/1999 |                       |           |        |
| 3  | ADDED THE OPTIONAL CORD CONNECTION MU46318 | RDH 04/24/2003 | DRS | .XX                         | ±.02              | TITLE CONNECTION DIAGRAM |       | SCALE 1=1     |                       |           |        |
| 2  | RE-ISSUE, ADDED '-' TO PART NUMBER         | BLR 08/09/1999 | GK  | .XXX                        | ±.005             | 3∅ - DUAL VOLTAGE MOTOR  |       | REF           |                       |           |        |
| 1  | NEW DRAWING                                | BLR 06/18/1999 | GK  | .XXXX                       | ±.0005            | MAT'L.                   |       | FMF           |                       |           |        |
|  |  |                |     | ANG                         | ±7'30"            |                          |       | 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 EE7308LN |                          |       | SIZE A        | DRAWING NO. EE7308-LN | PAGE OF 3 | REV. 3 |
|  |  |                |     | DIST WP                     |                   |                          |       |               |                       |           |        |





**2100 WASHINGTON ST.  
GRAFTON, WI  
PH. 262-277-8810**

**CONN. DIAGRAM:** A-EE7308-LN

**OUTLINE:** B-SS330102LN-1050

**WINDING #:** K215295 R10 6

**CATALOG #:** LM16755

**MOUNTING:** F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

| HP       | kW        | SYNC. RPM | F.L. RPM  | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----------|-----------|-----------|-----------|-------|-----------|----------|--------|
| 10&7 1/2 | 7.50&5.60 | 3600      | 3535&2950 | 215TC | TEFC      | H        | B      |

| PH | Hz    | VOLTS           | AMPS              | START TYPE       | DUTY       | INSL | S.F.      | AMB°C |
|----|-------|-----------------|-------------------|------------------|------------|------|-----------|-------|
| 3  | 60/50 | 230/460&190/380 | 23.6/11.8&21/10.5 | LINE OR INVERTER | CONTINUOUS | F3   | 1.25/1.15 | 40    |

| FULL LOAD EFF: | 91.7&92 | 3/4 LOAD EFF: | 92.4 | 1/2 LOAD EFF: | 91.7 | GTD. EFF | ELEC. TYPE        |
|----------------|---------|---------------|------|---------------|------|----------|-------------------|
| FULL LOAD PF:  | 87&88.5 | 3/4 LOAD PF:  | 86   | 1/2 LOAD PF:  | 78.5 | 91       | SQ CAGE INV RATED |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
|-------------|-------------------|----------------|----------------|-------------|
| 14.9 LB-FT  | 160 / 80          | 30 LB-FT 201 % | 46 LB-FT 309 % | 60          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2  | MAX. WK^2  | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|------------|-----------------|---------------|-------------------|
| 72 dBA                 | 82 dBA      | 0.7 LB-FT^2 | 18 LB-FT^2 | 15 SEC.         | 2             | 140 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    | GRAY (ENAMEL) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL          | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE       | ODE  | POLYREX EM | T          | NONE       | NONE        | 1045 HOT ROLLED (C-204) | ALUMINUM       |
| BALL     | BALL |            |            |            |             |                         |                |
| 208      | 206  |            |            |            |             |                         |                |

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

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| <b>INVERTER TORQUE:</b> VARIABLE 20:1                                    |
| <b>INV. HP SPEED RANGE:</b> 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>FT-LB V NONE Hz |

Data Sheet

Date: 1/23/2018

LM16755



Data @ 460 V

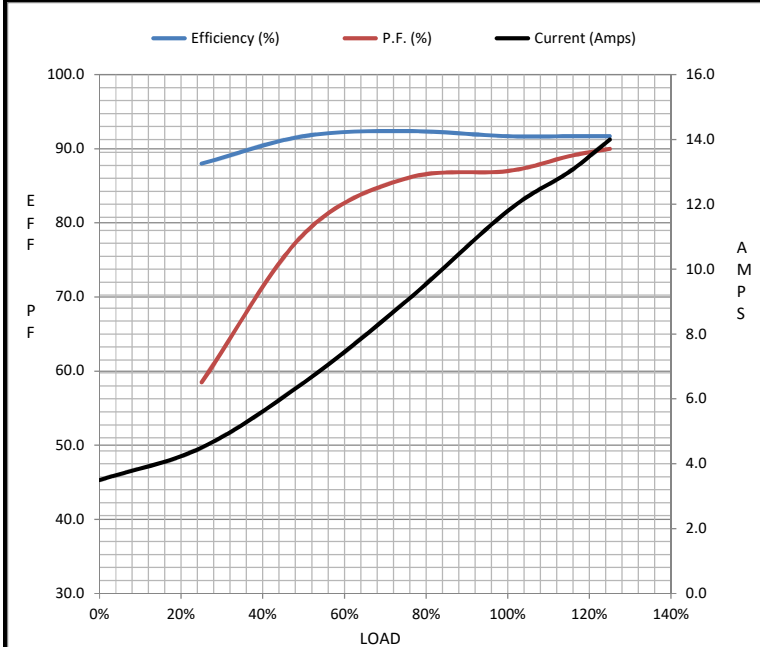
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 3.5  | 4.5  | 6.5  | 9.0  | 11.8 | 13.0  | 14.0 | 80.0 |
| Torque (ft-lb) | 0.00 | 3.5  | 7.5  | 11.0 | 14.9 | 17.0  | 18.5 | 30.0 |
| RPM            | 3600 | 3585 | 3570 | 3555 | 3535 | 3,530 | 3525 | 0    |
| Efficiency (%) |      | 88.0 | 91.7 | 92.4 | 91.7 | 91.7  | 91.7 |      |
| P.F. (%)       | 8.5  | 58.5 | 78.5 | 86.0 | 87.0 | 89.0  | 90.0 | 40.0 |

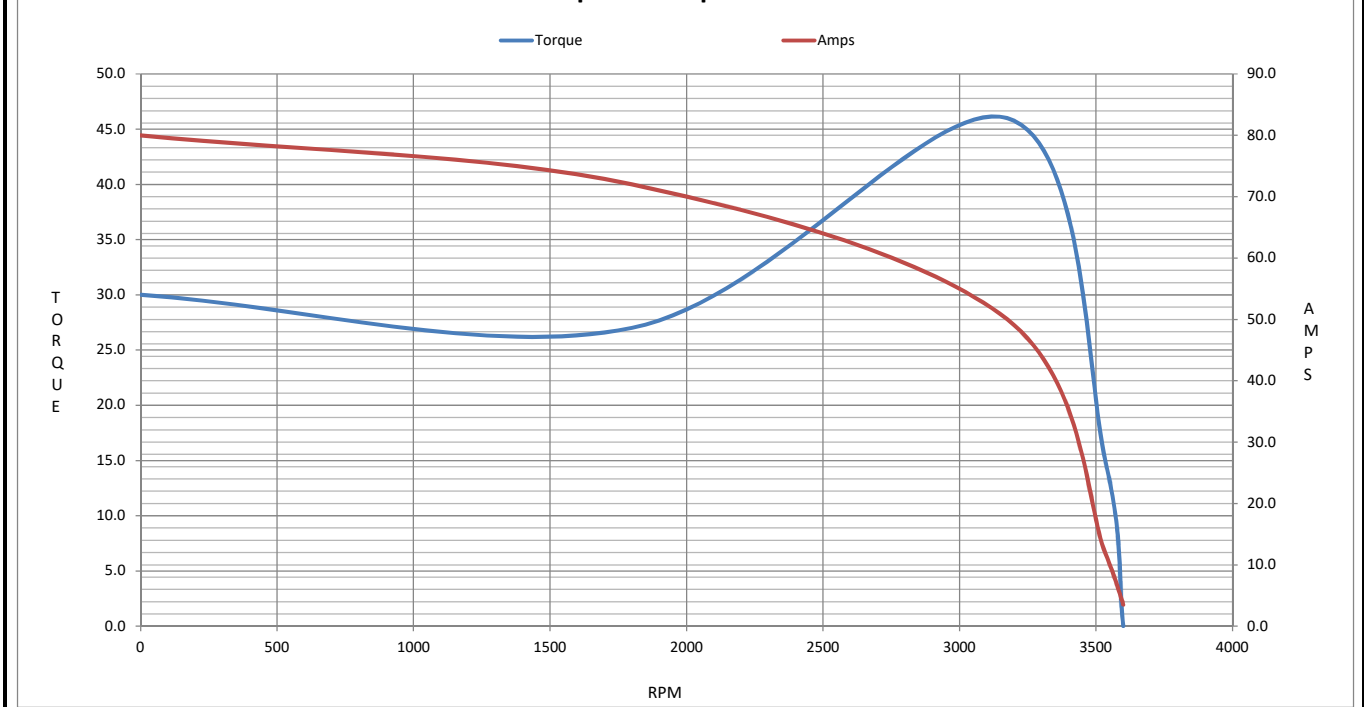
Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 1800    | 3175 | 3535  | 3600 |
| Current (Amps) | 80.0 | 72.0    | 50.0 | 11.8  | 3.5  |
| Torque (ft-lb) | 30.0 | 27.0    | 46.0 | 14.9  | 0.00 |

| Information Block           |                         |        |        |         |
|-----------------------------|-------------------------|--------|--------|---------|
| HP                          | 10.0                    |        |        |         |
| Sync. RPM                   | 3600                    |        |        |         |
| Frame                       | 215                     |        |        |         |
| Enclosure                   | TEFC                    |        |        |         |
| Construction                | TFL                     |        |        |         |
| Voltage                     | 230/460#190/380 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                   | 1,000 feet              |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 0.70 Lb-Ft <sup>2</sup> |        |        |         |
| Ref Wdg                     | K215295 R10             |        |        |         |
| Sound Pressure @ 1M         | 72 dBA                  |        |        |         |
| VFD Rating                  | VARIABLE 20:1           |        |        |         |
| Outline Dwg                 | B-SS330102LN-1050       |        |        |         |
| Conn. Diag                  | A-EE7308-LN             |        |        |         |
| Additional Specifications:  |                         |        |        |         |
| 0                           |                         |        |        |         |
| 0                           |                         |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |         |
| R1                          | R2                      | X1     | X2     | Xm      |
| 0.5230                      | 0.3980                  | 1.8060 | 2.0620 | 72.1360 |



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 : LM16755

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

Catalog No : LM16755

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**