

# PRODUCT INFORMATION PACKET



Model No: 825092.00

Catalog No: 825092.00

Explosion Proof Motor, 15 & 10 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 3600 & 3000 RPM,  
254T Frame, EPFC



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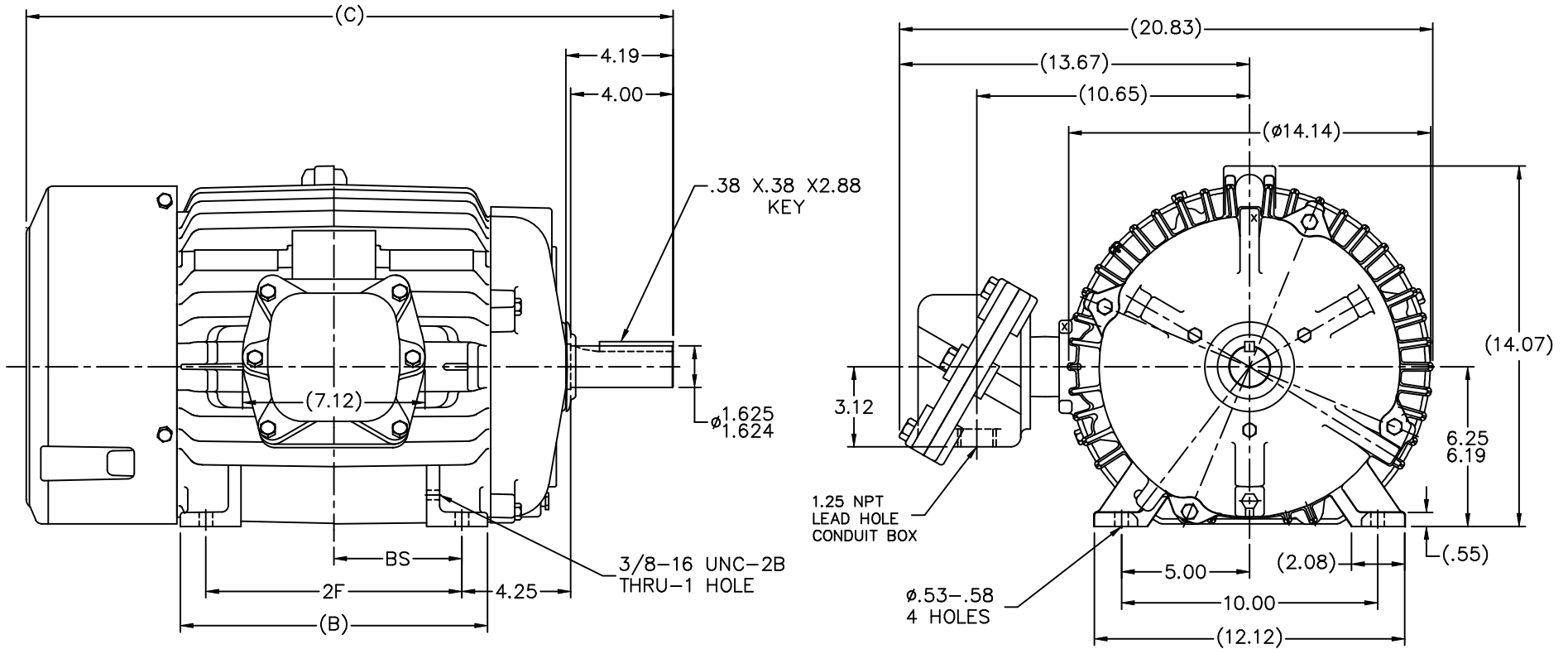
### Nameplate Specifications

|                        |                                    |                            |   |
|------------------------|------------------------------------|----------------------------|---|
| Phase                  | <b>3</b>                           | Output HP                  | <b>15 &amp; 10 Hp</b>                                 |
| Output KW              | <b>11.2 &amp; 7.5 kW</b>           | Voltage                    | <b>230/460 &amp; 190/380 V</b>                        |
| Speed                  | <b>3550 &amp; 2955 rpm</b>         | Service Factor             | <b>1.15 &amp; 1.15</b>                                |
| Frame                  | <b>254T</b>                        | Enclosure                  | <b>Explosion Proof Fan cooled</b>                     |
| Thermal Protection     | <b>Thermostat</b>                  | Efficiency                 | <b>91.7 &amp; 92 %</b>                                |
| Ambient Temperature    | <b>40 °C</b>                       | Frequency                  | <b>60 &amp; 50 Hz</b>                                 |
| Current                | <b>35/17.5 &amp; 29/14.5 A</b>     | Power Factor               | <b>85</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>309</b>                         | Opp Drive End Bearing Size | <b>210</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>EXP PROOF CL I GR C&amp;D CL II GR F&amp;G T3B</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>.603 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>23.52 in</b>          |
| Frame Length          | <b>10.50 in</b>                     | Shaft Diameter        | <b>1.625 in</b>          |
| Shaft Extension       | <b>4 in</b>                         | Assembly/Box Mounting | <b>F1 ONLY</b>           |
| Inverter Load         | <b>CONSTANT 10:1</b>                |                       |                          |
| Connection Drawing    | <b>A-EE7308T</b>                    | Outline Drawing       | <b>B-SS203001LE-1050</b> |





NOTES:

1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

(B-SS203004)

| DASH | FRAME | B     | C     | 2F    | BS   |
|------|-------|-------|-------|-------|------|
| 1050 | 254T  | 10.25 | 23.52 | 8.25  | 4.12 |
| 1225 | 256T  | 12.00 | 25.27 | 10.00 | 5.00 |

|  |                    |           |            | TOLERANCES UNLESS SPECIFIED |        | LEESON                    | ELECTRIC MOTORS<br>GEARMOTORS<br>AND DRIVES | DRAWN TJB 05-07-2002 |      |                          |
|--|--------------------|-----------|------------|-----------------------------|--------|---------------------------|---|----------------------|------|--------------------------|
|  |                    |           |            | DEC.                        | INCHES |                           |   | CHK                  | ML   | 05-08-2002               |
|  |                    |           |            | .X                          | ±.1    | TITLE OUTLINE - EXP. PR.  |   | APPD                 | TB   | 05-08-2002               |
|  |                    |           |            | .XX                         | ±.03   | 250T FR. - BB - TS - STD. |   | SCALE 1=4            |      |                          |
| 2  | REDRAWN IN AUTOCAD | NJS       | 03-17-2005 | ML                          | .XXX   | ±.005                     | REF   |                      |      |                          |
| 1  | NEW DRAWING        | CN 34708  | TJB        | 05-08-2002                  | .XXXX  | ±.0005                    | MATL  |                      | 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 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 SS203001LE  | SIZE | DRAWING NO. PAGE OF REV. |
|  |                    |           |            |                             |        |                           | DIST  | LB                   | B    | SS203001LE 2             |

**HIGH VOLTAGE**



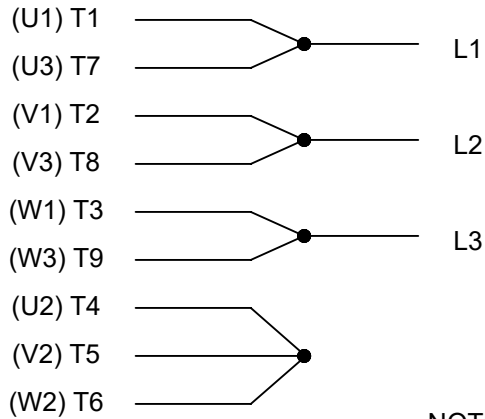
**THREE PHASE  
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS  
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST FOR COMMON CONNECT:  
HIGH VOLT: CONNECT P1 TO T1  
THEN P2 TO L1  
LOW VOLT: CONNECT P1 TO T1 & T7,  
THEN P2 TO L1

**LOW VOLTAGE**



**VIEW OF TERMINAL END**

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

|   |                   |                    |                            |                    |   |
|---|-------------------|--------------------|----------------------------|--------------------|---|
| DRAWING REVISION<br>T   | REVISION BY<br>ZR | DATE<br>01-14-2019 |                            | DRAWN BY<br>SMC    | Regal Beloit America, Inc.  |
| ECO<br>ECO-0159915  | APPROVED BY<br>DR | DATE<br>01-15-2019 |                            | DATE<br>05-13-1992 |   |
| ECO DESCRIPTION<br><b>ADDED TERMINAL CONNECTION DIAGRAM</b>   |                   |                    |                            | APPROVED BY<br>TB  | DESCRIPTION<br><b>CONN DIAGRAM-INTERNAL</b><br>3 PHASE - DUAL VOLTAGE MOTOR |
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|   |                   |                    | REFERENCE<br>EE7308/EE7300 | SIZE<br>A          | DRAWING NUMBER<br>EE7308T   |



CERTIFICATION DATA SHEET

1051 CHEYENNE AVE.  
GRAFTON, WI 53024  
PH. 262-377-8810

CATALOG #: 825092.00

CONN. DIAGRAM: A-EE7308T

OUTLINE: B-SS203001LE-1050

MOUNTING: F1 ONLY

WINDING #: K256289 13

TYPICAL MOTOR PERFORMANCE DATA

| HP    | kW        | SYNC. RPM | F.L. RPM  | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-------|-----------|-----------|-----------|-------|-----------|----------|--------|
| 15&10 | 11.2&7.50 | 3600      | 3550&2955 | 254T  | EPFC      | G        | B      |

| PH | Hz    | VOLTS           | AMPS            | START TYPE       | DUTY       | INSL | S.F.      | AMB°C |
|----|-------|-----------------|-----------------|------------------|------------|------|-----------|-------|
| 3  | 60/50 | 230/460&190/380 | 35/17.5&29/14.5 | LINE OR INVERTER | CONTINUOUS | F3   | 1.15/1.15 | 40    |

| FULL LOAD EFF: | 91.7&92 | 3/4 LOAD EFF: | 91.7 | 1/2 LOAD EFF: | 90.2 | GTD. EFF |  | ELEC. TYPE        |  |
|----------------|---------|---------------|------|---------------|------|----------|--|-------------------|--|
| FULL LOAD PF:  | 85&85   | 3/4 LOAD PF:  | 83.5 | 1/2 LOAD PF:  | 75.5 | 91       |  | SQ CAGE INV RATED |  |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
|-------------|-------------------|----------------|----------------|-------------|
| 22.2 LB-FT  | 232 / 116         | 41 LB-FT 185 % | 65 LB-FT 293 % | 50          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2  | MAX. WK^2  | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|------------|-----------------|---------------|-------------------|
| 72 dBA                 | 82 dBA      | 1.1 LB-FT^2 | 22 LB-FT^2 | 20 SEC.         | 2             | 310 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 - LEESON (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      |
| 309      | 210  |            |            |            |             |                         |                |

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

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|-----------------------------|---|
| <b>INVERTER TORQUE:</b>     | CONSTANT 10:1                           |
| <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 |

Data Sheet

Date: 1/22/2018

825092.00



Data @ **460 V**

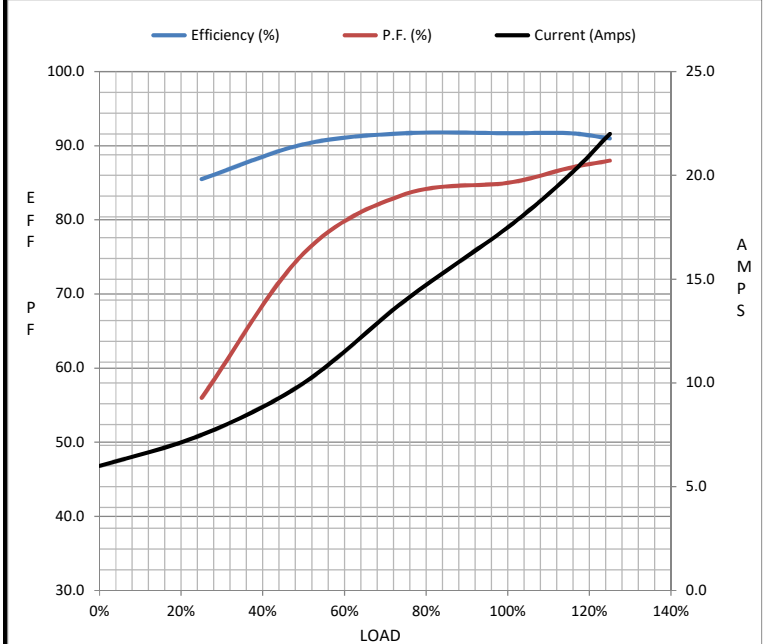
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 6.0  | 7.5  | 10.0 | 14.0 | 17.5 | 20.0  | 22.0 | 116  |
| Torque (ft-lb) | 0.00 | 5.5  | 11.0 | 16.5 | 22.2 | 25.0  | 28.0 | 41.0 |
| RPM            | 3600 | 3585 | 3570 | 3560 | 3550 | 3,540 | 3525 | 0    |
| Efficiency (%) |      | 85.5 | 90.2 | 91.7 | 91.7 | 91.7  | 91.0 |      |
| P.F. (%)       | 10.5 | 56.0 | 75.5 | 83.5 | 85.0 | 87.0  | 88.0 | 38.0 |

Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 1800    | 3175 | 3550  | 3600 |
| Current (Amps) | 116  | 103     | 75.0 | 17.5  | 6.0  |
| Torque (ft-lb) | 41.0 | 37.0    | 65.0 | 22.2  | 0.00 |

| Information Block           |                         |        |        |         |
|-----------------------------|-------------------------|--------|--------|---------|
| HP                          | 15.0                    |        |        |         |
| Sync. RPM                   | 3600                    |        |        |         |
| Frame                       | 254                     |        |        |         |
| Enclosure                   | TEFC                    |        |        |         |
| Construction                | TFN                     |        |        |         |
| Voltage                     | 230/460#190/380 V       |        |        |         |
| Frequency                   | 60 Hz                   |        |        |         |
| Design                      | A                       |        |        |         |
| LR Code letter              | G                       |        |        |         |
| Service Factor              | 1.15                    |        |        |         |
| Temp Rise @ FL              | 50 °C                   |        |        |         |
| Duty                        | CONT                    |        |        |         |
| Ambient                     | 40 °C                   |        |        |         |
| Elevation                   | 1,000 feet              |        |        |         |
| Rotor/Shaft wk <sup>2</sup> | 1.10 Lb-Ft <sup>2</sup> |        |        |         |
| Ref Wdg                     | K256289 NONE            |        |        |         |
| Sound Pressure @ 1M         | 72 dBA                  |        |        |         |
| VFD Rating                  | CONSTANT 10:1           |        |        |         |
| Outline Dwg                 | B-SS203001LE-1050       |        |        |         |
| Conn. Diag                  | A-EE7308T               |        |        |         |
| Additional Specifications:  |                         |        |        |         |
| 0                           |                         |        |        |         |
| 0                           |                         |        |        |         |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |         |
| R1                          | R2                      | X1     | X2     | Xm      |
| 0.3870                      | 0.2760                  | 1.4040 | 1.2980 | 42.3360 |



Speed - Torque Curve

