

# PRODUCT INFORMATION PACKET



Model No: 117853.00

Catalog No: 117853.00

Explosion Proof Motor, 0.75 & 0.50 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,  
56C Frame, EPFC



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### Nameplate Specifications

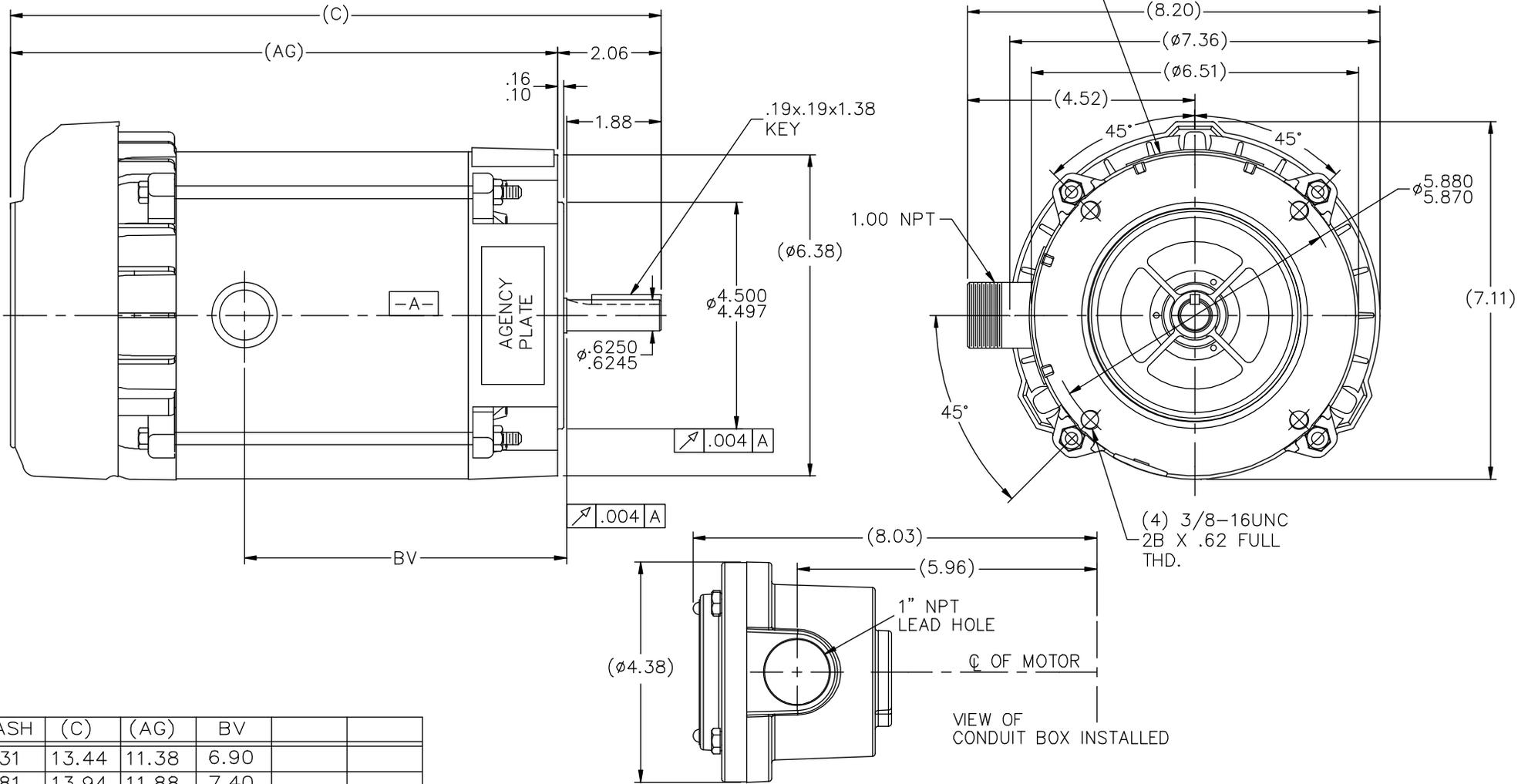
|                        |                                    |                            |   |
|------------------------|------------------------------------|----------------------------|---|
| Phase                  | <b>3</b>                           | Output HP                  | <b>0.75 &amp; 0.50 Hp</b>                         |
| Output KW              | <b>0.56 &amp; 0.37 kW</b>          | Voltage                    | <b>208-230/460 &amp; 190/380 V</b>                |
| Speed                  | <b>1725 &amp; 1425 rpm</b>         | Service Factor             | <b>1.0 &amp; 1.0</b>                              |
| Frame                  | <b>56C</b>                         | Enclosure                  | <b>Explosion Proof Fan cooled</b>                 |
| Thermal Protection     | <b>Thermostat</b>                  | Efficiency                 | <b>75.5 &amp; 75 %</b>                            |
| Ambient Temperature    | <b>40 °C</b>                       | Frequency                  | <b>60 &amp; 50 Hz</b>                             |
| Current                | <b>2.9-3/1.5 &amp; 2.7/1.35 A</b>  | Power Factor               | <b>66.3</b>                                       |
| Duty                   | <b>Continuous</b>                  | Insulation Class           | <b>B</b>  |
| Design Code            | <b>B</b>                           | KVA Code                   | <b>L</b>  |
| Drive End Bearing Size | <b>6203</b>                        | Opp Drive End Bearing Size | <b>6203</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>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3C</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>23.2 Ohms</b>                    | Mounting              | <b>Round</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>NEMA 56</b>                      | Overall Length        | <b>13.94 in</b>         |
| Frame Length          | <b>6.81 in</b>                      | Shaft Diameter        | <b>0.625 in</b>         |
| Shaft Extension       | <b>1.88 in</b>                      | Assembly/Box Mounting | <b>F1 ONLY</b>          |
| Inverter Load         | <b>VARIABLE 10:1</b>                |                       |                         |
| Outline Drawing       | <b>B-104188LE-681</b>               | Connection Drawing    | <b>A-EE7308T-LE</b>     |



NAMEPLATES TO BE READ FROM SHAFT EXT. END.

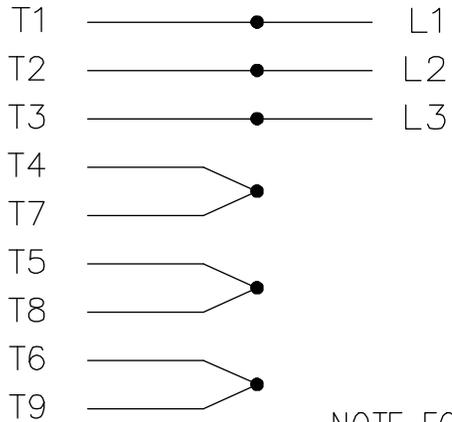


| DASH | (C)   | (AG)  | BV    |
|------|-------|-------|-------|
| 631  | 13.44 | 11.38 | 6.90  |
| 681  | 13.94 | 11.88 | 7.40  |
| 731  | 14.44 | 12.38 | 7.90  |
| 781  | 14.94 | 12.88 | 8.40  |
| 831  | 15.44 | 13.38 | 8.90  |
| 881  | 15.94 | 13.88 | 9.40  |
| 931  | 16.44 | 14.38 | 9.90  |
| 981  | 16.94 | 14.88 | 10.40 |

|  |  | TOLERANCES UNLESS SPECIFIED |          | <b>LEESON</b> ELECTRIC MOTORS GEARMOTORS AND DRIVES |              | DRAWN RJW 06-22-2007 |  |
|--|--|-----------------------------|----------|---|--------------|----------------------|--|
|  |  | DEC.                        | INCHES   |   |              | CHK                  | ML 06-22-2007                          |
|  |  | .X                          | ±.1      |   |              | APPD                 | GK 06-22-2007                          |
|  |  | .XX                         | ±.03     | TITLE OUTLINE - 'C' FACE                            |              | SCALE                | 17=32                                  |
|  |  | .XXX                        | ±.005    | 56 FR. - EXP. PR.                                   |              | REF                  |  |
| 01   | COND. BOX INSTALLED VIEW UPDATED PER ECR-0044571 | UD                          | 10/10/13 | ST  | .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 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   | 06-22-2007   | CAD FILE             | 104188LE                               |
|  |  |                             |          | DIST  | WP           | SIZE                 | DRAWING NO. PAGE OF REV. B 104188LE 01 |

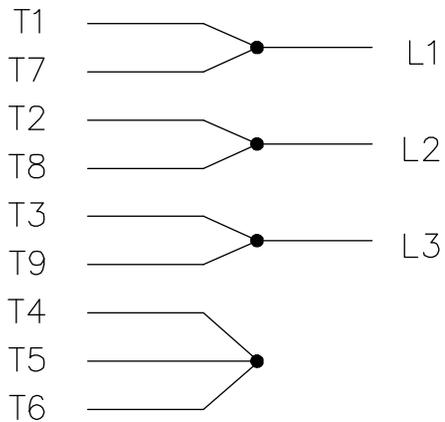
THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

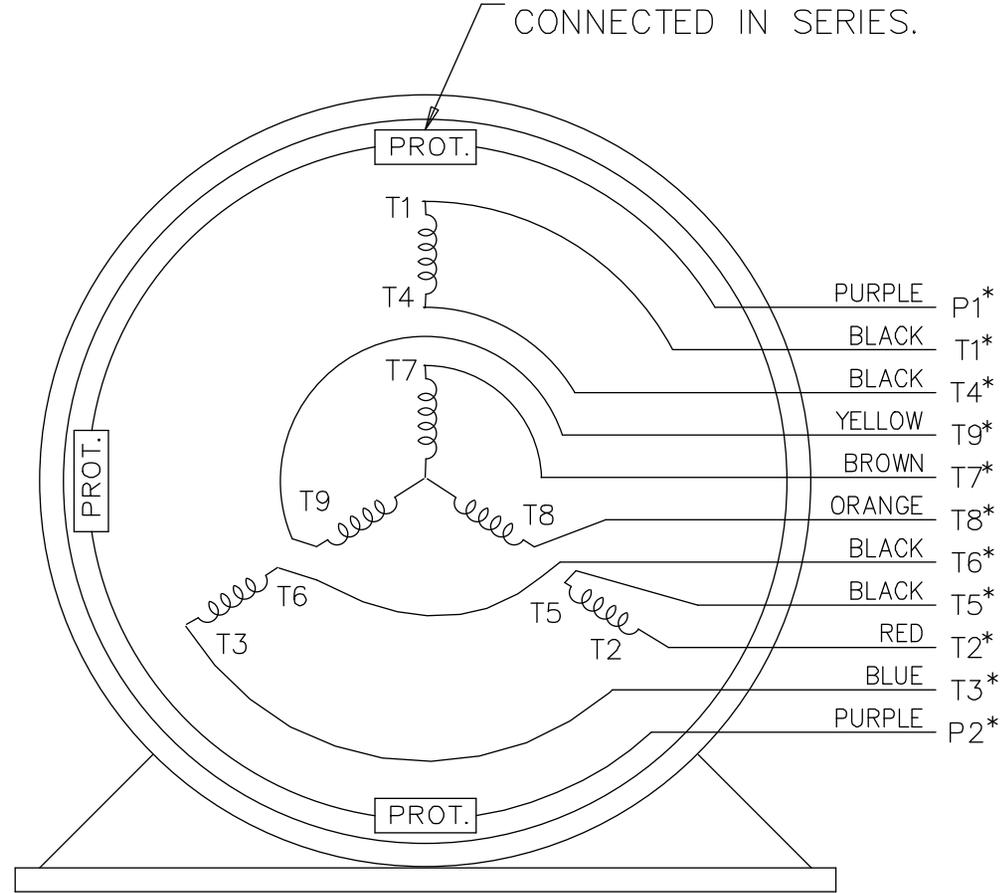


NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS  
CONNECTED IN SERIES.



VIEW OF TERMINAL END

\* USE LEADS AS PER PLANT STANDARD IRRWSPECTIVE OF THEIR COLOUR.

|  |  |                |     | TOLERANCES UNLESS SPECIFIED |          |  ELECTRIC MOTORS<br>GEARMOTORS<br>AND DRIVES | DRAWN TJB 05-07-2002 |                     |      |
|--|--|----------------|-----|-----------------------------|----------|---|----------------------|---------------------|------|
| NO.  | REVISION                               | BY & DATE      | CHK | ANG                         | ±        |   | FINISH               | CHK                 | ML   |
| 05   | ADDED * NOTE PER ECN # 26921           | UD 01-30-2013  | JD  | DEC.                        | INCHES   |   |                      |                     |      |
| 04   | ADDED COLORS TO "T & P" LEADS CN 40494 | MSG 08-08-2006 | ML  | .X                          | ±.1      |   |                      | 05-08-2002          |      |
| 03   | RE-ISSUE                               | NJS 04-21-2004 | JET | .XX                         | ±.02     | TITLE CONNECTION DIAGRAM  |                      | 05-08-2002          |      |
| 02   | REDRAWN                                | TAT 04-20-2004 | ML  | .XXX                        | ±.005    | 3 PHASE - DUAL VOLTAGE MOTOR  | SCALE                | 1=1                 |      |
| 01   | NEW DRAWING CN 34708                   | TJB 05-08-2002 | ML  | .XXXX                       | ±.0005   | MAT'L.  | REF                  |                     |      |
|  |  |                |     |                             | ±7'30"   |   | FMF                  |                     |      |
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|  |  |                |     | DIST                        | LB-WP-LE |   | A                    | EE7308T-LE          | 05   |

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



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: A-EE7308T-LE  
 OUTLINE: B-104188LE-681  
 WINDING: ZT411

CAT #: 117853.00

R11 3

**TYPICAL MOTOR PERFORMANCE DATA**

| HP   | KW   | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|------|------|----------|--------|-------|-----------|------|----------|--------|
| 0.75 | 0.56 | 1800     | 1725   | 56C   | EPFC      | TFR  | L        | B      |

| PH | HZ    | VOLTS               | AMPS               | START TYPE      | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|---------------------|--------------------|-----------------|------|------|------|-----|-------|
| 3  | 60/50 | 208-230/460#190/380 | 2.9-3/1.5&2.7/1.35 | ACROSS THE LINE | CONT | B    | 1.15 | 40  | 3300  |

| F.L. EFF | 75.5 | 3/4 LD EFF | 74.5 | 1/2 LD EFF | 71.0 | GTD EFF | ELECT. TYPE     |
|----------|------|------------|------|------------|------|---------|-----------------|
| F.L. PF  | 66.3 | 3/4 LD PF  | 57.0 | 1/2 LD PF  | 45.5 | 72.0    | SQ CAGE IND RUN |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE    | B.D. TORQUE     | F.L. RISE (°C) |
|-------------|-----------------|----------------|-----------------|----------------|
| 2.28 LB-FT  | 9.3             | 8.2 LB-FT 360% | 10.0 LB-FT 439% | 35             |

| PRESSURE @ 3 | POWER  | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|--------|-------------|---------------|-----------------|-------------|-----------|
| 62 dBA       | 71 dBA | 0.07 LB-FT² | 5 LB-FT²      | 12 SEC.         | 2           | 25 LB.    |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION      | DRIP COVER | SCREENS | PAINT              |
|-----------------|------------------|------------|-------------------|-------------|-------------------------|------------|---------|--------------------|
| C-FACE          | STANDARD         | ROUND      | HORIZONTAL        | NO          | DF CL I GR C&D CL II GF | NO         | NONE    | JE - LEESON (ENAM) |

| BEARINGS |      | GREASE     | SHAFT TYPE  | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL           | FRAME MATERIAL |
|----------|------|------------|-------------|------------|-------------|--------------------------|----------------|
| DE       | ODE  | POLYREX EM | STANDARD 56 | NONE       | NONE        | 1144 STRESSPROOF (C-223) | ROLLED STEEL   |
| BALL     | BALL |            |             |            |             |                          |                |
| 6203     | 6203 |            |             |            |             |                          |                |

| THERMOSTATS  | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|--------------|------------|-----------|-----------|-------------|---------|---------------|
| TSTATS (N/C) | 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            | 0            | 0            | 0            | 0            | 0.150              | ODE   |

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

|                       |                |     |
|-----------------------|----------------|-----|
| DATE: 1/23/2018       | BRAKE: NONE    |     |
|                       | NONE NONE NONE |     |
|                       | FT-LB: NA      | HZ: |
|                       | VOLTAGE: NONE  |     |
| UL: Y-(LEESON UL REC) |                |     |

Data Sheet

Date: 1/23/2018

117853.00



Data @ 460 V

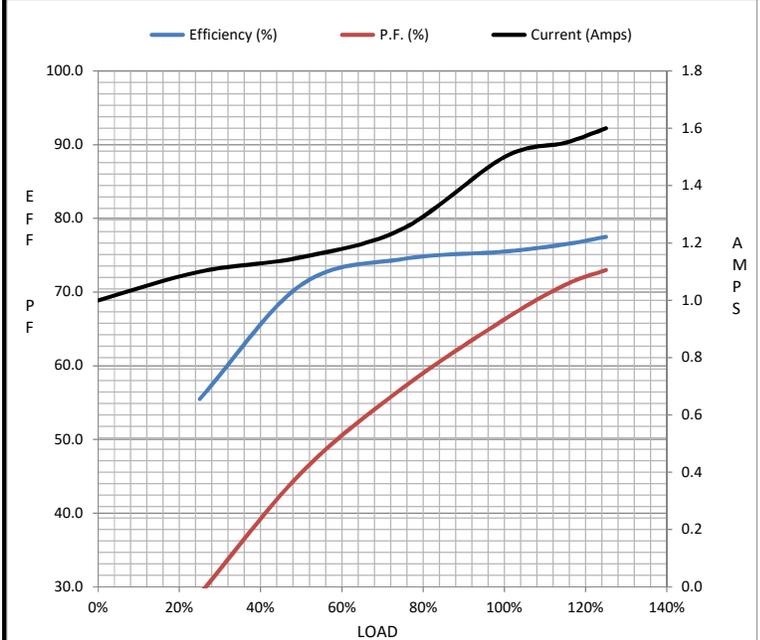
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 1.00 | 1.10 | 1.15 | 1.25 | 1.50 | 1.55  | 1.60 | 9.3  |
| Torque (ft-lb) | 0.00 | 0.52 | 1.10 | 1.70 | 2.28 | 2.60  | 2.80 | 8.2  |
| RPM            | 1800 | 1785 | 1770 | 1750 | 1725 | 1.722 | 1720 | 0    |
| Efficiency (%) |      | 55.5 | 71.0 | 74.5 | 75.5 | 76.5  | 77.5 |      |
| P.F. (%)       | 11.5 | 29.0 | 45.5 | 57.0 | 66.3 | 71.0  | 73.0 | 75.0 |

Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 750     | 1230 | 1725  | 1800 |
| Current (Amps) | 9.3 | 8.4     | 6.0  | 1.50  | 1.00 |
| Torque (ft-lb) | 8.2 | 7.4     | 10.0 | 2.28  | 0.00 |

| Information Block           |                         |        |        |        |
|-----------------------------|-------------------------|--------|--------|--------|
| HP                          | 0.8                     |        |        |        |
| Sync. RPM                   | 1800                    |        |        |        |
| Frame                       | 56                      |        |        |        |
| Enclosure                   | EPFC                    |        |        |        |
| Construction                | TFR                     |        |        |        |
| Voltage                     | 208-230/460#190/380 V   |        |        |        |
| Frequency                   | 60 Hz                   |        |        |        |
| Design                      | B                       |        |        |        |
| LR Code letter              | L                       |        |        |        |
| Service Factor              | 1.15                    |        |        |        |
| Temp Rise @ FL              | 35 °C                   |        |        |        |
| Duty                        | CONT                    |        |        |        |
| Ambient                     | 40 °C                   |        |        |        |
| Elevation                   | 1,000 feet              |        |        |        |
| Rotor/Shaft wk <sup>2</sup> | 0.07 Lb-Ft <sup>2</sup> |        |        |        |
| Ref Wdg                     | ZT411 R11               |        |        |        |
| Sound Pressure @ 1M         | 62 dBA                  |        |        |        |
| VFD Rating                  | NONE                    |        |        |        |
| Outline Dwg                 | B-104188LE-681          |        |        |        |
| Conn. Diag                  | A-EE7308T-LE            |        |        |        |
| Additional Specifications:  |                         |        |        |        |
| 0                           |                         |        |        |        |
| 0                           |                         |        |        |        |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |        |
| R1                          | R2                      | X1     | X2     | Xm     |
| 0.0000                      | 0.0000                  | 0.0000 | 0.0000 | 0.0000 |



Speed - Torque Curve

