

# PRODUCT INFORMATION PACKET



Model No: 121915.00  
Catalog No: 121915.00  
Explosion Proof Motor, 1.50 & 1 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM,  
145T Frame, EPFC



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### Nameplate Specifications

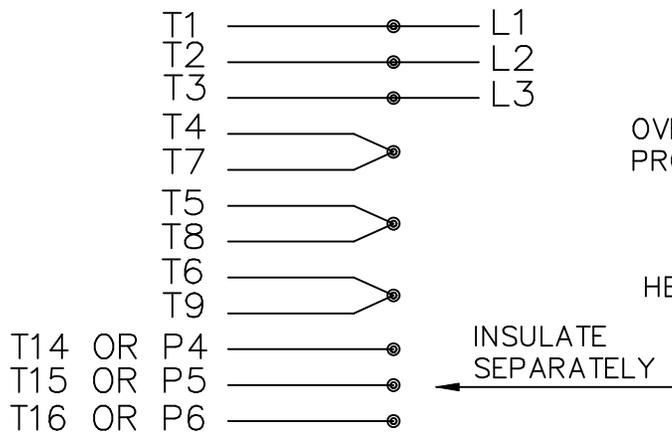
|                        |                                    |                            |   |
|------------------------|------------------------------------|----------------------------|---|
| Phase                  | <b>3</b>                           | Output HP                  | <b>1.50 &amp; 1 Hp</b>                            |
| Output KW              | <b>1.1 &amp; 0.75 kW</b>           | Voltage                    | <b>230/460 &amp; 190/380 V</b>                    |
| Speed                  | <b>1755 &amp; 1470 rpm</b>         | Service Factor             | <b>1.0 &amp; 1.0</b>                              |
| Frame                  | <b>145T</b>                        | Enclosure                  | <b>Explosion Proof Fan cooled</b>                 |
| Thermal Protection     | <b>Automatic</b>                   | Efficiency                 | <b>86.5 &amp; 85 %</b>                            |
| Ambient Temperature    | <b>40 °C</b>                       | Frequency                  | <b>60 &amp; 50 Hz</b>                             |
| Current                | <b>4.6/2.3 &amp; 4.2/2.1 A</b>     | Power Factor               | <b>71</b>   |
| Duty                   | <b>Continuous</b>                  | Insulation Class           | <b>B</b>  |
| Design Code            | <b>B</b>                           | KVA Code                   | <b>P</b>  |
| Drive End Bearing Size | <b>205</b>                         | Opp Drive End Bearing Size | <b>203</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

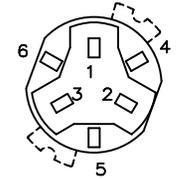
|                       |                                    |                       |                        |
|-----------------------|------------------------------------|-----------------------|------------------------|
| Electrical Type       | <b>Squirrel Cage Induction Run</b> | Starting Method       | <b>Across The Line</b> |
| Poles                 | <b>4</b>                           | Rotation              | <b>Reversible</b>      |
| Resistance Main       | <b>7.9 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>Rolled Steel</b>    |
| Shaft Type            | <b>T</b>                           | Overall Length        | <b>15.00 in</b>        |
| Frame Length          | <b>7.81 in</b>                     | Shaft Diameter        | <b>0.875 in</b>        |
| Shaft Extension       | <b>2.25 in</b>                     | Assembly/Box Mounting | <b>F1 ONLY</b>         |
| Outline Drawing       | <b>104585LE-881</b>                | Connection Drawing    | <b>EE7335-LE</b>       |



HIGH VOLTAGE CONNECTIONS

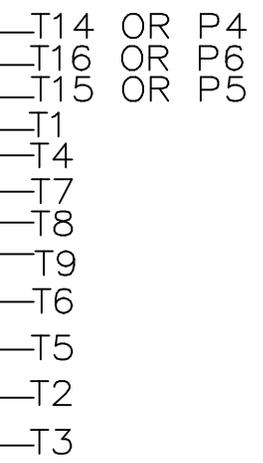
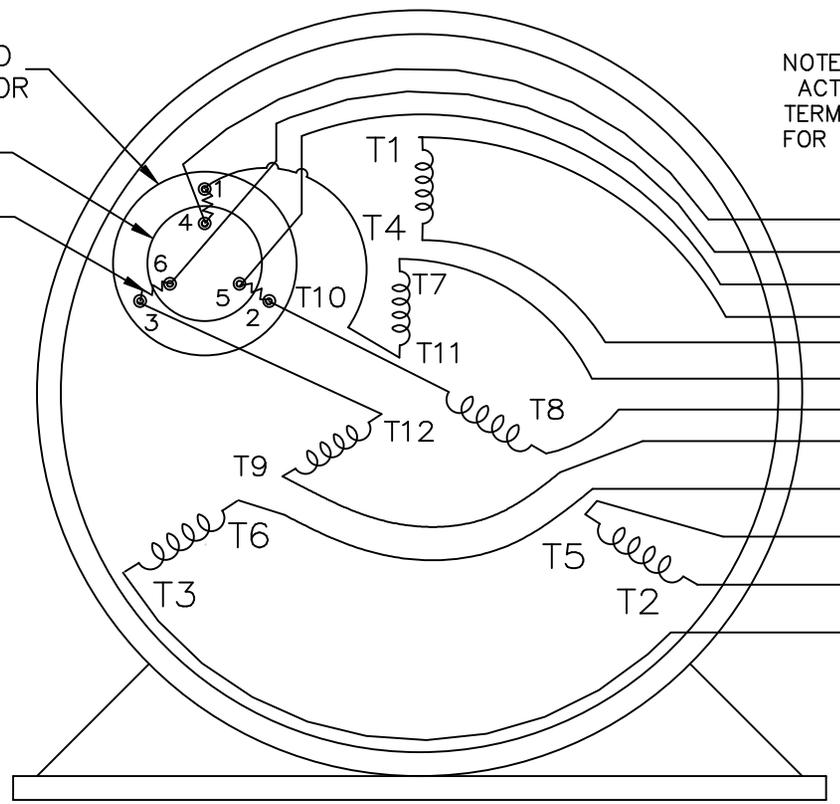


THREE PHASE – DUAL VOLTAGE MOTOR WITH OVERLOAD PROTECTOR

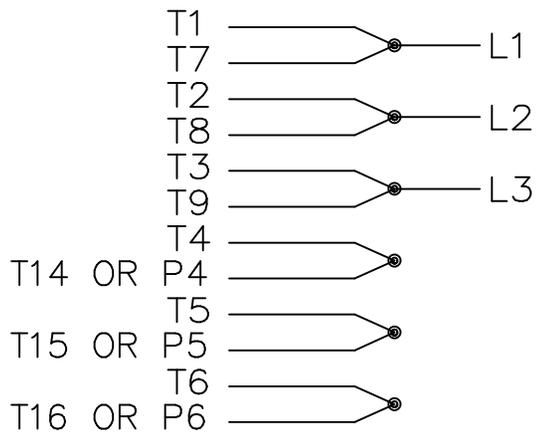


NOTE:  
 ACTUAL PROTECTORS  
 TERMINAL LOCATIONS  
 FOR LEAD CONNECTIONS

OVERLOAD PROTECTOR  
 DISC  
 HEATER



LOW VOLTAGE CONNECTIONS



VIEW OF TERMINAL END

T2K  
 T4D  
 T6AN

|  |          |           |     |                             |            |   |                      |                       |         |      |
|--|----------|-----------|-----|-----------------------------|------------|---|----------------------|-----------------------|---------|------|
|  |          |           |     | TOLERANCES UNLESS SPECIFIED |            | ELECTRIC MOTORS<br>GEARMOTORS<br>AND DRIVES | DRAWN NJS 04-20-2005 |                       |         |      |
|  |          |           |     | DEC.                        | INCHES     |   | CHK ML 04-20-2005    |                       |         |      |
|  |          |           |     | .X                          | ± -        |   | APPD MJS 04-20-2005  |                       |         |      |
|  |          |           |     | .XX                         | ± -        |   | SCALE                |                       |         |      |
|  |          |           |     | .XXX                        | ± -        |   | REF                  |                       |         |      |
|  |          |           |     | .XXXX                       | ± -        | MAT'L.                                      |                      |                       |         |      |
| NO.  | REVISION | BY & DATE | CHK | ANG                         | ± -        | 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                         | 04-20-2005 | CAD FILE EE7335_LE                          | SIZE A               | DRAWING NO. EE7335-LE | PAGE OF | REV. |
|  |          |           |     | DIST                        | WP         |   |                      |                       |         |      |

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DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: EE7335-LE  
 OUTLINE: 104585LE-781  
 WINDING: ZT4256

CAT #: 121915.00

FR 3

**TYPICAL MOTOR PERFORMANCE DATA**

| HP  | KW  | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|-----|-----|----------|--------|-------|-----------|------|----------|--------|
| 1.5 | 1.1 | 1800     | 1755   | 145T  | TEFC      | TFR  | P        | A      |

| PH | HZ    | VOLTS           | AMPS            | START TYPE      | DUTY | INSL | S.F. | AMB | ELEV. |
|----|-------|-----------------|-----------------|-----------------|------|------|------|-----|-------|
| 3  | 60/50 | 230/460#190/380 | 4.6/2.3&4.2/2.1 | ACROSS THE LINE | CONT | B    | 1.15 | 40  | 3300  |

| F.L. EFF | 86.5 | 3/4 LD EFF | 85.5 | 1/2 LD EFF | 82.5 | GTD EFF         | 84.0 | ELECT. TYPE |
|----------|------|------------|------|------------|------|-----------------|------|-------------|
| F.L. PF  | 71.0 | 3/4 LD PF  | 62.5 | 1/2 LD PF  | 49.0 | SQ CAGE IND RUN |      |             |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE     | B.D. TORQUE     | F.L. RISE (°C) |
|-------------|-----------------|-----------------|-----------------|----------------|
| 4.5 LB-FT   | 24.0            | 21.2 LB-FT 471% | 26.0 LB-FT 578% | 35             |

| PRESSURE @ 3 | POWER  | ROTOR WK²   | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|--------|-------------|---------------|-----------------|-------------|-----------|
| 62 dBA       | 71 dBA | 0.14 LB-FT² | 10 LB-FT²     | 20 SEC.         | 2           | 50 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          | 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 | T          | NONE       | NONE        | 1144 STRESSPROOF (C-223) | ROLLED STEEL   |
| BALL     | BALL |            |            |            |             |                          |                |
| 205      | 203  |            |            |            |             |                          |                |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE        | AUTOMATIC  | NONE      | NONE      | NONE        | FALSE   | NA            |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 4.838        | 3.78         | 7.125        | 7.163        | 189.605      | 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                      |  |

|                       |             |  |
|-----------------------|-------------|--|
| DATE: 2/15/2018       | BRAKE: NONE |  |
|                       | NONE        |  |
|                       | NONE        |  |
|                       | NONE        |  |
| FT-LB: NA             |             |  |
| VOLTAGE: NONE         |             |  |
| UL: Y-(LEESON UL REC) |             |  |
| HZ:                   |             |  |

Data Sheet

Date: 2/15/2018

121915.00



Data @ 460 V

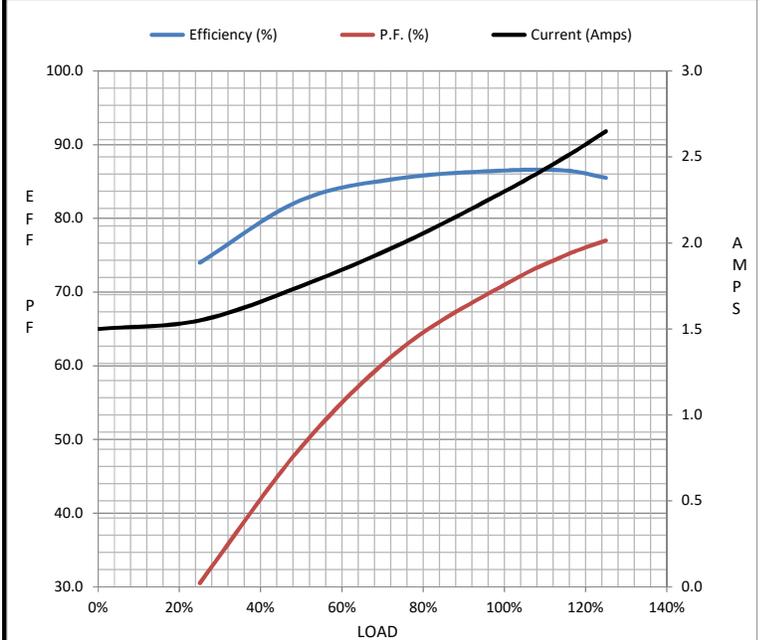
Motor Load Data

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115% | 125% | LR   |
|----------------|------|------|------|------|------|------|------|------|
| Current (Amps) | 1.50 | 1.55 | 1.75 | 2.00 | 2.30 | 2.50 | 2.65 | 24.0 |
| Torque (ft-lb) | 0.00 | 1.10 | 2.20 | 3.5  | 4.5  | 5.2  | 5.7  | 21.2 |
| RPM            | 1800 | 1790 | 1780 | 1765 | 1755 | 1750 | 1745 | 0    |
| Efficiency (%) |      | 74.0 | 82.5 | 85.5 | 86.5 | 86.5 | 85.5 |      |
| P.F. (%)       | 7.5  | 30.5 | 49.0 | 62.5 | 71.0 | 75.0 | 77.0 | 69.5 |

Motor Speed Data

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 130     | 1190 | 1755  | 1800 |
| Current (Amps) | 24.0 | 23.3    | 16.0 | 2.30  | 1.50 |
| Torque (ft-lb) | 21.2 | 20.2    | 26.0 | 4.5   | 0.00 |

| Information Block           |                         |        |        |          |
|-----------------------------|-------------------------|--------|--------|----------|
| HP                          | 1.5                     |        |        |          |
| Sync. RPM                   | 1800                    |        |        |          |
| Frame                       | 145                     |        |        |          |
| Enclosure                   | TEFC                    |        |        |          |
| Construction                | TFR                     |        |        |          |
| Voltage                     | 230/460#190/380 V       |        |        |          |
| Frequency                   | 60 Hz                   |        |        |          |
| Design                      | A                       |        |        |          |
| LR Code letter              | P                       |        |        |          |
| Service Factor              | 1.15                    |        |        |          |
| Temp Rise @ FL              | 35 °C                   |        |        |          |
| Duty                        | CONT                    |        |        |          |
| Ambient                     | 40 °C                   |        |        |          |
| Elevation                   | 1,000 feet              |        |        |          |
| Rotor/Shaft wk <sup>2</sup> | 0.14 Lb-Ft <sup>2</sup> |        |        |          |
| Ref Wdg                     | ZT4256 FR               |        |        |          |
| Sound Pressure @ 1M         | 62 dBA                  |        |        |          |
| VFD Rating                  | NONE                    |        |        |          |
| Outline Dwg                 | 104585LE-781            |        |        |          |
| Conn. Diag                  | EE7335-LE               |        |        |          |
| Additional Specifications:  |                         |        |        |          |
| 0                           |                         |        |        |          |
| 0                           |                         |        |        |          |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |          |
| R1                          | R2                      | X1     | X2     | Xm       |
| 4.8380                      | 3.7800                  | 7.1250 | 7.1630 | 189.6050 |



Speed - Torque Curve

