

# PRODUCT INFORMATION PACKET



Model No: LM20658  
Catalog No: LM20658  
0.75 HP Washdown Motor, 3 phase, 1800 RPM, 230/460 V, 56 Frame, ODP  
Washdown Motors



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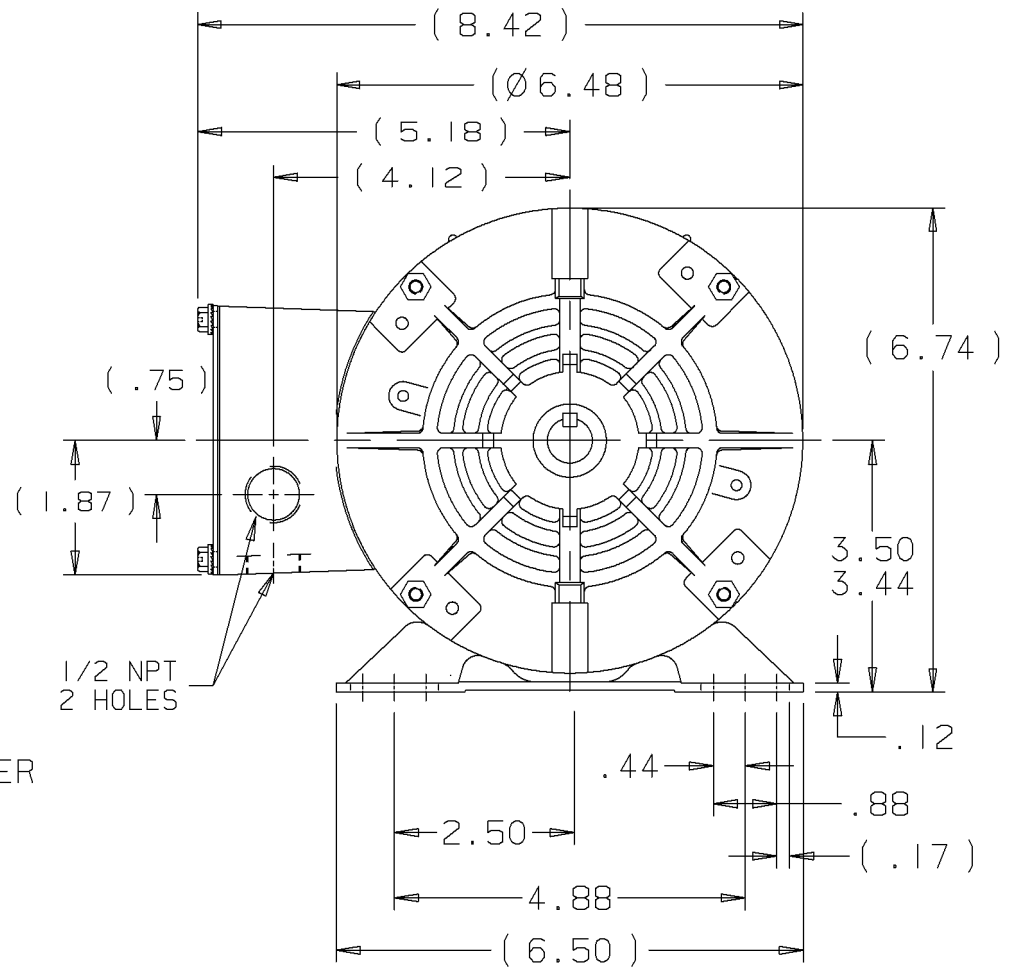
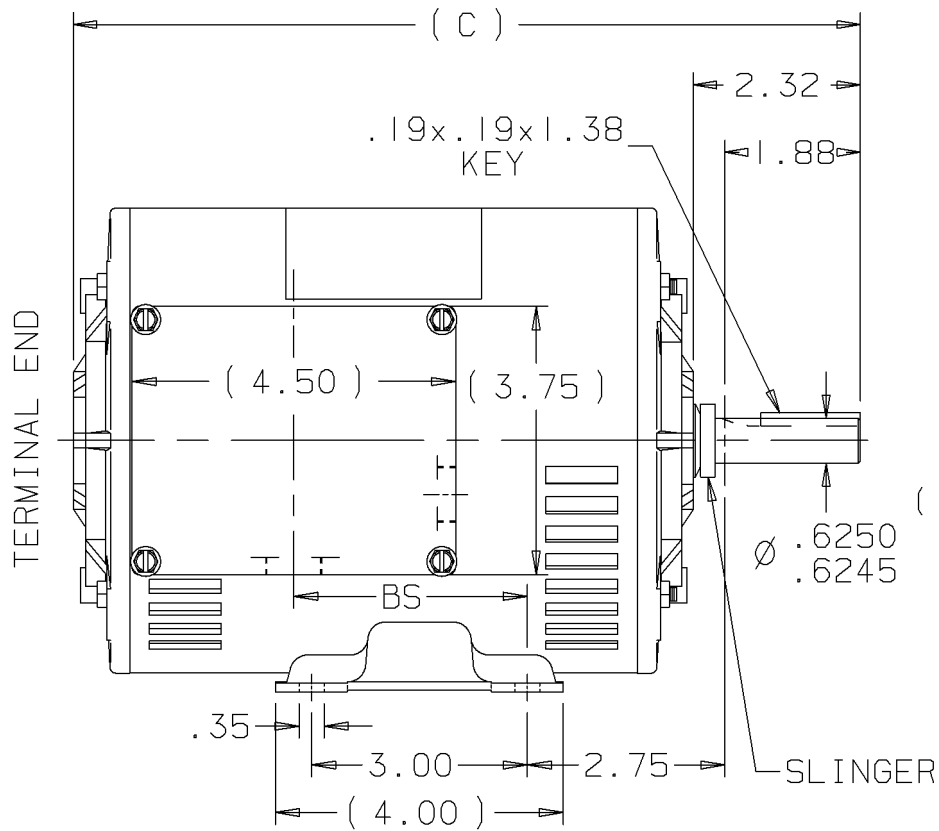
### Nameplate Specifications

|                        |            |                            |            |
|------------------------|------------|----------------------------|------------|
| Output HP              | 0.75 Hp    | Output KW                  | 0.56 kW    |
| Frequency              | 60 Hz      | Voltage                    | 230/460 V  |
| Current                | 3.0/1.5 A  | Speed                      | 1725 rpm   |
| Service Factor         | 1          | Phase                      | 3          |
| Efficiency             | 75.5 %     | Power Factor               | 66.3       |
| Duty                   | Continuous | Insulation Class           | F          |
| Design Code            | B          | KVA Code                   | L          |
| Frame                  | 56         | Enclosure                  | Drip Proof |
| Thermal Protection     | No         | Ambient Temperature        | 40 °C      |
| Drive End Bearing Size | 203        | Opp Drive End Bearing Size | 203        |
| UL                     | Recognized | CSA                        | Y          |
| CE                     | N          | IP Code                    | 22         |
| Number of Speeds       | 1          |                            |            |

### Technical Specifications


|                       |                             |                       |                 |
|-----------------------|-----------------------------|-----------------------|-----------------|
| Electrical Type       | Squirrel Cage Induction Run | Starting Method       | Across The Line |
| Poles                 | 4                           | Rotation              | Reversible      |
| Resistance Main       | 23 Ohms                     | Mounting              | Rigid Base      |
| Motor Orientation     | Horizontal                  | Drive End Bearing     | Ball            |
| Opp Drive End Bearing | Ball                        | Frame Material        | Rolled Steel    |
| Shaft Type            | T                           | Overall Length        | 11.94 in        |
| Frame Length          | 6.56 in                     | Shaft Diameter        | 0.625 in        |
| Shaft Extension       | 1.88 in                     | Assembly/Box Mounting | F1 ONLY         |
| Outline Drawing       | A-105242LN-656              | Connection Drawing    | A-EE7308-LN     |

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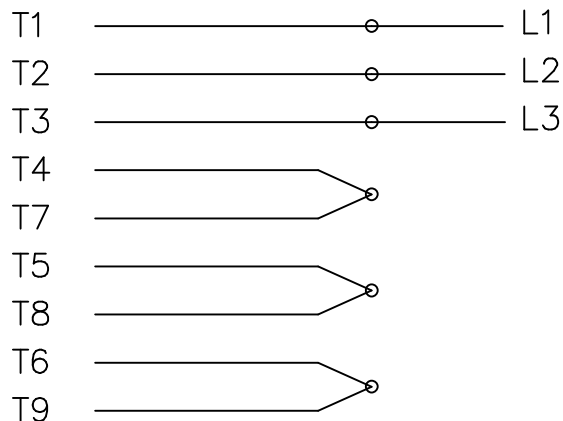
| DASH              | FR.   | C     | BS   | DASH | FR.   | C     | BS   |
|-------------------|-------|-------|------|------|-------|-------|------|
| 11-15-2001<br>656 | 56-70 | 10.44 | 2.75 | 806  | 56-80 | 11.94 | 4.25 |
| 706               | 56-70 | 10.94 | 3.25 | 856  | 56-85 | 12.44 | 4.75 |
| 756               | 56-75 | 11.44 | 3.75 | 906  | 56-90 | 12.94 | 5.25 |

NOTE:  
1. NAMEPLATE READ FROM TERMINAL END OF MOTOR

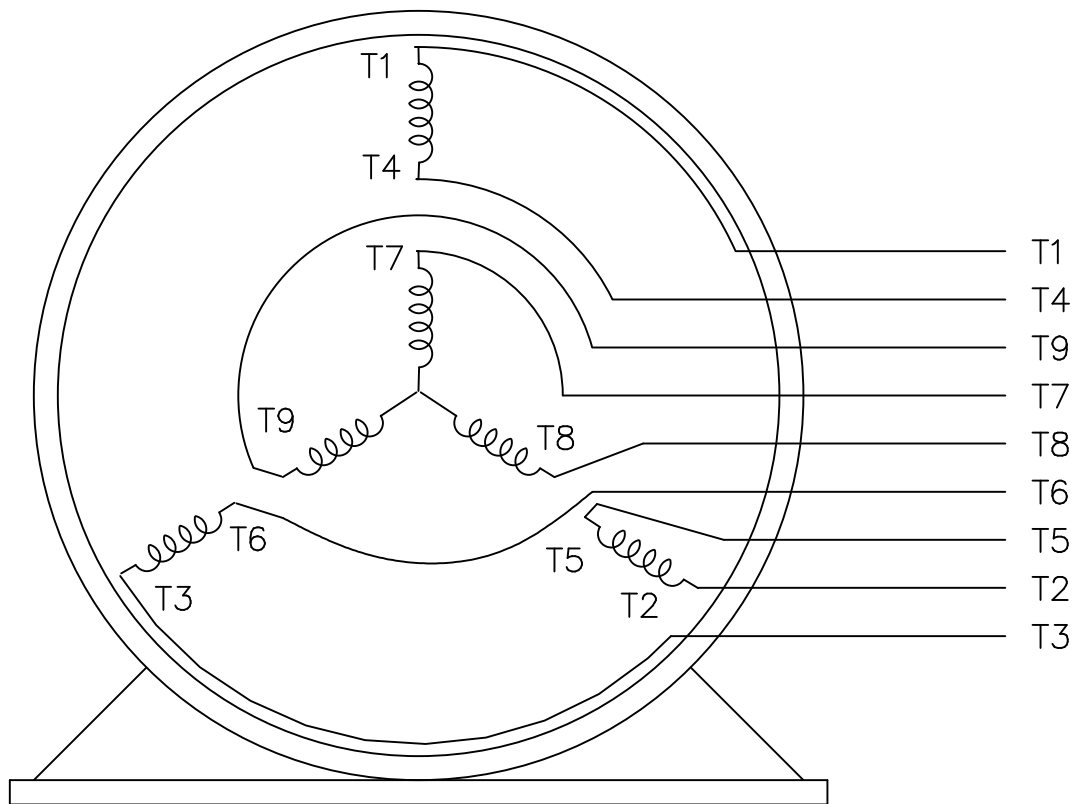
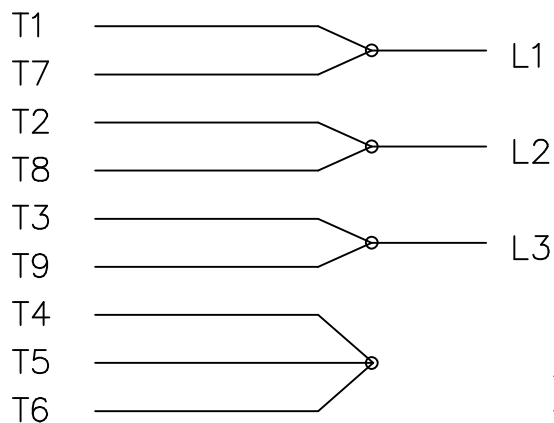
|                      |  |  |  |  |  |  |  |  |  |                         |  |
|----------------------|--|--|--|--|--|--|--|--|--|-------------------------|--|
|                      |  |  |  |  |  |  |  | ✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX±.03    XXX±.005    XXXX±.0005    ANGLES± 7'30" |  |                         |  |
|                      |  |  |  | MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED  |  |  |  | WASHDOWN COND. BOX   |  | DRAWN BY DRS 10-10-2001 |  |
|                      |  |  |  | FINISH   |  |  |  |  |  | CHKD BY ML 10-10-2001   |  |
|                      |  |  |  | MATERIAL   |  |  |  |  |  | APPD BY ET 10-15-2001   |  |
|                      |  |  |  | PART NAME OUTLINE<br>629 FR. - DR.PR. - ENCAPSULATED - 56H                           |  |  |  | DRWG NO<br>A-105242LN  |  |                         |  |
| REV DATE CHANGE NAME |  |  |  | PURCHASED  |  |  |  | CADD FILE NO.  |  | 105242LN                |  |

THREE PHASE  
DUAL VOLTAGE MOTOR

HIGH VOLTAGE



LOW VOLTAGE



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          |      |
|     |  |                |     |                             |                   |                          | ML        | 06/18/1999          |      |
|     |  |                |     |                             |                   |                          | 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                |      |
|     |  |                |     | RFP                         | CAD FILE EE7308LN |                          | SIZE      | DRAWING NO. PAGE OF | REV. |
|     |  |                |     | DIST                        | WP                | A                        | EE7308-LN | 3                   |      |





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

**CERTIFICATION DATA SHEET**

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

**OUTLINE:** A-105242LN-656

CATALOG : LM20658

**WINDING #:** ZT411 EN 3

**MOUNTING:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

| HP  | kW   | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-----|------|-----------|----------|-------|-----------|----------|--------|
| 3/4 | 0.56 | 1800      | 1725     | 56    | DP        | L        | B      |

| PH | Hz | VOLTS   | AMPS  | START TYPE      | DUTY       | INSL | S.F. | AMB°C |
|----|----|---------|-------|-----------------|------------|------|------|-------|
| 3  | 60 | 230/460 | 3/1.5 | ACROSS THE LINE | CONTINUOUS | F3   | 1.0  | 40    |

| FULL LOAD EFF: | 75.5 | 3/4 LOAD EFF: | 74.5 | 1/2 LOAD EFF: | 72   | GTD. EFF |  | ELEC. TYPE      |  |
|----------------|------|---------------|------|---------------|------|----------|--|-----------------|--|
| FULL LOAD PF:  | 66.3 | 3/4 LOAD PF:  | 56   | 1/2 LOAD PF:  | 43.5 | 72       |  | SQ CAGE IND RUN |  |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE     | B.D. TORQUE      | F.L. RISE°C |
|-------------|-------------------|-----------------|------------------|-------------|
| 2.28 LB-FT  | 19.2 / 9.6        | 8.3 LB-FT 364 % | 10.3 LB-FT 452 % | 28          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2   | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|--------------|-----------|-----------------|---------------|-------------------|
| 56 dBA                 | 66 dBA      | 0.05 LB-FT^2 | 5 LB-FT^2 | 15 SEC.         | 2             | 24.5 LBS.         |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT          |
|-----------------|------------------|------------|-------------|-------------|--------------------|------------|---------|----------------|
| STANDARD        | STANDARD         | RIGID      | HORIZONTAL  | FALSE       | NONE               | FALSE      | NONE    | WHITE (POWDER) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL        | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-----------------------|----------------|
| DE       | ODE  |            |            |            |             |                       |                |
| BALL     | BALL | POLYREX EM | T          | NONE       | NONE        | 303 STAINLESS (C-501) | ROLLED STEEL   |
| 203      | 203  |            |            |            |             |                       |                |

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

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| <b>INVERTER TORQUE:</b> NONE   |
| <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>NONE FT-LB NONE V NONE Hz |

Data Sheet

Date: 1/31/2018

LM20658



Data @ 460 V

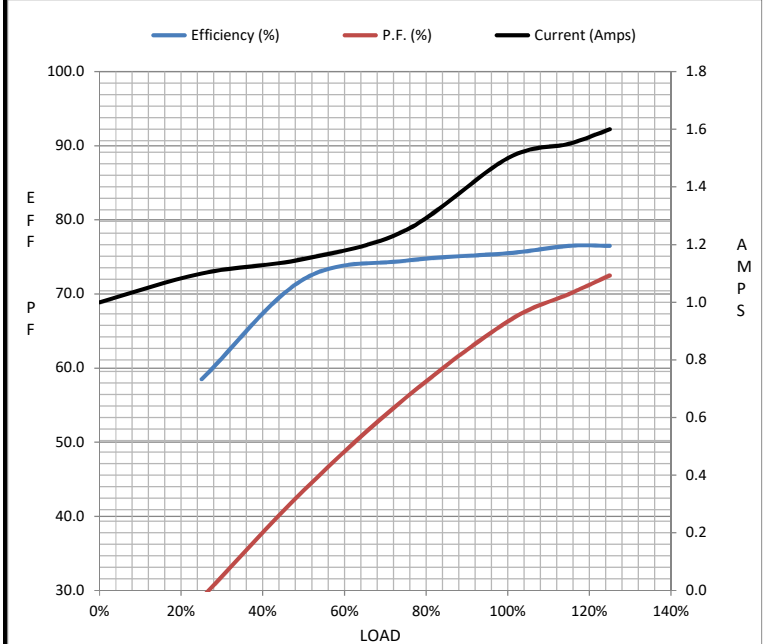
Motor Load Data

| 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 | 9.6  |
| Torque (ft-lb) | 0.00 | 0.56 | 1.10 | 1.70 | 2.28 | 2.70  | 3.0  | 8.3  |
| RPM            | 1800 | 1785 | 1775 | 1750 | 1725 | 1.722 | 1720 | 0    |
| Efficiency (%) |      | 58.5 | 72.0 | 74.5 | 75.5 | 76.5  | 76.5 |      |
| P.F. (%)       | 12.5 | 29.0 | 43.5 | 56.0 | 66.3 | 70.0  | 72.5 | 72.0 |

Motor Speed Data

|                | LR  | Pull-Up | BD   | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM)    | 0   | 600     | 1170 | 1725  | 1800 |
| Current (Amps) | 9.6 | 8.6     | 6.8  | 1.50  | 1.00 |
| Torque (ft-lb) | 8.3 | 9.0     | 10.3 | 2.28  | 0.00 |

| Information Block           |                         |        |        |        |
|-----------------------------|-------------------------|--------|--------|--------|
| HP                          | 0.8                     |        |        |        |
| Sync. RPM                   | 1800                    |        |        |        |
| Frame                       | 56                      |        |        |        |
| Enclosure                   | DP                      |        |        |        |
| Construction                | TDR                     |        |        |        |
| Voltage                     | 230/460 V               |        |        |        |
| Frequency                   | 60 Hz                   |        |        |        |
| Design                      | B                       |        |        |        |
| LR Code letter              | L                       |        |        |        |
| Service Factor              | 1.15                    |        |        |        |
| Temp Rise @ FL              | 28 °C                   |        |        |        |
| Duty                        | CONT                    |        |        |        |
| Ambient                     | 40 °C                   |        |        |        |
| Elevation                   | 1,000 feet              |        |        |        |
| Rotor/Shaft wk <sup>2</sup> | 0.05 Lb-Ft <sup>2</sup> |        |        |        |
| Ref Wdg                     | ZT411 EN                |        |        |        |
| Sound Pressure @ 1M         | 56 dBA                  |        |        |        |
| VFD Rating                  | NONE                    |        |        |        |
| Outline Dwg                 | A-105242LN-656          |        |        |        |
| Conn. Diag                  | A-EE7308-LN             |        |        |        |
| 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

