

PRODUCT INFORMATION PACKET



Model No: LM80146

Catalog No: LM80146

Fire Pump Motor, 125 & 100 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V, 1800 & 1500 RPM, 405T Frame,
DP



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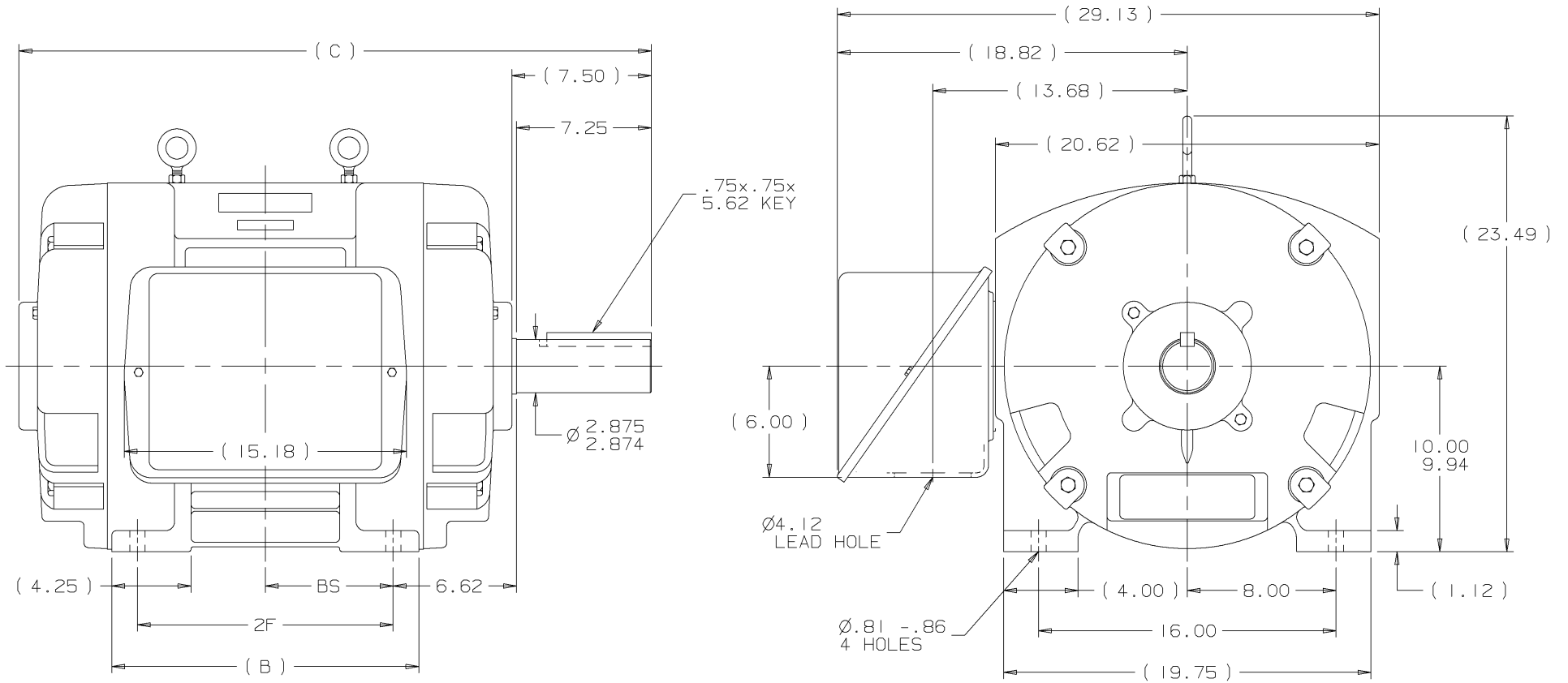


Nameplate Specifications

| | | | |
|------------------------|---------------------|----------------------------|---------------------|
| Phase | 3 | Output HP | 125 & 100 Hp |
| Output KW | 93.0 & 75.0 kW | Voltage | 230/460 & 190/380 V |
| Speed | 1778 & 1480 rpm | Service Factor | 1.15 & 1.15 |
| Frame | 405T | Enclosure | Drip Proof |
| Thermal Protection | No Protection | Efficiency | 94.5 & 93.6 % |
| Ambient Temperature | 40 °C | Frequency | 60 & 50 Hz |
| Current | 288/144 & 282/141 A | Power Factor | 87 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Drive End Bearing Size | 6316 | Opp Drive End Bearing Size | 6313 |
| UL | No | CSA | Y |
| CE | Y | IP Code | 12 |
| Number of Speeds | 1 | | |


Technical Specifications

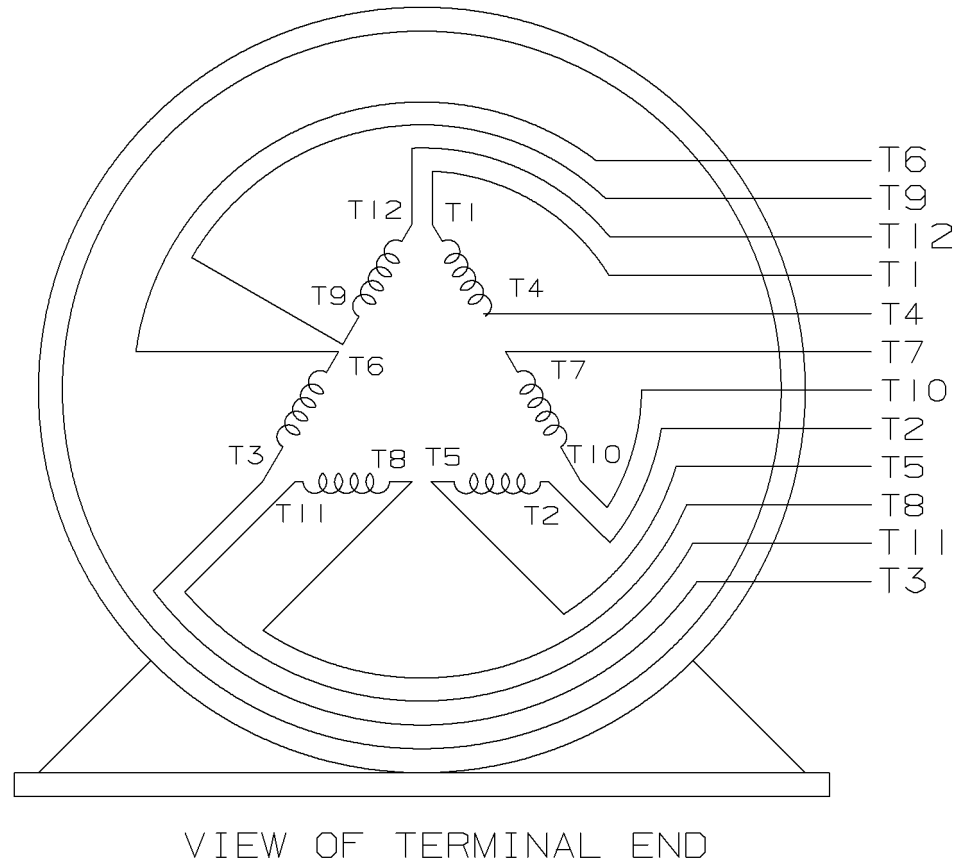
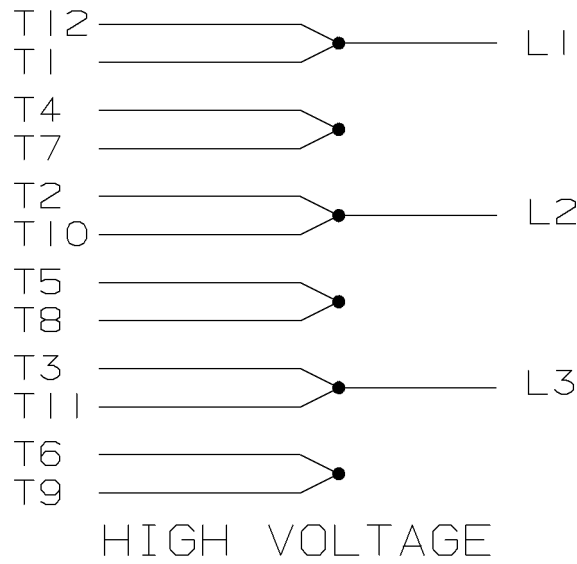
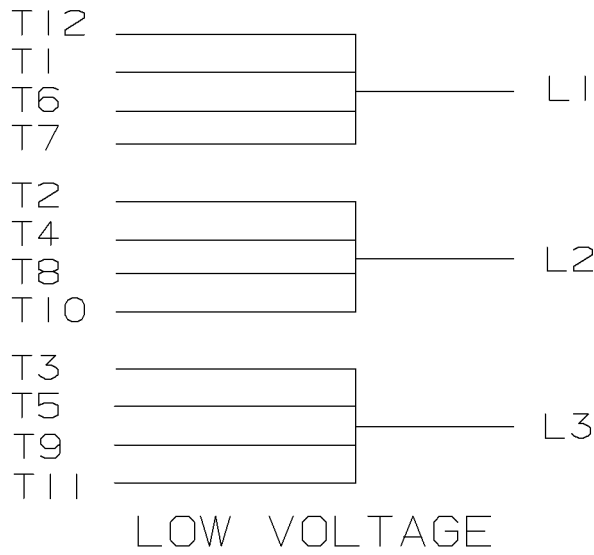
| | | | |
|-----------------------|-----------------------------|-----------------------|--|
| Electrical Type | Squirrel Cage Induction Run | Starting Method | Part Wdg Start Low Volt Only & Wye Start Delta Run |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .045 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 34.00 in |
| Frame Length | 17.00 in | Shaft Diameter | 2.875 in |
| Shaft Extension | 7.25 in | Assembly/Box Mounting | F1/F2 CAPABLE |
| Outline Drawing | B-SS509599LN-1700 | Connection Drawing | A-EE7308AA-LN |



- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| DASH | FRAME | B | C | 2F | BS |
|------|-------|-------|-------|-------|------|
| 1550 | 404T | 15.00 | 32.50 | 12.25 | 6.12 |
| 1700 | 405T | 16.50 | 34.00 | 13.75 | 6.88 |

| | | | | TOLERANCES UNLESS SPECIFIED | |  | DRAWN KL 12-20-2001 | |
|--|--|--|--|---|------------|---|---------------------|------------------------|
| | | | | DEC. | TOLERANCE | | CHK DJK 12-20-2001 | APPD JES 12-20-2001 |
| | | | | .X | ± .1 | TITLE OUTLINE 400T FR. - DR.PR. - STD. | SCALE | |
| | | | | .XX | ± .03 | | REF | |
| | | | | .XXX | ± .005 | | FMF | |
| 1 NEW DRAWING MU40009 | | | | KL | 12-20-2001 | MAT'L. | PREV | |
| NO. REVISION | | | | BY | DATE | FINISH | | |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USE EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS IS AND ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT | | | | PURCHASED | | CAD FILE 55509599LN.GEN | SIZE B | DRAWING NO. SS509599LN |
| | | | | DIST WA - 06 - 08 - 09 - 09 - 09 | | | | |



| | | | | | | | |
|-----|------------|------------------------------------|------|--|---|--------------------------|----------------------------|
| | | | | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7'30" | | |
| 2 | 08-09-1999 | RE-ISSUE, ADDED '-' TO PART NUMBER | BLR | | MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED | | DRAWN BY TRB 07-16-1999 |
| 1 | 06-18-1999 | NEW DRAWING | TRB | FINISH | | CHKD BY ML 06-18-1999 | |
| | | | | MATERIAL | | APPD BY GK 06-18-1999 | |
| REV | DATE | CHANGE | NAME | PART NAME 3 PHASE CONNECTION DIAGRAM 2/1 DELTA - 12 LEADS | | | DRWG NO A- EE7308AA-LN |

PURCHASED

CADD FILE NO.

EE7308AALN

ERROR: undefined
OFFENDING COMMAND: Pscrip

STACK:



CERTIFICATION DATA SHEET

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

CONN. DIAGRAM: A-EE7308AA-LN

OUTLINE: B-SS509599LN-1700

CATALOG # : LM80146

WINDING #: T4054138 1

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | kW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|---------|-----------|-----------|-----------|-------|-----------|----------|--------|
| 125&100 | 93.0&75.0 | 1800 | 1778&1480 | 405T | DP | G | B |

| PH | Hz | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB°C |
|----|-------|-----------------|-----------------|----------------------|------------|------|-----------|-------|
| 3 | 60/50 | 230/460&190/380 | 288/144&282/141 | PWS(LV ONLY) & YDRUN | CONTINUOUS | F1 | 1.15/1.15 | 40 |

| FULL LOAD EFF: | 94.5&93.6 | 3/4 LOAD EFF: | 94.5 | 1/2 LOAD EFF: | 93.6 | GTD. EFF | 93.6 | ELEC. TYPE | SQ CAGE IND RUN |
|----------------|-----------|---------------|------|---------------|------|----------|------|------------|-----------------|
| FULL LOAD PF: | 87&85.5 | 3/4 LOAD PF: | 84.5 | 1/2 LOAD PF: | 78 | 93.6 | | | |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|-----------------|-----------------|-------------|
| 369 LB-FT | 1750 / 875 | 700 LB-FT 190 % | 950 LB-FT 257 % | 55 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|--------------|-----------|-----------------|---------------|-------------------|
| 80 dBA | 90 dBA | 26.5 LB-FT^2 | - LB-FT^2 | 20 SEC. | - | 1150 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 | RED (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 |
| 6316 | 6313 | | | | | | |

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

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|----------------------------------|
| INVERTER TORQUE: NONE |
| INV. HP SPEED RANGE: NONE |
| ENCODER: NONE |
| NONE NONE |
| NONE NONE PPR |
| BRAKE: NONE NONE |
| NONE P/N NONE |
| NONE NONE |
| FT-LB NONE V NONE Hz |

Data Sheet

Date: 1/18/2018

LM80146



Data @ 460 V

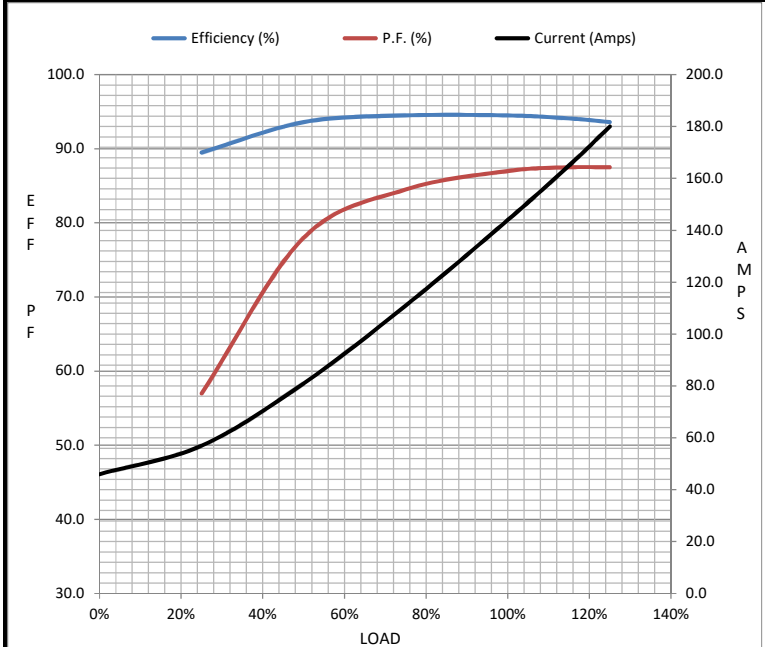
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 46.0 | 57.0 | 81.0 | 111 | 144 | 165 | 180 | 875 |
| Torque (ft-lb) | 0.00 | 91.5 | 183 | 276 | 369 | 425 | 463 | 700 |
| RPM | 1800 | 1795 | 1788 | 1782 | 1778 | 1.772 | 1768 | 0 |
| Efficiency (%) | | 89.5 | 93.6 | 94.5 | 94.5 | 94.1 | 93.6 | |
| P.F. (%) | 6.0 | 57.0 | 78.0 | 84.5 | 87.0 | 87.5 | 87.5 | 35.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1715 | 1778 | 1800 |
| Current (Amps) | 875 | 800 | 500 | 144 | 46.0 |
| Torque (ft-lb) | 700 | 650 | 950 | 369 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 125.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 405 | | | |
| Enclosure | DP | | | |
| Construction | TDS | | | |
| Voltage | 230/460#190/380 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 55 °C | | | |
| Duty | CONT | | | |
| Ambient | 40 °C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 26.5 Lb-Ft ² | | | |
| Ref Wdg | T4054138 NONE | | | |
| Sound Pressure @ 1M | 80 dBA | | | |
| VFD Rating | NONE | | | |
| Outline Dwg | B-SS509599LN-1700 | | | |
| Conn. Diag | A-EE7308AA-LN | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0320 | 0.0220 | 0.1880 | 0.2130 | 5.1480 |



Speed - Torque Curve

