

PRODUCT INFORMATION PACKET



Model No: LM20044
Catalog No: LM20044
100 HP Special Voltage Motor, 3 phase, 1800 RPM, 575 V, 405TC Frame, TEFC
Special Voltage Motors



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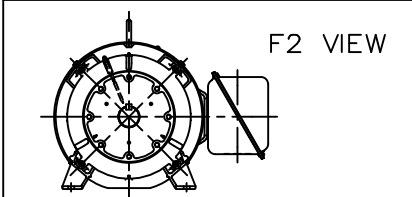
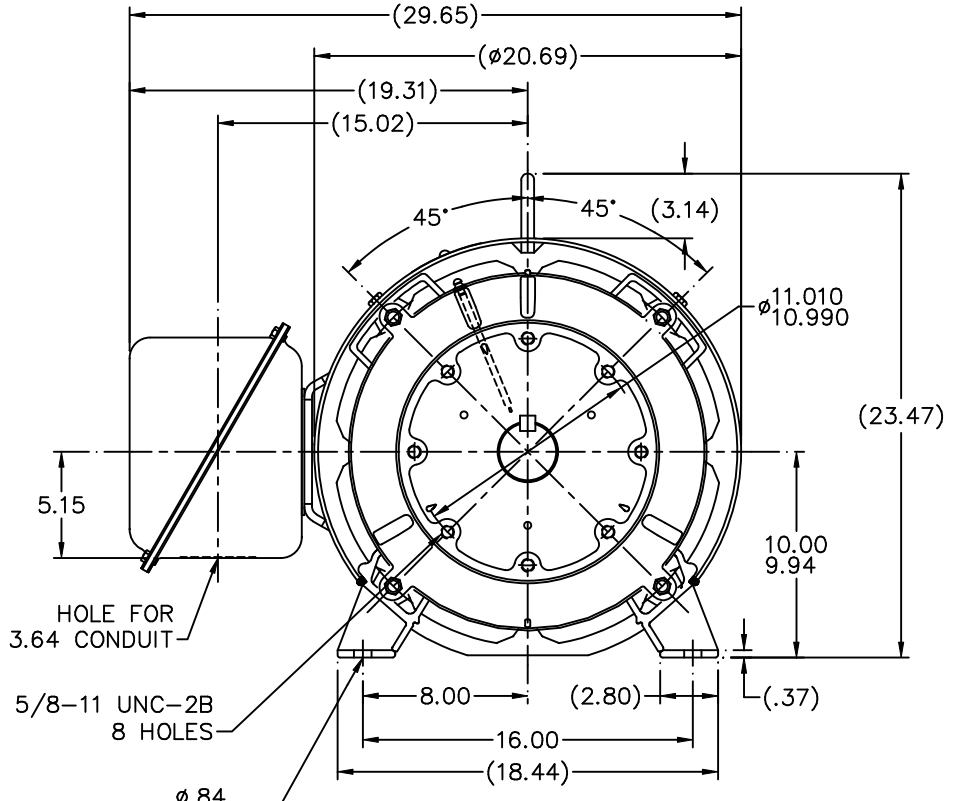
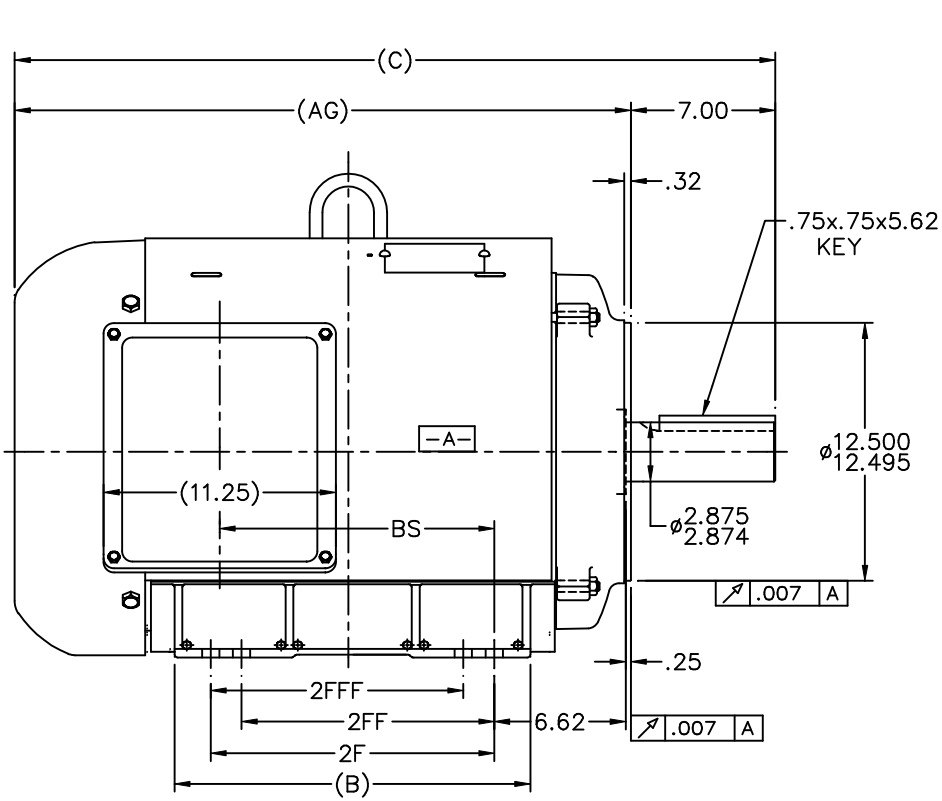
Nameplate Specifications

| | | | |
|------------------------|-------------------|----------------------------|------------------------------------|
| Output HP | 100 Hp | Output KW | 74.6 kW |
| Frequency | 60 Hz | Voltage | 575 V |
| Current | 97.5 A | Speed | 1785 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 95.4 % | Power Factor | 80.5 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Frame | 405TC | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 315 | Opp Drive End Bearing Size | 313 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 43 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------------|-----------------------|----------------------------|
| Electrical Type | Squirrel Cage Induction Run | Starting Method | Wye Start Delta Run |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .042 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 | 36.87 in |
| Frame Length | 20.19 in | Shaft Diameter | 2.875 in |
| Shaft Extension | 7.32 in | Assembly/Box Mounting | F1/F2 CAPABLE |
| Connection Drawing | A-EE7340-LN | Outline Drawing | XJ2F1SC1-1946 |

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- NOTES:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

| | | | | | | | | | TOLERANCES UNLESS SPECIFIED | | Lincoln MOTOR | | DRAWN DRS 10-30-2001 | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-------------------------------------|--------------------------|-------------------|----------------------|----------------|--------------------------|------|-----|------|--|
| | | | | | | | | | DEC. | INCHES | | | CHK | ML | 10-30-2001 | | | | |
| | | | | | | | | | .X | ±.1 | | | APPD | HNH 10-30-2001 | | | | | |
| | | | | | | | | | .XX | ±.03 | TITLE | | SCALE | 1=6 | | | | | |
| | | | | | | | | | .XXX | ±.005 | OUTLINE | | REF | | | | | | |
| | | | | | | | | | .XXXX | ±.0005 | 400TC-TEFC-UEI-DE C'FACE | | FMF | | | | | | |
| | | | | | | | | | CHK | ANG | FINISH | | PREV | | | | | | |
| | | | | | | | | | RFP | ±7'30" | | CAD FILE XJ2F1SC1 | | SIZE | DRAWING NO. | PAGE | OF | REV. | |
| | | | | | | | | | DIST | BY | | B | XJ2F1SC1 | | 2 | | | | |
| DASH | FRAME | C | AG | B | 2F | 2FF | 2FFF | BS | 2 | MOVED "BS" DIM. TO CORRECT LOCATION | RJW 07-26-2007 | ML | .XXX | ±.005 | 400TC-TEFC-UEI-DE C'FACE | | REF | | |
| 1796 | 404TC | 35.37 | 28.37 | 15.75 | 12.25 | --- | --- | 11.81 | 1 | NEW DRAWING MU39382 | DRS 11-07-2001 | | .XXXX | ±.0005 | MATL | | FMF | | |
| 1946 | 405TC | 36.87 | 29.87 | 17.25 | 13.75 | 12.25 | 12.25 | 13.31 | NO. REVISION BY & DATE | | | | | | | | | 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 XJ2F1SC1 | | SIZE | DRAWING NO. | PAGE | OF | REV. | |
| | | | | | | | | | | DIST BY | | B | XJ2F1SC1 | | 2 | | | | |

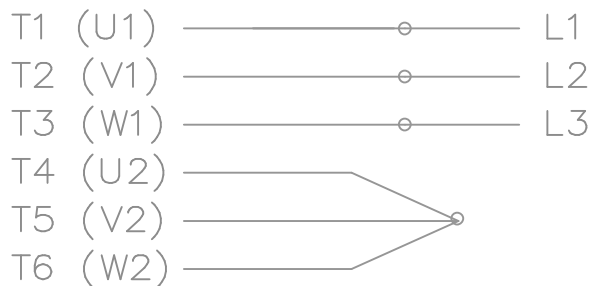
```
ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--
```

```
STACK:
```

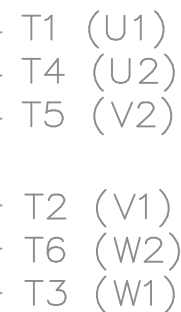
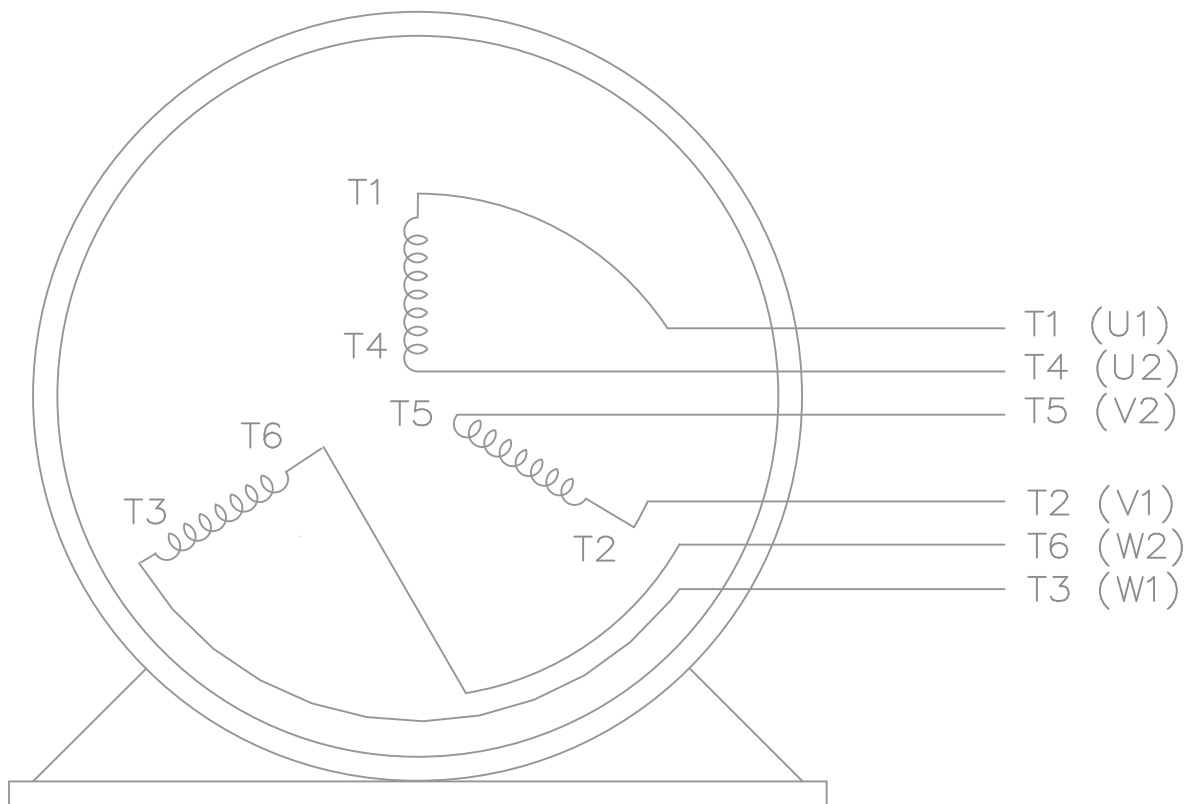
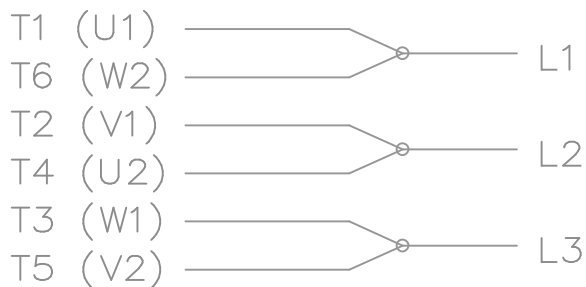
```
/initialize  
-dictionary-  
/Pscript_WinNT_Compat  
-dictionary-
```

THREE PHASE – Y START
Δ RUN MOTOR

START




RUN



VIEW OF TERMINAL END

NOTE:
IEC LEAD MARKINGS ARE NOTED
IN PARENTHESES

T6CK
T6BM
T4CC
T2DL
T4C

| | | | | TOLERANCES UNLESS SPECIFIED | |  | DRAWN BLR 10-04-1999 | | |
|--|---------------------------------------|----------------|-----|--------------------------------|--------------------|---|----------------------|---------------------|------|
| | | | | DEC. | INCHES | | CHK DRS 10-04-1999 | | |
| | | | | .X | ±.1 | | APPD TB 10-04-1999 | | |
| 3 | REVISED TO MATCH M.E. ORIGINAL | TAT 07-25-2005 | ML | .XX | ±.02 | TITLE CONNECTION DIAGRAM 3Ø – WYE START DELTA RUN | SCALE 1=1 | | |
| 2 | REVISED DRAWING MISTAKE CN 29200-2980 | ERH 05-15-2003 | ML | .XXX | ±.005 | | REF | | |
| 1 | NEW DRAWING | BLR 10-09-1999 | | .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 | CAD FILE ee7340_In | | SIZE | DRAWING NO. PAGE OF | REV. |
| | | | | DIST | WA-LB-SB | | A | EE7340-LN | 3 |



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7340-LN
OUTLINE: XJ2F1SC1-1946
WINDING: L4054027

CAT #: LM20044

NONE 2

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|-----|----|----------|--------|-------|-----------|------|----------|--------|
| 100 | 75 | 1800 | 1785 | 405TC | TEFC | TFR | G | BC |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|-------|------|---------------------|------|------|------|-----|-------|
| 3 | 60 | 575 | 97.5 | VVE START DELTA RUN | CONT | F | 1.15 | 40 | 3300 |

| F.L. EFF | 95.4 | 3/4 LD EFF | 95.4 | 1/2 LD EFF | 95.0 | GTD EFF | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|-----------------|
| F.L. PF | 80.5 | 3/4 LD PF | 76.0 | 1/2 LD PF | 66.0 | 94.1 | SQ CAGE IND RUN |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (° C) |
|-------------|-----------------|----------------|----------------|-----------------|
| 294 LB-FT | 580 | 650 LB-FT 221% | 750 LB-FT 255% | 65 |

| PRESSURE @ 3 | SOUND | POWER | ROTOR WK² | MAX. LOAD WK² | SAFE STALL TIME | STARTS/HOUR | MOTOR WGT |
|--------------|----------|-------|-------------|---------------|-----------------|-------------|-----------|
| 999 dBA | 1008 dBA | | 23.0 LB-FT² | 0 LB-FT² | 0 SEC. | 0 | 0 LB. |

***** SUPPLEMENTAL INFORMATION *****

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|-----------|
| C-FACE | STANDARD | RIGID | HORIZONTAL | NO | NONE | NO | NONE | WATTSAVER |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE | ODE | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | ROLLED STEEL |
| BALL | BALL | | | | | | |
| 315 | 313 | | | | | | |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE | 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 |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.049 | 0.031 | 0.355 | 0.382 | 8.343 | 0.150 | ODE |

| | | | | | | |
|---------------------------------|--|--|--|--|--|--|
| * N O T E S * | INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE | | | | | |
| | ENCODER: NONE NONE NONE PPR | | | | | |
| | BRAKE: NONE NONE NONE | | | | | |
| | FT-LB: NA VOLTAGE: NONE HZ: | | | | | |
| | UL: V-INS, CONST UL REC | | | | | |

DATE: 9/5/2018

Data Sheet

Date: 9/5/2018

LM20044



Data @ **575 V**

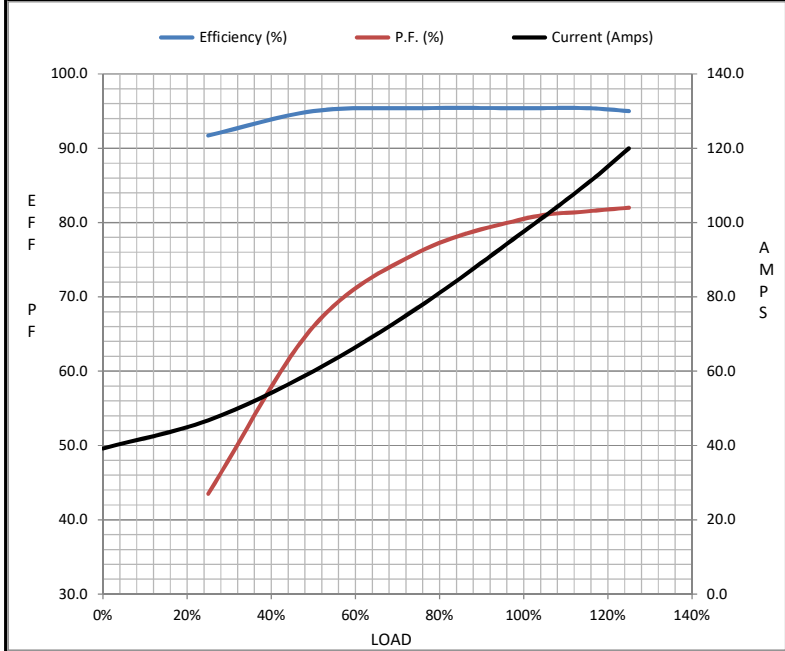
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 39.2 | 46.8 | 60.0 | 77.2 | 97.6 | 110 | 120 | 580 |
| Torque (ft-lb) | 0.00 | 73.0 | 147 | 220 | 294 | 339 | 369 | 650 |
| RPM | 1800 | 1795 | 1792 | 1788 | 1785 | 1,782 | 1780 | 0 |
| Efficiency (%) | | 91.7 | 95.0 | 95.4 | 95.4 | 95.4 | 95.0 | |
| P.F. (%) | 3.0 | 43.5 | 66.0 | 76.0 | 80.5 | 81.5 | 82.0 | 32.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1700 | 1785 | 1800 |
| Current (Amps) | 580 | 520 | 380 | 97.6 | 39.2 |
| Torque (ft-lb) | 650 | 585 | 750 | 294 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 100.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 405 | | | |
| Enclosure | TEFC | | | |
| Construction | TFR | | | |
| Voltage | 575 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 65 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 23.0 Lb-Ft ² | | | |
| Ref Wdg | L4054027 NONE | | | |
| Sound Pressure @ 1M | 999 dBA | | | |
| VFD Rating | NONE | | | |
| Outline Dwg | XJ2F1SC1-1946 | | | |
| Conn. Diag | A-EE7340-LN | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0490 | 0.0310 | 0.3550 | 0.3820 | 8.3430 |



Speed - Torque Curve

