

# PRODUCT INFORMATION PACKET



Model No: LM24711  
Catalog No: LM24711  
1.50 HP General Purpose Motor, 1 phase, 1800 RPM, 115/208-230 V, 145T Frame, TEFC  
General Purpose Motors



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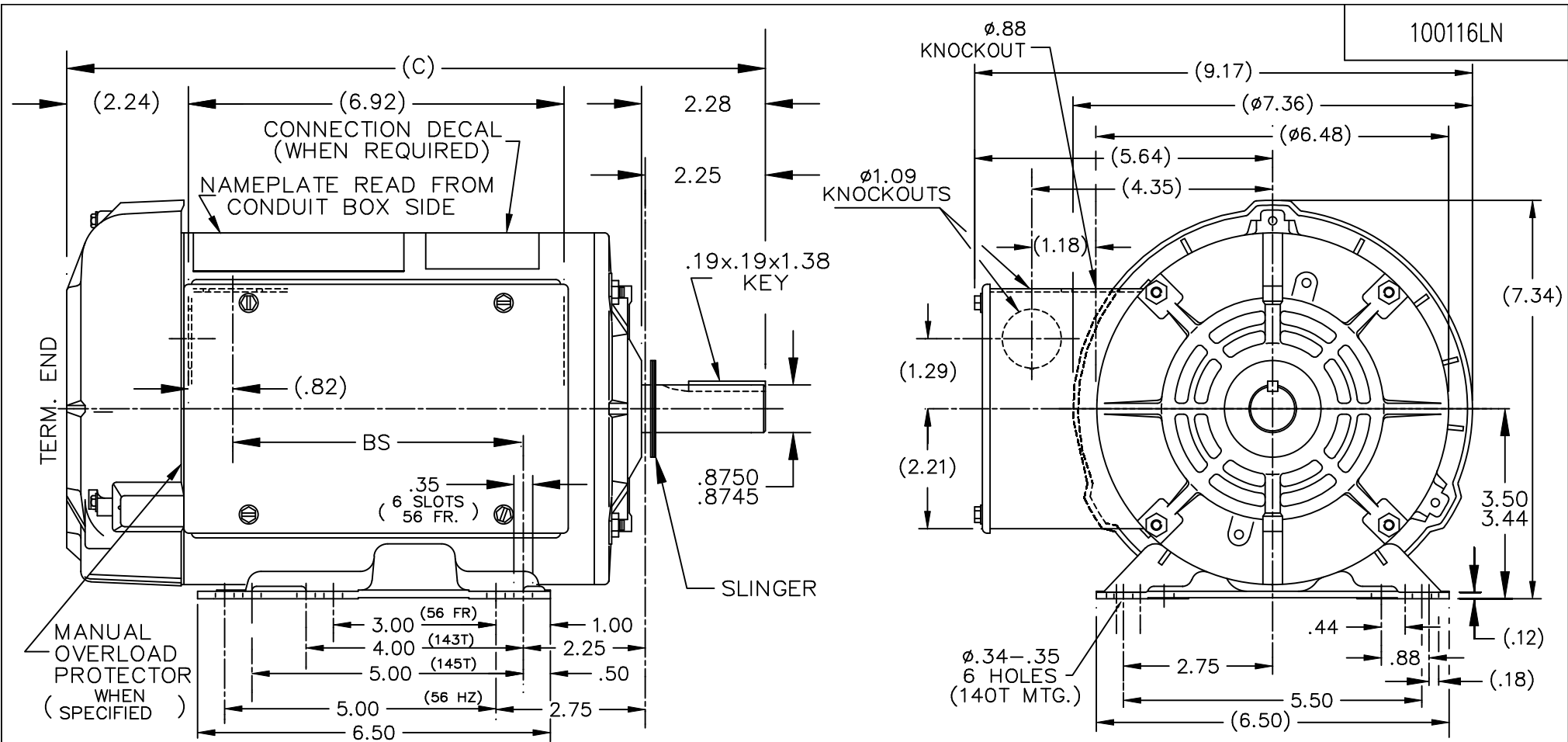


### Nameplate Specifications


|                        |                |                            |                             |
|------------------------|----------------|----------------------------|-----------------------------|
| Output HP              | 1.50 Hp        | Output KW                  | 1.1 kW                      |
| Frequency              | 60 Hz          | Voltage                    | 115/208-230 V               |
| Current                | 15.2/8.2-7.6 A | Speed                      | 1740 rpm                    |
| Service Factor         | 1.15           | Phase                      | 1                           |
| Efficiency             | 80 %           | Power Factor               | 80                          |
| Duty                   | Continuous     | Insulation Class           | B                           |
| Design Code            | L              | KVA Code                   | J                           |
| Frame                  | 145T           | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection     | No             | Ambient Temperature        | 40 °C                       |
| Drive End Bearing Size | 205            | Opp Drive End Bearing Size | 203                         |
| UL                     | Recognized     | CSA                        | Y                           |
| CE                     | N              | IP Code                    | 43                          |
| Number of Speeds       | 1              |                            |                             |

### Technical Specifications

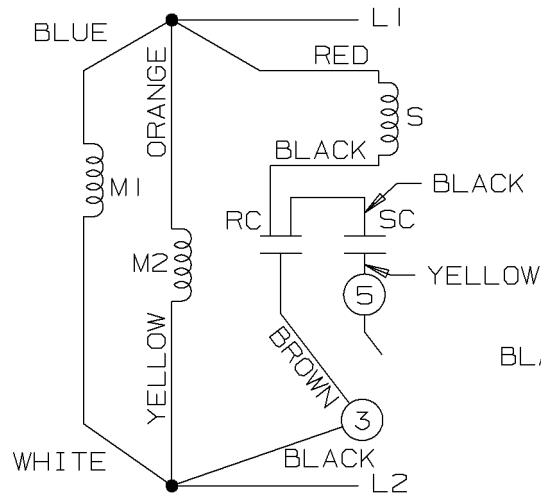
|                       |                               |                       |                            |
|-----------------------|-------------------------------|-----------------------|----------------------------|
| Electrical Type       | Capacitor Start Capacitor Run | Starting Method       | Across The Line            |
| Poles                 | 4                             | Rotation              | Selective Counterclockwise |
| Resistance Main       | 0 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        | 13.87 in                   |
| Frame Length          | 8.56 in                       | Shaft Diameter        | 0.875 in                   |
| Shaft Extension       | 2.25 in                       | Assembly/Box Mounting | F1 ONLY                    |
| Outline Drawing       | 100116LN-856                  | Connection Drawing    | 102006-51-LN               |



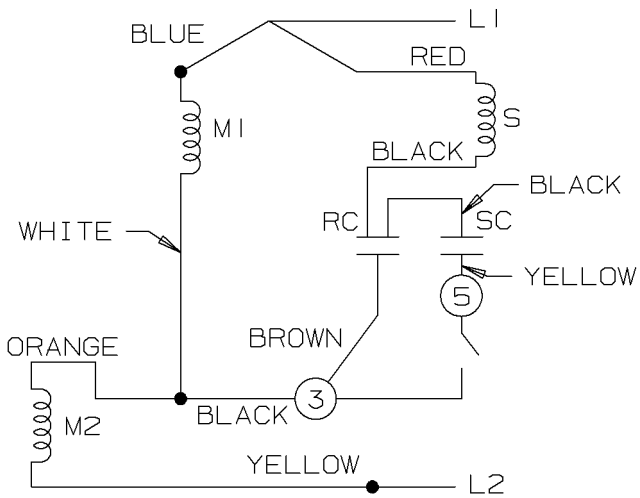
| DASH | FR.       | C     | BS   |  | DASH | FR.       | C     | BS   |  |
|------|-----------|-------|------|--|------|-----------|-------|------|--|
|      |           |       |      |  | 806  | 140T/56HZ | 13.37 | 5.82 |  |
|      |           |       |      |  | 856  | "         | 13.87 | 6.32 |  |
|      |           |       |      |  | 906  | "         | 14.37 | 6.82 |  |
| 756  | 140T/56HZ | 12.87 | 5.32 |  | 956  | "         | 14.87 | 7.32 |  |

|                                                                                                                                                                                                                                  |                        |                |     | TOLERANCES UNLESS SPECIFIED |        |  | DRAWN TJB 11-24-1999 |             |            |              |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|-----|-----------------------------|--------|---------------------------------------------------------------------------------------|----------------------|-------------|------------|--------------|------|
|                                                                                                                                                                                                                                  |                        |                |     | DEC.                        | INCHES |                                                                                       | CHK                  | ML          | 11-29-1999 |              |      |
|                                                                                                                                                                                                                                  |                        |                |     | .X                          | ±.1    |                                                                                       | APPD                 | GK          | 11-29-1999 | SCALE 1=2.75 |      |
| 2                                                                                                                                                                                                                                | ADDED CONNECTION DECAL | NJS 04-07-2003 | SAS | .XXX                        | ±.005  | TITLE OUTLINE<br>140 FR. 56 HZ - TEFC 1Ø - BB                                         | REF                  |             |            |              |      |
| 1                                                                                                                                                                                                                                | NEW DRAWING            | TJB 11-29-1999 |     | .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 100116LN                                                                     | SIZE                 | DRAWING NO. | PAGE       | OF           | REV. |
|                                                                                                                                                                                                                                  |                        |                |     | DIST                        | WP     |                                                                                       | A                    | 100116LN    |            |              | 2    |

LOW VOLTAGE C.C.W.

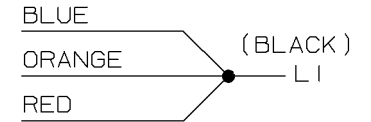


HIGH VOLTAGE C.C.W.

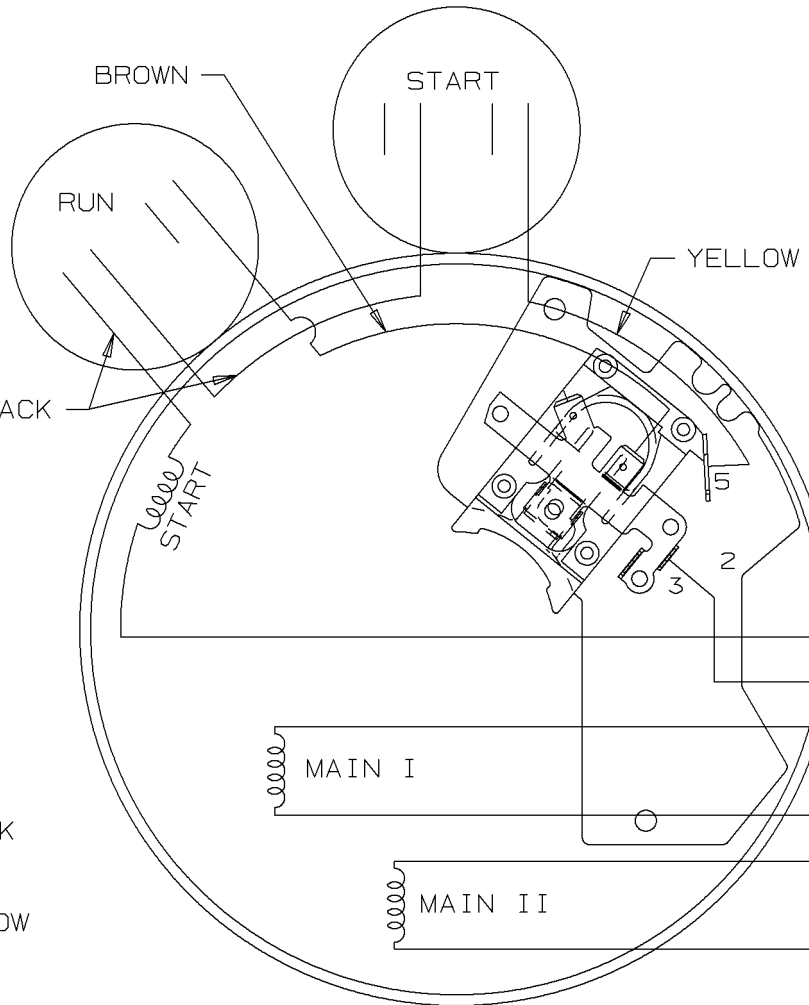
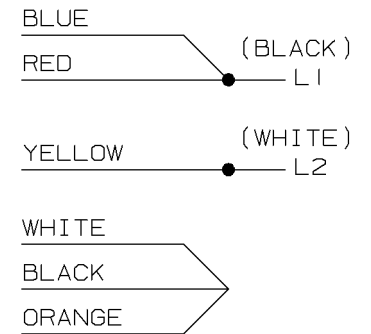


DUAL VOLTAGE CAPACITOR  
START-CAP RUN NO OVERLOAD  
SELECT ROTATION

LOW VOLTAGE C.C.W. ROTATION



HIGH VOLTAGE C.C.W. ROTATION



FOR C.W. ROTATION,  
EITHER VOLTAGE,  
INTERCHANGE RED WITH  
BLACK LEAD

|     |            |             |      |                              |                                                                                                        |                                                  |                                                   |
|-----|------------|-------------|------|------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------------------|
|     |            |             |      |                              | ✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX± XXX±.005 XXXX±.0005 ANGLES± 7'30" |                                                  |                                                   |
|     |            |             |      |                              |                                                                                                        | MAX. SURFACE ROUGHNESS<br>UNLESS OTHERWISE NOTED | DRAWN BY BLR 09-29-1999<br>CHKD BY DRS 09-29-1999 |
| 1   | 09-29-1999 | NEW DRAWING | BLR  |                              | MATERIAL                                                                                               | APPD BY GK 09-29-1999                            |                                                   |
| REV | DATE       | CHANGE      | NAME | PART NAME CONNECTION DIAGRAM |                                                                                                        | DRWG NO A-102006-51-LN                           |                                                   |

PURCHASED

CADD FILE NO.

102006-51-LN



**CERTIFICATION DATA SHEET**

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

**CONN. DIAGRAM:** 102006-51-LN

**CATALOG #:** LM24711

**OUTLINE:** A-100116LN-856

**WINDING #:** ZB406 3

**MOUNTING:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

| HP    | kW   | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-------|------|-----------|----------|-------|-----------|----------|--------|
| 1 1/2 | 1.12 | 1800      | 1740     | 145T  | TEFC      | J        | L      |

| PH | Hz | VOLTS       | AMPS         | START TYPE      | DUTY       | INSL | S.F. | AMB°C |
|----|----|-------------|--------------|-----------------|------------|------|------|-------|
| 1  | 60 | 115/208-230 | 15.2/8.2-7.6 | ACROSS THE LINE | CONTINUOUS | B3   | 1.15 | 40    |

| FULL LOAD EFF: | 80 | 3/4 LOAD EFF: | 80.5 | 1/2 LOAD EFF: | 76.1 | GTD. EFF | ELEC. TYPE        |
|----------------|----|---------------|------|---------------|------|----------|-------------------|
| FULL LOAD PF:  | 80 | 3/4 LOAD PF:  | 71.2 | 1/2 LOAD PF:  | 61   | 77       | CAP START CAP RUN |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE      | B.D. TORQUE      | F.L. RISE°C |
|-------------|-------------------|------------------|------------------|-------------|
| 4.51 LB-FT  | 107.6 / 53.8      | 14.8 LB-FT 328 % | 12.4 LB-FT 275 % | 70          |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|------------|-----------|-----------------|---------------|-------------------|
| 0 dBA                  | 10 dBA      | 0 LB-FT^2  | 0 LB-FT^2 | 0 SEC.          | 0             | 42 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    | GRAY (POWDER) |

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL           | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE       | ODE  |            |            |            |             |                          |                |
| BALL     | BALL | POLYREX EM | T          | NONE       | NONE        | 1144 STRESSPROOF (C-223) | ROLLED STEEL   |
| 205      | 203  |            |            |            |             |                          |                |

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

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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 |



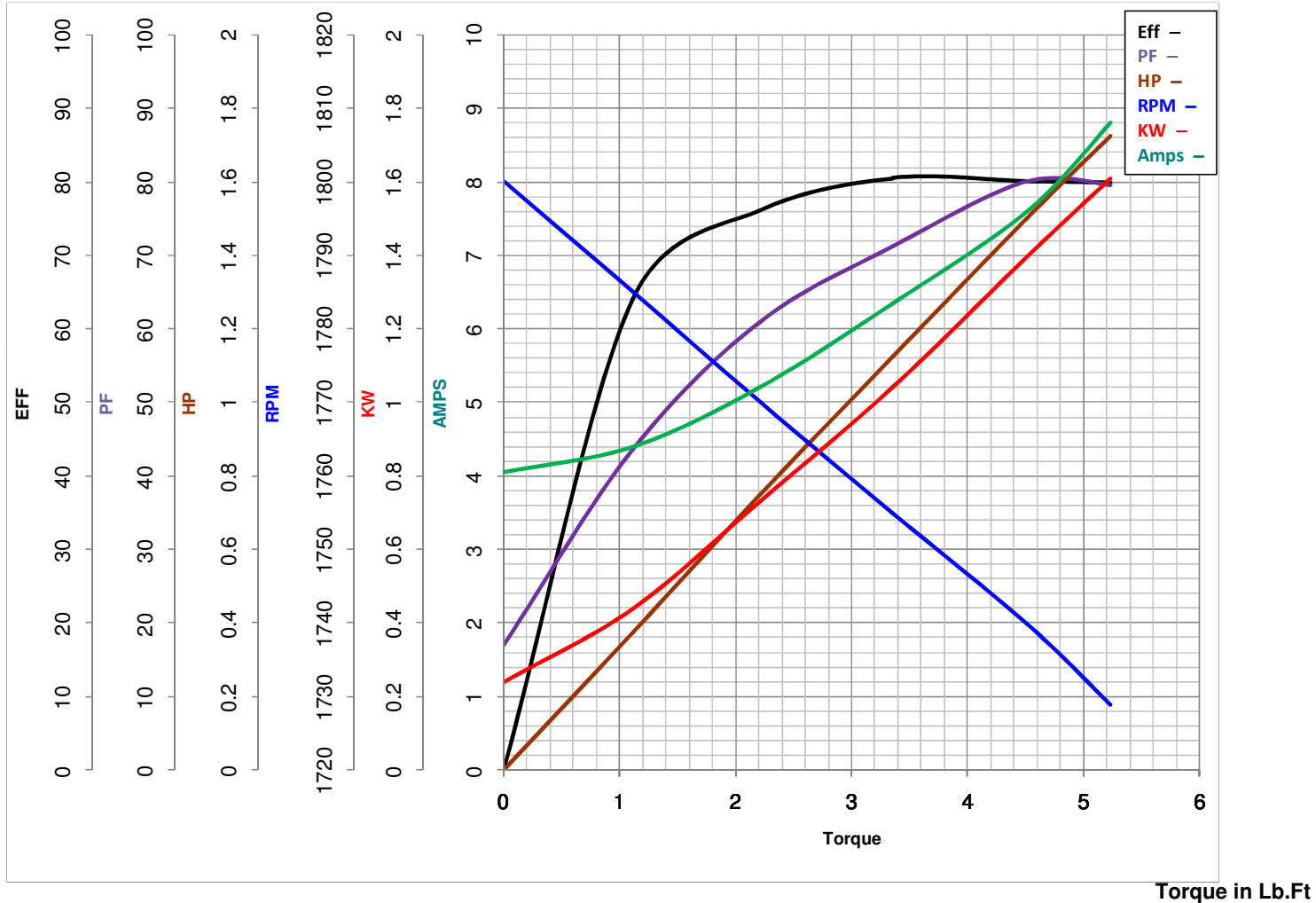
**LEESON ELECTRIC CORPORATION**  
 TYPICAL PERFORMANCE CURVE for AC MOTOR

Model No LM24711

Curve at 230 Volts HP 1.50 PHASE 1  
60 HZ  
1.5 HP VOLTS 115/208-230

Catalog No LM24711AD

HZ 60 RPM 1740



|                  |                |              |                  |                          |
|------------------|----------------|--------------|------------------|--------------------------|
| <b>FL TORQUE</b> | <u>4.51</u>    | <b>Lb.Ft</b> | <b>FL AMPS</b>   | <u>15.2/8.2-7.6</u>      |
| <b>BD TORQUE</b> | <u>12.4</u>    | <b>Lb.Ft</b> | <b>PU TORQUE</b> | <u>12.6</u> <b>Lb.Ft</b> |
| <b>LR TORQUE</b> | <u>14.8</u>    | <b>Lb.Ft</b> | <b>LR AMPS</b>   | <u>53.8</u>              |
| <b>WINDING</b>   | <u>ZB406-3</u> |              | <b>Date</b>      | <u>4/16/2018</u>         |