

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Modal No: 145TCDR5331  
Catalog No: I146  
1-1/2,1800,DP,145T,1/60/115/208-230  
Open Drip Proof (ODP)



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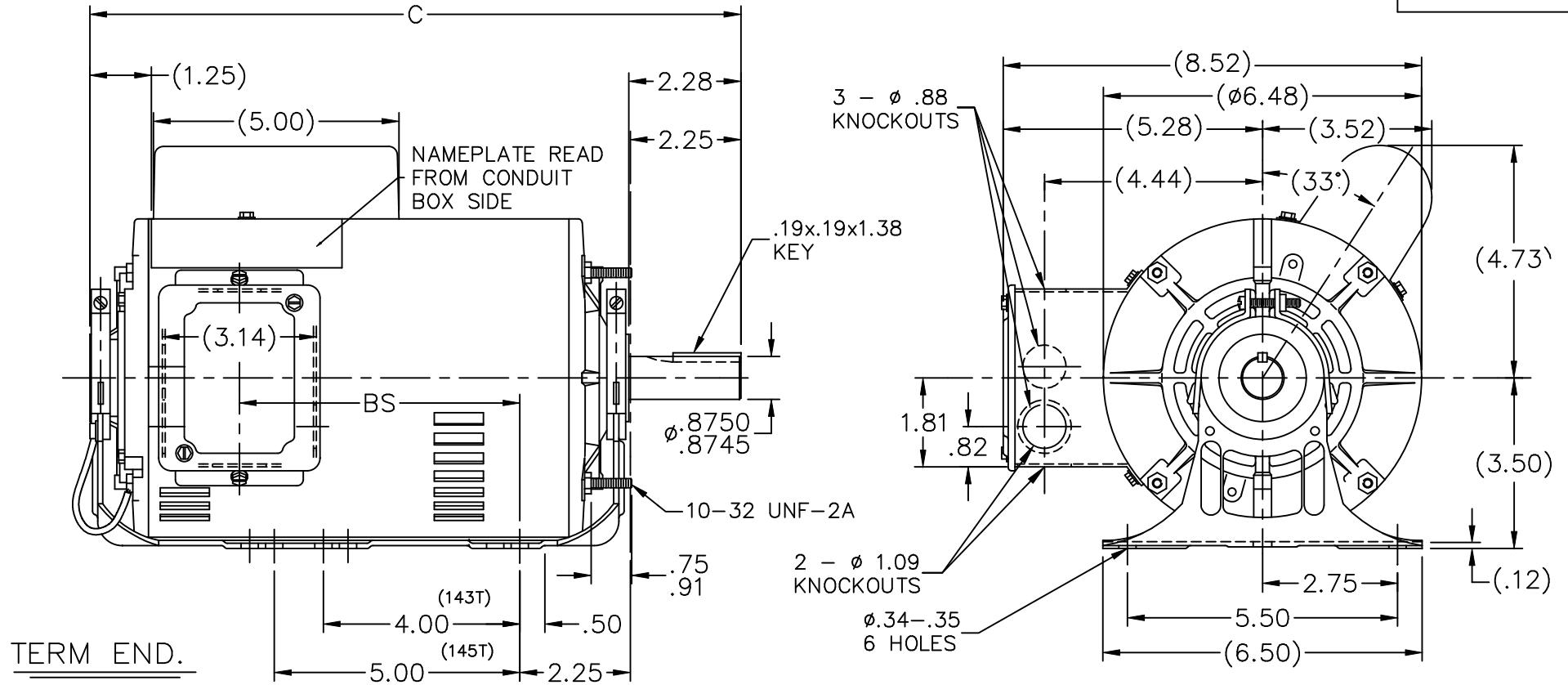
**REGAL**

**Nameplate Specifications**

|                            |            |                        |               |
|----------------------------|------------|------------------------|---------------|
| Output HP                  | 1.5 Hp     | Output KW              | 1.12 kW       |
| Frequency                  | 60 Hz      | Voltage                | 115/208-230 V |
| Current                    | 18/9.3-9 A | Speed                  | 1725 rpm      |
| Service Factor             | 1.15       | Phases                 | 1             |
| Efficiency                 | 77 %       | Duty                   | CONTINUOUS    |
| Insulation Class           | B          | Design Code            | L             |
| KVA Code                   | J          | Frame                  | 145T          |
| Enclosure                  | DP         | Overload Protector     | NOT           |
| Ambient Temperature        | 40 °C      | Drive End Bearing Size | 6205          |
| Opp Drive End Bearing Size | 6203       | UL                     | Recognized    |
| CSA                        | Y          | CE                     | Y             |
| IP Code                    | 22         |                        |               |

**Technical Specifications**

|                       |                   |                       |                 |
|-----------------------|-------------------|-----------------------|-----------------|
| Electrical Type       | CAP START IND RUN | Starting Method       | ACROSS THE LINE |
| Poles                 | 4                 | Rotation              | SELECTIVE CCW   |
| Mounting              | RESILIENT BASE    | Motor Orientation     | HORIZONTAL      |
| Drive End Bearing     | BALL              | Opp Drive End Bearing | BALL            |
| Frame Material        | ROLLED STEEL      | Shaft Type            | T               |
| Overall Length        | 13.22 in          | Frame Length          | 8.56 in         |
| Shaft Diameter        | 0.88 in           | Shaft Extension       | 2.28 in         |
| Assembly/Box Mounting | F1 ONLY           |                       |                 |



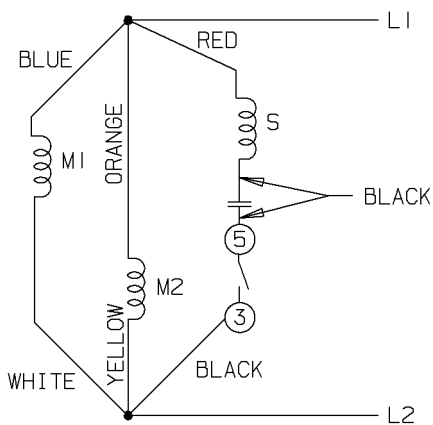
| DASH | FR.  | C     | BS   |
|------|------|-------|------|
| 856  | 140T | 13.22 | 5.68 |
|      |      |       |      |
|      |      |       |      |
|      |      |       |      |

NOTE:

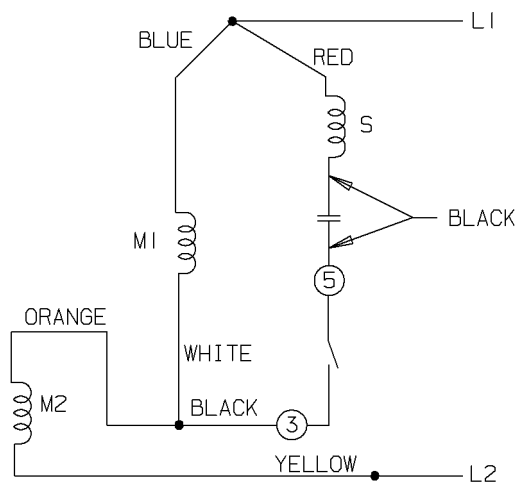
1. CONDUIT BOX CAN BE ROTATED 180°
2. MOTOR MUST BE ROTATED TO .75" STRIP SOCKET CLEARANCE FOR GROUND SCREW, MAXIMUM (10 DEGREES).

|                                                                                                                                                                                                                                        |                     |                |         |                                |        |                                                                                                                          |                     |                       |            |           |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|---------|--------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|------------|-----------|--|--|
|                                                                                                                                                                                                                                        |                     |                |         | TOLERANCES<br>UNLESS SPECIFIED |        |  <b>MARATHON</b><br><b>ELECTRIC</b> | DRAWN KL 11-09-1993 |                       |            |           |  |  |
|                                                                                                                                                                                                                                        |                     |                |         | DEC.                           | INCHES |                                                                                                                          | CHK ML 11-12-1993   |                       |            |           |  |  |
| 4                                                                                                                                                                                                                                      | UPDATED DRAWING     | RJW 03-28-2007 |         | .X                             | ±.1    | TITLE OUTLINE<br>140T FR.-56HZ.-1Ø-DR.PR.-RESIL. BASE                                                                    | APPD MT 11-22-1993  | SCALE 5=16            |            |           |  |  |
| 3                                                                                                                                                                                                                                      | REDRAWN IN AUTOCAD  | TAT 09-01-2004 | ML      | .XX                            | ±.03   |                                                                                                                          | REF                 |                       |            |           |  |  |
| 2                                                                                                                                                                                                                                      | ADDED NOTE CN 24378 | PGK 06-10-1997 |         | .XXX                           | ±.005  |                                                                                                                          | FMF                 |                       |            |           |  |  |
| 1                                                                                                                                                                                                                                      | NEW DRAWING 4077938 | KL 11-22-1993  |         | .XXXX                          | ±.0005 |                                                                                                                          | PREV                |                       |            |           |  |  |
| NO.                                                                                                                                                                                                                                    | REVISION            | BY & DATE      | CHK     | ANG                            | ±7'30" | FINISH                                                                                                                   |                     |                       |            |           |  |  |
| THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT<br>IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED<br>THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT |                     |                | RFP     |                                |        | CAD FILE 100836                                                                                                          | SIZE<br>A           | DRAWING NO.<br>100836 | PAGE<br>OF | REV.<br>4 |  |  |
|                                                                                                                                                                                                                                        |                     |                | DIST WP |                                |        |                                                                                                                          |                     |                       |            |           |  |  |

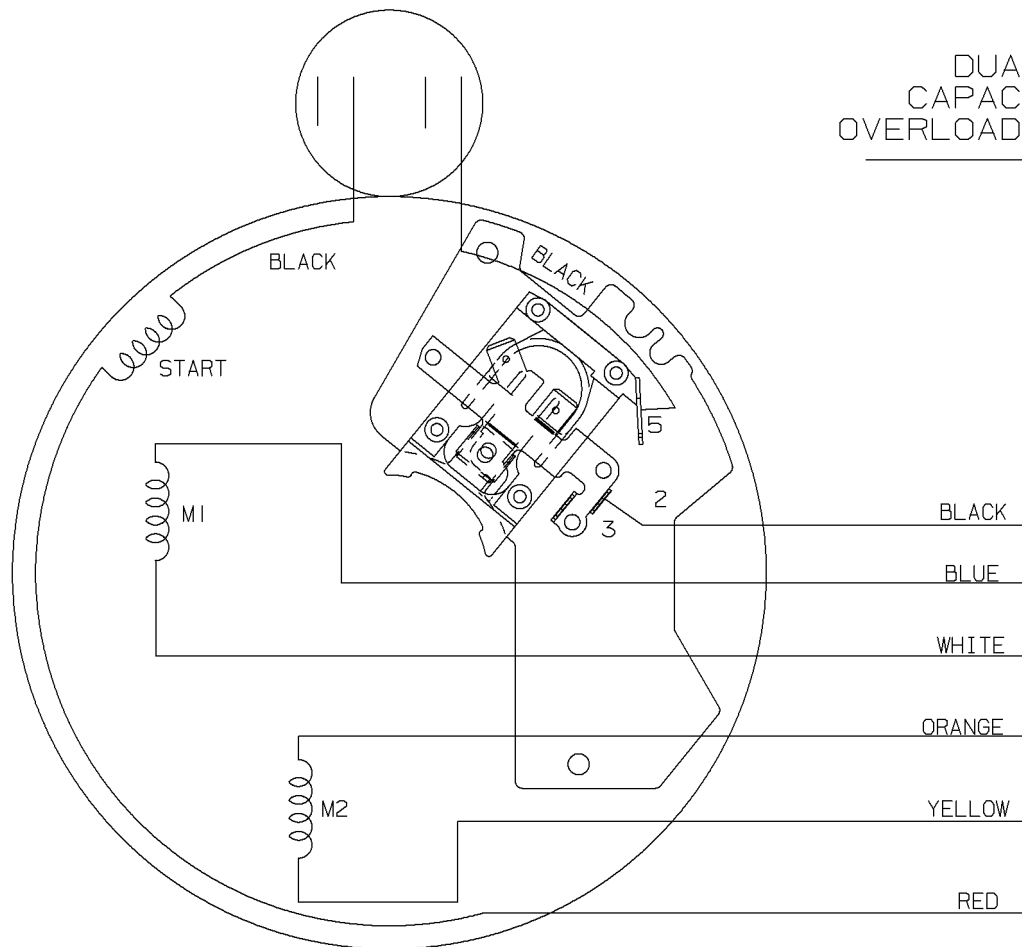
LOW VOLTAGE - C.C.W.



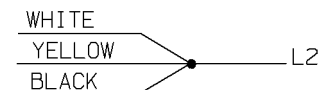
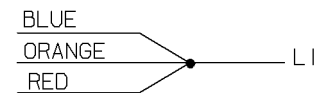
HIGH VOLTAGE - C.C.W.



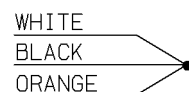
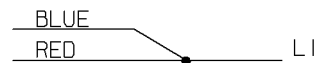
DUAL VOLTAGE  
CAPACITOR START NO  
OVERLOAD SELECT ROTATION



LOW VOLT. - C.C.W. ROT.



HIGH VOLT. - C.C.W. ROT.



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

|     |            |         |      |                                                       |                                                                                                                                      |  |  |              |                        |  |
|-----|------------|---------|------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------|------------------------|--|
|     |            |         |      | ✓<br>MAX. SURFACE ROUGHNESS<br>UNLESS NOTED OTHERWISE | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX±                   XXX±.005           XXXX±.0005           ANGLES± |  |  |              |                        |  |
|     |            |         |      | MATL SPEC                                             |                                                                                                                                      |  |  | DRAWN BY CAV | 06-18-1999             |  |
|     |            |         |      | FINISH                                                |                                                 |  |  | CHKD BY ML   | 06-18-1999             |  |
| 5   | 06-17-1999 | REDRAWN | CAV  | REFERENCE DRW.                                        | WAUSAU, WISCONSIN 54401                                                                                                              |  |  | APPD BY GK   | 06-18-1999             |  |
|     |            |         |      | PART NAME      CONNECTION DIAGRAM                     |                                                                                                                                      |  |  |              | DRWG NO<br>A-102005-51 |  |
| REV | DATE       | CHANGE  | NAME |                                                       |                                                                                                                                      |  |  |              |                        |  |

SHOP BOOK

PURCHASED

DISTRIBUTION - WA - LB - WP - LM - BR

CADD FILE NO.

102005-51

ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--

STACK:

/p2e

-savelevel-

## CERTIFICATION DATA SHEET

Model#: 145TCDR5331 AE WINDING#: ZC408 NONE 3  
 CONN. DIAGRAM: 102005-51 ASSEMBLY: F1 ONLY  
 OUTLINE: A-100836-856

## TYPICAL MOTOR PERFORMANCE DATA

| HP    | KW   | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|-------|------|-----------|----------|-------|-----------|----------|--------|
| 1 1/2 | 1.12 | 1800      | 1725     | 145T  | DP        | J        | L      |

| PH | Hz | VOLTS       | FL AMPS  | START TYPE      | DUTY       | INSL | S.F  | AMB°C | ELEVATION |
|----|----|-------------|----------|-----------------|------------|------|------|-------|-----------|
| 1  | 60 | 115/208-230 | 18/9.3-9 | ACROSS THE LINE | CONTINUOUS | B3   | 1.15 | 40    | 3300      |

|                    |                  |                    |          |                   |              |
|--------------------|------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD EFF: 77  | 3/4 LOAD EFF: 73 | 1/2 LOAD EFF: 68.5 | GTD. EFF | ELEC. TYPE        | NO LOAD AMPS |
| FULL LOAD PF: 71.3 | 3/4 LOAD PF: 66  | 1/2 LOAD PF: 54.5  | 0        | CAP START IND RUN | 10.8 / 5.4   |

|             |                   |                |                |             |
|-------------|-------------------|----------------|----------------|-------------|
| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
| 4.5 LB-FT   | 100 / 50          | 13.6 LB-FT 302 | 11.1 LB-FT 246 | 60          |

|                        |             |            |           |                 |              |                   |
|------------------------|-------------|------------|-----------|-----------------|--------------|-------------------|
| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
| - dBA                  | - dBA       | 0 LB-FT^2  | - LB-FT^2 | - SEC.          | -            | 0 LBS.            |

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

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

| BEARINGS |      | GREASE     | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL           | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE       | OPE  |            |            |            |             |                          |                |
| BALL     | BALL |            |            |            |             |                          |                |
| 6205     | 6203 | POLYREX EM | T          | NONE       | NONE        | 1144 STRESSPROOF (C-223) | ROLLED STEEL   |

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

If Inverter equals NONE, contact factory for further information

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N  
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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                 |
| NONE FT-LB NONE V NONE Hz |