

# PRODUCT INFORMATION PACKET

Model No: 145TTDR6133

Catalog No: U424A

XRI® General Purpose General Purpose Motor, 2 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 145T Frame, DP



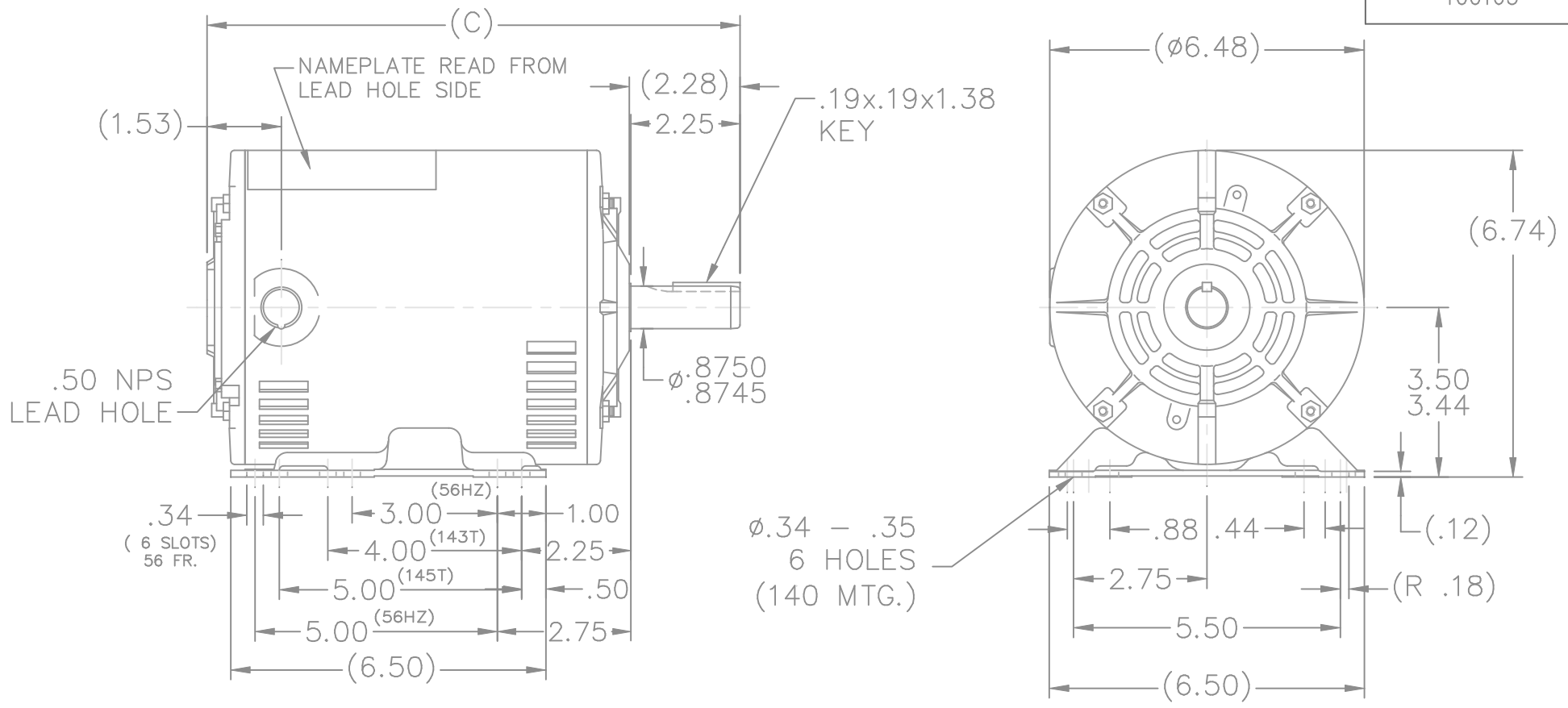
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### Nameplate Specifications

|                        |                   |                            |                   |
|------------------------|-------------------|----------------------------|-------------------|
| Output HP              | <b>2 Hp</b>       | Output KW                  | <b>1.5 kW</b>     |
| Frequency              | <b>60 Hz</b>      | Voltage                    | <b>230/460 V</b>  |
| Current                | <b>6.0/3.0 A</b>  | Speed                      | <b>1750 rpm</b>   |
| Service Factor         | <b>1.15</b>       | Phase                      | <b>3</b>          |
| Efficiency             | <b>86.5 %</b>     | Power Factor               | <b>74.5</b>       |
| Duty                   | <b>Continuous</b> | Insulation Class           | <b>B</b>          |
| Design Code            | <b>B</b>          | KVA Code                   | <b>N</b>          |
| Frame                  | <b>145T</b>       | Enclosure                  | <b>Drip Proof</b> |
| Thermal Protection     | <b>Automatic</b>  | Ambient Temperature        | <b>40 °C</b>      |
| Drive End Bearing Size | <b>6205</b>       | Opp Drive End Bearing Size | <b>6203</b>       |
| UL                     | <b>Recognized</b> | CSA                        | <b>Y</b>          |
| CE                     | <b>Y</b>          | IP Code                    | <b>22</b>         |
| Number of Speeds       | <b>1</b>          |                            |                   |

### Technical Specifications

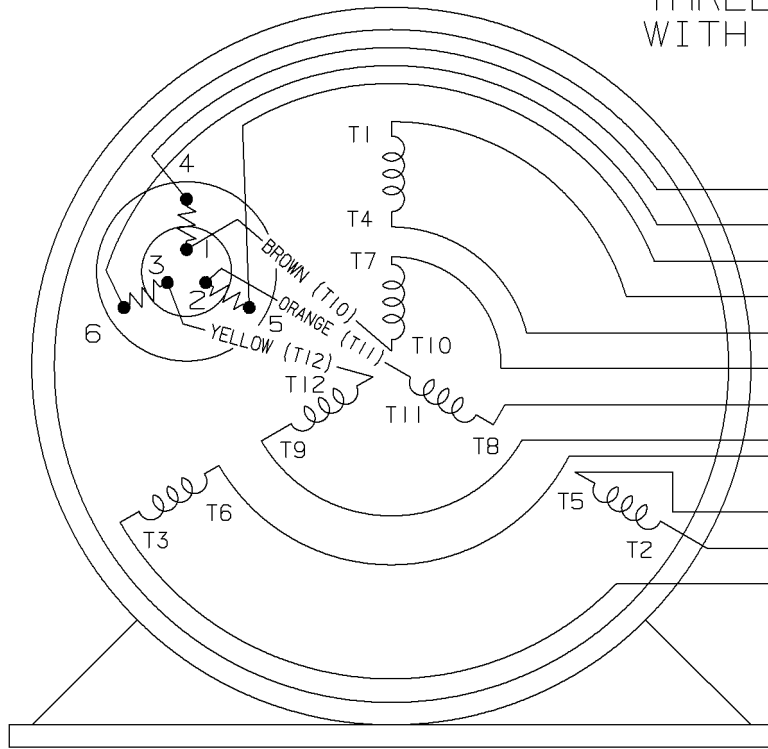
|                       |                                    |                       |                        |
|-----------------------|------------------------------------|-----------------------|------------------------|
| Electrical Type       | <b>Squirrel Cage Induction Run</b> | Starting Method       | <b>Across The Line</b> |
| Poles                 | <b>4</b>                           | Rotation              | <b>Reversible</b>      |
| Resistance Main       | <b>6.4 Ohms</b>                    | Mounting              | <b>Rigid Base</b>      |
| Motor Orientation     | <b>Horizontal</b>                  | Drive End Bearing     | <b>Ball</b>            |
| Opp Drive End Bearing | <b>Ball</b>                        | Frame Material        | <b>Rolled Steel</b>    |
| Shaft Type            | <b>T</b>                           | Overall Length        | <b>13.49 in</b>        |
| Frame Length          | <b>9.56 in</b>                     | Shaft Diameter        | <b>0.875 in</b>        |
| Shaft Extension       | <b>2.28 in</b>                     | Assembly/Box Mounting | <b>F1 ONLY</b>         |
| Outline Drawing       | <b>A-100165-956</b>                | Connection Drawing    | <b>A-102007-1</b>      |



| DASH | FR.       | C     | DASH | FR.       | C     |
|------|-----------|-------|------|-----------|-------|
| 706  | 140T/56HZ | 10.99 | 906  | 140T/56HZ | 12.99 |
| 756  | 140T/56HZ | 11.49 | 956  | 140T/56HZ | 13.49 |
| 806  | 140T/56HZ | 11.99 | 1006 | 140T/56HZ | 13.99 |
| 856  | 140T/56HZ | 12.49 |      |           |       |

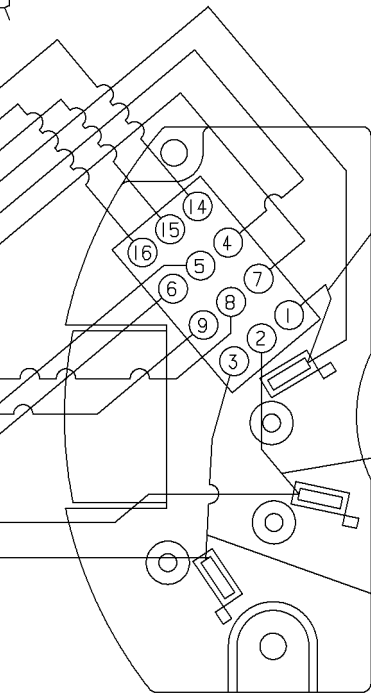
|  |                              |               | TOLERANCES UNLESS SPECIFIED |                 | <br><b>MARATHON ELECTRIC</b>                   | DRAWN MH 03-25-1998 |             |      |    |      |
|--|------------------------------|---------------|-----------------------------|-----------------|--|---------------------|-------------|------|----|------|
|  |                              |               | DEC.                        | INCHES          |  | CHK MRB 03-28-1998  |             |      |    |      |
|  |                              |               | .X                          | ±.1             |  | APPD ML 03-28-1998  |             |      |    |      |
|  |                              |               | .XX                         | ±.03            |  | SCALE 5=16          |             |      |    |      |
|  |                              |               | .XXX                        | ±.005           |  | REF                 |             |      |    |      |
| 3  | REDRAWN ON CADD - NO CHANGES | MH 03-28-1998 | .XXXX                       | ±.0005          | TITLE OUTLINE<br>140 & 56HZ - DR.PR. - TS - BB | MAT'L.              |             |      |    |      |
| NO.  | REVISION                     | BY & DATE     | CHK                         | ANG             | ±7'30"   | FINISH              |             |      |    |      |
| 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 100165 |  | SIZE                | DRAWING NO. | PAGE | OF | REV. |
|  |                              |               | DIST                        | WP              |  | A                   | 100165      |      |    | 3    |

### THREE PHASE-DUAL VOLTAGE WITH THERMAL PROTECTOR



VIEW OF TERMINAL END

- (T14) BROWN
- (T16) YELLOW
- (T15) ORANGE
- (T1) RED
- T4
- T7
- T8
- T9
- T6
- T5
- (T2) BLUE
- (T3) BLACK

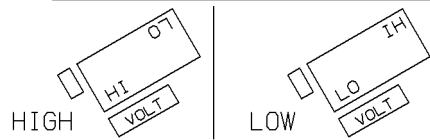


VIEWING BOTTOM OF TERMINAL BOARD

RED  
 NUMBERS SHOWN ON TERM BOARD ARE FOR REF. ONLY.  
 (NUMBERS DO NOT APPEAR ON PARTS.)

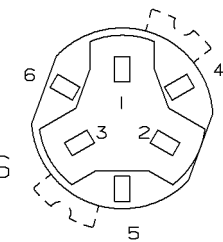
BLUE  
 BLACK

TO CHANGE VOLTAGE, PULL PLUG, ROTATE 180° AND REINSERT



CONNECT LINES TO L1, L2 & L3

NOTE:  
 ACTUAL PROTECTORS TERMINAL LOCATIONS FOR LEAD CONNECTIONS



|     |            |  |      |   |   |  |  |                        |
|-----|------------|--|------|---|---|--|--|------------------------|
| 4   | 06-26-1995 | 1,2,3 WERE SWITCHED WITH 4,5,6 ON THE TERMINAL<br>CN 20644           | BR   | ✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE         | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOL. ON XX±.02 XXX±.005 XXXX±.0005 ANGLES± 7°30" |  |  |                        |
| 3   | 05-18-1994 | ADDED ACTUAL PROTECTOR VIEW<br>CN 17481                              | KL   | MATL SPEC   |   |  |  | DRAWN BY RM 07-20-1993 |
| 2   | 07-20-1993 | REDRAWN ON CADD, ORIGINAL LOST.<br>REV. VCD TO COLORED LEADS CNI3741 | RM   | FINISH  |   |  |  | CHKD BY ET 07-20-1993  |
| REV | DATE       | CHANGE   | NAME | REFERENCE DRW.  | WAUSAU, WISCONSIN 54401   |  |  |                        |
|     |            |  |      | PART NAME CONNECTION DIAGRAM<br>3Ø - DUAL VOLTAGE MOTOR | DRWG NO<br>A- 102007-1  |  |  |                        |

SHOP BOOK

PURCHASED

DISTRIBUTION - WA - LB - WP - LM - BR

CADD FILE NO.

102007-1

**CERTIFICATION DATA SHEET**

**Model#:** 145TTDR6133 AA  
**CONN. DIAGRAM:** A-102007-1  
**OUTLINE:** A-100165-956

**WINDING#:** ZT4260 NONE 1  
**ASSEMBLY:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

| HP      | KW        | SYNC. RPM | F.L. RPM  | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|---------|-----------|-----------|-----------|-------|-----------|----------|--------|
| 2&1 1/2 | 1.49&1.12 | 1800      | 1750&1460 | 145T  | DP        | N        | B      |

| PH | Hz    | VOLTS               | FL AMPS     | START TYPE         | DUTY           | INSL | S.F       | AMB°C | ELEVATION |
|----|-------|---------------------|-------------|--------------------|----------------|------|-----------|-------|-----------|
| 3  | 60/50 | 230/460#190/<br>380 | 6/3&5.6/2.8 | ACROSS THE<br>LINE | CONTINUOU<br>S | B3   | 1.15/1.15 | 40    | 3300      |

| FULL LOAD EFF:<br>86.5&85.5 | 3/4 LOAD EFF: 85.8 | 1/2 LOAD EFF: 82.8 | GTD. EFF | ELEC. TYPE      | NO LOAD AMPS |
|-----------------------------|--------------------|--------------------|----------|-----------------|--------------|
| FULL LOAD PF:<br>74.5&72    | 3/4 LOAD PF: 65.3  | 1/2 LOAD PF: 53.8  | 84       | SQ CAGE IND RUN | 3.5 / 1.8    |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE    | B.D. TORQUE    | F.L. RISE°C |
|-------------|-------------------|----------------|----------------|-------------|
| 6 LB-FT     | 56.8 / 28.4       | 24.1 LB-FT 402 | 30.7 LB-FT 512 | 38          |

| SOUND PRESSURE<br>@ 3 FT. | SOUND POWER | ROTOR WK^2   | MAX. WK^2  | SAFE STALL TIME | STARTS<br>/HOUR | APPROX. MOTOR<br>WGT |
|---------------------------|-------------|--------------|------------|-----------------|-----------------|----------------------|
| 56 dBA                    | 66 dBA      | 0.09 LB-FT^2 | 12 LB-FT^2 | 15 SEC.         | 2               | 45.4 LBS.            |

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

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

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

| THERMO-PROTECTORS |            |          |          | THERMISTORS | CONTROL | SPACE /n HEATERS |
|-------------------|------------|----------|----------|-------------|---------|------------------|
| THERMOSTATS       | PROTECTORS | WDG RTDs | BRG RTDs |             |         |                  |
| NONE              | AUTOMATIC  | NONE     | NONE     | NONE        | FALSE   | NONE VOLTS       |

If Inverter equals NONE, contact factory for further information

|                           |
|---------------------------|
| 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 |

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DATE: 06/23/2017 06:56:07 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.



**Data Sheet**

**Date:** 15-06-2017  
**Customer:** \_\_\_\_\_  
**Attention:** \_\_\_\_\_  
**Submitted by:** FAREEDA DUDEKULA



145TTDR6133

**Submittal**

Data @ **460 V**

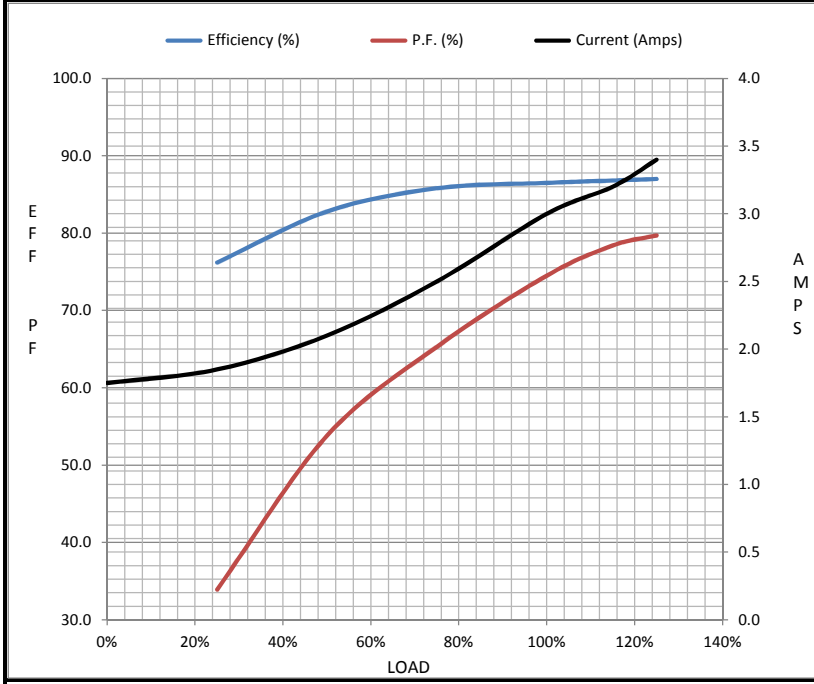
**Motor Load Data**

| Load           | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 1.75 | 1.85 | 2.10 | 2.50 | 3.0  | 3.2   | 3.4  | 28.4 |
| Torque (ft-lb) | 0.00 | 1.50 | 2.95 | 4.5  | 6.0  | 7.0   | 7.6  | 24.1 |
| RPM            | 1800 | 1789 | 1778 | 1765 | 1750 | 1,745 | 1740 | 0    |
| Efficiency (%) |      | 76.2 | 82.8 | 85.8 | 86.5 | 86.8  | 87.0 |      |
| P.F. (%)       | 7.9  | 33.9 | 53.8 | 65.3 | 74.5 | 78.4  | 79.7 | 71.5 |

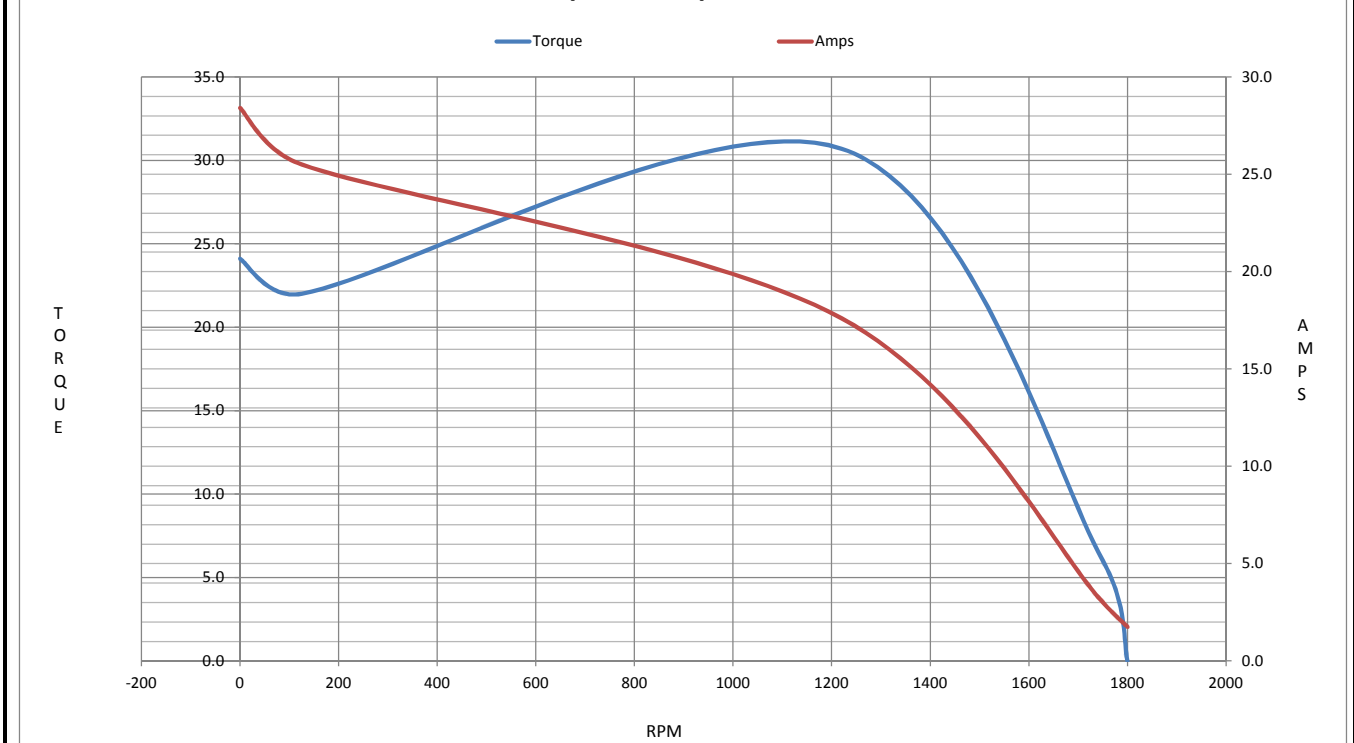
**Motor Speed Data**

|                | LR   | Pull-Up | BD   | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (RPM)    | 0    | 125     | 1220 | 1750  | 1800 |
| Current (Amps) | 28.4 | 25.5    | 17.6 | 3.0   | 1.75 |
| Torque (ft-lb) | 24.1 | 22.0    | 30.7 | 6.0   | 0.00 |

| Information Block           |                         |        |        |          |
|-----------------------------|-------------------------|--------|--------|----------|
| HP                          | 2.0                     |        |        |          |
| Sync. RPM                   | 1800                    |        |        |          |
| Frame                       | 56                      |        |        |          |
| Enclosure                   | DP                      |        |        |          |
| Construction                | TDR                     |        |        |          |
| Voltage                     | 230/460#190/38(V)       |        |        |          |
| Frequency                   | 60 Hz                   |        |        |          |
| Design                      | A                       |        |        |          |
| LR Code letter              | N                       |        |        |          |
| Service Factor              | 1.15                    |        |        |          |
| Temp Rise @ FL              | 38 ° C                  |        |        |          |
| Duty                        | CONT                    |        |        |          |
| Ambient                     | 40 ° C                  |        |        |          |
| Elevation                   | 1,000 feet              |        |        |          |
| Rotor/Shaft wk <sup>2</sup> | 0.09 Lb-Ft <sup>2</sup> |        |        |          |
| Ref Wdg                     | ZT4260 NONE             |        |        |          |
| Sound Pressure @ 1M         | 56 dBA                  |        |        |          |
| VFD Rating                  | NONE                    |        |        |          |
| Outline Dwg                 | A-100165-956            |        |        |          |
| Conn. Diag                  | A-102007-1              |        |        |          |
| Additional Specifications:  |                         |        |        |          |
| 0                           |                         |        |        |          |
| 365THFS8036                 |                         |        |        |          |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |          |
| R1                          | R2                      | X1     | X2     | Xm       |
| 4.1180                      | 3.2660                  | 6.2480 | 5.6800 | 163.3000 |



**Speed - Torque Curve**



## EC Declaration of Conformity

The undersigned representing  
the manufacturer:

Regal Beloit America  
100 East Randolph St.  
Wausau, WI 54401

and the authorized representative  
established within the Community:

Marathon Electric UK  
6F Thistleton Road Ind. Estate  
Market Overton  
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 145TTDR6133

(Model No. may contain prefix and/or suffix characters)

Catalog No : U424A

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon  
Vice President, Technology

Authorized Representative in the Community:



Julian Clark  
Marketing Engineer

Created on 09/01/2022

**CE 22**