

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 145TTDR16361  
Catalog No: L607A  
2,1800,DP,145T,3/60/200-208  
Open Drip Proof (ODP)



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**REGAL**



### Nameplate Specifications

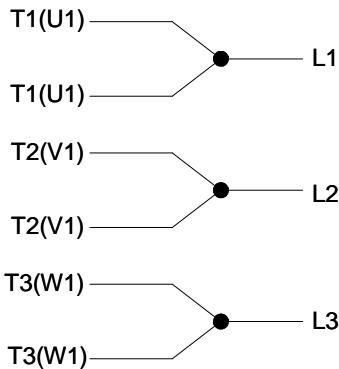
|                            |                   |                        |                   |
|----------------------------|-------------------|------------------------|-------------------|
| Output HP                  | <b>2 Hp</b>       | Output KW              | <b>1.5 kW</b>     |
| Frequency                  | <b>60 Hz</b>      | Voltage                | <b>200-208 V</b>  |
| Current                    | <b>4.9-4.9 A</b>  | Speed                  | <b>1755 rpm</b>   |
| Service Factor             | <b>1.15</b>       | Phase                  | <b>3</b>          |
| Efficiency                 | <b>86.5 %</b>     | Duty                   | <b>Continuous</b> |
| Insulation Class           | <b>B</b>          | Design Code            | <b>B</b>          |
| KVA Code                   | <b>M</b>          | Frame                  | <b>145T</b>       |
| Enclosure                  | <b>Drip Proof</b> | Overload Protector     | <b>No</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>         |                        |                   |

### 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>      |
| 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>14.02 in</b>                    | Shaft Diameter        | <b>0.875 in</b>        |
| Shaft Extension   | <b>2.25 in</b>                     | Assembly/Box Mounting | <b>F2 Only</b>         |
| Outline Drawing   | <b>OL56100037-001</b>              | Connection Diagram    | <b>CDTS112</b>         |

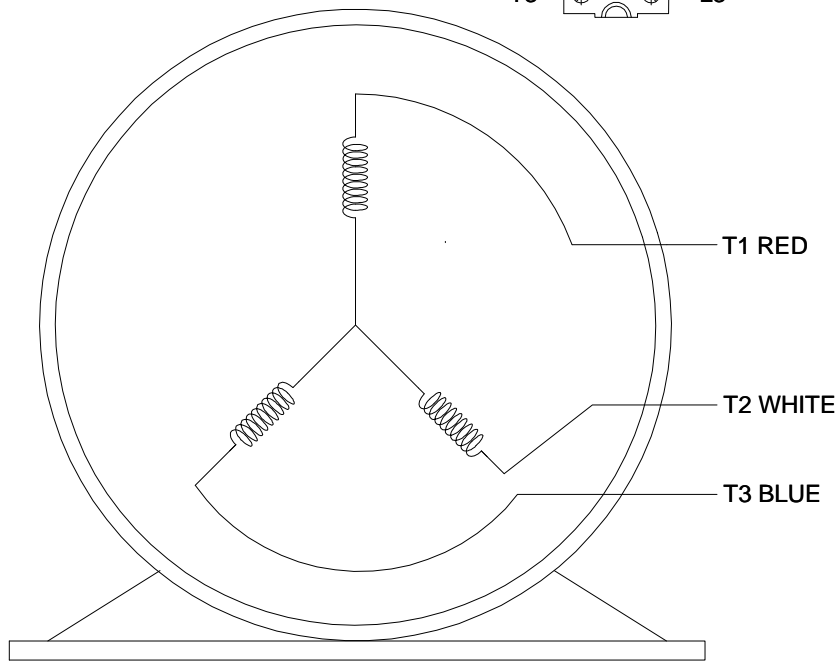
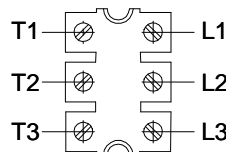
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IF MOTOR HAS 6 LEADS



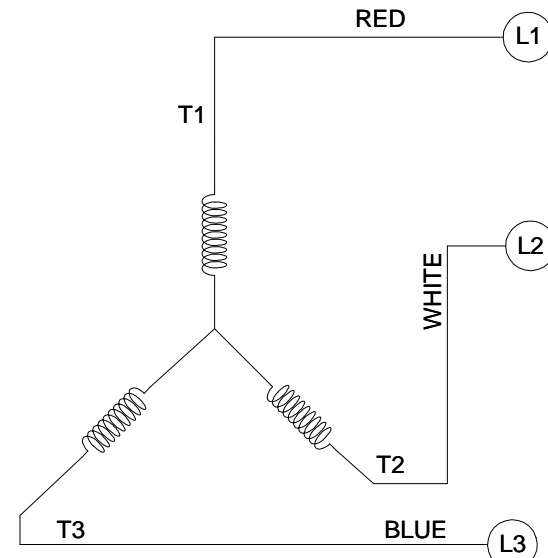
A- 9806 DECAL

TERMINAL BLOCK WHEN SPECIFIED



VIEW OF TERMINAL END

CCW HIGH VOLTAGE



NOTES:

1. TO REVERSE ROTATION, INTERCHANGE ANY TWO LINE CONNECTIONS TO L1, L2, OR L3.
2. CONNECTION DIAGRAM-NAMEPLATE: DD10040-001.

|   |                             |                    |
|---|-----------------------------|--------------------|
| DRAWING REVISION<br>A   | REVISION BY<br>G. RODRIGUEZ | DATE<br>03-20-2018 |
| ECO<br>ECO-0142578  | APPROVED BY<br>J. A. MORENO | DATE<br>03-20-2018 |
| ECO DESCRIPTION<br><b>NEW RELEASE</b>   |                             |                    |
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|  |         |           |
|--|---------|-----------|
| TOLERANCES UNLESS OTHERWISE SPECIFIED: |         |           |
| DEC.                                   | INCH    | mm        |
| .X                                     | ±0.1    | [±2.5]    |
| .XX                                    | ±0.01   | [±0.25]   |
| .XXX                                   | ±0.005  | [±0.127]  |
| .XXXX                                  | ±0.0005 | [±0.0127] |
| REMOVE BURRS & BREAK SHARP             |         |           |
| EDGES: .003/.015 [.076/.381]           |         |           |
| CORNER FILLETS: .02 [.51]              |         |           |
| MACHINED SURFACES: 125/3.2             |         |           |
| mm SHOWN IN [BRACKETS]                 |         |           |

|                             |                        |
|-----------------------------|------------------------|
| DRAWN BY<br>G. RODRIGUEZ    | DATE<br>03-20-2018     |
| APPROVED BY<br>J. A. MORENO | DATE<br>03-20-2018     |
| REFERENCE<br>SKT52A105383CA | THIRD ANGLE PROJECTION |

|   |                                  |
|---|----------------------------------|
| Regal Beloit America, Inc.                  |                                  |
| DESCRIPTION<br><b>CONN DIAGRAM-EXTERNAL</b> |                                  |
| MATERIAL                                    | PROCESS/FINISH                   |
| SIZE<br><b>B</b>                            | DRAWING NUMBER<br><b>CDTS112</b> |
| SHEET<br>1 OF 1                             |                                  |



### Data Sheet



**Date:** 20-06-2017

**Customer:** \_\_\_\_\_

**Attention:** \_\_\_\_\_

**Submitted by:** FAREEDA DUDEKULA

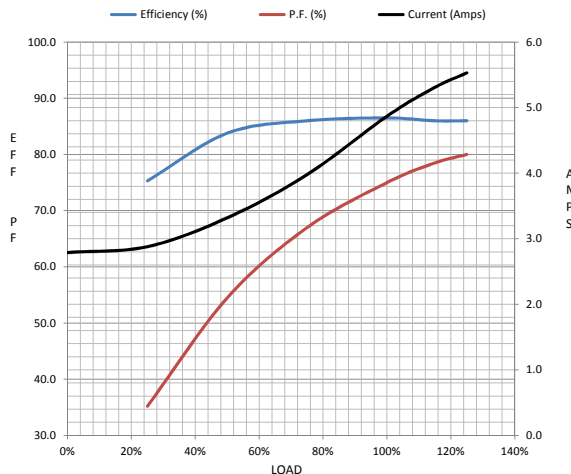
145TTDR16361

**Submittal**

Data @ 208 V

| Motor Load Data |      |      |      |      |      |       |      |      |  |
|-----------------|------|------|------|------|------|-------|------|------|--|
| Load            | 0%   | 25%  | 50%  | 75%  | 100% | 115%  | 125% | LR   |  |
| Current (Amps)  | 2.79 | 2.88 | 3.3  | 4.0  | 4.9  | 5.3   | 5.5  | 43.8 |  |
| Torque (ft-lb)  | 0.00 | 1.10 | 2.20 | 3.4  | 4.5  | 5.2   | 5.7  | 16.7 |  |
| RPM             | 1800 | 1788 | 1775 | 1765 | 1755 | 1,745 | 1740 | 0    |  |
| Efficiency (%)  |      | 75.3 | 83.8 | 86.0 | 86.5 | 86.0  | 86.0 |      |  |
| P.F. (%)        | 9.3  | 35.2 | 54.5 | 67.0 | 75.0 | 78.5  | 80.0 | 68.0 |  |

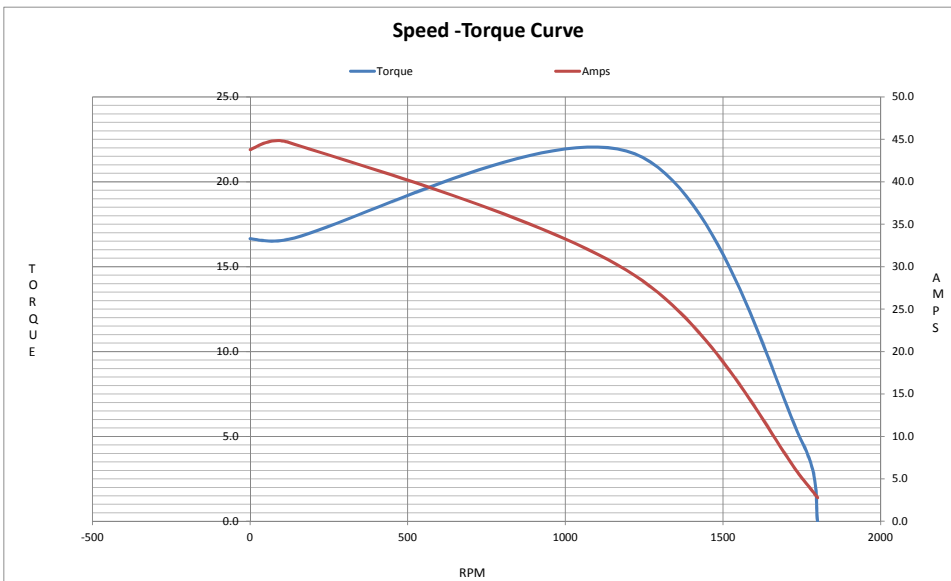
| Motor Speed Data |      |         |      |       |      |
|------------------|------|---------|------|-------|------|
|                  | LR   | Pull-Up | BD   | Rated | Idle |
| Speed (RPM)      | 0    | 120     | 1220 | 1755  | 1800 |
| Current (Amps)   | 43.8 | 44.7    | 29.0 | 4.9   | 2.79 |
| Torque (ft-lb)   | 16.7 | 16.6    | 21.7 | 4.5   | 0.00 |



The graph shows Efficiency (%) in blue, P.F. (%) in red, and Current (Amps) in black against Load from 0% to 140%. Efficiency and P.F. increase with load, while current also increases.

| Information Block           |                         |        |        |        |
|-----------------------------|-------------------------|--------|--------|--------|
| HP                          | 1.5                     |        |        |        |
| Sync. RPM                   | 1800                    |        |        |        |
| Frame                       | 145                     |        |        |        |
| Enclosure                   | DP                      |        |        |        |
| Construction                | TDR                     |        |        |        |
| Voltage                     | 200-208 V               |        |        |        |
| Frequency                   | 60 Hz                   |        |        |        |
| Design                      | A                       |        |        |        |
| LR Code letter              | M                       |        |        |        |
| Service Factor              | 1.15                    |        |        |        |
| Temp Rise @ FL              | 28 ° C                  |        |        |        |
| Duty                        | CONT                    |        |        |        |
| Ambient                     | 40 ° C                  |        |        |        |
| Elevation                   | 1,000 feet              |        |        |        |
| Rotor/Shaft wk <sup>2</sup> | 0.00 Lb-Ft <sup>2</sup> |        |        |        |
| Ref Wdg                     | ZT4258 NONE             |        |        |        |
| Sound Pressure @ 1M         | 56 dBA                  |        |        |        |
| VFD Rating                  | NONE                    |        |        |        |
| Outline Dwg                 | OL56100037-001          |        |        |        |
| Conn. Diag                  | CDTS112                 |        |        |        |
| Additional Specifications:  |                         |        |        |        |
| 0                           |                         |        |        |        |
| 365THFS8036                 |                         |        |        |        |
| EQUIV CKT (OHMS / PHASE)    |                         |        |        |        |
| R1                          | R2                      | X1     | X2     | Xm     |
| 0.0000                      | 0.0000                  | 0.0000 | 0.0000 | 0.0000 |

### Speed -Torque Curve



The graph plots Torque (ft-lb) in blue and Amps in red against RPM from -500 to 2000. Torque peaks at approximately 22 ft-lb around 1000 RPM, while Amps peak at approximately 45 A around 1000 RPM.