

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 445TSTFN16033
Catalog No: E813A
200,1800,TEFC,445TS,3/60/460
Totally Enclosed Fan Cooled (TEFC)



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REGAL[®]



Nameplate Specifications

| | | | |
|----------------------------|------------------------------------|------------------------|-------------------|
| Output HP | 200 Hp | Output KW | 149.0 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 226.0 A | Speed | 1785 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 96.2 % | Duty | Continuous |
| Insulation Class | F | Design Code | B |
| KVA Code | G | Frame | 445TS |
| Enclosure | Totally Enclosed Fan Cooled | Overload Protector | No |
| Ambient Temperature | 40 °C | Drive End Bearing Size | 6313 |
| Opp Drive End Bearing Size | 6313 | UL | Recognized |
| CSA | Y | CE | Y |
| IP Code | 43 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------------|-----------------------|------------------------|
| Electrical Type | Squirrel Cage Induction Run | Starting Method | Across The Line |
| Poles | 4 | Rotation | Reversible |
| Mounting | Rigid base | Motor Orientation | Horizontal |
| Drive End Bearing | Ball | Opp Drive End Bearing | Ball |
| Frame Material | Cast Iron | Shaft Type | TS |
| Overall Length | 39.6 in | Frame Length | 20.25 in |
| Shaft Diameter | 2.375 in | Shaft Extension | 5 in |
| Assembly/Box Mounting | F1/F2 Capable | | |
| Outline Drawing | B-SS514023-2025 | Connection Diagram | A-EE7300U |

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IF MOTOR HAS 9 LEADS



IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------|---------------------------|--|---------------------------|-----------------------------------|----------------------------------|------------------------|-----------|--------------|----|------|--------|---------|-----|-------|---------|--|------|--------|----------|--|-------|---------|-----------|--|---------------------------|
| DRAWING REVISION L | REVISION BY AJW | DATE 05-04-2015 | TOLERANCES UNLESS OTHERWISE SPECIFIED: | DRAWN BY DRS | Regal Beloit America, Inc. | | | | | | | | | | | | | | | | | | | | | |
| ECO ECO-0077067 | APPROVED BY EWH | DATE 05-05-2015 | <table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table> | <u>DEC.</u> | | | <u>INCH</u> | <u>mm</u> | <u>ANGLE</u> | .X | ±0.1 | [±2.5] | ±7' 30" | .XX | ±0.02 | [±0.51] | | .XXX | ±0.005 | [±0.127] | | .XXXX | ±0.0005 | [±0.0127] | | DATE 09-27-1996 |
| <u>DEC.</u> | <u>INCH</u> | <u>mm</u> | <u>ANGLE</u> | | | | | | | | | | | | | | | | | | | | | | | |
| .X | ±0.1 | [±2.5] | ±7' 30" | | | | | | | | | | | | | | | | | | | | | | | |
| .XX | ±0.02 | [±0.51] | | | | | | | | | | | | | | | | | | | | | | | | |
| .XXX | ±0.005 | [±0.127] | | | | | | | | | | | | | | | | | | | | | | | | |
| .XXXX | ±0.0005 | [±0.0127] | | | | | | | | | | | | | | | | | | | | | | | | |
| ECO DESCRIPTION UPDATED TO SOLIDWORKS | | | APPROVED BY GK | DATE 09-30-1996 | MATERIAL | PROCESS/FINISH | | | | | | | | | | | | | | | | | | | | |
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| | | | mm SHOWN IN [BRACKETS] | THIRD ANGLE PROJECTION | | | | | | | | | | | | | | | | | | | | | | |

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



445TSTFN16033

Submittal

Data @ 460 V

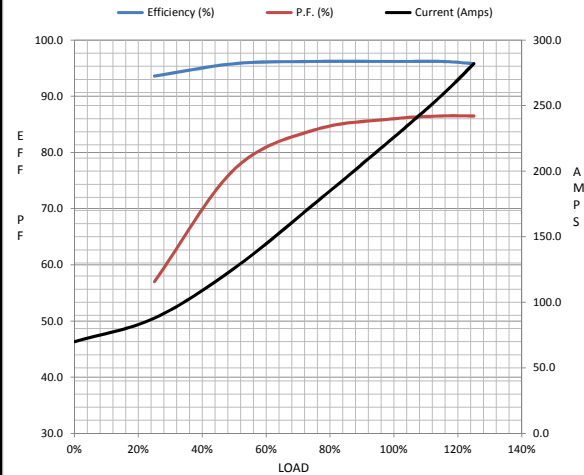
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|-------|
| Current (Amps) | 70.0 | 88.0 | 126 | 175 | 226 | 258 | 282 | 1,425 |
| Torque (ft-lb) | 0.00 | 146 | 293 | 441 | 589 | 678 | 738 | 975 |
| RPM | 1800 | 1795 | 1792 | 1788 | 1785 | 1,782 | 1778 | 0 |
| Efficiency (%) | | 93.6 | 95.8 | 96.2 | 96.2 | 96.2 | 95.8 | |
| P.F. (%) | 4.5 | 57.0 | 77.0 | 84.0 | 86.0 | 86.5 | 86.5 | 27.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-------|---------|-------|-------|------|
| Speed (RPM) | 0 | 900 | 1700 | 1785 | 1800 |
| Current (Amps) | 1,425 | 1,300 | 850 | 226 | 70.0 |
| Torque (ft-lb) | 975 | 900 | 1,450 | 589 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 200.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 445 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | A | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 80 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 59.0 Lb-Ft ² | | | |
| Ref Wdg | T4454159 NONE | | | |
| Sound Pressure @ 1M | 75 dBA | | | |
| VFD Rating | NONE | | | |
| Outline Dwg | B-SS514023-2025 | | | |
| Conn. Diag | A-EE7300U | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0140 | 0.0110 | 0.1300 | 0.1400 | 3.7060 |



Speed -Torque Curve

