

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 215THFS9101
Catalog No: W522
3,900,TEFC,215T,3/60/460
Severe Duty



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REGAL[®]



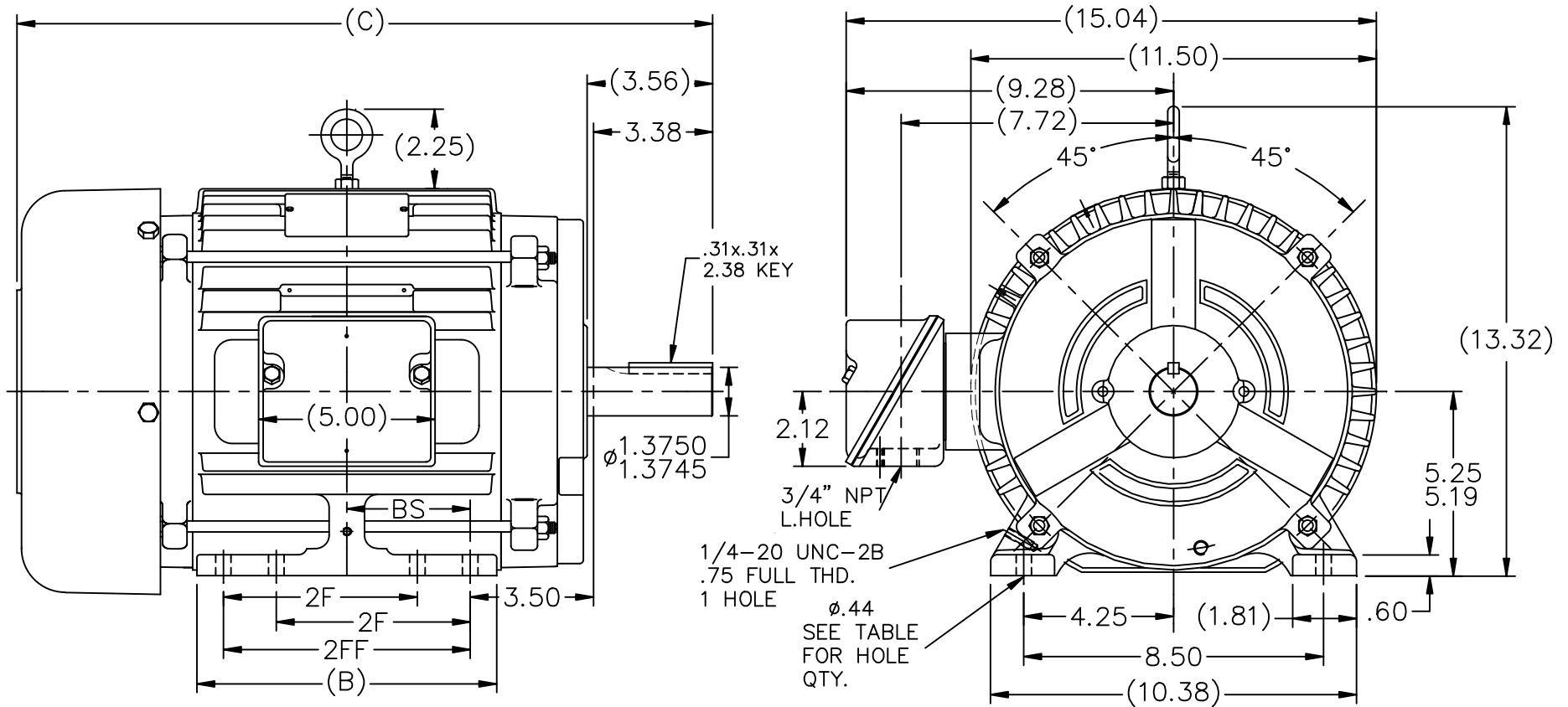
Nameplate Specifications

| | | | |
|----------------------------|------------------------------------|------------------------|-------------------|
| Output HP | 3 Hp | Output KW | 2.2 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 5.0 A | Speed | 875 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 86.5 % | Duty | Continuous |
| Insulation Class | F | Design Code | B |
| KVA Code | H | Frame | 215T |
| Enclosure | Totally Enclosed Fan Cooled | Overload Protector | No |
| Ambient Temperature | 40 °C | Drive End Bearing Size | 6307 |
| Opp Drive End Bearing Size | 6206 | UL | Recognized |
| CSA | Y | CE | Y |
| IP Code | 56 | | |

Technical Specifications

| | | | |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 8 | Rotation | Reversible |
| Mounting | Rigid base | Motor Orientation | Horizontal |
| Drive End Bearing | Ball | Opp Drive End Bearing | Ball |
| Frame Material | Cast Iron | Shaft Type | T |
| Overall Length | 19.72 in | Frame Length | 8.75 in |
| Shaft Diameter | 1.375 in | Shaft Extension | 3.56 in |
| Assembly/Box Mounting | F1/F2 Capable | | |
| Outline Drawing | A-SS87301-875 | Connection Diagram | A-EE7300 |

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| DASH | FR. | C | B | BS | 2F | 2FF | FOOT HOLE QTY. | MOUNTING |
|------|--------|-------|------|------|------|------|----------------|----------|
| 725 | 213T | 18.22 | 7.00 | 2.75 | - | 5.50 | 4 | F1 OR F2 |
| 875 | 215T | 19.72 | 8.50 | 3.50 | - | 7.00 | 4 | F1 OR F2 |
| 875 | 213/5T | 19.72 | 8.50 | 3.50 | 5.50 | 7.00 | 8 | F1 OR F2 |
| 1000 | 215T | 20.97 | 9.75 | 4.12 | 7.00 | 8.25 | 8 | F1 OR F2 |

- NOTES:
1. BOX CAN BE ROTATED IN 90° STEPS.
 2. BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

| NO. | REVISION | BY & DATE | CHK | ANG | TOLERANCES UNLESS SPECIFIED | FINISH | PREV |
|-----|--------------------------------------------------------------------|----------------|-----|-------|-----------------------------|--------|------|
| 11 | UPDATED DRAWING | TJW 04/30/2007 | | | | | |
| 10 | REVISED TOL. WAS 5.22/5.16 NOW 5.25/5.19 | RJW 05-01-2006 | ML | DEC. | INCHES | | |
| 9 | ADDED FOOT HOLE QTY. & MTG. TO TABLE CN 37322 | TAT 01-14-2004 | ML | .X | ±.1 | | |
| 8 | REMOVED NOTE 'SEE FRAME WHEN REQ'D' FROM GROUND HOLE CN 29200-1698 | DRS 04-23-2001 | | .XX | ±.03 | | |
| 8 | UPDATED C' BOX GEOMETRY CN 28426 | HLB 11-10-2000 | | .XXX | ±.005 | | |
| 7 | UPDATED C' BOX GEOMETRY CN 28426 | HLB 11-10-2000 | | .XXXX | ±.0005 | | |
| | | | | | ±.7'30" | | |

| | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|----------|---------|------|-------------|------|----|------|
| 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 | ss87301 | SIZE | DRAWING NO. | PAGE | OF | REV. |
| | | DIST | LB | | A | SS87301 | | | 11 |



TITLE OUTLINE
213-15T FR. - BB - TEFC

| | |
|-------|----------------|
| DRAWN | PGK 07-29-1997 |
| CHK | ML 08-07-1997 |
| APPD | PH 08-11-1997 |
| SCALE | 7=32 |
| REF | |
| FMF | |
| PREV | |

**THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.**

TERMINAL BLOCK WHEN SPECIFIED



VIEW OF TERMINAL END

**IF MOTOR HAS
6 LEADS**





A-9806 DECAL

**OPTIONAL CORD
CONNECTION**

- L1 _____ WHITE
- L2 _____ RED
- L3 _____ BLACK

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|
| DRAWING REVISION AB | REVISION BY JJB | DATE 06-27-2017 |
| ECO ECO-0125361 | APPROVED BY TB | DATE 06-27-2017 |
| ECO DESCRIPTION UPDATED TO CURRENT STANDARDS | | |
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| | |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| DRAWN BY DA |  Regal Beloit America, Inc. |
| DATE 03-26-1993 | |
| APPROVED BY TB | DESCRIPTION CONNECTION DIAGRAM |
| DATE 03-26-1993 | EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR |
| REFERENCE | MATERIAL |
| PROCESS/FINISH | |
| THIRD ANGLE PROJECTION  | SIZE A |
| DRAWING NUMBER EE7300 | SHEET 1 OF 1 |

CERTIFICATION DATA SHEET

Model#: 215THFS9101 DD **WINDING#:** 215838 FS 7
CONN. DIAGRAM: A-EE7300 **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: A-SS87301-875

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|------|-----------|----------|-------|-----------|----------|--------|
| 3 | 2.24 | 900 | 875 | 215T | TEFC | H | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|-------|---------|---------------------|------------|------|------|-------|-----------|
| 3 | 60 | 460 | 5 | LINE OR INVERTER | CONTINUOUS | F3 | 1.15 | 40 | 3300 |

| FULL LOAD EFF: 86.5 | 3/4 LOAD EFF: 87 | 1/2 LOAD EFF: 85.5 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
|---------------------|------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 66.5 | 3/4 LOAD PF: 60 | 1/2 LOAD PF: 48.5 | 84 | SQ CAGE INV RATED | 2.7 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|----------------|--------------|-------------|
| 18 LB-FT | 24 | 27.5 LB-FT 150 | 46 LB-FT 256 | 40 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS /HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|--------------|-----------|-----------------|--------------|-------------------|
| 52 dBA | 62 dBA | 0.95 LB-FT^2 | - LB-FT^2 | 20 SEC. | 4 | 215 LBS. |

***** SUPPLEMENTAL INFORMATION *****

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------|---------------------|--------------------|------------|---------|--------------|
| STANDARD | STANDARD | RIGID | HORIZONTAL | PREMIUM SEVERE DUTY | DIVISION 2 T2B | FALSE | NONE | BLUE (EPOXY) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|--------------------------|----------------|
| DE | OPE | | | | | | |
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1144 STRESSPROOF (C-223) | CAST IRON |
| 6307 | 6206 | | | | | | |

| 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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|--------------------------------|
| INVERTER TORQUE: CONSTANT 20:1 |
| INV. HP SPEED RANGE: NONE |
| ENCODER: NONE |
| NONE NONE |
| NONE NONE PPR |
| BRAKE: NONE NONE |
| NONE P/N NONE |
| NONE NONE |
| - FT-LB NONE V NONE Hz |

DATE: 06/22/2017 07:07:27 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

215THFS9101



Submittal
Data @ 460 V

Date: 6/16/2017

Customer: EARL BABBITTS
Attention: EARL BABBITTS
Submitted by:

Motor Load Data

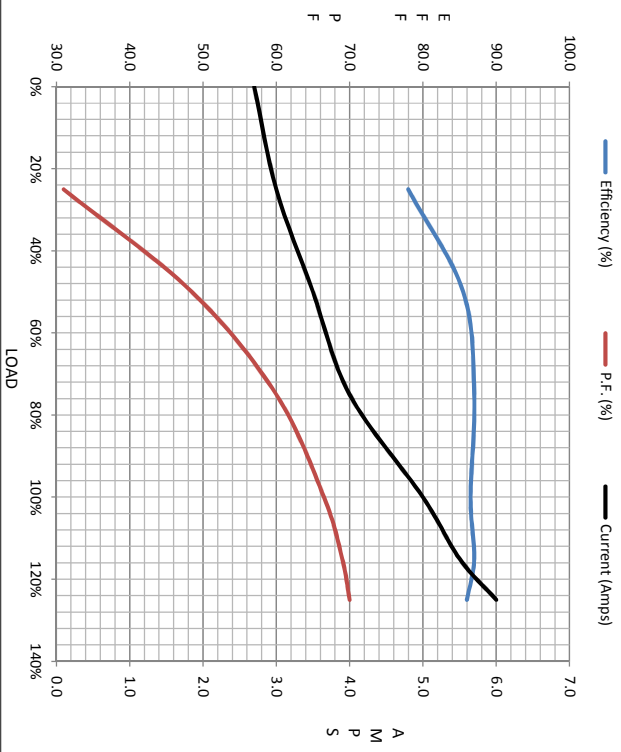
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|------|------|------|
| Current (Amps) | 2.70 | 3.0 | 3.5 | 4.0 | 5.0 | 5.5 | 6.0 | 24.0 |
| Torque (ft-lb) | 0.00 | 4.5 | 9.0 | 13.5 | 18.0 | 20.5 | 22.5 | 27.5 |
| RPM | 900 | 893 | 897 | 890 | 875 | 872 | 865 | 0 |
| Efficiency (%) | | 78.0 | 85.5 | 87.0 | 86.5 | 87.0 | 86.0 | |
| P.F. (%) | 7.0 | 31.0 | 48.5 | 60.0 | 66.5 | 69.0 | 70.0 | 40.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|------|---------|------|-------|------|
| Speed (rpm) | 0 | 450 | 770 | 875 | 900 |
| Current (Amps) | 24.0 | 21.5 | 16.0 | 5.0 | 2.70 |
| Torque (ft-lb) | 27.5 | 24.5 | 46.0 | 18.0 | 0.00 |

Information Block

| | | | | |
|----------------------------|---------------|--------|---------|---------|
| HP | 3.0 | | | |
| Sync. RPM | 900 | | | |
| Frame | 215 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 HZ | | | |
| Design | B | | | |
| LR Code letter | H | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 40 °C | | | |
| Duty | CONT | | | |
| Ambient | 40 °C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wkt | 0.95 Lb-Fe | | | |
| Rel Wdg | 215838 FS | | | |
| Sound Pressure @ 1M | 52 dBA | | | |
| VFD Rating | CONSTANT 20:1 | | | |
| Outline Dwg | A-SS87301-875 | | | |
| Conn. Diag | A-EE7300 | | | |
| Additional Specifications: | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 2.1000 | 2.2610 | 8.8640 | 10.6900 | 82.9640 |



Speed -Torque Curve

