

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 286THFNA9026

Catalog No: W567

30 HP Severe Duty Motor, 3 phase, 1800 RPM, 460 V, 286T Frame, TEFC
Severe Duty Motors



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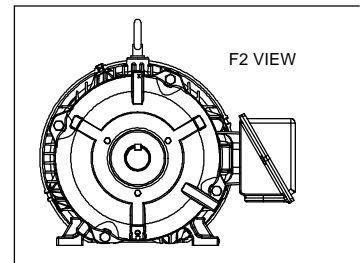
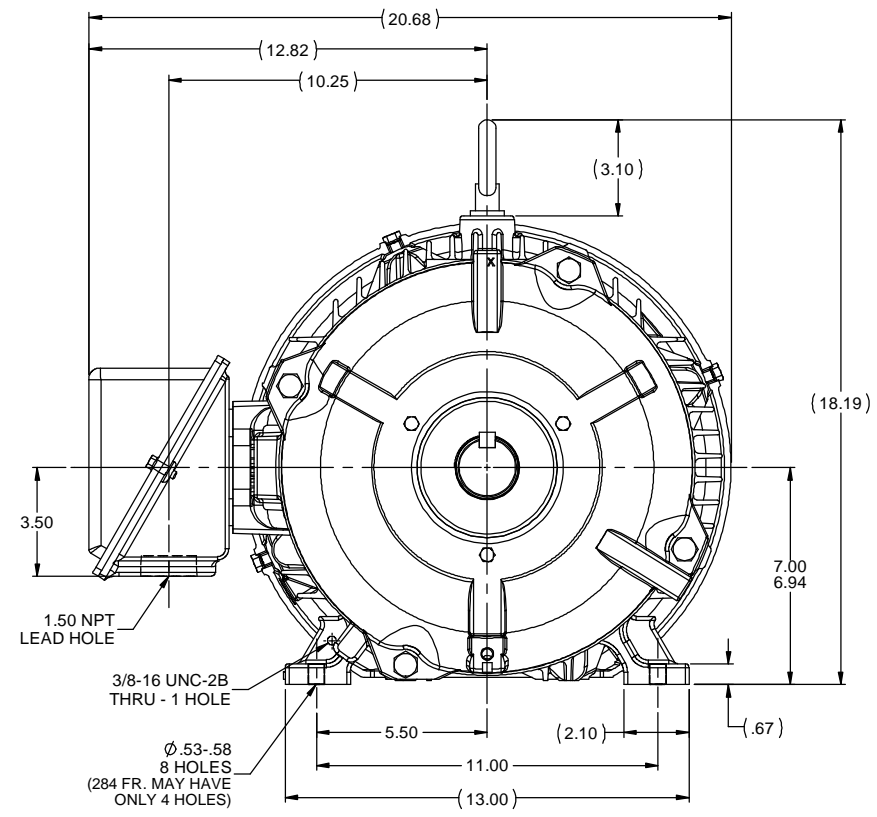
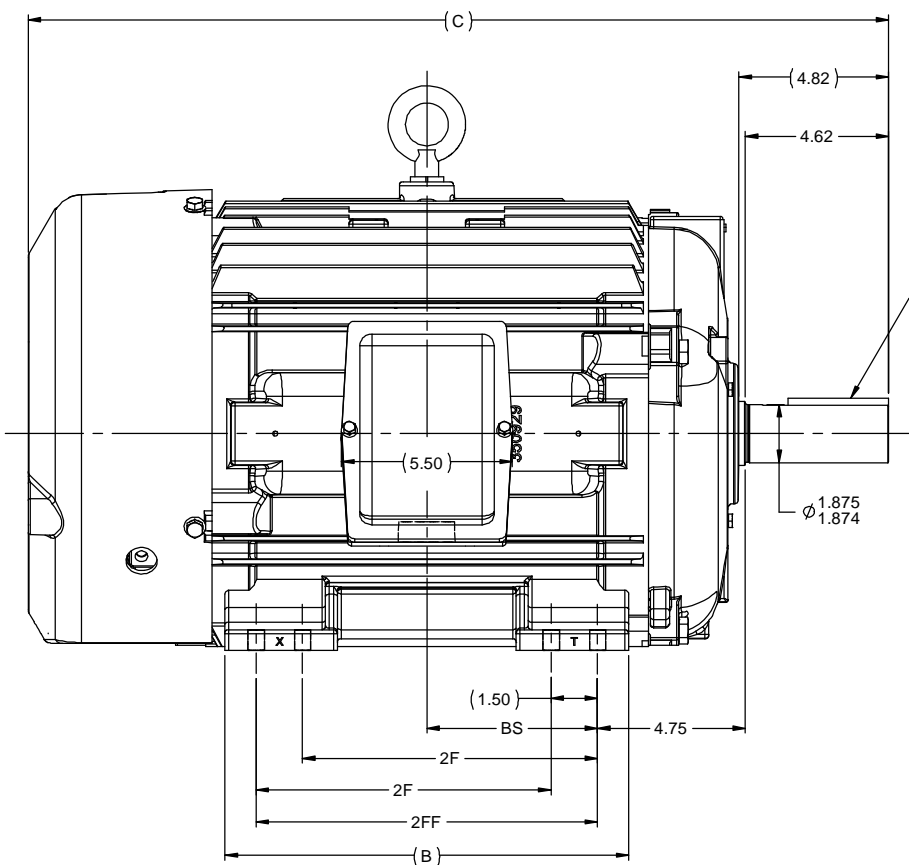
Nameplate Specifications

| | | | |
|------------------------|-------------------|----------------------------|------------------------------------|
| Output HP | 30 Hp | Output KW | 22.4 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 36.5 A | Speed | 1773 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 94.1 % | Power Factor | 82 |
| Duty | Continuous | Insulation Class | F |
| Design Code | B | KVA Code | G |
| Frame | 286T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6311 | Opp Drive End Bearing Size | 6210 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 56 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|-------------------------------------|-----------------------|-------------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .205 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Overall Length | 27.71 in |
| Frame Length | 14.25 in | Shaft Diameter | 1.875 in |
| Shaft Extension | 4.82 in | Assembly/Box Mounting | F1/F2 Capable |
| Outline Drawing | B-SS311057-1425 | Connection Drawing | A-EE7300 |

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- NOTES:
1. CONDUIT BOX CAN BE ROTATED UP TO 270 ° FROM ITS ORIGINAL POSITION.
 2. CONDUIT 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.

| | | TOLERANCES UNLESS SPECIFIED | | marathon electric | | DRAWN CAV 10-18-2000 | |
|----|--------------------------------------|-----------------------------|----------------------------|--|---|----------------------|--------------------|
| | | DEC | INCHES | | | CHK ML 10-18-2000 | APPR BW 10-18-2000 |
| 4 | UPDATED TO NEW FRAME DESIGN MU106205 | MSG 08-22-2012 | MSG x ±.1 | TITLE OUTLINE - TEFC - TGN 280T FR. - BB - STD - 12.50 LAM. | | SCALE 1:4 | |
| 3 | REDRAWN IN AUTOCAD - NO CHANGE | TAT 06-29-2004 | ML xx ±.03 | | | REF | |
| 2 | ADDED NOTE 3 MU35810 | DAH 02-06-2001 | ML xxx ±.005 | MATERIAL | | PAGE OF | |
| 1 | NEW DRAWING MU34031 | MSG 08-23-2012 | ML xxxxx ±.0005 | FINISH | | REV | |
| NO | REVISION | BY & DATE | CHK LANG ±1/2° | PREV | | SIZE | DRAWING NO |
| | | | RFP 10-18-2000 | | B | | SS311057 |
| | | | NETWORK FILE NAME SS311057 | | | | REV 4 |

| | | | | | | |
|-------------|--------------|----------|----------|-----------|------------|-----------|
| 1275 | 284T | 26.21 | 12.50 | 9.50 | --- | 4.75 |
| 1425 | 284/286T | 27.71 | 13.00 | 9.50 | 11.00 | 5.50 |
| DASH | FRAME | C | B | 2F | 2FF | BS |



**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**



| | | |
|---|--------------------|--------------------|
| 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 |
| DATE 03-26-1993 |
| APPROVED BY TB |
| DATE 03-26-1993 |
| REFERENCE |
| THIRD ANGLE PROJECTION |

| | |
|--|---------------------------------|
| Regal Beloit America, Inc. | |
| DESCRIPTION CONNECTION DIAGRAM EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR | |
| MATERIAL | PROCESS/FINISH |
| SIZE A | DRAWING NUMBER EE7300 |
| SHEET 1 OF 1 | |

CERTIFICATION DATA SHEET

Model#: 286THFNA9026 AA **WINDING#:** K2864159 NONE 7
CONN. DIAGRAM: A-EE7300 **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS311057-1425

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC. RPM | F.L. RPM | FRAME | ENCLOSURE | KVA CODE | DESIGN |
|----|------|-----------|----------|-------|-----------|----------|--------|
| 30 | 22.4 | 1800 | 1773 | 286T | TEFC | G | B |

| PH | Hz | VOLTS | FL AMPS | START TYPE | DUTY | INSL | S.F | AMB°C | ELEVATION |
|----|----|-------|---------|------------------|------------|------|------|-------|-----------|
| 3 | 60 | 460 | 36.5 | LINE OR INVERTER | CONTINUOUS | F3 | 1.15 | 40 | 3300 |

| FULL LOAD EFF: 94.1 | 3/4 LOAD EFF: 94.1 | 1/2 LOAD EFF: 93.6 | GTD. EFF | ELEC. TYPE | NO LOAD AMPS |
|---------------------|--------------------|--------------------|----------|-------------------|--------------|
| FULL LOAD PF: 82 | 3/4 LOAD PF: 77 | 1/2 LOAD PF: 67.5 | 93.6 | SQ CAGE INV RATED | 15 |

| F.L. TORQUE | LOCKED ROTOR AMPS | L.R. TORQUE | B.D. TORQUE | F.L. RISE°C |
|-------------|-------------------|---------------|---------------|-------------|
| 89 LB-FT | 217 | 165 LB-FT 185 | 245 LB-FT 275 | 60 |

| SOUND PRESSURE @ 3 FT. | SOUND POWER | ROTOR WK^2 | MAX. WK^2 | SAFE STALL TIME | STARTS / HOUR | APPROX. MOTOR WGT |
|------------------------|-------------|-------------|-------------|-----------------|---------------|-------------------|
| 65 dBA | 75 dBA | 4.6 LB-FT^2 | 225 LB-FT^2 | 25 SEC. | 2 | 540 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 | 1045 HOT ROLLED (C-204) | CAST IRON |
| 6311 | 6210 | | | | | | |

| 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 NONE FT-LB NONE V NONE Hz |

DATE: 06/21/2017 09:38:11 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

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



286THFNA9026

Submittal

Data @ 460 V

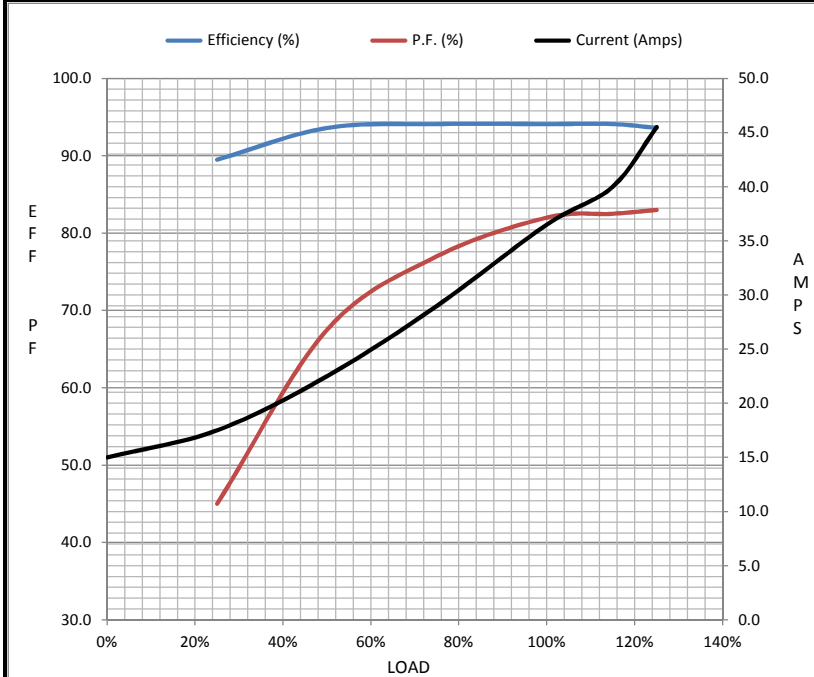
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 15.0 | 17.5 | 22.5 | 29.0 | 36.5 | 40.0 | 45.5 | 217 |
| Torque (ft-lb) | 0.00 | 22.0 | 44.0 | 66.5 | 89.0 | 100 | 112 | 165 |
| RPM | 1800 | 1795 | 1785 | 1780 | 1773 | 1,770 | 1765 | 0 |
| Efficiency (%) | | 89.5 | 93.6 | 94.1 | 94.1 | 94.1 | 93.6 | |
| P.F. (%) | 6.0 | 45.0 | 67.5 | 77.0 | 82.0 | 82.5 | 83.0 | 34.0 |

Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1650 | 1773 | 1800 |
| Current (Amps) | 217 | 200 | 130 | 36.5 | 15.0 |
| Torque (ft-lb) | 165 | 155 | 245 | 89.0 | 0.00 |

| Information Block | | | | |
|-----------------------------|------------------------|--------|--------|---------|
| HP | 30.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 286 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 60 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 4.6 Lb-Ft ² | | | |
| Ref Wdg | K2864159 NONE | | | |
| Sound Pressure @ 1M | 65 dBA | | | |
| VFD Rating | CONSTANT 20:1 | | | |
| Outline Dwg | B-SS311057-1425 | | | |
| Conn. Diag | A-EE7300 | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 365THFS8036 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.1250 | 0.1360 | 0.7240 | 0.9370 | 17.7850 |



Speed - Torque Curve

