

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 284THFCD9026

Catalog No: W560A

XRI®-841 Severe Duty Motor, 25 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 284T Frame, TEFC



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E

RegalRexnord

Nameplate Specifications

| | | | |
|------------------------|-----------------------|----------------------------|------------------------------------|
| Output HP | 25 Hp | Output KW | 18.7 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 30.0 A | Speed | 1772 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 93.6 % | Power Factor | 83 |
| Duty | Continuous | Insulation Class | H |
| Design Code | B | KVA Code | G |
| Frame | 284T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6311 | Opp Drive End Bearing Size | 6211 |
| UL | Listed | CSA | Y |
| CE | Y | IP Code | 56 |
| Hazardous Location | DIVISION 2 T2B | Number of Speeds | 1 |

Technical Specifications

| | | | |
|-----------------------|-------------------------------------|-------------------|------------------------------------|
| Electrical Type | Squirrel Cage Inverter Rated | Starting Method | Line Or Inverter |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .2988 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Shaft Diameter | 1.875 in |
| Assembly/Box Mounting | F1/F2 CAPABLE | Inverter Load | CONSTANT 10:1/VARIABLE 10:1 |
| Connection Drawing | EE7300 | Outline Drawing | SS312942-100 |

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:11/29/2022

| DASH NO. | 4 | | 3 | | | | 2 | | 1 | |
|----------|-------|-------|------|-------|------|-------|------|------|----------|----------|
| | B | C | E | 2E | 2F | 2FF | BA | BS | MOUNTING | FRAME |
| 100 | 10.83 | 26.64 | 5.50 | 11.00 | --- | 9.50 | 4.75 | 4.75 | F1 OR F2 | 284T |
| 200 | 12.68 | 28.14 | | | 9.50 | 11.00 | | 5.50 | | 284/286T |



| | | |
|---|--------------------|-------------------------------|
| DRAWING REVISION D | REVISION BY VS | REV DATE/© DATE 27-10-2020 |
| ECO CR-0000272 | APPROVED BY GNK | DATE 27-10-2020 |
| ECO DESCRIPTION DRAWING UPDATED | | |
| <small>COPYRIGHT (PER REVISION DATE) REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small> | | |

PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

| | |
|------------------------|--|
| DRAWN BY BISWA | REGAL ® Regal Beloit America, Inc. |
| DATE 24/12/2018 | |
| APPROVED BY SBD | DESCRIPTION OUTLINE 284/286T FR-NEMA-SD & IEEE841 |
| DATE 24/12/2018 | MATERIAL |
| REFERENCE | PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B |
| | DRAWING NUMBER SS312942 |
| | SHEET 1 OF 1 |

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

TERMINAL BLOCK WHEN SPECIFIED

TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



VIEW OF TERMINAL END

OPTIONAL CORD CONNECTION

| | |
|----|-------|
| L1 | WHITE |
| L2 | RED |
| L3 | BLACK |

| | | |
|---|-------------------|-------------------------------|
| DRAWING REVISION AC | REVISION BY BS | REV DATE/© DATE 26/07/2022 |
| REQUEST NUMBER CR-0010402 | APPROVED BY SN | DATE 26/07/2022 |
| REQUEST NUMBER DESCRIPTION DRAWING UPDATED | | |
| <small>COPYRIGHT (PER REVISION DATE) REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small> | | |

PRIMARY DIMENSIONS ARE INCH
mm DIMENSIONS IN [BRACKETS]
ARE FOR REFERENCE ONLY

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



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 OUTLINE: SS312942
 WINDING: HA31804007 NONE 8

MODEL #: 284THFCD9026
 CAT #: W560A

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|-----------|------|----------|--------|
| 25 | 18.7 | 1800 | 1775 | 284T | TEFC | TFC | G | B |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB (° C) | ELEV. (Ft) |
|----|----|-------|------|------------------|------|------|------|-----------|------------|
| 3 | 60 | 460 | 30.5 | LINE OR INVERTER | CONT | H | 1.15 | 40 | 3300 |

| F.L. EFF | 93.6 | 3/4 LD EFF | 93.6 | 1/2 LD EFF | 93.0 | GTD EFF | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|-------------------|
| F.L. PF | 83.0 | 3/4 LD PF | 77.5 | 1/2 LD PF | 66.5 | 93.0 | SQ CAGE INV RATED |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (° C) |
|-------------|-----------------|----------------|----------------|-----------------|
| 74.0 LB-FT | 182 | 144 LB-FT 195% | 192 LB-FT 259% | 55 |

| SOUND PRESSURE | SOUND | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME | STARTS/HOUR | APROX. MOTOR |
|----------------|--------|------------------------|---------------------------|-----------------|-------------|--------------|
| 75 dBA | 84 dBA | 5.2 LB-FT ² | 175 LB-FT ² | 20 SEC. | 2 | 494 LB. |

*** SUPPLEMENTAL INFORMATION ***

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|---------------------|--------------------|------------|---------|--------------|
| STANDARD | STANDARD | RIGID | HORIZONTAL | PREMIUM SEVERE DUTY | DIVISION 2 T2B | NO | NONE | BLUE (EPOXY) |

| BEARINGS | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------------------------------|------------|------------|------------|-------------|-------------------------|----------------|
| DE ODE BALL BALL 6311 6211 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|-------------|------------|-----------|-----------|-------------|---------|---------------|
| NONE | NOT | NONE | NONE | NONE | FALSE | NA |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) |
|--------------|--------------|--------------|--------------|--------------|--------------------|
| 0.2 | 0.125 | 0.742 | 0.972 | 19.436 | 0.080 |

| | | |
|---------------------------------|--|--|
| * N O T E S * | If Inverter equals NONE, contact factory for further information | |
| | INVERTER TORQUE: CONSTANT 10:1/VARIABLE 10:1 | |
| | INV. HP SPEED RANGE: NONE | |
| | ENCODER: NONE | |
| | NONE PPR | |

| | |
|-----------------------|-------------------|
| PREPARED BY: ANUSHA M | BRAKE: NONE |
| DATE: 3/31/2020 | NONE NONE |
| | FT-LB: NA |
| | VOLTAGE: NONE HZ: |

FORM: 3531 REV_4 2/27/06
 ** Subject to change without notice.

Data Sheet

Date: 5/6/2020
 Customer: _____
 Attention: _____
 Submitted by: _____

284THFCD9026



Submittal

Data @ 460 V

Motor Load Data

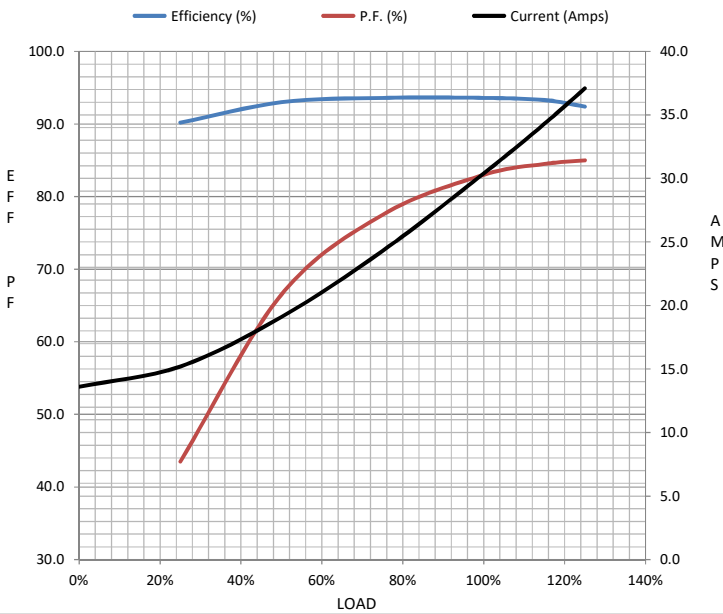
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 13.6 | 15.2 | 19.1 | 24.3 | 30.4 | 34.3 | 37.1 | 182 |
| Torque (ft-lb) | 0.00 | 18.3 | 36.7 | 55.2 | 74.0 | 85.2 | 93.0 | 144 |
| RPM | 1800 | 1795 | 1788 | 1782 | 1775 | 1,772 | 1770 | 0 |
| Efficiency (%) | | 90.2 | 93.0 | 93.6 | 93.6 | 93.3 | 92.4 | |
| P.F. (%) | 5.0 | 43.5 | 66.5 | 77.5 | 83.0 | 84.5 | 85.0 | 36.0 |

Motor Speed Data

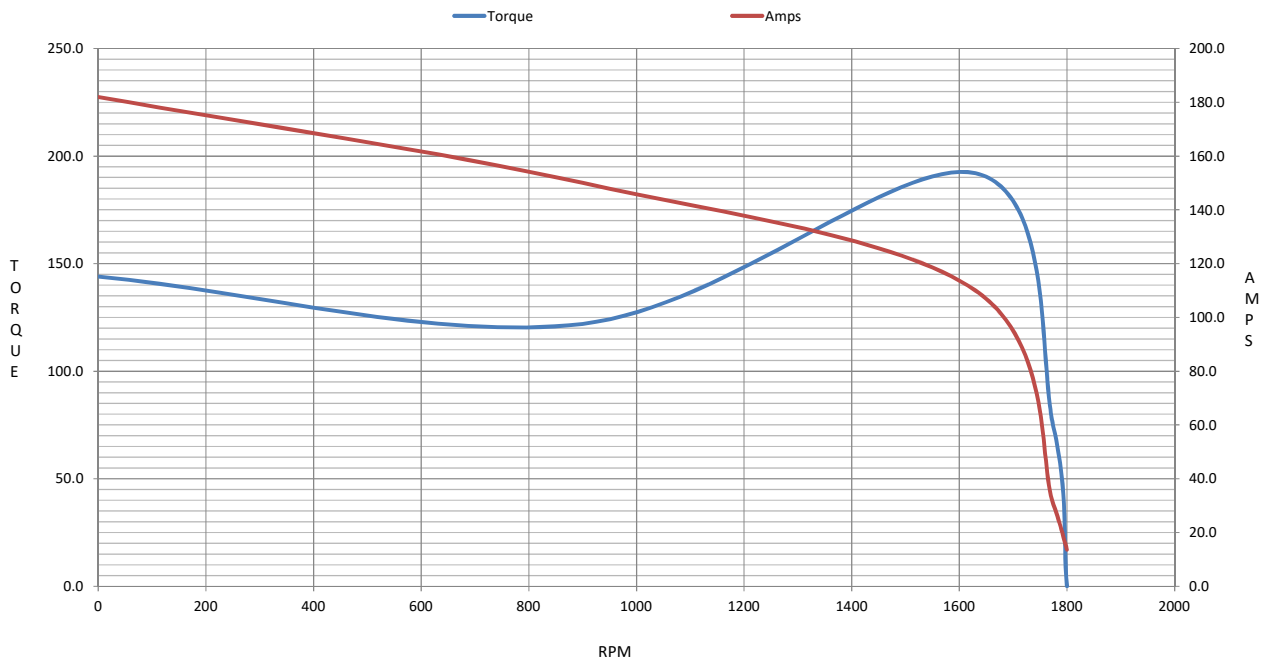
| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1630 | 1775 | 1800 |
| Current (Amps) | 182 | 150 | 110 | 30.4 | 13.6 |
| Torque (ft-lb) | 144 | 122 | 192 | 74.0 | 0.00 |

Information Block

| | | | | |
|-----------------------------|-----------------------------|--------|--------|---------|
| HP | 25.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 284 | | | |
| Enclosure | TEFC | | | |
| Construction | TFC | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 55 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 3,300 feet | | | |
| Rotor/Shaft wk ² | 5.2 Lb-Ft ² | | | |
| Ref Wdg | HA31804007 NONE | | | |
| Sound Pressure @ 1M | 75 dBA | | | |
| VFD Rating | CONSTANT 10:1/VARIABLE 10:1 | | | |
| Outline Dwg | SS312942 | | | |
| Conn. Diag | EE7300 | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.2000 | 0.1250 | 0.7420 | 0.9720 | 19.4360 |



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 : 284THFCD9026

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

Catalog No : W560A

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