

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324THFCD8086

Catalog No: Y583A

Blue Max® Inverter Duty Encoder Motor, 25 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 324TC Frame,
TEBC-AXIAL



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RegalRexnord

Nameplate Specifications

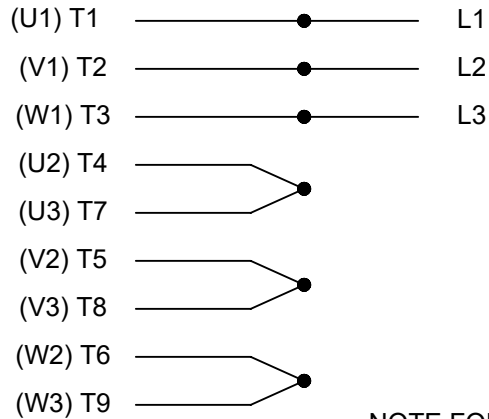
| | | | |
|------------------------|--------------------|----------------------------|---|
| Output HP | 25 Hp | Output KW | 18.7 kW |
| Frequency | 60 Hz | Voltage | 230/460 V |
| Current | 61.0/30.5 A | Speed | 1180 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 92.4 % | Power Factor | 83 |
| Duty | Continuous | Insulation Class | H |
| Design Code | INV | KVA Code | H |
| Frame | 324TC | Enclosure | Totally Enclosed Blower cooled - Axial |
| Thermal Protection | Thermostat | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6312 | Opp Drive End Bearing Size | 6212 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 55 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------------|-------------------|------------------------|
| Electrical Type | Squirrel Cage Inverter Duty | Starting Method | Inverter Only |
| Poles | 6 | Rotation | Reversible |
| Resistance Main | .402 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 | 2.125 in |
| Assembly/Box Mounting | F1/F2 CAPABLE | Inverter Load | CONSTANT 2000:1 |
| Connection Drawing | EE7308T | Outline Drawing | SS621102-100 |

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HIGH VOLTAGE



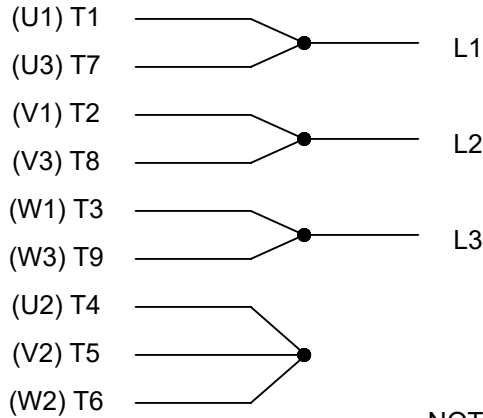
**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



VIEW OF TERMINAL END

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

| | | | | | | |
|---|-------------------|--------------------|----------------------------|--------------------|---|-----------------|
| DRAWING REVISION T | REVISION BY ZR | DATE 01-14-2019 | | DRAWN BY SMC | Regal Beloit America, Inc. | |
| ECO ECO-0159915 | APPROVED BY DR | DATE 01-15-2019 | | DATE 05-13-1992 | | |
| ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM | | | | APPROVED BY TB | DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR | |
| <small>COPYRIGHT 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> | | | | DATE 05-13-1992 | MATERIAL | PROCESS/FINISH |
| | | | REFERENCE EE7308/EE7300 | SIZE A | DRAWING NUMBER EE7308T | SHEET 1 OF 1 |
| | | | THIRD ANGLE PROJECTION | | | |



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: EE7308T
OUTLINE: SS621102-100
WINDING: HA32006009 NONE 2
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 324THFCD8086
CAT #: Y583A
CUSTOMER PART #: _____
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|----|------|----------|--------|-------|------------|------|----------|--------|
| 25 | 18.7 | 1200 | 1180 | 324TC | TEBC-AXIAL | TBC | H | INF |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|---------|---------|---------------|------|------|------|-----|-------|
| 3 | 60 | 230/460 | 61/30.5 | INVERTER ONLY | CONT | H | 1.15 | 40 | 3300 |

| F.L. EFF | 92.4 | 3/4 LD EFF | 93.1 | 1/2 LD EFF | 92.9 | GTD EFF | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|------------------|
| F.L. PF | 83.0 | 3/4 LD PF | 79.5 | 1/2 LD PF | 70.0 | 91.7 | SQ CAGE INV DUTY |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) |
|-------------|-----------------|-------------|-------------|----------------|
| 111 LB-FT | 210 | 160 LB-FT | 333 LB-FT | 60 |

| SOUND PRESSURE @ 3 FT. | SOUND | POWER | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME | STARTS/HOUR | APROX. | MOTOR WGT |
|------------------------|--------|-------|--------------------------|---------------------------|-----------------|-------------|---------|-----------|
| 65 dBA | 74 dBA | | 3.072 LB-FT ² | 80 LB-FT ² | 35 SEC. | 2 | 575 LB. | |

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

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| C-FACE | ENCODER | RIGID | HORIZONTAL | NO | NONE | NO | NONE | BLUE (ENAMEL) |

| BEARINGS | | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|----------|------|------------|------------|------------|-------------|-------------------------|----------------|
| DE | ODE | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| BALL | BALL | | | | | | |
| 6312 | 6212 | | | | | | |

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

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.251 | 0.133 | 1.047 | 1.136 | 21.816 | 0.150 | ODE |

| | | | | | | |
|-------|---|--|--|--|--|--|
| NOTES | INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED | | | | | |
| | ENCODER: NONE | | | | | |
| | NONE | | | | | |
| | NONE PPR | | | | | |

| | |
|--------------------------|---|
| PREPARED BY: _____ | BRAKE: NONE |
| DATE: 9/27/2021 | NONE NONE |
| | FT-LB: NA |
| | VOLTAGE: NONE |
| FORM: 3531 REV_4 2/27/06 | UL: V-INS, CONST, OVERHEAT PRT DEV UL REC |

Data Sheet

Date: 9/27/2021
 Customer: _____
 Attention: _____
 Submitted by: _____



324THFCD8086

Submittal

Data @ 460 V

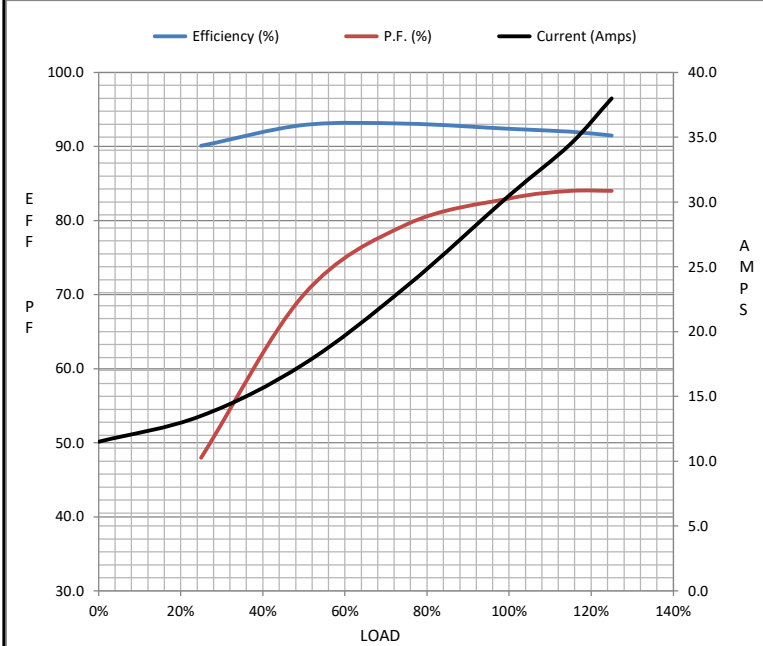
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 11.5 | 13.5 | 17.5 | 23.5 | 30.5 | 34.5 | 38.0 | 210 |
| Torque (ft-lb) | 0.00 | 27.5 | 55.0 | 83.0 | 111 | 128 | 140 | 160 |
| RPM | 1200 | 1195 | 1192 | 1185 | 1180 | 1,178 | 1175 | 0 |
| Efficiency (%) | | 90.1 | 92.9 | 93.1 | 92.4 | 92.0 | 91.5 | |
| P.F. (%) | 4.5 | 48.0 | 70.0 | 79.5 | 83.0 | 84.0 | 84.0 | 35.0 |

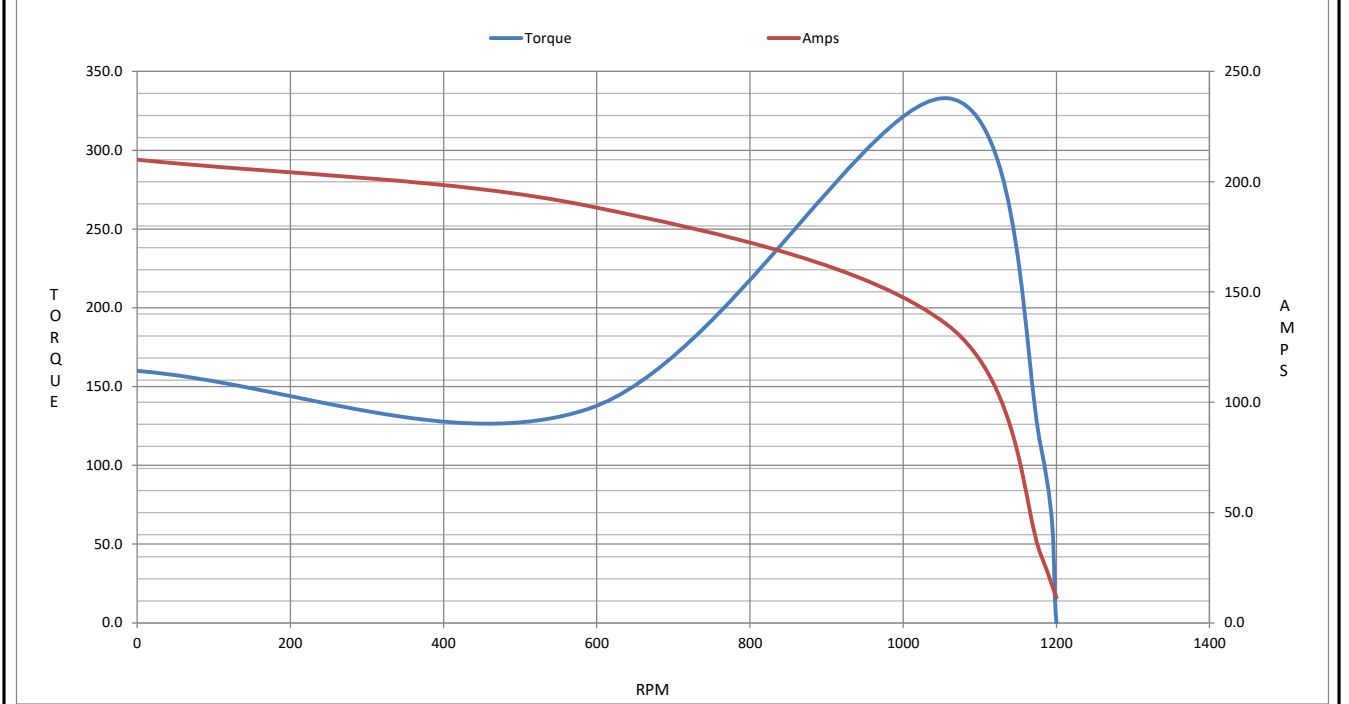
Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 590 | 1058 | 1180 | 1200 |
| Current (Amps) | 210 | 189 | 135 | 30.5 | 11.5 |
| Torque (ft-lb) | 160 | 136 | 333 | 111 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|---------|
| HP | 25.0 | | | |
| Sync. RPM | 1200 | | | |
| Frame | 324 | | | |
| Enclosure | TEBC-AXIAL | | | |
| Construction | TBC | | | |
| Voltage | 230/460 V | | | |
| Frequency | 60 Hz | | | |
| Design | INF | | | |
| LR Code letter | H | | | |
| Service Factor | 1.0 | | | |
| Temp Rise @ FL | 60 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 3,300 feet | | | |
| Rotor/Shaft wk ² | 3.072 Lb-F ² | | | |
| Ref Wdg | HA32006009 NONE | | | |
| Sound Pressure @ 1M | 65 dBA | | | |
| VFD Rating | CONSTANT 2000:1 | | | |
| Outline Dwg | SS621102-100 | | | |
| Conn. Diag | EE7308T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.2510 | 0.1330 | 1.0470 | 1.1360 | 21.8160 |



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 : 324THFCD8086

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

Catalog No : Y583A

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