

PRODUCT INFORMATION PACKET

Model No: 256THFCD9026

Catalog No: W553A

XRI®-841 Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 256T Frame, TEFC



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Nameplate Specifications

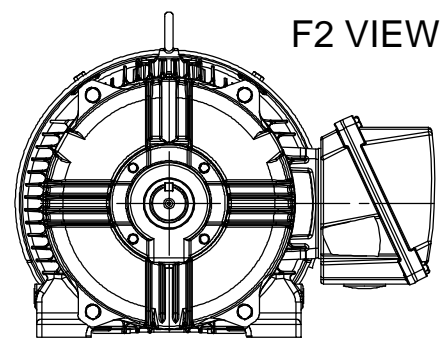
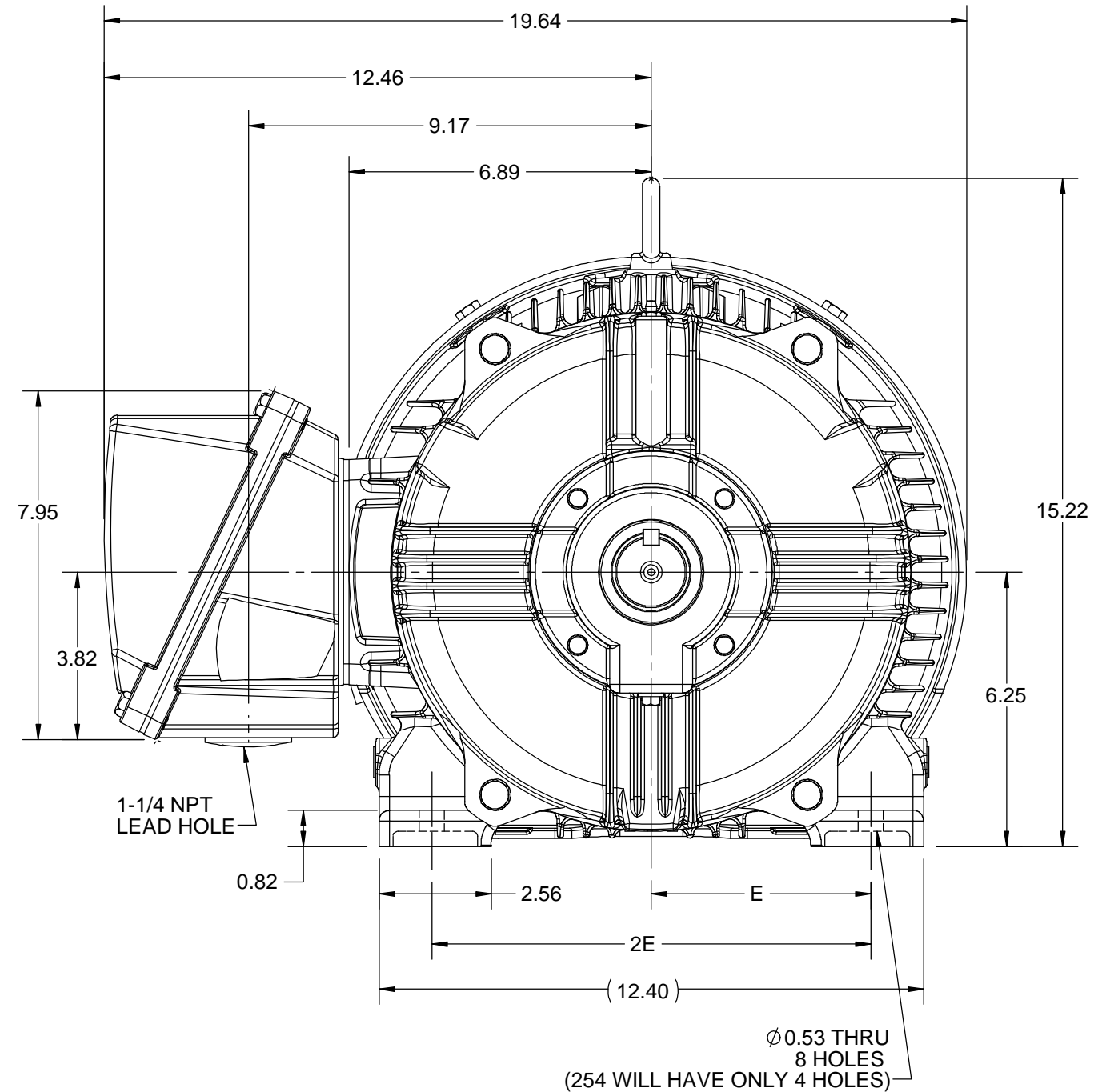
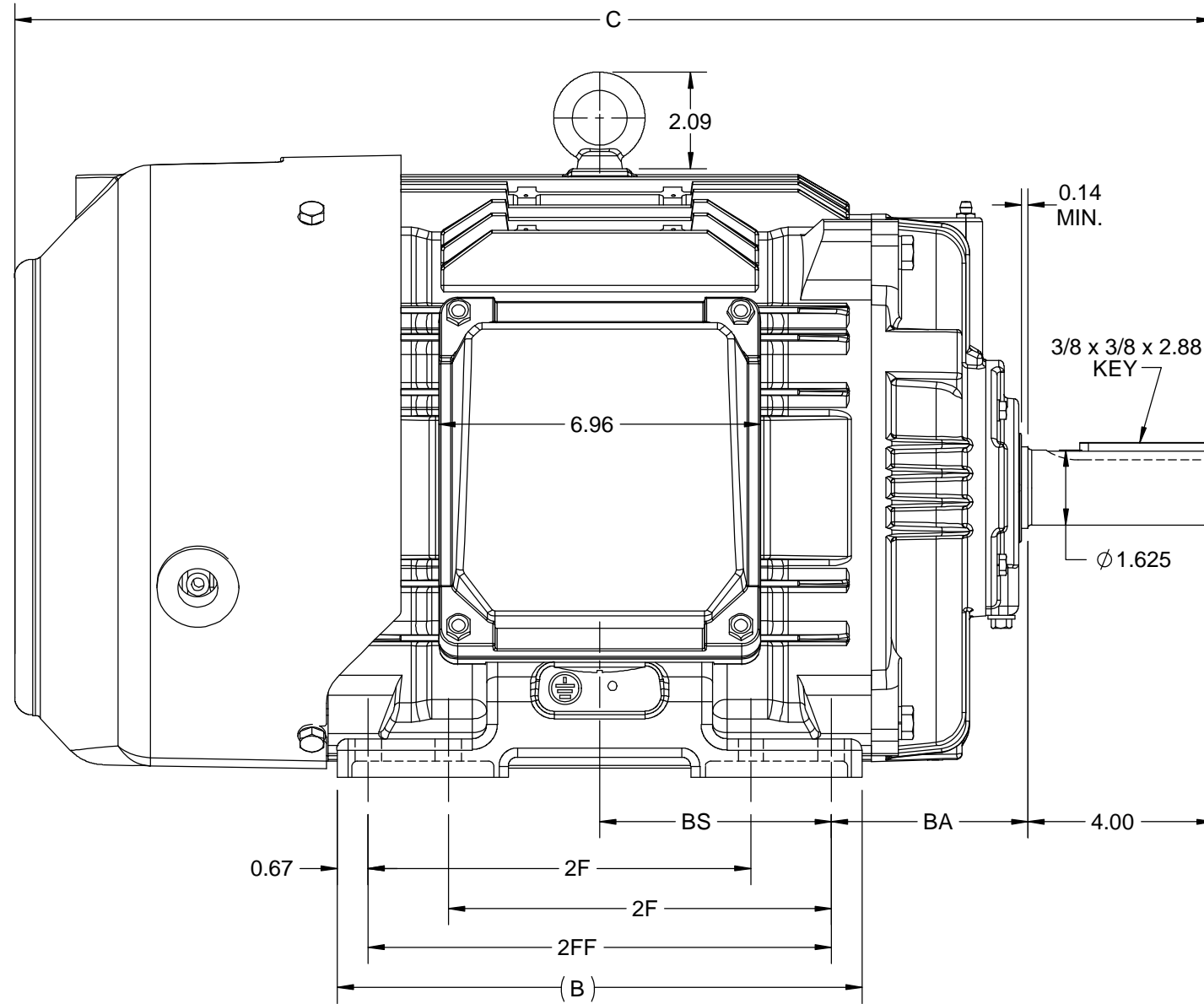
| | | | |
|------------------------|-----------------------|----------------------------|------------------------------------|
| Output HP | 20 Hp | Output KW | 14.9 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 24.2 A | Speed | 1768 rpm |
| Service Factor | 1.15 | Phase | 3 |
| Efficiency | 93 % | Power Factor | 83.5 |
| Duty | Continuous | Insulation Class | H |
| Design Code | B | KVA Code | G |
| Frame | 256T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6309 | Opp Drive End Bearing Size | 6209 |
| 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 | .513 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 | 1.626 in |
| Assembly/Box Mounting | F1/F2 CAPABLE | Inverter Load | CONSTANT 10:1/VARIABLE 10:1 |
| Connection Drawing | EE7300 | Outline Drawing | SS208560-200 |

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| DASH NO. | 4 | | 3 | | | | | | MOUNTING | FRAME |
|----------|-------|-------|------|-------|------|-------|------|------|----------|-------|
| | B | C | E | 2E | 2F | 2FF | BA | BS | | |
| 100 | 9.60 | 24.15 | 5.00 | 10.00 | - | 8.25 | 4.25 | 4.13 | F1 OR F2 | 254T |
| 200 | 11.34 | 25.89 | | | 8.25 | 10.00 | | | | 5.00 |



| | | |
|---|----------------------|-------------------------------|
| DRAWING REVISION E | REVISION BY BISWA | REV DATE/© DATE 10/07/2020 |
| ECO ECO-0194249 | APPROVED BY GNK | DATE 10/07/2020 |
| ECO DESCRIPTION DRAWING UPDATED 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. | | |

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| | |
|------------------------|---|
| DRAWN BY BISWA | REGAL ® Regal Beloit America, Inc. |
| DATE 26/09/2018 | |
| APPROVED BY SBD | DESCRIPTION OUTLINE 254T/256T FR-NEMA-SD & IEEE841 |
| DATE 26/09/2018 | MATERIAL |
| REFERENCE | PROCESS/FINISH |
| THIRD ANGLE PROJECTION | SIZE B |
| | DRAWING NUMBER SS208560 |
| | SHEET 1 OF 1 |

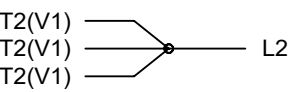
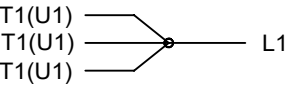
THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'

TERMINAL BLOCK WHEN SPECIFIED

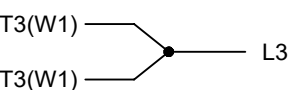
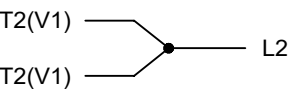
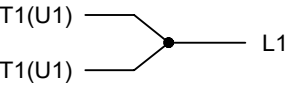
TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS



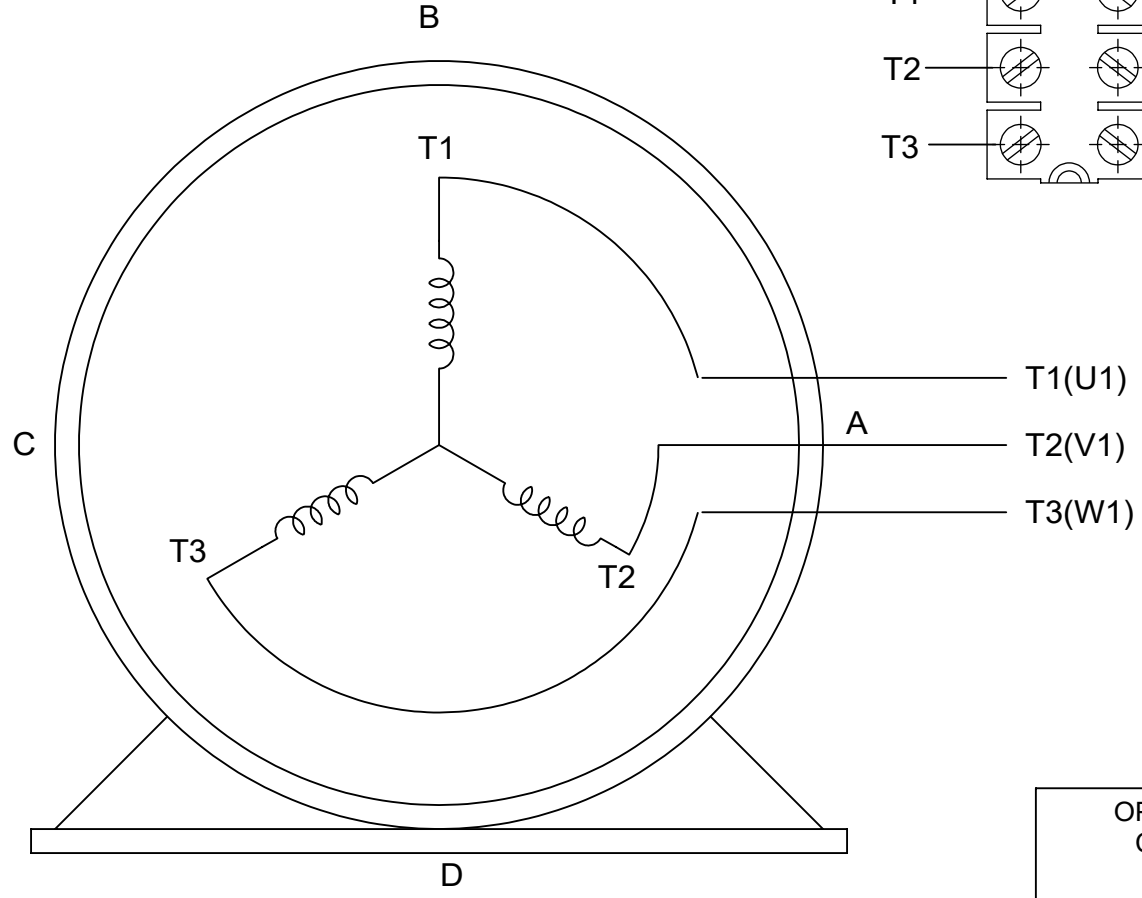
IF MOTOR HAS
9 LEADS



IF MOTOR HAS
6 LEADS



A-9806 DECAL



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

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

Regal Rexnord Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

| | |
|----------|----------------|
| MATERIAL | PROCESS/FINISH |
|----------|----------------|

| | | |
|-----------|--------------------------|-----------------|
| SIZE A | DRAWING NUMBER EE7300 | SHEET 1 OF 1 |
|-----------|--------------------------|-----------------|

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DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 OUTLINE: SS208560-256T
 WINDING: HE31604010 NONE 8

MODEL #: 256THFCD9026
 CAT #: W553A
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN | |
|------------------|-----------------|------------------------|---------------------------|------------------|-------------|-----------------|-------------------|-----------|-----------|
| 20 | 14.9 | 1800 | 1768 | 256T | TEFC | TFC | G | B | |
| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB (° C) | ELEV.(Ft) |
| 3 | 60 | 460 | 24.2 | LINE OR INVERTER | CONT | H | 1.15 | 40 | 3300 |
| F.L. EFF | 93.0 | 3/4 LD EFF | 93.0 | 1/2 LD EFF | 91.7 | GTD EFF | ELECT. TYPE | | |
| F.L. PF | 83.5 | 3/4 LD PF | 79.0 | 1/2 LD PF | 69.0 | 92.4 | SQ CAGE INV RATED | | |
| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | | B.D. TORQUE | | F.L. RISE (° C) | | | |
| 59.4 LB-FT | 144 | 119 LB-FT | 200% | 146 LB-FT | 246% | 60 | | | |
| SOUND PRESSURE @ | SOUND | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME | STARTS/HOUR | APROX. MOTOR | | | |
| 65 dBA | 74 dBA | 3.8 LB-FT ² | 125 LB-FT ² | 20 SEC. | 2 | 357 | 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 | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON | |
| BALL | BALL | | | | | | | |
| 6309 | 6209 | | | | | | | |
| 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) | | | |
| 0.341 | 0.203 | 1.037 | 1.25 | 26.98 | 0.080 | | | |

If Inverter equals NONE, contact factory for further information

| | | |
|--------------------------------------|--------------------------------|---------------|
| * N O T E S * | INVERTER TORQUE: VARIABLE 10:1 | |
| | INV. HP SPEED RANGE: NONE | |
| | ENCODER: NONE | |
| | NONE PPR | |
| PREPARED BY: ANUSHA M | | BRAKE: NONE |
| DATE: 3/10/2020 | | |
| FORM: 3531 REV_4 2/27/06 | | |
| ** Subject to change without notice. | | FT-LB: NA |
| | | VOLTAGE: NONE |
| | | HZ: |

Data Sheet

256THFCD9026

Date: 3/10/2020
 Customer: _____
 Attention: _____
 Submitted by: ANUSHA M



Submittal

Data @ 460 V

Motor Load Data

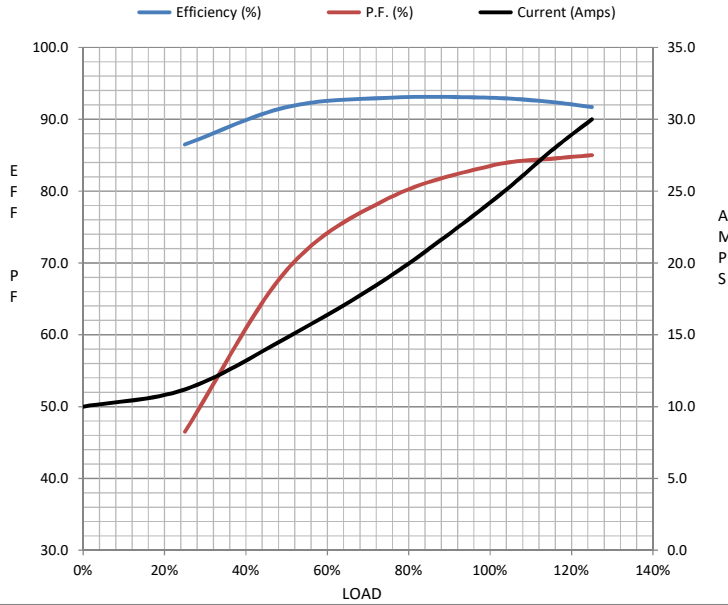
| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|------|
| Current (Amps) | 10.0 | 11.2 | 14.8 | 19.0 | 24.2 | 27.8 | 30.0 | 144 |
| Torque (ft-lb) | 0.00 | 14.6 | 29.5 | 44.4 | 59.4 | 68.5 | 74.7 | 119 |
| RPM | 1800 | 1792 | 1785 | 1778 | 1768 | 1,762 | 1760 | 0 |
| Efficiency (%) | | 86.5 | 91.7 | 93.0 | 93.0 | 92.4 | 91.7 | |
| P.F. (%) | 5.0 | 46.5 | 69.0 | 79.0 | 83.5 | 84.5 | 85.0 | 42.0 |

Motor Speed Data

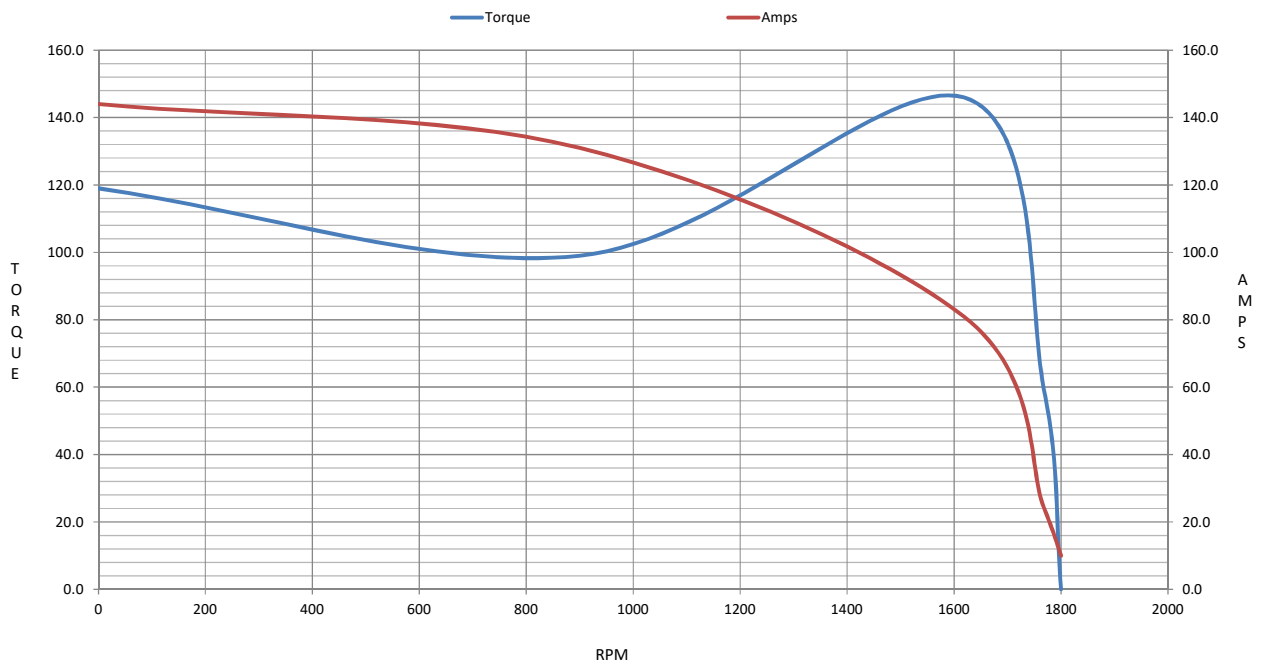
| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-----|---------|------|-------|------|
| Speed (RPM) | 0 | 900 | 1618 | 1768 | 1800 |
| Current (Amps) | 144 | 131 | 81.0 | 24.2 | 10.0 |
| Torque (ft-lb) | 119 | 99.0 | 146 | 59.4 | 0.00 |

Information Block

| | | | | |
|-----------------------------|------------------------|--------|--------|---------|
| HP | 20.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 256 | | | |
| Enclosure | TEFC | | | |
| Construction | TFC | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | B | | | |
| LR Code letter | G | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 60 °C | | | |
| Duty | CONT | | | |
| Ambient | 50 °C | | | |
| Elevation | 1,000 feet | | | |
| Rotor/Shaft wk ² | 3.8 Lb-Ft ² | | | |
| Ref Wdg | HE31604010 NONE | | | |
| Sound Pressure @ 1M | 65 dBA | | | |
| VFD Rating | VARIABLE 10:1 | | | |
| Outline Dwg | SS208560-256T | | | |
| Conn. Diag | EE7300 | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.3410 | 0.2030 | 1.0370 | 1.2500 | 26.9800 |



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 : 256THFCD9026

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

Catalog No : W553A

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