

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 256TTFC6529

Catalog No: E485A

XRI®-SD Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 256T Frame, TEFC



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RegalRexnord



### Nameplate Specifications

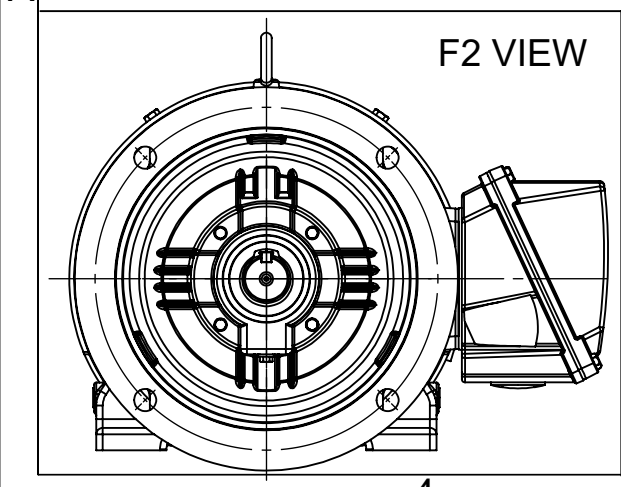
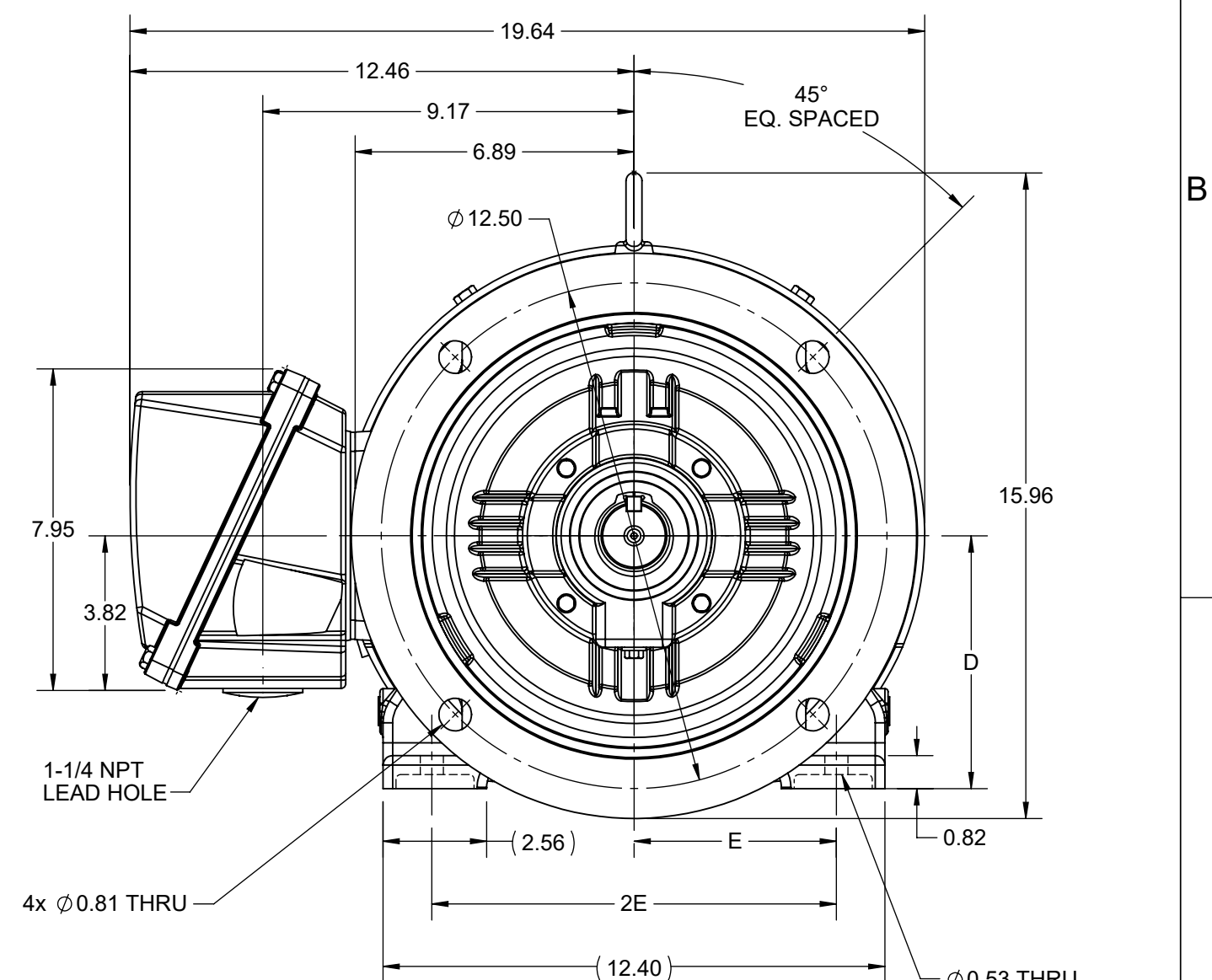
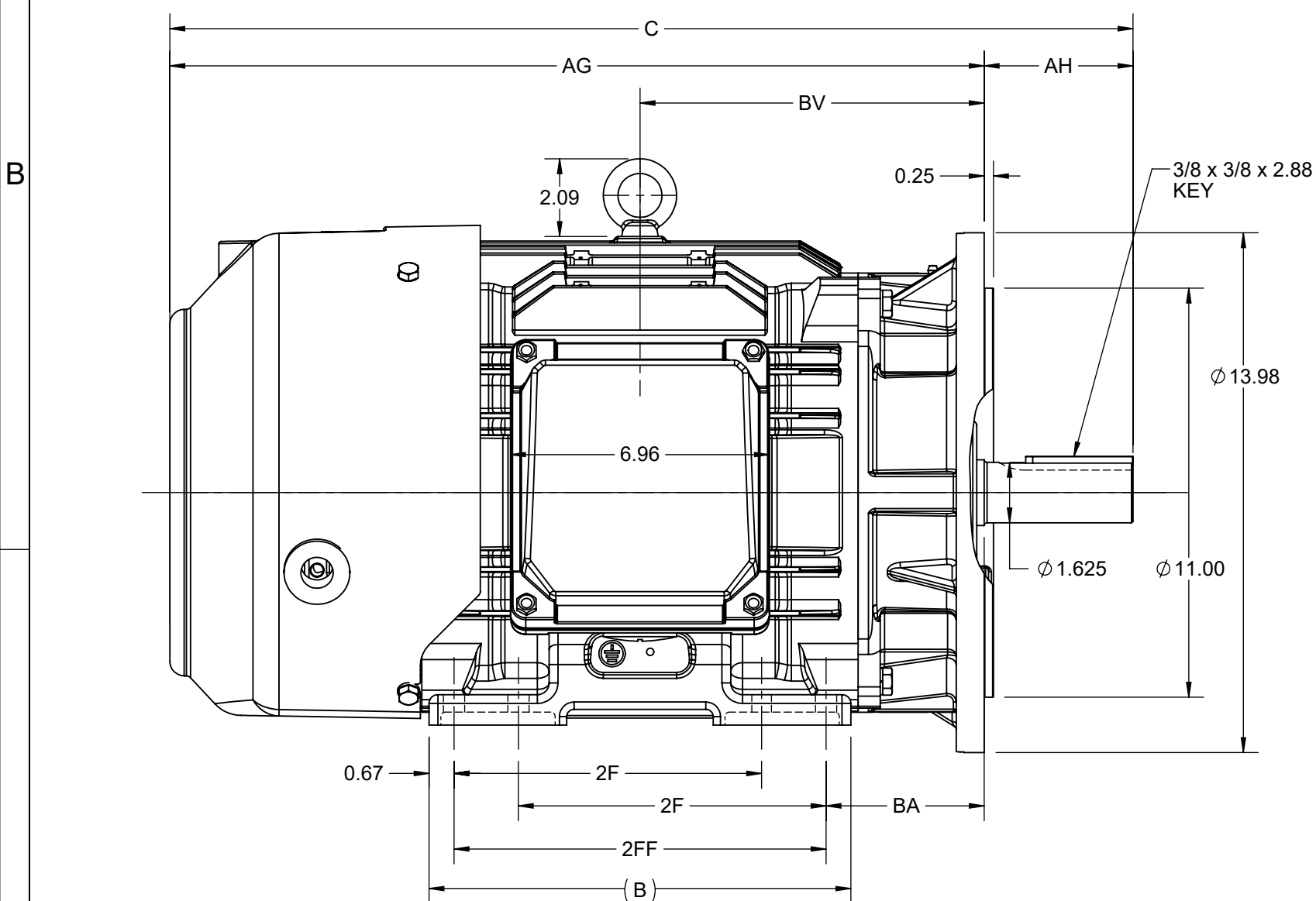
Phase	<b>3</b>	Output HP	<b>20 Hp</b>
Output KW	<b>14.9 kW</b>	Voltage	<b>230/460 V</b>
Speed	<b>1768 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>256T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>93 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>48.5/24.2 A</b>	Power Factor	<b>83.5</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6209</b>
UL	<b>Listed</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>	Hazardous Location	<b>DIVISION 2 T2B</b>

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.513 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Shaft Diameter	<b>1.626 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 10:1/VARIABLE 20:1</b>
Connection Drawing	<b>EE7308</b>	Outline Drawing	<b>SS208560-200</b>

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DASH NO.	B	C	D	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	24.16	6.25	5.00	10.00	-	8.25	20.16	4.00	4.25	8.39	F1 OR F2	254TD
200	11.34	25.89				8.25	10.00	21.89			9.25		254/256TD



DRAWING REVISION A	REVISION BY RAM	REV DATE/© DATE 29/06/2022
REQUEST NUMBER CR-0009883	APPROVED BY SBD	DATE 29/06/2022
REQUEST NUMBER DESCRIPTION NEW DRAWING RELEASE		
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY RAM	 Regal Beloit America, Inc.
DATE 29/06/2022	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 254/256TD FR NEMA SD & IEEE841 D-FLANGE KIT
DATE 29/06/2022	MATERIAL
REFERENCE SS208560	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER <b>SS208560B</b>
	SHEET 1 OF 1

EE7308

THREE PHASE  
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

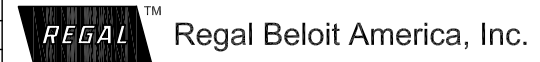
REF.  
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G  
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD  
CONNECTION

L1 — WHITE  
L2 — RED  
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN RM 11/20/1990				
					DEC.	INCHES						
5	CHG TO REGAL LOGO	SL 09/10/2015	AB					CHK ML 11/21/1990				
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN	.X	±.1			APPD SAS 04/24/2003				
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS	.XX	±.02		TITLE CONNECTION DIAGRAM	SCALE 1=1				
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XXX	±.005		3Ø - DUAL VOLTAGE MOTOR	REF				
1	REDRAWN	RM 11/20/1990		.XXXX	±.0005		MAT'L.	FMF				
					±7'30"			PREV				
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 ee7308	SIZE A	DRAWING NO. EE7308	PAGE OF 5	REV. 5
							DIST WP					





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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

**CUSTOMER:** \_\_\_\_\_ **CUSTOMER P.O. #:** \_\_\_\_\_  
**ORDER #:** \_\_\_\_\_ **REFERENCE MODEL #:** 256TTFC6529  
**CONN. DIAGRAM:** EE7308 **CAT #:** E485A  
**OUTLINE:** SS208560-200 **CUSTOMER PART #:** \_\_\_\_\_  
**WINDING:** HA31604018 NONE 9 **MOUNTING:** F1/F2 CAPABLE  
**SPEED:** \_\_\_\_\_ **FAN:** 504205B

**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	ELEV.
3	60	230/460	48.5/24.2	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

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
65 dBA	74 dBA	2.70 LB-FT²	125 LB-FT²	20 SEC.	2	455 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	UM SEVERE	DIVISION 2 T2B	YES	NONE	UE - RAL 5003 (EPO)

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)	FLOAT
0.341	0.203	1.037	1.25	26.98	0.080	ODE

<b>* N O T E S *</b>	<b>INVERTER TORQUE: CONSTANT 10:1/VARIABLE 20:1 INV. HP SPEED RANGE: NONE</b>					
	<b>ENCODER: NONE</b>					
	NONE					
	NONE					
	<b>NONE PPR</b>					

<b>PREPARED BY:</b> _____	<b>BRAKE: NONE</b>
<b>DATE:</b> 10/21/2022	NONE NONE
	<b>FT-LB:</b> NA
	<b>VOLTAGE:</b> NONE <b>HZ:</b>
<b>FORM: 3531 REV_4 2/27/06</b>	<b>UL: NO LETTER - ME,WUXI TEFC BLUEWHALE CLASS 1 DIV. 2</b>

Data Sheet

256TTFCD6529

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



Submittal

Data @ 460 V

Motor Load Data

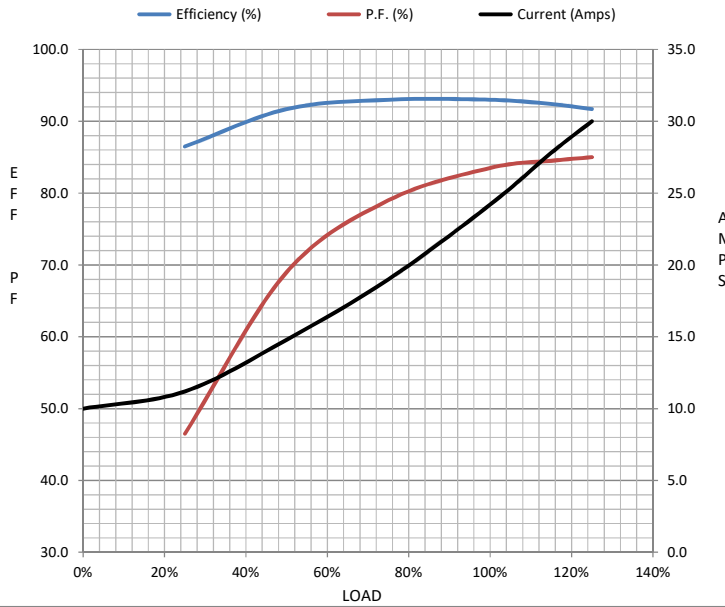
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	10.0	11.2	14.8	19.0	24.2	27.8	30.0	144
Torque (ft-lb)	0.00	14.6	29.5	44.4	59.4	68.5	74.7	119
RPM	1800	1792	1785	1778	1768	1,762	1760	0
Efficiency (%)		86.5	91.7	93.0	93.0	92.4	91.7	
P.F. (%)	5.0	46.5	69.0	79.0	83.5	84.5	85.0	42.0

Motor Speed Data

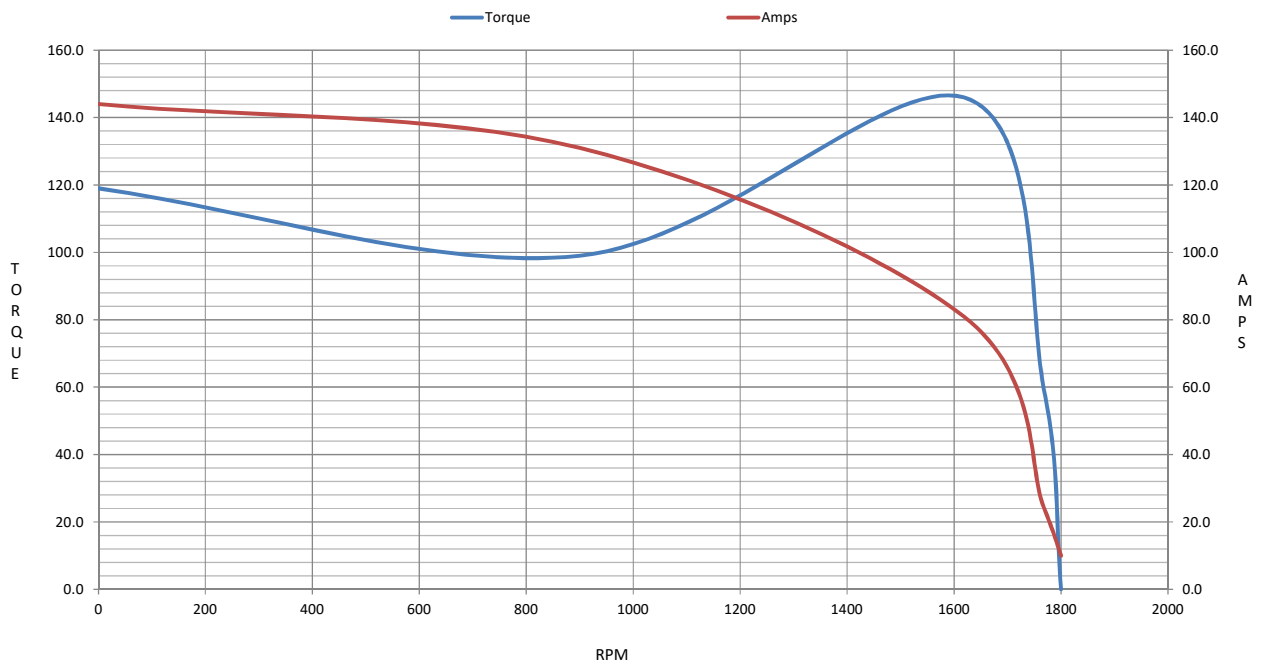
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1618	1768	1800
Current (Amps)	144	131	81.0	24.2	10.0
Torque (ft-lb)	119	99.0	146	59.4	0.00

Information Block

HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460 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 <sup>2</sup>	3.8 Lb-Ft <sup>2</sup>			
Ref Wdg	HE31604010 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 20:1/VARIABLE 10:1			
Outline Dwg	SS208560-256T			
Conn. Diag	EE7308			
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 : 256TTFCD6529

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

Catalog No : E485A

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**