

# PRODUCT INFORMATION PACKET

Model No: 445TTFC6538

Catalog No: E631A

XRI®-SD Severe Duty Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445T Frame, TEFC



### Nameplate Specifications

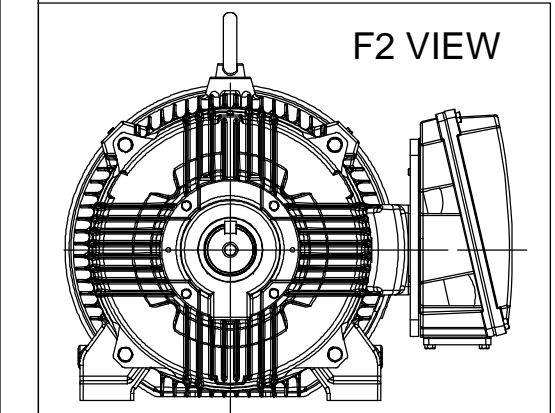
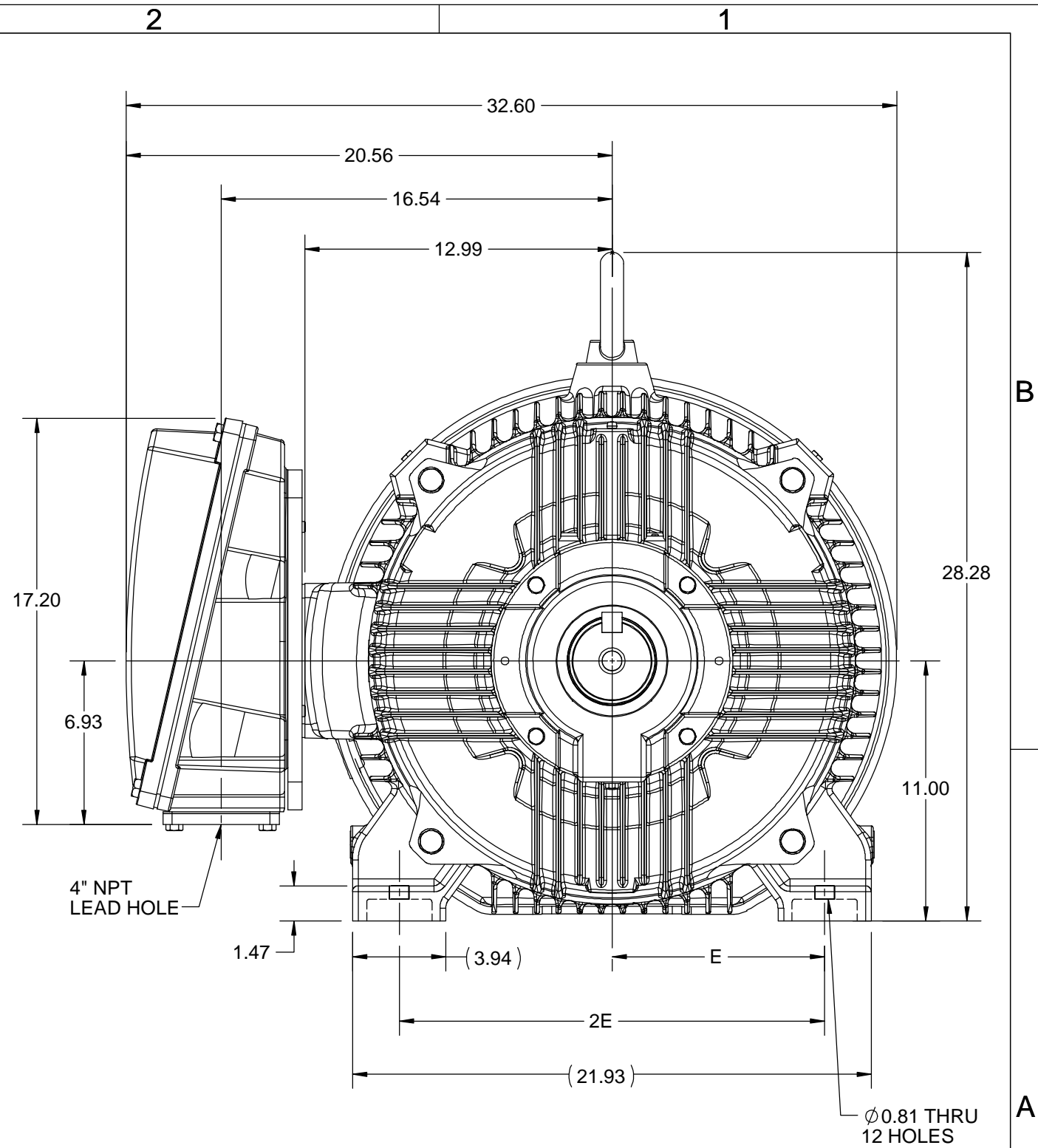
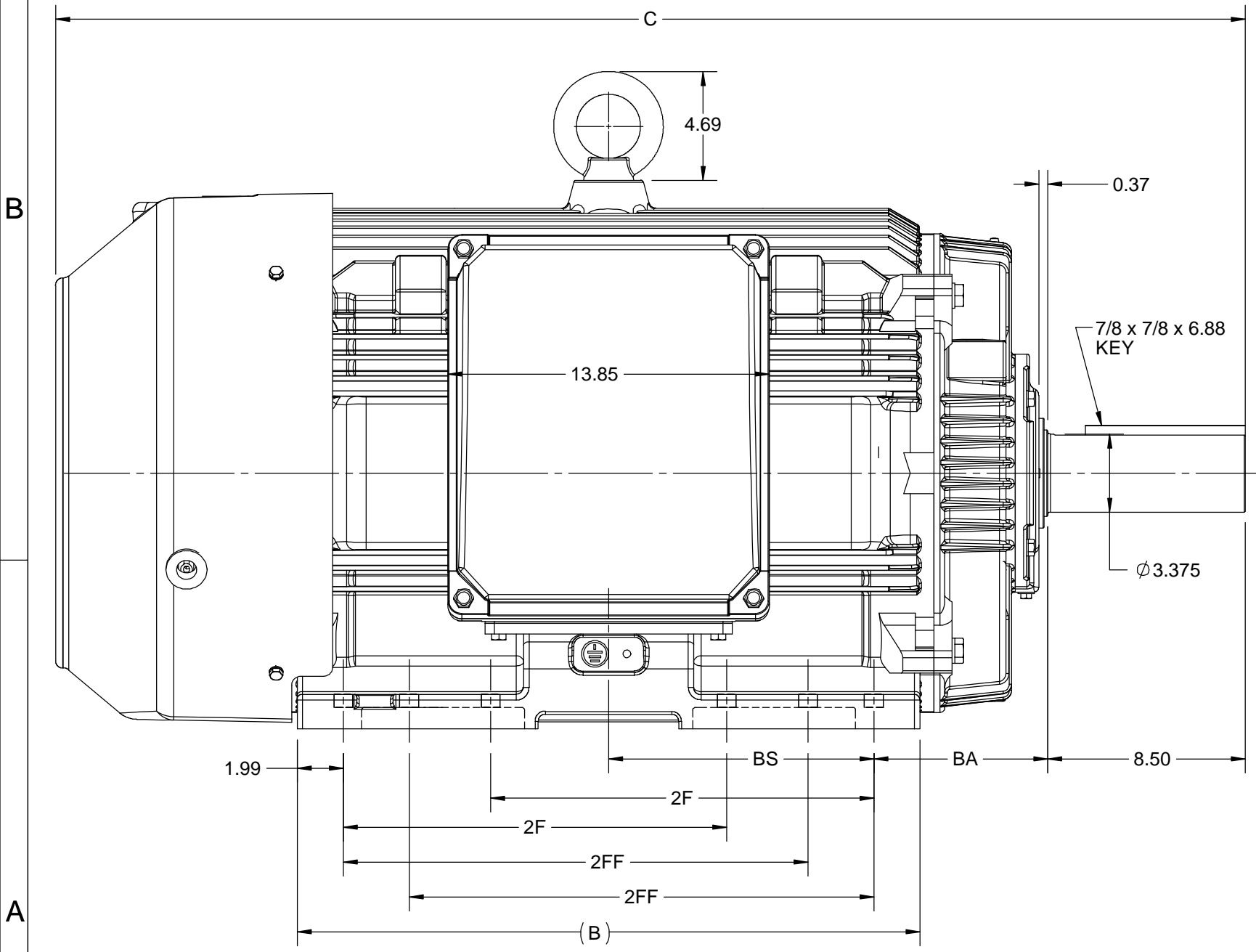
Phase	<b>3</b>	Output HP	<b>200 Hp</b>
Output KW	<b>149.0 kW</b>	Voltage	<b>460 V</b>
Speed	<b>1790 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>445T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>96.5 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>219.0 A</b>	Power Factor	<b>88.5</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>NU319</b>	Opp Drive End Bearing Size	<b>6317</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>.0184 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Roller</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Shaft Diameter	<b>3.375 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Connection Drawing	<b>EE7300U</b>	Outline Drawing	<b>SS557888</b>

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4				3				
B	C	E	2E	2F	2FF	BA	BS	MOUNTING
26.81	51.20	9.00	18.00	16.50	20.00	7.50	11.42	F1 OR F2



DRAWING REVISION C	REVISION BY BISWA	REV DATE/© DATE 12/10/2020
ECO ECO-0195135	APPROVED BY GNK	DATE 12/10/2020
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY BISWA	DATE 23/05/2019
APPROVED BY SBD	DATE 23/05/2019
REFERENCE	
THIRD ANGLE PROJECTION	

<b>REGAL</b> Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 445/447T FR-NEMA-SD & IEEE841	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS557888</b>
	SHEET 1 OF 1

**IF MOTOR HAS 9 LEADS**

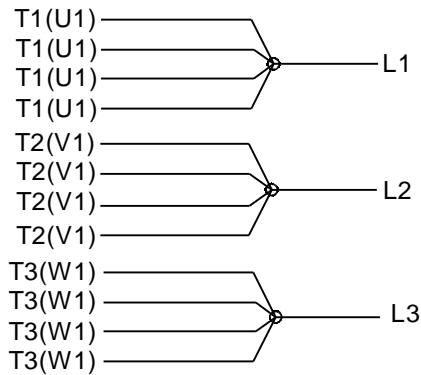


**IF MOTOR HAS 6 LEADS**



A-9806 DECAL IF CALLED FOR

**IF MOTOR HAS 12 LEADS**



**VIEW OF TERMINAL END**

DRAWING REVISION <b>L</b>	REVISION BY <b>AJW</b>	DATE <b>05-04-2015</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>DRS</b>	<b>Regal Beloit America, Inc.</b>																					
ECO <b>ECO-0077067</b>	APPROVED BY <b>EWH</b>	DATE <b>05-05-2015</b>	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>			<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]		DATE <b>09-27-1996</b>
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ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b> <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>			APPROVED BY <b>GK</b>	DATE <b>09-30-1996</b>	MATERIAL	PROCESS/FINISH																				
			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS]			REFERENCE	THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7300U</b>	SHEET <b>1 OF 1</b>																



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: EE7300  
 OUTLINE: SS557888  
 WINDING: HA32804009 NONE 5

REFERENCE MODEL #: 445TTFC6538  
 CAT #: E631A

MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
200	149	1800	1790	445T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	460	219	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	96.2	3/4 LD EFF	96.2	1/2 LD EFF	95.4	GTD EFF	ELECT. TYPE
F.L. PF	89.0	3/4 LD PF	86.5	1/2 LD PF	79.5	95.8	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
587 LB-FT	1,450	1,256 LB-FT 214%	1,656 LB-FT 282%	60

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
80 dBA	89 dBA	88.0 LB-FT²	1300 LB-FT²	25 SEC.	2	2276 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
ROLLER	BALL						
NU319	6317						

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)
0.012	0.007	0.081	0.185	3.834	0.080

* N O T E S *	If Inverter equals NONE, contact factory for further information	
	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	NONE PPR

PREPARED BY: _____ DATE: 5/13/2020	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ:
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FORM: 3531 REV\_4 2/27/06  
 \*\* Subject to change without notice.

Data Sheet

Date: 5/6/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



445TTFCD6538

Submittal

Data @ 460 V

Motor Load Data

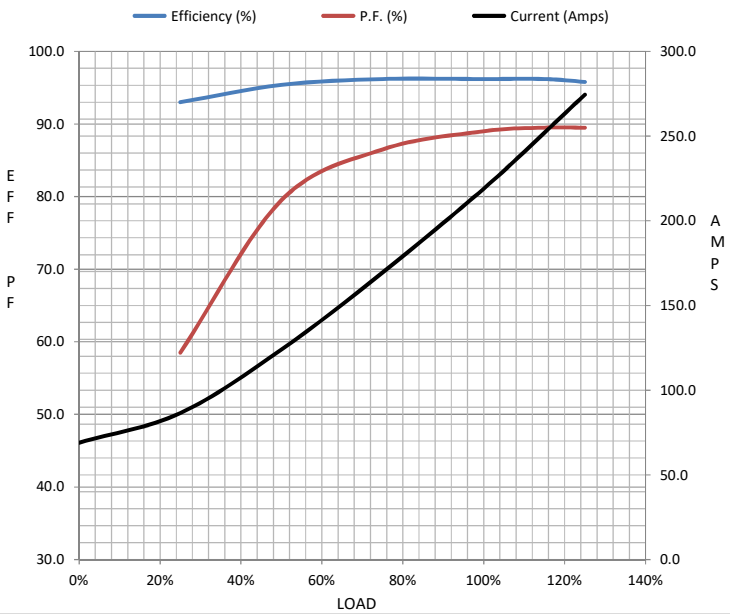
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	69.0	86.5	124	170	219	252	275	1,450
Torque (ft-lb)	0.00	146	293	440	587	676	735	1,256
RPM	1800	1798	1795	1792	1790	1,788	1788	0
Efficiency (%)		93.0	95.4	96.2	96.2	96.2	95.8	
P.F. (%)	4.5	58.5	79.5	86.5	89.0	89.5	89.5	38.0

Motor Speed Data

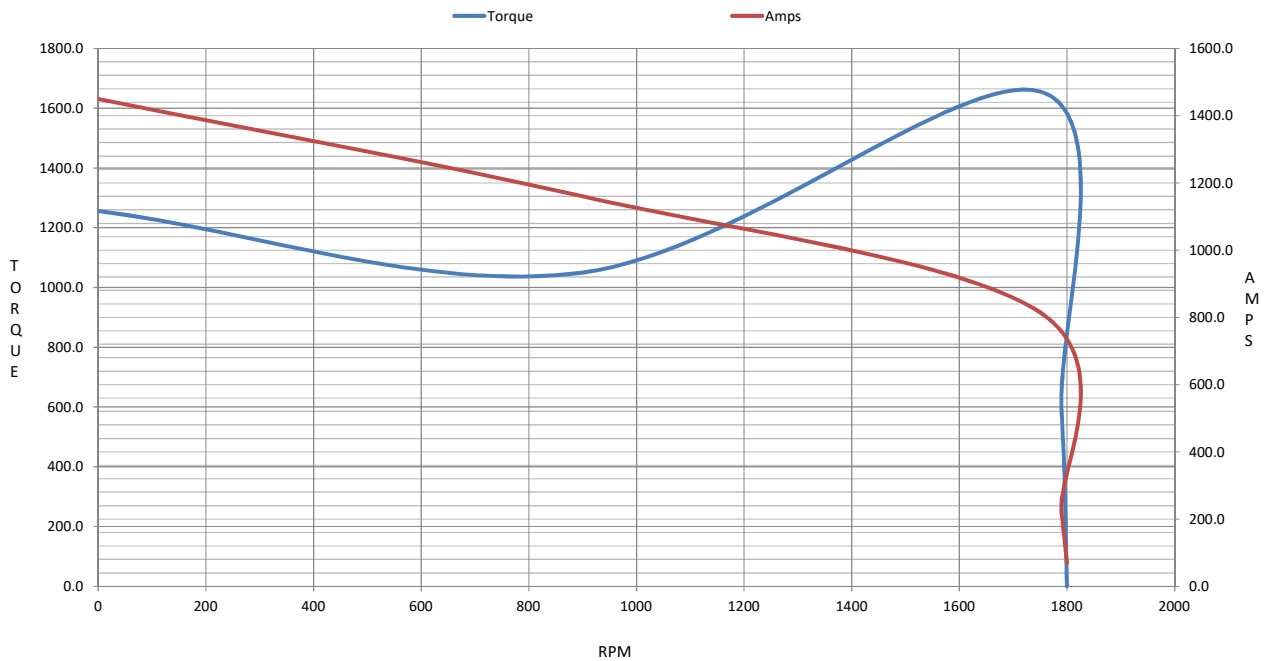
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1750	1790	1800
Current (Amps)	1,450	1,160	815	219	69.0
Torque (ft-lb)	1,256	1,050	1,656	587	0.00

Information Block

HP	200.0			
Sync. RPM	1800			
Frame	445			
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	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	88.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HA32804009 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS557888			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0120	0.0070	0.0810	0.1850	3.8340



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 : 445TTFC6538

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

Catalog No : E631A

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**