

# PRODUCT INFORMATION PACKET

Model No: 445TSTFCD6501

Catalog No: E615A

XRI®-SD Severe Duty Motor, 150 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 445TS Frame, TEFC



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### Nameplate Specifications

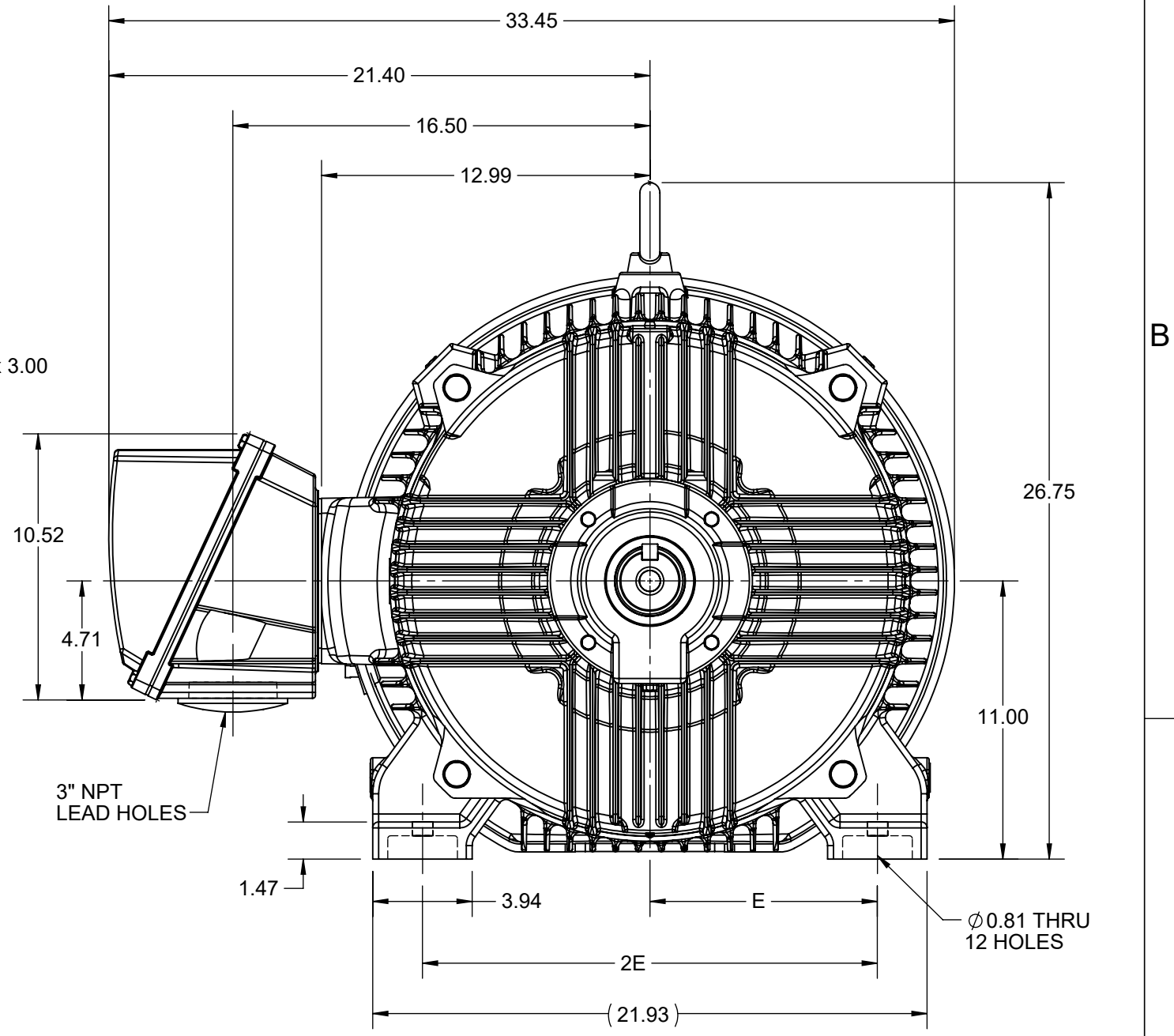
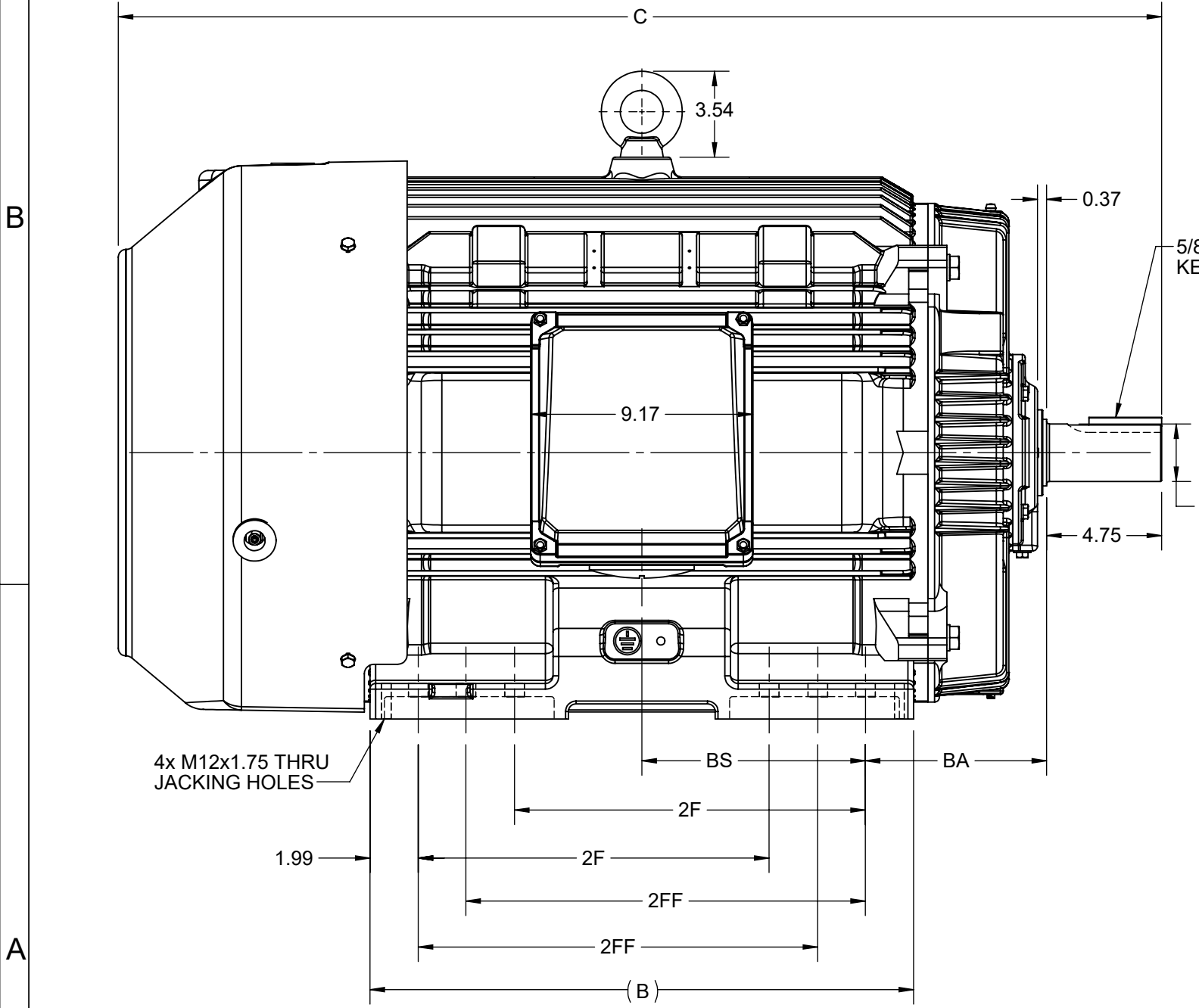
Phase	<b>3</b>	Output HP	<b>150 Hp</b>
Output KW	<b>112.0 kW</b>	Voltage	<b>460 V</b>
Speed	<b>3575 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>445TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>95 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>161.0 A</b>	Power Factor	<b>90</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>6314</b>	Opp Drive End Bearing Size	<b>6314</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>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.0304 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>TS</b>	Shaft Diameter	<b>2.375 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Outline Drawing	<b>SS557669</b>	Connection Drawing	<b>EE7300U</b>

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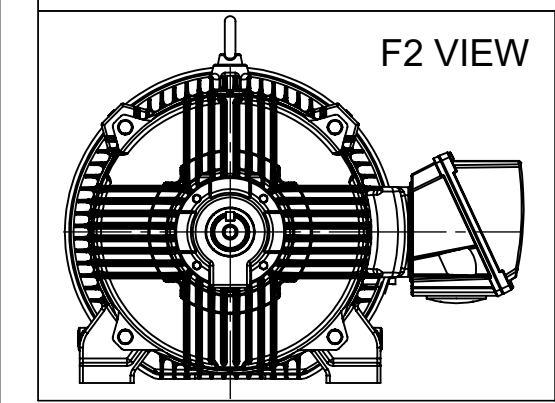
4				3				
B	C	E	2E	2F	2FF	BA	BS	MOUNTING
22.44	43.08	9.00	18.00	14.50	16.50	7.50	9.23	F1 OR F2



4x M12x1.75 THRU JACKING HOLES

5/8 x 5/8 x 3.00 KEY

3" NPT LEAD HOLES



F2 VIEW

DRAWING REVISION D	REVISION BY BISWA	REV DATE/© DATE 15/07/2021
ECO CR-0003577	APPROVED BY SBD	DATE 15/07/2021
ECO DESCRIPTION JACKING HOLE DETAILS #NOTE ADDED.		
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY BISWA	<b>REGAL</b> ® Regal Beloit America, Inc.
DATE 10/10/2018	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 444/445TS FR NEMA-SD & IEEE841
DATE 10/10/2018	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS557669
	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>
<u>DEC.</u>	<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>																							
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.XXX	±0.005	[±0.127]																								
.XXXX	±0.0005	[±0.0127]																								
ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b>			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH √ 5.1 mm √	APPROVED BY <b>GK</b>	MATERIAL	PROCESS/FINISH																				
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.			mm SHOWN IN [BRACKETS]	DATE <b>09-30-1996</b>	SIZE <b>A</b>	DRAWING NUMBER <b>EE7300U</b>	SHEET <b>1 OF 1</b>																			
				THIRD ANGLE PROJECTION																						



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300U  
 REFERENCE MODEL #: 445TSTFCD6501  
 OUTLINE: SS557669-445TS  
 CAT #: E615A  
 WINDING: HE32802010 NONE 1  
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN									
150	112	3600	3580	445TS	TEFC	TFC	G	B									
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)								
3	60	460	164	LINE OR INVERTER	CONT	H	1.15	40	3300								
F.L. EFF		95.0	3/4 LD EFF		95.0	1/2 LD EFF		94.1	GTD EFF		ELECT. TYPE						
F.L. PF		90.0	3/4 LD PF		88.0	1/2 LD PF		83.0	94.5	SQ CAGE INV RATED							
F.L. TORQUE		LR AMPS		L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)									
220	LB-FT	1,085		363	LB-FT	165%	626	LB-FT	285%		65						
SOUND PRESSURE		SOUND		ROTOR WK²		MAX. LOAD WK²		SAFE STALL TIME		STARTS/HOUR		APROX.					
80	dBA	89	dBA	44.0	LB-FT²	120	LB-FT²	15	SEC.	2		1909	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		TS		NONE		NONE		1045 HOT ROLLED (C-204)		CAST IRON					
BALL	BALL																
6314	6314																
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					
0.014		0.009		0.121		0.164		6.105		0.080		ODE					
* N O T E S *	If Inverter equals NONE, contact factory for further information																
	INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: NONE																
	ENCODER: NONE NONE NONE NONE PPR																
	BRAKE: NONE NONE FT-LB: NA VOLTAGE: NONE HZ:																
PREPARED BY:																	
DATE: 5/13/2020																	
FORM: 3531 REV_4 2/27/06																	
** Subject to change without notice.																	

Data Sheet

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



445TSTFCD6501

Submittal

Data @ 460 V

Motor Load Data

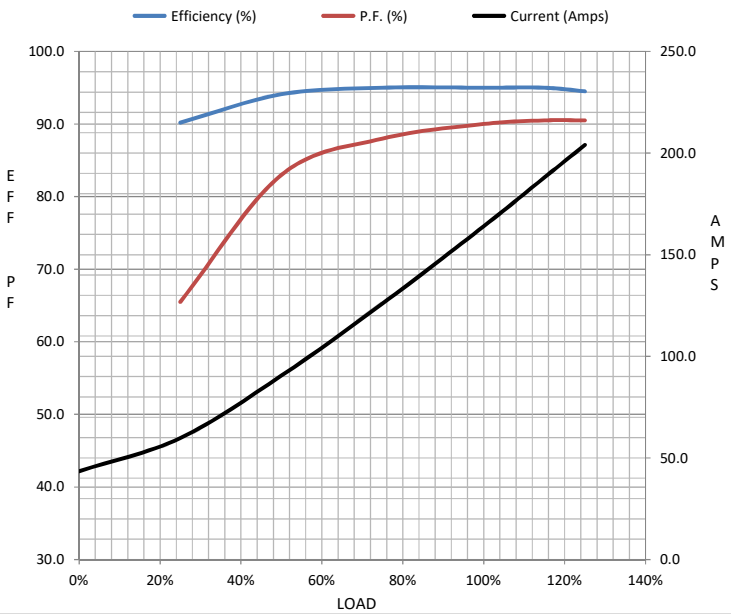
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	43.5	59.8	90.5	126	164	188	204	1,085
Torque (ft-lb)	0.00	55.0	110	165	220	254	276	363
RPM	3600	3595	3590	3585	3580	3,578	3575	0
Efficiency (%)		90.2	94.1	95.0	95.0	95.0	94.5	
P.F. (%)	9.0	65.5	83.0	88.0	90.0	90.5	90.5	28.0

Motor Speed Data

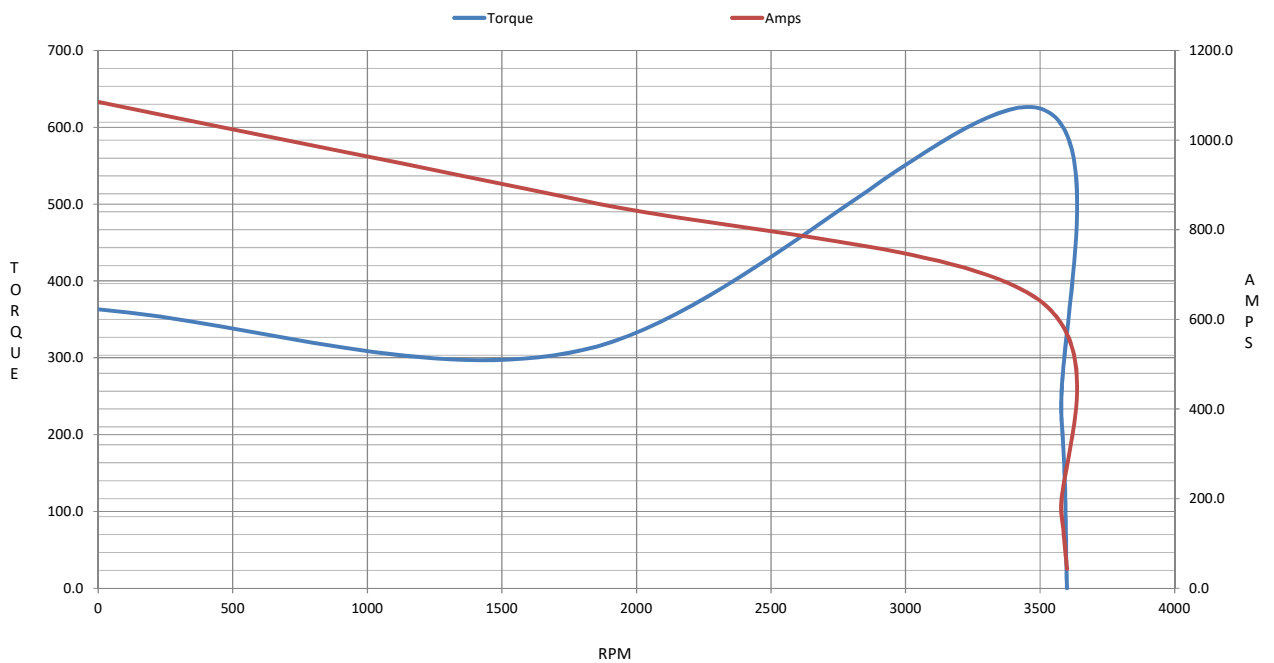
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3480	3580	3600
Current (Amps)	1,085	865	650	164	43.5
Torque (ft-lb)	363	310	626	220	0.00

Information Block

HP	150.0			
Sync. RPM	3600			
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	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	44.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HE32802010 NONE			
Sound Pressure @ 1M	80 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	SS557669-445TS			
Conn. Diag	EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0140	0.0090	0.1210	0.1640	6.1050



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 : 445TSTFCD6501

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

Catalog No : E615A

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**