

# PRODUCT INFORMATION PACKET

Model No: 445THFCD19071

Catalog No: W612A-P

XRI®-841 Severe Duty Motor, 150 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445T Frame, TEFC



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**Nameplate Specifications**

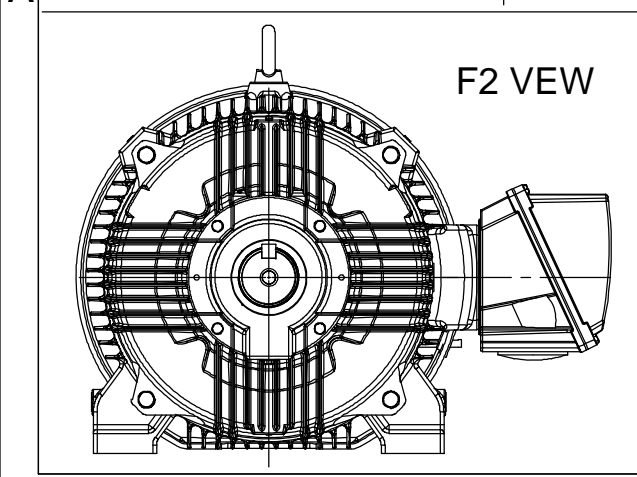
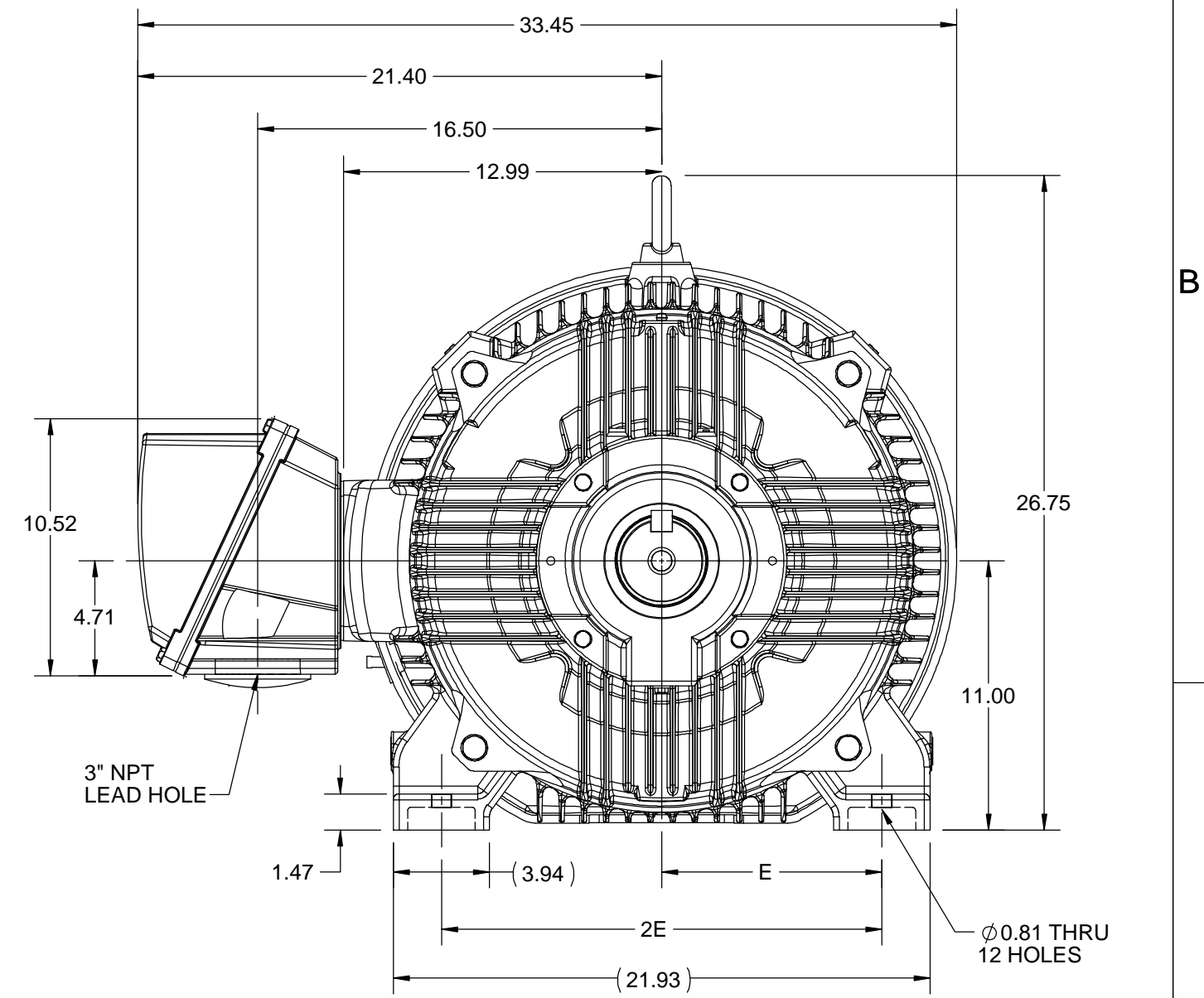
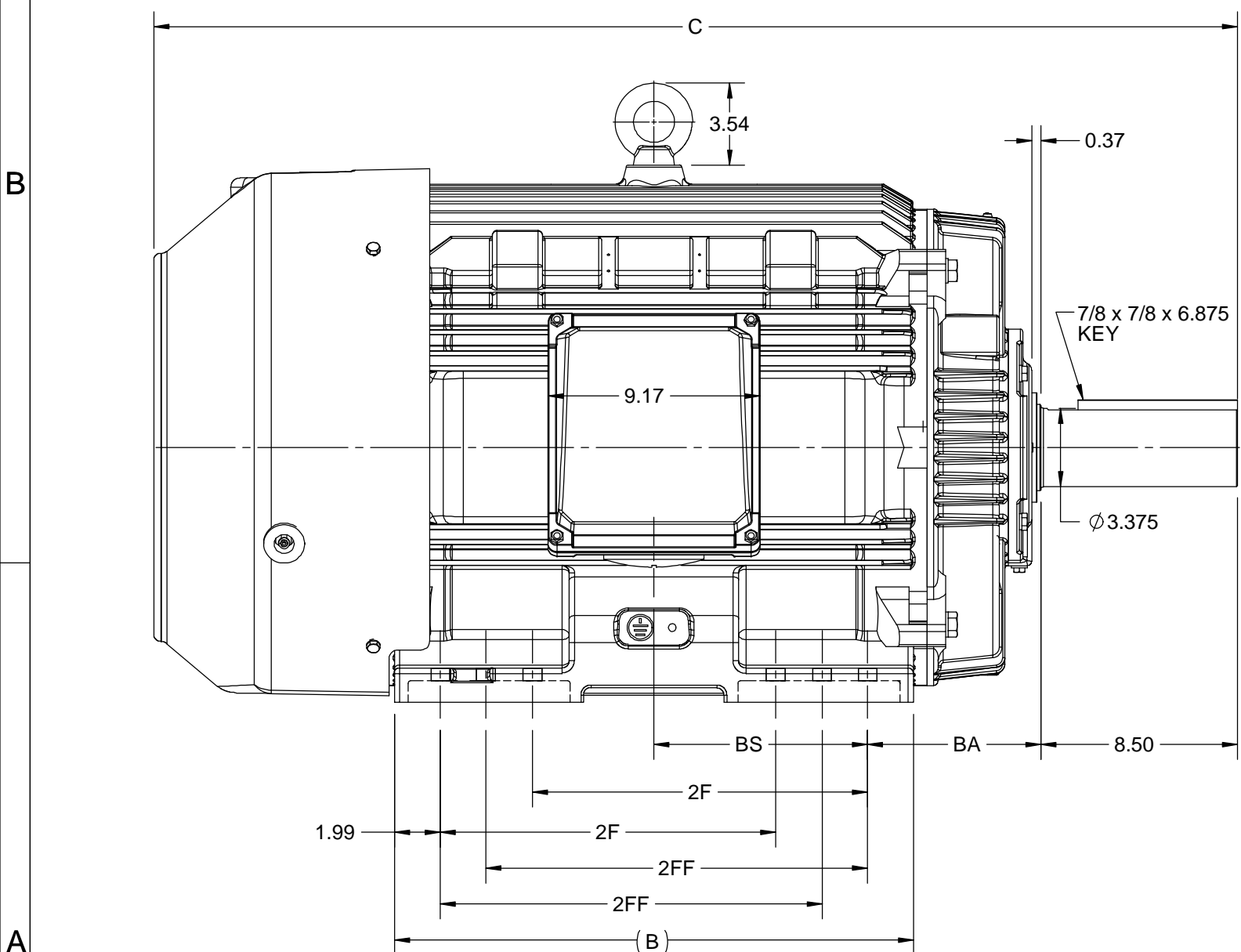
Phase	<b>3</b>	Output HP	<b>150 Hp</b>
Output KW	<b>112.0 KW</b>	Voltage	<b>460 V</b>
Speed	<b>1790 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>445T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>95.8 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>169.0 A</b>	Power Factor	<b>87</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>6319</b>	Opp Drive End Bearing Size	<b>6317</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>56</b>
Number of Speeds	<b>1</b>		

**Technical Specifications**

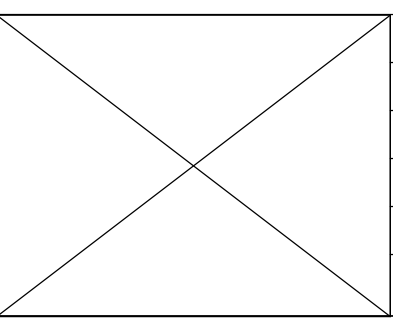
Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.0294 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Shaft Diameter	<b>3.375 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Outline Drawing	<b>SS557668</b>	Connection Drawing	<b>EE7300U</b>



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4			3					
B	C	E	2E	2F	2FF	BA	BS	MOUNTING
22.44	46.83	9.00	18.00	14.50	16.50	7.50	9.24	F1 OR F2



DRAWING REVISION C	REVISION BY BISWA	DATE 15/10/2020
ECO ECO-0195135	APPROVED BY GNK	DATE 15/10/2020
DRAWING UPDATED		
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DRAWN BY BISWA	 Regal Beloit America, Inc.
DATE 24/12/2018	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 444/445T FR-NEMA-SD & IEEE841
DATE 24/12/2018	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION 	SIZE B
	DRAWING NUMBER <b>SS557668</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>
<u>DEC.</u>	<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>																							
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.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 #: 445THFCD19071  
 OUTLINE: SS557668  
 CAT #: W612A-P  
 WINDING: HA32804011 NONE 4  
 MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
150	112	1800	1790	445T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	460	169	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	95.8	3/4 LD EFF	95.8	1/2 LD EFF	95.4	GTD EFF	ELECT. TYPE
F.L. PF	87.0	3/4 LD PF	84.5	1/2 LD PF	77.0	95.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
440 LB-FT	1,085	926 LB-FT 210%	1,232 LB-FT 280%	55

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
75 dBA	84 dBA	80.0 LB-FT²	1000 LB-FT²	25 SEC.	2	1900 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	NONE	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						
6319	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)
0.018	0.009	0.112	0.231	4.914	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		NONE PPR
NONE		

PREPARED BY: _____	BRAKE: NONE	
DATE: 5/13/2020	NONE	NONE
	FT-LB: NA	
	VOLTAGE: NONE	HZ:

FORM: 3531 REV\_4 2/27/06  
 \*\* Subject to change without notice.

Data Sheet

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



445THFCD19071

Submittal

Data @ 460 V

Motor Load Data

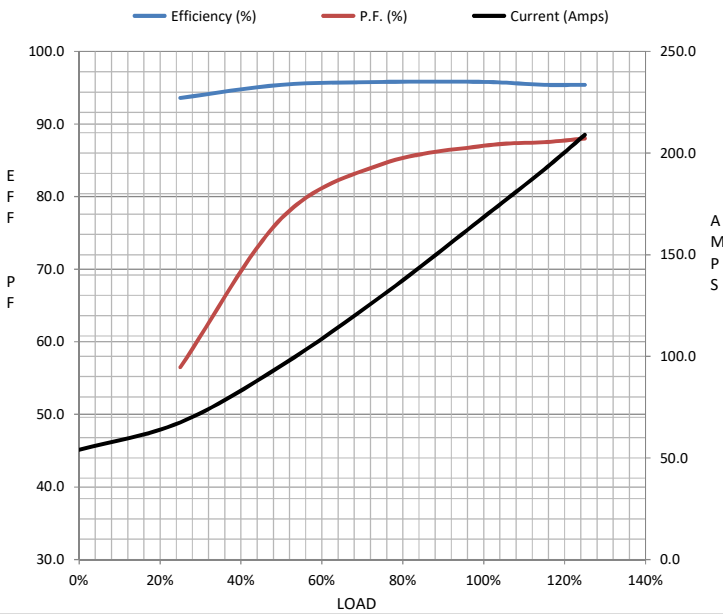
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	54.0	67.5	95.5	130	169	192	209	1,085
Torque (ft-lb)	0.00	110	220	330	440	508	553	926
RPM	1800	1798	1795	1792	1790	1,790	1788	0
Efficiency (%)		93.6	95.4	95.8	95.8	95.4	95.4	
P.F. (%)	5.0	56.5	77.0	84.5	87.0	87.5	88.0	37.0

Motor Speed Data

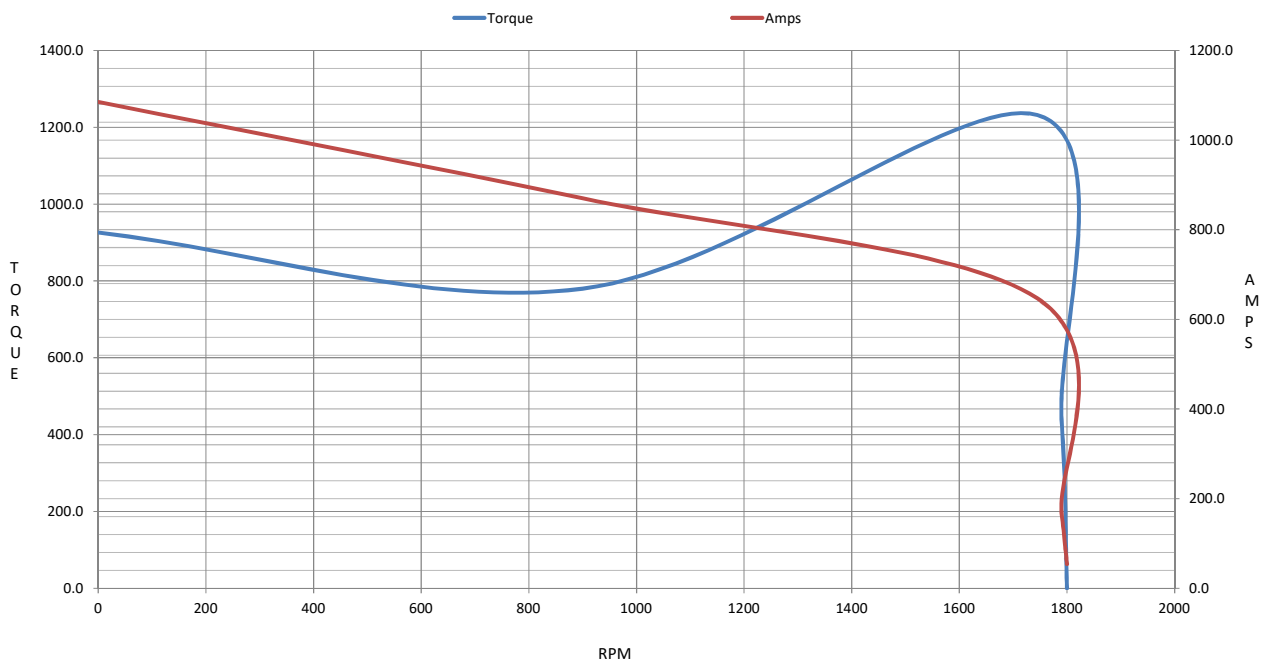
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1745	1790	1800
Current (Amps)	1,085	870	647	169	54.0
Torque (ft-lb)	926	780	1,232	440	0.00

Information Block

HP	150.0			
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	55 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	80.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HA32804011 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS557668			
Conn. Diag	EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0180	0.0090	0.1120	0.2310	4.9140



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 : 445THFCD19071

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

Catalog No : W612A-P

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**