

# PRODUCT INFORMATION PACKET

Model No: 324TSTFCD6501

Catalog No: E609A

XRI®-SD Severe Duty Motor, 40 HP, 3 Ph, 60 Hz, 460 V, 3600 RPM, 324TS Frame, TEFC



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### Nameplate Specifications

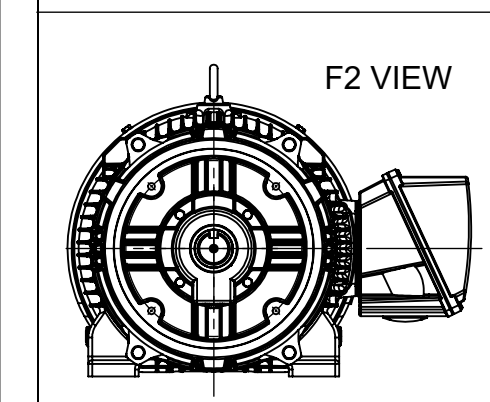
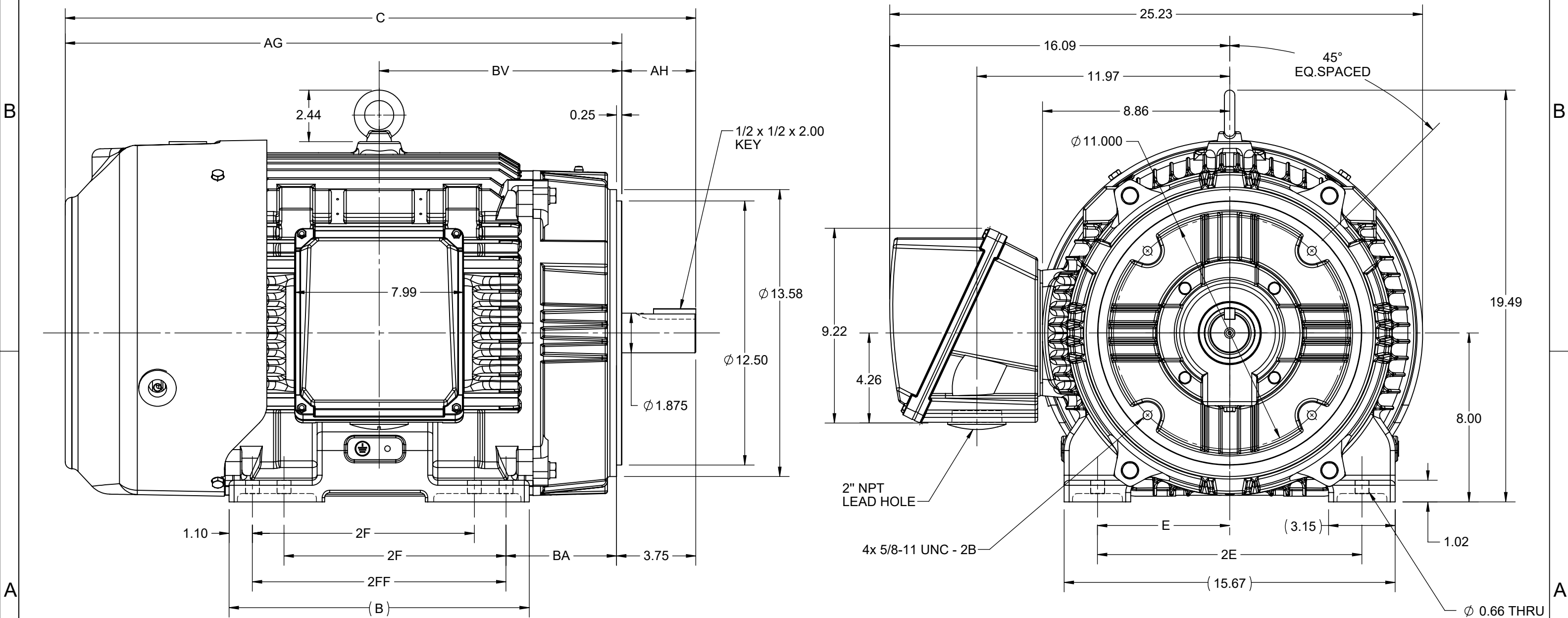
Phase	<b>3</b>	Output HP	<b>40 Hp</b>
Output KW	<b>30.0 kW</b>	Voltage	<b>460 V</b>
Speed	<b>3565 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>324TS</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>92.4 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>46.0 A</b>	Power Factor	<b>88</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>6312</b>	Opp Drive End Bearing Size	<b>6212</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>.1736 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>1.875 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Outline Drawing	<b>SS312940-100</b>	Connection Drawing	<b>EE7300U</b>

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DASH NO.	4		3					2		1		
	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	12.71	28.35	6.25	12.50	---	10.50	24.85	3.50	5.25	10.75	F1 OR F2	324TSC
200	14.21	29.85			10.50	12.00	26.35			11.50		324/326TSC



DRAWING REVISION A	REVISION BY	REV DATE/© DATE	DRAWN BY GOPI J	Regal Beloit America, Inc.
REQUEST NUMBER CR-0014644	APPROVED BY	DATE	DATE 05/04/2023	
REQUEST NUMBER DESCRIPTION NEW DRAWING RELEASE			APPROVED BY TS	DESCRIPTION OUTLINE
<small>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.</small>			DATE 05/04/2023	324/326TSC FR-NEMA-SD & IEEE841
			REFERENCE SS312940	MATERIAL
THIRD ANGLE PROJECTION		SIZE B	DRAWING NUMBER SS312940A	SHEET 1 OF 1

PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

**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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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>	MATERIAL  PROCESS/FINISH																						
			DATE <b>09-30-1996</b>			SIZE <b>A</b> DRAWING NUMBER <b>EE7300U</b>																				
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH √ 5.1 mm √ mm SHOWN IN [BRACKETS]			REFERENCE	SHEET <b>1 OF 1</b>																						
			THIRD ANGLE PROJECTION			SHEET <b>1 OF 1</b>																				



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300U  
 OUTLINE: SS312940-324TS  
 WINDING: HE32002008 NONE 1

MODEL #: 324TSTFCD6501  
 CAT #: E609A

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE		DESIGN				
40	30	3600	3565	324TS	TEFC	TFC	G		B				
PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft)				
3	60	460	46	LINE OR INVERTER	CONT	H	1.15	40	3300				
F.L. EFF		92.4	3/4 LD EFF		93.0	1/2 LD EFF		91.7	GTD EFF		91.7	ELECT. TYPE	
F.L. PF		88.0	3/4 LD PF		85.0	1/2 LD PF		77.5	91.7 <td colspan="2">SQ CAGE INV RATED</td>		SQ CAGE INV RATED		
F.L. TORQUE		LR AMPS @ 460 V		L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)					
59.0	LB-FT	290		95.0	LB-FT	162	275%	60					
SOUND PRESSURE @		SOUND	ROTOR WK <sup>2</sup>		MAX. LOAD WK <sup>2</sup>		SAFE STALL TIME		STARTS/HOUR	APROX.	MOTOR		
77	dB	86	dB	4.8	LB-FT <sup>2</sup>	25	LB-FT <sup>2</sup>	20	SEC.	2	600	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							
6312	6212							

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)
0.11	0.057	0.539	0.596	17.373	0.080

If Inverter equals NONE, contact factory for further information

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

Data Sheet

324TSTFCD6501

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



Submittal

Data @ 460 V

Motor Load Data

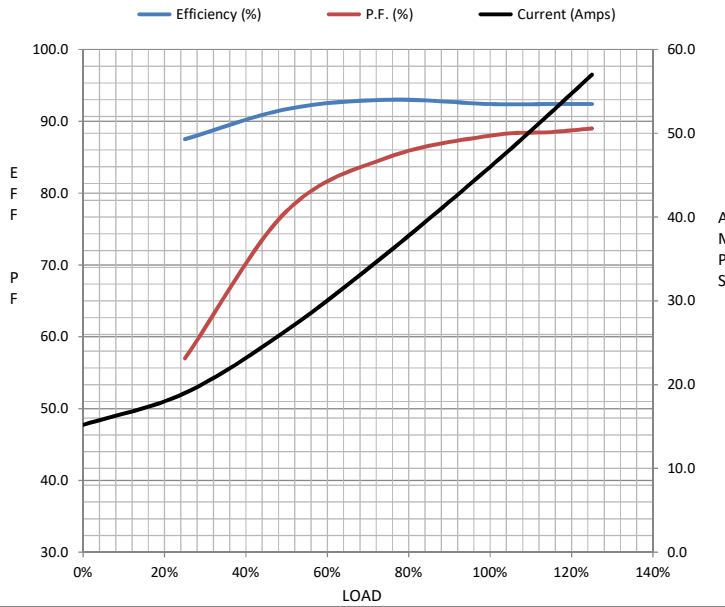
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	15.2	19.0	26.5	35.8	46.0	52.5	57.0	290
Torque (ft-lb)	0.00	14.6	29.3	44.0	59.0	68.0	74.0	95.0
RPM	3600	3592	3582	3575	3565	3,560	3555	0
Efficiency (%)		87.5	91.7	93.0	92.4	92.4	92.4	
P.F. (%)	8.0	57.0	77.5	85.0	88.0	88.5	89.0	30.0

Motor Speed Data

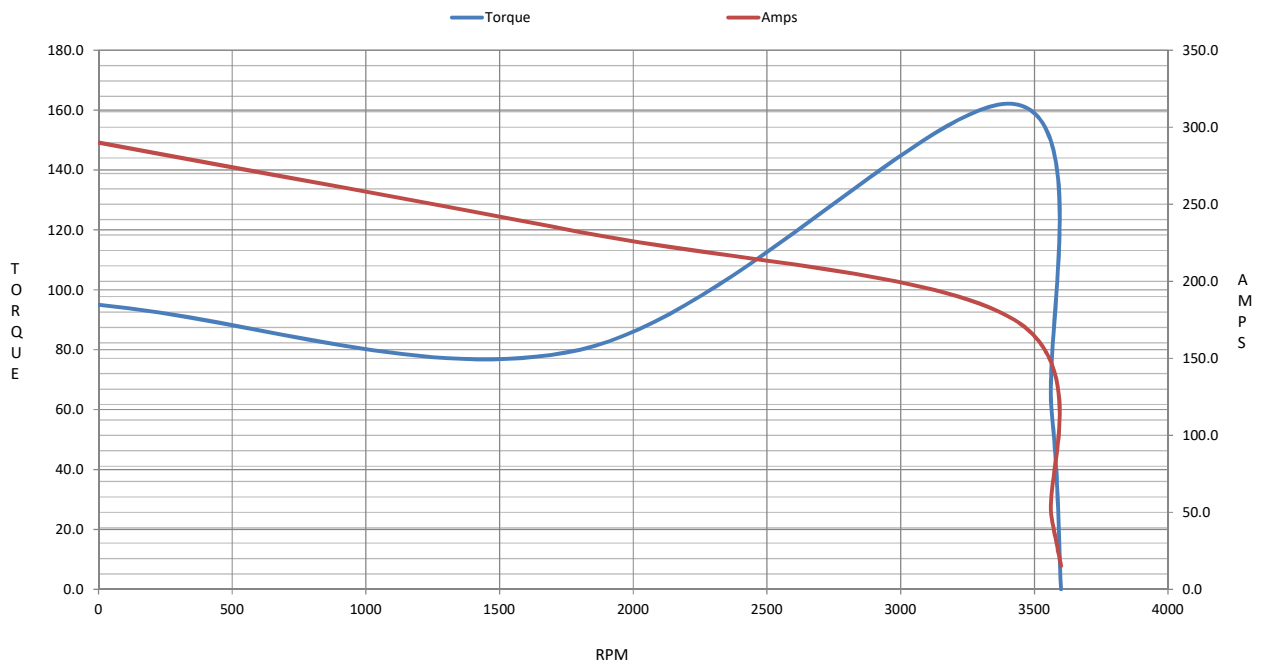
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3425	3565	3600
Current (Amps)	290	232	175	46.0	15.2
Torque (ft-lb)	95.0	80.0	162	59.0	0.00

Information Block

HP	40.0			
Sync. RPM	3600			
Frame	324			
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 <sup>2</sup>	4.8 Lb-Ft <sup>2</sup>			
Ref Wdg	HE32002008 NONE			
Sound Pressure @ 1M	77 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS312940-324TS			
Conn. Diag	EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1100	0.0570	0.5390	0.5960	17.3730



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 : 324TSTFCD6501

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

Catalog No : E609A

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**