

# PRODUCT INFORMATION PACKET

Model No: 324THFCD8038

Catalog No: Y513A

Blue Max® Inverter Duty Encoder Motor, 40 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 324TC Frame,  
TEBC-AXIAL



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### Nameplate Specifications

Output HP	<b>40 Hp</b>	Output KW	<b>30.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>89.0/44.5 A</b>	Speed	<b>1775 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>92.4 %</b>	Power Factor	<b>89.5</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>H</b>
Frame	<b>324TC</b>	Enclosure	<b>Totally Enclosed Blower cooled - Axial</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6312</b>	Opp Drive End Bearing Size	<b>6212</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>		

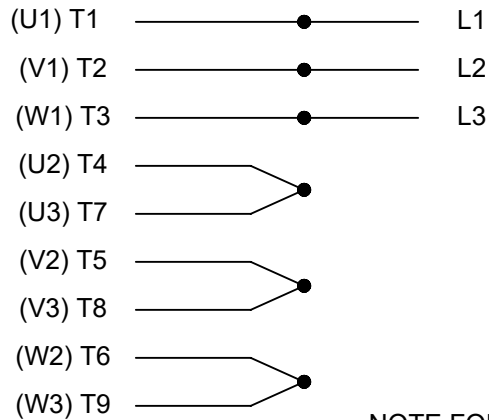
### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Duty</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.2192 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>2.125 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2000:1</b>
Outline Drawing	<b>SS621102-100</b>	Connection Drawing	<b>EE7308T</b>

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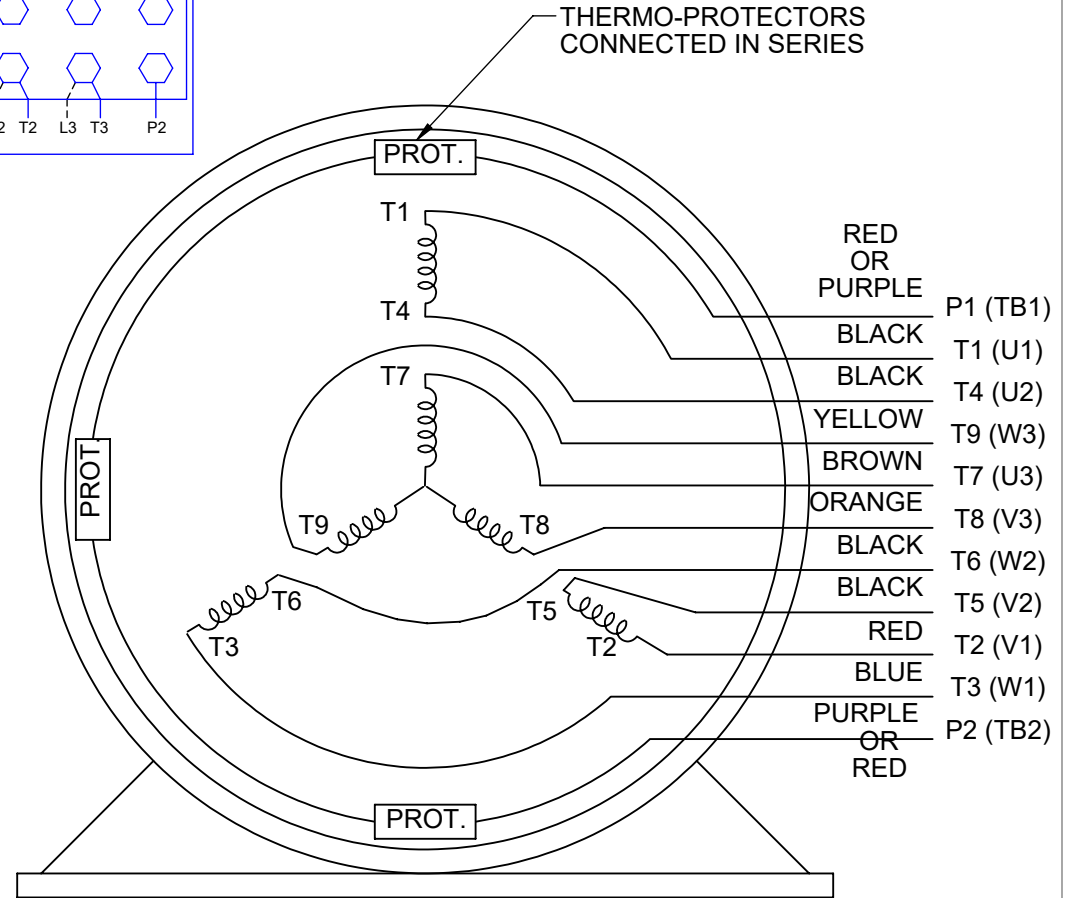


**HIGH VOLTAGE**



**THREE PHASE  
DUAL VOLTAGE MOTOR**

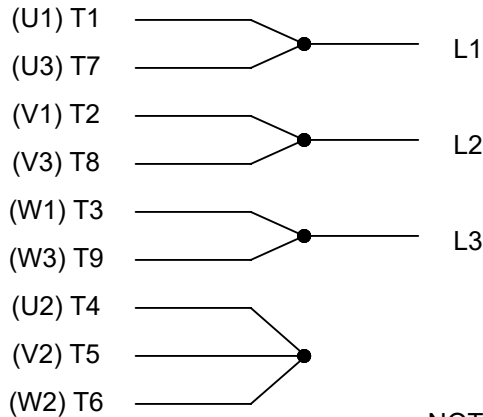
THERMO-PROTECTORS  
CONNECTED IN SERIES



**VIEW OF TERMINAL END**

**NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST FOR COMMON CONNECT:  
HIGH VOLT: CONNECT P1 TO T1  
THEN P2 TO L1  
LOW VOLT: CONNECT P1 TO T1 & T7,  
THEN P2 TO L1**

**LOW VOLTAGE**



**NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT**

DRAWING REVISION <b>T</b>	REVISION BY <b>ZR</b>	DATE <b>01-14-2019</b>		DRAWN BY <b>SMC</b>	Regal Beloit America, Inc.	
ECO <b>ECO-0159915</b>	APPROVED BY <b>DR</b>	DATE <b>01-15-2019</b>		DATE <b>05-13-1992</b>		DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b>
ECO DESCRIPTION <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY <b>TB</b>	<b>3 PHASE - DUAL VOLTAGE MOTOR</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>			DATE <b>05-13-1992</b>	MATERIAL		
						REFERENCE <b>EE7308/EE7300</b>
			THIRD ANGLE PROJECTION			



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER:  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: EE7308T  
OUTLINE: SS621102-100  
WINDING: HA32004021 NONE 2  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: 324THFCD8038  
CAT #: Y513A  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
40	30	1800	1775	324TC	TEBC-AXIAL	TFN	H	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	89/44.5	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	93.0	1/2 LD EFF	93.0	GTD EFF	ELECT. TYPE
F.L. PF	89.5	3/4 LD PF	88.0	1/2 LD PF	82.5	91.7	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
118 LB-FT	356	170 LB-FT	385 LB-FT	60

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
66 dBA	75 dBA		11.467 LB-FT <sup>2</sup>	50 LB-FT <sup>2</sup>	25 SEC.	2	610 LB.	

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

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						
6312	6212						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (NIC)	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
0.137	0.075	0.649	0.613	21.575	0.150	ODE

NOTES	INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: NONE					
	NONE					
	NONE PPR					

PREPARED BY: _____	BRAKE: NONE
DATE: 9/27/2021	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
FORM: 3531 REV. 4 2/27/06	UL: V-INS, CONST, OVERHEAT PRT DEV UL REC

Data Sheet

Date: 9/27/2021  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



324THFCD8038

Submittal

Data @ 460 V

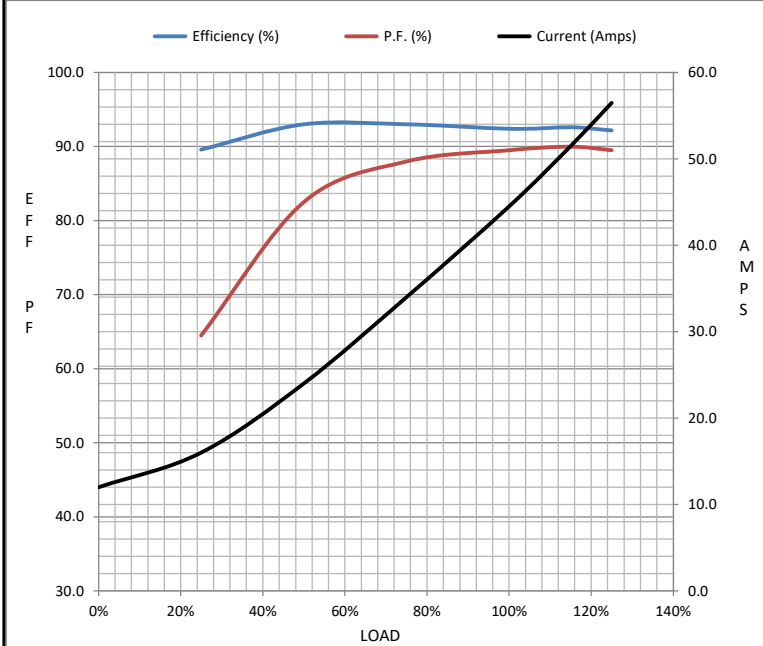
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	12.0	16.0	24.0	34.0	44.5	51.5	56.5	356
Torque (ft-lb)	0.00	29.3	58.7	88.4	118	136	148	170
RPM	1800	1795	1788	1782	1775	1,772	1770	0
Efficiency (%)		89.6	93.0	93.0	92.4	92.6	92.2	
P.F. (%)	8.0	64.5	82.5	88.0	89.5	90.0	89.5	33.5

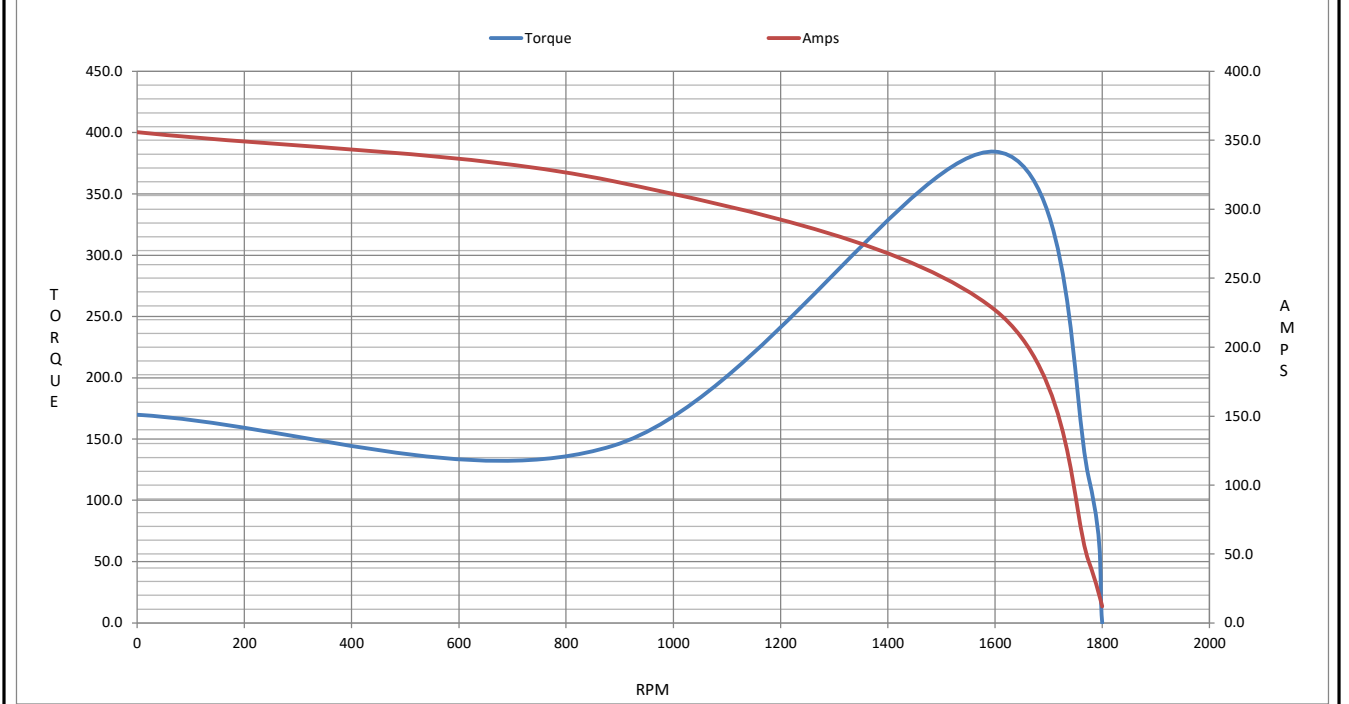
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	888	1600	1775	1800
Current (Amps)	356	320	227	44.5	12.0
Torque (ft-lb)	170	145	385	118	0.00

Information Block				
HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	TEBC-AXIAL			
Construction	TFN			
Voltage	230/460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	11.467 Lb-F <sup>2</sup>			
Ref Wdg	HA32004021 NONE			
Sound Pressure @ 1M	66 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS621102-100			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1370	0.0750	0.6490	0.6130	21.5750



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 : 324THFCD8038

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

Catalog No : Y513A

Rework No : N/A

Directives :

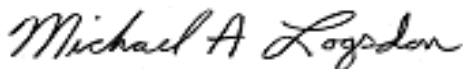
Low Voltage Directive 2014/35/EU

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**