

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 324THFPA8038

Catalog No: Y513

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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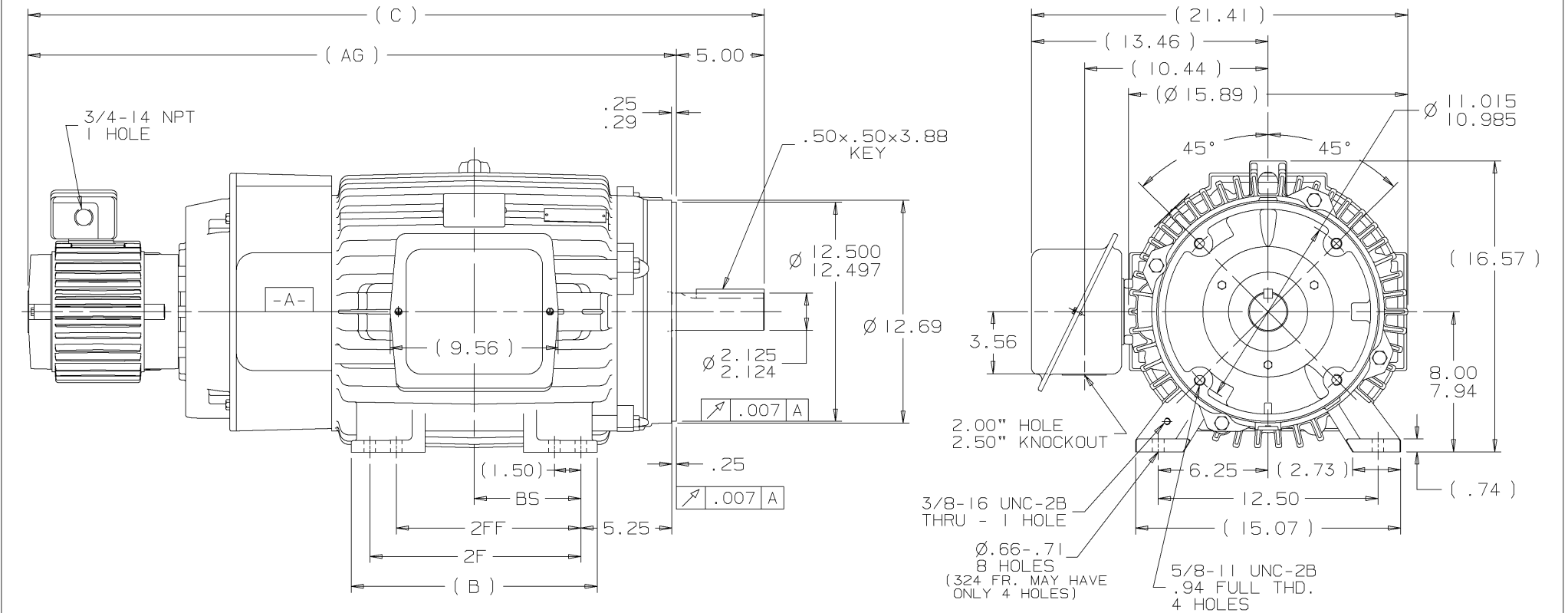
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	40 Hp
Output KW	30.0 kW	Voltage	230/460 V
Speed	1770 rpm	Service Factor	1.0
Frame	324TC	Enclosure	Totally Enclosed Blower cooled - Axial
Thermal Protection	Thermostat	Efficiency	91.7 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	100.0/50.0 A	Power Factor	81.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	G
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6311
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.124 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	40.54 in
Frame Length	14.75 in	Shaft Diameter	2.125 in
Shaft Extension	5 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS311268-1475	Connection Drawing	A-EE7308T

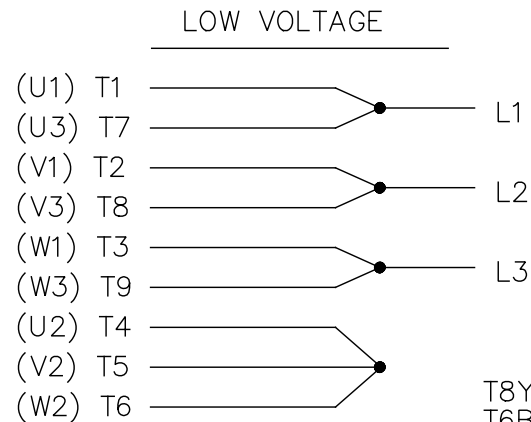
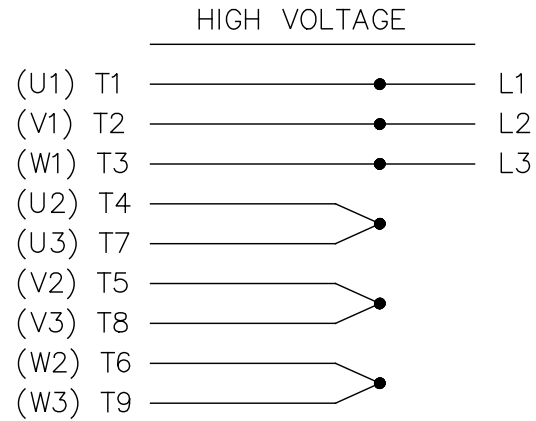


NOTES:

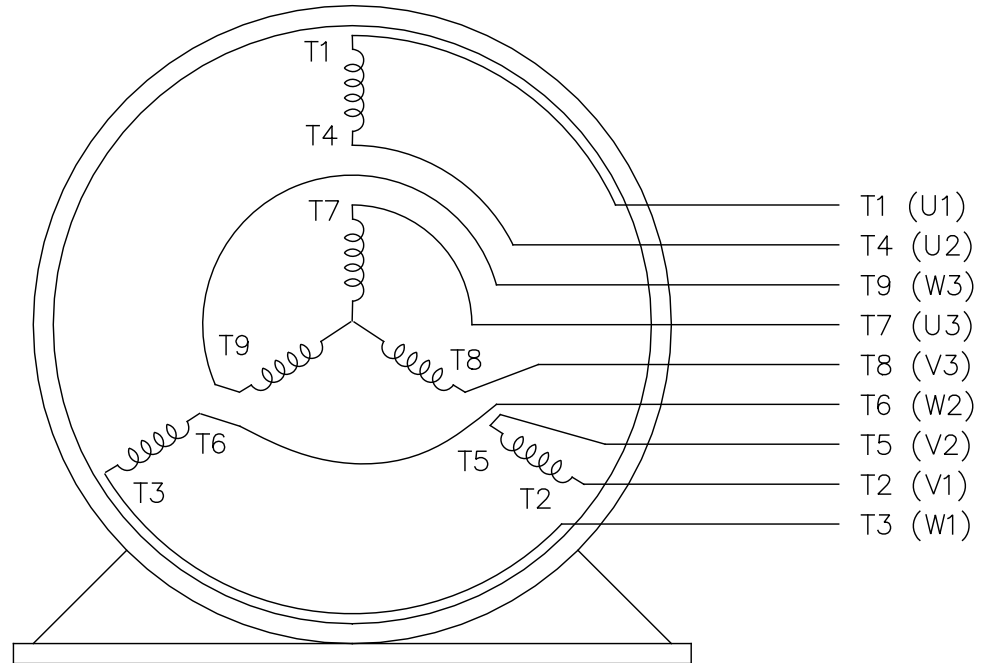
1. C.BOX CAN BE ROTATED IN 90° STEPS
2. C.BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°
3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR



								TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES		DRAWN NJS 05-16-2002	
								DEC. TOLERANCE				CHK ML 05-20-2002	
								.X ± .1				APPD TB 05-20-2002	
								.XX ± .03				TITLE OUTLINE - TEFC	
								.XXX ± .005				320 FR. - BB - STD - 12.50 LAM - C'FACE	
DASH	FRAME	B	C	2F	2FF	BS	AG	I NEW DRAWING CN 35134 NJS 05-20-2002 TB .XXXX ± .0005		☒ SURFACE ROUGHNESS UNLESS SPECIFIED		MAT'L. FINISH	
1475	324T	14.00	40.41	10.50		5.25	35.41	NO. REVISION BY DATE CHK ANG ± 7°30"		☒ SURFACE ROUGHNESS UNLESS SPECIFIED		PREV	
1625	326T	14.00	41.91	12.00	10.50	6.00	36.91	THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT		PURCHASED DIST WA - LB - WC - WI - OR - NY		CAD FILE 55311268LE B 55311268LE	
								DRAWING NO.		REV.			



THREE PHASE DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD
CONNECTION

L1 _____ WHITE _____
L2 _____ RED _____
L3 _____ BLACK _____

DRAWING REVISION	REVISION BY	DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY:			
ECO	APPROVED BY	DATE	DEC. mm INCH ANGLE	AS			
ECO DESCRIPTION			.X ±2.5 ±0.11 ±0.5°	DATE:	DESCRIPTION		
NEW DRAWING			.XX ±0.51 ±0.021	02/20/2017			
COPYRIGHT KAMAN INDUSTRIAL TECHNOLOGIES INC. VENDOR IDENTIFICATION TNP ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF VENDOR IDENTIFICATION TNP ("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.			.XXX ±0.127 ±0.0051	APPROVED BY:	CONNECTION DIAGRA		
			.XXXX ±0.0127 ±0.00051	ST			
			REMOVE BURRS & BREAK SHARP	DATE:	3 PHASE - UAL VOLTAGE		
			EDGES .08/.38 [.003/.015]X 45°	02/20/2017			
			CORNER FILLETS R.51 [.02]	REFERENCE	MATERIAL		PROCESS/FINISH
			MACHINED SURFACES	EE7308			
			INCH 125 mm 3.2	THIRD ANGLE	SIZE DWG NO	EE7308TP	
			INCH SHOWN IN [BRACKETS]	PROJECTION	A		
						SHEET	
						1	

CERTIFICATION DATA SHEET

Model#: 324THFPA8038 AC
CONN. DIAGRAM: A-EE7308T
OUTLINE: B-SS311268-1475

WINDING#: K2864202 F 3
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
40	30	1800	1770	324TC	TEBC-AXIAL	G	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	100/50	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300

FULL LOAD EFF: 91.7	3/4 LOAD EFF: 91.7	1/2 LOAD EFF: 90.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 81.5	3/4 LOAD PF: 77	1/2 LOAD PF: 68	90.2	SQ CAGE INV DUTY	40 / 20

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
119 LB-FT	600 / 300	235 LB-FT 197	320 LB-FT 269	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	4.7 LB-FT^2	- LB-FT^2	- SEC.	-	608 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.081535	0.077281	0.434617	0.592015	10.2805

RM	ZREF	XR	TD	TD0
549.475	7.09	6.5	0.022	0.373

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6312	6311	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1
 INV. HP SPEED RANGE: 1.5 X BASE SPEED

ENCODER: PROVISIONS ONLY
 NONE NONE
 NONE NONE PPR

BRAKE: NONE NONE
 NONE P/N NONE

*
N
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*

NONE	NONE	
NONE FT-LB	NONE V	NONE Hz

DATE: 06/21/2017 03:23:02 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 29-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



324THFA8038

Submittal

Data @ 460 V

Motor Load Data

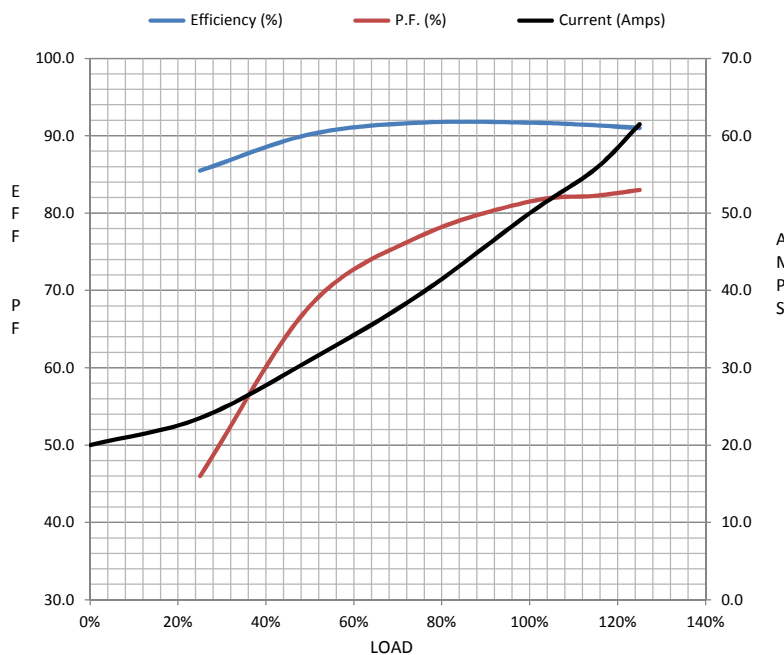
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	20.0	23.5	31.0	39.5	50.0	55.8	61.5	300	
Torque (ft-lb)	0.00	29.5	59.0	88.5	119	134	148	235	
RPM	1800	1794	1786	1778	1770	1,765	1758	0	
Efficiency (%)		85.5	90.2	91.7	91.7	91.4	91.0		
P.F. (%)	7.5	46.0	68.0	77.0	81.5	82.3	83.0	36.0	

Motor Speed Data

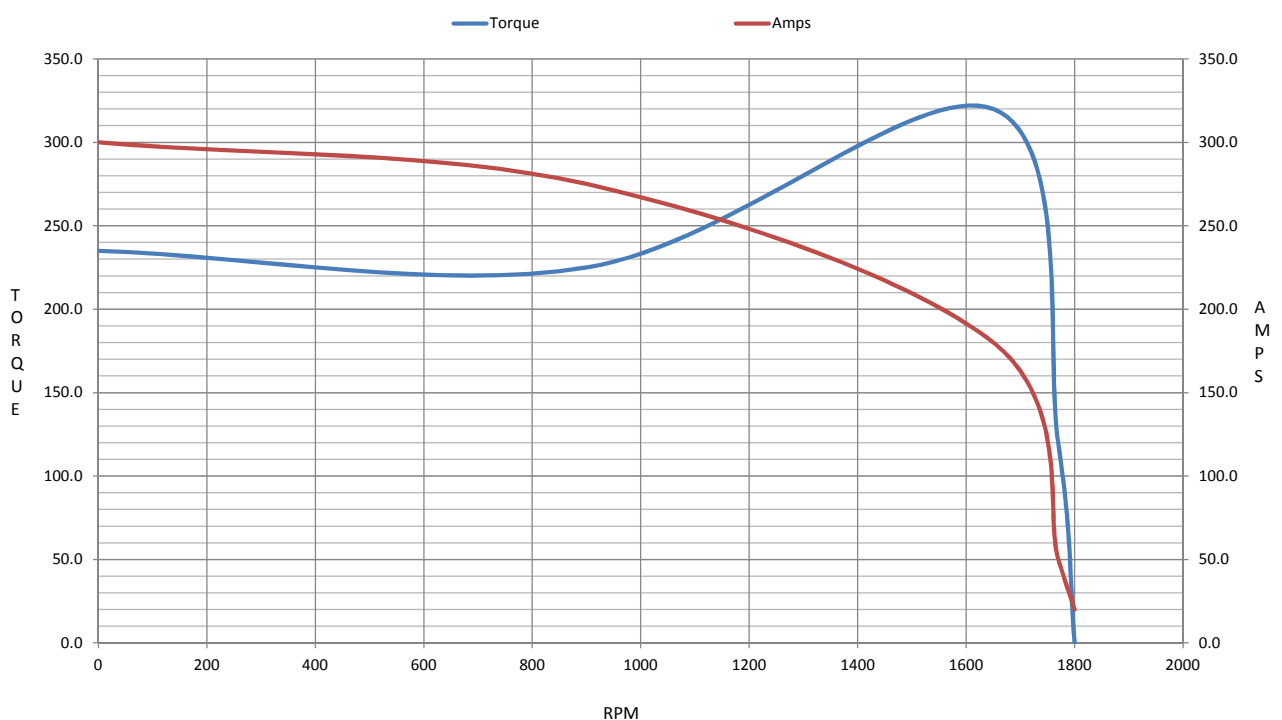
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1650	1770	1800
Current (Amps)	300	275	180	50.0	20.0
Torque (ft-lb)	235	225	320	119	0.00

Information Block

HP	40.0			
Sync. RPM	1800			
Frame	324			
Enclosure	TEBC			
Construction	TBP			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	70 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.7 Lb-Ft ²			
Ref Wdg	K2864202 F			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS311268-1475			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0820	0.0770	0.4350	0.5920	10.2810



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 : 324THFPA8038

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

Catalog No : Y513

Rework No : N/A

Directives :

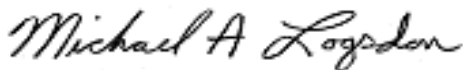
Low Voltage Directive 2014/35/EU

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