

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 254THTL5776

Catalog No: Y546

Black Max® Inverter Duty Speed Ratio Motor, 7.50 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 254TC Frame,
TENV



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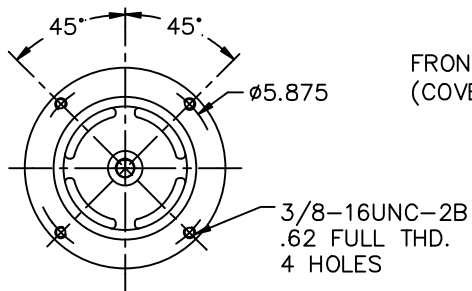
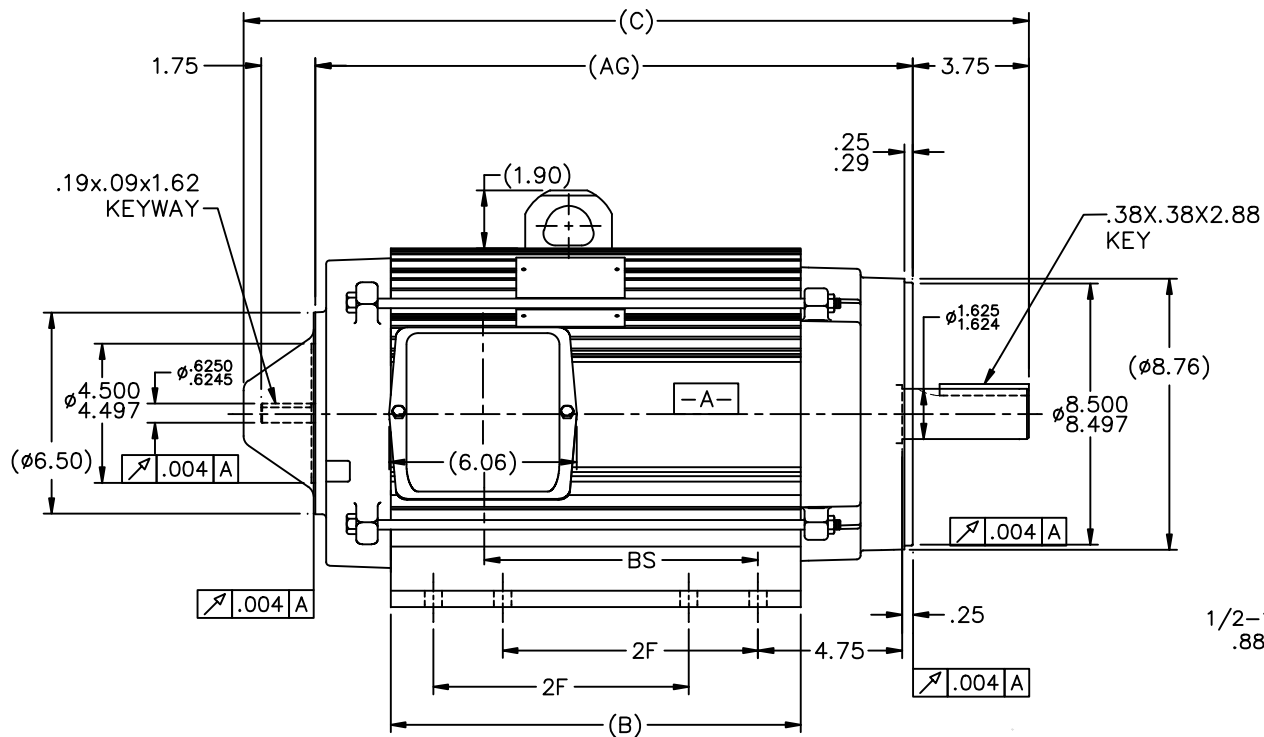
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	7.50 Hp
Output KW	5.6 kW	Voltage	230/460 V
Speed	1170 rpm	Service Factor	1.0
Frame	254TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Efficiency	87.5 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	22.0/11.0 A	Power Factor	73
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	L
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6206
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

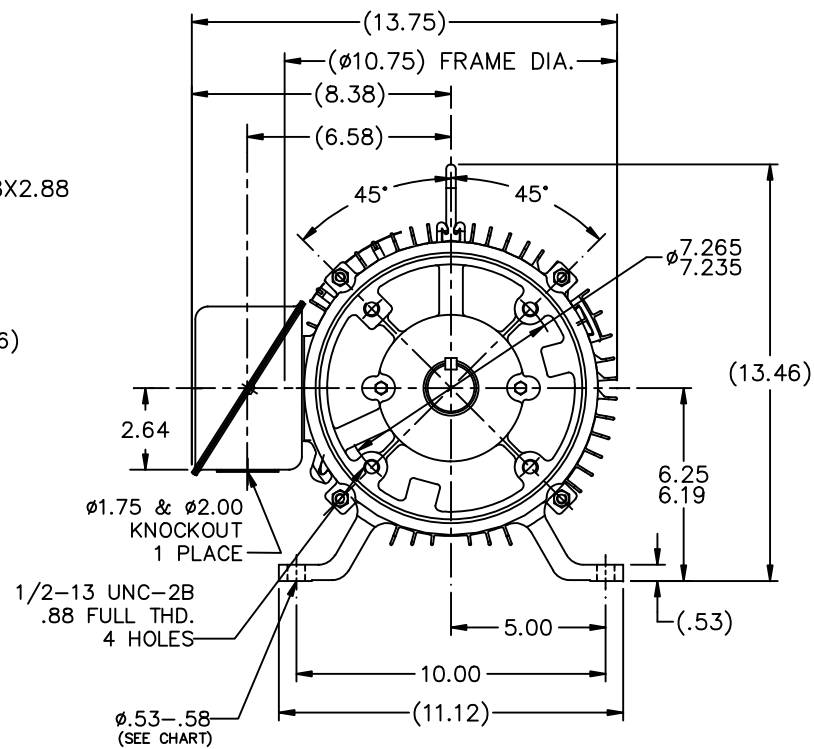
Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	6	Rotation	Reversible
Resistance Main	.825 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Aluminum
Shaft Type	T	Overall Length	25.37 in
Frame Length	13.25 in	Shaft Diameter	1.625 in
Shaft Extension	3.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 1000:1		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS330123-1325



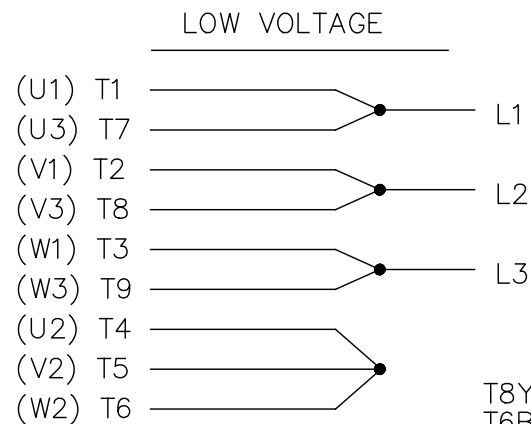
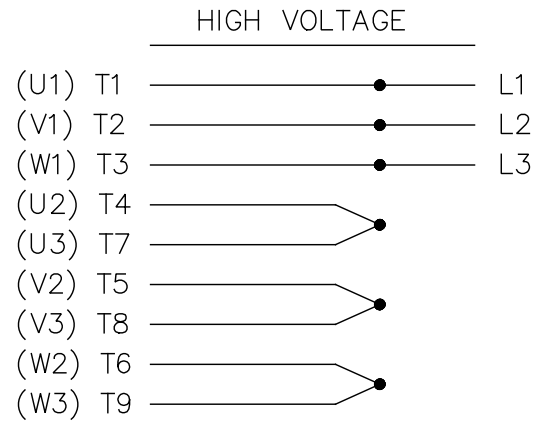
FRONT FACE DETAIL
(COVER REMOVED)

NOTES:

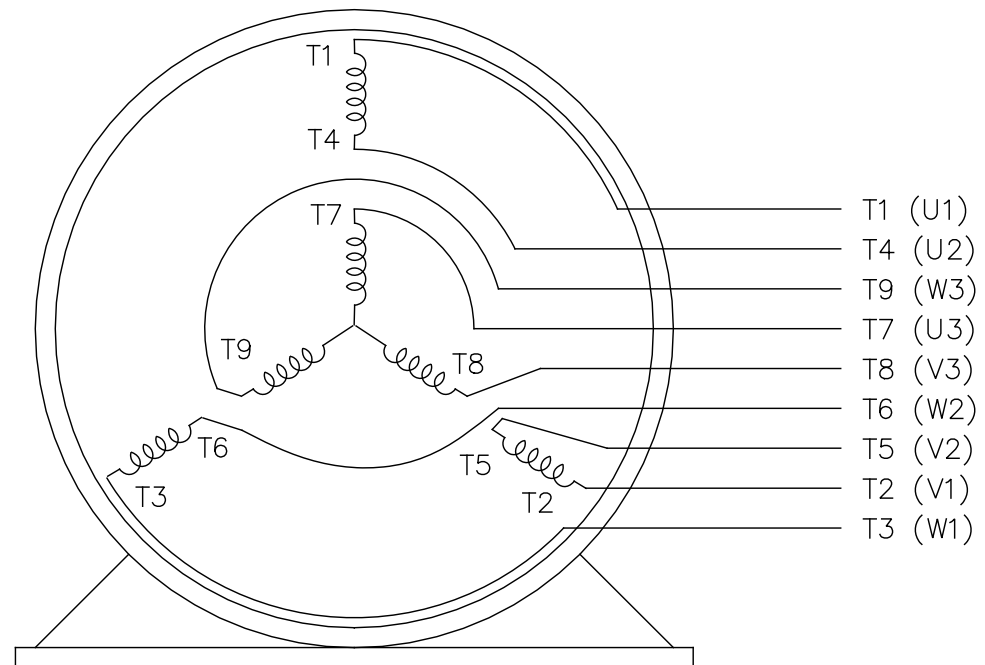
- 1- BOX CAN BE ROTATED IN 180° STEPS.
- 2- BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS & TURNING FRAME 180°.
- 3- NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

[illegible]

						TOLERANCES UNLESS SPECIFIED		DRAWN R/JW 08-29-2005		
					DEC.	INCHES		CHK ML 08-29-2005		
					.X	±.1		APPD BW 08-30-2005		
3	CORRECT BA DIM. WAS 4.25 ISAAC 11-2784	MOL 6/17/2011	.XX	±.03	TITLE OUTLINE - C'FACE			SCALE 1=4		
2	DELETED "2FF" COLUMN CN 40215	JJB 06/05/2006	.XXX	±.005	210 FR. - 254/56 MTG. - ALUMINUM FRAME			REF		
1	(1.38) WAS (1.69), UPDATED 2FF DIM'S CN 46257	TAT 11-08-2005	ML .XXXX	±.0005	MAT'L			FMF		
NO.	REVISION	BY & DATE	CHK ANG	±730"	FINISH			PREV		
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH THE PROJECT AND INVENTION HEREIN RESERVED.					RFP	CAD FILE ss330123	SIZE B	DRAWING NO. SS330123	PAGE OF 3	REV. 3
THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT					DIST LB					



THREE PHASE DUAL VOLTAGE MOTOR



REF.
WINDING DIAGRAM

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

VIEW OF TERMINAL END

OPTIONAL CORD CONNECTION

L1 WHITE
L2 RED
L3 BLACK

DRAWING REVISION		REVISION BY	DATE	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY: AS		TransPower			
ECO		APPROVED BY	DATE	DEC. mm INCH ANGLE		DATE: 02/20/2017		DESCRIPTION CONNECTION DIAGRA 3 PHASE – UAL VOLTAGE			
ECO DESCRIPTION NEW DRAWING				.X ±2.5 ±0.11 ±0.5° .XX ±0.51 ±0.021 .XXX ±0.127 ±0.0051 .XXXX ±0.0127 ±0.00051		APPROVED BY: ST					
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.				REMOVE BURRS & BREAK SHARP EDGES .08/.38 [.003/.015]X 45° CORNER FILLETS R.51 [.02] MACHINED SURFACES		DATE: 02/20/2017		MATERIAL		PROCESS/FINISH	
				INCH 125/ mm 3/2		REFERENCE EE7308		SIZE DWG NO		SHEET	
				INCH SHOWN IN [BRACKETS]		THIRD ANGLE PROJECTION		A		1	
								EE7308TP			

CERTIFICATION DATA SHEET

Model#: 254THTL5776 CE
CONN. DIAGRAM: A-EE7308T
OUTLINE: B-SS330123-1325

WINDING#: K2156129 NONE 2
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2	5.60	1200	1170	254TC	TENV	L	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	22/11	INVERTER ONLY	CONTINUOUS	F3	1.0	40	3300

FULL LOAD EFF: 87.5	3/4 LOAD EFF: 87.5	1/2 LOAD EFF: 85.5	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 73	3/4 LOAD PF: 66	1/2 LOAD PF: 54	85.5	SQ CAGE INV DUTY	12 / 6

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
33.7 LB-FT	168 / 84	78 LB-FT 231	118 LB-FT 350	95

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
60 dBA	70 dBA	1.2 LB-FT^2	0 LB-FT^2	0 SEC.	0	223 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.5103	0.6804	2.84634	3.24702	42.714

RM	ZREF	XR	TD	TD0
1787.94	37.8	3.3	0.0098	0.179

*** SUPPLEMENTAL INFORMATION ***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6309	6206	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ALUMINUM

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 1000:1
 INV. HP SPEED RANGE: 2.0 X BASE SPEED

ENCODER: PROVISIONS ONLY
 NORTHSTAR ST56
 NONE NONE PPR

BRAKE: PROVISIONS ONLY NONE
 NONE P/N NONE

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NONE	NONE	
NONE FT-LB	NONE V	NONE Hz

DATE: 06/21/2017 09:33:04 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 20-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA

254THTL5776



Submittal

Data @ 460 V

Motor Load Data

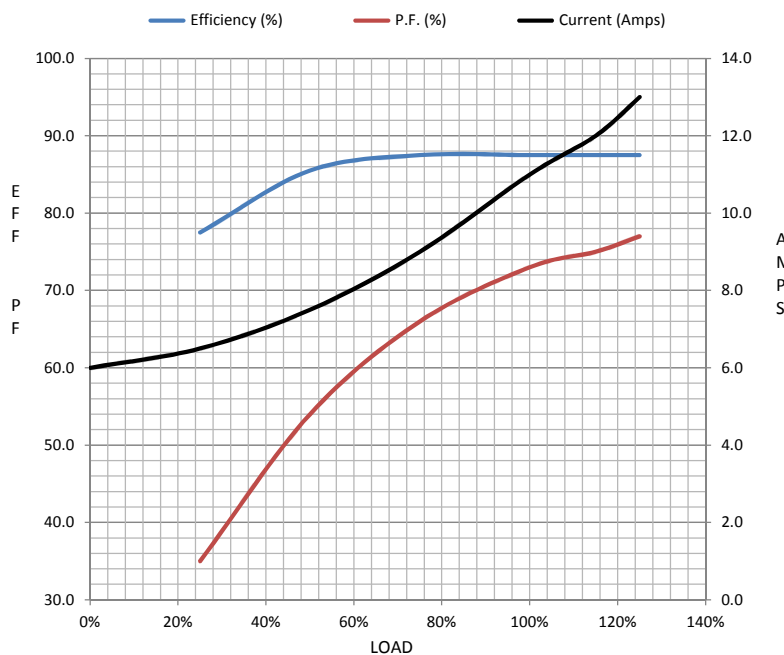
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	6.0	6.5	7.5	9.0	11.0	12.0	13.0	84.0	
Torque (ft-lb)	0.00	8.3	16.6	25.0	33.7	38.1	42.5	78.0	
RPM	1200	1192	1185	1178	1170	1,167	1162	0	
Efficiency (%)		77.5	85.5	87.5	87.5	87.5	87.5		
P.F. (%)	8.0	35.0	54.0	66.0	73.0	75.0	77.0	40.0	

Motor Speed Data

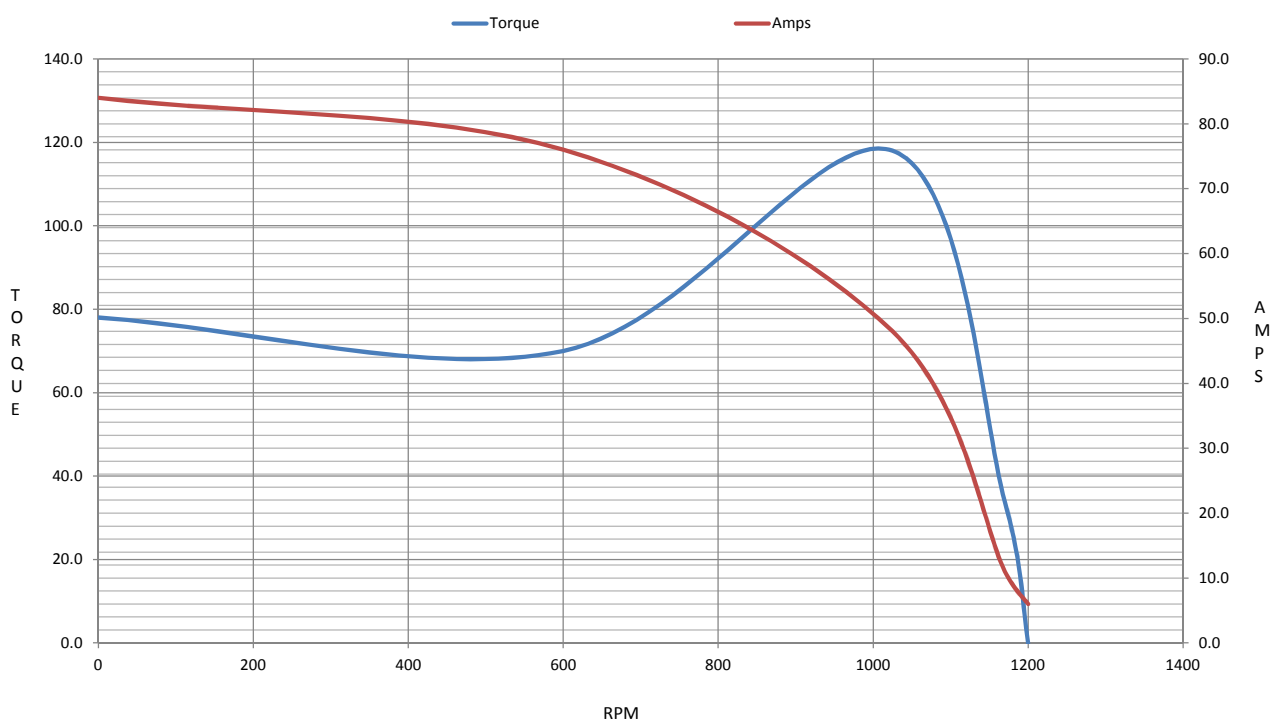
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1025	1170	1200
Current (Amps)	84.0	76.0	48.0	11.0	6.0
Torque (ft-lb)	78.0	70.0	118	33.7	0.00

Information Block

HP	7.5			
Sync. RPM	1200			
Frame	254			
Enclosure	TENV			
Construction	TTL			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	L			
Service Factor	1.0			
Temp Rise @ FL	95 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	1.20 Lb-Ft ²			
Ref Wdg	K2156129 NONE			
Sound Pressure @ 1M	60 dBA			
VFD Rating	CONSTANT 1000:1			
Outline Dwg	B-SS330123-1325			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5100	0.6800	2.8460	3.2470	42.7140



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 : 254THTL5776

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

Catalog No : Y546

Rework No : N/A

Directives :

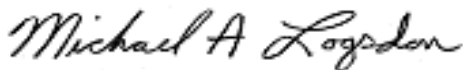
Low Voltage Directive 2014/35/EU

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