

PRODUCT INFORMATION PACKET

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



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E

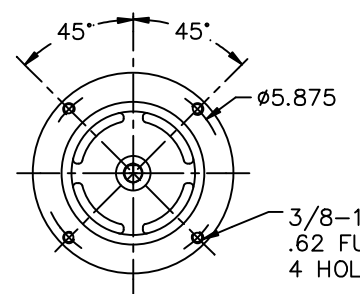
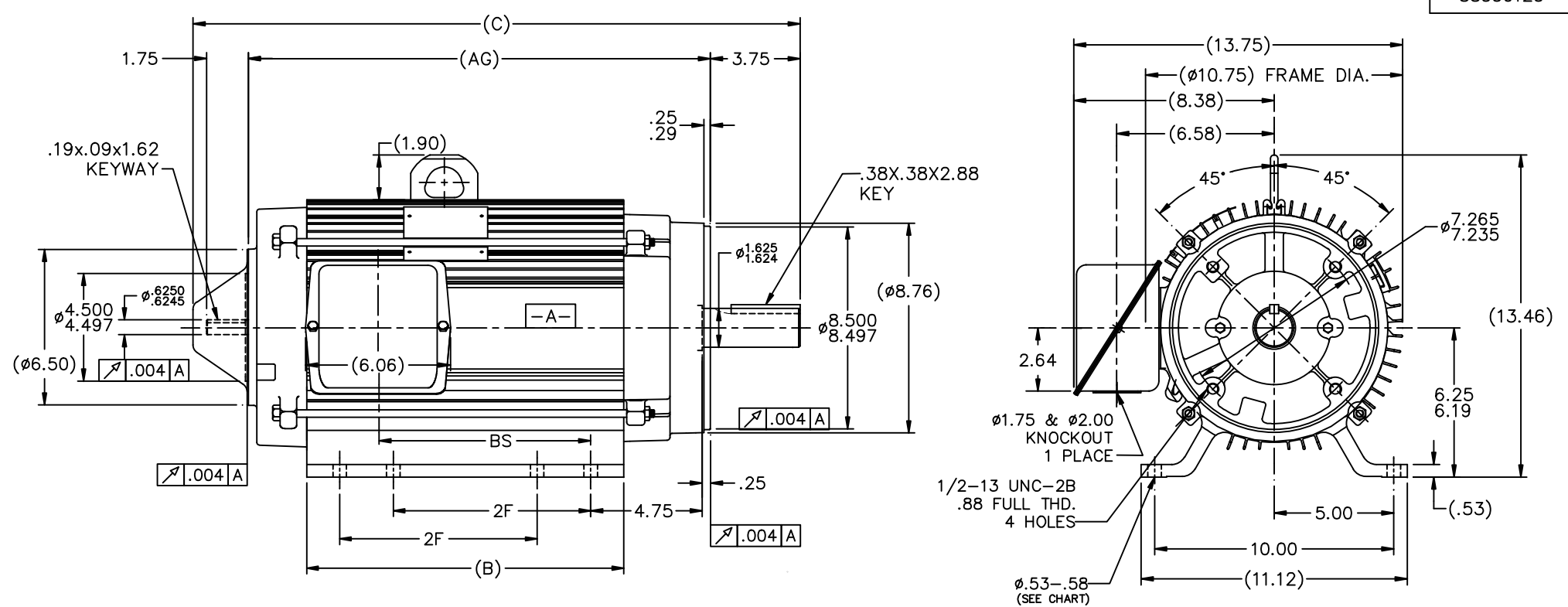


Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	230/460 V
Current	22.0/11.0 A	Speed	1170 rpm
Service Factor	1	Phase	3
Efficiency	87.5 %	Power Factor	73
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	L
Frame	254TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
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)

DASH	FR.	C	B	2F		AG	BS	F1/F2	NO. OF MTG. HOLES
1325	254	25.37	13.25	8.25		19.31	8.85	YES	8
1475	254	26.87	14.75	8.25		20.81	10.35	YES	8
1475	256	26.87	14.75	10.00		20.81	10.35	YES	8

- 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.

NO.		REVISION	BY & DATE	CHK	ANG	FINISH	PREV
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	MAT'L	FMF

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

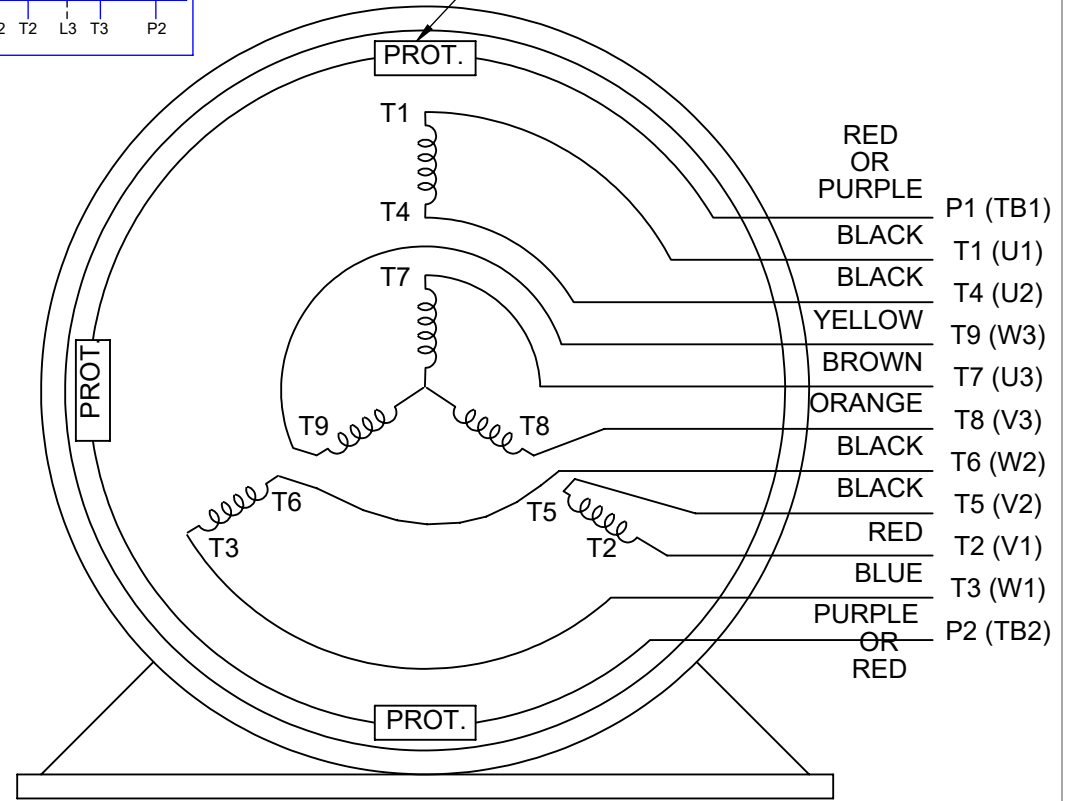
TOLERANCES UNLESS SPECIFIED	DEC.	INCHES		DRAWN R/JW 08-29-2005
.X	±.1	CHK ML 08-29-2005		
RFP	CAD FILE	ss330123	APPD BW 08-30-2005	SCALE 1=4
DIST LB	SIZE B	DRAWING NO. SS330123	PAGE OF	REV. 3

HIGH VOLTAGE



**THREE PHASE
DUAL VOLTAGE MOTOR**

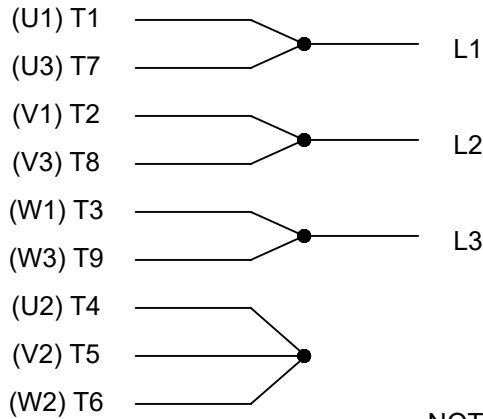
THERMO-PROTECTORS
CONNECTED IN SERIES



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 T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR
<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 05-13-1992	MATERIAL	PROCESS/FINISH
			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T
			THIRD ANGLE PROJECTION		

CERTIFICATION DATA SHEET

Model#: 254HTL5776 CE **WINDING#:** K2156129 NONE 2
CONN. DIAGRAM: A-EE7308T **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS330123-1325

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	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	ALUMINUM
BALL	BALL						
6309	6206						

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

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

*
N
O
T
E
S
*

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



254THL5776

Submittal

Data @ **460 V**

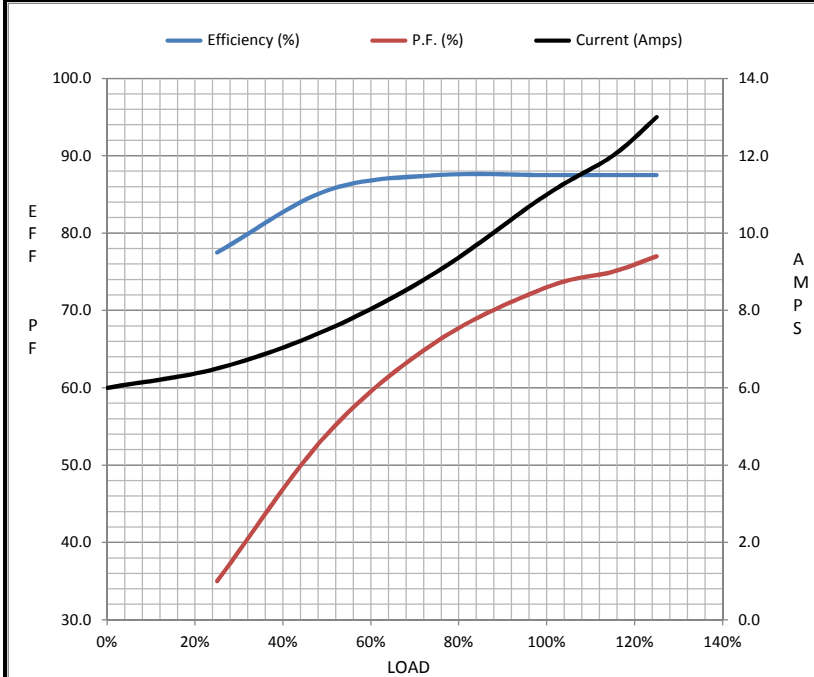
Motor Load Data

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

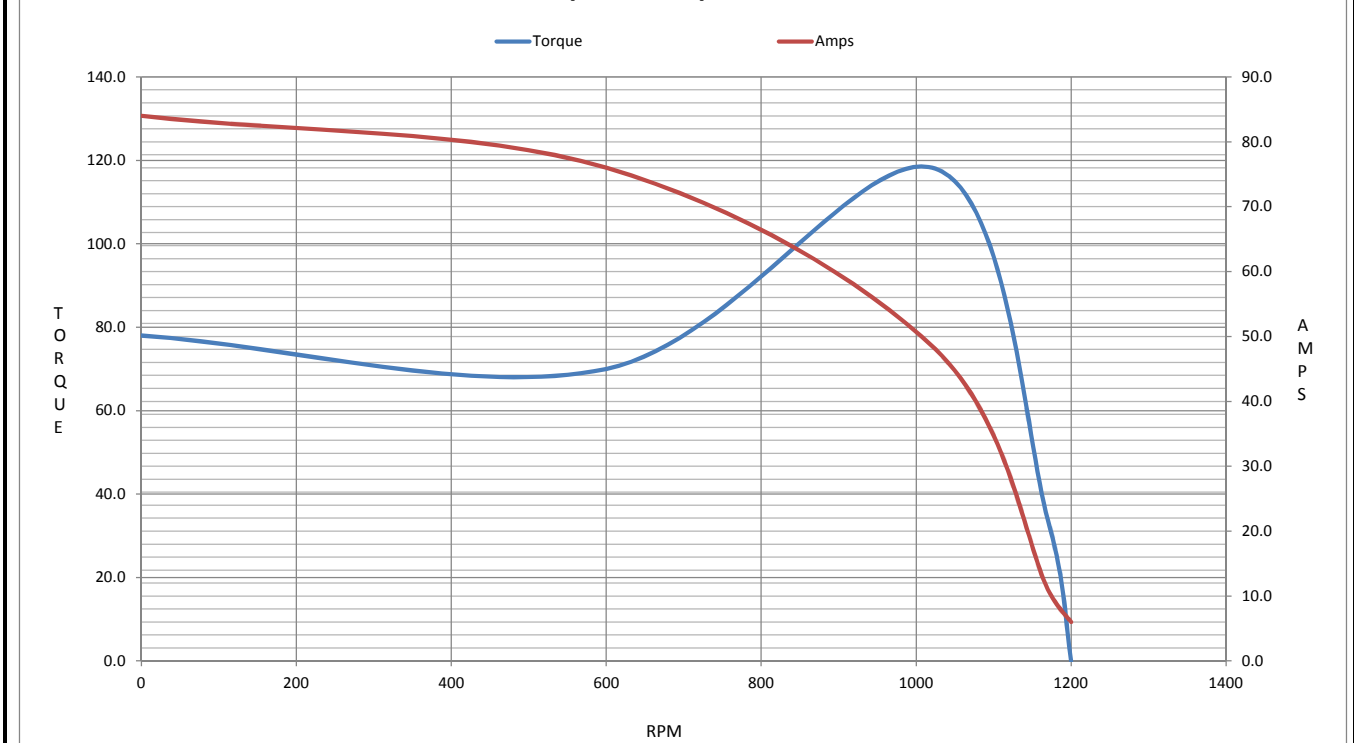
Motor Speed Data

	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