

PRODUCT INFORMATION PACKET

Model No: 284THTCD7026

Catalog No: Y553A

Black Max® Inverter Duty Encoder Motor, 25 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 284TC Frame, TENV



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Nameplate Specifications

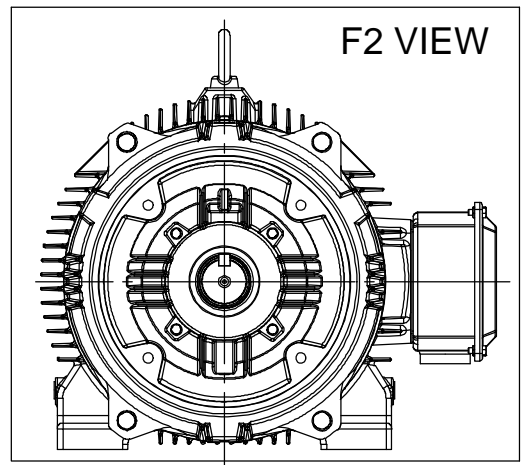
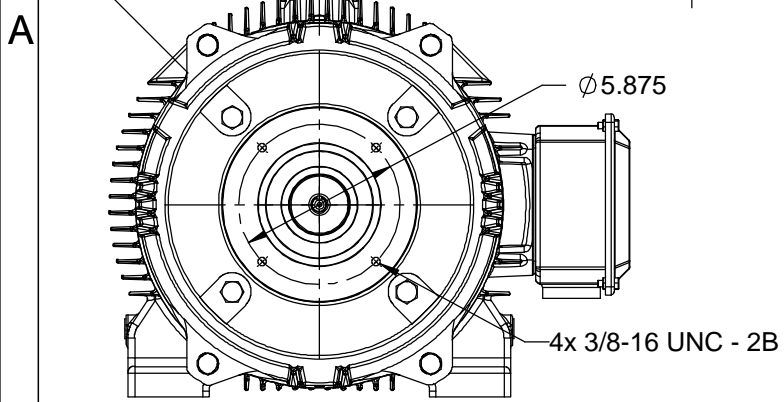
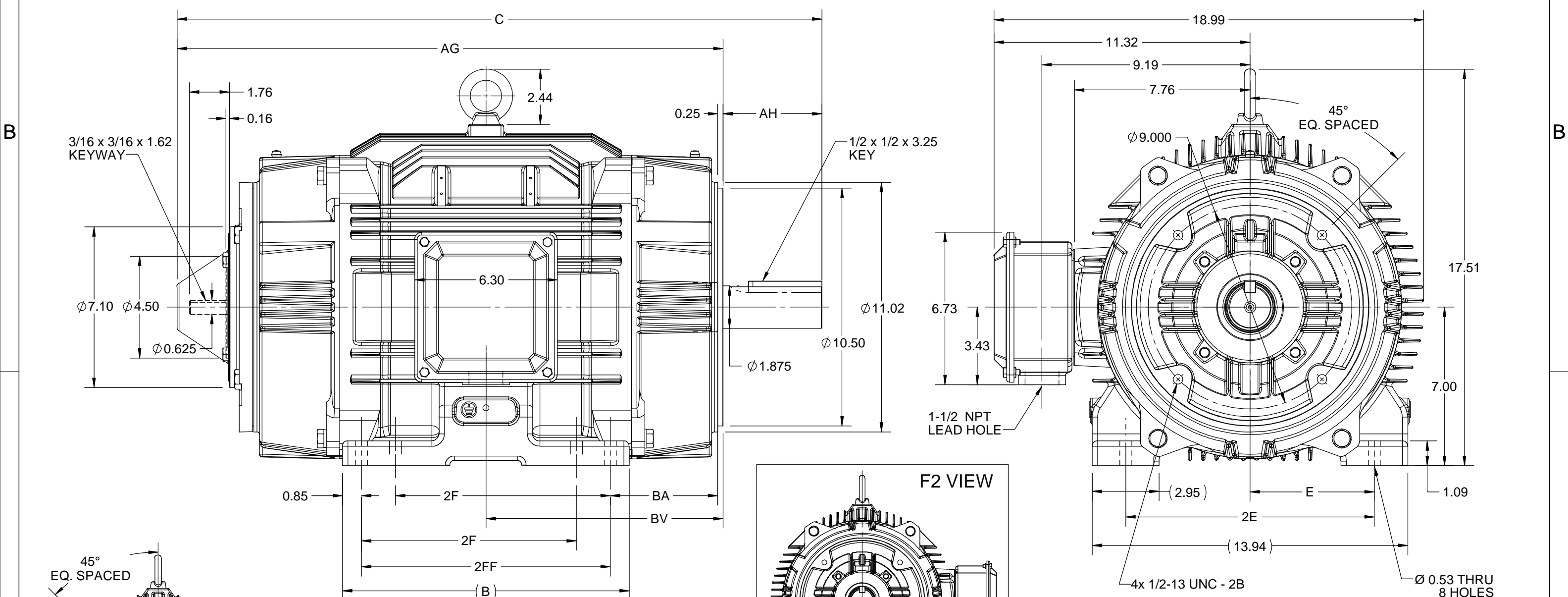
Output HP	25 Hp	Output KW	18.7 kW
Frequency	60 Hz	Voltage	230/460 V
Current	59.0/29.5 A	Speed	1778 rpm
Service Factor	1	Phase	3
Efficiency	93.6 %	Power Factor	84.8
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	L
Frame	284TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6311
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.282 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	1.875 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 1000:1
Connection Drawing	EE7308T	Outline Drawing	SS313097-100

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DASH NO.	4				3				2			1
	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	
100	10.83	27.00	5.50	11.00	---	9.50	22.63	4.38	4.75	9.76	F1 OR F2	284TC
200	12.68	28.50			9.50	11.00	24.13			10.48		284/286TC



DRAWING REVISION D	REVISION BY VS	REV DATE/© DATE 27-10-2020
ECO ECO-0193836	APPROVED BY GNK	DATE 27-10-2020
ECO DESCRIPTION DRAWING UPDATED 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.		

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DRAWN BY VS	REGAL ® Regal Beloit America, Inc.
DATE 04-06-2020	
APPROVED BY SBD	DESCRIPTION OUTLINE 284/286TC FR-NEMA-TENV-ODE 4.5AK
DATE 04-06-2020	MATERIAL PROCESS/FINISH
REFERENCE	SIZE DRAWING NUMBER B SS313097
THIRD ANGLE PROJECTION	SHEET 1 OF 1

HIGH VOLTAGE



**THREE PHASE
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS
CONNECTED IN SERIES



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



VIEW OF TERMINAL END

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	
<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	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR	
			REFERENCE EE7308/EE7300	MATERIAL	PROCESS/FINISH
			THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER EE7308T
					SHEET 1 OF 1



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____ **CUSTOMER P.O. #:** _____
ORDER #: _____ **REFERENCE MODEL #:** 284THTCD7026
CONN. DIAGRAM: EE7308T **CAT #:** Y553A
OUTLINE: SS313097-100 **CUSTOMER PART #:** _____
WINDING: HA31804025 NONE 2 **MOUNTING:** F1/F2 CAPABLE
SPEED: _____ **FAN:** 504205B

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
25	18.7	1800	1778	284TC	TENV	TTC	L	INF

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	59/29.5	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	93.6	3/4 LD EFF	93.7	1/2 LD EFF	92.8	GTD EFF	ELECT. TYPE
F.L. PF	84.8	3/4 LD PF	79.4	1/2 LD PF	68.1	93.2	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
73.9 LB-FT	275	129 LB-FT 175%	289 LB-FT 391%	105

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
72 dBA	81 dBA	4.8 LB-FT²	40 LB-FT²	20 SEC.	2	0 LB.

***** SUPPLEMENTAL INFORMATION *****

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

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

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.176	0.115	0.737	0.658	20.265	0.080	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 1000:1 INV. HP SPEED RANGE: 2.0 X BASE SPEED					
	ENCODER: NORTHSTAR ST56 NONE NONE PPR					
	BRAKE: NONE NONE NONE					
	FT-LB: NA VOLTAGE: NONE HZ:					

PREPARED BY: _____ **DATE:** 11/28/2022
 FORM: 3531 REV_4 2/27/06 **UL:** V-INS, CONST, OVERHEAT PRT DEV UL REC

Data Sheet

Date: 11/28/2022
 Customer: _____
 Attention: _____
 Submitted by: _____



284THTCD7026

NONE FAN

Submittal

Data @ **460** V

Motor Load Data

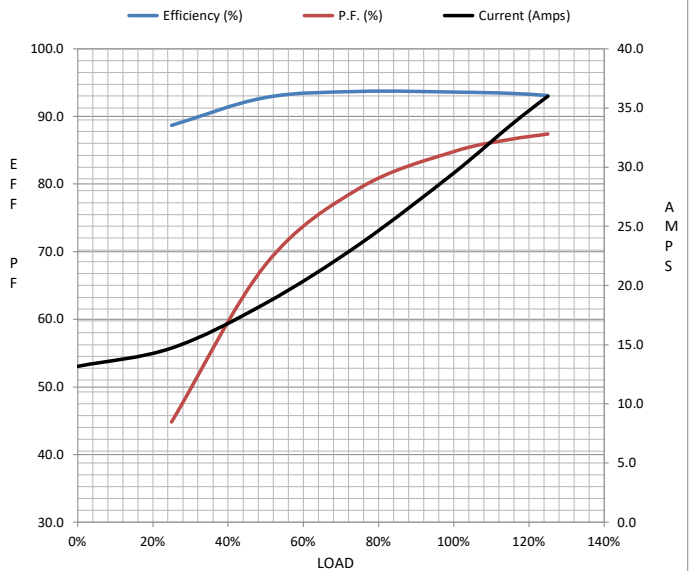
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.2	14.7	18.5	23.5	29.5	33.5	36.0	275
Torque (ft-lb)	0.00	18.3	36.7	55.2	73.9	85.1	92.6	129
RPM	1800	1795	1789	1784	1778	1,775	1772	0
Efficiency (%)		88.7	92.8	93.7	93.6	93.4	93.1	
P.F. (%)	5.2	44.8	68.1	79.4	84.8	86.6	87.4	32.8

Motor Speed Data

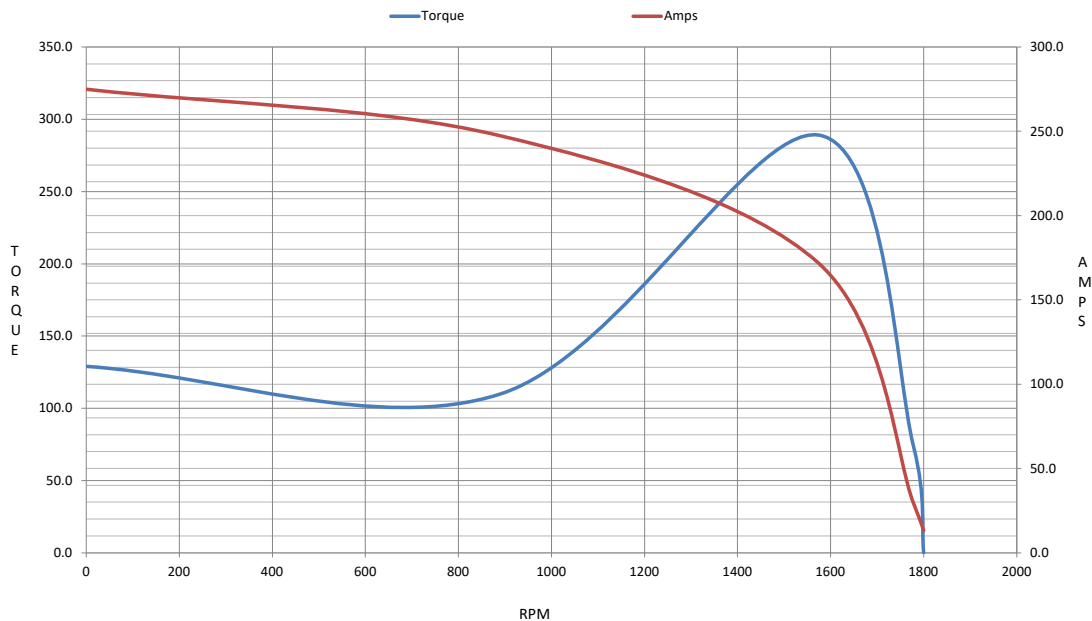
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	889	1573	1778	1800
Current (Amps)	275	248	172	29.5	13.2
Torque (ft-lb)	129	110	289	73.9	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	TENV			
Construction	TTC			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	L			
Service Factor	1			
Temp Rise @ FL	105 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	4.8 Lb-Ft ²			
Ref Wdg	HA31804025 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 1000:1			
Outline Dwg	SS313097-100			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1760	0.1150	0.7370	0.6580	20.2650



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 : 284THTCD7026

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

Catalog No : Y553A

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 09/06/2022

CE 22