

PRODUCT INFORMATION PACKET

Model No: 256THTCD8071

Catalog No: Y993A

Blue Max® Inverter Duty Encoder Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 256TC Frame, TENV



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Nameplate Specifications

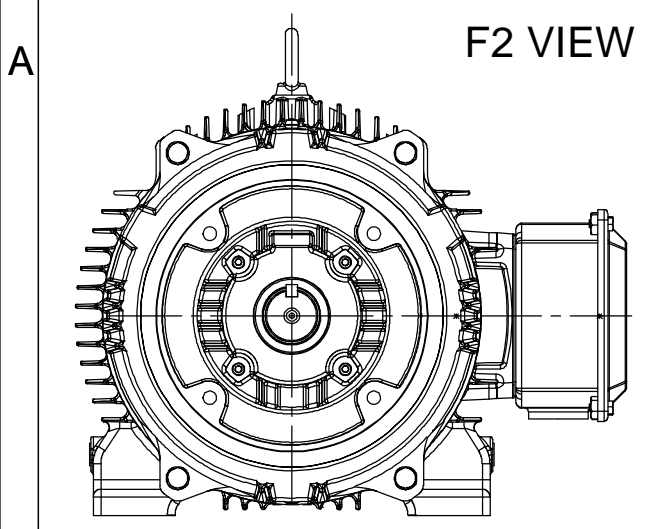
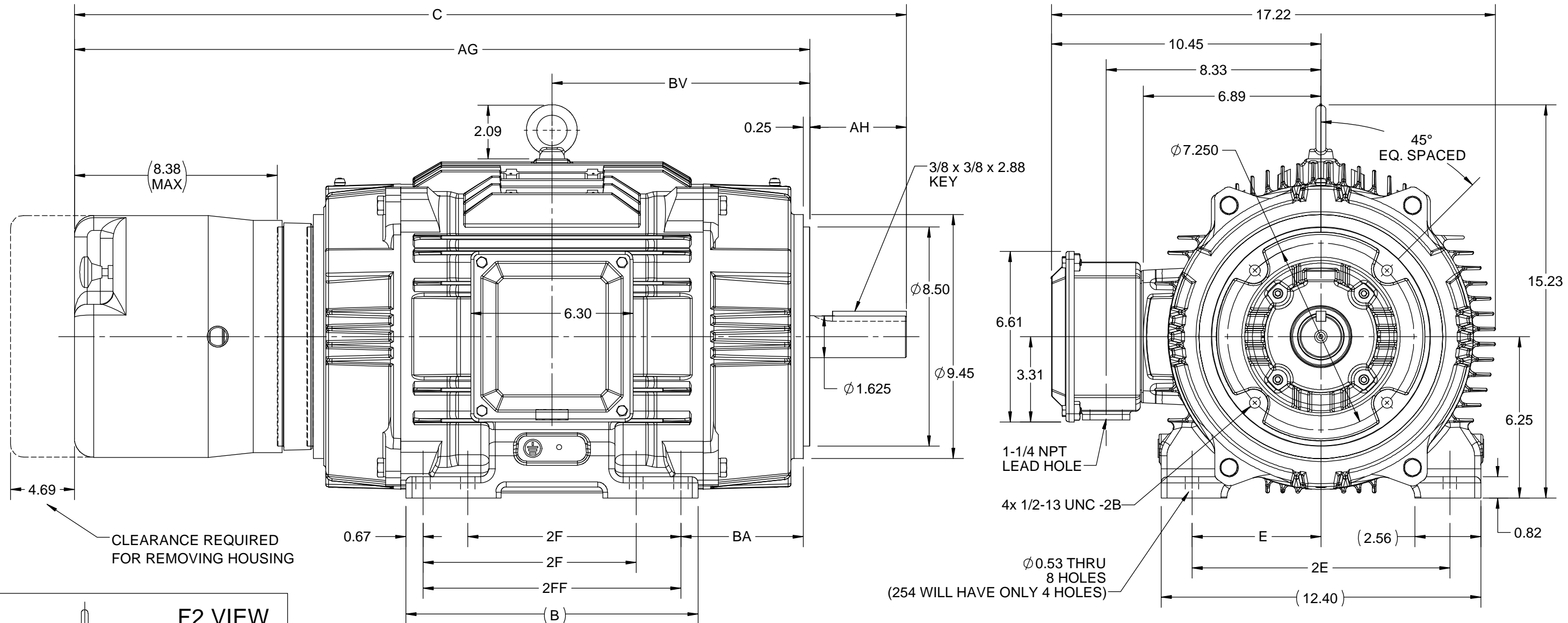
Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	230/460 V
Current	49.0/24.5 A	Speed	1778 rpm
Service Factor	1	Phase	3
Efficiency	93.4 %	Power Factor	81
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	M
Frame	256TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6309
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	.333 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	1.625 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2000:1
Connection Drawing	EE7308T	Outline Drawing	SS209622-200

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DASH NO.	4		3					2		1		
	B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	30.55	5.00	10.00	---	8.25	26.78	3.75	4.75	9.14	F1 OR F2	254TC
200	11.34	32.28			8.25	10.00	28.53			10.00		254/256TC



DRAWING REVISION B	REVISION BY BISWA	REV DATE/© DATE 29-10-2020
ECO ECO-0193836	APPROVED BY GNK	DATE 29-10-2020
DRAWING UPDATED		
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PRIMARY DIMENSIONS ARE INCH
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ARE FOR REFERENCE ONLY

DRAWN BY VS	Regal Beloit America, Inc.
DATE 29-06-2020	
APPROVED BY SBD	DESCRIPTION OUTLINE
DATE 29-06-2020	254/256TC NEMA TENV-BRAKE (STEARNS BR & SL85 TACH)
REFERENCE	MATERIAL
THIRD ANGLE PROJECTION	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS209622
	SHEET 1 OF 1

HIGH VOLTAGE



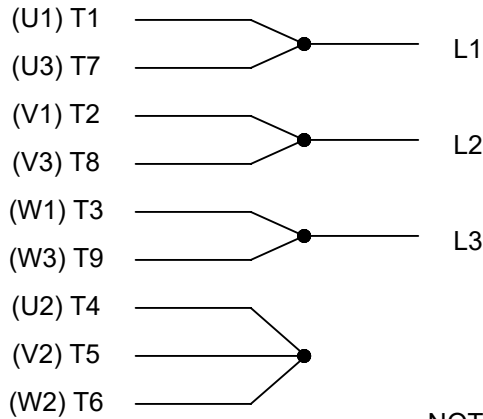
**THREE PHASE
DUAL VOLTAGE MOTOR**

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	DESCRIPTION CONN DIAGRAM-INTERNAL 3 PHASE - DUAL VOLTAGE MOTOR	
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			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T	SHEET 1 OF 1
			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: SS209622-200
WINDING: HA31604035 NONE 2
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 256THCD8071
CAT #: Y993A
CUSTOMER PART #: _____
MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1800	1778	256TC	TENV	TTC	M	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	230/460	49/24.5	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	3/4 LD EFF	1/2 LD EFF	GTD EFF	ELECT. TYPE
93.3	93.4	92.7	92.7	SQ CAGE INV DUTY
F.L. PF	3/4 LD PF	1/2 LD PF		
81.9	79.3	67.4		

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
59.0 LB-FT	255	180 LB-FT	260 LB-FT	105
		305%	441%	

SOUND PRESSURE @ 3 FT.	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
62 dBA	71 dBA	0.869 LB-FT ²	30 LB-FT ²	18 SEC.	2	355 LB.	

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

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

DE	ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL 6309	BALL 6309	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 (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
0.208	0.135	0.729	0.681	21.043	0.150	ODE

NOTES	INVERTER TORQUE: CONSTANT 2000:1	
	INV. HP SPEED RANGE: 2.0 X BASE SPEED	
	ENCODER: NORTHSTAR	
	SL85	NONE PPR

PREPARED BY: _____	BRAKE: STEARNS	
DATE: 9/27/2021	87,000	NEMA 2
	FT-LB: 105	
	VOLTAGE: 208-230/460-190/380	HZ:
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: _____



256THTCD8071

Submittal

Data @ 460 V

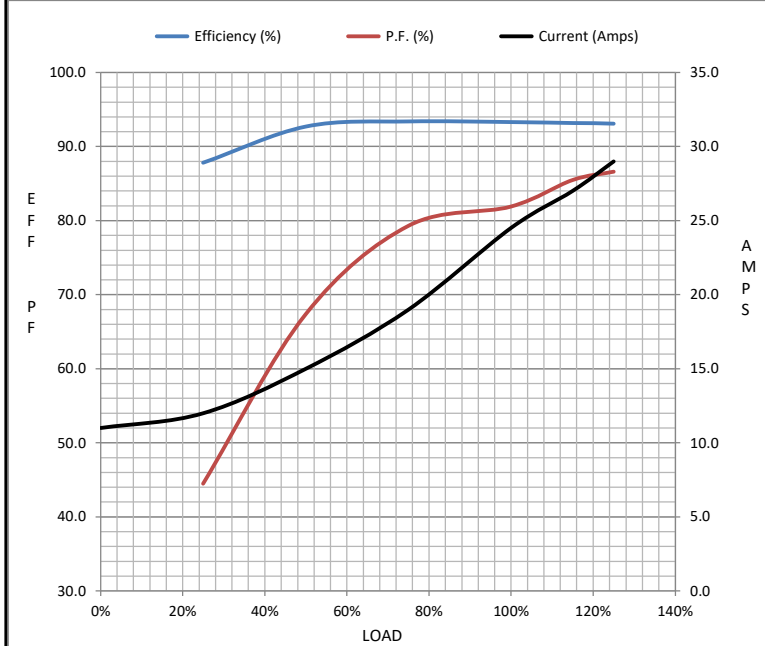
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	11.0	12.0	15.0	19.0	24.5	27.0	29.0	255
Torque (ft-lb)	0.00	14.6	29.4	44.2	59.0	68.0	74.0	180
RPM	1800	1795	1790	1785	1778	1,776	1774	0
Efficiency (%)		87.8	92.7	93.4	93.3	93.2	93.1	
P.F. (%)	5.7	44.5	67.4	79.3	81.9	85.5	86.6	40.0

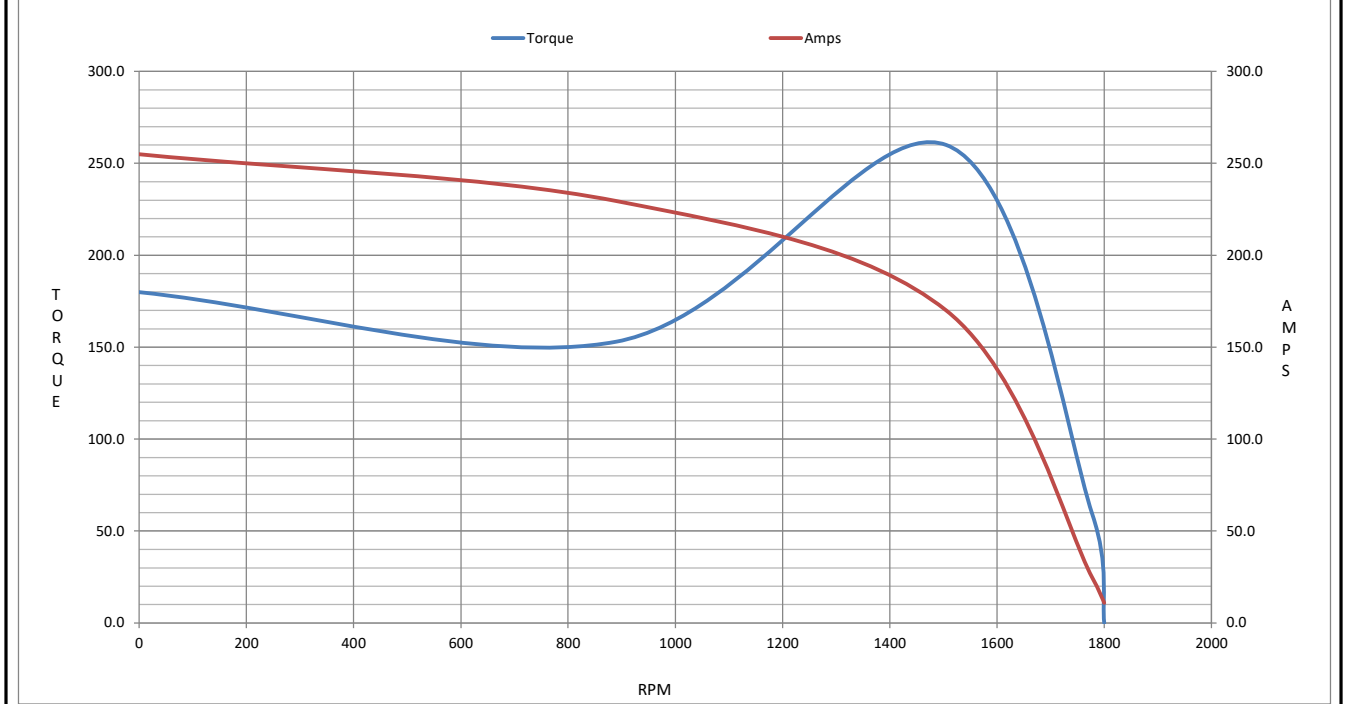
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	889	1505	1778	1800
Current (Amps)	255	230	170	24.5	11.0
Torque (ft-lb)	180	153	260	59.0	0.00

Information Block				
HP	20.0			
Sync. RPM	1800			
Frame	256			
Enclosure	TENV			
Construction	TTC			
Voltage	230/460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	M			
Service Factor	1.0			
Temp Rise @ FL	105 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	0.869 Lb-F ²			
Ref Wdg	HA31604035 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS209622-200			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2080	0.1350	0.7290	0.6810	21.0430



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 : 256THTCD8071

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

Catalog No : Y993A

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