PRODUCT INFORMATION PACKET

Model No: 145THTN8043
Catalog No: Y987
Blue Max® Inverter Duty Brake Motor, 2 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 145TC Frame, TENV

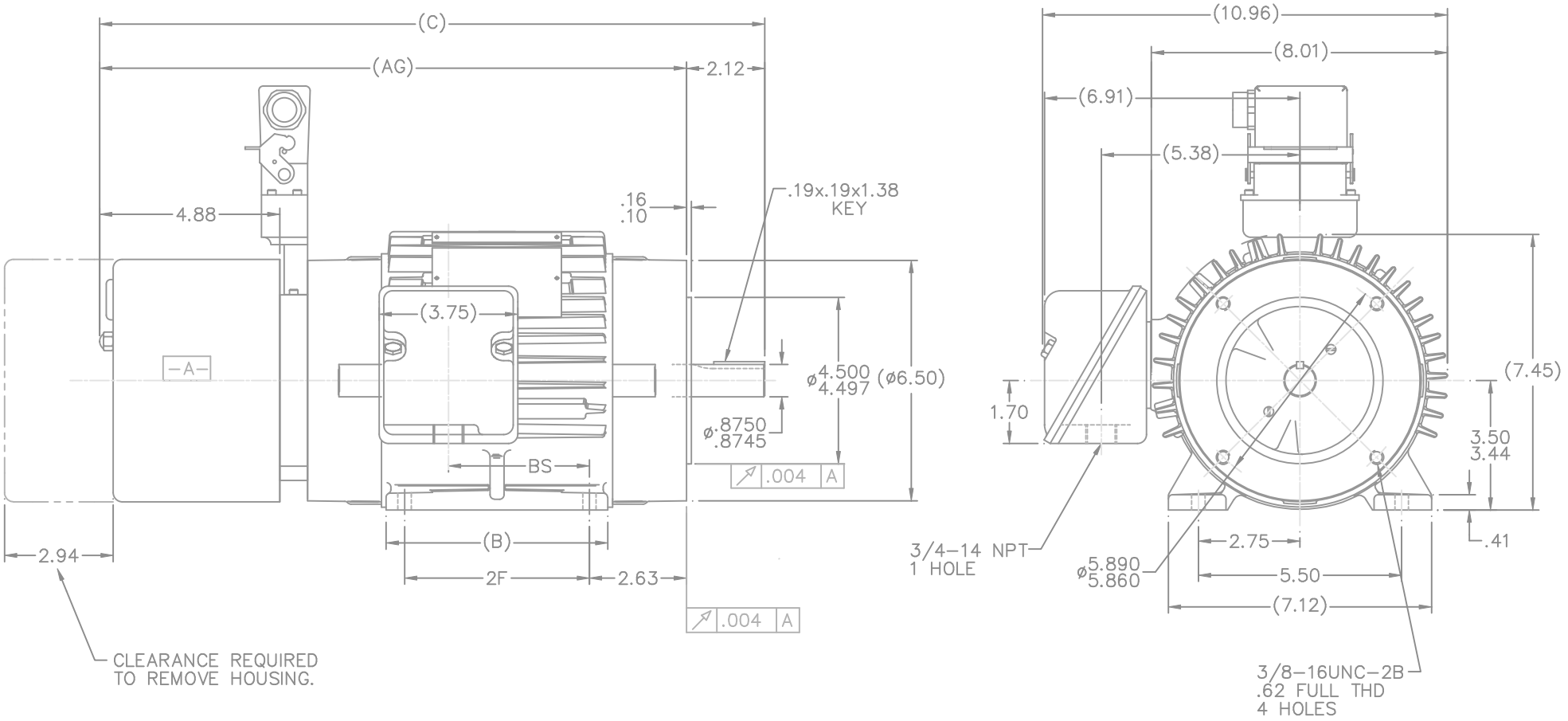
marathon® Motors

Nameplate Specifications

Phase	3	Output HP	2 Hp
Output KW	1.5 kW	Voltage	230/460 V
Speed	1750 rpm	Service Factor	1.0
Frame	145TC	Enclosure	Totally Enclosed Non Ventilated
Thermal Protection	Thermostat	Efficiency	85.5 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	6.0/3.0 A	Power Factor	78
Duty	Continuous	Insulation Class	F
Design Code	INV	KVA Code	M
Drive End Bearing Size	6205	Opp Drive End Bearing Size	6205
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	6.48 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	18.00 in
Frame Length	6.25 in	Shaft Diameter	0.875 in
Shaft Extension	2.12 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	104965-625	Connection Drawing	EE7308T



NOTES:
1- BOX CAN BE ROTATED IN 90° STEPS.
2- BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3- NAMEPLATE READ FROM CONDUIT BOX SIDE.

DASH	FRAME	B	C	BS	2F	AG
525	143T	5.00	17.00	2.81	4.00	14.88
625	145T	6.00	18.00	3.81	5.00	15.88

NO.	REVISION	BY & DATE	CHK
1	NEW DRAWING	TJB 08-27-2003	ML

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.03
.XXX	±.005
.XXXX	±.0005
ANG	±7'30"

MARATHON ELECTRIC

TITLE OUTLINE - C'FACE - TS - TENV
140T FR. - BRAKE AND SL56 ENCODER

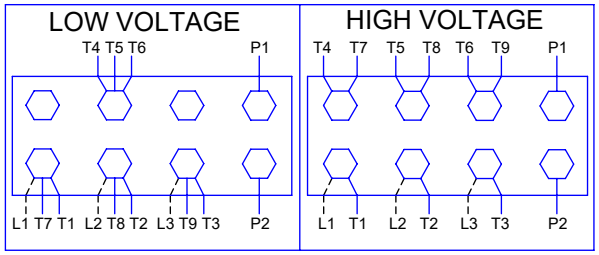
MAT'L.
FINISH
RFP
DIST LB
CAD FILE 104965A

DRAWN	TJB 08-27-2003
CHK	ML 08-27-2003
APPD	GK 08-27-2003
SCALE	3=8
REF	
FMF	
PREV	

SIZE	DRAWING NO.	PAGE OF	REV.
B	104965A		1

HIGH VOLTAGE

(U1) T1 — L1
(V1) T2 — L2
(W1) T3 — L3
(U2) T4
(U3) T7
(V2) T5
(V3) T8
(W2) T6
(W3) T9

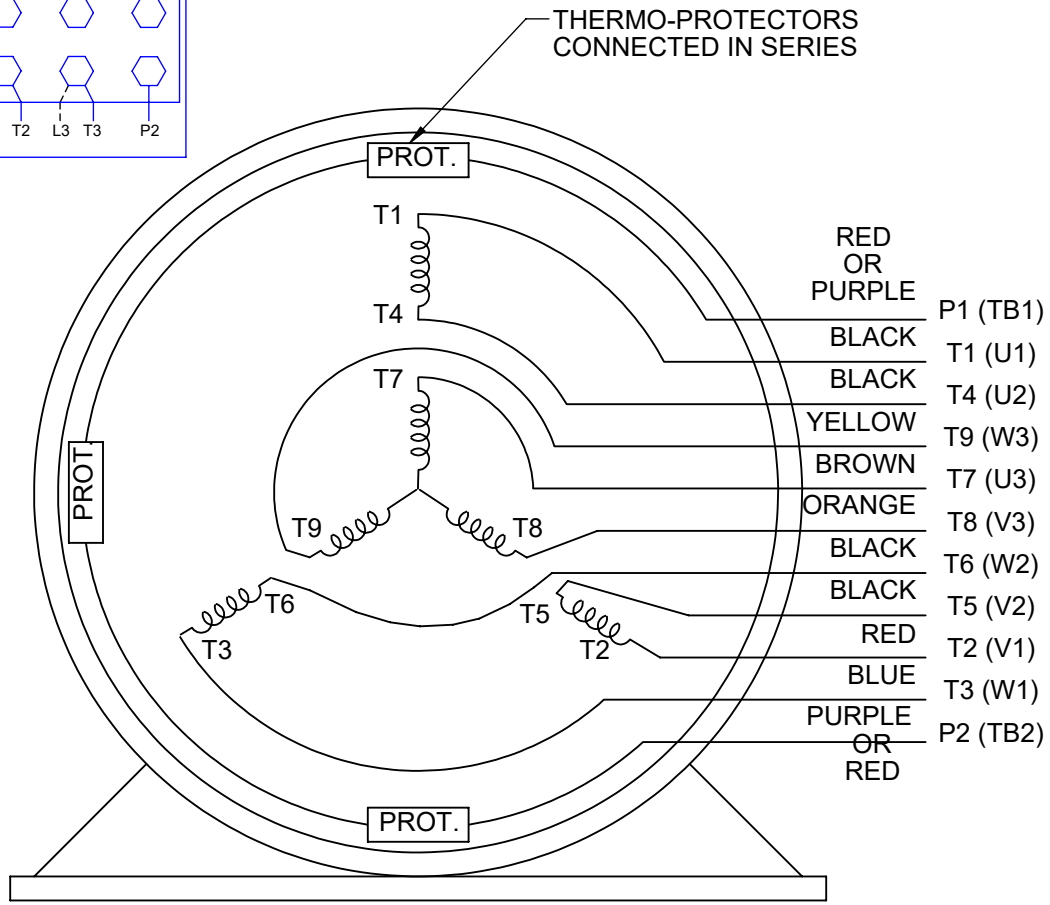


NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE

(U1) T1
(U3) T7 — L1
(V1) T2
(V3) T8 — L2
(W1) T3
(W3) T9 — L3
(U2) T4
(V2) T5
(W2) T6

THREE PHASE DUAL VOLTAGE MOTOR



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
				DATE: 05-13-1992	3 PHASE - DUAL VOLTAGE MOTOR
				REFERENCE: EE7308/EE7300	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE: A — DRAWING NUMBER: EE7308T — SHEET: 1 OF 1

CERTIFICATION DATA SHEET

Model#:	145THTN8043 AA	**WINDING#:**	ZT490 F 3
CONN. DIAGRAM:	A-EE7308T	**ASSEMBLY:**	F1/F2 CAPABLE
OUTLINE:	A-104965-625		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
2	1.49	1800	1750	145TC	TENV	M	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	6/3	INVERTER ONLY	CONTINUOUS	F3	1.0	40	3300

FULL LOAD EFF: 85.5	3/4 LOAD EFF: 84	1/2 LOAD EFF: 82	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78	3/4 LOAD PF: 66	1/2 LOAD PF: 53.5	82.5	SQ CAGE INV DUTY	3.4 / 1.7

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
6 LB-FT	50 / 25	21.8 LB-FT 363	28.5 LB-FT 475	85

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.13 LB-FT^2	0 LB-FT^2	0 SEC.	0	83 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
3.834	2.8968	5.9498	5.6374	154.78

RM	ZREF	XR	TD	TD0
6560.4	142	1.6	0.0061	0.147

*** SUPPLEMENTAL INFORMATION ***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6205	BALL 6205	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	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: 2.0 X BASE SPEED

ENCODER: PROVISIONS ONLY
NONE NONE
NONE NONE PPR

BRAKE: REGAL SUPPLIED AND MOUNT

* NOTES *

NONE	
STEARNS	P/N 91697-10A1KB
56,000	NEMA 2
10 FT-LB	208-230/460-190/380 V
60/50 Hz	

DATE: 06/23/2017 02:00:24 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 19-06-2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon® electric

145THTN8043

Submittal

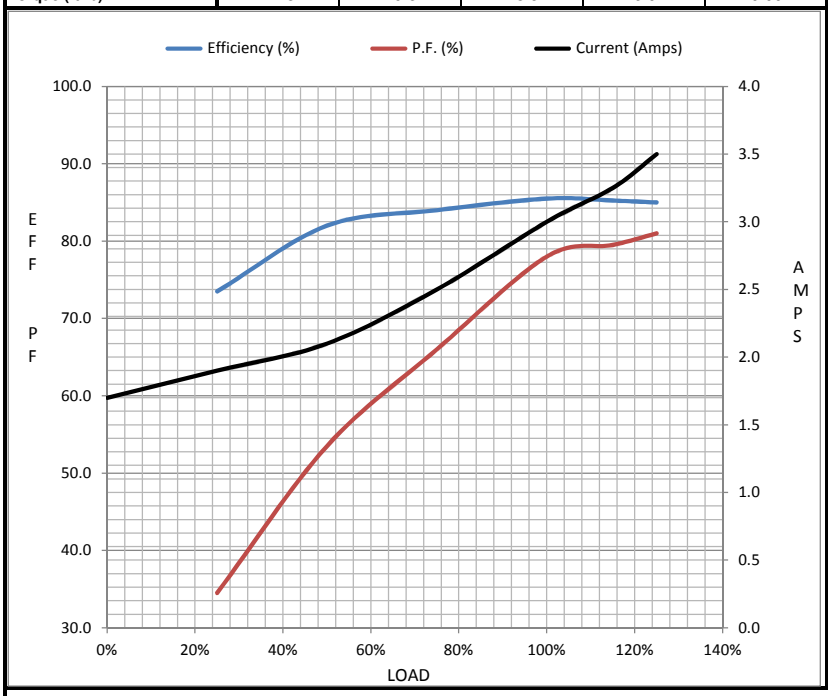
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	1.70	1.90	2.10	2.50	3.0	3.3	3.5	25.0	
Torque (ft-lb)	0.00	1.50	3.0	4.5	6.0	6.8	7.5	21.8	
RPM	1800	1788	1776	1765	1750	1,746	1740	0	
Efficiency (%)		73.5	82.0	84.0	85.5	85.3	85.0		
P.F. (%)	7.8	34.5	53.5	66.0	78.0	79.5	81.0	65.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1500	1750	1800
Current (Amps)	25.0	22.5	18.5	3.0	1.70
Torque (ft-lb)	21.8	19.5	28.5	6.0	0.00



Information Block

HP	2.0
Sync. RPM	1800
Frame	145
Enclosure	TENV
Construction	TTN
Voltage	230/460 V
Frequency	60 Hz
Design	B
LR Code letter	M
Service Factor	1.0
Temp Rise @ FL	90 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	0.13 Lb-Ft²
Ref Wdg	ZT490 F
Sound Pressure @ 1M	62 dBA
VFD Rating	CONSTANT 2000:1
Outline Dwg	A-104965-625
Conn. Diag	A-EE7308T

Additional Specifications:

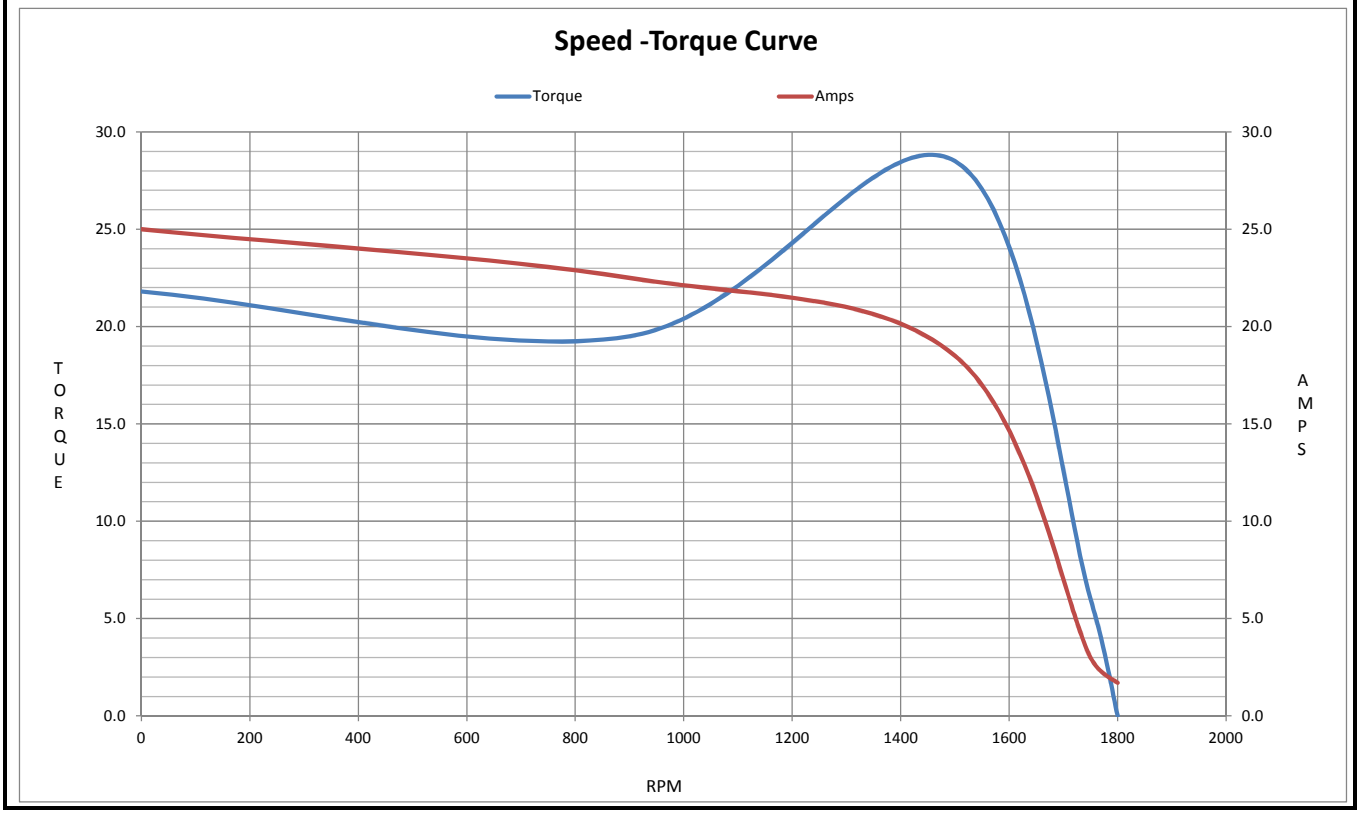
0

365THFS8036

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
3.8340	2.8970	5.9500	5.6370	154.7800

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 : 145THTN8043

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

Catalog No : Y987

Rework No : N/A

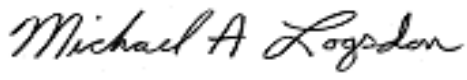
Directives :

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

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