

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 365THFS8380

Catalog No: Y586

Blue Max® Inverter Duty Encoder Motor, 50 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 365TC Frame,  
TEBC-AXIAL



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**RegalRexnord**

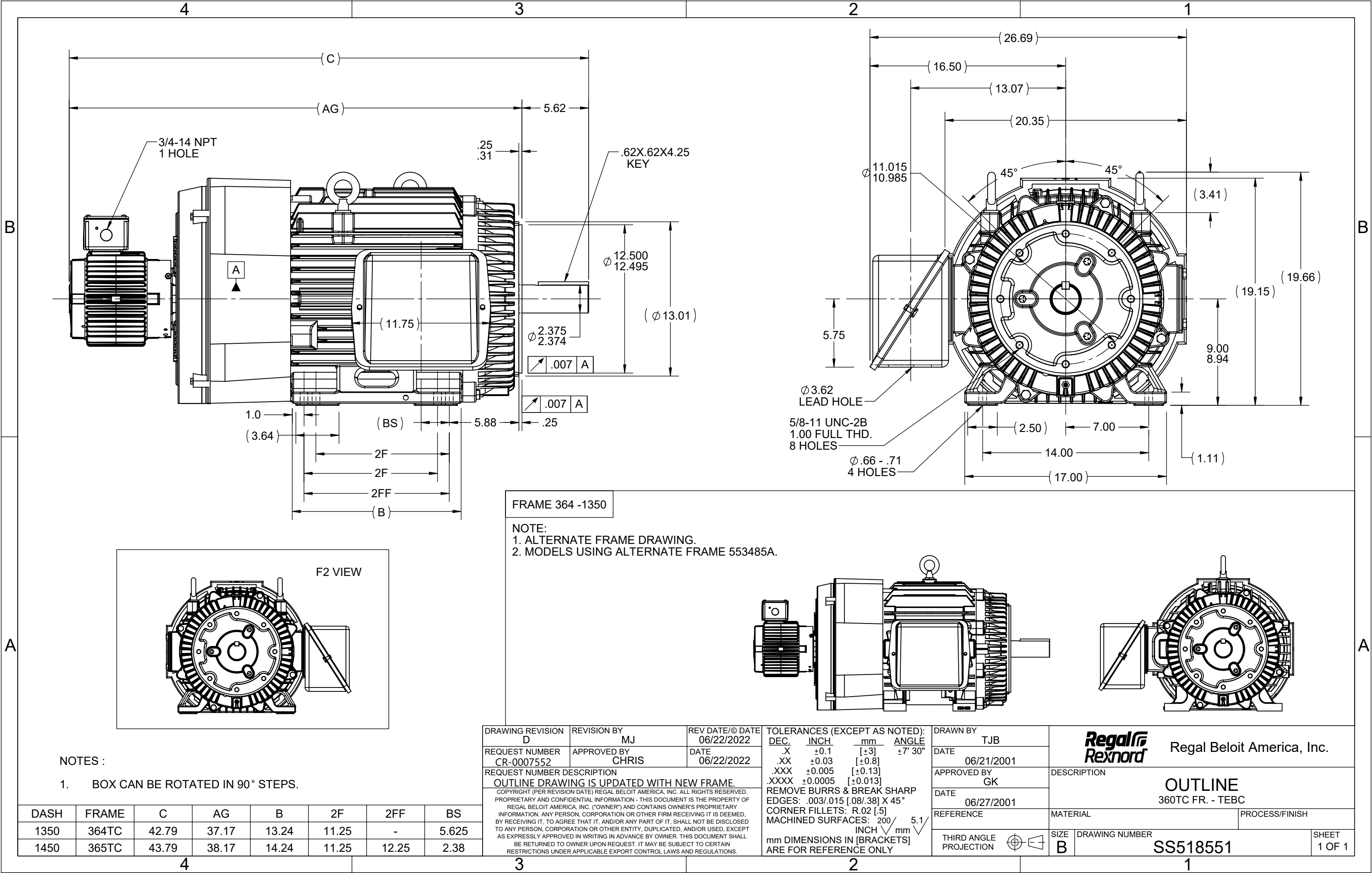
### Nameplate Specifications

Phase	3	Output HP	50 Hp
Output KW	37.0 kW	Voltage	230/460 V
Speed	1180 rpm	Service Factor	1
Frame	365TC	Enclosure	Totally Enclosed Blower cooled - Axial
Thermal Protection	Thermostat	Efficiency	93 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	130.0/65.0 A	Power Factor	78
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	G
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6312
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

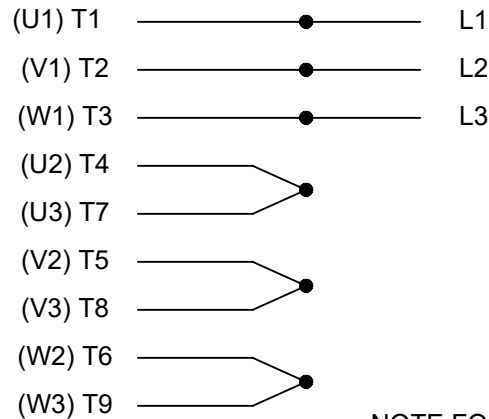
### Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	6	Rotation	Reversible
Resistance Main	.145 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	43.67 in
Frame Length	14.50 in	Shaft Diameter	2.375 in
Shaft Extension	5.62 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Connection Drawing	A-EE7308T	Outline Drawing	B-SS518551-1450





## HIGH VOLTAGE



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

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
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019

ECO DESCRIPTION  
ADDED TERMINAL CONNECTION DIAGRAM

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DRAWN BY  
SMC

DATE  
05-13-1992

APPROVED BY  
TB

DATE  
05-13-1992

REFERENCE  
EE7308/EE7300

THIRD ANGLE  
PROJECTION



Regal Beloit America, Inc.

## DESCRIPTION

**CONN DIAGRAM-INTERNAL**  
3 PHASE - DUAL VOLTAGE MOTOR

MATERIAL

PROCESS/FINISH

SIZE  
A

DRAWING NUMBER

EE7308T

SHEET  
1 OF 1

## CERTIFICATION DATA SHEET

Model#: 365THFS8380 CT  
 CONN. DIAGRAM: A-EE7308T  
 OUTLINE: B-SS518551-1450

WINDING#: T365667 F 1  
 ASSEMBLY: F1/F2 CAPABLE

## TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
50	37	1200	1180	365TC	TEBC-AXIAL	G	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	130/65	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 93	3/4 LOAD EFF: 93	1/2 LOAD EFF: 92.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78	3/4 LOAD PF: 73	1/2 LOAD PF: 63	91.7	SQ CAGE INV DUTY	57 / 28.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
222 LB-FT	724 / 362	400 LB-FT 180	525 LB-FT 236	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
85 dBA	95 dBA	14.5 LB-FT^2	- LB-FT^2	- SEC.	-	925 LBS.

## EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.090153	0.069174	0.437724	0.585711	8.68644

RM	ZREF	XR	TD	TD0
816.48	5.67	6.3	0.025	0.355

## \*\*\* SUPPLEMENTAL INFORMATION \*\*\*

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6314	6312	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	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

* N O T E S *	INVERTER TORQUE: CONSTANT 2000:1
	INV. HP SPEED RANGE: 1.5 X BASE SPEED
	ENCODER: PROVISIONS ONLY
	NONE NONE NONE NONE PPR
	BRAKE: NONE NONE
	NONE P/N NONE

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 08:43:42 AM  
FORM 3531 REV.3 02/07/99  
\*\* Subject to change without notice.

## Data Sheet

Date: 6/19/2017

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



365THFS8380

Submittal

Data @ 460 V

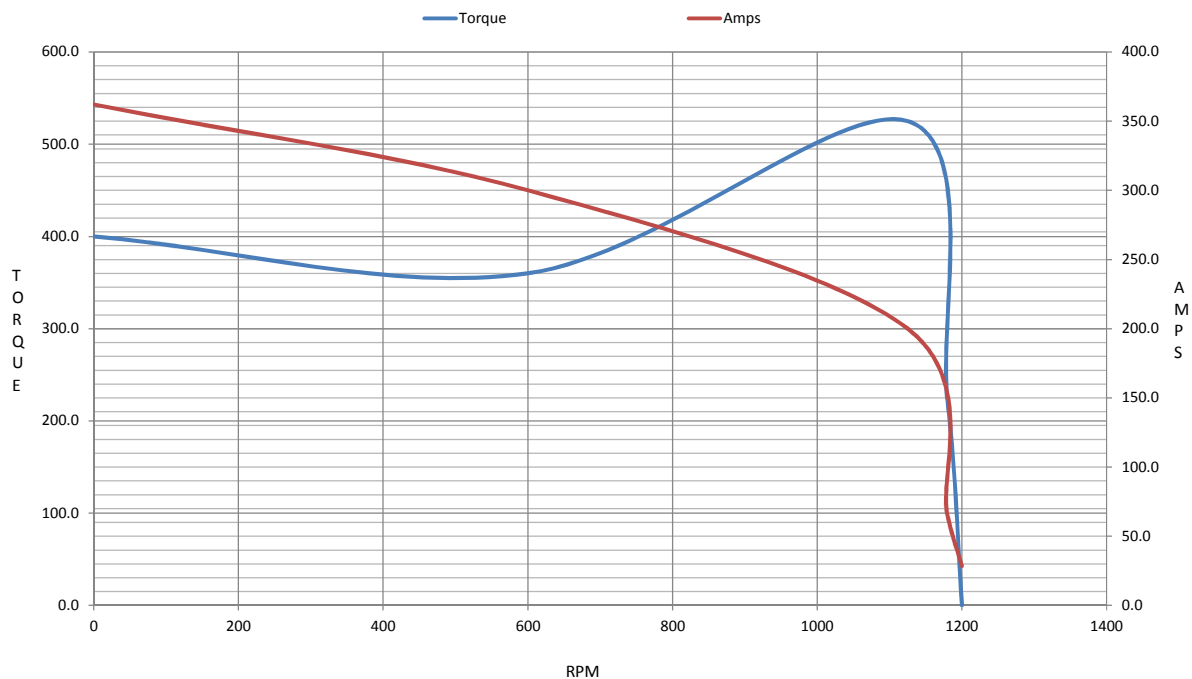
## Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	28.5	31.5	40.0	51.0	65.0	72.5	80.0	362	
Torque (ft-lb)	0.00	55.0	110	166	222	251	279	400	
RPM	1200	1195	1190	1185	1180	1,177	1172	0	
Efficiency (%)		88.5	92.4	93.0	93.0	92.7	92.4		
P.F. (%)	4.5	41.0	63.0	73.0	78.0	79.0	80.0	33.0	

## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block																												
Speed (RPM)	0	600	1125	1180	1200	HP	50.0																											
Current (Amps)	362	300	200	65.0	28.5	Sync. RPM	1200																											
Torque (ft-lb)	400	360	525	222	0.00	Frame	365																											
<div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div><table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>88</td><td>42</td><td>52</td></tr><tr><td>50</td><td>92</td><td>65</td><td>65</td></tr><tr><td>75</td><td>93</td><td>75</td><td>78</td></tr><tr><td>100</td><td>93</td><td>78</td><td>88</td></tr><tr><td>125</td><td>93</td><td>80</td><td>92</td></tr></tbody></table></div>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	88	42	52	50	92	65	65	75	93	75	78	100	93	78	88	125	93	80	92	Enclosure	TEBC			
						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																									
						25	88	42	52																									
						50	92	65	65																									
						75	93	75	78																									
						100	93	78	88																									
						125	93	80	92																									
						Construction	TBS																											
						Voltage	230/460	V																										
						Frequency	60	Hz																										
						Design	B																											
						LR Code letter	G																											
						Service Factor	1.15																											
						Temp Rise @ FL	60	° C																										
						Duty	CONT																											
						Ambient	40	° C																										
						Elevation	1,000	feet																										
Rotor/Shaft wk <sup>2</sup>	14.5	Lb-Ft <sup>2</sup>																																
Ref Wdg	T365667 F																																	
Sound Pressure @ 1M	85	dBA																																
VFD Rating	CONSTANT 2000:1																																	
Outline Dwg	B-SS518551-1450																																	
Conn. Diag	A-EE7308T																																	
Additional Specifications:																																		
0																																		
0																																		
EQUIV CKT (OHMS / PHASE)																																		
R1	R2	X1	X2	Xm																														
0.0900	0.0690	0.4380	0.5860	8.6860																														

## 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 : 365THFS8380

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

Catalog No : Y586

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**