

# PRODUCT INFORMATION PACKET

Model No: 145TTFR16105

Catalog No: C236B

XRI® General Purpose General Purpose Motor, 3 HP, 3 Ph, 60 Hz, 230/460 V, 3600 RPM, 145TC Frame,  
TEFC



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.  
©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E



### Nameplate Specifications

Output HP	<b>3 Hp</b>	Output KW	<b>2.2 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>7.6/3.8 A</b>	Speed	<b>3505 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>87.5 %</b>	Power Factor	<b>84</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>A</b>	KVA Code	<b>M</b>
Frame	<b>145TC</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6205</b>	Opp Drive End Bearing Size	<b>6203</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>43</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

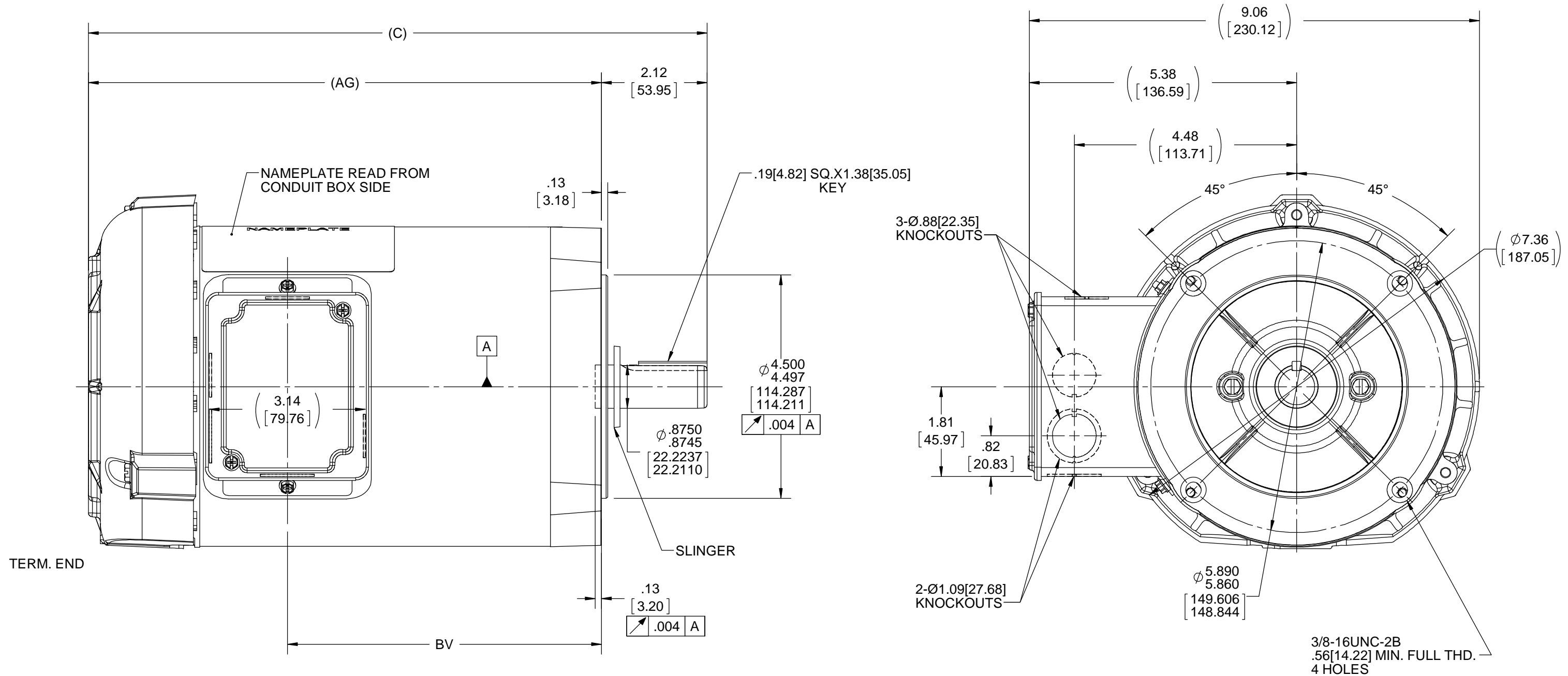
Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>2</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>4.04 Ohms</b>	Mounting	<b>Round</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Rolled Steel</b>
Shaft Type	<b>T</b>	Overall Length	<b>14.37 in</b>
Frame Length	<b>9.06 in</b>	Shaft Diameter	<b>0.875 in</b>
Shaft Extension	<b>2.12 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Connection Drawing	<b>EE7308</b>	Outline Drawing	<b>A-100105-906</b>

B

B

A

A



DASH NO.	"C"	"AG"	"BV"
656	11.95[303.53]	9.82[249.42]	5.82[147.82]
706	12.45[316.23]	10.32[262.12]	6.32[160.52]
756	12.95[328.93]	10.82[274.82]	6.82[173.22]
806	13.45[341.63]	11.32[287.52]	7.32[185.92]
856	13.95[354.33]	11.82[300.22]	7.82[198.62]
906	14.45[367.03]	12.32[312.92]	8.32[211.32]
956	14.95[379.73]	12.82[325.62]	8.82[224.02]

DRAWING REVISION	REVISION BY	DATE
J	A. KEETHA	01-23-2018
ECO	APPROVED BY PST	DATE 04/11/2018
ECO-0143026		
ECO DESCRIPTION		
OUTLINE CONVERSION PROJECT		
<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>		

TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1			
mm SHOWN IN [BRACKETS]			

DRAWN BY	SMC
DATE	08-14-1991
APPROVED BY	GK
DATE	08-14-1991
REFERENCE	100105
THIRD ANGLE PROJECTION	

Regal Beloit America, Inc.	
DESCRIPTION	
OUTLINE	
140 FRAME-TEFC 3Ø	
MATERIAL	PROCESS/FINISH
SIZE	DRAWING NUMBER
B	100105
SHEET	1 OF 1

EE7308

THREE PHASE  
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.  
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G  
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD  
CONNECTION

L1 — WHITE  
L2 — RED  
L3 — BLACK

NO.	REVISION	BY & DATE	CHK	ANG	TOLERANCES UNLESS SPECIFIED		FINISH	DRAWN RM 11/20/1990				
					DEC.	INCHES						
5	CHG TO REGAL LOGO	SL 09/10/2015	AB					CHK ML 11/21/1990				
4	REVISED IEC NOTATIONS	MSG 11/15/2011	CMN	.X	±.1			APPD SAS 04/24/2003				
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG 5/10/2010	MJS	.XX	±.02		TITLE CONNECTION DIAGRAM	SCALE 1=1				
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH 04/24/2003	DRS	.XXX	±.005		3Ø - DUAL VOLTAGE MOTOR	REF				
1	REDRAWN	RM 11/20/1990		.XXXX	±.0005		MAT'L.	FMF				
					±7'30"			PREV				
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							RFP	CAD FILE ee7308	SIZE A	DRAWING NO. EE7308	PAGE OF 5	REV. 5
							DIST WP					



Regal Beloit America, Inc.

**CERTIFICATION DATA SHEET**

**Model#:** 145TTFR16105 AA  
**CONN. DIAGRAM:** EE7308  
**OUTLINE:** A-100105-906

**WINDING#:** ZT2175 FR 1  
**ASSEMBLY:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3&2	2.24&1.49	3600	3505&2930	145TC	TEFC	M	A

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	7.6/3.8&6.4/3. 2	ACROSS THE LINE	CONTINUOU S	F3	1.15/1.15	40	3300

FULL LOAD EFF: 87.5&87.5	3/4 LOAD EFF: 87.9	1/2 LOAD EFF: 85.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 84&80	3/4 LOAD PF: 78.4	1/2 LOAD PF: 67.3	85.5	SQ CAGE IND RUN	3.4 / 1.7

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
4.5 LB-FT	73.8 / 36.9	17.29 LB-FT 384	22.7 LB-FT 504	57

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
68 dBA	78 dBA	0.045 LB-FT^2	5 LB-FT^2	10 SEC.	2	43.6 LBS.

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

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	ROLLED STEEL
6205	6203						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

\*  
N  
O  
T  
E  
S  
\*

INVERTER TORQUE: NONE
INV. HP SPEED RANGE: NONE
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

DATE: 06/23/2017 07:39:53 AM  
 FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.

Data Sheet

Date: 6/20/2017

145TFR16105

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



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

**Submittal**

Submitted by: FAREEDA DUDEKULA

Data @ 460 V

Motor Load Data

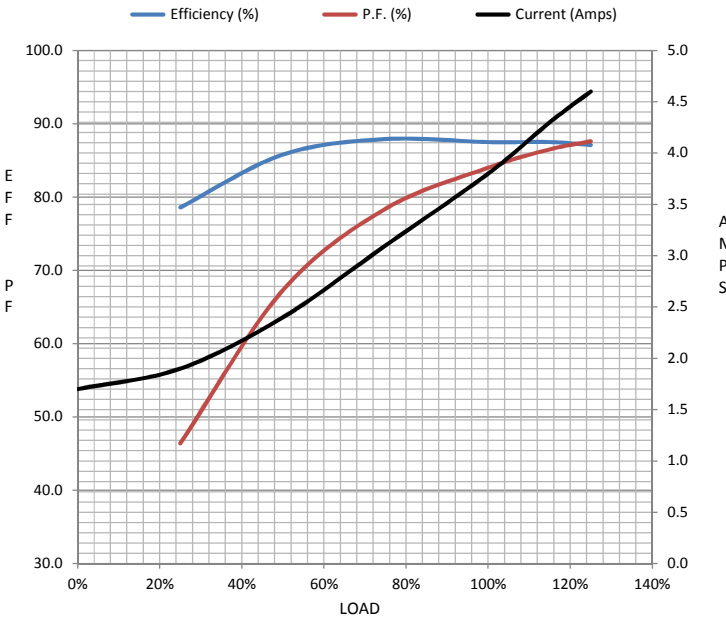
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	1.70	1.90	2.40	3.1	3.8	4.3	4.6	36.9
Torque (ft-lb)	0.00	1.10	2.22	3.4	4.5	5.2	5.7	17.3
RPM	3600	3577	3555	3530	3505	3,485	3475	0
Efficiency (%)		78.6	85.8	87.9	87.5	87.5	87.1	
P.F. (%)	11.0	46.4	67.3	78.4	84.0	86.5	87.6	71.5

Motor Speed Data

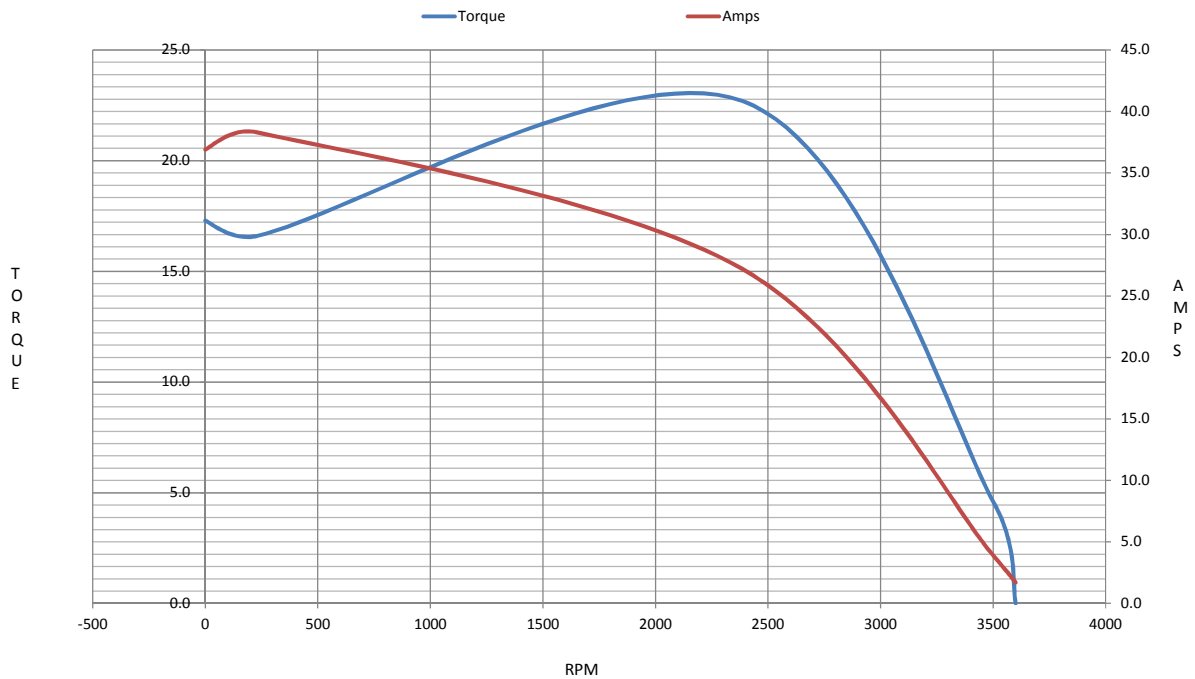
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	230	2385	3505	3600
Current (Amps)	36.9	38.3	27.2	3.8	1.70
Torque (ft-lb)	17.3	16.6	22.7	4.5	0.00

Information Block

HP	3.0			
Sync. RPM	3600			
Frame	145			
Enclosure	TEFC			
Construction	TFR			
Voltage	30/460#190/381V			
Frequency	60 Hz			
Design	A			
LR Code letter	M			
Service Factor	1.15			
Temp Rise @ FL	57 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	0.05 Lb-Ft <sup>2</sup>			
Ref Wdg	ZT2175 FR			
Sound Pressure @ 1M	68 dBA			
VFD Rating	NONE			
Outline Dwg	A-100105-906			
Conn. Diag	EE7308			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000



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 : 145TTFR16105

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

Catalog No : C236B

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**