

# PRODUCT INFORMATION PACKET

Model No: 405TSTFCD6003

Catalog No: GT1245A

General Purpose Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 3600 RPM, 405TSC Frame, TEFC



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**Nameplate Specifications**

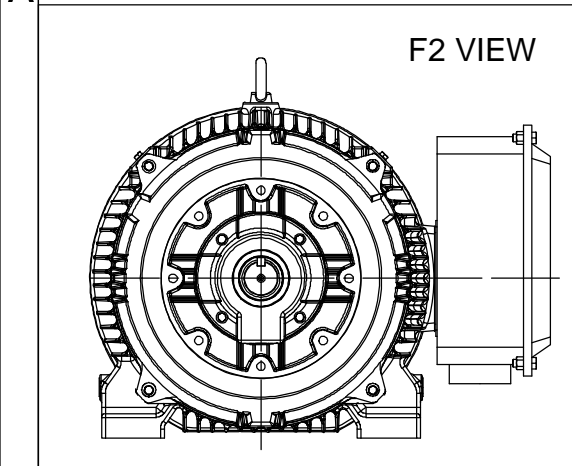
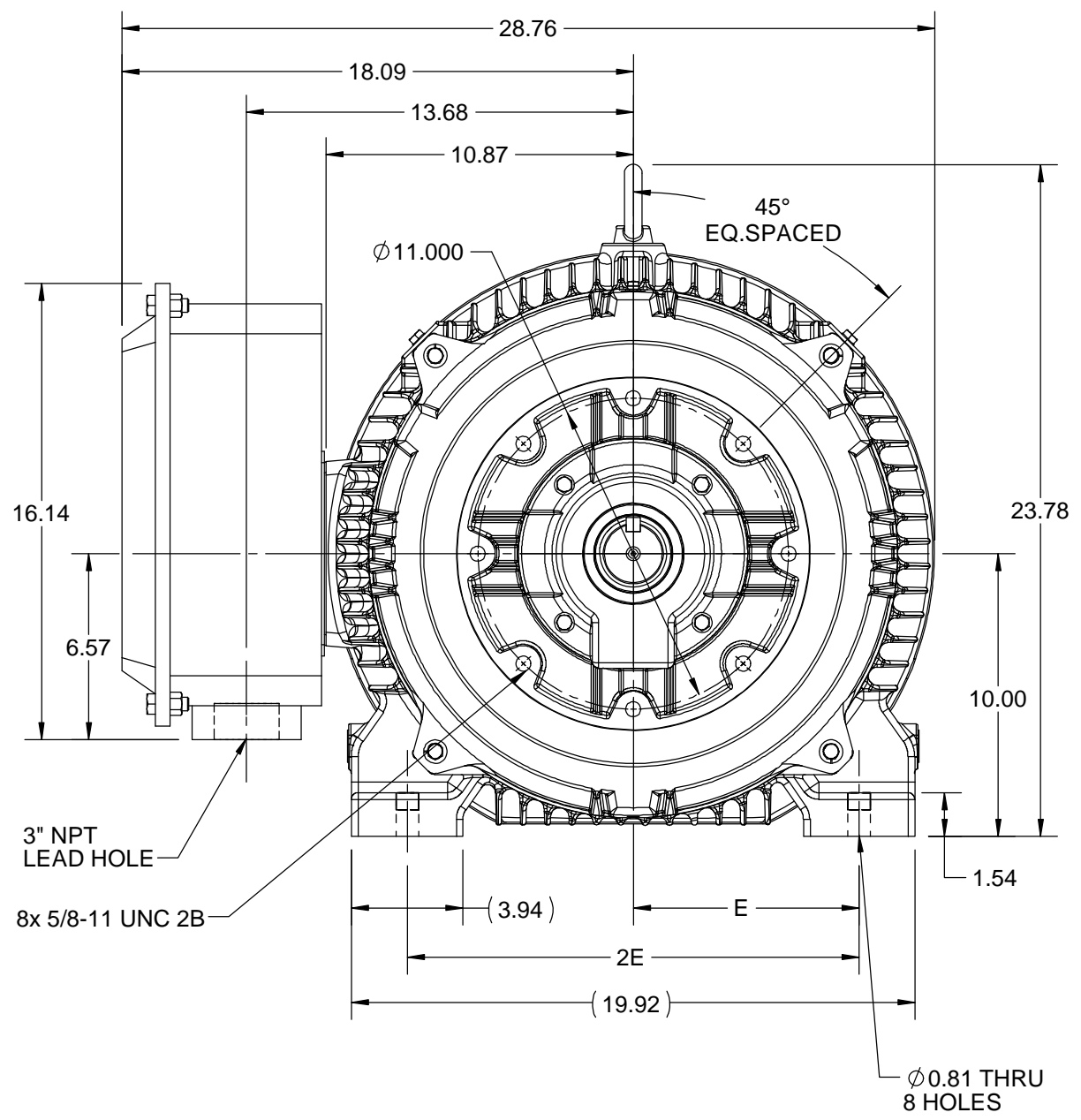
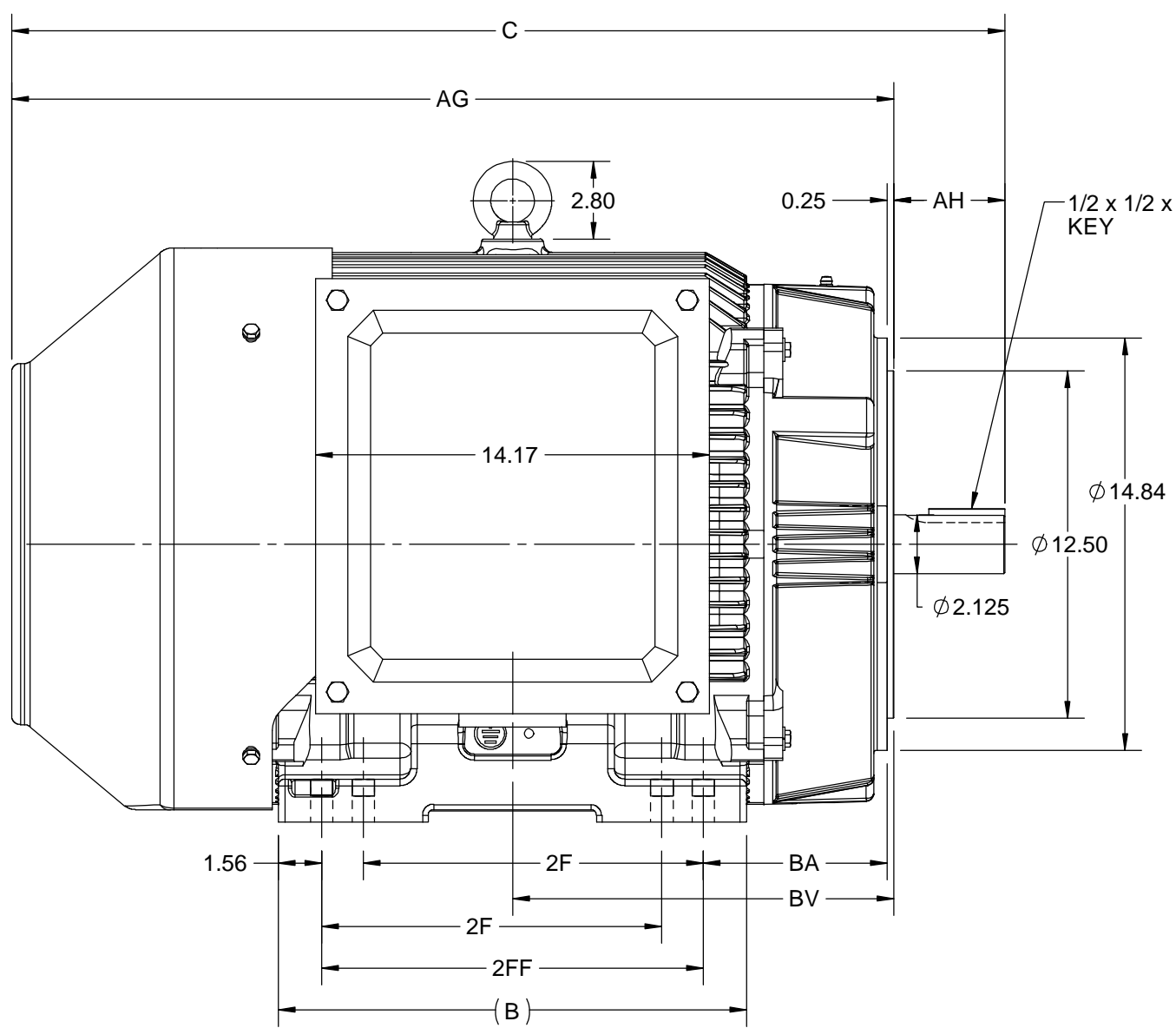
Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	222.0/111.0 A	Speed	3575 rpm
Service Factor	1.15	Phase	3
Efficiency	94.5 %	Power Factor	89
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405TSC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6314	Opp Drive End Bearing Size	6314
UL	Listed	CSA	Y
CE	Y	IP Code	55
Hazardous Location	DIVISION 2 T2B	Number of Speeds	1

**Technical Specifications**

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Part Wdg Start Low Volt Only & Wye Start Delta Run Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.056 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	35.77 in
Frame Length	18.11 in	Shaft Diameter	2.125 in
Shaft Extension	4.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Connection Drawing	EE7308AA	Outline Drawing	SS557006



		4				3				2		1
B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING		
16.85	35.77	8.00	16.00	12.25	13.75	31.77	4.00	6.62	13.73	F1 OR F2		



DRAWING REVISION D	REVISION BY VS	REV DATE/© DATE 25-11-2020
ECO ECO-0195088	APPROVED BY GNK	DATE 25-11-2020
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ARE FOR REFERENCE ONLY

DRAWN BY NIV	Regal Beloit America, Inc.
DATE 29/03/2016	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 404/405TSC FR-NEMA-TEFC
DATE 29/03/2016	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER <b>SS557006</b>
	SHEET 1 OF 1



**LOW VOLTAGE**



**HIGH VOLTAGE**



**VIEW OF TERMINAL END**

DRAWING REVISION <b>K</b>	REVISION BY <b>AJW</b>	DATE <b>07-17-2015</b>
ECO <b>ECO-0081632</b>	APPROVED BY <b>T. VUE</b>	DATE <b>07-17-2015</b>
ECO DESCRIPTION <b>REV'D IEC MARKINGS PER IEC 60034-8</b>		
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DRAWN BY <b>LZ</b>
DATE <b>01-12-1994</b>
APPROVED BY <b>GK</b>
DATE <b>01-14-1994</b>
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Beloit America, Inc.</b>	
<b>DESCRIPTION</b> <b>CONN DIAGRAM-EXTERNAL</b> <b>3Ø-2/1 DELTA-12 LEADS</b>	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7308AA</b>
SHEET <b>1 OF 1</b>	



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 #:** 405TSTFCD6003  
**CONN. DIAGRAM:** EE7308AA **CAT #:** GT1245A  
**OUTLINE:** SS557006 **CUSTOMER PART #:** \_\_\_\_\_  
**WINDING:** HE32502006 NONE 2 **MOUNTING:** F1/F2 CAPABLE  
**SPEED:** \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	3600	3575	405TSC	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	222/111&203/102	Y START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	94.5	3/4 LD EFF	94.5	1/2 LD EFF	94.1	GTD EFF	ELECT. TYPE
F.L. PF	89.0	3/4 LD PF	85.8	1/2 LD PF	79.0	93.6	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
147 LB-FT	725	265 LB-FT 180%	427 LB-FT 290%	65

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
78 dBA	87 dBA	19.0 LB-FT²	65 LB-FT²	15 SEC.	2	1060 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	RIGID	HORIZONTAL	NO	DIVISION 2 T2B	NO	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6314	6314						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.034	0.017	0.233	0.225	7.783	0.150	ODE

* N O T E S *	INVERTER TORQUE: VARIABLE 10:1 INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE					
	NONE PPR					

PREPARED BY: ANUSHA M	BRAKE: NONE
DATE: 10/1/2019	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:
FORM: 3531 REV_4 2/27/06	UL: NO LETTER - ME,WUXI TEFC BLUEWHALE CLASS 1 DIV. 2 UL LIST

Data Sheet

405TSTFCD6003

Date: 10/1/2019  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: ANUSHA M



Submittal

Data @ 460 V

Motor Load Data

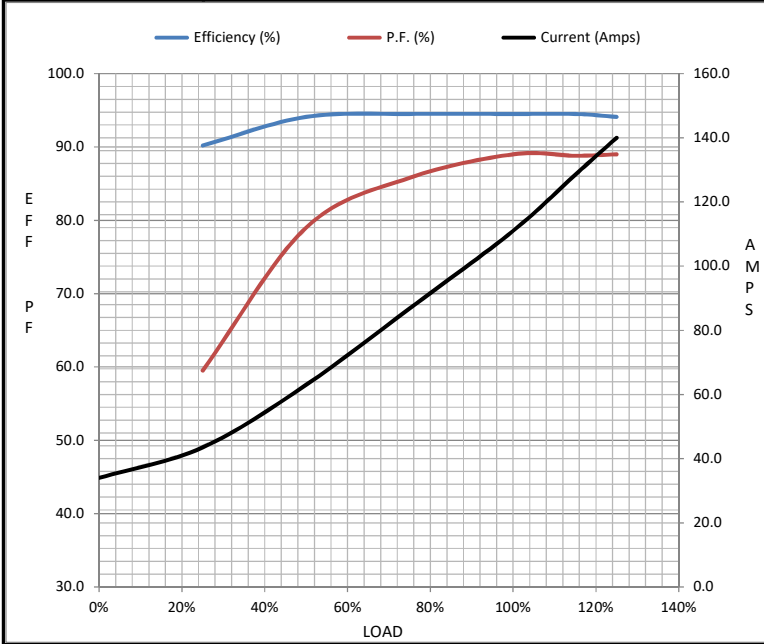
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	34.0	43.5	63.0	86.8	111	129	140	725
Torque (ft-lb)	0.00	36.5	73.5	110	147	170	185	265
RPM	3600	3595	3588	3582	3575	3570	3565	0
Efficiency (%)		90.2	94.1	94.5	94.5	94.5	94.1	
P.F. (%)	6.5	59.5	79.0	85.8	89.0	88.8	89.0	29.0

Motor Speed Data

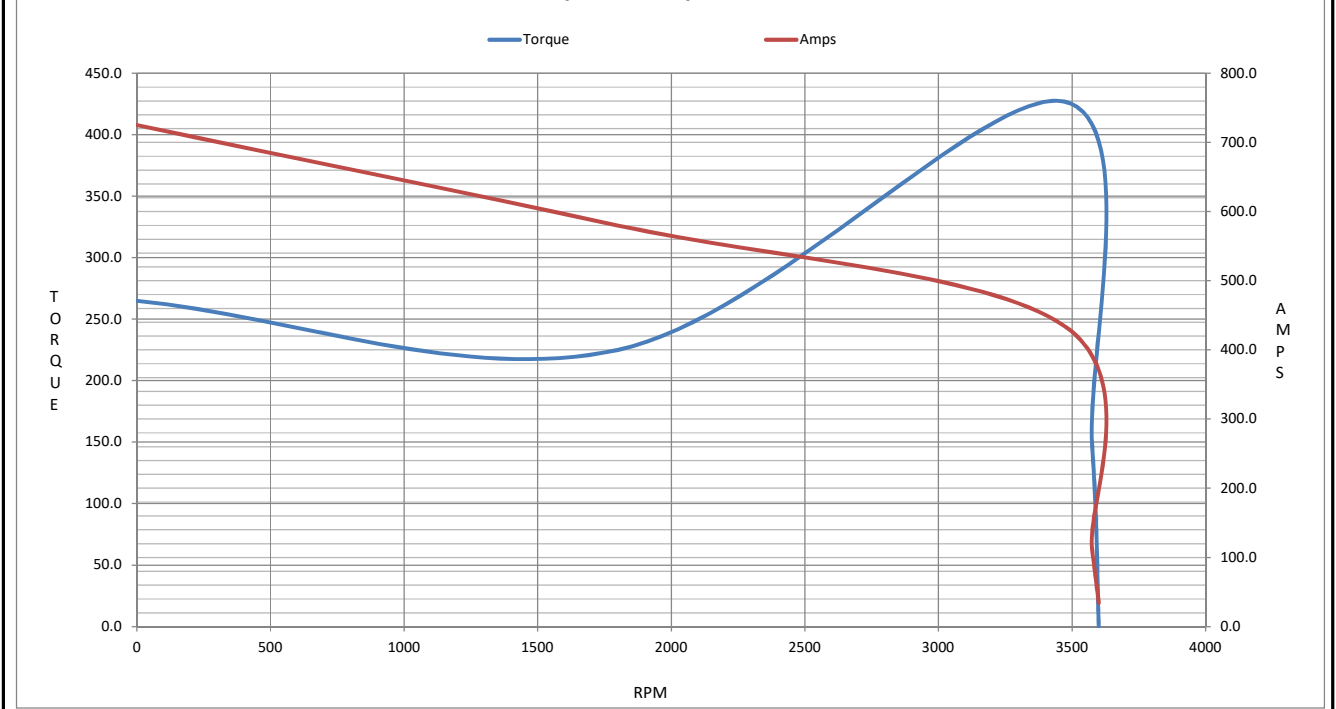
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3470	3575	3600
Current (Amps)	725	580	435	111	34.0
Torque (ft-lb)	265	225	427	147	0.00

Information Block

HP	100.0			
Sync. RPM	3600			
Frame	405			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	19.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HE32502006 NONE			
Sound Pressure @ 1M	78 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	SS557006			
Conn. Diag	EE7308AA			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0340	0.0170	0.2330	0.2250	7.7830



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 : 405TSTFCD6003

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

Catalog No : GT1245A

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**