

# PRODUCT INFORMATION PACKET

Model No: 405TTFCD6038

Catalog No: GT1246A

General Purpose Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405TC Frame, TEFC



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**Nameplate Specifications**

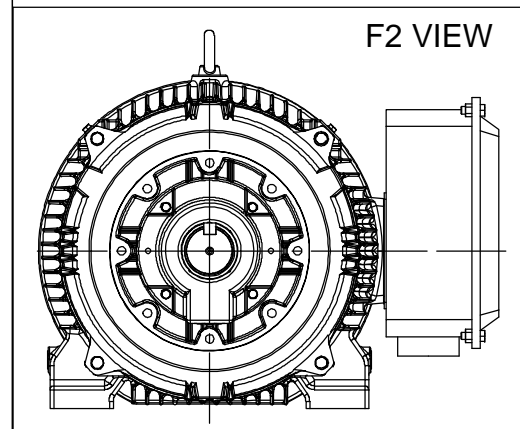
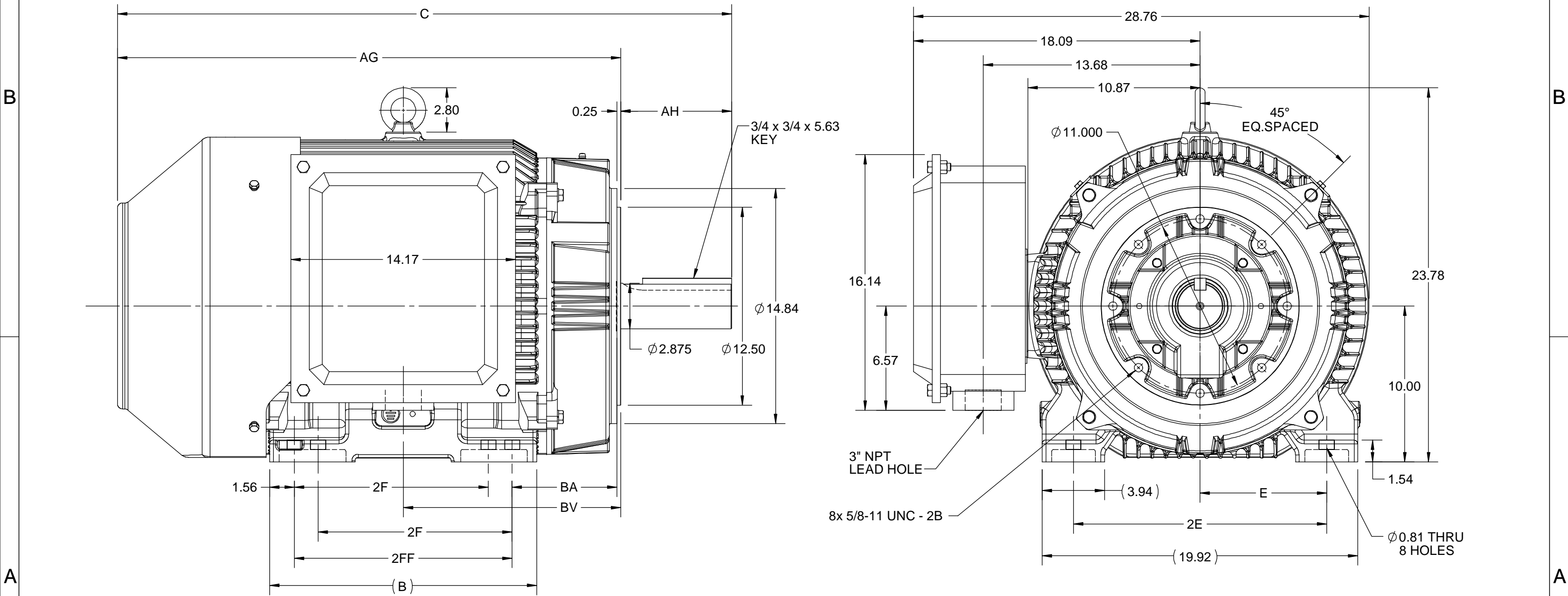
Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	226.0/113.0 A	Speed	1785 rpm
Service Factor	1.15	Phase	3
Efficiency	95.4 %	Power Factor	87
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6316	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	4	Rotation	Reversible
Resistance Main	.0555 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	38.77 in
Frame Length	18.11 in	Shaft Diameter	2.875 in
Shaft Extension	7.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS557007	Connection Drawing	EE7308AA



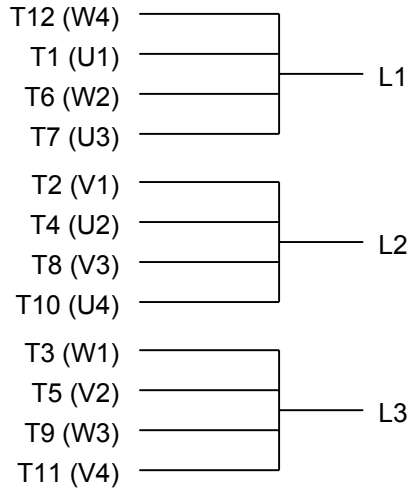
4			3				2			1
B	C	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING
16.85	38.76	8.00	16.00	12.25	13.75	31.77	7.00	6.62	13.73	F1 OR F2



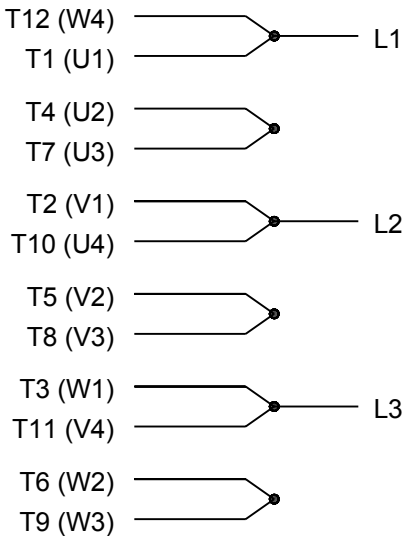
DRAWING REVISION C	REVISION BY VS	REV DATE/© DATE 23-09-2020
ECO ECO-0192950	APPROVED BY GNK	DATE 23-09-2020
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

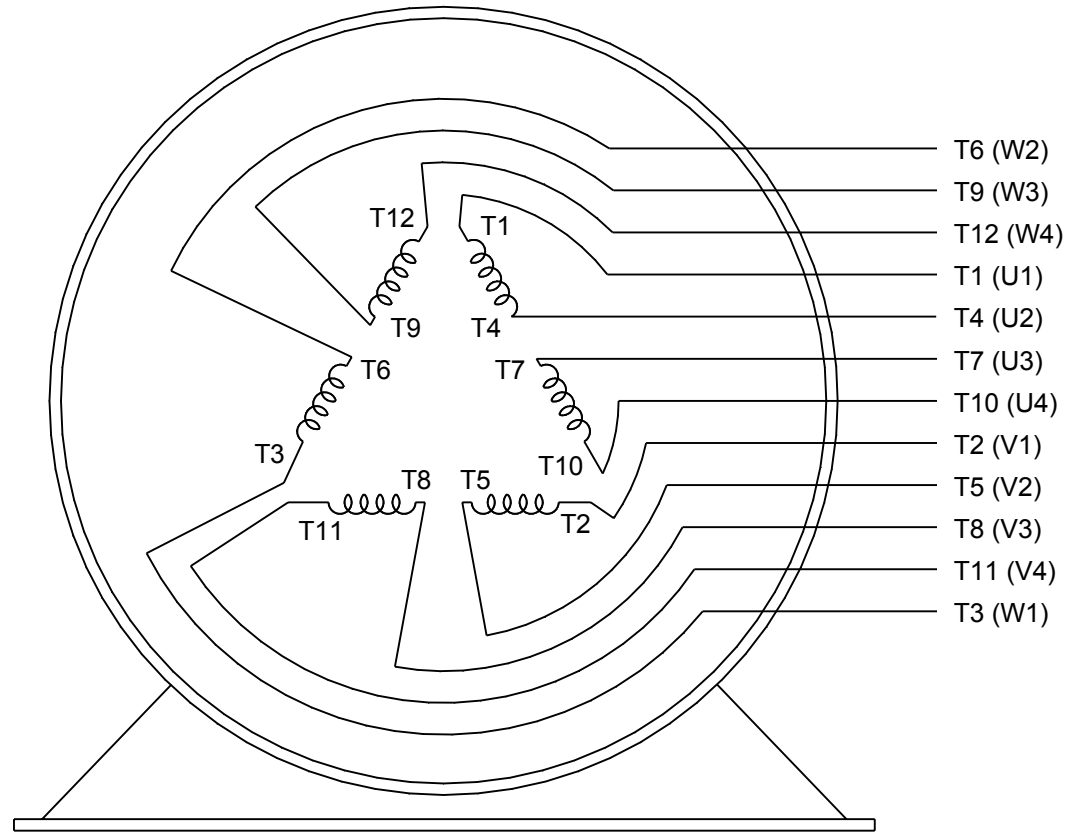
DRAWN BY NIV	<b>REGAL</b> ® Regal Beloit America, Inc.
DATE 29/03/2016	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 404/405TC FR NEMA TEFC
DATE 29/03/2016	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER <b>SS557007</b>
	SHEET 1 OF 1



### LOW VOLTAGE

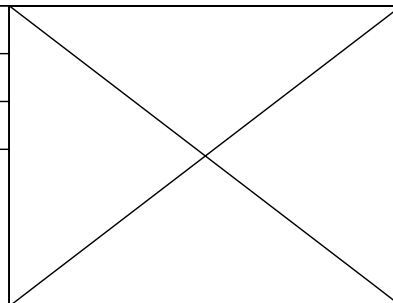


### HIGH VOLTAGE



### 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>	<b>Regal Beloit America, Inc.</b>	
DATE <b>01-12-1994</b>		
APPROVED BY <b>GK</b>	<b>DESCRIPTION</b> <b>CONN DIAGRAM-EXTERNAL</b> <b>3Ø-2/1 DELTA-12 LEADS</b>	
DATE <b>01-14-1994</b>		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	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 #: 405TTFCD6038  
 CONN. DIAGRAM: EE7308AA CAT #: GT1246A  
 OUTLINE: SS557007 CUSTOMER PART #: \_\_\_\_\_  
 WINDING: HE32504006 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	1800	1785	405TC	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	226/113&208/104	START D RUN DR IN	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	95.0	GTD EFF	ELECT. TYPE
F.L. PF	87.0	3/4 LD PF	83.5	1/2 LD PF	74.5	95.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
294 LB-FT	725	529 LB-FT 180%	764 LB-FT 260%	65

@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
75 dBA	84 dBA	35.0 LB-FT <sup>2</sup>	550 LB-FT <sup>2</sup>	25 SEC.	2	1575 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 - MARATHON

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6316	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
0.033	0.02	0.17	0.284	6.532	0.080	ODE

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

PREPARED BY: FAREEDA DUDEKULA DATE: 5/3/2018	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ: UL: NO LETTER - ME,WUXI TEFC BLUEWHALE CLASS 1 DIV. 2 UL
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FORM: 3531 REV\_4 2/27/06

**Data Sheet**

**Date:** 5/3/2018  
**Customer:** \_\_\_\_\_  
**Attention:** \_\_\_\_\_  
**Submitted by:** FAREEDA DUDEKULA



405TTFC6038

**Submittal**

Data @ 460 V

**Motor Load Data**

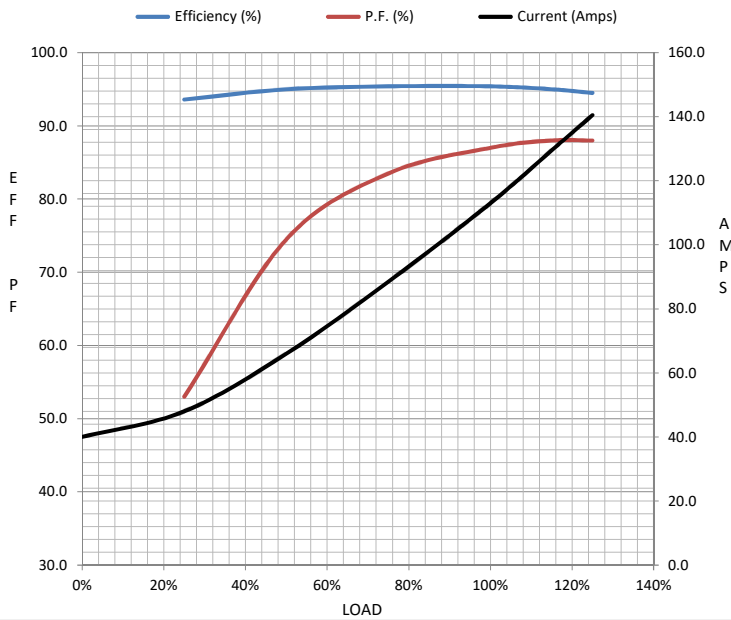
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	40.0	48.0	66.0	88.5	113	130	141	725
Torque (ft-lb)	0.00	73.0	147	220	294	339	370	529
RPM	1800	1796	1792	1790	1785	1,782	1780	0
Efficiency (%)		93.6	95.0	95.4	95.4	95.0	94.5	
P.F. (%)	4.5	53.0	74.5	83.5	87.0	88.0	88.0	32.0

**Motor Speed Data**

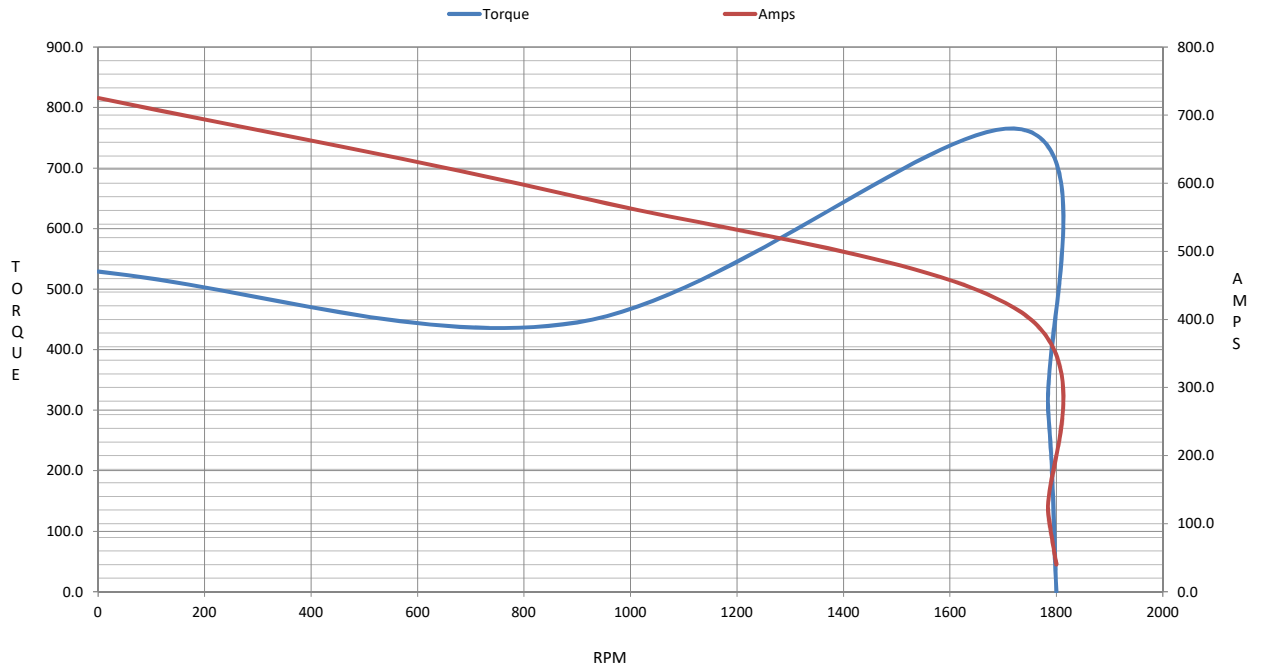
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1735	1785	1800
Current (Amps)	725	580	410	113	40.0
Torque (ft-lb)	529	445	764	294	0.00

**Information Block**

HP	100.0			
Sync. RPM	1800			
Frame	405182TTFC6080			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	A			
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>	35.0 Lb-Ft <sup>2</sup>			
Ref Wdg	HE32504006 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	SS557007			
Conn. Diag	EE7308AA			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0330	0.0200	0.1700	0.2840	6.5320



**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 : 405TTFCD6038

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

Catalog No : GT1246A

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**