

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 405TTFC6683

Catalog No: Y852A

XRI® Crusher Duty Crusher Duty Motor, 75 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 405T Frame, TEFC



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**RegalRexnord**

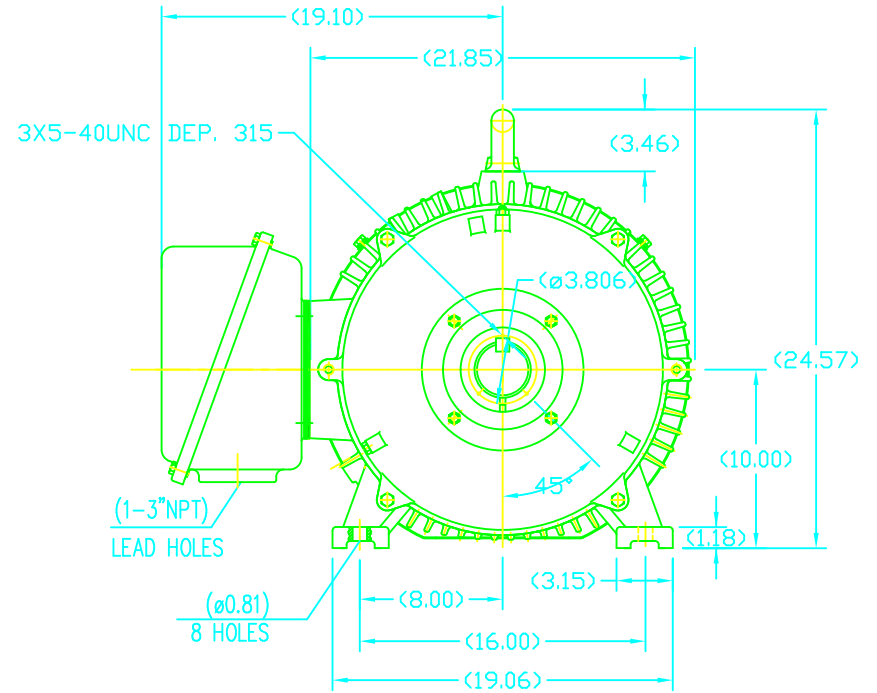
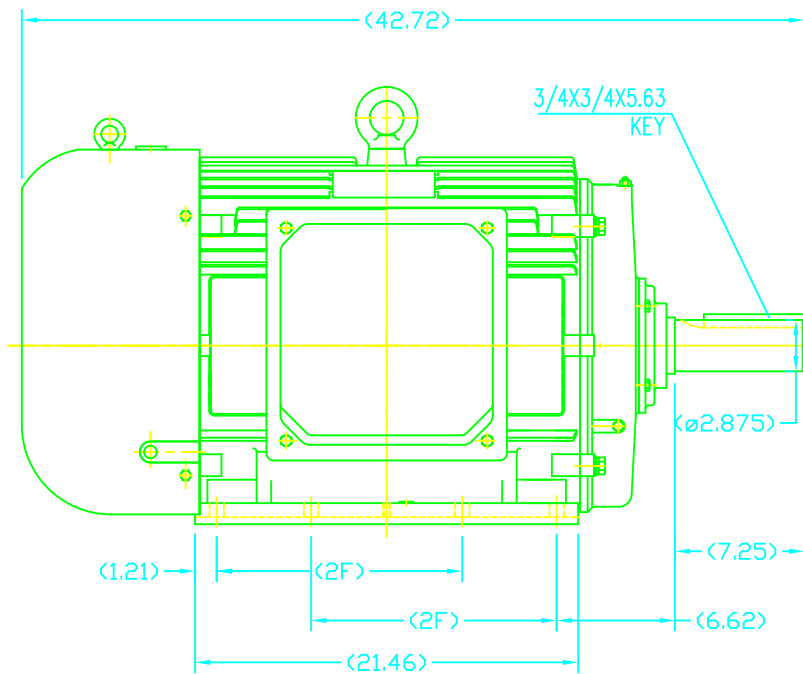
### Nameplate Specifications

Output HP	<b>75 Hp</b>	Output KW	<b>56.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>178.0/89.0 A</b>	Speed	<b>1188 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>94.5 %</b>	Power Factor	<b>83</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>C</b>	KVA Code	<b>G</b>
Frame	<b>405T</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>NU316</b>	Opp Drive End Bearing Size	<b>6315</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Part Wdg Start Low Volt Only &amp; Wye Start Delta Run Or Inverter</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.07 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Roller</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>42.72 in</b>
Shaft Diameter	<b>2.875 in</b>	Shaft Extension	<b>7.25 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 10:1</b>
Connection Drawing	<b>EE7308AA</b>	Outline Drawing	<b>SS620676-405T</b>

SS620676

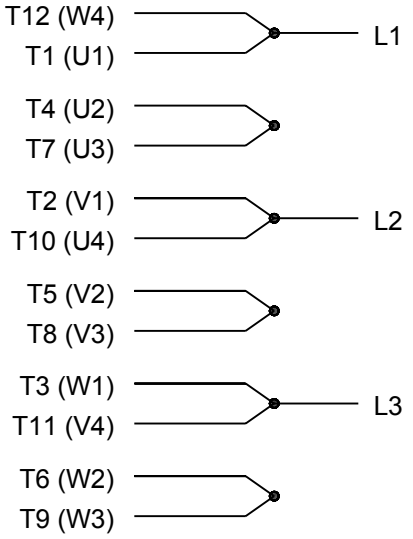


404T	12.25
405T	13.75
FRAME	2F

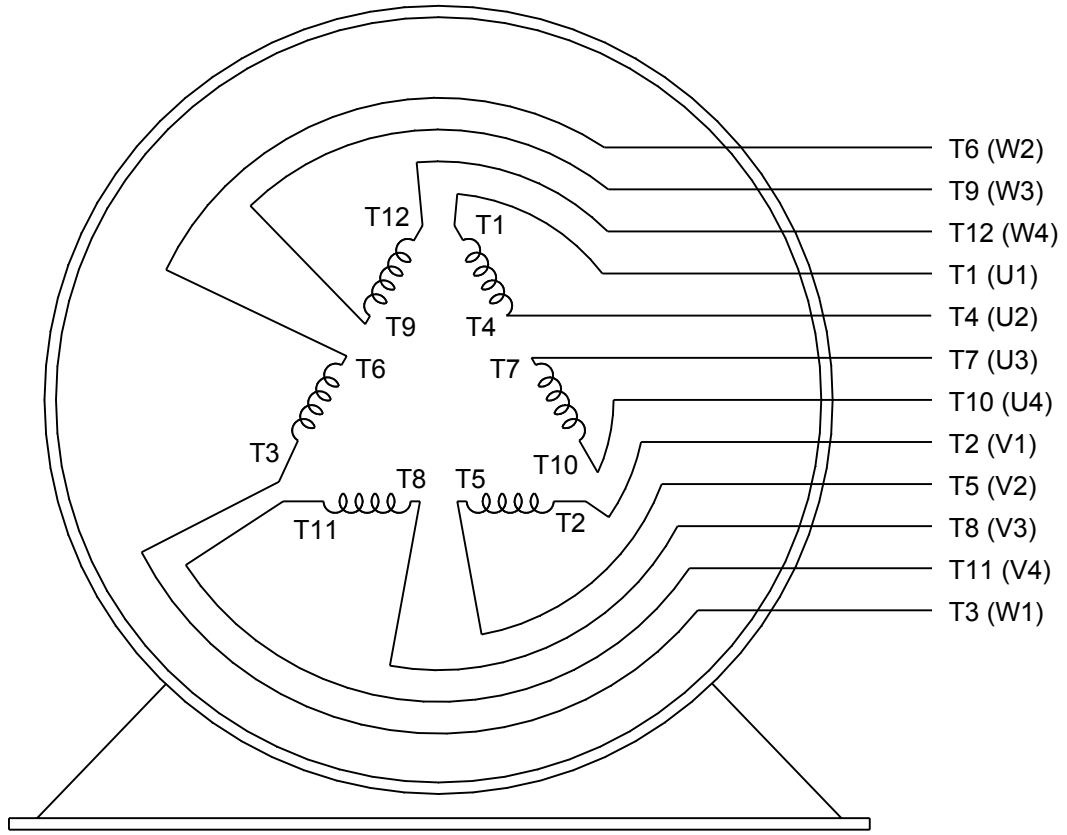
TOLERANCES UNLESS SPECIFIED		REGAL REGAL - BELOIT CORPORATION		DRAWN ZYH 12-02-2014
DEC.	INCHES	CHK	HZJ 12-02-2014	APPD CL 12-02-2014
X	±.1	XX	±.03	TITLE
XXX	±.005	XXXX	±.0005	OUTLINE 404/405T FR-TEFC CAST IRON severe duty
A	RELEASED FOR PRODUCTION	ECD-0074303	WGJ 5/12/15	AB
NO.	REVISION	BY & DATE	CHK	ANG
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
			DIST	SIZE
			B	DRAWING NO.
				SS620676
				REV.
				A



**LOW VOLTAGE**

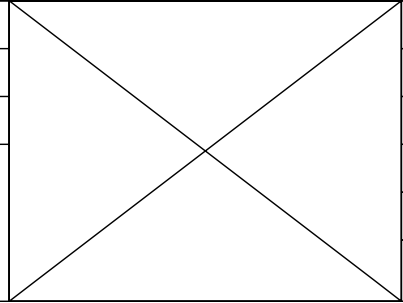


**HIGH VOLTAGE**



**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	MATERIAL
THIRD ANGLE PROJECTION	SIZE <b>A</b>

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

**CERTIFICATION DATA SHEET**

**Model#:** 405TTFC6683 AA      **WINDING#:** CHT40560003 NONE 1  
**CONN. DIAGRAM:** EE7308AA      **ASSEMBLY:** F1/F2 CAPABLE  
**OUTLINE:** SS620676

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
75&60	56&45	1200	1188&990	405T	TEFC	G	C

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	178/89&173/8 6.5	PWS & YDRUN OR INV	CONTINUOU S	F7	1.15/1.15	40	3300

FULL LOAD EFF: 94.5&94.1	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 83&83.5	3/4 LOAD PF: 81	1/2 LOAD PF: 73	93	SQ CAGE INV RATED	62 / 31

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
332 LB-FT	1084 / 542	700 LB-FT 210	750 LB-FT 225	75

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
68 dBA	78 dBA	50 LB-FT^2	1200 LB-FT^2	25 SEC.	2	1650 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
ROLLER NU316	BALL 6315	SHC- 100/POLYREX	T	NONE	NONE	4140 STRESSPROOF (C-214)	CAST IRON

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

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INVERTER TORQUE: CONSTANT 10:1 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

\*\* Subject to change without notice.

**Data Sheet**

Date: 16-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



405TTC6683

**Submittal**

Data @ 460 V

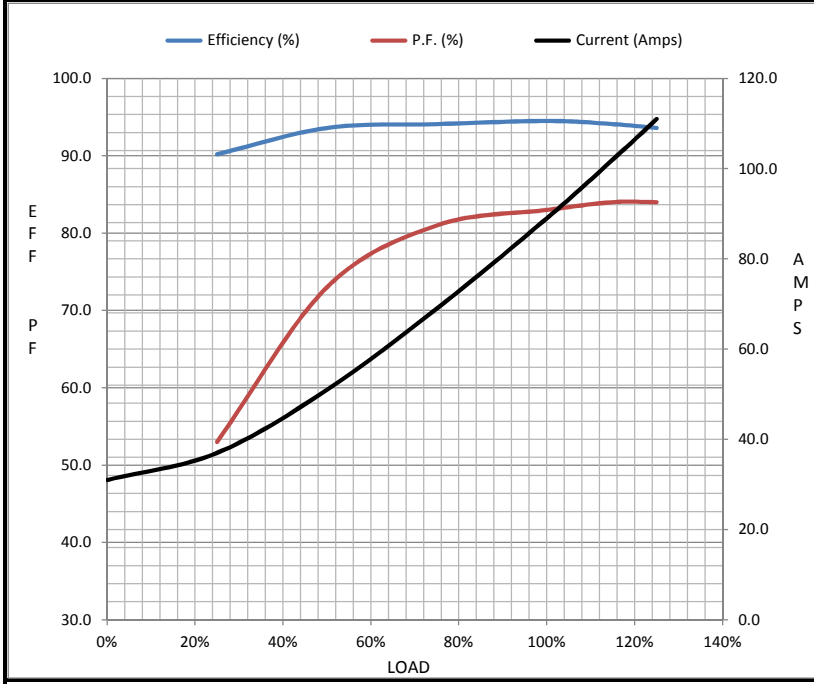
**Motor Load Data**

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	31.0	37.0	51.0	69.0	89.0	102	111	542
Torque (ft-lb)	0.00	82.5	165	248	332	382	416	700
RPM	1200	1196	1194	1192	1188	1,186	1182	0
Efficiency (%)		90.2	93.6	94.1	94.5	94.1	93.6	
P.F. (%)	5.5	53.0	73.0	81.0	83.0	84.0	84.0	36.0

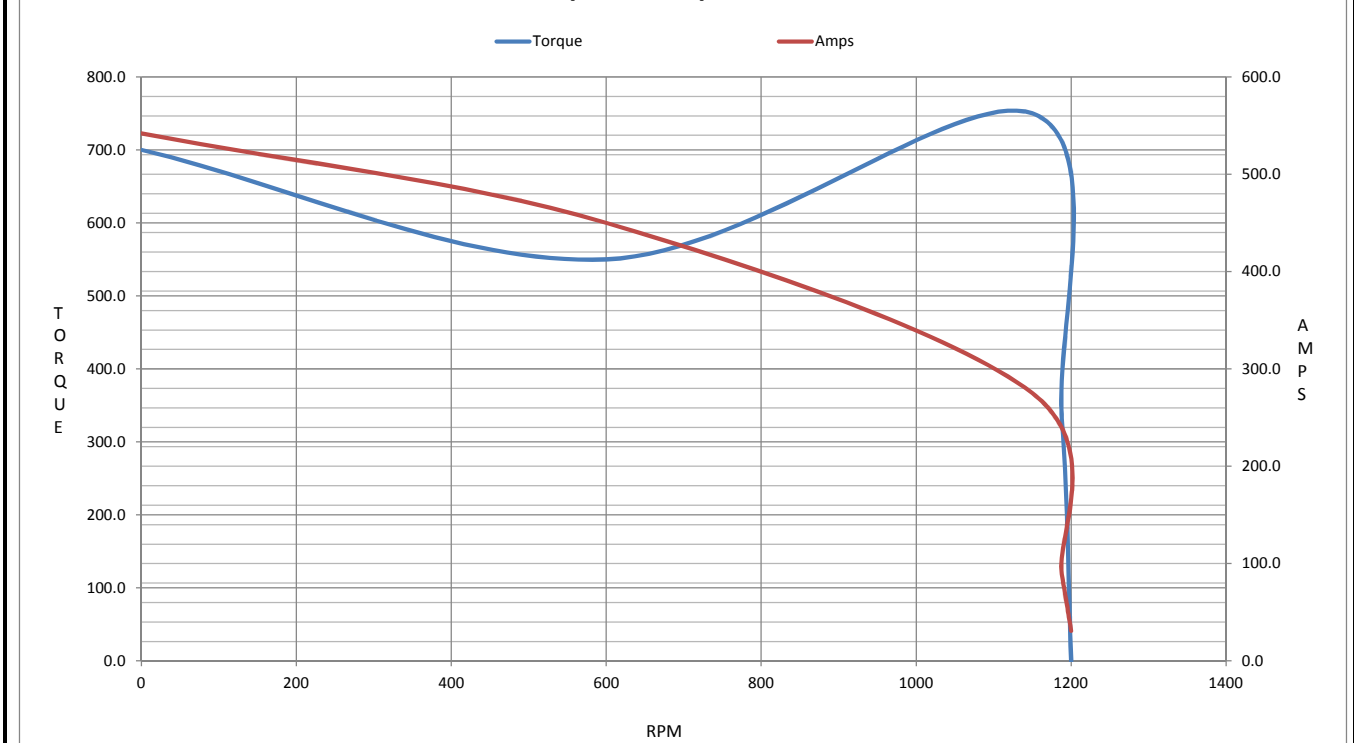
**Motor Speed Data**

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1150	1188	1200
Current (Amps)	542	450	275	89.0	31.0
Torque (ft-lb)	700	550	750	332	0.00

Information Block				
HP	75.0			
Sync. RPM	1200			
Frame	405			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460#190/38(V)			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	75 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	50.0 Lb-Ft <sup>2</sup>			
Ref Wdg	CHT40560003 NONE			
Sound Pressure @ 1M	68 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	SS620676			
Conn. Diag	EE7308AA			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0510	0.0280	0.2510	0.5180	8.6560



**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 : 405TTFC6683

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

Catalog No : Y852A

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**