

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 160MTFC6586

Catalog No: R332A

Globetrotter® IEC Cast Iron Motor, 10 & 7.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V,  
1200 & 1000 RPM, 160M Frame, TEFC



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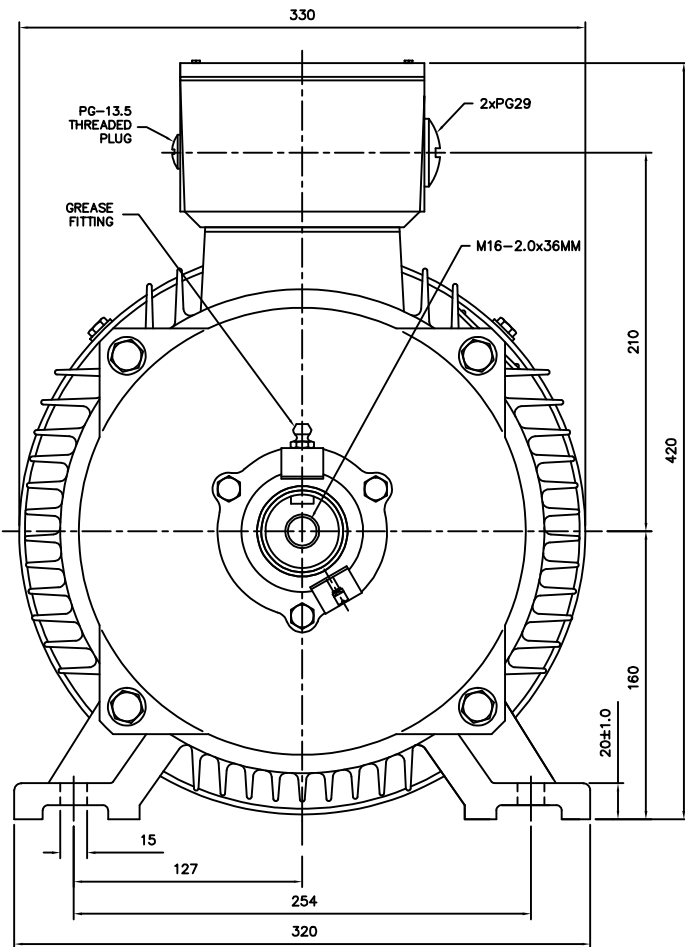
**RegalRexnord**

## Nameplate Specifications

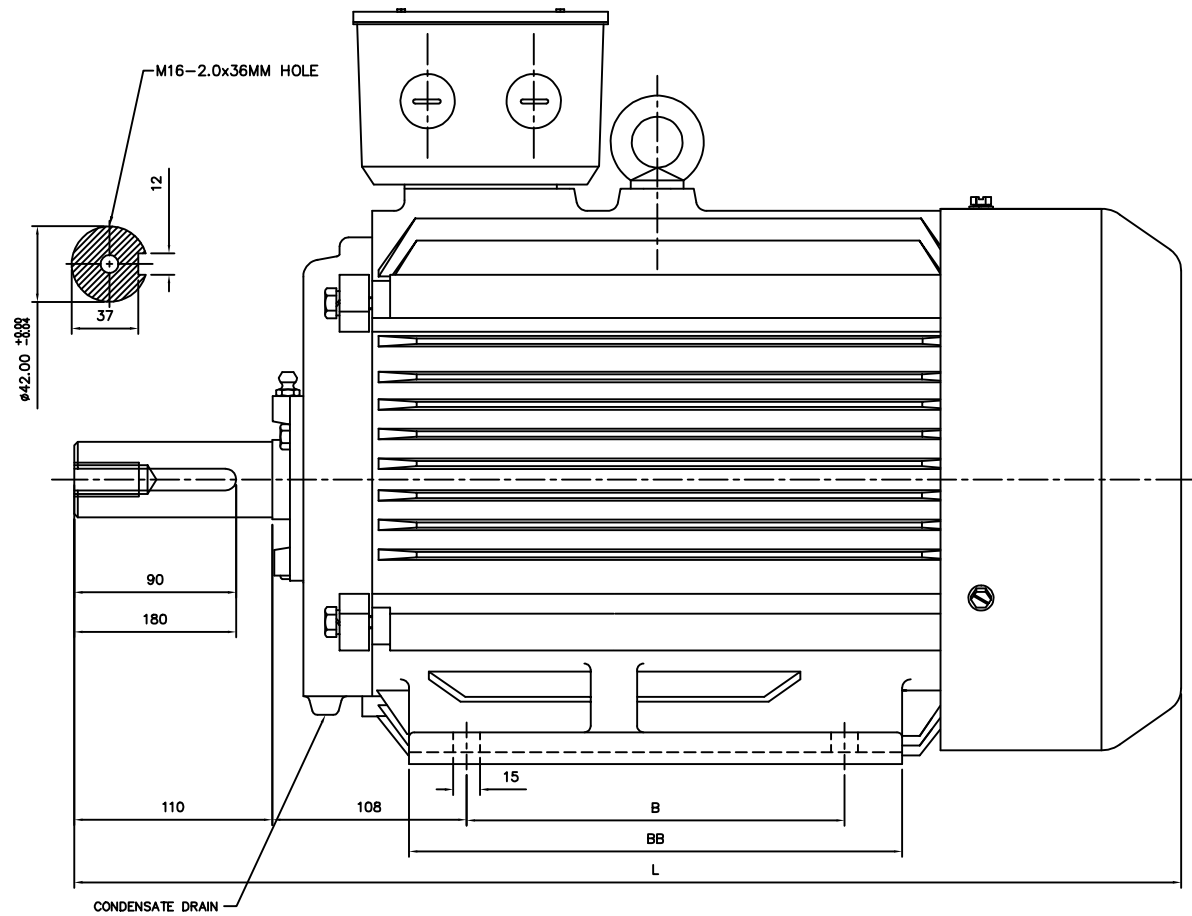
Phase	3	Output HP	10 & 7.50 Hp
Output KW	7.5 & 5.6 kW	Voltage	230/460 & 200/400 V
Speed	1183 & 985 rpm	Service Factor	1.15 & 1.15
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	92.1 & 91.7 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	28.8/14.4 & 25.6/12.8 A	Power Factor	71.6
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	No	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

## Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Part Wdg Start & Wye Start Delta Run Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.766 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	24.21 in
Shaft Diameter	1.666 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1
Outline Drawing	169894.60ME	Connection Drawing	004172.03ME



FRAME	B	BB	L
DF160M	210	274	615
DF160L	254	318	670

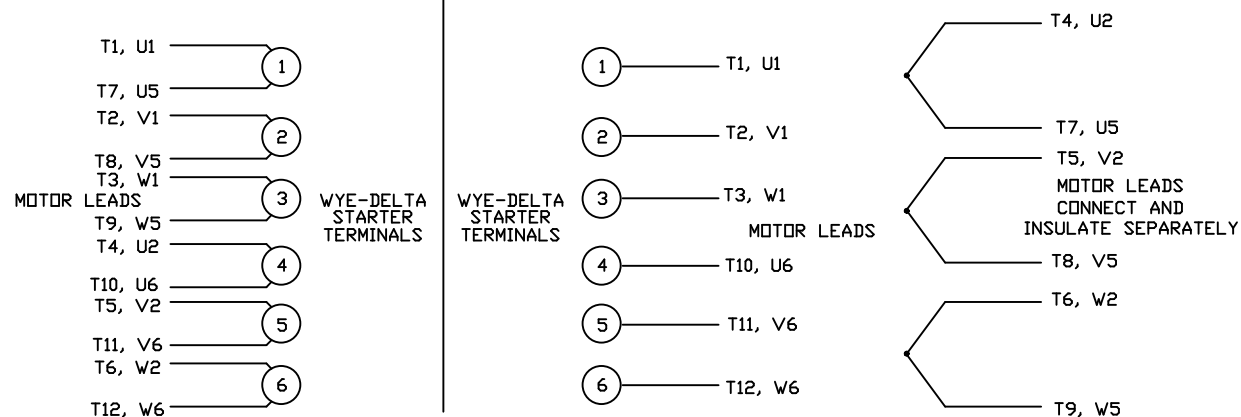


				TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC	DRAWN CTO 06-28-2004
				DEC.	METRIC		
				.X	±2.5		CHK
				.XX	±.76		APPD
2	CORRECTED DIMENSIONS ISAAC 10-5238	MOL2-07-2010		.XXX	±.127	TITLE	OUTLINE - DF160-F3
1	REISSUE -ENDMILL WAS 42, 'L' (TABLE) WAS 615 & 670	MS09-16-2005	ML	.XXXX	±.0127	MAT'L.	SCALE 1=25.4
NO.	REVISION	BY & DATE	CHK	ANG	±1/2"	FINISH	REF
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 16989460me	SIZE
				DIST	WA		B
							DRAWING NO. 169894-60ME
							REV. 2

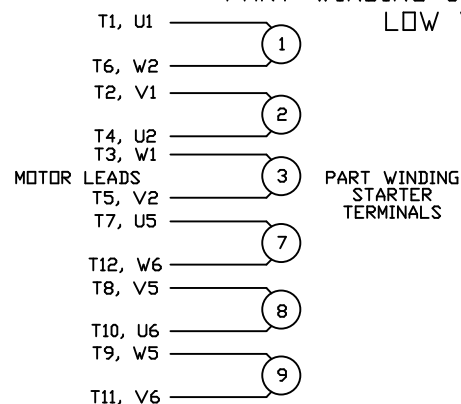
## WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

## LOW VOLTAGE CONNECTION

## HIGH VOLTAGE CONNECTION



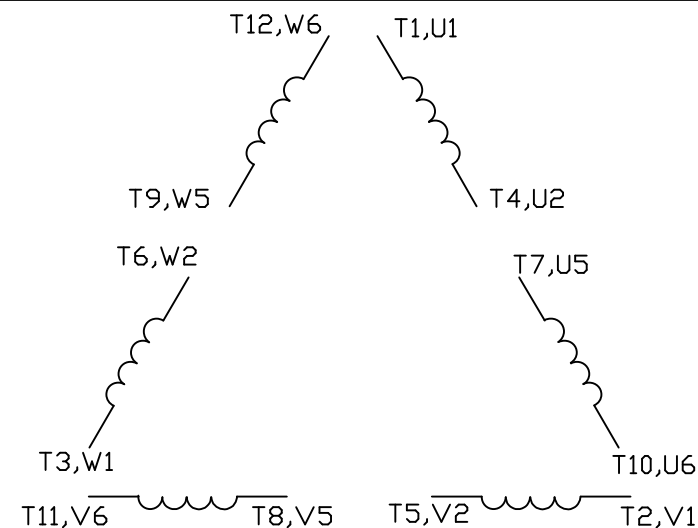
REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

PART WINDING START USABLE ON 4 & 6 POLE MOTORS  
LOW VOLTAGE CONNECTION ONLY

REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

## LINE LEADS

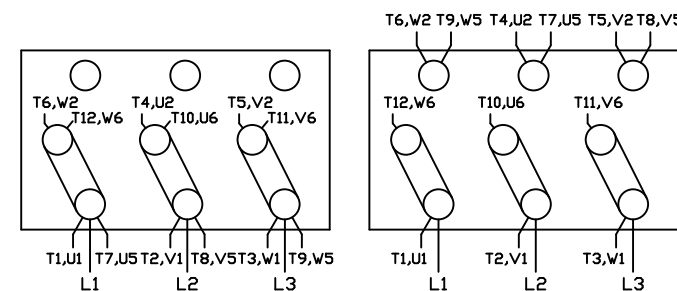


ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS

12 LEAD DELTA CONNECTION ACROSS THE LINE START  
(FOR Y START DELTA RUN, REMOVE THE JUMPERS)

LOW VOLTAGE  
(MUST BE REWIRED  
AS SHOWN)

HIGH VOLTAGE  
(FACTORY WIRED FOR HIGH  
VOLTAGE AS SHOWN)



TOLERANCES  
UNLESS SPECIFIED

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2°



TITLE DELTA - WYE CONNECTION DIAGRAM  
IEC CAST IRON MOTORS

MAT'L.

FINISH

DRAWN CJW 08/28/02

CHK

APPD

SCALE 1=1

REF

FMF

PREV

NO. REVISION BY & DATE

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RFP

DIST

CAD FILE 00417203ME

SIZE

A

DRAWING NO.

004172-03ME

REV.



P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

### CERTIFICATION DATA SHEET

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: 004172.03ME  
OUTLINE: 169894.60ME  
WINDING: T12906015 NONE 3  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: 160MTFC6586  
CAT #: R332A  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

### TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
10	7.5	1200	1185	160M	TEFC	TFC	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	29/14.5&25.6/12.8	PWS & YDRUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.0	GTD EFF		ELECT. TYPE	
F.L. PF	71.4	3/4 LD PF	65.7	1/2 LD PF	54.7	91.0		SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
44.3 LB-FT	80.2	83.2 LB-FT 188%	105 LB-FT 237%	38	

@ 3 FT.	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	3.6 LB-FT²	3.6 LB-FT²	15 SEC.	2	0 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	UM SEVERE	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6309 6209						

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	0	0	0	0	0.080	ODE

* N O T E S *		INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED
		ENCODER: NONE NONE NONE NONE PPR
PREPARED BY: EARL BABBITTS DATE: 5/5/2017		BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ: _____ UL: NONE

FORM: 3531 REV\_4 2/27/06

## Data Sheet

Date: 5/5/2017

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

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

Submitted by: EARL BABBITTS



160MTFC6586

Submittal

Data @ 460 V

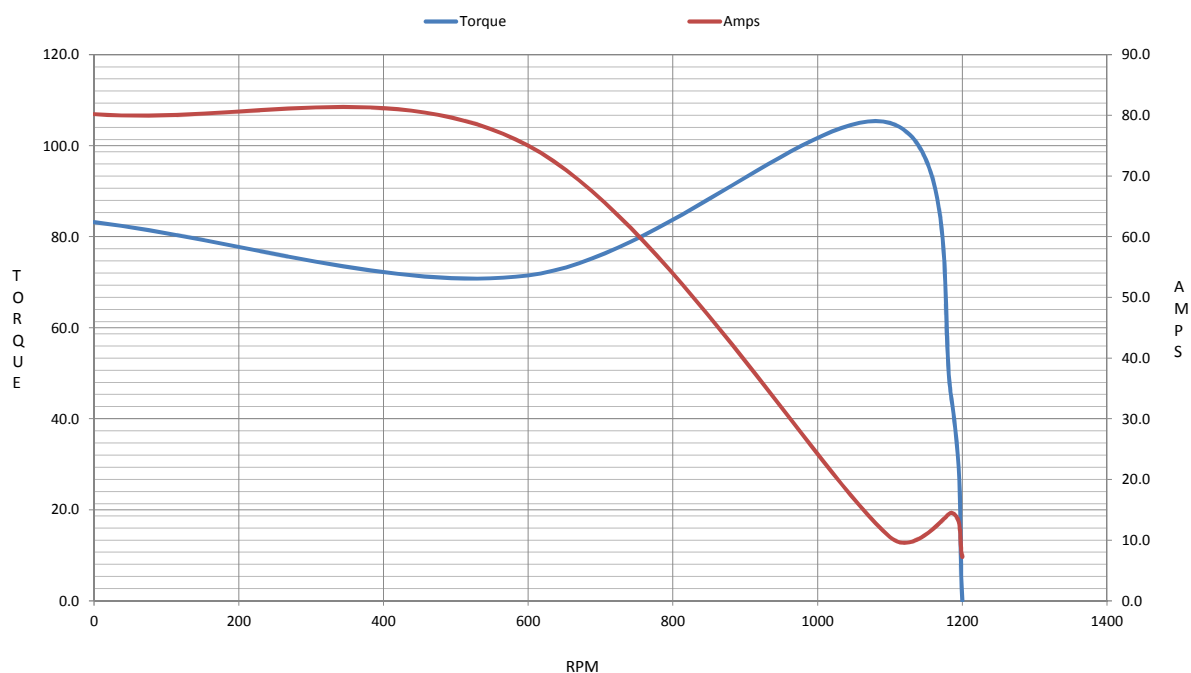
## Motor Load Data

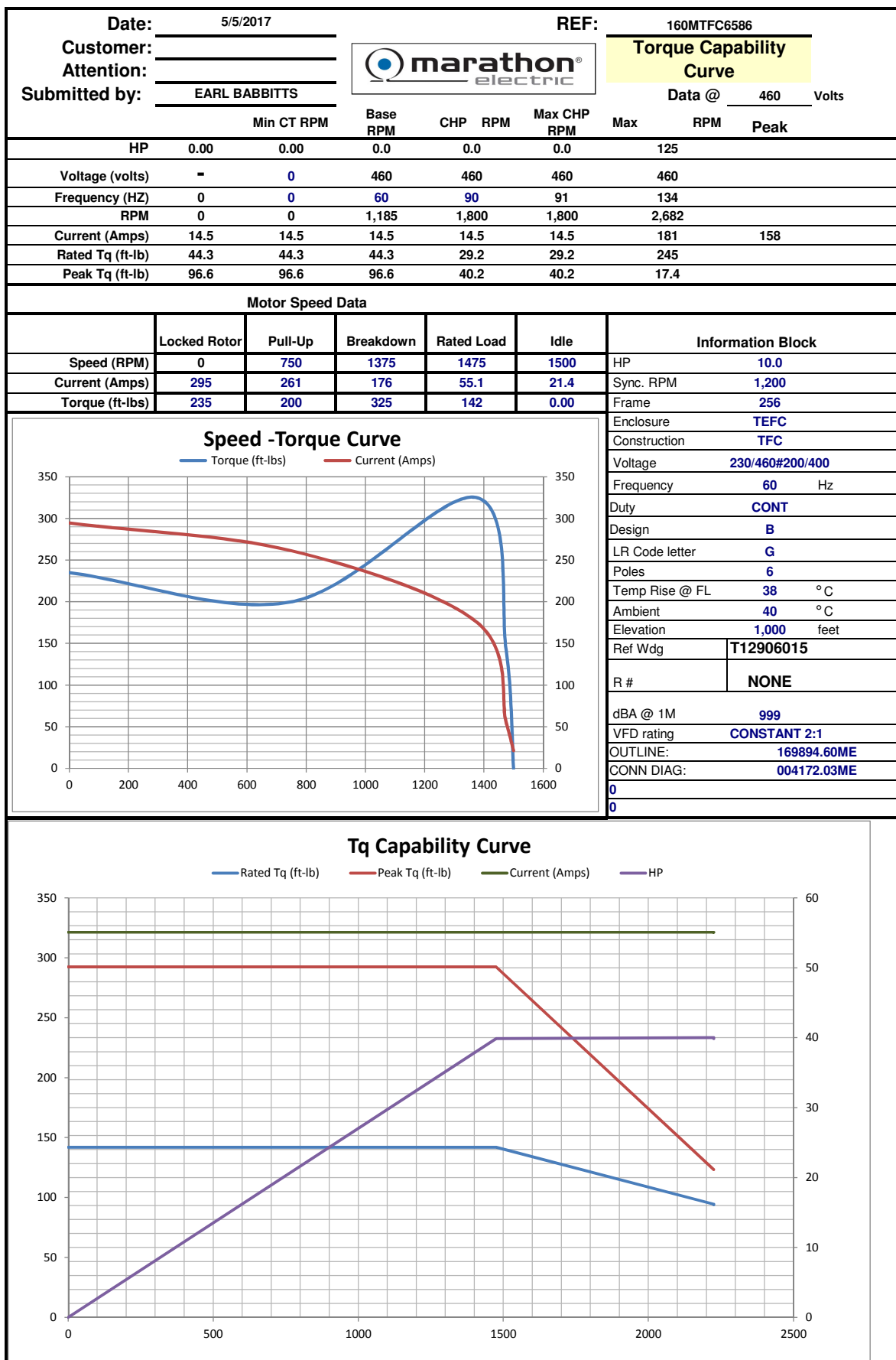
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	7.2	8.0	9.6	11.8	14.5	16.0	17.5	80.2	
Torque (ft-lb)	0.00	11.3	22.5	33.8	44.3	51.0	56.3	83.2	
RPM	1200	1196	1192	1188	1185	1,180	1177	0	
Efficiency (%)		85.9	91.0	91.7	91.7	91.7	91.5		
P.F. (%)	11.2	35.3	54.7	65.7	71.4	72.0	73.8	0.0	

## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																																													
Speed (RPM)	0	600	1100	1185	1200																																													
Current (Amps)	80.2	75.0	10.5	14.5	7.2																																													
Torque (ft-lb)	83.2	71.5	105	44.3	0.00																																													
<div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</div></div> <table><thead><tr><th>LOAD</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>0%</td><td></td><td>11.0</td><td>7.2</td></tr><tr><td>20%</td><td>86.0</td><td>15.0</td><td>7.5</td></tr><tr><td>40%</td><td>89.0</td><td>20.0</td><td>8.0</td></tr><tr><td>60%</td><td>91.0</td><td>25.0</td><td>9.0</td></tr><tr><td>80%</td><td>91.5</td><td>30.0</td><td>10.5</td></tr><tr><td>100%</td><td>92.0</td><td>35.0</td><td>14.5</td></tr><tr><td>110%</td><td>92.0</td><td>36.0</td><td>16.0</td></tr><tr><td>120%</td><td>92.0</td><td>35.0</td><td>17.0</td></tr><tr><td>125%</td><td>92.0</td><td>36.0</td><td>17.5</td></tr></tbody></table>						LOAD	Efficiency (%)	P.F. (%)	Current (Amps)	0%		11.0	7.2	20%	86.0	15.0	7.5	40%	89.0	20.0	8.0	60%	91.0	25.0	9.0	80%	91.5	30.0	10.5	100%	92.0	35.0	14.5	110%	92.0	36.0	16.0	120%	92.0	35.0	17.0	125%	92.0	36.0	17.5	Information Block				
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Frequency		60 Hz																																																
Design		B																																																
LR Code letter		G																																																
Service Factor		1.15																																																
Temp Rise @ FL		38 °C																																																
Duty		CONT																																																
Ambient		40 °C																																																
Elevation		1,000 feet																																																
Rotor/Shaft wk²		3.6 Lb-Ft²																																																
Ref Wdg		T12906015 NONE																																																
Sound Pressure @ 1M		999 dBA																																																
VFD Rating		CONSTANT 2:1																																																
Outline Dwg		169894.60ME																																																
Conn. Diag		004172.03ME																																																
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 : 160MTFC6586

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

Catalog No : R332A

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**