

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 160MTFC6511

Catalog No: R333A

Globetrotter® IEC Cast Iron Motor, 15 & 10 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V,
3600 & 3000 RPM, 160M Frame, TEFC



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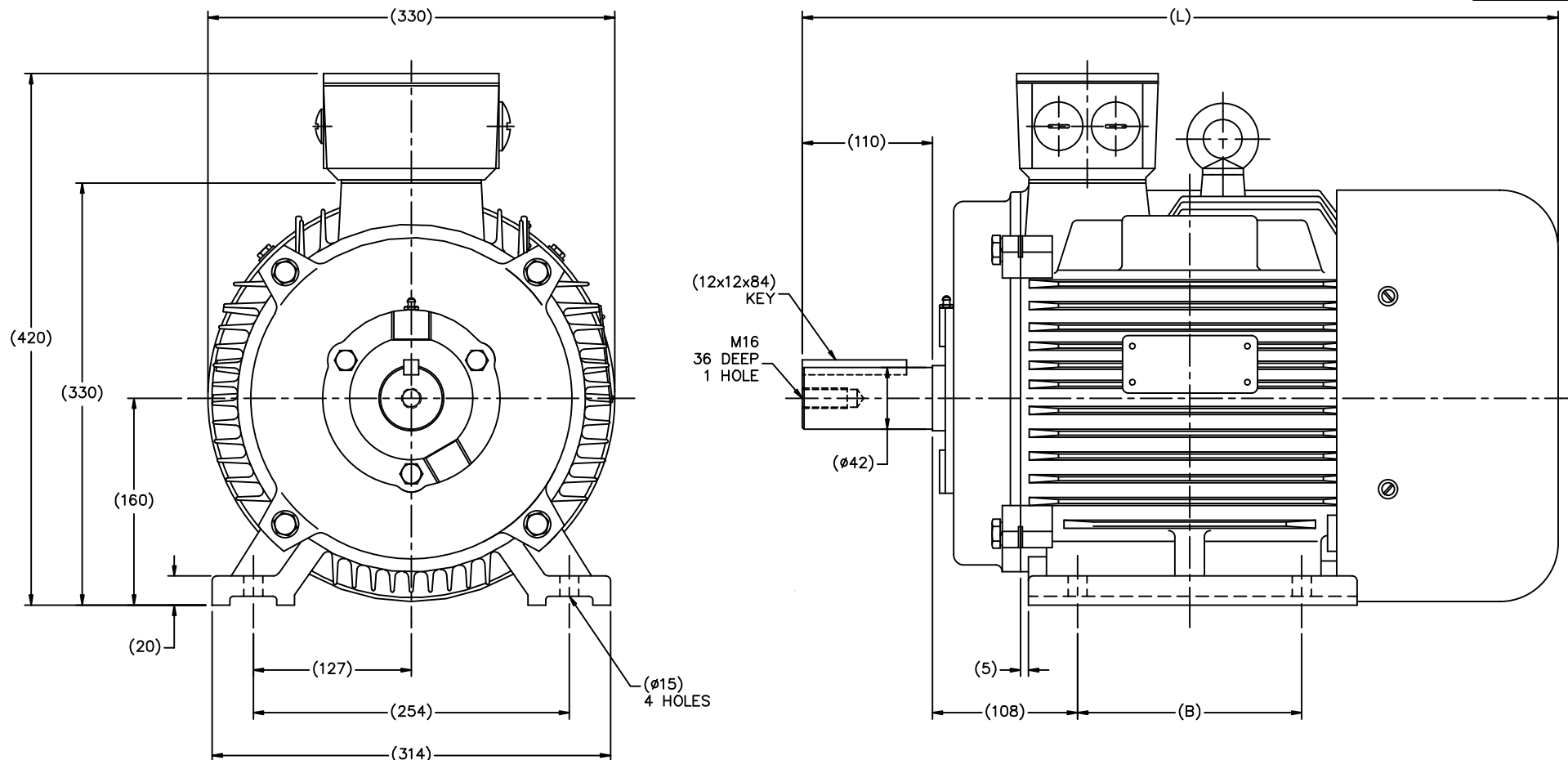
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	15 & 10 Hp
Output KW	11.2 & 7.5 kW	Voltage	230/460 & 200/400 V
Speed	3545 & 2960 rpm	Service Factor	1.15 & 1.15
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91 & 91 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	35/17.5 & 27/13.5 A	Power Factor	88.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6209	Opp Drive End Bearing Size	6209
UL	Recognized	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	2	Rotation	Reversible
Resistance Main	.4 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	23.62 in
Shaft Diameter	1.666 in	Shaft Extension	4.33 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1
Outline Drawing	B-SS622239	Connection Drawing	004172.03



DF160M1-2R	193315.60	600	210
DF160M2-2R	193318.60	600	210
DF160M-4R	193316.60	600	210
DF160L-2R	193321.60	645	254
DF160L-4R	193319.60	645	254
DF160M-6R	193314.60	600	210
FRAME	PART #	L	B

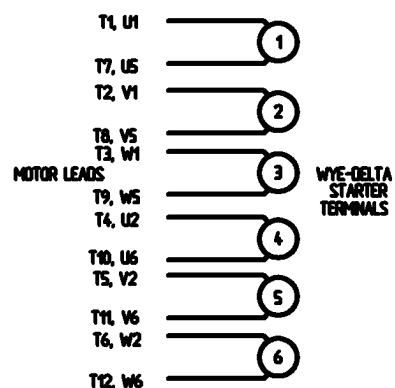
(MAY NOT BE DRAWN TO SCALE)

(DIMENSIONS ARE IN MILLIMETERS)

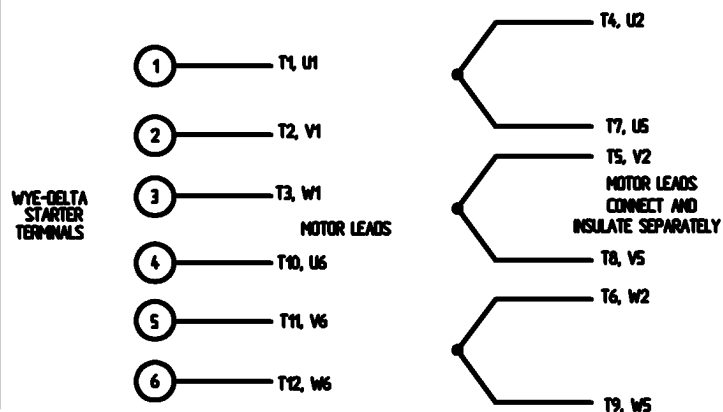
			TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION	DRAWN MSG 11-17-2010	
			DEC.	METRIC		CHK	MJS 11-18-2010
			.X	±2.5	TITLE OUTLINE - IEC PREMIUM DF160-R (II)	APPD	SB 11-18-2010
			.XX	±.76		SCALE	5=16
			.XXX	±.127		REF	
			.XXX	±.0127	MAT'L	FMF	HEBEI
NO.	REVISION	BY & DATE	CHK	ANG	FINISH	PREV	
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			DIST			B	SS622239

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

LOW VOLTAGE CONNECTION

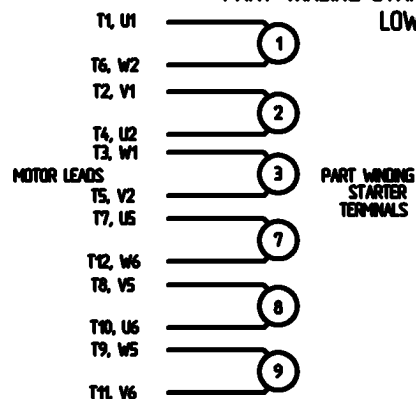


HIGH VOLTAGE CONNECTION



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

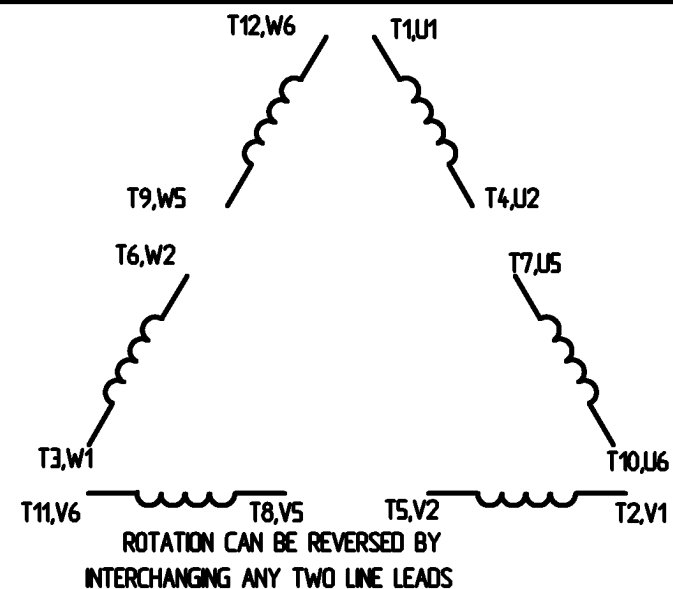
PART WINDING START USABLE ON 4 & 6 POLE MOTORS LOW VOLTAGE CONNECTION ONLY



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.

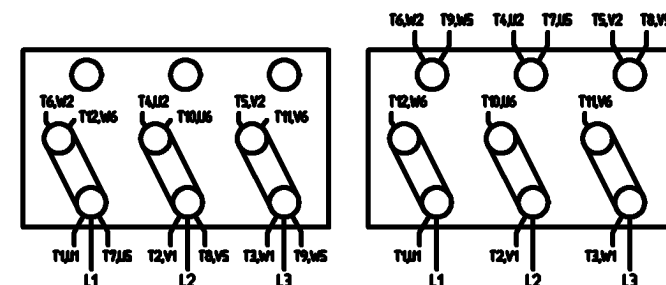
LINE LEADS



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		<div>LEESON</div> <div>ELECTRIC MOTORS GEARMOTORS AND DRIVES</div>	DRAWN C/W 08/28/02	
				DEC.	INCHES		CHK	
				X	± .1		APPD	
				XX	± .01		SCALE	1:1
				XXX	± .005		REF	
				XXXX	± .0005	MAT'L	FMF	
NO.	REVISION	BY & DATE	CHK	ANG	± 1/2°	FINISH	PREV	
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				DST				REV.

ERROR: syntaxerror
OFFENDING COMMAND: --nostringval--

STACK:

/CB
-dictionary-
/Pscript_WinNT_Compat
-dictionary-



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 004172.03
OUTLINE: B-SS622239
WINDING: T12902027 NONE 3
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: 160MTFC6511
CAT #: R333A
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
15	11.2	3600	3545	160M	TEFC	TFC	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	35/17.5&27/13.5	PWS & YDRUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	91.0	1/2 LD EFF	90.2	GTD EFF		ELECT. TYPE	
F.L. PF	88.5	3/4 LD PF	87.5	1/2 LD PF	83.0	90.2		SQ CAGE INV RATED	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)	
22.2 LB-FT	107	47.5 LB-FT 214%	56.5 LB-FT 255%	44	

@ 3 FT.	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
70 dBA	79 dBA	0.00 LB-FT ²	0 LB-FT ²	20 SEC.	2	265 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
6209 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 FT-LB: NA VOLTAGE: NONE UL: V-INS, CONST UL REC
	HZ:

FORM: 3531 REV_4 2/27/06

Data Sheet

Date: 5/5/2017

Customer: _____

Attention: _____

Submitted by: EARL BABBITTS



160MTFC6511

Submittal

Data @ 460 V

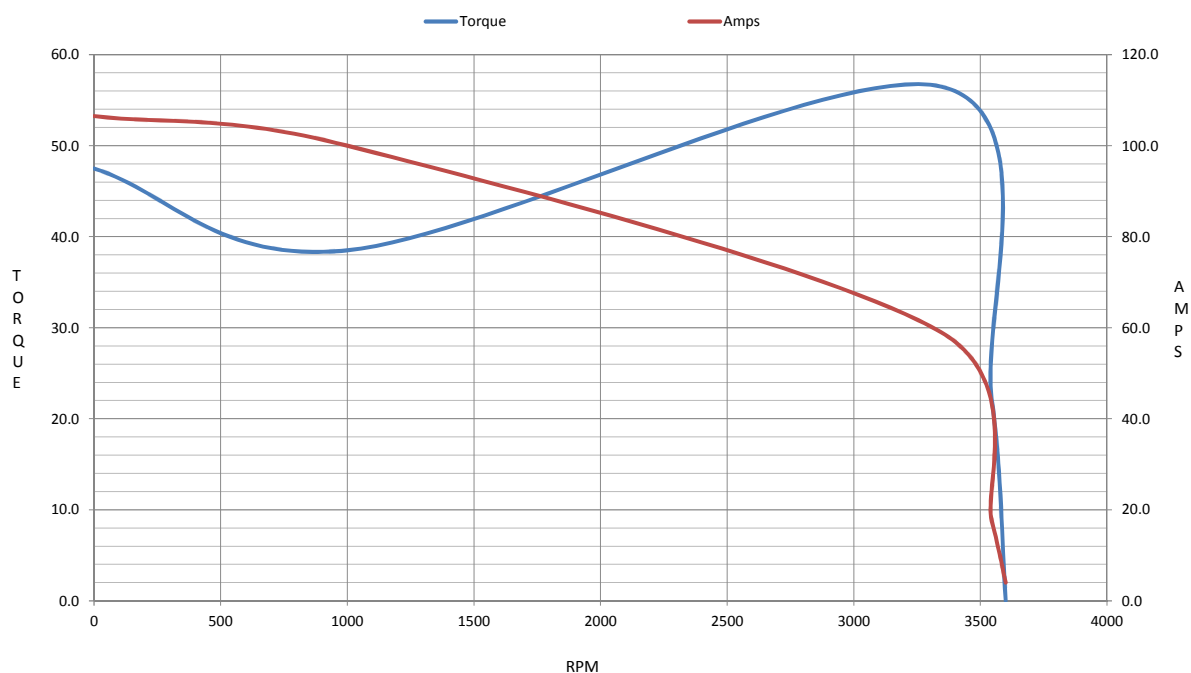
Motor Load Data

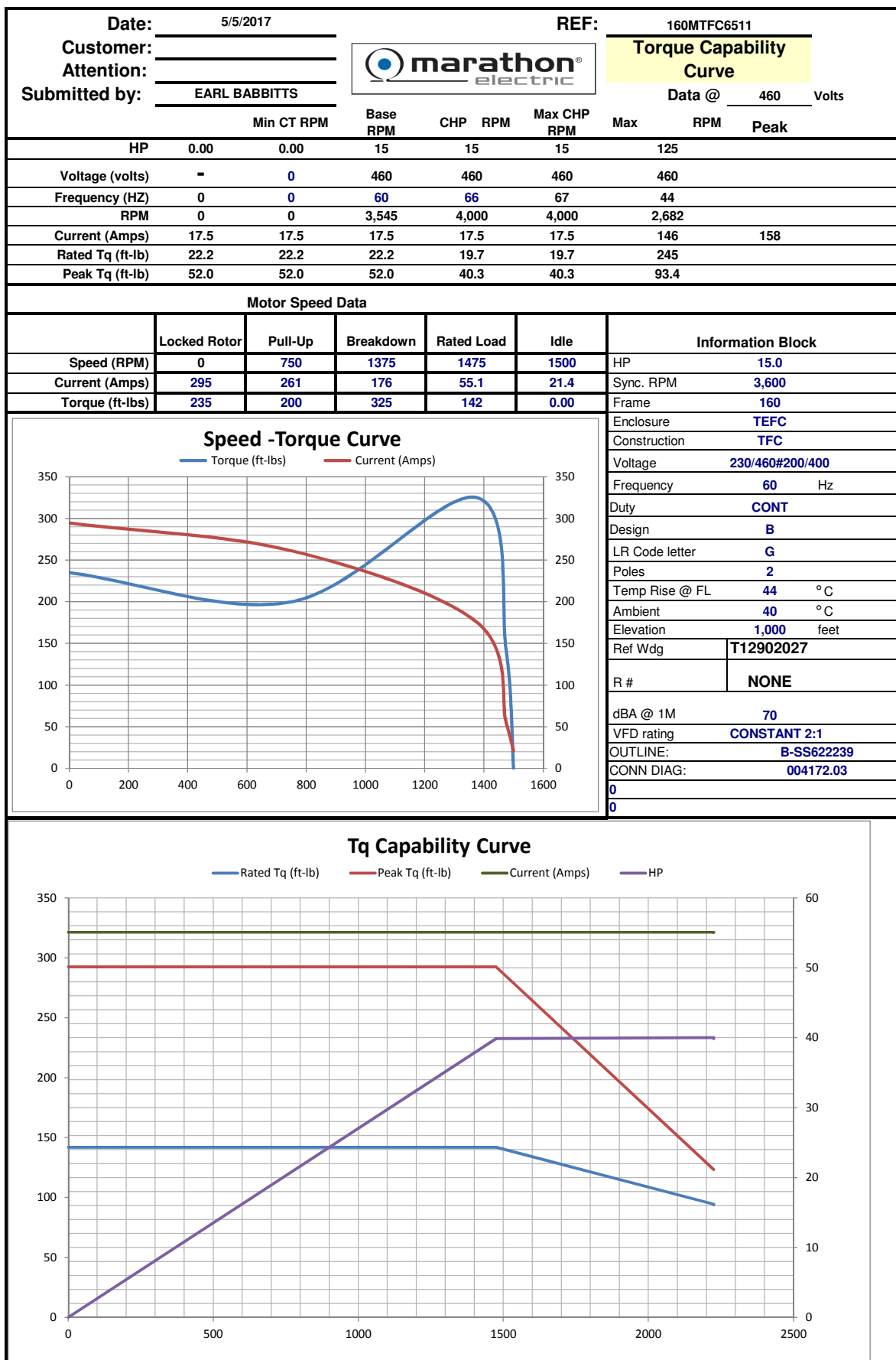
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	4.0	6.0	9.5	13.0	17.5	20.5	22.0	107	
Torque (ft-lb)	0.00	5.5	11.0	16.5	22.2	25.5	28.0	47.5	
RPM	3600	3585	3575	3560	3545	3535	3530	0	
Efficiency (%)		85.5	90.2	91.0	91.0	90.2	90.2		
P.F. (%)	13.0	68.5	83.0	87.5	88.5	88.5	88.5	44.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																																	
Speed (RPM)	0	1000	3345	3545	3600																																	
Current (Amps)	107	100	59.0	17.5	4.0																																	
Torque (ft-lb)	47.5	38.5	56.5	22.2	0.00																																	
<div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</div></div> <table><caption>Graph Data Points (Estimated)</caption><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>-</td><td>4.0</td></tr><tr><td>25</td><td>85</td><td>14</td><td>5.5</td></tr><tr><td>50</td><td>90</td><td>18</td><td>8.0</td></tr><tr><td>75</td><td>91</td><td>20</td><td>11.0</td></tr><tr><td>100</td><td>90</td><td>21</td><td>14.0</td></tr><tr><td>125</td><td>89</td><td>21</td><td>22.2</td></tr></tbody></table>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	0	-	-	4.0	25	85	14	5.5	50	90	18	8.0	75	91	20	11.0	100	90	21	14.0	125	89	21	22.2	Information Block				
						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																													
						0	-	-	4.0																													
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						HP		15.0																														
						Sync. RPM		3600																														
						Frame		160																														
						Enclosure		TEFC																														
						Construction		TFC																														
						Voltage		30/460#200/40 V																														
						Frequency		60 Hz																														
						Design		B																														
						LR Code letter		G																														
Service Factor		1.15																																				
Temp Rise @ FL		44 °C																																				
Duty		CONT																																				
Ambient		40 °C																																				
Elevation		1,000 feet																																				
Rotor/Shaft wk ²		0.00 Lb-Ft ²																																				
Ref Wdg		T12902027 NONE																																				
Sound Pressure @ 1M		70 dBA																																				
VFD Rating		CONSTANT 2:1																																				
Outline Dwg		B-SS622239																																				
Conn. Diag		004172.03																																				
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 : 160MTFC6511

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

Catalog No : R333A

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