

# PRODUCT INFORMATION PACKET

Model No: TCA0113AE251GAA009

Catalog No: R935

TerraMAX® Cast Iron Motor, 15 & 10 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM,  
160L Frame, TEFC



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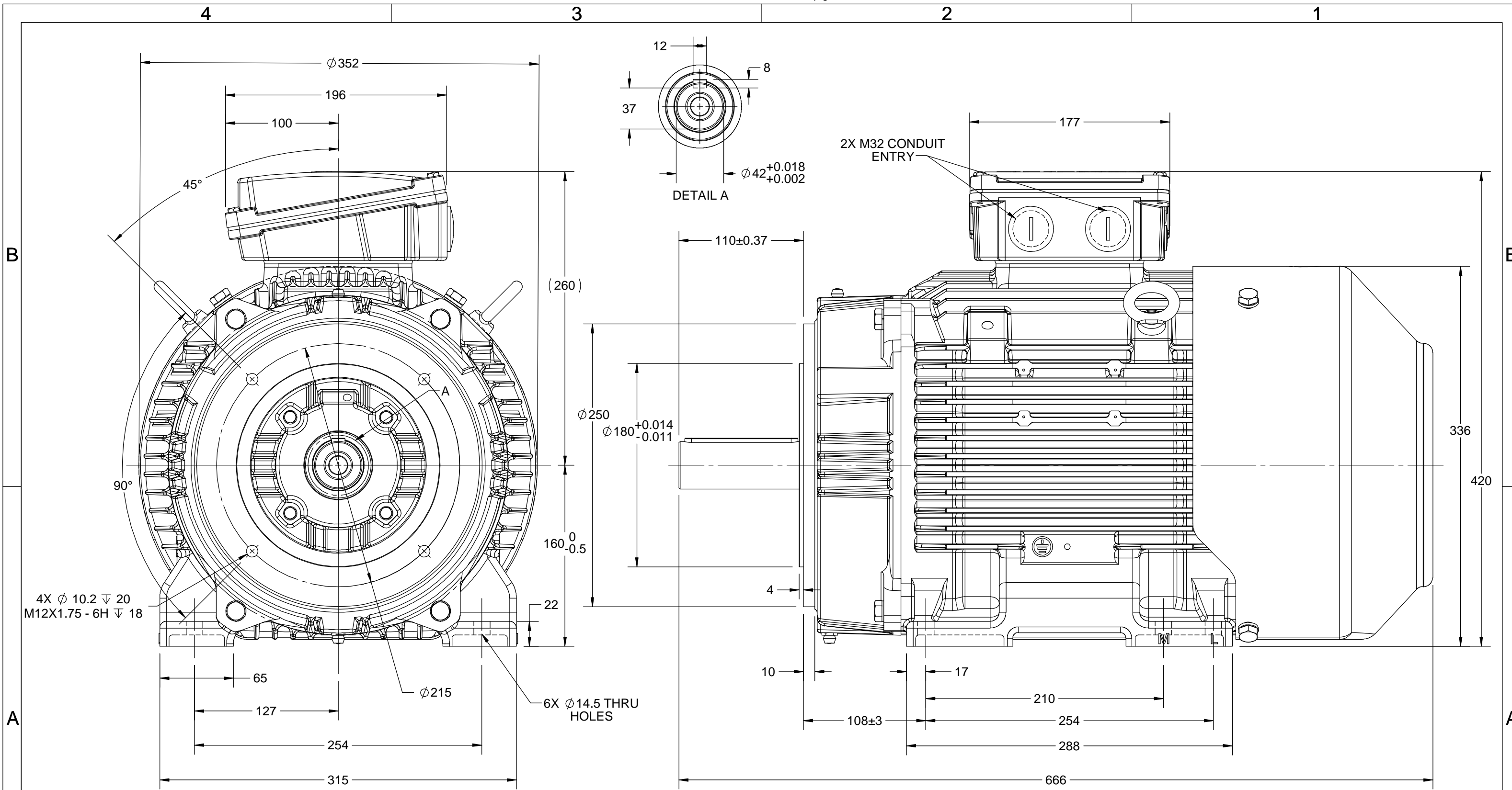
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>15 &amp; 10 Hp</b>
Output KW	<b>11.0 &amp; 7.5 kW</b>	Voltage	<b>230/460 &amp; 200/400 V</b>
Speed	<b>1180 &amp; 985 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>160L</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>91.7 &amp; 89.1 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>38/19.1 &amp; 33.5/16.8 A</b>	Power Factor	<b>79</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>N (IEC)</b>	KVA Code	<b>H</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6209</b>
UL	<b>Recognized</b>	CSA	<b>N</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>	Efficiency Class	<b>IE3</b>

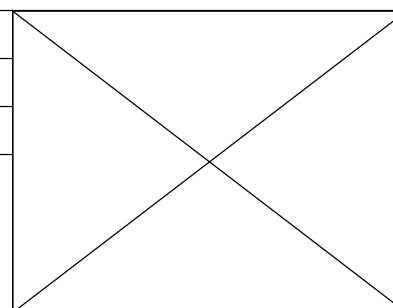
### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.59 Ohms</b>	Mounting	<b>B3</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>IEC</b>	Shaft Diameter	<b>42.000 in</b>
Assembly/Box Mounting	<b>F3</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Connection Drawing	<b>8442000715</b>	Outline Drawing	<b>SS620954</b>

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DRAWING REVISION A	REVISION BY	DATE
ECO ECO-0176075	APPROVED BY	DATE
ECO DESCRIPTION <b>NEW DRAWING</b>		
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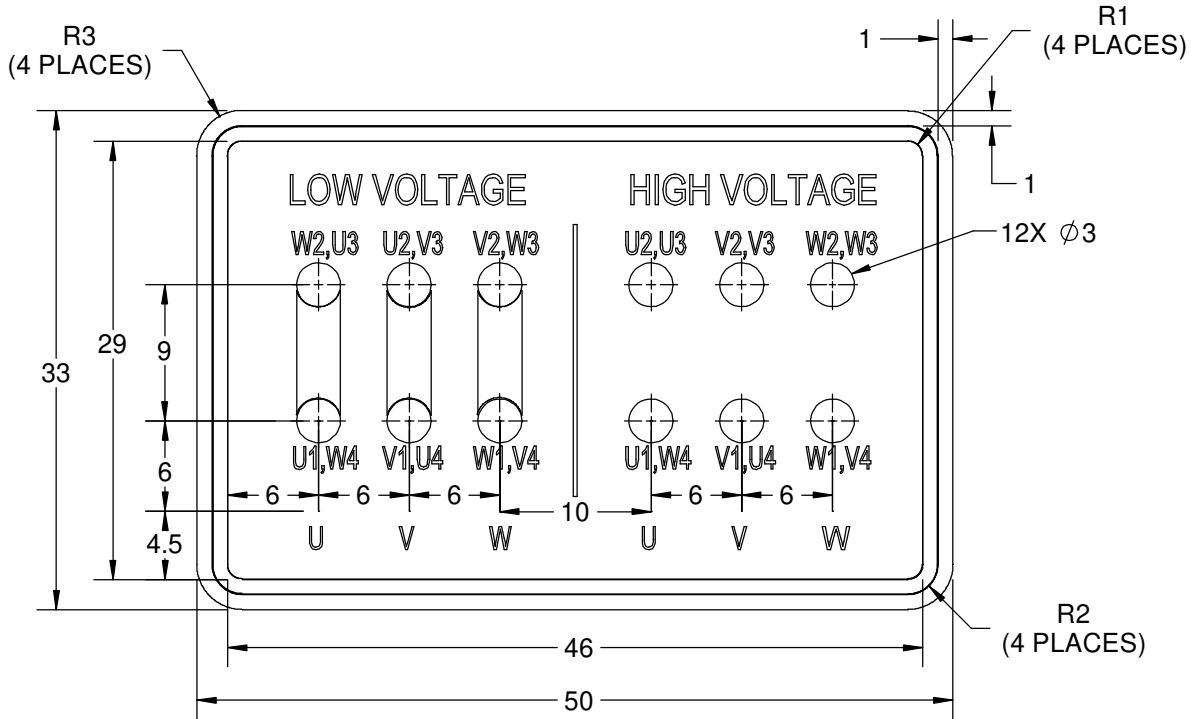
DRAWN BY RI
DATE 01-08-2020
APPROVED BY VJ
DATE 01-08-2020
REFERENCE SS620877
THIRD ANGLE PROJECTION

<b>marathon™ Motors</b>	
<b>OUTLINE</b>	
IEC-160L-B34A-TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS620954</b>
SHEET 1 OF 1	

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DRAWING REVISION <b>A</b>	REVISION BY <b>S.MUDDA</b>	DATE <b>16/11/2020</b>
ECO <b>ECO-0194685</b>	APPROVED BY <b>SUMANTA</b>	DATE <b>16/11/2020</b>
ECO DESCRIPTION <b>NEW DRAWING</b>		

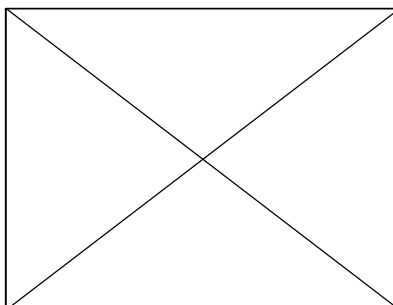
GEOMETRIC TOLERANCE		
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



**NOTES:**

1. PRESSURE-SENSITIVE ADHESIVE COATED PAPER ON THE BACK OF SELF-ADHESIVE.
2. AT THE END OF YELLOW, WORDS, SYMBOLS, LETTERS ARE BLACK, BORDER IS BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T12 & U1-U4,V1-V4& W1-W4 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

8WD.442.2017



DRAWN BY <b>S.MUDDA</b>	REGAL™ Regal Beloit America, Inc.		
	DATE <b>16/11/2020</b>	DESCRIPTION <b>CONN DIAGRAM-NAMEPLATE</b>	
	APPROVED BY <b>SUMANTA</b>		
	DATE <b>16/11/2020</b>	MATERIAL	PROCESS/FINISH
	REFERENCE	SIZE <b>A</b>	DRAWING NUMBER <b>8442000715</b>



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: 8442000677  
OUTLINE: SS620954  
WINDING: IE3L1606202 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: TCA0113AE251GAA009  
CAT #: R935  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
15	11.00	1200	1180	160L	TEFC	TCA 160LB06	H	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	38/19.1&33.5/16.8	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	89.6	GTD EFF	ELECT. TYPE
F.L. PF	79.0	3/4 LD PF	72.0	1/2 LD PF	62.0	90.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
66.8 LB-FT	121	141 LB-FT 211%	182 LB-FT 272%	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
68 dBA	77 dBA	4.3 LB-FT²	4.3 LB-FT²	15 SEC.	2	175 KG.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAIN
FT-FLANGE-215	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE BALL	ODE 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
0.378	0.265	1.154	1.740	28.535	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE					
	ENCODER: NONE					
	NONE					
	NONE PPR					
	BRAKE: NONE					

PREPARED BY: _____	BRAKE: NONE
DATE: 11/27/2020	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
	HZ: _____
	UL: V - LI,ME-INS,CONST UL REC

FORM: 3531 REV\_4 2/27/06





**Data Sheet**

Date: 4/13/2020 TCA0113AE251GAA009

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

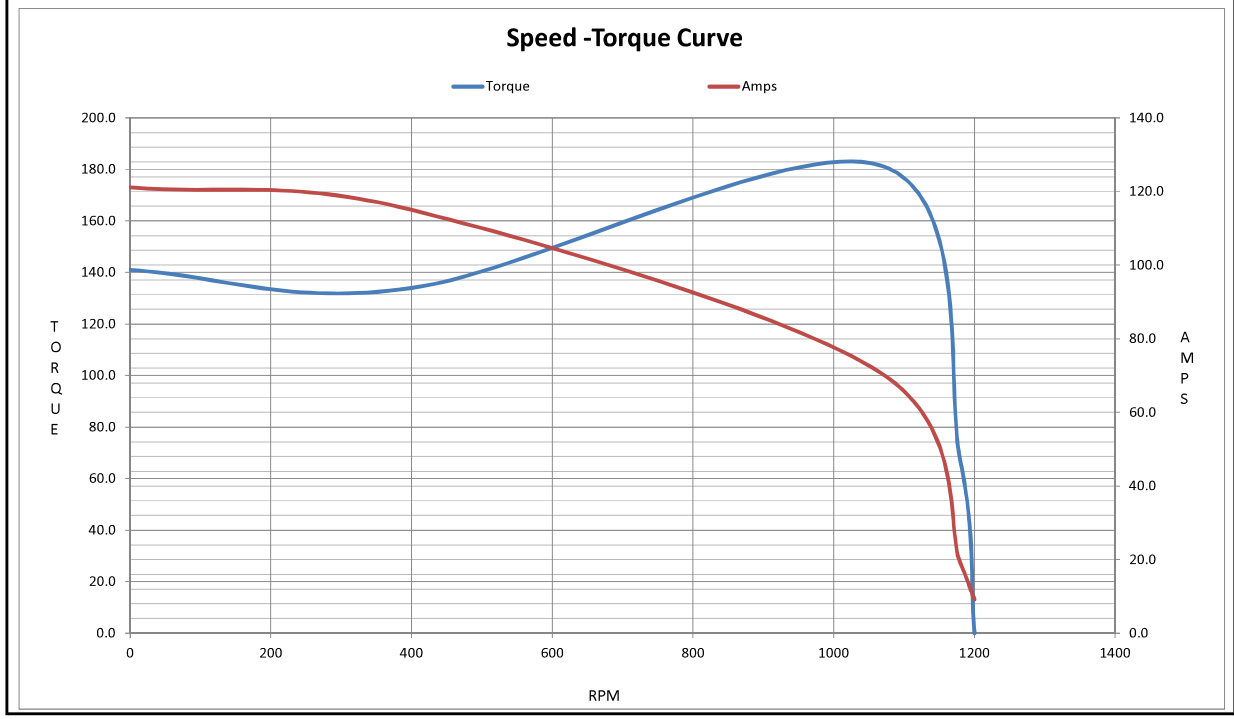
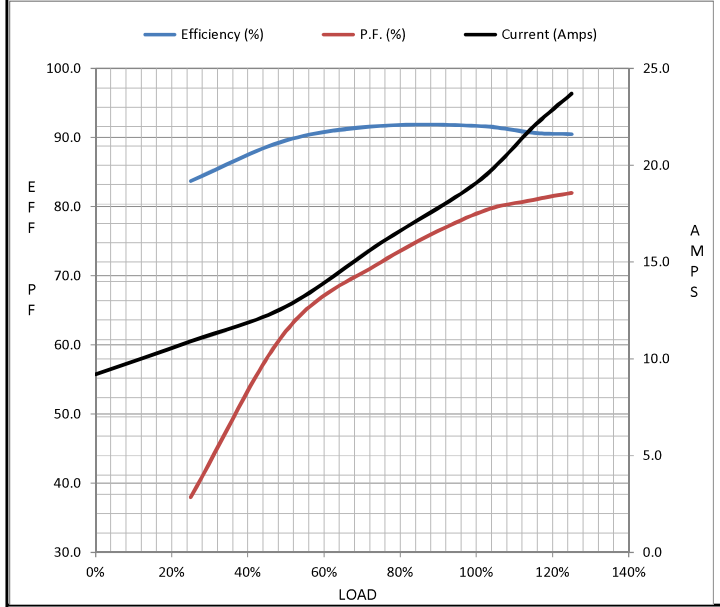
Attention: \_\_\_\_\_ **Submittal**

Submitted by: \_\_\_\_\_ Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	9.2	10.9	12.7	16.0	19.1	22.0	23.7	121	
Torque (ft-lb)	0.00	16.5	33.1	49.9	66.8	77.1	84.0	141	
RPM	1200	1195	1190	1185	1180	1,176	1173	0	
Efficiency (%)		83.7	89.6	91.7	91.7	90.7	90.5		
P.F. (%)	7.0	38.0	62.0	72.0	79.0	81.0	82.0	63.4	

Motor Speed Data					
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	1067	1180	1200
Current (Amps)	121	115	70.7	19.1	9.2
Torque (ft-lb)	141	134	182	66.8	0.00

Information Block	
HP	15.0
Sync. RPM	1200
Frame	160
Enclosure	TEFC
Construction	TCA 160LB06
Voltage	230/460#200/400 V
Frequency	60 Hz
Design	N
LR Code letter	H
Service Factor	1.15
Temp Rise @ FL	80 °C
Duty	CONT
Ambient	40 °C
Elevation	3,300 feet
Rotor/Shaft wk <sup>2</sup>	4.3 Lb-Ft <sup>2</sup>
Ref Wdg	IE3L1606202 NONE
Sound Pressure @ 1M	68 dBA
VFD Rating	CONSTANT 2:1/VARIABLE 10:1
Outline Dwg	SS620954
Conn. Diag	8442000677
Additional Specifications:	
0	
0	
EQUIV CKT (OHMS / PHASE)	
R1	R2
X1	X2
Xm	
0.3780	0.2650
1.1540	1.7400
28.5350	



?

IEC



## 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 : TCA0113AE251GAA009

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

Catalog No : R935

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**