

# PRODUCT INFORMATION PACKET

Model No: TCA1P53AE211GAA009

Catalog No: R320B

Cast Iron Motor, 2 & 1.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM, 100L Frame,  
TEFC



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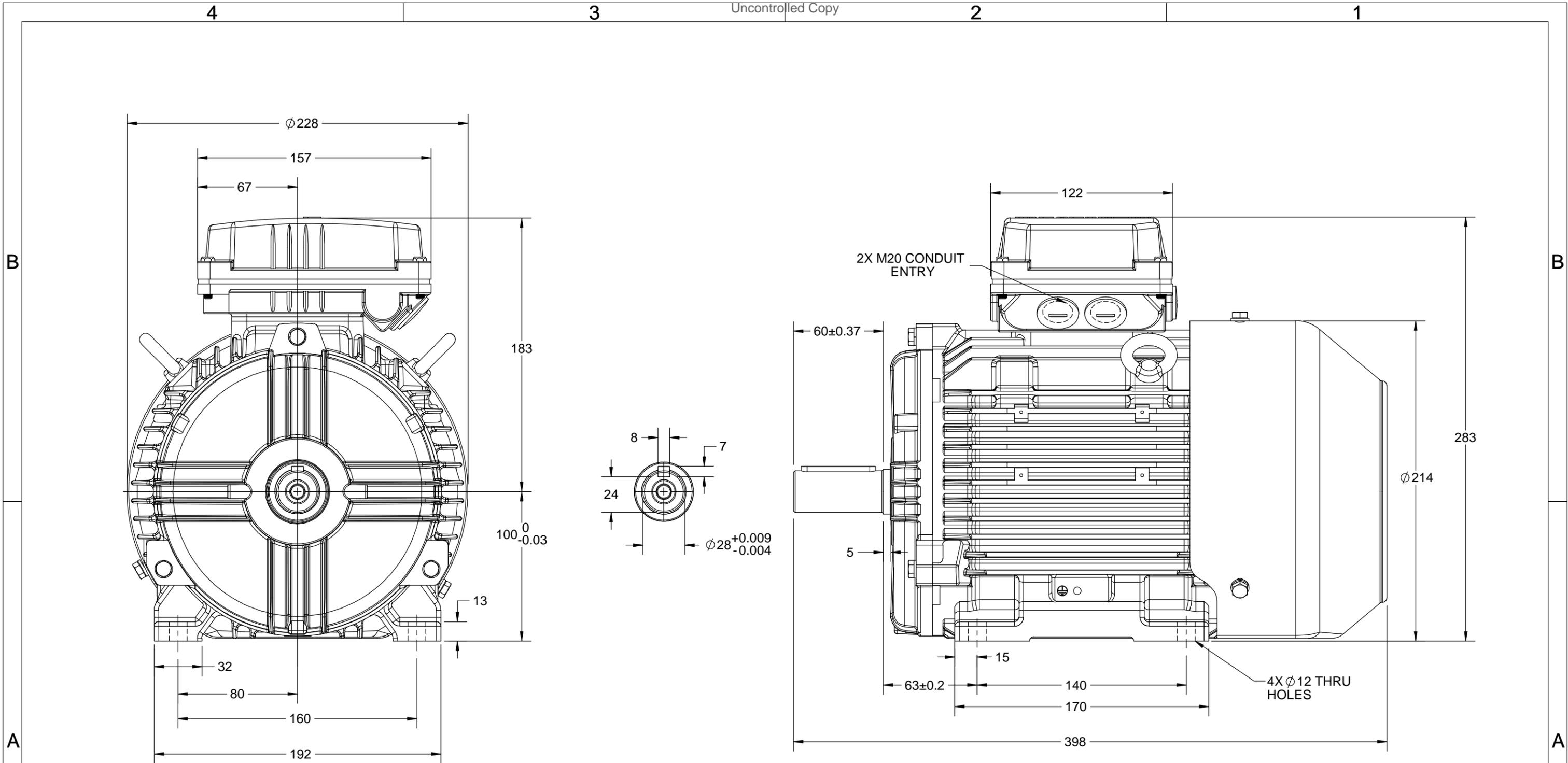
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>2 &amp; 1.50 Hp</b>
Output KW	<b>1.5 &amp; 1.1 kW</b>	Voltage	<b>230/460 &amp; 200/400 V</b>
Speed	<b>1175 &amp; 980 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>100L</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>88.5 &amp; 81 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>6/3 &amp; 5.4/2.7 A</b>	Power Factor	<b>72</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>N (IEC)</b>	KVA Code	<b>K</b>
Drive End Bearing Size	<b>6206</b>	Opp Drive End Bearing Size	<b>6206</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>

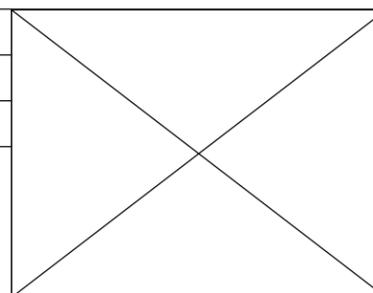
### Technical Specifications

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>6.5 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>	Overall Length	<b>15.67 in</b>
Frame Length	<b>7.87 in</b>	Shaft Diameter	<b>1.102 in</b>
Shaft Extension	<b>2.36 in</b>	Assembly/Box Mounting	<b>F3</b>
Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>		
Outline Drawing	<b>SS600216</b>	Connection Drawing	<b>8442000675</b>



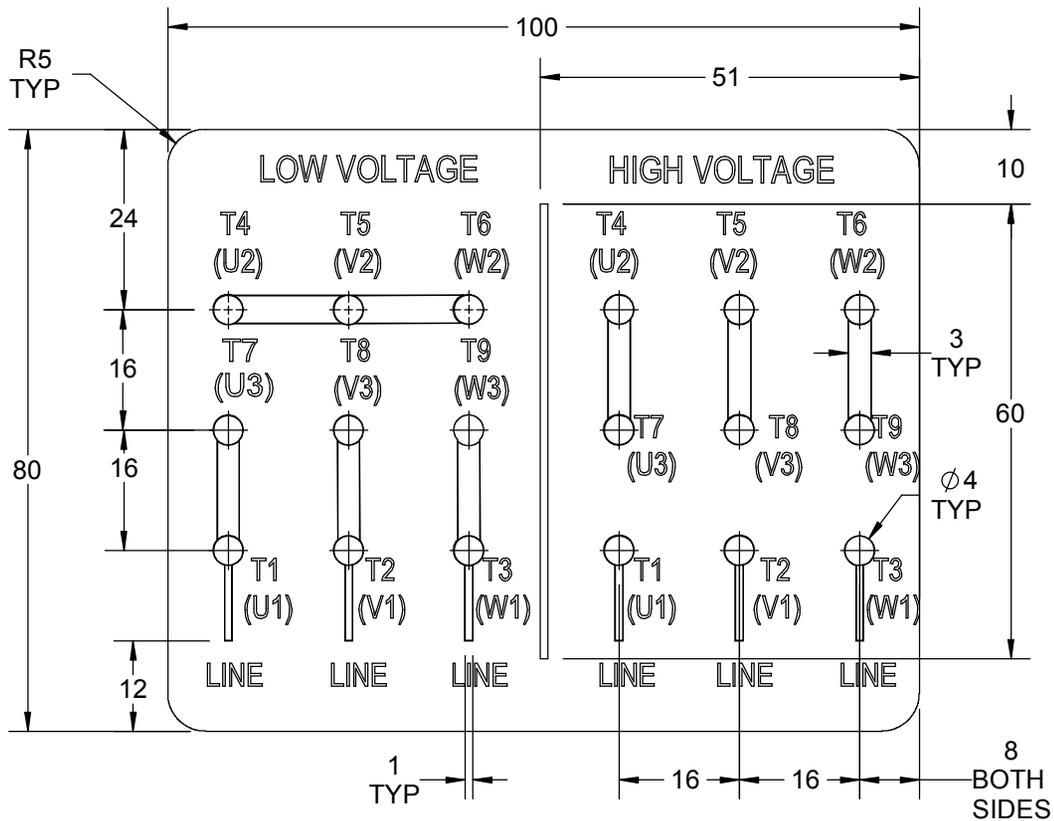


DRAWING REVISION A	REVISION BY NIV	DATE 03/12/2018
ECO ECO-0157171	APPROVED BY JAY	DATE 03/12/2018
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DRAWN BY NIV		
DATE 03/12/2018		
APPROVED BY JAY	DESCRIPTION <b>OUTLINE</b> IEC-100 FR- B3 MOTOR TYPE: TEFC-CAST IRON	
DATE 03/12/2018	MATERIAL	PROCESS/FINISH
REFERENCE	SIZE B	DRAWING NUMBER SS600216
THIRD ANGLE PROJECTION	SHEET 1 OF 1	

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



**NOTES:**

1. PRESSURE-SENSITIVE ADHESIVE TAPE COATED WITH ANTI-ADHESIVE.
2. YELLOW COLOR BACK GROUND LETTERS WILL BE 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.

DRAWING REVISION B	REVISION BY NIV	DATE 05/03/2019		DRAWN BY NIV	Regal Beloit America, Inc.		
ECO ECO-0162986	APPROVED BY JAY	DATE 05/03/2019		DATE 29/01/2019			
ECO DESCRIPTION UPDATED DRAWING				APPROVED BY JAY		DESCRIPTION CONNECTION DIAGRAM 9 LEADS- STAR CONNECTOR	
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				THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER 8442000675	SHEET 1 OF 1



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: 8442000675  
OUTLINE: SS600216  
WINDING: IE3L1006202 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: TCA1P53AE211GAA009  
CAT #: R320B  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
2	1.5	1200	1175	100L	TEFC	TCA 100LA06	K	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	6/3&5.4/2.7	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	88.5	3/4 LD EFF	88.5	1/2 LD EFF	84.9	GTD EFF	ELECT. TYPE
F.L. PF	72.0	3/4 LD PF	63.0	1/2 LD PF	50.0	86.8	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
9.0 LB-FT	22.3	21.6 LB-FT 240%	30.8 LB-FT 342%	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
55 dBA	64 dBA	0.45 LB-FT <sup>2</sup>	0.45 LB-FT <sup>2</sup>	15 SEC.	2	43 KG.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6206	6206						

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
3.829	2.411	7.091	9.218	144.801	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: 11/16/2020	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

TCA1P53AE211GAA009

Date: 5/28/2019  
Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_

Submittal

Submitted by: Fareeda Dudekula

Data @ 460 V

Motor Load Data

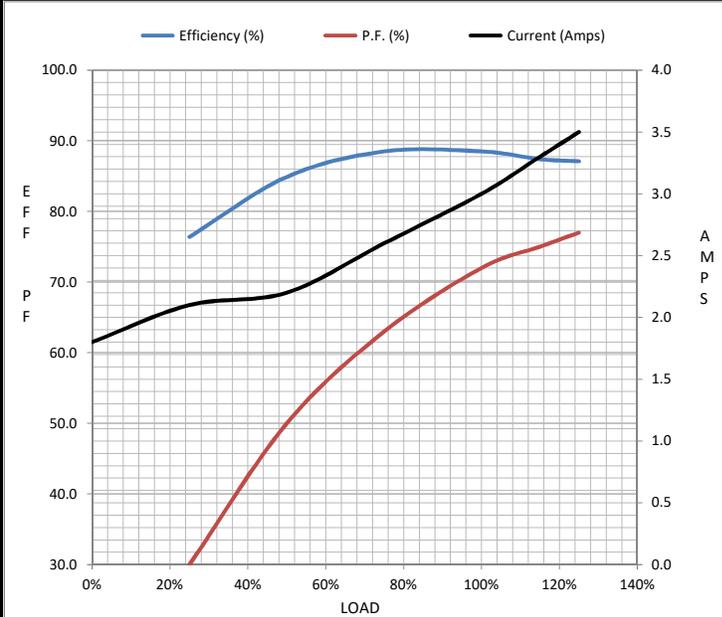
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	1.80	2.10	2.20	2.60	3.0	3.3	3.5	22.3
Torque (ft-lb)	0.00	2.20	4.4	6.7	9.0	10.3	11.3	21.6
RPM	1200	1193	1187	1181	1175	1,169	1166	0
Efficiency (%)		76.4	84.9	88.5	88.5	87.4	87.1	
P.F. (%)	8.0	30.0	50.0	63.0	72.0	75.0	77.0	63.4

Motor Speed Data

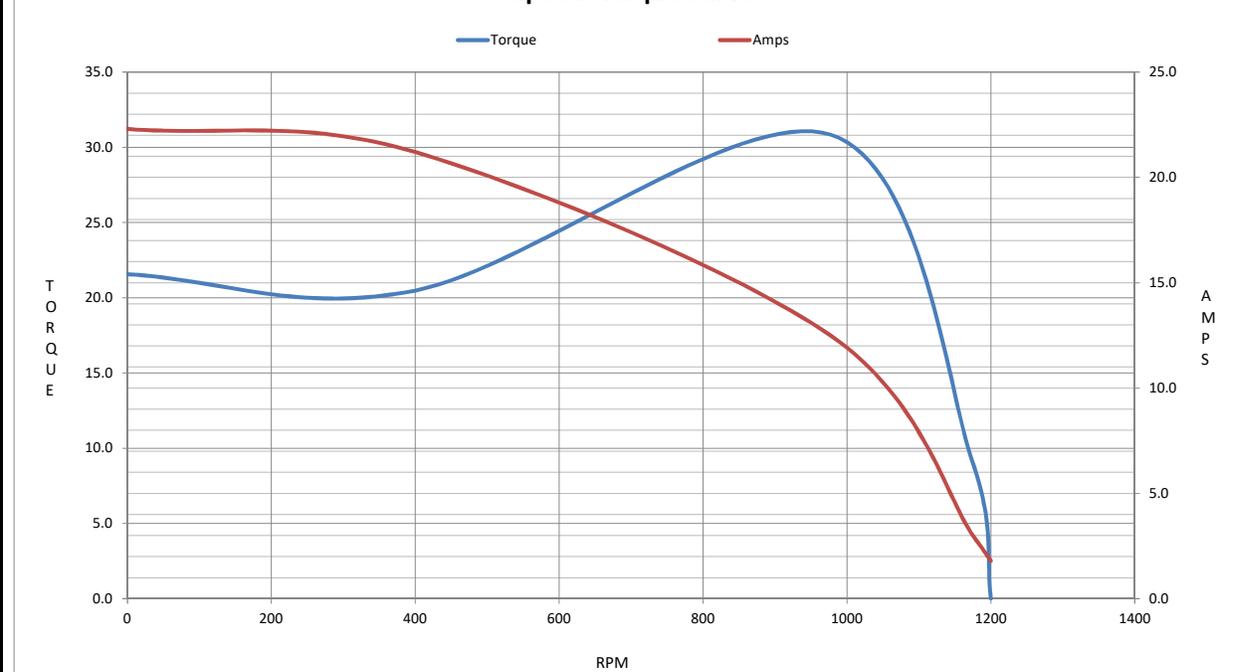
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	977	1175	1200
Current (Amps)	22.3	21.2	12.5	3.0	1.80
Torque (ft-lb)	21.6	20.5	30.8	9.0	0.00

Information Block

HP	2.0			
Sync. RPM	1200			
Frame	100			
Enclosure	TEFC			
Construction	TCA 100L06			
Voltage	230/460#200/400 V			
Frequency	60 Hz			
Design	N			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	0.45 Lb-Ft <sup>2</sup>			
Ref Wdg	IE3L1006202 NONE			
Sound Pressure @ 1M	55 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS600216			
Conn. Diag	8442000675			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
3.8290	2.4110	7.0910	9.2180	144.8010



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 : TCA1P53AE211GAA009

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

Catalog No : R320B

Rework No : N/A

Directives :

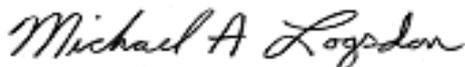
Low Voltage Directive 2014/35/EU

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**