

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: TCA1P53AE221GAA009

Catalog No: R220

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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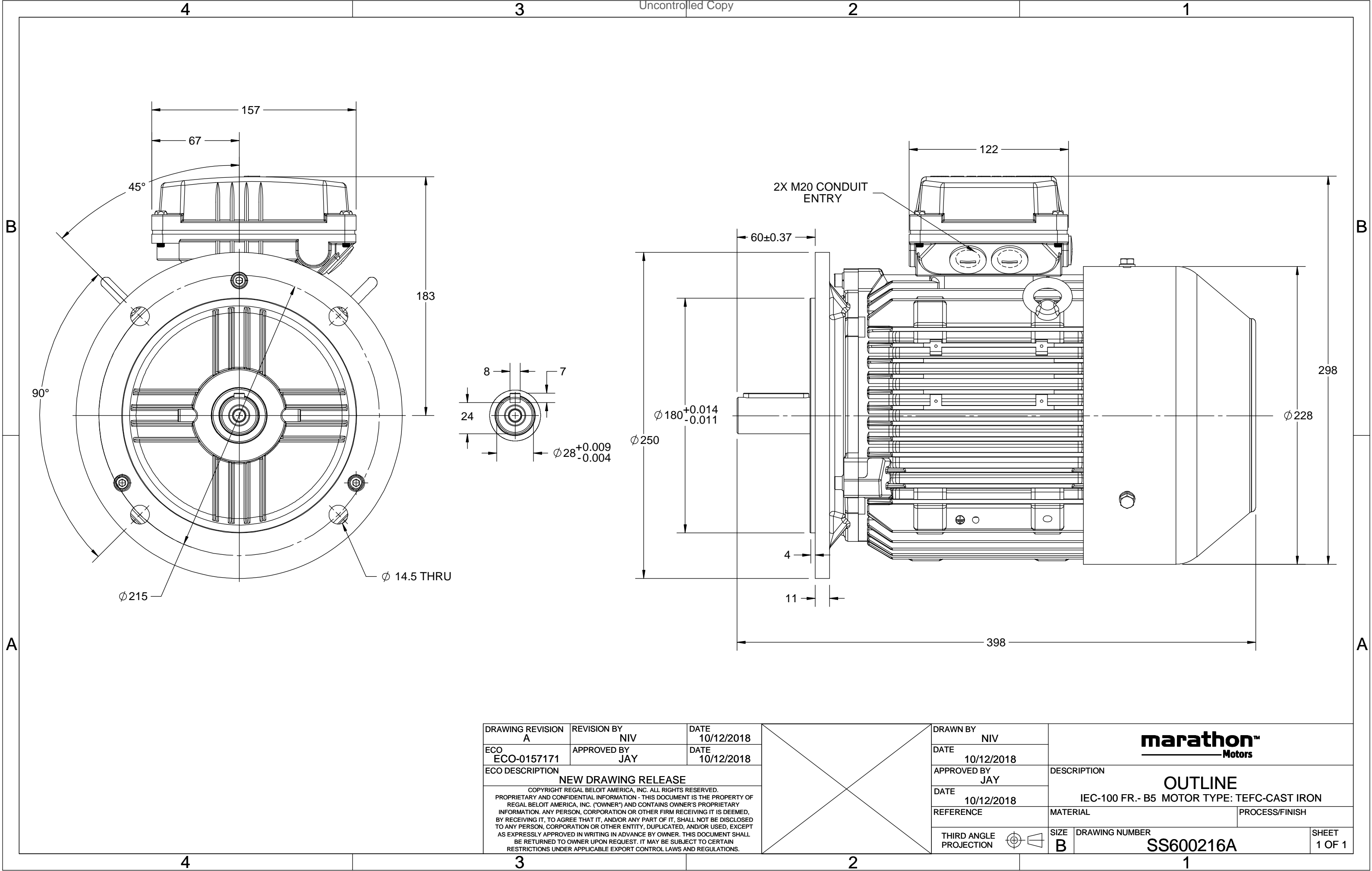
RegalRexnord

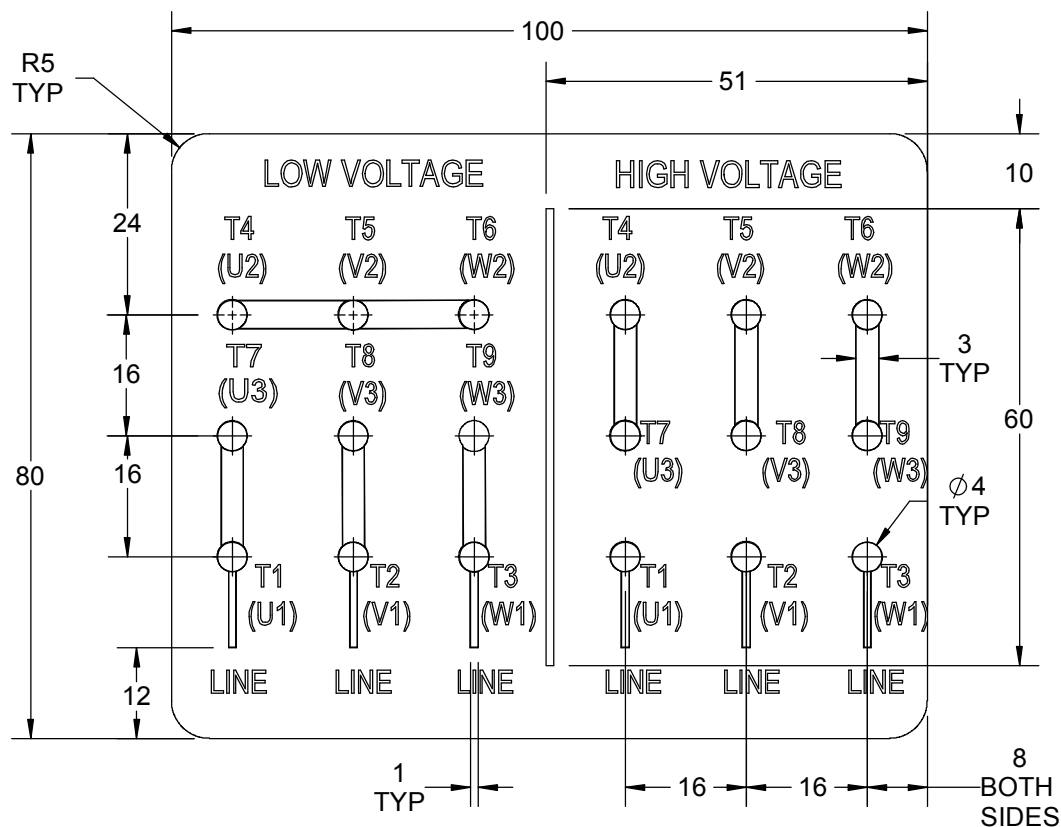
Nameplate Specifications

Phase	3	Output HP	2 & 1.50 Hp
Output KW	1.5 & 1.1 kW	Voltage	230/460 & 200/400 V
Speed	1175 & 980 rpm	Service Factor	1.15 & 1.15
Frame	100L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	88.5 & 81 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	6/3 & 5.4/2.7 A	Power Factor	72
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	K
Drive End Bearing Size	6206	Opp Drive End Bearing Size	6206
UL	Recognized	CSA	N
CE	Y	IP Code	55
Number of Speeds	1	Efficiency Class	IE3



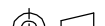
Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	6.5 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	15.67 in
Frame Length	7.87 in	Shaft Diameter	1.102 in
Shaft Extension	2.36 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS600216A	Connection Drawing	8442000675





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								
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							DATE 29/01/2019								
							REFERENCE		MATERIAL		PROCESS/FINISH				
						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: SS600216A
WINDING: IE3L1006202 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA1P53AE221GAA009
CAT #: R220
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	30.8 LB-FT	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
55 dBA	64 dBA	0.45 LB-FT ²	0.45 LB-FT ²	15 SEC.	2	45	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-215	STANDARD	ROUND	HORIZONTAL	NO	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
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

PREPARED BY: _____ DATE: 11/16/2020	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE UL: V - LI,ME-INS,CONST UL REC
FORM: 3531 REV_4 2/27/06	HZ: _____



Data Sheet

TCA1P53AE221GAA009

Date: 5/29/2019

Customer: _____

Attention: _____

Submitted by: Fareeda Dudekula

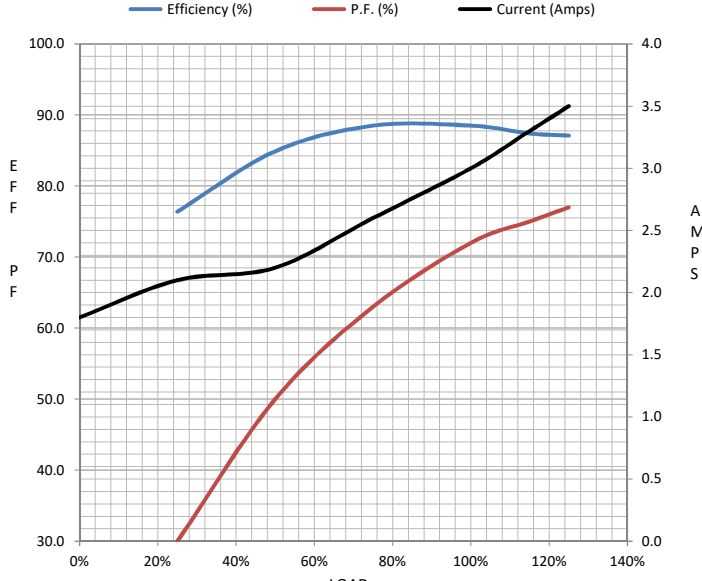
Submittal

Data @ 460 V

Motor Load Data

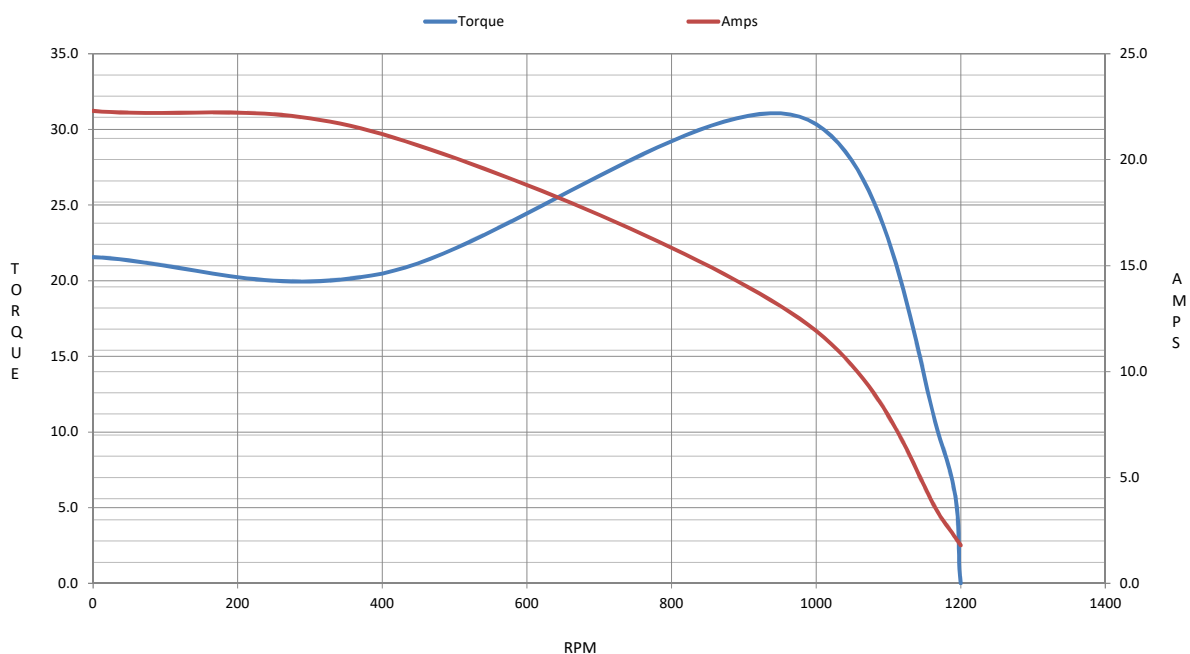
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	1.80	2.10	2.20	2.60	3.0	3.3	3.5	22.3	
Torque (ft-lb)	0.00	2.20	4.4	6.7	9.0	10.3	11.3	21.6	
RPM	1200	1193	1187	1181	1175	1,169	1166	0	
Efficiency (%)		76.4	84.9	88.5	88.5	87.4	87.1		
P.F. (%)	8.0	30.0	50.0	63.0	72.0	75.0	77.0	63.4	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block				
Speed (RPM)	0	400	977	1175	1200	HP		2.0		
Current (Amps)	22.3	21.2	12.5	3.0	1.80	Sync. RPM		1200		
Torque (ft-lb)	21.6	20.5	30.8	9.0	0.00	Frame		100		
<div><div><div>— Efficiency (%)</div><div>— P.F. (%)</div><div>— Current (Amps)</div></div></div> <td colspan="2">Enclosure</td> <td colspan="3">TEFC</td>						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 wk²		0.45 Lb-Ft²		
						Ref Wdg		IE3L1006202 NONE		
						Sound Pressure @ 1M		55 dBA		
						VFD Rating		CONSTANT 2:1/VARIABLE 10:1		
						Outline Dwg		SS600216A		
						Conn. Diag		8442000675		
Additional Specifications:										
0										
EQUIV CKT (OHMS / PHASE)										
R1		R2		X1		X2		Xm		
3.8290		2.4110		7.0910		9.2180		144.8010		

IEC

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 : TCA1P53AE221GAA009

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

Catalog No : R220

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