

PRODUCT INFORMATION PACKET

Model No: TCA7P53AE231GAA009

Catalog No: R832

TerraMAX® 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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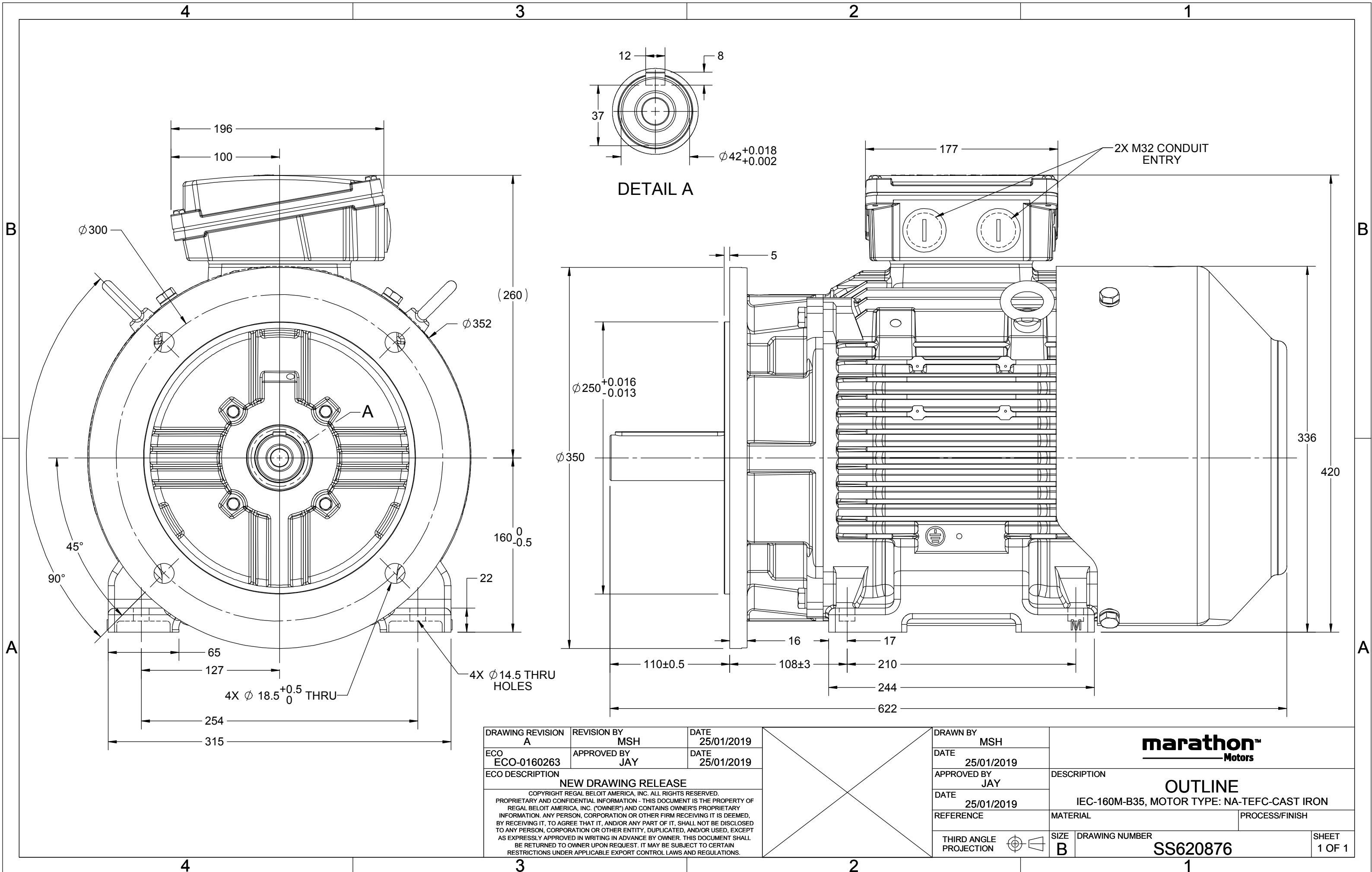
Nameplate Specifications

Phase	3	Output HP	10 & 7.5 Hp
Output KW	7.5 & 5.5 kW	Voltage	230/460 & 200/400 V
Speed	1180 & 985 rpm	Service Factor	1.15 & 1.15
Frame	160M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91 & 88 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	26.4/13.2 & 23.4/11.7 A	Power Factor	78
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	G
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
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	1.19 Ohms	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Shaft Diameter	42.000 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1/VARIABLE 10:1
Outline Drawing	SS620876	Connection Drawing	8442000715

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DRAWING REVISION A	REVISION BY MSH	DATE 25/01/2019
ECO ECO-0160263	APPROVED BY JAY	DATE 25/01/2019
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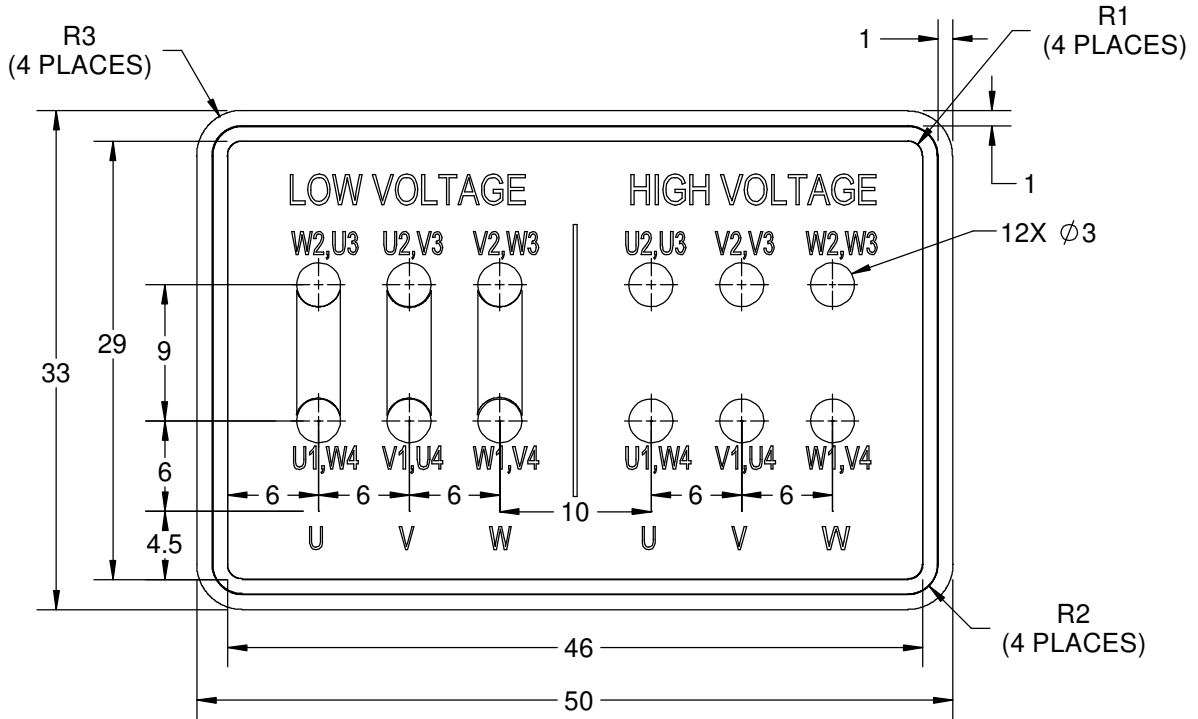
DRAWN BY MSH
DATE 25/01/2019
APPROVED BY JAY
DATE 25/01/2019
REFERENCE
THIRD ANGLE PROJECTION

marathon™ Motors	
OUTLINE	
IEC-160M-B35, MOTOR TYPE: NA-TEFC-CAST IRON	
DESCRIPTION	PROCESS/FINISH
MATERIAL	SIZE B
DRAWING NUMBER SS620876	SHEET 1 OF 1

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

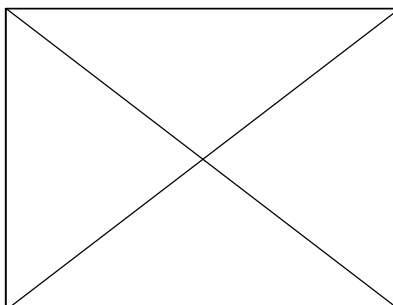
GEOMETRIC TOLERANCE		
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3





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 S.MUDDA	DATE 16/11/2020	 Regal Beloit America, Inc.		
	APPROVED BY SUMANTA		DESCRIPTION CONN DIAGRAM-NAMEPLATE	
	DATE 16/11/2020	MATERIAL	PROCESS/FINISH	
	REFERENCE	SIZE A	DRAWING NUMBER 8442000715	SHEET 1 OF 1
	THIRD ANGLE PROJECTION 			



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 8442000677
OUTLINE: SS620876
WINDING: IE3L1606201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA7P53AE231GAA009
CAT #: R632
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
10	7.5	1200	1180	160M	TEFC	TCA 160MA06	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	26.4/13.2&23.4/11.7	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.0	3/4 LD EFF	91.0	1/2 LD EFF	90.0	GTD EFF	ELECT. TYPE
F.L. PF	78.0	3/4 LD PF	72.0	1/2 LD PF	61.0	89.7	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
44.5 LB-FT	77.8	94.1 LB-FT 211%	114 LB-FT 256%	80

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
56 dBA	65 dBA	3.2 LB-FT ²	3.2 LB-FT ²	15 SEC.	2	150 KG.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAIN
FF-FLANGE-300	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						
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
0.709	0.369	1.872	2.553	41.867	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
	FT-LB: NA
	VOLTAGE: NONE
	HZ: _____
FORM: 3531 REV_4 2/27/06	UL: V - LI,ME-INS,CONST UL REC





Data Sheet

Date: 4/9/2020 TCA7P53AE231GAA009

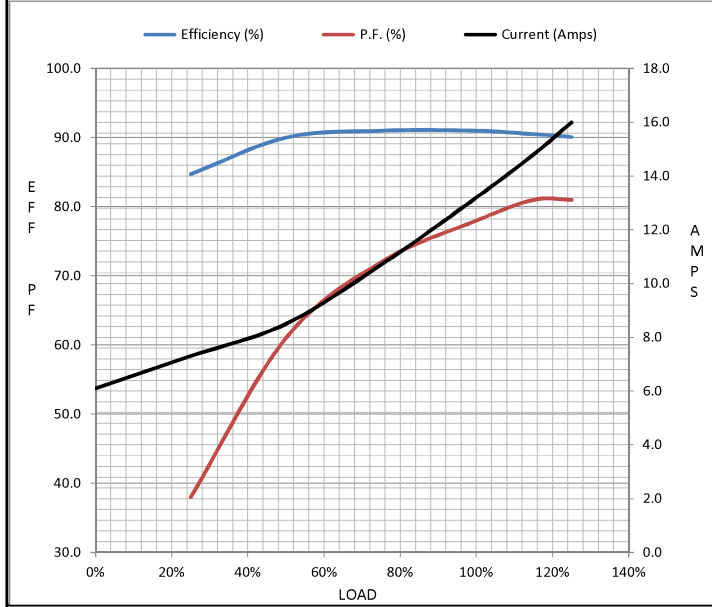
Customer: _____

Attention: _____ **Submittal**

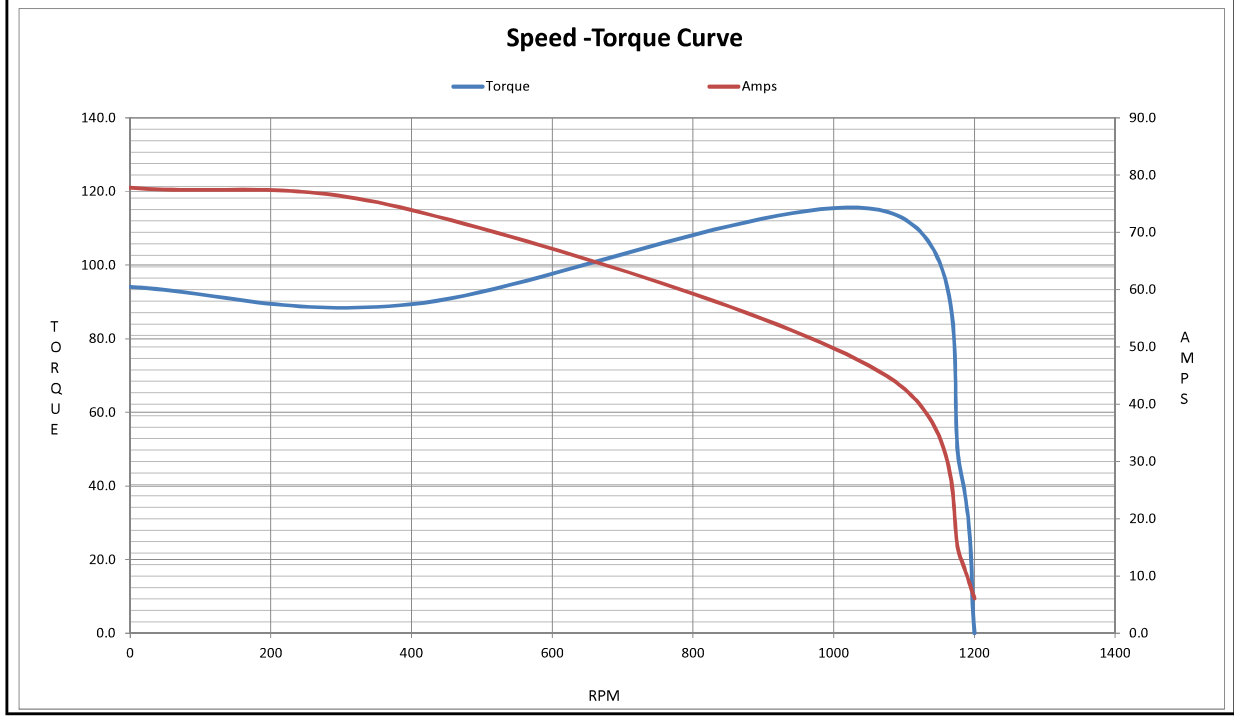
Submitted by: _____ Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	6.1	7.3	8.5	10.7	13.2	14.8	16.0	77.8	
Torque (ft-lb)	0.00	11.0	22.1	33.2	44.5	51.4	55.9	94.1	
RPM	1200	1195	1191	1186	1180	1,177	1174	0	
Efficiency (%)		84.7	90.0	91.0	91.0	90.5	90.1		
P.F. (%)	6.0	38.0	61.0	72.0	78.0	81.0	81.0	63.4	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	400	1077	1180	1200	HP	10.0
Current (Amps)	77.8	73.9	44.8	13.2	6.1	Sync. RPM	1200
Torque (ft-lb)	94.1	89.4	114	44.5	0.00	Frame	160
						Enclosure	TEFC
						Construction	TCA 160M06
						Voltage	230/460#200/400 V
						Frequency	60 Hz
						Design	N
						LR Code letter	G
						Service Factor	1.15
						Temp Rise @ FL	80 °C
						Duty	CONT
						Ambient	40 °C
						Elevation	3,300 feet
						Rotor/Shaft wk ²	3.2 Lb-Ft ²
						Ref Wdg	IE3L1606201 NONE
						Sound Pressure @ 1M	68 dBA
						VFD Rating	CONSTANT 2:1/VARIABLE 10:1
						Outline Dwg	SS620876
						Conn. Diag	8442000677
Additional Specifications:							
0							
0							
EQUIV CKT (OHMS / PHASE)							
	R1	R2	X1	X2	Xm		
	0.7090	0.3690	1.8720	2.5530	41.8670		



HP		10.0			
Sync. RPM		1200			
Frame		160			
Enclosure		TEFC			
Construction		TCA 160M06			
Voltage		230/460#200/400 V			
Frequency		60 Hz			
Design		N			
LR Code letter		G			
Service Factor		1.15			
Temp Rise @ FL		80 °C			
Duty		CONT			
Ambient		40 °C			
Elevation		3,300 feet			
Rotor/Shaft wk ²		3.2 Lb-Ft ²			
Ref Wdg		IE3L1606201 NONE			
Sound Pressure @ 1M		68 dBA			
VFD Rating		CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg		SS620876			
Conn. Diag		8442000677			
Additional Specifications:					
0					
0					
EQUIV CKT (OHMS / PHASE)					
	R1	R2	X1	X2	Xm
	0.7090	0.3690	1.8720	2.5530	41.8670



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 : TCA7P53AE231GAA009

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

Catalog No : R832

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