

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: TCA0453AE231GAA009

Catalog No: R856

TerraMAX® Cast Iron Motor, 60 & 50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM,  
280S Frame, TEFC



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**RegalRexnord**

### Nameplate Specifications

Phase	3	Output HP	60 & 50 Hp
Output KW	45.0 & 37.0 kW	Voltage	230/460 & 200/400 V
Speed	1190 & 990 rpm	Service Factor	1.15 & 1.15
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.5 & 93.3 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	146/73 & 142/71 A	Power Factor	82
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	H
Drive End Bearing Size	6317	Opp Drive End Bearing Size	6317
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	.08 Ohms	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Shaft Diameter	75.000 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1/VARIABLE 10:1
Outline Drawing	SS620887	Connection Drawing	8442000715

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DRAWING REVISION  
**A**  
 ECO  
 ECO-0194685  
 ECO DESCRIPTION

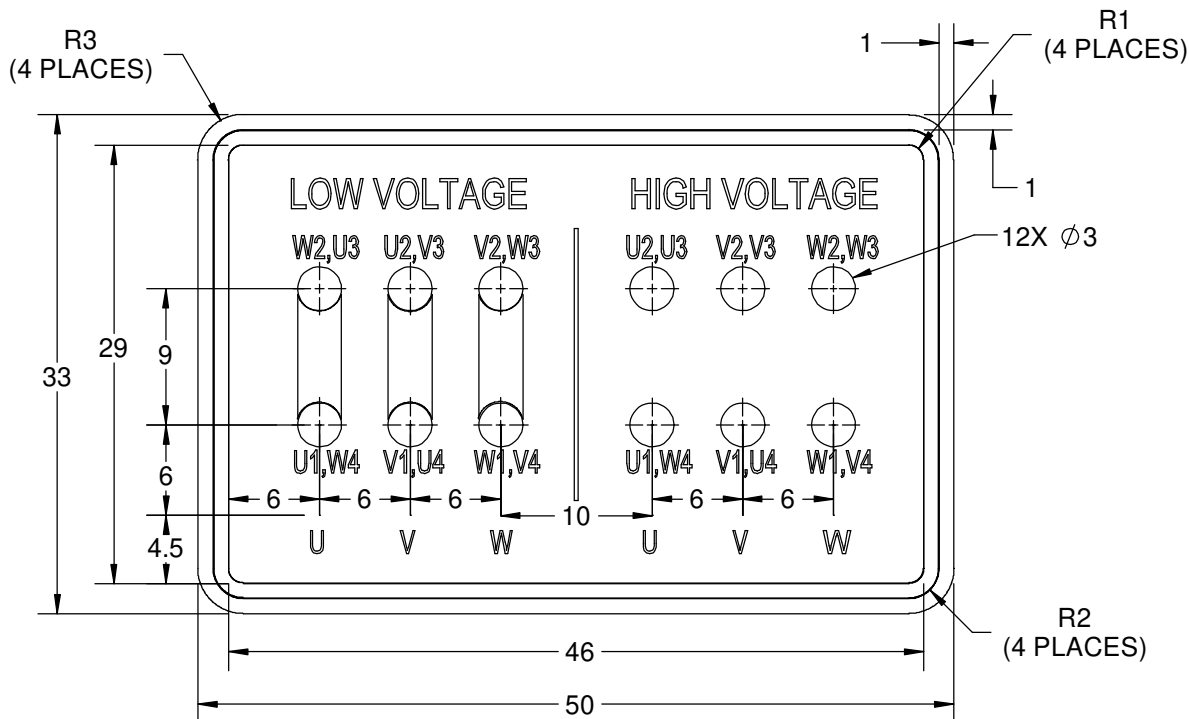
REVISION BY  
**S.MUDDA**  
 APPROVED BY  
**SUMANTA**

DATE  
**16/11/2020**  
 DATE  
**16/11/2020**

NEW DRAWING

GEOMETRIC TOLERANCE

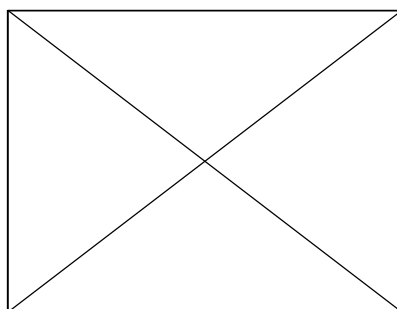
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



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**  
 APPROVED BY  
**SUMANTA**  
 DATE  
**16/11/2020**  
 REFERENCE

THIRD ANGLE  
 PROJECTION



Regal Beloit America, Inc.

DESCRIPTION

**CONN DIAGRAM-NAMEPLATE**

MATERIAL

PROCESS/FINISH

SIZE  
**A**

DRAWING NUMBER

**8442000715**

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: 8442000677  
OUTLINE: SS620887  
WINDING: IE3L2806201 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: TCA0453AE231GAA009  
CAT #: R856  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

### TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
60	45	1200	1190	280S	TEFC	TCA 280SA06	H	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	146/73&142/71	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	94.5	3/4 LD EFF	94.5	1/2 LD EFF	92.4	GTD EFF	ELECT. TYPE
F.L. PF	82.0	3/4 LD PF	77.0	1/2 LD PF	68.0	93.7	SQ CAGE INV RATED

F.L. TORQUE		LR AMPS @ 460 V		L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)			
265	LB-FT	483		494	LB-FT	186%	702	LB-FT	265%	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
68 dBA	77 dBA		53.2 LB-FT <sup>2</sup>	53.2 LB-FT <sup>2</sup>	15 SEC.	2	658	KG.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-500	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL
DE ODE							
BALL BALL	SG S5-V100	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)		CAST IRON
6314 6314							

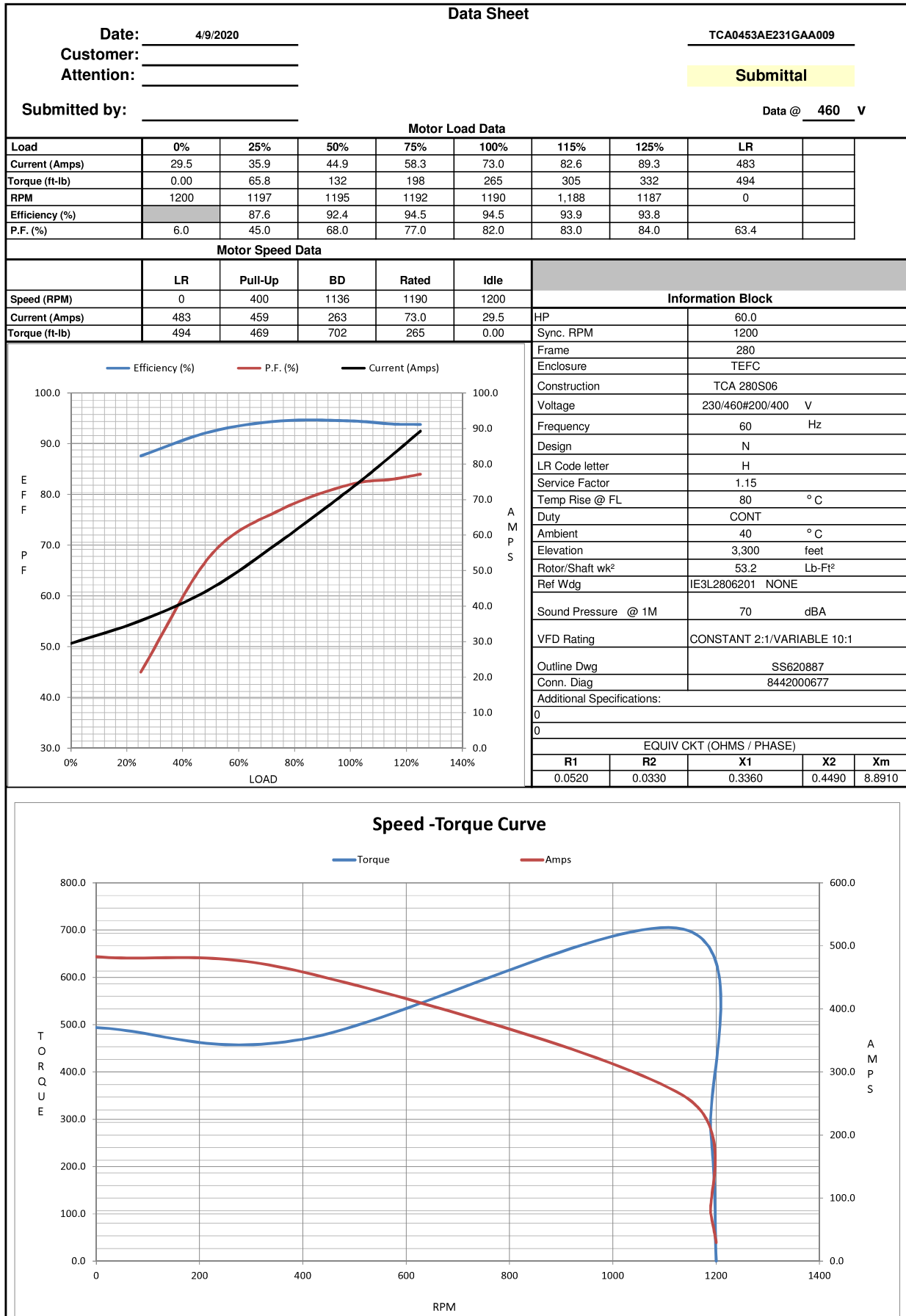
THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE	HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE		NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.052	0.033	0.336	0.449	8.891	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: _____	BRAKE: NONE	
DATE: 11/27/2020	NONE	NONE
	FT-LB: NA	
	VOLTAGE: NONE	HZ:
FORM: 3531 REV_4 2/27/06	UL: V - LI,ME-INS,CONST UL REC	

REGAL®



## 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 : TCA0453AE231GAA009

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

Catalog No : R856

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**