

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: TCA1P13AE211GAA009

Catalog No: R317A

1.1 kW General Purpose Low Voltage IEC Motor, 3 phase, 1200 RPM, 230/460 V, 100L Frame, TEFC  
Cast Iron IE3 Efficiency Motors



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**REGAL**



### Nameplate Specifications

Output HP	1.50 Hp	Output KW	1.1 kW
Frequency	60 Hz	Voltage	230/460 V
Current	4.4/2.2 A	Speed	1175 rpm
Service Factor	1.15	Phase	3
Efficiency	87.5 %	Power Factor	72
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	K
Frame	100L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6206	Opp Drive End Bearing Size	6206
UL	Recognized	CSA	N
CE	Y	IP Code	55

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	9.64 Ohms	Mounting	B3
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

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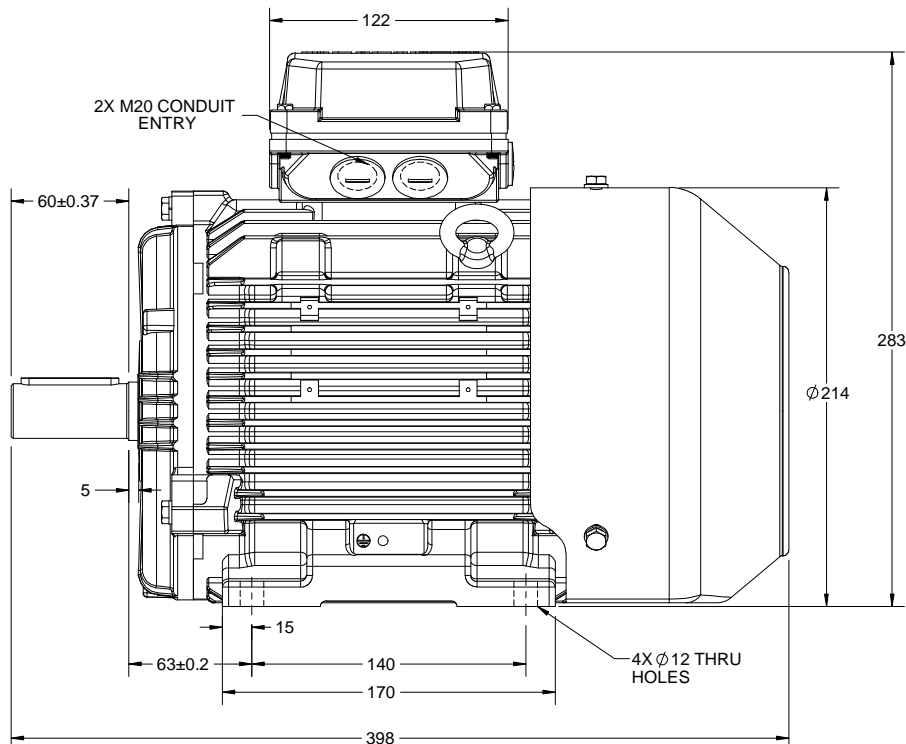
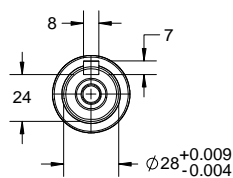
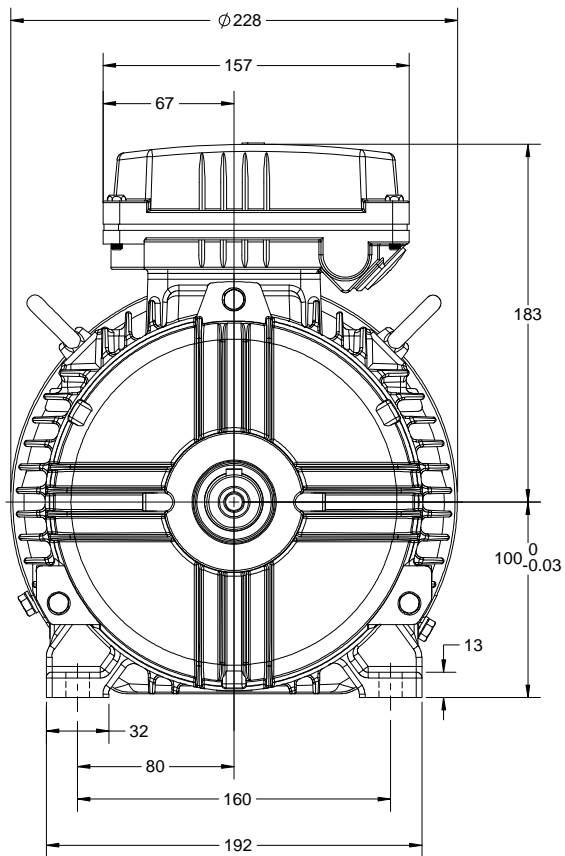
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DRAWING REVISION A	REVISION BY NIV	DATE 03/12/2018
ECO ECO-0157171	APPROVED BY JAY	DATE 03/12/2018
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY NIV
DATE 03/12/2018
APPROVED BY JAY
DATE 03/12/2018
REFERENCE

**marathon**  
Motors

DESCRIPTION  
**OUTLINE**  
IEC-100 FR- B3 MOTOR TYPE: TEFC-CAST IRON

THIRD ANGLE  
PROJECTION

SIZE  
B

DRAWING NUMBER  
SS600216

PROCESS/FINISH

SHEET  
1 OF 1

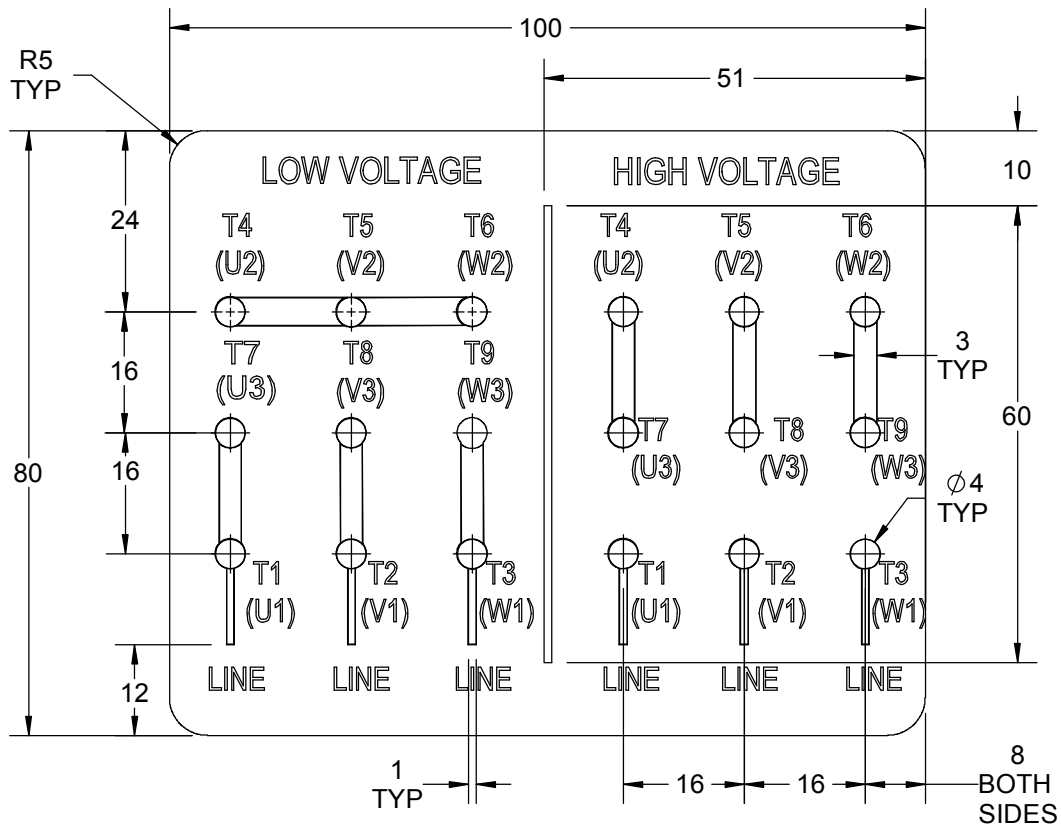
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GENERAL TOLERANCE		
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



**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>B</b>	REVISION BY <b>NIV</b>	DATE <b>05/03/2019</b>		DRAWN BY <b>NIV</b>	<b>Regal Beloit America, Inc.</b>
ECO <b>ECO-0162986</b>	APPROVED BY <b>JAY</b>	DATE <b>05/03/2019</b>		DATE <b>29/01/2019</b>	
ECO DESCRIPTION <b>UPDATED DRAWING</b>				APPROVED BY <b>JAY</b>	DESCRIPTION <b>CONNECTION DIAGRAM</b> 9 LEADS- STAR CONNECTOR
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			REFERENCE	SIZE <b>A</b>	DRAWING NUMBER <b>8442000675</b>

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

DATA VOLTS: 480

**CERTIFICATION DATA SHEET**

<b>CUSTOMER:</b>		<b>CUSTOMER P.O. #:</b>	
<b>ORDER #:</b>	8442000675	<b>REFERENCE MODEL #:</b>	TCA1P13AE211GAA009
<b>CONN. DIAGRAM:</b>	SS60216	<b>CAT #:</b>	R317B
<b>OUTLINE:</b>	IE3L1006201	<b>CUSTOMER PART #:</b>	
<b>WINDING:</b>	NONE	<b>MOUNTING:</b>	F3
<b>SPEED:</b>	1		

**TYPICAL MOTOR PERFORMANCE DATA**

<b>HP</b>	<b>KW</b>	<b>SYNC RPM</b>	<b>FL RPM</b>	<b>FRAME</b>	<b>ENCLOSURE</b>	<b>TYPE</b>	<b>KVA CODE</b>	<b>DESIGN</b>	
1.5	1.1	1200	1175	100L	TEFC	TCA 100LA06	K	N	
<b>PH</b>	<b>HZ</b>	<b>VOLTS</b>	<b>AMPS</b>	<b>START TYPE</b>	<b>DUTY</b>	<b>INSL</b>	<b>S.F.</b>	<b>AMB</b>	<b>ELEV.</b>
3	60/50	230/460#200/400	4.4/2.2&8.4/4.2	LINE OR INVERTER	CONT	F	1.15	40	3300
<b>F.L. EFF</b>		87.5	<b>3/4 LD EFF</b>	87.5	<b>1/2 LD EFF</b>	83.5	<b>GTD EFF</b>	<b>ELECT. TYPE</b>	
<b>F.L. PF</b>		72.0	<b>3/4 LD PF</b>	63.0	<b>1/2 LD PF</b>	51.0	85.6	SQ CAGE INV RATED	
<b>F.L. TORQUE</b>		<b>LR AMPS @ 460 V</b>		<b>L.R. TORQUE</b>		<b>B.D. TORQUE</b>		<b>F.L. RISE (°C)</b>	
6.7	<b>LB-FT</b>	15.6	14.1	<b>LB-FT</b>	210%	22.4	<b>LB-FT</b>	334%	80
<b>@ 3 FT.</b>		<b>POWER</b>	<b>ROTOR WK²</b>	<b>MAX. LOAD WK²</b>	<b>SAFE STALL TIME</b>	<b>STARTS/HOUR</b>	<b>MOTOR WGT</b>		
55	<b>DBA</b>	64	0.38	<b>LB-FT²</b>	0.38	<b>LB-FT²</b>	15	<b>SEC.</b>	2

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

<b>DE BRACKET TYPE</b>	<b>ODE BRACKET TYPE</b>	<b>MOUNT TYPE</b>	<b>MOTOR ORIENTATION</b>	<b>SEVERE DUTY</b>	<b>HAZARDOUS LOCATION</b>	<b>DRIP COVER</b>	<b>SCREENS</b>	<b>PAINT</b>
STANDARD	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE - RAL 5014
<b>BEARINGS</b>	<b>GREASE</b>	<b>SHAFT TYPE</b>	<b>SPECIAL DE</b>	<b>SPECIAL ODE</b>	<b>SHAFT MATERIAL</b>	<b>FRAME MATERIAL</b>		
DE BALL 6206	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON		

<b>THERMOSTATS</b>	<b>PROTECTORS</b>	<b>WDG RTD's</b>	<b>BRG RTD's</b>	<b>THERMISTORS</b>	<b>CONTROL</b>	<b>SPACE HEATERS</b>
NONE	NOT	NONE	NONE	NONE	FALSE	NA
<b>R1 (ohms/ph)</b>	<b>R2 (ohms/ph)</b>	<b>X1 (ohms/ph)</b>	<b>X2 (ohms/ph)</b>	<b>Xm (ohms/ph)</b>	<b>VIBRATION (in/sec)</b>	<b>FLOAT</b>
5.673	3.215	9.644	12.102	190.042	0.060	ODE

<b>* N O T E S *</b>	
	INVERTER TORQUE: CONSTANT 2.1/VARIABLE 10:1
	INV. HP SPEED RANGE: NONE
	ENCODER: NONE
	NONE
	NONE
	BRAKE: NONE
	NONE
	FT-LB: NA
	NONE
	VOLTAGE: NONE
	NONE
	UL: V - LI-ME-INS CONST UL REC
	NONE
	PPH

**PREPARED BY:** Fareeda Dudekula  
**DATE:** 5/28/2019

FORM: 3531 REV. 4 2/27/06

Data Sheet

Date: 5/28/2019

TCA1P19AE21GA009

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

**Submital**

Submitted by: Fareeda Dudekula

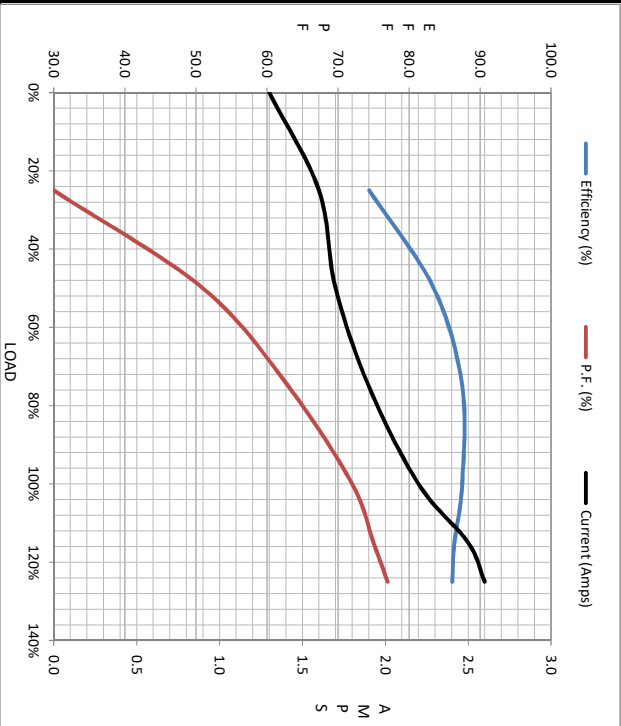
Data @ 460 V

Load	Motor Load Data						LR	
	0%	25%	50%	75%	100%	115%		125%
Current (Amps)	1.30	1.60	1.70	1.90	2.20	2.50	2.60	15.6
Torque (ft-lb)	0.00	1.60	3.3	5.0	6.7	7.8	8.4	14.1
RPM	1200	1193	1187	1180	1175	1169	1165	0
Efficiency (%)		74.4	83.5	87.5	87.5	86.4	86.1	
P.F. (%)	9.0	30.0	51.0	63.0	72.0	75.0	77.0	0.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	990	1175	1200
Current (Amps)	15.6	14.8	8.9	2.20	1.30
Torque (ft-lb)	14.1	13.4	22.4	6.7	0.00

IEC



Information Block				
HP	1.5			
Sync. RPM	1200			
Frame	100			
Enclosure	TEFC			
Construction	TCA 100L0A06			
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>	0.38 Lb-Ft <sup>2</sup>			
Ref Wdg	IE3L1006201 NONE			
Sound Pressure @ 1M	55 dBA			
VFD Rating	CONSTANT 2:1-VARIABLE 10:1			
Outline Dwg	SS600216			
Conn. Diag	844200675			
Additional Specifications:				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
5.6730	3.2190	9.6440	12.1020	190.0420

Speed - Torque Curve

