

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 215TPNSB10235  
Catalog No: SY009A  
10,1800,TENV,215TC,3/60/230/460  
SyMAX - Permanent Magnet AC Motors



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**REGAL**<sup>®</sup>

**Nameplate Specifications**

Output HP	<b>10 Hp</b>	Output KW	<b>7.5 kW</b>
Frequency	<b>90 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>24.6/12.3 A</b>	Speed	<b>1800 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>93.9 %</b>	Duty	<b>Continuous</b>
Insulation Class	<b>H</b>	Design Code	<b>No Design Code</b>
KVA Code	<b>NO KVA CODE</b>	Frame	<b>215TC</b>
Enclosure	<b>Totally Enclosed Non Ventilated</b>	Overload Protector	<b>No</b>
Ambient Temperature	<b>40 °C</b>	Drive End Bearing Size	<b>6309</b>
Opp Drive End Bearing Size	<b>6208</b>	UL	<b>Recognized</b>
CSA	<b>N</b>	CE	<b>N</b>
IP Code	<b>54</b>		

**Technical Specifications**

Electrical Type	<b>AC Permanent Magnet</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Mounting	<b>Rigid Base</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>T</b>
Overall Length	<b>20.41 in</b>	Frame Length	<b>9.12 in</b>
Shaft Diameter	<b>1.3 in</b>	Shaft Extension	<b>3.12 in</b>
Assembly/Box Mounting	<b>F1 Only</b>		
Outline Drawing	<b>037797-912</b>	Connection Diagram	<b>EE7308T</b>

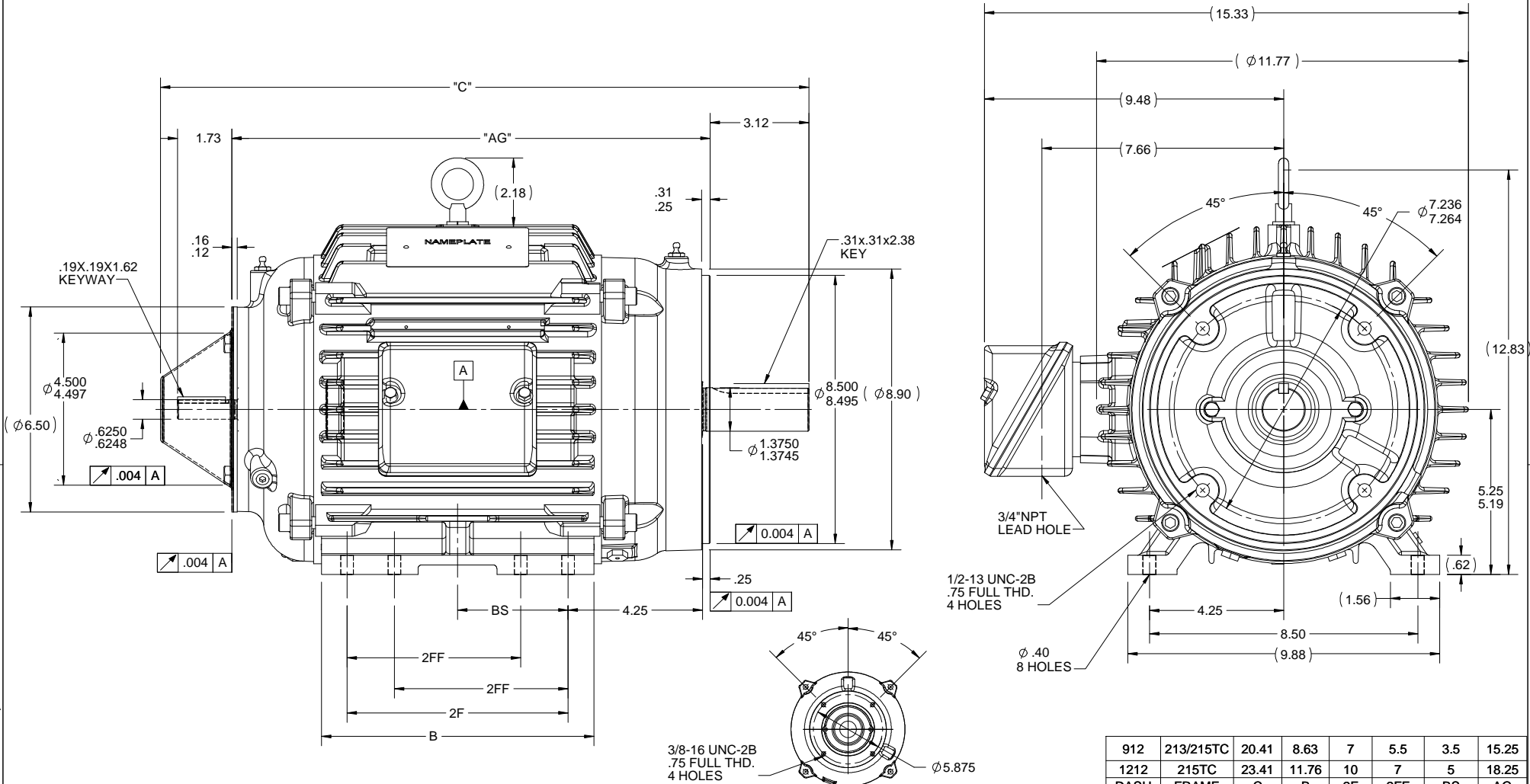
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B

B

A

A



- NOTES:**
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
  2. CONDUIT BOX CAN BE MOUNTED IN OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180° (NOT FIELD MODIFIABLE ON PMAC MOTORS.)
  3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DRAWING REVISION <b>C</b>	REVISION BY <b>NK</b>	DATE <b>7/31/2018</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>PST</b>
ECO <b>ECO-0149805</b>	APPROVED BY <b>SR</b>	DATE <b>7/31/2018</b>	DEC. INCH mm ANGLE -X ±0.1 [+2.5] ±7-30° .XX ±0.02 [+0.51] .XXX ±0.005 [+0.127] .XXXX ±0.0005 [+0.0127]	DATE <b>04/22/15</b>
ECO DESCRIPTION <b>GD&amp;T ADDED</b>			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51]	APPROVED BY <b>SR</b>
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REFERENCE <b>037724</b>	THIRD ANGLE PROJECTION
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912	213/215TC	20.41	8.63	7	5.5	3.5	15.25
1212	215TC	23.41	11.76	10	7	5	18.25
DASH	FRAME	C	B	2F	2FF	BS	AG

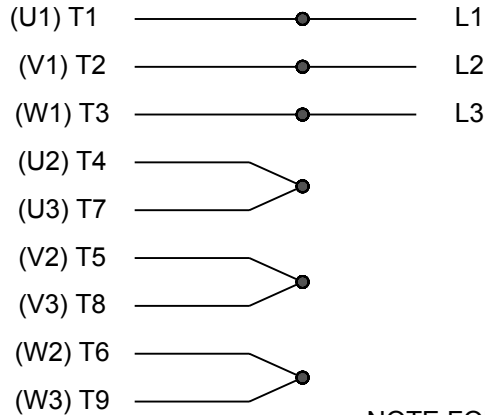
**REGAL**™ Regal Beloit America, Inc.

**OUTLINE**  
210 FR. TENV-8.5" & 4.5" C-FACE

MATERIAL: \_\_\_\_\_ PROCESS/FINISH: \_\_\_\_\_

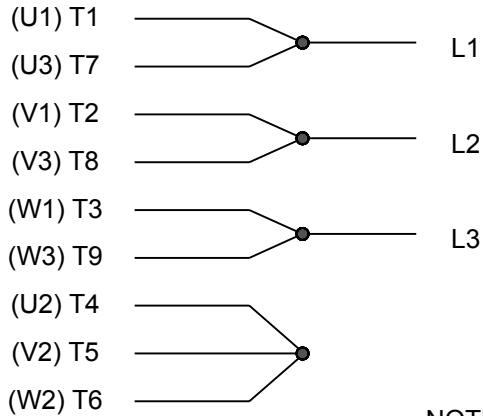
SIZE **B** DRAWING NUMBER **037797** SHEET **1 OF 1**

## HIGH VOLTAGE



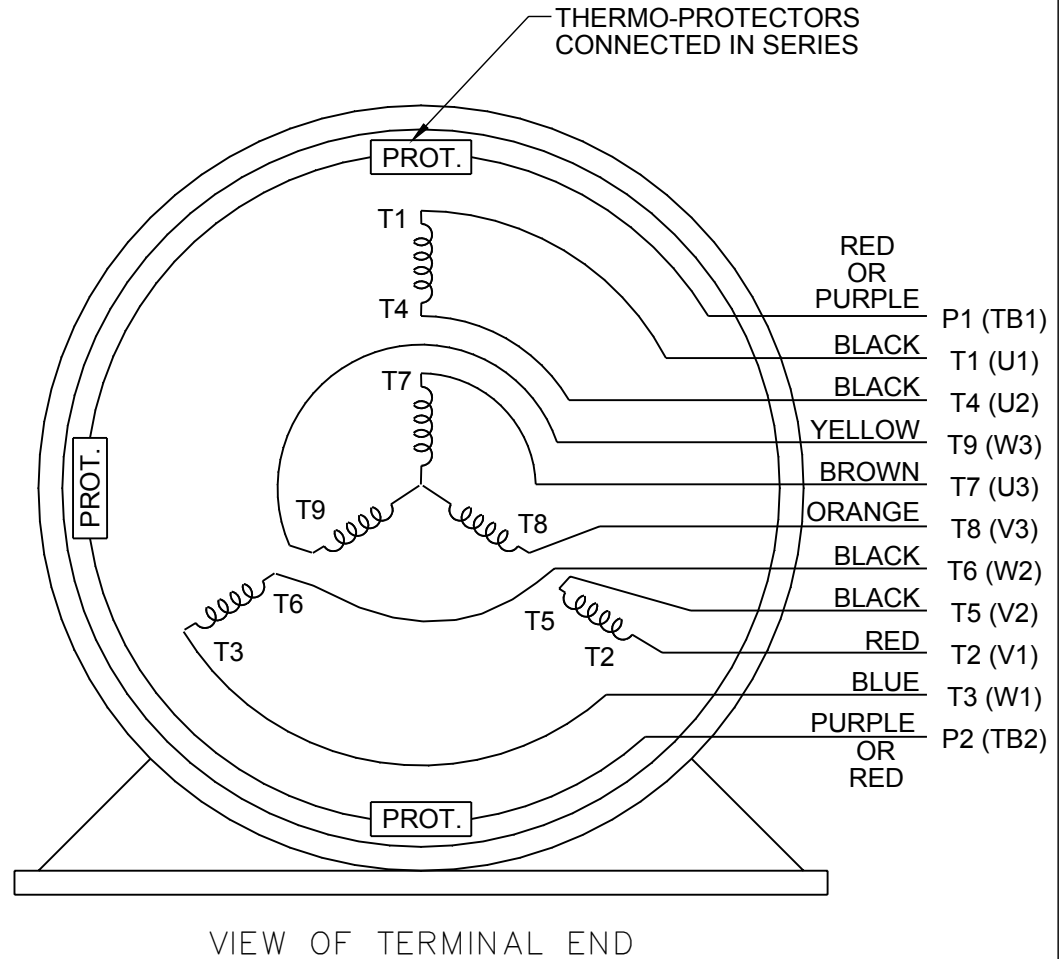
**NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1**

## LOW VOLTAGE



**NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT**

## THREE PHASE DUAL VOLTAGE MOTOR



DRAWING REVISION <b>R</b>	REVISION BY <b>AJW</b>	DATE <b>07-17-2015</b>		DRAWN BY <b>SMC</b>	<b>Regal Beloit America, Inc.</b>
ECO <b>ECO-0081632</b>	APPROVED BY <b>T. VUE</b>	DATE <b>07-17-2015</b>		DATE <b>05-13-1992</b>	
ECO DESCRIPTION <b>REV'D IEC NOTATIONS PER IEC 60034-8</b>				APPROVED BY <b>TB</b>	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b>
<small>COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.                  PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF                  REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY                  INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED,                  BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED                  TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT                  AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL                  BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN                  RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>				DATE <b>05-13-1992</b>	<b>3 PHASE - DUAL VOLTAGE MOTOR</b>
			REFERENCE <b>EE7308/EE7300</b>	MATERIAL	PROCESS/FINISH
			THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7308T</b>

## CERTIFICATION DATA SHEET

**Model#:** 215TPNSB10235 A **WINDING#:** PM21506026 NONE 1  
**CONN. DIAGRAM:** EE7308T **ASSEMBLY:** F1 ONLY  
**OUTLINE:** 037797-912

## TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
10	7.5	1800	1800	215TC	TENV	NO KVA CODE	PM

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	90	230/460	24.6/12.3	INVERTER ONLY	CONTINUOUS	H4	1.0	40	3300

FULL LOAD EFF: 93.9	3/4 LOAD EFF: -	1/2 LOAD EFF: -	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 83.5	3/4 LOAD PF: -	1/2 LOAD PF: -	93.6	AC PERMANENT MAGNET	1.2 / .6

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
29,178 LB-FT	/	- LB-FT -	- LB-FT -	68

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
62 dBA	72 dBA	0.74 LB-FT^2	0 LB-FT^2	0 SEC.	0	999 LBS.

## EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0	0.42	11.8	20.4	219
RM	ZREF	XR	TD	TD0
0	1	0	0	0

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	ENCODER	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLACK (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6309	6208						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS 140(N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 20:1
INV. HP SPEED RANGE: 1.2 X BASE SPEED
ENCODER: PROVISIONS ONLY
DYNAPAR HS35
NONE NONE PPR
BRAKE: NONE NONE

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N  
O  
T  
E  
S  
\*

NONE	P/N	NONE	
NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

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