

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 213TTGND16001  
Catalog No: C305B  
7 1/2,3600,EPFC,213TC,3/60/230/460  
Explosion Proof



Regal and Marathon are trademarks of Regal Beloit Corporation or one of its affiliated companies.  
©2018 Regal Beloit Corporation, All Rights Reserved. MC017097E

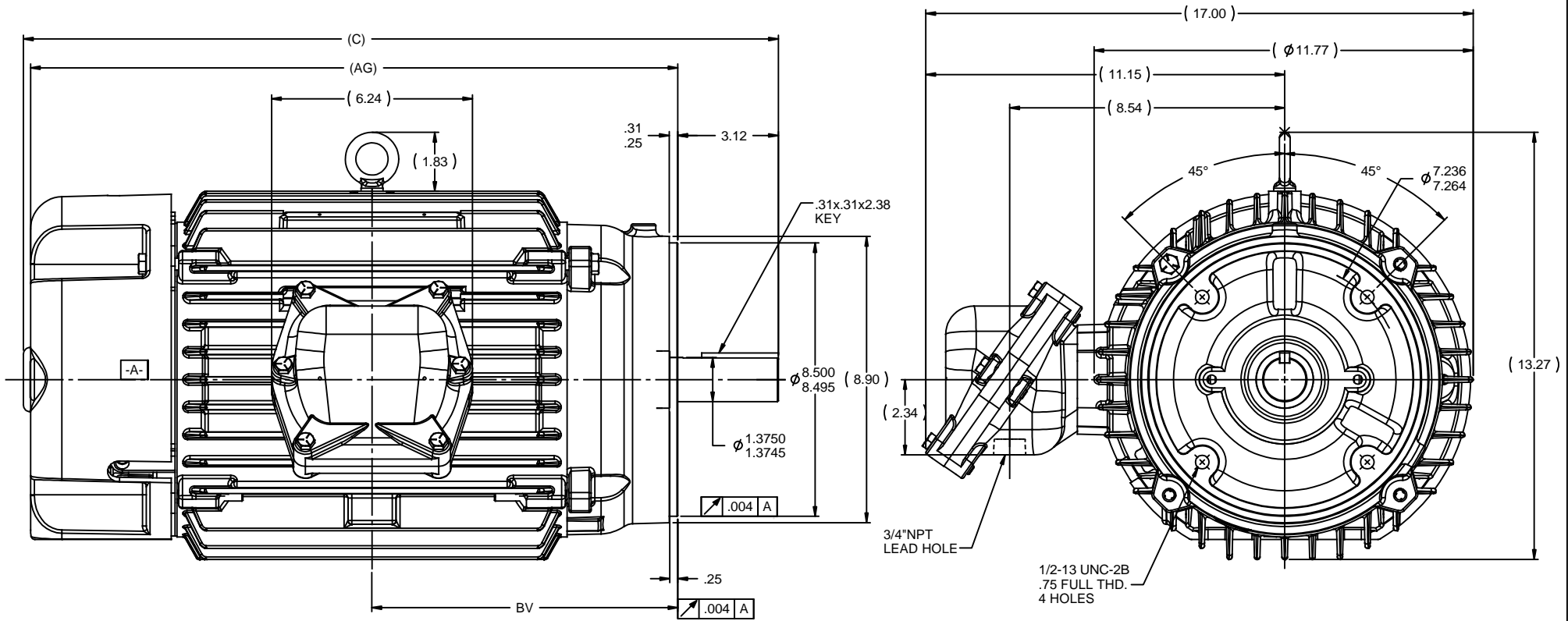
**REGAL**<sup>®</sup>

### Nameplate Specifications

Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	230/460 V
Current	18.2/9.1 A	Speed	3525 rpm
Service Factor	1	Phase	3
Efficiency	89.5 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	H	Frame	213TC
Enclosure	Explosion Proof Fan cooled	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6309
Opp Drive End Bearing Size	6208	UL	No
CSA	N	CE	N
IP Code	54		

### Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Mounting	Round	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	T
Overall Length	23.45 in	Frame Length	12.12 in
Shaft Diameter	1.375 in	Shaft Extension	3.12 in
Assembly/Box Mounting	F1 Only		
Outline Drawing	037703-1212	Connection Diagram	EE7308T



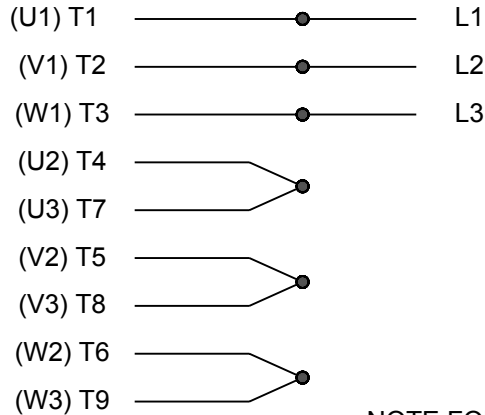
NOTES:

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°. THIS MODIFICATION CAN BE PERFORMED ONLY BY THE ORIGINAL EQUIPMENT MANUFACTURER, OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATORIES INC. CATEGORY PTKQ, TITLED "MOTOR AND GENERATORS, REBUILT FOR USE IN HAZARDOUS LOCATION".
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

1212	213/215	23.45	20.11	9.5
912	213/215	20.45	17.11	8
DASH	FRAME	C	AG	BV

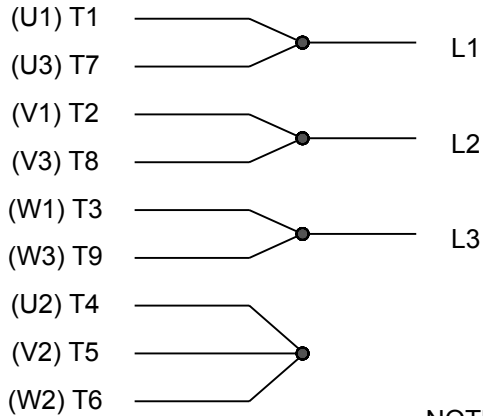
		TOLERANCES UNLESS SPECIFIED			DRAWN PN 9/2/2010
		DEC	INCHES		CHK AK 9/2/2010
		X	±.1		APPR
		XX	±.02		SCALE 1:8
		XXX	±.005	TITLE OUTLINE	REF 037660
		XXXX	±.0005	210 FR. - EPFC - C'FACE	FMF
				MATL	PREV
NO	REVISION	BY & DATE	CHK ANG ±7'30"	FINISH	
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED. THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT				RFP	
				CAD FILE 037703	SIZE B
				DIST LB - MT2	DRAWING NO 037703
					REV

## HIGH VOLTAGE



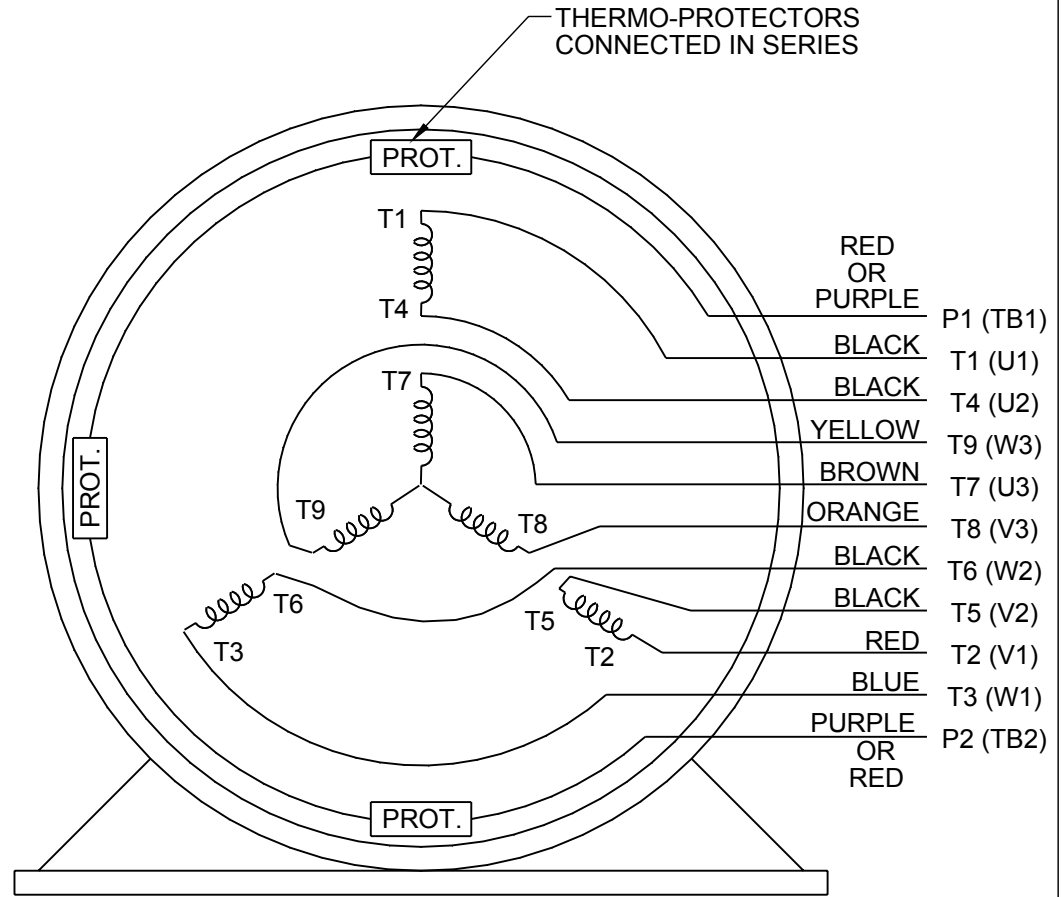
**NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1**

## LOW VOLTAGE



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

## THREE PHASE DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

DRAWING REVISION <b>R</b>	REVISION BY <b>AJW</b>	DATE <b>07-17-2015</b>		DRAWN BY <b>SMC</b>	Regal Beloit America, Inc.
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#:** 213TTGND16001 AA      **WINDING#:** K2132125 NONE 2  
**CONN. DIAGRAM:** EE7308T      **ASSEMBLY:** F1 ONLY  
**OUTLINE:** 037703-1212

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
7 1/2&5	5.60&3.70	3600	3525&2935	213TC	EPFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	18.2/9.1&15.4/ 7.7	LINE OR INVERTER	CONTINUOU S	B3	1.0/1.0	40	3300

FULL LOAD EFF: 89.5&88	3/4 LOAD EFF: 89.6	1/2 LOAD EFF: 88.2	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86.2&78	3/4 LOAD PF: 81.6	1/2 LOAD PF: 77	87.5	SQ CAGE INV RATED	7.2 / 3.6

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
11.2 LB-FT	110 / 55	20.6 LB-FT 184	30.8 LB-FT 275	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	0.45 LB-FT^2	12 LB-FT^2	15 SEC.	2	150 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
C-FACE	STANDARD	ROUND	HORIZONTAL	TRUE	EXP PROOF CL I GR D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

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

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

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: NONE
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

\*  
N  
O  
T  
E  
S  
\*

\*\* Subject to change without notice.

Date: 6/20/2017

213TTGND16001

Customer:  
Attention:

FAREEDA DUDEKULA



Submital  
Data @ 460 V

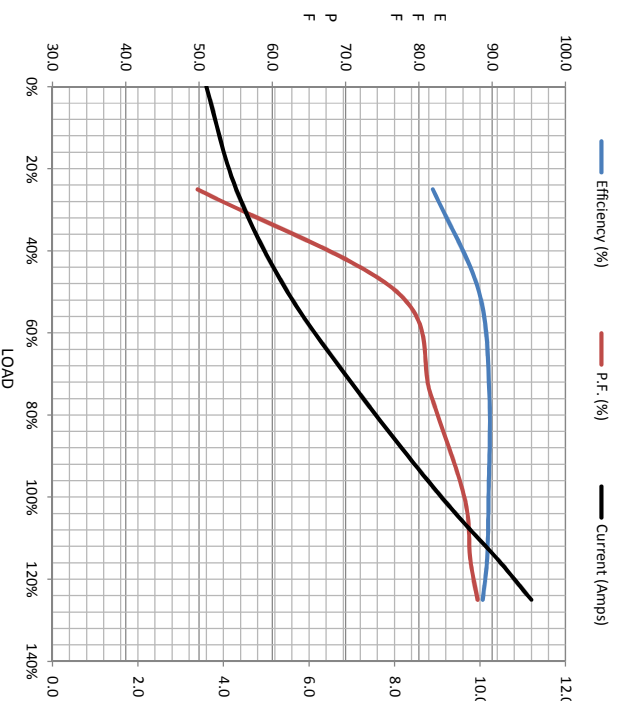
Load	Motor Load Data							
	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	3.6	4.3	5.5	7.2	9.1	10.4	11.2	55.0
Torque (ft-lb)	0.00	2.70	5.5	8.3	11.2	12.9	14.1	20.6
RPM	3600	3580	3563	3544	3525	3515	3500	0
P.F. (%)	9.5	81.9	88.2	89.6	89.5	89.3	88.7	
		49.8	77.0	81.6	86.2	87.0	88.0	48.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (rpm)	0	630	3043	3525	3600
Current (Amps)	55.0	54.9	35.6	9.1	3.6
Torque (ft-lb)	20.6	19.4	30.8	11.2	0.00

Information Block

HP	7.5			
Sync. RPM	3600			
Frame	213			
Enclosure	TEFC			
Construction	TEN			
Voltage	30/460#190/38V			
Frequency	60 Hz			
Design	B			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	50 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>e</sup>	0.45 Lb-Fe			
Rel Wdg	K2132125 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	037703-1212			
Conn. Diag	EE7308T			
Additional Specifications:				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.0850	0.9530	2.7870	1.5810	67.0510



Speed -Torque Curve

