

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 213TTGND6540

Catalog No: U991B

Hazardous Duty® Explosion Proof Motor, 7.50 & 5 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1800 & 1500 RPM, 213T Frame, EPFC



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RegalRexnord

### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>7.50 &amp; 5 Hp</b>
Output KW	<b>5.6 &amp; 3.7 kW</b>	Voltage	<b>230/460 &amp; 190/380 V</b>
Speed	<b>1765 &amp; 1475 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>213T</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Thermostat</b>	Efficiency	<b>91.7 &amp; 91 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>19.2/9.6 &amp; 17.4/8.7 A</b>	Power Factor	<b>79.2</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>H</b>
Drive End Bearing Size	<b>6307</b>	Opp Drive End Bearing Size	<b>6208</b>
UL	<b>UL Listed; also, UL Certified for Canada</b>	CSA	<b>N</b>
CE	<b>N</b>	IP Code	<b>54</b>
Number of Speeds	<b>1</b>	Hazardous Location	<b>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B</b>

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>1.18 Ohms</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>19.63 in</b>
Frame Length	<b>9.12 in</b>	Shaft Diameter	<b>1.375 in</b>
Shaft Extension	<b>3.38 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 10:1</b>		
Connection Drawing	<b>A-EE7308T</b>	Outline Drawing	<b>037660-912</b>

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4

3

2

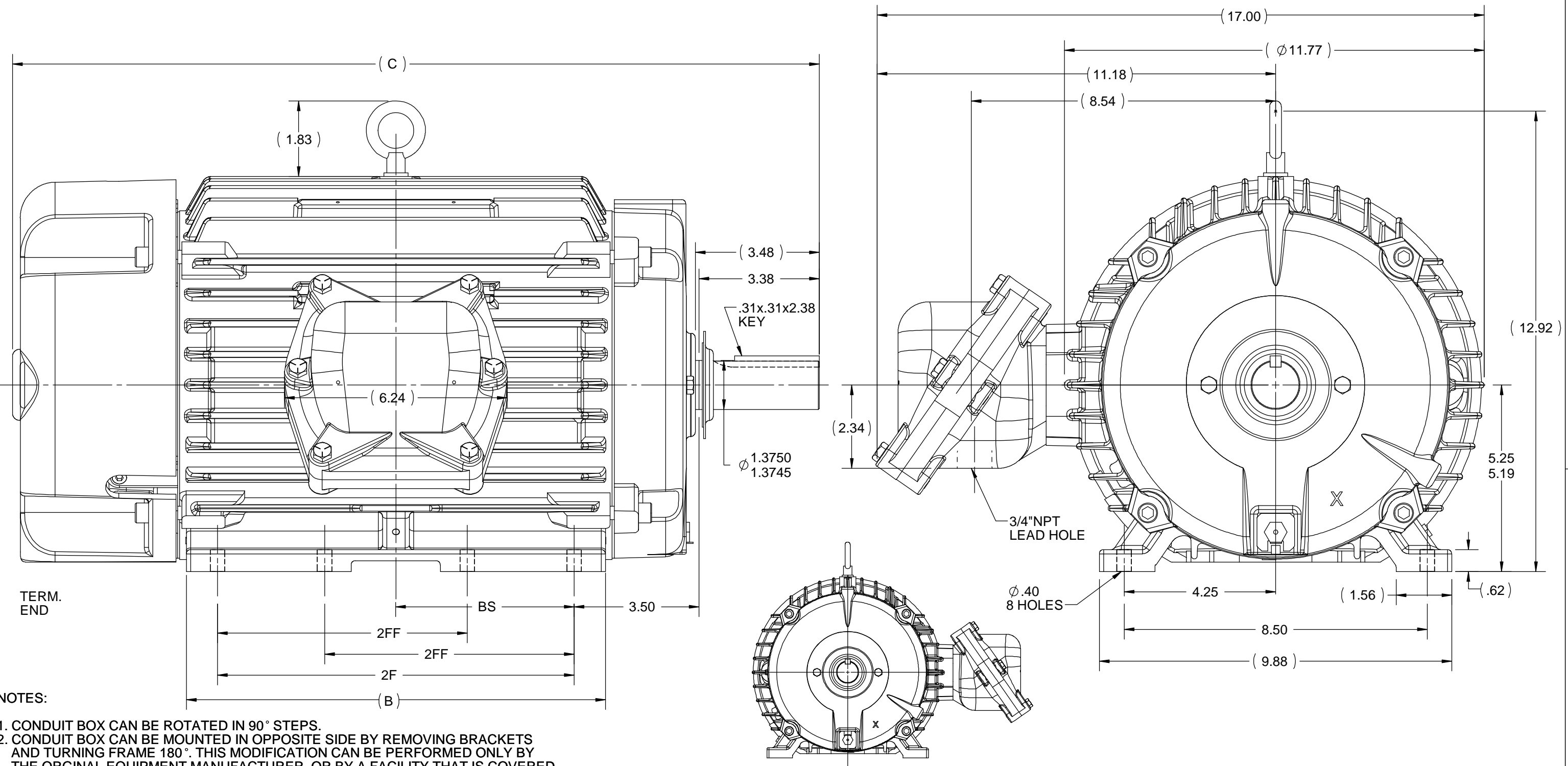
1

B

B

A

A



TERM.  
END

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	215	22.63	11.76	10	7	5
912	213/215	19.63	8.63	7	5.5	3.5
DASH	FRAME	C	B	2F	2FF	BS

DRAWING REVISION G	REVISION BY MVG	DATE 02/08/2019
ECO ECO-0139404	APPROVED BY SR	DATE 02/08/2019
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH/mm 5.1 mm SHOWN IN [BRACKETS]			

DRAWN BY AK 10/28/2009	DATE
APPROVED BY	DATE
REFERENCE SS84370	THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 210 FR. - EPFC	PROCESS/FINISH
MATERIAL	SIZE B
DRAWING NUMBER <b>037660</b>	SHEET 1 OF 1

**HIGH VOLTAGE**



**THREE PHASE  
DUAL VOLTAGE MOTOR**

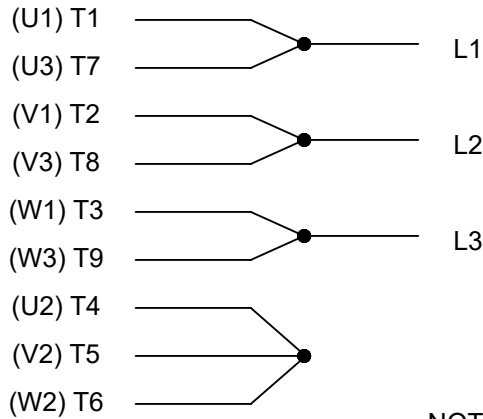
THERMO-PROTECTORS  
CONNECTED IN SERIES



- RED OR PURPLE P1 (TB1)
- BLACK T1 (U1)
- BLACK T4 (U2)
- YELLOW T9 (W3)
- BROWN T7 (U3)
- ORANGE T8 (V3)
- BLACK T6 (W2)
- BLACK T5 (V2)
- RED T2 (V1)
- BLUE T3 (W1)
- PURPLE OR RED P2 (TB2)

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**



**VIEW OF TERMINAL END**

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

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION ADDED TERMINAL CONNECTION DIAGRAM				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	THIRD ANGLE PROJECTION	SIZE A



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_ CUSTOMER P.O. #: \_\_\_\_\_  
 ORDER #: \_\_\_\_\_ REFERENCE MODEL #: 213TTGND6540  
 CONN. DIAGRAM: A-EE7308T CAT #: U991B  
 OUTLINE: TBD CUSTOMER PART #: \_\_\_\_\_  
 WINDING: K2134279 NONE 2 MOUNTING: F1 ONLY  
 SPEED: \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
7.5	5.6	1800	1765	213T	TEFC	TFN	H	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#190/380	19.2/9.6&17.4/8.7	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	92.2	1/2 LD EFF	91.6	GTD EFF	91.0	ELECT. TYPE	SQ CAGE INV RATED
F.L. PF	79.2	3/4 LD PF	72.9	1/2 LD PF	61.1				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
22.3 LB-FT	67.5	52.9 LB-FT 237%	75.0 LB-FT 336%	50

@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
62 dBA	71 dBA	0.85 LB-FT <sup>2</sup>	45 LB-FT <sup>2</sup>	25 SEC.	2	140 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	TRUE	DF CL I GR C&D CL II GR	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6307	6208						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.76	1.108	2.458	3.173	50.414	0.150	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 10:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE	
	NONE NONE PPR	

PREPARED BY: FAREEDA DUDEKULA	BRAKE: NONE
DATE: 9/12/2018	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:
FORM: 3531 REV_4 2/27/06	UL: NONE-OVER HEAT PROT DEVICE

Data Sheet

213TTGND6540

Date: 12/4/2018  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

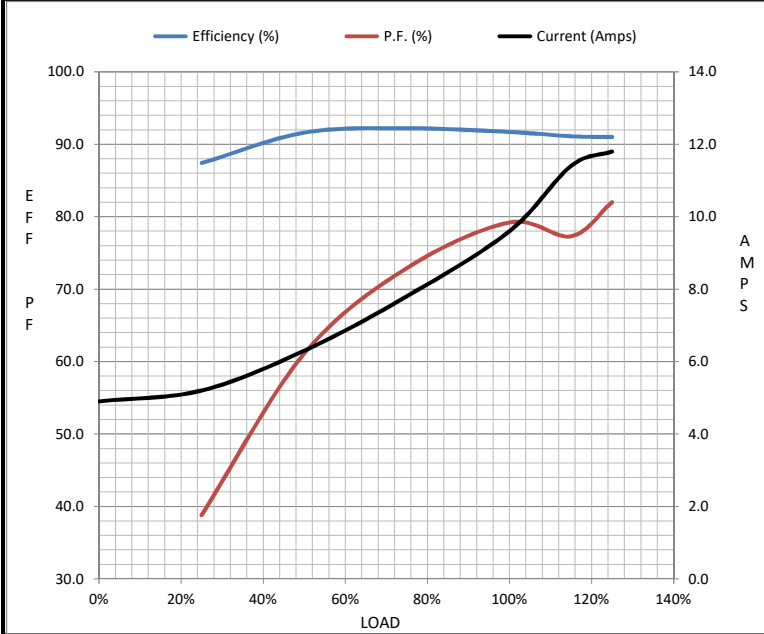
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	4.9	5.2	6.3	7.8	9.6	11.4	11.8	67.5
Torque (ft-lb)	0.00	5.5	11.0	16.6	22.3	25.5	28.0	52.9
RPM	1800	1792	1784	1775	1765	1,765	1756	0
Efficiency (%)		87.4	91.6	92.2	91.7	91.1	91.0	
P.F. (%)	4.7	38.8	61.1	72.9	79.2	77.3	82.0	42.6

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1600	1765	1800
Current (Amps)	67.5	57.0	41.0	9.6	4.9
Torque (ft-lb)	52.9	49.0	75.0	22.3	0.00

Information Block

HP	7.5			
Sync. RPM	1800			
Frame	213			
Enclosure	EPFC			
Construction	TGS			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	A			
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>2</sup>	0.85 Lb-Ft <sup>2</sup>			
Ref Wdg	K2134279 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	TBD			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.7600	1.1080	2.4580	3.1730	50.4140



Speed - Torque Curve

