

# PRODUCT INFORMATION PACKET

**marathon**<sup>®</sup>  
Motors

Model No: 284TSTGN6503  
Catalog No: E546  
25,3600,EPFC,284TS,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>



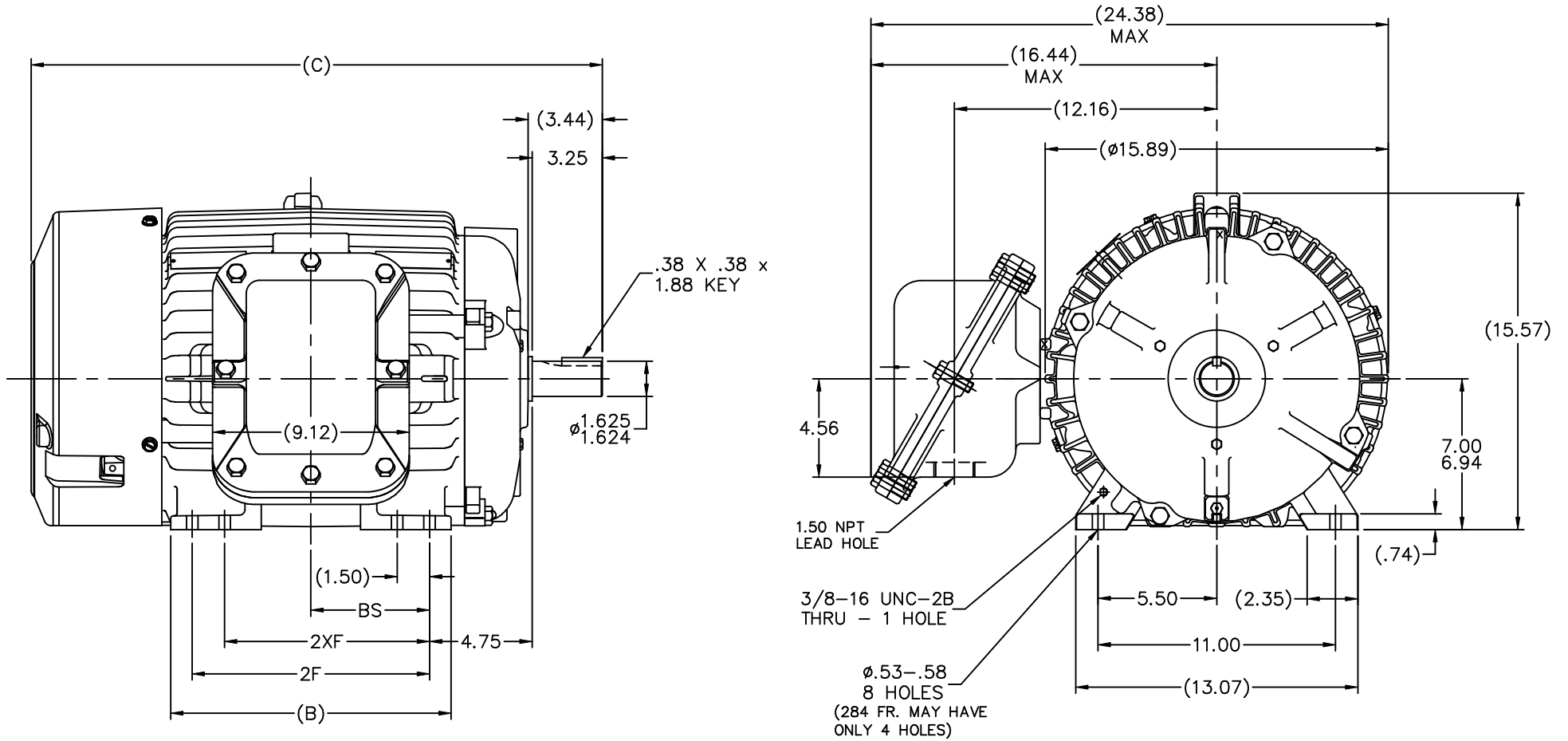
### Nameplate Specifications

Output HP	<b>25 Hp</b>	Output KW	<b>18.7 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>230/460 V</b>
Current	<b>57.5/28.8 A</b>	Speed	<b>3558 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>93 %</b>	Duty	<b>Continuous</b>
Insulation Class	<b>F</b>	Design Code	<b>B</b>
KVA Code	<b>G</b>	Frame	<b>284TS</b>
Enclosure	<b>Explosion Proof Fan cooled</b>	Overload Protector	<b>No</b>
Ambient Temperature	<b>40 °C</b>	Drive End Bearing Size	<b>6311</b>
Opp Drive End Bearing Size	<b>6210</b>	UL	<b>No</b>
CSA	<b>N</b>	CE	<b>N</b>
IP Code	<b>54</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>2</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>TS</b>
Overall Length	<b>24.97 in</b>	Frame Length	<b>12.75 in</b>
Shaft Diameter	<b>1.625 in</b>	Shaft Extension	<b>3.44 in</b>
Assembly/Box Mounting	<b>F1 Only</b>		
Outline Drawing	<b>B-SS311004-1275</b>	Connection Diagram	<b>A-EE7308T</b>

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created: 07/02/2018

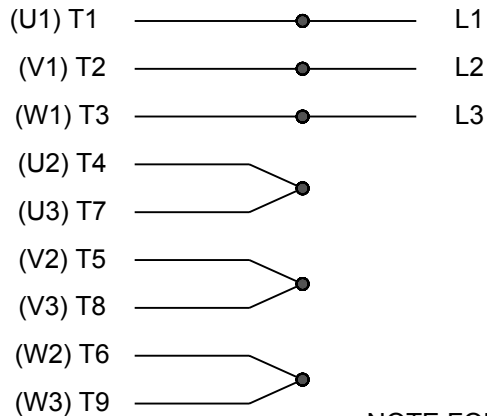


- NOTES:  
 1. BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.  
 2. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2XF	BS
1275	284TS	12.50	24.97	9.50		4.75
1425	286TS	13.00	26.47	11.00	9.50	5.50

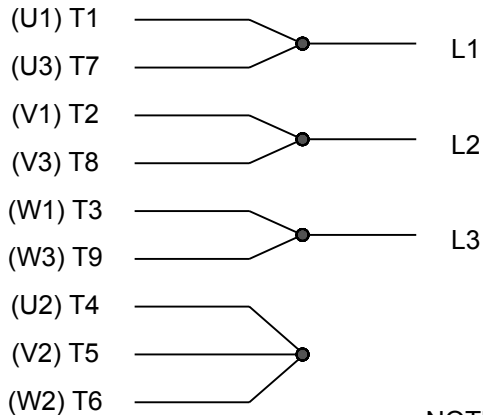
				TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN DA 03-12-1999						
4	REDRAWN IN AUTOCAD	TAT	07-06-2004	ML	DEC.	INCHES		CHK	ML 04-14-1999					
3	REV'D 'C' BOX GEOMETRY PER CAST. CHANGE CN 29010	DRS	01-31-2000		.X	±.1		APPD	SW 04-14-1999					
2	REVISED 'C' DIMENSION FOR C.I. FAN GUARD	DA	07-12-1999		.XX	±.03	TITLE	OUTLINE - EXP.PR. - TGN						
	REVISED CONDUIT BOX CN 2400-235				.XXX	±.005		280TS FR. - BB - STD - 12.50 LAM.						
1	NEW DRAWING - DES/DEV	DA	04-14-1999		.XXXX	±.0005	MATL	REF						
NO.	REVISION	BY & DATE		CHK	ANG	±7'30"	FINISH	FMF						
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	ss311004	SIZE	DRAWING NO.	PAGE	OF	REV.
							DIST	LB-BR		B	SS311004	4		4

## HIGH VOLTAGE



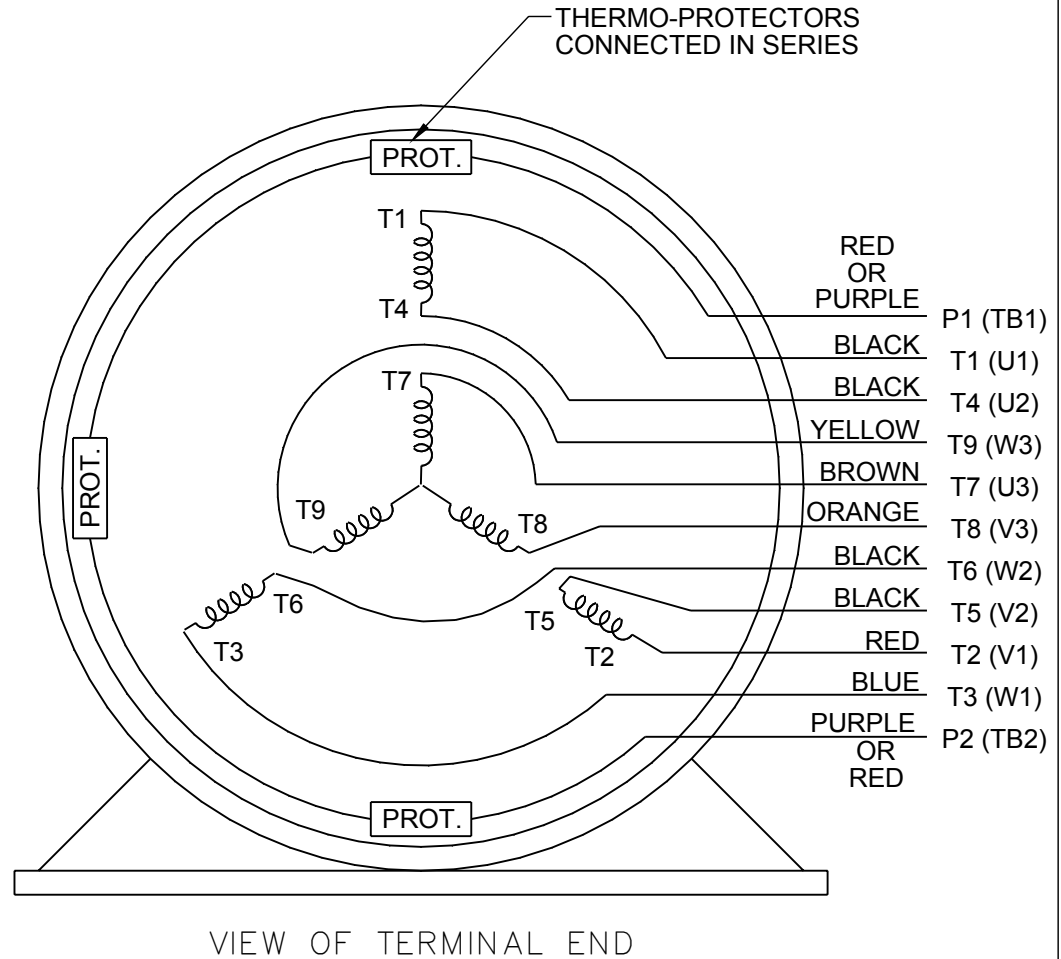
**NOTE FOR FACTORY USE ONLY:  
 TO SURGE TEST FOR COMMON CONNECT:  
 HIGH VOLT: CONNECT P1 TO T1  
 THEN P2 TO L1  
 LOW VOLT: CONNECT P1 TO T1 & T7,  
 THEN P2 TO L1**

## 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>



\*\* Subject to change without notice.

Data Sheet

Date: 19-06-2017  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



284TSTGN6503

Submittal

Data @ 460 V

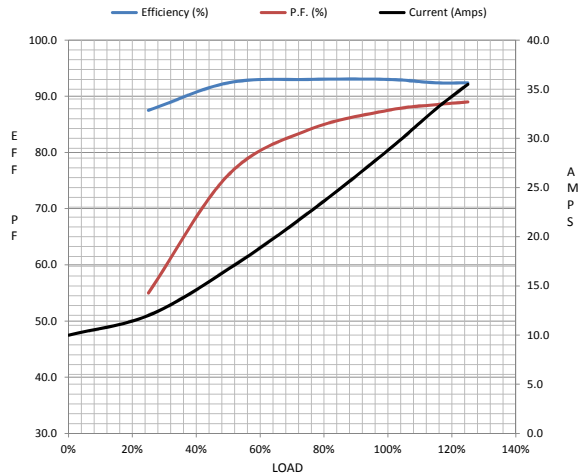
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	10.0	12.0	16.7	22.4	28.8	33.0	35.5	182
Torque (ft-lb)	0.00	9.0	18.5	27.5	37.0	42.0	46.5	50.0
RPM	3600	3590	3580	3570	3558	3550	3545	0
Efficiency (%)		87.5	92.4	93.0	93.0	92.4	92.4	
P.F. (%)	6.0	55.0	76.0	84.0	87.5	88.5	89.0	31.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3350	3558	3600
Current (Amps)	182	167	118	28.8	10.0
Torque (ft-lb)	50.0	42.5	103	37.0	0.00

Information Block				
HP	25.0			
Sync. RPM	3600			
Frame	284			
Enclosure	TEFC			
Construction	TFN			
Voltage	30/460#190/38V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.30 Lb-Ft <sup>2</sup>			
Ref Wdg	K284282 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS311004-1275			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0600	0.0280	0.2450	0.1600	6.9010



Speed -Torque Curve

