

PRODUCT INFORMATION PACKET

Model No: 286TPFSA10090

Catalog No: SY013

SyMAX® Fan & Blower Motor, 30 HP, 3 Ph, 120 Hz, 460 V, 1800 RPM, 286TC Frame, TEFC



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E

Nameplate Specifications

Phase	3	Output HP	30 Hp
Output KW	22.4 kW	Voltage	460 V
Speed	1800 rpm	Service Factor	1
Frame	286TC	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	120 Hz
Current	35.5 A	Power Factor	80
Duty	Continuous	Insulation Class	H
Design Code	No Design Code	KVA Code	N/A
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	Recognized	CSA	Y
CE	Y	IP Code	54
Number of Speeds	1		

Technical Specifications

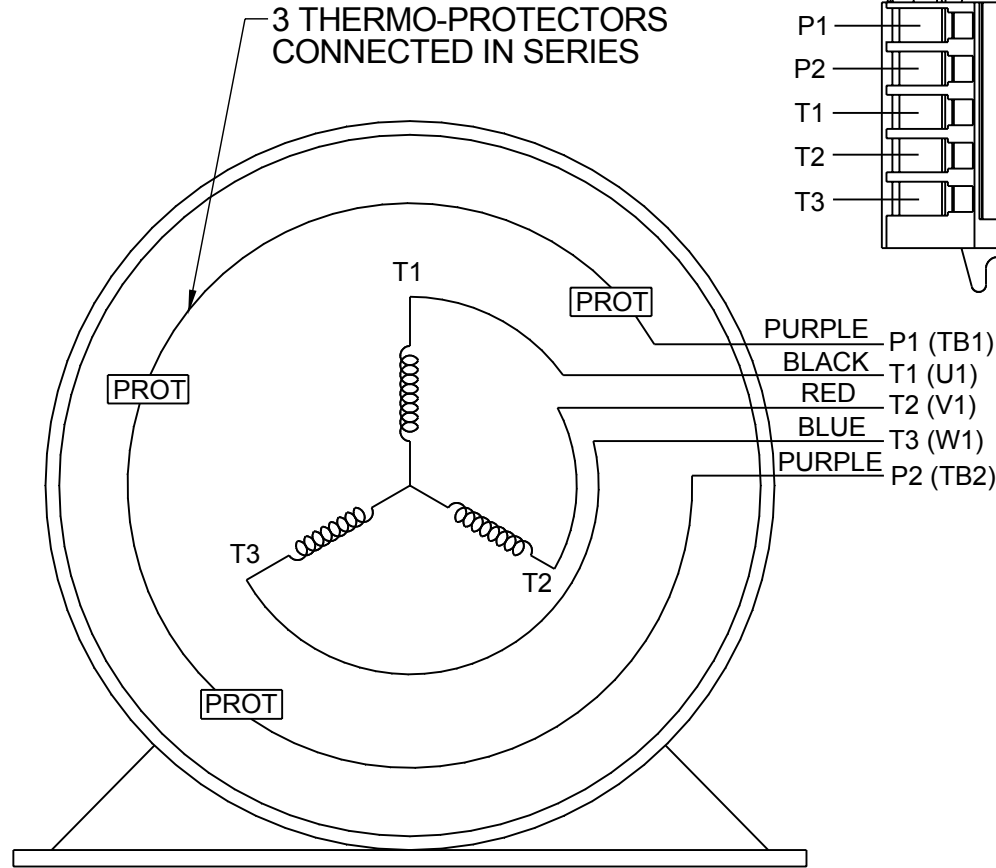
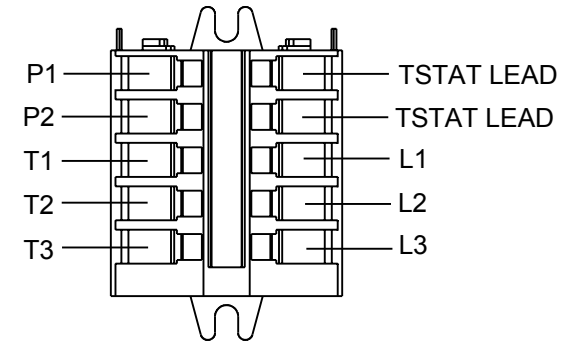
Electrical Type	AC Permanent Magnet	Starting Method	Inverter Only
Poles	8	Rotation	Reversible
Resistance Main	0 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	27.71 in
Frame Length	14.25 in	Shaft Diameter	1.875 in
Shaft Extension	4.37 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 20:1		
Outline Drawing	B-SS311211-1425	Connection Drawing	A-EE7300T

**THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS**

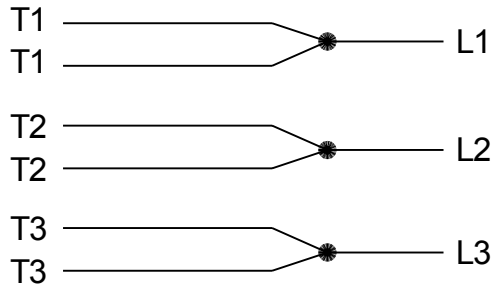
**NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1**

TERMINAL BLOCK WHEN SPECIFIED



VIEW OF TERMINAL END

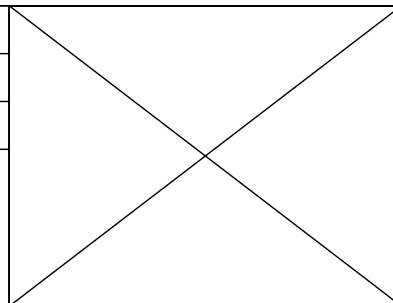
**IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S**



A-9806 DECAL

- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

DRAWING REVISION AB	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T.VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8		
<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>		



DRAWN BY LZ
DATE 01-04-1994
APPROVED BY GK
DATE 01-20-1994
REFERENCE
THIRD ANGLE PROJECTION

Regal Beloit America, Inc.	
DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
MATERIAL	PROCESS/FINISH
SIZE A	DRAWING NUMBER EE7300T
SHEET 1 OF 1	

CERTIFICATION DATA SHEET

Model#: 286TPFSA10090 A
CONN. DIAGRAM: A-EE7300T
OUTLINE: B-SS311211-1425

WINDING#: PM28608004 NONE 1
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30	22.4	1800	1800	286TC	TEFC	NO KVA CODE	PM

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	120	460	35.5	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95.5	1/2 LOAD EFF: 94.8	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 80	3/4 LOAD PF: 80.5	1/2 LOAD PF: 80.5	95.4	AC PERMANENT MAGNET	2

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
87.5 LB-FT	-	- LB-FT -	- LB-FT -	50

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	3.6 LB-FT^2	0 LB-FT^2	0 SEC.	0	500 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0	0.09	3.93	6.6	225

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	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLACK (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
6311	6210						

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: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE

*
N
O
T
E
S
*

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

DATE: 06/27/2017 01:47:19 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet



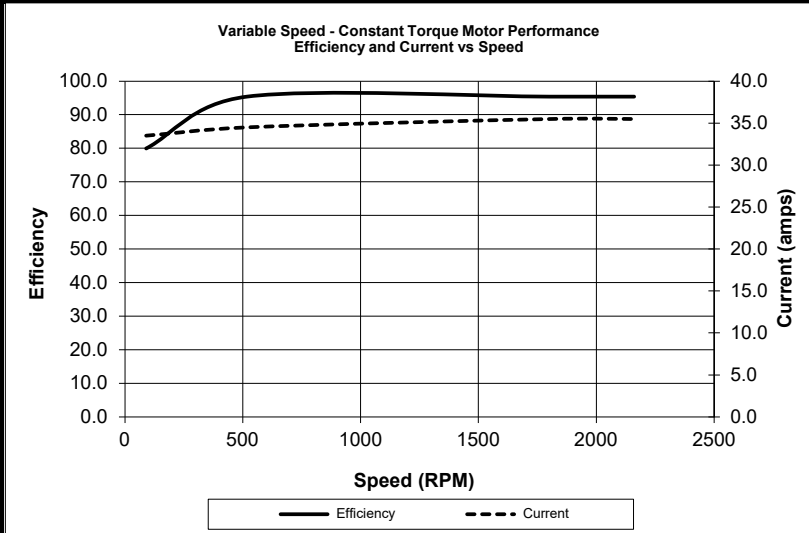
Date: 8/11/2023
 Customer: _____
 Attention: _____
 Submitted by: _____

Model: 286TPFSA10090
 Catalog: SY013
 Winding: PM28608004
 Submittal Data @ 460 V

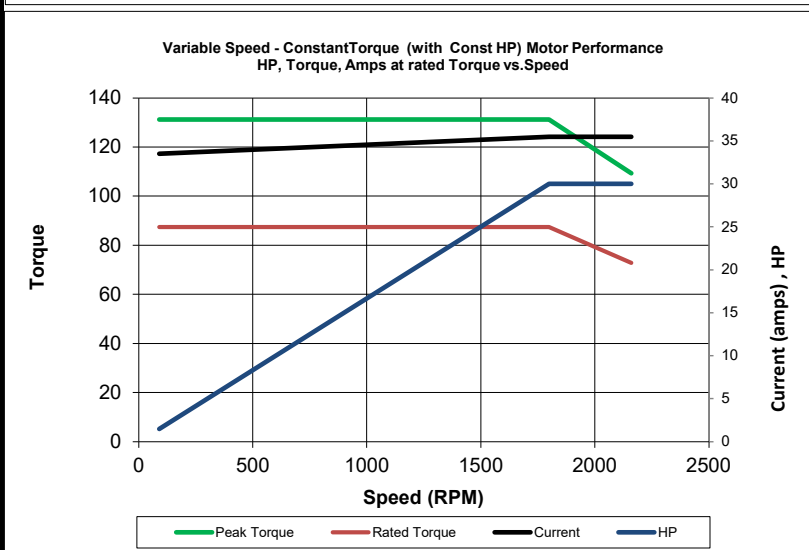
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	150%
Current (Amps)	2	9.0	17.5	26.2	35.5	40.8	44.8	55.3
Torque (ft-lb)	0.0	21.9	43.8	65.6	87.5	100.6	109.4	131.3
Efficiency (%)		92.0	94.8	95.5	95.4	95.3	95.2	94.8

Motor Speed Data



Motor Characteristics			
HP	30.00		
Sync. RPM	1800		
Frame	286		
Enclosure	TEFC		
Construction Type	TFN		
Voltage	460 V		
Frequency	120 Hz		
Motor P.F. (%)	80.0		
Reserve Tq Capability	150 %		
Temp Rise @ FL	50 °C		
Insulation Class	H		
Duty	CONT		
Ambient	40 °C		
Elevation	3,300 feet		
Ref Wdg	PM28608004		
Sound Pressure @ 1m	65 dBA		
Motor Wgt	500 Lb		
Rotor/Shaft wk ²	3.60 Lb-Ft ²		
CT Speed Range	20 :1		
VT Speed Range	2000 :1		
Outline Dwg	SS311211-1425		
Conn. Diag	EE7300T		
DE Bearing	6311		
ODE Bearing	6210		
Additional Specifications:			
PWM variable frequency electronic drive that is permanent magnet motor capable required for operation. Motor efficiency reflects operation on a VFD			
R / phase (ohms)	Ld (mH)	Lq (mH)	BEMF (V/krpm)
0.09	3.93	6.6	225



Constant Torque (Constant Power) Load Points

Hz	RPM	HP	ft-lb	Amps	Eff	Pk Tq
6	90	1.50	87.5	33.5	80	131.25
120	1800	30.0	87.5	35.5	95.4	131.25
144	2160	30.0	72.9	35.5	95.4	109.35

EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 286TPFSA10090

(Model No. may contain prefix and/or suffix characters)

Catalog No : SY013

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22