

PRODUCT INFORMATION PACKET

marathon[®]
Motors

Model No: 286TSTFNA6501
Catalog No: E608
30,3600,TEFC,286TS,3/60/460
Severe Duty



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REGAL[®]



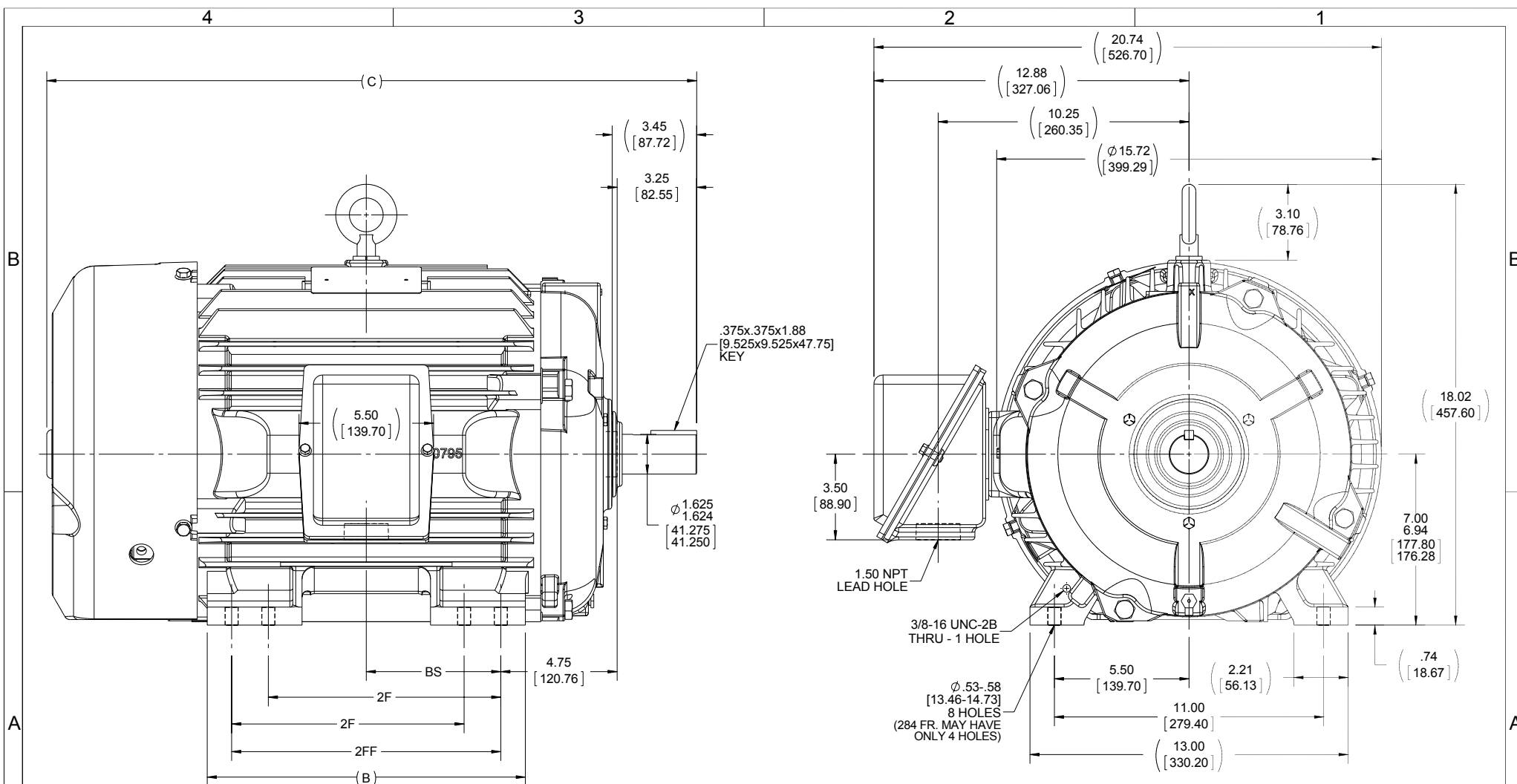
Nameplate Specifications

Output HP	30 Hp	Output KW	22.4 kW
Frequency	60 Hz	Voltage	460 V
Current	33.5 A	Speed	3555 rpm
Service Factor	1.15	Phase	3
Efficiency	93 %	Duty	Continuous
Insulation Class	F	Design Code	B
KVA Code	G	Frame	286TS
Enclosure	Totally Enclosed Fan Cooled	Overload Protector	No
Ambient Temperature	40 °C	Drive End Bearing Size	6311
Opp Drive End Bearing Size	6210	UL	Recognized
CSA	Y	CE	Y
IP Code	54		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Mounting	Rigid base	Motor Orientation	Horizontal
Drive End Bearing	Ball	Opp Drive End Bearing	Ball
Frame Material	Cast Iron	Shaft Type	TS
Overall Length	26.56 in	Frame Length	14.25 in
Shaft Diameter	1.625 in	Shaft Extension	3.45 in
Assembly/Box Mounting	F1/F2 Capable		
Outline Drawing	B-SS311136-1425	Connection Diagram	A-EE7300U

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- NOTES:
 1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
 3. NAMEPLATE READ FROM CONDUIT BOX SIDE OF MOTOR.

1275	284TS	25.06 [636.53]	12.50 [317.50]	---	9.50 [241.30]	4.75 [120.65]
1425	284/286TS	26.56 [674.61]	13.00 [330.20]	9.50 [241.30]	11.00 [279.40]	5.50 [139.64]
DASH	FRAME	C	B	2F	2FF	BS
		4	3	2	1	

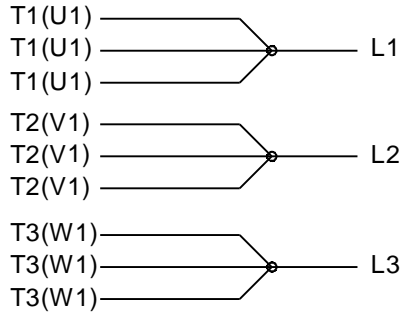
DRAWING REVISION F	REVISION BY MSG	DATE 11-10-2015
ECO ECO-0088479	APPROVED BY TVUE	DATE 11-11-2015
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH	mm	ANGLE
.X	+0.1	[+2.5]	±7°-30°
.XX	+0.03	[+0.76]	
.XXX	+0.005	[+0.127]	
.XXXX	+0.0005	[+0.0127]	
REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381] X 45° CORNER FILLETS: R.02 [51]			
MACHINED SURFACES: 200 $\sqrt{5.1}$ INCH/mm			
mm SHOWN IN [BRACKETS]			

DRAWN BY DAH
DATE 04-02-2001
APPROVED BY ML
DATE 04-02-2001
REFERENCE
THIRD ANGLE PROJECTION

Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 280TS FR. - TEFC - STD. - 12.50 LAM	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS311136
	SHEET 1 OF 1

IF MOTOR HAS 9 LEADS

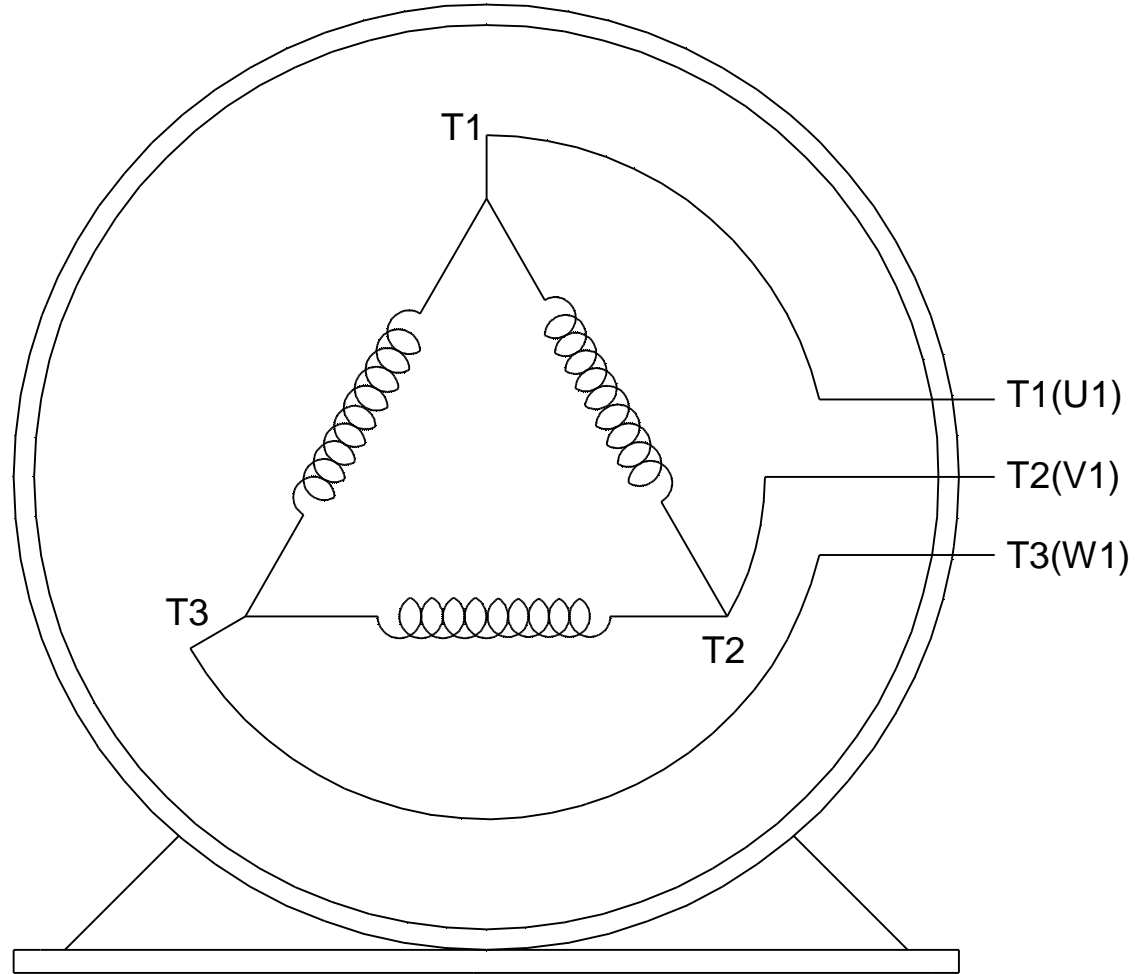
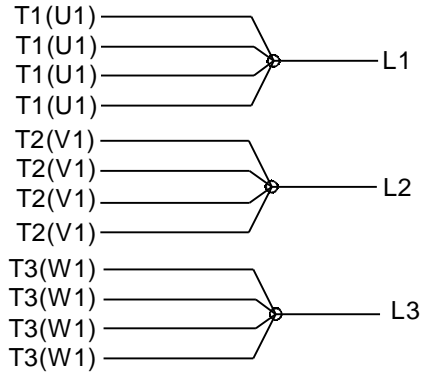


IF MOTOR HAS 6 LEADS



A-9806 DECAL IF CALLED FOR

IF MOTOR HAS 12 LEADS



VIEW OF TERMINAL END

DRAWING REVISION L	REVISION BY AJW	DATE 05-04-2015	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY DRS	Regal Beloit America, Inc.																					
ECO ECO-0077067	APPROVED BY EWH	DATE 05-05-2015	<table style="font-size: small; border-collapse: collapse;"> <tr> <td><u>DEC.</u></td> <td><u>INCH</u></td> <td><u>mm</u></td> <td><u>ANGLE</u></td> </tr> <tr> <td>.X</td> <td>±0.1</td> <td>[±2.5]</td> <td>±7' 30"</td> </tr> <tr> <td>.XX</td> <td>±0.02</td> <td>[±0.51]</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.005</td> <td>[±0.127]</td> <td></td> </tr> <tr> <td>.XXXX</td> <td>±0.0005</td> <td>[±0.0127]</td> <td></td> </tr> </table>	<u>DEC.</u>			<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>	.X	±0.1	[±2.5]	±7' 30"	.XX	±0.02	[±0.51]		.XXX	±0.005	[±0.127]		.XXXX	±0.0005	[±0.0127]		DATE 09-27-1996
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ECO DESCRIPTION UPDATED TO SOLIDWORKS			APPROVED BY GK	DATE 09-30-1996	MATERIAL	PROCESS/FINISH																				
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.			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 $\sqrt{\text{INCH}}$ 5.1 $\sqrt{\text{mm}}$	REFERENCE	SIZE A	DRAWING NUMBER EE7300U	SHEET 1 OF 1																			
			mm SHOWN IN [BRACKETS]	THIRD ANGLE PROJECTION																						

CERTIFICATION DATA SHEET

Model#: 286TSTFNA6501 BB **WINDING#:** K2862155 NONE 2
CONN. DIAGRAM: A-EE7300U **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS311136-1425

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
30	22.4	3600	3555	286TS	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	33.5	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 93	3/4 LOAD EFF: 93.6	1/2 LOAD EFF: 93	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89.5	3/4 LOAD PF: 87	1/2 LOAD PF: 81	92.4	SQ CAGE INV RATED	9.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
44.5 LB-FT	217	63 LB-FT 142	123 LB-FT 275	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
72 dBA	82 dBA	2.7 LB-FT^2	35 LB-FT^2	20 SEC.	2	450 LBS.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	DIVISION 2 T2B	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311	6210						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	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: 1.5 X BASE SPEED
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

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DATE: 06/21/2017 10:40:24 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

2967 STFNMA501



Submission
Data @ 460 V

Date: 6/29/2017

Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

Motor Load Data

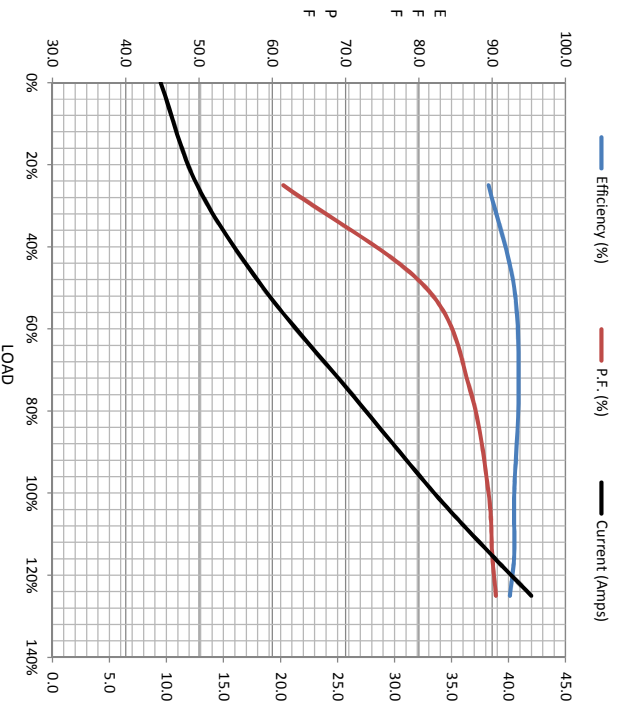
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	9.5	12.7	18.5	26.0	33.5	38.5	42.0	217
Torque (ft-lb)	0.00	11.0	22.0	33.0	44.5	51.0	56.0	63.0
RPM	3600	3590	3578	3565	3555	3547	3542	0
Efficiency (%)		89.5	93.0	93.6	93.0	93.0	92.4	
P.F. (%)	6.5	61.5	81.0	87.0	89.5	90.0	90.5	32.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (rpm)	0	1800	3400	3555	3600
Current (Amps)	217	195	138	33.5	9.5
Torque (ft-lb)	63.0	56.0	123	44.5	0.00

Information Block

HP	30.0
Sync. RPM	3600
Frame	286
Enclosure	TEFC
Construction	TFN
Voltage	460 V
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 wkt	2.70 Lb-Fe
Rel Wdg	K2862155 NONE
Sound Pressure @ 1M	72 dBA
VFD Rating	CONSTANT 20:1
Outline Dwg	B-SS311136-1425
Conn. Diag	A-EE7300U
Additional Specifications:	
0	
EQUIV CKT (OHMS / PHASE)	
R1	R2
0.1970	0.11040
X1	X2
0.7940	0.6050
Xm	#####



Speed -Torque Curve

