

PRODUCT INFORMATION PACKET

Model No: 286TTFC6876

Catalog No: E486A

XRI®-SD Severe Duty Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286T Frame, TEFC



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Nameplate Specifications

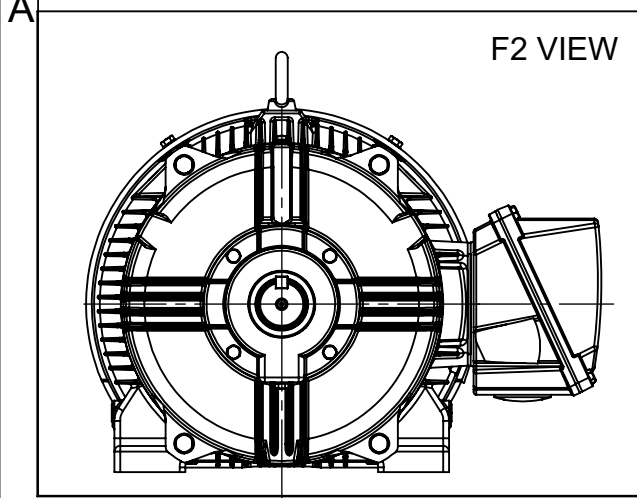
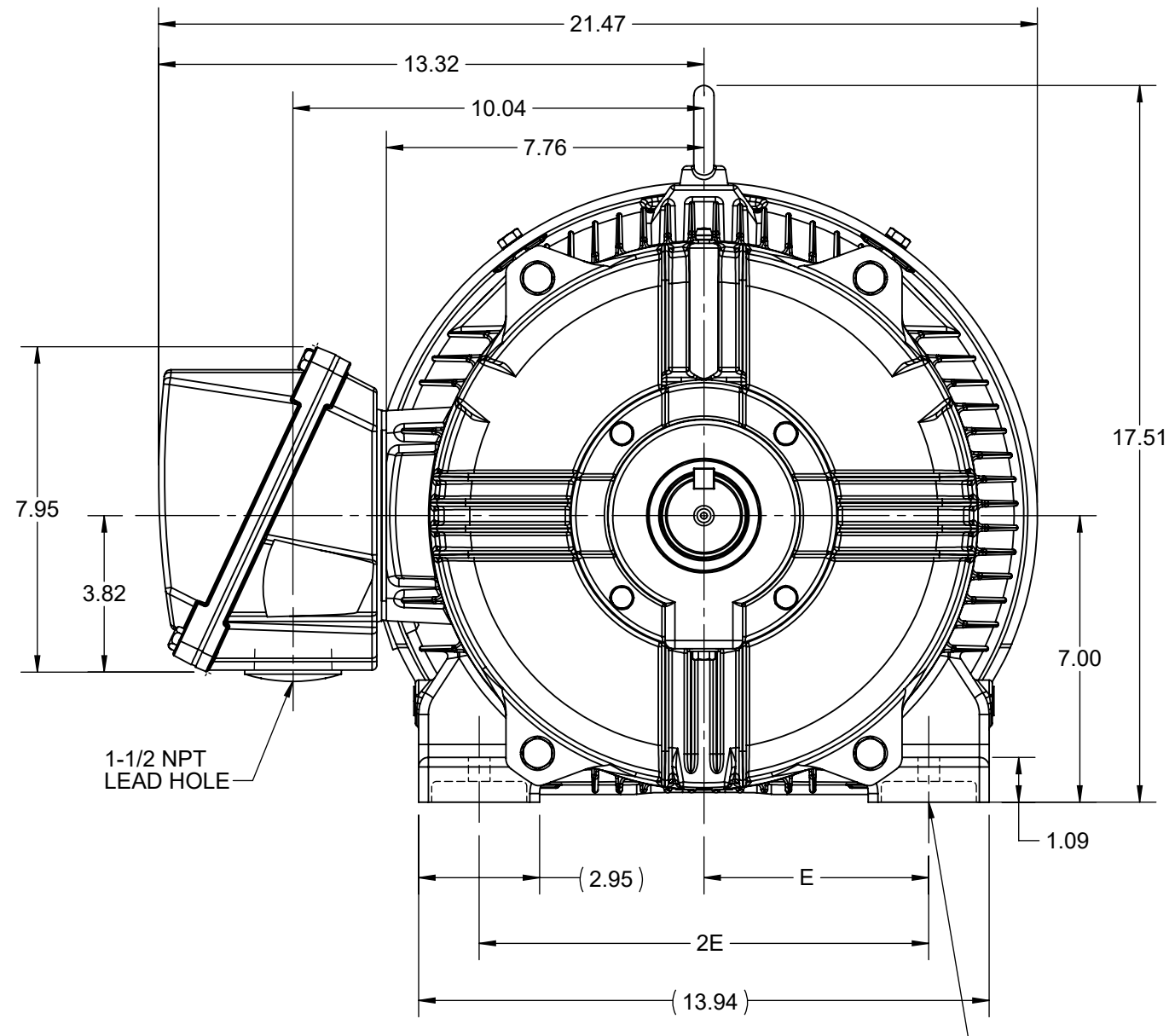
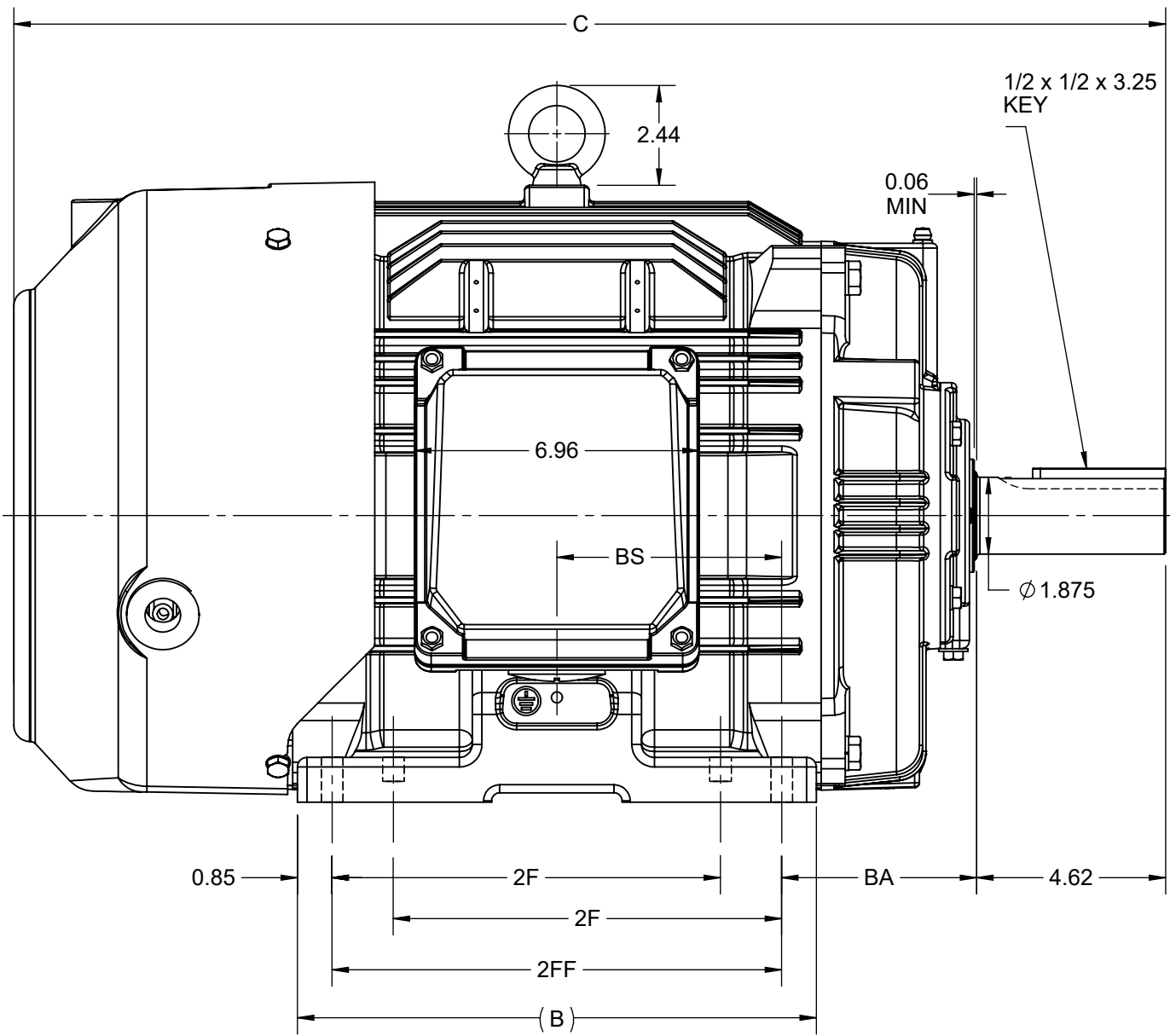
Phase	3	Output HP	20 Hp
Output KW	14.9 kW	Voltage	230/460 V
Speed	1180 rpm	Service Factor	1.15
Frame	286T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	52.0/26.0 A	Power Factor	79
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6211
UL	Listed	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1	Hazardous Location	DIVISION 2 T2B

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.5617 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	1.875 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 10:1/VARIABLE 10:1
Connection Drawing	EE7308	Outline Drawing	SS312942-200

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DASH NO.	4		3				2		1	
	B	C	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	10.83	26.64	5.50	11.00	---	9.50	4.75	4.75	F1 OR F2	284T
200	12.68	28.14			9.50	11.00		5.50		284/286T



DRAWING REVISION D	REVISION BY VS	REV DATE/© DATE 27-10-2020
ECO CR-0000272	APPROVED BY GNK	DATE 27-10-2020
ECO DESCRIPTION DRAWING UPDATED		
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DRAWN BY BISWA	REGAL ® Regal Beloit America, Inc.
DATE 24/12/2018	
APPROVED BY SBD	DESCRIPTION OUTLINE 284/286T FR-NEMA-SD & IEEE841
DATE 24/12/2018	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS312942
	SHEET 1 OF 1

EE7308

THREE PHASE
DUAL VOLTAGE MOTOR



VIEW OF TERMINAL END

REF.
WINDING DIAGRAM

T8Y, T2Y, T2BL, T4BX, T2EC, T2G
T6BZ, T2B, T6BL, T4AV, T6B, T4B

OPTIONAL CORD
CONNECTION

L1 — WHITE
L2 — RED
L3 — BLACK

NO.		REVISION		BY & DATE		CHK		ANG		FINISH		PREV	
5	CHG TO REGAL LOGO	SL	09/10/2015	AB									
4	REVISED IEC NOTATIONS	MSG	11/15/2011	CMN	.X	±.1							
3	ADDED IEC NOTATIONS... (U1), (V1) ETC. MU95194	MSG	5/10/2010	MJS	.XX	±.02							
2	ADDED THE OPTIONAL CORD CONNECTION MU46318	RDH	04/24/2003	DRS	.XXX	±.005							
1	REDRAWN	RM	11/20/1990		.XXXX	±.0005							
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TOLERANCES UNLESS SPECIFIED

DEC. INCHES

DRAWN RM 11/20/1990
CHK ML 11/21/1990
APPD SAS 04/24/2003

TITLE CONNECTION DIAGRAM
3Ø - DUAL VOLTAGE MOTOR

SCALE 1=1
REF
FMF
PREV



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7308
 REFERENCE MODEL #: 286TTFCD6876
 OUTLINE: SS312942-286T CAT #: E486A
 WINDING: HE31806005 NONE 5 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1200	1180	286T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	230/460	52/26	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.0	GTD EFF	ELECT. TYPE
F.L. PF	79.0	3/4 LD PF	73.0	1/2 LD PF	61.0	91.0	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
89.0 LB-FT	145	152 LB-FT 171%	199 LB-FT 224%	65

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
56 dBA	65 dBA	6.5 LB-FT²	250 LB-FT²	20 SEC.	2	479 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	PREMIUM SEVERE DUTY	DIVISION 2 T2B	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1144 STRESSPROOF (C-223)	CAST IRON
BALL	BALL						
6311	6211						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.372	0.183	0.993	1.475	20.408	0.080	ODE

* N O T E S *	If Inverter equals NONE, contact factory for further information						
	INVERTER TORQUE: CONSTANT 10:1/VARIABLE 10:1						
	INV. HP SPEED RANGE: NONE						
	ENCODER: NONE						
NONE							
NONE PPR							

PREPARED BY: _____	BRAKE: NONE
DATE: 5/13/2020	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:

FORM: 3531 REV_4 2/27/06
 ** Subject to change without notice.

Data Sheet

Date: 5/6/2020
 Customer: _____
 Attention: _____
 Submitted by: _____

286TTFCD6876



Submittal

Data @ 460 V

Motor Load Data

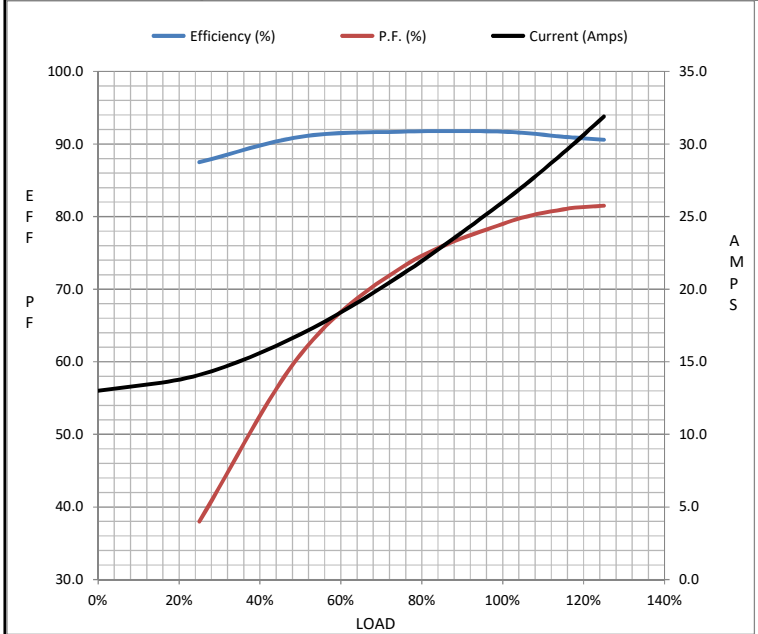
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.0	14.1	16.9	21.0	26.0	29.4	31.9	145
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	102	112	152
RPM	1200	1195	1190	1185	1180	1,178	1175	0
Efficiency (%)		87.5	91.0	91.7	91.7	91.0	90.6	
P.F. (%)	4.5	38.0	61.0	73.0	79.0	81.0	81.5	40.0

Motor Speed Data

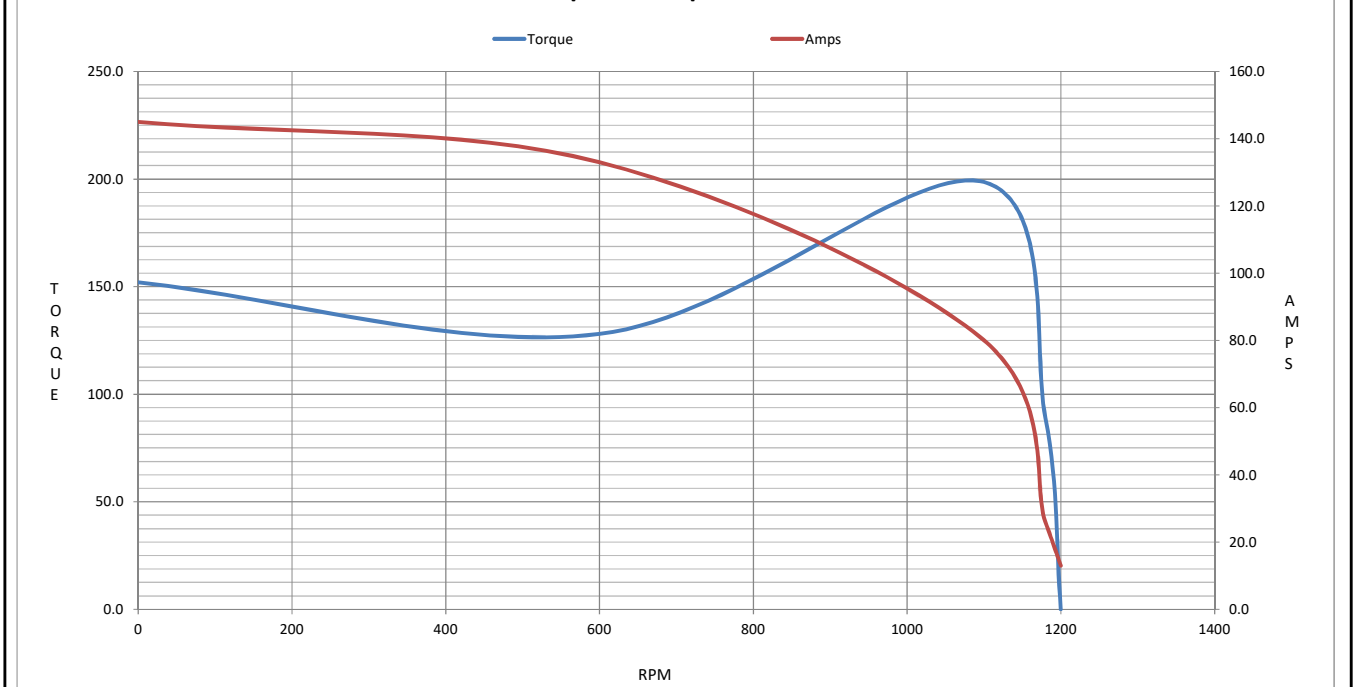
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1095	1180	1200
Current (Amps)	145	133	81.0	26.0	13.0
Torque (ft-lb)	152	128	199	89.0	0.00

Information Block

HP	20.0			
Sync. RPM	1200			
Frame	286			
Enclosure	TEFC			
Construction	TFC			
Voltage	230/460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	6.5 Lb-Ft ²			
Ref Wdg	HE31806005 NONE			
Sound Pressure @ 1M	56 dBA			
VFD Rating	CONSTANT 10:1/VARIABLE 10:1			
Outline Dwg	SS312942-286T			
Conn. Diag	EE7308			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.3720	0.1830	0.9930	1.4750	20.4080



Speed -Torque Curve



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 : 286TTFCD6876

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

Catalog No : E486A

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