

PRODUCT INFORMATION PACKET

Model No: 286TTFCD6580

Catalog No: E695A

Severe Duty Motors, TEFC, 20 HP, 3 Ph, 60 Hz, 575 V, 1180 RPM, 286T Frame



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Nameplate Specifications

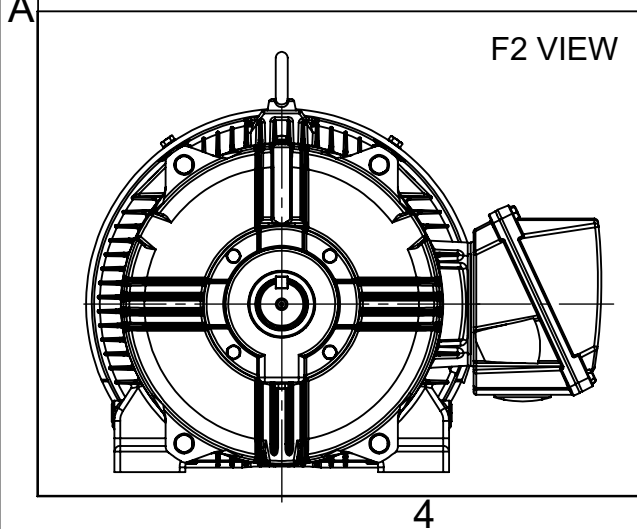
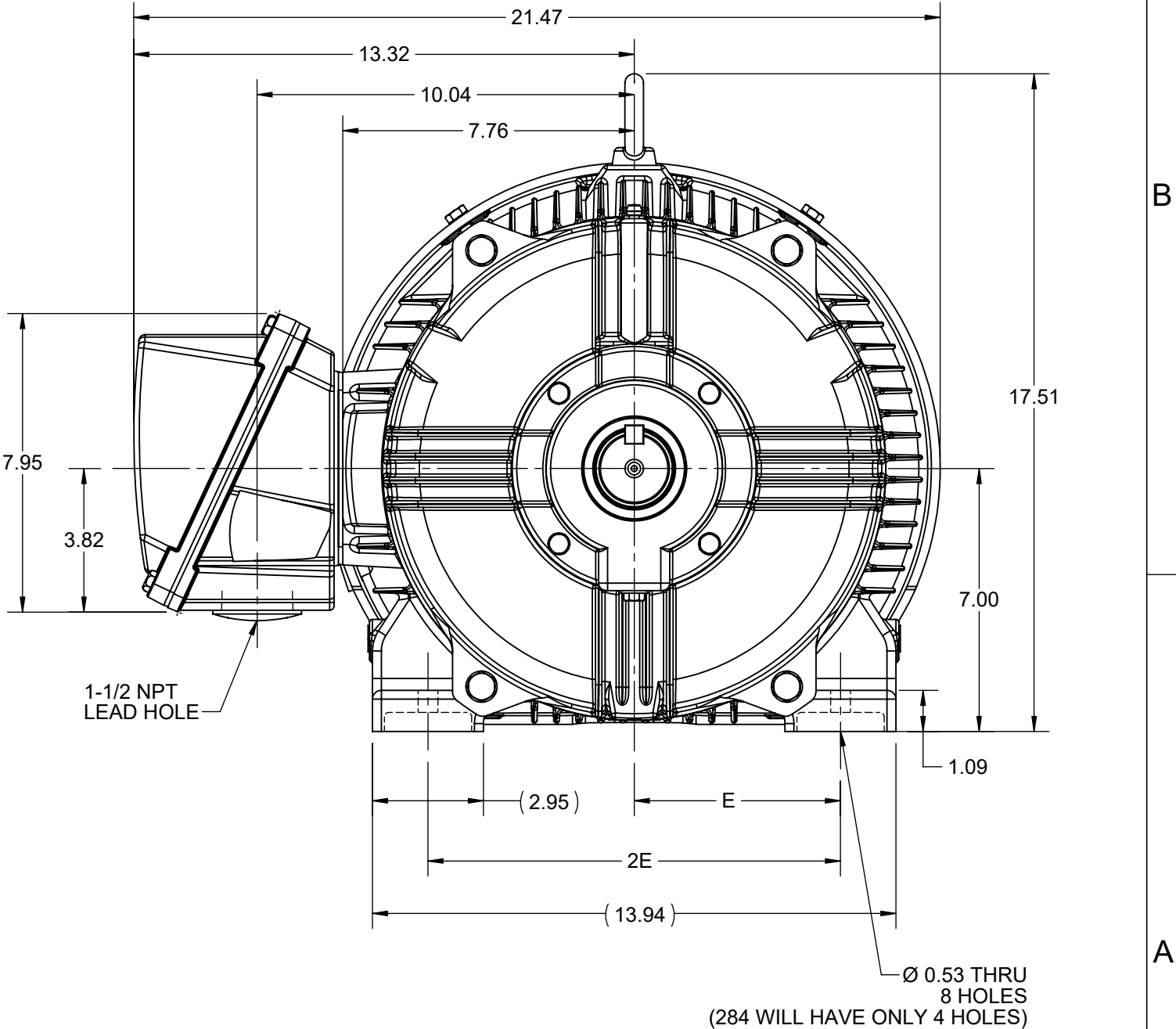
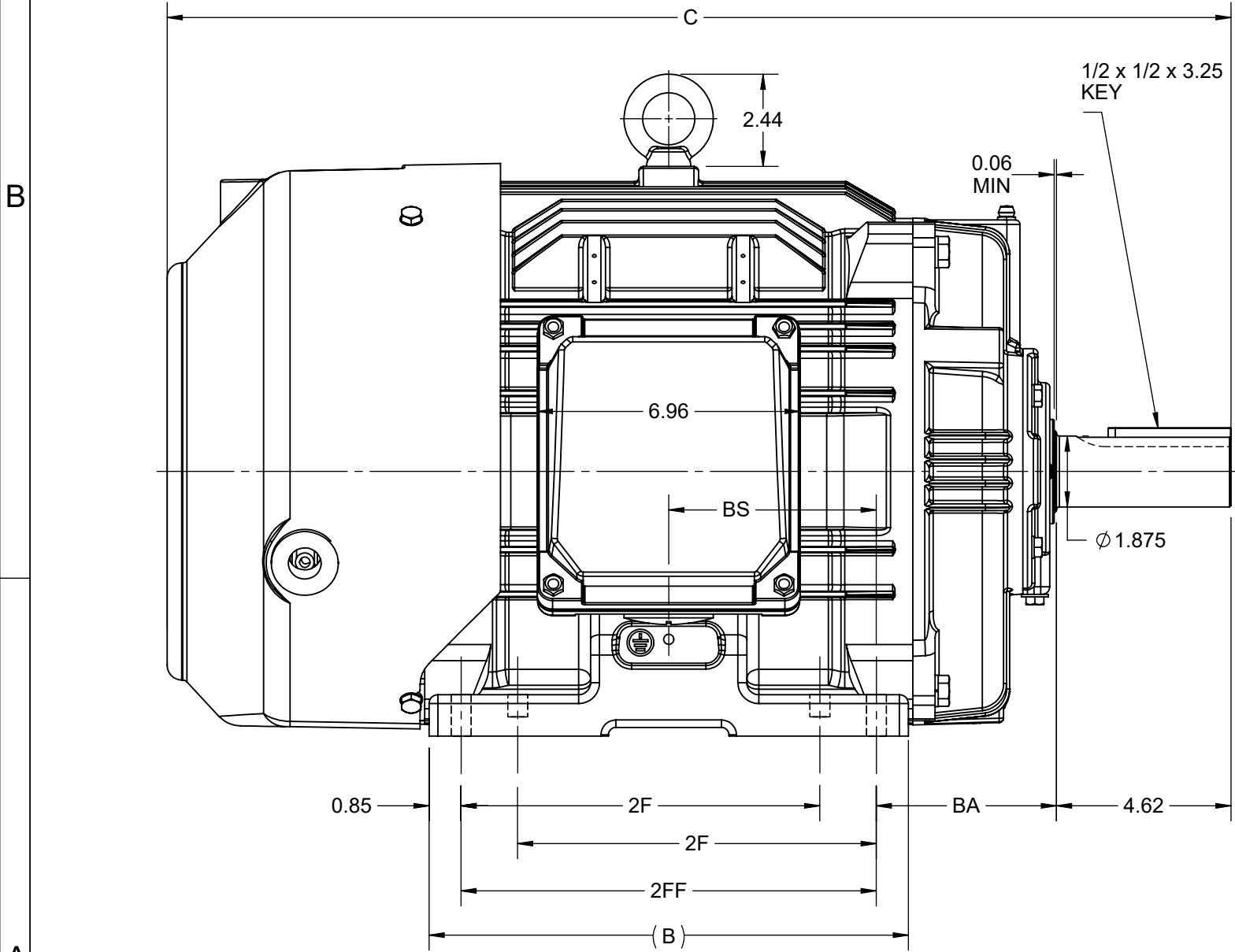
Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	575 V
Current	20.8 A	Speed	1180 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Power Factor	79
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Frame	286T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6211
UL	Listed	CSA	Y
CE	Y	IP Code	55
Hazardous Location	DIVISION 2 T2B	Number of Speeds	1


Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Selective Clockwise
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	EE7300	Outline Drawing	SS312942-200

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4					3					2		1	
DASH NO.	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		PRIMARY DIMENSIONS ARE INCH mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY BISWA		 Regal Beloit America, Inc.								
ECO CR-0000272		APPROVED BY GNK		DATE 27-10-2020			DATE 24/12/2018		DESCRIPTION OUTLINE 284/286T FR-NEMA-SD & IEEE841								
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							DATE 24/12/2018										
							REFERENCE		SIZE B		DRAWING NUMBER SS312942		SHEET 1 OF 1				
3						2						1					

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

TO REVERSE ROTATION:
INTERCHANGE ANY TWO
LINE LEAD CONNECTIONS.

TERMINAL BLOCK WHEN SPECIFIED



IF MOTOR HAS 6 LEADS



A-9806 DECAL

OPTIONAL CORD CONNECTION



VIEW OF TERMINAL END

DRAWING REVISION AB	REVISION BY JJB	DATE 06-27-2017
ECO ECO-0125361	APPROVED BY TB	DATE 06-27-2017
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS		
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DRAWN BY DA	
DATE 03-26-1993	
APPROVED BY TB	
DATE 03-26-1993	
REFERENCE	
THIRD ANGLE PROJECTION	



Regal Beloit America, Inc.

DESCRIPTION
CONNECTION DIAGRAM
EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR

MATERIAL PROCESS/FINISH

SIZE A	DRAWING NUMBER EE7300	SHEET 1 OF 1
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DATA VOLTS: 575

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 REFERENCE MODEL #: 286TTFC6580
 OUTLINE: SS312942-286T
 CAT #: E695A
 WINDING: HE31806005 NONE 3
 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	575	20.8	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	116	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	450 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							
BALL BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)		CAST IRON
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
0.9078125	0.446875	2.4234375	3.6015625	49.8234375	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 PPR	

PREPARED BY: _____ DATE: 5/13/2020	BRAKE: NONE NONE FT-LB: NA VOLTAGE: NONE HZ:
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FORM: 3531 REV_4 2/27/06
 ** Subject to change without notice.

Data Sheet

Date: 5/6/2020

286TTFC D6580

Customer: _____

Attention: _____

Submitted by: _____

marathon®
Motors

Submittal

Data @ 575 V

Motor Load Data

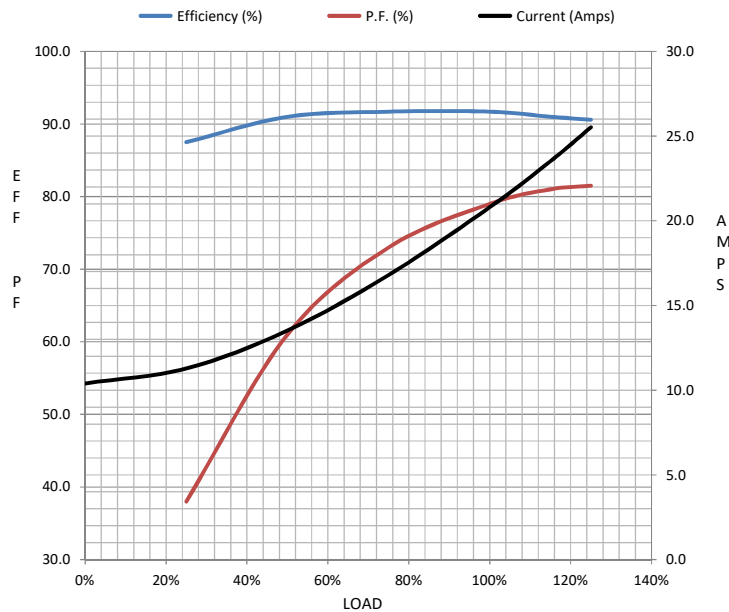
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	10.4	11.3	13.5	16.8	20.8	23.5	25.5	116	
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	102	112	152	
RPM	1200	1195	1190	1185	1180	1,178	1175	0	
Efficiency (%)		87.5	91.0	91.7	91.7	91.0	90.6		
P.F. (%)	4.5	38.0	61.0	73.0	79.0	81.0	81.5	40.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1095	1180	1200
Current (Amps)	116	106	64.8	20.8	10.4
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	575 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 wk²	6.5 Lb-Ft²			
Ref Wdg	HE31806005 NONE			
Sound Pressure @ 1M	56 dBA			
VFD Rating	CONSTANT 10:1/VARIABLE 10:1			
Outline Dwg	SS312942-286T			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5810	0.2860	1.5510	2.3050	31.8870



Speed -Torque Curve

