

PRODUCT INFORMATION PACKET

Model No: 445THFCD9087

Catalog No: W614A

Severe Duty Motors, TEFC, 150 HP, 3 Ph, 60 Hz, 460 V, 1190 RPM, 445T Frame



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Nameplate Specifications

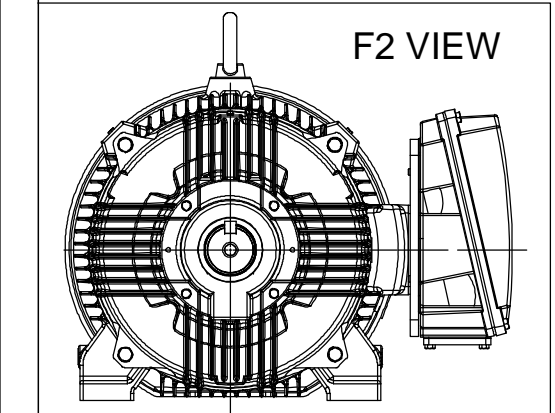
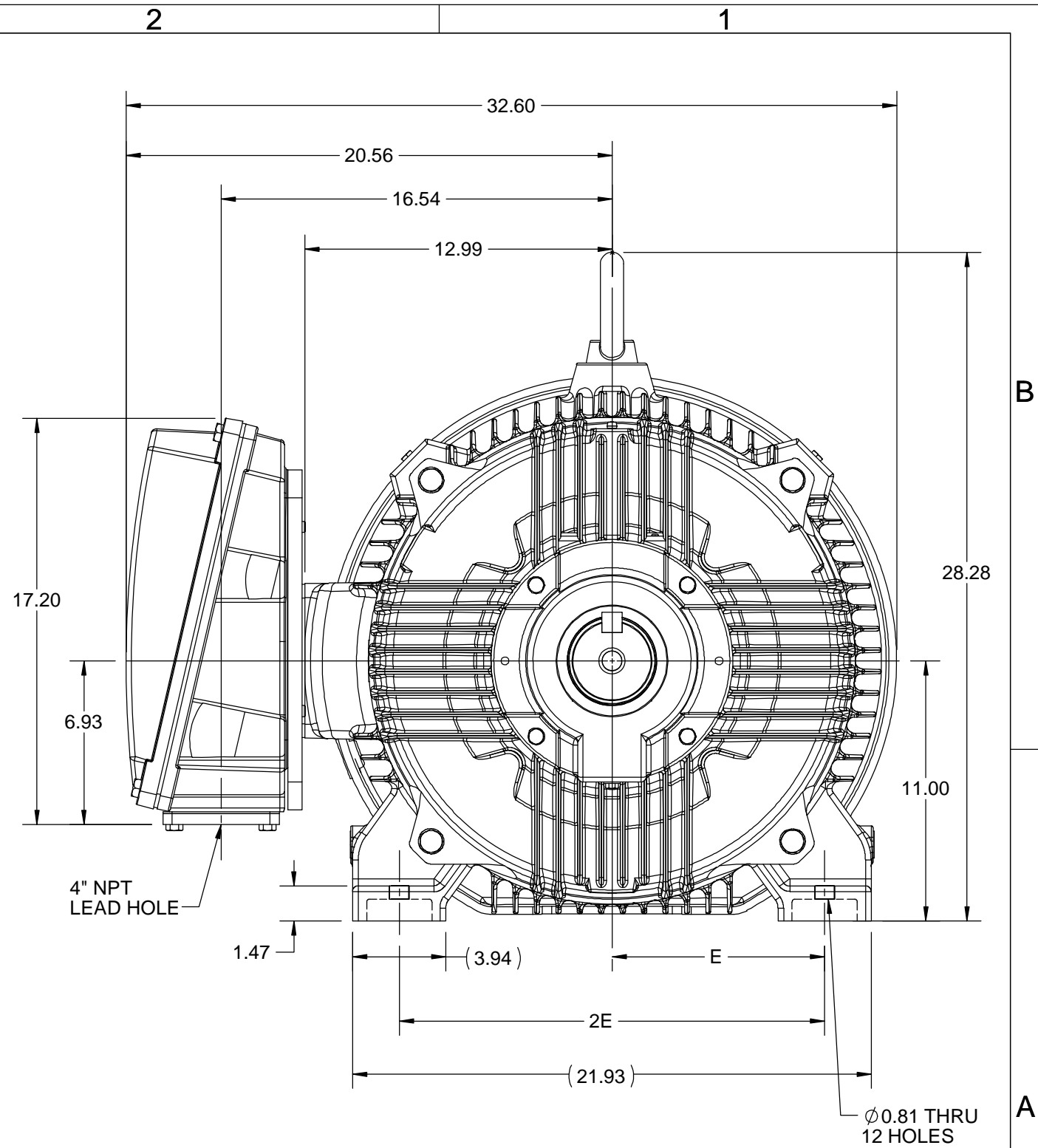
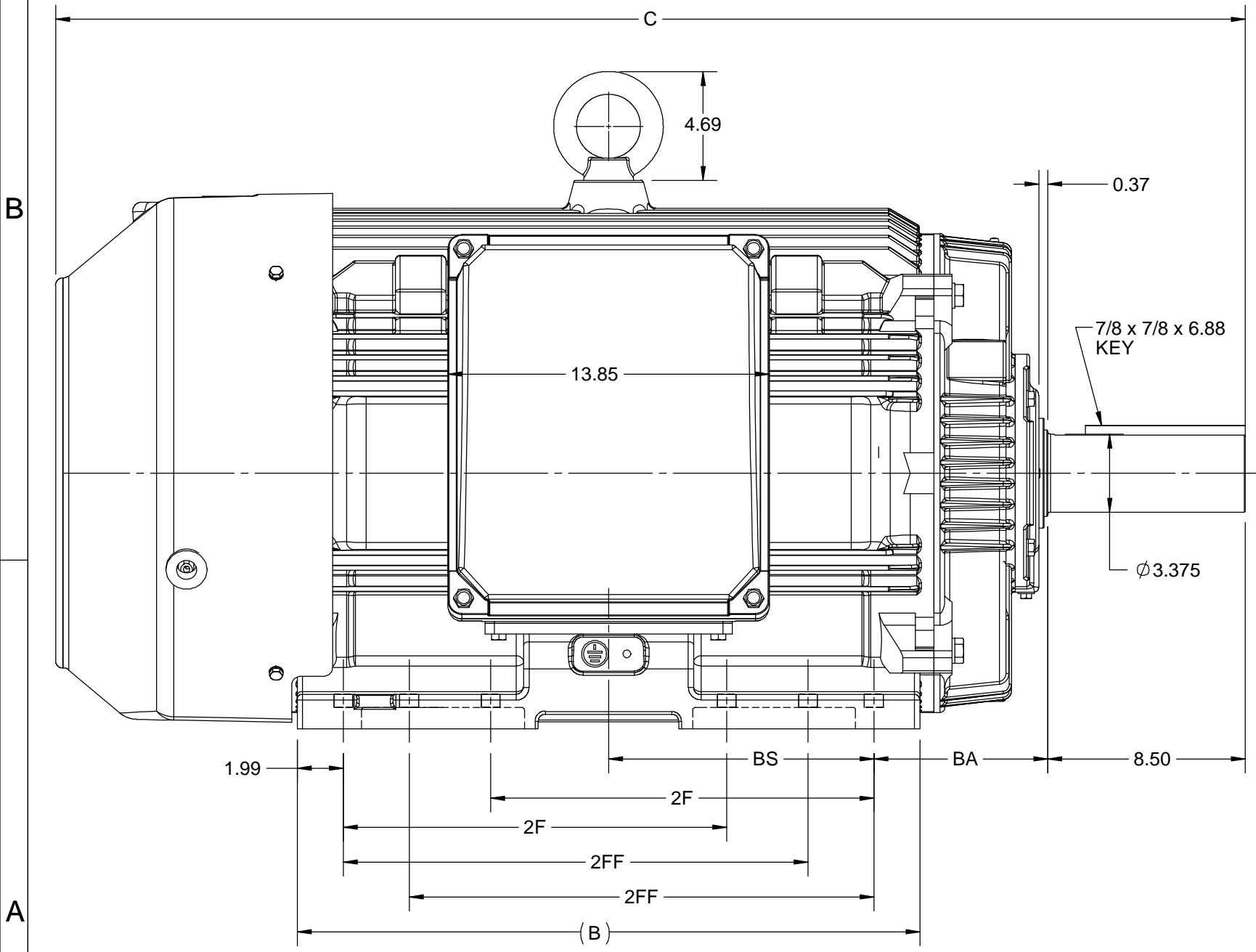
Output HP	150 Hp	Output KW	112.0 kW
Frequency	60 Hz	Voltage	460 V
Current	171.0 A	Speed	1190 rpm
Service Factor	1.15	Phase	3
Efficiency	95.8 %	Power Factor	86
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	G
Frame	445T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	NU319	Opp Drive End Bearing Size	6317
UL	Listed	CSA	Y
CE	Y	IP Code	56
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	Reversible
Resistance Main	.0223 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Roller
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	3.375 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 2:1/VARIABLE 10:1
Connection Drawing	EE7300U	Outline Drawing	SS557888

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4				3				
B	C	E	2E	2F	2FF	BA	BS	MOUNTING
26.81	51.20	9.00	18.00	16.50	20.00	7.50	11.42	F1 OR F2



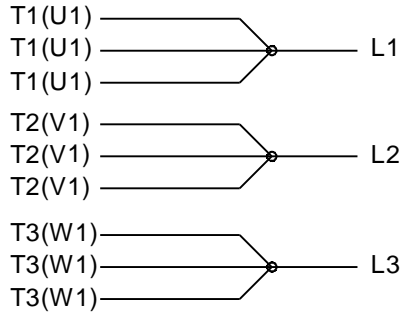
DRAWING REVISION C	REVISION BY BISWA	REV DATE/© DATE 12/10/2020
ECO ECO-0195135	APPROVED BY GNK	DATE 12/10/2020
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PRIMARY DIMENSIONS ARE INCH
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ARE FOR REFERENCE ONLY

DRAWN BY BISWA	DATE 23/05/2019
APPROVED BY SBD	DATE 23/05/2019
REFERENCE	
THIRD ANGLE PROJECTION	

Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 445/447T FR-NEMA-SD & IEEE841	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS557888
	SHEET 1 OF 1

IF MOTOR HAS 9 LEADS

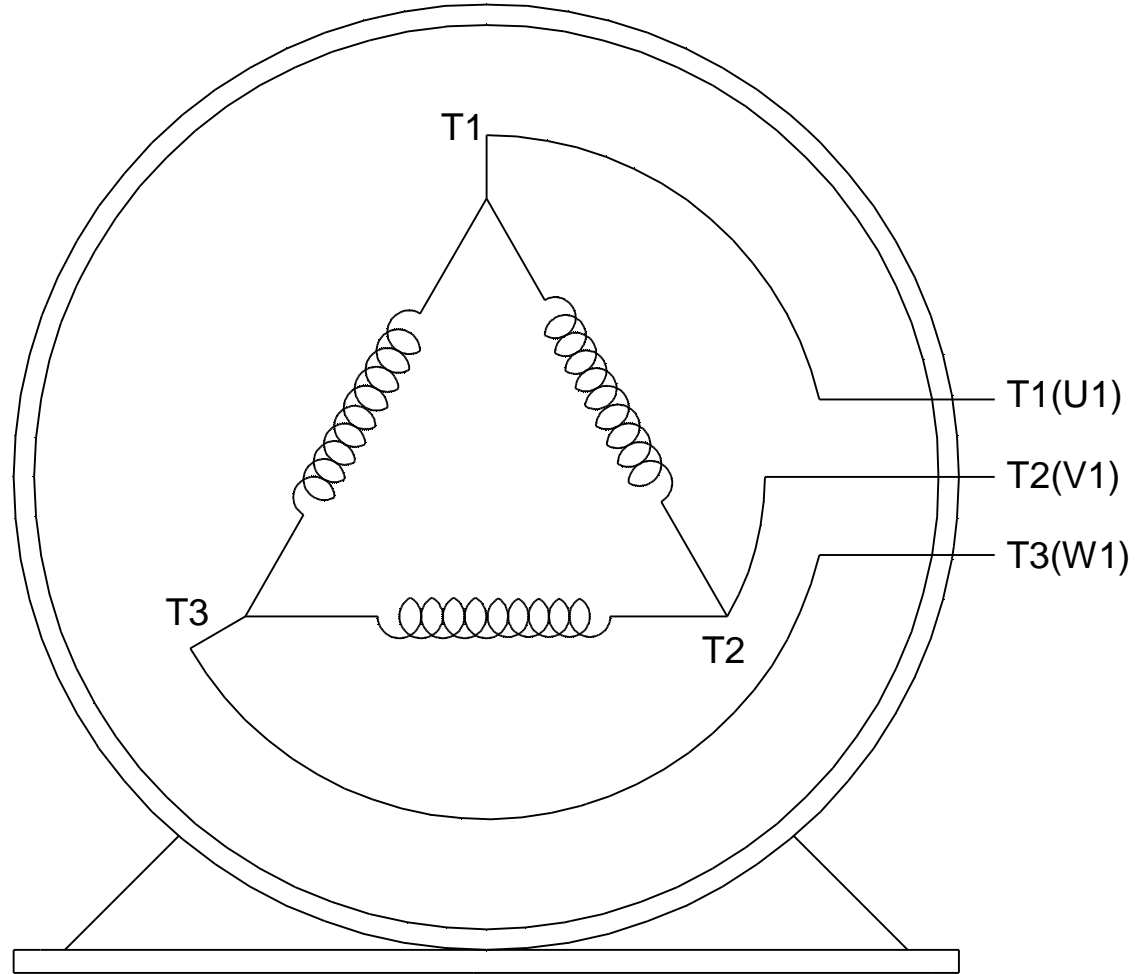


IF MOTOR HAS 6 LEADS



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
<u>DEC.</u>	<u>INCH</u>	<u>mm</u>	<u>ANGLE</u>																							
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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 $\sqrt{\text{mm}}$ mm SHOWN IN [BRACKETS]	REFERENCE	SIZE A	DRAWING NUMBER EE7300U	SHEET 1 OF 1																			
				THIRD ANGLE PROJECTION																						



DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300U
 OUTLINE: SS557888
 WINDING: HA32806007 NONE 5

REFERENCE MODEL #: 445THFCD9087
 CAT #: W614A

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
150	112	1200	1190	445T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB(° C)	ELEV.(Ft)
3	60	460	171	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	95.8	3/4 LD EFF	95.8	1/2 LD EFF	95.4	GTD EFF	ELECT. TYPE
F.L. PF	86.0	3/4 LD PF	83.8	1/2 LD PF	77.0	95.4	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
662 LB-FT	1,085	1,192 LB-FT 180%	1,757 LB-FT 265%	65

SOUND PRESSURE	SOUND	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX. MOTOR WGT
75 dBA	84 dBA	138 LB-FT ²	1500 LB-FT ²	25 SEC.	2	2404 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	1045 HOT ROLLED (C-204)	CAST IRON
ROLLER	BALL						
NU319	6317						

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)
0.014	0.013	0.137	0.227	4.952	0.080

* N O T E S *	If Inverter equals NONE, contact factory for further information	
	INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE PPR	

PREPARED BY:	DATE: 6/3/2020	BRAKE: NONE	NONE
** Subject to change without notice.		FT-LB: NA	NONE
FORM: 3531 REV_4 2/27/06		VOLTAGE: NONE	HZ:

Data Sheet

Date: 6/3/2020
 Customer: _____
 Attention: _____
 Submitted by: _____

445THFCD9087



Submittal

Data @ 460 V

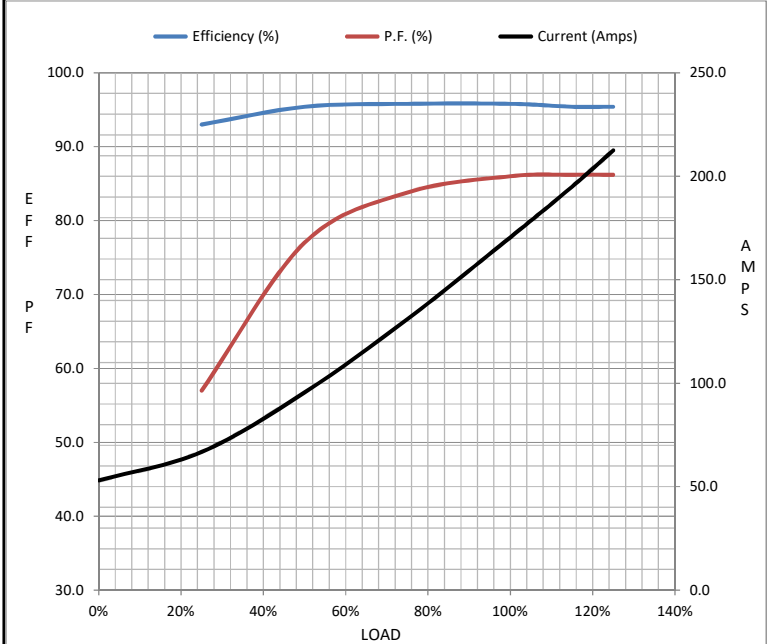
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	53.0	66.8	95.5	131	171	195	213	1,085
Torque (ft-lb)	0.00	165	330	495	662	760	830	1,192
RPM	1200	1198	1195	1192	1190	1,188	1188	0
Efficiency (%)		93.0	95.4	95.8	95.8	95.4	95.4	
P.F. (%)	5.0	57.0	77.0	83.8	86.0	86.2	86.2	30.0

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1158	1190	1200
Current (Amps)	1,085	870	612	171	53.0
Torque (ft-lb)	1,192	1,020	1,757	662	0.00

Information Block				
HP	150.0			
Sync. RPM	1200			
Frame	160L			
Enclosure	TEFC			
Construction	TFC			
Voltage	460 V			
Frequency	60 Hz			
Design	N			
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	138 Lb-Ft ²			
Ref Wdg	HA32806007 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	037898-912			
Conn. Diag	EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0140	0.0130	0.1370	0.2270	4.9520



Speed - Torque Curve

