

# PRODUCT INFORMATION PACKET

Model No: 444TTFN16582

Catalog No: E405A

Severe Duty Motors, TEFC, 100 HP, 3 Ph, 60 Hz, 575 V, 1188 RPM, 444T Frame



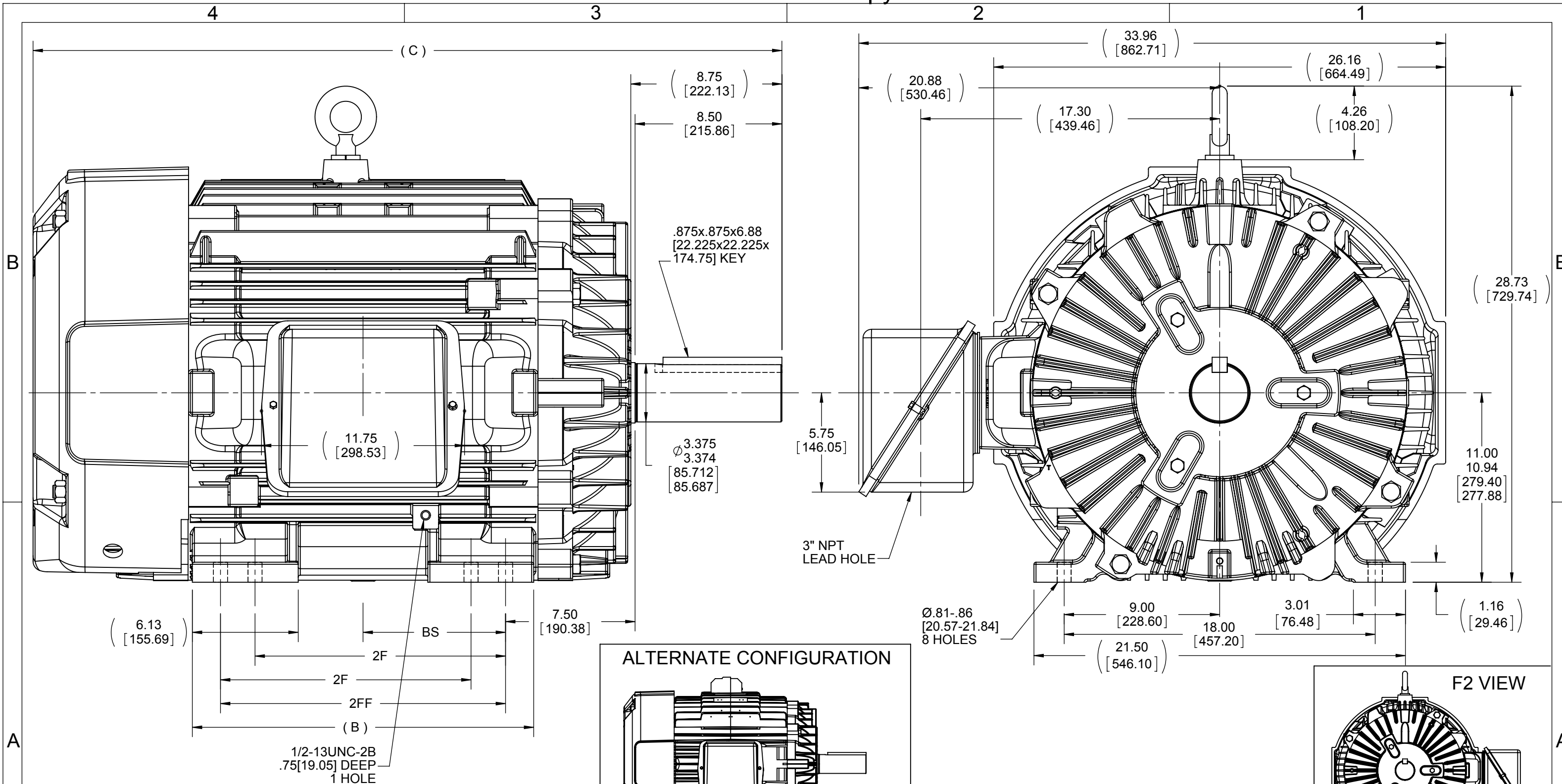
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**Nameplate Specifications**

Output HP	<b>100 Hp</b>	Output KW	<b>75.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>99.0 A</b>	Speed	<b>1188 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95 %</b>	Power Factor	<b>80</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>444T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6318</b>	Opp Drive End Bearing Size	<b>6316</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>54</b>
Number of Speeds	<b>1</b>		

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.048 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>43.34 in</b>
Frame Length	<b>20.25 in</b>	Shaft Diameter	<b>3.375 in</b>
Shaft Extension	<b>8.75 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Connection Drawing	<b>A-EE7300U</b>	Outline Drawing	<b>B-SS513797-2025</b>



- NOTES:  
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.  
 2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.  
 3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	2F	2FF	BS
1825	444T	17.75 [450.85]	41.34 [1050.04]	14.50 [368.30]	---	7.25 [184.15]
2025	444/445T	19.75 [501.65]	43.34 [1100.84]	14.50 [368.30]	16.50 [419.10]	8.25 [209.55]

DRAWING REVISION C	REVISION BY AJW	DATE 11-13-2014
ECO ECO-0065299	APPROVED BY TDB	DATE 11-13-2014
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TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 DEC. INCH mm ANGLE  
 .X ±0.1 [±2.5] ±0.5°  
 .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]  
 CORNER FILLETS: .02 [0.51]  
 MACHINED SURFACES: 125 INCH 3.2 mm  
 mm SHOWN IN [BRACKETS]

DRAWN BY JL	DATE 06-28-1991
APPROVED BY AAL	DATE 12-02-1991
REFERENCE	THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 444/445T FR.-STD.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS513797
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 <b>L</b>	REVISION BY <b>AJW</b>	DATE <b>05-04-2015</b>	TOLERANCES UNLESS OTHERWISE SPECIFIED:	DRAWN BY <b>DRS</b>	<b>Regal Beloit America, Inc.</b>																					
ECO <b>ECO-0077067</b>	APPROVED BY <b>EWH</b>	DATE <b>05-05-2015</b>	<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 <b>09-27-1996</b>
<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]																								
ECO DESCRIPTION <b>UPDATED TO SOLIDWORKS</b>			REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.076/.381] X 45° CORNER FILLETS: R.02 [.51] MACHINED SURFACES: 200 INCH √ 5.1 mm √	APPROVED BY <b>GK</b>	MATERIAL	PROCESS/FINISH																				
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			THIRD ANGLE PROJECTION	REFERENCE																						



P.O. BOX 8003  
 WAUSAU, WI 54401-8003  
 PH. 715-675-3311

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_ CUSTOMER P.O. #: \_\_\_\_\_  
 ORDER #: \_\_\_\_\_ REFERENCE MODEL #: 444TTFN16582  
 CONN. DIAGRAM: A-EE7300U CAT #: E405A  
 OUTLINE: B-SS513797-2025 CUSTOMER PART #: \_\_\_\_\_  
 WINDING: T444689 NONE 2 MOUNTING: F1/F2 CAPABLE  
 SPEED: \_\_\_\_\_

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1200	1188	444T	TEFC	TFN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	575	99	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	95.0	3/4 LD EFF	95.0	1/2 LD EFF	94.1	GTD EFF	ELECT. TYPE
F.L. PF	80.0	3/4 LD PF	75.0	1/2 LD PF	64.5	94.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
442 LB-FT	580	750 LB-FT 170%	1,100 LB-FT 249%	70

@ 3 FT.	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
72 dBA	81 dBA	55.0 LB-FT <sup>2</sup>	1400 LB-FT <sup>2</sup>	25 SEC.	2	1850 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	UM SEVERE	DIVISION 2	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
BALL	BALL						
6318	6316						

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
0.053	0.035	0.367	0.435	7.566	0.080	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: NONE NONE NONE					
	BRAKE: NONE NONE NONE					
	FT-LB: NA VOLTAGE: NONE HZ:					
PREPARED BY: FAREEDA DUDEKULA DATE: 1/7/2019						
UL: V-INS, CONST UL REC						

FORM: 3531 REV\_4 2/27/06

Data Sheet

444TTFN16582

Date: 1/7/2019  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 575 V

Motor Load Data

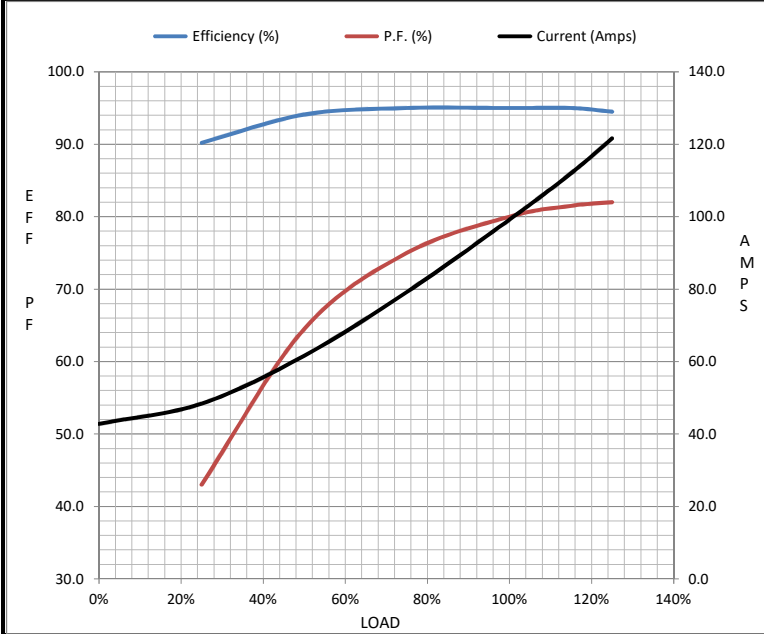
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	42.8	48.4	61.6	79.2	99.2	112	122	580	
Torque (ft-lb)	0.00	110	220	331	442	509	554	750	
RPM	1200	1198	1195	1192	1188	1,186	1184	0	
Efficiency (%)		90.2	94.1	95.0	95.0	95.0	94.5		
P.F. (%)	4.0	43.0	64.5	75.0	80.0	81.5	82.0	28.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1150	1188	1200
Current (Amps)	580	520	340	99.2	42.8
Torque (ft-lb)	750	600	1,100	442	0.00

Information Block

HP	100.0			
Sync. RPM	1200			
Frame	444			
Enclosure	TEFC			
Construction	TFN			
Voltage	575 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	55.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T444689 NONE			
Sound Pressure @ 1M	72 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS513797-2025			
Conn. Diag	A-EE7300U			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0530	0.0350	0.3670	0.4350	7.5660



Speed - Torque Curve

