

# PRODUCT INFORMATION PACKET

Model No: 445THFCD8036

Catalog No: Y577A

Blue Max® Inverter Duty Encoder Motor, 150 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445T Frame, TEFC



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### Nameplate Specifications

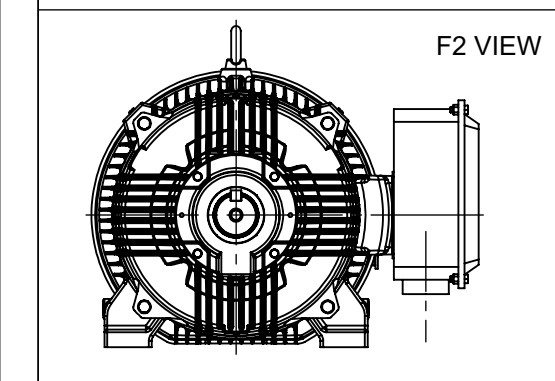
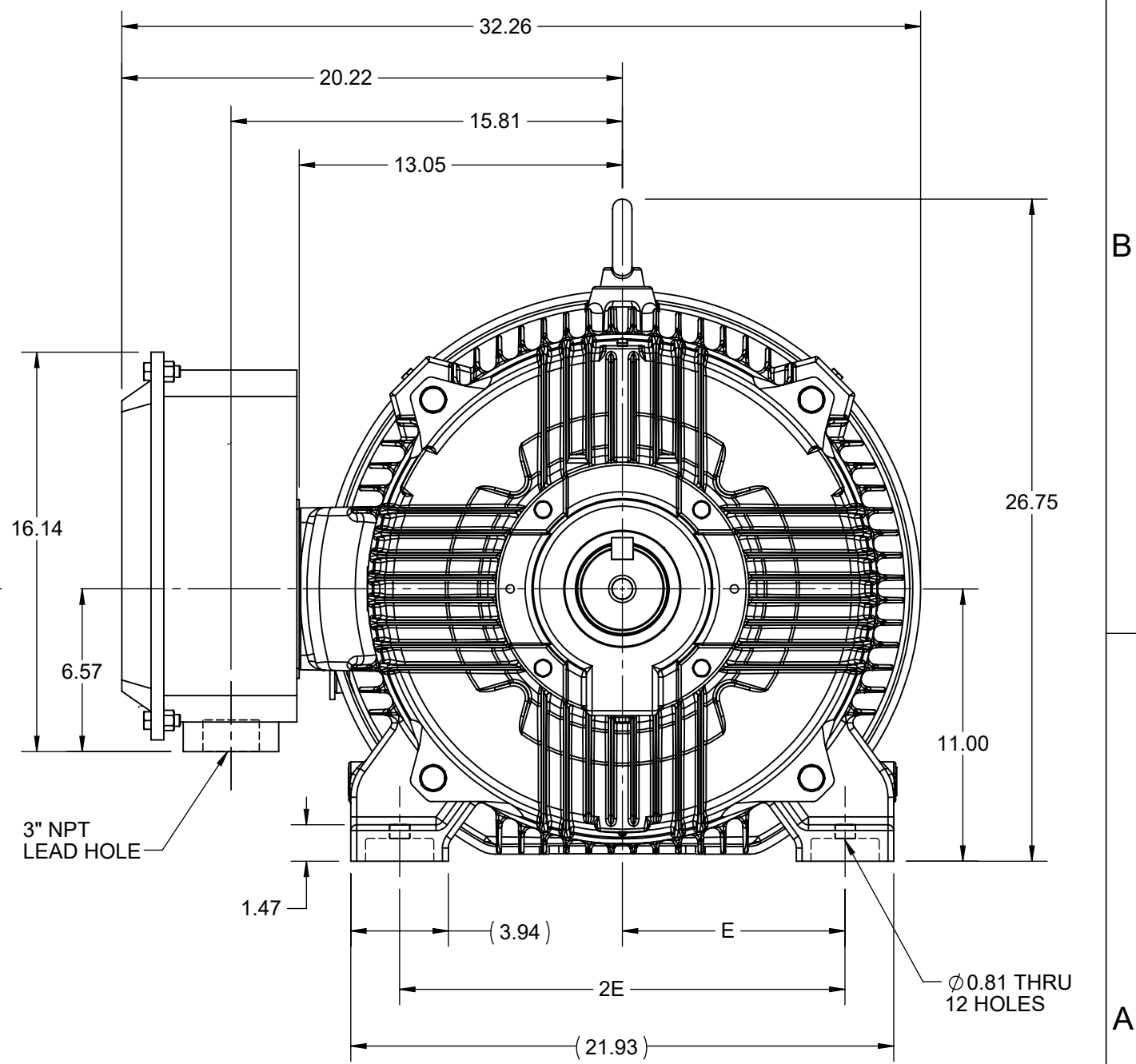
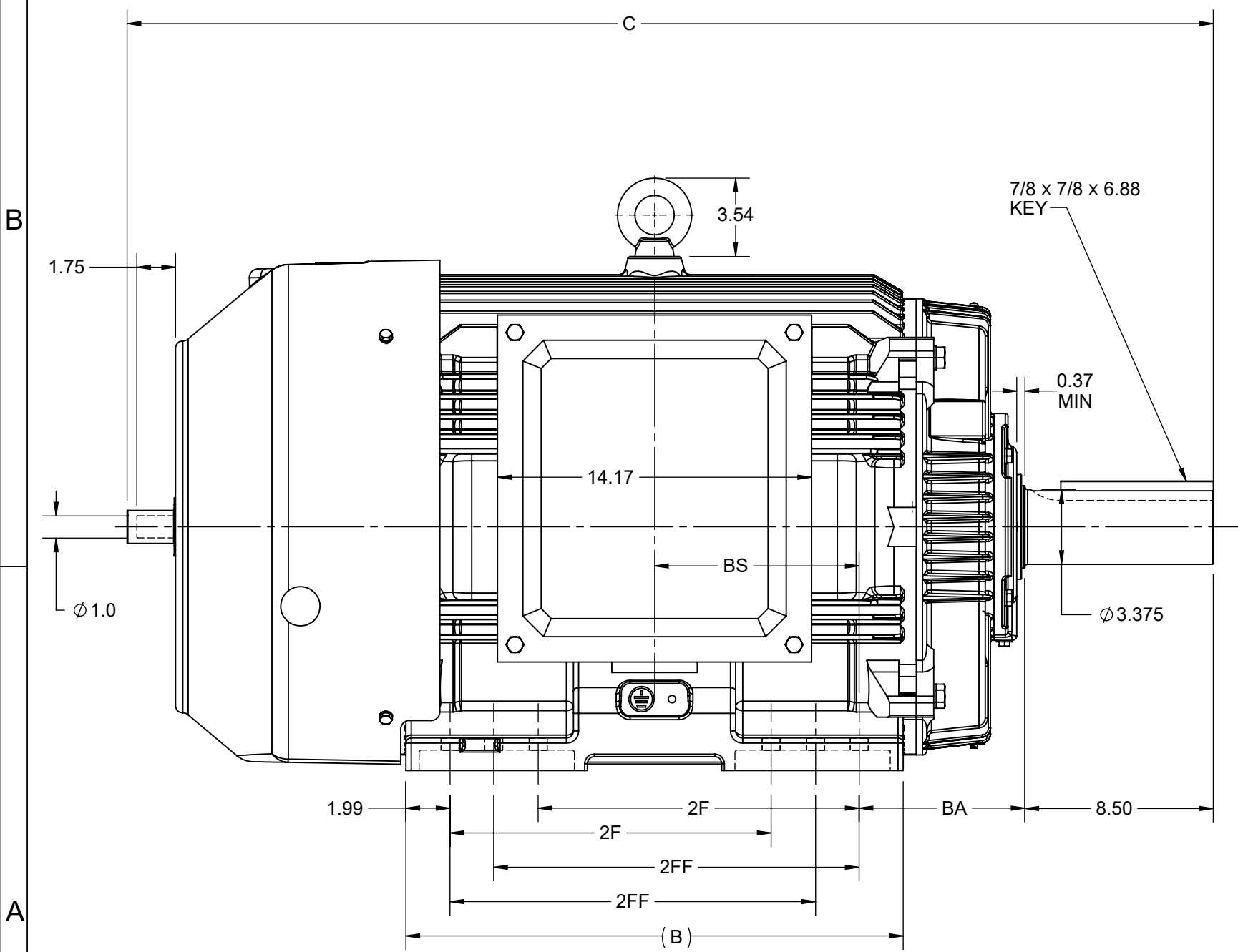
Output HP	<b>150 Hp</b>	Output KW	<b>112.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>161.0 A</b>	Speed	<b>1788 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>95.4 %</b>	Power Factor	<b>91</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>H</b>
Frame	<b>445T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6319</b>	Opp Drive End Bearing Size	<b>6317</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Duty</b>	Starting Method	<b>Inverter Only</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.0332 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>	Shaft Diameter	<b>3.375 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 2000:1</b>
Connection Drawing	<b>EE7300T</b>	Outline Drawing	<b>SS621057</b>

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4			3				2		1
B	C	E	2E	2F	2FF	BA	BS	MOUNTING	
22.44	49.01	9.00	18.00	14.50	16.50	7.50	9.00	F1 OR F2	



DRAWING REVISION B	REVISION BY JP	REV DATE/© DATE 21/07/2021
ECO CR-0003664	APPROVED BY GNK	DATE 21/07/2021
ECO DESCRIPTION		
DRAWING UPDATED		
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PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

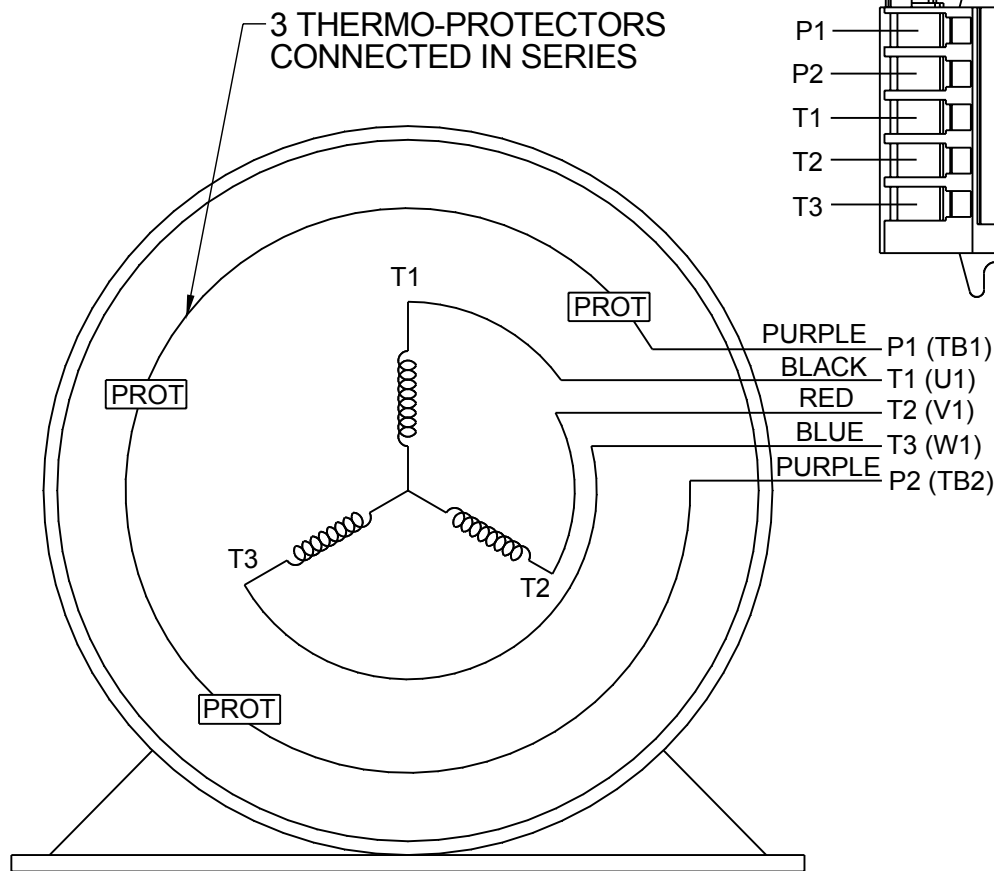
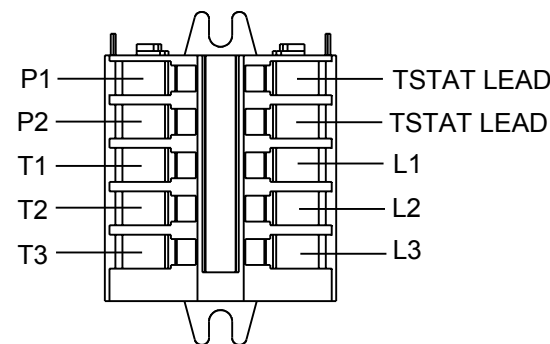
DRAWN BY MSH	<b>REGAL</b> ® Regal Beloit America, Inc.
DATE 02/09/2020	
APPROVED BY SBD	DESCRIPTION
DATE 02/09/2020	<b>OUTLINE</b>
REFERENCE	444/445T FR-NEMA-TEFC -CAST IRON - TACH. MTG.
THIRD ANGLE PROJECTION	MATERIAL
SIZE B	PROCESS/FINISH
DRAWING NUMBER SS621057	SHEET 1 OF 1

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

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS**

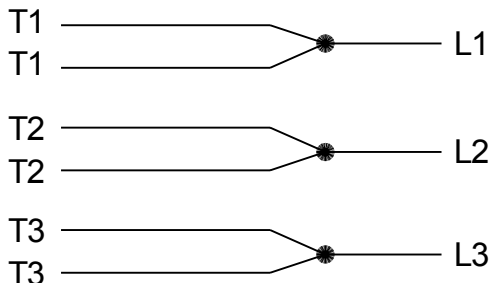
**NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST:  
FOR 3 LEAD COMMON CONNECT:  
CONNECT P1 TO T1 THEN P2 TO L1  
FOR 6 LEAD COMMON CONNECT:  
CONNECT P1 TO BOTH T1  
THEN P2 TO L1**

TERMINAL BLOCK WHEN SPECIFIED



**VIEW OF TERMINAL END**

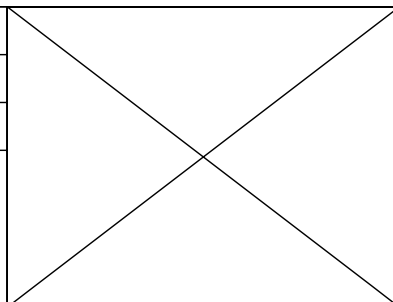
**IF MOTOR HAS MULTIPLE  
T'S PER LEAD CONNECT  
TOGETHER LIKE T'S**



**A-9806 DECAL**

- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

DRAWING REVISION AB	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T.VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8		
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DRAWN BY LZ	<b>Regal Beloit America, Inc.</b>	
DATE 01-04-1994		
APPROVED BY GK	DESCRIPTION <b>CONN DIAGRAM-EXTERNAL</b> 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
DATE 01-20-1994	MATERIAL	
REFERENCE	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>EE7300T</b>
		SHEET 1 OF 1



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER:  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: EE7300T  
OUTLINE: SS621057  
WINDING: HA32804040 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: 445THFCD8036  
CAT #: Y577A  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
150	112	1800	1788	445T	TEFC	TFN	H	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	161	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.8	1/2 LD EFF	95.6	GTD EFF	ELECT. TYPE
F.L. PF	91.0	3/4 LD PF	89.0	1/2 LD PF	83.5	95.0	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
441 LB-FT	1,306	793 LB-FT	180%	1,498 LB-FT 340%

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
75 dBA	84 dBA		67.11 LB-FT <sup>2</sup>	150 LB-FT <sup>2</sup>	43 SEC.	2	1887 LB.	

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	ENCODER	RIGID	HORIZONTAL	NO	NONE	YES	NONE	BLUE (ENAMEL)

DE	ODE	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6319	6317						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (NIC)	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
0.02	0.011	0.138	0.152	6.182	0.150	ODE

NOTES	INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED					
	ENCODER: NONE					
	NONE					
	NONE PPR					

PREPARED BY: _____	BRAKE: NONE
DATE: 11/17/2021	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
	HZ: _____
FORM: 3531 REV. 4 2/27/06	UL: V-INS, CONST, OVERHEAT PRT DEV UL REC

Data Sheet

Date: 11/17/2021  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_



445THFCD8036

Submittal

Data @ 460 V

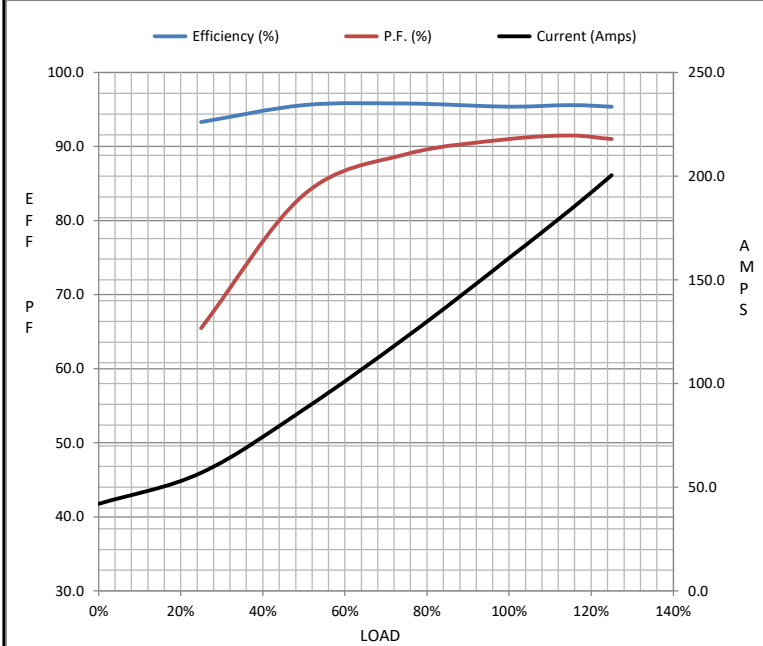
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	42.0	57.0	87.5	123	161	184	201	1,306
Torque (ft-lb)	0.00	110	220	330	441	507	552	793
RPM	1800	1795	1792	1790	1788	1,785	1785	0
Efficiency (%)		93.3	95.6	95.8	95.4	95.6	95.4	
P.F. (%)	5.0	65.5	83.5	89.0	91.0	91.5	91.0	30.5

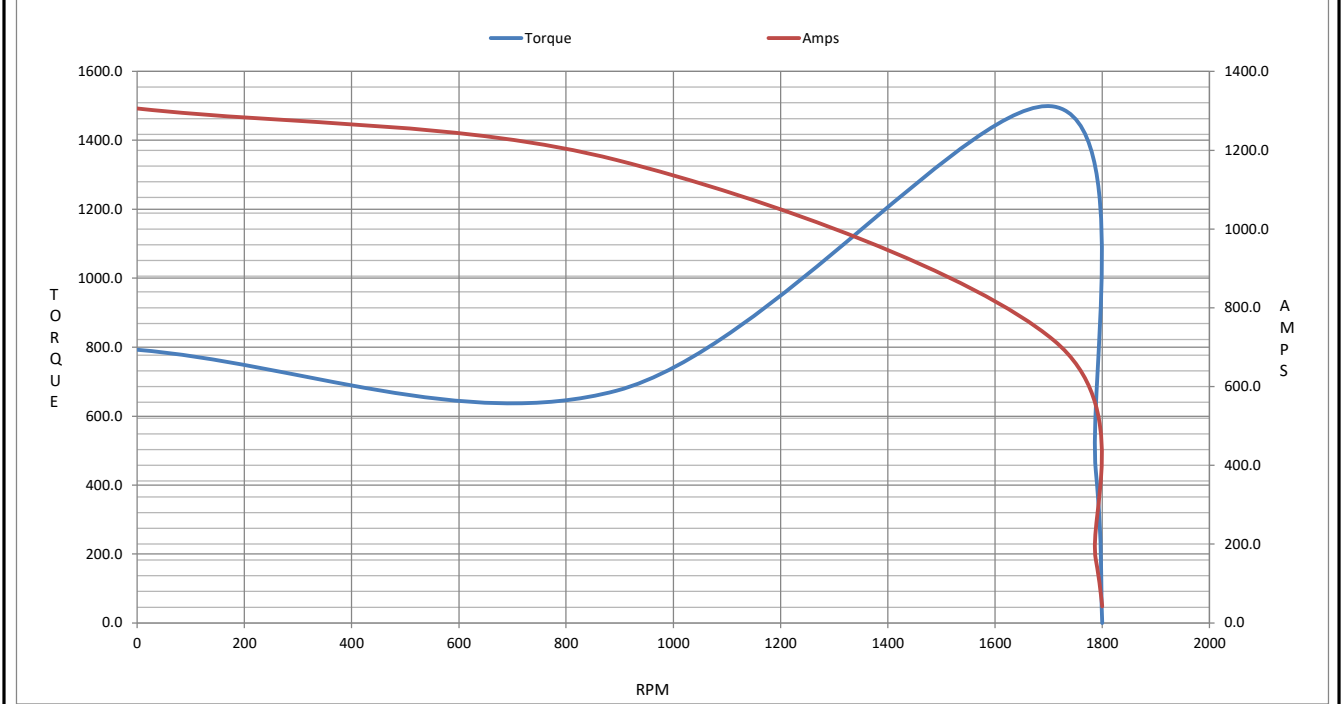
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	894	1710	1788	1800
Current (Amps)	1,306	1,175	717	161	42.0
Torque (ft-lb)	793	674	1,498	441	0.00

Information Block				
HP	150.0			
Sync. RPM	1800			
Frame	445			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	67.11 Lb-F <sup>2</sup>			
Ref Wdg	HA32804040 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS621057			
Conn. Diag	EE7300T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0200	0.0110	0.1380	0.1520	6.1820



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 : 445THFCD8036

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

Catalog No : Y577A

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**