

# PRODUCT INFORMATION PACKET

Model No: 449THFCD8036

Catalog No: Y579A

Blue Max® Inverter Duty Encoder Motor, 250 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, TEFC



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### Nameplate Specifications

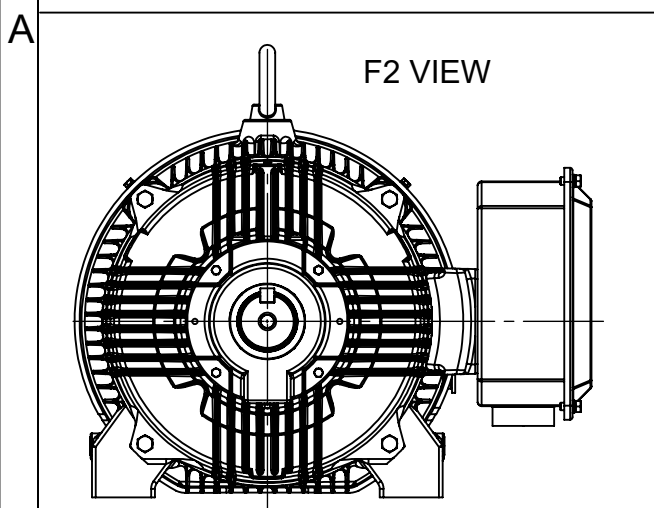
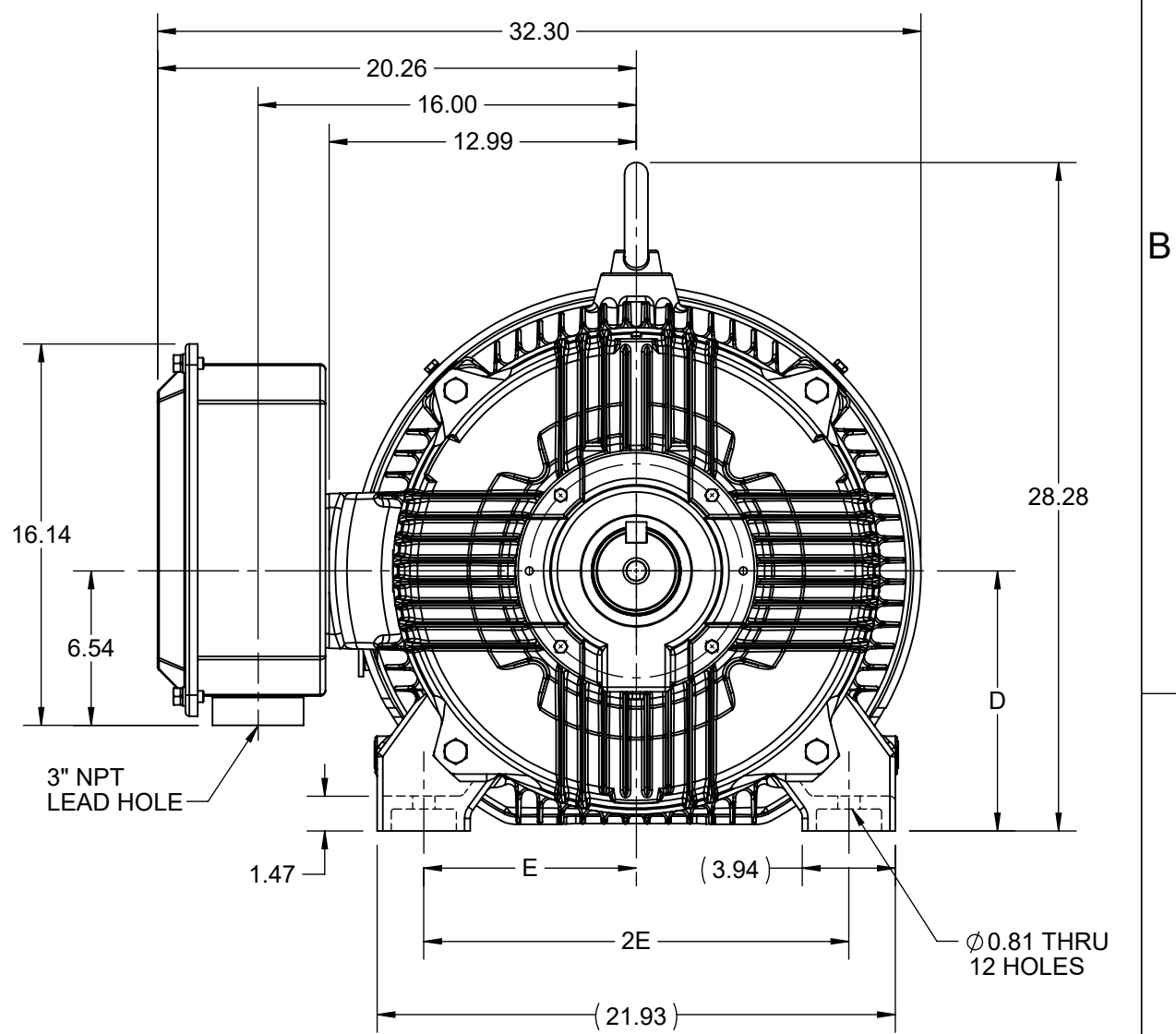
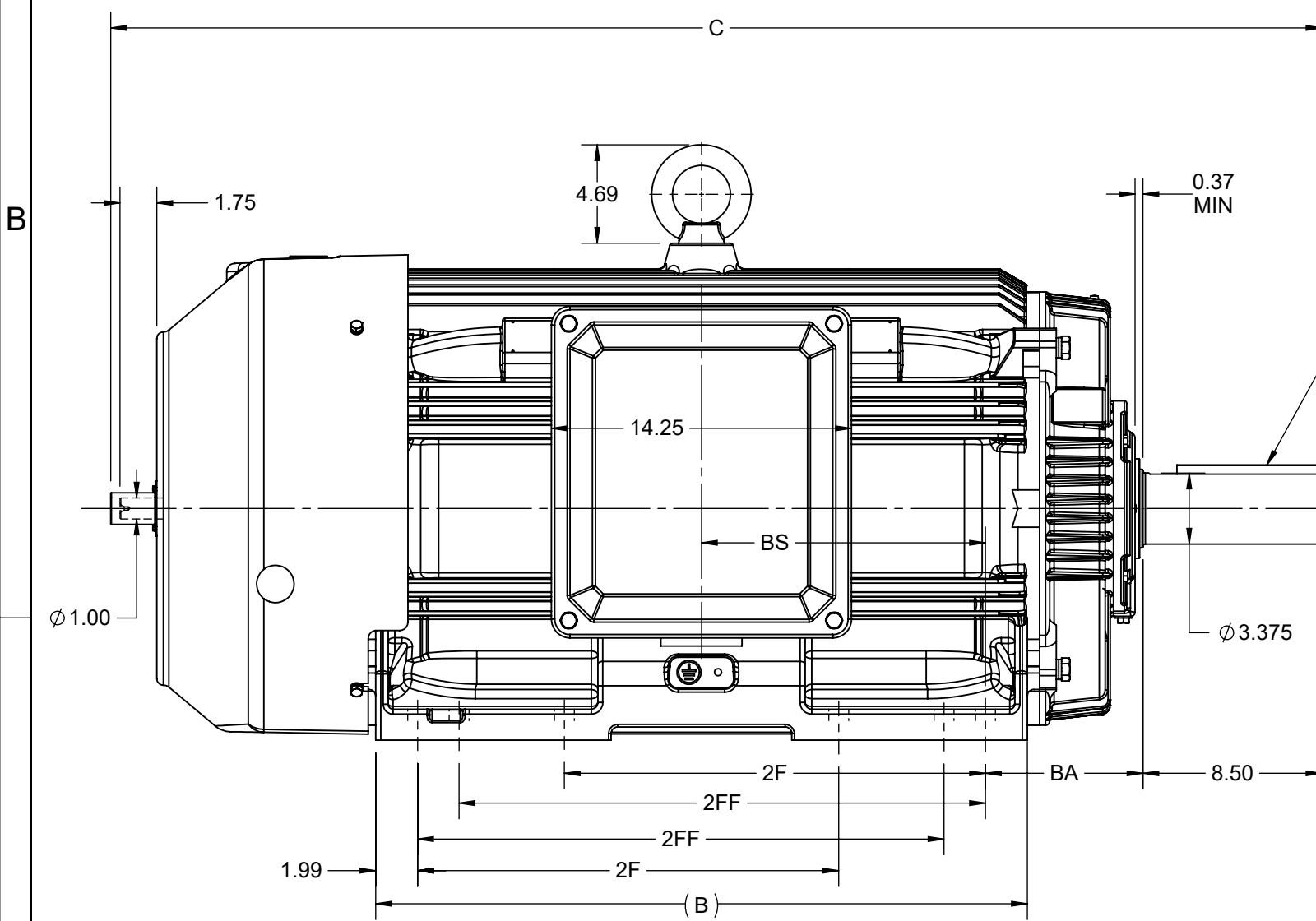
Output HP	<b>250 Hp</b>	Output KW	<b>187.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>265.0 A</b>	Speed	<b>1785 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>95.8 %</b>	Power Factor	<b>92</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>INV</b>	KVA Code	<b>H</b>
Frame	<b>449T</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>.0174 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>
Outline Drawing	<b>SS621060</b>	Connection Drawing	<b>EE7300S</b>

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		4			3						
B	C	D	E	2E	2F	2FF	BA	BS	MOUNTING		
30.94	57.52	11.00	9.00	18.00	20.00	25.00	7.50	13.48	F1 OR F2		



DRAWING REVISION B	REVISION BY GOPI J	REV DATE/© DATE 18/02/2022
REQUEST NUMBER CR-0007099	APPROVED BY SBD	DATE 18/02/2022
REQUEST NUMBER DESCRIPTION VIEWS UPDATED AS PER 3D		
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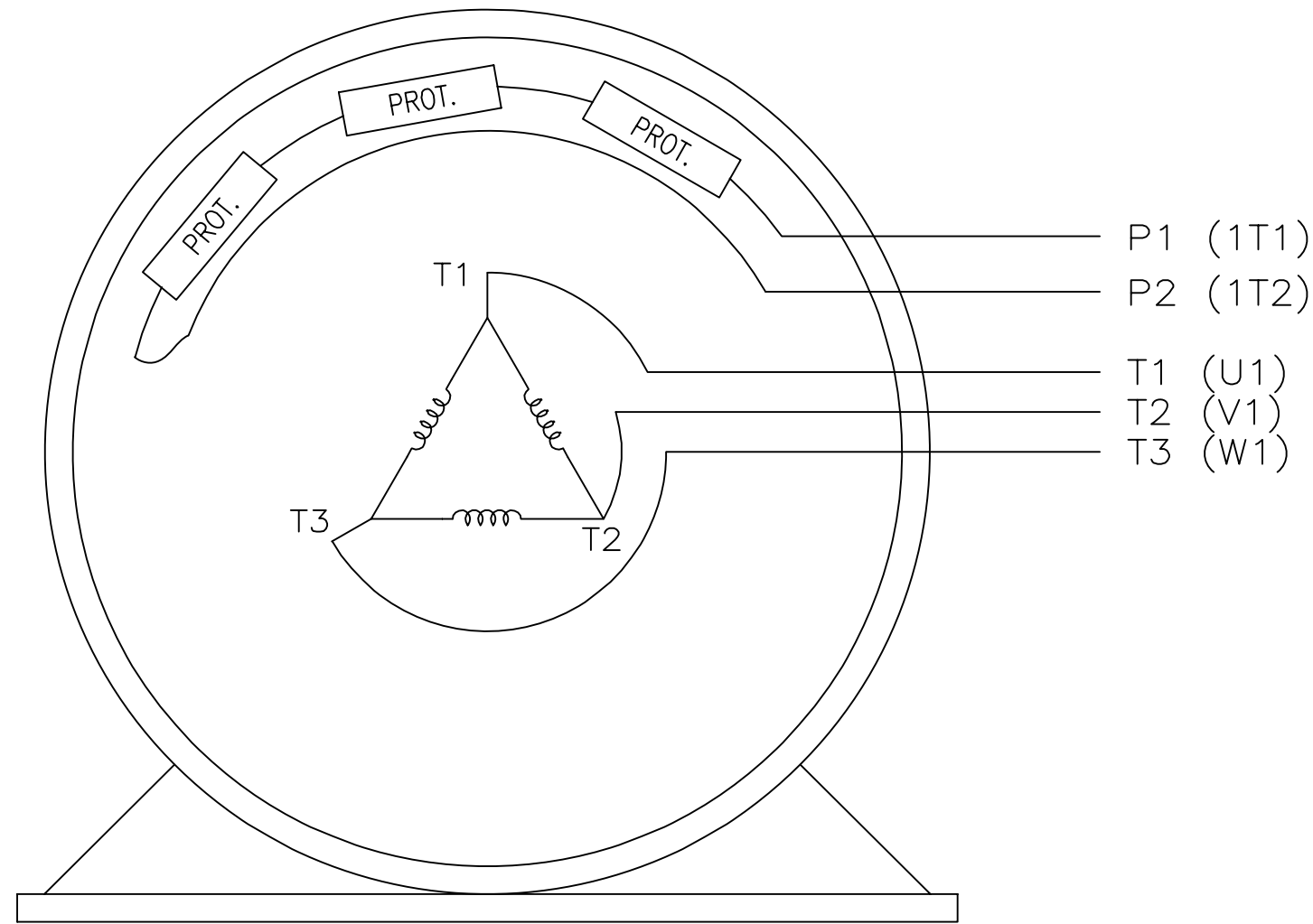
PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY VS		Regal Beloit America, Inc.	
DATE 08-09-2020		DESCRIPTION	
APPROVED BY MSH	<p style="text-align: center;"><b>OUTLINE</b></p> <p style="text-align: center;">447/449T FR-NEMA-TEFC -CAST IRON - TACH. MTG.</p>		
DATE 08-09-2020	MATERIAL	PROCESS/FINISH	
REFERENCE	SIZE B	DRAWING NUMBER SS621060	SHEET 1 OF 1

EE7300S

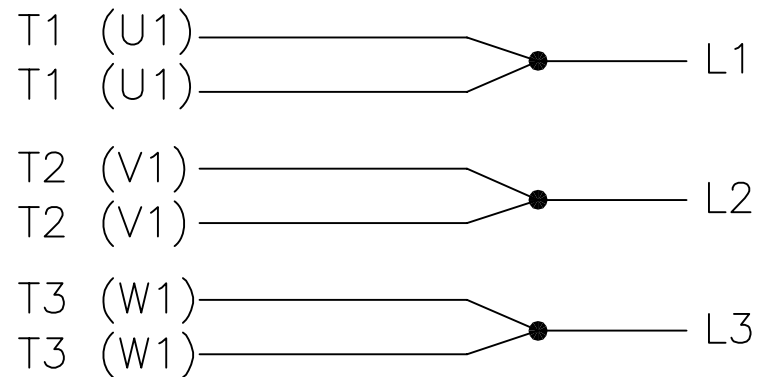
THREE PHASE – SINGLE VOLTAGE MOTOR

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS



VIEW OF TERMINAL END

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



A-9806 DECAL

NO.	REVISION	BY & DATE	CHK	TOLERANCES UNLESS SPECIFIED			REGAL-BELOIT CORPORATION	DRAWN KL 12-15-1999		
				DEC.	INCHES					
F	UPDATED TITLE BLOCK	HV 02-27-2014	EWB	.X	±	-	REGAL-BELOIT CORPORATION	CHK DJK 12-15-1999		
3	REMOVED "N.C." FROM PROT.'S MU61770	JJB 08-02-2010		.XX	±	-	TITLE CONNECTION DIAGRAM – EXTERNAL SINGLE VOLTAGE 3Ø MOTOR	APPD DJK 12-15-1999		
2	ADDED IEC MARKINGS MU61770	KL 09-16-2004	EAB	.XXX	±	-		SCALE 1=1		
1	NEW DRAWING	KL 12-16-1999		.XXXX	±	-	MAT'L.	REF		
				ANG	±	-	FINISH	FMF		
			RFP				CAD FILE ee7300s	PREV		
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT – DO NOT SCALE THIS PRINT				DIST	WA-LB-SB		SIZE A	DRAWING NO. EE7300S	PAGE OF	REV. F



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

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER:  
 ORDER #: \_\_\_\_\_  
 CONN. DIAGRAM: EE7300S  
 OUTLINE: SS621060  
 WINDING: HA32804043 NONE 1  
 SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
 REFERENCE MODEL #: 449THFCD8036  
 CAT #: Y579A  
 CUSTOMER PART #: \_\_\_\_\_  
 MOUNTING: F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
250	187	1800	1785	447/449T	TEFC	TFN	H	INV

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	265	INVERTER ONLY	CONT	H	1.15	40	3300

F.L. EFF	95.8	3/4 LD EFF	96.2	1/2 LD EFF	96.0	GTD EFF	ELECT. TYPE
F.L. PF	92.0	3/4 LD PF	90.5	1/2 LD PF	86.0	95.4	SQ CAGE INV DUTY

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
735 LB-FT	2,195	1,492 LB-FT	203%	2,498 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		101.39 LB-FT <sup>2</sup>	285 LB-FT <sup>2</sup>	32 SEC.	2	2593 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 6319	BALL 6317	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

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
0.012	0.007	0.079	0.104	4.23	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
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: \_\_\_\_\_



449THFCD8036

Submittal

Data @ **460** V

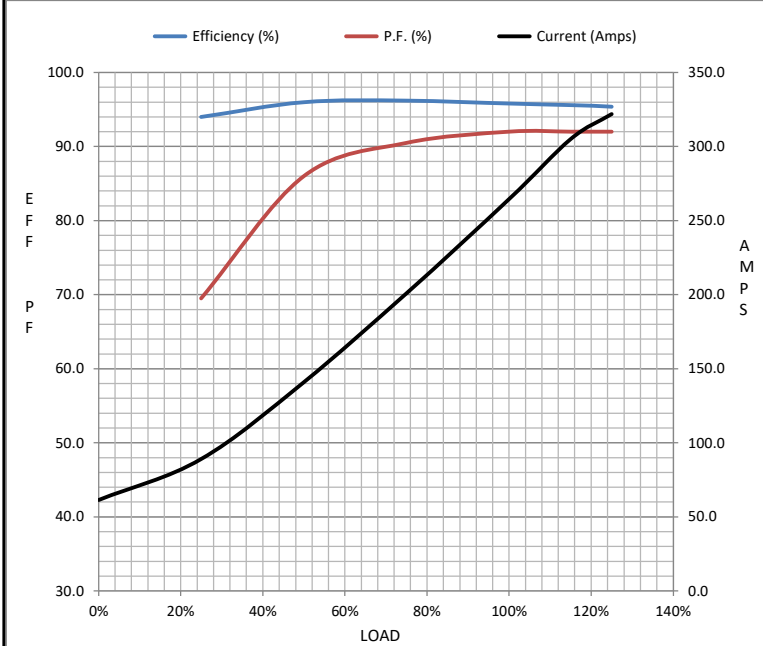
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	61.5	89.0	141	201	265	305	322	2,195
Torque (ft-lb)	0.00	183	366	550	735	845	920	1,492
RPM	1800	1795	1792	1790	1785	1,785	1782	0
Efficiency (%)		94.0	96.0	96.2	95.8	95.6	95.4	
P.F. (%)	5.0	69.5	86.0	90.5	92.0	92.0	92.0	33.0

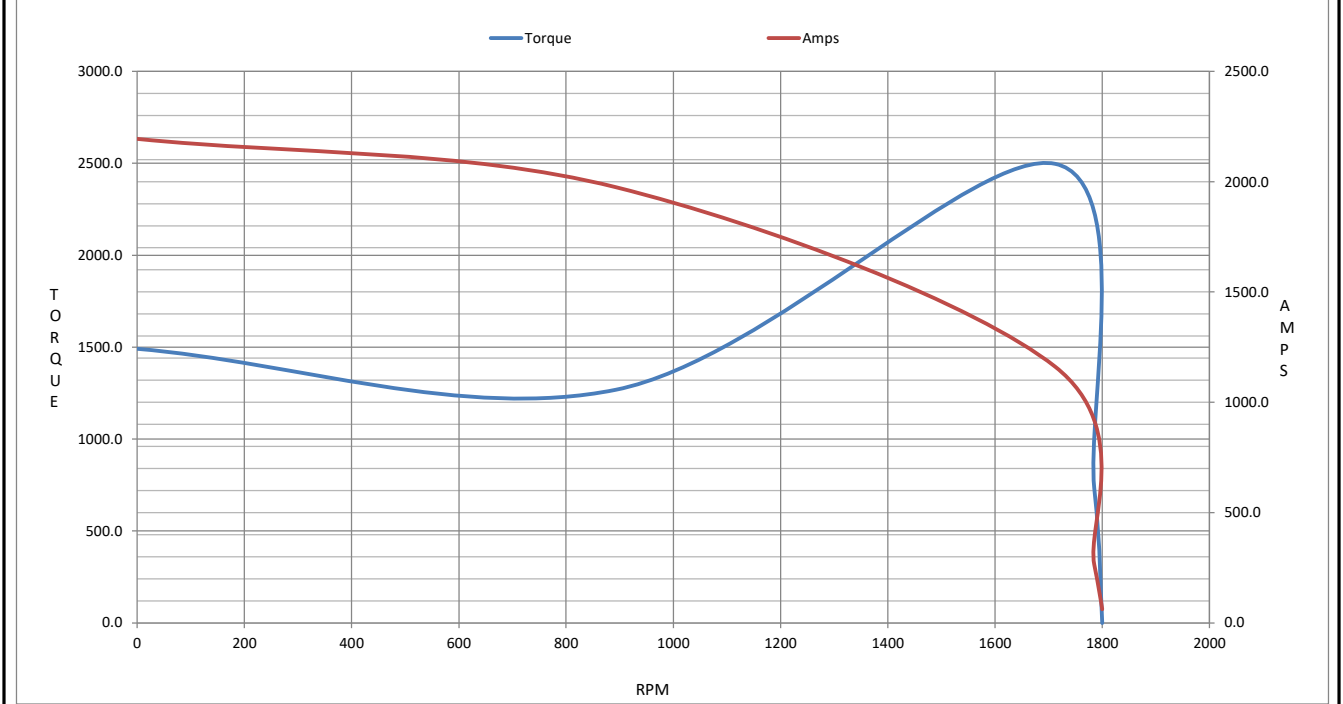
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	893	1712	1785	1800
Current (Amps)	2,195	1,976	1,161	265	61.5
Torque (ft-lb)	1,492	1,268	2,498	735	0.00

Information Block				
HP	250.0			
Sync. RPM	1800			
Frame	449			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	INV			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	62 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	101.39 Lb-F <sup>2</sup>			
Ref Wdg	HA32804043 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	SS621060			
Conn. Diag	EE7300S			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0120	0.0070	0.0790	0.1040	4.2300



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 : 449THFCD8036

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

Catalog No : Y579A

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**