

PRODUCT INFORMATION PACKET

Model No: 449THFS8037

Catalog No: Y580

Blue Max® Inverter Duty Encoder Motor, 300 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 449T Frame, TEFC



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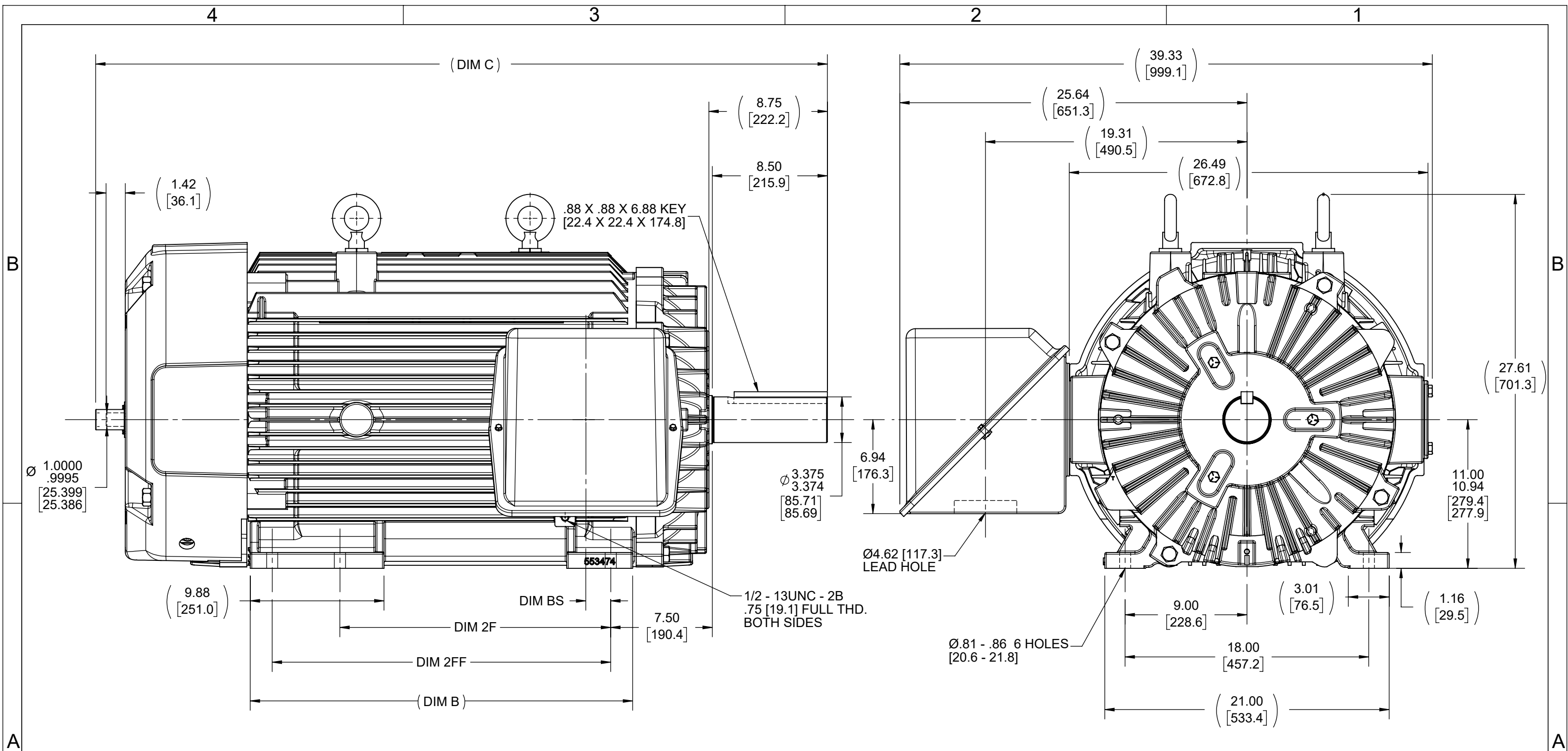
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Nameplate Specifications

Phase	3	Output HP	300 Hp
Output KW	224.0 kW	Voltage	460 V
Speed	1788 rpm	Service Factor	1
Frame	449T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	95.4 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	330.0 A	Power Factor	89.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	J
Drive End Bearing Size	6319	Opp Drive End Bearing Size	6318
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.0085 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	54.03 in
Frame Length	28.75 in	Shaft Diameter	3.375 in
Shaft Extension	8.75 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Connection Drawing	A-EE7300T	Outline Drawing	B-SS555991-2875



NOTE:
 1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF THE MOTOR.

ENGINEERING CERTIFIED DRAWING

NOTE: THIS MOTOR HAS PROVISION FOR HS35 ENCODER

DASH	FRAME	DIM B	DIM C	DIM 2F	DIM 2FF	DIM BS
2875	447T	28.25 [717.6]	54.03 [1372.4]	20.00 [508.0]	NA	1.84 [46.7]
2875	449T	28.25 [717.6]	54.03 [1372.4]	NA	25.00 [635.0]	1.84 [46.7]

DRAWING REVISION	REVISION BY	REV DATE/© DATE
B	SC	12/20/2021
ECO CR-0006007	APPROVED BY SC	DATE 12/20/2021
ECO DESCRIPTION ADDED ENGINEERING CERTIFIED DRAWING: CR-0006007		

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TOLERANCES (EXCEPT AS NOTED):

DEC.	INCH	mm	ANGLE
.X	±0.1	[±3]	±7° 30"
.XX	±0.03	[±0.8]	
.XXX	±0.005	[±0.13]	
.XXXX	±0.0005	[±0.013]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [08/.38] X 45°
 CORNER FILLETS: R.02 [5]
 MACHINED SURFACES: 200 INCH/mm 5.1
 mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY

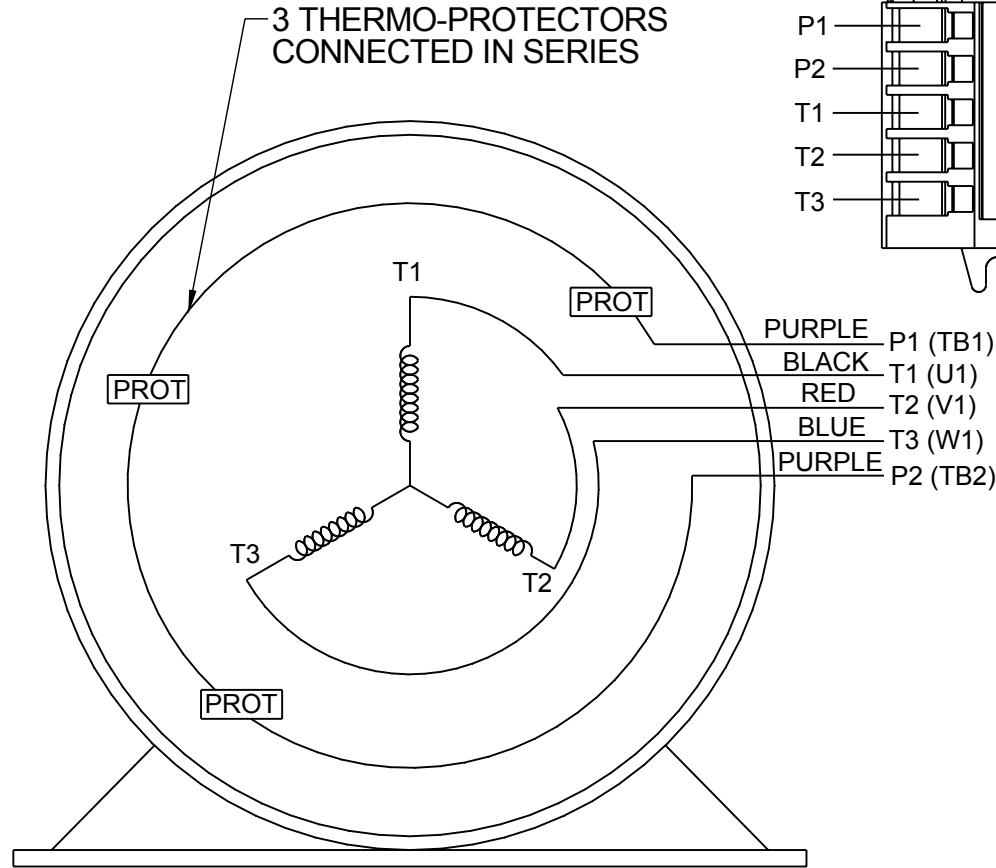
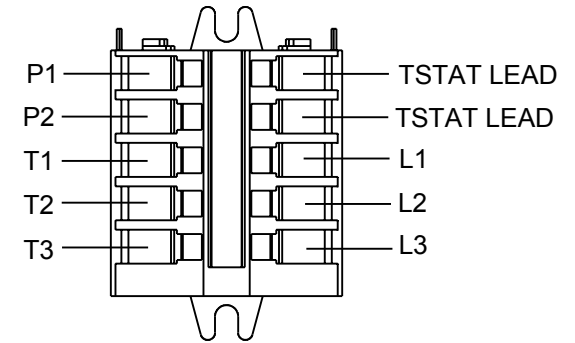
DRAWN BY W. JOERGER	Regal Beloit America, Inc.
DATE 12-19-2013	
APPROVED BY E. HEIL	
DATE 12-19-2013	
REFERENCE	DESCRIPTION OUTLINE TEFC - 447/449T FR.
THIRD ANGLE PROJECTION	MATERIAL
	PROCESS/FINISH
	SIZE B
	DRAWING NUMBER SS555991
	SHEET 1 OF 1

**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**

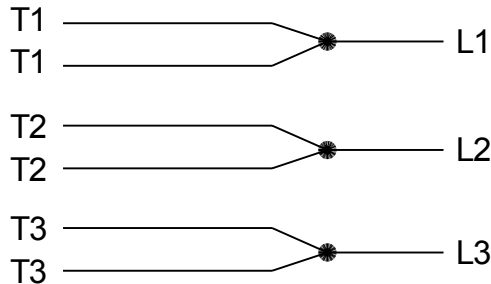
TERMINAL BLOCK WHEN SPECIFIED



PURPLE P1 (TB1)
BLACK T1 (U1)
RED T2 (V1)
BLUE T3 (W1)
PURPLE P2 (TB2)

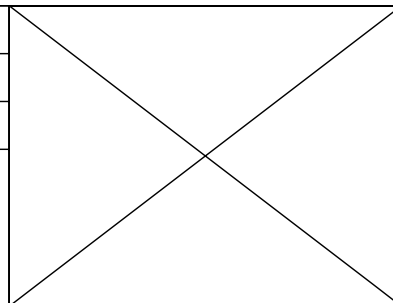
T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

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



A-9806 DECAL

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	Regal Beloit America, Inc.	
DATE 01-04-1994		
APPROVED BY GK	DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
DATE 01-20-1994	MATERIAL	
REFERENCE	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER EE7300T
		SHEET 1 OF 1

CERTIFICATION DATA SHEET

Model#: 449THFS8037 BG **WINDING#:** T449462 R1 4
CONN. DIAGRAM: A-EE7300T **ASSEMBLY:** F1/F2 CAPABLE
OUTLINE: B-SS555991-2875

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
300	224	1800	1788	447/449T	TEFC	J	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	330	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 95.4	3/4 LOAD EFF: 95	1/2 LOAD EFF: 94.1	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 89.5	3/4 LOAD PF: 87	1/2 LOAD PF: 80	94.5	SQ CAGE INV DUTY	95

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
881 LB-FT	2850	1445 LB-FT 164	2925 LB-FT 332	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
85 dBA	95 dBA	93 LB-FT^2	- LB-FT^2	- SEC.	-	3000 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.0073788	0.0060544	0.0771936	0.0628144	2.7907

RM	ZREF	XR	TD	TD0
124.872	0.946	8	0.038	1.25

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	ENCODER	RIGID	HORIZONTAL	FALSE	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6319	6318						

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: PROVISIONS ONLY NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE

*
N
O
T
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S
*

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 06:38:32 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 6/29/2017

449THFS8037

Customer: _____



Attention: _____

Submittal

Submitted by: FAREEDA DUDEKULA

Data @ 460 V

Motor Load Data

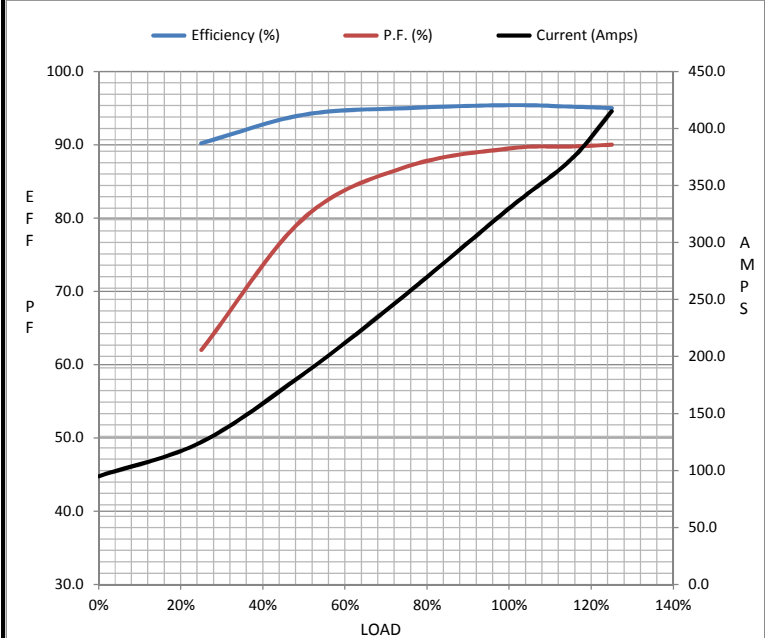
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	95.0	125	185	255	330	373	415	2,850
Torque (ft-lb)	0.00	220	440	660	881	991	1,100	1,445
RPM	1800	1796	1794	1790	1788	1,786	1782	0
Efficiency (%)		90.2	94.1	95.0	95.4	95.2	95.0	
P.F. (%)	7.5	62.0	80.0	87.0	89.5	89.8	90.0	25.0

Motor Speed Data

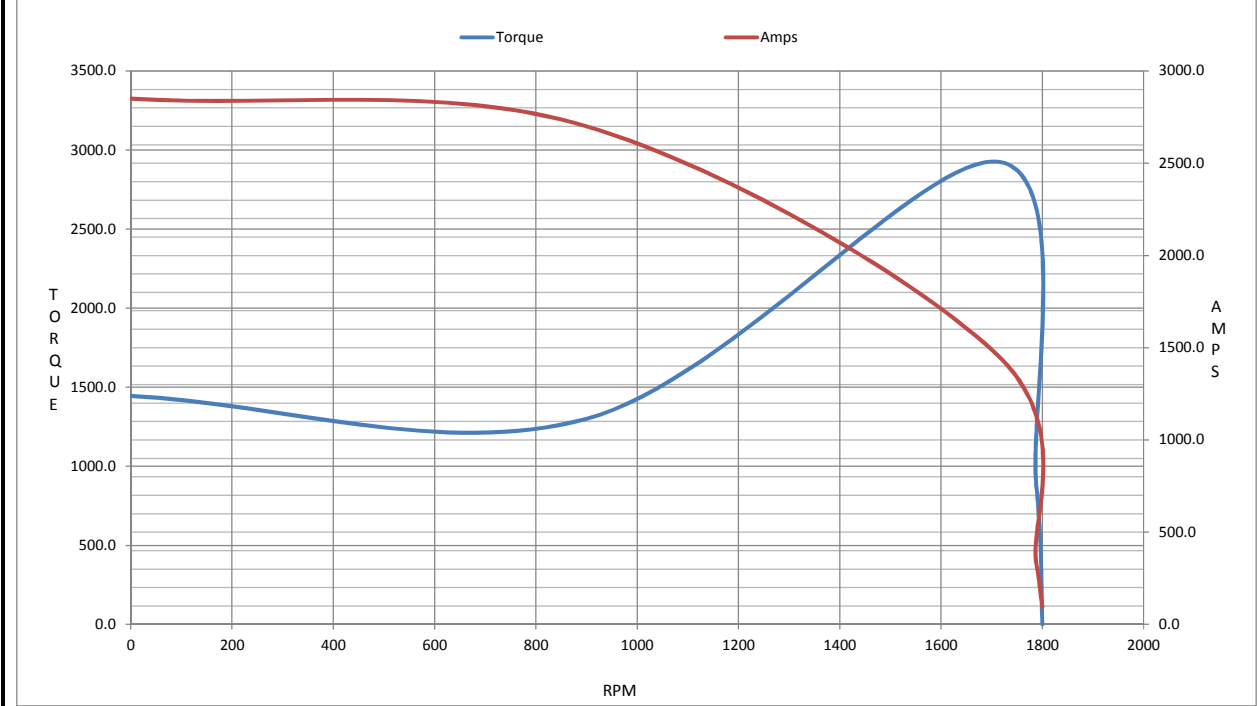
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1715	1788	1800
Current (Amps)	2,850	2,700	1,450	330	95.0
Torque (ft-lb)	1,445	1,300	2,925	881	0.00

Information Block

HP	300.0			
Sync. RPM	1800			
Frame	449			
Enclosure	TEFC			
Construction	TFN			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	J			
Service Factor	1.0			
Temp Rise @ FL	65 °C			
Duty	SPL			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	93.0 Lb-Ft ²			
Ref Wdg	T449462 R1			
Sound Pressure @ 1M	85 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS555991-2875			
Conn. Diag	A-EE7300T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0070	0.0060	0.0770	0.0630	2.7910



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 : 449THFS8037

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

Catalog No : Y580

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 04/28/2023

CE 23