

PRODUCT INFORMATION PACKET

Model No: 445THFN8050

Catalog No: Y520

Blue Max® Inverter Duty Encoder Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445T Frame, TEBC-AXIAL



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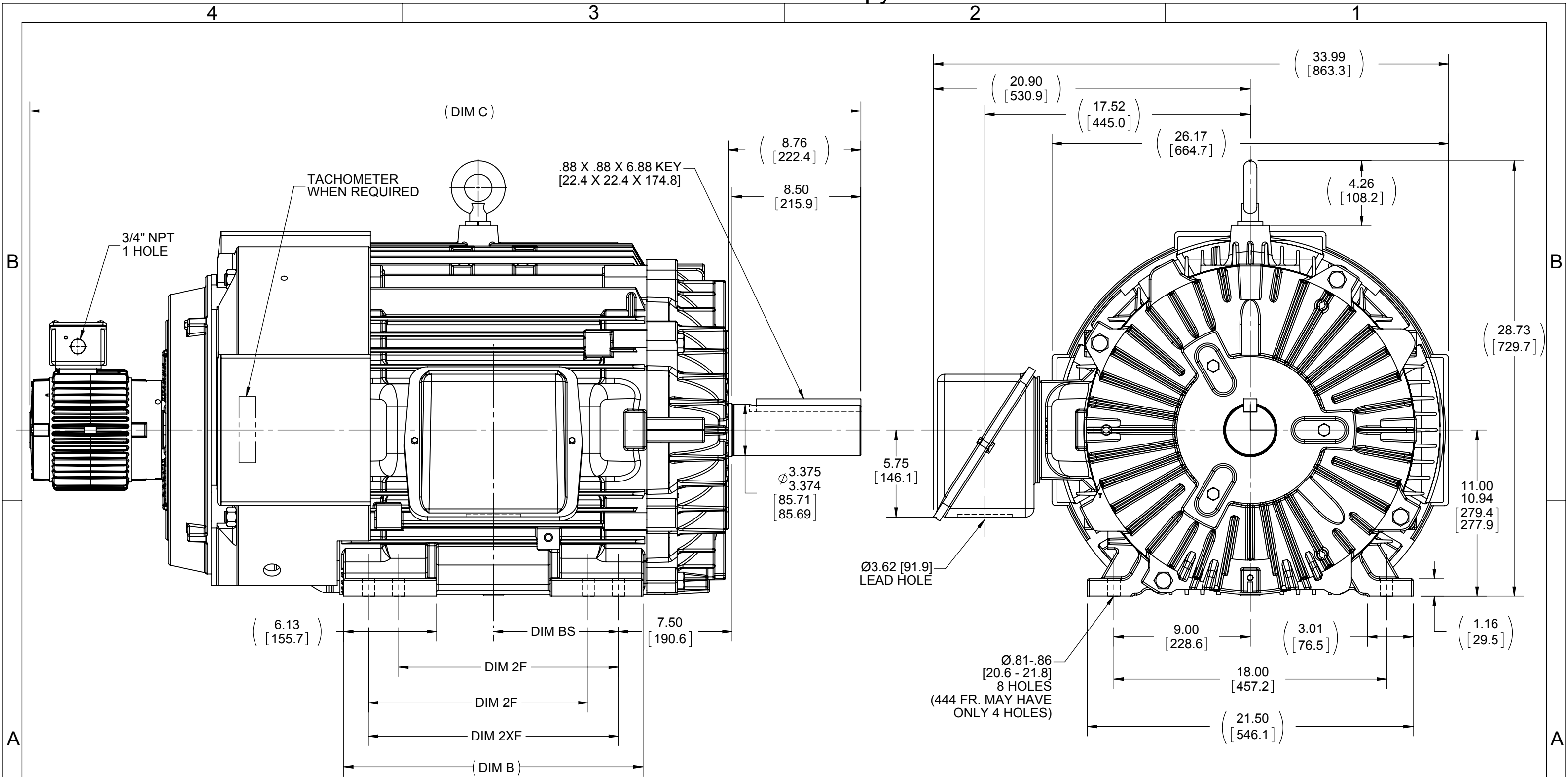
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Nameplate Specifications

Phase	3	Output HP	200 Hp
Output KW	149.0 kW	Voltage	460 V
Speed	1790 rpm	Service Factor	1
Frame	445T	Enclosure	Totally Enclosed Blower cooled - Axial
Thermal Protection	Thermostat	Efficiency	95 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	230.0 A	Power Factor	86
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	K
Drive End Bearing Size	6318	Opp Drive End Bearing Size	6316
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	.016 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	54.85 in
Frame Length	20.25 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-SS555992-2025



- 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	DIM B	DIM C	DIM 2F	DIM 2XF	DIM BS
1825	444T	17.75 [450.9]	52.85 [1342.4]	14.50 [368.3]	NA	7.25 [184.2]
2025	444/445T	19.75 [501.7]	54.85 [1393.2]	14.50 [368.3]	16.50 [419.1]	8.25 [209.6]

DRAWING REVISION A	REVISION BY W. JOERGER	DATE 12-19-2013
ECO ECO-0043627	APPROVED BY E. HEIL	DATE 12-19-2013
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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 3.2
 INCH mm
 mm SHOWN IN [BRACKETS]

DRAWN BY W. JOERGER	DATE 12-19-2013
APPROVED BY E. HEIL	DATE 12-19-2013
PROCESS/FINISH	
THIRD ANGLE PROJECTION	

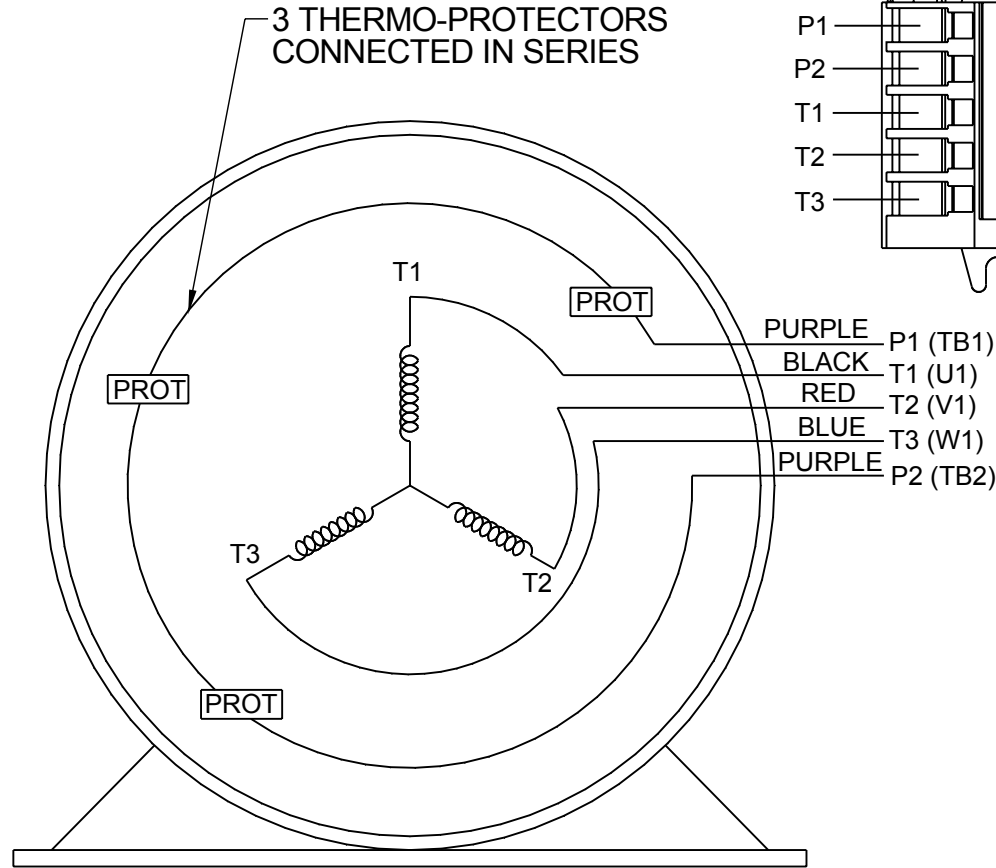
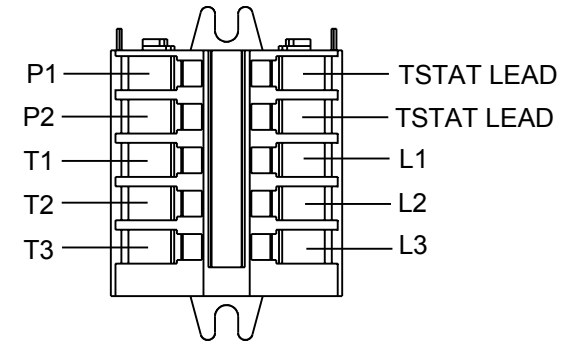
REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION OUTLINE TFN-440T FR-TEBC-AXIAL BLOWER	
SIZE B	DRAWING NUMBER SS555992
	SHEET 1 OF 1

**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**

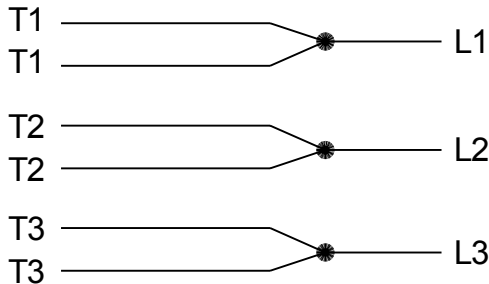
TERMINAL BLOCK WHEN SPECIFIED



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

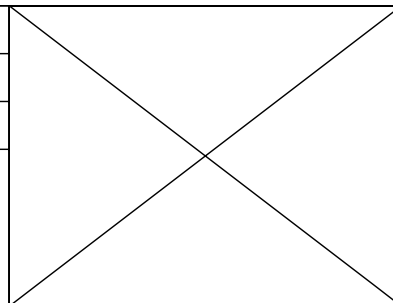
T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

**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
DATE 01-04-1994
APPROVED BY GK
DATE 01-20-1994
REFERENCE
THIRD ANGLE PROJECTION

REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR	
MATERIAL	PROCESS/FINISH
SIZE A	DRAWING NUMBER EE7300T
SHEET 1 OF 1	

CERTIFICATION DATA SHEET

Model#: 445THFN8050 AE
CONN. DIAGRAM: A-EE7300T
OUTLINE: B-SS555992-2025

WINDING#: T4454135 R2 2
ASSEMBLY: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
200	149	1800	1790	445T	TEBC-AXIAL	K	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	460	230	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 95	3/4 LOAD EFF: 95	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86	3/4 LOAD PF: 82.5	1/2 LOAD PF: 74	94.5	SQ CAGE INV DUTY	81

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
587 LB-FT	2100	1225 LB-FT 209	2260 LB-FT 385	65

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
88 dBA	98 dBA	64 LB-FT^2	- LB-FT^2	- SEC.	-	2500 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.013064	0.006674	0.101956	0.078952	3.0246

RM	ZREF	XR	TD	TD0
174.66	1.42	8.4	0.054	1.235

***** 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
6318	6316						

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
E
S
*

NONE	NONE		
NONE FT-LB	NONE V	NONE Hz	

DATE: 06/21/2017 04:47:14 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 19-06-2017
Customer: _____
Attention: _____
Submitted by: FAREEDA DUDEKULA



445THFN8050

Submittal

Data @ **460 V**

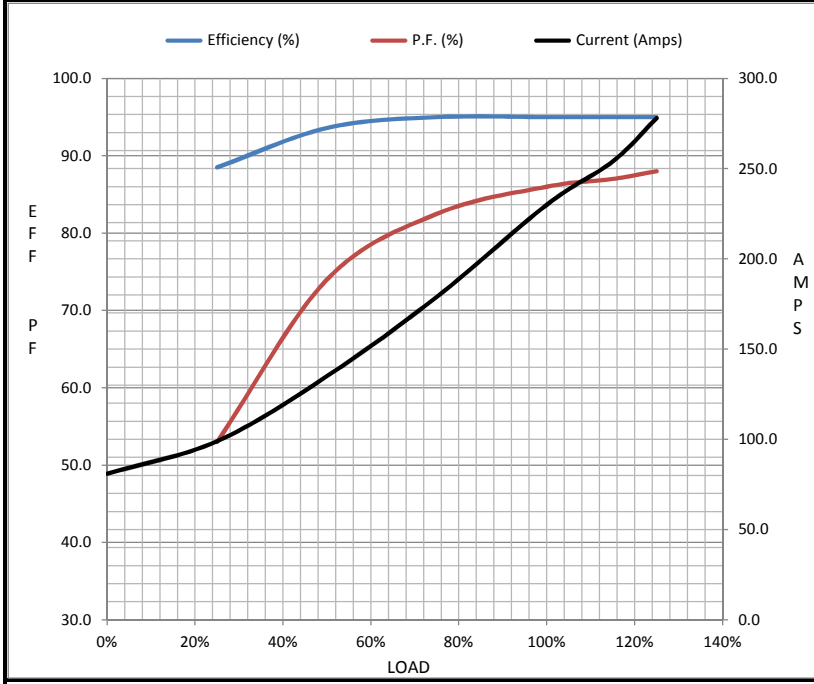
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	81.0	99.0	135	179	230	254	278	2,100
Torque (ft-lb)	0.00	146	293	440	587	662	737	1,225
RPM	1800	1796	1794	1792	1790	1,787	1782	0
Efficiency (%)		88.5	93.6	95.0	95.0	95.0	95.0	
P.F. (%)	6.5	53.0	74.0	82.5	86.0	87.0	88.0	27.0

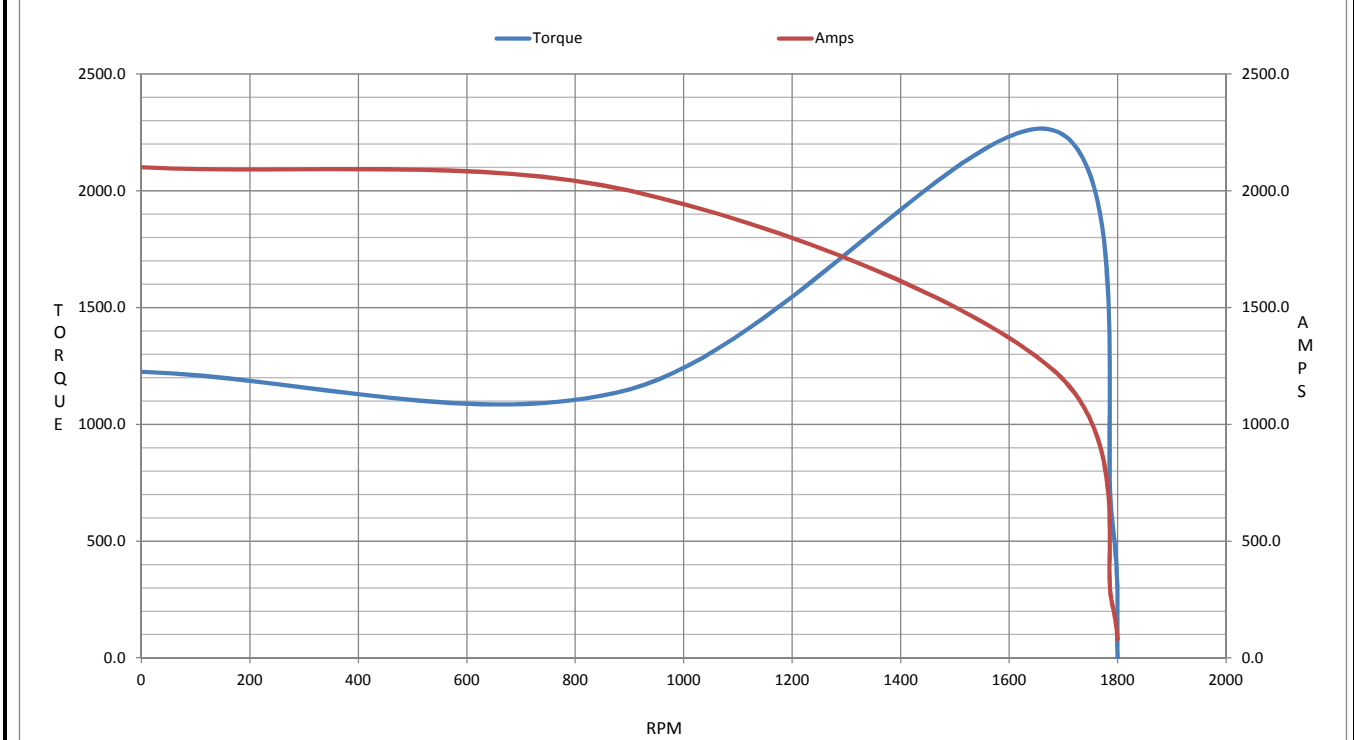
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1680	1790	1800
Current (Amps)	2,100	2,000	1,235	230	81.0
Torque (ft-lb)	1,225	1,150	2,260	587	0.00

Information Block				
HP	200.0			
Sync. RPM	1800			
Frame	445			
Enclosure	TEBC			
Construction	TBN			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	65 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	64.0 Lb-Ft ²			
Ref Wdg	T4454135 R2			
Sound Pressure @ 1M	88 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS555992-2025			
Conn. Diag	A-EE7300T			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0130	0.0070	0.1020	0.0790	3.0250



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 : 445THFN8050

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

Catalog No : Y520

Rework No : N/A

Directives :

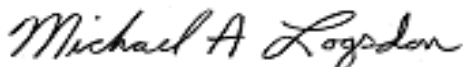
Low Voltage Directive 2014/35/EU

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