

PRODUCT INFORMATION PACKET

Model No: 445THFN8046

Catalog No: Y519

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



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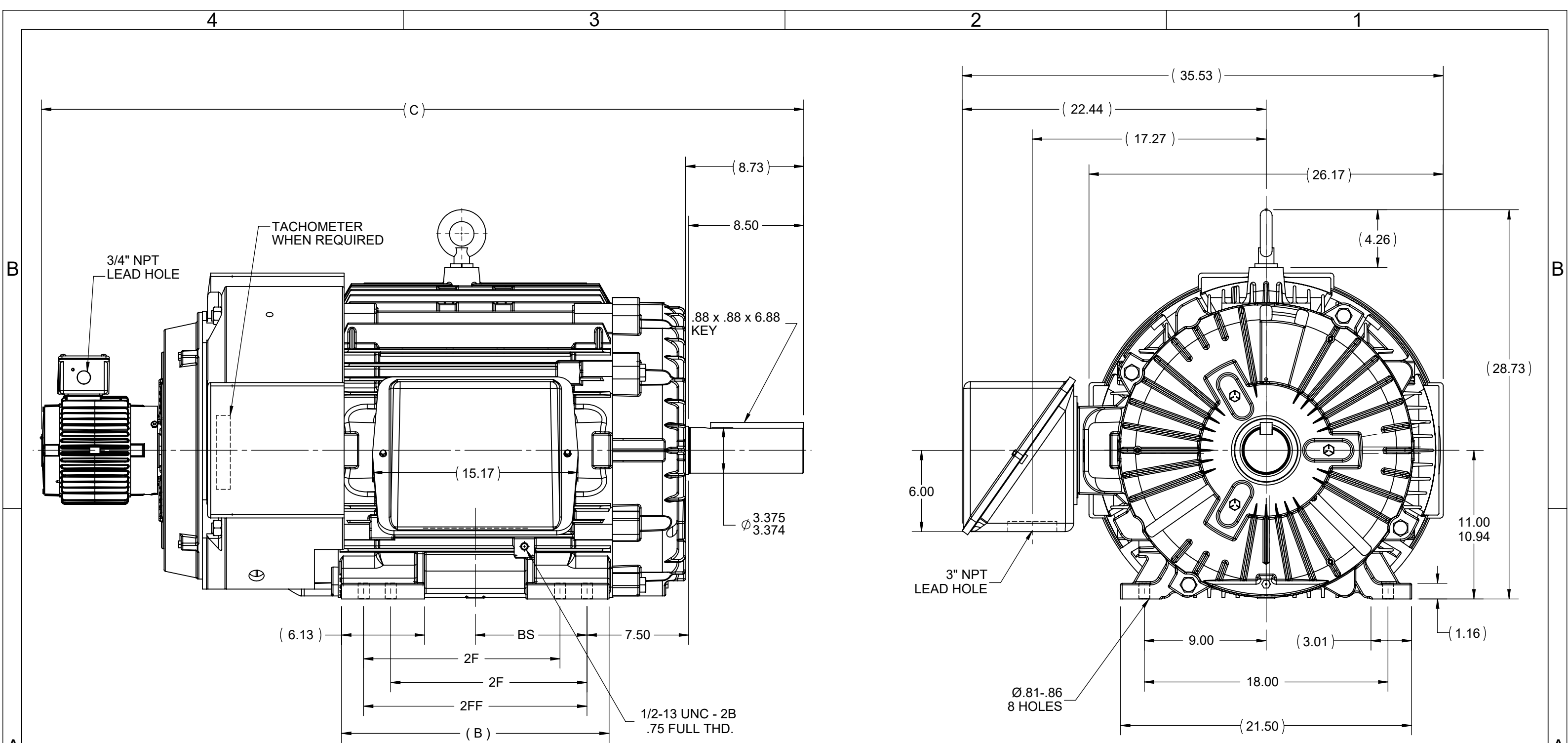


Nameplate Specifications

Phase	3	Output HP	150 Hp
Output KW	112.0 KW	Voltage	460 V
Speed	1790 r/min	Service Factor	1.00
Frame	445T	Enclosure	Totally Enclosed Blower cooled - Axial
Thermal Protection	Thermostat	Efficiency	94.5 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	170.0 A	Power Factor	87.5
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	.0245 O	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-SS555992A-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.
 4. DIMENSION IN [] DESIGNATE MILLIMETERS.

DASH	FRAME	B	C	2F	2FF	BS
1825	444T	17.75	54.28	14.50	NA	7.25
2025	444/445T	19.75	56.28	14.50	16.50	8.25

DRAWING REVISION A	REVISION BY	REV DATE/© DATE
REQUEST NUMBER NMR-0235236	APPROVED BY	DATE
REQUEST NUMBER DESCRIPTION NEW DRAWING RELEASE		
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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 BISWA
DATE 11/11/2024
APPROVED BY BISWA
DATE 11/11/2024
REFERENCE
THIRD ANGLE PROJECTION

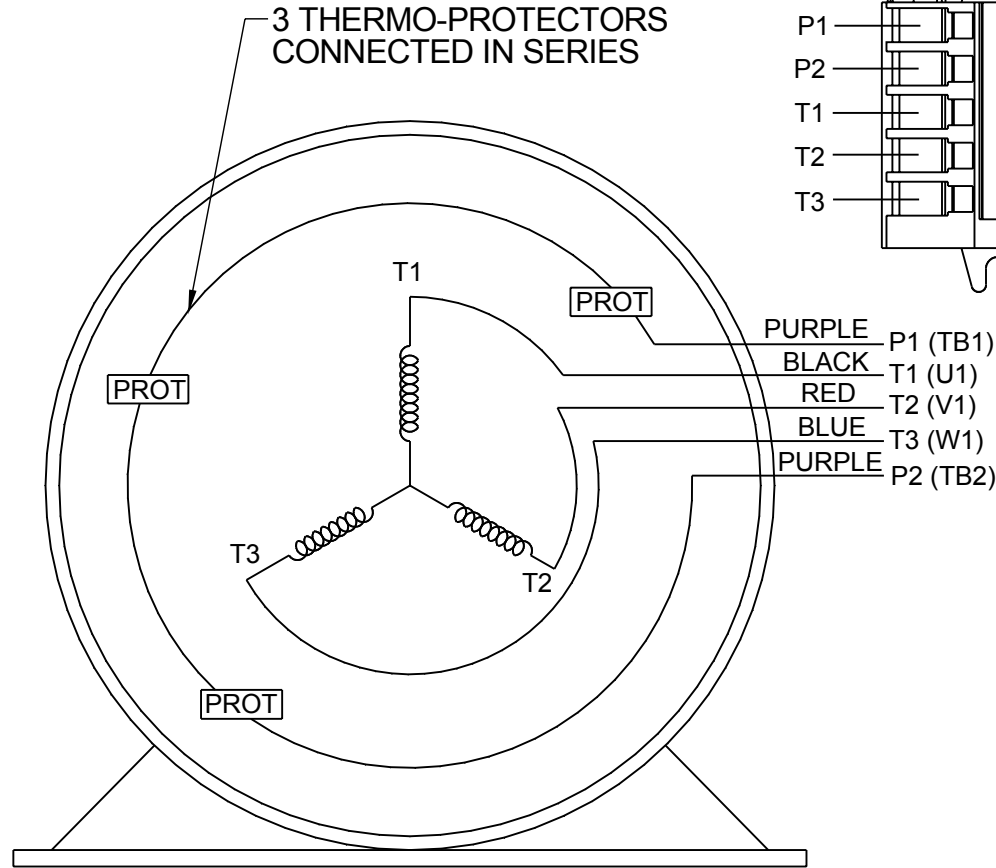
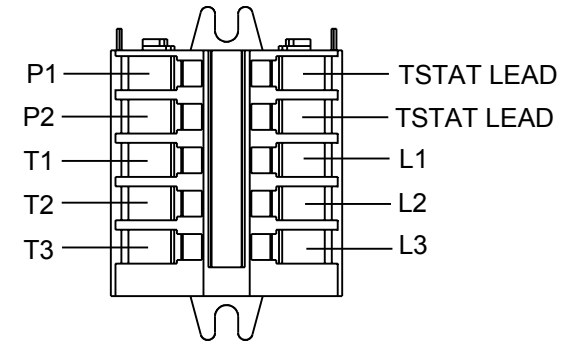
marathon™	
DESCRIPTION OUTLINE	
TFN-440T FR-TEBC AXIAL BLOWER-ENC PROV - STD PARTS	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS555992A
	SHEET 1 OF 1

**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**

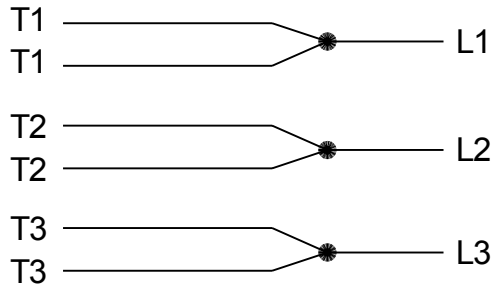
TERMINAL BLOCK WHEN SPECIFIED



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

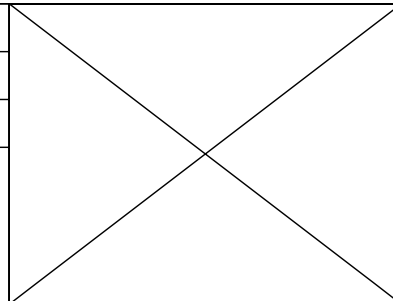
T2BM
T6AW
T6AL
T6Z
T4EG
T4BF
T8A
T6H
T6A
T4AX
T4A
T2A
T2F

**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 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#: 445THFN8046 AE WINDING#: T4454118 R4 5
 CONN. DIAGRAM: A-EE7300T ASSEMBLY: F1/F2 CAPABLE
 OUTLINE: B-SS555992-2025

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN			
150	112	1800	1790	445T	TEBC-AXIAL	J	INV			
PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION	
3	60	460	170	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300	
FULL LOAD EFF: 94.5		3/4 LOAD EFF: 93.6		1/2 LOAD EFF: 92.4		GTD. EFF		ELEC. TYPE		NO LOAD AMPS
FULL LOAD PF: 87.5		3/4 LOAD PF: 84.5		1/2 LOAD PF: 77		93.6		SQ CAGE INV DUTY		57
F.L. TORQUE		LOCKED ROTOR AMPS		L.R. TORQUE		B.D. TORQUE		F.L. RISE°C		
440 LB-FT		1500		700 LB-FT 159		1475 LB-FT 335		60		
SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT				
88 dBA	98 dBA	55 LB-FT^2	- LB-FT^2	- SEC.	-	2300 LBS.				

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.015876	0.00945	0.154035	0.11151	4.4226
RM	ZREF	XR	TD	TD0
241.92	1.89	7.4	0.0535	1.25

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAIN
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 04:46:31 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 29-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



445THFN8046

Submittal

Data @ 460 V

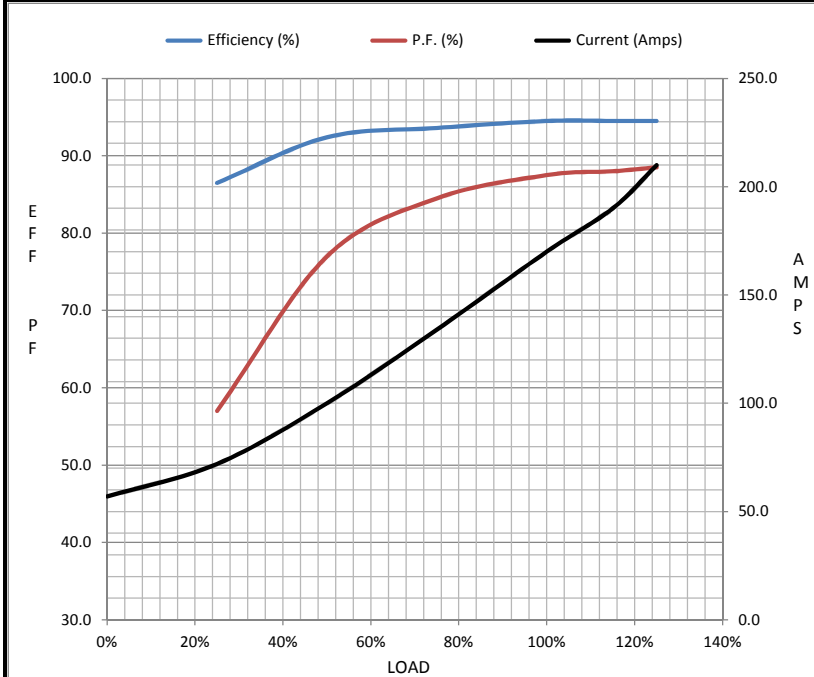
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	57.0	72.0	100	134	170	190	210	1,500
Torque (ft-lb)	0.00	110	220	330	440	495	550	700
RPM	1800	1798	1795	1792	1790	1,788	1786	0
Efficiency (%)		86.5	92.4	93.6	94.5	94.5	94.5	
P.F. (%)	10.0	57.0	77.0	84.5	87.5	88.0	88.5	24.0

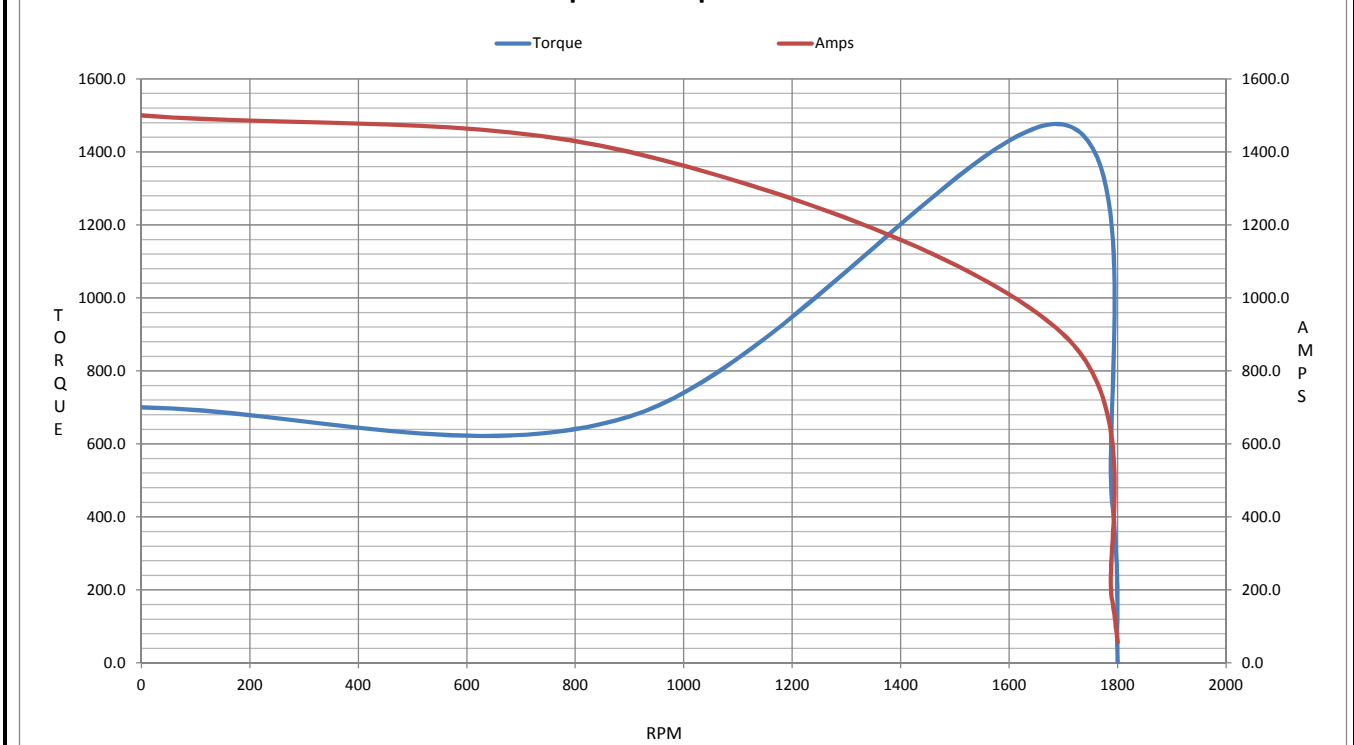
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1790	1800
Current (Amps)	1,500	1,400	900	170	57.0
Torque (ft-lb)	700	675	1,475	440	0.00

Information Block				
HP	150.0			
Sync. RPM	1800			
Frame	445			
Enclosure	TEBC			
Construction	TBN			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	60 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	55.0 Lb-Ft ²			
Ref Wdg	T4454118 R4			
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
0.0160	0.0090	0.1540	0.1120	4.4230



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 : 445THFN8046

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

Catalog No : Y519

Rework No : N/A

Directives :

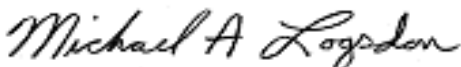
Low Voltage Directive 2014/35/EU

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