

# PRODUCT INFORMATION PACKET

Model No: 445TTGN16544

Catalog No: U037A

Hazardous Duty® Explosion Proof Motor, 150 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 445T Frame, EPFC



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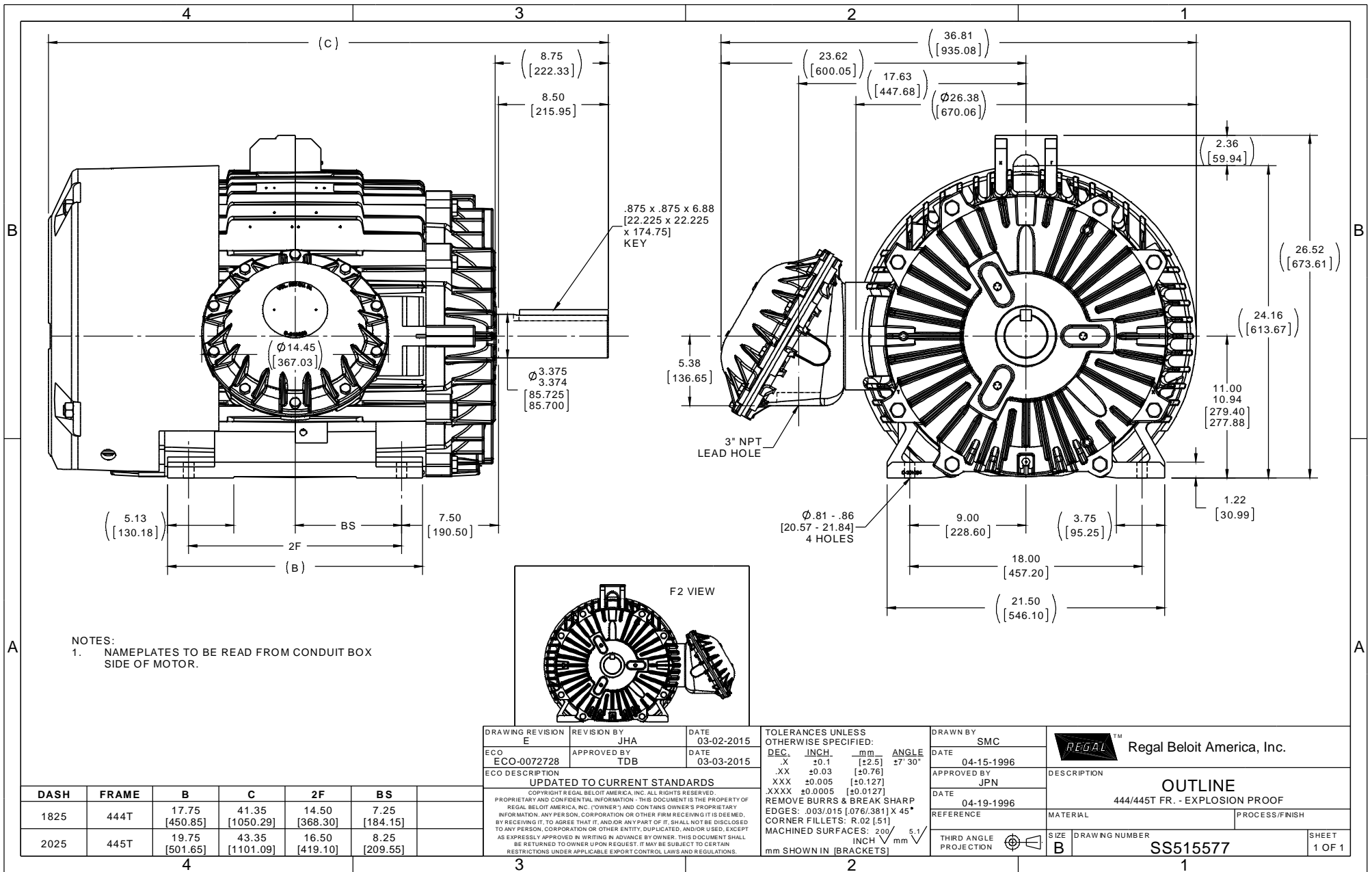
### Nameplate Specifications

Output HP	<b>150 Hp</b>	Output KW	<b>112.0 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>138.0 A</b>	Speed	<b>1785 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>95.8 %</b>	Power Factor	<b>85</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Frame	<b>445T</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6318</b>	Opp Drive End Bearing Size	<b>6316</b>
UL	<b>UL Listed And CSA Certified</b>	CSA	<b>Y</b>
CE	<b>N</b>	IP Code	<b>54</b>
Hazardous Location	<b>EXP PROOF CL I GR C&amp;D CL II GR F&amp;G T3B</b>	Number of Speeds	<b>1</b>

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.0275 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>	Overall Length	<b>43.35 in</b>
Frame Length	<b>20.25 in</b>	Shaft Diameter	<b>3.375 in</b>
Shaft Extension	<b>8.75 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 10:1</b>		
Connection Drawing	<b>A-EE7300S</b>	Outline Drawing	<b>B-SS515577-2025</b>





NOTES:  
 1. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DRAWING REVISION E	REVISION BY JHA	DATE 03-02-2015
ECO ECO-0072728	APPROVED BY TDB	DATE 03-03-2015
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TOLERANCES UNLESS OTHERWISE SPECIFIED:			
DEC.	INCH.	mm	ANGLE
.X	±0.1	[±2.5]	27° 30'
.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] X 45°			
CORNER FILLETS: R.02 [51]			
MACHINED SURFACES: 200 $\sqrt{\text{mm}}$ 5.1 $\sqrt{\text{mm}}$			
mm SHOWN IN [BRACKETS]			

DRAWN BY SMC
DATE 04-15-1996
APPROVED BY JPN
DATE 04-19-1996
REFERENCE
THIRD ANGLE PROJECTION

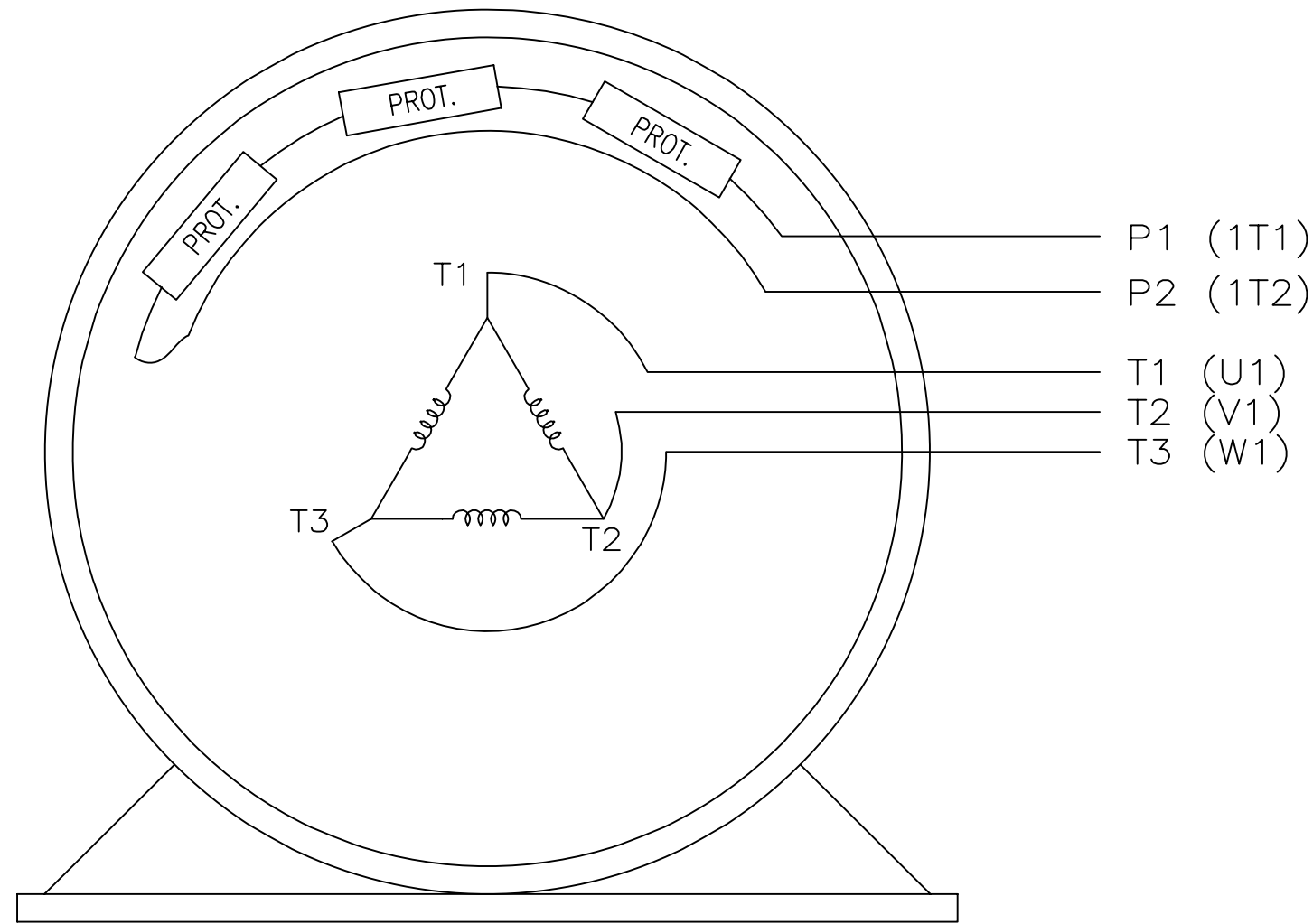
Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 444/445T FR. - EXPLOSION PROOF	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS515577
SHEET 1 OF 1	

DASH	FRAME	B	C	2F	BS
1825	444T	17.75 [450.85]	41.35 [1050.29]	14.50 [368.30]	7.25 [184.15]
2025	445T	19.75 [501.65]	43.35 [1101.09]	16.50 [419.10]	8.25 [209.55]

EE7300S

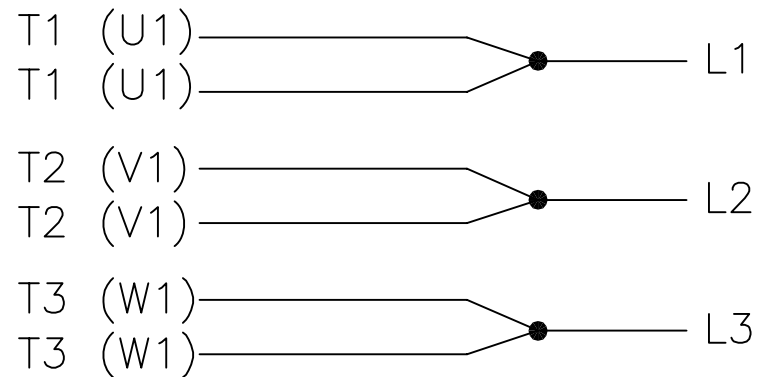
THREE PHASE – SINGLE VOLTAGE MOTOR

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			DRAWN	PAGE	OF	REV.		
				DEC.	INCHES							
F	UPDATED TITLE BLOCK	HV 02-27-2014	EWB	.X	±	-	KL	12-15-1999				
3	REMOVED "N.C." FROM PROT.'S MU61770	JJB 08-02-2010		.XX	±	-	CHK	DJK 12-15-1999				
2	ADDED IEC MARKINGS MU61770	KL 09-16-2004	EAB	.XXX	±	-	APPD	DJK 12-15-1999				
1	NEW DRAWING	KL 12-16-1999		.XXXX	±	-			SCALE	1=1		
									REF			
									FMP			
									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				RFP	CAD FILE ee7300s			SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST	WA-LB-SB			A	EE7300S			F



**CERTIFICATION DATA SHEET**

**Model#:** 445TTGN16544 AA  
**CONN. DIAGRAM:** A-EE7300S  
**OUTLINE:** B-SS515577-2025

**WINDING#:** T4454127 NONE 3  
**ASSEMBLY:** F1 ONLY

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
150	112	1800	1785	445T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	138	LINE OR INVERTER	CONTINUOUS	F1	1.15	40	3300

FULL LOAD EFF: 95.8	3/4 LOAD EFF: 96.2	1/2 LOAD EFF: 95.4	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 85	3/4 LOAD PF: 82	1/2 LOAD PF: 74	95.4	SQ CAGE INV RATED	48

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
441 LB-FT	868	800 LB-FT 181	1150 LB-FT 261	70

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	47 LB-FT^2	1000 LB-FT^2	25 SEC.	2	2050 LBS.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	EXP PROOF CL I GR C&D CL II GR F&G T3B	FALSE	NONE	BLUE (EPOXY)

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

\*  
N  
O  
T  
E  
S  
\*

INVERTER TORQUE: CONSTANT 10:1 INV. HP SPEED RANGE: NONE
ENCODER: NONE NONE NONE NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE NONE NONE NONE FT-LB NONE V NONE Hz

DATE: 06/21/2017 06:08:21 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 6/20/2017

445TTGN16544

Customer: \_\_\_\_\_



Attention: \_\_\_\_\_

Submittal

Submitted by: FAREEDA DUDEKULA

Data @ 575 V

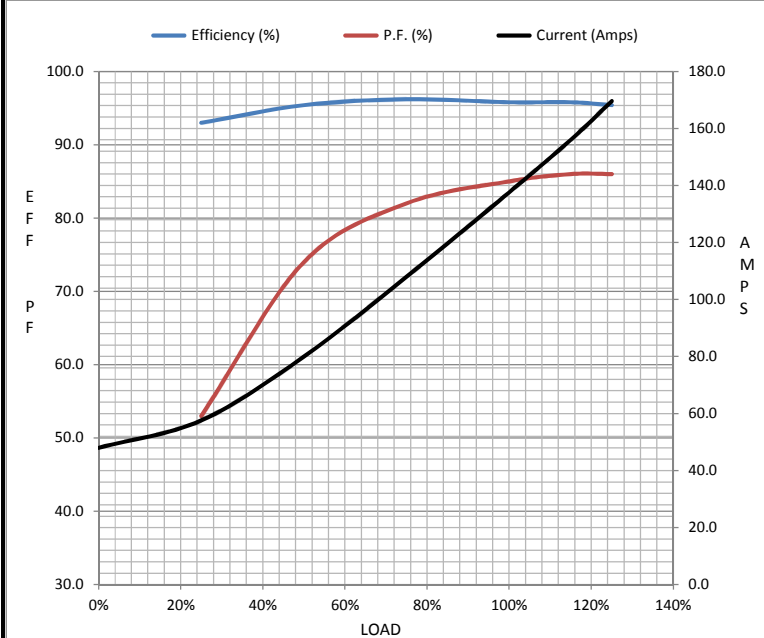
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	48.0	57.6	80.0	108	138	156	170	868
Torque (ft-lb)	0.00	110	220	330	441	508	553	800
RPM	1800	1796	1792	1790	1785	1,782	1780	0
Efficiency (%)		93.0	95.4	96.2	95.8	95.8	95.4	
P.F. (%)	4.5	53.0	74.0	82.0	85.0	86.0	86.0	28.0

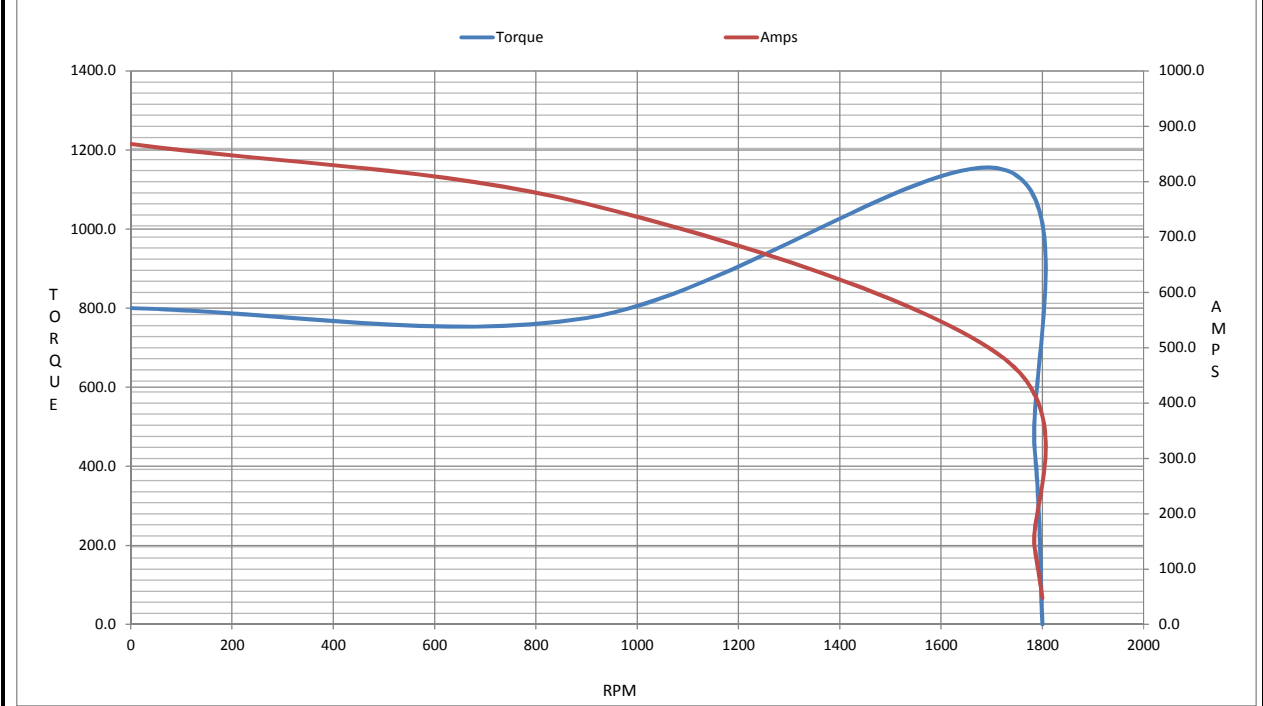
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1725	1785	1800
Current (Amps)	868	760	480	138	48.0
Torque (ft-lb)	800	775	1,150	441	0.00

Information Block				
HP	150.0			
Sync. RPM	1800			
Frame	445			
Enclosure	TEFC			
Construction	TFN			
Voltage	575 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	70 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	47.0 Lb-Ft <sup>2</sup>			
Ref Wdg	T4454127 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS515577-2025			
Conn. Diag	A-EE7300S			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0320	0.0190	0.2630	0.2480	6.8900



Speed -Torque Curve



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20220524- E12044  
**Report Reference** E12044-19970314  
**Issue Date** 2022-MAY-24

**Issued to:** REGAL BELOIT AMERICA INC  
1946 W COOK RD  
FORT WAYNE IN 46818

Tradename: Marathon

**This certificate confirms that  
representative samples of**

MOTORS FOR USE IN HAZARDOUS LOCATIONS  
Electric motors for use in hazardous locations; Class I,  
Groups C and D; Class II, Groups F and G; Inclusive of  
Model Number 445TTGN16544 (may have prefix and/or  
suffix characters).

Have been investigated by UL in accordance with the  
Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 674 - Electric Motors and Generators for Use in Division  
1 Hazardous (Classified) Locations,  
CSA C22.2 No. 145, Electric Motors and Generators for  
Use in Hazardous (Classified) Locations

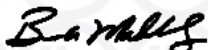
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Look for the UL Certification Mark on the product.

This is to certify that representative samples of the product as specified on this certificate were tested  
according to the current UL requirements.



Bruce Mahrenholz, Director North American Certification Program

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