

PRODUCT INFORMATION PACKET

Model No: 449TSTGS16506

Catalog No: E595A

Hazardous Duty® Explosion Proof Motor, 250 & 200 HP, 3 Ph, 60 & 50 Hz, 460 & 380 V, 3600 & 3000 RPM,
449TS Frame, EPFC



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Nameplate Specifications

Phase	3	Output HP	250 & 200 Hp
Output KW	187.0 & 149.0 kW	Voltage	460 & 380 V
Speed	3575 & 2976 rpm	Service Factor	1.0 & 1.0
Frame	449TS	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Efficiency	95.8 & 95.4 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	270 & 265 A	Power Factor	89
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6313	Opp Drive End Bearing Size	6313
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Number of Speeds	1	Hazardous Location	EXP PROOF CL I GR C&D CL II GR F&G T3B

Technical Specifications

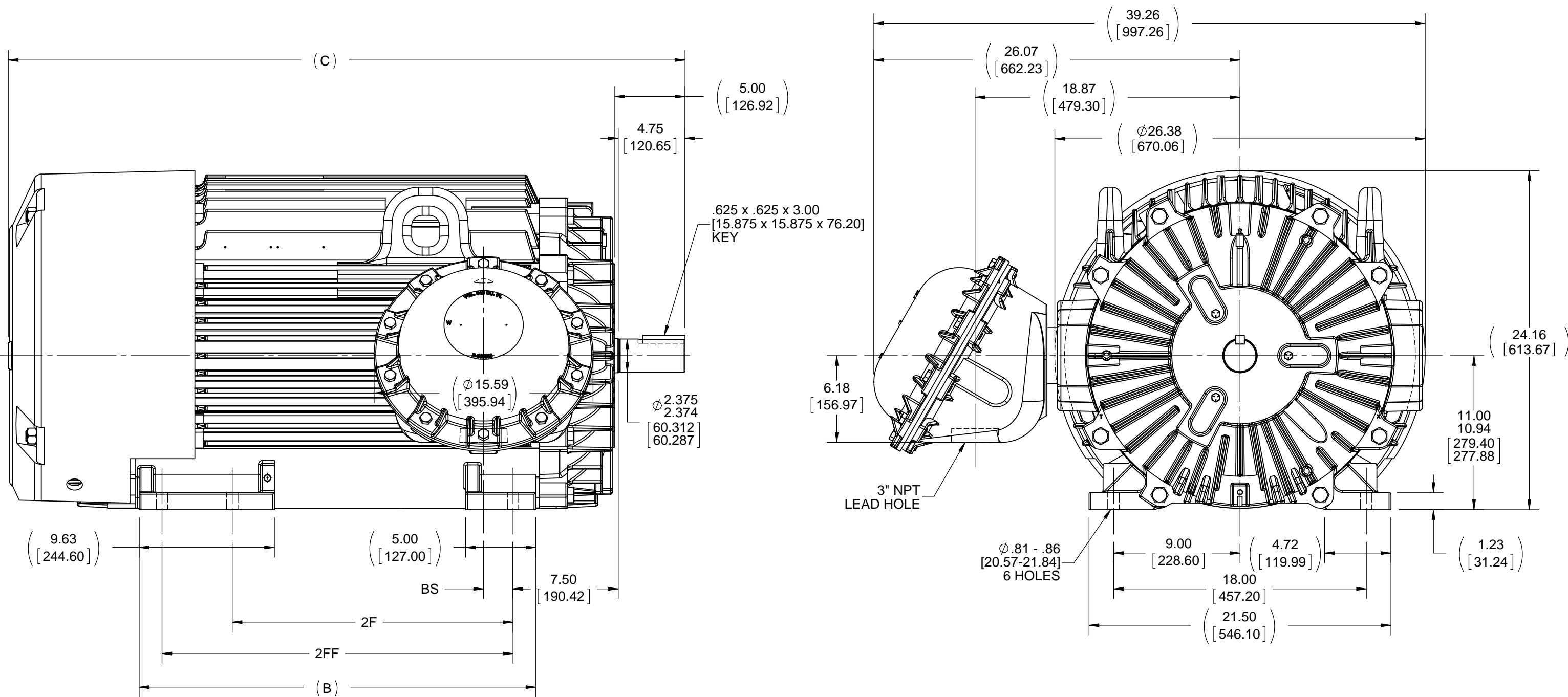
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	2	Rotation	Reversible
Resistance Main	.0086 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	TS	Overall Length	28.25 in
Frame Length	28.77 in	Shaft Diameter	2.375 in
Shaft Extension	5.00 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 2:1		
Outline Drawing	B-SS515927-2875	Connection Drawing	A-EE7300S

B

B

A

A



- NOTES:
 1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
 2. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.
 3. DIMENSIONS IN [] ARE IN MILLIMETERS.

DASH	FRAME	B	C	2F	2FF	BS
2875	447TS	28.25 [717.55]	48.19 [1224.03]	20.00 [508.00]	---	2.09 [53.09]
2875	449TS	28.25 [717.55]	48.19 [1224.03]	---	25.00 [635.00]	2.09 [53.09]

DRAWING REVISION E	REVISION BY JJB	DATE 01-05-2017
ECO ECO-0114341	APPROVED BY TDB	DATE 01-05-2017
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7° 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 INCH 5.1 mm
 mm SHOWN IN [BRACKETS]

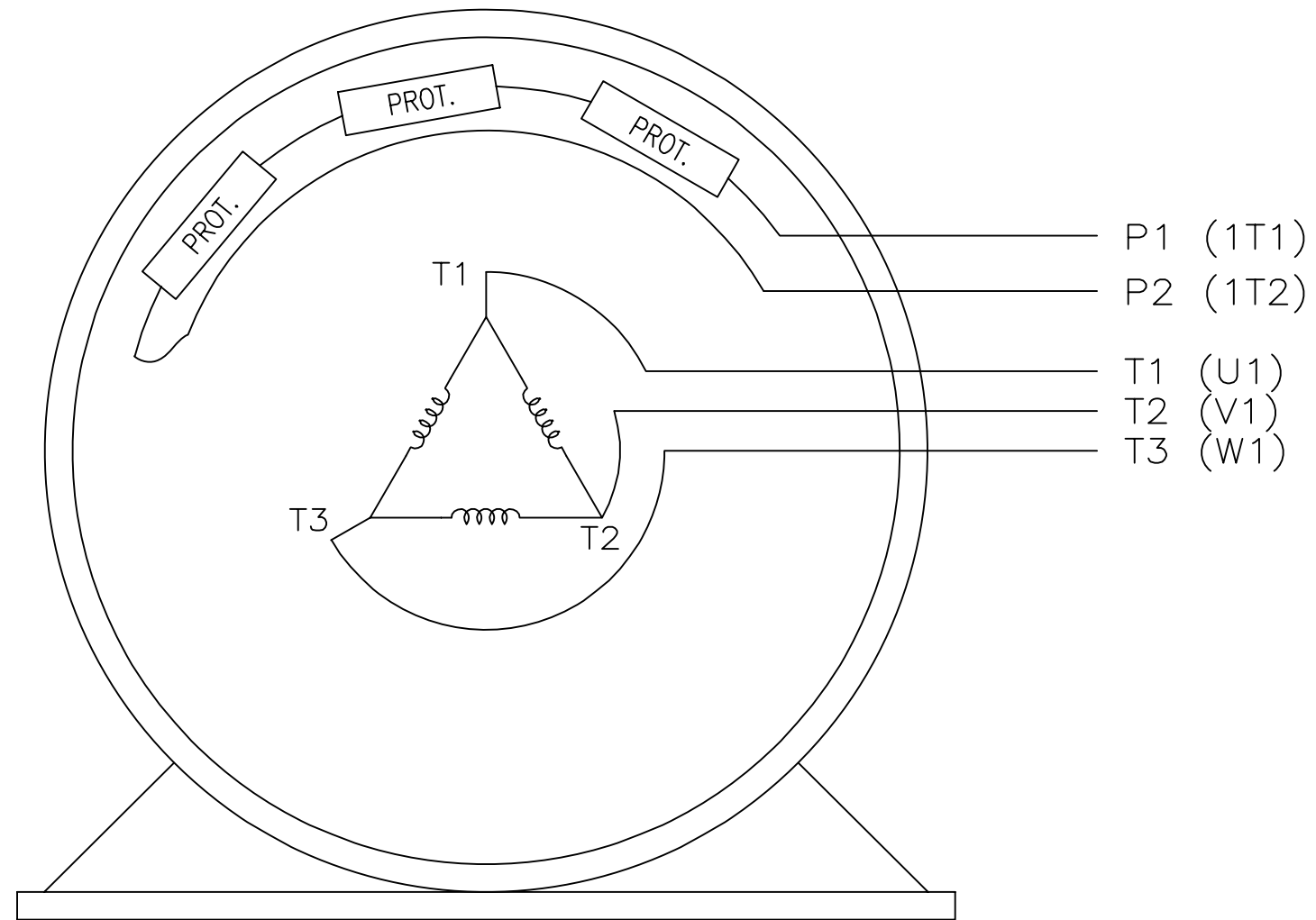
DRAWN BY CM
DATE 3-10-2014
APPROVED BY DJK
DATE 3-14-2014
REFERENCE
THIRD ANGLE PROJECTION

REGAL ™ Regal Beloit America, Inc.	
DESCRIPTION OUTLINE 447/449TS FR. - TEFC - STD. - EX. PR.	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS515927
SHEET 1 OF 1	

EE7300S

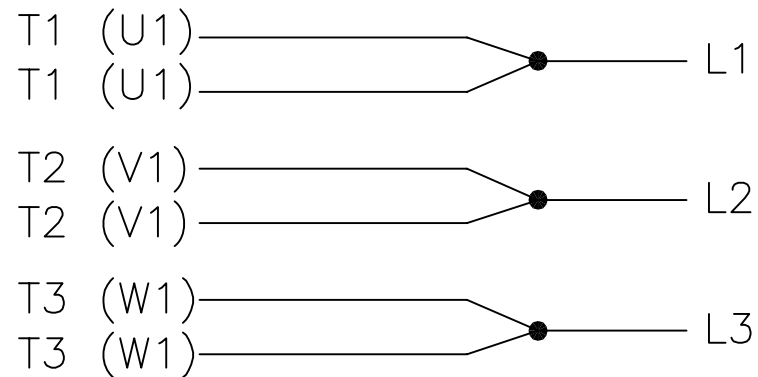
THREE PHASE – SINGLE VOLTAGE MOTOR

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	FMP		
			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: _____ CUSTOMER P.O. #: _____
 ORDER #: _____ REFERENCE MODEL #: 449TSTGS16506
 CONN. DIAGRAM: A-EE7300S CAT #: E595A
 OUTLINE: B-SS515927-2875 CUSTOMER PART #: _____
 WINDING: T4492120 NONE 1 MOUNTING: F1 ONLY
 SPEED: _____

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
250	187	3600	3575	447/449TS	TEFC	TFN	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	460#380	270&265	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	95.8	3/4 LD EFF	95.4	1/2 LD EFF	94.5	GTD EFF	95.0	ELECT. TYPE	SQ CAGE INV RATED
F.L. PF	89.0	3/4 LD PF	88.0	1/2 LD PF	83.0				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
367 LB-FT	1.825	650 LB-FT 177%	1.050 LB-FT 286%	65

@ 3 FT.	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
82 dBA	91 dBA	51.0 LB-FT ²	0 LB-FT ²	0 SEC.	0	2800 LB.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	UM SEVERE	DF CL I GR C&D CL II GR	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	TS	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6313	6313						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS (N/C)	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
0.007	0.007	0.085	0.087	3.78	0.080	ODE

* N O T E S *	INVERTER TORQUE: CONSTANT 2:1	
	INV. HP SPEED RANGE: NONE	
	ENCODER: NONE	
	NONE	
	NONE PPR	

PREPARED BY: FAREEDA DUDEKULA	BRAKE: NONE
DATE: 9/10/2018	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:
	UL: NONE

FORM: 3531 REV_4 2/27/06

Data Sheet

449TSTGS16506

Date: 11/29/2018
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



Submittal

Data @ 460 V

Motor Load Data

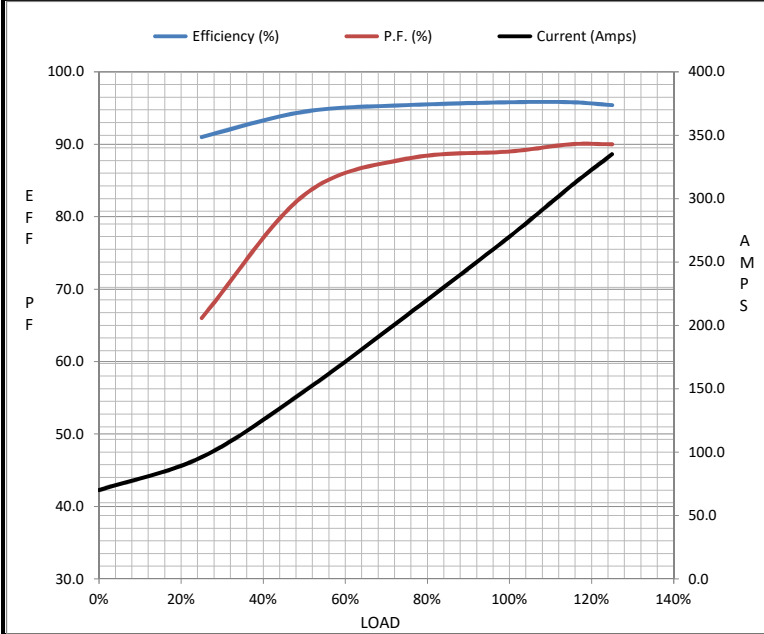
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	70.0	96.0	148	208	270	310	335	1,825
Torque (ft-lb)	0.00	91.5	183	275	367	423	460	650
RPM	3600	3595	3588	3582	3575	3,572	3570	0
Efficiency (%)		91.0	94.5	95.4	95.8	95.8	95.4	
P.F. (%)	6.0	66.0	83.0	88.0	89.0	90.0	90.0	25.0

Motor Speed Data

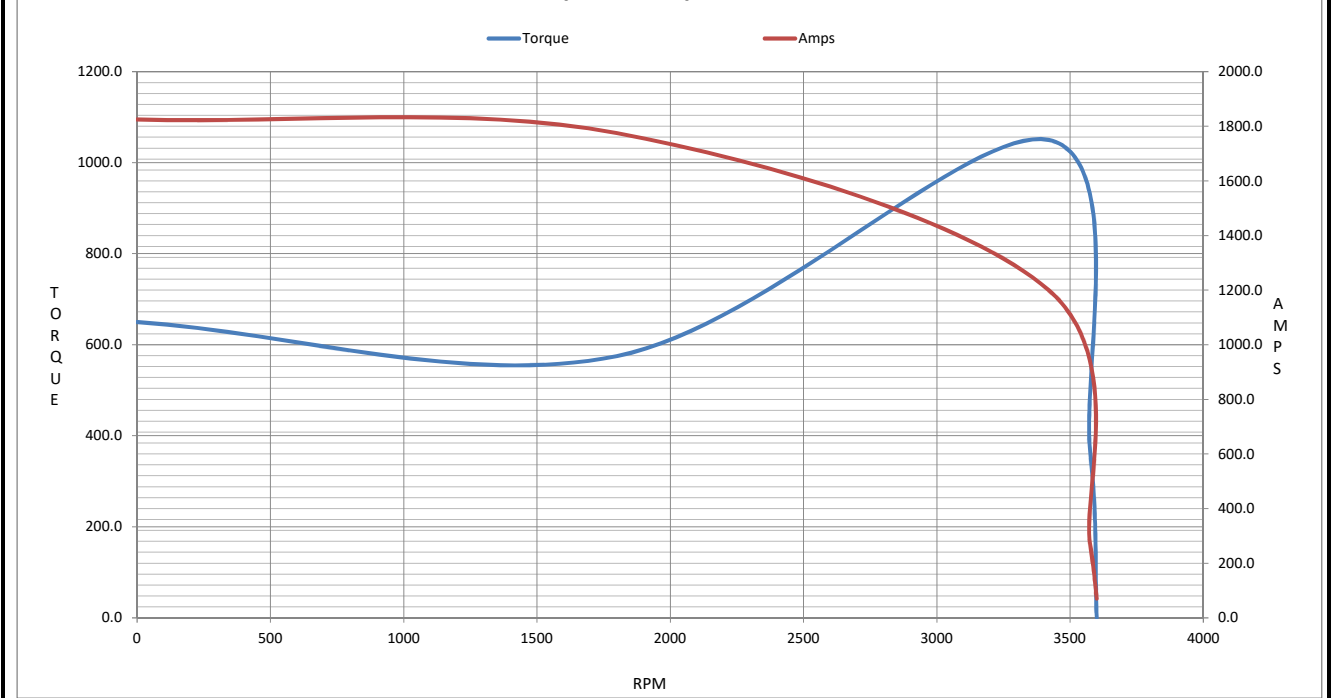
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3420	3575	3600
Current (Amps)	1,825	1,775	1,200	270	70.0
Torque (ft-lb)	650	575	1,050	367	0.00

Information Block

HP	250.0			
Sync. RPM	3600			
Frame	449			
Enclosure	EPFC			
Construction	TGS			
Voltage	460#380 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1			
Temp Rise @ FL	65 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	51.0 Lb-Ft ²			
Ref Wdg	T4492120 NONE			
Sound Pressure @ 1M	82 dBA			
VFD Rating	CONSTANT 2:1			
Outline Dwg	B-SS515927-2875			
Conn. Diag	A-EE7300S			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0070	0.0070	0.0850	0.0870	3.7800



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 449TSTGS16506 (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

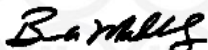
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This is to certify that representative samples of the product as specified on this certificate were tested
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Bruce Mahrenholz, Director North American Certification Program

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