

# PRODUCT INFORMATION PACKET



Model No: 824540.00

Catalog No: 824540.00

Severe Duty Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405T Frame, TEAO



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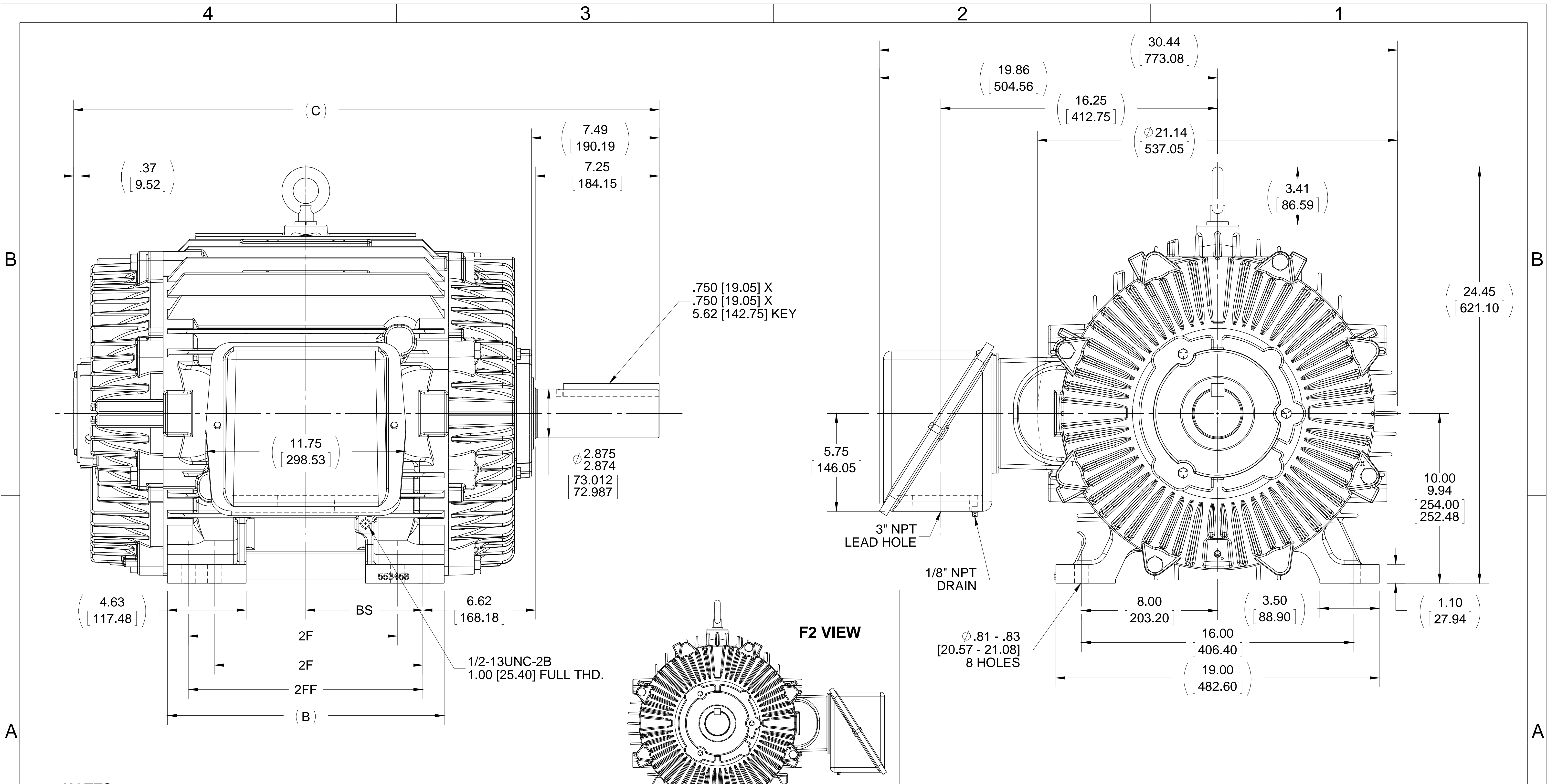
**Nameplate Specifications**

Output HP	100 Hp	Output KW	75.0 kW
Frequency	60 Hz	Voltage	230/460 V
Current	228.0/114.0 A	Speed	1780 rpm
Service Factor	1.15	Phase	3
Efficiency	94.5 %	Power Factor	87
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	405T	Enclosure	Totally Enclosed Air Over
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	56
Number of Speeds	1		

**Technical Specifications**

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.055 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	34.38 in
Frame Length	16.75 in	Shaft Diameter	2.875 in
Shaft Extension	7.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	VARIABLE 10:1		
Outline Drawing	B-SS555787LE-1675	Connection Drawing	A-EE7308AD-LE





- 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	B	C	2F	2FF	BS
1675	404/405T	16.75 [425.45]	34.38 [873.25]	12.25 [311.15]	13.75 [349.25]	6.88 [174.75]

DRAWING REVISION E	REVISION BY AJW	DATE 05-11-2015
ECO ECO-0077297	APPROVED BY JHA	DATE 05-11-2015
ECO DESCRIPTION REMOVED "T" FROM 1/8" NPT DRAIN CALLOUT		
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TOLERANCES UNLESS OTHERWISE SPECIFIED:

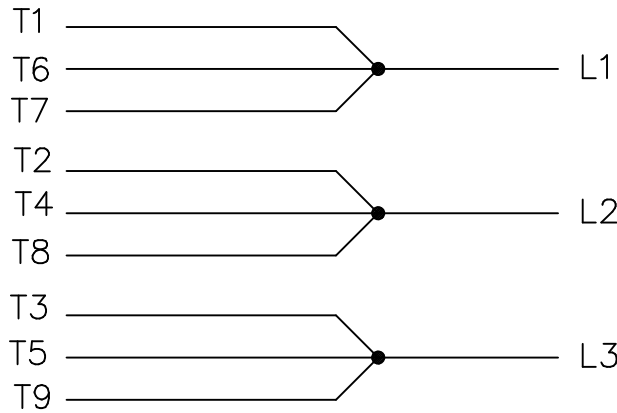
DEC.	INCH	mm	ANGLE
.X	±0.1	[±2.5]	±7' 30"
.XX	±0.03	[±0.76]	
.XXX	±0.005	[±0.127]	
.XXXX	±0.0005	[±0.0127]	

REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/.381]  
 CORNER FILLETS: .02 [.51]  
 MACHINED SURFACES: 200 INCH/mm 5.1  
 mm SHOWN IN [BRACKETS]

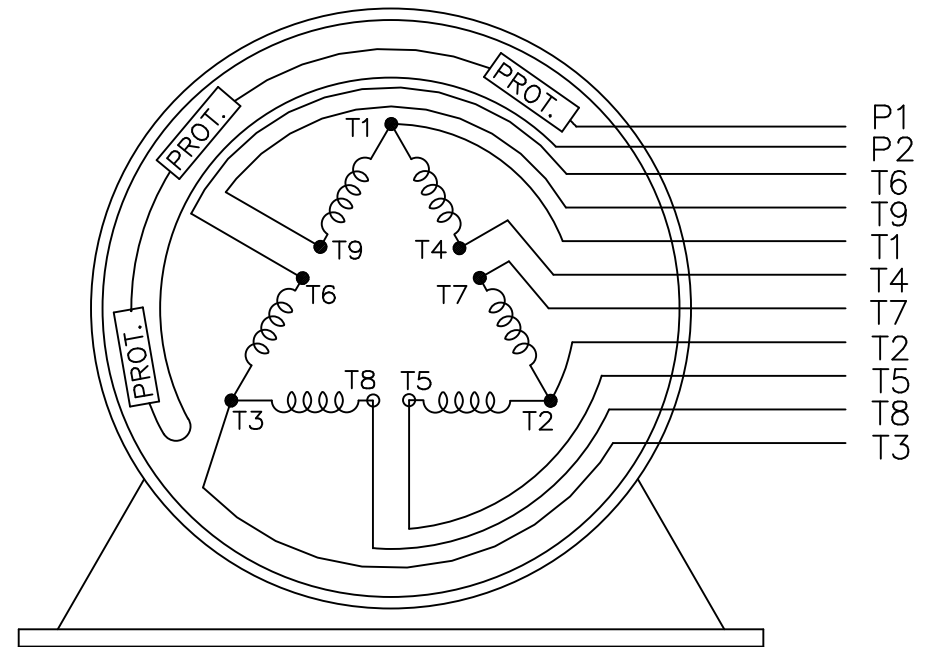
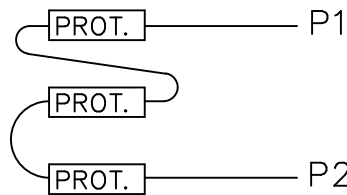
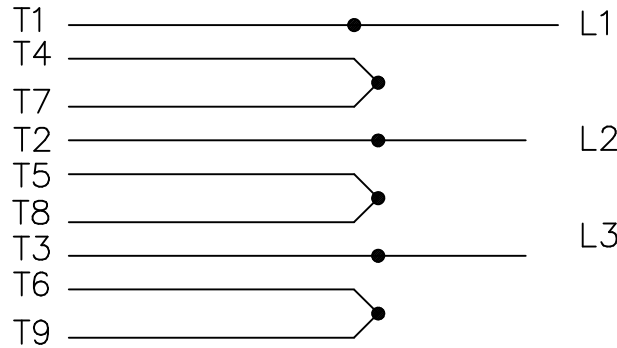
DRAWN BY HV	DATE 06-06-2013
APPROVED BY DJK	DATE 06-07-2013
REFERENCE	THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 400T FR. - TAPPED LEAD HOLE	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS555787LE</b>
	SHEET 1 OF 1


LOW VOLTAGE



HIGH VOLTAGE



WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

				TOLERANCES UNLESS SPECIFIED		 ELECTRIC MOTORS GEARMOTORS AND DRIVES	DRAWN NJS 05-15-2002				
				DEC.	INCHES		CHK	ML	05-20-2002		
				.X	±.1		APPD	TB	05-20-2002		
				.XX	±.02	TITLE CONNECTION DIAGRAM			SCALE		
2	HIGH VOLT. SCHEMATIC WAS L1, L3, & L3	CN 32724	DRS 06-12-2004	ML	.XXX ±.005	3Ø - WITH PROTECTORS			REF		
1	NEW DRAWING	CN 35132	NJS 05-20-2002	TB	.XXXX ±.0005	MAT'L.			FMF		
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH			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 ee7308ad_le		SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST	WA-LB		A	EE7308AD-LE			2



**1051 CHEYENNE AVE.  
GRAFTON, WI 53024  
PH. 262-377-8810**

CATALOG #: 824540.00

CONN. DIAGRAM: A-EE7308AD-LE

OUTLINE: B-SS555787LE-1675

MOUNTING: F1/F2 CAPABLE

WINDING #: T4054112 R6 1

**TYPICAL MOTOR PERFORMANCE DATA**

HP	kW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75.0	1800	1780	405T	TEAO	G	B

PH	Hz	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB°C
3	60	230/460	228/114	LINE OR INVERTER	CONTINUOUS	F1	1.15	40

FULL LOAD EFF:	94.5	3/4 LOAD EFF:	94.5	1/2 LOAD EFF:	94.1	GTD. EFF		ELEC. TYPE	
FULL LOAD PF:	87	3/4 LOAD PF:	85.5	1/2 LOAD PF:	79	94.1		SQ CAGE INV RATED	

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
295 LB-FT	1450 / 725	485 LB-FT 164 %	750 LB-FT 254 %	0

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
- dBA	- dBA	24.5 LB-FT^2	555 LB-FT^2	20 SEC.	2	1250 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	NONE	FALSE	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6316	6313						

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

\*  
N  
O  
T  
E

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

**S** RATED FOR USE WITH PWM TYPE VFD, TORQUE VARIABLE 10:1 (1.0  
S.F.)  
PREMIUM SEVERE DUTY  
TEAO COOLING TOWER DUTY  
INTERNAL SHAFT GROUND RING ON DE

\*

**PREPARED BY:** Radha Saikrishna Tanikella

**DATE:** 10/26/2018 04:43:40 AM

FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.

Data Sheet

Date: 1/22/2018

824540.00



Data @ 460 V

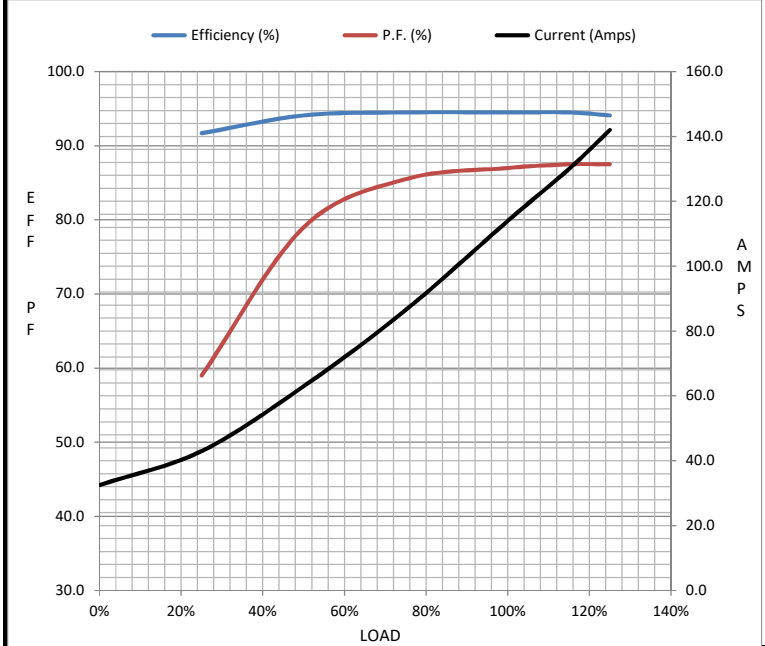
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	32.5	43.0	63.0	86.5	114	130	142	725
Torque (ft-lb)	0.00	73.5	147	221	295	340	370	485
RPM	1800	1795	1790	1785	1780	1.778	1775	0
Efficiency (%)		91.7	94.1	94.5	94.5	94.5	94.1	
P.F. (%)	6.0	59.0	79.0	85.5	87.0	87.5	87.5	30.0

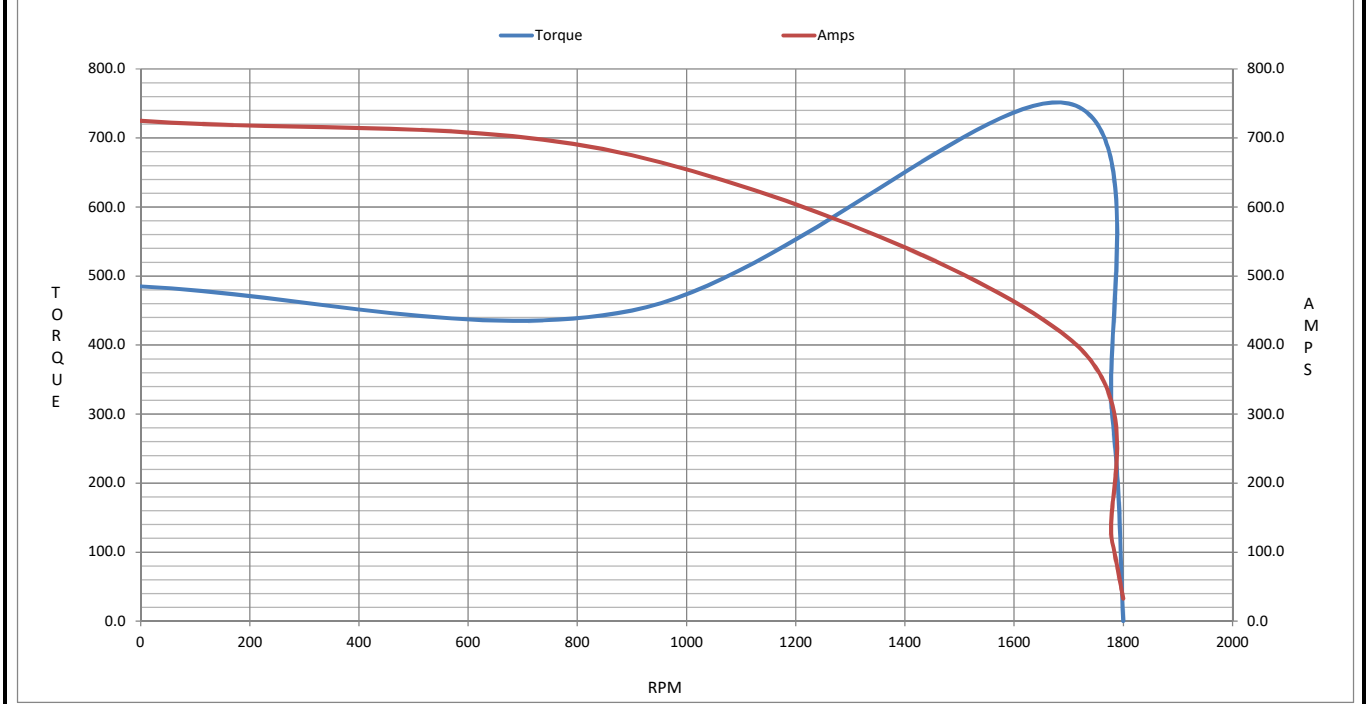
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1780	1800
Current (Amps)	725	675	410	114	32.5
Torque (ft-lb)	485	450	750	295	0.00

Information Block				
HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEAO			
Construction	TTS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	0 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	24.5 Lb-Ft <sup>2</sup>			
Ref Wdg	T4054112 R6			
Sound Pressure @ 1M	999 dBA			
VFD Rating	VARIABLE 10:1			
Outline Dwg	B-SS555787LE-1675			
Conn. Diag	A-EE7308AD-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0420	0.0270	0.2820	0.2450	7.8100



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 : 824540.00

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

Catalog No : 824540.00

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**