

# PRODUCT INFORMATION PACKET

Model No: 824583.00

Catalog No: 824583.00

Definite Purpose Motor, 20 HP, 3 Ph, 60 Hz, 460 V, 1200 RPM, 286T Frame, TEAO



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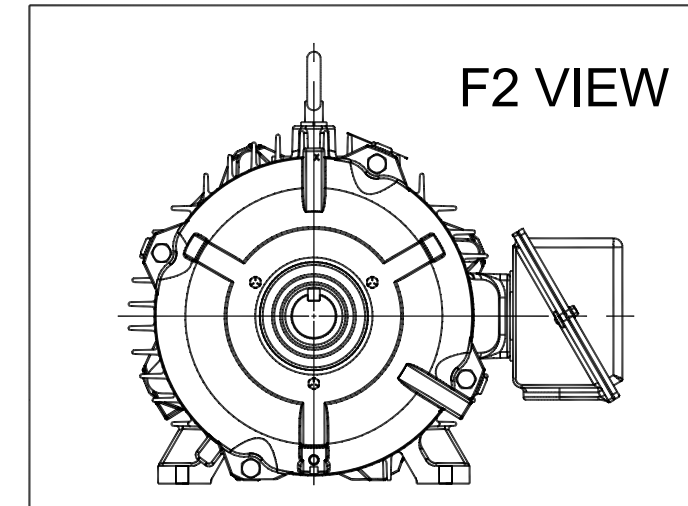
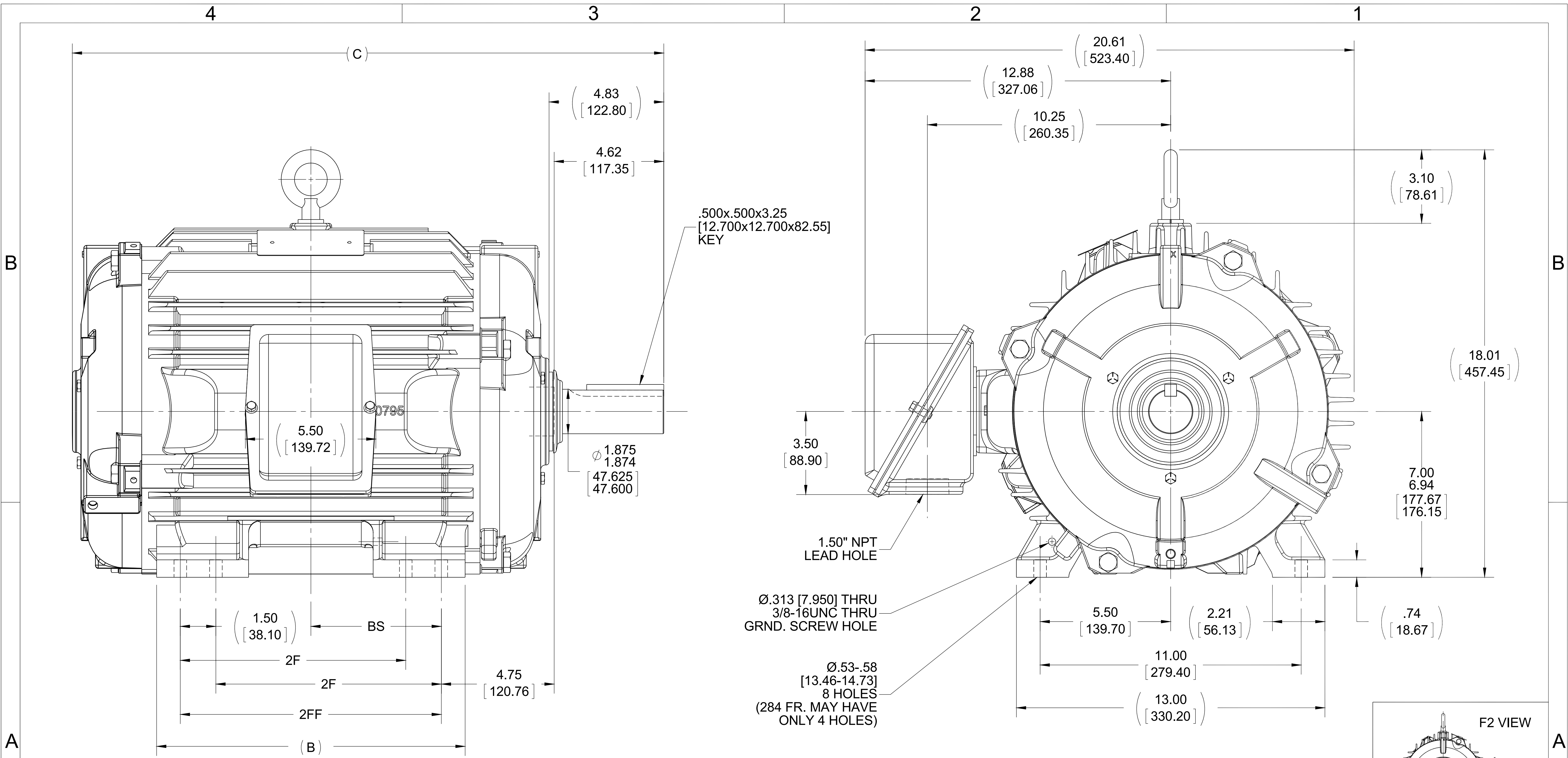
### Nameplate Specifications

Output HP	<b>20 Hp</b>	Output KW	<b>14.9 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>460 V</b>
Current	<b>27.0 A</b>	Speed	<b>1178 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>91.7 %</b>	Power Factor	<b>75</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>A</b>	KVA Code	<b>H</b>
Frame	<b>286T</b>	Enclosure	<b>Totally Enclosed Air Over</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>90 °C</b>
Drive End Bearing Size	<b>6311</b>	Opp Drive End Bearing Size	<b>6210</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>54</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>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.342 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball / Heat Stabilized</b>
Opp Drive End Bearing	<b>Ball / Heat Stabilized</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>24.92 in</b>
Frame Length	<b>14.25 in</b>	Shaft Diameter	<b>1.875 in</b>
Shaft Extension	<b>4.62 in</b>	Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>
Inverter Load	<b>VARIABLE 20:1</b>		
Connection Drawing	<b>A-EE7300T-LE</b>	Outline Drawing	<b>B-SS311239-1425</b>





- 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. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.

DASH	FRAME	B	C	BS	2F	2FF
1275	284T	12.50 [317.50]	23.42 [594.87]	4.75 [120.65]	---	9.50 [241.30]
1425	284/286T	13.00 [330.20]	24.92 [632.97]	5.50 [139.70]	9.50 [241.30]	11.00 [279.40]

DRAWING REVISION E	REVISION BY W. JOERGER	DATE 07-01-2015
ECO ECO-0080734	APPROVED BY E. HEIL	DATE 07-01-2015
ECO DESCRIPTION REMOVED COVER PLATE AND SEAL FROM O.D.E.		
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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 5.1 mm  
 mm SHOWN IN [BRACKETS]

DRAWN BY NJS
DATE 10-03-2001
APPROVED BY BW
DATE 10-05-2001
REFERENCE
THIRD ANGLE PROJECTION

<b>REGAL</b> ™ Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b>	
280T FR. - TEAO / TENV - BB - STD - 12.50" LAM	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS311239</b>
	SHEET 1 OF 1

THREE PHASE - SINGLE VOLTAGE MOTOR  
CONDUIT BOX @ 'A'

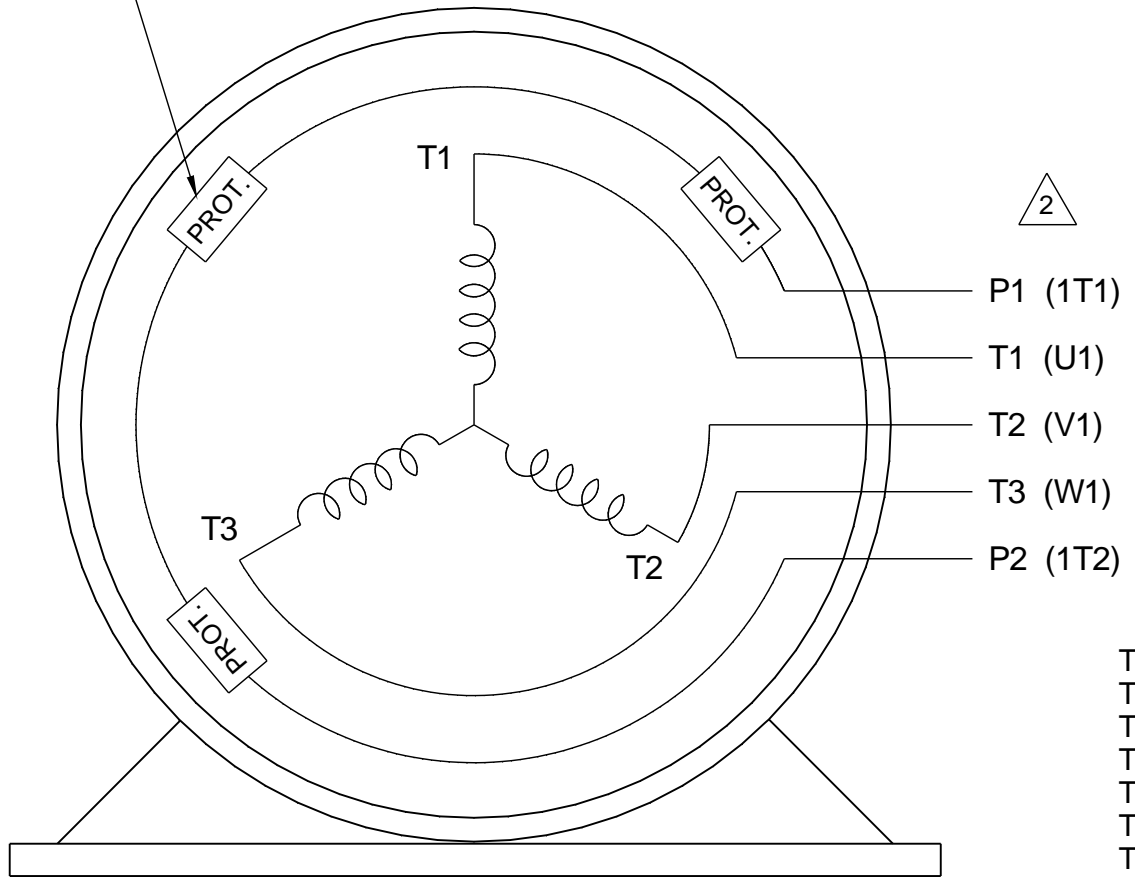
3 THERMO - PROTECTORS  
CONNECTED IN SERIES

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS

**NOTE FOR FACTORY USE ONLY:**

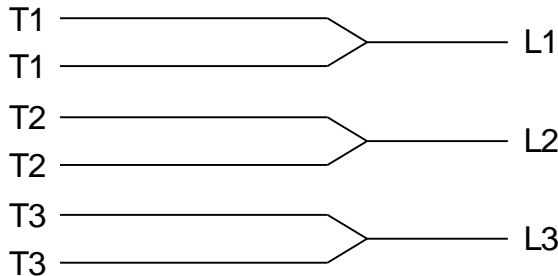
TO SURGE TEST:

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



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

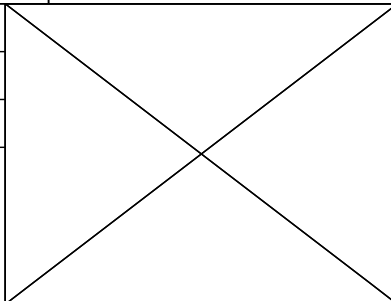
IF MOTOR HAS MULTIPLE T'S PER LEAD  
CONNECT TOGETHER LIKE T'S



A-9806 DECAL

VIEW OF TERMINAL END

DRAWING REVISION E	REVISION BY MSG	DATE 10-19-2016
ECO ECO-0111093	APPROVED BY TB	DATE 10-19-2016
ECO DESCRIPTION REDRAWN - REVISED TEXT		
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DRAWN BY NJS
DATE 05-15-2002
APPROVED BY ML
DATE 05-20-2002
REFERENCE
THIRD ANGLE PROJECTION



ELECTRIC MOTORS  
GEARMOTORS  
AND DRIVES

DESCRIPTION <b>CONNECTION DIAGRAM</b>	
3 PHASE - SINGLE VOLT - MOTOR WITH PROTECTORS	
MATERIAL	PROCESS/FINISH
SIZE A	DRAWING NUMBER EE7300T-LE
SHEET 1 OF 1	

P.O. BOX 8003  
 WAUSAU, WI 54401-8003  
 PH. 715-675-3311



DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CONN. DIAGRAM: A-EE7300T-LE  
 OUTLINE: B-SS311239-1425  
 WINDING: 2866105

CAT #: 824583.00

NONE 2

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
20	14.9	1200	1178	286T	TEAO	TTN	H	A

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	460	27	LINE OR INVERTER	CONT	H	1.15	90	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	91.7	GTD EFF	91.0	ELECT. TYPE	SQ CAGE INV RATED
F.L. PF	75.0	3/4 LD PF	69.0	1/2 LD PF	57.0				

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (°C)
89.5 LB-FT	170	190 LB-FT 212%	250 LB-FT 279%	0

PRESSURE @ 3	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
999 dBA	1008 dBA	4.8 LB-FT²	0 LB-FT²	20 SEC.	0	540 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	NONE	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE						
6311	6210	DC 44M	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
TSTATS CLH (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
0.23	0.209	1.136	1.292	18.545	0.080	ODE

* N O T E S *	INVERTER TORQUE: VARIABLE 20:1 INV. HP SPEED RANGE: NONE	
	ENCODER: NONE NONE NONE	
	NONE PPR	
	BRAKE: NONE NONE NONE	
	FT-LB: NA VOLTAGE: NONE HZ:	

DATE: 1/22/2018

UL: Y-(LEESON UL REC)

Data Sheet

Date: 1/22/2018

824583.00



Data @ 460 V

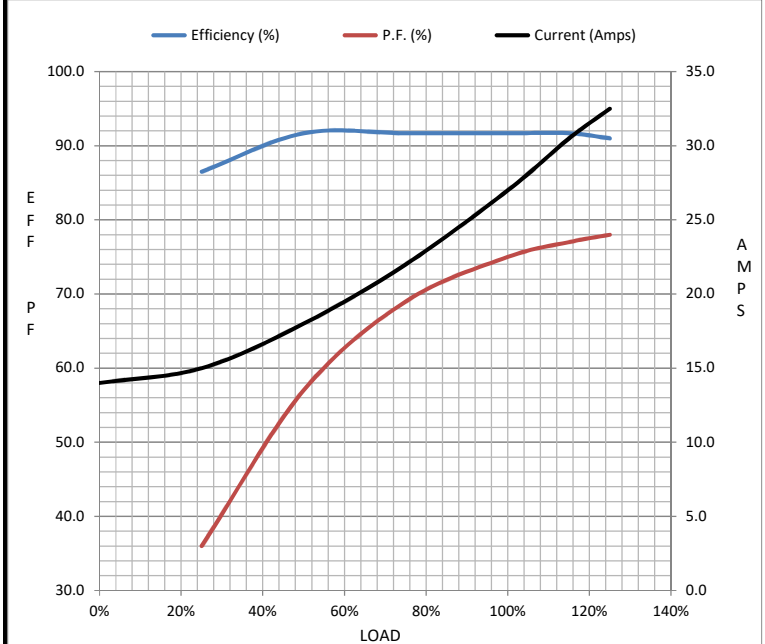
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	14.0	15.0	18.0	22.0	27.0	30.5	32.5	170
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.5	103	112	190
RPM	1200	1195	1190	1182	1178	1,172	1170	0
Efficiency (%)		86.5	91.7	91.7	91.7	91.7	91.0	
P.F. (%)	4.5	36.0	57.0	69.0	75.0	77.0	78.0	35.0

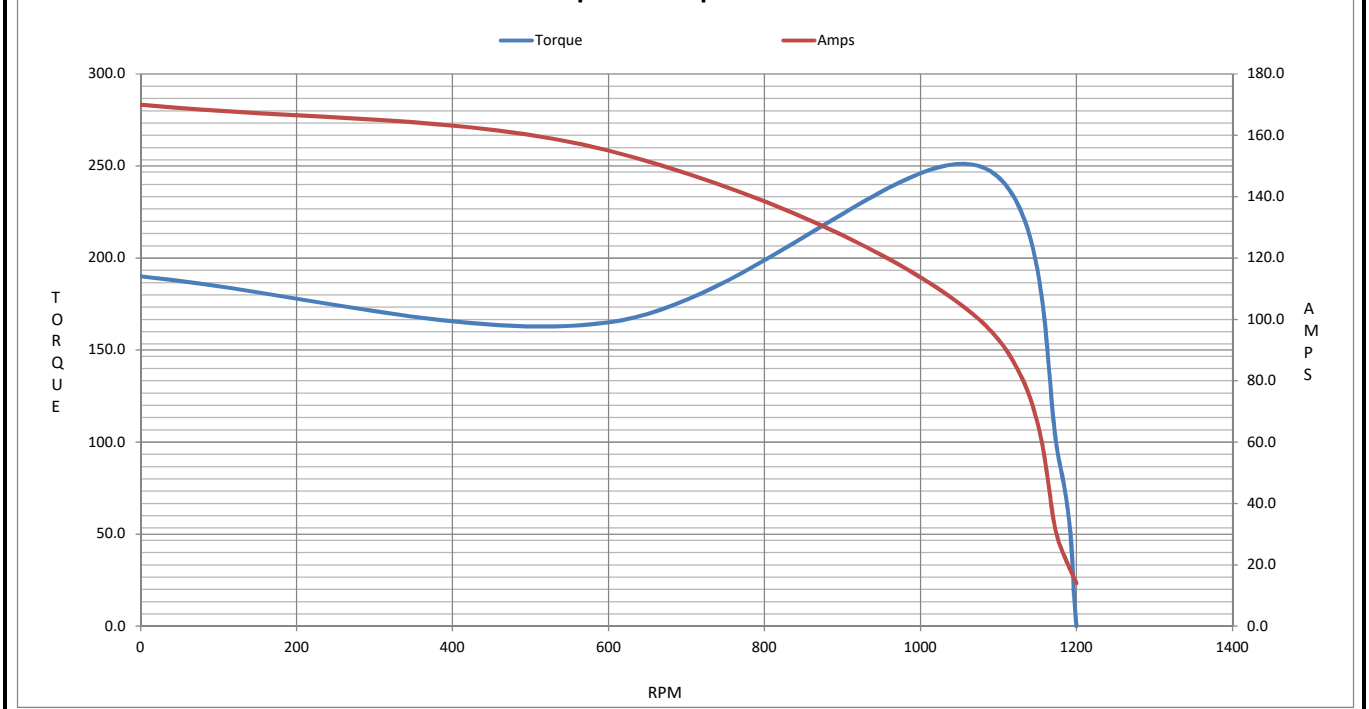
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1075	1178	1200
Current (Amps)	170	155	100	27.0	14.0
Torque (ft-lb)	190	165	250	89.5	0.00

Information Block				
HP	20.0			
Sync. RPM	1200			
Frame	286			
Enclosure	TEAO			
Construction	TTN			
Voltage	460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	0 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	4.8 Lb-Ft <sup>2</sup>			
Ref Wdg	2866105 NONE			
Sound Pressure @ 1M	999 dBA			
VFD Rating	VARIABLE 20:1			
Outline Dwg	B-SS311239-1425			
Conn. Diag	A-EE7300T-LE			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2300	0.2090	1.1360	1.2920	18.5450



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 : 824583.00

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

Catalog No : 824583.00

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**