

# PRODUCT INFORMATION PACKET

Model No: 284TTGN16550

Catalog No: E547-P

Hazardous Duty® Explosion Proof Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 230/460 & 190/380 V,  
1800 & 1500 RPM, 284T Frame, EPFC



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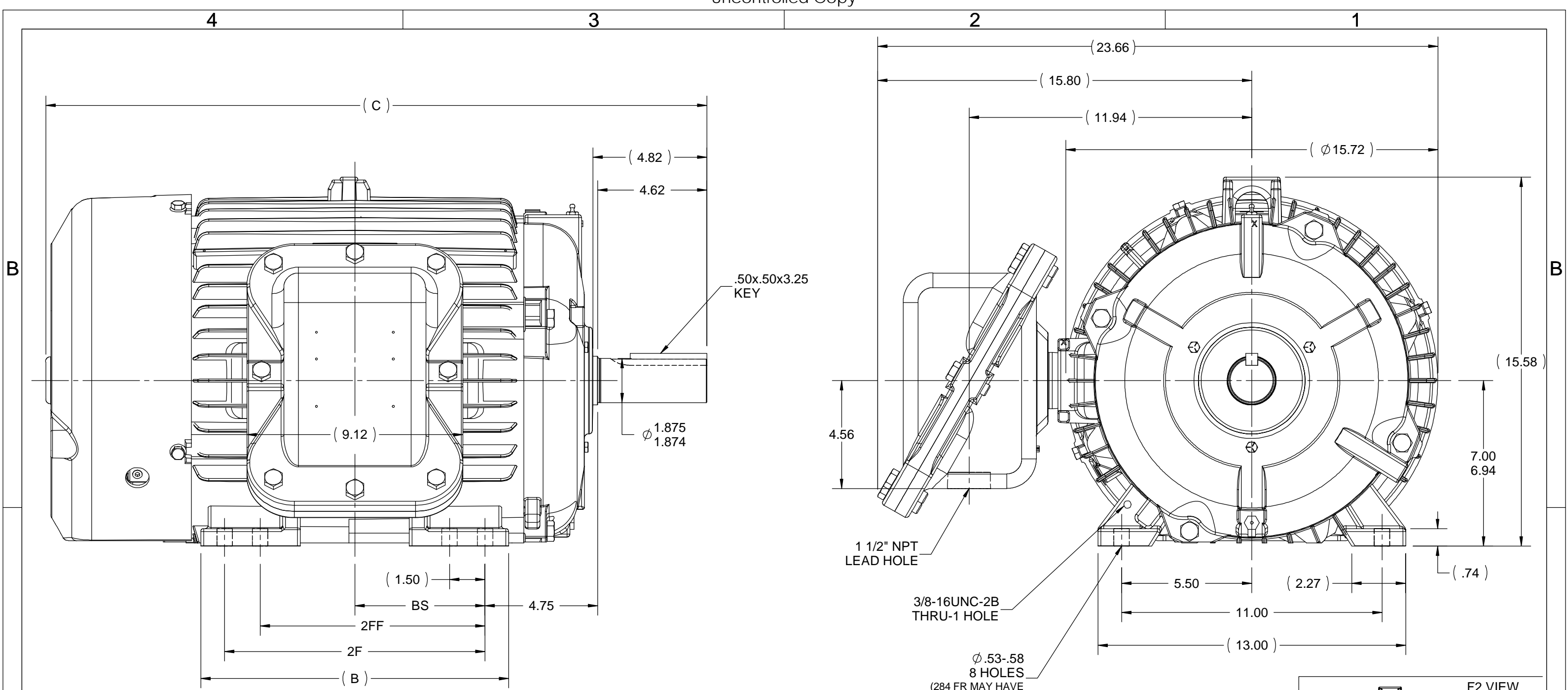
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>25 &amp; 20 Hp</b>
Output KW	<b>18.7 &amp; 14.9 kW</b>	Voltage	<b>230/460 &amp; 190/380 V</b>
Speed	<b>1772 &amp; 1472 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>284T</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Thermostat</b>	Efficiency	<b>93.6 &amp; 93 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>62/31 &amp; 60/30 A</b>	Power Factor	<b>81</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Drive End Bearing Size	<b>6311</b>	Opp Drive End Bearing Size	<b>6210</b>
UL	<b>UL Listed And CSA Certified</b>	CSA	<b>Y</b>
CE	<b>N</b>	IP Code	<b>54</b>
Number of Speeds	<b>1</b>	Hazardous Location	<b>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B</b>

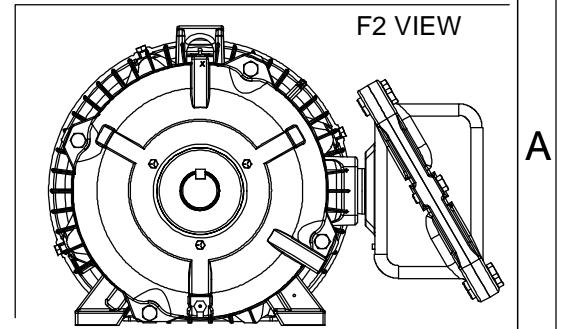
### Technical Specifications

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>.271 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>26.21 in</b>
Frame Length	<b>12.75 in</b>	Shaft Diameter	<b>1.875 in</b>
Shaft Extension	<b>4.82 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 10:1</b>		
Outline Drawing	<b>B-SS311106-1275</b>	Connection Drawing	<b>A-EE7308T</b>





- NOTES:**
1. CONDUIT BOX CAN ONLY BE ROTATED CLOCKWISE UP TO 270° FROM ITS ORIGINAL POSITION.
  2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°. THIS MODIFICATION CAN BE PERFORMED ONLY BY THE ORIGINAL EQUIPMENT MANUFACTURER OR BY A FACILITY THAT IS COVERED UNDER UNDERWRITERS LABORATORIES INC. CATEGORY PTKQ, TITLED "MOTORS AND GENERATORS, REBUILT FOR USE IN HAZARDOUS LOCATIONS".
  3. NAMEPLATES TO BE READ FROM CONDUIT BOX SIDE OF MOTOR.



DASH	FRAME	B	C	BS	2F	2FF
1275	284T	12.50	26.43	4.75	9.50	---
1425	284/6T	13.00	27.93	5.50	11.00	9.50

DRAWING REVISION <b>C</b>	REVISION BY <b>SD</b>	REV DATE/© DATE 11/19/2019
ECO ECO-0177183	APPROVED BY <b>VMR</b>	DATE 11/19/2019
ECO DESCRIPTION <b>TITLE BOX UPDATED PER ECO</b>		
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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  
**HLB**

DATE  
10/10/2002

APPROVED BY  
**DD**

DATE  
10/10/2002

REFERENCE

THIRD ANGLE PROJECTION

**REGAL** Regal Beloit America, Inc.

DESCRIPTION  
**OUTLINE**  
280T FR. - BB - STD - 12.50 LAM

MATERIAL

PROCESS/FINISH

SIZE **B** DRAWING NUMBER **SS311106** SHEET 1 OF 1

**HIGH VOLTAGE**



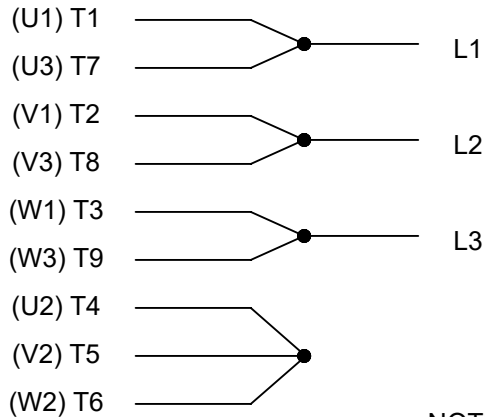
**THREE PHASE  
DUAL VOLTAGE MOTOR**

THERMO-PROTECTORS  
CONNECTED IN SERIES



NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST FOR COMMON CONNECT:  
HIGH VOLT: CONNECT P1 TO T1  
THEN P2 TO L1  
LOW VOLT: CONNECT P1 TO T1 & T7,  
THEN P2 TO L1

**LOW VOLTAGE**



**VIEW OF TERMINAL END**

NOTE: LEAD'S COLOR CAN BE YELLOW OR WHITE FOR MT2 PLANT

DRAWING REVISION T	REVISION BY ZR	DATE 01-14-2019		DRAWN BY SMC	Regal Beloit America, Inc.
ECO ECO-0159915	APPROVED BY DR	DATE 01-15-2019		DATE 05-13-1992	
ECO DESCRIPTION <b>ADDED TERMINAL CONNECTION DIAGRAM</b>				APPROVED BY TB	DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - DUAL VOLTAGE MOTOR
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			REFERENCE EE7308/EE7300	SIZE A	DRAWING NUMBER EE7308T

**CERTIFICATION DATA SHEET**

**Model#:** 284TTGN16550 AA      **WINDING#:** K2844161 NONE 9  
**CONN. DIAGRAM:** A-EE7308T      **ASSEMBLY:** F1 ONLY  
**OUTLINE:** B-SS311106-1275

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25&20	18.7&14.9	1800	1772&1472	284T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#190/ 380	62/31&60/30	LINE OR INVERTER	CONTINUOU S	F3	1.15/1.15	40	3300

FULL LOAD EFF: 93.6&93	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 81&81	3/4 LOAD PF: 76	1/2 LOAD PF: 65.5	93	SQ CAGE INV RATED	26 / 13

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
74 LB-FT	364 / 182	138 LB-FT 186	185 LB-FT 250	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	4.2 LB-FT^2	175 LB-FT^2	50 SEC.	2	475 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
6311	6210						

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 10:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: NONE
NONE NONE
NONE NONE PPR
BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

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DATE: 06/27/2017 01:32:05 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 1/25/2019  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



284TTGN16550

Submittal

Data @ 460 V

Motor Load Data

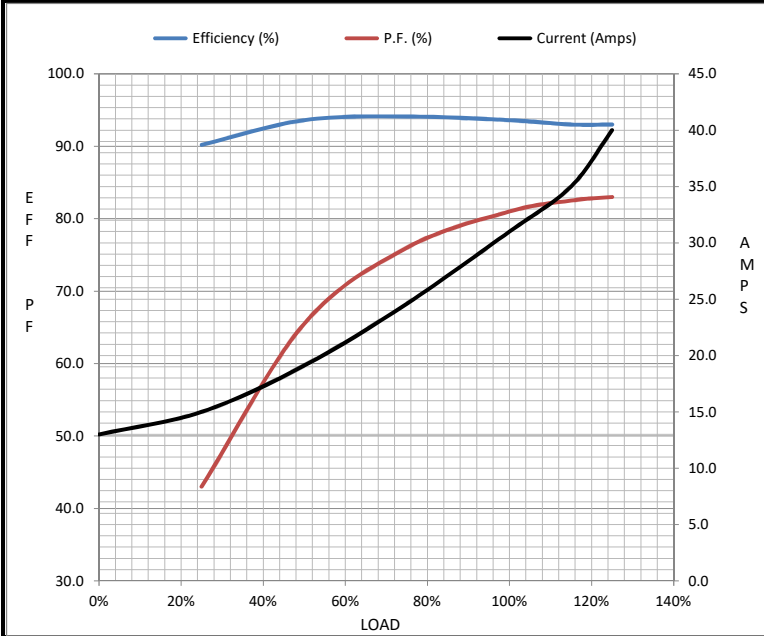
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	13.0	15.0	19.1	24.6	31.0	35.0	40.0	182
Torque (ft-lb)	0.00	18.3	37.0	55.5	74.0	85.5	93.0	138
RPM	1800	1793	1787	1780	1772	1,767	1763	0
Efficiency (%)		90.2	93.6	94.1	93.6	93.0	93.0	
P.F. (%)	3.0	43.0	65.5	76.0	81.0	82.5	83.0	33.0

Motor Speed Data

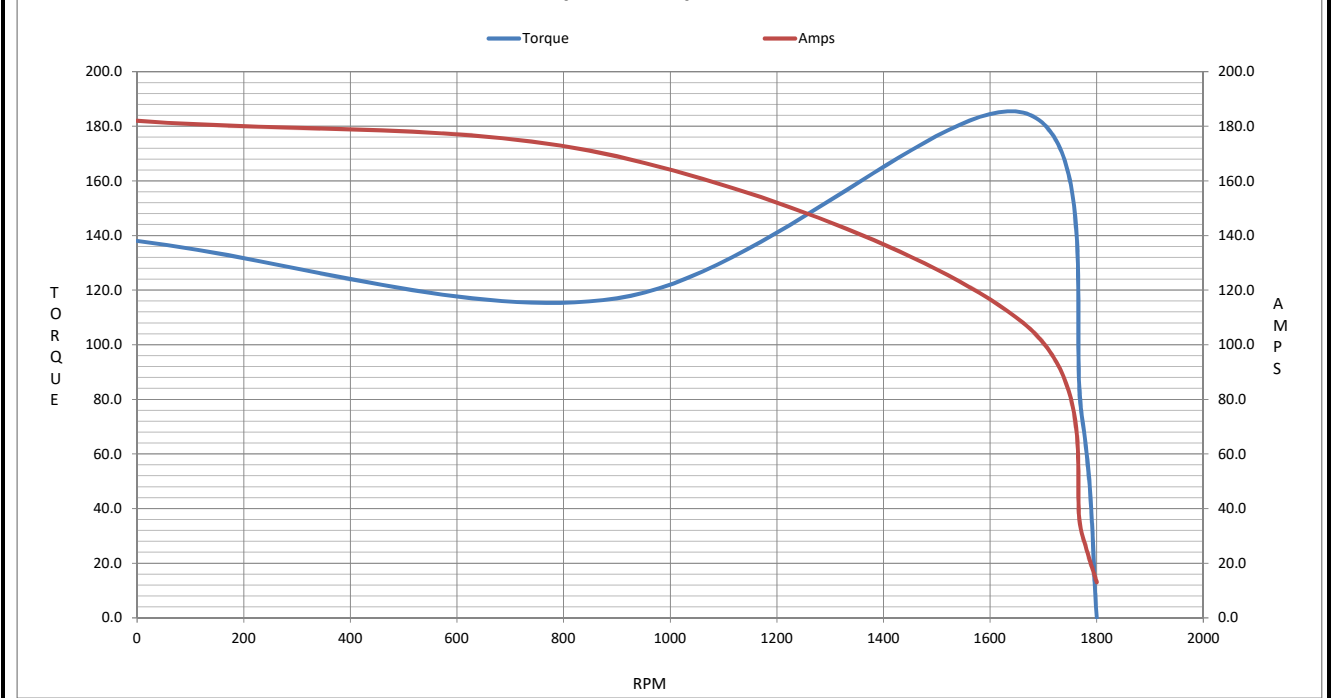
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1662	1772	1800
Current (Amps)	182	169	108	31.0	13.0
Torque (ft-lb)	138	117	185	74.0	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	EPFC			
Construction	TGS			
Voltage	230/460#190/380 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	60 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	4.2 Lb-Ft <sup>2</sup>			
Ref Wdg	K2844161 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS311106-1275			
Conn. Diag	A-EE7308T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.1810	0.1570	0.8480	1.0850	19.7750



Speed - Torque Curve





# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20220325- E12044  
**Report Reference** E12044-19991213  
**Issue Date** 2022-MARCH-25

**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 284TTGN16550 (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

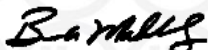
**Additional Information:** See the UL Online Certifications Directory at  
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This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up  
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Look for 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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