

PRODUCT INFORMATION PACKET

Model No: 286TTGN16577

Catalog No: E507

Hazardous Duty® Explosion Proof Motor, 20 HP, 3 Ph, 60 Hz, 230/460 V, 1200 RPM, 286T Frame, EPFC



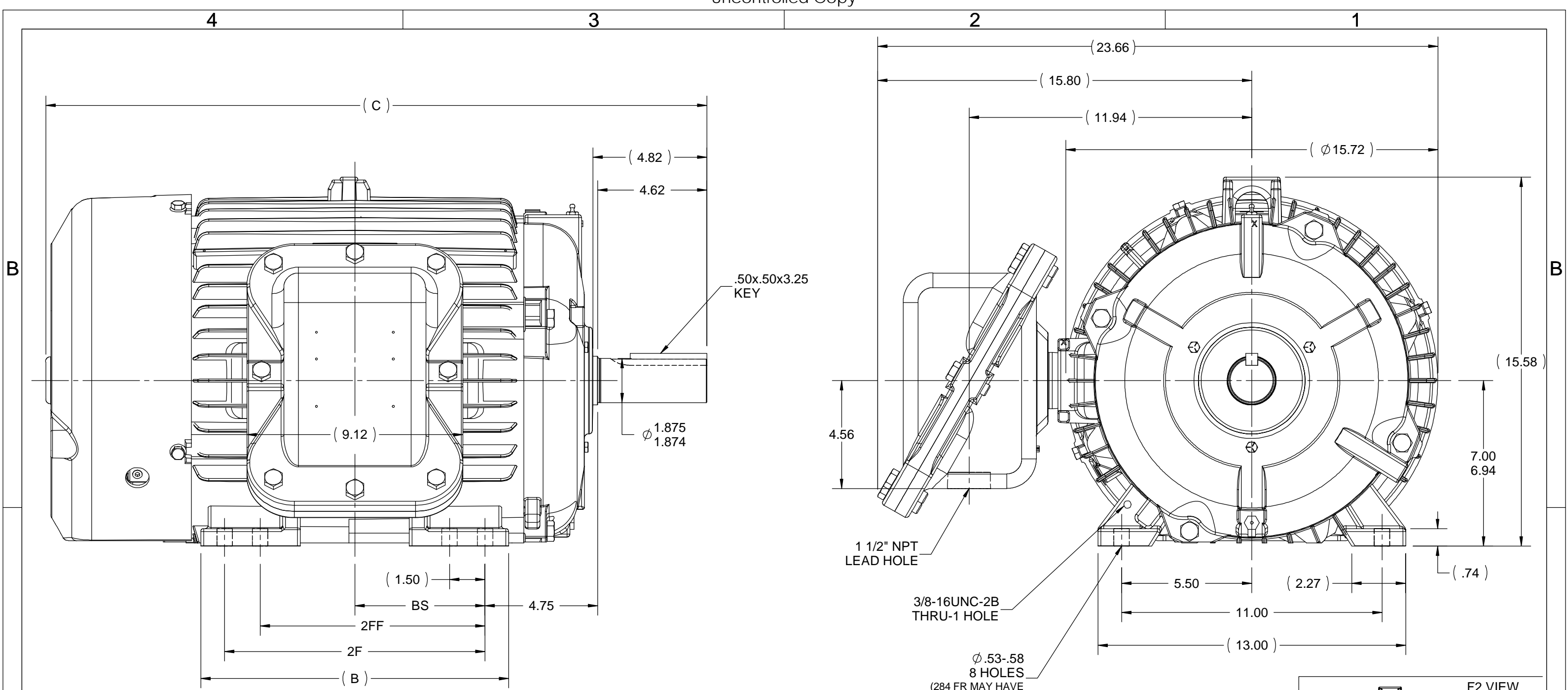
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Nameplate Specifications

Output HP	20 Hp	Output KW	14.9 kW
Frequency	60 Hz	Voltage	230/460 V
Current	53.5/26.8 A	Speed	1175 rpm
Service Factor	1.15	Phase	3
Efficiency	91.7 %	Power Factor	76
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	286T	Enclosure	Explosion Proof Fan cooled
Thermal Protection	Thermostat	Ambient Temperature	40 °C
Drive End Bearing Size	6311	Opp Drive End Bearing Size	6210
UL	UL Listed And CSA Certified	CSA	Y
CE	N	IP Code	54
Hazardous Location	DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B	Number of Speeds	1

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.385 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	27.71 in
Frame Length	14.25 in	Shaft Diameter	1.875 in
Shaft Extension	4.82 in	Assembly/Box Mounting	F1 ONLY
Inverter Load	CONSTANT 10:1		
Connection Drawing	A-EE7308AD	Outline Drawing	B-SS311106-1425



- 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 C	REVISION BY SD	REV DATE/© DATE 11/19/2019
ECO ECO-0177183	APPROVED BY VMR	DATE 11/19/2019
ECO DESCRIPTION TITLE BOX UPDATED PER ECO		
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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

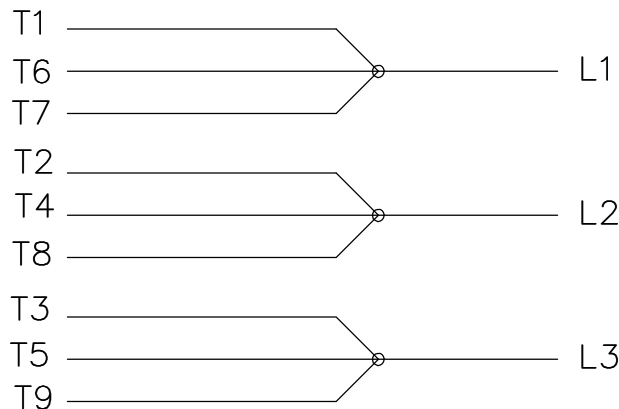
PROCESS/FINISH

SIZE
B

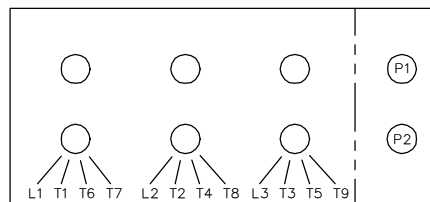
DRAWING NUMBER
SS311106

SHEET
1 OF 1

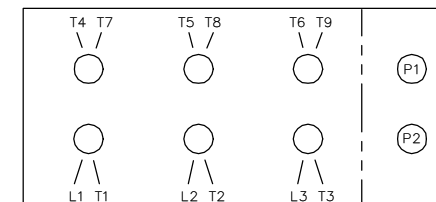
LOW VOLTAGE



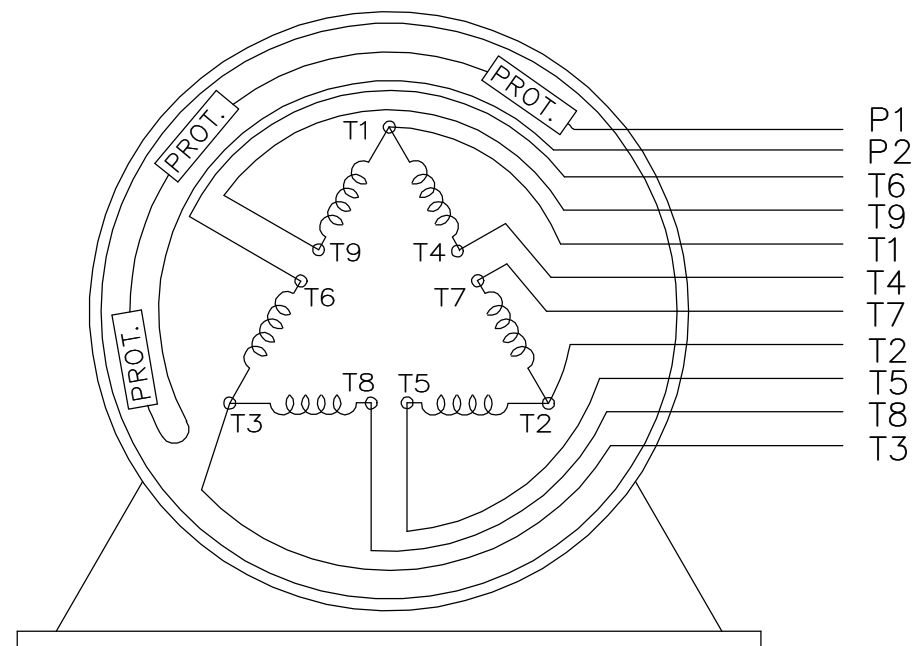
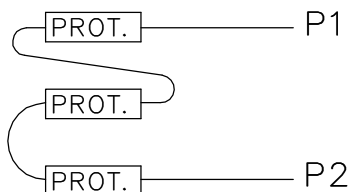
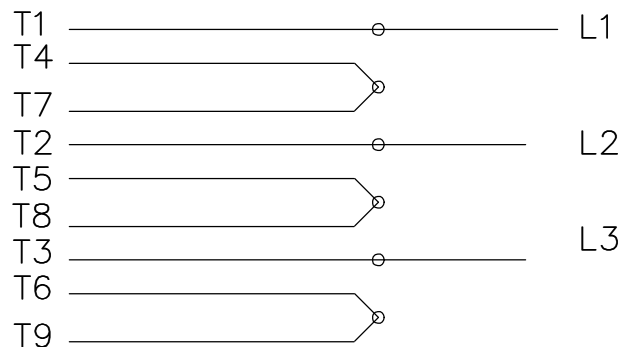
LOW VOLTAGE



HIGH VOLTAGE



HIGH VOLTAGE



VIEW OF TERMINAL END

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

DRAWING REVISION L		REVISION BY JP	REV DATE/© DATE 06-21-2019	TOLERANCES (EXCEPT AS NOTED):		DRAWN BY MJD		Regal Beloit America, Inc.	
ECO ECO-0168744		APPROVED BY MH	DATE 06-21-2019	DEC. .X	INCH ±0.1	mm [±3]	ANGLE ±7° 30"		
ECO DESCRIPTION UPDATED TO CURRENT STANDARDS				REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [.08/.38] X 45°		APPROVED BY GK		DESCRIPTION CONN DIAGRAM-EXTERNAL	
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				MACHINED SURFACES: 200/ 5.1		REFERENCE		PROCESS/FINISH	
				mm DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY		THIRD ANGLE PROJECTION		DRAWING NUMBER EE7308AD	
								SHEET 1 OF 1	

CERTIFICATION DATA SHEET

Model#: 286TTGN16577 AA **WINDING#:** 286654 NONE 6
CONN. DIAGRAM: A-EE7308AD **ASSEMBLY:** F1 ONLY
OUTLINE: B-SS311106-1425

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
20	14.9	1200	1175	286T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	53.5/26.8	LINE OR INVERTER	CONTINUOUS	F3	1.15	40	3300

FULL LOAD EFF: 91.7	3/4 LOAD EFF: 91.7	1/2 LOAD EFF: 91.7	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 76	3/4 LOAD PF: 70.5	1/2 LOAD PF: 59.5	91	SQ CAGE INV RATED	25 / 12.5

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
89 LB-FT	290 / 145	157 LB-FT 176	238 LB-FT 267	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS / HOUR	APPROX. MOTOR WGT
56 dBA	66 dBA	4.8 LB-FT^2	350 LB-FT^2	20 SEC.	2	550 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	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
6311	6210						

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

If Inverter equals NONE, contact factory for further information

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
- FT-LB NONE V NONE Hz

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DATE: 06/21/2017 10:37:46 AM
 FORM 3531 REV.3 02/07/99
 ** Subject to change without notice.

Data Sheet

Date: 19-06-2017
 Customer: _____
 Attention: _____
 Submitted by: FAREEDA DUDEKULA



286TTGN16577

Submittal

Data @ 460 V

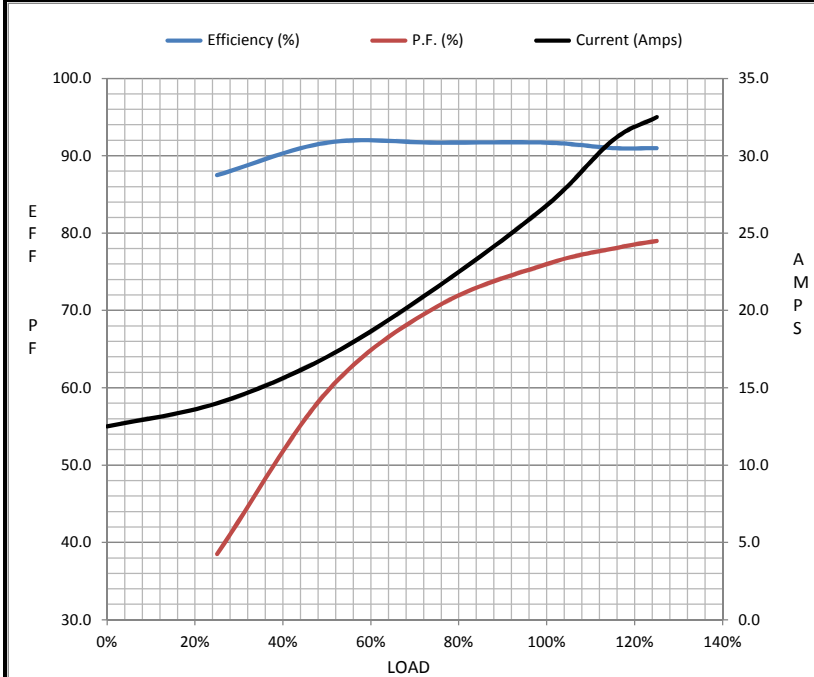
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	12.5	14.0	17.0	21.5	26.8	31.0	32.5	145
Torque (ft-lb)	0.00	22.0	44.0	66.5	89.0	103	112	157
RPM	1200	1195	1190	1180	1175	1,170	1167	0
Efficiency (%)		87.5	91.7	91.7	91.7	91.0	91.0	
P.F. (%)	20.5	38.5	59.5	70.5	76.0	78.0	79.0	36.0

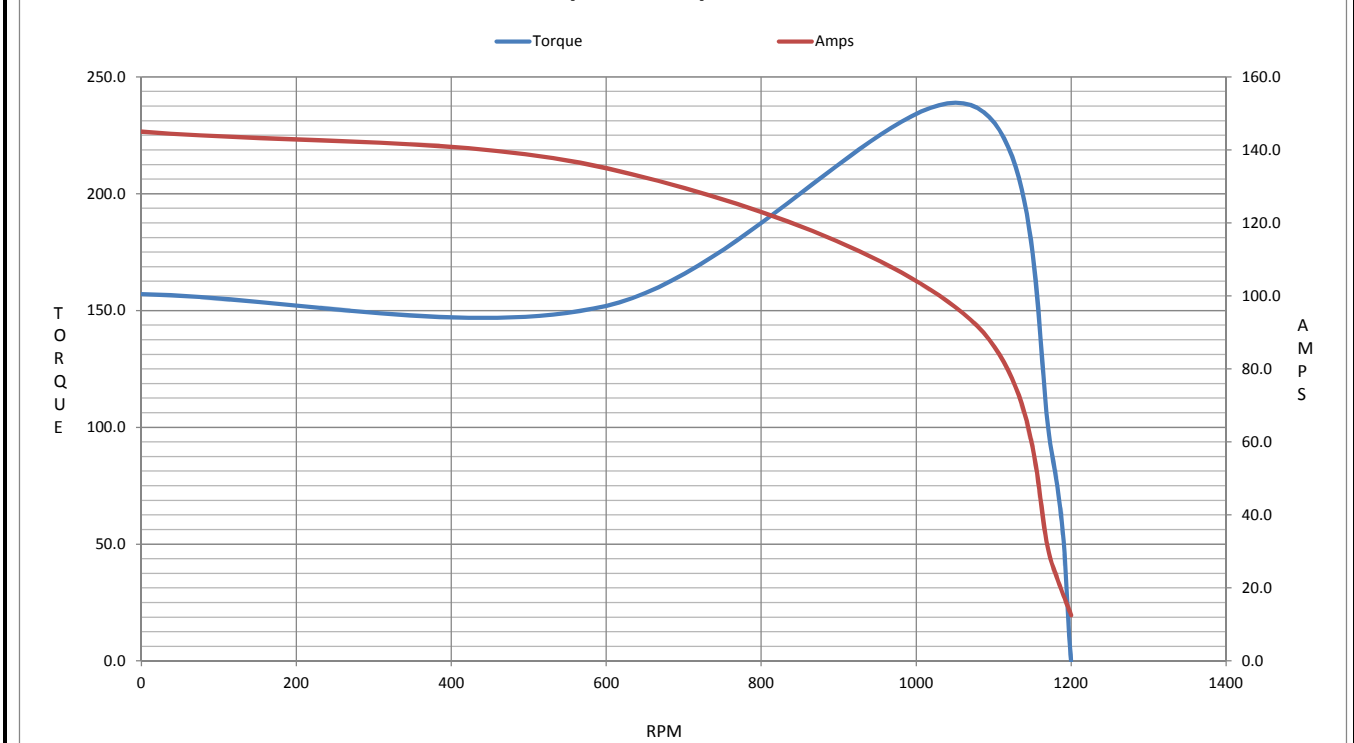
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1070	1175	1200
Current (Amps)	145	135	93.5	26.8	12.5
Torque (ft-lb)	157	152	238	89.0	0.00

Information Block				
HP	20.0			
Sync. RPM	1200			
Frame	286			
Enclosure	TEFC			
Construction	TFN			
Voltage	230/460 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	1,000 feet			
Rotor/Shaft wk ²	4.8 Lb-Ft ²			
Ref Wdg	286654 NONE			
Sound Pressure @ 1M	56 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS311106-1425			
Conn. Diag	A-EE7308AD			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.2340	0.2470	1.2520	1.2730	19.2130



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 286TTGN16577 (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

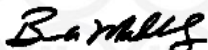
Additional Information: See the UL Online Certifications Directory at
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Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's
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Look for the UL Certification 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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