

# PRODUCT INFORMATION PACKET

Model No: 254TTGN16541

Catalog No: U027A

Hazardous Duty® Explosion Proof Motor, 15 HP, 3 Ph, 60 Hz, 575 V, 1800 RPM, 254T Frame, EPFC



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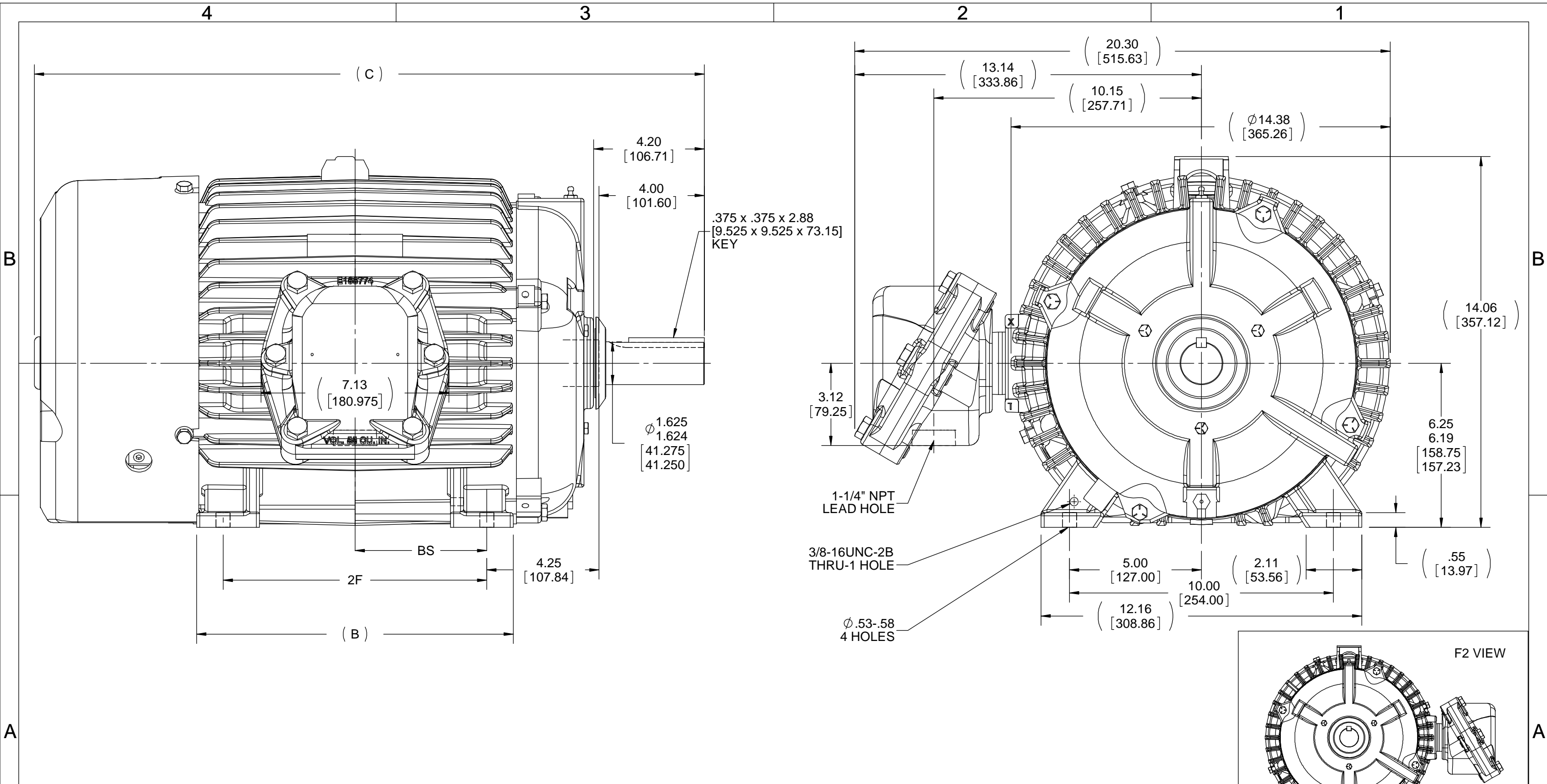
### Nameplate Specifications

Output HP	<b>15 Hp</b>	Output KW	<b>11.2 kW</b>
Frequency	<b>60 Hz</b>	Voltage	<b>575 V</b>
Current	<b>15.1 A</b>	Speed	<b>1775 rpm</b>
Service Factor	<b>1.15</b>	Phase	<b>3</b>
Efficiency	<b>92.4 %</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>
Frame	<b>254T</b>	Enclosure	<b>Explosion Proof Fan cooled</b>
Thermal Protection	<b>Thermostat</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6309</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>
Hazardous Location	<b>DIV 1 EXP PROOF CL I GR CD CL II GR FG T3B</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>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.649 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>23.52 in</b>
Frame Length	<b>10.50 in</b>	Shaft Diameter	<b>1.625 in</b>
Shaft Extension	<b>4.2 in</b>	Assembly/Box Mounting	<b>F1 ONLY</b>
Inverter Load	<b>CONSTANT 10:1</b>		
Connection Drawing	<b>A-EE7300T</b>	Outline Drawing	<b>B-SS203001-1050</b>





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.

DASH	FRAME	B	C	2F	2FF	BS
1050	254T	10.25 [260.35]	23.65 [600.71]	---	8.25 [209.55]	4.12 [104.65]
1225	256T	12.00 [304.80]	25.40 [645.16]	---	10.00 [254.00]	5.00 [127.00]

DRAWING REVISION F	REVISION BY SD	DATE 11/18/2019
ECO ECO-0177002	APPROVED BY VMR	DATE 11/18/2019
ECO DESCRIPTION OUTLINE DESCRIPTION AND C DIMENSION UPDATED		

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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 [.076/.381]  
 CORNER FILLETS: .02 [.51]  
 MACHINED SURFACES: 200 INCH/mm 5.1  
 mm SHOWN IN [BRACKETS]

DRAWN BY  
RM  
 DATE  
12-14-1993  
 APPROVED BY  
FG  
 DATE  
12-15-1993  
 REFERENCE  
 THIRD ANGLE PROJECTION

**REGAL**™ Regal Beloit America, Inc.

DESCRIPTION  
**OUTLINE**  
250T FR. EXP. PR. - BB - T - STD.

MATERIAL PROCESS/FINISH

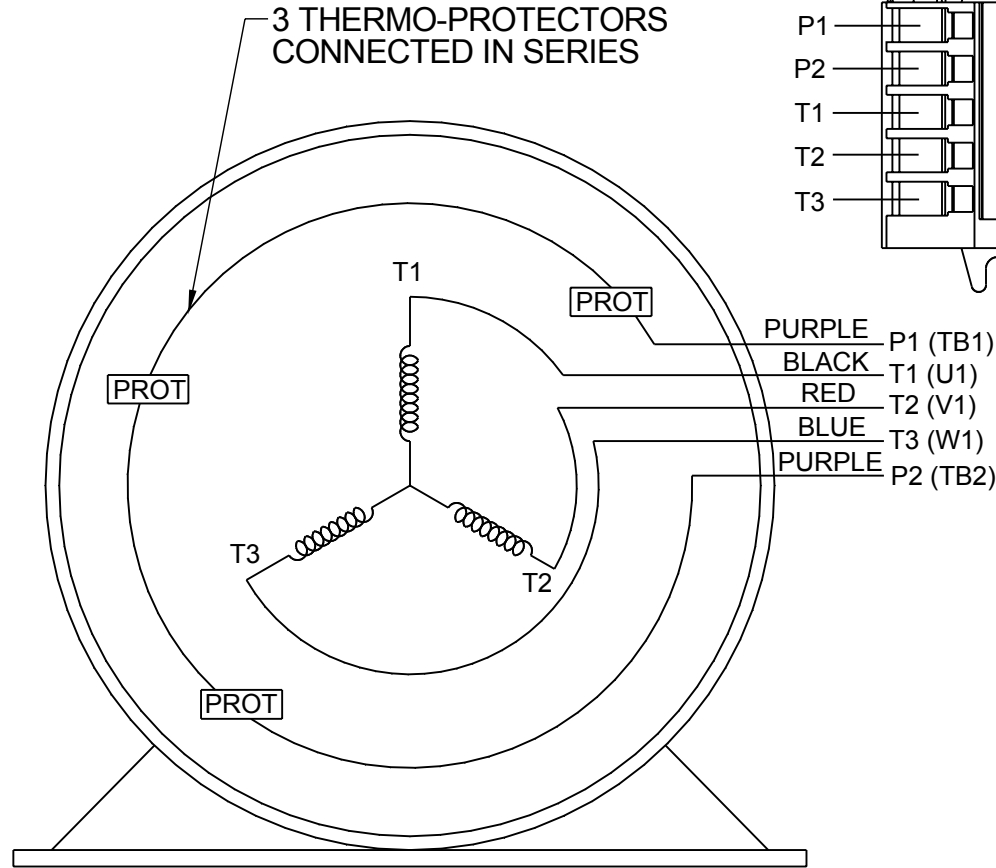
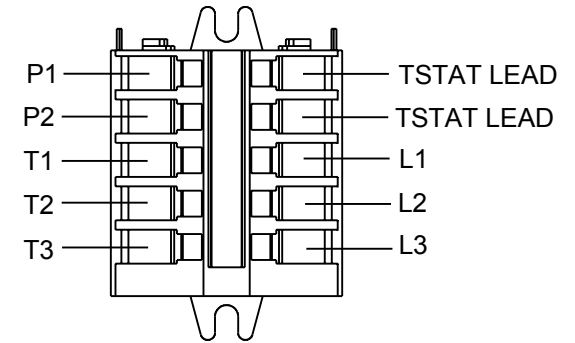
SIZE **B** DRAWING NUMBER **SS203001** SHEET 1 OF 1

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

**TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS**

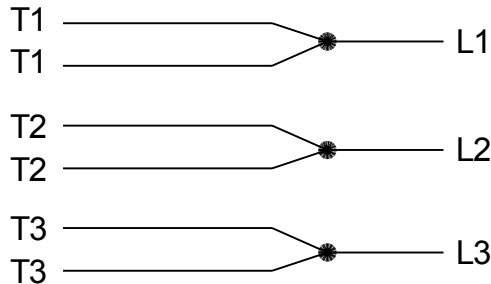
**NOTE FOR FACTORY USE ONLY:  
TO SURGE TEST:  
FOR 3 LEAD COMMON CONNECT:  
CONNECT P1 TO T1 THEN P2 TO L1  
FOR 6 LEAD COMMON CONNECT:  
CONNECT P1 TO BOTH T1  
THEN P2 TO L1**

TERMINAL BLOCK WHEN SPECIFIED



**VIEW OF TERMINAL END**

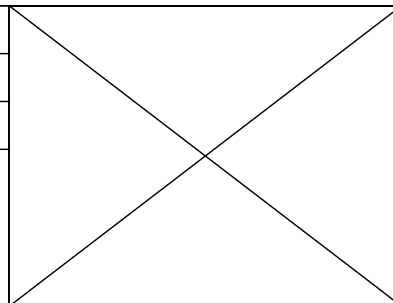
**IF MOTOR HAS MULTIPLE  
T'S PER LEAD CONNECT  
TOGETHER LIKE T'S**



**A-9806 DECAL**

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

DRAWING REVISION AB	REVISION BY AJW	DATE 07-17-2015
ECO ECO-0081632	APPROVED BY T.VUE	DATE 07-17-2015
ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8		
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DRAWN BY LZ
DATE 01-04-1994
APPROVED BY GK
DATE 01-20-1994
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Beloit America, Inc.</b>	
<b>DESCRIPTION</b> <b>CONN DIAGRAM-EXTERNAL</b> <b>3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR</b>	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7300T</b>
SHEET <b>1 OF 1</b>	

**CERTIFICATION DATA SHEET**

**Model#:** 254TTGN16541 AA      **WINDING#:** K2564165 NONE 3  
**CONN. DIAGRAM:** A-EE7300T      **ASSEMBLY:** F1 ONLY  
**OUTLINE:** B-SS203001-1050

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
15	11.2	1800	1775	254T	EPFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	575	15.1	LINE OR INVERTER	CONTINUOU S	F3	1.15	40	3300

FULL LOAD EFF: 92.4	3/4 LOAD EFF: 92.4	1/2 LOAD EFF: 91	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 81	3/4 LOAD PF: 78	1/2 LOAD PF: 68	91.7	SQ CAGE INV RATED	6.2

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
44.4 LB-FT	88	85 LB-FT 191	125 LB-FT 282	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
65 dBA	75 dBA	2.4 LB-FT^2	110 LB-FT^2	25 SEC.	2	325 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
6309	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: 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: 06/23/2017 04:32:16 AM  
 FORM 3531 REV.3 02/07/99  
 \*\* Subject to change without notice.

Data Sheet

Date: 6/19/2017

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: FAREEDA DUDEKULA



254TTGN16541

Submittal

Data @ 575 V

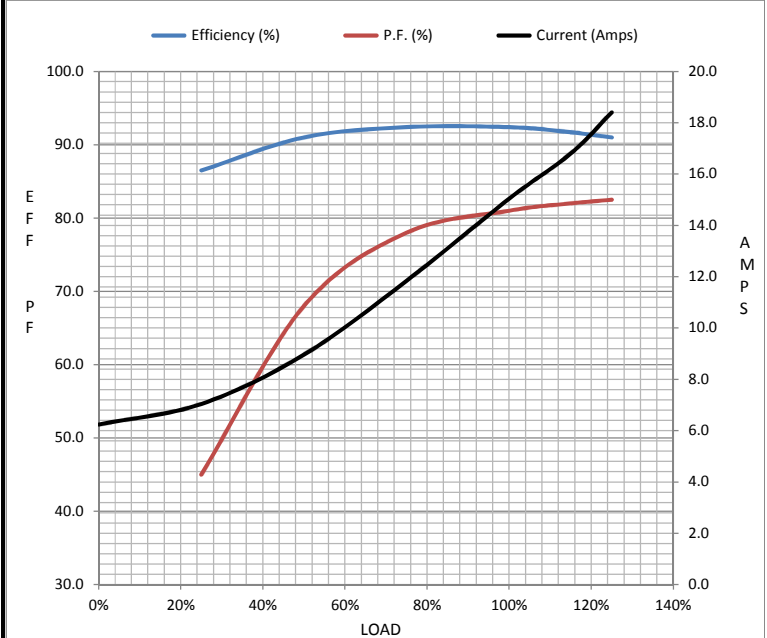
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	6.2	7.0	9.0	11.8	15.0	16.8	18.4	88.0
Torque (ft-lb)	0.00	11.0	22.0	33.5	44.4	50.5	56.0	85.0
RPM	1800	1792	1788	1780	1775	1,770	1765	0
Efficiency (%)		86.5	91.0	92.4	92.4	91.7	91.0	
P.F. (%)	11.5	45.0	68.0	78.0	81.0	82.0	82.5	40.0

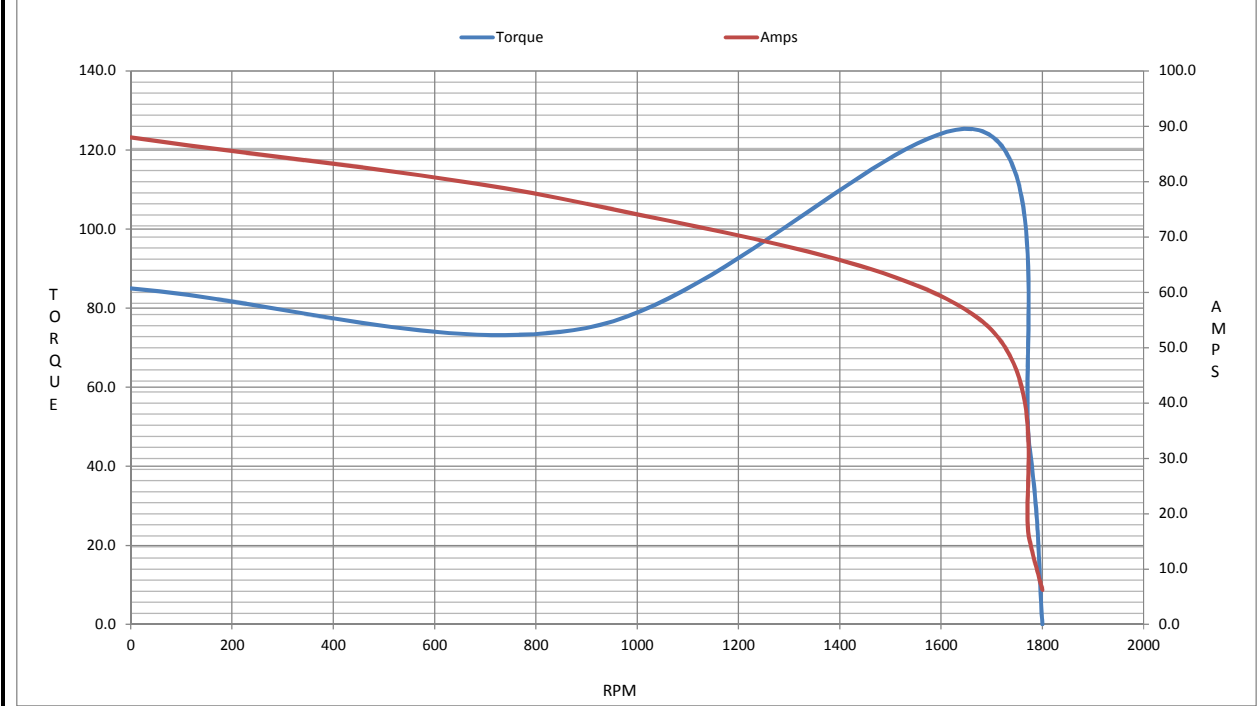
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1675	1775	1800
Current (Amps)	88.0	76.0	55.2	15.0	6.2
Torque (ft-lb)	85.0	75.0	125	44.4	0.00

Information Block				
HP	15.0			
Sync. RPM	1800			
Frame	254			
Enclosure	TEFC			
Construction	TFN			
Voltage	575 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	55 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	2.40 Lb-Ft <sup>2</sup>			
Ref Wdg	K2564165 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 10:1			
Outline Dwg	B-SS203001-1050			
Conn. Diag	A-EE7300T			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.5880	0.3720	2.1110	2.7760	50.7940



Speed - Torque Curve



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20220311- E12044  
**Report Reference** E12044-19950413  
**Issue Date** 2022-MARCH-11

**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 254TTGN16541 (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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Services Procedure provides authorization to apply the UL Mark.

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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  
UL LLC

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