

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: 254TTFCD16838

Catalog No: E620A-P

XRI®-SD Severe Duty Motor, 15 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 254T Frame, TEFC



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**RegalRexnord**

### Nameplate Specifications

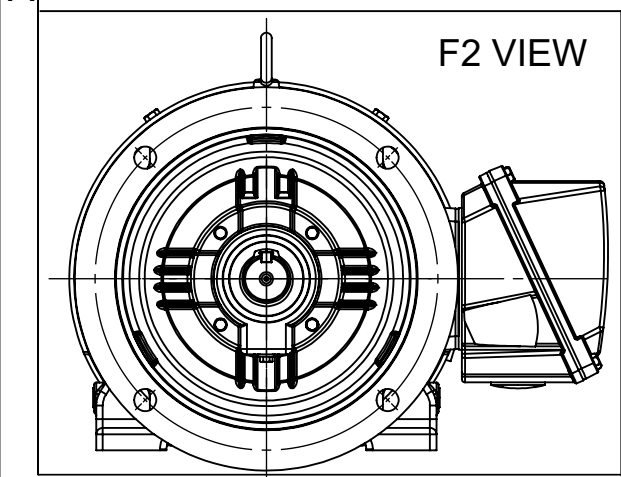
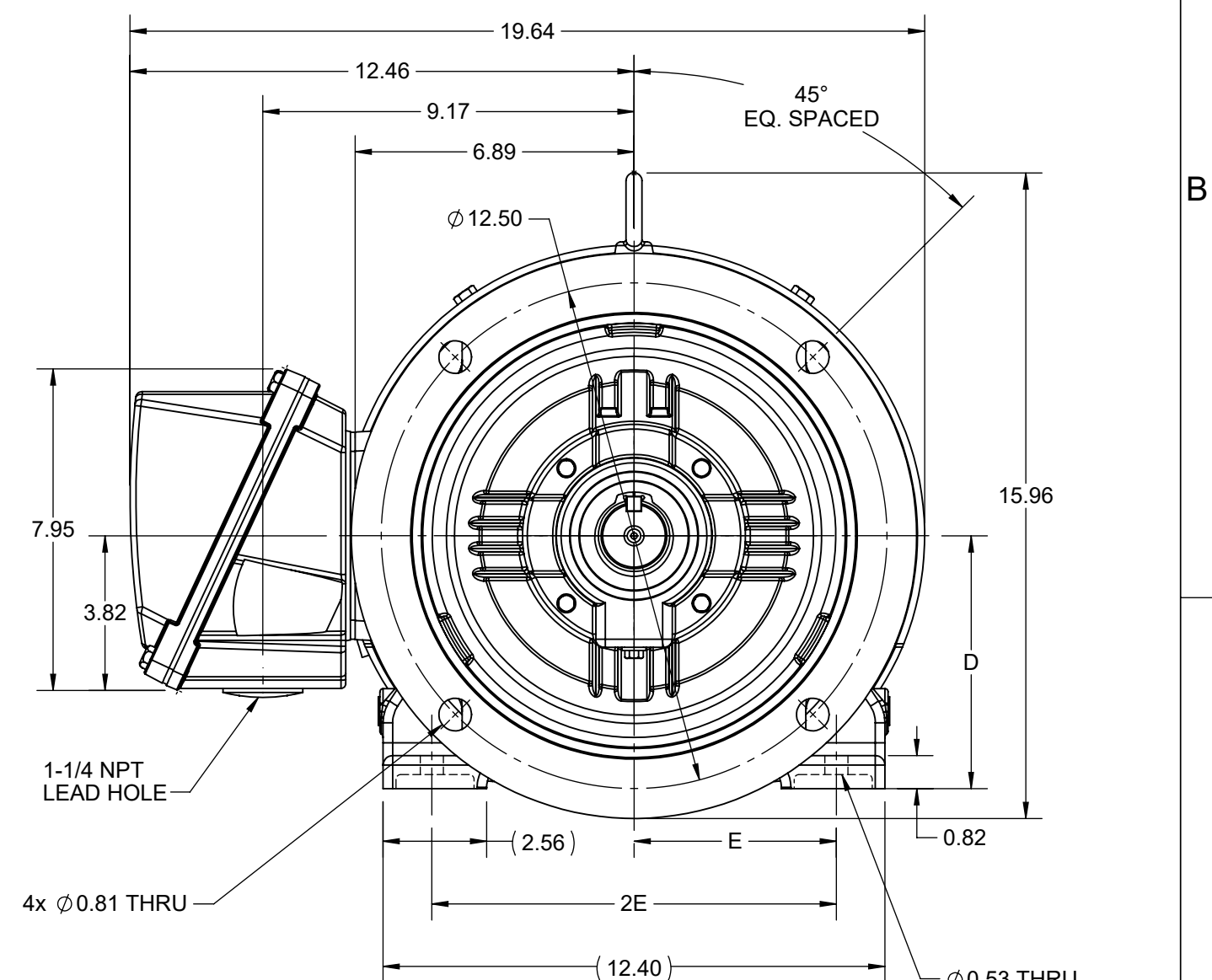
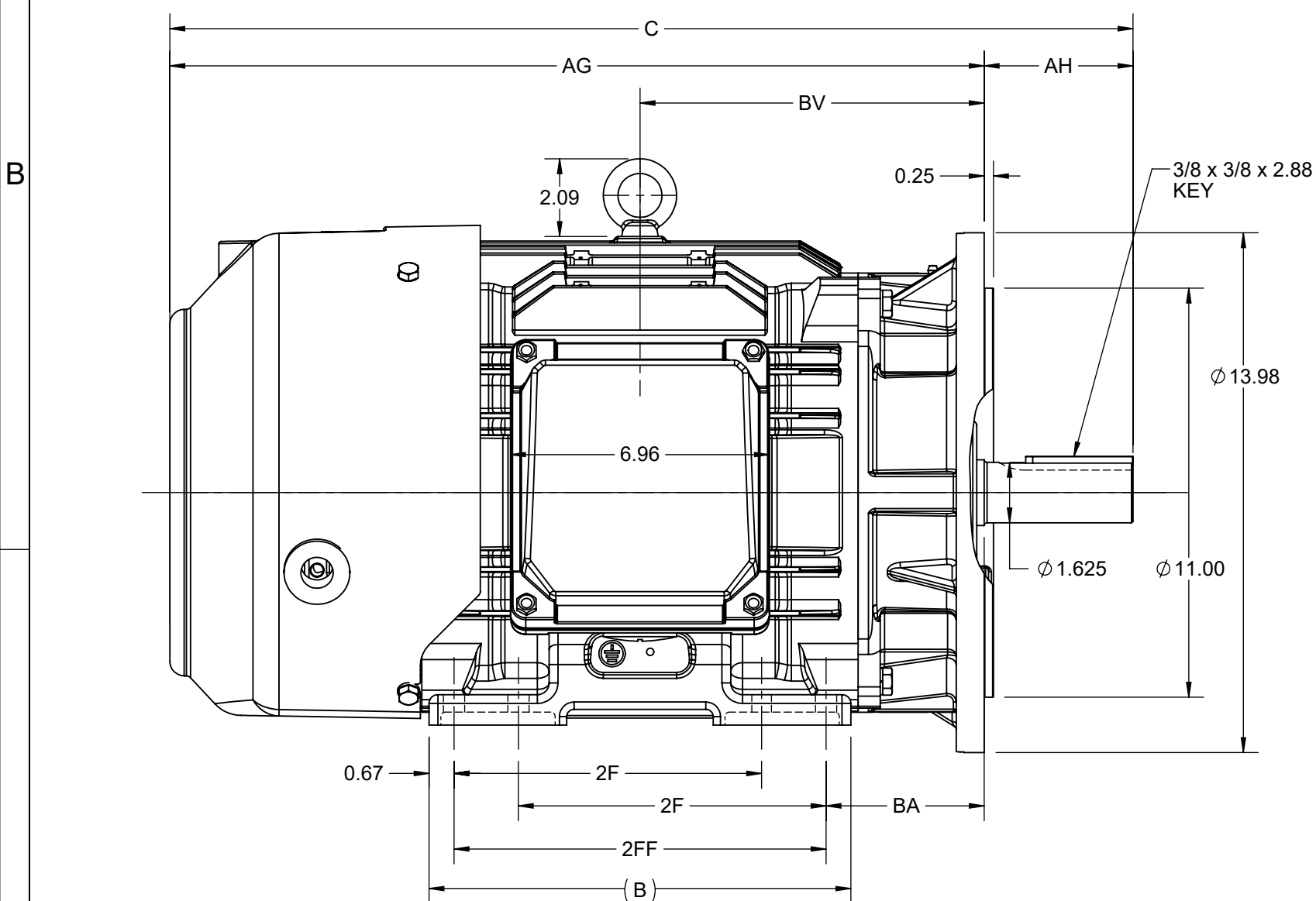
Phase	<b>3</b>	Output HP	<b>15 Hp</b>
Output KW	<b>11.2 kW</b>	Voltage	<b>460 V</b>
Speed	<b>1770 rpm</b>	Service Factor	<b>1.15</b>
Frame	<b>254T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>92.4 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 Hz</b>
Current	<b>18.4 A</b>	Power Factor	<b>83</b>
Duty	<b>Continuous</b>	Insulation Class	<b>H</b>
Design Code	<b>B</b>	KVA Code	<b>G</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6209</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>55</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>.713 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>	Shaft Diameter	<b>1.625 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 10:1/VARIABLE 20:1</b>
Outline Drawing	<b>SS208560-100</b>	Connection Drawing	<b>EE7300</b>

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DASH NO.	B	C	D	E	2E	2F	2FF	AG	AH	BA	BV	MOUNTING	FRAME
100	9.60	24.16	6.25	5.00	10.00	-	8.25	20.16	4.00	4.25	8.39	F1 OR F2	254TD
200	11.34	25.89				8.25	10.00	21.89			9.25		254/256TD



DRAWING REVISION A	REVISION BY RAM	REV DATE/© DATE 29/06/2022
REQUEST NUMBER CR-0009883	APPROVED BY SBD	DATE 29/06/2022
REQUEST NUMBER DESCRIPTION NEW DRAWING RELEASE		
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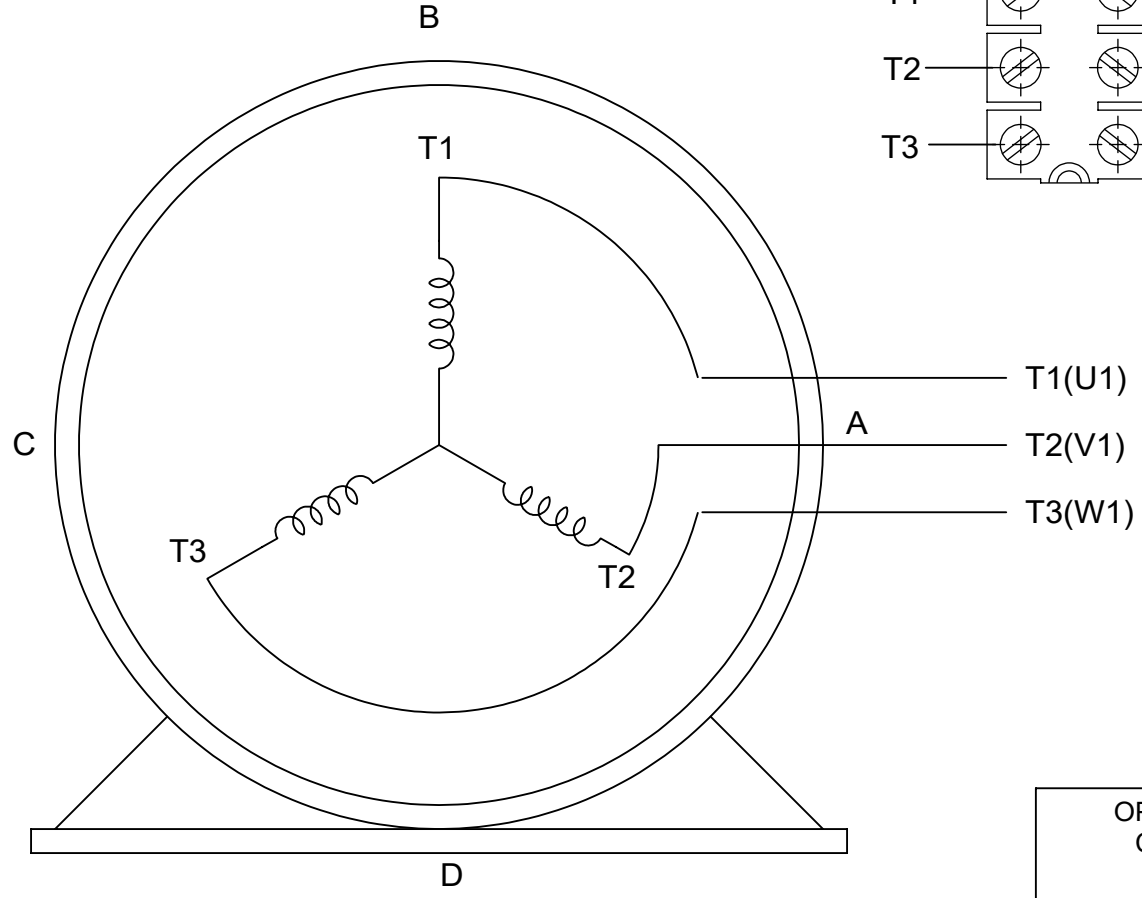
PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

DRAWN BY RAM	 Regal Beloit America, Inc.
DATE 29/06/2022	
APPROVED BY SBD	DESCRIPTION <b>OUTLINE</b> 254/256TD FR NEMA SD & IEEE841 D-FLANGE KIT
DATE 29/06/2022	MATERIAL PROCESS/FINISH
REFERENCE SS208560	SIZE <b>B</b>
THIRD ANGLE PROJECTION	DRAWING NUMBER <b>SS208560B</b>
	SHEET 1 OF 1

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

TERMINAL BLOCK WHEN SPECIFIED

TO REVERSE ROTATION:  
INTERCHANGE ANY TWO LINE  
LEAD CONNECTIONS



VIEW OF TERMINAL END

**OPTIONAL CORD CONNECTION**

L1	WHITE
L2	RED
L3	BLACK

DRAWING REVISION AC	REVISION BY BS	REV DATE/© DATE 26/07/2022
REQUEST NUMBER CR-0010402	APPROVED BY SN	DATE 26/07/2022

PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
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DRAWN BY DA
DATE 03-26-1993
APPROVED BY TB
DATE 03-26-1993
REFERENCE
THIRD ANGLE PROJECTION

		Regal Beloit America, Inc.	
DESCRIPTION <b>CONNECTION DIAGRAM</b> EXTERNAL - SINGLE VOLTAGE - 3Ø MOTOR			
MATERIAL		PROCESS/FINISH	
SIZE <b>A</b>	DRAWING NUMBER <b>EE7300</b>		SHEET 1 OF 1

REQUEST NUMBER DESCRIPTION  
**DRAWING UPDATED**

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DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300  
 OUTLINE: SS208560  
 WINDING: HA31604019 NONE 7

REFERENCE MODEL #: 254TTFCD16838  
 CAT #: E620A-P

MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
15	11.2	1800	1772	254T	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	460	18.8	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	92.4	3/4 LD EFF	92.4	1/2 LD EFF	91.7	GTD EFF	ELECT. TYPE
F.L. PF	82.0	3/4 LD PF	76.5	1/2 LD PF	65.5	91.7	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
44.5 LB-FT	113	91.0 LB-FT 204%	118 LB-FT 265%	50

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
65 dBA	74 dBA	2.40 LB-FT²	110 LB-FT²	20 SEC.	2	310 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	PREMIUM SEVERE DUTY	NONE	NO	NONE	BLUE (EPOXY)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	ODE	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL 6309	BALL 6209						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	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
0.44	0.244	1.304	1.467	31.563	0.080	ODE

* N O T E S *	If Inverter equals NONE, contact factory for further information						
	INVERTER TORQUE: CONSTANT 10:1/VARIABLE 10:1						
	INV. HP SPEED RANGE: NONE						
	ENCODER: NONE						
NONE							
NONE PPR							

PREPARED BY: _____	BRAKE: NONE
DATE: 5/13/2020	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE HZ:

FORM: 3531 REV\_4 2/27/06  
 \*\* Subject to change without notice.

Data Sheet

Date: 5/6/2020  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: \_\_\_\_\_

254TTFC16838



Submittal

Data @ 460 V

Motor Load Data

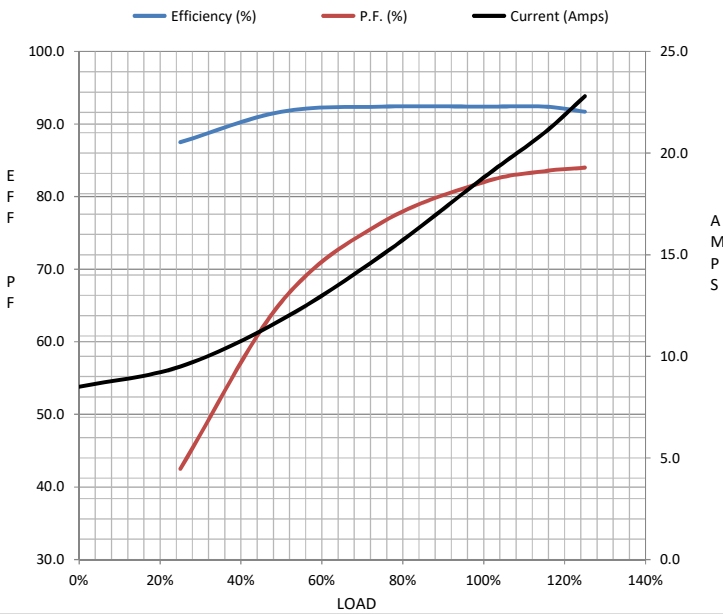
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	8.5	9.5	11.8	15.0	18.8	21.0	22.8	113
Torque (ft-lb)	0.00	11.0	22.0	33.5	44.5	51.5	56.0	91.0
RPM	1800	1792	1785	1780	1772	1,768	1762	0
Efficiency (%)		87.5	91.7	92.4	92.4	92.4	91.7	
P.F. (%)	5.0	42.5	65.5	76.5	82.0	83.5	84.0	41.0

Motor Speed Data

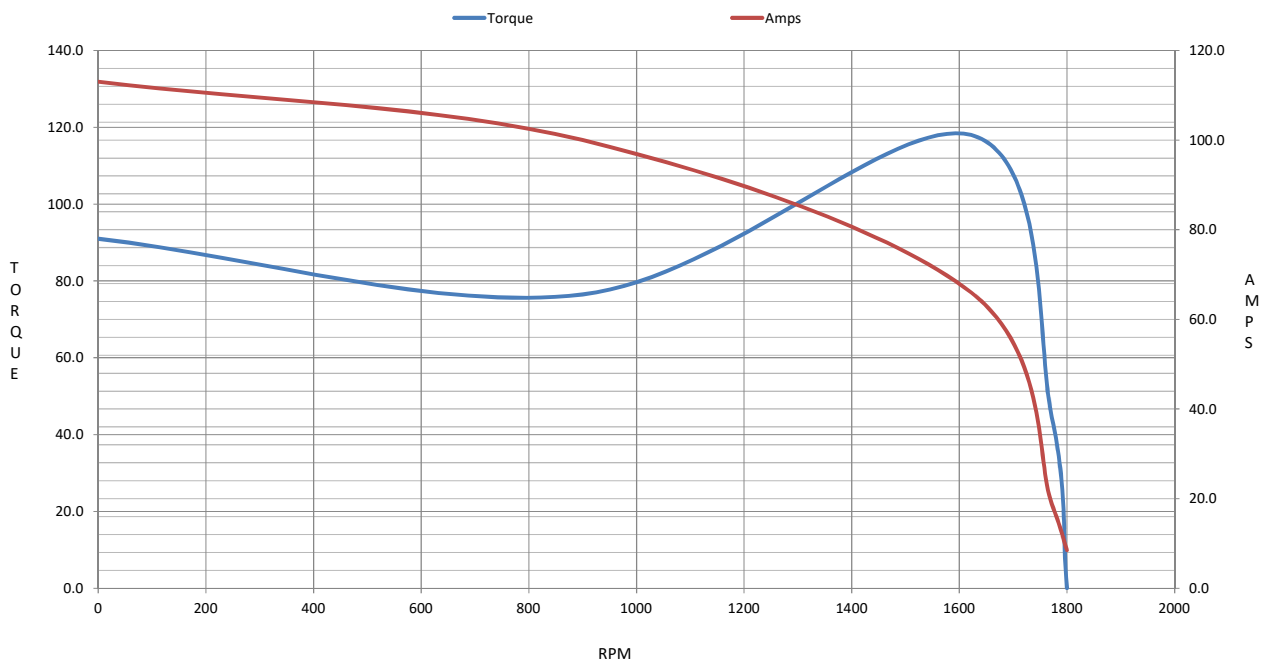
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1622	1772	1800
Current (Amps)	113	100	66.0	18.8	8.5
Torque (ft-lb)	91.0	76.5	118	44.5	0.00

Information Block

HP	15.0			
Sync. RPM	1800			
Frame	254			
Enclosure	TEFC			
Construction	TFC			
Voltage	460 V			
Frequency	60 Hz			
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	50 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	2.40 Lb-Ft <sup>2</sup>			
Ref Wdg	HA31604019 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 10:1/VARIABLE 10:1			
Outline Dwg	SS208560			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.4400	0.2440	1.3040	1.4670	31.5630



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 : 254TTFCD16838

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

Catalog No : E620A-P

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**