

# PRODUCT INFORMATION PACKET

Model No: 254TTDBD7201

Catalog No: Y470A

Multispeed Motor, 7.50 & 1.88 HP, 3 Ph, 60 & 60 Hz, 460 & 460 V, 1800 & 1800 RPM, 254T Frame, DP



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.

©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E



**Nameplate Specifications**

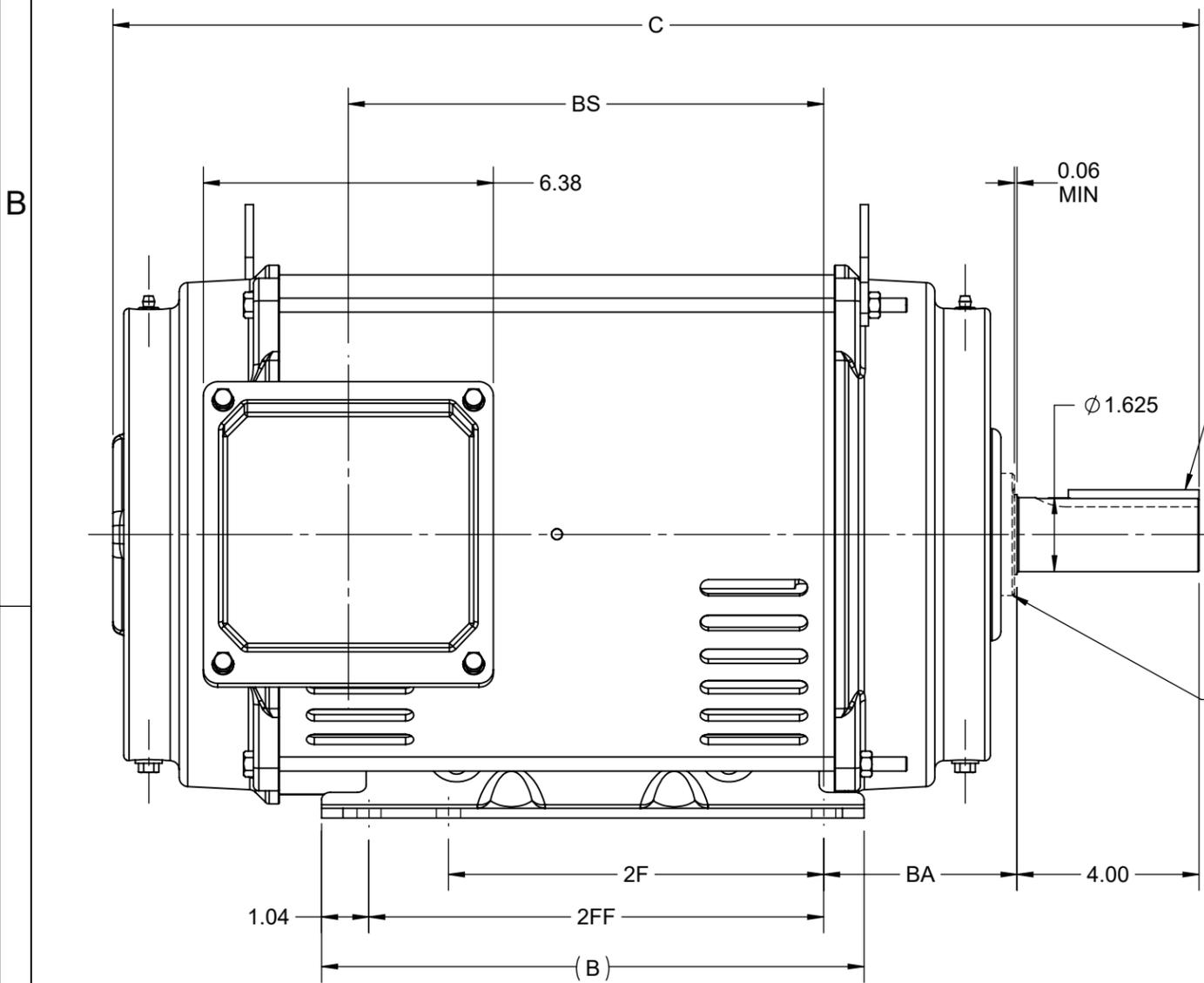
Phase	<b>3</b>	Output HP	<b>7.50 &amp; 1.88 Hp</b>
Output KW	<b>5.6 &amp; 1.4 kW</b>	Voltage	<b>460 &amp; 460 V</b>
Speed	<b>1782 &amp; 890 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>254T</b>	Enclosure	<b>Drip Proof</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>88.5 &amp; 82.5 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 60 Hz</b>
Current	<b>9.5 &amp; 4.2 A</b>	Power Factor	<b>81</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>2VT</b>	KVA Code	<b>K</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6208</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>22</b>
Number of Speeds	<b>2</b>		

**Technical Specifications**

Electrical Type	<b>Squirrel Cage Induction Run</b>	Starting Method	<b>Across The Line</b>
Poles	<b>4//8</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>1.6049 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>Rolled Steel</b>
Shaft Type	<b>T</b>	Shaft Diameter	<b>1.625 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>		
Connection Drawing	<b>EE7317</b>	Outline Drawing	<b>SS620685-100</b>

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:06/23/2023

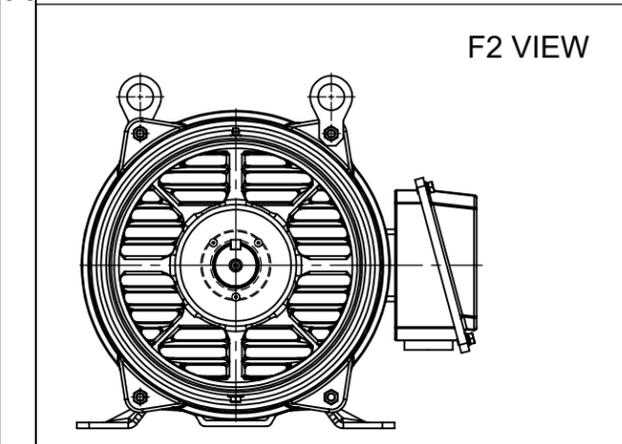
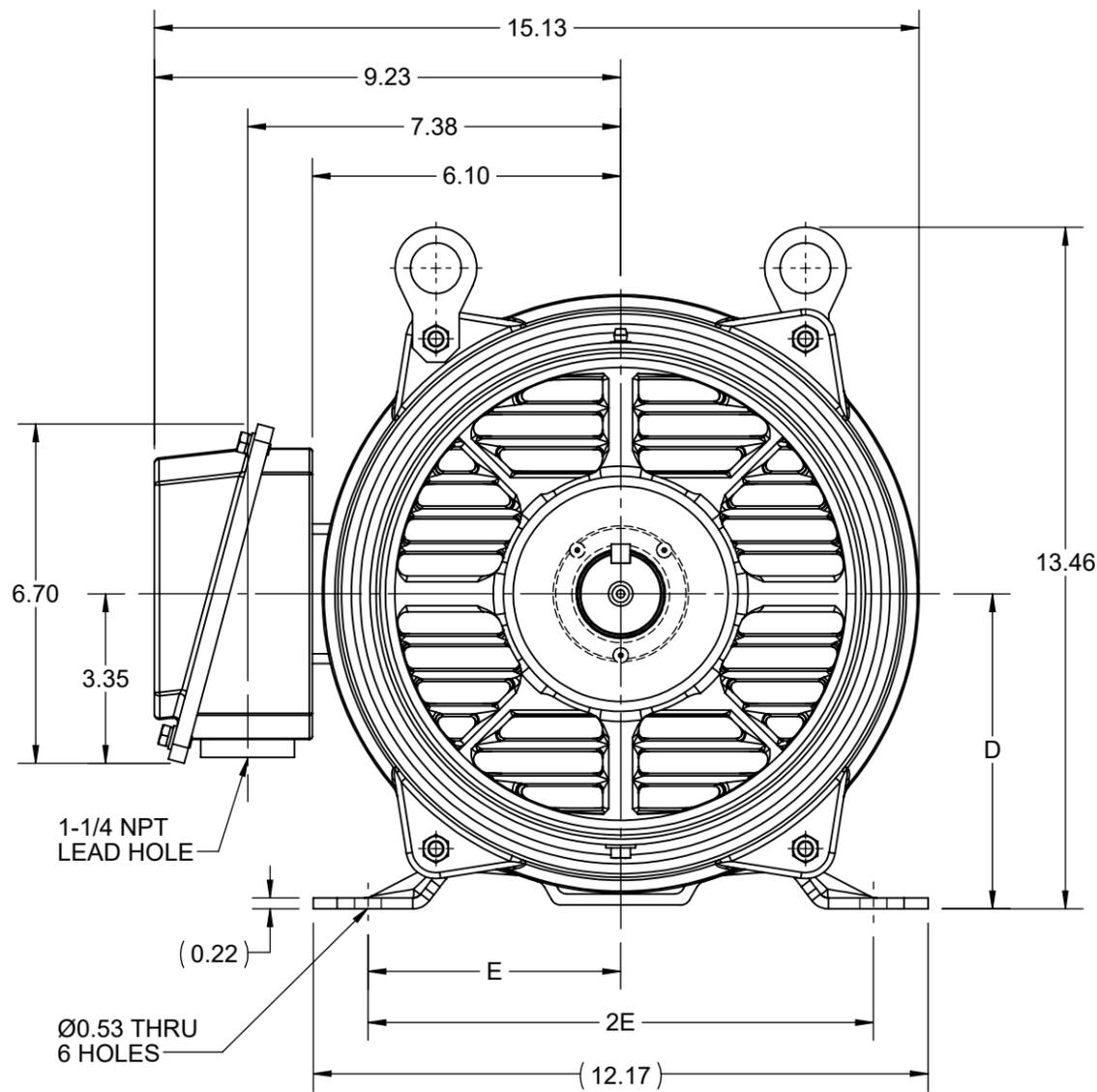
4				3				2		1	
DASH NO.	B	C	D	E	2E	2F	2FF	BA	BS	MOUNTING	FRAME
100	11.93	22.31	6.25	5.00	10.00	8.25	10.00	4.25	8.82	F1 OR F2	254T
200		23.88							10.45		256T



3/8 x 3/8 x 2.88 KEY

Ø 1.625

WHEN BEARING CURRENT PROTECTOR EXIST



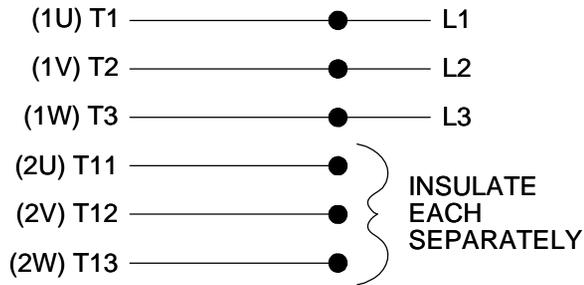
DRAWING REVISION C	REVISION BY GOPI J	REV DATE/© DATE 08/02/2022
REQUEST NUMBER CR-0006810	APPROVED BY SBD	DATE 08/02/2022
REQUEST NUMBER DESCRIPTION VIEWS UPDATED AS PER 3D		
<small>COPYRIGHT (PER REVISION DATE) REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.</small>		

PRIMARY DIMENSIONS ARE INCH  
mm DIMENSIONS IN [BRACKETS]  
ARE FOR REFERENCE ONLY

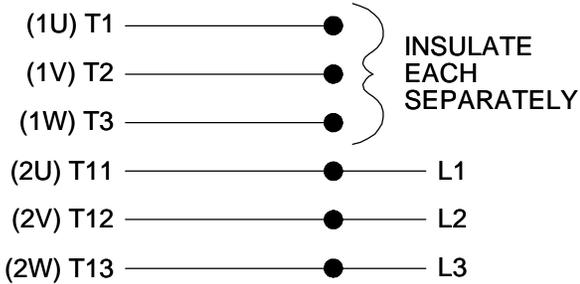
DRAWN BY XZ
DATE 25/02/2016
APPROVED BY
DATE
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Rexnord</b> Regal Beloit America, Inc.	
DESCRIPTION <b>OUTLINE</b> 254/256T FR NEMA ODP RS	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS620685</b>
SHEET 1 OF 1	

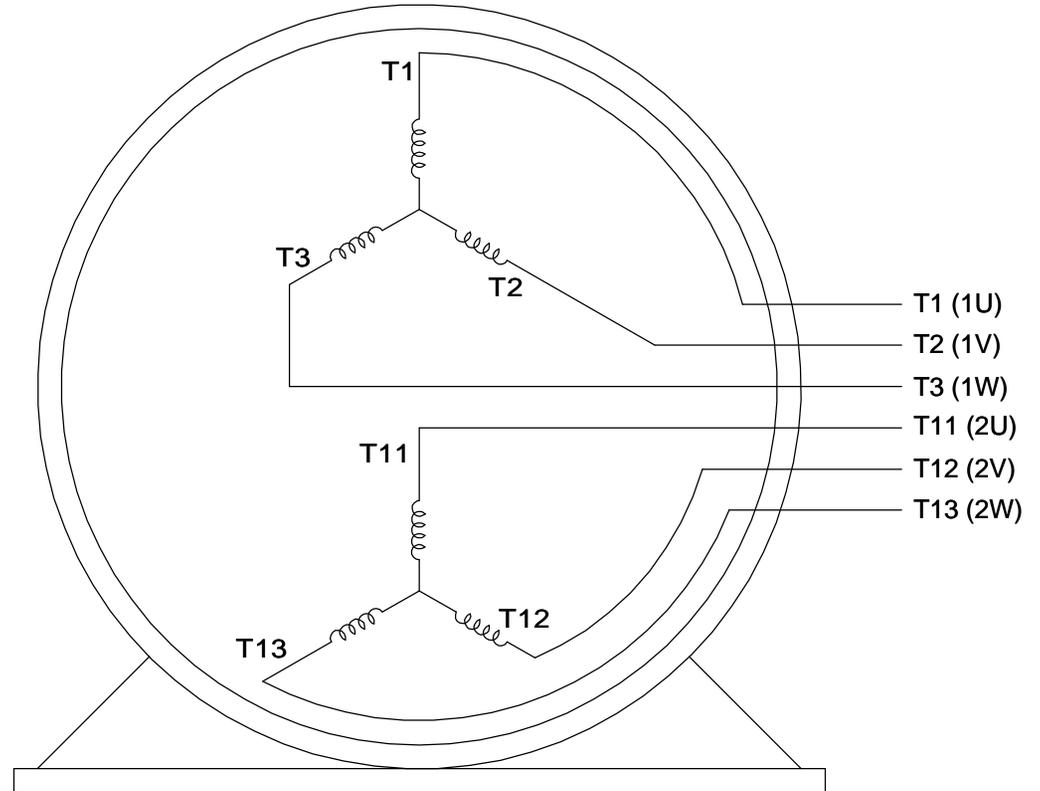
LOW SPEED



HIGHSPEED



**THREE PHASE, SINGLE VOLT, 6 LEAD  
2 SPEED REVERSIBLE MOTOR**

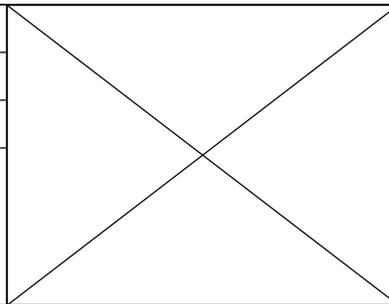


VIEW OF TERMINAL END

TO REVERSE ROTATION ON  
EITHER SPEED: INTERCHANGE  
ANY 2 LEADS ON THE  
WINDING IN USE.

DRAWING REVISION <b>C</b>	REVISION BY <b>JJB</b>	DATE <b>10-25-2017</b>
ECO <b>ECO-0132917</b>	APPROVED BY <b>TLB</b>	DATE <b>10-30-2017</b>

**ECO DESCRIPTION**  
**REVISED PER ECO & UPDATED TO STANDARDS**  
COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED.  
 PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF  
 REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY  
 INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED,  
 BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED  
 TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT  
 AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL  
 BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN  
 RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.



DRAWN BY <b>LZ</b>
DATE <b>01-05-1994</b>
APPROVED BY <b>GK</b>
DATE <b>01-17-1994</b>
REFERENCE
THIRD ANGLE PROJECTION

<b>Regal Beloit America, Inc.</b>	
DESCRIPTION <b>CONN DIAGRAM-INTERNAL</b> 3 PHASE - SINGLE - 2 SPEED REVERSIBLE	
MATERIAL	PROCESS/FINISH
SIZE <b>A</b>	DRAWING NUMBER <b>EE7317</b>
SHEET <b>1 OF 1</b>	

Data Sheet

Date: 12/14/2021  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: SHERYL KUEHMICHEL



254TTDBD7201

Submittal

Data @ 460 V

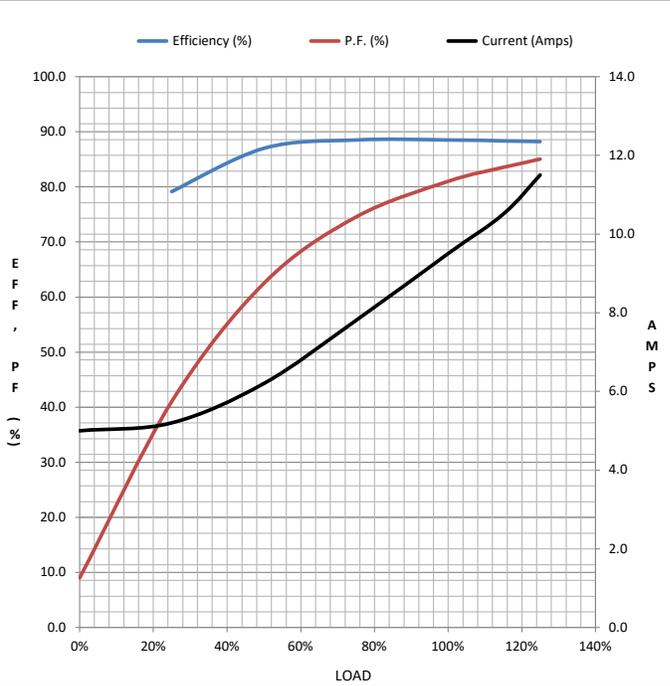
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	5.0	5.2	6.2	7.8	9.5	10.5	11.5	75.0
Torque(ft-lb)	0.00	5.5	11.0	17.0	22.0	25.3	28.0	48.0
RPM	1800	1795	1792	1788	1782	1,780	1778	0
Efficiency (%)		79.1	87.0	88.5	88.5	88.3	88.2	
P.F. (%)	9.0	41.0	62.5	74.5	81.0	83.5	85.0	46

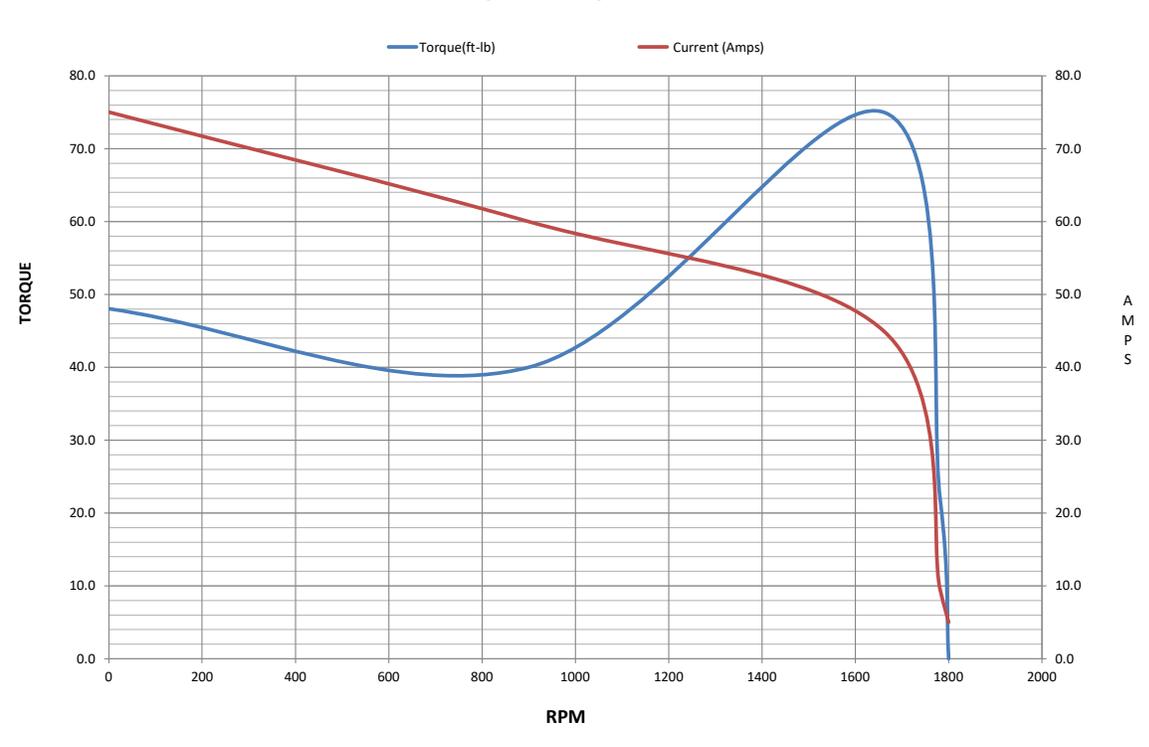
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1660	1782	1800
Current (Amps)	75.0	60.0	45.0	9.5	5.0
Torque(ft-lb)	48.0	40.0	75.0	22.0	0.00

Information Block				
HP	7.5			
Sync. RPM	1800			
Frame	254T			
Enclosure	DP			
Construction	TDW			
Voltage	460 V			
Frequency	60 Hz			
Design	2VT			
LR Code letter	K			
Service Factor	1.15			
Temp Rise @ FL	40 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	0.00 Lb-Ft <sup>2</sup>			
Ref Wdg	HA3160(4-8)03 HS			
Sound Pressure @ 1M	66 dBA			
VFD Rating	NA			
Outline Dwg	SS620685-100			
Conn. Diag	EE7317			
Additional Specifications:				
CATALOG # Y470A				
HIGH SPEED PERFORMANCE				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.0022	0.2761	1.9742	1.9212	52.5608



Speed - Torque Curve



Data Sheet

Date: 12/14/2021  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: SHERYL KUEHMICHEL



254TTDBD7201

Submittal

Data @ 460 V

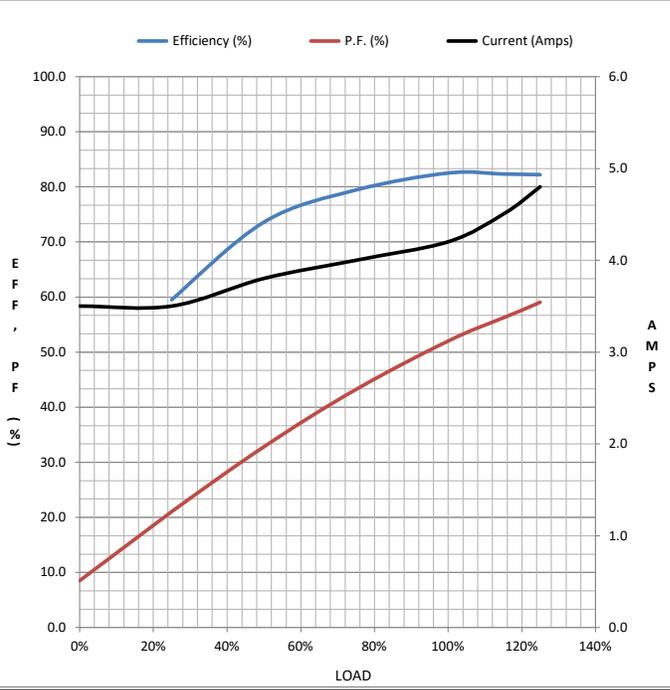
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	3.5	3.5	3.8	4.0	4.2	4.5	4.8	19.0
Torque(ft-lb)	0.00	2.80	5.8	8.5	11.5	13.2	14.0	24.0
RPM	900	898	895	892	890	888	885	0
Efficiency (%)		59.5	73.6	79.4	82.5	82.3	82.2	
P.F. (%)	8.5	21.0	32.8	43.2	52.0	56.2	59.0	0

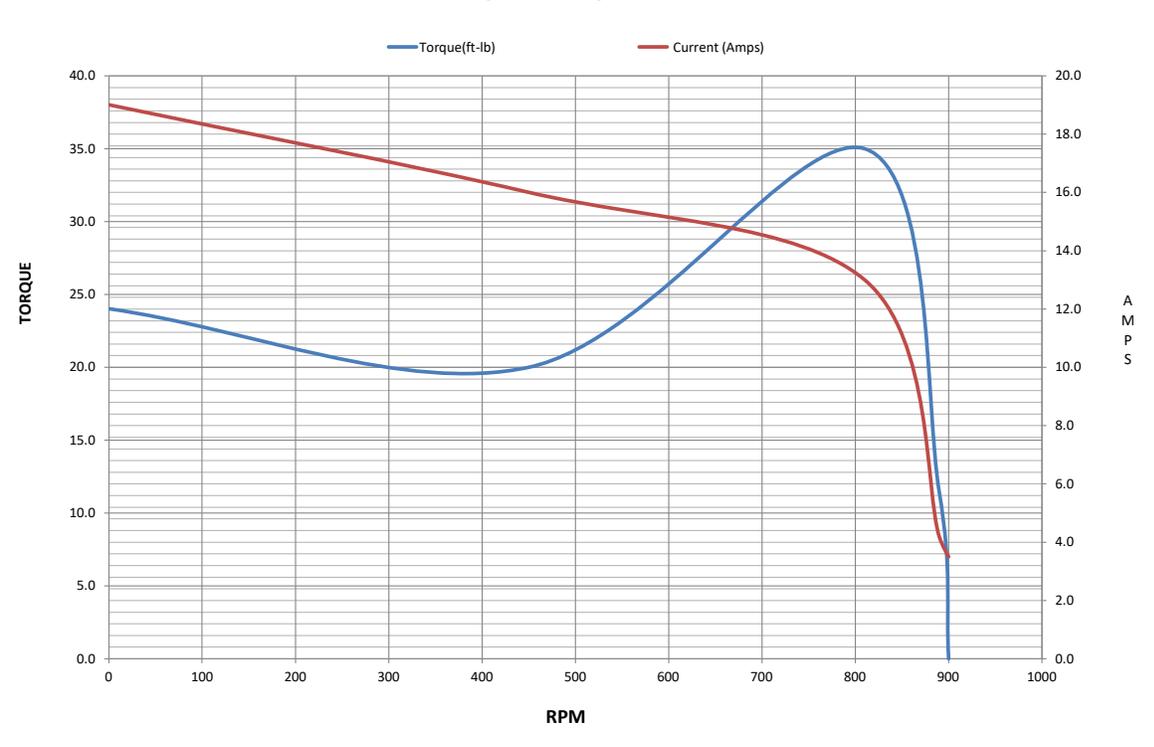
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	450	810	890	900
Current (Amps)	19.0	16.0	13.0	4.2	3.5
Torque(ft-lb)	24.0	20.0	35.0	11.5	0.00

Information Block				
HP	1.90			
Sync. RPM	900			
Frame	254T			
Enclosure	DP			
Construction	TDW			
Voltage	460 V			
Frequency	60 Hz			
Design	2VT			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	40 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk <sup>2</sup>	0.00 Lb-Ft <sup>2</sup>			
Ref Wdg	HA3160(4-8)03 HS			
Sound Pressure @ 1M	62 dBA			
VFD Rating	NA			
Outline Dwg	SS620685-100			
Conn. Diag	EE7317			
Additional Specifications:				
CATALOG # Y470A				
LOW SPEED PERFORMANCE				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
3.7919	1.2242	5.4639	9.8529	70.5680



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 : 254TTDBD7201

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

Catalog No : Y470A

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**