

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 254TTFC6578

Catalog No: E684A

XRI®-SD Severe Duty Motor, 7.50 HP, 3 Ph, 60 Hz, 575 V, 1200 RPM, 254T Frame, TEFC



Regal and Marathon are trademarks of Regal Rexnord Corporation or one of its affiliated companies.
©2022 Regal Rexnord Corporation, All Rights Reserved. MC017097E

RegalRexnord



Nameplate Specifications

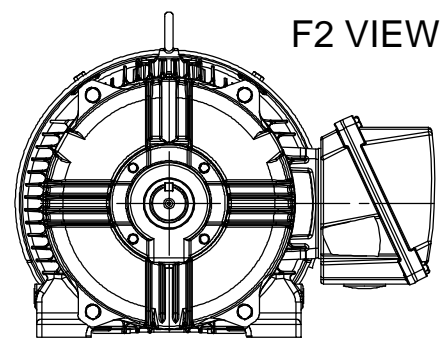
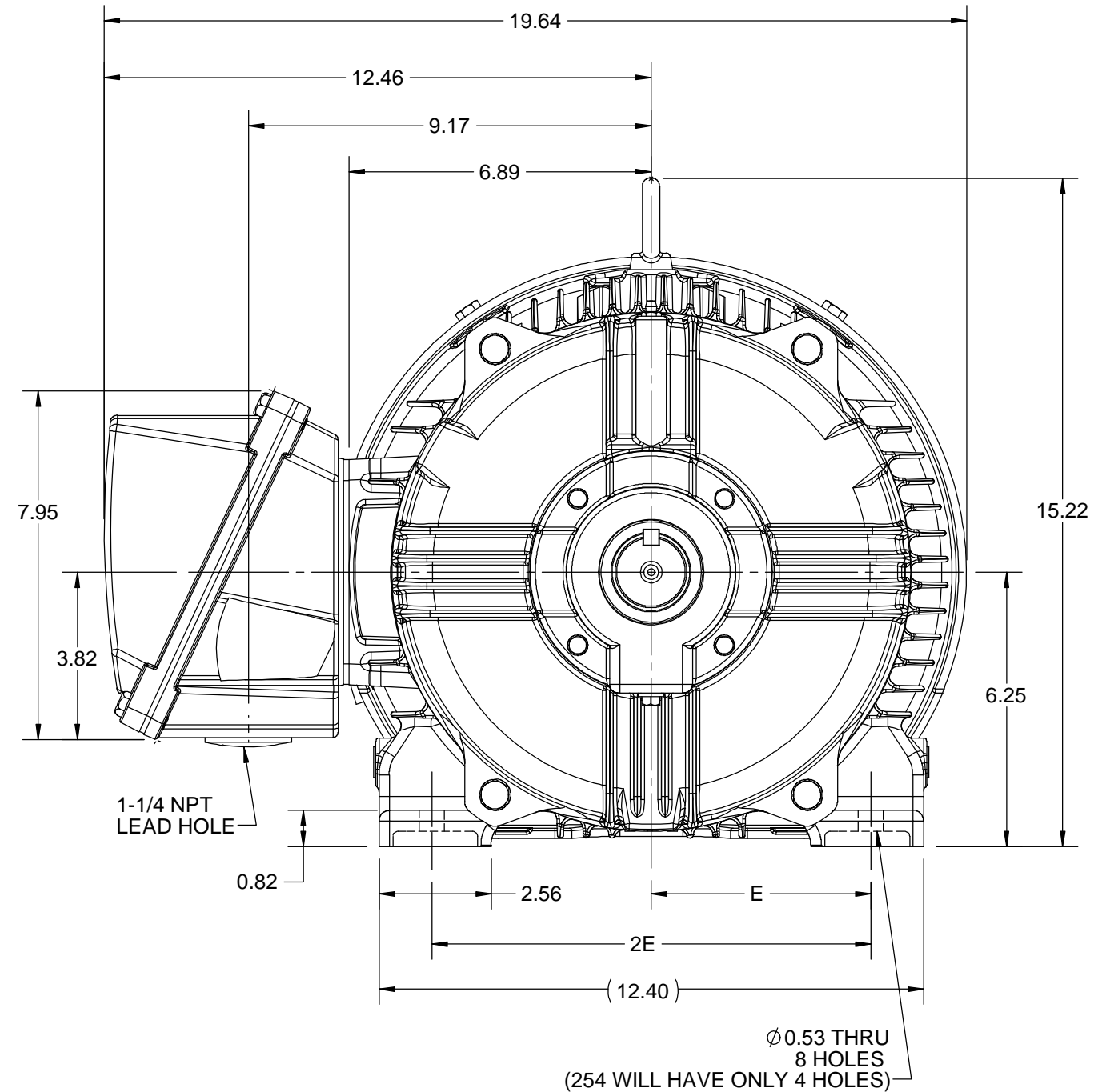
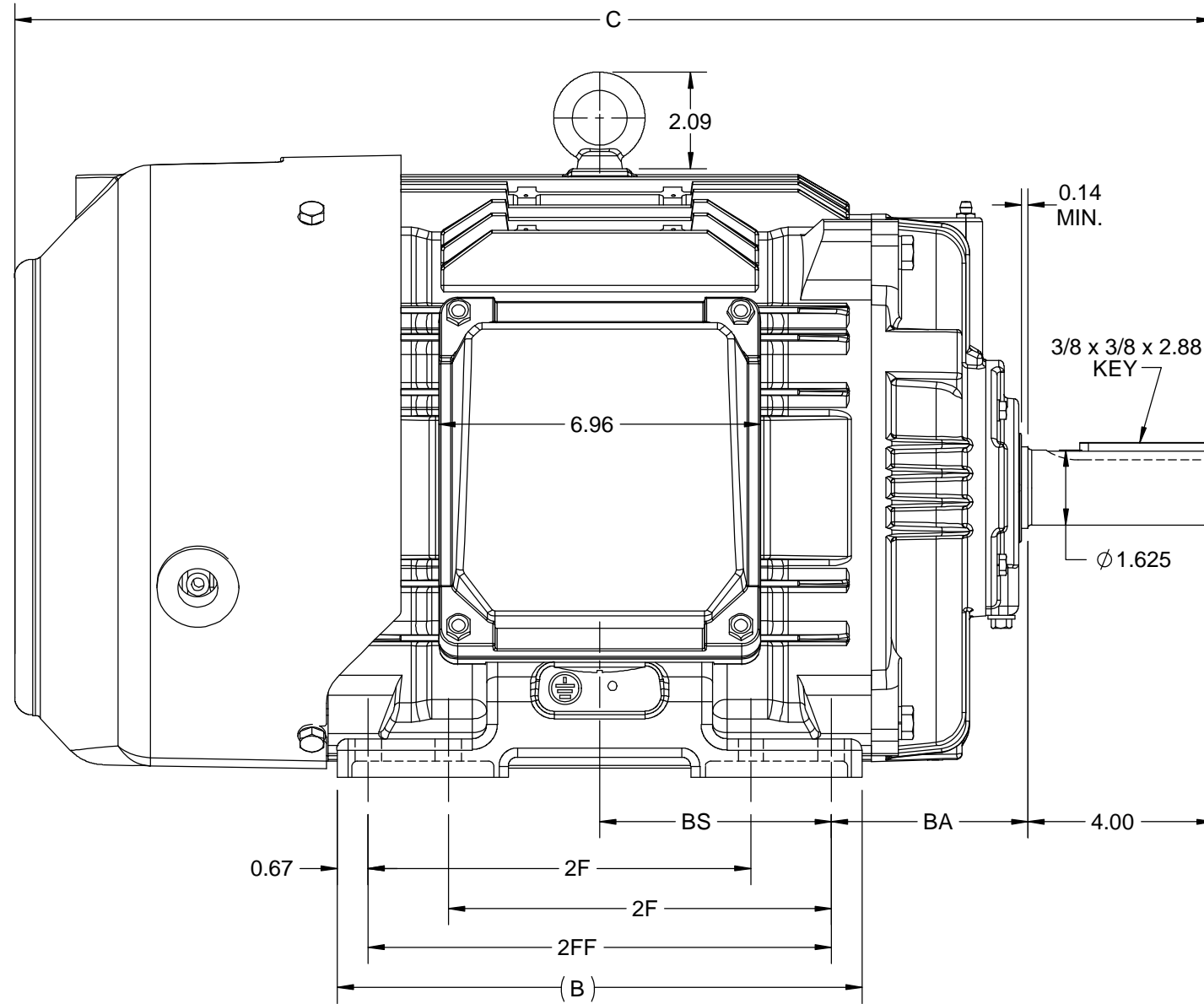
Output HP	7.50 Hp	Output KW	5.6 kW
Frequency	60 Hz	Voltage	575 V
Current	7.9 A	Speed	1182 rpm
Service Factor	1.15	Phase	3
Efficiency	91 %	Power Factor	78.5
Duty	Continuous	Insulation Class	H
Design Code	B	KVA Code	H
Frame	254T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	Listed	CSA	Y
CE	Y	IP Code	55
Hazardous Location	DIVISION 2 T2B	Number of Speeds	1

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	1.366 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Shaft Diameter	1.625 in
Assembly/Box Mounting	F1/F2 CAPABLE	Inverter Load	CONSTANT 10:1/VARIABLE 10:1
Connection Drawing	EE7300	Outline Drawing	SS208560-100

This is an uncontrolled document once printed or downloaded and is subject to change without notice. Date Created:11/29/2022

DASH NO.	4		3						MOUNTING	FRAME
	B	C	E	2E	2F	2FF	BA	BS		
100	9.60	24.15	5.00	10.00	-	8.25	4.25	4.13	F1 OR F2	254T
200	11.34	25.89			8.25	10.00				5.00



DRAWING REVISION E	REVISION BY BISWA	REV DATE/© DATE 10/07/2020
ECO ECO-0194249	APPROVED BY GNK	DATE 10/07/2020
ECO DESCRIPTION DRAWING UPDATED 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.		

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

DRAWN BY BISWA	REGAL ® Regal Beloit America, Inc.
DATE 26/09/2018	
APPROVED BY SBD	DESCRIPTION OUTLINE 254T/256T FR-NEMA-SD & IEEE841
DATE 26/09/2018	MATERIAL
REFERENCE	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B
	DRAWING NUMBER SS208560
	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
REQUEST NUMBER DESCRIPTION DRAWING UPDATED		
<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 DA
DATE 03-26-1993
APPROVED BY TB
DATE 03-26-1993
REFERENCE
THIRD ANGLE PROJECTION

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



DATA VOLTS: 575

CERTIFICATION DATA SHEET

CONN. DIAGRAM: EE7300
 OUTLINE: SS208560-254T
 WINDING: HE31606007 NONE 3

REFERENCE MODEL #: 254TTFC6578
 CAT #: E684A
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
7.5	5.6	1200	1182	254T	TEFC	TFC	H	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV. (Ft)
3	60	575	7.9	LINE OR INVERTER	CONT	H	1.15	40	3300

F.L. EFF	90.4	3/4 LD EFF	89.5	1/2 LD EFF	87.2	GTD EFF	ELECT. TYPE
F.L. PF	78.6	3/4 LD PF	72.8	1/2 LD PF	60.9	90.2	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
33.4 LB-FT	48.0	65.0 LB-FT 195%	89.0 LB-FT 266%	40

SOUND PRESSURE	SOUND	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.
56 dBA	65 dBA	2.30 LB-FT²	150 LB-FT²	20 SEC.	2	297 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	DIVISION 2 T2B	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	BALL						
6309	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
2.0484375	1.134375	5.7859375	7.521875	124.7703125	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: _____

254TTFC06578



Submittal

Data @ 575 V

Motor Load Data

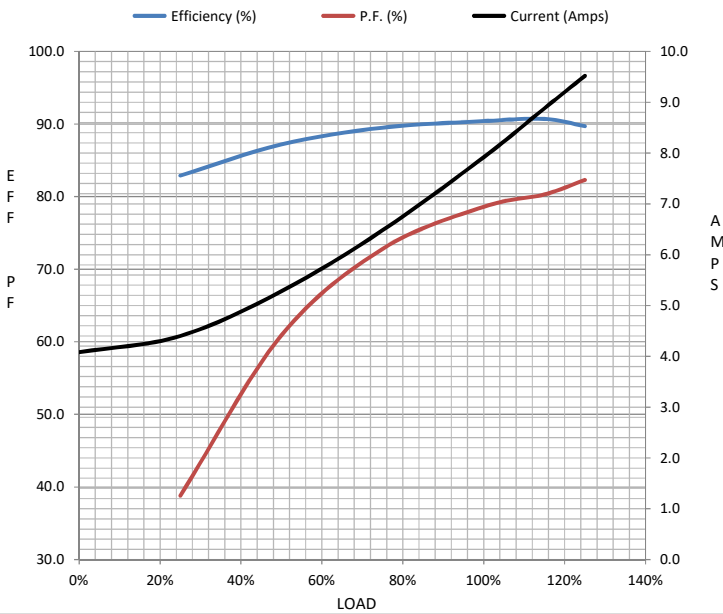
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	4.1	4.4	5.3	6.5	7.9	8.9	9.5	48.0
Torque (ft-lb)	0.00	8.3	16.5	25.0	33.4	38.5	41.9	65.0
RPM	1200	1195	1190	1185	1182	1,178	1175	0
Efficiency (%)		82.9	87.2	89.5	90.4	90.7	89.7	
P.F. (%)	9.8	38.8	60.9	72.8	78.6	80.3	82.3	42.0

Motor Speed Data

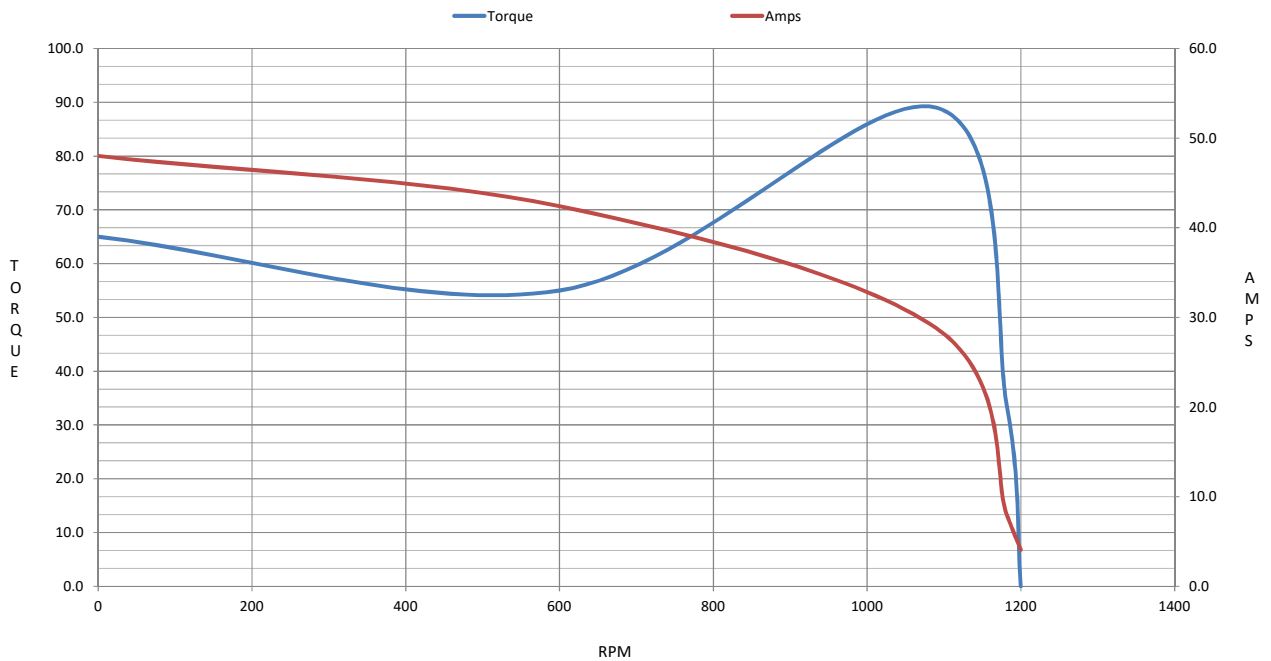
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1090	1182	1200
Current (Amps)	48.0	42.4	28.8	7.9	4.1
Torque (ft-lb)	65.0	55.0	89.0	33.4	0.00

Information Block

HP	7.5			
Sync. RPM	1200			
Frame	254			
Enclosure	TEFC			
Construction	TFC			
Voltage	575 V			
Frequency	60 Hz			
Design	B			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	40 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	2.30 Lb-Ft ²			
Ref Wdg	HE31606007 NONE			
Sound Pressure @ 1M	56 dBA			
VFD Rating	CONSTANT 10:1/VARIABLE 10:1			
Outline Dwg	SS208560-254T			
Conn. Diag	EE7300			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.3110	0.7260	3.7030	4.8140	79.8530



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 : 254TTFCD6578

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

Catalog No : E684A

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