

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: TCA5P52AE211GAA009

Catalog No: R328B

Cast Iron Motor, 7.50 & 5.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1800 & 1500 RPM,
132S Frame, TEFC



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

©2023 Regal Rexnord Corporation, All Rights Reserved. MC017097E

RegalRexnord

Nameplate Specifications

Phase	3	Output HP	7.50 & 5.50 Hp
Output KW	5.5 & 4.0 kW	Voltage	230/460 & 200/400 V
Speed	1775 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	132S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 88.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	19.6/9.8 & 17.6/8.8 A	Power Factor	77
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	J
Drive End Bearing Size	6308	Opp Drive End Bearing Size	6208
UL	Recognized	CSA	N
CE	Y	IP Code	55
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	1.56 Ohms	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	18.31 in
Frame Length	7.95 in	Shaft Diameter	1.496 in
Shaft Extension	3.15 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS810118	Connection Drawing	8442000715

4

3

Uncontrolled Copy

2

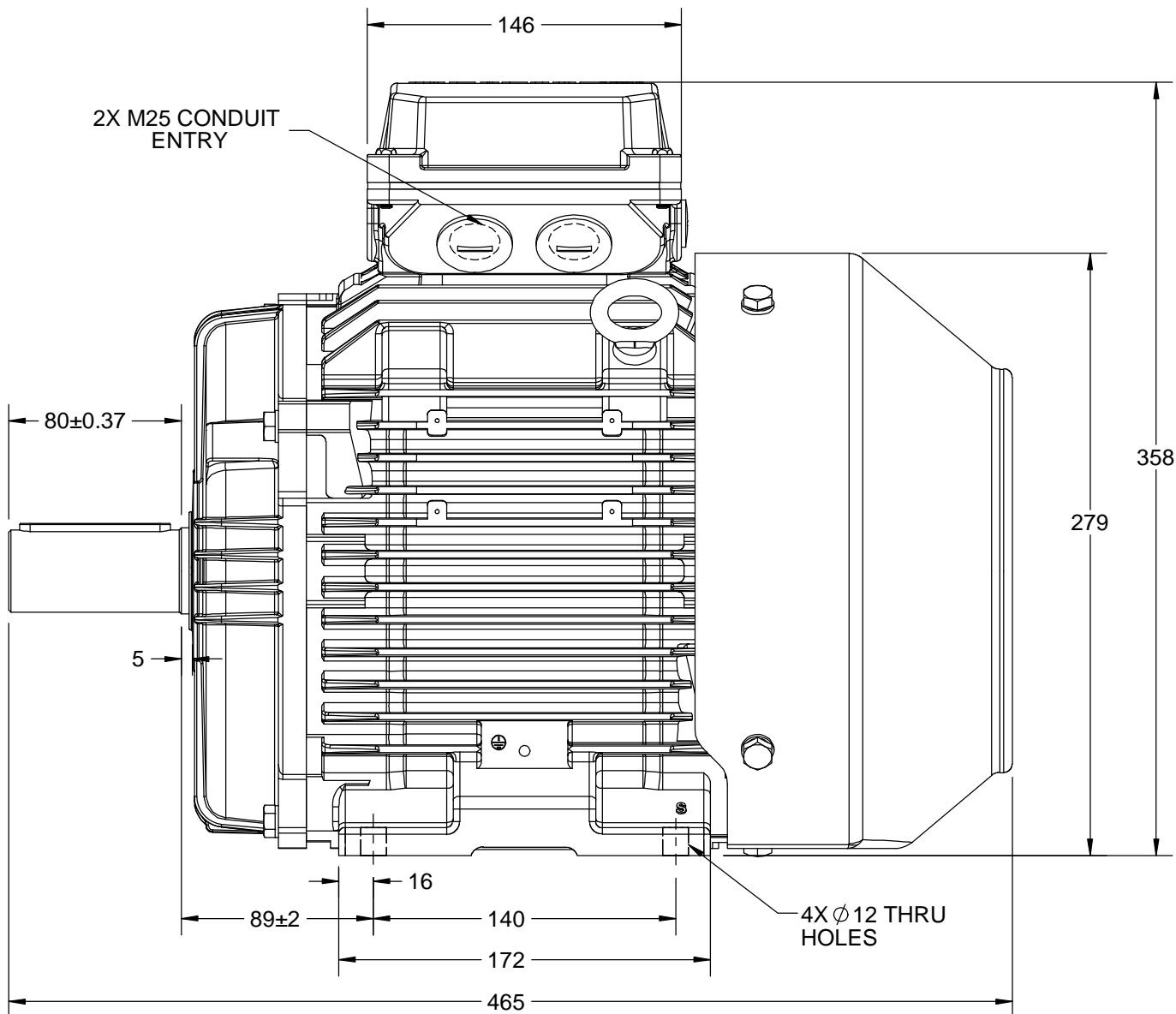
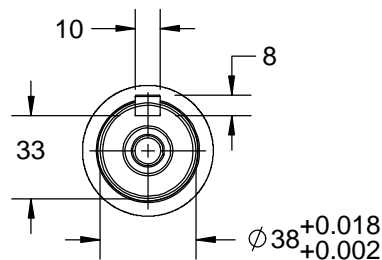
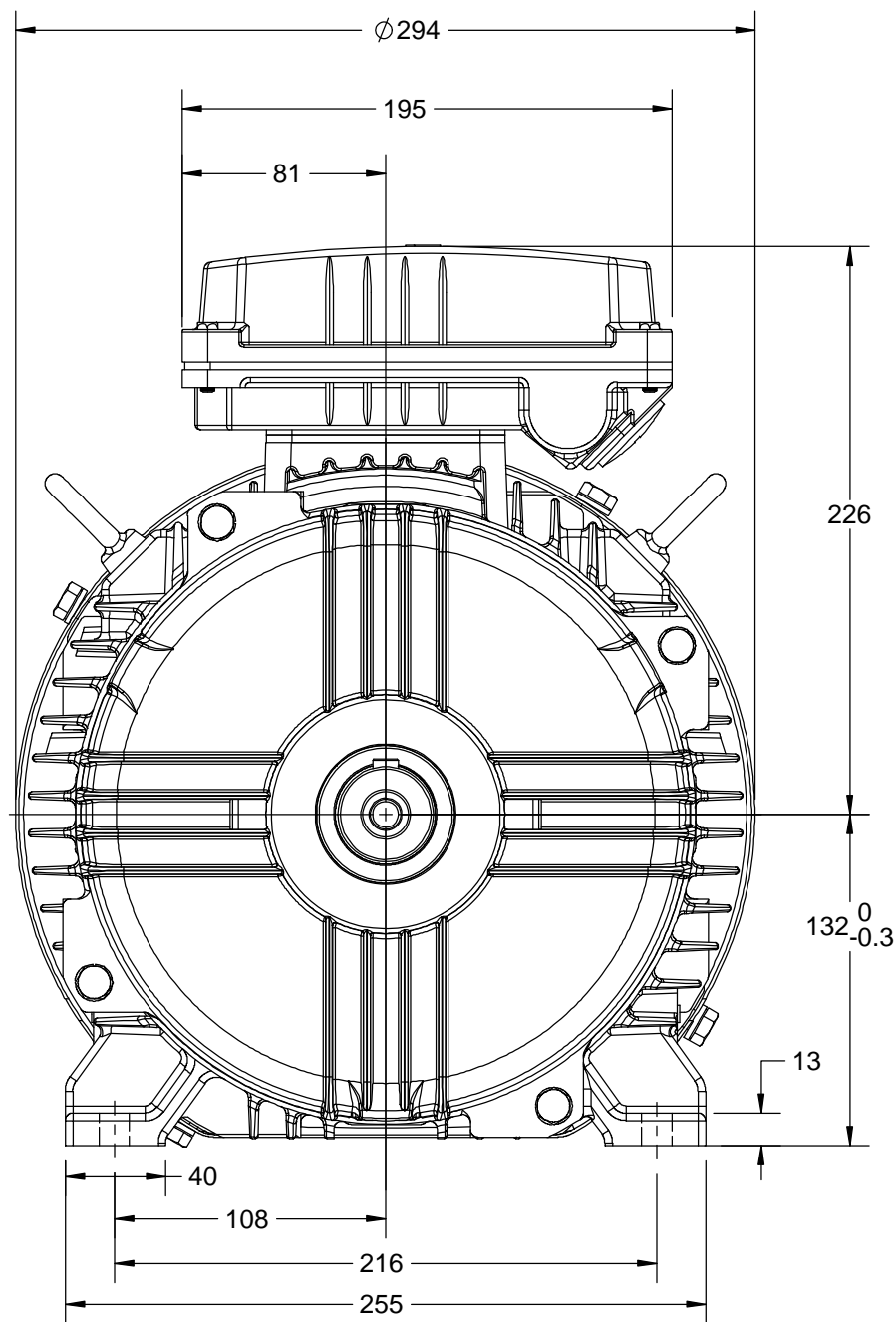
1

B

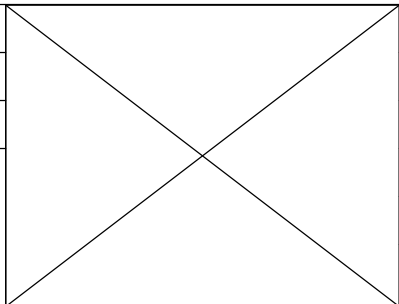
B

A

A



DRAWING REVISION A	REVISION BY NIV	DATE 04/12/2018
ECO ECO-0157171	APPROVED BY JAY	DATE 04/12/2018
ECO DESCRIPTION NEW DRAWING RELEASE 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 NIV	marathon™ Motors		
DATE 04/12/2018			
APPROVED BY JAY	DESCRIPTION OUTLINE		
DATE 04/12/2018	IEC-132S-FR.- B3 MOTOR TYPE :TEFC-CAST IRON		
REFERENCE	MATERIAL	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER SS810118	SHEET 1 OF 1

4

3

2

1

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.

DRAWING REVISION
A
 ECO
 ECO-0194685
 ECO DESCRIPTION

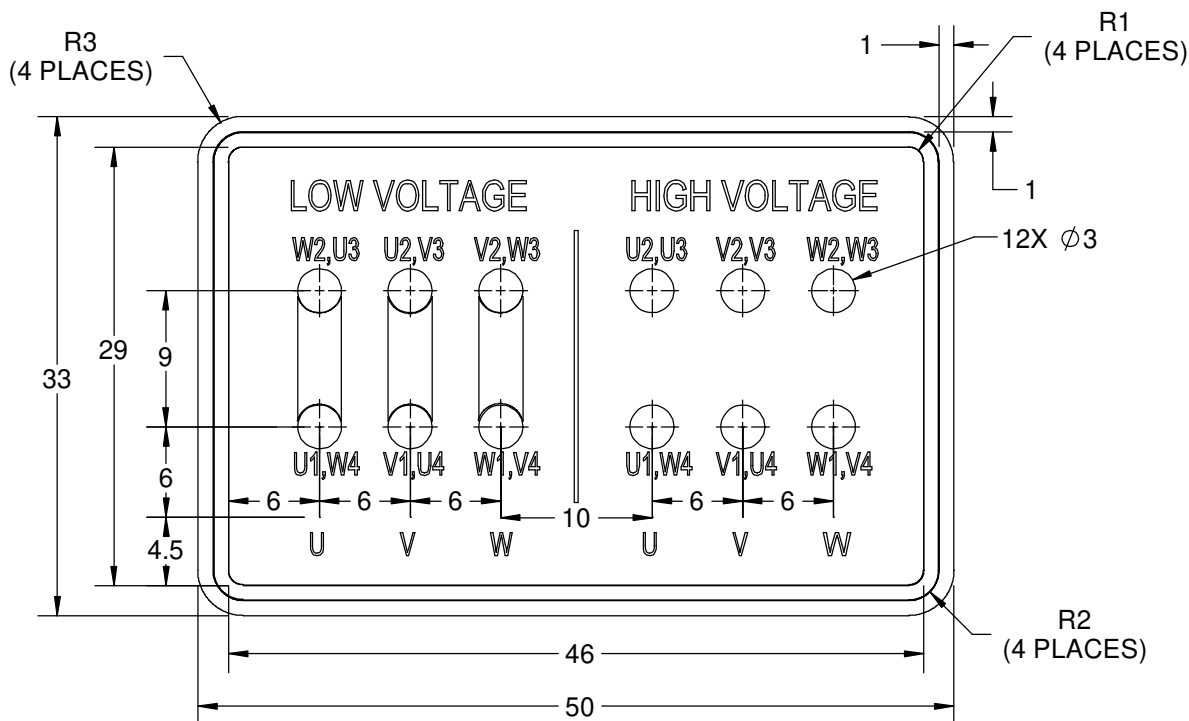
REVISION BY
S.MUDDA
 APPROVED BY
SUMANTA

DATE
16/11/2020
 DATE
16/11/2020

NEW DRAWING

GEOMETRIC TOLERANCE

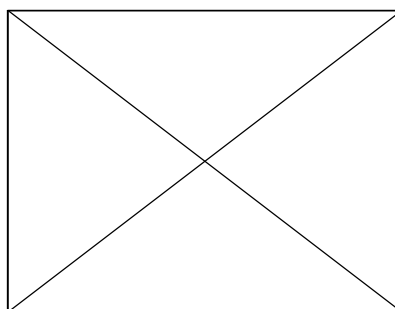
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



NOTES:

1. PRESSURE-SENSITIVE ADHESIVE COATED PAPER ON THE BACK OF SELF-ADHESIVE.
2. AT THE END OF YELLOW, WORDS, SYMBOLS, LETTERS ARE BLACK, BORDER IS BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T12 & U1-U4,V1-V4& W1-W4 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

8WD.442.2017



DRAWN BY
S.MUDDA
 DATE
16/11/2020
 APPROVED BY
SUMANTA
 DATE
16/11/2020
 REFERENCE
 THIRD ANGLE PROJECTION

REGAL™ Regal Beloit America, Inc.
 DESCRIPTION
CONN DIAGRAM-NAMEPLATE
 MATERIAL
 PROCESS/FINISH
 SIZE **A** DRAWING NUMBER **8442000715** SHEET **1 OF 1**



P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
ORDER #:
CONN. DIAGRAM: 8442000677
OUTLINE: SS810118
WINDING: IE3L1324201 NONE 1
SPEED:

CUSTOMER P.O. #:
REFERENCE MODEL #: TCA5P52AE211GAA009
CAT #: R328B
CUSTOMER PART #:
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
7.5	5.6	1800	1775	132S	TEFC	TCA 132SA04	J	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	19.6/9.8&17.6/8.8	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	90.3	GTD EFF	ELECT. TYPE
F.L. PF	77.0	3/4 LD PF	69.0	1/2 LD PF	57.0	90.5	SQ CAGE INV RATED

F.L. TORQUE		LR AMPS @ 460 V	L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)		
22.2	LB-FT	73.4	54.2	LB-FT 244%	71.3	LB-FT 321%	75		

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
65 dBA	74 dBA		1.10 LB-FT ²	1.1 LB-FT ²	10 SEC.	2	92	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL
DE ODE							
BALL BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)		CAST IRON
6308 6208							

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
0.908	0.454	2.004	2.572	49.242	0.150	ODE

* N O T E S *		INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE
		ENCODER: NONE NONE NONE
		NONE PPR

PREPARED BY:	DATE: 11/16/2020	BRAKE: NONE NONE	NONE
FORM: 3531 REV_4 2/27/06		FT-LB: NA VOLTAGE: NONE	HZ:
		UL: V - LI,ME-INS,CONST UL REC	



Data Sheet

TCA5P52AE211GAA009

Date: 5/28/2019

Customer: _____

Attention: _____

Submitted by: Fareeda Dudekula

Submittal

Data @ 460 V

Motor Load Data

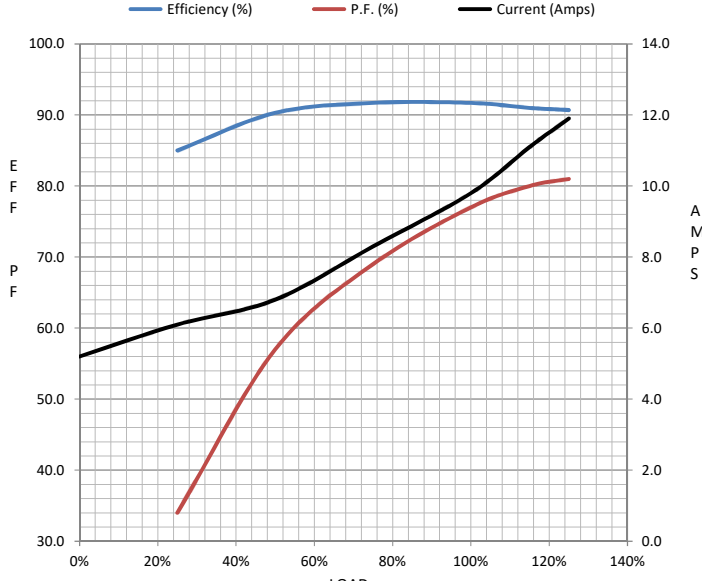
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	5.2	6.1	6.8	8.3	9.8	11.1	11.9	73.4	
Torque (ft-lb)	0.00	5.5	11.0	16.6	22.2	25.6	27.9	54.2	
RPM	1800	1794	1788	1781	1775	1,770	1767	0	
Efficiency (%)		85.0	90.3	91.7	91.7	91.0	90.7		
P.F. (%)	6.0	34.0	57.0	69.0	77.0	80.0	81.0	63.4	

Motor Speed Data

Motor Speed Data					
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1587	1775	1800
Current (Amps)	73.4	69.8	42.7	9.8	5.2
Torque (ft-lb)	54.2	51.5	71.3	22.2	0.00

Information Block				
HP	7.5			
Sync. RPM	1800			
Frame	132			
Enclosure	TEFC			
Construction	TCA 132S04			
Voltage	230/460#200/400 V			
Frequency	60 Hz			
Design	N			
LR Code letter	J			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk²	1.10 Lb-Ft²			
Ref Wdg	IE3L1324201 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS810118			
Conn. Diag	8442000677			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.9080	0.4540	2.0040	2.5720	49.2420

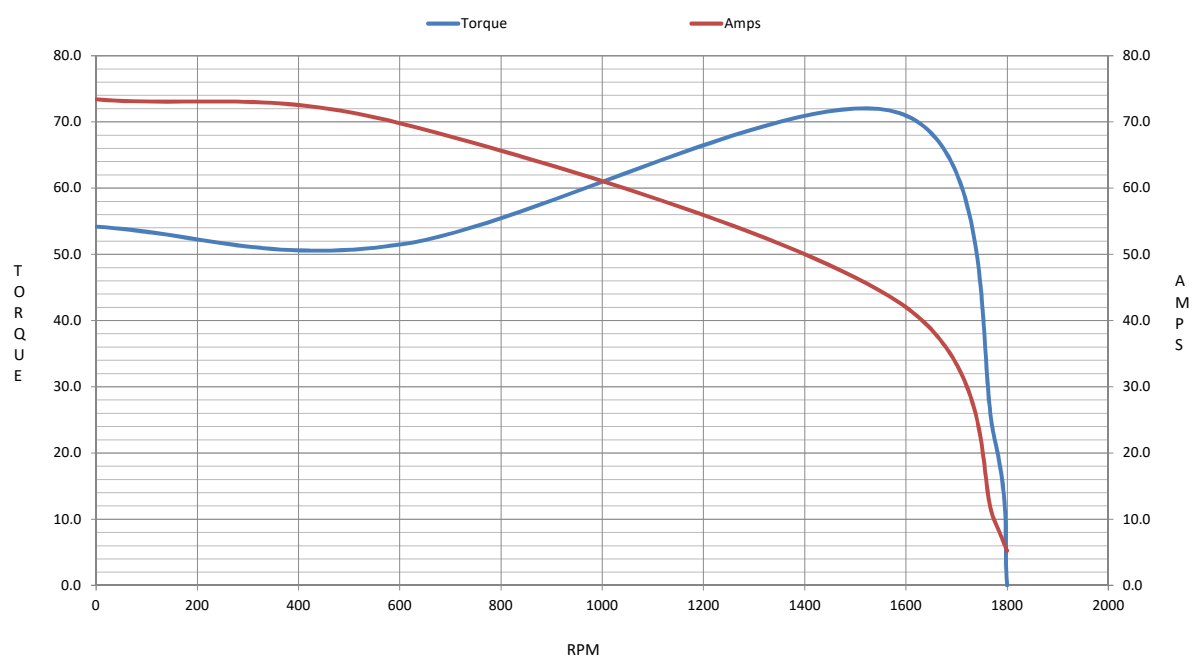
— Efficiency (%) — P.F. (%) — Current (Amps)



LOAD	Efficiency (%)	P.F. (%)	Current (Amps)
25%	85.0	34.0	5.2
50%	90.0	60.0	6.5
75%	91.5	75.0	8.0
100%	92.0	80.0	9.8
125%	91.0	81.0	11.9

IEC

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 : TCA5P52AE211GAA009

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

Catalog No : R328B

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