

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: TCA7P52AE221GAA009

Catalog No: R231

Cast Iron Motor, 10 & 7.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1800 & 1500 RPM, 132M Frame,
TEFC



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RegalRexnord

Nameplate Specifications

Phase	3	Output HP	10 & 7.50 Hp
Output KW	7.5 & 5.5 kW	Voltage	230/460 & 200/400 V
Speed	1775 & 1480 rpm	Service Factor	1.15 & 1.15
Frame	132M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 89.6 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	25.4/12.7 & 22.6/11.3 A	Power Factor	81
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	K
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

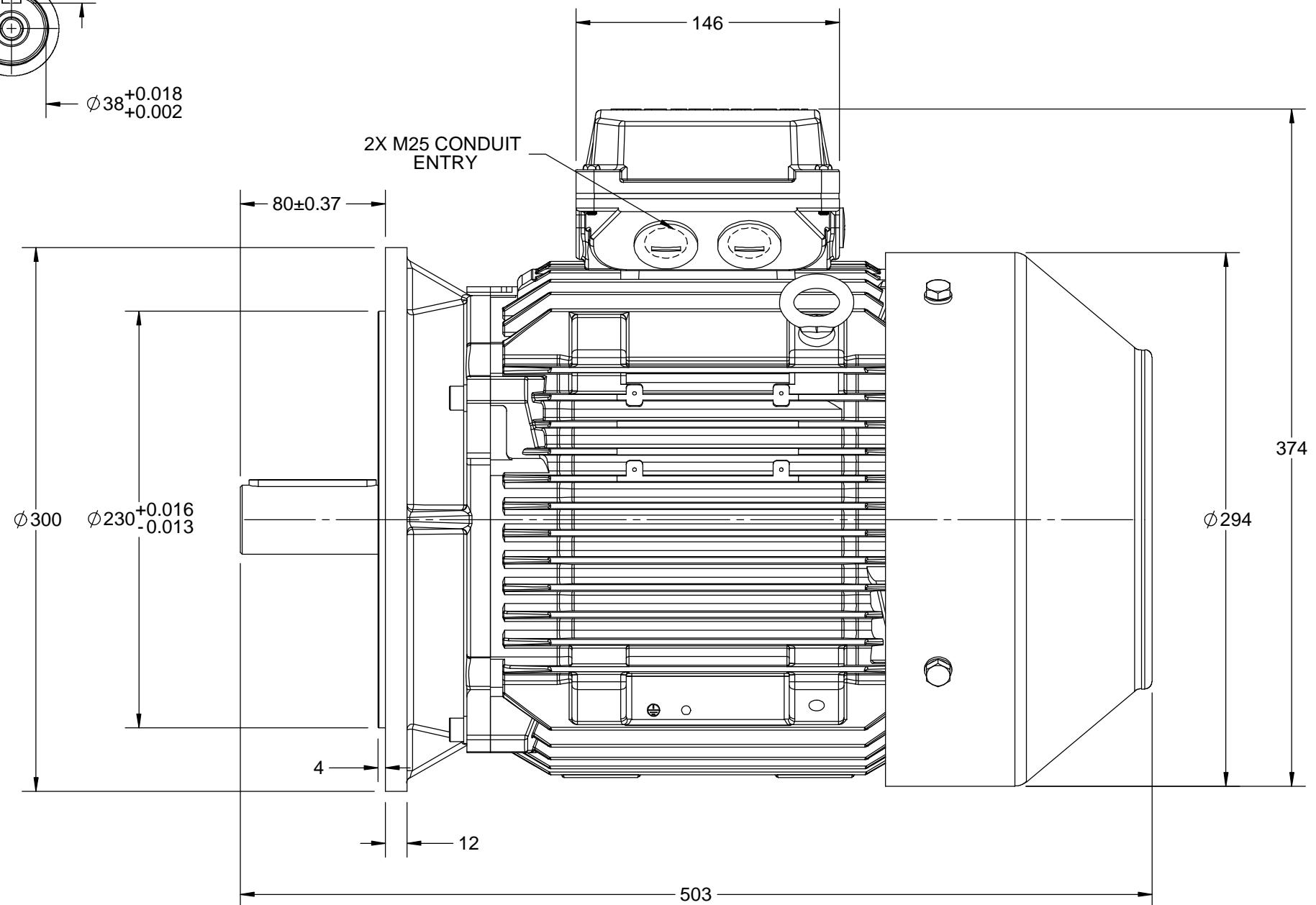
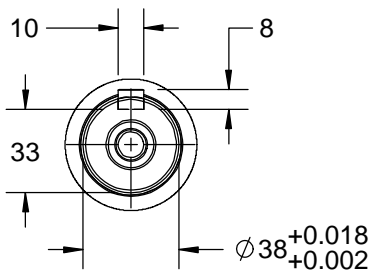
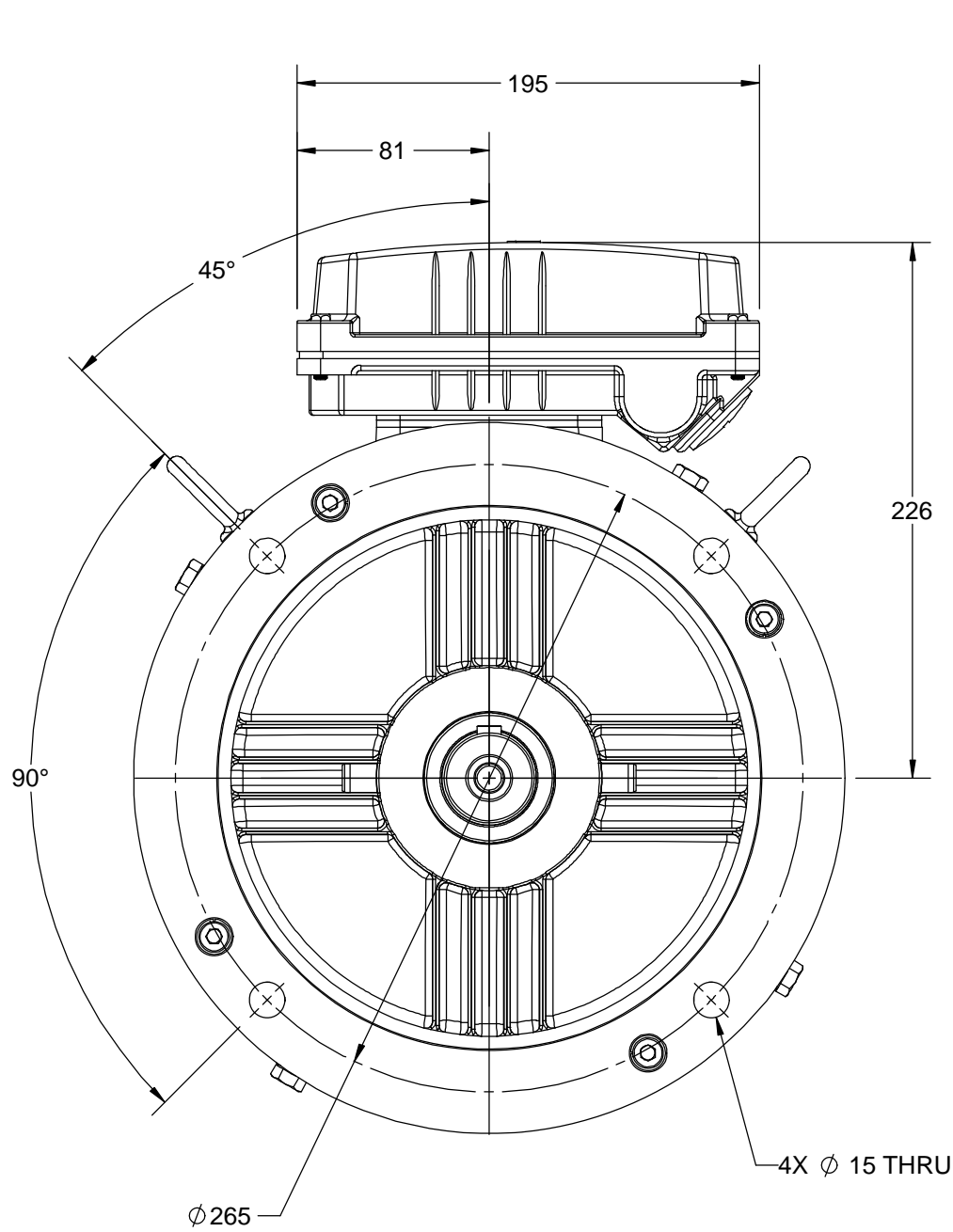
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	1.05 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	19.80 in
Frame Length	9.45 in	Shaft Diameter	1.496 in
Shaft Extension	2.36 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS810120A	Connection Drawing	8442000715

B

B

A

A

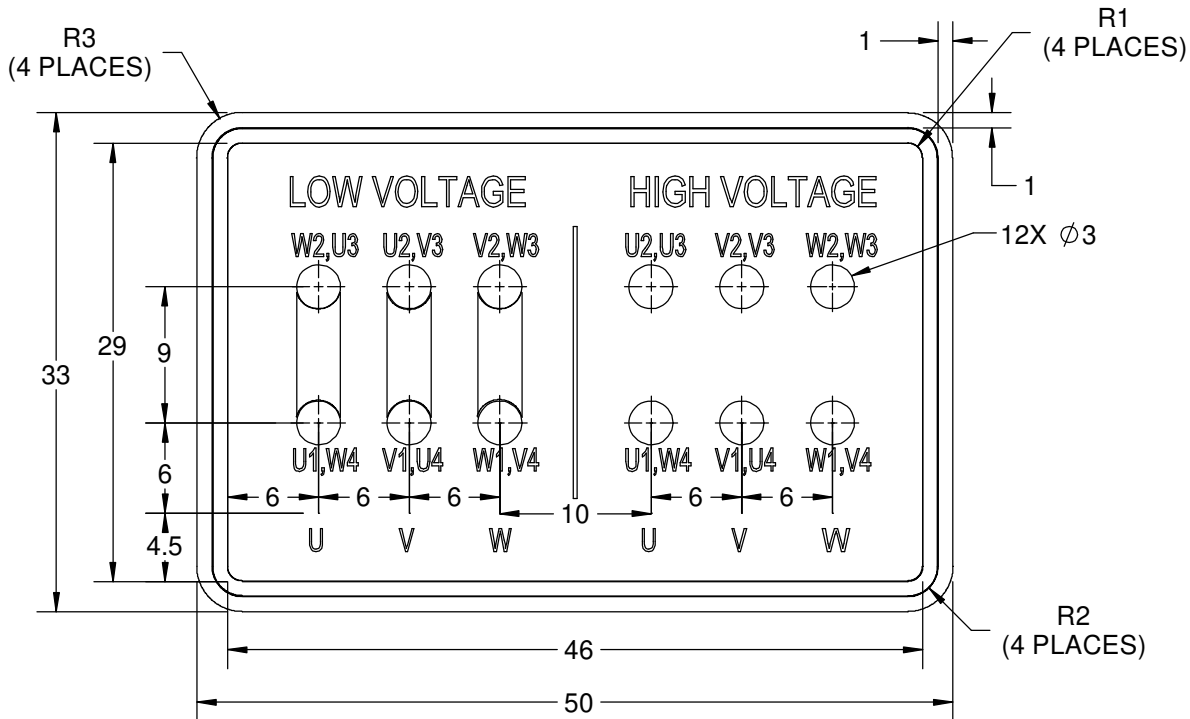


DRAWING REVISION A		REVISION BY NIV		DATE 10/12/2018		DRAWN BY NIV		<div>marathon™ Motors</div>					
ECO ECO-0157171		APPROVED BY JAY		DATE 10/12/2018									
ECO DESCRIPTION NEW DRAWING RELEASE						DESCRIPTION OUTLINE IEC-132 FR.- B5 MOTOR TYPE: TEFC-CAST IRON							
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						APPROVED BY JAY		MATERIAL				PROCESS/FINISH	
						DATE 10/12/2018							
						REFERENCE		SIZE B		DRAWING NUMBER SS810120A		SHEET 1 OF 1	

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DRAWING REVISION A	REVISION BY S.MUDDA	DATE 16/11/2020
ECO ECO-0194685	APPROVED BY SUMANTA	DATE 16/11/2020
ECO DESCRIPTION NEW DRAWING		

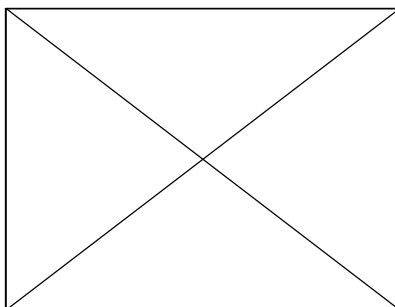
GEOMETRIC TOLERANCE		
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3





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	 Regal Beloit America, Inc.		
	DESCRIPTION CONN DIAGRAM-NAMEPLATE		
DATE 16/11/2020	MATERIAL PROCESS/FINISH		
APPROVED BY SUMANTA			
DATE 16/11/2020	SIZE A		
REFERENCE			
THIRD ANGLE PROJECTION 	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: SS810120A
WINDING: IE3L1324202 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA7P52AE221GAA009
CAT #: R231
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
10	7.5	1800	1775	132M	TEFC	TCA 132MA04	K	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	25.4/12.7&22.6/11.3	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	90.1	GTD EFF	ELECT. TYPE
F.L. PF	81.0	3/4 LD PF	75.0	1/2 LD PF	64.0	90.5	SQ CAGE INV RATED

F.L. TORQUE		LR AMPS @ 460 V	L.R. TORQUE		B.D. TORQUE		F.L. RISE (° C)	
29.6	LB-FT	110	90.0	LB-FT 304%	95.7	LB-FT 323%	80	

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		1.31 LB-FT ²	1.31 LB-FT ²	10 SEC.	2	101	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-265	STANDARD	ROUND	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
0.652	0.340	1.560	2.212	45.044	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 PPR	

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

REGAL®

Data Sheet

TCA7P52AE221GAA009

Date: 5/30/2019

Customer: _____

Attention: _____

Submitted by: Fareeda Dudekula

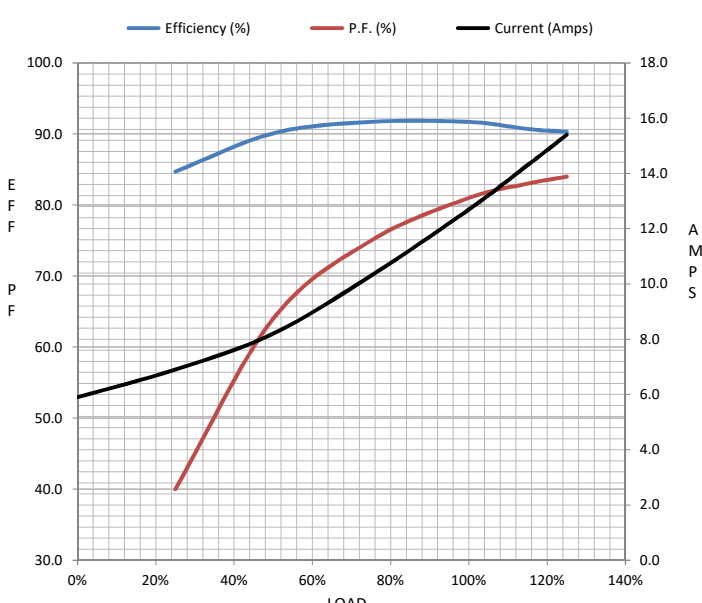
Submittal

Data @ 460 V

Motor Load Data

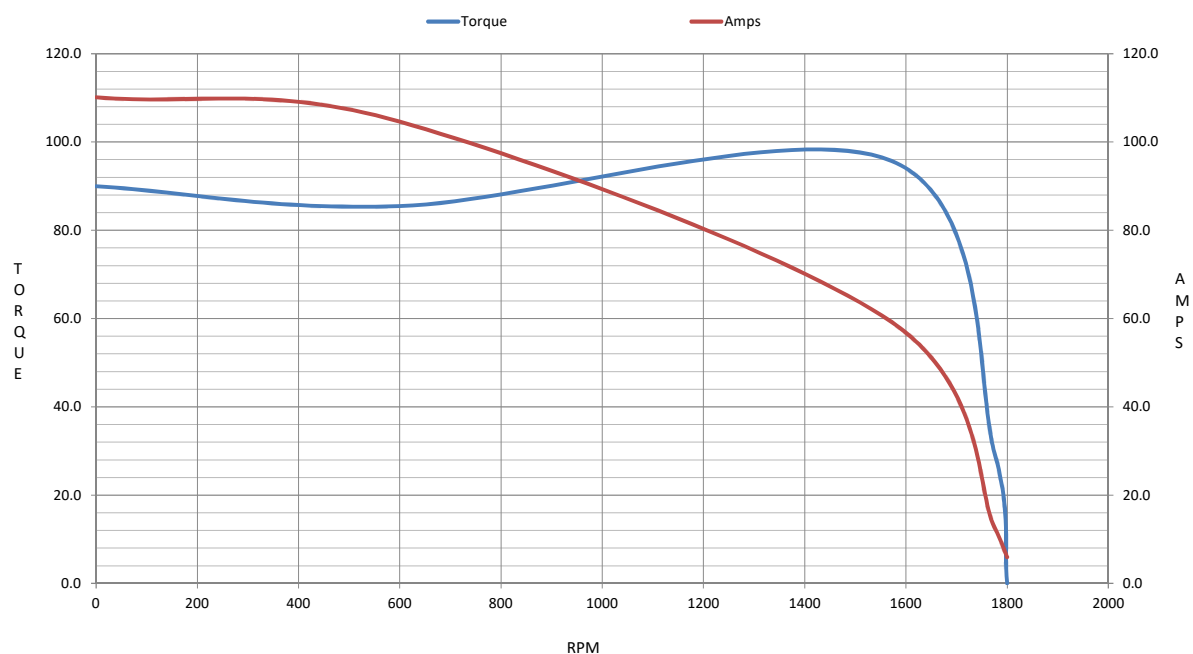
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	5.9	6.9	8.2	10.3	12.7	14.3	15.4	110	
Torque (ft-lb)	0.00	7.3	14.7	22.1	29.6	34.2	37.2	90.0	
RPM	1800	1794	1787	1781	1775	1,769	1766	0	
Efficiency (%)		84.7	90.1	91.7	91.7	90.7	90.3		
P.F. (%)	7.0	40.0	64.0	75.0	81.0	83.0	84.0	63.4	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block	
Speed (RPM)	0	600	1572	1775	1800	HP	10.0
Current (Amps)	110	105	59.2	12.7	5.9	Sync. RPM	1800
Torque (ft-lb)	90.0	85.5	95.7	29.6	0.00	Frame	132
						Enclosure	TEFC
						Construction	TCA 132M04
						Voltage	230/460#200/400 V
						Frequency	60 Hz
						Design	N
						LR Code letter	K
						Service Factor	1.15
						Temp Rise @ FL	80 °C
						Duty	CONT
						Ambient	40 °C
						Elevation	3,300 feet
						Rotor/Shaft wk²	1.31 Lb-Ft²
						Ref Wdg	IE3L1324202 NONE
						Sound Pressure @ 1M	65 dBA
						VFD Rating	CONSTANT 2:1/VARIABLE 10:1
						Outline Dwg	SS810120A
						Conn. Diag	8442000677
						Additional Specifications:	
						0	
						0	
						EQUIV CKT (OHMS / PHASE)	
						R1	R2
						X1	X2
						Xm	
						0.6520	0.3400
						1.5600	2.2120
						45.0440	

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 : TCA7P52AE221GAA009

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

Catalog No : R231

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