

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: TCA5P51AE271GAA009

Catalog No: R627

Cast Iron Motor, 7.50 & 5.50 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 3600 & 3000 RPM,
132M Frame, TEFC



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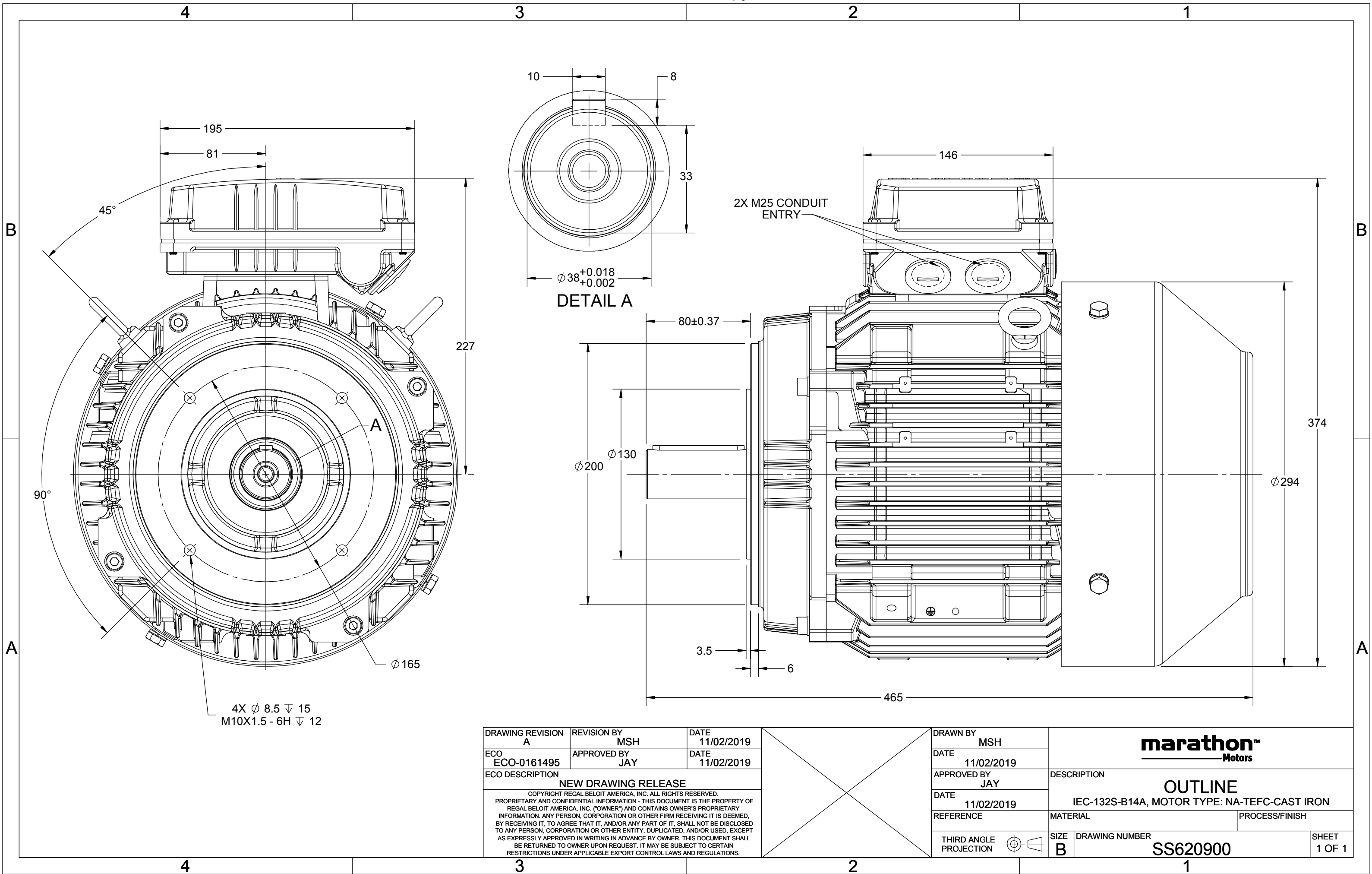
RegalRexnord

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	3535 & 2945 rpm	Service Factor	1.15 & 1.15
Frame	132M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	89.5 & 88.1 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	17.6/8.8 & 15/7.5 A	Power Factor	88
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	H
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	2	Rotation	Reversible
Resistance Main	2.02 Ohms	Mounting	Round
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		
Connection Drawing	8442000715	Outline Drawing	SS620900



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DRAWING REVISION
A
 ECO
 ECO-0194685
 ECO DESCRIPTION

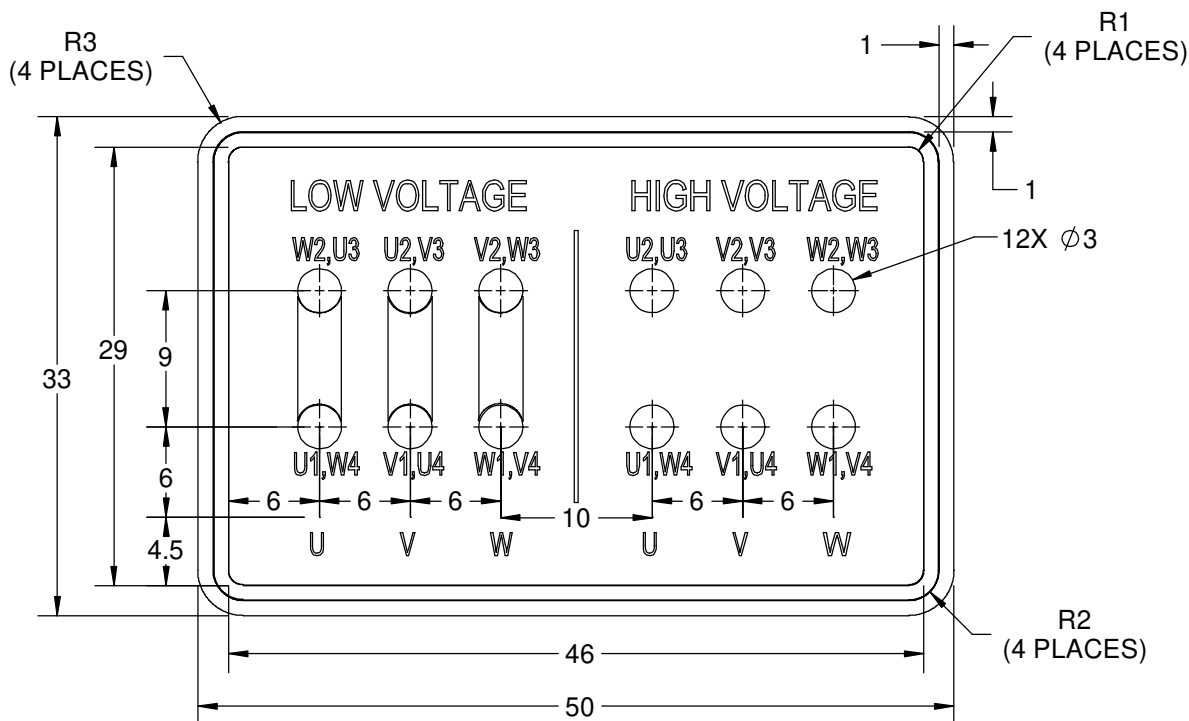
REVISION BY
S.MUDDA
 APPROVED BY
SUMANTA

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

NEW DRAWING

GEOMETRIC TOLERANCE

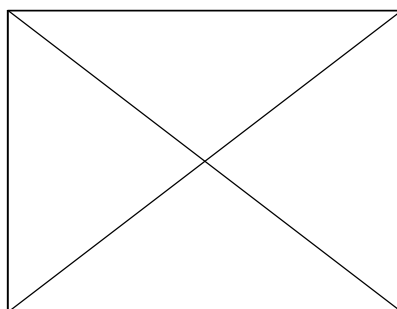
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



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 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: SS620900
WINDING: IE3L1322201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA5P51AE271GAA009
CAT #: R627
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
7.5	5.6	3600	3535	132M	TEFC	TCA 132SA02	H	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	17.6/8.8&15/7.5	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	89.5	3/4 LD EFF	89.2	1/2 LD EFF	87.5	GTD EFF	ELECT. TYPE
F.L. PF	88.0	3/4 LD PF	84.0	1/2 LD PF	75.0	87.9	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (* C)
11.2 LB-FT	64.3	21.4 LB-FT 191%	35.3 LB-FT 315%	80

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
68 dBA	77 dBA		0.44 LB-FT ²	0.44 LB-FT ²	10 SEC.	2	77	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FT-FLANGE-165	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
1.210	0.567	2.383	1.588	79.460	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	NONE	NONE
DATE: 11/16/2020	FT-LB: NA		
	VOLTAGE: NONE		HZ:
FORM: 3531 REV_4 2/27/06	UL: V - LI,ME-INS,CONST UL REC		



Data Sheet

TCA5P51AE271GAA009

Date: 5/30/2019

Customer: _____

Attention: _____

Submitted by: Fareeda Dudekula

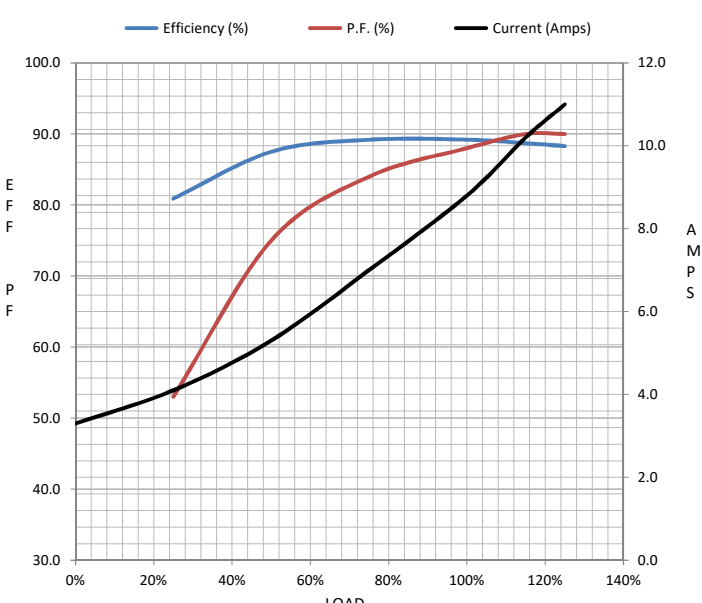
Submittal

Data @ 460 V

Motor Load Data

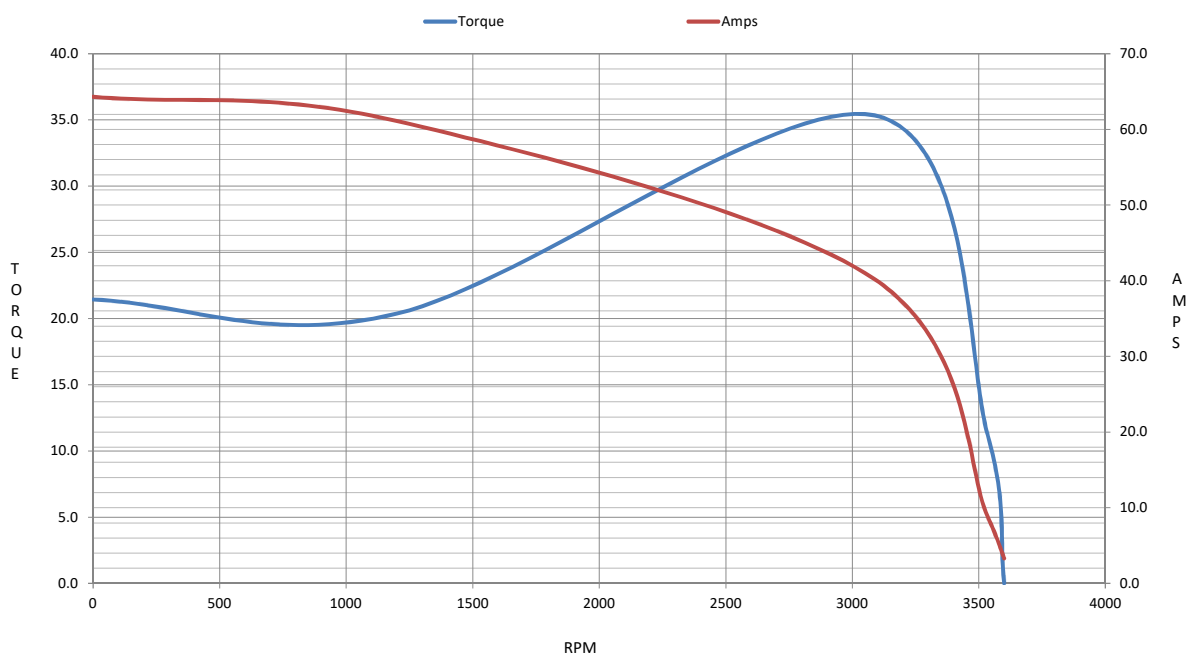
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	3.3	4.1	5.3	7.0	8.8	10.2	11.0	64.3	
Torque (ft-lb)	0.00	2.80	5.5	8.3	11.2	12.9	14.0	21.4	
RPM	3600	3583	3567	3551	3535	3,521	3514	0	
Efficiency (%)		80.9	87.5	89.2	89.2	88.7	88.3		
P.F. (%)	12.0	53.0	75.0	84.0	88.0	90.0	90.0	63.4	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle	Information Block	
Speed (RPM)	0	1200	3088	3535	3600	HP	7.5
Current (Amps)	64.3	61.1	40.2	8.8	3.3	Sync. RPM	3600
Torque (ft-lb)	21.4	20.4	35.3	11.2	0.00	Frame	132
						Enclosure	TEFC
						Construction	TCA 132SA02
						Voltage	230/460#200/400 V
						Frequency	60 Hz
						Design	N
						LR Code letter	H
						Service Factor	1.15
						Temp Rise @ FL	80 °C
						Duty	CONT
						Ambient	40 °C
						Elevation	3,300 feet
						Rotor/Shaft wk²	0.44 Lb-Ft²
						Ref Wdg	IE3L1322201 NONE
						Sound Pressure @ 1M	68 dBA
						VFD Rating	CONSTANT 2:1/VARIABLE 10:1
						Outline Dwg	SS620900
						Conn. Diag	8442000677
						Additional Specifications:	
						0	
						0	
						EQUIV CKT (OHMS / PHASE)	
						R1	R2
						X1	X2
						Xm	
						1.2100	0.5670
						2.3830	1.5880
						79.4600	

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 : TCA5P51AE271GAA009

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

Catalog No : R627

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