

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: TCA0113AE271GAA009

Catalog No: R635

Cast Iron Motor, 15 & 10 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM, 160L Frame,  
TEFC



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**RegalRexnord**

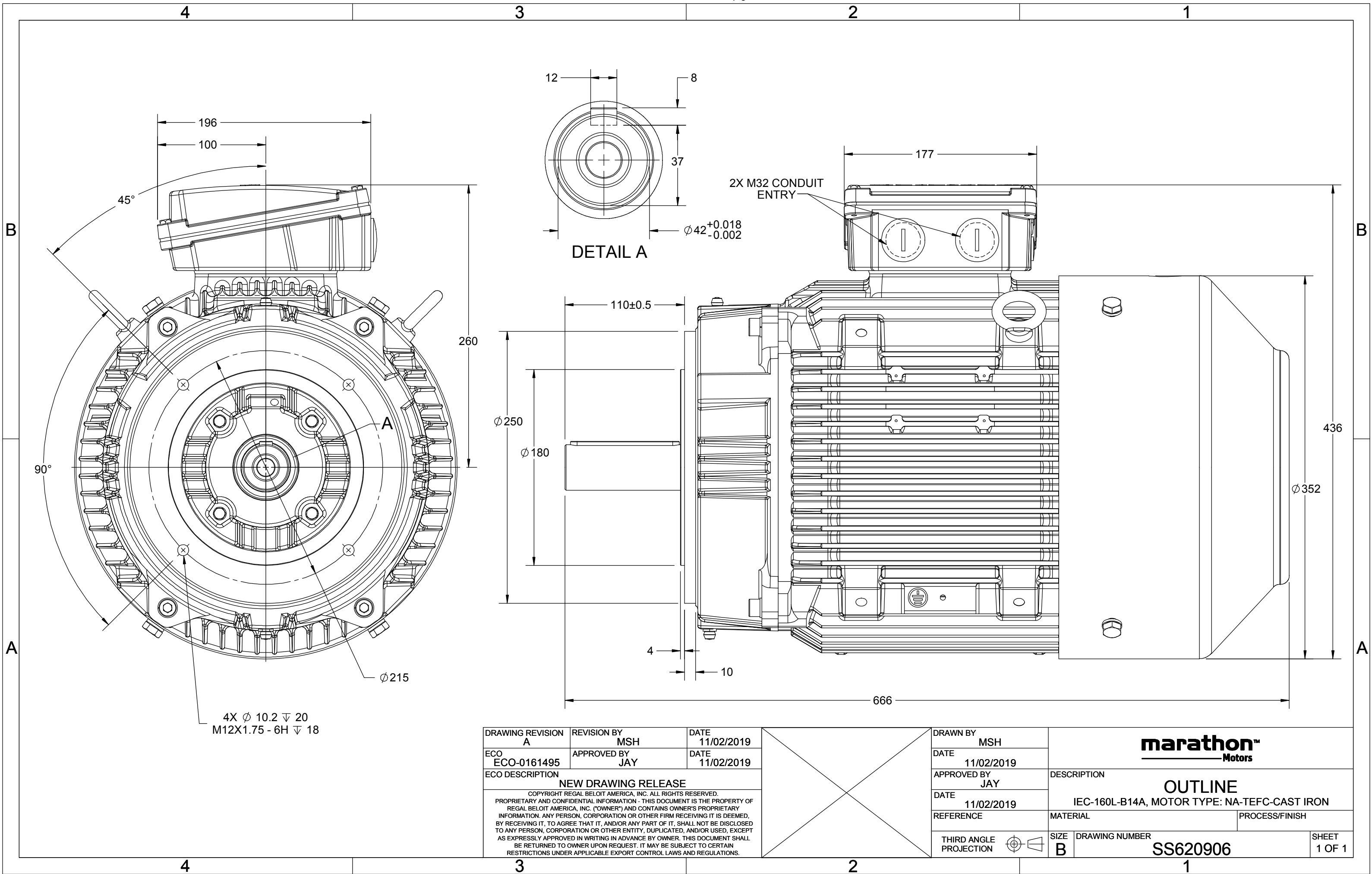
## Nameplate Specifications

Phase	3	Output HP	15 & 10 Hp
Output KW	11.0 & 7.5 kW	Voltage	230/460 & 200/400 V
Speed	1180 & 985 rpm	Service Factor	1.15 & 1.15
Frame	160L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 89.1 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	38/19.1 & 33.5/16.8 A	Power Factor	79
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	H
Drive End Bearing Size	6309	Opp Drive End Bearing Size	6209
UL	Recognized	CSA	N
CE	Y	IP Code	55
Number of Speeds	1	Efficiency Class	IE3

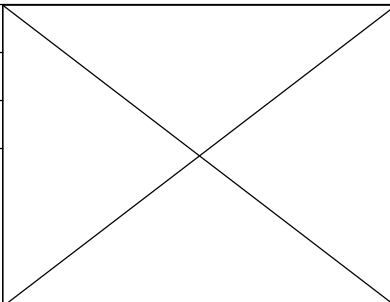


## Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.59 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	26.22 in
Frame Length	11.73 in	Shaft Diameter	1.654 in
Shaft Extension	4.33 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS620906	Connection Drawing	8442000715





DRAWING REVISION A	REVISION BY MSH	DATE 11/02/2019
ECO ECO-0161495	APPROVED BY JAY	DATE 11/02/2019
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	DRAWN BY MSH				
	DATE 11/02/2019				
	APPROVED BY JAY		DESCRIPTION  OUTLINE IEC-160L-B14A, MOTOR TYPE: NA-TEFC-CAST IRON		
	DATE 11/02/2019				
	REFERENCE		MATERIAL		PROCESS/FINISH
	THIRD ANGLE PROJECTION		SIZE B	DRAWING NUMBER SS620906	

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DRAWING REVISION  
**A**  
 ECO  
 ECO-0194685  
 ECO DESCRIPTION

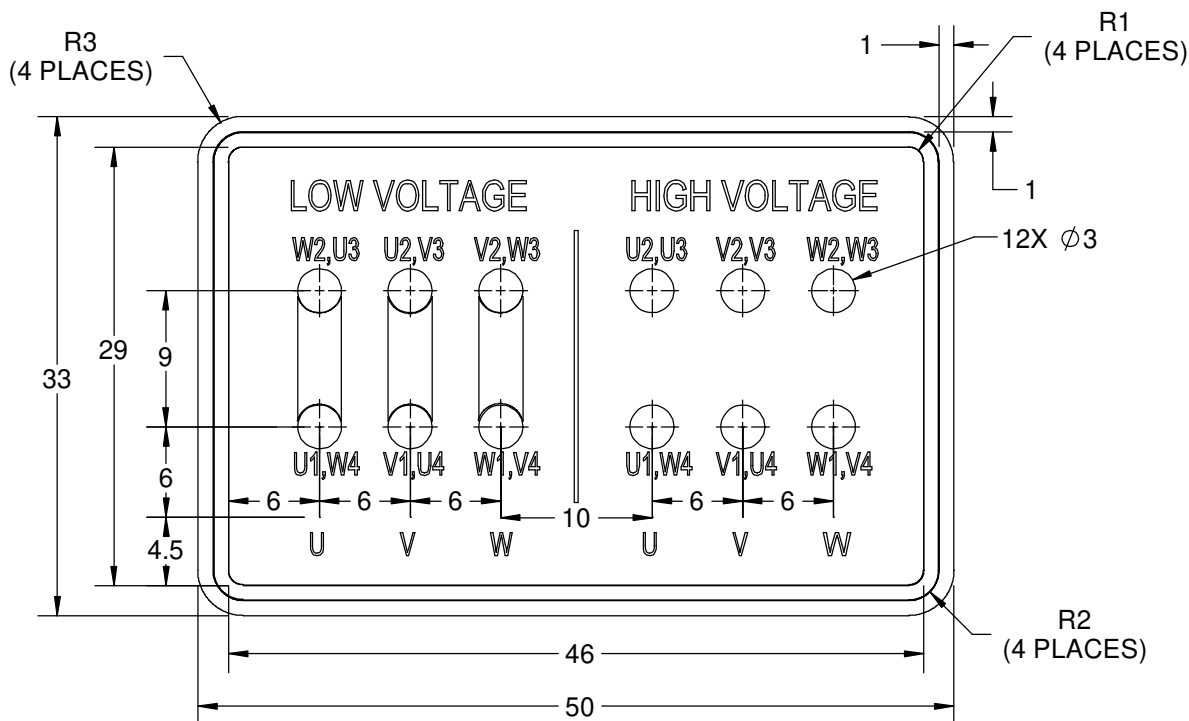
REVISION BY  
**S.MUDDA**  
 APPROVED BY  
**SUMANTA**

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

NEW DRAWING

GEOMETRIC TOLERANCE

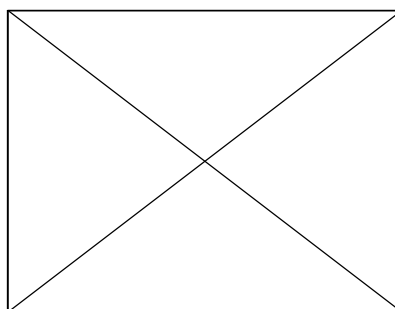
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3



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**™ 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: SS620906  
WINDING: IE3L1606202 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: TCA0113AE271GAA009  
CAT #: R635  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

### TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
15	11.2	1200	1180	160L	TEFC	TCA 160LB06	H	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	38/19.1&33.5/16.8	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	89.6	GTD EFF	ELECT. TYPE
F.L. PF	79.0	3/4 LD PF	72.0	1/2 LD PF	62.0	90.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (* C)
66.8 LB-FT	121	141 LB-FT 211%	182 LB-FT 272%	80

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK <sup>2</sup>	MAX. LOAD WK <sup>2</sup>	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
68 dBA	77 dBA		4.3 LB-FT <sup>2</sup>	4.3 LB-FT <sup>2</sup>	15 SEC.	2	174	KG.

### \*\*\* SUPPLEMENTAL INFORMATION \*\*\*

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FT-FLANGE-215	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
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
0.378	0.265	1.154	1.740	28.535	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: _____ DATE: 11/16/2020	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE UL: V - LI,ME-INS,CONST UL REC	HZ: _____
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FORM: 3531 REV\_4 2/27/06

REGAL®

## Data Sheet

TCA0113AE271GAA009

Date: 5/30/2019

Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Submitted by: Fareeda Dudekula

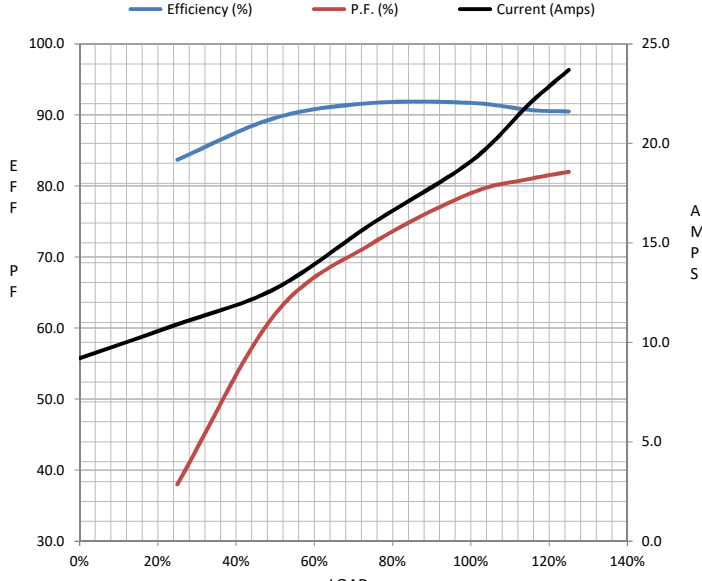
Submittal

Data @ 460 V

## Motor Load Data

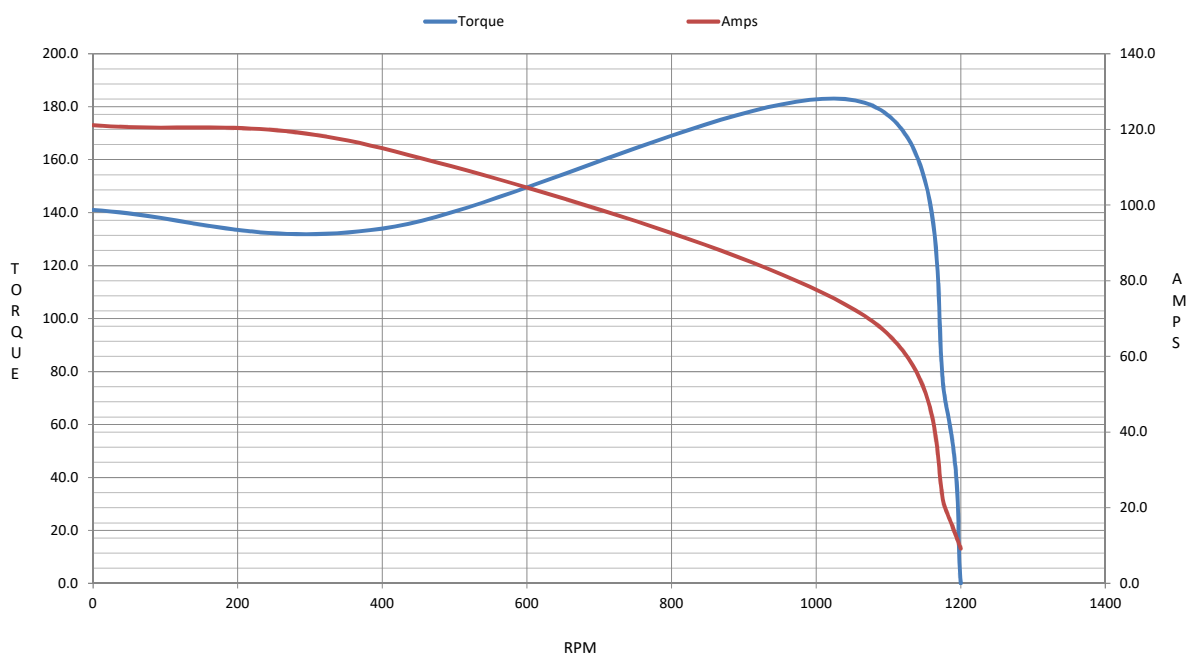
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	9.2	10.9	12.7	16.0	19.1	22.0	23.7	121	
Torque (ft-lb)	0.00	16.5	33.1	49.9	66.8	77.1	84.0	141	
RPM	1200	1195	1190	1185	1180	1,176	1173	0	
Efficiency (%)		83.7	89.6	91.7	91.7	90.7	90.5		
P.F. (%)	7.0	38.0	62.0	72.0	79.0	81.0	82.0	63.4	

## Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle					
Speed (RPM)	0	400	1067	1180	1200					
Current (Amps)	121	115	70.7	19.1	9.2					
Torque (ft-lb)	141	134	182	66.8	0.00					
<div><div>Efficiency (%)</div><div>P.F. (%)</div><div>Current (Amps)</div></div> 						Information Block				
						HP		15.0		
						Sync. RPM		1200		
						Frame		160		
						Enclosure		TEFC		
						Construction		TCA 160LB06		
						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		4.3 Lb-Ft²		
						Ref Wdg		IE3L1606202 NONE		
Sound Pressure @ 1M		68 dBA								
VFD Rating		CONSTANT 2:1/VARIABLE 10:1								
Outline Dwg		SS620906								
Conn. Diag		8442000677								
Additional Specifications:										
0										
0										
EQUIV CKT (OHMS / PHASE)										
R1	R2	X1	X2	Xm						
0.3780	0.2650	1.1540	1.7400	28.5350						

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 : TCA0113AE271GAA009

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

Catalog No : R635

Rework No : N/A

Directives :

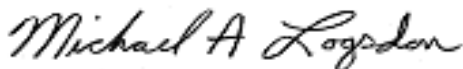
Low Voltage Directive 2014/35/EU

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**