

PRODUCT INFORMATION PACKET

Model No: TCA0033AE221GAA009

Catalog No: R253

Cast Iron Motor, 4 & 3 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM, 132S Frame, TEFC



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Nameplate Specifications

Phase	3	Output HP	4 & 3 Hp
Output KW	3.0 & 2.2 kW	Voltage	230/460 & 200/400 V
Speed	1180 & 980 rpm	Service Factor	1.15 & 1.15
Frame	132S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	89.5 & 84.3 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	11.6/5.8 & 10.4/5.2 A	Power Factor	73
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	6	Rotation	Reversible
Resistance Main	2.75 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	2.36 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS810118A	Connection Drawing	8442000729

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Uncontrolled Copy

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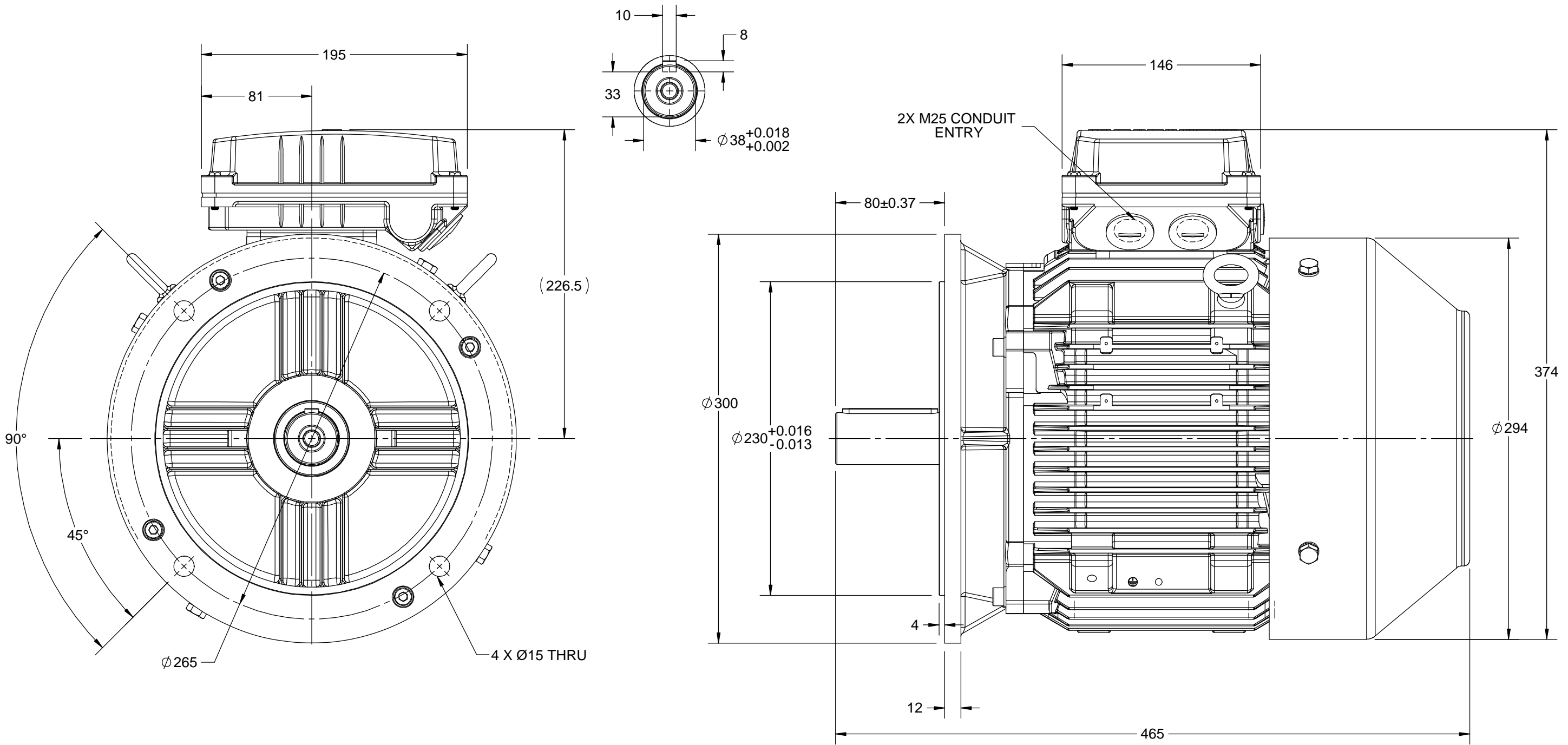
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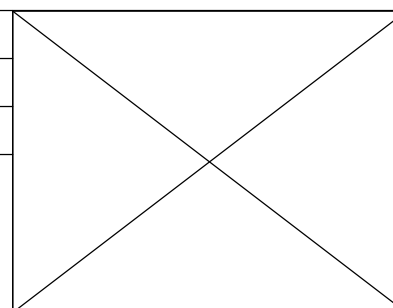
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DRAWING REVISION A	REVISION BY NIV	DATE 10/12/2018
ECO ECO-0157171	APPROVED BY JAY	DATE 10/12/2018
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DRAWN BY NIV
DATE 10/12/2018
APPROVED BY JAY
DATE 10/12/2018
REFERENCE

marathon™ Motors	
OUTLINE	
IEC-132S FR - B5 MOTOR TYPE :TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE B	DRAWING NUMBER SS810118A
SHEET 1 OF 1	

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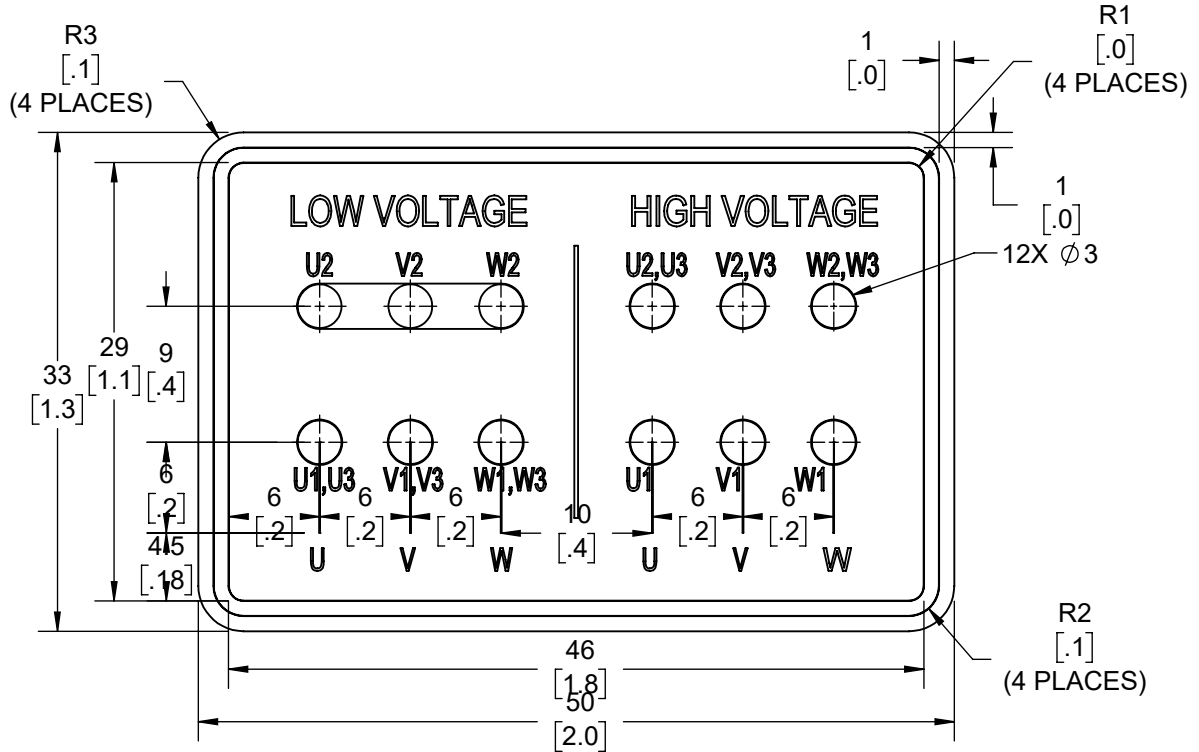
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DRAWING REVISION A	REVISION BY LK	REV DATE/@ DATE 30/6/2021
ECO CR-0003544	APPROVED BY JAY	DATE 30/6/2021
ECO DESCRIPTION NEW DRAWING		

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 : U1-U3, V1-V3 AND W1-W3 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

PRIMARY DIMENSIONS ARE mm INCH DIMENSIONS IN [BRACKETS] ARE FOR REFERENCE ONLY	DRAWN BY LK	Regal Beloit America, Inc.	
	DATE 30/6/2021		
	APPROVED BY JAY	DESCRIPTION CONN DIAGRAM-NAMEPLATE 9LEADS - STAR CONNECTION	
	DATE 30/6/2021	MATERIAL	PROCESS/FINISH
	REFERENCE	REFER NOTES	
THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER 8442000729	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: 8442000675
OUTLINE: SS810118A
WINDING: IE3L1326201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA0033AE221GAA009
CAT #: R253
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
4	3.0	1200	1180	132S	TEFC	TCA 132SA06	J	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	11.6/5.8&10.4/5.2	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	89.5	3/4 LD EFF	89.5	1/2 LD EFF	86.8	GTD EFF	ELECT. TYPE
F.L. PF	73.0	3/4 LD PF	64.0	1/2 LD PF	53.0	87.9	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
17.9 LB-FT	37.7	38.9 LB-FT 217%	51.4 LB-FT 287%	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	1.17 LB-FT ²	1.17 LB-FT ²	15 SEC.	2	79 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	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
BALL	BALL						
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
1.702	0.993	5.177	4.538	78.145	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					
	BRAKE: NONE					

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

FORM: 3531 REV_4 2/27/06



Data Sheet

TCA0033AE221GAA009

Date: 5/30/2019
Customer:
Attention:

Submittal

Submitted by: Fareeda Dudekula

Data @ 460 V

Motor Load Data

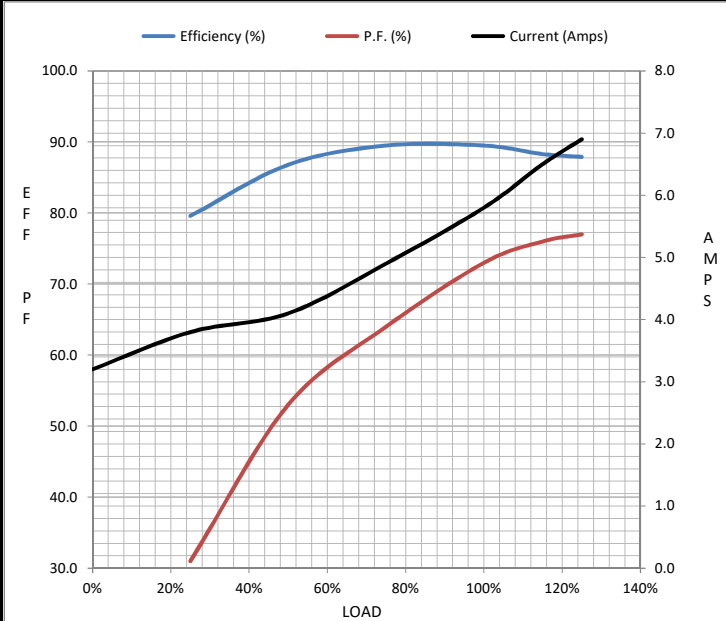
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	3.2	3.8	4.1	4.9	5.8	6.5	6.9	37.7
Torque (ft-lb)	0.00	4.4	8.8	13.3	17.9	20.6	22.4	38.9
RPM	1200	1195	1190	1184	1180	1,174	1172	0
Efficiency (%)		79.6	86.8	89.5	89.5	88.3	87.9	
P.F. (%)	7.0	31.0	53.0	64.0	73.0	76.0	77.0	63.4

Motor Speed Data

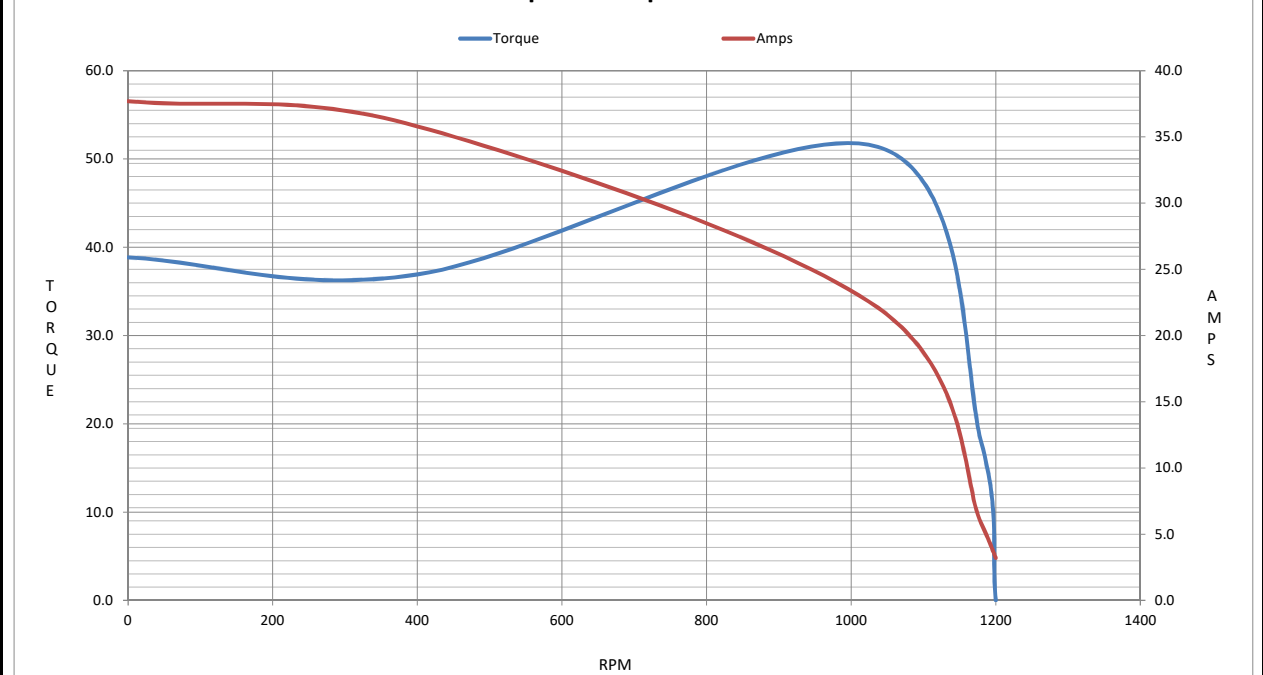
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	400	1037	1180	1200
Current (Amps)	37.7	35.8	22.1	5.8	3.2
Torque (ft-lb)	38.9	36.9	51.4	17.9	0.00

Information Block

HP	4.0			
Sync. RPM	1200			
Frame	132			
Enclosure	TEFC			
Construction	TCA 132SA06			
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 wk ²	1.17 Lb-Ft ²			
Ref Wdg	IE3L1326201 NONE			
Sound Pressure @ 1M	65 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS810118A			
Conn. Diag	8442000675			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.7020	0.9930	5.1770	4.5380	78.1450



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 : TCA0033AE221GAA009

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

Catalog No : R253

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