

PRODUCT INFORMATION PACKET

Model No: TCA0042AE271GAA009

Catalog No: R625

Cast Iron Motor, 5.50 & 4 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1800 & 1500 RPM, 112M Frame,
TEFC



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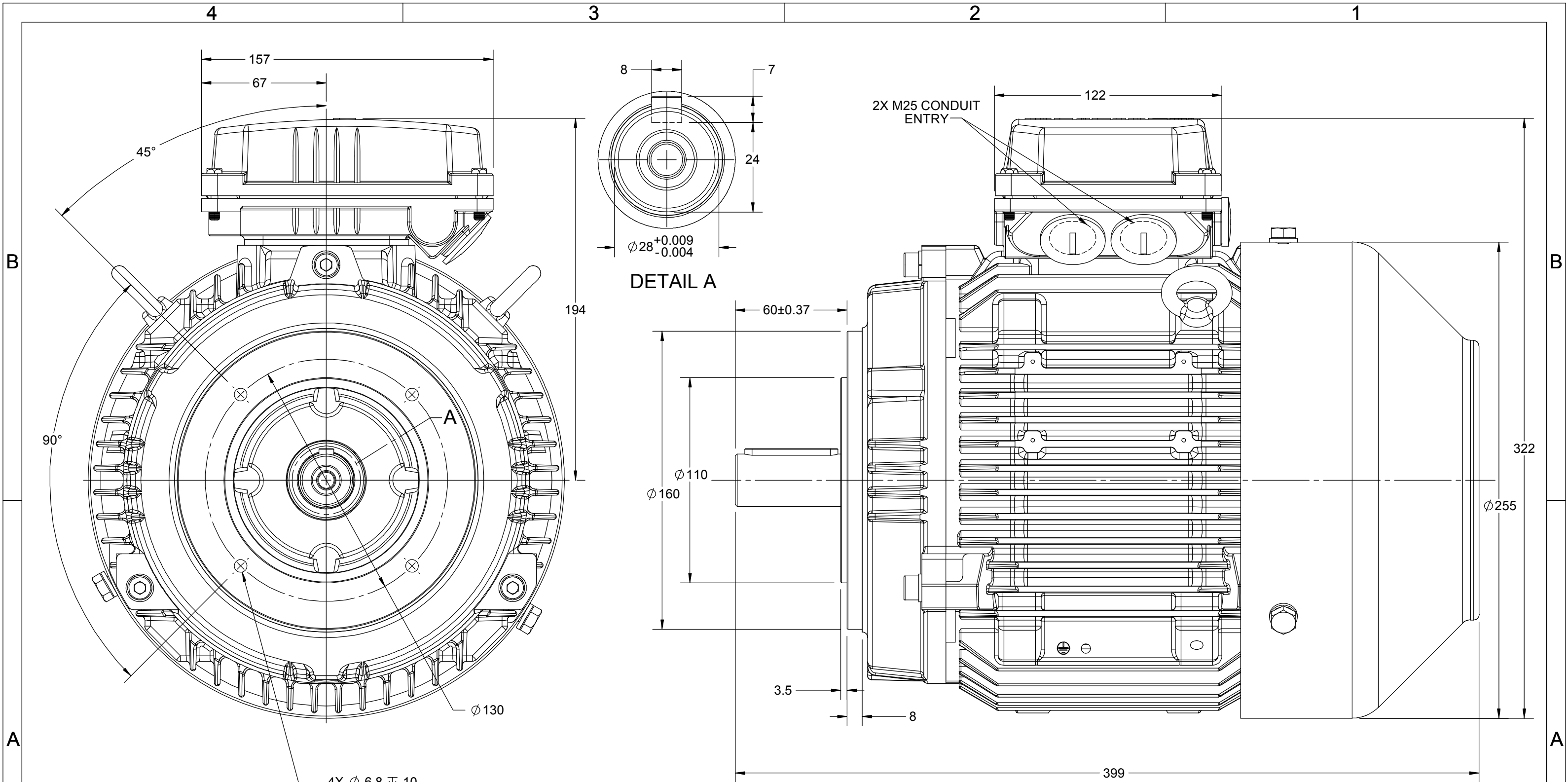
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Nameplate Specifications

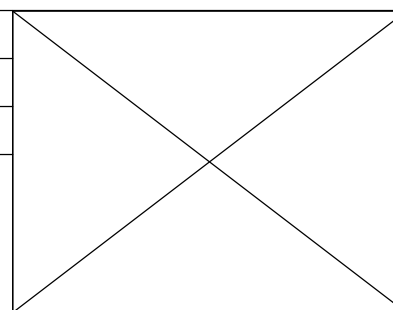
Phase	3	Output HP	5.50 & 4 Hp
Output KW	4.0 & 3.0 kW	Voltage	230/460 & 200/400 V
Speed	1765 & 1470 rpm	Service Factor	1.15 & 1.15
Frame	112M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	91.7 & 87.7 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	13.8/6.9 & 13/6.5 A	Power Factor	80
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	M
Drive End Bearing Size	6306	Opp Drive End Bearing Size	6206
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	2.33 Ohms	Mounting	Round
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	15.71 in
Frame Length	6.85 in	Shaft Diameter	1.102 in
Shaft Extension	2.36 in	Assembly/Box Mounting	F3
Inverter Load	CONSTANT 2:1/VARIABLE 10:1		
Outline Drawing	SS620898	Connection Drawing	8442000730



DRAWING REVISION A	REVISION BY MSH	DATE 11/02/2019
ECO ECO-0161495	APPROVED BY JAY	DATE 11/02/2019
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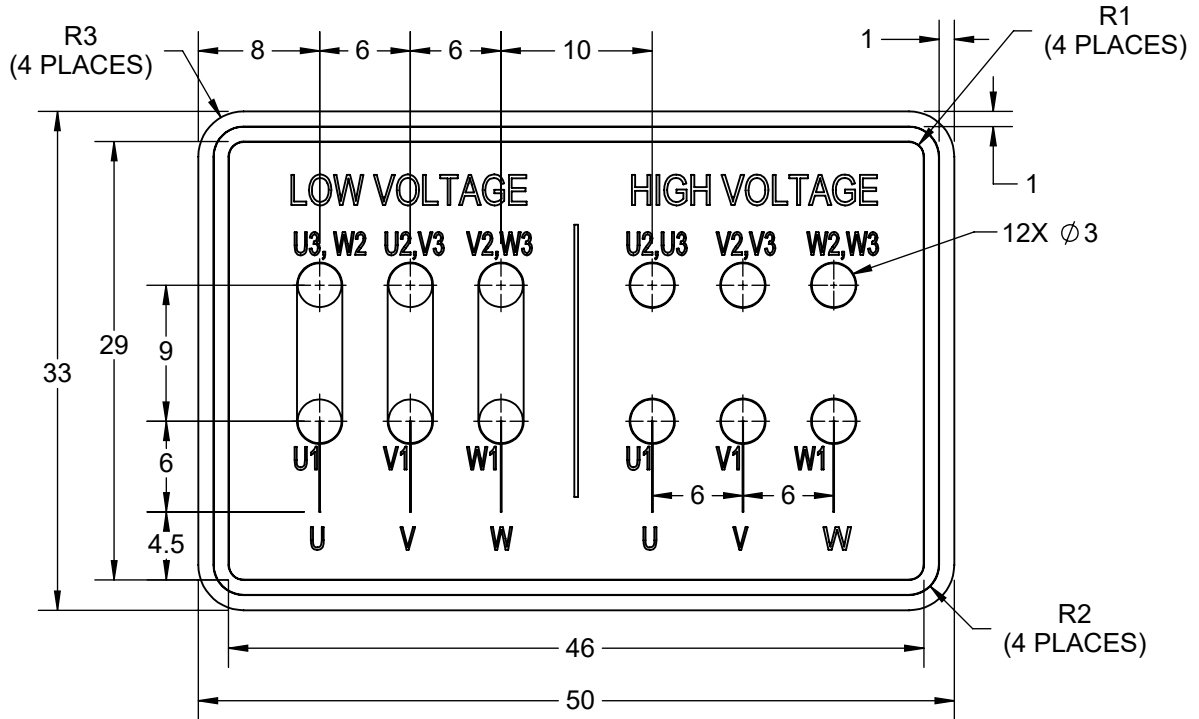


DRAWN BY MSH	marathon™ Motors	
DATE 11/02/2019		
APPROVED BY JAY	DESCRIPTION OUTLINE IEC-112M-B14A, MOTOR TYPE: NA-TEFC-CAST IRON	
DATE 11/02/2019	MATERIAL	PROCESS/FINISH
REFERENCE	SIZE B	DRAWING NUMBER SS620898
THIRD ANGLE PROJECTION		SHEET 1 OF 1

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DRAWING REVISION A	REVISION BY LK	REV DATE/© DATE 14/7/2021
ECO CR-0003544	APPROVED BY JAY	DATE 14/7/2021
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 14/7/2021		
	APPROVED BY JAY	DESCRIPTION CONN DIAGRAM-NAMEPLATE 9LEADS - DELTA CONNECTION	
	DATE 14/7/2021	MATERIAL	PROCESS/FINISH
	REFERENCE	REFER NOTES	
THIRD ANGLE PROJECTION	SIZE A	DRAWING NUMBER 8442000730	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: 8442000676
OUTLINE: SS620898
WINDING: IE3L1124201 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA0042AE271GAA009
CAT #: R625
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
5.5	4.1	1800	1765	112M	TEFC	TCA 112MB04	M	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	13.8/6.9&13/6.5	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	91.7	3/4 LD EFF	91.7	1/2 LD EFF	87.4	GTD EFF	ELECT. TYPE
F.L. PF	80.0	3/4 LD PF	72.0	1/2 LD PF	61.0	90.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
16.4 LB-FT	71.3	54.3 LB-FT 331%	64.1 LB-FT 391%	80

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
62 dBA	71 dBA		0.46 LB-FT²	0.46 LB-FT²	7 SEC.	2	57	KG.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FT-FLANGE-130	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						
6306	6206						

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
1.444	0.825	2.733	3.249	72.098	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 NONE
	FT-LB: NA
	VOLTAGE: NONE
FORM: 3531 REV_4 2/27/06	UL: V - LI,ME-INS,CONST UL REC



Data Sheet

TCA0042AE271GAA009

Date: 5/30/2019
Customer: _____
Attention: _____

Submittal

Submitted by: Fareeda Dudekula

Data @ 460 V

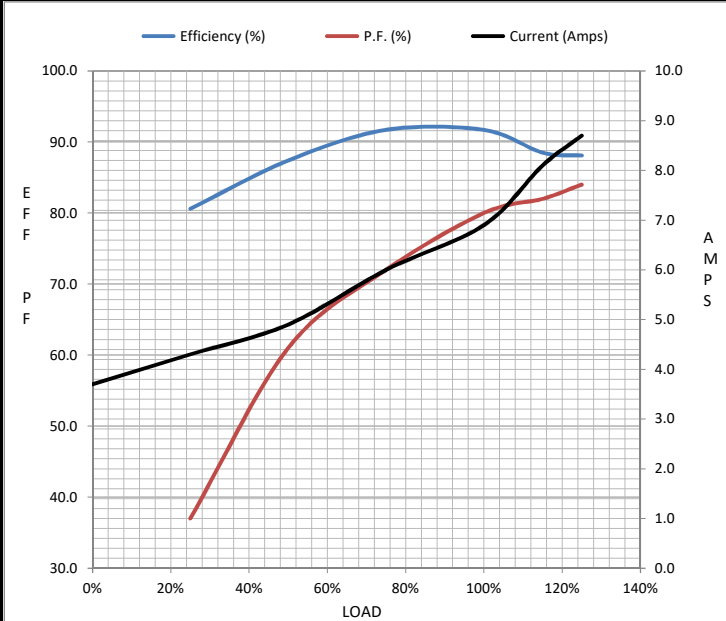
Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	3.7	4.3	4.9	6.0	6.9	8.1	8.7	71.3
Torque (ft-lb)	0.00	4.0	8.1	12.2	16.4	18.9	20.6	54.3
RPM	1800	1791	1782	1773	1765	1,757	1753	0
Efficiency (%)		80.6	87.4	91.7	91.7	88.5	88.1	
P.F. (%)	8.0	37.0	61.0	72.0	80.0	82.0	84.0	63.4

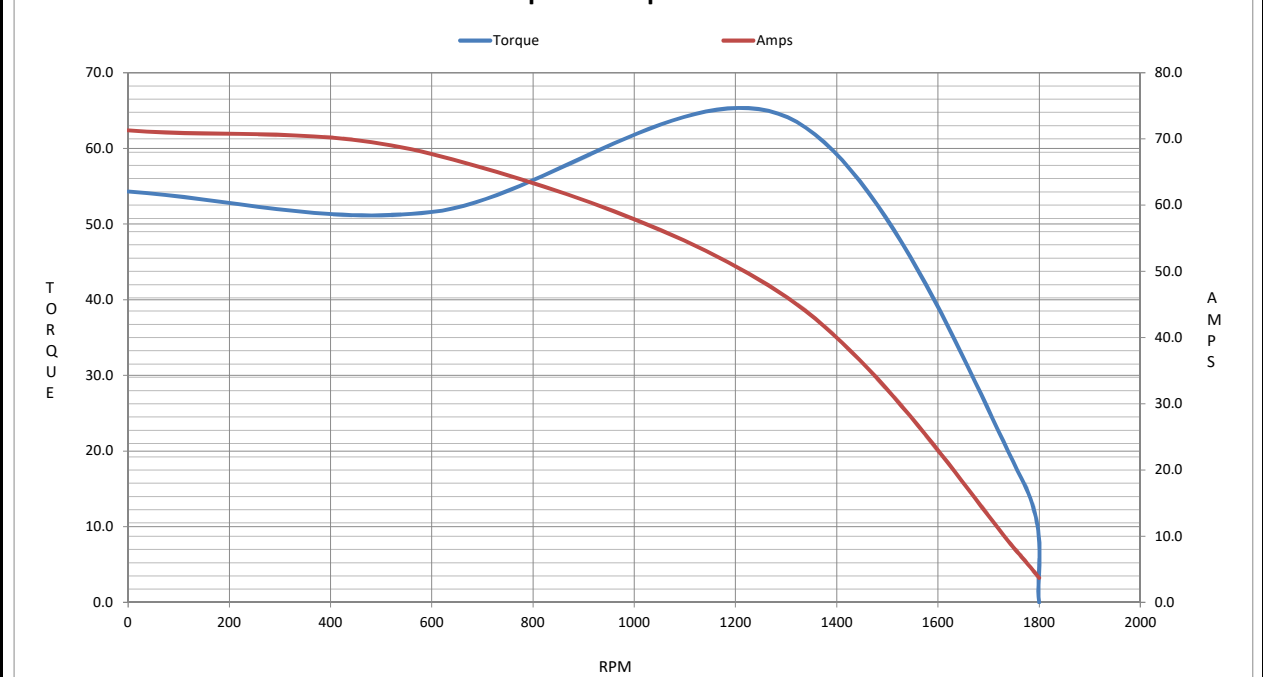
Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	600	1303	1765	1800
Current (Amps)	71.3	67.7	46.0	6.9	3.7
Torque (ft-lb)	54.3	51.6	64.1	16.4	0.00

Information Block				
HP	5.5			
Sync. RPM	1800			
Frame	112			
Enclosure	TEFC			
Construction	TCA 112MB04			
Voltage	230/460#200/400 V			
Frequency	60 Hz			
Design	N			
LR Code letter	M			
Service Factor	1.15			
Temp Rise @ FL	80 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	3,300 feet			
Rotor/Shaft wk ²	0.46 Lb-Ft ²			
Ref Wdg	IE3L1124201 NONE			
Sound Pressure @ 1M	62 dBA			
VFD Rating	CONSTANT 2:1/VARIABLE 10:1			
Outline Dwg	SS620898			
Conn. Diag	8442000676			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
1.4440	0.8250	2.7330	3.2490	72.0980



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 : TCA0042AE271GAA009

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

Catalog No : R625

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