

# PRODUCT INFORMATION PACKET

Model No: TCA0373AE231GAA009

Catalog No: R850

TerraMAX® Cast Iron Motor, 50 & 40 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM,  
250M Frame, TEFC



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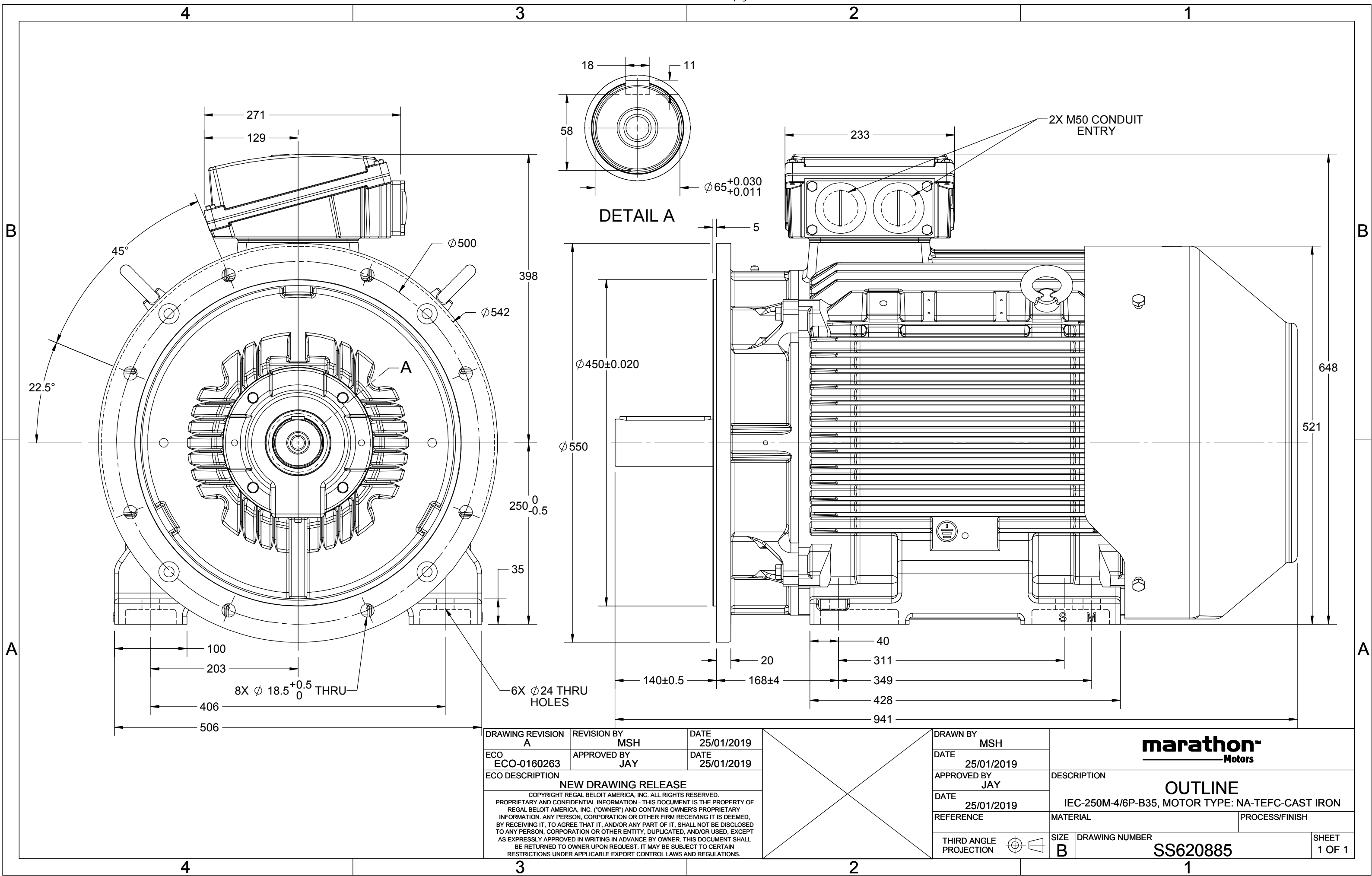
### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>50 &amp; 40 Hp</b>
Output KW	<b>37.0 &amp; 30.0 kW</b>	Voltage	<b>230/460 &amp; 200/400 V</b>
Speed	<b>1190 &amp; 990 rpm</b>	Service Factor	<b>1.15 &amp; 1.15</b>
Frame	<b>250M</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>94.1 &amp; 92.9 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>124/62 &amp; 120/60 A</b>	Power Factor	<b>80</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>N (IEC)</b>	KVA Code	<b>J</b>
Drive End Bearing Size	<b>6314</b>	Opp Drive End Bearing Size	<b>6314</b>
UL	<b>Recognized</b>	CSA	<b>N</b>
CE	<b>Y</b>	IP Code	<b>55</b>
Number of Speeds	<b>1</b>	Efficiency Class	<b>IE3</b>

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>6</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.14 Ohms</b>	Mounting	<b>B3</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>IEC</b>	Shaft Diameter	<b>65.000 in</b>
Assembly/Box Mounting	<b>F3</b>	Inverter Load	<b>CONSTANT 2:1/VARIABLE 10:1</b>
Connection Drawing	<b>8442000715</b>	Outline Drawing	<b>SS620885</b>

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DRAWING REVISION A	REVISION BY MSH	DATE 25/01/2019
ECO ECO-0160263	APPROVED BY JAY	DATE 25/01/2019
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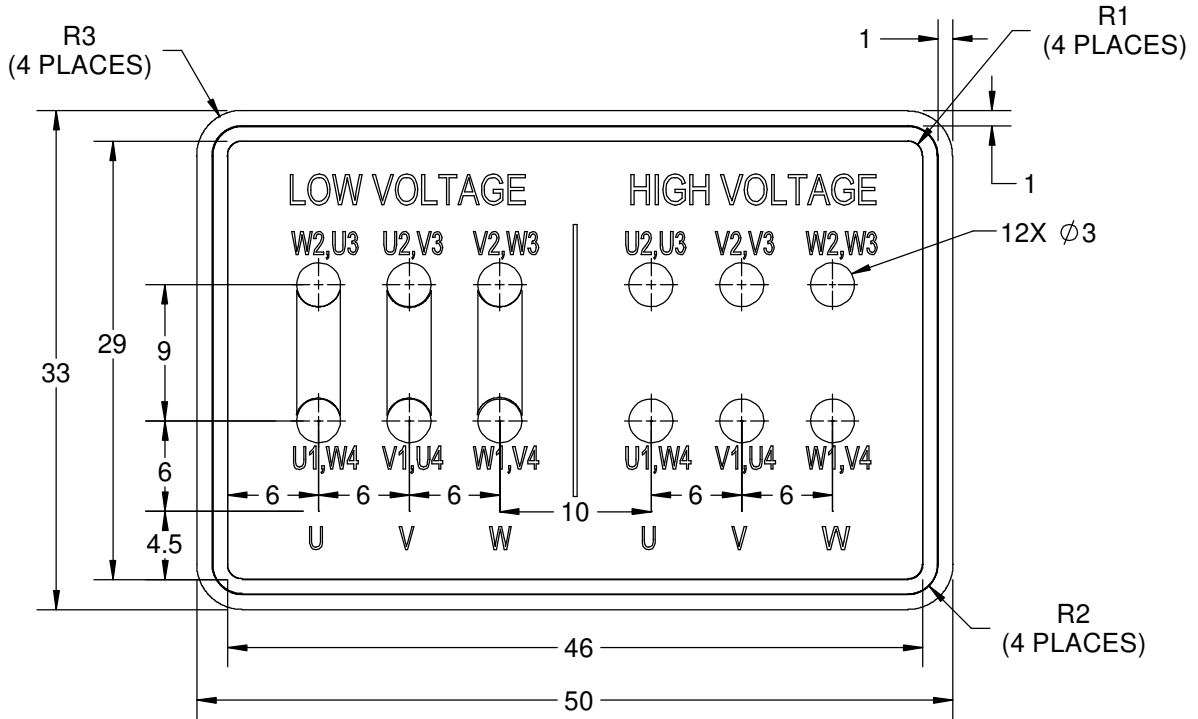
DRAWN BY MSH
DATE 25/01/2019
APPROVED BY JAY
DATE 25/01/2019
REFERENCE
THIRD ANGLE PROJECTION

<b>marathon™ Motors</b>	
<b>OUTLINE</b>	
IEC-250M-4/6P-B35, MOTOR TYPE: NA-TEFC-CAST IRON	
MATERIAL	PROCESS/FINISH
SIZE <b>B</b>	DRAWING NUMBER <b>SS620885</b>
SHEET 1 OF 1	

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

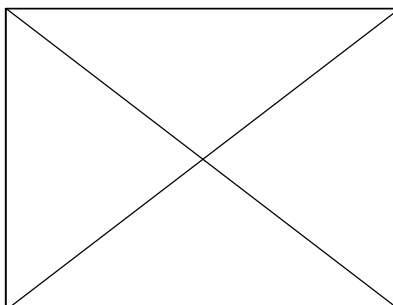
GEOMETRIC TOLERANCE		
LINEAR DIM	>0~6	±0.1
	>6~30	±0.2
	>30~120	±0.3





**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 <b>S.MUDDA</b>	DATE <b>16/11/2020</b>		 <b>Regal Beloit America, Inc.</b>
	APPROVED BY <b>SUMANTA</b>		
	DATE <b>16/11/2020</b>		DESCRIPTION <b>CONN DIAGRAM-NAMEPLATE</b>
	REFERENCE	MATERIAL	PROCESS/FINISH
	THIRD ANGLE PROJECTION 	SIZE <b>A</b>	DRAWING NUMBER <b>8442000715</b>



P.O. BOX 8003  
WAUSAU, WI 54401-8003  
PH. 715-675-3311

DATA VOLTS: 460

**CERTIFICATION DATA SHEET**

CUSTOMER: \_\_\_\_\_  
ORDER #: \_\_\_\_\_  
CONN. DIAGRAM: 8442000677  
OUTLINE: SS620885  
WINDING: IE3L2506201 NONE 1  
SPEED: \_\_\_\_\_

CUSTOMER P.O. #: \_\_\_\_\_  
REFERENCE MODEL #: TCA0373AE231GAA009  
CAT #: R650  
CUSTOMER PART #: \_\_\_\_\_  
MOUNTING: F3

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
50	37	1200	1190	250M	TEFC	TCA 250MA06	J	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (° C)	ELEV.(Ft.)
3	60/50	230/460#200/400	124/62&120/60	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	94.1	3/4 LD EFF	94.1	1/2 LD EFF	92.5	GTD EFF	ELECT. TYPE
F.L. PF	80.0	3/4 LD PF	73.0	1/2 LD PF	62.0	93.2	SG CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
221 LB-FT	496	604 LB-FT 273%	707 LB-FT 320%	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	40.0 LB-FT <sup>2</sup>	40 LB-FT <sup>2</sup>	15 SEC.	2	535 KG.

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

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-500	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE BALL	ODE BALL	SG S5-V100	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6314	6314						

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
0.085	0.045	0.289	0.437	8.736	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: 11/27/2020	NONE NONE
	FT-LB: NA
	VOLTAGE: NONE
	HZ: _____
FORM: 3531 REV_4 2/27/06	UL: V - LI,ME-INS,CONST UL REC





**Data Sheet**

Date: 4/9/2020 TCA0373AE231GAA009

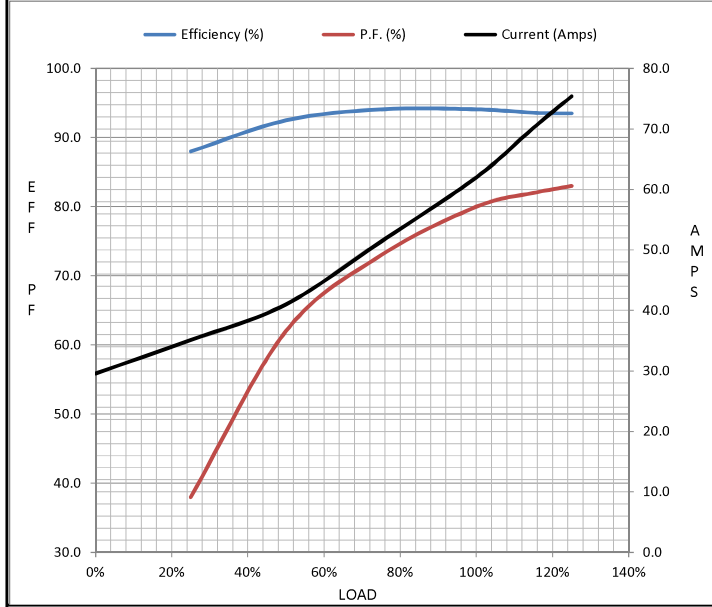
Customer: \_\_\_\_\_

Attention: \_\_\_\_\_ **Submittal**

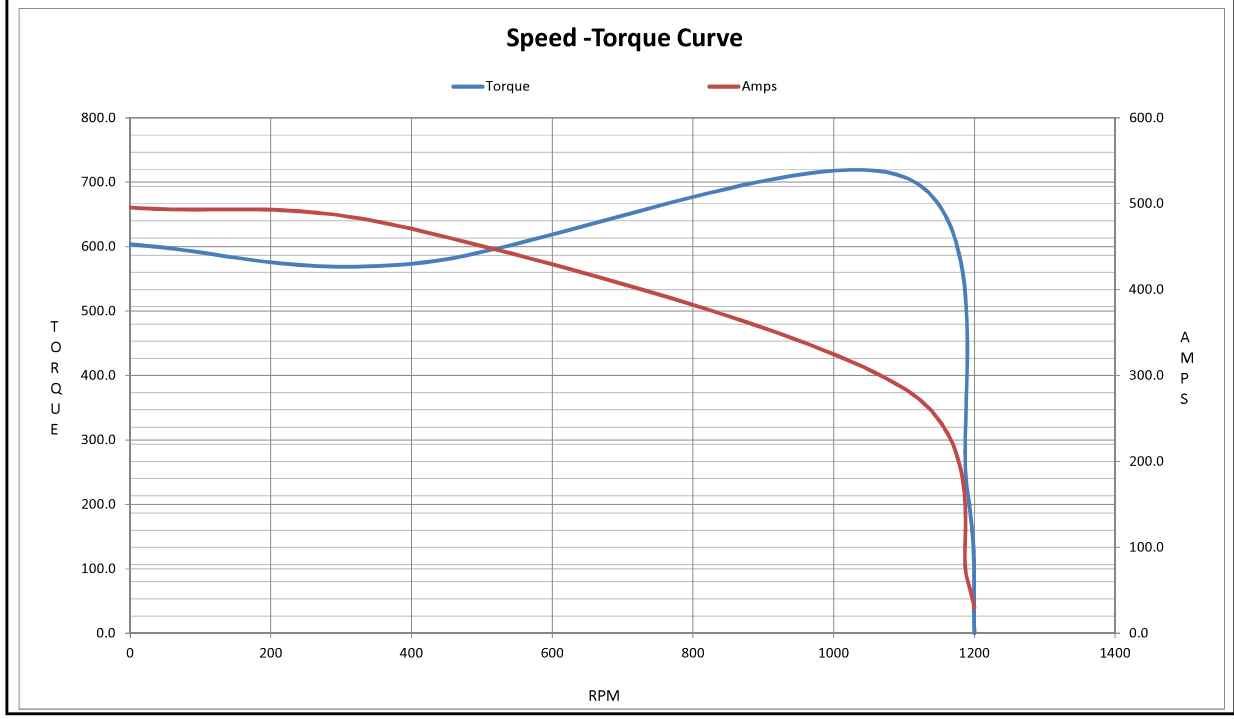
Submitted by: \_\_\_\_\_ Data @ 460 V

Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	29.6	35.1	41.0	51.4	62.0	70.2	75.4	496	
Torque (ft-lb)	0.00	54.8	110	165	221	254	277	604	
RPM	1200	1197	1195	1192	1190	1,187	1186	0	
Efficiency (%)		88.0	92.5	94.1	94.1	93.6	93.5		
P.F. (%)	5.0	38.0	62.0	73.0	80.0	82.0	83.0	63.4	

Motor Speed Data						Information Block	
	LR	Pull-Up	BD	Rated	Idle		
Speed (RPM)	0	400	1102	1190	1200	HP	50.0
Current (Amps)	496	471	284	62.0	29.6	Sync. RPM	1200
Torque (ft-lb)	604	573	707	221	0.00	Frame	250
						Enclosure	TEFC
						Construction	TCA 250MA06
						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 <sup>2</sup>	40.0 Lb-Ft <sup>2</sup>
						Ref Wdg	IE3L2506201 NONE
						Sound Pressure @ 1M	69 dBA
						VFD Rating	CONSTANT 2:1/VARIABLE 10:1
						Outline Dwg	SS620885
						Conn. Diag	8442000677
Additional Specifications:							
0							
0							
EQUIV CKT (OHMS / PHASE)							
	R1	R2	X1	X2	Xm		
	0.0850	0.0450	0.2890	0.4370	8.7360		



Information Block					
HP	50.0				
Sync. RPM	1200				
Frame	250				
Enclosure	TEFC				
Construction	TCA 250MA06				
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 <sup>2</sup>	40.0 Lb-Ft <sup>2</sup>				
Ref Wdg	IE3L2506201 NONE				
Sound Pressure @ 1M	69 dBA				
VFD Rating	CONSTANT 2:1/VARIABLE 10:1				
Outline Dwg	SS620885				
Conn. Diag	8442000677				
Additional Specifications:					
0					
0					
EQUIV CKT (OHMS / PHASE)					
	R1	R2	X1	X2	Xm
	0.0850	0.0450	0.2890	0.4370	8.7360



## 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 : TCA0373AE231GAA009

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

Catalog No : R850

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**