

PRODUCT INFORMATION PACKET



Model No: TCA0453A3113GACD01

Catalog No: TCA0453A3113GACD01

TerraMAX® Cast Iron Motor, 60 HP, 3 Ph, 50 Hz, 415 V, 280S Frame





Nameplate Specifications

Phase	3	Output HP	60 Hp
Output KW	45.0 kW	Voltage	415 V
Speed	989 r/min	Service Factor	1
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	93.7 %
Ambient Temperature	50 °C	Frequency	50 Hz
Current	81.5 A	Power Factor	0.82
Duty	S1	Insulation Class	F
Drive End Bearing Size	6317	Opp Drive End Bearing Size	6317
UL	No	CSA	No
CE	Yes	IP Code	55
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	6	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1060 mm	Frame Length	549 mm
Shaft Diameter	75 mm	Shaft Extension	140 mm
Assembly/Box Mounting	R Side		
Connection Drawing	8442000085	Outline Drawing	0228001135

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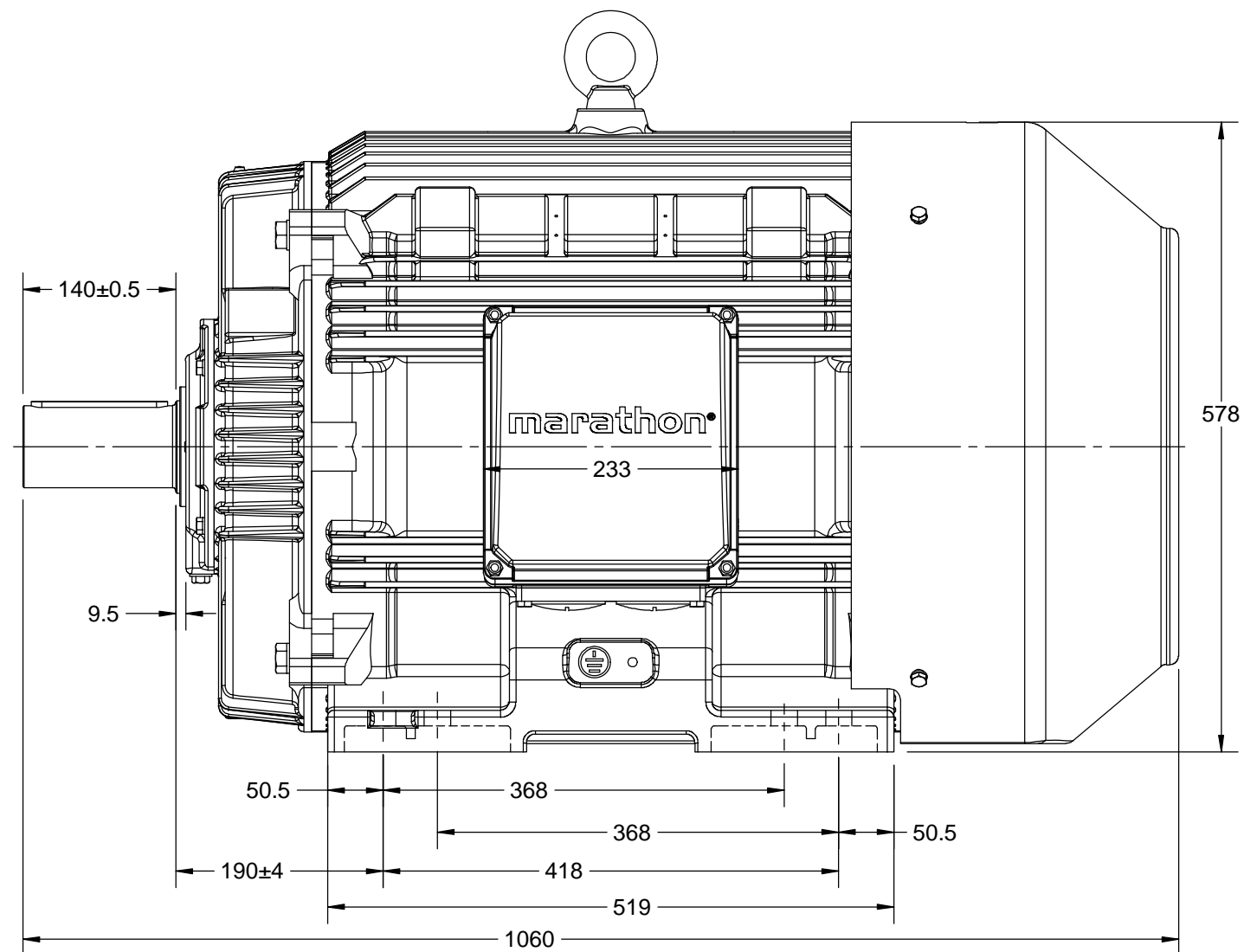
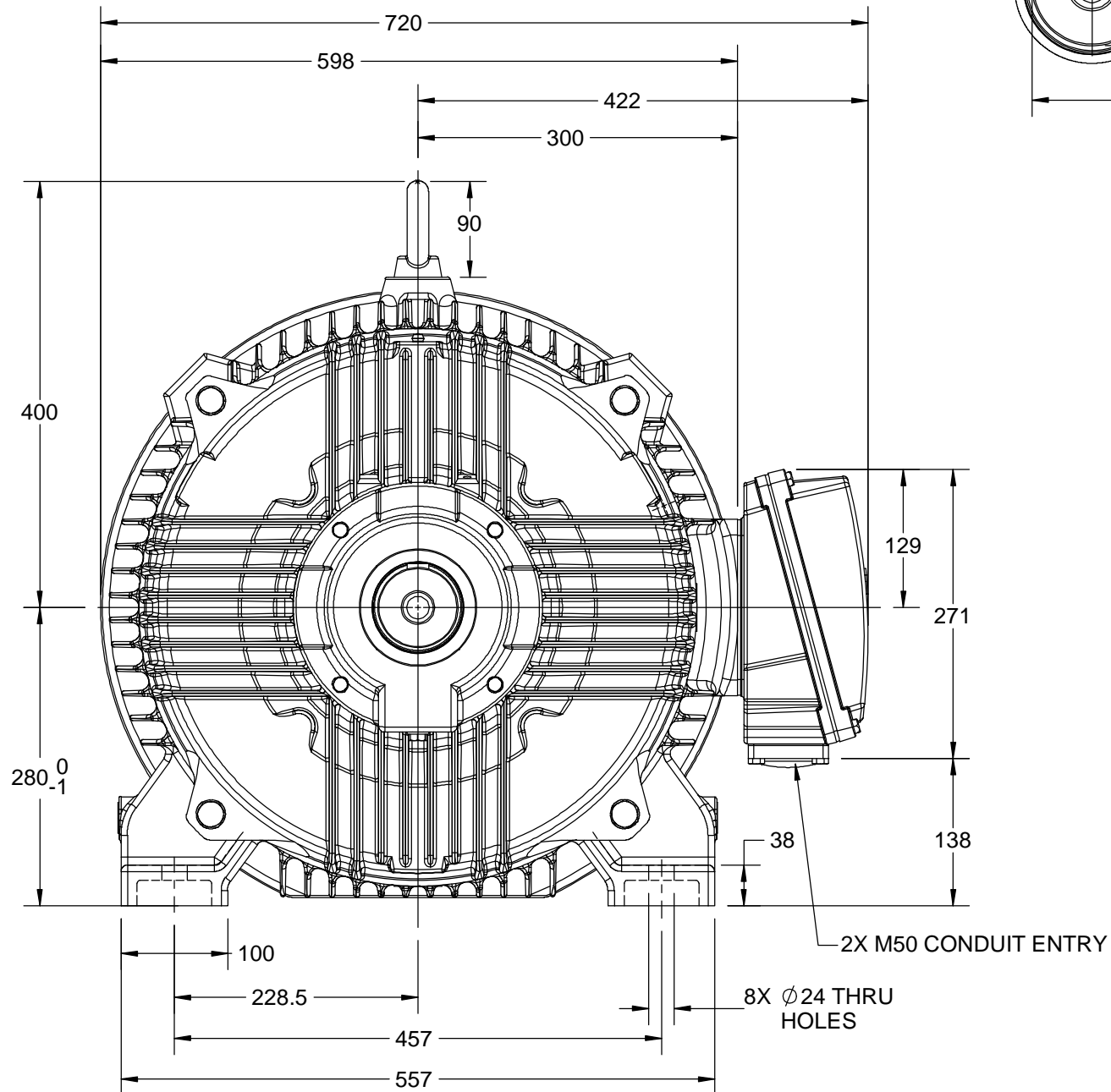
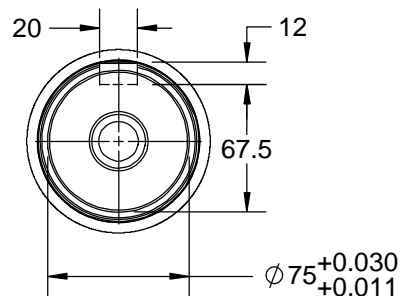
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DRAWING REVISION C	REVISION BY LK	DATE 04/08/2020
ECO ECO-0189872	APPROVED BY JAY	DATE 04/08/2020
ECO DESCRIPTION MODEL UPDATED		
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DRAWN BY GSR			
DATE 09/01/2018			
APPROVED BY JAY	DESCRIPTION OUTLINE		
DATE 09/01/2018	TCA-280S-4~8P-B3-RHS TB		
REFERENCE	MATERIAL	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0228001135	SHEET 1 OF 1

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DRAWING REVISION A	REVISION BY SN	DATE 13/01/2017
ECO ECO-0116390	APPROVED BY SBD	DATE 13/01/2017
ECO DESCRIPTION NEW DRAWING RELEASE		

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.

8WD.442.2017



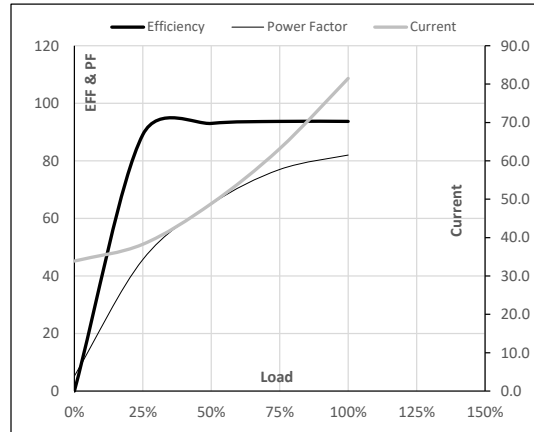
DRAWN BY SN	 Regal Beloit America, Inc.		
DATE 16/12/2016			
APPROVED BY SBD	DESCRIPTION CONN DIAGRAM-NAMEPLATE		
DATE 16/12/2016			
REFERENCE	MATERIAL	PROCESS/FINISH	
THIRD ANGLE PROJECTION 	SIZE A	DRAWING NUMBER 8442000085	SHEET 1 OF 1

Model No. TCA0453A3113GACD01

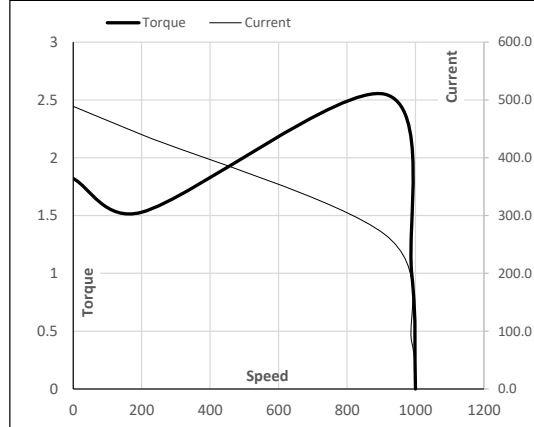
Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m ²]	Weight [kg]
TEFC	415	Δ	50	45	60.0	81.5	989	44.08	432.25	IE3	50	S1	1000	2.238	602

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	33.9	38.3	48.8	63.2	81.5	
Torque	Nm	0.0	107.1	214.9	323.2	432.2	
Speed	r/min	1000	997	995	992	989	
Efficiency	%	0.0	89.1	93.0	93.7	93.7	
Power Factor	%	5.2	45.7	65.0	77.0	82.0	

Performance vs Load Chart

Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	200	910	989	1000
Current	A	488.9	440.0	267.6	81.5	33.9
Torque	pu	1.8	1.5	2.6	1	0

Starting Characteristics Chart

NOTE Refer data sheet for applicable standard and tolerances on performance parameters

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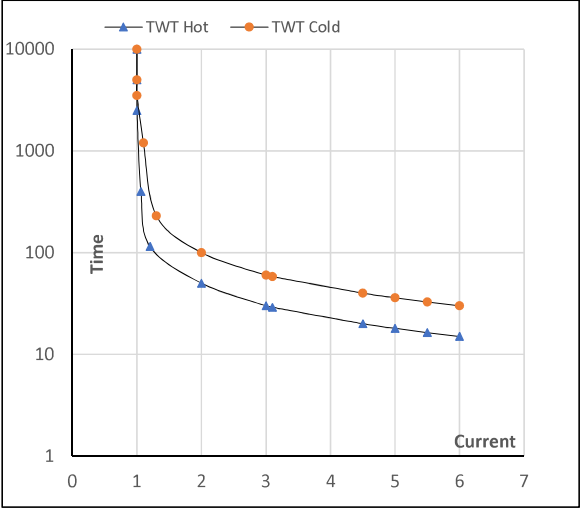
Model No. TCA0453A3113GACD01

Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg·m ²]	Weight [kg]
TEFC	415	Δ	50	45	60	81.5	989	44.05	432.25	IE3	50	S1	1000	2.2380	602

Motor Speed Torque Data

Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR
TWT Hot	s 10000	50	30	25	18	16	15
TWT Cold	s 10000	100	60	55	36	33	30
Current	pu	1	2	3	4	5	6

Thermal Characteristics Chart



NOTE Refer data sheet for applicable standard and tolerances on performance parameters

Issued By
Issued Date



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 : TCA0453A3113GACD01

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

Catalog No : TCA0453A3113GACD01

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