

# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: TCA1321A3133GACD01  
Catalog No: TCA1321A3133GACD01  
TerraMAX® Cast Iron Motor, 175 HP, 3 Ph, 50 Hz, 415 V, 315M Frame



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**RegalRexnord**

### Nameplate Specifications

Phase	3	Output HP	175 Hp
Output KW	132.0 kW	Voltage	415 V
Speed	2984 r/min	Service Factor	1
Frame	315M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	95.4 %
Ambient Temperature	50 °C	Frequency	50 Hz
Current	216.3 A	Power Factor	0.89
Duty	S1	Insulation Class	F
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6316
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	2	Rotation	Bi-Directional
Mounting	B35	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1176 mm	Frame Length	729 mm
Shaft Diameter	65 mm	Shaft Extension	140 mm
Assembly/Box Mounting	R Side		
Connection Drawing	8442000085	Outline Drawing	0231501397

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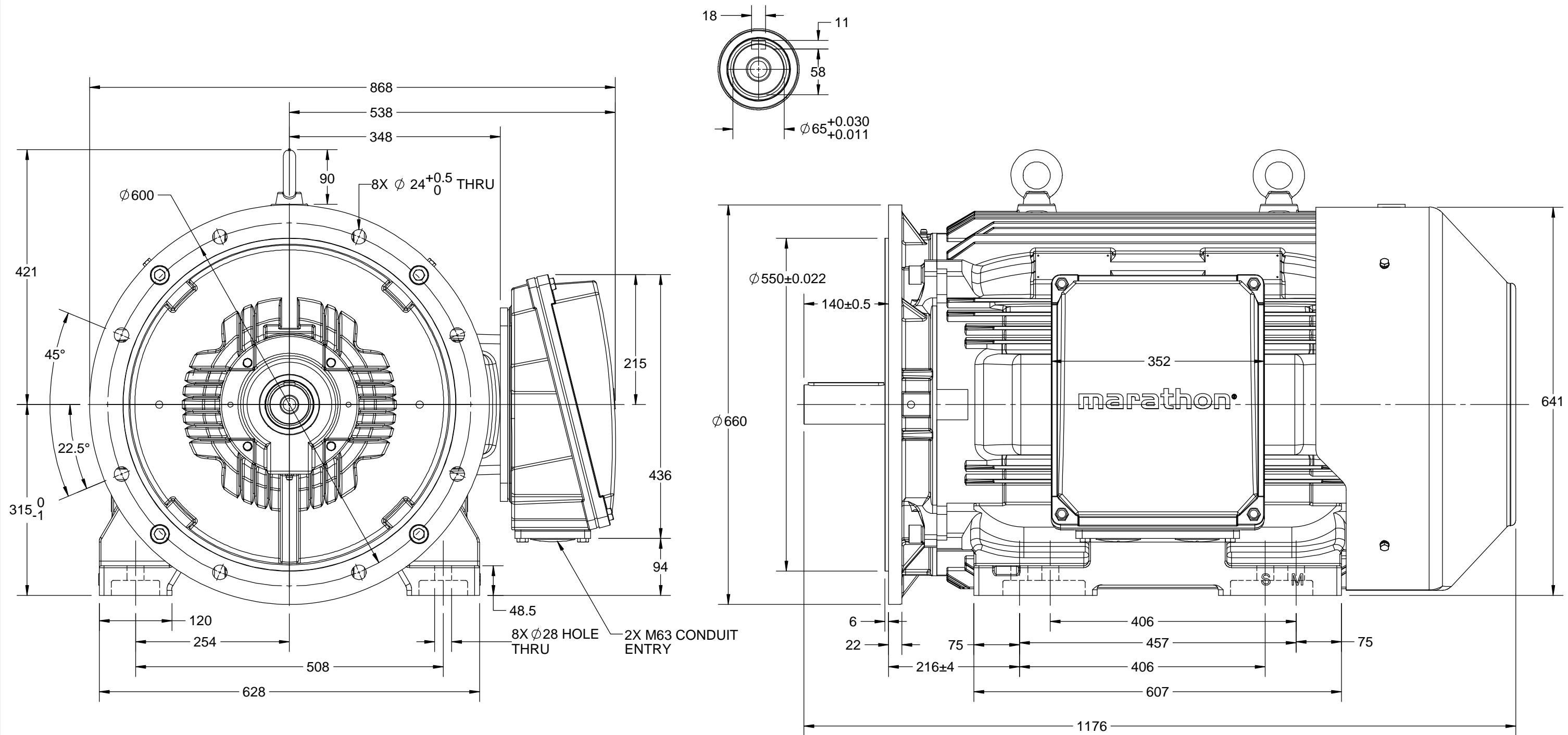
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B

B

A

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DRAWING REVISION B	REVISION BY VS	DATE 11/07/2018
ECO ECO-0148344	APPROVED BY SBD	DATE 11/07/2017
ECO DESCRIPTION MODEL UPDATED		
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DRAWN BY GSR	<b>marathon™</b> Motors		
DATE 11/15/2017			
APPROVED BY JAY	DESCRIPTION OUTLINE		
DATE 11/15/2017	315S/M-2P-B35 MTG. TCA/QCA-RHS TB		
REFERENCE	MATERIAL	PROCESS/FINISH	
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0231501397	SHEET 1 OF 1

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

8WD.442.2017

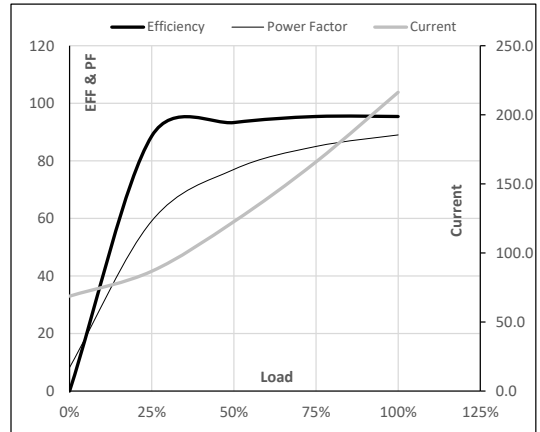
	DRAWN BY <b>SN</b>	Regal Beloit America, Inc.		
	DATE <b>16/12/2016</b>			
	APPROVED BY <b>SBD</b>	DESCRIPTION <b>CONN DIAGRAM-NAMEPLATE</b>		
	DATE <b>16/12/2016</b>			
	REFERENCE	MATERIAL	PROCESS/FINISH	
	THIRD ANGLE PROJECTION	SIZE <b>A</b>	DRAWING NUMBER <b>8442000085</b>	SHEET <b>1 OF 1</b>

**Model No.** TCA1321A3133GACD01

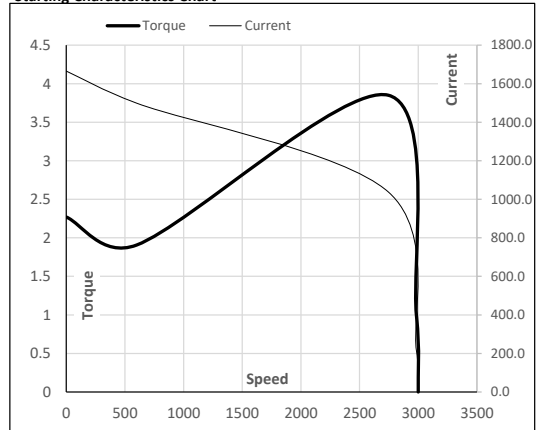
Enclosure	U (V)	Δ / Y Conn	f (Hz)	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m <sup>2</sup> ]	Weight [kg]
TEFC	415	Δ	50	132	175.0	216.3	2984	42.58	417.55	IE3	50	S1	1000	2.5544	1087

**Motor Load Data**

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	68.7	86.7	122.7	165.9	216.3	
Torque	Nm	0.0	104.0	208.2	312.7	417.6	
Speed	r/min	3000	2996	2992	2988	2984	
Efficiency	%	0.0	88.6	93.3	95.4	95.4	
Power Factor	%	8.2	59.1	77.0	85.0	89.0	

**Performance vs Load Chart**

**Motor Speed Torque Data**

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2745	2984	3000
Current	A	1665.4	1498.9	1037.9	216.3	68.7
Torque	pu	2.3	1.9	3.9	1	0

**Starting Characteristics Chart**

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

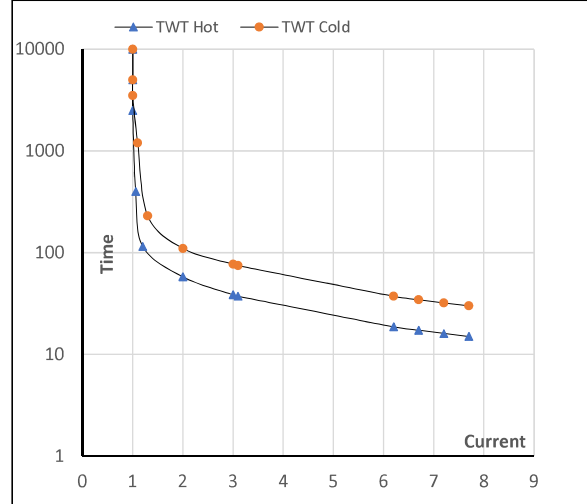
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**TerraMAX®**
**Model No.** TCA1321A3133GACD01

Enclosure	U (V)	$\Delta$ / 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 <sup>2</sup> ]	Weight [kg]
TEFC	415	$\Delta$	50	132	175	216.3	2984	42.55	417.55	IE3	50	S1	1000	2.5544	1087

**Motor Speed Torque Data**

Load		FL	$I_1$	$I_2$	$I_3$	$I_4$	$I_5$	LR
TWT Hot	s	10000	58	39	35	25	20	15
TWT Cold	s	10000	110	77	60	45	40	30
Current	pu	1	2	3	4	5	5.5	7.7

**Thermal Characteristics Chart**

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

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