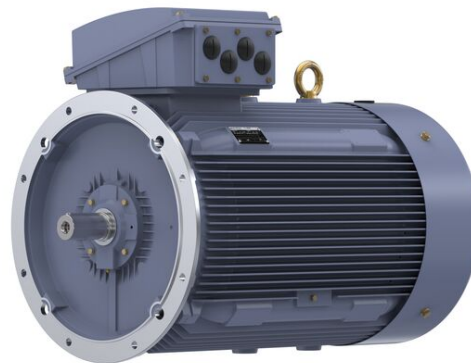


# PRODUCT INFORMATION PACKET

**marathon®**  
Motors

Model No: TCA3151A3121GACD01  
Catalog No: TCA3151A3121GACD01  
TerraMAX® Cast Iron Motor, 425 HP, 3 Ph, 50 Hz, 415 V, 355L Frame



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**RegalRexnord**

### Nameplate Specifications

Phase	3	Output HP	425 Hp
Output KW	315.0 kW	Voltage	415 V
Speed	2985 r/min	Service Factor	1
Frame	355L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	95.8 %
Ambient Temperature	50 °C	Frequency	50 Hz
Current	514.0 A	Power Factor	0.89
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	2	Rotation	Bi-Directional
Mounting	B5	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1512 mm	Frame Length	1010 mm
Shaft Diameter	75 mm	Shaft Extension	140 mm
Assembly/Box Mounting	Top		
Connection Drawing	8442000085	Outline Drawing	0235501826

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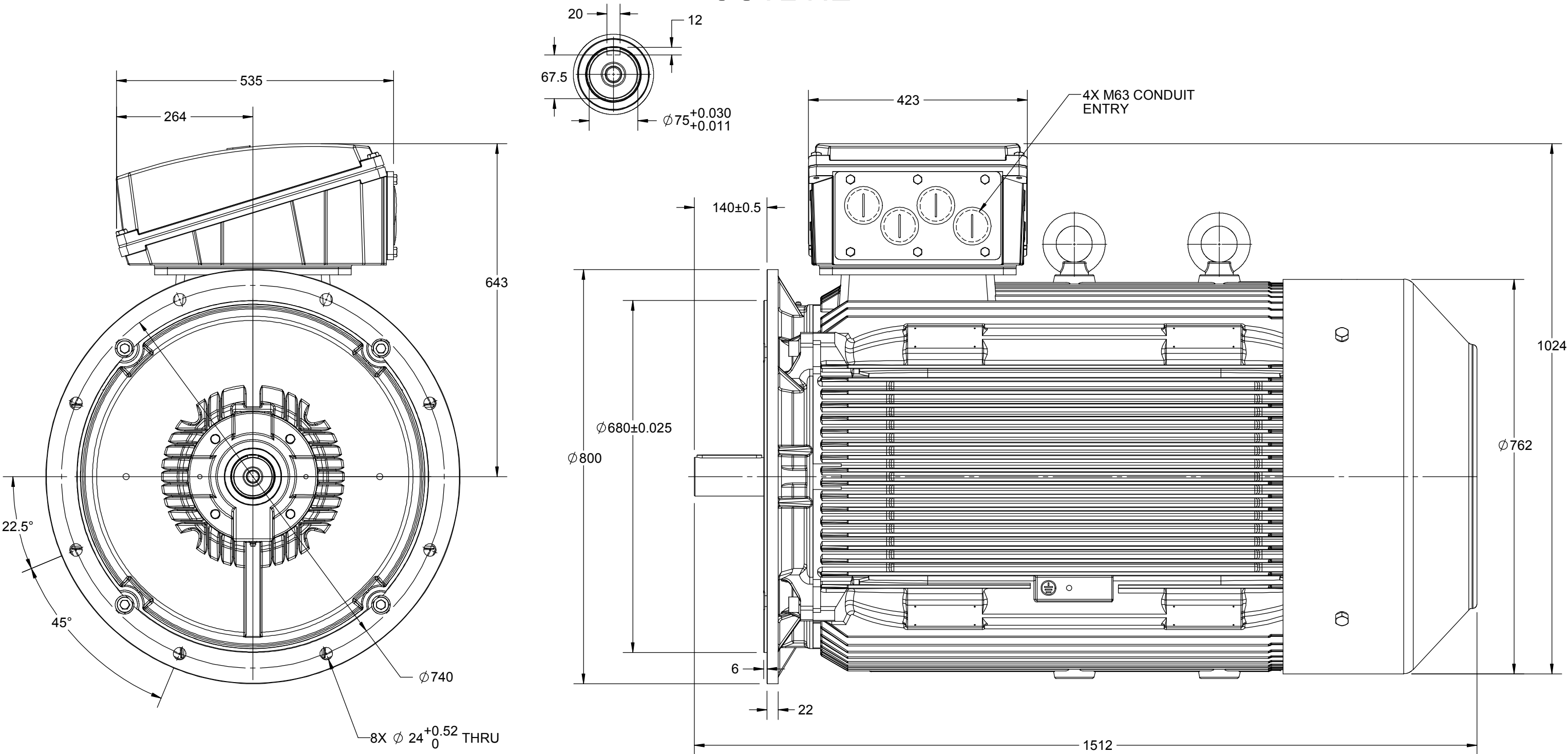
# OUTLINE

B

B

A

A



DRAWING REVISION B	REVISION BY NIV	DATE 09/05/2019		DRAWN BY JOY			
ECO ECO-0165600	APPROVED BY SR	DATE 09/05/2019		DATE 18/07/2014			
ECO DESCRIPTION MODEL UPDATED				APPROVED BY SBD	DESCRIPTION OUTLINE		
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				REFERENCE	MATERIAL	PROCESS/FINISH	
				THIRD ANGLE PROJECTION		SIZE B	DRAWING NUMBER 0235501826

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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>	<b>DESCRIPTION</b> <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>

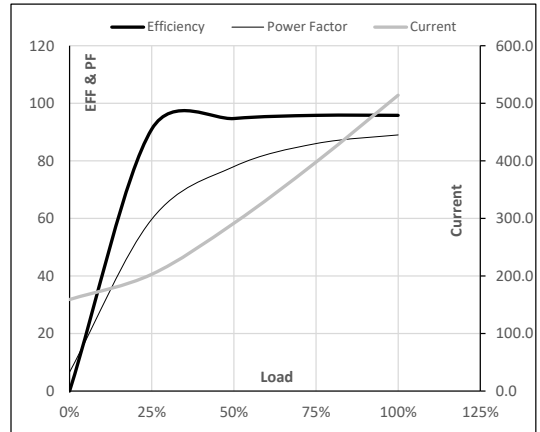
SHEET  
1 OF 1

**Model No.** TCA3151A3121GACD01

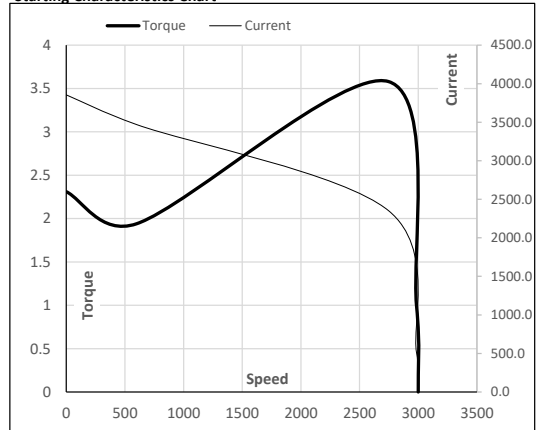
Enclosure	U (V)	Δ / Y Conn	f (Hz)	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m <sup>2</sup> ]	Weight [kg]
TEFC	415	Δ	50	315	425.0	514.0	2985	103.39	1013.95	IE3	50	S1	1000	4.7428	1853

**Motor Load Data**

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	159.0	202.9	291.6	397.7	514.0	
Torque	Nm	0.0	252.5	505.7	759.5	1013.9	
Speed	r/min	3000	2996	2993	2989	2985	
Efficiency	%	0.0	91.0	94.7	95.8	95.8	
Power Factor	%	6.6	59.7	78.0	86.0	89.0	

**Performance vs Load Chart**

**Motor Speed Torque Data**

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2746	2985	3000
Current	A	3855.0	3469.5	2353.1	514.0	159.0
Torque	pu	2.3	1.9	3.6	1	0

**Starting Characteristics Chart**

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

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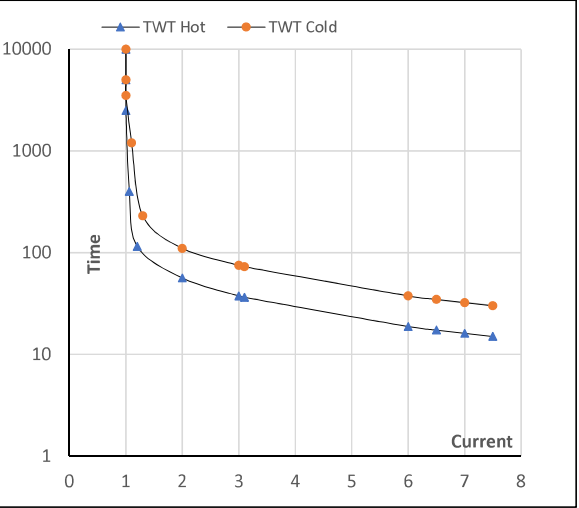
Model No. TCA3151A3121GACD01

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	315	425	514.0	2985	103.32	1013.95	IE3	50	S1	1000	4.7428	1853

Motor Speed Torque Data

Load		FL	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	I <sub>4</sub>	I <sub>5</sub>	LR
TWT Hot	s	10000	56	38	30	25	20	15
TWT Cold	s	10000	110	75	60	45	40	30
Current	pu	1	2	3	4	5	5.5	7.5

Thermal Characteristics Chart



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

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