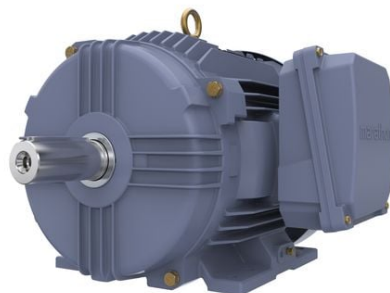


# PRODUCT INFORMATION PACKET

Model No: TCT0151A1113GAA001

Catalog No: TCT0151A1113GAA001

IE3, 15kW, DUST IGNITION PROOF MOTORS, 3 phase, 2 Pole, 400V, 2956RPM, 50Hz, 91.9%, 160M Frame, TEFC



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### Nameplate Specifications

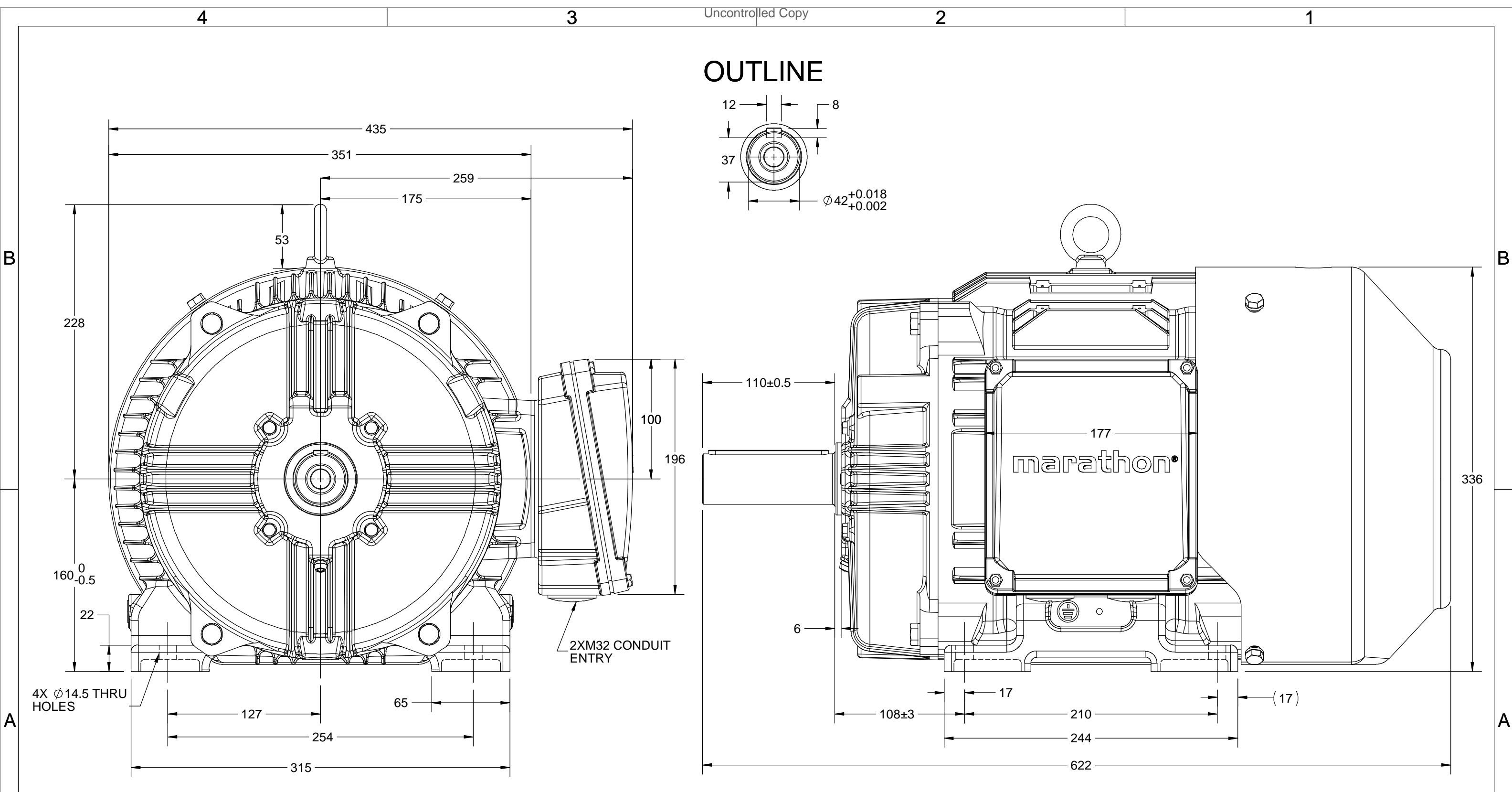
Output HP	<b>20 Hp</b>	Output KW	<b>15.0 kW</b>
Frequency	<b>50 Hz</b>	Voltage	<b>400 V</b>
Current	<b>26.5 A</b>	Speed	<b>2956 rpm</b>
Service Factor	<b>1</b>	Phase	<b>3</b>
Efficiency	<b>91.9 %</b>	Power Factor	<b>0.89</b>
Duty	<b>S1</b>	Insulation Class	<b>F</b>
Frame	<b>160M</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>40 °C</b>
Drive End Bearing Size	<b>6309</b>	Opp Drive End Bearing Size	<b>6209</b>
UL	<b>No</b>	CSA	<b>No</b>
CE	<b>Yes</b>	IP Code	<b>66</b>
Number of Speeds	<b>1</b>	Efficiency Class	<b>IE3</b>

### Technical Specifications

Electrical Type	<b>Squirrel Cage</b>	Starting Method	<b>Direct On Line</b>
Poles	<b>2</b>	Rotation	<b>Bi-Directional</b>
Mounting	<b>B3</b>	Motor Orientation	<b>Horizontal</b>
Drive End Bearing	<b>2z-C3</b>	Opp Drive End Bearing	<b>2z-C3</b>
Frame Material	<b>Cast Iron</b>	Shaft Type	<b>Keyed</b>
Overall Length	<b>622 mm</b>	Frame Length	<b>254 mm</b>
Shaft Diameter	<b>42 mm</b>	Shaft Extension	<b>110 mm</b>
Assembly/Box Mounting	<b>R Side</b>		
Connection Drawing	<b>8442000085</b>	Outline Drawing	<b>0216000810</b>

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# OUTLINE



DRAWING REVISION B	REVISION BY BISWA	DATE 27/07/2018
ECO ECO-0148344	APPROVED BY SBD	DATE 27/07/2018
ECO DESCRIPTION		
DRAWING UPDATED		
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DRAWN BY SN		<b>marathon™</b> Motors
DATE 19/08/2016		
APPROVED BY SBD	DESCRIPTION	
DATE 19/08/2016	<b>OUTLINE</b> 160M FR B3-MTG.TYPE: TCA/QCA-RHS TB	
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0216000810
		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>	DATE <b>16/12/2016</b>		 <b>Regal Beloit America, Inc.</b>	
	APPROVED BY <b>SBD</b>			<b>DESCRIPTION</b> <b>CONN DIAGRAM-NAMEPLATE</b>
	DATE <b>16/12/2016</b>		<b>MATERIAL</b>  <b>PROCESS/FINISH</b>	
	REFERENCE			
	<b>THIRD ANGLE PROJECTION</b> 		<b>SHEET</b> <b>1 OF 1</b>	

**Model No.** TCT0151A1113GAA001

U (V)	Δ / Y Conn	f [Hz]	P		I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load				PF at __ load			I <sub>A</sub> /I <sub>N</sub> [pu]	T <sub>A</sub> /T <sub>N</sub> [pu]	T <sub>K</sub> /T <sub>N</sub> [pu]
			[kW]	[hp]					5/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL			
400	Δ	50	15	20	26.5	2956	48.19	IE3	-	91.9	91.9	90.9	0.89	0.86	0.76	8.4	2.6	3.9

Motor type	TCT	Degree of protection	IP 66
Enclosure	TEFC	Mounting type	IM B3
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	160M	Motor weight - approx.	148 kg
Duty	S1	Gross weight - approx.	168 kg
Voltage variation *	± 10%	Motor inertia	0.0754 kgm <sup>2</sup>
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	2.2 mm/s
Design	N	Noise level ( 1meter distance from motor)	71 dB(A)
Service factor	1.0	No. of starts hot/cold/Equally spread	2/3/4
Insulation class	F	Starting method	DOL
Ambient temperature	-20 to +40 °C	Type of coupling	Direct
Temperature rise (by resistance)	80 [ Class B ] K	LR withstand time (hot/cold)	7/15 s
Altitude above sea level	1000 meter	Direction of rotation	Bi-directional
Hazardous area classification	Ex tb	Standard rotation	Clockwise form DE
Zone classification	Zone 21	Paint shade	RAL 5014
Gas group	Group III	Accessories	
Temperature class	T135	Accessory - 1	PTC 150°C
Rotor type	Aluminum Die cast	Accessory - 2	-
Bearing type	Anti-friction ball	Accessory - 3	-
DE / NDE bearing	6309-2Z / 6209-2Z	Terminal box position	RHS
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 35mm <sup>2</sup> /2 X M32 x 1.5
Type of grease	NA	Auxiliary terminal box	NA

I<sub>A</sub>/I<sub>N</sub> - Locked Rotor Current / Rated Current

T<sub>K</sub>/T<sub>N</sub> - Breakdown Torque / Rated Torque

T<sub>A</sub>/T<sub>N</sub> - Locked Rotor Torque / Rated Torque

**NOTE**

ATEX/IEC Ex certified as per IEC/EN 60079-0; IEC/EN 60079-31

All performance values at rated voltage and frequency.

All performance parameters are subjected to standard tolerance as per IEC 60034-1

\* Voltage, Frequency and combine variation are as per IEC60034-1

Technical data are subject to change. There may be discrepancies between calculated and name plate values.

Efficiency Standards	Europe	China	India	Aus/Nz	Brazil	Global IEC
	-	GB 18613-2012 Grade 2	-	-	-	IEC: 60034-30

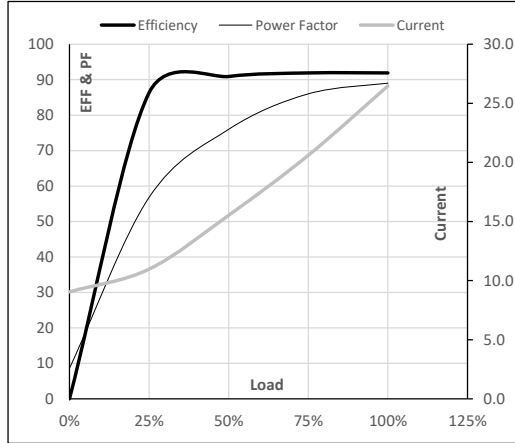
**Model No.** TCT0151A1113GAA001

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	400	Δ	50	15	20.0	26.5	2956	4.91	48.19	IE3	40	S1	1000	0.0754	148

**Motor Load Data**

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	9.1	11.0	15.5	20.6	26.5	
Torque	Nm	0.0	11.9	23.9	36.0	48.2	
Speed	r/min	3000	2989	2979	2968	2956	
Efficiency	%	0.0	86.3	90.9	91.9	91.9	
Power Factor	%	8.6	56.8	76.0	86.0	89.0	

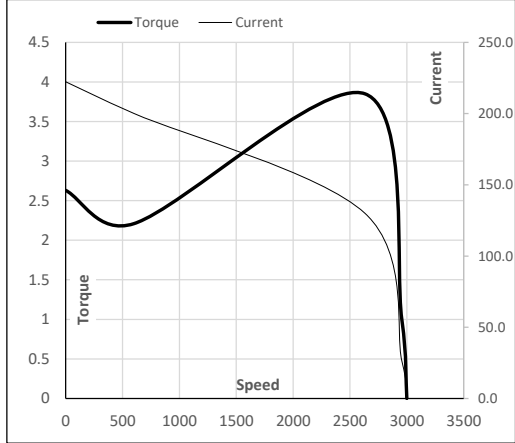
**Performance vs Load Chart**



**Motor Speed Torque Data**

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	600	2632	2956	3000
Current	A	222.4	200.1	130.0	26.5	9.1
Torque	pu	2.6	2.2	3.9	1	0

**Starting Characteristics Chart**



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

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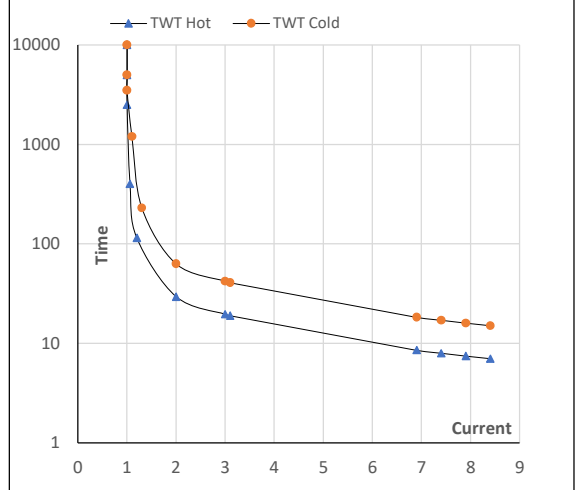
**Model No.** TCT0151A1113GAA001

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	400	Δ	50	15	20	26.5	2956	4.91	48.19	IE3	40	S1	1000	0.0754	148

**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	29	20	17	12	9	7	
TWT Cold	s 10000	63	42	30	25	18	15	
Current	pu	1	2	3	4	5	7	8.4

**Thermal Characteristics Chart**



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

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