## **PRODUCT INFORMATION PACKET**

Model No: SCA0552A3123GAAD01 Catalog No: SCA0552A3123GAAD01 TerraMAX® Cast Iron Motor, 75 HP, 3 Ph, 50 Hz, 415 V, 1500 RPM, 250M Frame, TEFC



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Product Information Packet: Model No: SCA0552A3123GAAD01, Catalog No:SCA0552A3123GAAD01 TerraMAX® Cast Iron Motor, 75 HP, 3 Ph, 50 Hz, 415 V, 1500 RPM, 250M Frame, TEFC

# marathon®

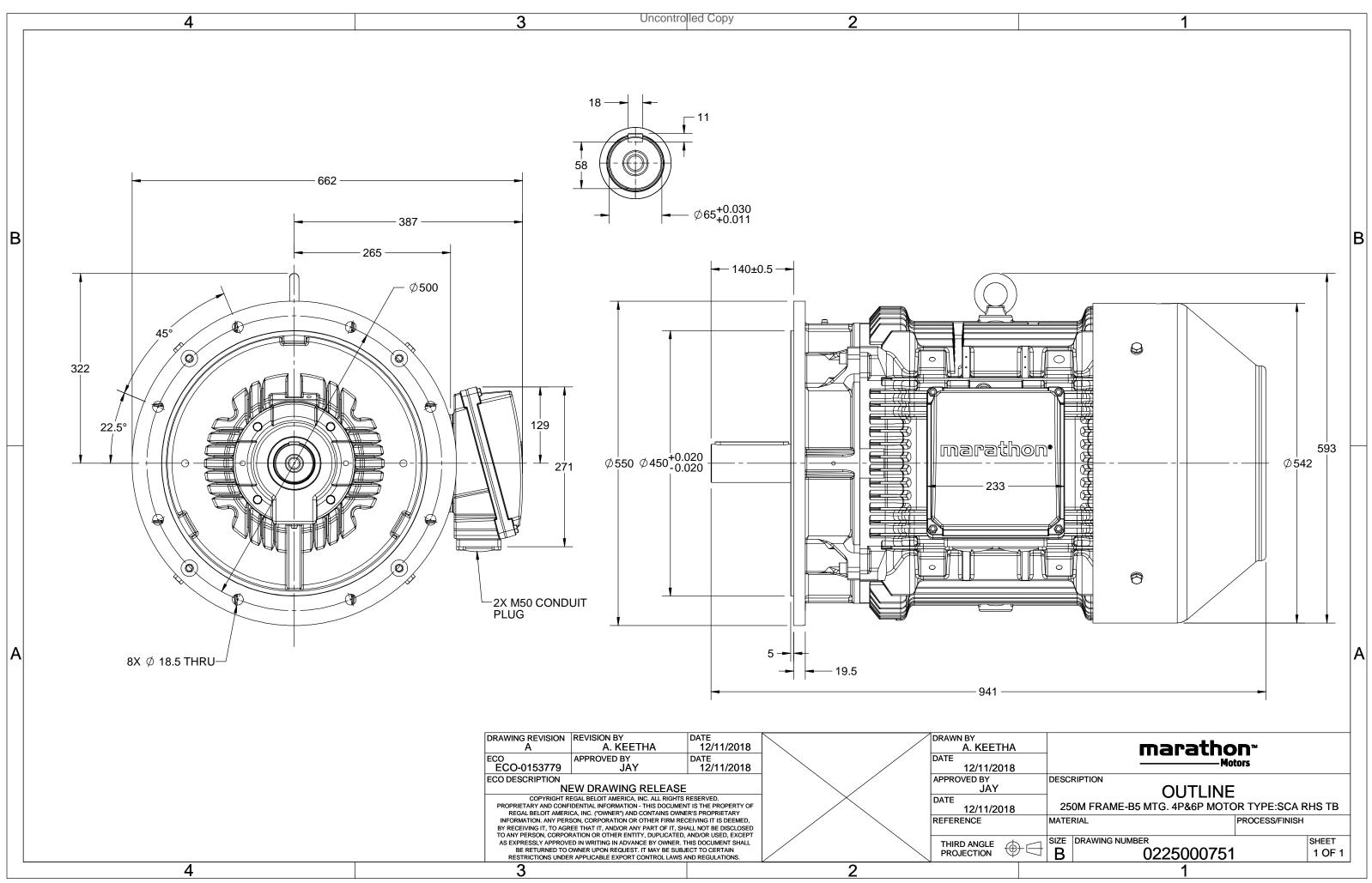
### Nameplate Specifications

Output HP	75 Hp	Output KW	55.0 kW		
Frequency	50 Hz	Voltage	415 V		
Current	94.0 A	Speed	1481 rpm		
Service Factor	1	Phase	3		
Efficiency	93.5 %	Power Factor	0.87		
Duty	S1	Insulation Class	F		
Frame	250M	Enclosure	Totally Enclosed Fan Cooled		
Frame Thermal Protection	250M No Protection	Enclosure Ambient Temperature	Totally Enclosed Fan Cooled 50 °C		
Thermal Protection	No Protection	Ambient Temperature	50 °C		
Thermal Protection Drive End Bearing Size	No Protection 6314	Ambient Temperature Opp Drive End Bearing Size	50 °C 6314		

### **Technical Specifications**

Electrical Type	Squirrel Cage	Starting Method	Direct On Line		
Poles	4	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	941 mm	Frame Length	460 mm		
Shaft Diameter	65 mm	Shaft Extension	140 mm		
Assembly/Box Mounting	SIDE				
Outline Drawing	0225000751	Connection Drawing	8442000085		

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3 of 8







Model No. SCA0552A3123GAAD01

415   Δ   50   55   75   94.0   1481   360.76   IE2   -   93.5   93.5   94.0   0.87   0.84   0.77   5.8   2.2   2.6     Motor type   SCA   Degree of protection   IP 55   IM 85	U $\Delta / Y$ f	PPI nT	IE	% EFF a	t load	PF a	at lo	ad	I <sub>A</sub> /I <sub>N</sub>	T <sub>A</sub> /T <sub>N</sub>	$T_{\rm K}/T_{\rm N}$
Motor typeSCADegree of protectionIP 55EnclosureTEFCMounting typeIM B5Frame MaterialCast IronCooling methodIC 411Frame MaterialCast IronCooling methodIC 411Frame size250MMotor weight - approx.504IDutyS1Gross weight - approx.539IVoltage variation *± 10%Motor inertia0.8148kgrFrequency variation *± 5%Load inertiaCustomer to Provide2.2mmDesignNNoise level (Imeter distance from motor)77dB(Service factor1.0Noise level (Imeter distance from motor)77dB(Insulation classFStarting methodDOL12/25Ambient temperature-20 to +50°CType of couplingDirect1Hazardous area classificationNAPaint shadeRAL 5014AccessoriesZone classificationNAAccessories1-Accessory - 1Accessory - 1-Temperature classNAAccessory - 2-Bearing typeAnti-friction ballAccessory - 3DF / NDE bearingG314 C3 / G314 C3Terminal box positionRHSLubrication methodRegreasableMaximum cable size/conduit size18 x 3C x 95mm²/2 x M50 x 1.5	(V) Conn [Hz] [ <sup>J</sup>	W] [hp] [A] [RPM] [Nm]	Class	5/4FL FL	3/4FL 1/2FL	FL	3/4FL	1/2FL	[pu]	[pu]	[pu]
EnclosureTEFCMounting typeIM B5Frame MaterialCast IronCooling methodIC 411Frame size250MMotor weight - approx.504IDutyS1Gross weight - approx.539IVoltage variation *± 10%Motor inertia0.8148kgrFrequency variation *± 5%Load inertiaCustomer to ProvideCombined variation *10%Vibration level2.2mmDesignNNo. of starts hot/cold/Equally spread2/3/4mmInsulation classFStarting methodDOLType of couplingDirectAmbient temperature-20 to +50°CType of couplingDirectType of couplingDirectTemperature rise (by resistance)70 [Class B ]KLR withstand time (hot/cold)12/25Tope of couplingDirectAttitude above sea level1000meterDirect of rotationBi-directionalTope of couplingDirectTope of couplingTope of coupling </td <td>415 Δ 50</td> <td>55 75 94.0 1481 360.7</td> <td>6 IE2</td> <td>- 93.5</td> <td>93.5 94.0</td> <td>0.87</td> <td>0.84</td> <td>0.77</td> <td>5.8</td> <td>2.2</td> <td>2.6</td>	415 Δ 50	55 75 94.0 1481 360.7	6 IE2	- 93.5	93.5 94.0	0.87	0.84	0.77	5.8	2.2	2.6
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Frequency variation *± 5%Load inertiaCustomer to ProvideCombined variation *10%Vibration level2.2mmDesignNNoise level (1meter distance from motor)77dB(Service factor1.0No. of starts hot/cold/Equally spread2/3/4dB(Insulation classFStarting methodDOLdB(Ambient temperature-20 to +50°CType of couplingDirectdB(Temperature sis (by resistance)70 [Class B ]KLR withstand time (hot/cold)12/25dB(Altitude above sea level1000meterDirection of rotationBi-directionaldB(Zone classificationNAPaint shadeRAL 5014dEGas groupNAAccessoriesAccessory - 1-Accessory - 2-Temperature classNAAccessory - 3-Terminal box positionRHSTerminal box positionRHSLubrication methodRegreasableMaximum cable size/conduit size1R x 3C x 95mm²/2 x M50 x 1.5Terminal box positionIR x 3C x 95mm²/2 x M50 x 1.5	Duty	S1		Gross weig	ght - approx.			539			kg
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Lubrication method Regreasable   Maximum cable size/conduit size 1R x 3C x 95mm²/2 x M50 x 1.5	Bearing type	Anti-friction ball			cessory - 3			-			
	DE / NDE bearing	6314 C3 / 6314 C3		Terminal b	oox position						
Type of greaseShell Gadus S5 V100 or EquivalentAuxiliary terminal boxAvailable on Request	Lubrication method	Regreasable		Maximum	cable size/cond						
	Type of grease	Shell Gadus S5 V100 or Equivalent		Auxiliary to	erminal box			Availa	able on Reques	t	

 $I_{\text{A}}/I_{\text{N}}$  - Locked Rotor Current / Rated Current

 $T_A/T_N$  - Locked Rotor Torque / Rated Torque

 $T_{\rm K}/T_{\rm N}$  - Breakdown Torque / Rated Torque

#### NOTE

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	Europe	China	India	Aus/Nz	Brazil	Global IEC					
Standards	-	-	IS 12615 : 2018	-	-	-					

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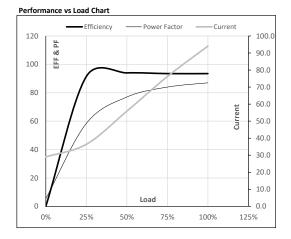
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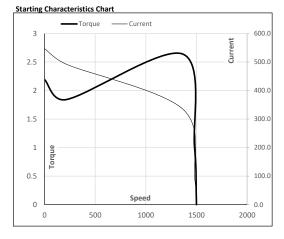
#### Model No. SCA0552A3123GAAD01

Enclosure	U	$\Delta / Y$	f	Р	Р	I	n	Т	Т	IE	Amb	Duty	Elevation	Inertia	Weight
	(V)	Conn	[Hz]	[kW]	[hp]	[A]	[RPM]	[kgm]	[Nm]	Class	[°C]		[m]	[kg-m <sup>2</sup> ]	[kg]
TEFC	415	Δ	50	55	75	94.0	1481	36.79	360.76	IE2	50	S1	1000	0.8148	504

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	А	29.0	36.4	55.9	76.2	94.0	
Torque	Nm	0.0	89.3	179.1	269.6	360.8	
Speed	r/min	1500	1495	1491	1486	1481	
Efficiency	%	0.0	91.5	94.0	93.5	93.5	
Power Factor	%	5.4	58.4	77.0	84.0	87.0	



Motor Speed Torque Data												
Load Point		LR	P-Up	BD	Rated	NL						
Speed	r/min	0	214	1363	1481	1500						
Current	А	547.2	492.4	335.9	94.0	29.0						
Torque	pu	2.2	1.8	2.6	1	0						



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

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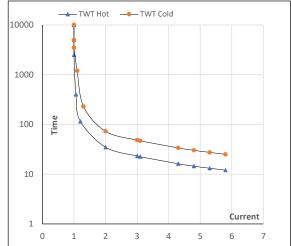
#### Model No. SCA0552A3123GAAD01

Enclosure	U	Δ/Υ	f	Р	Р	I	n	т	Т	IE	Amb	Duty	Elevation	Inertia	Weight
	(V)	Conn	[Hz]	[kW]	[hp]	[A]	[rpm]	[kgm]	[Nm]	Class	[°C]		[m]	[kg-m <sup>2</sup> ]	[kg]
TEFC	415	Δ	50	55	75	94.0	1481	36.79	360.76	IE2	50	S1	1000	0.8148	504

#### Motor Speed Torque Data

Load		FL	$I_1$	I <sub>2</sub>	I <sub>3</sub>	$I_4$	I <sub>5</sub>	LR
TWT Hot	S	10000	35	23	20	14	13	12
TWT Cold	S	10000	73	48	40	28	26	25
Current	pu	1	2	3	4	5	5.5	5.8

#### Thermal Characteristics Chart



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

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### **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 : SCA0552A3123GAAD01

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

Catalog No : SCA0552A3123GAAD01

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

Michael A. Logsdon Vice President, Technology

Created on 09/01/2022

(€ 22

Authorized Representative in the Community:

Julian Clark Marketing Engineer