## **PRODUCT INFORMATION PACKET**

Model No: TCA7P52A3171GACD01 Catalog No: TCA7P52A3171GACD01 Cast Iron Motor, 10 HP, 3 Ph, 50 Hz, 415 V, 1500 RPM, 132M Frame, TEFC



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Product Information Packet: Model No: TCA7P52A3171GACD01, Catalog No:TCA7P52A3171GACD01 Cast Iron Motor, 10 HP, 3 Ph, 50 Hz, 415 V, 1500 RPM, 132M Frame, TEFC

# marathon®

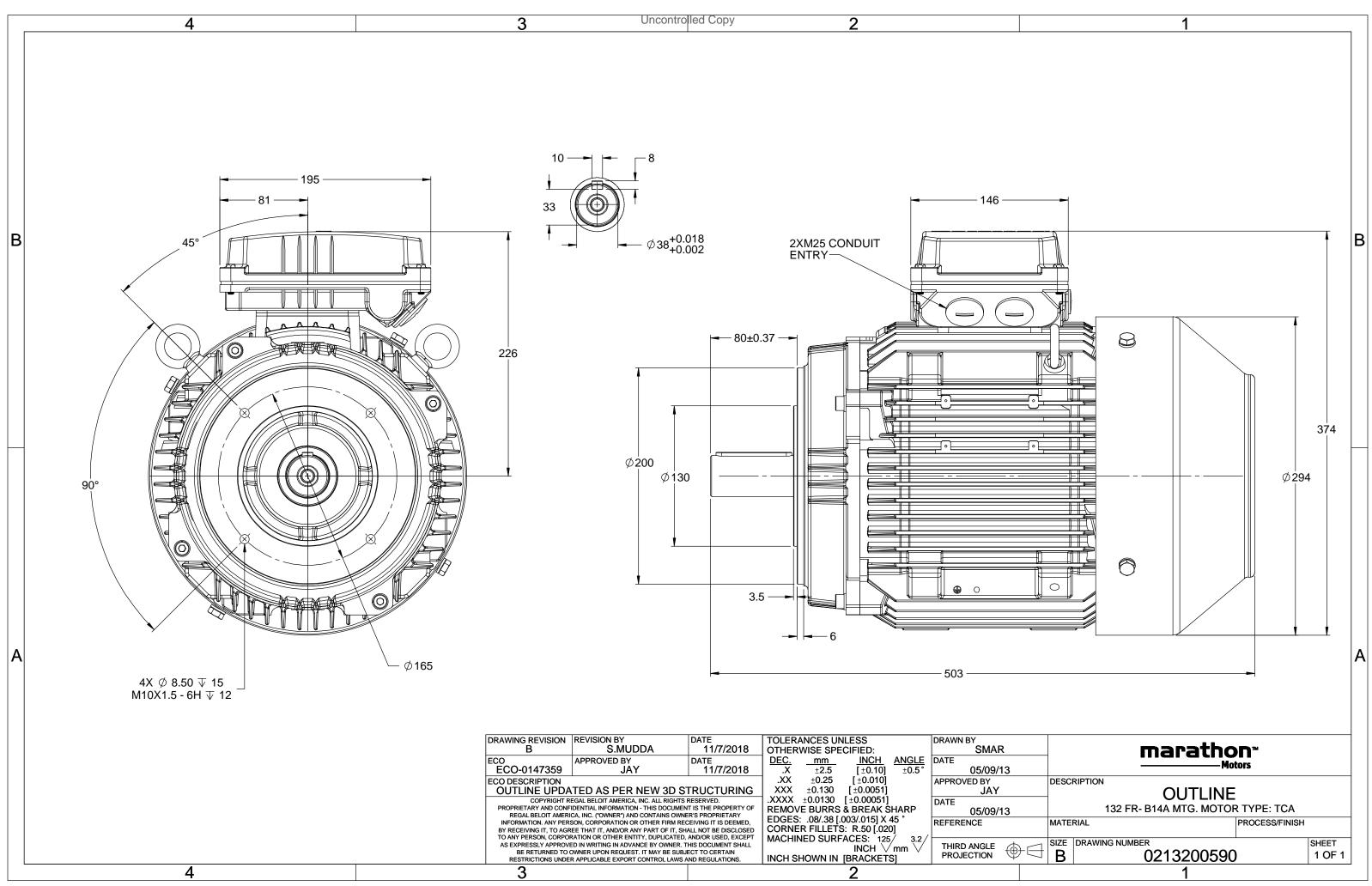
### Nameplate Specifications

Output HP	10 Hp	Output KW	7.5 kW
Frequency	50 Hz	Voltage	415 V
Current	13.7 A	Speed	1469 rpm
Service Factor	1	Phase	3
Efficiency	90.4 %	Power Factor	0.84
Duty	S1	Insulation Class	F
Frame	132M	Enclosure	Totally Enclosed Fan Cooled
1 Idinio			
Thermal Protection	No Protection	Ambient Temperature	50 °C
Thermal Protection	No Protection	Ambient Temperature	50 °C
Thermal Protection Drive End Bearing Size	No Protection 6308	Ambient Temperature Opp Drive End Bearing Size	50 °C 6208

### **Technical Specifications**

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	4	Rotation	Bi-Directional
Mounting	B14A	Motor Orientation	Horizontal
Drive End Bearing	2z-C3	Opp Drive End Bearing	2z-C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	503 mm	Frame Length	240 mm
Shaft Diameter	38 mm	Shaft Extension	80 mm
Assembly/Box Mounting	Тор		
Outline Drawing	0213200590	Connection Drawing	8442000085

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### Model No. TCA7P52A3171GACD01

(V)   Conn   [Hz]   [kW]   [hp]   [A]   [RPM]   [Nm]   Class   5/4FL   FL   3/4FL   1/2FL   FL   3/4FL   1/2FL   [pu]								-										<b>T</b> /T	<b>T</b> / <b>T</b>
11   11 <td< td=""><td></td><td></td><td>f</td><td>Р</td><td>Р</td><td>1</td><td>n</td><td>Т</td><td>IE</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>I<sub>A</sub>/I<sub>N</sub></td><td></td><td></td></td<>			f	Р	Р	1	n	Т	IE								I <sub>A</sub> /I <sub>N</sub>		
Ador type   TCA   Degree of protection   IP 55     nclosure   TEFC   Mounting type   IM B14A     rame Material   Cast Iron   Cooling method   IC 411     rame size   132M   Motor weight - approx.   94   IM     vuty   S1   Gross weight - approx.   97   IM     obtage variation *   ± 10%   Motor inertia   0.0550   kgn     requency variation *   ± 10%   Motor inertia   0.0550   kgn     issulation ats   f   Motor veight - approx.   97   IM     issulation dass   f   Motor inertia   0.0550   kgn     issulation class   f   No. of starts hot/cold/Equally spread   2/3/4   Starting method   DOL     itutude above sea level   1000   meter   Direct or of rotation   Bi-directional     zone classification   NA   Standard rotation   Clockwise form DE   Paint shade   RAL 5014     Gas group   NA   Accessory - 1   -   Accessory - 2   -   Accessory - 3   -   Terminal bas 2x/ form <sup>3</sup> /2 x M25 x 1.5     ubrication method<			• •	· · ·				<u> </u>		5/4FL									[pu]
Note typeTEFCNeglection floctionNrame MaterialCast IronIC 411rame size132MMotor weight - approx.94MvutyS1Gross weight - approx.97Mrequency variation *± 10%Motor inertia0.0550kgnrequency variation *10%Load inertiaCustomer to Provideombined variation *1.0Noise level (1 meter distance from motor)61dB(sudation classFNo. of starts hot/cold/Equally spread2/3/4dB(sudation classFStarting methodDOLType of couplingDirectlazardous area classificationNAEvident of rotationBi-directionaldB(Zone classificationNAClockwise form DEDirectDirectacardous area classificationNAAccessoriesAccessory - 1-Temperature classNAAccessory - 2Accessory - 2-Accessory - 2Accessory - 3-Terminal box positionTOPMaximum cable size/conduit size1R x 3C x 16mm²/2 x M25 x 1.5	415	Δ	50	7.5	10	13.7	1469	48.50	IE3	-	90.4	90.4	90.4	0.84	0.78	0.66	7.3	2.7	3.0
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ype of grease NA Auxiliary terminal box NA	Lubricatio	on met	thod		0	Greased fo	or life			Ν	/laximum	cable si	ze/cond	luit size	1R	x 3C x 1	L6mm²/2 x M2	25 x 1.5	
	Type of gr	rease				NA				А	uxiliary t	erminal	box				NA		

 $\rm I_A/\rm I_N$  - Locked Rotor Current / Rated Current

 $T_{\text{A}}/T_{\text{N}}$  - Locked Rotor 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	-	-	-



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

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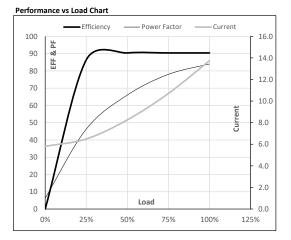


Model No. TCA7P52A3171GACD01

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	7.5	10.0	13.7	1469	4.95	48.50	IE3	50	S1	1000	0.055	94

#### Motor Load Data

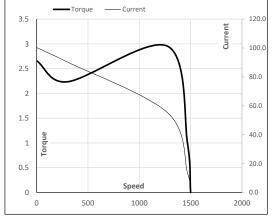
Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	Α	5.8	6.5	8.3	10.7	13.7	
Torque	Nm	0.0	11.9	24.0	36.2	48.5	
Speed	r/min	1500	1493	1485	1478	1469	
Efficiency	%	0.0	86.4	90.4	90.4	90.4	
Power Factor	%	6.3	46.3	66.0	78.0	84.0	



#### Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL	
Speed	r/min	0	300	1277	1469	1500	
Current	А	100.3	90.3	55.1	13.7	5.8	
Torque	pu	2.7	2.2	3.0	1	0	

Starting Characteristics Chart



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

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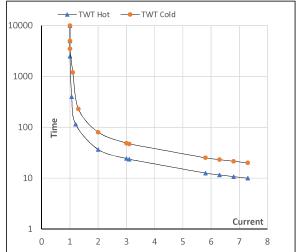
Model No. TCA7P52A3171GACD01

Enclosure	U	$\Delta / Y$	f	Р	Р	1	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	7.5	10	13.7	1469	4.94	48.50	IE3	50	S1	1000	0.0550	94

### Motor Speed Torque Data

Load		FL	$I_1$	$I_2$	$I_3$	$I_4$	I <sub>5</sub>	LR
TWT Hot	s	10000	37	24	20	16	14	10
TWT Cold	s	10000	80	49	40	30	27	20
Current	pu	1	2	3	4	5	5.5	7.3

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 : TCA7P52A3171GACD01

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

Catalog No : TCA7P52A3171GACD01

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