

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: SCA1P53A3171GAAD01

Catalog No: SCA1P53A3171GAAD01

1.5kW, General Purpose Low Voltage IEC Motor, 3 phase, 6 Pole, 415V, B14A, 50Hz, 79.8%, 100L Frame, TEFC
Cast Iron IE2 Efficiency Motors



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REGAL

Nameplate Specifications

Output HP	2 Hp	Output KW	1.5 kW
Frequency	50 Hz	Voltage	415 V
Current	4.0 A	Speed	943 rpm
Service Factor	1	Phase	3
Efficiency	79.8 %	Power Factor	0.65
Duty	S1	Insulation Class	F
Frame	100L	Enclosure	Totally Enclosed Fan Cooled
Ambient Temperature	50 °C	Drive End Bearing Size	6206
Opp Drive End Bearing Size	6206	UL	No
CSA	No	CE	Yes
IP Code	55		

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	6	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	438 mm	Frame Length	240 mm
Shaft Diameter	28 mm	Shaft Extension	60 mm
Assembly/Box Mounting	TOP		
Connection Drawing	8442000085	Outline Drawing	0210000511

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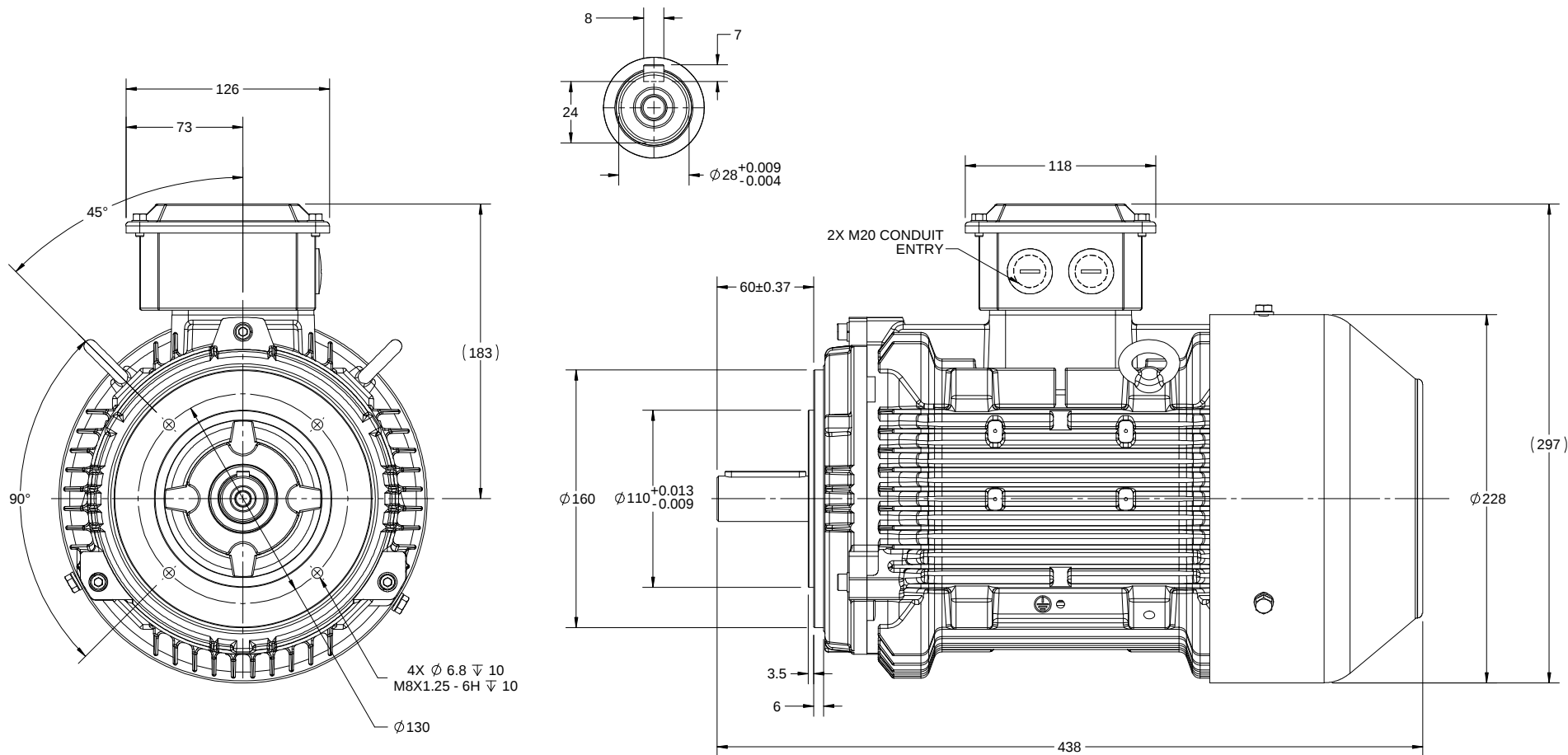
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A

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DRAWING REVISION A	REVISION BY A. KEETHA	DATE 11/10/2018
ECO ECO-0153779	APPROVED BY JAY	DATE 11/10/2018
ECO DESCRIPTION NEW DRAWING RELEASE		
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DRAWN BY A. KEETHA		
DATE 11/10/2018		
APPROVED BY JAY	DESCRIPTION OUTLINE 100L FRAME B14A MTG. MOTOR TYPE:SCA	
DATE 11/10/2018		
REFERENCE	MATERIAL	PROCESS/FINISH
THIRD ANGLE PROJECTION	SIZE B	DRAWING NUMBER 0210000511
		SHEET 1 OF 1

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

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.

				DRAWN BY		SN			
				DATE		16/12/2016			
				APPROVED BY		SBD			
				DATE		16/12/2016			
				REFERENCE					
THIRD ANGLE PROJECTION				SIZE	DRAWING NUMBER		SHEET		
				A	8442000085		1 OF 1		
				MATERIAL		PROCESS/FINISH			
				DESCRIPTION					
				CONN DIAGRAM-NAMEPLATE					

8WD.442.2017

Regal Beloit America, Inc.

CONN DIAGRAM-NAMEPLATE

Model No. SCA1P53A3171GAAD01

U [V]	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load				PF at __ load			I _A /I _N [pu]	T _A /T _N [pu]	T _L /T _N [pu]
415	Y	50	1.5	2.0	4.0	943	15.10	IE2	S/4FL	FL	3/4FL	1/2FL	FL	3/4FL	1/2FL	4.6	3.2	3.2

Motor type	SCA	Degree of protection	IP 55
Enclosure	TEFC	Mounting type	IM B14A
Frame Material	Cast Iron	Cooling method	IC 411
Frame size	100L	Motor weight - approx.	41 kg
Duty	S1	Gross weight - approx.	44 kg
Voltage variation *	± 10%	Motor inertia	0.0060 kgm ²
Frequency variation *	± 5%	Load inertia	Customer to Provide
Combined variation *	10%	Vibration level	1.6 mm/s
Design	N	Noise level (1meter distance from motor)	56 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 +50 °C	Type of coupling	Direct
Temperature rise (by resistance)	70 [Class B] K	LR withstand time (hot/cold)	15/30 s
Altitude above sea level	1000 meter	Direction of rotation	Bi-directional
Hazardous area classification	NA	Standard rotation	Clockwise form DE
Zone classification	NA	Paint shade	RAL 5014
Gas group	NA	Accessories	
Temperature class	NA	Accessory - 1	-
Rotor type	Aluminum Die cast	Accessory - 2	-
Bearing type	Anti-friction ball	Accessory - 3	-
DE / NDE bearing	6206-2Z / 6206-2Z	Terminal box position	TOP
Lubrication method	Greased for life	Maximum cable size/conduit size	1R x 3C x 10mm ² /2 x M20 x 1.5
Type of grease	NA	Auxiliary terminal box	NA

I_A/I_N - Locked Rotor Current / Rated CurrentT_k/T_N - Breakdown Torque / Rated TorqueT_A/T_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	-	-	-



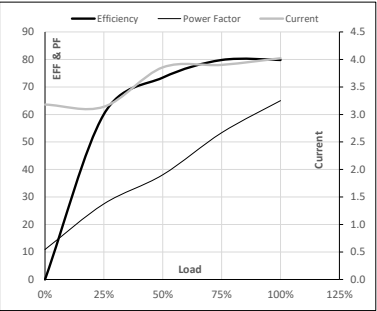
Model No. SCA1P53A3171GAAD01

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 ²]	Weight [kg]
TEFC	415	Y	50	1.5	2.0	4.0	943	1.54	15.10	IE2	50	S1	1000	0.0060	41

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	3.2	3.1	3.9	3.9	4.0	
Torque	Nm	0.0	3.6	7.3	11.1	15.1	
Speed	r/min	1000	986	973	959	943	
Efficiency	%	0.0	60.1	73.4	79.8	79.8	
Power Factor	%	10.9	27.5	38.1	53.4	65.0	

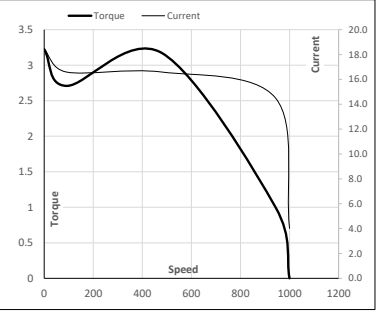
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	91	480	943	1000
Current	A	18.4	16.6	14.5	4.0	3.2
Torque	pu	3.2	2.7	3.2	1	0

Starting Characteristics Chart



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

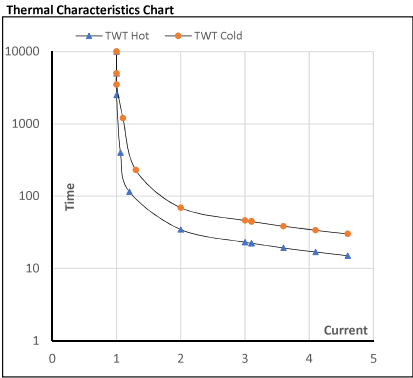
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Model No. SCA1P53A3171GAAD01

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·m²]	Weight [kg]
TEFC	415	Y	50	1.5	2.0	4.0	943	1.54	15.10	IE2	50	S1	1000	0.0060	41

Motor Speed Torque Data								
Load	FL	I ₁	I ₂	I ₃	I ₄	I ₅	LR	
TWT Hot	s 10000	35	23	20	18	16	15	
TWT Cold	s 10000	69	46	40	35	32	30	
Current	pu	1	2	3	3.5	4	4.5	4.6



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

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