

SVTM E Series

ATEX Brushless Motors

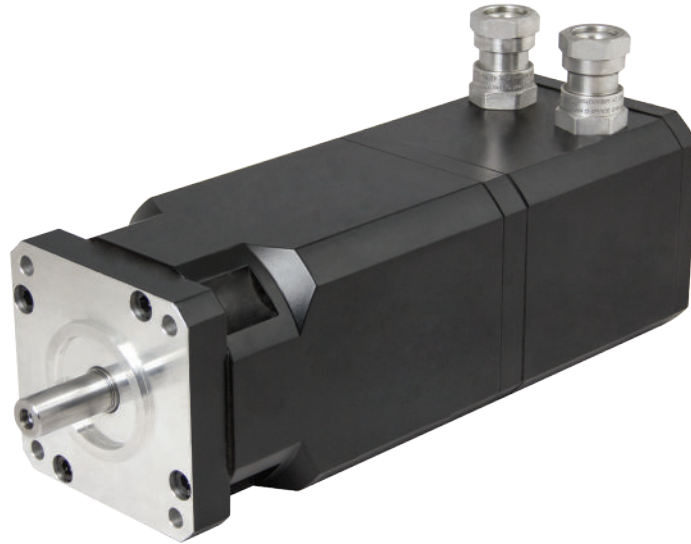
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SVTM E Series

ATEX Brushless Motors



EXPLOSION PROOF



LOW VOLTAGE



STURDY

Our SVTM E Series Brushless Motors are characterised by an IC 400 type construction, thereby featuring a totally enclosed motor that does not require any type of additional ventilation.

To ensure higher service life, most of the insulating materials are rated in the 200-degree class. In addition, the stator pack design with winding in the groove and using Neodymium magnets ensures high performance with small dimensions generating, as a result, a sinusoidal electromotive force. For enhanced application safety, a temperature sensor is mounted for each winding so as to prevent damage from overheating, thereby increasing motor service life.

Motors are tested in accordance with EN 60034-18-41 relating to partial discharge between windings. To increase the application range, the insulating materials used are UL certified. This motor complies with: ATEX Directive 94/9/EG, EN60079-0, EN60079-1.

Benefits

ATEX II 2G Ex d IIB T4 Gb	Many feedback available
High efficiency	Cable gland
Low voltage	

Certifications

CE
RoHS 2011/65/EUv

Product code

SVTM E ◻ - ◻ - △ - ◻ - ◻ - ☆☆☆

E Series

◻ Feedback
resolver [R]; incremental encoder [E]; absolute encoder [A]◻ Frame
01 [88]◻ Brake
no [0]; yes [1]

◻ Stall torque

☆ Customizations

△ BEMF

Features

Sealing	IP54
Winding	3 phase sinusoidal
Operating temperature	-20° +40° C
Tested	EN 60034-18-41
Insulation class	F, 155° C
Thermal protection	PTC
Construction	IC 400
Connection	cable gland
Magnets	Neodymium
Insulators	UL
Construction technology:	high density fractional-slot concentrated-windings
Standard feedback	resolver
Directives	ATEX Directive 94/9/EG, EN60079-0, EN60079-1

Feedback

Resolver (Standard)	Absolute feedback (on request)
Incremental encoder with hall (standard)	Other on request

Customizations

Shaft with key	Other voltage winding
Specific resolver phasing	

EN 60034-18-41

Partial discharge free electrical insulation systems (type 1) used in rotating electrical machines fed from voltage converters - qualification and quality control test.

SVTM E

Values	Unit	SVTM E			
		02-01.4-12-x-x-000	02-01.6-32-x-x-000	02-02.6-20-x-x-000	02-02.6-56-x-x-000
Size	□ mm	88	88	88	88
Motor lenght	mm	185	185	210	210
Motor lenght with brake	mm	233	233	258	258
Nominal voltage	VDC	60	325/560	60	325/560
Continous stall torque	Nm	1,4	1,6	2,6	2,6
Continous stall current	Arms	7,5	3,2	8,4	3
Nominal torque	Nm	1,3	1,26/1,2	2,6	2,10/1,69
Nominal current	Arms	7,65	2,52/2,4	8,25	2,39/1,92
Nominal speed	rpm	4900	5500/6600	2900	3200/5900
Peak torque	Nm	2,7	3,5	4,5	7,2
Peak current	Arms	14,1	7,1	14,1	8,5
Torque constant	Nm/Arms	0,17	0,5	0,315	0,88
BEMF constant (1)(2)	Vrms/krpm	12,5	32,7	20,5	56,5
Resistance (1)(2)	Ohm	0,85	5,5	0,85	5,8
Inductance (1)	mH	2,05	14,1	2,25	17,2
Rotor inertia	kg/cm ²	1,06	1,06	1,7	1,7
Max. axial load	N	130	130	130	130
Max. radial load	N	250	250	250	250
Mass		4,2	4,2	5,2	5,2
Feedback	Resolver, encoder inc 2048 + hall, absolute single-turn hiperface (SEK 37), absolute multi-turn hiperface (SEL 37)				

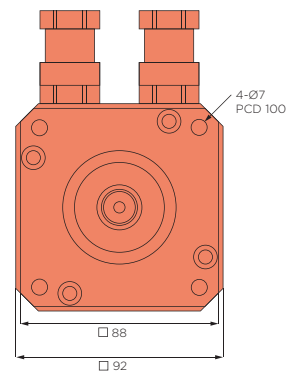
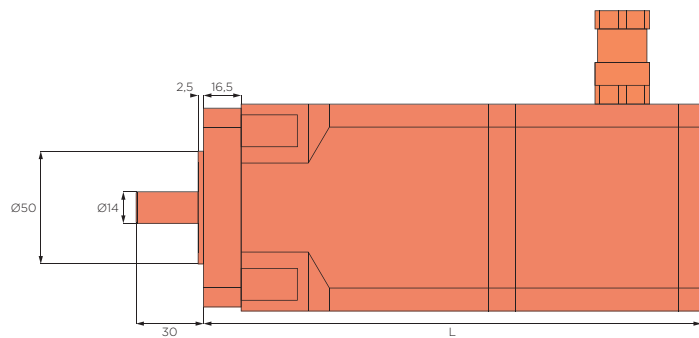
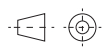
Values	Unit	SVTM E		
		02-03.4-30-x-x-000	02-03.6-63-x-x-000	02-04.2-76-x-x-000
Size	□ mm	88	88	88
Motor lenght	mm	235	235	250
Motor lenght with brake	mm	283	283	298
Nominal voltage	VDC	60	325/560	325/560
Continous stall torque	Nm	3,4	3,6	4,2
Continous stall current	Arms	7,1	3,7	3,6
Nominal torque	Nm	3,4	2,72/1,99	3,40/2,73
Nominal current	Arms	7,08	2,80/2,05	2,91/2,33
Nominal speed	rpm	3400	2900/5400	2400/4400
Peak torque	Nm	6,9	10,6	12,8
Peak current	Arms	14,1	11,5	11,5
Torque constant	Nm/Arms	0,48	0,97	1,17
BEMF constant (1)(2)	Vrms/krpm	30,5	63	76,4
Resistance (1)(2)	Ohm	1,15	4	4,65
Inductance (1)	mH	3,2	13,35	15,5
Rotor inertia	kg/cm ²	2,32	2,32	2,7
Max. axial load	N	6,2	6,2	6,8
Max. radial load	N	130	130	130
Mass		250	250	250
Feedback	Resolver, encoder inc 2048 + hall, absolute single-turn hiperface (SEK 37), absolute multi-turn hiperface (SEL 37)			

(1) Line-line

(2) At 20° C

(3) With no condensation

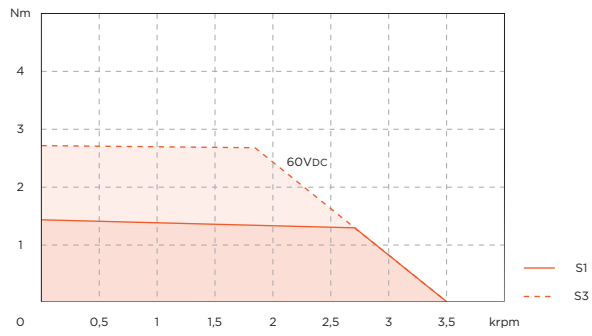
All dimensions in millimeters, unless otherwise specified



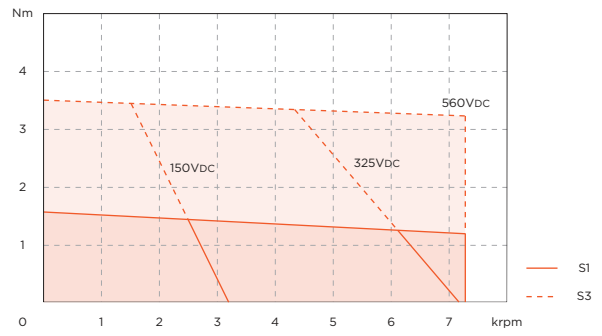
For torque curves see next page.

Notes

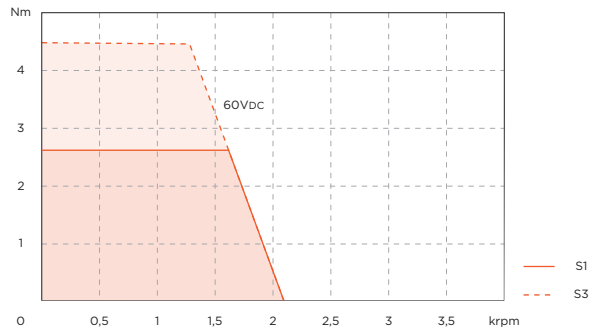
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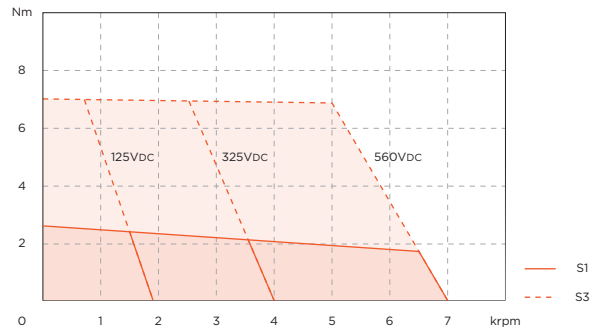
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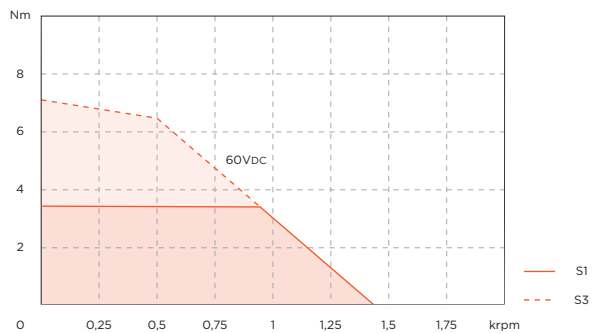
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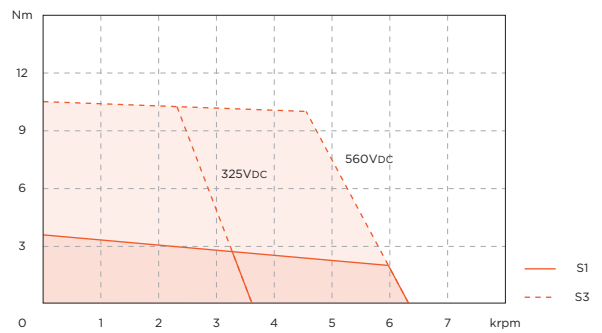
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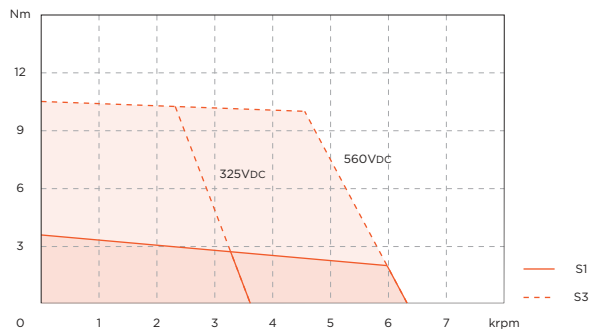
SVTM E 01-03.4-30



SVTM E 01-03.6-63



SVTM E 01-04.2-76



Note:

Rated values are calculated at 20°C ambient temperature with an heat sink size of 300x300x20 mm.