

# SC2A1

## 230 VAC two-speed transformer controller with TK and start / stop



The SC2A1 series of transformer fan speed controllers regulate the rotational speed of single-phase voltage controllable motors by varying the output voltage. They are equipped with an autotransformer and control the speed manually in five steps. They feature TK monitoring for thermal motor protection. The controller makes it possible to select two optimal motor speeds and to switch these by a contact (e.g. day / night control). In this way important energy savings can be realised. The controllers up to 7,5 A are available in plastic enclosure, while the models above 7,5 A are available in a metal enclosure.

### Key features

- Wide power range: 1,5 A–13,0 A
- Each speed is adjustable by a 5-step rotary switch (knob) for manual control plus off-position
- TK monitoring for thermal motor protection
- Auto reset after power failure
- Two start / stop contacts for remote ON / OFF switching
- Alarm output
- LED status indication
- Two speeds selectable by external contact (e.g. clock)

### Technical specifications

Supply voltage	230 VAC / 50–60 Hz	
Maximum load	From 1,5 to 13 A (depends on the version)	
Unregulated output	230 VAC	
Enclosure	plastic (R-ABS, UL94-V0, grey RAL 7035) or sheet steel (RAL 7035, polyester powder coating), depending on the product version	
Protection standard	IP54 (according to EN 60529)	
Ambient conditions	Temperature	-20–35 °C
	Rel. humidity	5–95 % rH (non-condensing)

### Article codes

Article code	Rated max. current, [A]	Fuse rating
SC2A1-15L25	1,5	(5*20 mm) T-2,5 A-H
SC2A1-25L25	2,5	(5*20 mm) T-4,0 A-H
SC2A1-35L25	3,5	(5*20 mm) T-5,0 A-H
SC2A1-50L25	5,0	(5*20 mm) T-8,0 A-H
SC2A1-75L25	7,5	(5*20 mm) T-12,5 A-H
SC2A1100L25	10,0	(6*32 mm) T-16,0 A-H
SC2A1130L25	13,0	(6*32 mm) T-20,0 A-H

### Voltage

Knob position	0	-	1	2	3	4	5
<b>Regulated output [VAC]</b>							
<b>Speed 1 - High (left knob)</b>	0	-	120	150	170	190	230
<b>Speed 2 - Low (right knob)</b>	0	-	80	100	120	150	170
<b>Unregulated output [VAC]</b>							
<b>L1</b>	230	230	230	230	230	230	230

### Standards

- Low Voltage Directive 2014/35/EC
- EMC Directive 2014/30/EC: EN 61326
- RoHS Directive 2011/65/EC



### Area of use

- Speed control of voltage controllable motors (pumps and fans)
- For indoor use only

### Wiring and connections

Pe	Earth terminals
L	Power supply 230 VAC / 50–60 Hz
N	
L1	
L1	Unregulated output (active while motor is enabled), phase 230 VAC / 50-60 Hz / 2 A)
N	Motor connection
M	
CL	
CL	Input - normally closed contact for external clock (for high / low switching)
TK	Input - TK monitoring for thermal motor protection
TK	
CC	Input - normally closed contact for remote ON / OFF
CC	
OC	Input - normally open contact for remote ON / OFF
OC	
N	Alarm output (230 VAC / 1 A)
AL	

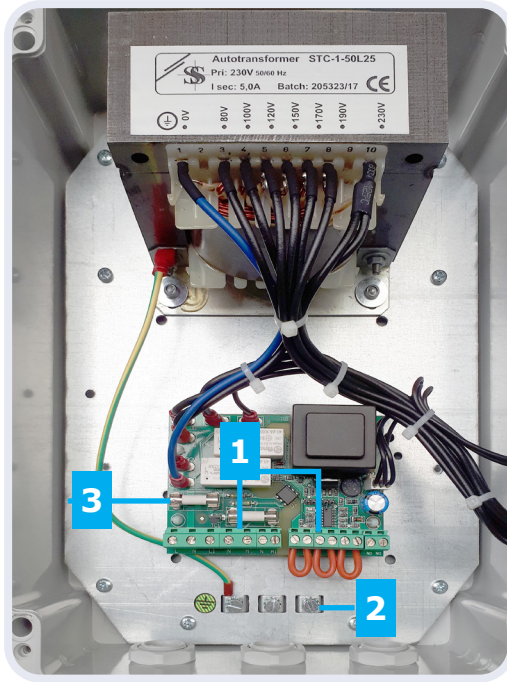
## SC2A1

230 VAC two-speed transformer controller with TK and start / stop



### Legend

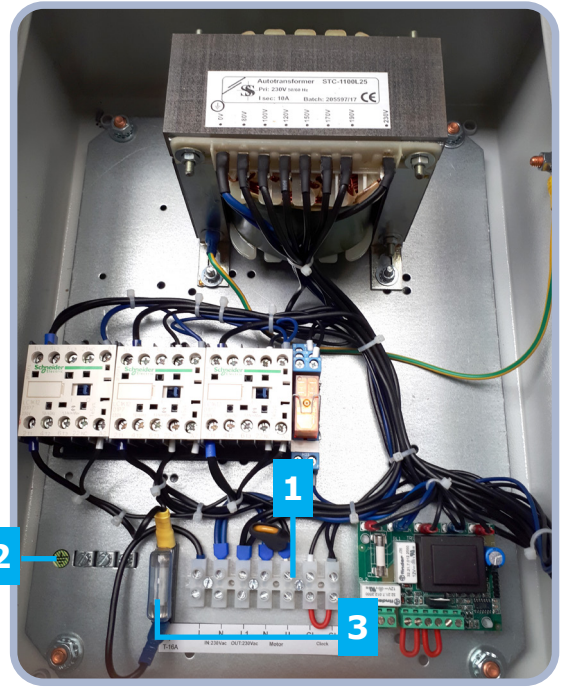
SC2A1-15L25 -> SC2A175L25



1 - Terminal blocks	<p> <b>L</b> <b>N</b> <b>L1</b> <b>N</b> <b>M</b> <b>N</b> <b>AL</b>    <b>CL</b> <b>CL</b> <b>TK</b> <b>TK</b> <b>CC</b> <b>CC</b> <b>OC</b> <b>OC</b>              IN 230Vac    OUT 230Vac    (M)    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏         </p>
2 - Earth terminals	
3 - Fuse	

### Legend

SC2A1100L25 -> SC2A1130L25



1 - Terminal blocks	<p> <b>L</b> <b>N</b> <b>L1</b> <b>N</b> <b>U</b> <b>CL</b> <b>CL</b>    <b>N</b> <b>AL</b> <b>TK</b> <b>TK</b> <b>CC</b> <b>CC</b> <b>OC</b> <b>OC</b>              IN 230 VAC    OUT 230 VAC    (M)    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏    ⏏         </p>
2 - Earth terminals	
3 - Fuse	

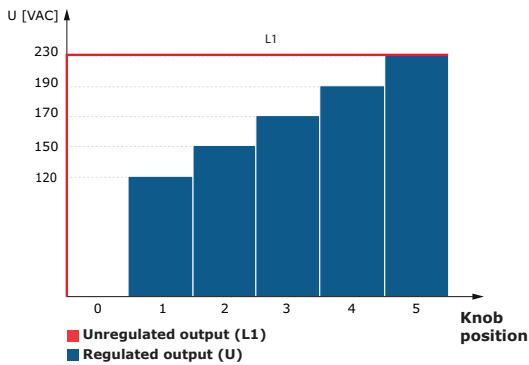
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230 VAC two-speed transformer controller with TK and start / stop

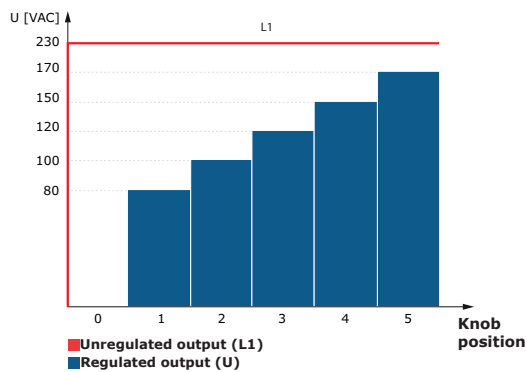


## Operational diagram

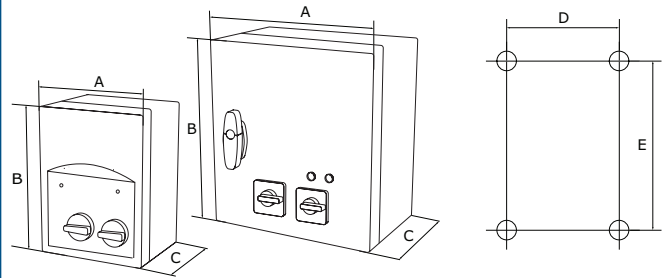
### Speed 1 - High



### Speed 2 - Low

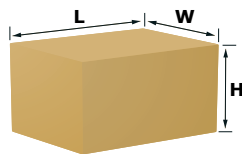


## Fixing and dimensions



Article code	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Enclosure
SC2A1-15L25	200	305	155	183	235	plastic (R-ABS, UL94-V0, grey RAL 7035)
SC2A1-25L25	200	305	155	183	235	
SC2A1-35L25	200	305	155	183	235	
SC2A1-50L25	200	305	155	183	235	
SC2A1-75L25	200	305	155	183	235	
SC2A1100L25	300	425	175	255	355	sheet steel (RAL7035, polyester powder coating)
SC2A1130L25	300	425	175	255	355	

## Packaging



Article code	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight [kg]	Gross weight [kg]
SC2A1-15L25	Unit (1 pc.)	216	130	110	3,9	4,2
SC2A1-25L25	Unit (1 pc.)	216	130	110	4,4	4,7
SC2A1-35L25	Unit (1 pc.)	262	180	160	5,4	5,7
SC2A1-50L25	Unit (1 pc.)	262	180	160	6,2	6,5
SC2A1-75L25	Unit (1 pc.)	320	210	160	8,2	8,6
SC2A1100L25	Unit (1 pc.)	340	310	210	15,2	15,7
SC2A1130L25	Unit (1 pc.)	340	310	210	17,6	18,1

## Global trade item numbers (GTIN)

Packaging	SC2A1-15L25	SC2A1-25L25	SC2A1-35L25	SC2A1-50L25	SC2A1-75L25	SC2A1100L25	SC2A1130L25
<b>Unit</b>	05401003013199	05401003013205	05401003013212	05401003013229	05401003013236	05401003013243	05401003013250