



ST2R1

230 VAC two-speed transformer controller with digital timer and LCD display

The ST2R1 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 auto-transformer and TK monitoring for thermal motor protection. ST2R1 also feature a built-in clock and a 230 VAC alarm output. Thanks to the built-in clock, the ST2R1 controllers can operate autonomously. Two optimal speeds can be selected and switched both manually via the built-in keyboard and automatically via the programmable timer functionality. The controllers up to 7,5 A are available in a 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
- Two speeds: High and Low, selectable out of 80-100-120-150-170-190-230 VAC
- TK monitoring for thermal motor protection
- Alarm output (230 VAC / 1 A) in case of motor overheating
- Two start / stop contacts for thermostat, frost protection, etc.
- Programmable clock with day / night and day / week functions
- LCD display with multilingual menu
- Keyboard interface
- USB port for connection to computer. Easy reading, changing and writing all device parameters via the free downloadable 3SMUsb software (part of 3SM Center)

Technical specifications

Supply voltage	230 VAC / 50–60 Hz	
Unregulated output	230 VAC / 1 A	
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
ST2R1-15L25	1,5	(5*20 mm) T-2,5 A-H
ST2R1-25L25	2,5	(5*20 mm) T-4,0 A-H
ST2R1-35L25	3,5	(5*20 mm) T-5,0 A-H
ST2R1-50L25	5,0	(5*20 mm) T-8,0 A-H
ST2R1-75L25	7,5	(5*20 mm) T-12,5 A-H
ST2R1100L25	10,0	(6*32 mm) T-16,0 A-H
ST2R1130L25	13,0	(6*32 mm) T-20,0 A-H

Standards

- Low Voltage Directive 2014/35/EC
- EMC Directive 2014/30/EC: EN 61326
- WEEE Directive 2012/19/EC
- RoHS Directive 2011/65/EC



Area of use

- Speed control of voltage controllable motors in HVAC industry
- For indoor use only

Wiring and connections

Pe	Earth terminals
L	Power supply, phase 230 VAC / 50–60 Hz
N	Power supply and unregulated output, neutral
L1	Unregulated output, phase (230 VAC / 50–60 Hz / 2 A)
N	Motor connection
U	
TK	Input - TK monitoring for thermal motor protection
TK	
N	Alarm output (230 VAC / 1 A)
AL	
CC	Input - normally closed contact for remote ON / OFF switching
CC	
OC	Input - normally open contact for remote ON / OFF switching
OC	

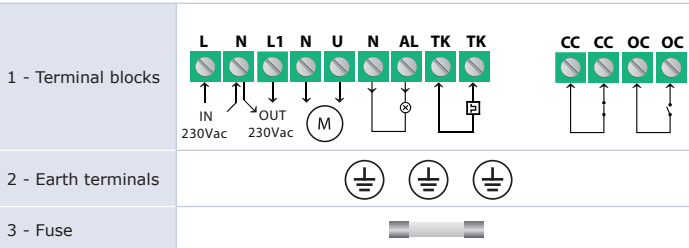
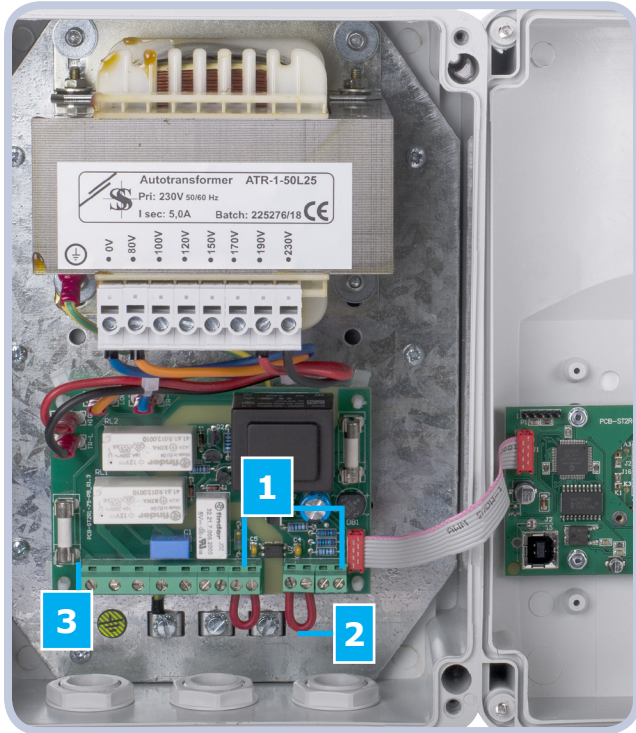
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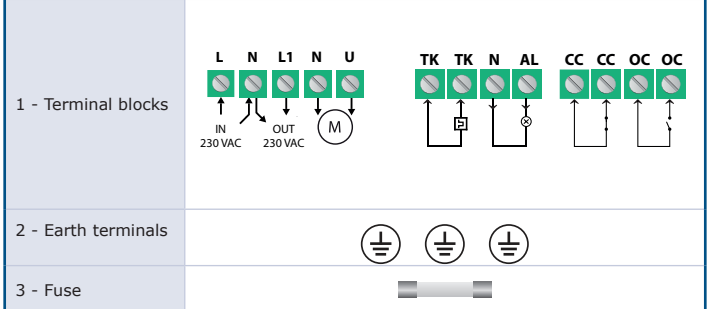
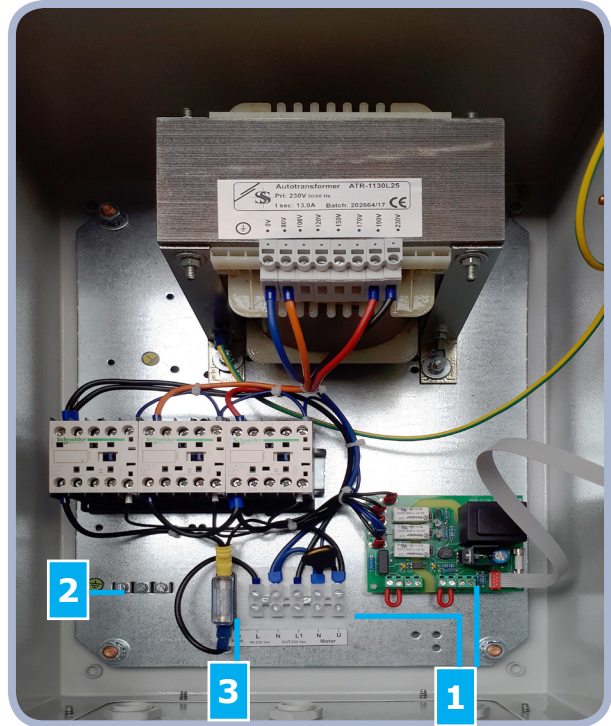
Legend

ST2R1-15L25, ST2R1-25L25, ST2R1-35L25,
ST2R1-50L25, ST2R1-75L25



Legend

ST2R1100L25, ST2R1130L25

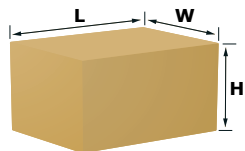




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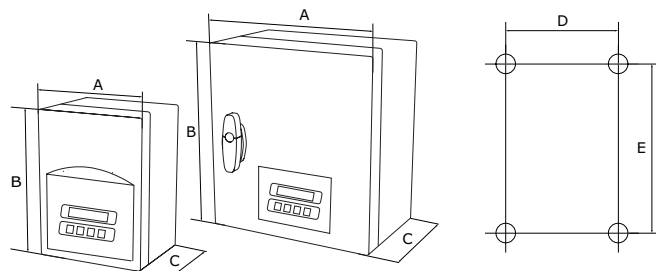
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Packaging



Article code	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight [kg]	Gross weight [kg]
ST2R1-15L25	Unit (1 pc.)	216	130	110	3,29	3,51
ST2R1-25L25	Unit (1 pc.)	216	130	110	3,79	4,01
ST2R1-35L25	Unit (1 pc.)	262	180	160	5,79	6,00
ST2R1-50L25	Unit (1 pc.)	262	180	160	6,49	6,70
ST2R1-75L25	Unit (1 pc.)	320	210	160	9,11	9,40
ST2R1100L25	Unit (1 pc.)	340	310	210	15,36	15,95
ST2R1130L25	Unit (1 pc.)	340	310	210	17,95	18,54

Fixing and dimensions



Article code	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Enclosure
ST2R1-15L25	170	250	136	155	193	plastic (R-ABS, UL94-V0, grey RAL 7035)
ST2R1-25L25	170	250	136	155	193	
ST2R1-35L25	170	250	136	155	193	
ST2R1-50L25	170	250	136	155	193	
ST2R1-75L25	200	305	140	183	235	sheet steel (RAL7035, polyester powder coating)
ST2R1100L25	300	425	175	255	355	
ST2R1130L25	300	425	225	255	355	