



# ST2R4

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

The ST2R4 series of transformer fan speed controllers regulate the rotational speed of three-phase voltage controllable motors by varying the output voltage. They are equipped with auto-transformers and TK monitoring for thermal motor protection. ST2R4 also feature a built-in clock and a 230 VAC alarm output. Thanks to the built-in clock, the ST2R4 controllers can operate autonomously. Two optimal speeds can be selected and switched both manually via the built-in keyboard and automatically via the programmable day/week timer functionality.

### Key features

- Wide power range: 1.5 A–11.0 A
- Two speeds: high and low, selectable out of 0–130–170–210–250–290–330–400 VAC
- TK monitoring for thermal motor protection
- Alarm output (230 VAC) in case of motor overheating
- Two start / stop contacts (normally open and normally closed) for thermostat, frost protection, etc.
- Programmable clock with day / night and day / week functions
- LCD Display and keyboard interface with multilingual menu
- Motor protection
- 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	3x 400 VAC / 50–60 Hz	
Max. motor current (Imax)	1.5–11 A, depending on the product version	
Unregulated output	230 VAC / 2 A	
Enclosure	sheet steel (RAL7035, polyester powder coating)	
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]
<b>ST2R4-15L55</b>	1.5
<b>ST2R4-25L55</b>	2.5
<b>ST2R4-40L55</b>	4.0
<b>ST2R4-60L55</b>	6.0
<b>ST2R4-80L55</b>	8.0
<b>ST2R4110L55</b>	11.0

### Standards

- Low Voltage Directive 2014/35/EU 
  - EN 60335-1:2012 Household and similar electrical appliances - Safety - Part 1: General requirements. Amendment A11:2014 and AC:2014 to EN 603351:2012
  - EN 61558-1:2005 Safety of power transformers, power supplies, reactors and similar products - Part 1: General requirements and tests. Amendment AC: 2006 and A1:2009 to EN 61558-1:2005
- EMC Directive 2014/30/EU:
  - EN 61000-6-2:2005 Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments. Amendment AC:2005 to EN 61000-6-2:2005
  - EN 61000-6-3:2007 electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments. Amendment A1:2011 and AC:2012 to EN 61000-6-3:2007
  - EN 60730-1:2011 Automatic controls for household and similar use - Part 1: General requirements
- 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

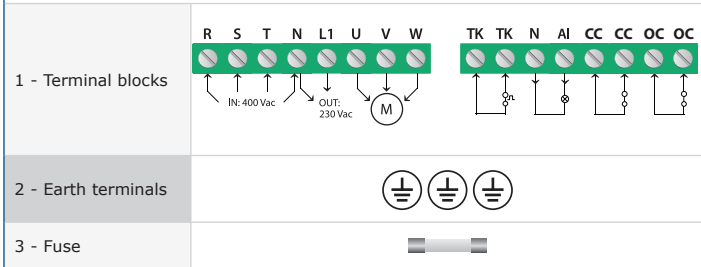
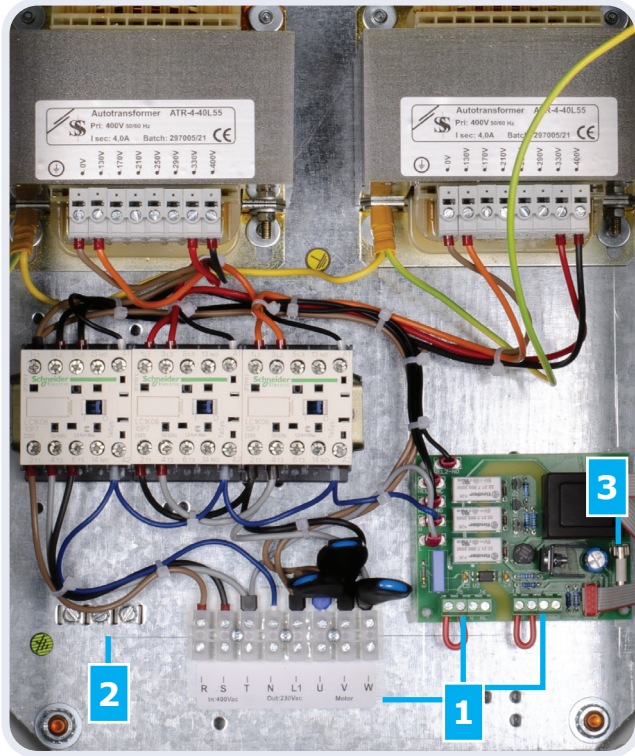
<b>R</b>	Supply voltage - 400 VAC / 50–60 Hz
<b>S</b>	Supply voltage - 400 VAC / 50–60 Hz
<b>T</b>	
<b>N</b>	Unregulated output, neutral
<b>L1</b>	Unregulated output, phase (230 VAC / 50–60 Hz)
<b>U</b>	
<b>V</b>	Regulated output to motor
<b>W</b>	
<b>TK</b>	Inputs - TK monitoring for thermal motor protection
<b>TK</b>	Inputs - TK monitoring for thermal motor protection
<b>N</b>	Neutral
<b>AL</b>	Alarm output (230 VAC)
<b>CC</b>	
<b>CC</b>	Input - normally closed contact for remote ON/OFF switching
<b>OC</b>	
<b>OC</b>	Input - normally open contact for remote ON/OFF switching
<b>Pe</b>	Earth terminals

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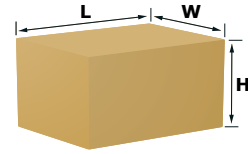
## Legend



## Global trade item numbers (GTIN)

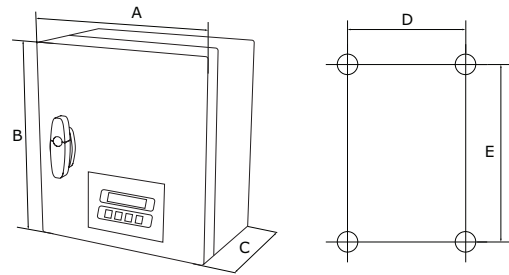
Article code	Unit
ST2R4-15L55	05401003014929
ST2R4-25L55	05401003014936
ST2R4-40L55	05401003014943
ST2R4-60L55	05401003014950
ST2R4-80L55	05401003014967
ST2R4110L55	05401003014974

## Packaging



Article code	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight [kg]	Gross weight [kg]
ST2R4-15L55	Unit (1 pc.)	340	310	210	11,36 kg	11,82 kg
ST2R4-25L55	Unit (1 pc.)	340	310	210	12,82 kg	13,28 kg
ST2R4-40L55	Unit (1 pc.)	430	310	255	19,14 kg	19,74 kg
ST2R4-60L55	Unit (1 pc.)	445	410	255	24,37 kg	25,12 kg
ST2R4-80L55	Unit (1 pc.)	445	410	255	30,10 kg	30,42 kg
ST2R4110L55	Unit (1 pc.)	445	410	255	36,84 kg	37,59 kg

## Fixing and dimensions



Article code	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Enclosure
ST2R4-15L55	300	325	150	255	255	sheet steel (RAL7035, polyester powder coating)
ST2R4-25L55	300	325	150	255	255	
ST2R4-40L55	300	425	200	255	255	
ST2R4-60L55	400	430	200	355	355	
ST2R4-80L55	400	430	200	355	355	
ST2R4110L55	400	430	200	355	355	