

ST2R4

3-phase 400 VAC two-speed transformer controller with digital timer



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]
ST2R4-15L55	1.5
ST2R4-25L55	2.5
ST2R4-40L55	4.0
ST2R4-60L55	6.0
ST2R4-80L55	8.0
ST2R4110L55	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
- RoHS Directive 2011/65/EC



Area of use

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

Wiring and connections

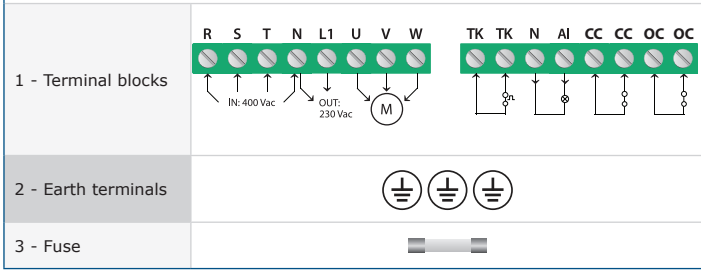
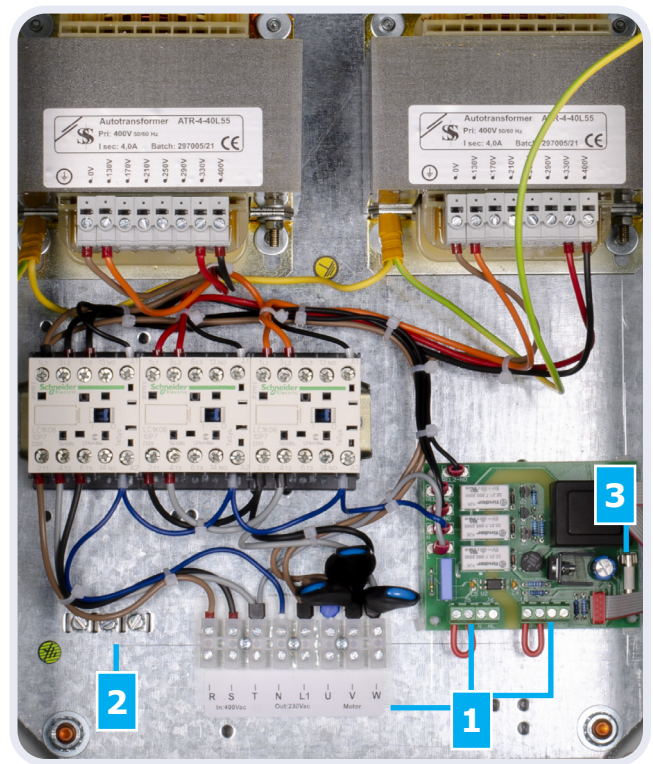
R	Supply voltage - 400 VAC/ 50–60 Hz
S	
T	
N	Unregulated output, neutral
L1	Unregulated output, phase (230 VAC/ 50–60 Hz)
U	
V	Regulated output to motor
W	
TK	Inputs - TK monitoring for thermal motor protection
TK	
N	Neutral
AL	Alarm output (230 VAC)
CC	
CC	Input - normally closed contact for remote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

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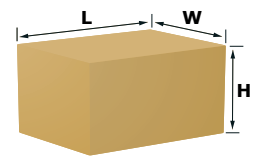
Legend



Global trade item numbers (GTIN)

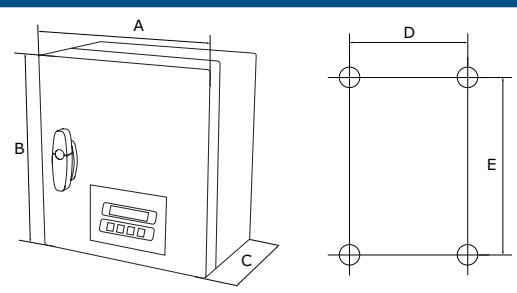
Article code	Unit
ST2R4-15L55	05401003014929
ST2R4-25L55	05401003014936
ST2R4-40L55	05401003014943
ST2R4-60L55	05401003014950
ST2R4-80L55	05401003014967
ST2R4110L55	05401003014974

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	