

ED

Electronic controller



Electronic controllers

Phase angle control for stepless speed control of single-phase AC motors. This control unit is used for stepless speed adjustment of fans with voltage controllable single-phase asynchronous motors. The speed is controlled by voltage reduction using triac technology (phase angle control). The operation is performed on the rotary switch of the device. Here, the regulation from high to low speeds takes place. In the outermost counterclockwise position, the motor is deactivated. If the rotary knob is turned clockwise, the motor immediately accelerates to high speeds. If the knob is turned further clockwise, the motor decelerates to low speed. This minimum speed of the fan can be set using an adjustment screw (internal trimmer).

An integrated AC switch can be used to activate and deactivate the motor. The unregulated output (230 V AC) is active when the motor is activated. The unregulated output (230 V AC) is active when the motor is activated. It can be used to control an external operating indicator lamp, a damper, etc. For example, when the fan is deactivated, the flap is closed. When the fan is activated, the flap is open. Several fans can be connected to one device if the sum of the individual currents does not exceed the rated device current. The electronic speed controller may be used indoors at an ambient temperature of 0 - 40 °C.

Motor control

With this type of controller the thermal contacts can be connected in series with the motor winding. On exceeding the maximum permissible winding temperature of the motor, the thermal contacts open. Due to this the motor's circuit is interrupted and the motor / fan is switched off. After the motor winding has cooled down, the thermal contacts on the motor's circuit are closed again.

Series connection of the motor winding with thermal contacts to a maximum of 2,5A (3A) motor rated current is possible. For higher rated currents, protection switches must be installed between the controller and the motor.

After power failure

Automatic restart after voltage failure.

Design

AP/UP - (Surface/Flush Mount):

Suitable for surface mounting as well as for flush mounting with the help of a flush-mounted box (provided by the customer). White plastic housing (ASA/polyamide).

VE (Distribution installation):

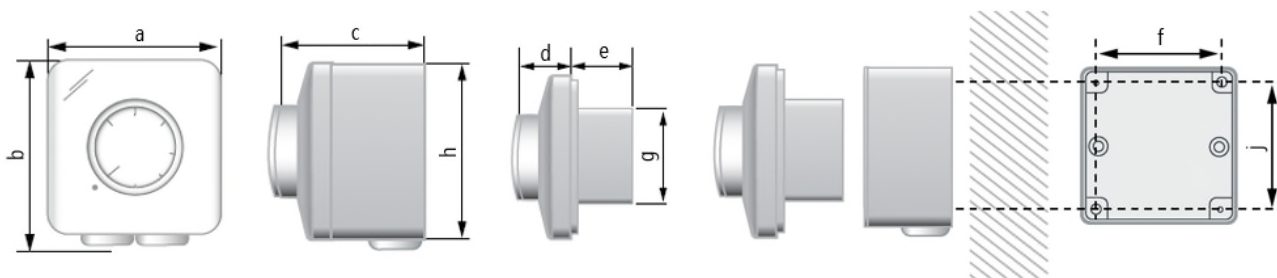
Suitable for mounting on a 35 mm standard DIN rail in a distribution board or control cabinet. Gray plastic housing (ABS/PC).

Technical Data:

Type	Art.-No.	Voltage U_s / Frequency	Output		Protection class		max. I [A]	Weight [kg]
			controlled*1)	uncontrolled	flush mount	Surface		
ED 1,5 AP/UP	H40-01530	230V AC $\pm 10\%$ / 50Hz	$U_{min} - U_s$	230 V AC / 2 A	IP 44	IP 54	1.5	0.16
ED 3,0 AP/UP	H40-03030	230V AC $\pm 10\%$ / 50Hz	$U_{min} - U_s$	230 V AC / 2 A	IP 44	IP 54	3.0	0.16
ED 1,5 VE	H40-01540	230V AC $\pm 10\%$ / 50Hz	$U_{min} - U_s$	230 V AC / 0,5 A	IP 30		1.5	0.09
ED 3,0 VE	H40-02540	230V AC $\pm 10\%$ / 50Hz	$U_{min} - U_s$	230 V AC / 0,5 A	IP 30		2.5	0.10

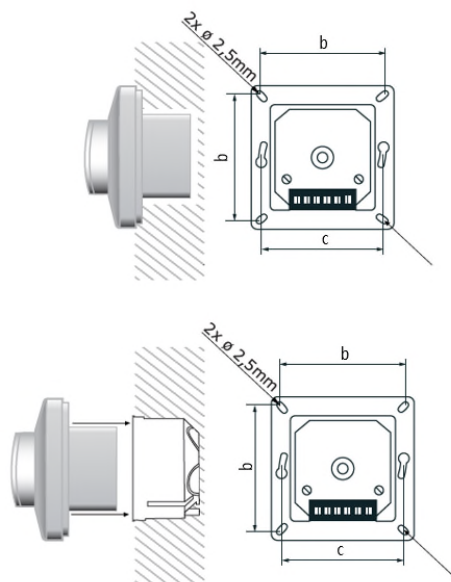
Dimensions:

ED 1,5 AP/UP and ED3,0 AP/UP for Surface



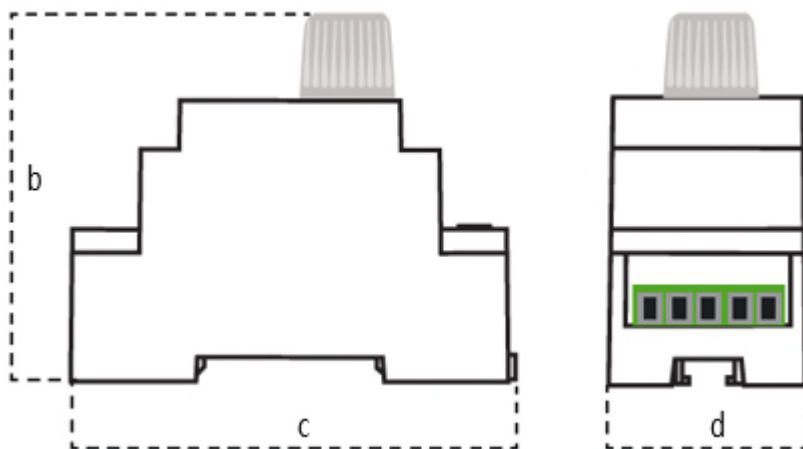
Type	Art.-No.	a	b	c	h	d	e	g	f	j
ED 1,5 AP/UP	H40-01530	82	87	63,5	82	20	38	49	64	64
ED 3,0 AP/UP	H40-03030									

Dimensions:
ED 1,5 AP/UP and ED 3,0 AP/UP for Flush Mount



Typ	Art.-Nr.	b	c
ED 1,5 AP/UP	H40-01530	62	60
ED 3,0 AP/UP	H40-03030		

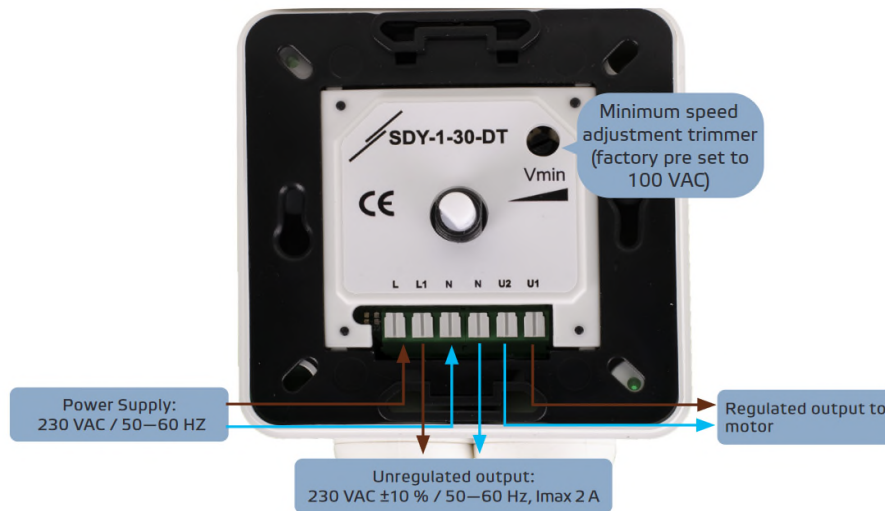
Dimensions:
ED 1,5 VE and ED 2,5 VE for Distribution installation:



Typ	Art.-Nr.	b	c	d
ED 1,5 VE	H40-01540	86	94	35
ED 2,5 VE	H40-02540			

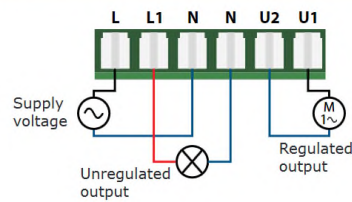
Wiring diagram:

SDX: (max. cable cross section 1.5 mm²)

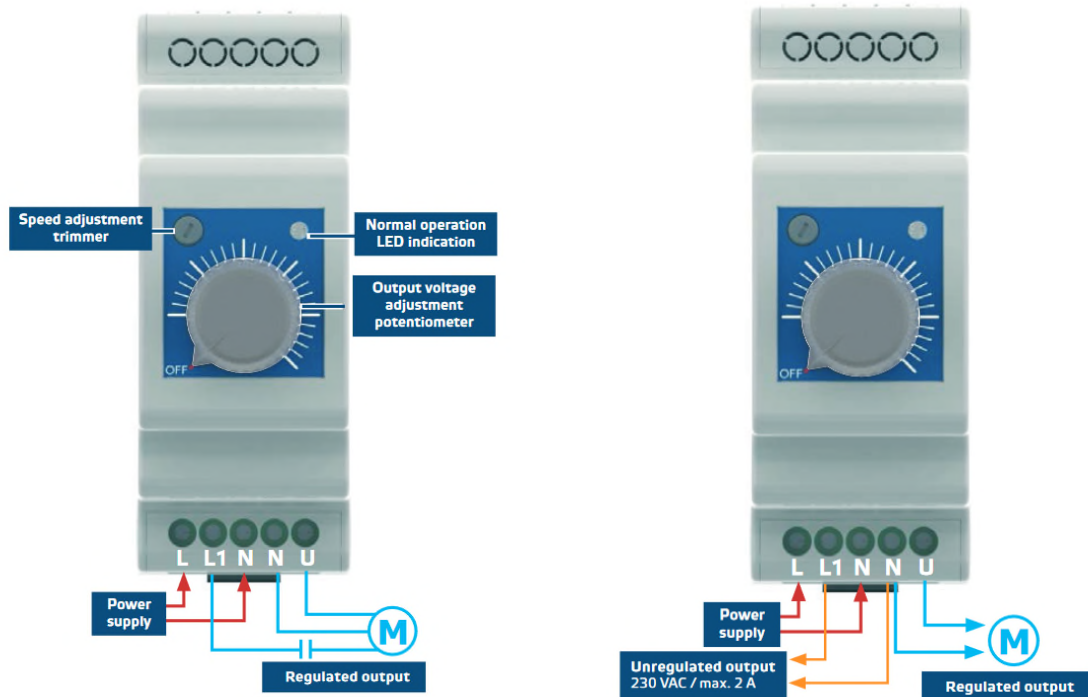


Connection example:

Wiring diagrams
Run indicator light connected to unregulated output



DRX: (max. cable cross section 2.5 mm²)



Scope of delivery:

- Electronic speed controller ED (Surface, flush mount or Distribution installation)
- Screws for wall mounting (only H40-03030 and H40-01530)
- Documentation