

**THYRISTOR  
SPEED CONTROLLER****CDT E1.8  
CDTE E1.8****PURPOSE**

Thyristor speed controller CDTE (E)1.8 hereinafter referred to as “controller” is purposed for slide control of rotary speed of fan with receipt capacity up to 400 VA. The rightmost position of control knob (if rotated clockwise) provides maximal rotary speed of fan. If rotated anticlockwise, control knob decelerates rotary speed. The leftmost position of control knob (if rotated anticlockwise) is followed with a snap of the switch, and controller will switch off the fan to the position “off”.

**BASIC SPECIFICATIONS**

<b>Parameters</b>	<b>CDT E1.8</b>	<b>CDTE E1.8</b>
Voltage 50/60 Hz [V]	1 ~ 230	1 ~ 230
Rated current [A]	1.8	1.8
Overall dimensions [mm]	80x80x63	80x80x64
Maximum ambient temperature [°C]	+35	+35
Ingress Protection	IP40	IP40

Temperature required for normal operation of the controller must be in the range 0 °C to +35 °C with relative humidity not more than 80 % (if t=+25 °C).

**DELIVERY SET**

- Speed controller – 1 pc.
- User’s manual – 1 pc.
- Packing box – 1 pc.

**SAFETY REQUIREMENTS**

Maintenance and mounting must be performed only by persons authorized for independent operation of electrical units of up to 1000 V and after careful study of this maintenance manual.

**ATTENTION! All circuits in controller are under voltage. Maintenance and mounting must be performed only after its disconnection from power supply.**

**FORBIDDEN:**

- to operate controller with mechanical damages of case and connectors;
- ingress of moisture and water drops onto controller case;
- mounting of controller close to heating elements;
- availability of explosive and corrosive agents in the ambient air.

### Mounting and operation guidelines CDTE E1.8

The speed controller is for wall mounting and indoor application. The speed controller must be connected to power mains through the automatic circuit breaker QF.

To connect the speed controller to power mains (refer fig. 1):

1. Remove the control knob (1);
2. Unscrew the nut (2) to release the washer (3), the ring (4) and covers (5 und 6);
3. Remove the screws (7) to release those from the speed controller and remove the speed controller (8);
4. Route the connecting wires to the casing (9);
5. Install the casing (9) on the wall with dowels (11) and screws (10);
6. Strip the wires for 6-7 mm;
7. Connect the wires to the terminal block located on the controller circuit board in compliance with the wiring diagram (fig. 4) and the sticker on the terminal block;
8. Install the speed controller inside the casing so that the terminal block is located above and fix it with screws (7);
9. Regulate the minimum fan speed:
  - 9.1 Rotate the control knob anti-clockwise to the end position without click.The speed controller must be turned on!
- 9.2. Turn power supply on;
- 9.3. Rotate the potentiometer with the plastic screwdriver (included into the complete set) to the minimum stable speed (fig. 3);

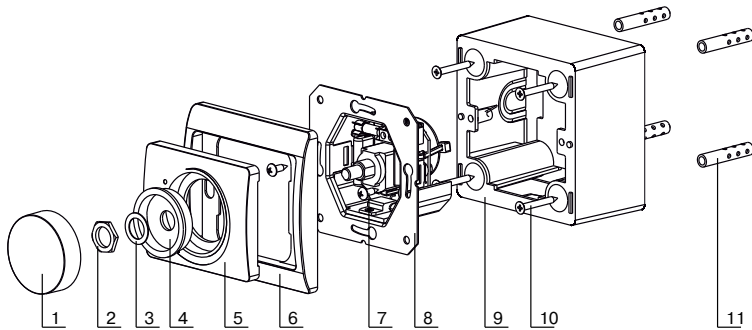
**WARNING! Do not use a screwdriver, knife, etc. for adjustment operations not to damage the circuit board.**

- 9.4. Turn the speed controller to "OFF" position by rotating the control knob anti-clockwise until it clicks. Wait until the fan stops running;
- 9.5 Set the controller to the minimum stable speed. Check that the fan has smooth running at minimum speed.

**WARNING! Incorrect minimum speed control settings may result in the fan malfunction!**

10. Follow the items 1 and 2 in the reverse order.

Fig. 1



- 1 – control knob, 2 – nut, 3 – washer, 4 – ring, 5 – cover, 6 – cover, 7 – screw, 8 – speed controller, 9 – mounting box.

### Mounting and operation guidelines CDT E1.8

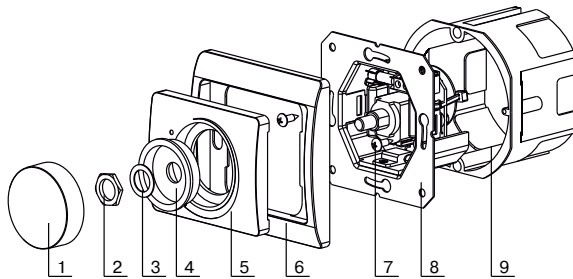
The speed controller must be connected to power mains through the automatic circuit breaker QF.

To connect the speed controller to power mains (refer fig. 2):

1. Remove the control knob (1);
2. Unscrew the nut (2) to release the washer (3), the ring (4) and covers (5 und 6);
3. Prepare a hole in the wall and route the wires to the mounting box;
4. Install the mounting box to the wall;

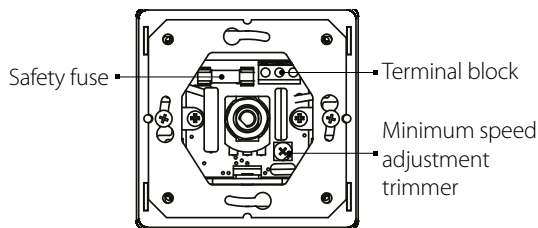
5. Strip the wires for 6-7 mm;
6. Connect the wires to the terminal block located on the controller circuit board in compliance with the wiring diagram (fig. 4) and the sticker on the terminal block;
7. Install the speed controller inside the mounting box so that the terminal block is located on the top and fix it with screws (7);
8. Set the minimum fan speed:
  - 8.1 Rotate the control knob anti-clockwise to the end position without click. The speed controller must be turned on!
  - 8.2. Turn power supply on;
  - 8.3. Rotate the potentiometer with the plastic screwdriver (included into the complete set) to the minimum stable speed (fig. 3);
- WARNING! Do not use a screwdriver, knife, etc. for adjustment operations not to damage the circuit board.**
- 8.4. Turn the speed controller to "OFF" position by rotating the control knob anti-clockwise until it clicks. Wait until the fan stops running;
- 8.5 Set the controller to the minimum stable speed. Check that the fan has smooth stable running at minimum speed.
- WARNING! Incorrect minimum speed control settings may result in the fan malfunction!**
9. Follow the items 1 and 2 in the reverse order.

**Fig. 2**



- 1 – control knob, 2 – nut, 3 – washer, 4 – ring, 5 – cover, 6 – cover, 7 – self-tapping screw, 8 – speed controller, 9 – casing, 10 – screw, 11 – dowel

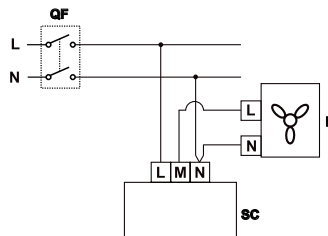
**Fig. 3**



**Fig. 4**

**Designations:**

- F – fan;
- SC – fspeed controller;
- QF – automatic switch.



## TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
The controller does not work.	Limited or no connection.	Check the correctness of connection to power mains.
	The fuse is broken.	Replace the fuse.
The fan does not rotate when the controller is on.	The minimum fan speed is not set correctly.	Adjust the minimum fan speed.

## STORING GUIDELINES

Controller should be stored in manufacturer's packing box in good ventilated area with temperature range from 0 °C to +40 °C and relative humidity of air not exceeding 80 % (with t=+25 °C).

## MANUFACTURER'S GUARANTIES

Manufacturer guarantees normal operation of the unit for 12 months from the date of resale, accordingly to the transport, storage, mounting and operation rules described in the present manual. We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This certificate is issued following test carried out on samples of the product referred to above. Assessment of compliance of the product with the requirements relating to electromagnetic compatibility was based on the following standards.

Owner of the unit must follow the guidelines set forth in the manual.

Manufacturer is not responsible for damages (as well as to health of persons) resulting from misuse of the unit or gross mechanical alteration.

If proof of sales date is absent, warranty period is calculated from the production date.

In case of failure due to faulty equipment warranty period, the consumer has the right to exchange it.

The unit can be exchanged by the Seller.

## The replacement is offered by the Seller.

### ACCEPTANCE CERTIFICATE

Speed controller is accepted as ready for operation

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Date of production

Sold

(name of trade enterprise, stamp of the shop)

Acceptance stamp

Date of sale