

Operating Instructions

Drehzahlsteller

Speed controller

2297 / 2299 UP

2297 / 2299 AP

2299



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1 Safety



Warning

Electric voltage!

Risk of death and fire due to electrical voltage of 230 V.

- Work on the 230V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

2 Intended use

The device is to be used exclusively with the components that are supplied and licensed as described in chapter "Setup and function".

3 Environment



Consider the protection of the environment!

Used electric and electronic devices must not be disposed of with domestic waste.

- The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

All packaging materials and devices bear the markings and test seals for proper disposal. Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.

The products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU Directive 2002/96/EC WEEE and 2002/95/EC RoHS)

(EU REACH ordinance and law for the implementation of the ordinance (EC) No.1907/2006)

4 Technical data

General	
Nominal voltage	230 V AC \pm 10%, 50 Hz
Rated current range	2297 ... : 0.1 A ... 2.5 A
	2299 ... : 0.1 A ... 1.0 A
Short-circuit protection	2297 ... : T3,15 H, DIN 41660
	2299 ... : T1.25 H, DIN 41660

5 Setup and function

The speed controller serves for switching and setting the speed of electric motors (e.g. fan systems).

6 Installation and electrical connection

6.1 Requirements for the electrician



Warning

Electric voltage!

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:

- Apply the "five safety rules" (DIN VDE 0105, EN 50110):
 1. Disconnect from power;
 2. Secure against being re-connected;
 3. Ensure there is no voltage;
 4. Connect to earth and short-circuit;
 5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the supply network type (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

6.2 Mounting



Warning

Electric voltage!

Risk of death and fire due to electrical voltage of 230 V.

- Work on the 230V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

6.3 Speed controller 2296 UJ (IP 20)

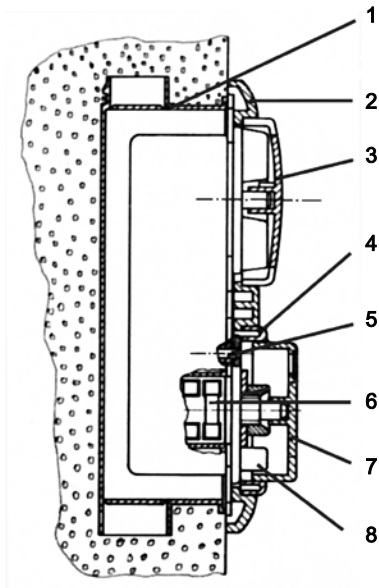


Fig. 1: 2296 UJ (IP 20)

**1 Wall box | 2 Combination frame | 3 Cover plate | 4 Cover plate | 5 Adjusting screw | 6 Fuse |
7 Control knob | 8 Control lamp**

1. Switch off the mains power supply.
2. Install the supplied wall box (1) vertically in the wall.
3. Connect the speed controller according to the circuit diagram (Fig. 3).
4. Fix the speed controller with the clamps downward into the wall box.
5. Attach the combination frame (2) and attach the cover plate (3) with the ventilation slots vertically.
6. Set the control lamp (8) onto the central clamps, so that the nose is aligned with the adjusting shaft.
7. Attach the cover plate (4) and fasten it with the nut.
8. Turn the shaft to the right end stop.
9. Switch on the mains power supply.
10. Set the minimum speed on the adjusting screw so that the fan also starts safely against counter pressure after a mains power failure.

6.4 Speed controller (surface-mounted version)

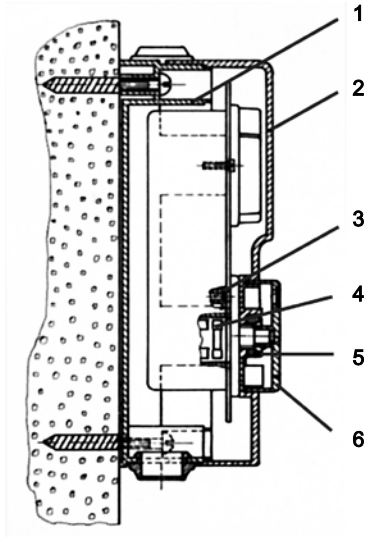


Fig. 2: 2296 AG (IP 44)

1 Base | 2 Cap | 3 Adjusting screw | 4 Fuse | 5 Nut | 6 Control knob

1. Switch off the mains power supply.
2. Pull the control knob (6) clamped with the spring off the shaft.
3. Loosen the nut (5) and remove the cap (2).
4. Loosen the retaining screws and remove the speed controller from the base.
5. Use the box cover as a drill pattern and pre-drill the retaining holes.
6. Screw the base vertically to the wall so that the double sealing nozzle points downward.
7. Feed the wires through the sealing nozzle and connect them to the speed controller with the clamps pointing down, according to the circuit diagram (Fig. 3).
8. Fasten speed controller and turn the actuating shaft up to the right end stop.
9. Switch on the mains power supply.
10. Set the minimum speed on the adjusting screw so that the fan starts safely after a mains power failure.



Caution

Observe 100 V minimum voltage!

A minimum voltage of 100 V has been set on the device at the factory.

- When using devices with latching motor thermostatic switches, the voltage must not fall below 100 V, otherwise the deactivation of the power supply during a fault is not guaranteed.

11. Attach the cap (2) and fasten it with the nut (5).
12. Attach the control knob to the shaft and turn it up to the right end stop.
13. Set the desired rotational speed.

6.5 Electrical connection

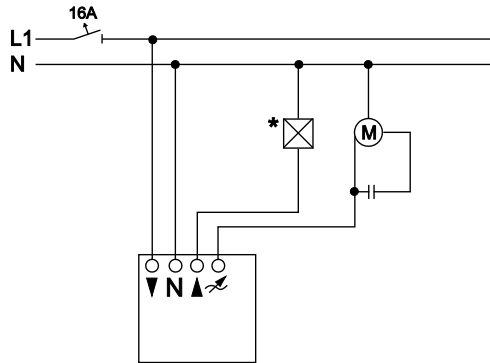


Fig. 3: Circuit diagram

* 230 V for additional functions (e.g. hinged cover)

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