

CORRECT USE

Electronic single-phase speed controllers (PC) are used in ventilation and air-conditioning for turning on/off and speed controlling of single-phase fan motors, by a smooth change applied to the motor voltage.

TECHNICAL CHARACTERISTICS

Network supply voltage: 220-240B/50Hz;
 Operating voltage of the fan motor: 220-240B/50Hz;
 Lead-in contact: screw terminal block 0,5...0,75 mm²;
 Maximum ambient temperature: +40 °C;
 Protection class: IP44;
 Overall dimension: 80x80x68 mm (PC-H press on installation); 80x80x63 mm (PC-B internal installation);
 Type of a climate category: NF4

Name	PC-H 2,5A	PC-B 2,5A
Min.load current, (A)	0,25	0,25
Max.load current, (A)	2,5	2,5
Fuses, (A)	2,5	2,5

ATTENTION!

Persons (including children) do not intend this appliance for use with reduced physical, sensory or mental capabilities, or lack of knowledge, unless a person responsible for their safety has given them supervision or instruction concerning the use of the appliance. Children should be supervised to ensure that they do not play with the appliance. Specialists, who have a special allowance for such types of work, shall do connection of the fans to power supply.

MAIN CHARACTERISTICS AND OPERATION PRINCIPLE

The product has:

- the adjustable exit connected to the fan motor;
- an unregulated exit 220V, for connection of the additional equipment which disconnection happens in parallel when twisting the handle of the regulator in zero situation;
- the fuse block with the spare safety fuse.

External elements of the regulator – the assembly case (9), a front cover (3) and the handle of speed regulation (1) are made of the high-quality ABS plastic resistant to UV.

Turning ON/OFF is made by a handle of speed controller.

Regulation is conducted from minimum possible value of voltage (at which the impeller of the fan begins to rotate steadily) to the maximum.

Value of the minimum speed is set by the preset resistor on a regulator board.

The control of several fans is allowed if the general current doesn't exceed the maximum permissible value of current of the controller.

The controller is equipped with the fuse (according to the type) protecting the device and the fan connected to him from the raised current consumption.

It is equipped with the filter of radio-frequency interference.

ATTENTION!

Connection to an electric network has to be carried out via the external automatic S1 switch (scheme 1a and 1b), for rooms with the increased humidity the scheme of connection 1b only!

HOOK-UP and PRECOMMISSIONING

ATTENTION!

After transportation or storage of a product at negative temperatures before turning it on, it is necessary to stand him in the specified service conditions not less than 2 hours.

The controller has to be installed on a rising wall indoors in an electrical-installation socket or in the mounting case (9).

Make sure that there is no external damage of the case.

Remove the handle of speed regulation (1) by means of the slot head screwdriver, having inserted it into a special slot. Turn off a six-sided nut (2). Remove a front cover (3). By means of the slot head screwdriver remove an aluminum insert (5) and a mounting plate (6) from the speed controller(7).

PC-B 2,5A Internal mounting (9)

For the controller connection to the network:

1. Cut off current
2. Lead connecting wires to junction box.
3. Connect the controller, according to wiring scheme, depending on type of the premise. (scheme 1a,1b).
Terminal screws realize the connection of external electrical conductors to the product
4. Install a speed controller in the (7) junction box, so that the terminal block settled down below
5. Install a box in a wall with the connection plugs located down.
6. Fix a mounting plate(6) on the speed controller (7).
Pay attention that the control port on the plate have to index with preset resistor configuration on the speed controller's board
Fix a speed controller in a junction box
7. Give supply voltage of a network and check the controller

PC-H 2,5A Wall mounting

For the controller connection to the network:

1. Cut off current.
2. Hold the case to the wall, considering cable laying
3. Lead connecting wires through the cable inlet (11) in the mounting case (9), previously having made holes in them, corresponding to wire section
4. Connect the controller, according to wiring scheme, depending on type of the premise (scheme 1a,1b).
Terminal screws realize the connection of external electrical conductors to the product.
5. Install a speed controller in the (7) junction box, so that the terminal block settled down below
6. Fix a mounting plate(6) on the speed controller (7).
Pay attention that the control port on the plate have to index with preset resistor configuration on the speed controller's board
Fix a speed controller (7) in a junction box (9)
7. Give supply voltage of a network and check the controller

ATTENTION! In premises with increased humidity in case (9), make a hole (10) of 5 mm diameter for the condensate yield (pic. 2, scheme 1b).

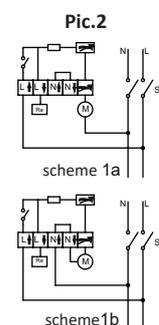
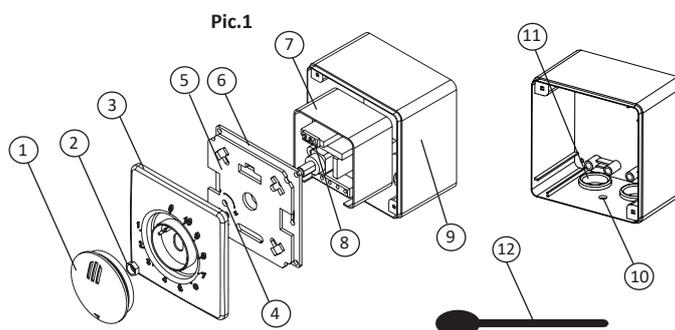
Before the installation of front cover (3), you need to regulate the minimum capacity value of the controller by means of adjustable slot head screwdriver (12). Put the handle of speed regulation (1) on an axis and turn clockwise to the minimum value. This tuning is important to avoid power failure less than the admissible minimum tension of the motor. Too low minimum voltage can lead to the motor damage. For installation of the minimum speed, execute the following:

- put the handle of speed regulation(1) on an axis and turn clockwise to the minimum value;

- by means of the adjusting slot head screwdriver (12), regulate the tuning resistor through the hole (4) by rotation clockwise or counterclockwise until the motor is able to begin work from the fixed position. Having chosen the minimum speed, install an aluminum insert (5) (pay attention - an adjusting opening on an aluminum insert (5) and on the mounting plate (6) has to coincide the place of the tuning resistor on a speed regulator board), a front cover (3), a nut (2) and the handle of speed regulation (1).

ATTENTION! Range of speed changing is limited to characteristics of the electric motor of the fan.

1. Handle of speed regulation
2. Six-sided nut
3. Front cover
4. Adjustable opening of the resistor
5. Aluminum insert
6. Mounting plate
7. Speed controller
8. Fuse block
9. Mounting case
10. An opening for a condensate exit
11. Cable input
12. Adjustable slot head screwdriver



ATTENTION!

In all cases of operation, connected with opening of a product it has to be disconnected from a power network!

REPLACEMENT OF THE FUSE

Speed controllers of the RS series have a spare fuse.

For the fuse changing, remove the handle of speed controller (1) by means of the slot head screwdriver, having inserted it into a special groove. Turn off a six-sided nut (2). Remove a front cover (3). By means of the slot head screwdriver, remove aluminum insert (5) and lift a fuse block out (8). Replace with a new fuse, according to marking. Insert the block (8) in place. Make assembly of speed controller.

The producer recommends to use only industrial fuses in the protective (ceramic) case with a high explosive power of 2,5A. The guarantee for a product doesn't extend when using inappropriate fuses.

MAINTENANCE

Under normal conditions of work, products don't need service.

In case of easy pollution, it is cleaned dry or a little damp cloth.

In case of strong pollution, it is cleaned by means of nonaggressive washing agents.

At the same time, the product has to be disconnected from power supply network.

Pay attention that liquids shouldn't get in a product. Repeated connection with a power network can be carried out only after full drying of a product! Periodically you have to make a product clearing from dust, fibers, etc.

Be convinced that external electric connections to screw plugs of the device are fixed properly.

PROTECTIVE MEASURES AND PREVENTIONS

• Base on type of protection from electric shock the fans relate to the devices of class II.

• Range of fan usage is limited to characteristics of the electric motor of the fan.

• The controller is intended only for using together with fans motors for which the speed regulation of rotation is applicable. The used motor has to have internal protection against overheating.

• Speed controller has to be used only with single-phase motors.

• Regulation range towards reduction is chosen in fan parameters. All regulation range has to get to its working range that will exclude possible failure of the fan motor.

• Speed controller and the equipment connected to it can be sources of electric shock herefore, only the qualified person, which has studied this instruction has to be allowed to operation.

• Speed controller belongs to the electrotechnical equipment with voltage up to 1000 V. In all cases of operation connected with opening of a product it has to be disconnected from a power network.

• The general current consumption of the electric devices connected to a product shouldn't exceed extreme value (see technical characteristics). It isn't recommended to operate a product with extreme value of load current.

• It is necessary to handle a product carefully, do not strike, overload, expose to liquids and dirt. In case of intrusion of foreign matter on board of the speed controller, disconnect the mains voltage and remove them.

IT IS FORBIDDEN

• To operate a product at smoke or smell appearance like as the burning insulation;

• To operate a product at breakage or cracks appearance in the case and at the damaged connectors;

• To cover a product with any materials, to place on it devices and objects, to close openings;

• To insert foreign objects into a product;

• To use a product in rooms with the explosive or chemical active environment destroying metals and isolation in the conditions of drops or splashes influence, and also on the open areas;

• To connect electric motors to a product (separately or as a part of the equipment) which consumption current (it is usually specified in the passport) exceeds extreme value of load current of a product.

STORAGE AND TRANSPORTATION

Keep the speed controller only in the packaging of the manufacturer in a ventilated room at a temperature of +5 ° C to +40 ° C and relative humidity of 80% (at T = 25 ° C). Keeping time - 5 years from date of manufacture. Products transported by any transport provided consumer protection or transport container from the direct effects of rainfall, lack of bias transport places during transport, the lack of mutual physical impact during transportation and preservation of controllers. Transportation is carried out in force with the rules for this transport.

UTILIZATION

This appliance has a label in accordance with European Directive 2002/96/EC on waste electrical and electronic appliances (waste electrical and electronic equipment - WEEE). This order acts on rules on the territory throughout the EU and recycling of old appliances

SERVICE LIFETIME

Established service period - 1 year

WARRANTY

Controllers are manufactured by LLC "ERA" in accordance with applicable regulations and standards.

Manufacturer guarantees the normal operation of the fan for 1 year from the date of sale in retail outlets subject to the rules of transportation, storage, installation, operation and other requirements of this instruction. In case of absence of the date of sale, the warranty period will be computed from the date of manufacture.

In case of finding failures in the work of the fan on the fault of manufacturer during the warranty period, the consumer has the right to replace the fan in the factory that is the same serial numbers on the product and in the passport. An availability of branded factory nameplate on the device is required! Please make sure it is available and store it on the device during its lifetime.

To confirm the date of purchase for warranty service or presentation of other legal requirements urge you need to retain proof of purchase (cheque, receipt, and other documents confirming the date and place of purchase).

ATTENTION!

The producer decline all responsibility for health damage and property, if it is caused by the non-compliance with norms of installation and operation provided by this instruction.

DELIVERY SET

- Speed controller;
- Passport/ operation instruction;
- Box packaging;
- Self-tapping screw 6 PCs.;
- Bracket- 2 PCs. (for network cable fastening);
- Regulated slot head screwdriver- 1 PCs.;

REPLACEMENT WILL BE MADE AT THE FOLLOWING ADDRESS:

«ERA»LLC
390047, Novoselkovskaya street,17,Ryazan city, Russia
tel. (4912) 24-16-00,
e-mail: sale@era.trade,
www.era.trade

MANUFACTURER: «ERA»LLC

390047, Novoselkovskaya street,17,Ryazan city, Russia
tel. (4912) 24-16-00,
e-mail: sale@era.trade,
www.era.trade

APPROVAL CERTIFICATE

The controller is recognized suitable for operation

Date manufacture _____

Отметка ОТК _____

SOLD

The controller is recognized suitable
for operation _____

Serial number _____

Sale date _____