Declaration of Conformity No. EAEU N RU D-RU.PA01.B.96419/21.
The declaration is valid until 27.09.2026 inclusive.
Manufactured according to TU 3468-002-30612746-2016

Declaration of Conformity No. EAEU N RU D-RU.PA02.B.32054/21.
The declaration is valid until 09.11.2026 inclusive.
Manufactured according to TU 25.21.11-005-63013972-2020

Due to improvement of design and manufacturing technology of the product, minor deviations of the mass-dimensional parameters of the product from those specified in the data sheet are possible, which do not affect the thermal and operational characteristics.

Dear customer, thank you for choosing the products of PC Tekhnologiya LLC. We are sure that your trust will be fully justified and our products will be useful in solving your tasks.

Attention!

- **Use the electric convector only in those macroclimatic areas that are prescribed in the technical data sheet.**
- **For operation in cold climates, convectors in HL design are intended, the use of convectors in UHL design is prohibited.**
- **The installation of the product and all electrical and electrical engineering connections shall be carried out by qualified personnel with the appropriate degree of admission and qualification.**

Table of contents

1. Purpose of the product and technical characteristics.

1.1. Electric convector "ErgoNika" EXP2(E) (hereinafter referred to as "convector") is designed for heating residential, technical, warehouse, industrial, specialized premises by natural convection.

1.2. Power of convectors.
Convectors are produced with the power of 0.5; 0.75; 1.0; 1.5; 2.0; 2.25; 3.0; 4.5 kVA.
The number in the convector designation after the digit 2 (modification) indicates the power of the convector (in kVA).

1.3. Climatic version.
Convectors are manufactured in climatic versions UHL4 and HL3 according to GOST 15150 and are designed for operation in areas with moderate and cold climates, in heated and unheated rooms at ambient temperatures from 0 °C to +40 °C (for UHL version) and -60 °C to +40 °C (for HL version), respectively, relative humidity of no more than 98% at +25 °C. The letters HL indicate the design of the convector for cold climate. In the climatic version UHL, additional marking is not indicated. UHL and HL convectors are provided in various modifications (UHL4, UHL4.1, HL3, HL3.1).
HL - for macroclimatic areas with cold climate;
UHL - for macroclimatic areas with temperate and cold climates.

1.4. Degree of protection
Convectors have IP54 or IP56 design.
The IP54 degree means that the product is protected from dust and continuous spraying.
The IP56 degree means that the product is protected from dust and strong water jets.

1.5. Installation method.
wall mount or floor mount.

1.6. The method of connection to the power mains.
Convectors are available for operation with a single-phase (230V/50Hz) and three-phase (400V /50Hz) electrical network with the mandatory use of a neutral conductor. The type of the power mains is indicated in the designation after the convector power:
- 1 - single-phase mains;
- 3 - three-phase mains.

The voltage of the power mains is indicated with the " / " sign.

Convectors with a power of 0.5kVA, 0.75kVA, 1.0kVA, 1.5kVA, 2.0kVA are available for operation in a single-phase 230V mains. Convectors with a power of 1.5kVA, 2.25kVA, 3.0kVA, 4.5kVA are available for operation in a 3-phase mains.

1.7. Temperature on the surface of the heating element.
In the convector design, for which control and maintenance of temperature on the surface of the heating element up to +90 °C is provided, T-90 is indicated in the marking in brackets (after the degree of protection).
In the convector design, in which the temperature on the surface of the heating element exceeds +90 °C, nothing is additionally indicated in the designation.

Example of a convector designation:

EXP 2(E) -1.5-1/230 UHL(56)
special, industrial electric convector, 2 modifications, with an electronic temperature controller, 1.5 kVA power, single-phase, 230V supply voltage, climatic version UHL for areas with moderate and cold climates and IP56 degree of protection.

EXP 2(E)-3-3/400 HL(56)(T-90)
special, industrial electric convector, 2 modifications, with electronic temperature controller, 3.0kVA, three-phase, supply voltage 400V, climatic version HL for cold climate, degree of protection IP56, the maximum temperature on the surface of the heating element does not exceed +90 °C.

Convectors are designed for round-the-clock operation without supervision in compliance with the installation and operation rules set out in this document.

Technical specifications.

For a three-phase mains

Name	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)
Power, kVA	0.75	1.0	1.5	2.25	3.0	4.5
Power mains voltage, V	Not available	Not available	400±10%	400±10%	400±10%	400±10%
Frequency, Hz			50	50	50	50
Temperature adjustment range, ^{0}C			0-40	0-40	0-40	0-40
Class of protection against electric shock			1	1	1	1
Overall dimensions, maximum length(A) x height(H) x width (thickness)(B), mm			560x 450x 110	560x 450x 110	560x 450x 110	710x 450x 165
Overall dimensions including fasteners, maximum length (A) x height (H) x width (thickness) (B), mm			560x 630x 185	560x 630x 185	560x 630x 185	710x 630x 240
Net weight, maximum, kg			11	15	16	16
Degree of protection IP			54 or 56	54 or 56	54 or 56	54 or 56
Climatic version			UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3
EFFICIENCY	99.4%					

For a single-phase mains

Name	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)	EXP 2(E)
Power, kVA	0.5	0.75	1.0	1.5	2.0	3.0
Power mains voltage, V	230±10%	230±10%	230±10%	230±10%	230±10%	230±10%
Frequency, Hz	50	50	50	50	50	50
Temperature adjustment range, ^{0}C	0-40	0-40	0-40	0-40	0-40	0-40
Class of protection against electric shock	1	1	1	1	1	1
Overall dimensions, maximum length(A) x height(H) x width (thickness)(B), mm	560x 450x 110	560x 450x 110	560x 450x 110	710x 450x 165	560x 450x 110	560x 450x 110
Overall dimensions including fasteners, maximum length (A) x height (H) x width (thickness) (B), mm	560x 630x 185	560x 630x 185	560x 630x 185	710x 630x 240	560x 630x 185	560x 630x 185
Net weight, maximum, kg	6	6	8	8	10	11
Degree of protection IP	54 or 56	54 or 56	54 or 56	54 or 56	54 or 56	54 or 56
Climatic version	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3
EFFICIENCY	99.6%					

Convectors with a maximum heating element temperature of 90 °C.

For a three-phase mains.

Name	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)
Power, kVA	0.5	0.75	1.0	1.5	2.25	3.0
Power mains voltage, V	Not available	Not available	Not available	400 ±10%	400±10%	400±10%
Frequency, Hz				50	50	50
Temperature adjustment range, ^{0}C				0-40	0-40	0-40
Class of protection against electric shock				1	1	1
Overall dimensions, maximum length(A) x height(H) x width (thickness)(B), mm				560x 450x 110	560x 450x 110	560x 450x 110
Overall dimensions including fasteners, maximum length (A) x height (H) x width (thickness) (B), mm				770x 630x 185	560x 630x 185	560x 630x 185
Net weight, maximum, kg				8,5	11,5	12,5
Degree of protection IP				54 or 56	54 or 56	54 or 56
Climatic version				UHL4 or HL3	UHL4 or HL3	UHL4 or HL3
EFFICIENCY	99.6%					

For a single-phase mains*.

Name	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)	EXP 2(E) (T-90)
Power, kVA	0.5	0.75	1.0	1.5	2	3
Power mains voltage, V	230±10%	230±10%	230±10%	230±10%	230±10%	230±10%
Frequency, Hz	50	50	50	50	50	50
Temperature adjustment range, ^{0} C	0-40	0-40	0-40	0-40	0-40	0-40
Class of protection against electric shock	1	1	1	1	1	1
Overall dimensions, maximum length(A) x height(H) x width (thickness)(B), mm	560x 450x 110	560x 450x 110	560x 450x 110	710x 450x 165	560x 450x 110	560x 450x 110
Overall dimensions including fasteners, maximum length (A) x height (H) x width (thickness) (B), mm	560x 630x 185	560x 630x 185	560x 630x 185	710x 630x 240	560x 630x 185	560x 630x 185
Net weight, maximum, kg	7.5	7.5	8.5	8.5	11.5	12.5
Degree of protection IP	54 or 56	54 or 56	54 or 56	54 or 56	54 or 56	54 or 56
Climatic version	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3	UHL4 or HL3
EFFICIENCY	99.6%					

*- temperature on the surface of the device body: **maximum 60 °C;**
* - the temperature on the surface of the heating element of the device: **maximum 90 °C.**

The temperature on the surface of the devices corresponds to GOST 16617 and does not exceed the values specified in it.
The temperature of the external surface of the body of the electric convector, with the exception of 25 mm wide areas near the air outlet grilles in the electric convector in normal operation, shall not exceed the ambient temperature by more than 85 °C.
The temperature of the air at the electric convector outlet shall not exceed the ambient temperature by more than 130 °C.
The temperature on the air outlet grilles in the electric convector shall not exceed the ambient temperature by more than 130 °C.

2. Design and principle of operation.

The design and the principle of operation of the convector EXP2(E):

2.1. The body is designed for attaching a junction box, heating elements and fixing the product to the wall (or floor) in it. Two bends on the back wall of the body are designed for wall mounting, with which the body is put on brackets attached to the wall. The body is made of cold-rolled or stainless steel sheet with a thickness of 1.0 mm and painted with powder paint.

2.2. An X-shaped heating element with an aluminum alloy radiator with sealed terminals is attached to the convector body.

2.3. The junction box is designed to accommodate the electrical part of the device and protect it from dust and water, made of 1.0 mm thick steel. The output of the power cable and thermal sensors is carried out through cable entries.

2.4. Electrical part.

The power to the device is supplied via a three-core (for a single-phase electrical mains (230V / 50Hz)) or five-core (for a three-phase electrical mains (400V /50Hz)) cable with a length of at least 1.5 m, included in the delivery package. By prior order, the convector power supply cable for operation in a single-phase electrical mains can be equipped with a mains plug for connection to a domestic power supply mains.

The device shall be connected to the electrical mains by qualified personnel with the appropriate degree of admission.

The power to the heating element is supplied through an electronic regulator designed to regulate the temperature in the room, and a thermal fuse designed to prevent overheating of the device (the setpoint fuse is triggered at +90 °C) and protect against short-circuit currents.

Cold air enters the convector body from below through the perforated bottom. Passing through the heating element, the air flow heats up and rises, exiting through the grille in the upper part of the body. This creates a convection flow directed from the bottom up.

For the correct and safe operation of the convector and the preservation of its thermal performance, it is not allowed to close the grilles on the device body and prevent the passage of the convection flow.

The convector body largely shields the radiation of the heating element on the surrounding objects, while increasing the convection component of heat exchange.

2.5. Design features of devices with a degree of protection IP56.

To ensure the degree of protection IP56:

- the junction box is attached to the body through a seal;
- the components mounted on the side panel and designed to control the operation of the convector have a degree of protection not lower than IP56.

2.6. Design features of three-phase devices:

- there are three heating elements in the device body;
- power to the heating elements is supplied through a triac regulator.

2.7. Connection of convector wires:

EXP 2(E) single-phase 230V 50Hz

brown – phase; blue - neutral; yellow-green - grounding

EXP 2(E) three-phase 400V 50Hz

red, brown, black, white – phase, blue - neutral, yellow-green - grounding.

If the color of the wires is different, **then blue is neutral. Yellow-green – grounding, the rest - phase.**

Convectors for the three-phase electrical mains (400V/50Hz) can be connected to the single-phase electrical mains (230V/50Hz) by combining all phase wires. These works are allowed to be performed only by qualified personnel with an appropriate degree of admission.

Rated parameters are provided at a room temperature of +10 °C and below, while the temperature on the surface of the heating element does not exceed +90 °C in the T-90 version.

2.8. Design features of devices with a maximum temperature at the surface of the heating element maximum +90 °C (in the T-90 version).

Ensuring the maximum temperature of the heating element of not more than +90 °C and below is guaranteed at a room temperature of +10°C and below. The temperature of the heating element maximum +90 °C is provided by means of a microcontroller control that turns off the power when the temperature of the heating element reaches +90 °C. The average hourly power of the devices will be lower than the nominal.

3. Scope of delivery.

The electric convector EXP 2(E) is supplied assembled. A variant of the product appearance is shown in Fig.1.

The scope of delivery includes:

Electric convector EXP 2(E) (supplied assembled) - 1 pc.
Wall or floor brackets – 2 pcs.
Technical data sheet - 1 pc.
Packing box - 1 pc.

4. Preparation for work, installation and operation.

4.1. Keep the product in the package for at least 4 hours in the room in which it will be installed.
4.2. Unpack the product.
4.3. Attach the brackets to the wall. For floor mounting, install the convector on the floor brackets and attach them to the floor. The recommended installation scheme is shown in Fig.2.
4.4. Connect the convector power cable to the mains via an RCD or differential circuit breaker, with a leakage current of maximum 500 mA, in accordance with the color of the wires and the voltage for which the convector is designed.
4.5. Apply power to the convector by pressing the convector power button. The temperature is set using the "More" or "Less" buttons. The convector is switched off by pressing the convector on/off button again. The control panel is shown in Fig. 1.
4.6. In the room where the convector is installed, the relative air humidity shall not exceed 98% at 25 °C.
4.7. It is recommended to install the convector at a height of at least 100 mm from the floor level and at a distance of 75-80 mm from the wall, see Fig.2.
4.8. Installation, maintenance and repair of convectors shall be carried out by qualified personnel with an appropriate degree of admission.
4.9. During operation, the convector does not require maintenance.
4.10. If the convector is used in dusty rooms, if necessary, at least 1-2 times a year, it is recommended to blow the heating element of the convector with compressed air.

Appearance of the EXP 2(E) device

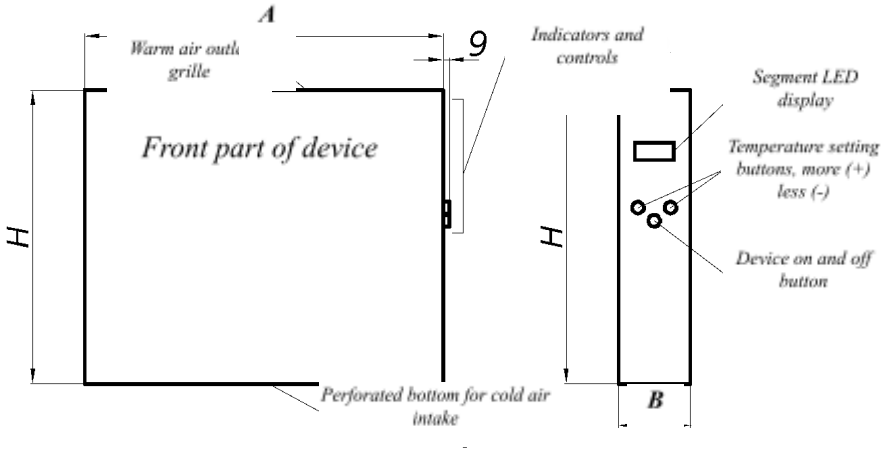

Fig. 1

Recommended installation scheme

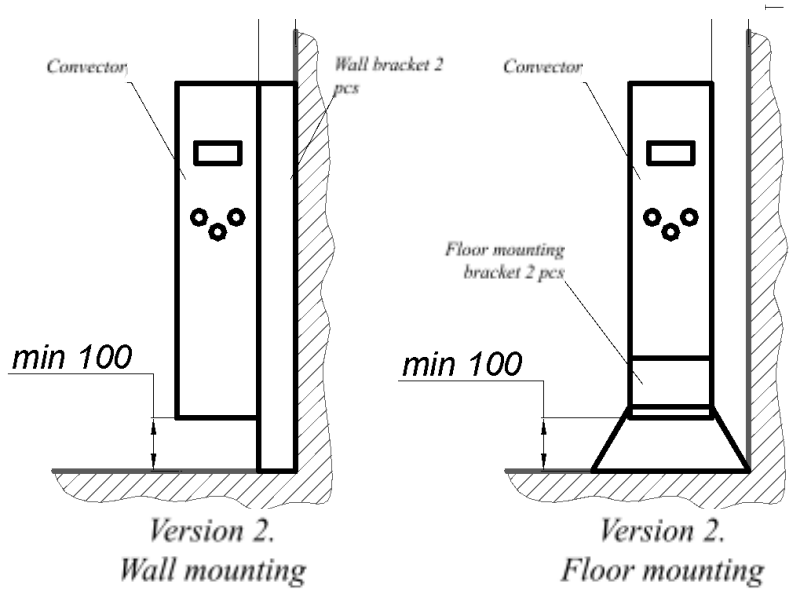

Fig. 2

5. Safety requirements.

IT IS PROHIBITED TO:

5.1. Turn on the convector at full power in cold rooms,
the output of the convector to the desired temperature regime shall be carried out gradually.

5.2. Use a convector with visible damages to the supply wires and grounding conductors.

5.3 Cover the convector with cloth, articles of clothing, etc., including for the purpose of drying them;

5.4. Install the convector in close proximity to the mounting, junction boxes, sockets, etc.

5.5. In case of failure of the convector, it is necessary to immediately disconnect the power supply.

5.6. The re-activation of the convector is allowed after identification and elimination of the failure.

6. Storage, transportation and disposal rules.

6.1. The convector shall be stored in closed dry rooms. Ambient air temperature during storage of the convector in the UHL version from -40 °C to +40 °C or in the HL version from: -60°C to +40°C at a relative humidity of 98% at +25 °C.

6.2. Transportation of the electric convector in a package is allowed to be carried out by any type of transport for any distance. Transportation conditions in terms of the impact of climatic factors - according to the group of storage conditions 4 (Zh2) GOST 15150; transportation conditions in terms of the impact of mechanical factors - according to the group of transportation conditions "C" GOST 23216.

6.3. The product does not contain precious metals, harmful substances and components; after the end of its service life can be disposed of by recycling organizations.

7. Manufacturer's warranty.

7.1. The manufacturer guarantees the normal operation of the convector, subject to the rules of operation and storage.

7.2. The warranty period is 1 year from the date of sale, but not more than 1.5 years from the date of manufacture.

7.3. The manufacturer undertakes to eliminate production and process defects of the product, which were revealed during operation, free of charge during the warranty period of operation. Prior to this, further operation of the product for its intended purpose is prohibited. If the production and process defect of the product cannot be eliminated during the warranty period, then, in agreement with the manufacturer, the issue of repair or replacement of the product with the same or similar one is resolved.

7.4. Warranty repairs are carried out by the manufacturer at its location.

7.5. The delivery of the product to the manufacturer is carried out by the Customer independently. The product delivered by the Customer to the manufacturer shall be packed in a standard packaging container or similar packaging that guarantees its safety and protection from mechanical damage. Together with the product, a product data sheet, a complaint sheet with a description of the malfunction, defect, etc., contact information of the Customer or authorized representative, contacts of the specialist who installed the product with a copy of his qualification documents shall be enclosed in the package.

7.6. Warranty obligations do not apply to operational defects that have arisen as a result of natural wear of the product, violation of the rules of its operation, connection, transportation and storage.

7.7. The manufacturer does not accept claims for incompleteness, in case of violation of the integrity of the packaging, mechanical damages to the convector, ingress of foreign objects, substances, aggressive liquids, traces of self-disassembly, repair or modification, natural disasters, fires and others, non-compliance with the requirements of this data sheet.

8. Regulatory references.

GOST 15150 - Machines, devices and other technical products. Versions for different climatic regions

GOST 16617 - Household heating appliances

GOST 23216 - Electrical products. Storage, transportation, temporary anticorrosive protection, packaging. General requirements and test methods

Protection class against external influences IP-54; IP-56.

Power supply: single-phase (230V/50Hz) or three-phase (400V/50Hz) electrical mains

Floor or wall mounting

Climatic version UHL; HL

Colour standard grey according to RAL 7035 (shagreen)

Scope of application: wet and dusty rooms, explosive rooms and zones B-Ia, B-Ib, B-Ig, B-IIa.

9. Certificate of acceptance and sale.

Electric convector EXP 2(E) - _____ /_____

factory No. _____

Complies with GOST IEC 60335-2-30-2013, GOST 30805.14.1-2013, GOST 30805.14.2-2013i is found suitable.

Date of manufacture:_____202___.

QCD stamp

Packer's signature_____

Sold by _____
(name of the trading company)

Date of sale:_____202___.

Cut line

10. Warranty card.

The counterfoil of the warranty repair (maintenance) card

Factory number

No_____

Withdrawn_____
_
(date)

Executor_____

_____

_____

CARD NO. _____

For warranty repair of the electric convector

EXP 2(E) - _____/_____

Factory number No. _____

Date of manufacture _____202____

Date of sale_____202____

QCD stamp

List of performed troubleshooting works:

_____

_____

_____

_____

_____

___

Signature of the repair specialist_____

Owner's signature_____

Stamp of the enterprise that carried out the repair

L.S.

_____

(position and signature of the head of the company who performed the repair)