

EU DECLARATION OF CONFORMITY

No. 1A-EU-02/23-04

In accordance with EU directive 2014/35/EU as amended

We, **KOPOS KOLÍN a. s.**
Havlíčková 432
280 02 Kolín
Czech Republic
IČ: 61672971
DIČ: CZ61672971

declare under our sole responsibility that
the product/type: **Electric installation products into thermal insulation and accessories
KUZ, KUZ-VO, KUZ-VOI**

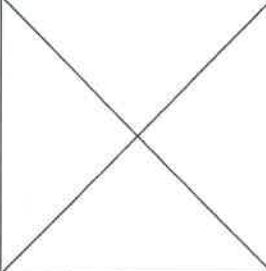
manufacturer: **KOPOS KOLÍN a.s., Havlíčkova 432, Kolín IV 280 02 Kolín, Czech Republic**

object of the declaration: For installation to facades with thermal insulation, or as boxes under parget.
Temperature resistance boxes during installation is from -25 °C to + 60 °C (does not apply to enclosures according to EN 60 670-24).
The IP44 degree of protection with the lid closed using gaskets under the frame, provided that the plaster has a roughness of up to 2mm (without the use of gaskets or with greater grain coarseness, the degree of protection with the lid closed is only IP30). The degree of protection with the lid open has KUZ-VO, KUZ-VOI for access to live parts the degree of protection IP30.
The material for boxes KUZ is halogen-free, (self-extinguishing), flame retardant (tested 850°C).
The needle burner test was conducted in accordance with ČSN EN 60695-11-5.

Enclosures KUZ-VO, KUZ-VOI are designed to be built into a brick wall, or into a thermally insulated building facade. It also complies with EN 60670-24.
Rated current In 20A.
Protection against mechanical damage IK07 grade.
Temperature resistance -15°C to + 55°C including warming. This limitation is based on the permissible temperatures for installed devices.
Designed for circuits up to 230V.
Insulation resistance 2000MΩ according to EN 60670-1 art. 14.2.
Electrical strength 4,5kV according to EN 60670-1 Art.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation, other legislation and regulations:

Regulations Of the European Union	Government Regulations	Standards	Certificates and Test Reports	Other technical specification
2014/35/EU - LVD	Law No. 90/2016 Coll. as amended Government Regulation No. 118/2016 Coll. as amended	ČSN EN IEC 60670-1 ed.2:21 including amendments ČSN EN 60670-1:05 +Z1:10+A1:13+Z2:21 including amendments (EN 60670-1:05 including amendments) ČSN EN 60670-22:07 including amendments (EN 60670-22:06 including amendments)	Test Report No.. 230610-01/01 of 21.03.2023 Issued by: Electrotechnical Testing Institute, Pod Lisem 129, 171 02 Prague 71, Czech Republic	

2014/35/EU - LVD	<p>Law No. 90/2016 Coll. as amended</p> <p>Government Regulation No. 118/2016 Coll. as amended</p>	<p>ČSN EN 60670-24: 2014 including amendments (EN 60670-24:2013 including amendments), ČSN EN 60670-1:2005 including amendments (EN 60670-1:2005 including amendments), ČSN EN 60670-1 ZMĚNA A1:2013 including amendments (EN 60670-1/A1:2013 (including amendments), ČSN EN 50102:1997 including amendments (EN 50102:1995 including amendments), ČSN EN 60529: 1993 including amendments (EN 60529:1991 including amendments)</p>	<p>Test Report No. 194400-047/209 of 10.7.2019</p> <p>Certificate no. VTÚPV – 028/2019 of 12.7.2019</p> <p>Issued by: Vojenský technický ústav, s.p., odštěpný závod VTÚPV, Úsek zkoušení techniky, Víta Nejedlého 691, 682 01 Vyškov</p>	<p>Enclosures KUZ-VO and KUZ-VOI</p> <p>Assembly instructions See Annex 2 KUZ-VO, KUZ-VOI is a complete PD enclosure - for pre-determined equipment, according to 7.102.2. A maximum of 4 devices with a width of 18 mm can be integrated in the box. Tested type of instruments: EATON PL7-B16/1, OEZ LTN B16-1.</p> <p>KUZ-VO, KUZ-VOI in full cover, according to 7.102.1. GP, can only integrate components, power loss characteristics are as described in assembly instructions for GP.</p>
2014/35/EU - LVD	<p>Zákon č. 90/2016 Sb. v platném znění</p> <p>NV 118/2016 Sb. v platném znění</p>	<p>ČSN EN 60670-24:14 čl. 19 including amendments (EN 60670-24:14 cl.19 including amendments)</p>	<p>Test Report No. 911380-01/01 of 29.5.2019</p> <p>Issued by: Electrotechnical Testing Institute, Pod Lisem 129, 171 02 Prague 71, Czech Republic</p>	<p>Method for the determination of the proof and the comparative tracking indices of solid insulating materials – KUZ-VO</p>
2014/35/EU - LVD	<p>Law No. 90/2016 Coll. as amended</p> <p>Government Regulation No. 118/2016 Coll. as amended</p>	<p>ČSN EN 60670-24:14 čl. 14.1 a 14.3 including amendments (EN 60670-24:14 cl.14.1 and 14.3 including amendments)</p>	<p>Test Report No. 911380-01/02 of 13.6.2019</p> <p>Issued by: Electrotechnical Testing Institute, Pod Lisem 129, 171 02 Prague 71, Czech Republic</p>	<p>Test: Insulation resistance and electric strength – KUZ-VO</p>
2014/35/EU - LVD	<p>Law No. 90/2016 Coll. as amended</p> <p>Government Regulation No. 118/2016 Coll. as amended</p>	<p>ČSN EN 60670-1:05 A1:13+Z1:10 including amendments (EN 60670-1:05 including amendments)</p> <p>ČSN EN 60670-22:07 including amendments (EN 60670-22:06 including amendments)</p>	<p>Test Report No.. 800336-01/01 of 27.2.2018</p> <p>Issued by: Electrotechnical Testing Institute, Pod Lisem 129, 171 02 Prague 71, Czech Republic</p>	
		<p>EN 60670-24</p>	<p>Instructions for use to complete cover KUZ –VO (I) of 22.11.2019</p>	<p>Generalization of instrument testing in PD for similar instruments.</p>

			Issued by: KOPOS KOLÍN a.s, Havlíčková 432, 280 02 Kolín, Czech Republic	
		ČSN EN 60670-1:05+A1:13 čl. 15.3 including amendments (EN 60670-1:05 čl. 15.3 including amendments), ČSN EN ISO 4892-2:13 including amendments, ČSN EN 61386-1 ed.2:09 čl. 10.3 including amendments	Test Report No. 403994-01/01 of 26.11.2014 Issued by: Electrotechnical Testing Institute, Pod Lisem 129, 171 02 Prague 71, Czech Republic	UV resistance test – cover V 180 for box KUZ and cover VO 180 for box KUZ
				Halogen-free (HF) according to documents from the supplier
Regulation 1907/2006 - REACH				Safety data sheets for used materials

By fulfilling the conditions in accordance with these regulations was placed on the product CE marking.

Conformity assessment module: **MODUL A: Internal production control**

Technical documentation of products:

- assembly instructions
- Datasheet
- Catalog for products freely available on <http://www.kopos.com/en/catalogy>
- Internal documents

KOPOS KOLÍN a.s. company is certificated according to the standard ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 and according to the National program „Safety Enterprise“.

Signed for KOPOS KOLÍN a.s.




Place of issue: Kolín, Czech Republic

Ing. Jana Dejmková

Date of issue: 14.04.2023

quality director

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Enclosure No. 1 to EU Conformity Declaration No. 1A-EU-02/23-04
**Electric installation products into thermal insulation
 Mounting box KUZ**

Boxes	
KUZ	installation box into thermal insulation
KUZ-D	universal installation box into thermal insulation without cover
KUZ-V	universal installation box into thermal insulation with cover
KUZ-VO	universal installation box into thermal insulation with opening cover
KUZ-VI	universal installation box into thermal insulation with cover, isolation and tube
KUZ-VOI	universal installation box into thermal insulation with opening cover, isolation and tube

Accessories	
V 180	equal cover
VO 180	opening cover
DK KUZ	cover plate of the box into the thermal insulation
TV 180	gasket of the cover
TVO 180	gasket of the opening cover
PN KUZ	instrument carrier for installation box into thermal insulation KUZ
PN KUZ DK	instrument carrier with cover plate

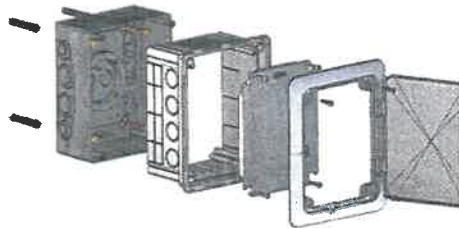
Enclosure No. 2 to EU Conformity Declaration No. 1A-EU-02/23-04
ENCLOSURES KUZ-VO and KUZ-VOI according to EN 60670-24-ASSEMBLY INSTRUCTIONS
Enclosure No. 3 to EU Conformity Declaration No. 1A-EU-02/23-04
Instructions for use to complete cover KUZ-VO(I) according to EN 60670-24


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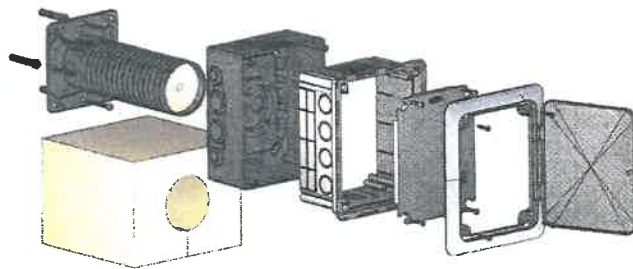
ENCLOSURES KUZ-VO and KUZ-VOI according to EN 60670-24 ASSEMBLY INSTRUCTIONS

The cover is designed to be built into a brick wall, or into a thermally insulated building facade.

Type KUZ-VO



Type KUZ-VOI



It complies with the requirements of EN 60 670.

Screws for fixing the box to the tube must be tightened to a maximum of 0.5 Nm.

Used material:

The material is halogen-free, (self-extinguishing), flame retardant (tested 850°C according to ČSN 60670-1 art.18), and the resistance test is performed above the requirements flame propagation as required by ČSN 37 0100 according to EN 60695-11-5 for 30s. Insulation resistance 2000MΩ according to EN 60670-1 art. 14.2.

Electrical strength 4,5kV according to EN 60670-1 Art 14.3

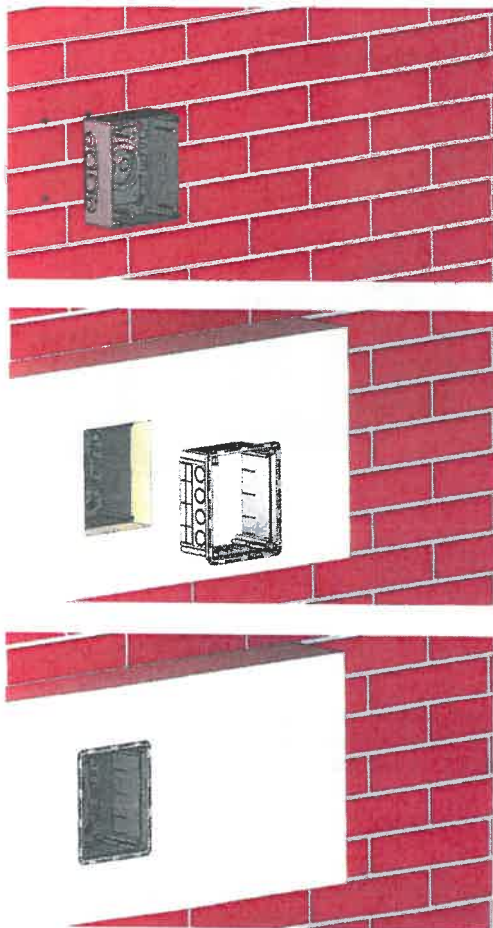
Enclosures according to EN 60670-24:

Designed for circuits up to 230V. Rated current in 20A. Degree of protection IP 30 /IP44 - with sealing under the frame with a grain thickness of up to 2mm. When the lid is opened, it has a full cover for access to live parts of IP30. Protection against mechanical damage IK07 grade. Temperature resistance -15°C to + 55°C including warming. This limitation is based on the permissible temperatures for installed devices.

Assembly procedure

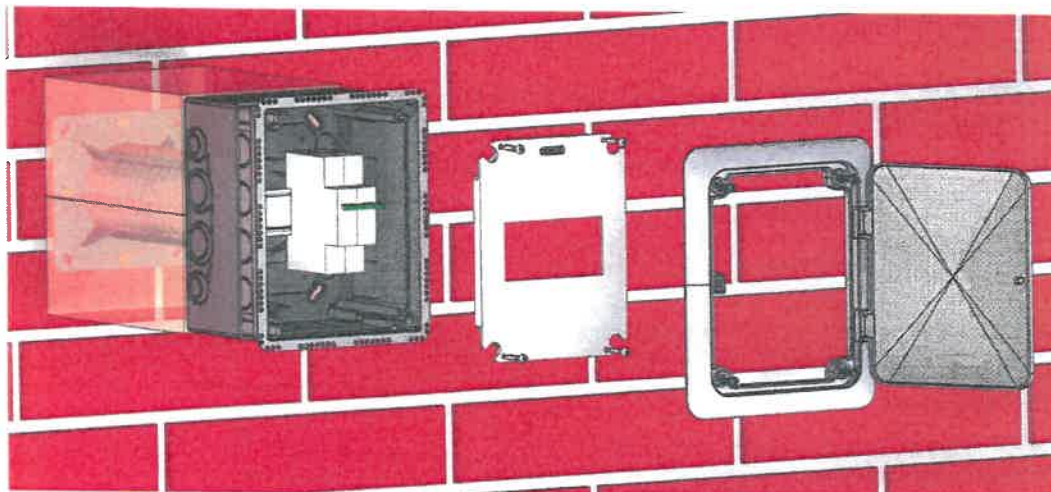
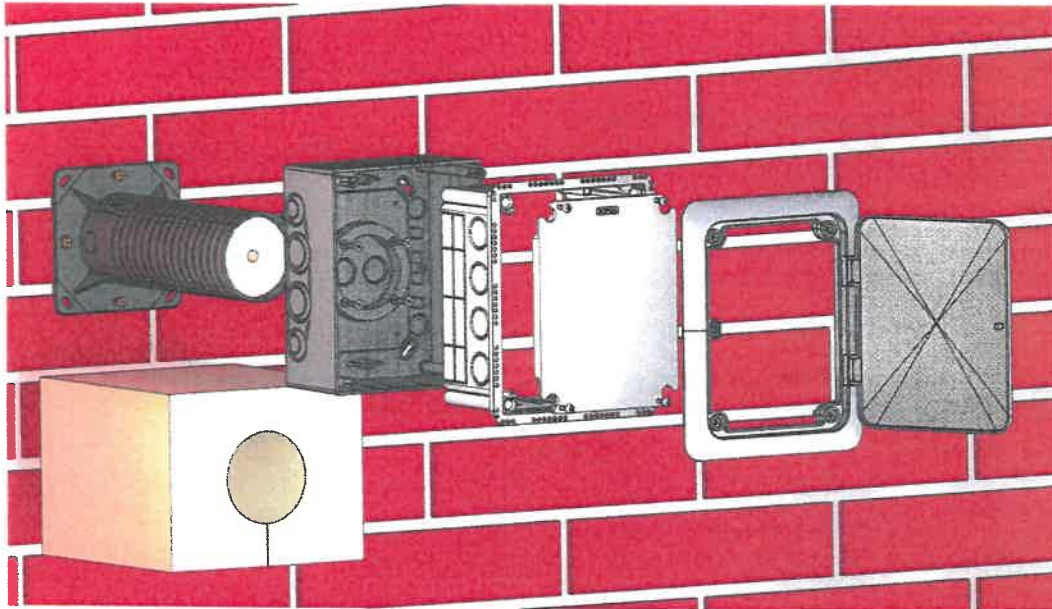
1. Fix the bottom part to the vertical wall with the enclosed wall plugs. Inputs for 16, 20, 25 and 32 mm pipes are pre-marked in the housing. Selected the inlet at the point of weakness, an opening for the line entry is formed.
2. Then the wall can be lined with insulating material around the cover.
3. Subsequently, the sliding part is slid onto the fixed lower part so that the rim is fixed to the four screws in the corner columns. The height can be (adjust) between 85 and 150mm. However, to install the devices on the support trunking TS35, the height must only be between 120 and 130 mm.
4. After the application of a reinforcing fabric and final plaster, the lid is ready for installation.

Insulation height from 85 to 150mm.



- 5. To avoid the formation of a thermal bridge, it is necessary to use a tube assembly (KUZ-VOI), which is shortened together with the supplied insulating material to the required length according to tiling height. The cover is placed on the tube, which is attached to the wall with an inserted insulating material. The lower part is fixed by screwing the four screws into the holes in the bottom, which are cut into the recess inside the tube.**

Next, follow the steps above.



Use as enclosures according to EN 60670-24

ENCLOSURES KUZ-VO. (KUZ-VOI) according to EN 60670-24
PD instructions for use

BB.1. In general

KUZ-VO (I) is a complete PD enclosure - for pre-determined equipment, according to 7.102.2.

BB.2. Rated current and main characteristics

The box KUZ-VO (I) is designed for single-phase connection with circuit voltage max. 230V.
Full cover rated current - In 20A. Operating temperature -15 ° C to + 55 ° C including warming.

BB.3. Devices that can be integrated

A maximum of 4 devices with a width of 18 mm can be integrated in the box.

The following devices or combinations thereof may be used:

- (MCB) circuit breaker with current up to 6A, 10A, 13A or 16A
with a power loss of max. 2.2W / pole, complying with the product standard IEC 60898-1.
- (RCBO) RCD with overcurrent protection up to 10A
with a power loss of max. 2.2W / pole complying with the product standard IEC 61009-2-1.
- support trunking TS35 for mounting devices (according to EN 60715)
- jumper bridges PE7, N7 with mounting on TS35 support trunking

BB.4. Dimensions

To install the devices in the complete housing, the inner depth of the KUZ-VO (I) must be adjusted
120 to 130mm with four locking screws in the corners of the cover.

In the cover plate DK KUZ it is necessary to create an opening for the respective number of used modules.

According to the pre-marked template on the back of the board, the hole is drilled and cut out for max. 4 modules.

The outer dimension of the KUZ-VO (I) housing is 185x145 and the depth is 120 to 130mm.
Internal dimension 170x130 and depth 115 to 125 mm.

TS 35 support trunking length: - 130 mm with 103 mm hole spacing
- 165 mm with a hole pitch of 150 mm

The bar is fastened by a round head screw 4,5x16mm screwed into the pillars at the bottom.

BB.5. Connection

PE7 and N7 junction bridges with TS35 support trunking mounting, with connection capability: 7 rigid conductors up to 4mm, or 7 flexible conductors up to 4mm.

To connect the devices, it is necessary to use a connecting rail with a fastening under the screw head of the clamp integrated device.

BB.6. Protection against electric shock

The KUZ-VO (I) cover is made entirely of insulating material.

After installation of the instruments, the cover plate DK KUZ is fastened with four screws and covers the live parts.

BB.7. IP protection and IK code

With the lid open, the KUZ-VO (I) has an IP30 degree of protection for live parts.

The degree of IP44 is when the lid is closed with the use of a gasket under the frame assuming roughness plaster up to 2mm. (Without sealing or with greater grain coarseness, the degree of protection with the lid closed is only IP30).

The KUZ-VO (I) housing has protection against mechanical damage to IK07.

BB.8. Engagement

For internal wiring, the condition is that the distance between live parts and metal inaccessible parts support trunking TS35) is at least 3mm. Wire cross-sections must comply with wiring regulations.

The accessible metal parts in the full cover KUZ-VO (I) are not used.

ENCLOSURES KUZ-VO, (KUZ-VOI) according to EN 60670-24 GP instructions for use

AA.1. In general

KUZ-VO (I) in full cover, according to 7.102.1. GP, can only integrate components, power loss characteristics are as described below. Circuit voltage - single phase connection max. 230V.

The ability of the full cover KUZ-VO (I) to dissipate power $P_{de} = 5W$.

The installer must verify that the integrated power dissipation device it does not cause warming to the measured on the hottest accessible portion of the formed GP cover equipped with a GP Full Cover greater than 30K.

You must verify:

$$P_{tot} \leq P_{de} \quad (5W)$$

Where

P_{de} is the maximum capability of a full cover to dissipate the power, in watts, specified by the manufacturer in normal use.

P_{tot} are the total power losses of electrical accessories and protective devices to be built into the full GP housing and their joints, calculated as follows:

$$P_{tot} = P_{dp} + 0,2P_{dp} + P_{au}$$

Where

P_{dp} are the power losses of protective devices.

$0,2P_{dp}$ P_{dp} is increased with regard to power losses in connections, outlets, relay relays with delay.

P_{au} are the power losses of electrical accessories other than the previous ones (eg transformers, lights, lights etc.).

P_{de} is calculated as:

$$P_{de} = \sum P_e \times P_e \times K_e^2 + \sum P_n \times P_n \times K^2$$

Where

P_e the number of poles of the supply circuits

P_e scattered power for each pole of the supply circuit device

$K_e = 0,85$

P_n the number of poles of the device inside the complete housing except for the supply circuit devices of the supply circuits

P_n scattered power for each pole of the device inside the complete enclosure except for the supply circuit devices

K value (≤ 1) depends on the simultaneous use of connected loads.

If actual stream information is not available, it can be used the agreed K -values according to the following table:

Number of main circuits	Contemporary Factor K
2 and 3	0,8
4	0,7

AA.2. Marking

AA.2.1. The following must be on the fitted GP full cover:

- the name or identification of the installer
- the type or other markings used by the installer to identify the fitted full GP cover
- rated current (I_n) in amperes.
- rated voltage in volts.
- mark for type of voltage
- degree of protection with full GP enclosure + brand for total insulation protection if applicable.

The installer must provide the following information in the documentation accompanying the full GP cover:

- a declaration of conformity according to which the fully equipped GP housing is manufactured according to the rules of current technology
- information regarding the calculation performed

AA.3. Test and verification to be performed by the operator installation

AA.3.1 In general

1. **Identification:**
Inspection of Marking and Compliance of Equipped Full GP Cover with Wiring Diagrams.
2. **Total insulation protection:**
Verification of the requirements to protect the overall insulation and cover integrity.
3. **Verifying Engagement:**
Verify proper wiring and function.
4. **Protection of cover:**
Verification of protection against intrusion of solid foreign bodies and water.

5. **Insulation resistance:**
The insulation resistance test is carried out at a voltage of at least 500V.
The insulation resistance must be at least $1000\Omega/V$ with respect to the rated voltage.
6. **Warming limits.**
Covered by the calculation performed under AA.1 above.

Date of issue: 22.11.2019


Ing. Jaroslav Topol
Technical manager

Instructions for use to complete cover KUZ –VO (I) according to EN 60670-24

1-General

KUZ-VO (I) is a complete PD cover - for predetermined devices, according to 7.102.2.

2 -Main characteristics

The complete housing KUZ-VO (I) is designed for single-phase connection with circuit voltage max. 230V.

Rated cover current - In 20A.

Operating temperature -15 ° C to + 55 ° C including warming. This temperature is based on the permissible ambient temperatures for the installed devices.

3. Apparatus that may be ingested

A maximum of four devices can be integrated in the complete housing of the KUZ-VO (I), with module width 18mm.

The following devices or combinations thereof may be used:

- (MCB) circuit breaker with current 6A, 10A, 13A or 16A with power dissipation max. 2.2W / pole, according to IEC 60898-1.
- (RCBO) RCD with overcurrent protection 10A with power dissipation max. 2.2W / pole, according to IEC 61009-2-1.

4 - Test results

Warming verification was performed according to the requirements of EN 60670-24 article 102.

Tests have shown that following the installation instructions are not significant differences in results when using devices from different manufacturers.

Warming tests complied with sufficient margin.

5 - Closure

The complete KUZ-VO (I) enclosure can be used with devices from different manufacturers with a power loss of up to 2.2W per pole, provided the installation instructions are met.

Date of issue: 22.11.2019

Ing. Jaroslav Topol
Technical manager

