

# **SHORT-CIRCUITING SET 1 kV**

## **type 153001**

### **User manual**

#### **General description:**

The short-circuiting set is designed for short-circuiting and earthing of circuits in substations and transformer stations with phase-to-phase voltage up to 1000 V at a frequency of 50 Hz. It is suitable for connection to:

- short circuit ball-shaped point Ø 20 mm
- "T" shape Ø 15 mm
- circular cross section Ø 5-20 mm
- flat conductors up to  $\neq$  20 mm

The short-circuiting set is composed of three pieces of line clamps, earthing clamp, short-circuiting cables and one insulating stick which allows the safe deployment and tightening of line clamps.

#### **Important warning:**

1. Before using of short-circuiting set must be by voltage tester reliably detected that part of line which to be short-circuited is not energized.
2. The short-circuiting set is fitted for both out-and-indoors usages at conventional atmospheric conditions (climatic conventional category from – 25°C to +55°C). It must not be used in rain, snow and fog.
3. The connection point of short-circuiting set is necessary to choose with regard to dynamic forces and danger of burning when passing through the short-circuit current (not to be at risk workplace or escape routes).

## **Directions for use:**

At the earliest connect the earthing clamp to grounding (protective conductor) or on a grounded metal construction. Insert the tightening screw of line clamp into the socket of insulating stick. Open the jaws of line clamp (clamps) by using a screw mechanism so that clamb can be hung on a conductor which is to be shorted. Hang the line clamp by using insulating stick on conductor and tighten by turning of stick. Then, by pulling in the direction from the line clamp, the insulating stick is released and the tightened line clamp remains on the short-circuited wire.

The remaining clamps connect the same way. When unplugging, the process is reversed, ie. at the earliest unplug conductor clamps from the phase conductors.

Perfectly tighten all connecting line and earthing clamps. Torque value of tightening for clamps is 7-12 Nm.

When manipulating line clamp, insulating stick must be hold by handle which is clearly marked with the lower stick's end with a plug and a protective collar.

## **Maintenance instructions:**

The short-circuiting set must be kept in good condition and in dry rooms where they can not be mechanically damaged. During storage is necessary to ensure to avoid getting wet of shorting and earthing cables. Before each use, it is necessary to perform a visual inspection and at least once a year a thorough inspection, including cleaning and tightening of all connection points and ohmic resistance checking. If it is found during these inspections any defect (damaged insulation, deformation, etc.), the short-circuiting set must be taken out of use.

Also the short-circuiting set exposed to the effects of short-circuit current must be taken of use, except where it is clearly proved (by examining, calculation) that could not be damaged. Damaged short-circuiting set we recommend to send the manufacturer for repair.

The life expectancy of the short-circuiting set is 10 years.

## **Testing:**

Products are subjected to type tests according to CSN EN 61230 and IEC 61230 in a state-accredited testing laboratory, EGÚ Běchovice. Before dispatching, each product is subjected to routine test.

## **Packing:**

The short-circuiting set is standardly delivered without case. The User's Manual as well as a letter of warranty are enclosed as a part of each product. The requirement for case must be specified in the order.

## **Storage:**

The short-circuiting set must be stored in dry rooms where they can not be mechanically damaged.

## **Warranty:**

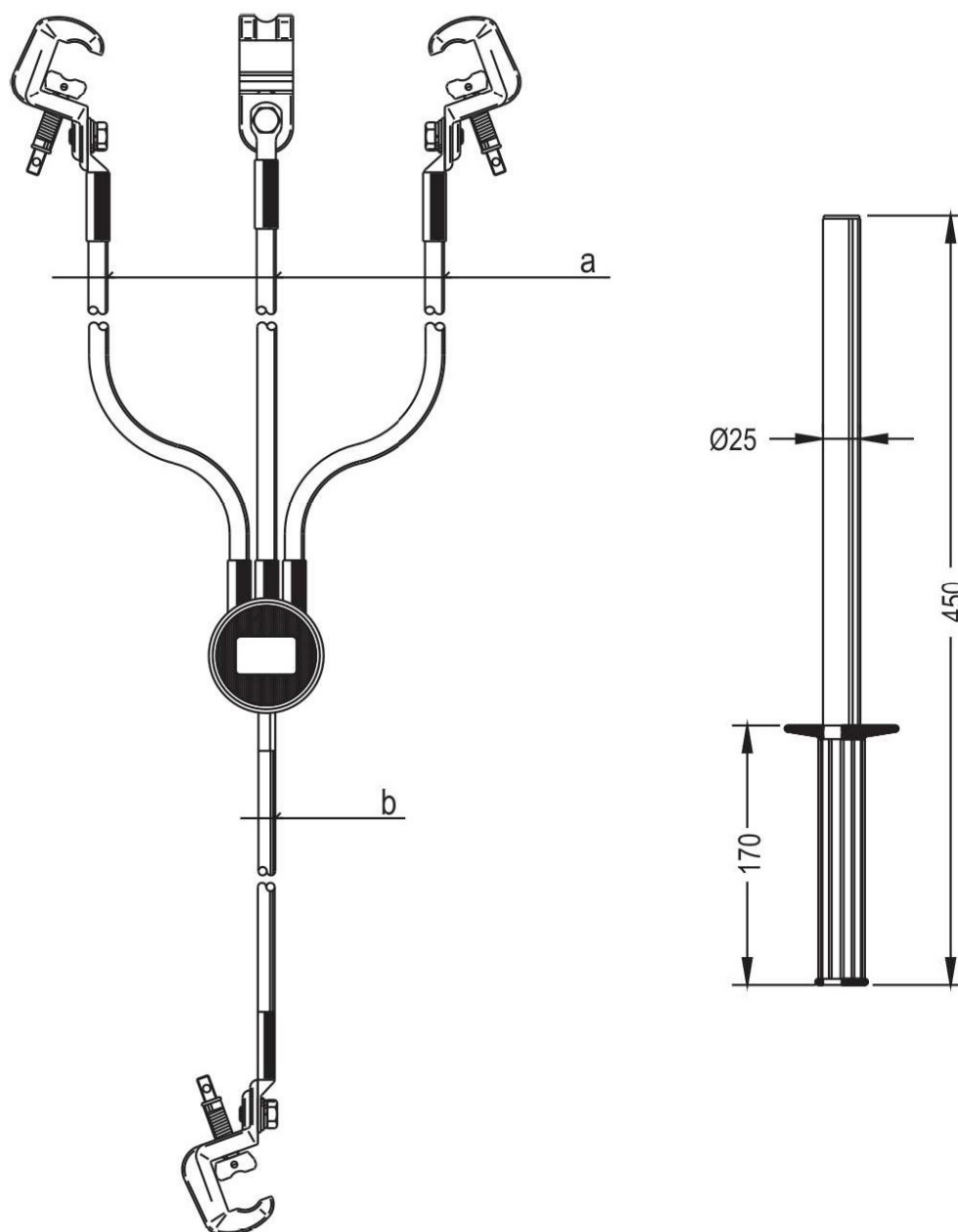
These products are provided with a 24-month warranty running from the date of their sale for a maximum time of 36 months post-manufacturing date. Defects caused by unprofessional manipulation and/or inappropriate storage conditions are not covered by this warranty.



# SHORT-CIRCUITING SET 1kV

type 153 001

General-purpose short-circuiting set for distribution substation with voltage up to 1kV.



Note: It is necessary to specify demanded short-circuiting resistance in the order.

## SPECIFICATION

Attachable to:

- ball-shaped point  $\varnothing 20 \text{ mm}$
- flat conductor up to  $\neq 20 \text{ mm}$
- circular conductor  $\varnothing 5\text{-}20 \text{ mm}$
- T-point  $\varnothing 15 \text{ mm}$

The set is delivered in plastic case.

Short-circuit resistance

6kA/1s

8kA/1s

10kA/1s

Rope's cross-section a

25 mm<sup>2</sup>

35 mm<sup>2</sup>

50 mm<sup>2</sup>

b

35 mm<sup>2</sup>

50 mm<sup>2</sup>

Rope's length a

800 mm

800 mm

800 mm

b

1 500 mm

1 500 mm

1 500 mm

Insulating rod

1 piece

1 piece

1 piece

Set's weight

4 kg

4,5 kg

5 kg