# SHORT-CIRCUITING

**EQUIPMENT** LV 1 kV

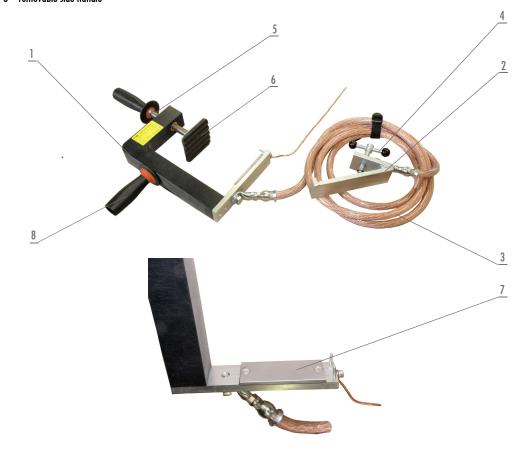
Metro (Subway) Model

804.001 - M

#### General Information

(EARTHING) Short-circuiting (earthing) set designed for short-circuit making and earthing of power supply distribution of subway's rail set. The set is designed for the nominal network voltage of 1 kV. The short-circuiting set is delivered together with one conductor clamp of special contruction, one earthing clamp and Cu cable in transparent insulation. It is possible to connect conductor clamp to supply rail and earthing clamp to driving rail. The handle of conductor clamp is provided with the protecting ring (hand guard). The side handle serves for better manipulation with set and it is removable. The material of set fulfills the requirements on the protection equipment for outdoor use. The set is determined for indoor use, as well as for outdoor use under normal climatic conditions. Short-circuiting set complies with standards ČSN EN 61230 ed.2, IEC 61230.

- 1 conductor clamp
- 2 earthing clamp
- 3 short-circuiting Cu cable
- 4 earthing clamp tightening handle
- 5 conductor clamp tightening screw
- 6 support surface with rubber seal
- 7 conductor clamp contact part
- 8 removable side handle



### **Technical Data**

Climatic group	normal - 25°C to 55°C	Type of short-circuiting cable	ESY, HOOV3D
Rated voltage	supplay rail	Cross section of short-circuiting cable	70mm² earthing
Short-cirtuited conductor	1 kV	Length of short-circuiting cable	3000 mm earthing
Rated short-time withstanding current	33 kA/0.2 s	Tightening of clamps	18 Nm
	50 kA/0.05 s	Tightening of cable loops screws	20 Nm
Length of handle	110 mm	Weight of equipment	5.5 kg

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## SHORT-CIRCUITING ≥ Directions for use

**EQUIPMENT** LV DC T KV

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Before using the set, it is necessary to use a voltage detector to be sure that the traction (supply rail) is without tension.

The short-circuiting equipment is fixed in this way:

- 1) fix the earthing clamp to the driving rail and tighten tigtly the screw of earthing clamp
- 2) fix the conductor clamp to the supply rail, there is the conductive, electroplated touch part on the bottom
- 3) put the conductive part of conductor clamp to the bottom part of supply rail and tighten by means of screw
- 4) the support surface with rubber seal is supported by a plastic (nonconductive) rail cover
- 7) when removing the clamps, proceed reversely

Make sure the clamp is tightened properly. The tightening torque must not exceed 18 Nm

The short-circuiting set should only be used on electrical facilities with nominal voltage for which it is designed.

The instructions for use should be incorporated into the local operating and safety regulations.

The set may only be used by qualified personnel.

### Maintenance and storage

The set must be kept in good technical condition. Make sure that the set is stored in the way to keep it dry and to prevent any mechanical damage. Perform a visual check before each use. At least once a year, it is necessary to perform a thorough check of the whole set, including cleaning and tightening all the connecting points.

For common cleaning of the poles use damp cloth, for more resistance dirt use technical alcohol. Do not use any organic solvents or any substances which may have a decolorizing effect.

!!! The set must be eliminated or proved again its right funkcionality, when a short-<u>circuiting current has already gone through short-circuiting current. !!!</u>

### **Testing**

The set is type-tested according to valid standards by the authorised labratory. Each set is separately tested piece by piece before expedition and labeled too. The label includes the test date (quarter/year) and the number of the authorised laboratory.

### Packing

The cables with clamps are supplied in a water-resistant carry bag. The insulating poles are wrapped in a transparent plastic foil. There is enclosed the function description and the directions for use, the Certificate about quality and completeness of product and product test.

#### Guarantee

The guarantee period is 24 months long and starts on the day the product is delivered to the customer. It applies to any defects probably caused by the manufacture. The guarantee does not cover any defects resulting from improper use, unprofessional handling, or unsuitable storing.



