### SHORT-CIRCUITING (EARTHING) EQUIPMENT VHV 123 kV

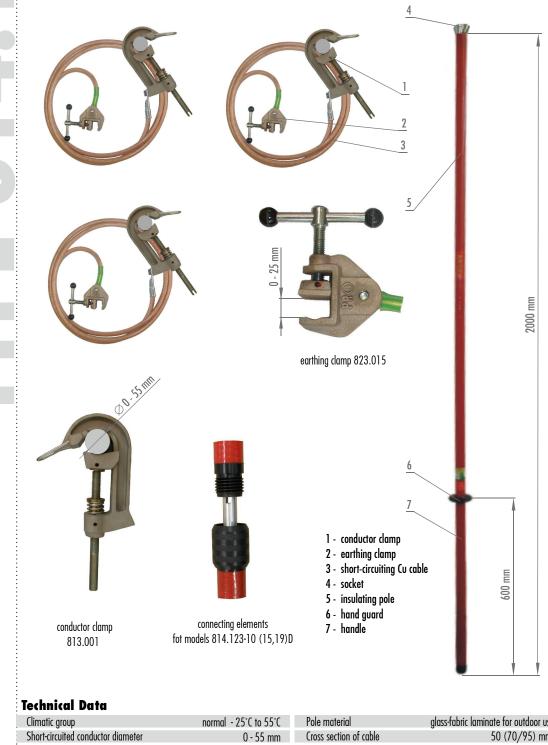
for  $\varnothing$  conductors 0 - 55 mm

Models 814.123 - 10 (15,19) 814.123 - 10 (15,19) D

#### **General Information**

The short-circuiting (earthing) equipment is designed for short-circuit making and earthing of the circuit in networks with an earthed node of the nominal voltage of up to 110 kV. The short-circuiting set consists of **one insulating pole** and three short-circuiting cables ended with conductor and universal earthing clamps to connect it to the conductor of circular cross section up to 55 mm in diameter. Conductor clamps are connected to earthing clamps by Cu cables in transparent isolation. Insulating pole is made of glass-fabric laminate which is suitable for its high electrical and mechanical resistance and stability. Upper part is ended with socket for conductor clamp handling. It fulfills the requirements on the protection equipment for outdoor use. The set is determined for outdoor use under normal climatic conditions. The handle is provided with the protecting ring (hand guard). Short-circuiting set complies with standards ČSN EN 61230 ed.2, IEC 61230, DIN 46235. It is produced in three models for various shorttime withstanding current with the pole in all or divided. It is possible to modify the model at the custom's request.

Note: Insulating pole can be delivered divided to two parts for models 814.123-10(15,19)D. Poles are connected by means of connecting element.



Climatic group	normal - 25°C to 55°C	Pole material	glass-fabric laminate for outdoor use
Short-circuited conductor diameter	0 - 55 mm	Cross section of cable	50 (70/95) mm <sup>2</sup>
Rated short-time withstanding current	10 (15/19) kA/1 s	Lenght of cable	4000 mm
Lenght of pole	2000 mm	Tightening of clamps	12 Nm
Lenght of handle	600 mm	Weight of equipment	13 (15/18) kg
Pole diameter	39 mm		

PRO 8 s.r.o., Semtín 96 530 O2 Pardubice, Czech Republic tel. +420 466 824 930

e-mail: pro8@pro8.cz Changes excepted! www.pro8.cz Last revision January 2017



## SHORT-CIRCUITING (EARTHI EQUIPMEN VHV 123 KV for $\varnothing$ conductors 0 - 55 mm





The part that shall to short-circuited must be without the tension. It is certainly determined by the voltage detector.

The short-circuiting equipment is fixed in this way:

1) connect both insulating poles by means of connecting element before using, to check of stability of tightening and to performe the visual check of their status (model D the only)

2) fix the earthing clamp to the earthing conductor or to the metallic grounded construction

3) slip one conductor clamp to the socket so that the pivot in the socket put together with the cut hole in the screw mechanism of the clamp

4) rotate the insulating pole (while holding the clamp) until the clamp jaws open according to the diameter of the short-circuited conductor 5) put the conductor clamp on the conductor of circular cross section

6) rotate reverse by the insulating pole to constriction of the clamp

7) pull the pole backward from the conductor clamp to release the pole

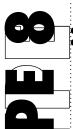
8) fix other two clamps in the same way

9) the sequence is reverse during the disconnecting of the clamps

Make sure the clamp is tightened properly. The tightening torque must not exceed 12 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.



Instructions for current maintenance

The short circuiting must be kept in condition, it must not be mechanically damaged. Its surface must be clean and dry. During the storage the short-circuit and earthing Cu cables must not to get damp. The visual check is necessary before using. The inspection must be executed at least once per year.

For common cleaning of teh 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.

#### III The set must be eliminated or proved again its right funkcionality, when a shortcircuiting current has already gone through short-circuiting current !!!

### Testina

3.0

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.

# Packina

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.

#### 5.0 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.



