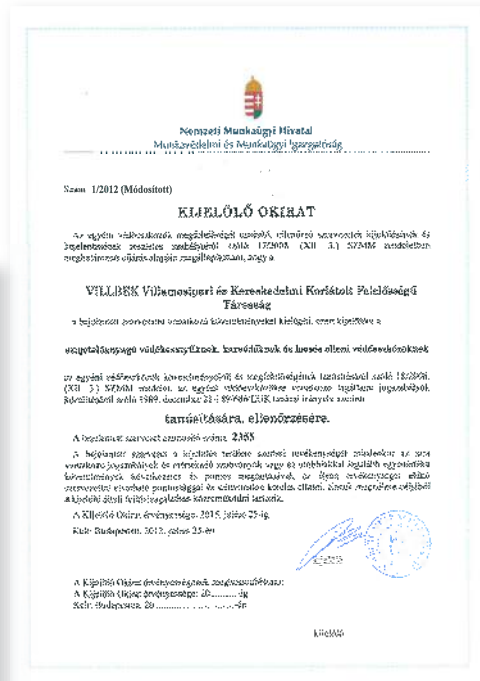




VILLBEK LTD. CATALOGUE 2015



Certificates



Programs



ONE SECTION OPERATING ROD

Field of application

These rods are made of fibreglass reinforced synthetic resin tubes filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The different head shapes allow to connect the fittings or devices to the rod more easily. The one section rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



Operating rod types and the rod head's shapes | length of 1500 mm EN 60832

Type	Product code	Rated voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-1500	536600	35	1500	800	
VK-E-C-1500	536610	35	1500	830	
VK-E-B-1500	536620	35	1500	890	

Operating rod types and the rod head's shapes | length of 2200 mm EN 60832

Type	Product code	Rated Voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-2200	536700	35	2200	1000	
VK-E-C-2200	536710	35	2200	1030	
VK-E-B-2200	536720	35	2200	1090	

Operating rod types and the rod head's shapes | length of 3000 mm EN 60832

Type	Product code	Rated voltage (kV)	Effective length (mm)	Weight (g)	Head shape
VK-E-3000	536900	120	3000	1400	
VK-E-C-3000	536000	120	3000	1430	
VK-E-B-3000	536910	120	3000	1490	

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



VK-TR-1500, VK-TR-C-1500, VK-TR-B-1500



VK-TR-2000, VK-TR-C-2000, VK-TR-B-2000



VK-TR-2500, VK-TR-C-2500, VK-TR-B-2500

Operating rod types and the rod head's shapes length of 1500 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-1500	526310	35	1500	790	3	930		
VK-TR-C-1500	526300	35	1500	790	3	970		
VK-TR-B-1500	526320	35	1500	790	3	1000		

Operating rod types and the rod head's shapes length of 2000 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-2000	546420	35	2000	1170	2	1000		
VK-TR-C-2000	546400	35	2000	1170	2	1080		
VK-TR-B-2000	546430	35	2000	1170	2	1110		

Operating rod types and the rod head's shapes length of 2500 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-2500	546510	10, 35, 120	2500	1400	2	1370		
VK-TR-C-2500	546500	10, 35, 120	2500	1400	2	1400		
VK-TR-B-2500	546520	10, 35, 120	2500	1400	2	1430		

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connector are summarized in the following table.

Basic rods without shaped heads



VK-TR-3000, VK-TR-C-3000, VK-TR-B-3000



VK-TR-3000/2, VK-TR-C-3000/2, VK-TR-B-3000/2



VK-TR-4000, VK-TR-C-4000, VK-TR-B-4000

Operating rod types and the rod head's shapes length of 3000 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-3000	536110	120	3000	1340	3	1690		
VK-TR-C-3000	536100	120	3000	1340	3	1720		
VK-TR-B-3000	536120	120	3000	1340	3	1770		
VK-TR-3000/2	536130	120	3000	1700	2	1500		
VK-TR-C-3000/2	536150	120	3000	1700	2	1530		
VK-TR-B-3000/2	536140	120	3000	1700	2	1580		

Operating rod types and the rod head's shapes length of 4000 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-4000	536210	120	4000	1600	3	1970		
VK-TR-C-4000	536200	120	4000	1600	3	2000		
VK-TR-B-4000	536220	120	4000	1600	3	2030		

TELESCOPIC OPERATING RODS

Field of application

These rods are made of fibreglass reinforced synthetic resin. The tube with the smallest diameter is filled with poliurethane foam. It is suitable for applying different devices (short-circuiter, voltage detector, rescuing hook, cleaning tools, etc) on the SV, MV and HV networks. The segments of the telescopic rod are fixed in their extended state by spring-type locking buttons. They can be transported in their nested state by car. The different head shapes allow to connect the fittings or devices to the rod more easily. The telescopic rod types, the rod head shapes as well as the fittings which can be connecter are summarized in the following table.

Basic rods without shaped heads



VK-TR-6000, VK-TR-C-6000, VK-TR-B-6000



VK-TR-7500, VK-TR-C-7500, VK-TR-B-7500



VK-TR-9000, VK-TR-C-9000, VK-TR-B-9000

Operating rod types and the rod head's shapes length of 6000 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-6000	536410	120	6000	1890	4	3370		
VK-TR-C-6000	536400	120	6000	1890	4	3400		
VK-TR-B-6000	536420	120	6000	1890	4	3430		

Operating rod types and the rod head's shapes length of 7500 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-7500	536450	120	7500	2040	5	3620		
VK-TR-C-7500	536460	120	7500	2040	5	3650		
VK-TR-B-7500	536470	120	7500	2040	5	3680		

Operating rod types and the rod head's shapes length of 9000 mm							EN 60832	CE
Type	Product code	Rated Voltage (kV)	Effective length (mm)	Transport length (mm)	No. of rod segment	Weight (g)	Head shape	
VK-TR-9000	536510	120	9000	2070	6	4880		
VK-TR-C-9000	536500	120	9000	2070	6	4910		
VK-TR-B-9000	536520	120	9000	2070	6	4940		



C type head (hexagon)	
Product code	536411



B type head (bayonet)	
Product code	536471



U type head (universal)	
Product code	536412



VK-C-B (hexagon - bayonet)	
Product code	536461



VK-C-UDI (hexagon - UDI)	
Product code	536462



VK-C-U (hexagon - universal)	
Product code	536463



VK-B-C (bayonet - hexagon)	
Product code	536472



VK-UDI-C (hexagon - UDI)	
Product code	536473



VK-K-B (bayonet - universal)	
Product code	536413



VK-K maneuvering hook	
Product code	536475



VK-C-EN switch	
Product code	536476

RESCUE ROD, HEIGHT MEASURING ROD, OPERATING ROD

VILLBEK Ltd.



VK-EM-1500 Insulating rescue rod

A Rescue rod for rescuing an injured technician. It is used to grasp the injured person by the waist and bring him back to a protected area.

Length	1500 mm
Insulated hook	400 mm
Weight	1,5 kg
Product code	536916



2012-12T Height measuring rod

The height measuring rod is supplied with one resting head. The T head allows operators to touch the exact spot to be measured.

Length	12 m
No. of rod segment	10
Transporting length	1,42 m
Weight	2,8 kg
Product code	536920

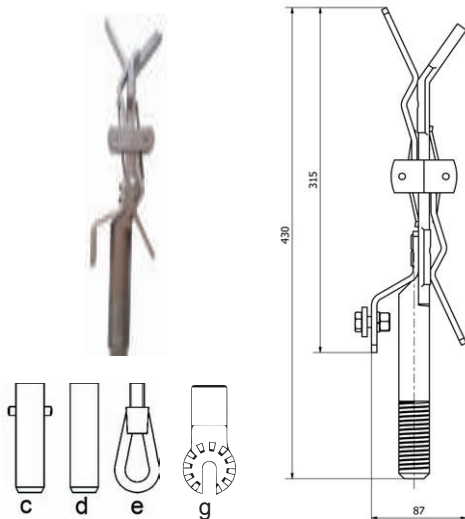


VK-TR-C-9000/ R

Telescopic operating triangular rod

Based on the working height to be reached, calculate the number of sections to be used and take off the unnecessary sections. Rest the telescopic stick on the floor on vertical position and start extending it close to the working place. Extend the first section until the locking pin fit on the hole. Repeat this operation with each subsequent section, always checking if the locking pins are properly fitted, until reach the working height.

Number of elements	Rated Voltage (kV)
1.and 2.	0-120
1; 2. and 3.	0-120
1; 2; 3 and 4.	0-300
1; 2; 3; 4; and 5.	0-400
1; 2; 3; 4; 5 and 6.	0-400
1; 2; 3; 4; 5; 6 and 7.	0-400
Product code	536530



VK-RB-2006-H		EN 61230	CE
Thermic limit current		18 kA/2 s	
Dynamic limit current		45 kA/1 s	
Gripping capacity		Ø5-30 mm	
Product code		522780	

KÖF-C-9007-H		EN 61230	CE
Thermic limit current	For rail	23 kA/1 s	18 kA/2 s
	For wire	23 kA/1 s	18 kA/2 s
	Spherical stud	23 kA/1 s	18 kA/3 s
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity		Ø30x10 mm rail Ø8-25 mm wire Ø25 mm stud	
Product code		522781	

PC-400-H		EN 61230	CE
Thermic limit current		18 kA/2 s	
Product code		522782	

KÖF-C-9004-H		EN 61230	CE
Thermic limit current		18 kA/0,5 s	
Dynamic limit current		45 kA/1 s	
Gripping capacity		Ø5-30 mm	
Product code		522783	

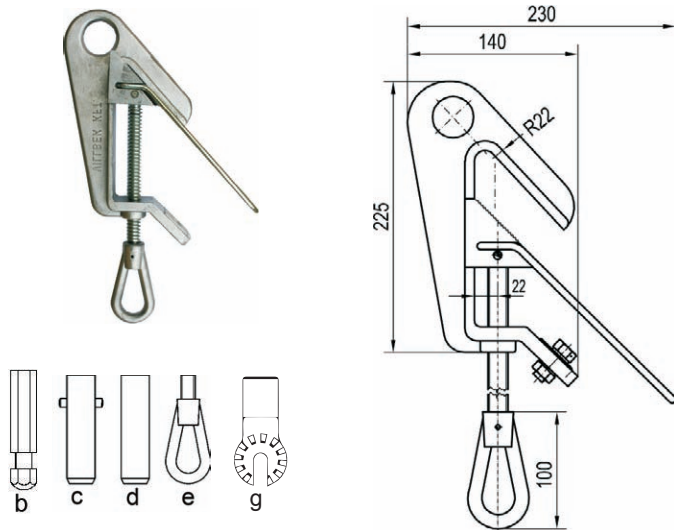
VK-NAF-2011/RR phase clamp

The VK-NAF-2011/RR phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing whip. The earthing whip can be used for earthing of wire structured phase line of transformer stations and power plants. The clamp can only be pulled on the phase line.

Thermic limit current		5 kA/1 s
Dynamic limit current		12,5 kA
Gripping capacity		Ø12-30 mm
Product code	b:	522784
	c:	522785
	d:	522786
	g:	522787

ACCESSORIES CONNECTING TO THE ROD HEAD

VILLBEK Ltd.

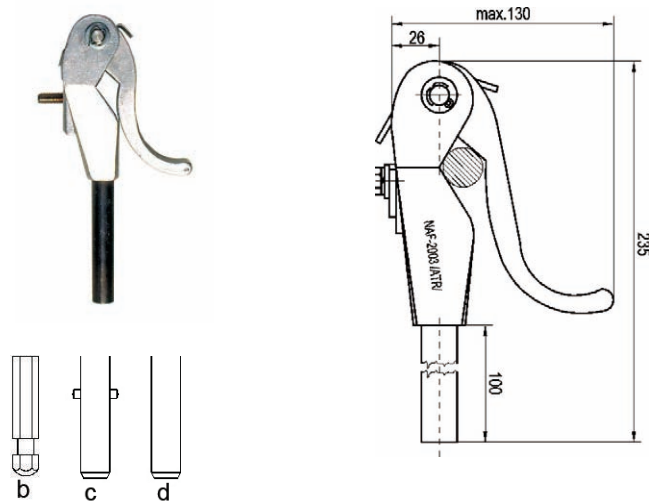


KN-9005/PC phase clamp

EN 61230 CE

The KN-9005/PC phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing whip. The earthing whip can be used for earthing of wire or pipe structured bus bars of transformer stations and power plants as well as the phase lines of the aerial lines.

Thermic limit current	40 kA/1 s
Dynamic limit current	100 kA
Gripping capacity	Ø5-70 mm
Product code	b: 510003 c: 510004 d: 510002 e: 510001 g: 510005

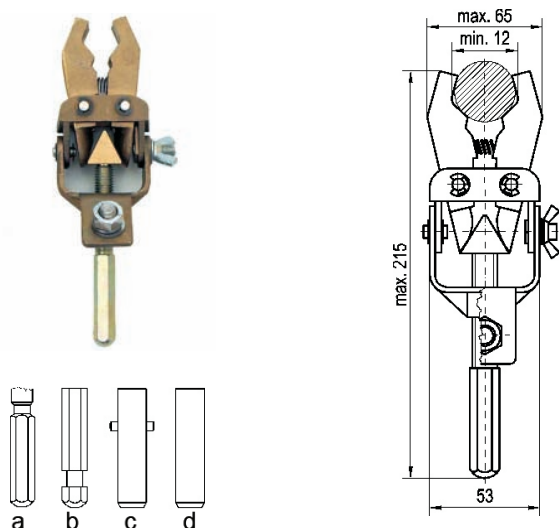


NAF-2003/ATR phase clamp

EN 61230 CE

The NAF 2003/ATR phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing whip. The earthing whip can be used for earthing of wire structured phase line of transformer stations and power plants.

Thermic limit current	7,2 kA/0,81 s
Dynamic limit current	15,9 kA
Gripping capacity	Ø18-30 mm
Product code	b: 536902 c: 536903 d: 536901



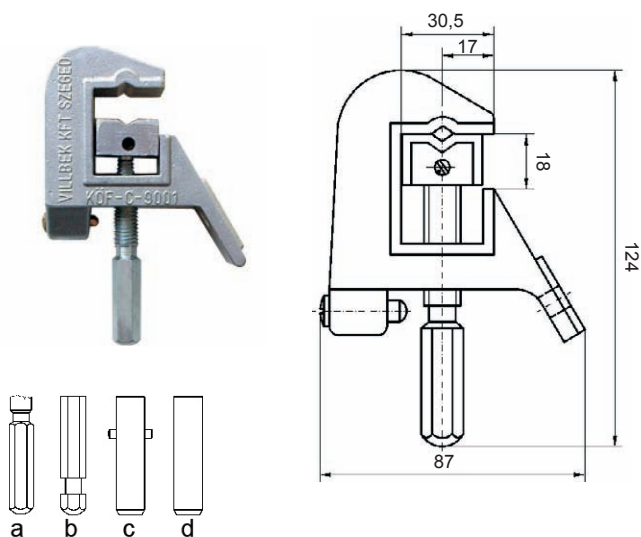
KÖF-9006/PC phase clamp

EN 61230 CE

The KÖF-9006/PC phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short circuiting device. The earthing device can be used for earthing of tube or wire structured bus bars of transformer stations and power plants as well as earhtig of installed earhtig studs and cable heads.

Thermic limit current	10 kA / 1 s
Dynamic limit current	25 kA
Gripping capacity	Ø12-40 mm
Product code	a: 536902 b: 536903 c: 536901 d: 541002

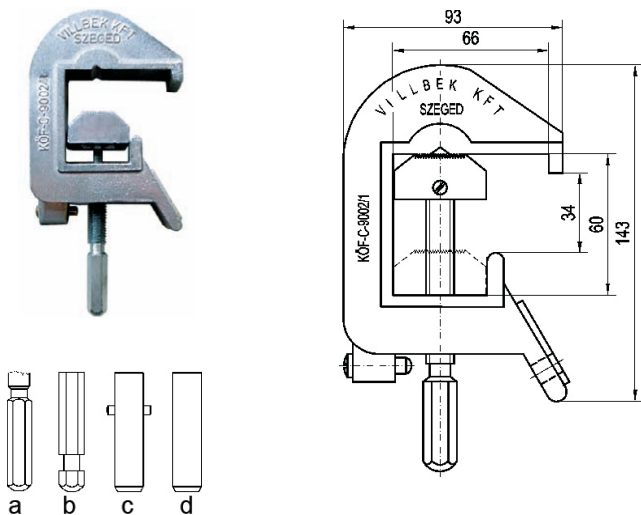
ACCESSORIES CONNECTING TO THE ROD HEAD



KÖF-C-9001 phase clamp EN 61230 CE

The KÖF-C-9001 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The earthing device can be used for short-circuiting of rail structured bus bars of transformer stations and power plants.

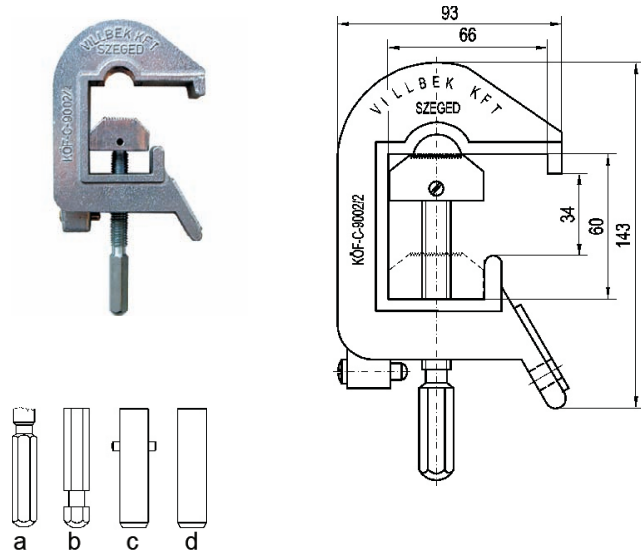
Thermic limit current	For rail	16 kA/1 s
	For wire	16 kA/1 s
Dynamic limit current	For rail	40 kA
	For wire	40 kA
Gripping capacity	Ø30 mm rail Ø6-18 mm stud	
Product code	a:	521504
	b:	521503
	c:	521502
	d:	521505



KÖF-C-9002/1 phase clamp EN 61230 CE

The KÖF-C-9002/1 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø60x10 mm rail Ø8-30 mm wire	
Product code	a:	521205
	b:	521206
	c:	521207
	d:	521208



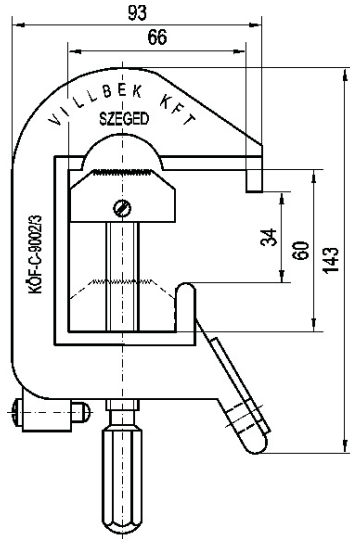
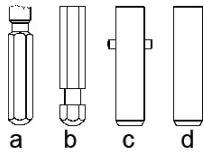
KÖF-C-9002/2 phase clamp EN 61230 CE

The KÖF-C-9002/2 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of bus bars of transformer stations and power plants and can be put on the earthing studs shown below.

Thermic limit current	For rail	16 kA/1 s
	28 mm stud	16 kA/1 s
Dynamic limit current	For rail	40 kA
	28 mm stud	40 kA
Gripping capacity	Ø60x10 mm rail Ø25 mm earthing stud	
Product code	a:	521506
	b:	521515
	c:	521516
	d:	521517

ACCESSORIES CONNECTING TO THE ROD

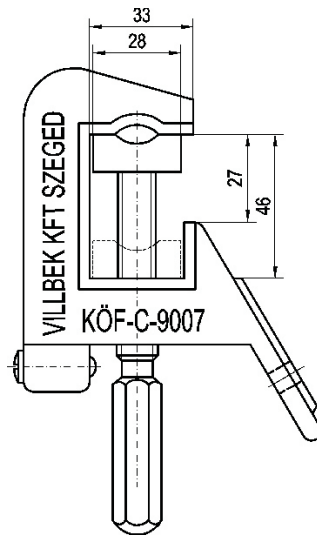
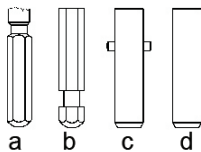
VILLBEK Ltd.



KÖF-C-9002/3 phase clamp EN 61230 CE

The KÖF-C-9002/3 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

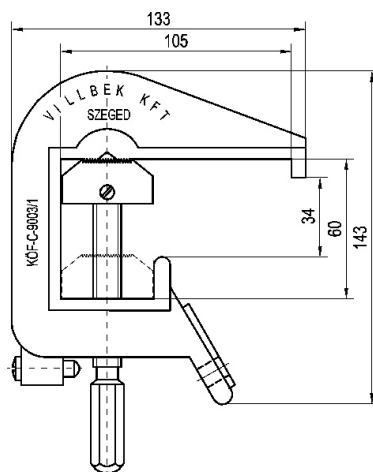
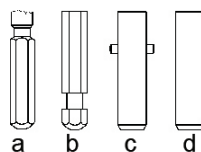
Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø60x10 mm rail Ø30 mm wire	
Product code	a:	521522
	b:	521523
	c:	521524
	d:	521525



KÖF-C-9007 phase clamp EN 61230

The KÖF-C-9007 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants as well as can be put on the spherical studs shown below.

Thermic limit current	For rail	23 kA/1 s	18 kA/2 s
	For wire	23 kA/1 s	18 kA/2 s
	Spherical stud	23 kA/1 s	18 kA/3 s
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity	Ø30x10 mm rail Ø8-25 mm wire Ø25 mm spherical stud		
Product code	a:	521512	
	b:	521511	
	c:	521513	
	d:	521514	

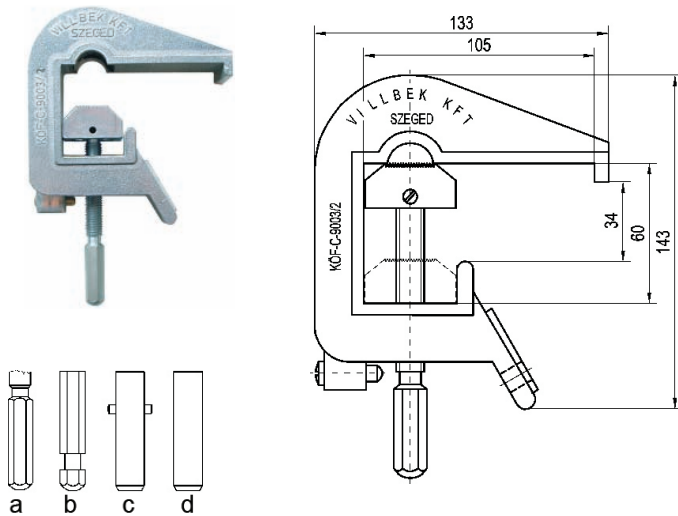


KÖF-C-9003/1 phase clamp EN 61230 CE

The KÖF-C-9003/1 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	For rail	20 kA/1 s
	For wire	20 kA/1 s
Dynamic limit current	For rail	50 kA
	For wire	50 kA
Gripping capacity	Ø100x10 mm rail Ø8-3 mm wire	
Product code	a:	521533
	b:	521508
	c:	521531
	d:	521532

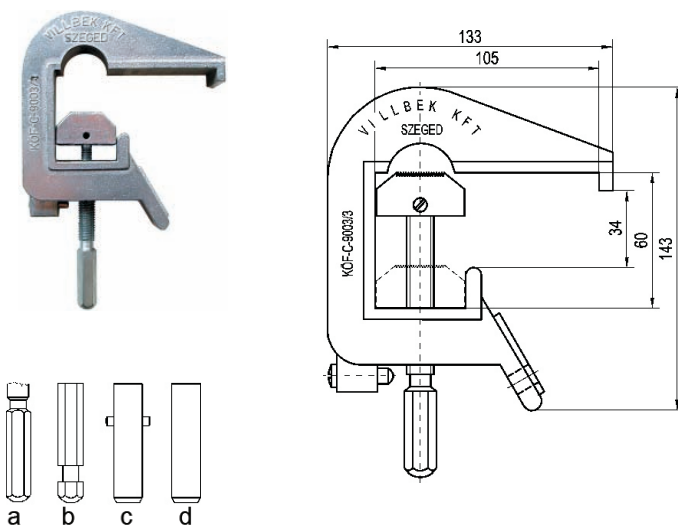
ACCESSORIES CONNECTING TO THE ROD HEAD



KÖF-C-9003/2 phase clamp EN 61230 CE

The KÖF-C-9003/2 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be put on bus bars of transformer stations and power plants as well as can be put on the earthing studs shown below.

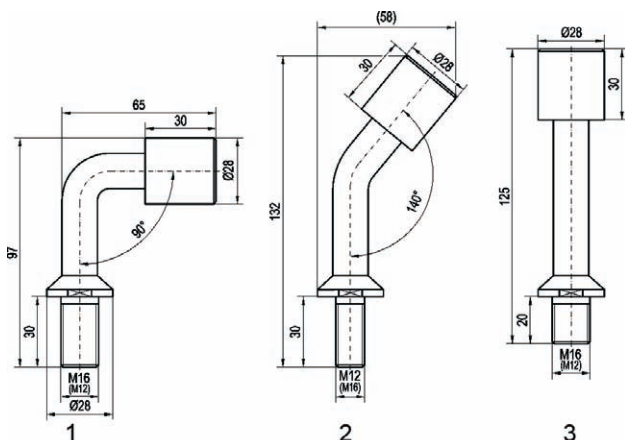
Thermic limit current	For rail	16 kA/1 s
	28 mm stud	16 kA/1 s
Dynamic limit current	For rail	40 kA
	28 mm stud	40 kA
Gripping capacity	Ø100x10 mm rail Ø28 mm wire	
Product code	a:	521507
	b:	521541
	c:	521542
	d:	521543



KÖF-C-9003/3 phase clamp EN 61230 CE

The KÖF-C-9003/3 phase clamp can be built in or can be connected to various operating rods and with copper wire we can get an earthing/short-circuiting device. The short-circuiting device can be used for short-circuiting of rail or wire structured bus bars of transformer stations and power plants.

Thermic limit current	Sínre	20 kA/1 s
	Sodronyra	20 kA/1 s
Dynamic limit current	Sínre	50 kA
	Sodronyra	50 kA
Gripping capacity	Ø100x10 mm rail Ø30 mm wire	
Product code	a:	521554
	b:	521551
	c:	521552
	d:	521553



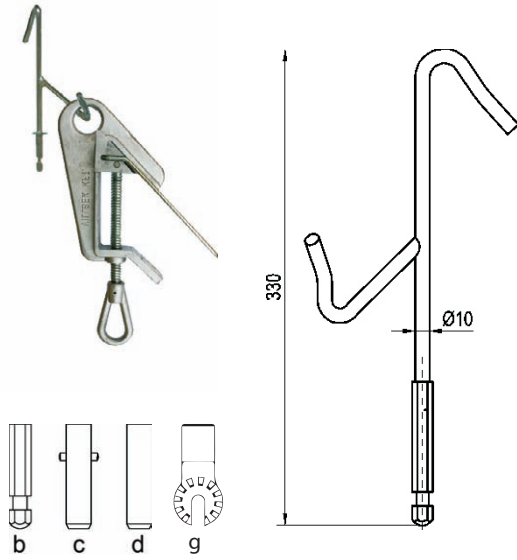
Earthing studs for

KÖF-C-9003/2 and KÖF-C-9002/2 phase clamp

Product code	1:	521518
	2:	521519
	3:	521521

ACCESSORIES CONNECTING TO THE ROD HEAD

VILLBEK Ltd.

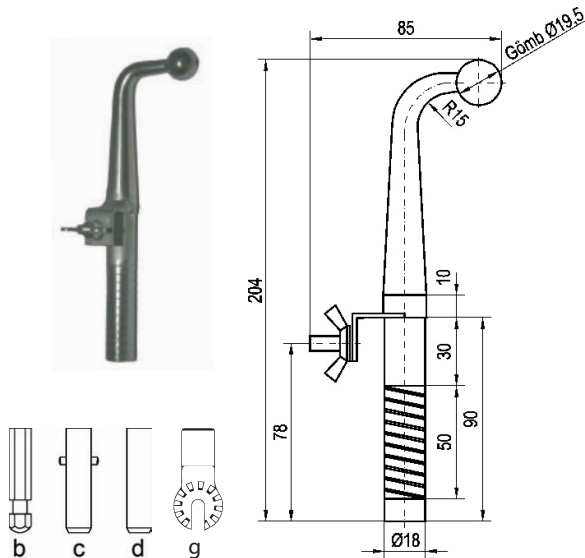


KN-9005/Fh applying hook

for KN-9005/PC phase clamp EN 61230 CE

By means of the lower arm of the applying hook KN-9005/Fh the KN-9005/PC can be put on the phase line of the tube or wire structured bus bars and aerial lines. Having put on, by means of the upper arm, the threaded rod can be rotated fixing the clamp on the phase line.

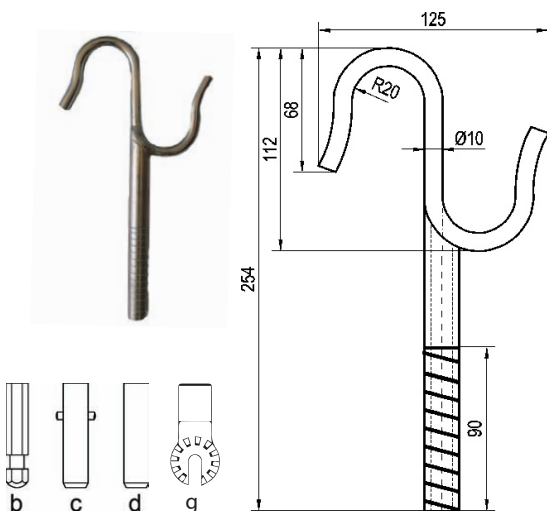
Product code	b:	510011
	c:	510012
	d:	510010
	g:	510013



Spherical switching head

The spherical switching head can be built in or can be put on various operating rods. So we can use it for switching the manually controlled disconnectors.

Product code	b:	536601
	c:	536602
	d:	536603
	g:	536611

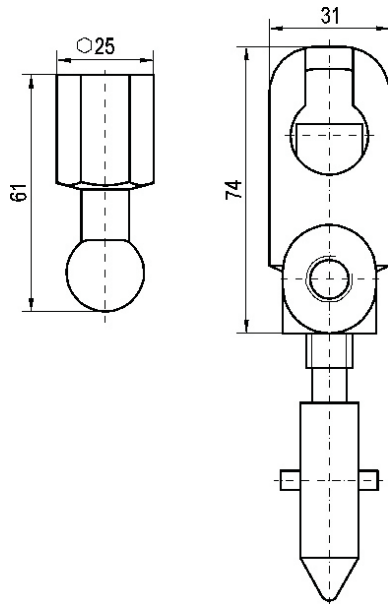


Hook

Connecting the hook to the operating rod.

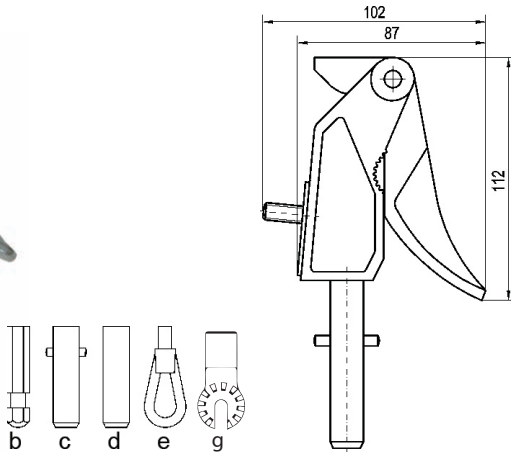
Product code	b:	536604
	c:	536605
	d:	536606
	g:	536613

ACCESSORIES CONNECTING TO THE ROD HEAD



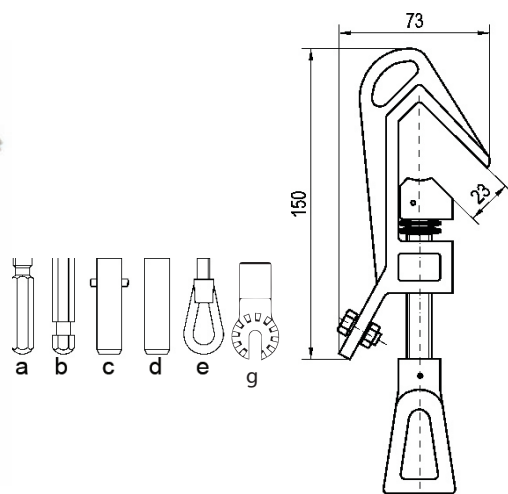
4202 phase clamp

Thermic limit current	24 kA/0,5 s
Dynamic limit current	60 kA/1 s
Gripping capacity	Ø20 mm
Product code	EL-20-004202



4203 phase clamp

Thermic limit current	40 kA/0,5 s
Dynamic limit current	100 kA/1 s
Gripping capacity	Ø25 mm
Product code	EL-20-004203



VK-RB-2006 phase clamp

EN 61230



Thermic limit current	18 kA/2 s
Dynamic limit current	45 kA/1 s
Gripping capacity	Ø5-30 mm
Product code	b: 547842 c: 547843 d: 547844 e: 547845 g: 547847

VK-W-2006 phase clamp

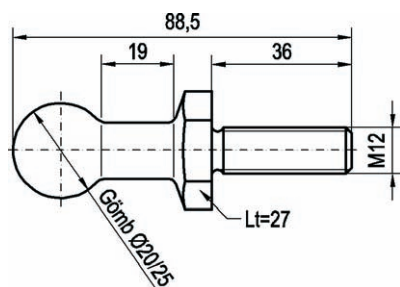
EN 61230



Thermic limit current	23 kA/1 s
	18 kA/2 s
Dynamic limit current	57,5 kA/1 s
Gripping capacity	Ø6-23 mm
Product code	a: 547850 b: 547851 c: 547852 d: 547853 e: 547854 g: 547856

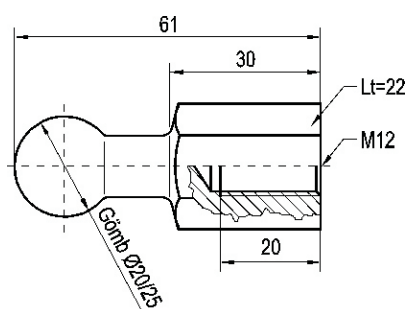
INSERTABLE BALL STUDS FOR CLAMPS "T" INTEGRATOR, WALL MOUNT

VILLBEK Kft.



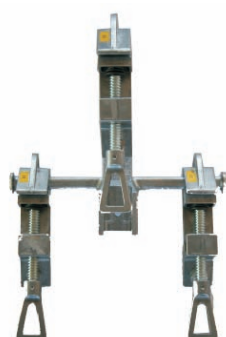
2052 ball stud	
Thermic limit current	24 kA/0,5 s
Thread size	M12
Ball diameter	Ø20 mm
Product code	EL-20-002052

2058 ball stud	
Thermic limit current	40 kA/0,5 s
Thread size	M12
Ball diameter	Ø25 mm
Product code	EL-20-002058



2051 ball stud	
Thermic limit current	24 kA/0,5 s
Thread size	M12
Ball diameter	Ø20 mm
Product code	EL-20-002051

2048 ball stud	
Thermic limit current	40 kA/0,5 s
Thread size	M12
Ball diameter	Ø20 mm
Product code	EL-20-002048

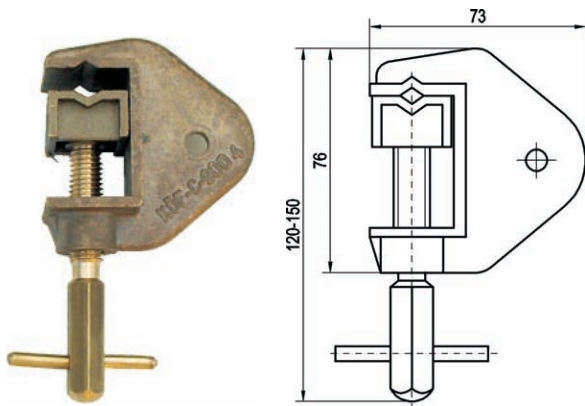


VK-RT-2006 "T" integrator	
Lenght	240 mm
Height	120 mm
Product code	521528



VK-FRZ-FT Wall mount for earthing devices	
Earthing devices placement with wall bracket on the wall.	
Product code	521529

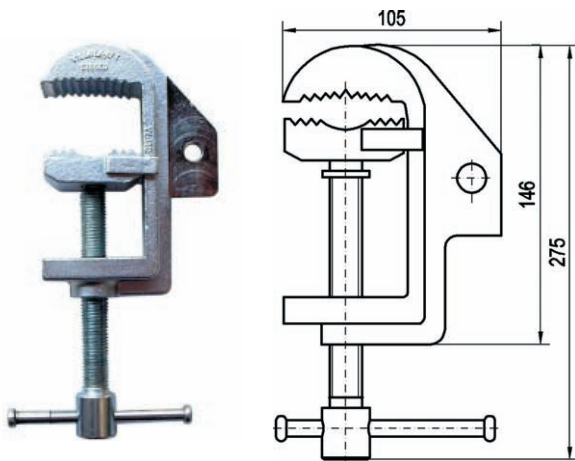
EARTHING CLAMPS, DISCHARGING WHIP



KÖF-C-9004 earthing clamp EN 61230 CE

Connecting copper wire to the clamp type KÖF-C-9004, we can get an earthing short-circuiting device. The earthing whip can be connected to rail or wire type earthing bus bars of transformers or power plants.

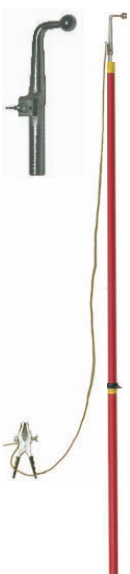
Thermic limit current	For rail	23 kA/1 s	18 kA/1 s
	For wire	23 kA/1 s	18 kA/1 s
	Spherical stud	23 kA/1 s	18 kA/1 s
Dynamic limit current	For rail	57,5 kA	
	For wire	57,5 kA	
	Spherical stud	57,5 kA	
Gripping capacity	Ø0-27 mm		
Product code	514001		



VV-130-MÁV earthing clamp EN 61230 CE

Connecting copper wire to the clamp type VV-130-MÁV, we can get an earthing short-circuiting device. The earthing whip can be connected to rail or wire type earthing bus bars of transformers or power plants.

Thermic limit current	16 kA/0,5 s
Dynamic limit current	40 kA
Gripping capacity	Ø0-80 mm
Product code	521581



VK-E-1500/K discharging whip

EN 61230 CE

- One section operating rod, type VK-E-1500 (rated voltage of the rod 35 kV)
- Spherical switching head
- Earthing clip
- Wire with cross section of 6 mm² (length of wire 2,5 m)

Product code of the set	547110
-------------------------	--------



VK-E-2200/K discharging whip

EN 61230 CE

- One section operating rod, type VK-E-2200 (rated voltage of the rod 35 kV)
- Spherical switching head
- Earthing clip
- Wire with cross section of 6 mm² (length of wire 2,5 m)

Product code of the set	547120
-------------------------	--------

EARTHING ROD, DISCHARGING WHIP

VILLBEK Ltd.



VK-E-3000/R one section earthing rod set			EN 61230	EN 60832	CE
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s
Dynamic limit current	-	16 kA	16 kA	16 kA	16 kA
Product code of the set	547138	547130	547132	547134	547136

- One section operating rod, type VK-E-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-2003 / ATR
- Earthing clamp type KÖF-C-9004
- Wire with cross sections of 50, 70, 95 mm² (length of wire 4,5 m)



VK-E-3000/R one section earthing rod set			EN 61230	EN 60832	CE
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	10 kA /1 s	16 kA /1 s	20 kA /1 s	21 kA /1 s
Dynamic limit current	-	25 kA	40 kA	50 kA	53 kA
Product code of the set	547158	547150	547152	547154	547156

- One section operating rod, type VK-E-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-9005 / PC
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)





VK-TR-3000/R telescopic earthing rod set		EN 61230	EN 60832	CE	
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s	7,2 kA /1 s
Dynamic limit current	-	16 kA	16 kA	16 kA	16 kA
Product code of the set	547138	547170	547172	547174	547176

- Telescopic operating rod, type VK-TR-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-2003/ATR
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)



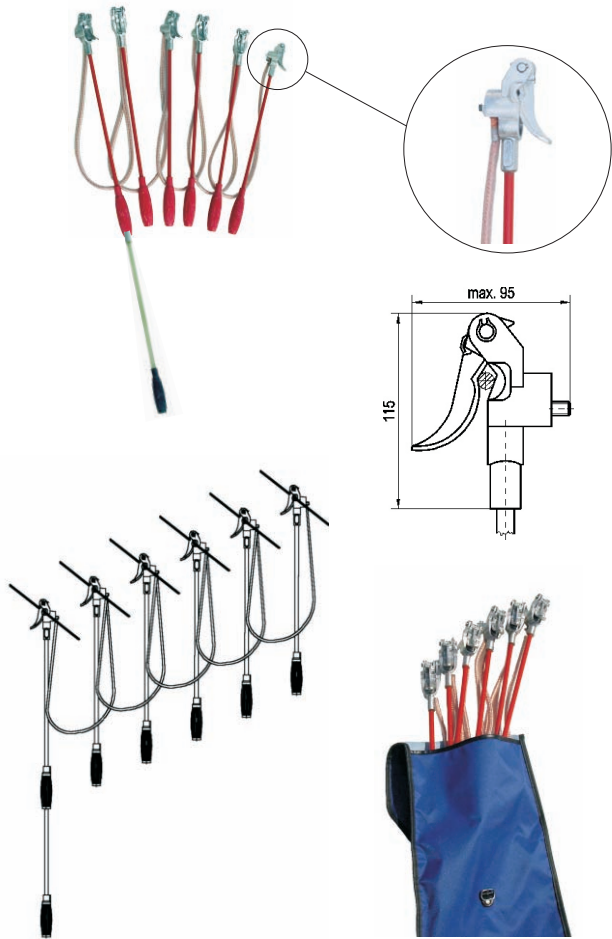
VK-TR-3000/R telesscopic earthing rod set		EN 61230	EN 60832	CE	
Cross section of the wire	Without wire	50 mm ²	70 mm ²	95 mm ²	120 mm ²
Thermic limit current	-	10 kA /1 s	16 kA /1 s	20 kA /1 s	21 kA /1 s
Dynamic limit current	-	25 kA	40 kA	50 kA	53 kA
Product code of the set	547198	547190	547192	547194	547196

- Telescopic operating rod, typeVK-TR-3000 (rated voltage of the rod 120 kV)
- Phase clamp type KN-9005/PC
- Earthing clamp type KÖF-C-9004
- Wire with cross section of 50, 70, 95 mm² (length of wire 4,5 m)



EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



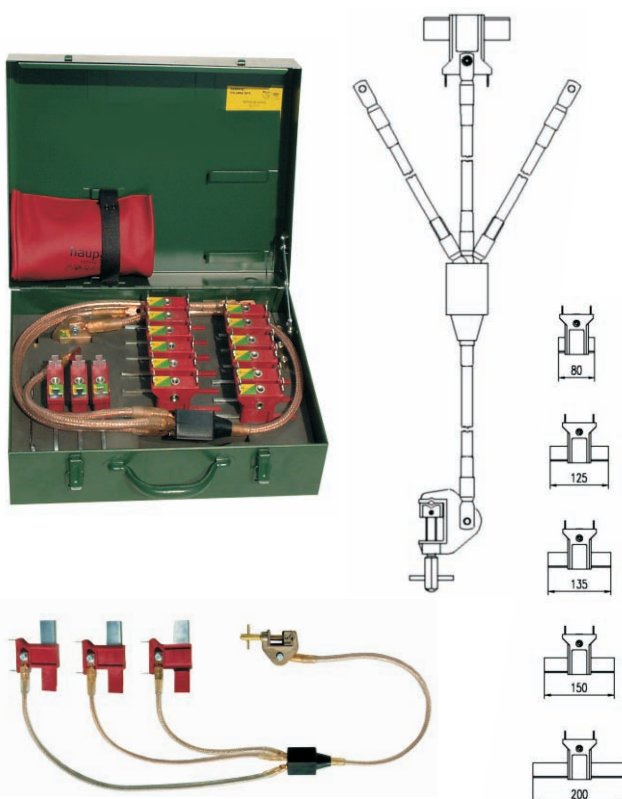
KIF-9001

EN 61230



The earthing / short-circuiting device is for earthing and short-circuiting of low-voltage overhead line segment that have been disconnected for maintenance. The set consist of 6 aluminium cast spring connecting clamp with shaft of fibreglass synthetic resin and plastic handle (length: 52 cm) and 1 insulating rod extension with threaded joint. The phase clamps are connected to each other by extremely flexible copper cable (25mm²) with transparent protective insulation. The cable is connected to the phase clamps by cap-bolted joint without interrupting the continuity of the phase conductor. A device set is delivered in a waterproof canvas bag.

Thermic limit current	5 kA/1 s
	7 kA/1 s
Dynamic limit current	12 kA
Earthing cable	25 mm ²
Gripping capacity	Ø5-14 mm
Product code of the set	510100
Product code of the clamp 9001	510101
Product code of the bag	510117
Product code of the extension	510104



VK-NR-2000

EN 61230



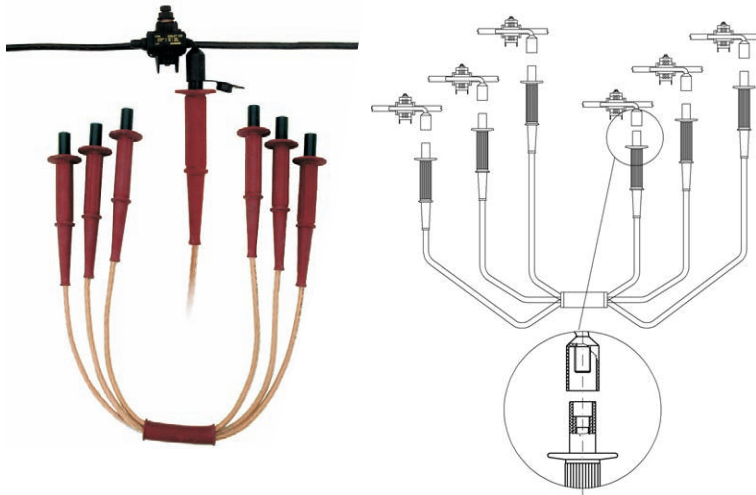
The earthing / short-circuiting device set is applicable for blade-type fuse sockets. During decoupling it is suitable for earthing / short circuiting of equipment and networks particularly branch circuits where the switching, and disconnecting of them can be carried out by pulling out the blade-type fuse insert.

Components of the set:

- four branched earthing wire structure (25 mm²)
- earthing blades (the types can be selected)
- removing handle with protective leather cover
- wrench, size 13
- metal case

Blade type	Thermic limit current	Dynamic limit current	Blade size	Product code
NH 00	2 kA /0,5 s	3 kA	80	513102
NH 0	2 kA /0,5 s	3 kA	125	513103
NH 1	5 kA /0,5 s	7,5 kA	135	513104
NH 2-3	9,7 kA /0,5 s	17 kA	150	513105
NH 4	9,7 kA /0,5 s	17 kA	200	513106

EARTHING AND SHORT CIRCUITING DEVICES



SZL-FRZ-25

EN 61230 CE

The earthing / short-circuiting devices are for earthing and short-circuiting of the leads on the low voltage insulated networks, on the specified point. The piercing branch clamp with the threaded pipe is permanently fastened to the leads. During short-circuiting, the threaded ends of the 6 branched wire structure shall be driven into the branching pipes to the bottom. The set contains the short-circuiting apparatus. The piercing branch clamp and the threaded pipe shall be ordered additionally. The short-circuiting wire structure is delivered in a metal case.

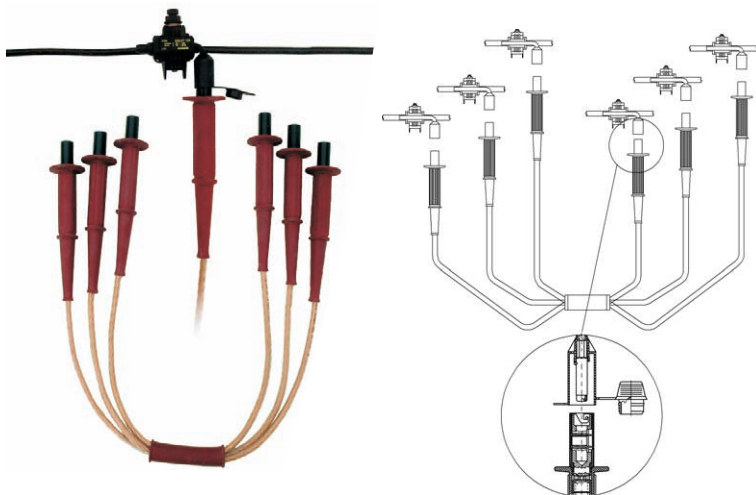
Thermic limit current	5 kA/1 s
Dynamic limit current	12,5 kA
Earthing cable	25 mm ²
Product code	512100



Branching pipe threaded

CE

Product code	310004
--------------	--------



SZL-FRZ-B-25

EN 61230 CE

The earthing / short-circuiting devices are for earthing and short-circuiting of the leads on the low voltage insulated networks, on the specified point. The piercing branch clamp with the bayonet pipe is permanently fastened to the leads. During short-circuiting, the bayonet sockets of the 6 branched wire structure shall be put into the branching pipes. The set contains the short-circuiting apparatus. The piercing branch clamp and the bayonet pipe shall be ordered additionally. The short-circuiting wire structure is delivered in a metal case.

Thermic limit current	5 kA/1 s
Dynamic limit current	7,5 kA
Earthing cable	25 mm ²
Product code of the set	510400



Branching pipe bayonet

CE

Product code	310006
--------------	--------

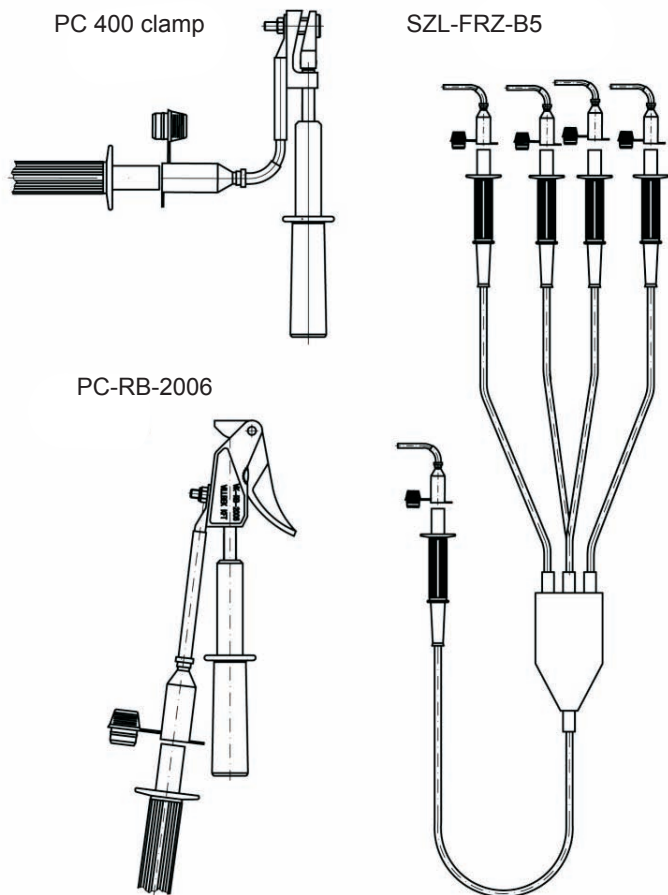
EARTHING AND SHORT CIRCUITING DEVICES



KIF-2011-BR **EN 61230** **CE**

The KIF-2011 BR earthing and short-circuiting equipment is for earthing and short-circuiting of low-voltage bared and insulated overhead line segment that have been disconnected for maintenance.

Thermic limit current	5 kA/1 s
Gripping capacity	300 mm ² and 70 mm ²
Earthing cable	25 mm ²
Product code	510150



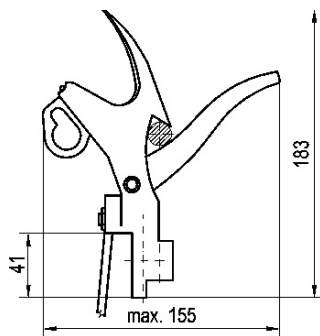
ABC KIT **EN 61230** **CE**

The ABC earthing and short-circuiting equipment is for earthing and short-circuiting of low-voltage overhead line segment that have been disconnected for maintenance.

Thermic limit current	5 kA/1 s
Earthing cable	Cu 1,2 m 25 mm ²
Phase cable	Cu 1,8 m 25 mm ²
Diameter of the conductor	95 mm ² , Al conductor
Earthing point	5 mm, Cu bus bar
Product code	510450

EARTHING AND SHORT CIRCUITING DEVICES

KÖF-KJ-8901/1 phase clamp



KÖF-8901 clamp dispenser head

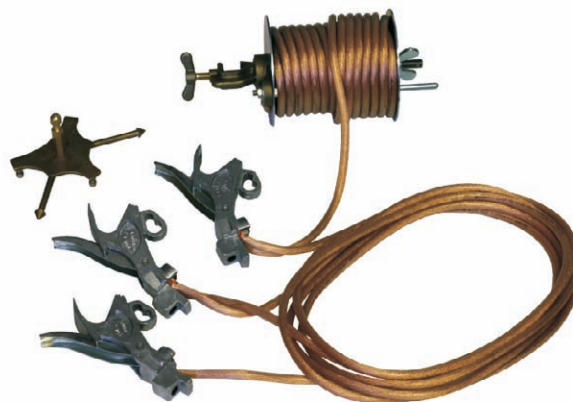


KÖF-8901

EN 61230 CE

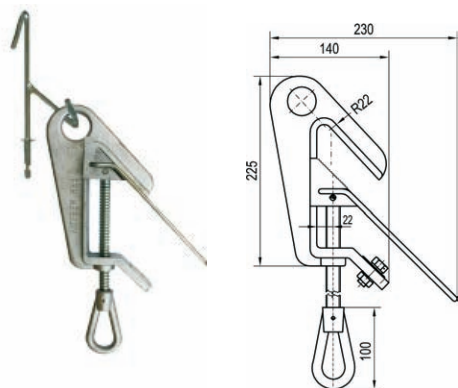
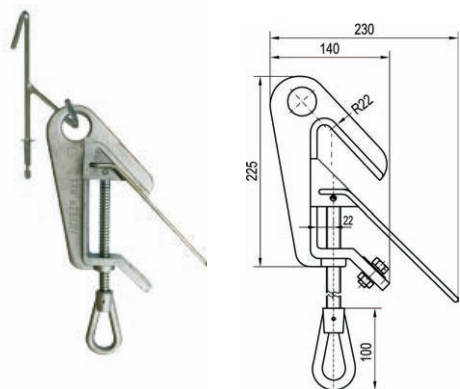
The earthing / short circuiting device is for earthing and short circuiting of medium voltage electric line segment that have been disconnected for maintenance. The complete set consists of phase clamps, mounting/removing tool, earthing cable and an operating rod. Items of the set can be ordered separately as well. The complete set thermic limit current: 6kA/1 sec

Thermic limit current /set/	6 kA/1s
Thermic limit current /clamp/	15 kA/1 s 12 kA/2 s
Dynamic limit current /clamp/	37,5 kA/1 s
Earthing cable	25 mm ²
Gripping capacity of the clamp	Ø5-15 mm
Product code of the set	523000
KÖF-KJ-8901/1 product code	523002
KÖF 8901/cs product code	b: 523015 g: 523031
KÖF 8901/FSZ earthing probe	Ø17 mm



EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



VK-O-50-6

EN 61230

The VK-O-50-6 (50 mm² wire) earthing and short circuiting device is to earth and short circuit the overhead network per phase. The earth clamp shall be placed on the common earth potential.

Type	VK-O-50-6
Thermic limit current	10 kA/1 s
Dynamic limit current	25 kA
Gripping capacity of the clamp	Ø 5-70 mm
Product code	523015

VK-O-95-4

EN 61230

The VK-O-95-4 (95 mm² wire) earthing and short circuiting device is to earth and short circuit the overhead network per phase. The earth clamp shall be placed on the common earth potential.

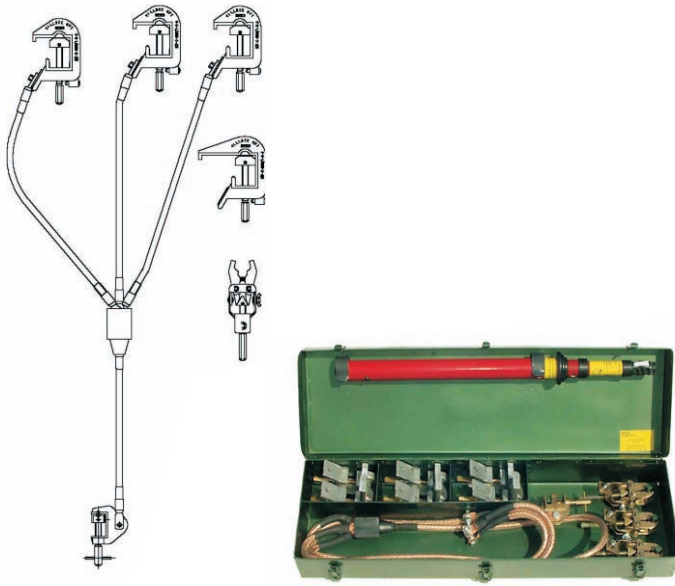
Type	VK-O-95-4
Thermic limit current	20 kA/1 s
Dynamic limit current	50 kA
Gripping capacity of the clamp	Ø 5-70 mm
Product code	523115

EARTHING AND SHORT CIRCUITING DEVICES

VK-FRZ-20/xx

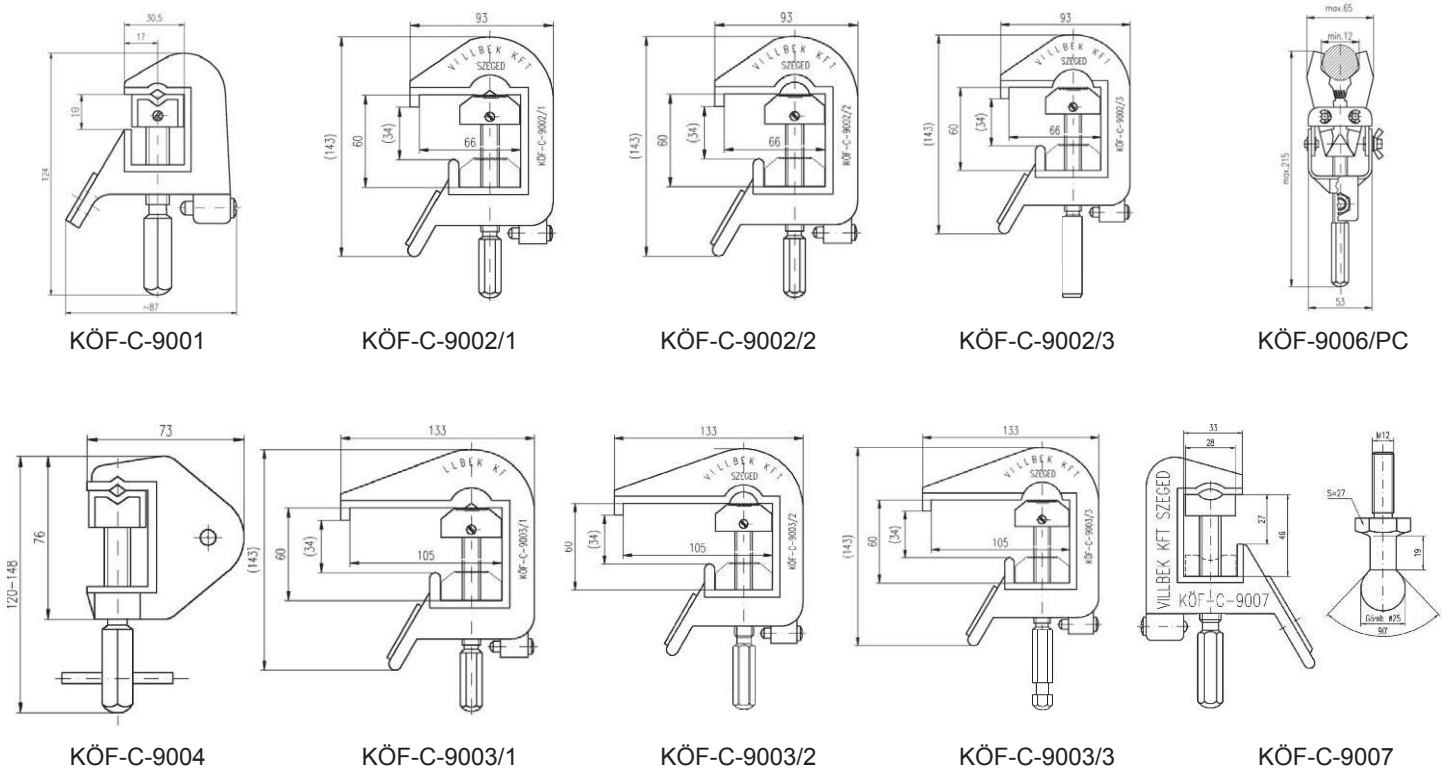
EN 61230 CE

The earthing/short-circuiting device set is designed for earthing and short circuiting of the flat bars, cable heads of the armoured distribution system, and transformer substations. The form of the phase clamps provides easy connection to the pre-manufactured studs, cylindrical contact pins as well as spherical studs. The placing of the phase clamps must be carried out with operating rods suitable for the appropriate voltage level.



VILLBEK Ltd.

Phase clamps can be found in the set



EARTHING AND SHORT CIRCUITING DEVICES

VILLBEK Ltd.



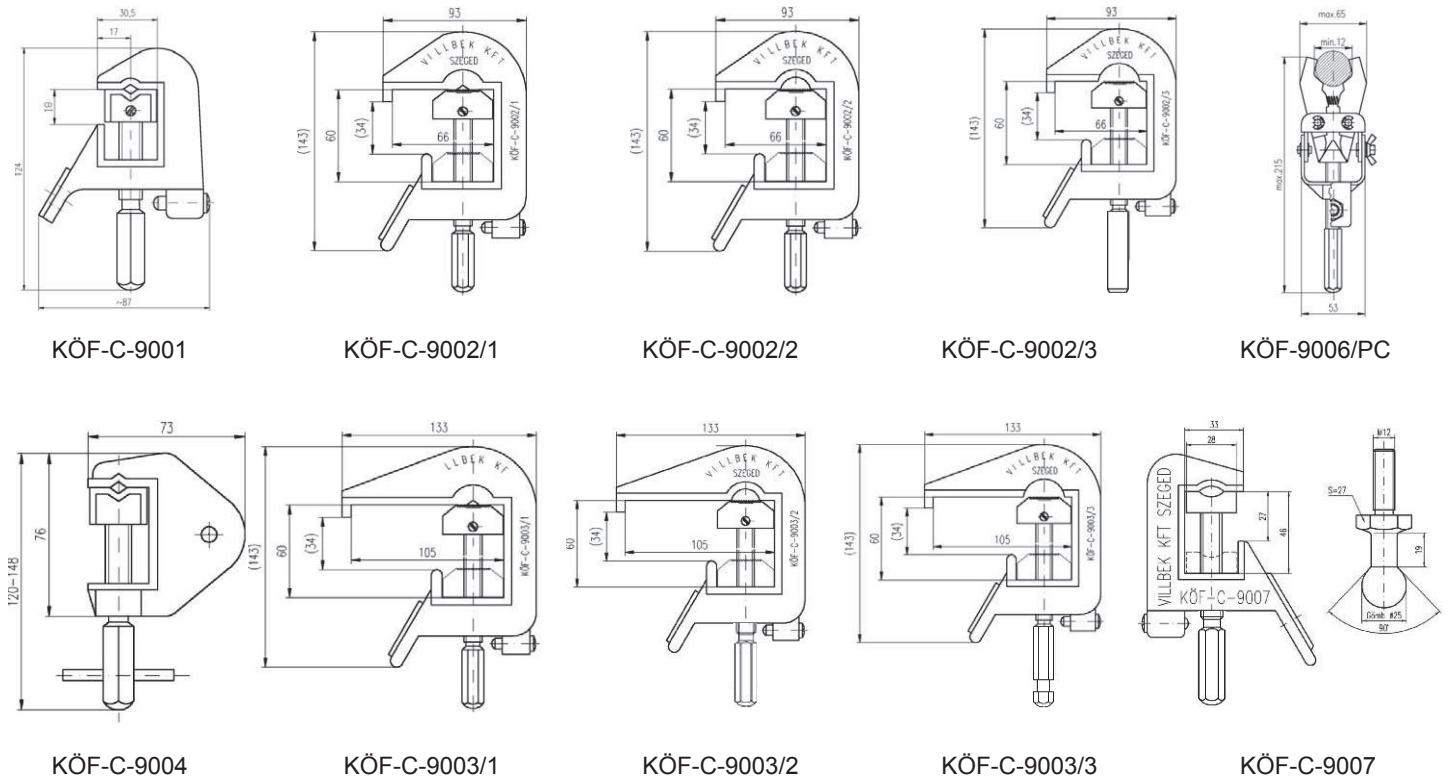
KÖF-C-9000

EN 61230

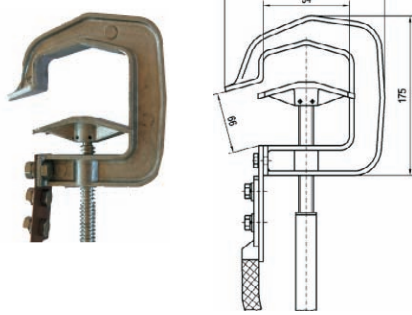
The earthing short-circuiting device is suitable for earthing/short circuiting different capacitor banks. The set can be assembled from the necessary number of flexible cables with the appropriate length and connecting clamps depending on the topology and form of the earthing points. Connecting clamps can be linked with earthing pins or bars by means of insulated operating rods suitable for the related voltage level.

Product code of the set	524000
-------------------------	--------

Phase clamps can be found in the set



UNIPOLAR SHORT CIRCUITING DEVICE

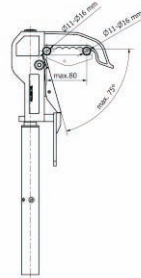
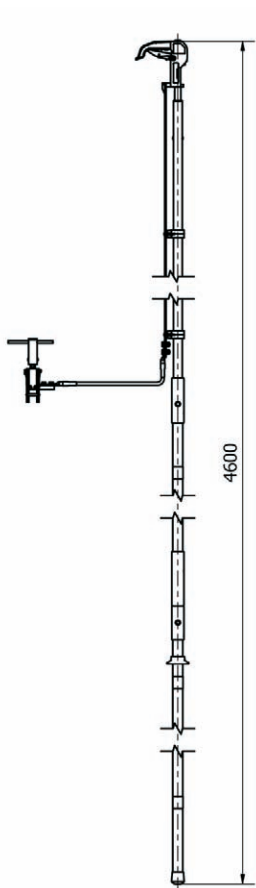
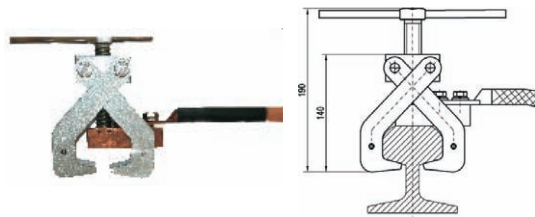


VK-OM-FRZ

EN 61230 CE

Unipolar short-circuiting device is suitable for connecting bus bar and overhead line.

Product code	522900
--------------	--------



VK-25-70315

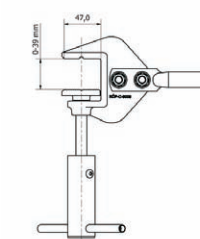
VK-25-70316

EN 61230 CE

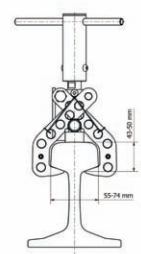
The VK-25-70315 and 70316 earthing rod equipment is for earthing 25 kV overhead line traction systems. The clamps of earthing devices have torque limiter.



KÖF-C-9009



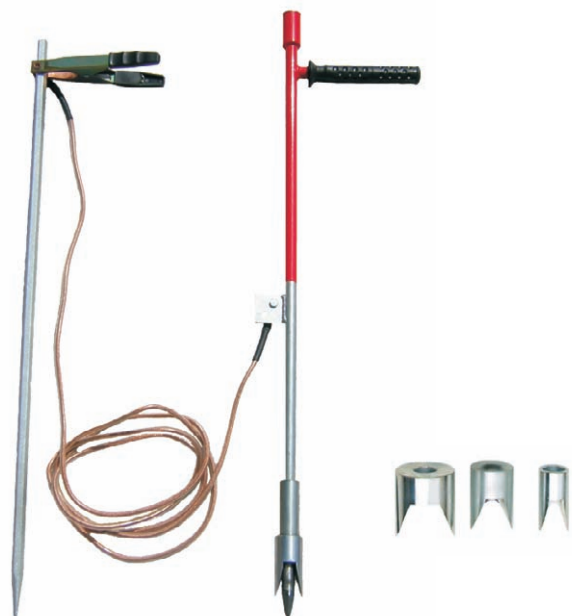
KÖF-C-9008



Type of device	70315	70316
Thermic limit current	12 kA/0,25 s	40 kA/0,25 s
Dynamic limit current	35 kA	
Earth cable	Lenght: 6100 mm; Cu 50 mm ² Lenght: 8100 mm; Cu 50 mm ²	
Weight of the set	13 kg	14 kg
Earthing clamp type	KÖF-C-9008	KÖF-C-9009
Torque of earthing clamp	22 Nm	
Torque of phase clamp	14 Nm	
Number of rod elements	2 pcs	

CABLE PIERCING TOOL, CABLE SHOOTING TOOL, EARTHING MAGNET LOCK

VILLBEK Ltd.



Cable piercing tool

The cable piercing tool helps to select the faulty cable during maintenance carried out on LV earth cable networks.

Rated voltage	0,4 kV
Lenght of wire	2,5 m
Cross section of wire	16 mm ²
Lenght of cable piercing tool	1 m
Lenght of earthing probe	1 m
Product code of the set	547450



Cable shooting tool

The cable shooting tool helps to select the faulty cable during maintenance carried out on LV and MV earth cable networks. The tool is operated by cartridges filled with different portions of gun powder.

Product code of the set	547460
Product code of 30 mm blade	547461
Product code of 45 mm blade	547462
Product code of red cartridge '50'	547463
Product code of blue cartridge '50'	547464



VK-FMZ04 Earthing magnet lock

The earthing magnet lock is suitable to 600-1500 V rated public transport purpose electrical DC earthing networks.

Thermic limit current	10 kA/1s
Adhesion force	1300 N
Product code	547465



NEW

KÖF-8901/AUT automatic earthing devices

The earthing / short circuiting device is for earthing and short circuiting of medium voltage electric line segment that have been disconnected for maintenance.

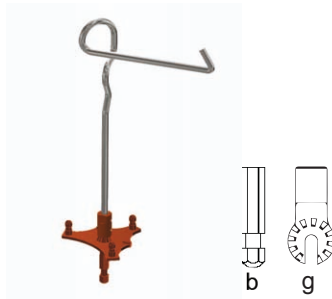
Product code	522850
--------------	--------



NEW

KÖF-KJ-8901/AUT automatic phase clamp

Gripping capacity	4-25 mm
Product code	522851



NEW

KÖF 8901/AUT/CS dispenser head

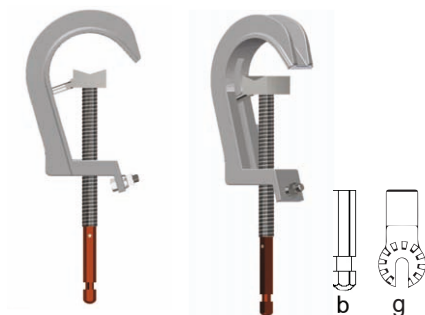
Product code	b:	522852
	g:	522853



NEW

VK-FR25/MÁV automatic phase clamp

Gripping capacity	12-43 mm
Product code	522854



NEW

KÖF 9010 clamp for cylindrical conductors

Gripping capacity	12-43 mm	
Product code	b:	522855
	g:	522856

VOLTAGE DETECTORS FOR LOW VOLTAGE AND CONTACT PROBE

VILLBEK Ltd.



Elma LV voltage detectors

EN 61243-3

The voltage detector is a new and unique voltage tester with safety and lots of clever details including: long flexible cord, smart test rod attachment with spacers that fit perfectly in the socket. The instrument has auto select of function, making it virtually impossible to operate wrong. Self test. Double insulated, CAT IV 600 V, IP65. Both instruments complies to (EN 61243-3:2010, EN 61010-1:2010 and EN 61010-31:2002+A1:2008)

Technical specification	ELMA 2000x	ELMA 2100x
Display	LED	LED and LCD
Voltage display (LED)	12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V (AC/DC)	12 V, 24 V, 50 V, 120 V, 230 V, 400 V, 690 V (AC/DC)
Voltage display (LCD)	-	7,0-800/ 720 V (AC/DC)
Unipolar voltage detecting mod	100-690 V (AC)	
Phase order testing mod	200-690 V (50/50 Hz)	
Continuity testing with LED and sound	0-400 kOhm	
Testing power	<3,5 mA	
Operating temperature	-15...55 °C	
Weight	190 g	

Bag for the meter

Product code 6398167251



One-piece contact probe

Lenght	900 mm
Product code	401054



Bag for the one-piece contact probe

Lenght	900 mm
Product code	BA00202



Three-piece contact probe

Lenght	3x440 mm
Product code	401055



Bag for the three-piece contact probe

Lenght	500 mm
Product code	BA00432

EARTH FAULT LOCATION FINDER, LV PHASE COMPARATOR, CABLE IDENTIFIER

EARTH FAULT LOCATION FINDER



VKP-FZK20

EN 61010-1 CE

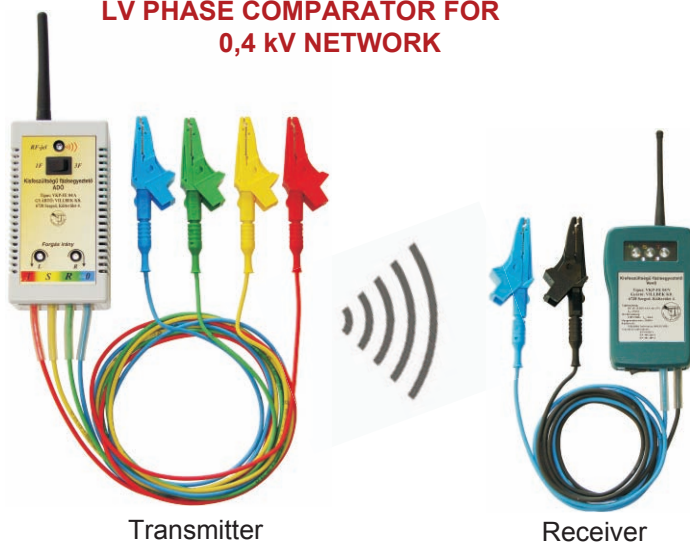
EN 61326-1 CE

The earth fault location finder is suitable for finding the location of the permanent earth fault of MV aerial networks. The sensitivity of the device can be changed by the push buttons. The measured values can be viewed on the LDC graphic display.

Product code

547916

LV PHASE COMPARATOR FOR 0,4 kV NETWORK



Transmitter

Receiver

VKP-FE/04

EN 61010-1 CE

EN 61010-2-031 CE

EN 61326-1 CE

On 0,4 kV three-phase networks (aerial or insulated) the LV phase comparator is able to identify the phases between the base station and a remote point. The transmitter device shall be connected always to the phase conductor on the base station. Using the receiver device each phase of the base station can be identified at any point of the network, moving away from the base station. The transmitter and receiver communicate via radio frequency. The range of transmission may vary between 100 and 200 meters, depending on the transmission of the RF signal.

Product code

547912

CABLE IDENTIFIER



Transmitter

Receiver

VKP-IKA

EN 61010-1 CE

EN 61010-2-031 CE

EN 61326-1 CE

The VKP-IKA cable identifier is suitable for identifying uncharged earth cables. The device kit consists of two instruments, a rechargeable battery powered pulse transmitter and a battery powered pulse receiver. Connecting the transmitter unit to the end point of the uncharged cable, the cable to be found can be identified by the receiver on any point (in cable chamber or cable conduit) of the cable route. The radio communication between the transmitter and the receiver allows the range 100-2000 meters, depending from the radio signals.

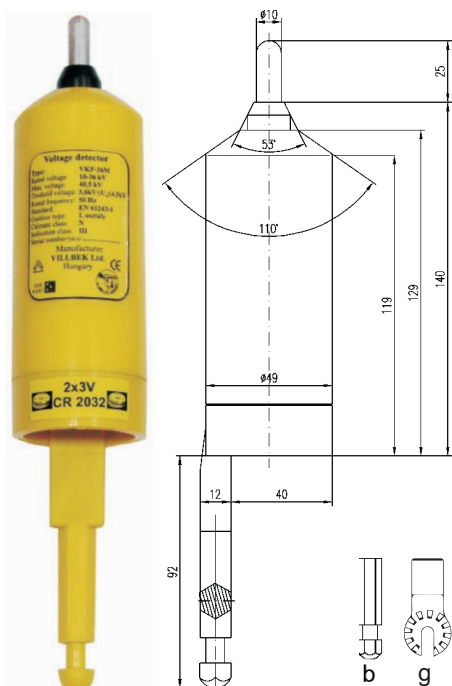
Product code

547910

VOLTAGE DETECTOR

VILLBEK Ltd.

MINI VOLTAGE DETECTOR FOR MEDIM VOLTAGE



VKP-36M EN 61243-1 CE

The voltage detector is for detecting the presence of voltage in the electrical equipments with the rated voltage of 10-36 kV. This type has smaller dimension than the other types. That is why it can be used very usefull in difficult approach and narrow places. Detecting the rated voltage level the device gives audible signal and flashing light indication as well.

Rated voltage	10-36 kV
Max. voltage	40,5 kV
Treshold voltage	$3,6 \text{ kV} \leq U_k \leq 4,5 \text{ kV}$
Product code	b: 505004
	g: 505006



VKP-10

VKP-35

VKP-120

VOLTAGE DETECTORS FOR MV AND HV

EN 61243-1 CE

They can be used for indicating rated voltage on medium voltage AC equipments. They can be used together with operating rods appropriate for the tested voltage levels. Detecting the rated voltage level the device gives audible signal and flashing light indication as well.



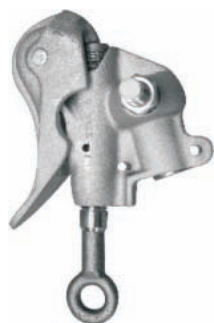
Type	Rated voltage	Max. voltage	Treshold voltage	Product code
VKP-10	3-10 kV	12 kV	$1,1 \text{ kV} \leq U_k \leq 1,3 \text{ kV}$	505001
VKP-35	10-35 kV	40,5 kV	$3,5 \text{ kV} \leq U_k \leq 4,5 \text{ kV}$	505002
VKP-120	120 kV	145 kV	$18 \text{ kV} \leq U_k \leq 48 \text{ kV}$	505005

VOLTAGE BRAKE INDICATOR, PHASE COMPARATOR

MEDIUM VOLTAGE BREAK INDICATOR



VKP-FAM-35



RG3622-1

VKP-FAM-35

EN 61243-1

The device is suitable for monitoring the presence of voltage on the MV network during live working. If break may occur the equipment gives light and sound signal. The device can be used only with operating rod suitable for live working and tested for the related voltage level.

Rated voltage	6-35 kV
Max. voltage	40,5 kV
Treshold voltage	$1 \text{ kV} \leq U_k \leq 2 \text{ kV}$
Product code	505400

UNIPOLAR PHASE COMPARATOR



VKP-A-35

EN 61243-1

The device is suitable for comparing the phases of the live medium voltage systems to be connected to each other. Each step of the test is indicated by audible and light signals. The device can be used with operating rod, appropriate for the tested voltage level.

Rated voltage	10-35 kV
Max. voltage	40,5 kV
Treshold voltage	$3,5 \text{ kV} \leq U_k \leq 4,5 \text{ kV}$
Product code	505003

COMBINED UNIPOLAR PHASE COMPARATOR AND VOLTAGE DETECTOR



VKP-AF-638

EN 61243-1

EN 612481

It can be used for indicating voltage on medium voltage AC equipments or for phase comparison. We can choose between the two operating modes. The steps of the detection are accompanied by light and sound signals. The device can be used only with operating rod tested for the related voltage level.

Rated voltage	6-38 kV
Max. voltage	40,5 kV
Treshold voltage	$1,9 \text{ kV} \leq U_k \leq 2,4 \text{ kV}$
Product code	505300

RF PHASE COMPARATOR, DC VOLTAGE DETECTOR

RF PHASE COMPARATOR



Transmitter
VKP-RFA 638/A



Receiver
VKP-RFA 638/V

VKP-RFA-638

EN 61481



The device is suitable for phase comparison of systems to be connected on live MV networks. The device set consists of a transmitter and a receiver unit with radio frequency communication. The receiver unit gives information via different light and sound signals whether the phase detected is the same or differs from the one detected by the transmitter. The comparison is continuous, there is no time limit. The communication distance of the two units is 15-20 m. The devices shall be used with the appropriate manipulating rods tested for the given voltage levels.

Type	Rated voltage	Max. voltage	Treshold voltage	Product code
VKP-RFA-638/A	6-38 kV	40,5 kV	$2 \text{ kV} \leq U_2 \leq 3,5 \text{ kV}$	505308
VKP-RFA-638/V				505309
VKP-RFA-638				505310

DC VOLTAGE DETECTOR



VKP-E-1

EN 61230



The instrument is applicable mainly in case of the electric towing at direct voltage (subway train, tram, trolley). The voltage detector can be used only with insulated operating rod.

Feszültség tartomány	600-1200 V=
Mérőműszer tasak termékkód	450 V=
Készlet termékkód	515100
Fém hordtáska termékkód	515102

FIELD STRENGTH DETECTORS

VKP-TD-50M

EN 61010-1 EN 61326-1 CE

The VKP-TD 50 M field strength detector is a receiver having high sensitivity and selectivity. The unit is capable of detecting the electric field generated by 230V/50Hz network voltage cables. From a relatively great distance (a few meters) with the unit we can determine whether a cable is live and with the changing of the field strength we can infer whether the cables are live. The sensitivity is easily changeable with the button.

Product code	547916
--------------	--------



VKP-TD04-20K

EN 61010-1 EN 61326-1 CE

The VKP-TD04 20K field strength detector is a receiver having high sensitivity and selectivity. The unit is capable of detecting electric field generated by 0,4-20 kV live wires. This unit can determine live voltage from up to 10-15m distance. The manufacturer can set according to customer requirements other voltage ranges.

Product code	547917
--------------	--------



VKP-TD04KV

EN 61010-1 EN 61326-1 CE

The VKP-TD04KV field strength detector is a receiver having high sensitivity and selectivity. The unit is capable of detecting the electric field generated by 0,4 kV network voltage cables. From a relatively great distance (2-4 meters) with the unit we can determine whether a cable is live. The device is waterproof.

Product code	547919
--------------	--------



FIELD STRENGTH DETECTORS MOUNTABLE ON HELMET



VKP-D-35

EN 61010-1 EN 61326-1 CE

During pole climbing, the device mounted on the helmet gives a warning signal when the aerial line approached is live. When getting closer to the live component a faster and faster intermittent sound signal can be heard.

Rated voltage	10-35 kV
Product code	515110



VKP-TDS-35

EN 61010-1 EN 61326-1 CE

The VKP-TDS-35 type field strength analyzer's task is to warn the workers when it detects a 10– 35 kV energized equipment within up to a distance of 2 meters of approach. It detects the electric field strength, and if the signal exceeds the preset value, the sensor that is located inside the helmet will make a warning sound. The field strength detector can be placed inside the safety helmet. The device has a flexible inlay that can be inserted inside the helmet with the help of the grasping prongs.

Product code	547916
--------------	--------

RF AMMETER, FAULT LOCATION FINDER

VILLBEK Ltd.

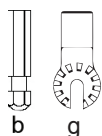
RF AMMETER SET



Transmitter



Receiver



VKP-AMM	EN 61010-1	CE
	EN 61326-1	CE

The VKP-AMM ammeter is suitable for quickly measuring the operating current of the 0,4-35 kV networks (bus-bar or aerial). The ammeter kit contains a RF transmitter and a receiver unit. The values measured by the measuring transmitter are transmitted by the built-in RF transmitter to the receiver unit. The values measured are shown by a LED display. The ammeter transmitter shall be applied by operating rod appropriate for the given voltage level. The range of RF transmission is 15 m.

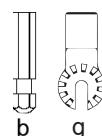
Measurement ranges	0-200 A
	0-500 A
	0-1000 A
	0-2000 A
Product code	b: 547908
	g: 547909

(SHALL BE CHOSEN WHEN ORDERING!)



Transmitter

Receiver



FAULT LOCATION FINDER SET

	EN 61010-1	CE
VKP-LZK04	EN 61010-2-031	CE
	EN 61326-1	

The device is suitable for find the fault location on the low-voltage insulated overhead lines. The set includes two unit: transmitter and receiver with adapter (which can be fixed to insulated sticks). Signals: audible and visible.

Product code	b: 547942
	g: 547943

ULTRASONIC CABLE HEIGHT METER, VOLTAGE DETECTOR FOR BUS-BARS

Measurable cable height range (min. Ø10 mm aerial line)	3-15 m
Measurable cable height range (min. Ø5 mm aerial line)	3-10 m
Measurable cable height range (min. Ø3 mm aerial line)	3-6 m
Number of measurable cables	5
Accuracy	1% ; ± 3digit
Minimum distance between the cables	15 mm
Operating temperature	-15°C - +45°C (built-in heat correction)
Radiating cone angle of the ultrasound	15°
Power supply	2 built-in 9V Ni-Mh batteries
Batteries lifetime	700-800 recharges
Charging voltage	Polarity independent 9-14 V DC (Battery charging from AC adapter or car charger.)
Consumption	30 mA
Supply voltage low indication	Battery empty message on the LCD display
Unit of the displayed height	cm
Product code	547920

VKP-UM15

EN 61230



EN 61326-1



The ultrasonic cable height (deflection) meter is suitable for measuring the height of the overhead cables. The device can measure and display cables of 5 different heights.



VOLTAGE DETECTOR FOR BUS-BARS



VKP-FF-35

EN 61010-1



EN 61326-1



The device is suitable for the continuous indication of voltage being present on bus bars and other equipments having nominal voltage of 10-36 kV. Its use is recommended for outdoor and indoor armored equipments, protected against moisture. The presence of voltage is indicated by a flashing light. It has no internal power supply, so its lifetime is unlimited. The device can be applied in a de-energized status, if the de-energizing was performed previously according the specifications.

Product code	515185
--------------	--------

OPERATING TESTER FOR LIGHTING, ELECTRICITY METER WITH DUMMY LOAD

OPERATING TESTER FOR LIGHTING



VKP-KLT04	EN 61010-1	CE
	EN 61010-2-031	CE
	EN 61326-1	CE

Type VKP-KLT04 is available for on-site testing lamps, which are used on public lighting system. The handle of meter is fast and easy with shoulder bag, device weight 2kg.

Output voltage	230 V/ 50 Hz
Power	max.100 VA (higher as required)
Battery	4x3,6 V Li.Ion /3,3Ah
Stored energy	kb. 40 Wh
Max. output current	0,5 A (AC)
Operating time	50 VA continuous load ca. 30 min.; 1 hour with discontinuous load
Protection	Short circuiting, overload current and overvoltage protection
Operating temperature	Battery – 10 A fuse 10°C - +40°C
Battery charging	from main adapter or from car charger

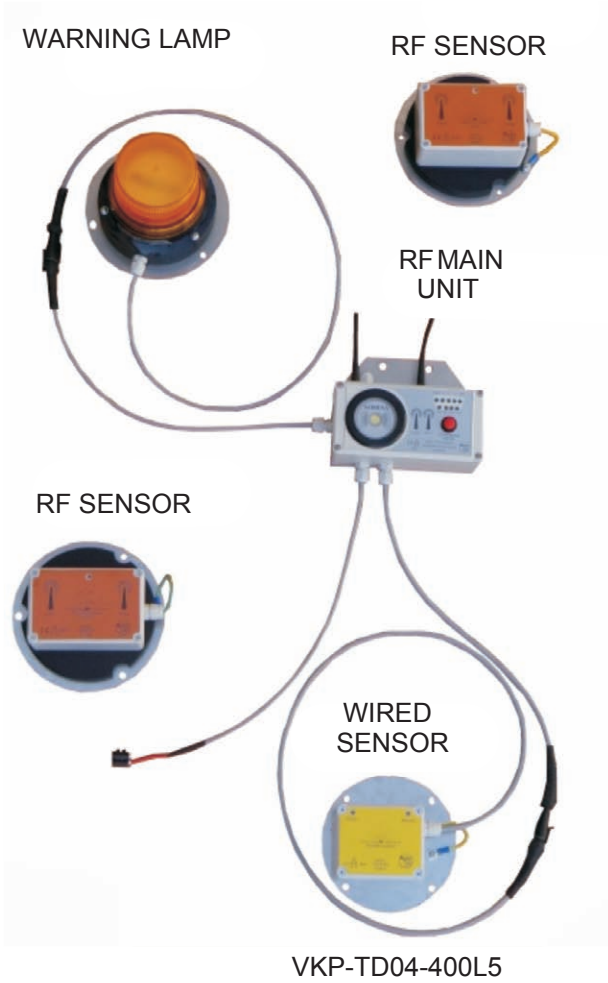
ELECTRICITY METER WITH DUMMY LOAD



VKP-MT-3F	EN 61326-1	CE
VKP-M2	EN 61010-1	CE
	EN 61010-2-031	CE

The dummy load type VKP-MT/3F is applied to test the operability as well as significant measurement accuracy problems of the one or three-phase electricity meters. The current load can be set in for step between 4-60 A. The LCD displays the momentary voltage (V), load current (A), cosφ, momentary power (kW) and measured energy (Wh). Weight: 6,5 kg. The device is capable of simultaneously testing a phase or three-phase load. Accuracy ±1,5% depending on the load impedance. The handle of meter and reading of the measured datas are fast and easy with shoulder bag.

FIELD DETECTOR FOR AERIAL DEVICES



VKP-TD 04-400/LX	EN 61010-1	CE
	EN 61010-2-031	CE
	EN 61326-1	CE

It is suitable for alarm the operator of the aerial device when the boom or platform or bucket crosses the live working zone of the live line system. The environment of detecting always depends on where the detector is placed. The warning signals of detector are high power siren sound and/or caution light. Option, that blocks the move of controlled aerial device by output of a relay. On-demand more sensors can be placed on different points of the aerial device (L2 and L5), in addition user can choose four detecting voltage level by the built-on switch (L2 – L5).

Product code	547923
--------------	--------

1.	VKP-TD04-400/L1	Outplaced sensor for one voltagelevel supplied by car battery.
2.	VKP-TD04-400/L2	Central unit in operator cabin for four voltage level with max. 15 pieces of outplaced sensors (cable connection, self-power supplied), supplied by car battery-powered.
3.	VKP-TD04-400/L3	Outplaced sensor for four voltage level, supplied by built-in battery-powered.
4.	VKP-TD04-400/L4	Outplaced sensor for four voltage level, supplied by car battery-powered.
5.	VKP-TD04-400/L5	For four voltage level central unit in operator cabin supplied by car battery-powered with max 15 pieces of outplaced sensors (RF communication or combined with cable and RF, self-power supplied)

Detectedd voltage: 0,4 kV - 400 kV
 (SHALL BE CHOSEN WHEN ORDERING!)
 Distance of alarm: shall be chosen when ordering!
 Option: caution light and stop-relay

TOOL BAG, TENT FOR MAINTENANCE, AUTOMATIC SPLICE

VILLBEK Ltd.



Tool bag

In three different sizes (without tools).

Dimensions	420x150x250 mm 420x170x320 mm 450x190x340 mm
Material	leather, plastic
Color	black
Product code	311264



Tool bag

Can be ordered in three different sizes for electricians.

	Model dimensions	Product code
1.	240x240x100 mm	311266
2.	350x240x100 mm	311267
3.	350x300x100 mm	311268

Tent for maintenance



Dimensions:
- Width: 200 cm
- Length: 200 cm
- Height: 185 cm

Material:
- Framework consisting of painted tubes
- PVC canopy with artificial glass window

Installation:

- I. Set up the framework at the location of maintenance.
- II. Put the canopy on the metal framework (putting the fixing rings on the fixing pins).
- III. Closing the entrance on both sides (entrance and opposite) with pull fasteners
- IV. The covering with 30 cm extra length can be fixed with weighting.

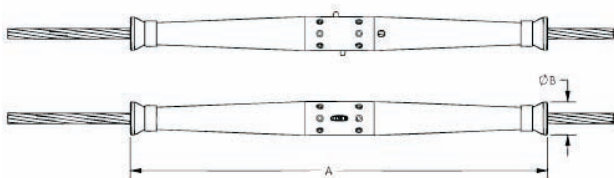
Product code	547400
--------------	--------

Automatic splice

CRS - Corrosive Resistant Splice automatic splices are used on ACSR, AAC, AAAC conductor.

Features:

- Pop up tab to verify proper insertion
- Vent holes for moisture removal and air cooling
- Stainless steel spring and pilot cup to improve corrosion performance
- Rated to hold a minimum of 95% of RBS of the strand used
- Advanced synthetic inhibitor for superior corrosion protection
- Color coded strand guide for easy identification



INSULATING SHEETS, PROTECTIVE GLOVES



Size: 5x740x1000 mm

Product code: 547480



Size: 5x500x680 mm

Product code: 547470



Size: 5x1020x1100 mm

Product code: 547485



Size: 5x800x900 mm

Product code: 547475



Leather gloves for live working

VS5-FAM EN 420, EN 388

The electrical protective gloves protects against mechanical injuries.

Sizes	9, 10, 11, 12
Product code	311210



Insulating sheets for separation

EN 61229 EN 60243-1

For the armoured MV switchgears it can be used to separate the live parts from the uncharged ones during work. The separating sheets have certificates for 4 different sizes and types. On demand we manufacture and certify other sizes.

Rated voltage	10 kV, 20 kV
Material	Glass-fibre reinforced resin

Switching gloves

EN 420, EN 388, EN 407, EN 12477

In case of LV equipments it is suitable for operating disconnectors and circuit breakers.

Sizes	9, 10, 11, 12
Product code	311150



Cotton gloves

EN 60243-1

Under electrical protective gloves against sweat.

Product code	311208
--------------	--------



FAM-H Hook

Operated with the service rope. This hook enables to lift any part tools to the tops of the pole and bring it down.

Size	140x75x10 mm
Weight	0,1 kg
Material	Al
Product code	311125

VK-FAM-A Hook pole adapter

Integrated to a hook pole. The hook pole adaptor is used in the same way as the universal end piece of the pole.

Size	120x47x45 mm
Weight	0,15 kg
Material	Al
Product code	311126

VK-FAM-T-KV

Protector bag for dipped sleeves

Product code	311127
--------------	--------

VK-FAM-T-KE

Protector bag for gloves

Product code	311128
--------------	--------

VK-FAM-KT Service rope gin

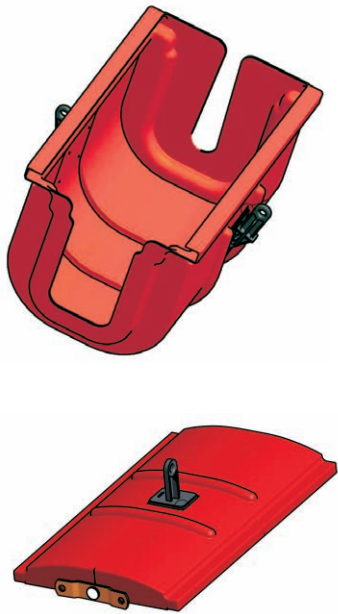
The service rope gin is used as an anchorage point for the service rope.

Size	450x450x130mm
Max. load	100 daN
Weight	1,5 kg
Product code	311129

VK-FAM-RT Stick hanger

Secured to a ring saddle for post, the stick hanger is used to hang poles equipped with a hanging hook awaiting their use.

Size	360x165x80mm
Weight	0,7 kg
Product code	311130



VK-KFSZB-40

For covering the double spanning under live working at medium voltage networks.

Class	4
Category	A: acid-proof W: extrem high temp. resistant -10 °C - 70 °C
Standard	IEC 61229:1993+A2:2002

	Class: 4 Cat. A,W VILLBEK Kft. 01/2013
	Typ: VK-KFSZB-40 IEC 61229:1993+A2:2002 Un=40000 V



Hydraulic long reach chain saw

Long reach chainsaws are intended for safely cutting and trimming trees from the ground or an aerial bucket. The dielectric property of the fiberglass extension tube will reduce the chance of electric shock when used near an energized electric line.

Standard:
MSZ EN 60832-1,
MSZ EN ISO 11681-2



VK-FAM-F Pruning saw

The pruning saw is used to saw branches located in the vicinity of live parts.

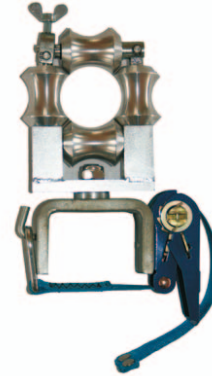
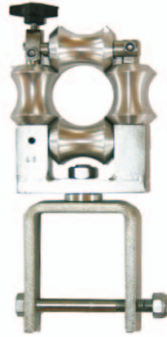
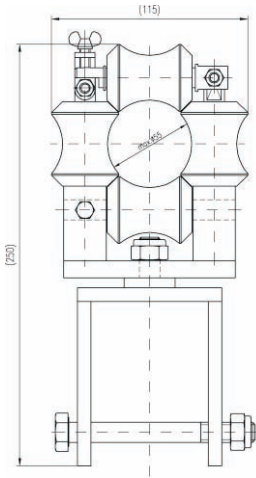


Weight	670 g
Length	460 mm
Product code	b: 311132
	g: 311131

LAYING ROLLER, CLIMBING TOOLS, THROWING ROPE

Laying roller with four pulleys

The laying roller can be used to build LV ABC network. Max. diameter of the bundle: 55 mm.



VK-4CST-CS

Product code	515515
--------------	--------

VK-4CST-H

Product code	515515
--------------	--------



Aluminium climbing equipment



Climbing tool made of special aluminum alloy for wooden poles.

Product code	311300
--------------	--------

Iron climbing equipment



Climbing tool made of forged iron for wooden poles.

Product code	311305
--------------	--------

VK-DK-1500 Throwing rope

The throwing rope is used to help the employee's to pull up tools easily to top level of the pole when they working on the pole.



Lenght	15 m
Weight	1,3 kg
Rope diameter	8 mm
Product code	311057



E-MAN helmet with built-in face protector

EN 397 EN 50365 CE

The E-MAN helmet has been developed according to state of the art science of crumple zones in modern vehicle design. The helmet is being equipped with a fully retractable visor providing protection for the entire face. E-MAN is introducing the CRASH BOX especially designed for partial or total destruction depending on the impact intensity. By destroying the CRASH BOX a certain amount of the impact energy will be taken over by the helmet shell while the rest of the impact energy is being forwarded to the suspension and from there to the head of the user. The functionality of the CRASH BOX is comparable to the crumple zones on contemporary cars. The E-MAN helmet series offers a variety of accessories and upgrades according to every user need and workplace condition: Ratchet system, 6 point textile suspension, helmet lights, chin straps (designed to fit the self releasing mounts on the E-MAN, all types of sweatbands etc. The helmet is tested according to EN 397 (440 V, -30 C), the face shield is tested according to EN 166, 167, 168, 170.



SICOR helmet with built-in face protector

EN 166 CE

The reduced bulk of the face shield allows the operator to make simultaneous use of the two certified individual protection devices. The helmet is also available without the face shield (which may be added later). The technical features and appearance of the EDL-01 represent a decisive innovation compared to the products currently found on the market. The EDL-01 is EC certified in category III, based on the EN 397 standard (440 V, -20 C), built-in face shield that is EC certified under standard EN 166 in optical class 2.



CENTURION helmet with face protector

EN 166 CE

The Concept helmet S09E is extremely light yet strong - it is 20° lighter than most other helmets with maximum impact and side protection. The Concept helmet can be ordered with a high absorbent Hydro-Flock sweatband and optional unique ventilation system for improved airflow, providing one of the coolest helmets. The helmet is tested according to EN 397 (1000 V). Face shield S590AEA, according to EN 166 1 B 8 9 (EN 170 2-1,2). Frame S57CEAEA, according to EN 166.



SECRA helmet with built-in face protector (H058S)

EN 61482-1-2 CE

SECRA helmet protects upper head area against injuries from falling objects, splashes of molten metal and electric shock by preventing electric current flow through the head, as well as against electric arc hazards. It is particularly recommended as personal protective equipment in live line working.
Lifetime: 5 year
Electrical insulation: 1000 V

SERVICES OF THE HIGH VOLTAGE LABORATORY

Electrical testing

- | | |
|--------------------------------|--------------------------------|
| 1. LV Voltage detectors | (MSZ EN 61243-3, MSZ 20862-79) |
| 2. MV Phase comparators | (MSZ EN 61481) |
| 3. Insulated operating rods | (MSZ EN 60855) |
| 4. MV and HV Voltage detectors | (MSZ EN 61243-1, MSZ 20866-75) |
| 5. Insulated tools | (MSZ EN 60900) |

Our company undertake the following tests:

6. Insulating sheets
7. Earthing/short-circuiting devices
8. Contact probes
9. Villbek and TE.M.A. ladders, platforms
10. Climbing tools
11. Villbek fall arrester for wooden poles, safety hook

Max. proof voltage: 100 kV

Repair, service, maintenance

In our workshop we undertake the repairs, services and maintenance of the following products:

Insulated operating rods, earthing/short-circuiting devices, voltage detectors, phase comparators, climbing tools and the Villbek and TE.M.A. products.



PPE testing

- | | |
|----------------------------|---------------------------------|
| 1. Insulating gloves | (MSZ EN 60903) |
| 2. Insulating sleeves | (MSZ EN 60984) |
| 3. PPE Safety harness | (MSZ EN 361) |
| 4. Safety lanyards | (MSZ EN 354) |
| 5. Connectors, rope access | (MSZ EN 362) |
| 6. Fall arrester | (MSZ EN 353-1, 353-2, 360, 355) |

NOTIFIED COMPANY

Registration number: 2355

Testing of live working tools

Certification from Hungarian Live Working Committee for testing of LV and MV live working tools, equipment and devices. Notified Institution for testing of protective equipment against electrical risks and falls from height.

Periodic testing of live working tools for LV:

I. Live working tools: Insulated covers, insulated tools and equipments

II. Protective equipments: Insulated gloves

Periodic testing of live working tools for MV:

I. Live working tools: Insulated operating rods, measuring and testing devices, bridging devices, insulated covers and covering elements, handling and fixing devices, climbing and work positioning devices, holding devices, universal tools for insulating rods, cleaning equipments under live working, others: operating rod holder, insulating piece.

II. Protective equipments: Insulating gloves, insulating sleeves

III. Periodic testing of aerial devices with insulated arm

REPAIR, SERVICE AND MAINTENANCE FOR THE LIVE WORKING TOOLS



In our workshop we undertake the repairs, services and maintenance of the following products:

- Hot Line insulated operating rods
- Insulated covers
- Phase comparators, ammeters and voltage brake indicators
- Insulated and metal ladders



Mobile high voltage laboratory

Basic equipments details:

- Adjustable single-phase transformer.
Max. proof voltage 0-100 kV / 50 Hz
- Voltage detector and phase comparator tester
- Insulated operating rod testing platform
- Water bath for insulating gloves and sleeves testing
- Mechanical tensile pad

Tests can performed at the location:

- LV, MV and HV insulated operating rods
- LV, MV and HV voltage detectors
- MV phase comparators
- LV and MV insulating gloves
- MV insulating sheets
- LV, MV and HV earthing/short.circuiting devices
- 1000 V live working tools
- Climbing irons
- Aerial devices with insulating arm

- Replacing parts and batteries
- If necessary set the default settings for voltage detectors
- In case of not compliance option for replacement



SPECIFICATION FOR SHORT-CIRCUITING AND EARTHING SYSTEM

Specification for short-circuiting and earthing system

1. Network, electrical installation characteristics

Network voltage: _____ kV Max. short-circuiting current (1s): _____ kA

Nature of the conductive materials: Basis Al _____ Basis Cu _____

Overhead lines Switchboard or substation

- Cross section of the conductors: min. _____ mm² max. _____ mm² -Earthing stud dia. (mm): mini. _____ max. _____

2. Characteristics of the earthing system

- Selected scheme (out of the three standard types shown below)
- Distance between live conductors (m): _____, between live conductors and earthing point (m) _____
- To place the clamps in position, the operator will stand: above the conductors _____ under the conductors _____ at the conductors level _____
- Cross section of the conductor _____ mm²

3. Earthing connection point

- Earth rods: dia. or thickness on side face (mm): _____ Flat bar, angle-bar, thickness (mm): _____
- Round conductor dia. (mm): _____

4. Operating rod

- Insulating rod: total length _____ Fixed _____ Connectable rod _____ Telescopic _____

5. Characteristics

- Selected connection type: Scheme no. _____
- Contact clamps _____
- Short-circuiting cable
 - Length (m) _____
 - Cross section Cu, Al (mm²) _____
- Grounding cable
 - Length (m) _____
 - Cross section Cu, Al (mm²) _____
- Connection of cables on clamps, earth clamps, trifurcation
 - Direct connection by screw and nut
 - Connection by means of crimped lugs
- Earth clamp, type _____
- Presence of a reel _____
- Insulating rod, type _____
- Application hook _____

SCHEME 1.



SCHEME 2.



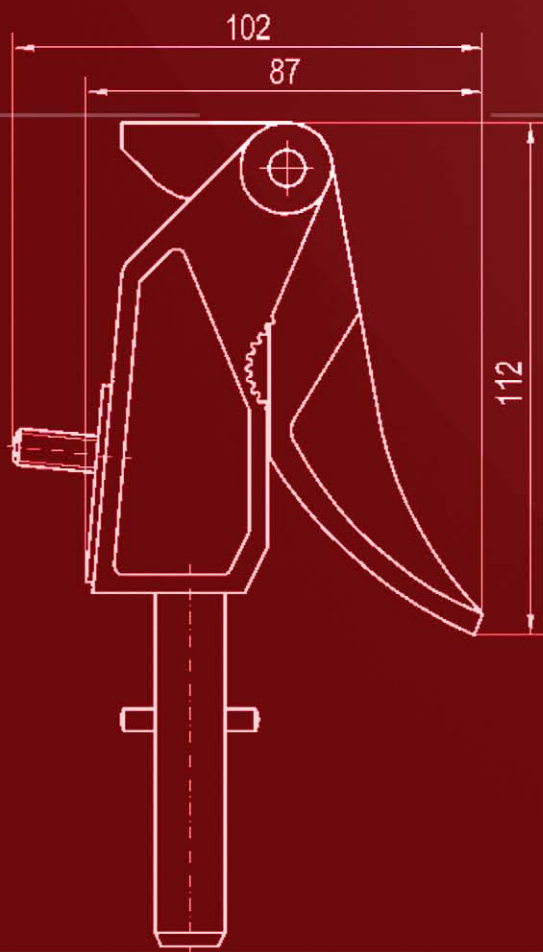
SCHEME 3.

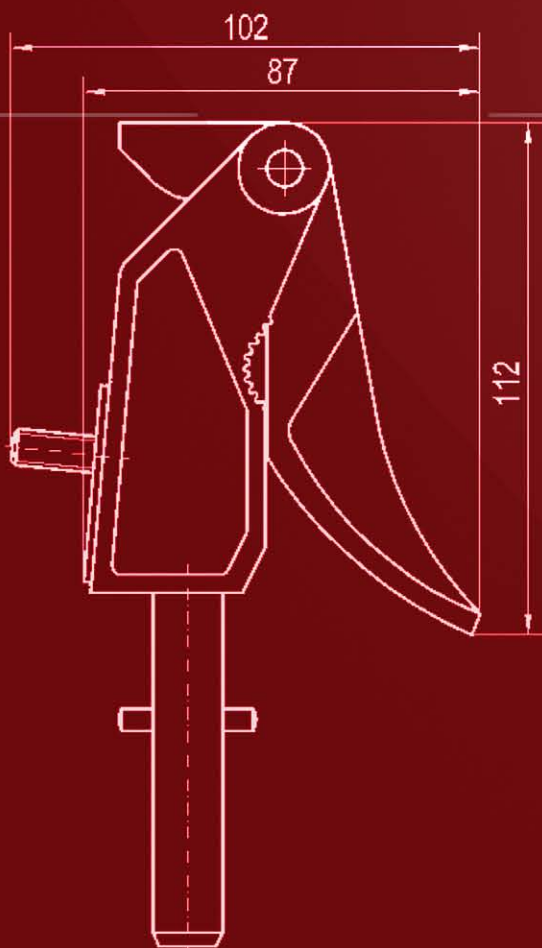


Accessories

- Carrying bag for sticks _____
- Canvas bag for equipment _____
- Carrying case for equipment _____
- Cable reel _____

Operating rod	1-4
Adapters	5
Rescue rod, height measuring rod, operating rod	6
Accessories	7
Accessories connecting to the rod head	8-13
Insertable ball studs for clamps, wall mount	14
Earthing clamp, discharging whip	15-17
Earthing and short circuiting devices	18-24
Unipolar short circuiting device	25
Cable piercing tool, cable shooting tool, earthing magnet lock	26
New clamps	27
Voltage detectors for low voltage and contact probe	28
Earth fault location finder, LV phase comparator, cable identifier	29
Voltage detector	30
Voltage brake indicator, phase comparator	31
RF phase comparator, DC voltage detector	32
Field strength detectors	33
RF ammeter, fault location finder	34
Ultrasonic cable height meter, voltage detector for bus-bar	35
Operating tester for lighting, electricity meter with dummy load	36
Field detector for aerial devices	37
Tool bag, tent for maintenance, automatic splice	38
Insulating sheets, protective gloves	39
Live working tools	40-41
Laying roller, climbing tools, throwing rope	42
Head protection	43
Services of the high voltage laboratory	44
Repair, service and maintenance for the live working tools	45
Specification for short-circuiting and earthing system	46





Hungary

6728 Szeged, Vágány u. 15.

Phone: +36 62 /464-371

Fax: +36 62 /473-087

Email: villbek@villbek.hu

Web: www.villbek.hu