



# Insulated conductor U 10 PE-VP

Special designed PE prevents an electrical contact between the earth collector and the phase rail as well by operating errors.

## Retrofit safety for maximum operator protection

The conductor system U10, which is approved over many years in thousands of system kilometers and is according to all established safety regulations, is now advanced with a retrofit option: The insulated conductor U10 PE-VP prevents through a special geometrical design of the PE, that the equipment even in exceptional operating situations gets under current. Possible operating errors during installation, commissioning and maintenance are therefore prevented.

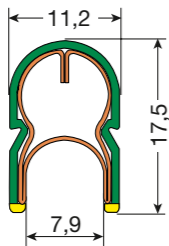
Vahle provides you with this innovation a unique advantage with regards to operator protection – and a considerable advantage to all established safety regulations.

### System description

- special design of PE-conductor
- special design of earth collector
- PE collector cannot enter the phase conductor
- No permutability of collectors
- safe carbon guiding through special copper profile (7.5 mm depth of immersion)
- easy retrofit in existing systems
- all advantages of the conductor system U 10 still persist



### Section



#### Conductor code:

U = unipole insulated conductor  
10 = shroud size  
25 = conductor cross sectional area (mm<sup>2</sup>)  
C = copper conductor  
E = stainless steel conductor

**Length:**  
6 m is standard length, shorter lengths are available

**Support spacing:**  
for straight runs 0.6 m  
for curves 0.3 m

**Conductor spacing:**  
on compact hangers 14 mm  
or variable

**Curves:**  
factory prepared, min. radius 400 mm, or in the field with curve tools  
BVU 10/15 (min. R = 0.4 m)

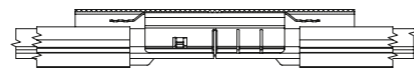
**Use:**  
Only indoor

Type	Weight kg/m	Order No. PE <sup>(1)</sup>	
		Standard shroud, color green	High temperature shroud, color gray
U 10/25 C-PE-VP	0,267	143 19•	143 20•

<sup>(1)</sup> Fill-in last number (1, 2, 3, 4, 5 or 6 m su x) in accordance to bars required

### Feed joint

(Max. connecting cable 2 x 6 mm<sup>2</sup>, balances the length extension during temperature fluctuation)

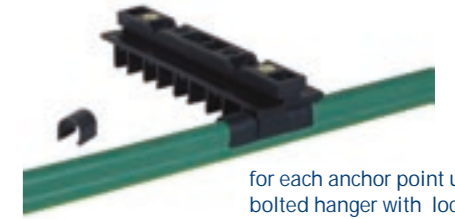


Type	Weight kg	Order No.
UEV 10 PE-VP	0,020	143 213

# Accessories and collector for U 10 PE-VP

### Locating clamp

Type	Weight kg	Order No.
USK 10A	0,006	282 3268

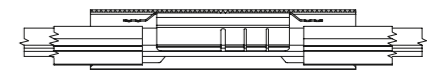


for each anchor point use one bolted hanger with locating clamps per conductor bar

### Feed terminal

(max. 2 x 50 A continuous current)

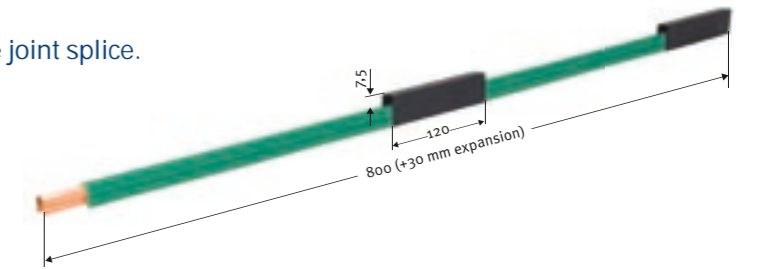
Usage: UES10 installed on the conductor section between the joint feeds.



Type	Weight kg	Order No.
UES 10PE-VP	0,023	143 214

### Expansion section

factory assembled to 0.8 m long conductor section incl. one joint splice. The 0.8 m expansion assembly is part of the system length.



Type	Weight kg	Order No.	
		Standard shrouding, green	High temp. shrouding, gray
UDV 10/25 C-PE-VP	0,254	143 216	143 215

### Transfer guide

with or without feed terminal (also serving for end cap and for anchor point in conjunction with BFU).

max. vertical and horizontal offset: ± 3 mm to each other

Type	Weight kg	feed clip	Order No.
US 10 PE-VP	0,004	w/o	143 208
US 10 S-PE-VP	0,005	w/o	143 210
US 10 SP-PE-VP	0,005	w/o	143 212
USE 10 PE-VP <sup>(1)</sup>	0,009	c/w	143 207
USE 10 S-PE-VP <sup>(1)</sup>	0,010	c/w	143 209
USE 10 SP-PE-VP <sup>(1)</sup>	0,010	c/w	143 211

<sup>(1)</sup> Connecting cable with flat pin bushing FLA or FKA have to be ordered separately



w/o feed: US 10 PE-VP



c/w feed: USE 10 PE-VP (feed cable 6,3 x 0,8 mm)



w/o feed: US 10 SP-PE-VP

## Accessories and collector for U 10 PE-VP

### Double collector

Ampacity:

1 Plug terminal 25 A

2 Plug terminals 2 x 20 A

swivel  $\pm 15$  mm · lift  $\pm 15$  mm;  
contact pressure ca. 3.5 N per brush  
feed cable WFLA 2.5 mm<sup>2</sup>  
0.5 m long high-flexible incl.



Type	Weight kg	Order No.
KDS 2/40 PE-VP	0,080	143 217

## Installation tools U 10



### Curve tool

for bending of conductor U10 and U15 vertically and horizontally. The filling rod has to be ordered separately.

Type	Weight kg	Order No.
BVU 10 VP	10,000	143 318
Filler rod <b>FU 10 SVP</b> (4m)	0,340	143 279
Filler rod <b>FU 10 VP</b> (4m)	0,200	143 280



### Conductor punch tool

With removable ground plate to punch the joint holes in the conductor profile at short length.

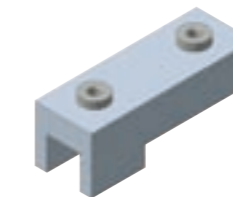
Type	Weight kg	Order No.
LZ 10 PE-VP	2,400	143 223



### Locking pin driver

To adopt the split pins while using the anchor bar for transfer guide (Aluminium).

Type	Weight kg	Order No.
ED 10	0,010	165 277



### Drill jig for fixpoint

Type	Weight kg	Order No.
BS 10 A	0,150	282 3266



### Table saw

To cut the isolating and conductor profiles with length gauge. Connection: 220 V, 50 Hz..

Type	Weight kg	Order No.
KS	6,500	165 276
Spare blade <b>SB</b>	0,070	165 263



### Conductor joint assembling tool

1. To push the conductor profile in the joint.
2. If necessary, to expand the conductor opening.
3. To move the joint cap

Type	Weight kg	Order No.
MG-SW 10	0,125	165 093

### Deburring tool EGM

for the inner side of the conductor profile at short length.



### Half-round file HRF

for deburring and bevelling of conductor outside.

Type	Weight kg	Order No.
EGM	0,018	165 275
HRF	0,085	165 264

## PVC conductor VKS 6/...HSVP

Special designed PE prevents an electrical contact between the earth collector and the phase rail as well by operating errors.

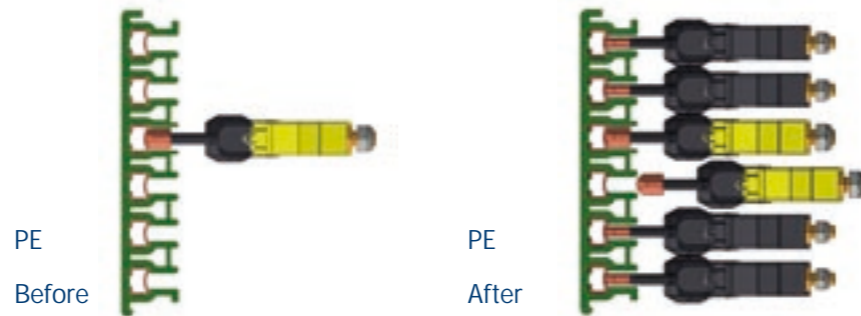
### Additional safety for maximum operator protection

The conductor system VKS 6, which is approved over many years in thousands of system kilometers and is according to all established safety regulations, is now advanced with a further option: The PVC conductor VKS 6/...HSVP prevents through a special geometrical design of the PE, that the equipment even in exceptional operating situations gets under current. Possible operating errors during installation, commissioning and maintenance are therefore prevented.

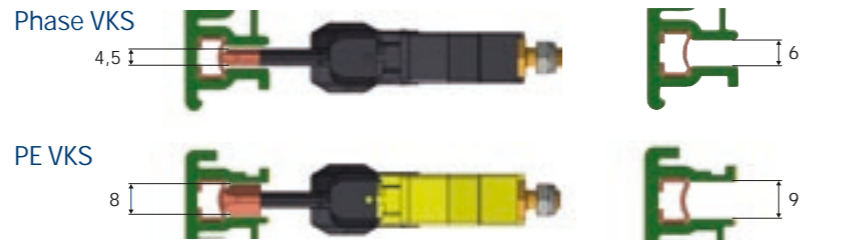
Vahle provides you with this innovation a unique advantage with regards to operator protection – and a considerable advantage to all established safety regulations.

### System description

- special designed isolating housing
- special design of earth collector
- PE collector cannot enter the phase conductor
- No permutability of collectors
- easy retrofit in existing systems
- all advantages of the conductor system VKS 6 still persist



### Collectors



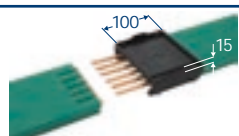
### Conductor profile

### Straight sections

Type	Weight kg	Order No. PE <sup>(1)</sup>
VKS 6/60- ...HSVP	2,202	157 37•
VKS 6/100- ...HSVP	2,436	157 40•
VKS 6/120- ...HSVP	2,571	157 41•
VKS 6/140- ...HSVP	2,693	157 42•

<sup>(1)</sup> Fill-in last number (1, 2, 3, 4, 5 or 6 m su x) in accordance to bars required

### Joint material

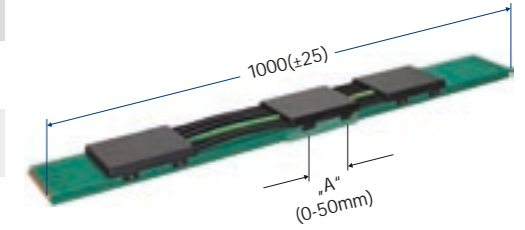


Type	Weight kg	Order No.
SVN 6/60-100VP	0,194	157 383
SVN 6/120-140VP	0,194	157 394

## Accessories and collectors for VKS 6/...HSVP

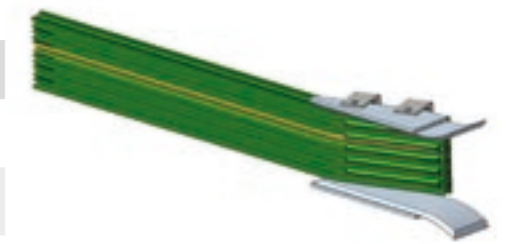
### Expansion joints

Type	Weight kg	Order No.
DVKS 6/60 HSVP	3,582	157 395
DVKS 6/100 HSVP	3,962	157 396
DVKS 6/120 HSVP	4,242	157 397
DVKS 6/140 HSVP	4,504	157 398



### Entry (L=left hand version, R=right hand version, w/o conductor)

Type	Weight kg	Order No.
EF V6-KESR-VP L	....	157 385
EF V6-KESR-VP R	....	157 386



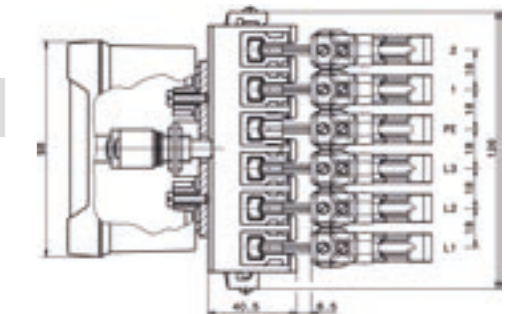
### Exit (L=left hand version, R=right hand version, w/o conductor)

Type	Weight kg	Order No.
AF V6-KESR-VP L	....	157 387
AF V6-KESR-VP R	....	157 388



### Carbon wear indicator

Type	Weight kg	Order No.
KVT-VKS6-VP	....	157 391



### Collector HS04=PE at No.4, HS03 = PE at No.3, incl. connecting length 2.5 mm², 1 m long

Type	Weight kg	Order No.
KESR 32S-VP-6-18HS04	....	157 392/0
KESR 32S-VP-6-18HS03	....	157 392/0-C



**Note:**  
Technical parameter and not shown accessories can be found in the VAHLE catalogue 3b (PVC conductor VKS – VKL).

