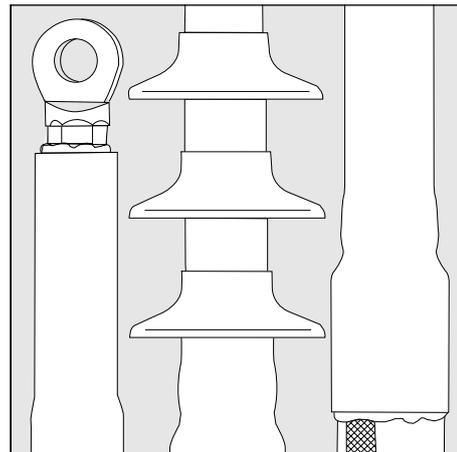




TE's Raychem Cable Accessories



Installation Instruction ESD-3824-7/16

**Terminations for
Screened Single Core
Polymeric Insulated
Cables up to 42 kV**

Type: POLT

**Note:
Separate Raychem earthing
kits are recommended for
cables with metal tape shield
or with armour.**

To view the TE Energy website:



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Before Starting

Check to ensure that the kit you are going to use fits the cable.

Refer to the kit label and the title of the installation instruction.

Components or working steps may have been improved since you last installed this product.

Carefully read and follow the steps in the installation instruction.

General Instructions

Use a propane (preferred) or butane gas torch.

Ensure the torch is always used in a well-ventilated environment.

Adjust the torch to obtain a soft blue flame with a yellow tip.

Pencil-like blue flames should be avoided.

Keep the torch aimed in the shrink direction to preheat the material.

Keep the flame moving continuously to avoid scorching the material.

Clean and degrease all parts that will come into contact with adhesive.

If a solvent is used follow the manufacturer's handling instructions.

Tubing should be cut smoothly with a sharp knife leaving no jagged edges.

Start shrinking the tubing at the position recommended in the instruction.

Ensure that the tubing is shrunk smoothly all around before continuing along the cable.

Tubing should be smooth and wrinkle free with inner components clearly defined.

Table 1 - Cut Back Dimensions

Volt.	Type POLT-	Wire Shield		Tape Shield	
		L indoor [mm]	L outdoor [mm]	L indoor [mm]	L outdoor [mm]
12	12C-12D	190	230	200	240
	12E	230	230	240	240
	12F	270	270	280	280
24	24C-24E	270	370	280	380
	24F	370	430	380	440
42	42C-42F	430	490	440	500
	42G-42H	490	490	500	500

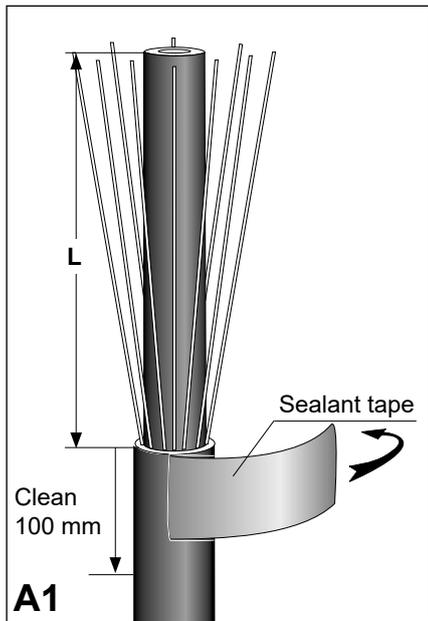
The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, TE Connectivity has no control over the field conditions which influence product installation.

It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. TE Connectivity's only obligations are those in TE Connectivity's standard Conditions of Sale for this product and in no case will TE Connectivity be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

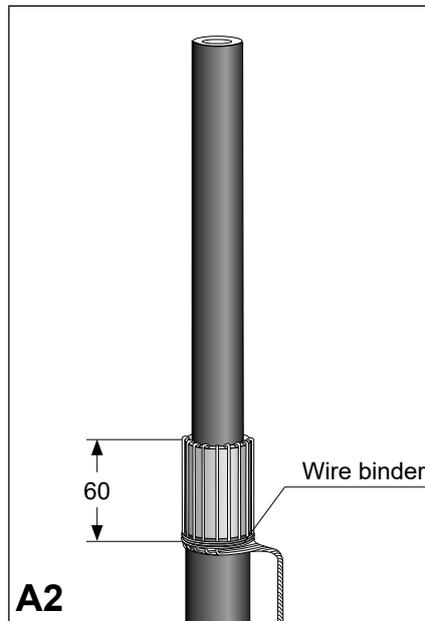
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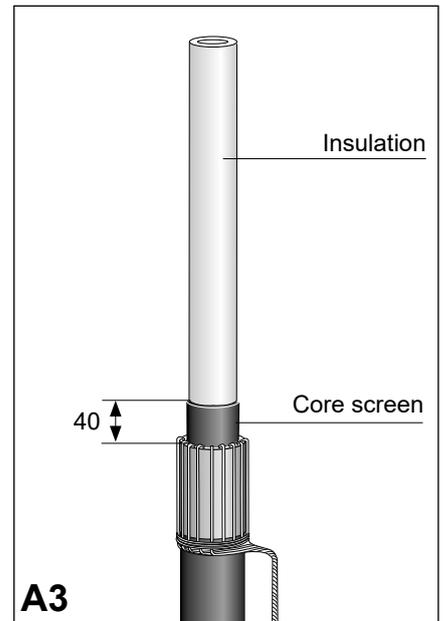
Cable Preparation
A. Cable with wire shield



Note:
 If Raychem solderfree earthing kits for tape screen or armour are used, read the additional installation instruction enclosed, before continuing.
 Cut the cable to the required length. Remove the overshath according to dimension L (see Table 1, page 2). Clean and degrease the end of the overshath for about 100 mm. Wrap the red sealant tape around the end of the overshath.



Bend the shielding wires back onto the overshath. Avoid crossing the individual wires. Fix the shielding wires with a wire binder 60 mm from the end of the overshath. Gather the shielding wires together to form an earth lead.



Thoroughly remove the core screen to within 40 mm of the overshath cut. The surface of the insulation should be free from all traces of conductive material. Smooth out any irregularities.
Note: Do not nick the insulation.

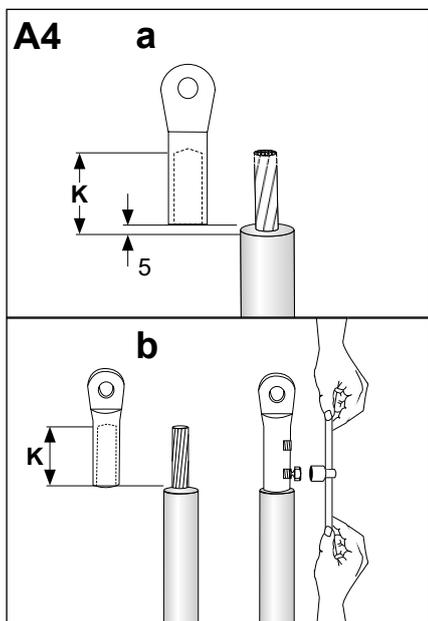
Cut back the insulation according to dimension K given in drawing details.

a. Crimp lugs

Install the cable lug.

b. Mechanical lugs

Install the cable lug. Take up the tension equally on the bolts. Tighten the bolts until heads shear off.

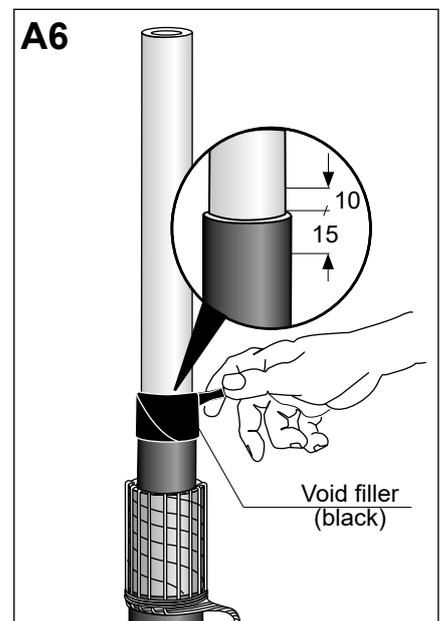
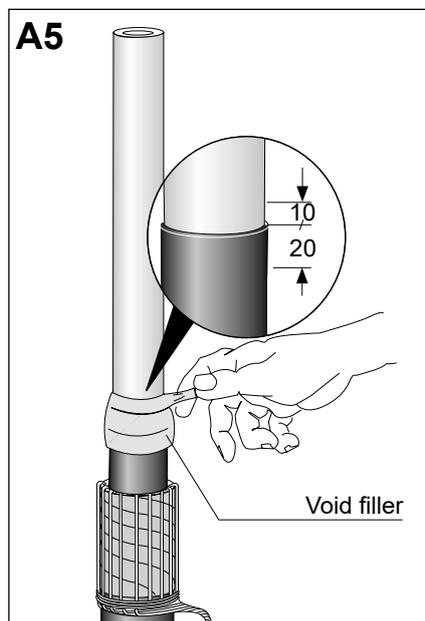


12 - 24 kV

Clean and degrease the lug and insulation. Remove the release paper and wrap the void filling strip around the end of the core screen. Cover 20 mm of the core screen and continue onto the insulation for 10 mm. Stretch the strip to half of its original width to achieve a fine, thin edge onto the insulation.

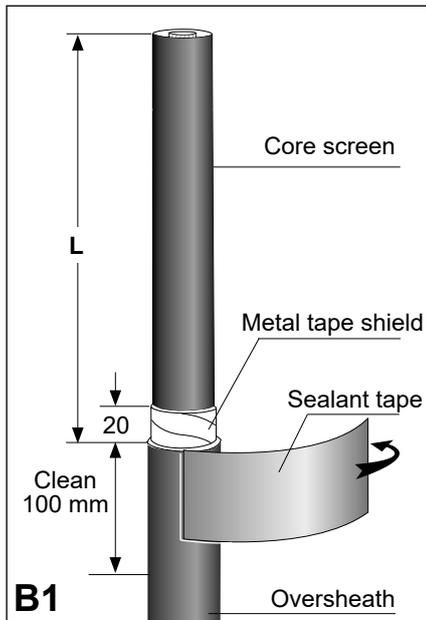
36 - 42 kV

Remove the release paper and wrap the void filling strip around the end of the core screen. **Stretch the tape to 50 % of its original width.** Cover 15 mm of the core screen and 10 mm of the insulation.



Cable Preparation

B. Cable with metal tape shield



B1

Note:
If Raychem solderfree earthing kits for tape screen or armour are used, read the additional installation instruction enclosed, before continuing.
Cut the cable to the required length.
Remove the overshath according to dimension **L** (see **Table 1**, page 2).
Remove the metal tape shield to within 20 mm of the overshath cut.
Clean and degrease the end of the overshath for about 100 mm.
Wrap the sealant tape (red) around the end of the overshath.

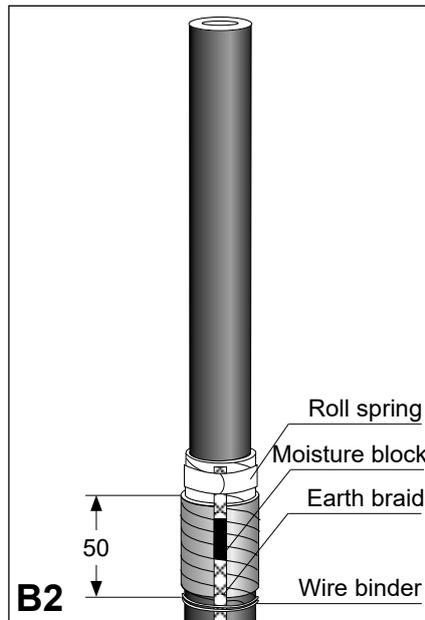
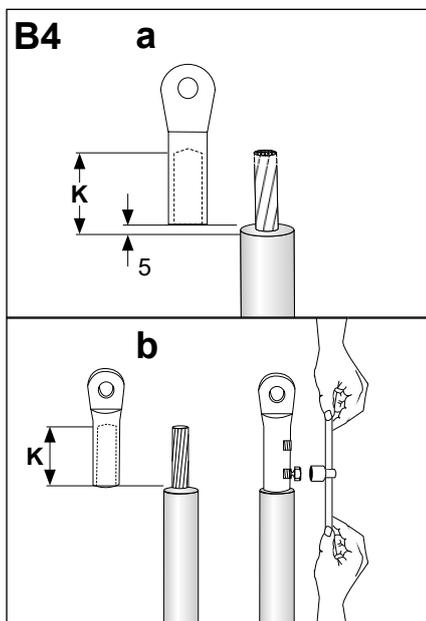
Cut back the insulation according to dimension **K** given in drawing details.

a. Crimp lugs

Install the cable lug.

b. Mechanical lugs

Install the cable lug. Take up the tension equally on the bolts. Tighten the bolts until heads shear off.



B2

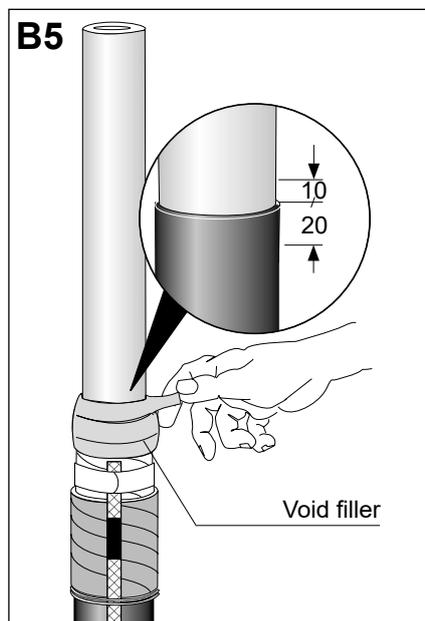
Bind and solder the earth braid to the metal tape shield (or attach the earth lead by any other equivalent method). Fill the earth braid with solder to form a 30 mm moisture block 20 mm from the overshath end.
Tie the earth braid with a wire binder to the overshath directly below the sealant tape.

12 - 24 kV

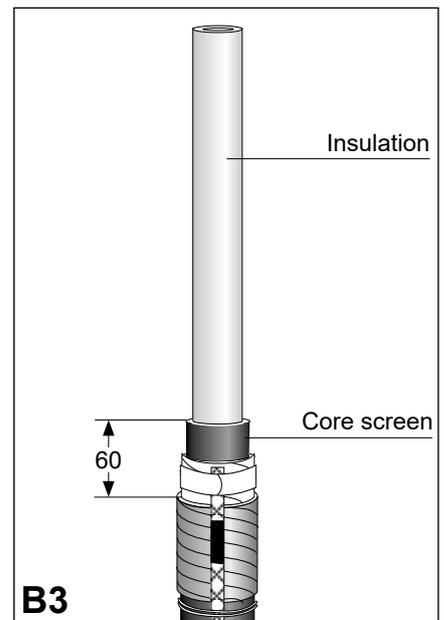
Clean and degrease the lug and insulation.

Remove the release paper and wrap the void filling strip around the end of the core screen. Cover 20 mm of the core screen and continue onto the insulation for 10 mm.

Stretch the strip to half of its original width to achieve a fine, thin edge onto the insulation.



B5



B3

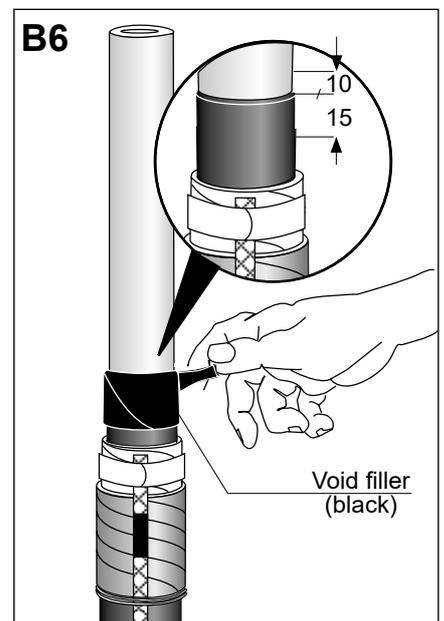
Thoroughly remove the core screen to within 60 mm of the overshath cut. The surface of the insulation should be free from all traces of conductive material.
Smooth out any irregularities.
Note: Do not nick the insulation.

36 - 42 kV

Remove the release paper and wrap the void filling strip around the end of the core screen.

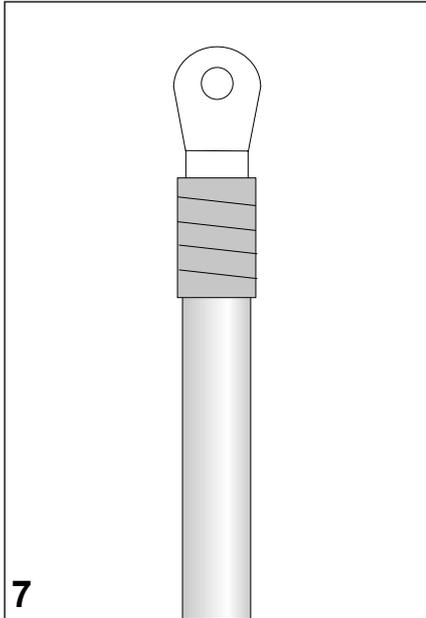
Stretch the tape to 50 % of its original width.

Cover 15 mm of the core screen and 10 mm of the insulation.



B6

Completion of Termination



Shim of the cable lug barrel:

Use additional red sealant tape to shim the cable lug barrel for following voltage levels and cross sections.

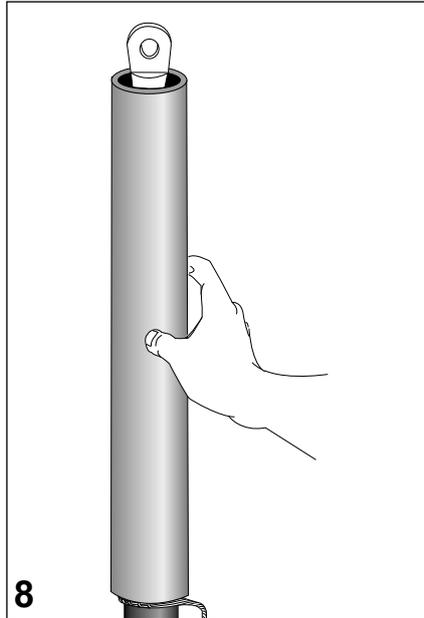
12 kV: 10 to 25 mm²

17,5 kV: 16 to 25 mm²

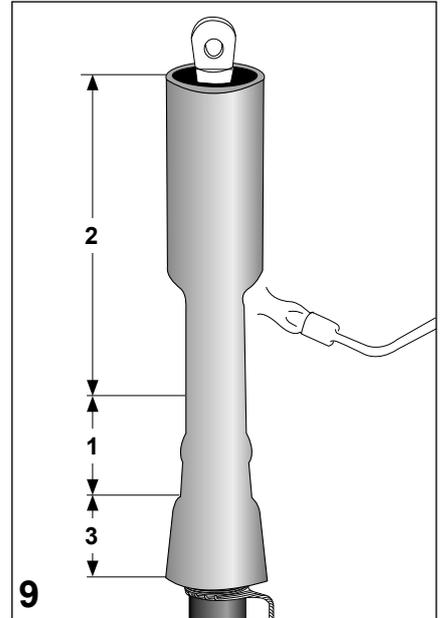
24 kV: 25 mm²

36 kV: 35 to 50 mm²

42 kV: 35 to 50 mm²



Preheat the cable lug slightly before placing the tubing over the core. The bottom end of the tubing should be level with the wire binder.



Shrink the tubing down starting at the screen cut **using a soft yellow flame**. Heat the area well but avoid scorching of surface. Continue shrinking towards the cable lug. Finally shrink down the bottom end of the tubing. The numbers in the drawing indicate the shrink sequence.

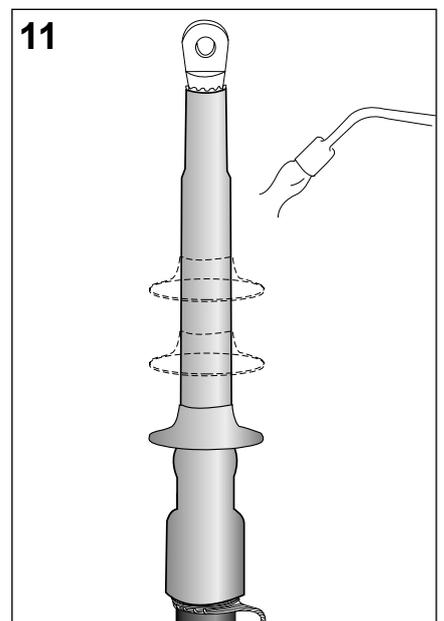
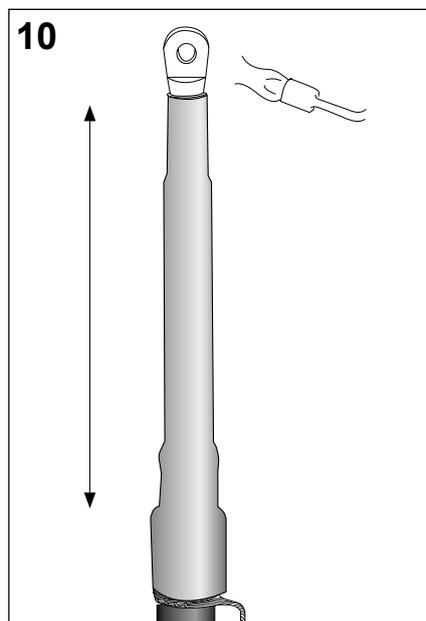
Indoor termination completed.

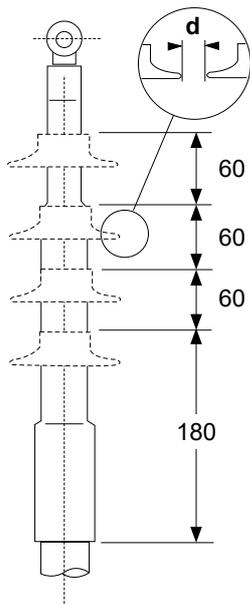
Note: After installation the termination must be post-heated as well as the palm of the cable lug until a bead of sealant (green) appears around the top of the tubing.

Allow the termination to cool before applying any mechanical strain.

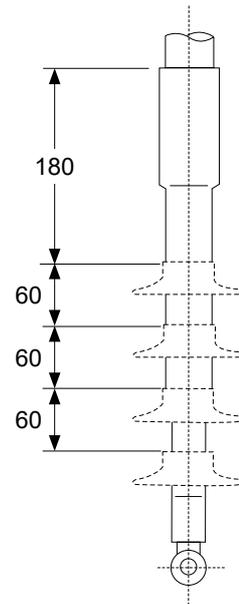
For outdoor terminations:

Shrink the skirts into place at the position shown in the drawings on the back page. Start with the first skirt on the lowest position.

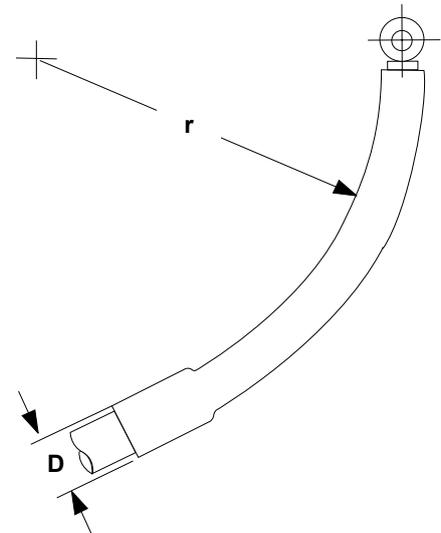
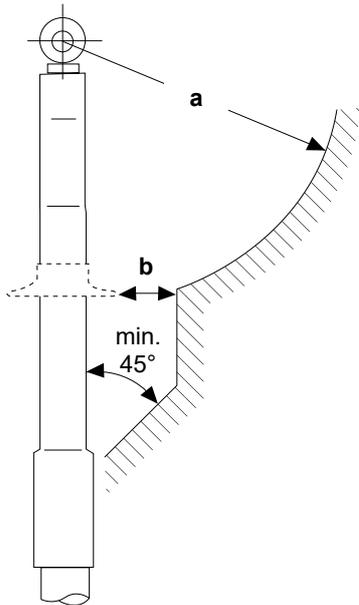




Number of skirts per core		
kV	Indoor	Outdoor
12	0	1
17.5/24	0	3
36	0	4
42	0	4



Minimum bending radius and clearances



Min. clearances		Max. system voltage in kV				
		12	17.5	24	36	42
a	Air clearance	as for local specifications				
b	ph/ph and ph/ground in mm	15	20	25	35	45
d	Between skirts in mm	10	15	20	25	35
r	(min. bending radius) = 15 x D					

Please dispose of all waste according to environmental regulations.

