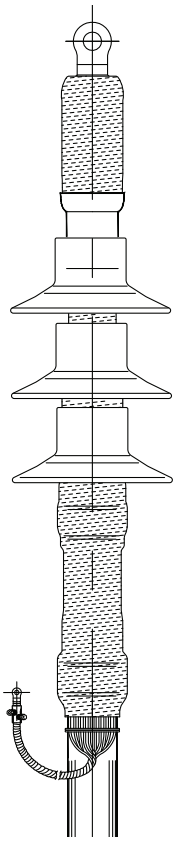
Saves Your Energy

INSTALLATION INSTRUCTION PEM1093ENG
2017-04

ENGLISH



HEAT SHRINK TERMINATIONS FOR SINGLE CORE CABLES
INDOOR TERMINATIONS HIT1.12, HIT1.24 AND HIT1.36
OUTDOOR TERMINATIONS HOT1.12, HOT1.24 AND HOT1.36

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

GENERAL INFORMATION

- Check that the kit is suitable for the cable type.
- Check the materials listed in the bill of materials for completeness.
- Read the installation instructions carefully before starting the installation.
- Install carefully and make sure the materials are clean during the installation.
- Clean the working place after the installation.

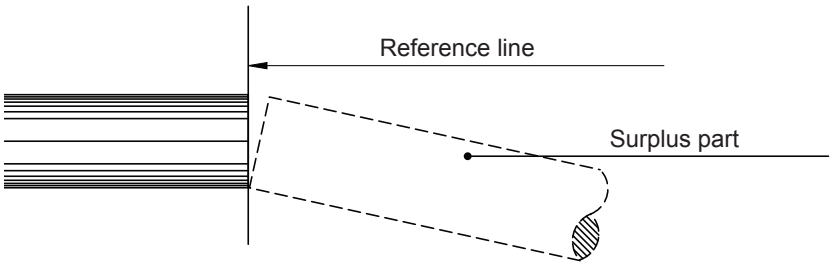
GENERAL INSTRUCTIONS FOR HEAT SHRINKING

- Please note that in some working places a hot work permit is needed.
- Use a propane burner with a flame length of approx. 20-30 cm. Do not use too large or sharp flame.
- Move the flame all around the cable on the shrinking direction. Move the flame continuously to avoid overheating.
- Make sure that the ventilation is good and there are no flammable materials around.
- Clean the cable surfaces before shrinking.
- When shrinking, always follow the installation instructions and the relevant sequence to avoid trapped air.
- Check that the tube has shrunk evenly around the cable before you continue shrinking.
- If the tube turns around at the end of shrinking, straighten the tube by directing the flame inside the tube from the opposite direction.
- After shrinking the tubes should be smooth and even following the shape inside.

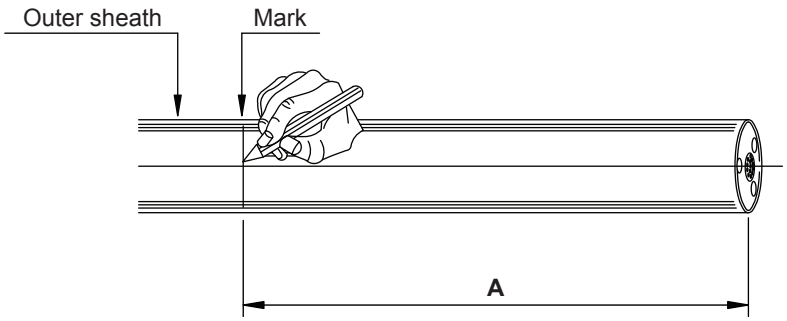
LEGAL NOTICE

- The product must be installed only by a competent person with sufficient training in installation practices and with sufficient knowledge of good safety and installation practices in respect of electrical equipment. If local legislation contains provisions in respect of such training or sufficient knowledge in respect of installation of electrical equipment such provisions shall be fulfilled by the said person.
- Ensto accepts no liability concerning claims resulting from misuse, incorrect installation or ignored national safety regulations or other national provisions.
- WARNING: Failure to follow the installation instructions may result in damage to the product and serious or fatal injury.

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36



1. Check the length of each core according to the final installed position.

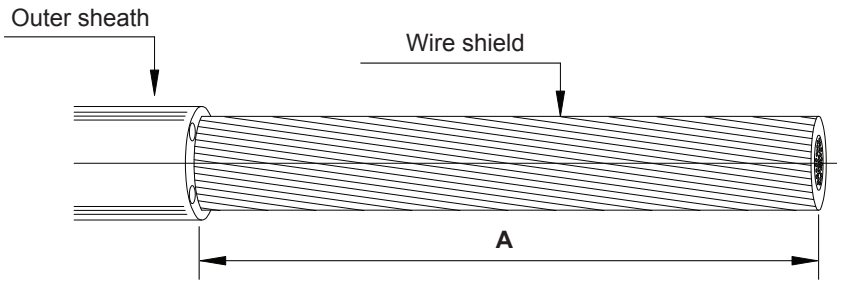


2. Mark the cutting point at the distance of A, see table 1, from the core end.

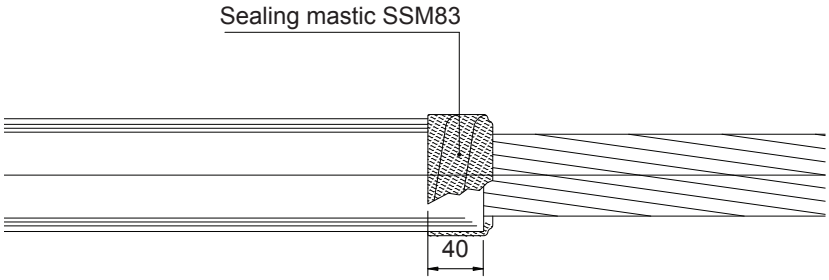
Table 1
CABLE PREPARATION DIMENSIONS

Kit	Um kV	Cable size mm²	Outer sheath removal A mm	Kit	Um kV	Cable size mm²	Outer sheath removal A mm
HIT1.1201	12	10-35	260	HOT1.2404	24	150-300	350
HIT1.1202	12	35-95	260	HOT1.24045	24	185-400	350
HIT1.1203	12	95-240	260	HOT1.2405	24	400-630	380
HIT1.1204	12	150-300	260	HOT1.2406	24	630-1000	410
HIT1.12045	12	185-400	260	HIT1.3601	36	25-95	450
HIT1.1205	12	400-630	330	HIT1.3602	36	95-150	450
HIT1.1206	12	630-1000	360	HIT1.3603	36	120-300	450
HOT1.1201	12	10-35	260	HIT1.36035	36	185-400	450
HOT1.1202	12	35-95	260	HIT1.3604	36	400-630	480
HOT1.1203	12	95-240	260	HIT1.3605	36	630-1000	510
HOT1.1204	12	150-300	260	HOT1.3601	36	25-95	450
HOT1.12045	12	185-400	260	HOT1.3602	36	95-150	450
HOT1.1205	12	400-630	330	HOT1.3603	36	120-300	450
HOT1.1206	12	630-1000	360	HOT1.36035	36	185-400	450
HIT1.2402	24	25-95	310	HOT1.3604	36	400-630	480
HIT1.2403	24	95-240	310	HOT1.3605	36	630-1000	510
HIT1.2404	24	150-300	310				
HIT1.24045	24	185-400	310				
HIT1.2405	24	400-630	380				
HIT1.2406	24	630-1000	410				
HOT1.2402	24	25-95	350				
HOT1.2403	24	95-240	350				

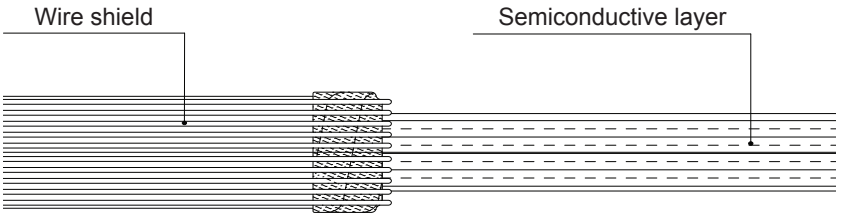
HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36



3. Cut and remove the outer sheath and the possible tapes from the marked dimension.

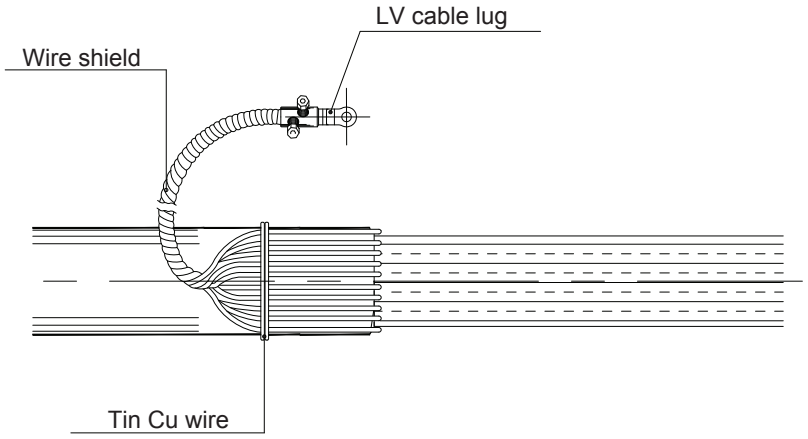


4. Wrap two layers of sealing mastic SSM83 on the outer sheath. Cover 40 mm distance from the sheath edge. Sealing mastic SSM83 must be wrapped by stretching it a bit.

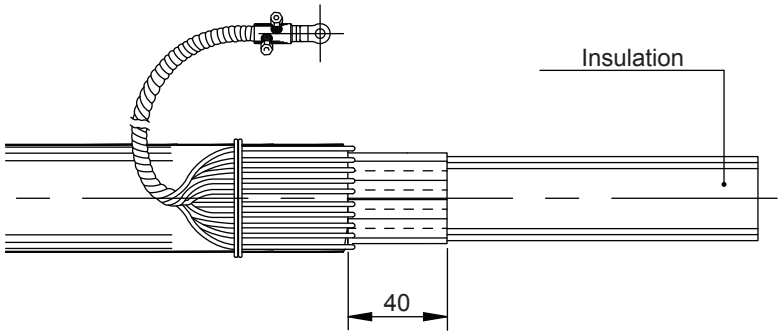


5. Fold the copper shield wires over the outer sheath. Do not cut them!

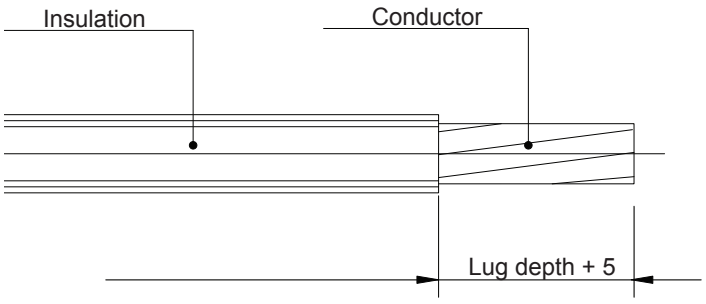
HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36



6. Fix the copper shield wires on the outer sheath at 80 mm from the sheath edge with a minimum of 5 rounds of the tinned copper wire. Twist the copper shield wires into a stranded conductor. Install a suitable LV cable lug following the manufacturer's instructions. Remember to orient it accordingly.



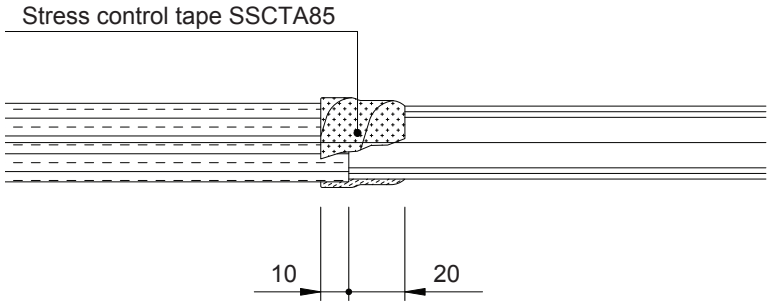
7. Remove the semiconductive layer leaving 40 mm measured from the outer sheath. If the semiconductive layer is not strippable by hand, use a suitable tool. If necessary, remove any remainings of the semiconductive layer with a piece of glass. Use the grinding papers included in the kit to smooth the insulation.



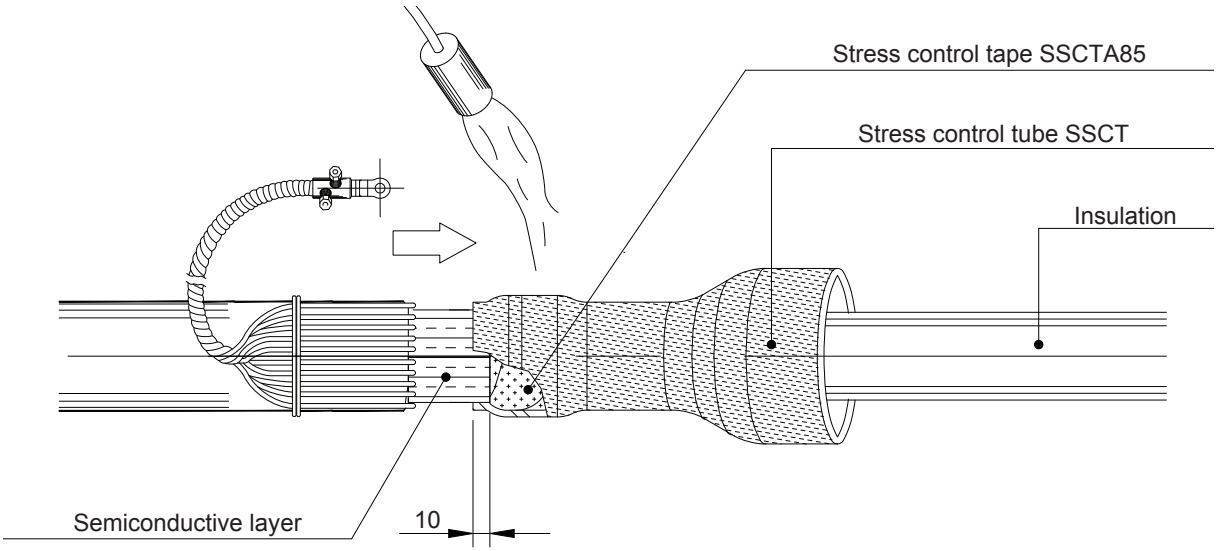
8. Remove the insulation for the length equivalent to the bolt cable lug depth + 5 mm. If you use a compression lug, remove the insulation according to the lug manufacturer's instructions. Be careful not to nick the conductor.

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

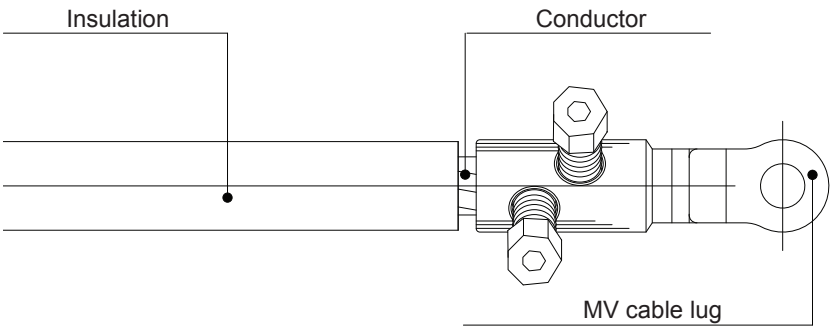
9. Clean the cable insulation with a cleaning tissue. Go towards the semiconductive layer and finally, clean the semiconductive layer without touching the insulation. Thus that no semiconductive particles are deposited on the insulation. Clean the conductor.



10. Wrap two layers of stress control tape SSCTA85 over the edge of the semiconductive layer. Wrap the tape for 10 mm on the semiconductive layer and 20 mm of the insulation. Start from the semiconductive layer. Stress control tape SSCTA85 must be wrapped with a 50 % overlap and by stretching it to half of its original width.

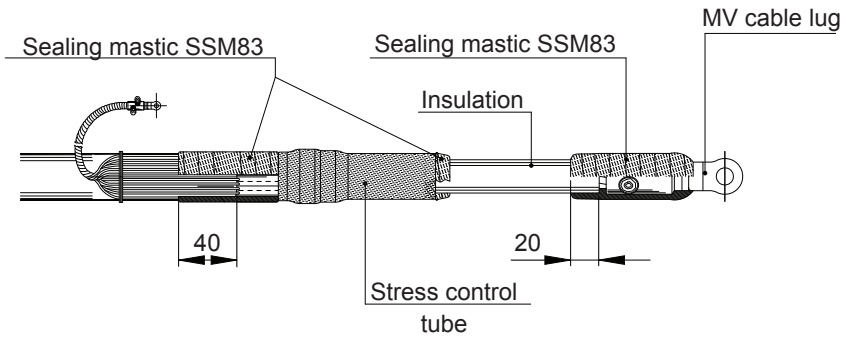


11. Place the SSCT stress control tube so that it overlaps 10 mm of the semiconductive layer. Start shrinking the tube from the end on the semiconductive layer and continue towards the other end.

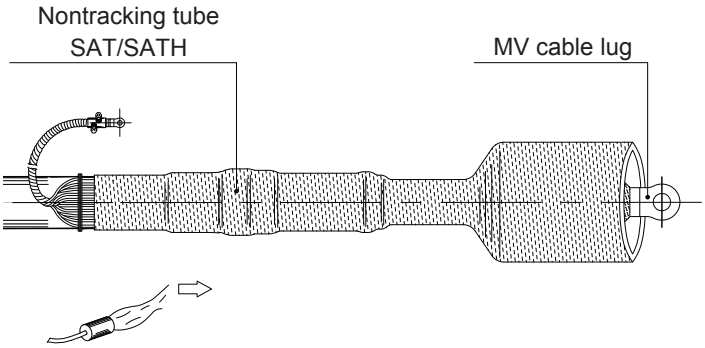


12. Install a suitable cable lug following the manufacturer's instructions. Remember to orient it correctly and to remove any sharp edges. Fill the holes with grey mastic.

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

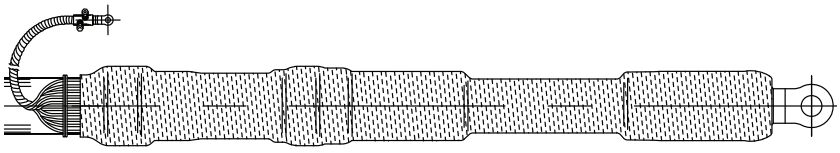


13. Fill the gap between the end of the cable lug and the insulation with sealing mastic SSM83. Then apply two layers of sealing mastic SSM83 to cover 20 mm of insulation and the barrel of the cable lug. Wrap one layer of sealing mastic SSM83 around the top end of the SSCT stress control tube to fill and smooth the transition between the tube and the insulation. Wrap two layers of sealing mastic SSM83 starting from the end of the SSCT stress control tube. Cover the semiconductive layer and continue 40 mm on the copper shield wires. Sealing mastic SSM83 must be applied by stretching it a bit.



14. Place the SAT/SATH nontracking tube so that it covers the cable lug barrel completely. Shrink the tubes starting from the cable sheath end.

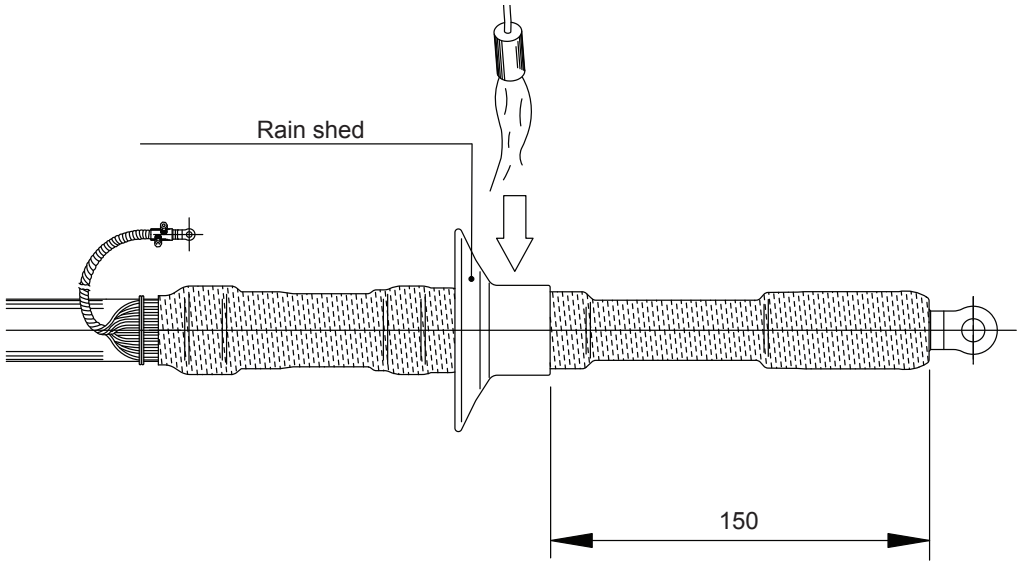
12/24 kV INDOOR TERMINATION HIT1.12/HIT1.24



15. Indoor termination HIT1.12/HIT1.24 is finished and ready to use!

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

12 kV OUTDOOR TERMINATION HOT1.12

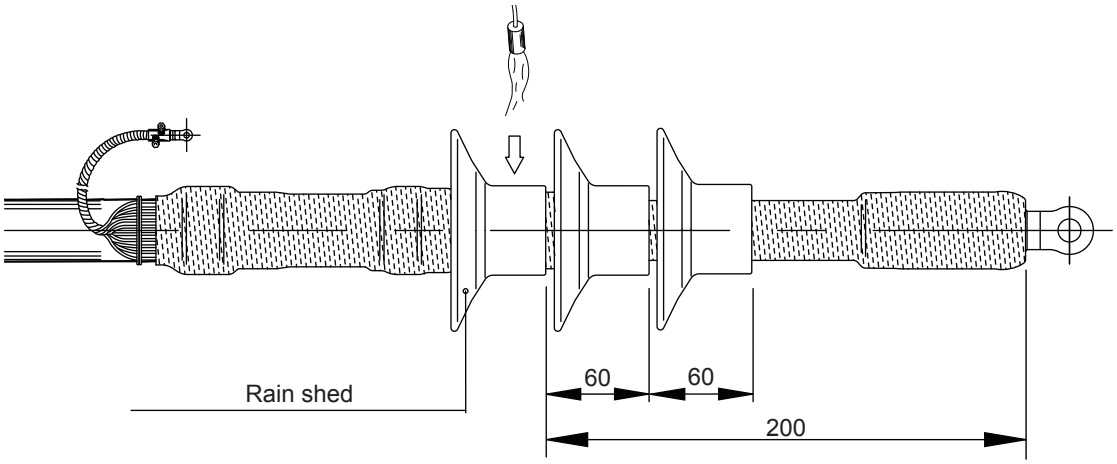


16. Place the rain sheds immediately after shrinking the SAT/SATH nontracking tubes so that the shed neck edge is at 150 mm from the nontracking tube end. Shrink the rain shed directing the heat only to its neck.

17. Outdoor termination HOT1.12 is finished and ready to use!

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

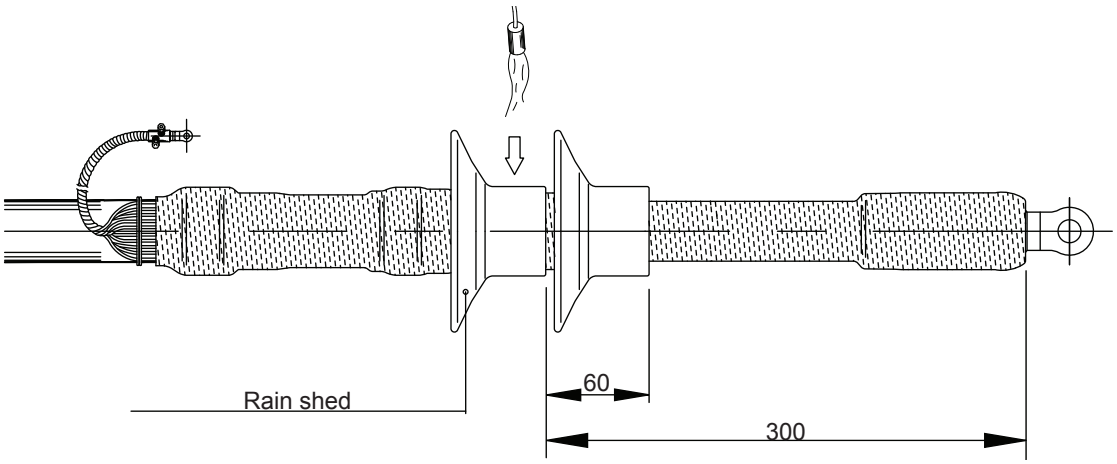
24 kV OUTDOOR TERMINATION HOT1.24



18. Place the rain sheds immediately after shrinking the SAT/SATH nontracking tubes so that the shed neck edge is at 200 mm from the nontracking tube end. Shrink the rain shed directing the heat only to its neck. Shrink the other two rain sheds so that they are spaced 60 mm.

19. Outdoor termination HOT1.24 is finished and ready to use!

36 kV INDOOR TERMINATION HIT1.36

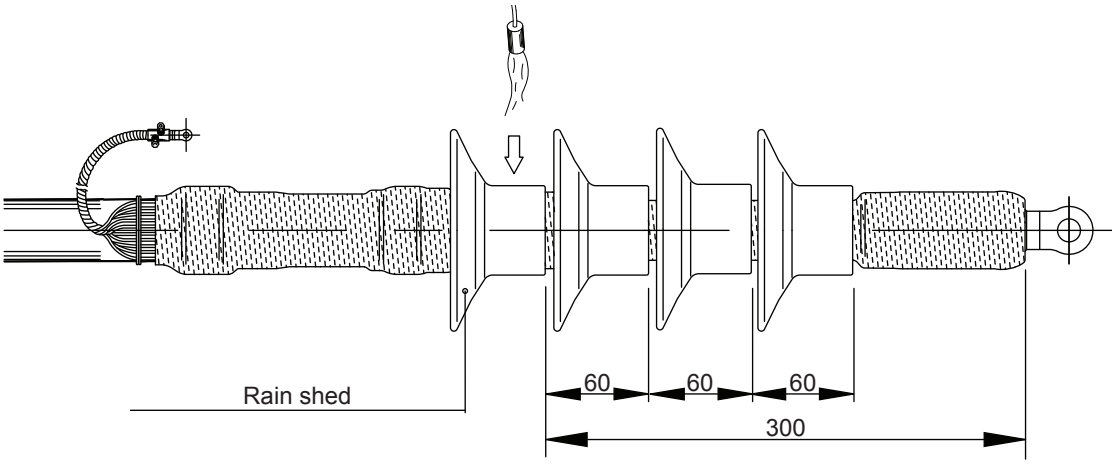


20. Place the rain sheds immediately after shrinking the SAT/SATH nontracking tubes so that the shed neck edge is at 300 mm from the upper edge of the nontracking tube end. Shrink the rain shed directing the heat only to its neck. Shrink the other rain shed so that it is spaced 60 mm.

21. Indoor termination HIT1.36 is finished and ready to use!

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36

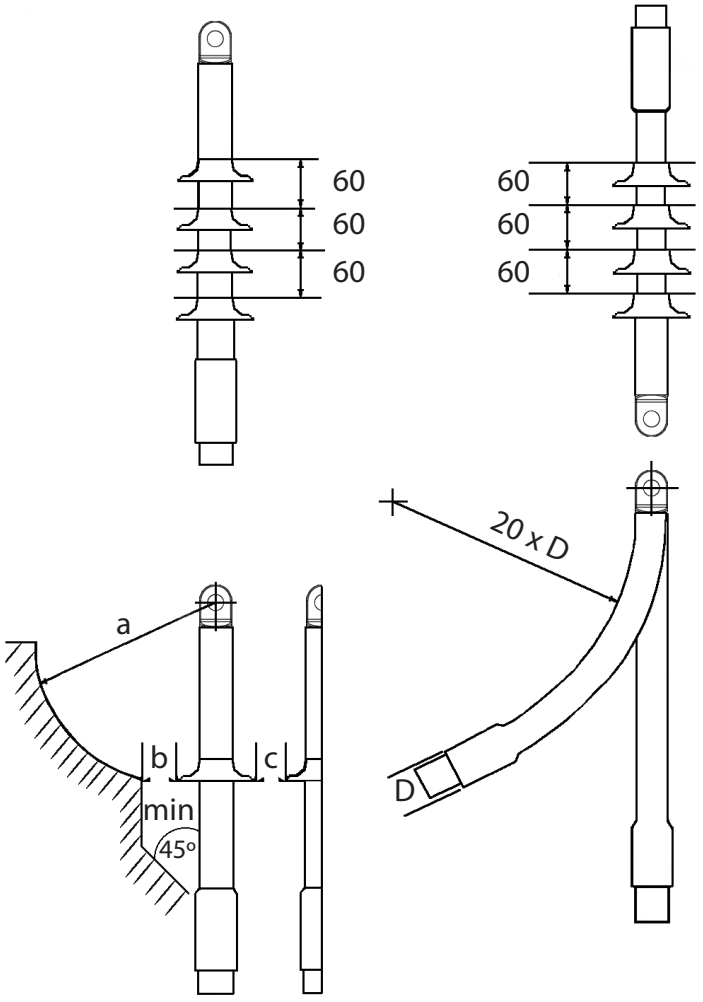
36 kV OUTDOOR TERMINATION HOT1.36



22. Place the rain sheds immediately after shrinking the SAT/SATH nontracking tubes so that the shed neck edge is at 300 mm from the nontracking tube end. Shrink the rain shed directing the heat only to its neck. Shrink the other three rain sheds so that they are spaced 60 mm.

23. Outdoor termination HOT1.36 is finished and ready to use!

HIT1.12, HIT1.24 & HIT1.36
HOT1.12, HOT1.24 & HOT1.36



a = according to local requirements

Um kV	b min mm	c min mm
12	15	10
17,5	20	15
24	25	20
36	35	25

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