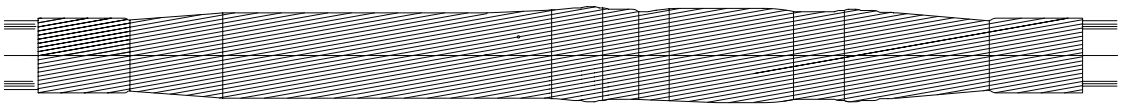
Saves Your Energy

INSTALLATION INSTRUCTION PEM1104ENG
2013-05

ENGLISH



HEAT SHRINK JOINTS FOR SINGLE CORE CABLES
HJ11.36

GENERAL INFORMATION

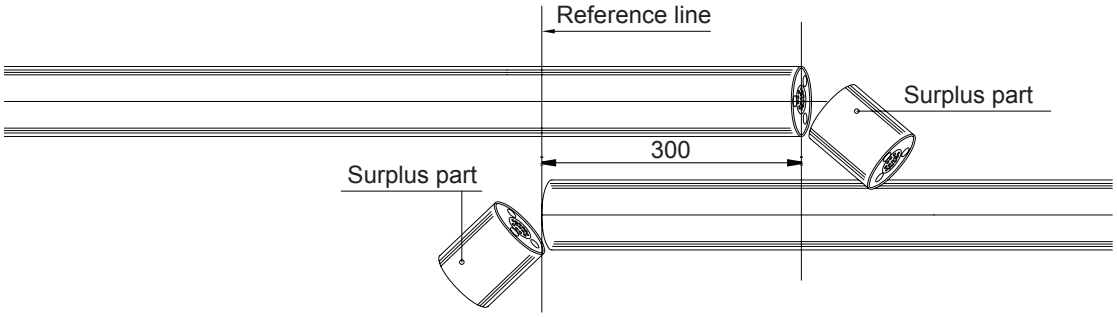
- Check that the kit is suitable for the cable type.
- Check that the materials listed in the bill of materials for completeness.
- Read the installation instructions carefully before starting the operation.
- Install carefully and make sure that the materials are clean during the installation.

GENERAL INSTRUCTIONS FOR HEAT SHRINKING

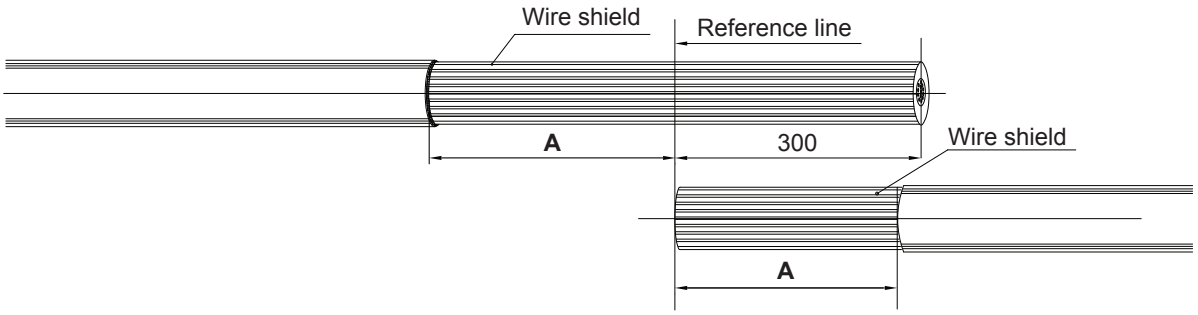
- Please note that in some working places a hot work permit is needed.
- Use a propane burner with flame length of approx. 20-30 cm. Do not use too large or sharp flame.
- Move the flame all around the cable on the shrinking direction. Move the flame continuously to avoid overheating.
- Make sure that 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.

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.



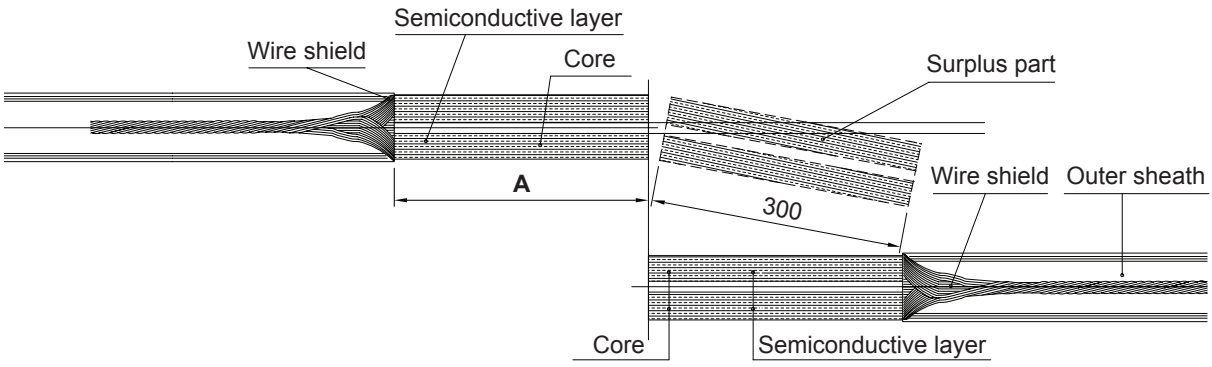
1. Overlap the cables for approximately 1 m. Mark the cables in the middle of the overlap (reference line). Cut the other cable end from the marked reference line. To ensure the shield wires are long enough, cut the other end of the cable 300 mm away from the reference line mark towards the end of the cable.



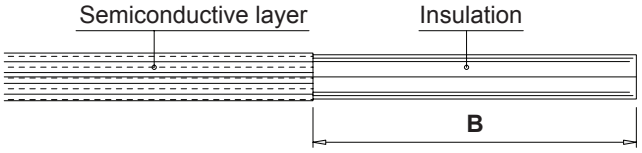
2. Cut and remove the outer sheath according to the dimension A+300 mm, A is shown in table 1. Clean the outer sheath for 1.5 m to keep the internal surface of the heat shrink tubes free of dirt.

CABLE PREPARATION DIMENSIONS

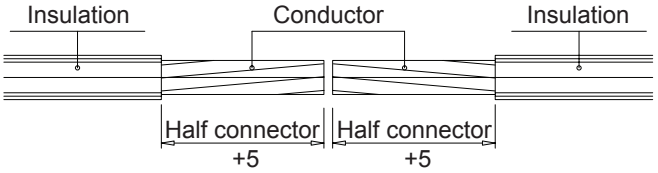
Kit	Um kV	Cable size mm²	Outer sheath removal A mm	Semiconductive layer removal B mm	Max. connector dimensions	
					length mm	diameter mm
HJ11.3601	36	25-95	310	220	130	25
HJ11.3602	36	95-150	330	240	130	33
HJ11.3603	36	150-300	360	270	180	38
HJ11.3604	36	400-630	390	290	250	52
HJ11.3605	36	800-1000	450	350	290	65



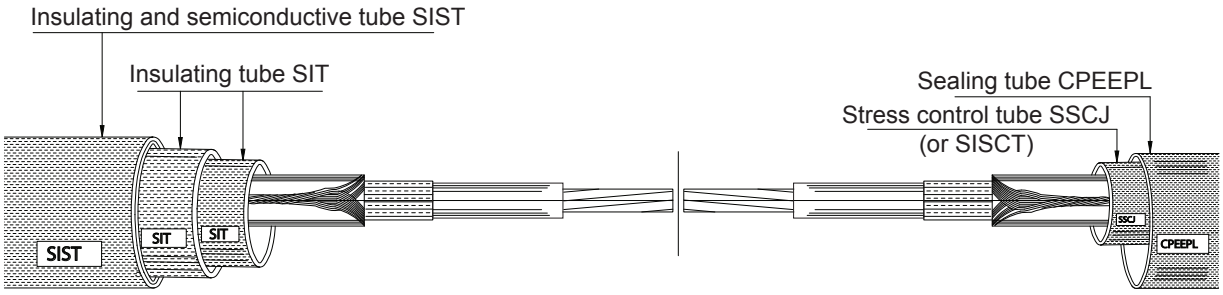
3. Do not cut the copper shield wires. Fold them over the outer sheath and fix them temporarily with PVC tape. Cut away 300 mm of the cores on the longer side.



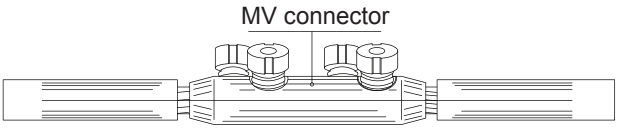
4. Remove B mm (see table 1) of the semiconductive layer measured from the end of the conductor. If the semiconductive layer is not strippable by hand, use a suitable tool. If necessary, remove any remainings of the semiconductive layer with a piece of glass. Use the grinding paper included in the kit to smooth the insulation.



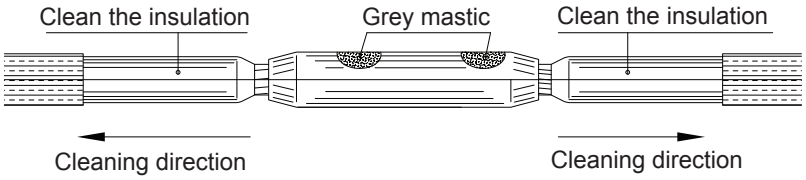
5. Remove half of the bolt connector length + 5 mm from the insulation of the cable. Be careful not nick the conductor. If you use compression connectors, remove the insulation according to connector manufacturer's instructions. Clean the conductors. Wrap a couple of layers of PVC tape around the end of the conductors.



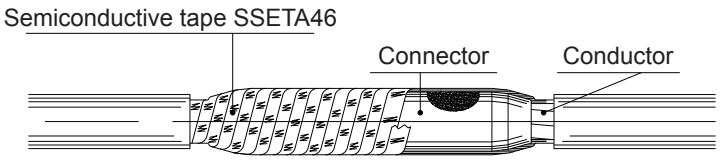
6. Slip the heat shrinkable tubes on the cable. Protect them from dirt.



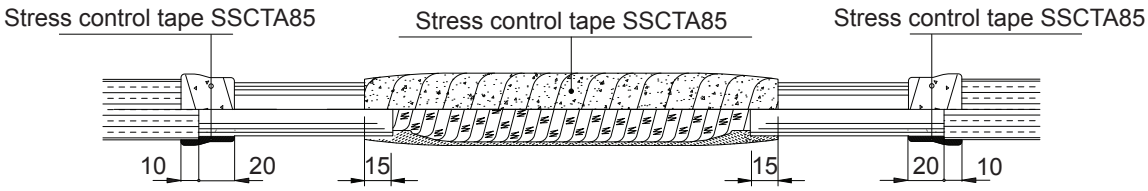
7. Remove the PVC tape from the ends of the conductors and install the MV connector following the manufacturer's instructions. Remove any sharp edges. Fill any holes left in the connector with grey mastic.



8. Clean the cable insulation with a cleaning tissue. Go towards the semiconductive layer. If necessary clean 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 connector

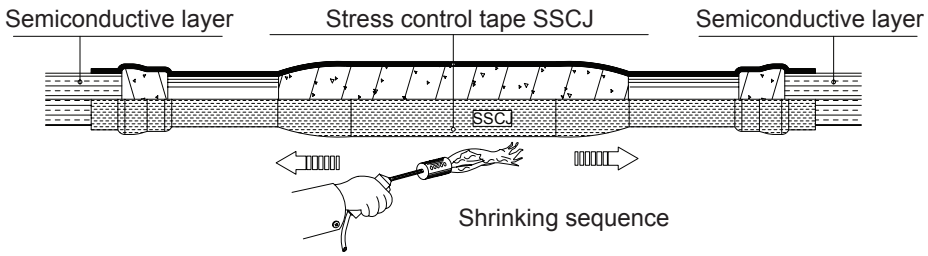


9. Wrap a layer of semiconductive tape SSETA46 to cover the connector and the exposed conductor. The SSETA46 tape must be applied with a 50 % overlap and by stretching it to half of its original width.

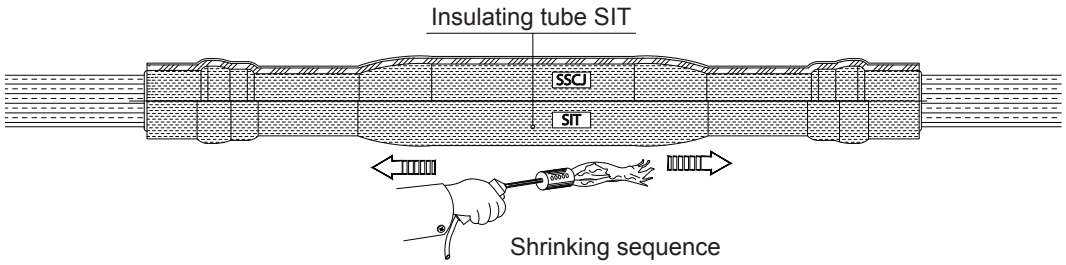


10. Fill the gap between the end of the connector and the insulation with stress control tape SSCTA85. Then wrap two layers of SSCTA85 to cover the connector. Continue up to 15 mm of the insulation on both sides. SSCTA85 must be applied with a 50 % overlap and by stretching it to half of its original width.

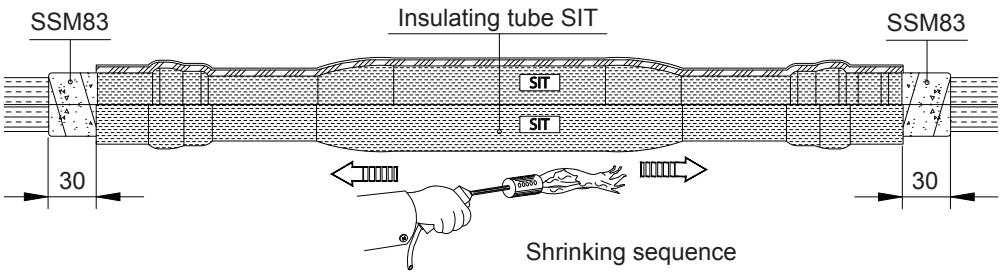
    Wrap two layers of stress control tape SSCTA85 over the edge of semiconductive layer. Wrap SSCTA85 for 10 mm on the semiconductive layer and 20 mm on the insulation. Start from the semiconductive side. SSCTA85 must be wrapped with a 50 % overlap and by stretching it to half of its original width.



11. Centre the stress control tube SSCJ on the connector. Start shrinking the tube from the middle and move towards the ends. Clean the surface of the stress control tube after shrinking.

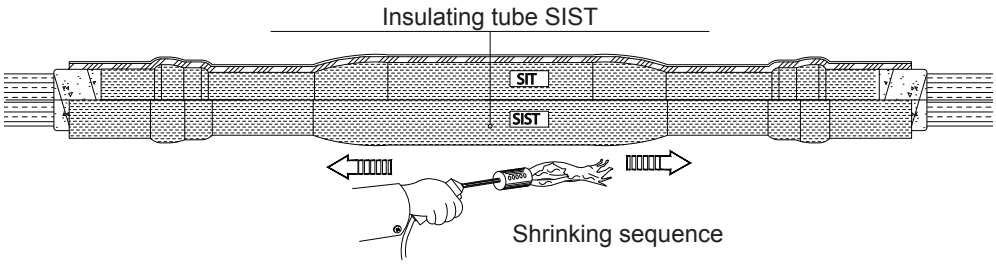


12. Centre the smaller insulating tube SIT on top of the stress control tube. Start shrinking it from the middle and move towards the ends.

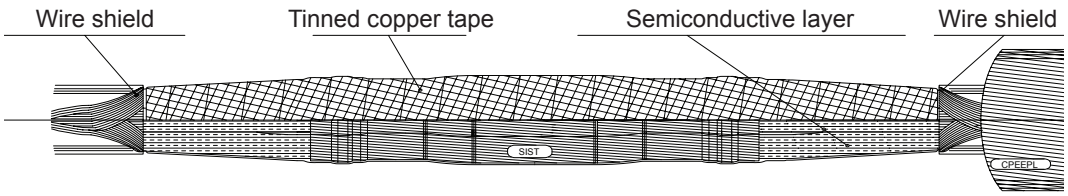


13. Centre the bigger insulating tube SIT on the top of the smaller insulating tube. Start shrinking it from the middle and move towards the ends.

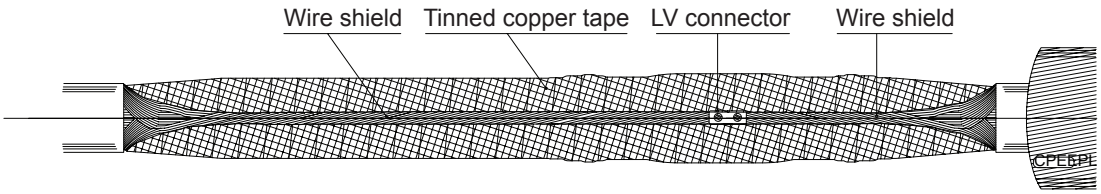
    Wrap two layers of sealing mastic SSM83 for 30 mm length on the semiconductive layer starting from the end of the tube assembly on the both sides.



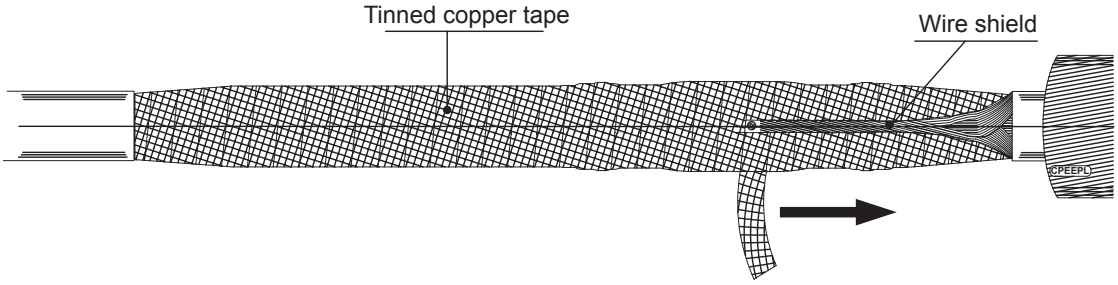
14. Centre the insulating and semiconductive tube SIST on top of the insulating tube. Start shrinking it from the middle and move towards the ends.



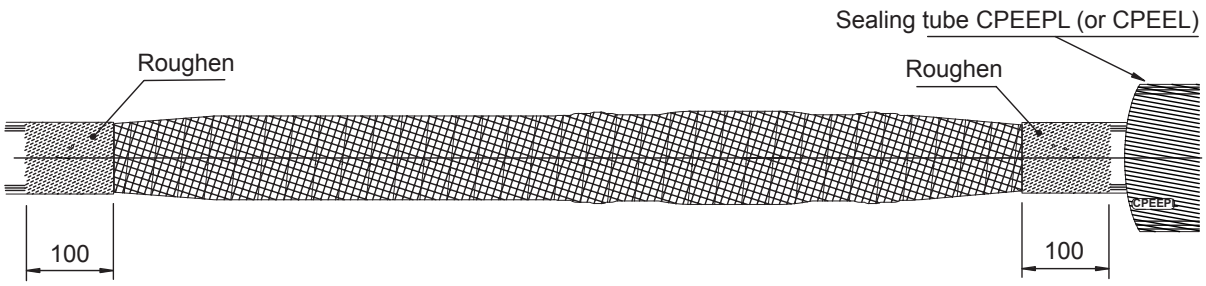
15. Wrap the core with one layer of tinned copper tape. Go from the exposed semiconductive layer on one side to the other side. Tinned copper tape must be applied with a 20% overlap. Fix the copper tape end with some PVC tape.



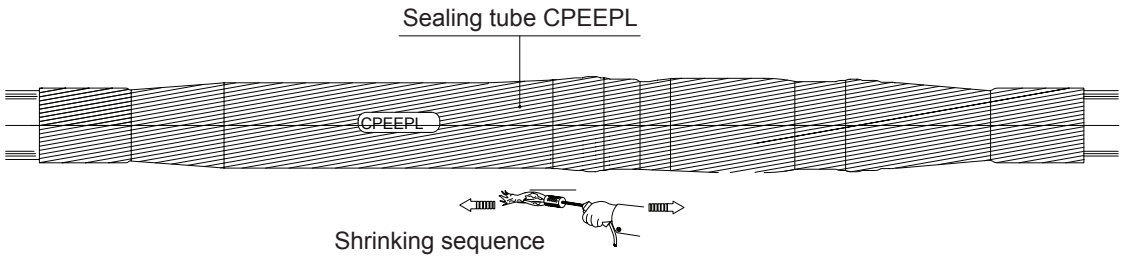
16. Twist the copper shield wires into a stranded conductor and join them with a suitable connector following the manufacturer's instructions.



17. Wrap one layer of the tinned copper tape over the copper shield wires. Tinned copper tape must be wrapped with a 20% overlap. Fix the copper tape end with some PVC tape.



18. Roughen around 100 mm of the outer sheath on both sides of the joint with grinding paper. Treat the roughened parts gently with flame.



19. Centre the sealing tube CPEEPL on the joint. Start shrinking the tube from the middle and move towards the ends. The tube is properly shrunk when the adhesive starts to come out from the ends.

20. The joint is finished and ready to use, but let it cool down before loading it mechanically.

NOTES

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