

## INSTALLATION INSTRUCTION

# CABLE TERMINATION (OUTDOOR)

(K35MT for 3C X 300sqmm Power Cable)

The termination is designed for use on solid dielectric (XLPE/EPR) cable, with a copper or tinned copper metallic shielding and an extruded insulation shield. (semi-conductive screen)

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## DANGER

All apparatus must be de-energized during installation or removal of parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment.

Do not touch or move energized products by hand.

This instruction is not intended as a substitute for adequate training or experience in such safety practices.

Excess distortion of the assembled product may result in its failure.

This instruction does not attempt to provide for every possible contingency.

Inspect parts for damage, rating and compatibility with mating parts.

Failure to follow this instruction will result in damage to the product and serious or fatal injury.

## FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND

COMPATIBILITY, CALL THE PYUNG-IL OFFICE (+82-31-420-6650).

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## IMPORTANT

1. Check contents of package to ensure they are complete and undamaged.
2. Check all components to ensure properly fit with cable and/or mating products.
3. Read entire installation instruction before starting the installation.
4. Have all required tools at hand and maintain cleanliness throughout the procedure.

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## STEP 1 CABLE PREPARATION

1. Square-cut the end of each cable to be vertical.
2. Clean the outer sheaths for the length of approximately 1,200mm from the end of the cable.
3. **Measure the depth of the barrel (terminal lug) and add 5mm. This represents dimension "X"**
4. Prepare the cable as shown in the figure

**"WARNING : DO NOT NICK, CUT OR IN ANYWAY DAMAGE CABLE/TERMINATION"**

- (1) Remove the outer sheath for a distance of min  $X+1,100\text{mm}$  from the end of the cable
- (2) Remove armour wire just leaving 30mm of the armour wire.
- (3) Remove armour bedding just leaving 10mm of the armour bedding
5. Remove the metallic shield for the length of  $X+470\text{mm}$  from the end of the cable.
6. Wrap PVC tape once over the insulation shield for 25mm from point of  $X+445\text{mm}$  from the end of the cable in order to remove semi-conductive screen of the length of  $X+445\text{mm}$ .
7. Remove semi-conductive screen up to the distance of  $X+445\text{mm}$  from the end of the cable.
8. Remove PVC tape applied on the semi-conductive screen.

9. Remove the insulation for  $X\text{mm}$  from the cable end as shown.

10. Apply the filler tape on 15mm back from the end of the outer sheath for the width of 15mm as shown.

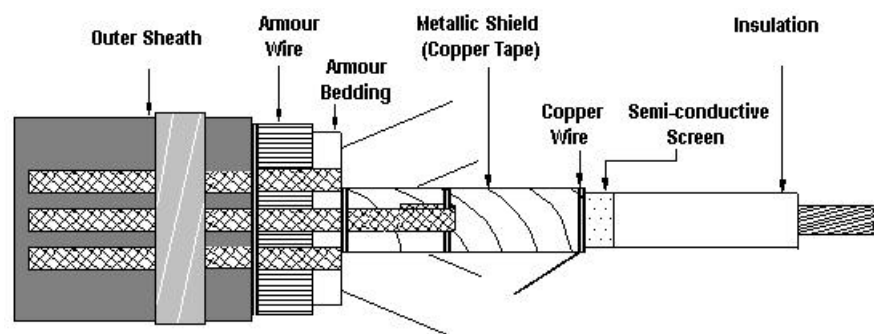
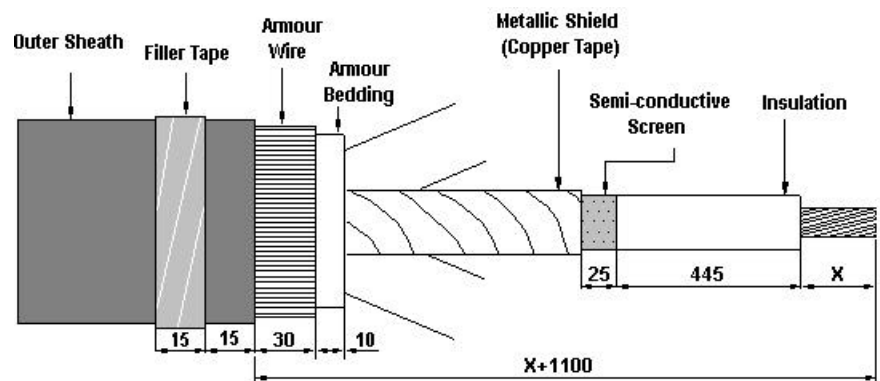
11. Position the tinned copper braid over the metallic shield (copper tape) to the direction of armour bedding, and wrap the supplied tinned copper wire twice over the tinned copper braid at the position of 100mm from the end of armour bedding as shown in the figure.

12. Bend the tinned copper braid back over the tied point and wrap the supplied copper wire twice at each position of the end of the armour bedding and the end of the outer sheath.

13. Wrap the filler tape over the tinned copper braid again on the same position of 15mm from the end of the outer sheath.

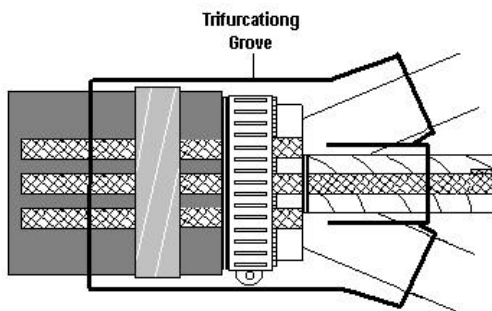
14. Wrap the supplied copper wire twice around the copper screen to the point of  $X+470\text{mm}$  from the end of the cable, and tie the copper wire around the copper screen, leaving the extra copper wire length of 150mm for later connecting to grounding ear of the termination as shown in the above figure.

Repeat this operation for the other phases as shown in the above figure.



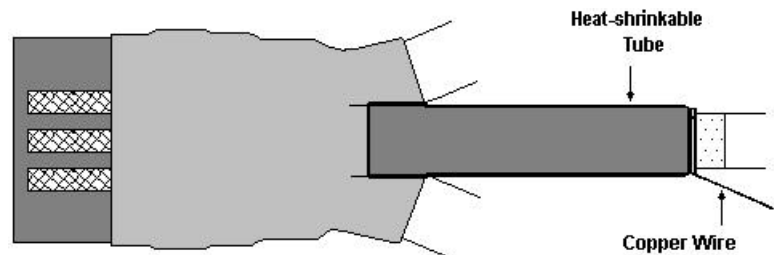
**"BE CAREFUL NOT TO DAMAGE INSULATION SURFACE AND CONDUCTOR STRANDS"**

15. Bevel the edge of the cable insulation with the 45° angle approximately 5mm back so that the sharp edge does not damage the inside of the housing.
16. Repeat the same operations for the other phases.

**STEP 2 APPLICATION OF TRIFURCATING GROVE**

1. Slide the hose clamp over the cable and locate the hose clamp onto the armour wire as shown in the figure. After that, fasten the hose clamp using a screw driver.
2. Slide the trifurcating grove on the cable, and overlap it with the cable outer sheath until it bottoms as shown in the figure. Then apply a torch on the trifurcating grove so that the grove can be uniformly heat-shrunk.

3. Insert each of 3 heatshrinkable tubes by one into each core of the cable until it reaches the bottom of each leg of the trifurcating grove. Then apply the torch on the each heatshrinkable tube so that the tube can be uniformly heat-shrunk.
4. When heat shinkable tube is applied, the one end of the tube should be overlapped with the leg of the trifurcating grove, and the other end should aligned just beneath the copper wire applied. If the tube covers the wire, cut the tube with the proper length.

**STEP 3 CLEANING, LUBRICATING**

1. Wrap PVC tape twice over the sharp edge of the bare conductor
2. Thoroughly clean the insulation to remove all traces of insulation shield (semi-conductive) residue. This may be done by wiping with the supplied cleaning tissue or a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer sheath.
3. Apply supplied lubricant or PYUNG-IL approved lubricant sparingly to the cable insulation in the direction of arrows and to the inside of the stress cone as shown in the figure of next page.

**"DO NOT SUBSTITUTE THE LUBRICANTS. OTHER LUBRICANTS  
MAY BE HARMFUL TO THIS PRODUCT OR ITS MATING PRODUCT."**

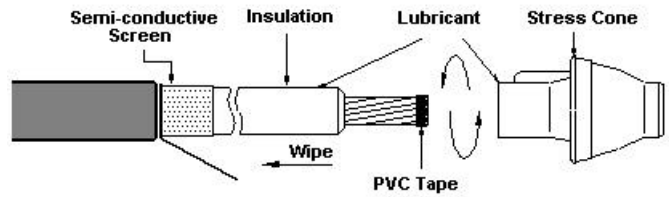
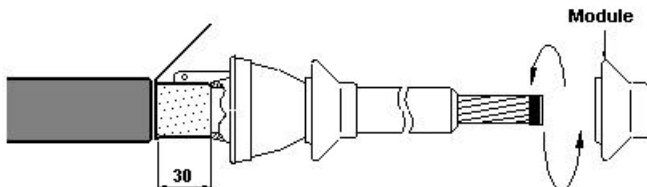
4. Slide the stress cone down on the cable using a spiral motion. The base of the stress cone must overlap max 30mm of insulation shield as shown in the figure.

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**"BE SURE THAT OVERLAPPING SHOULD NOT EXCEED 30mm."**

- Lubricate inside of the module and slide module sections, one at a time, down of the cable using a spiral motion. The base of the module must overlap the sealing diameter of the stress cone and other modules.



\* The purpose of lubricating insulation surface, the inside of stress cone and the inside of modules with silicon grease is to make stress cone and modules easily slide down and to prevent water penetration.

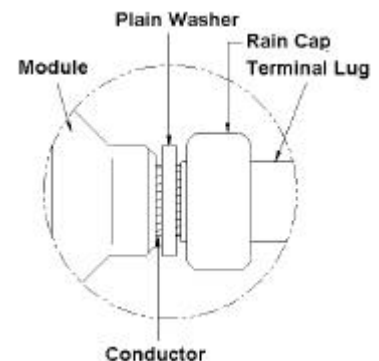
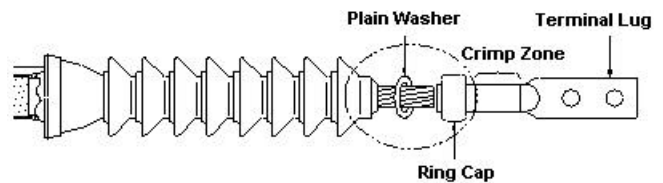
## STEP 4 PLAIN WASHER

- Accord the upper end of insulation and the top end of the upper module after inserting all modules  
Clean by cleaning paper(not tissue) silicon oil oozed out from the inside of stress cone and modules during installation work.

- Remove the PVC tape wrapped around the sharpe end of bare conductor.

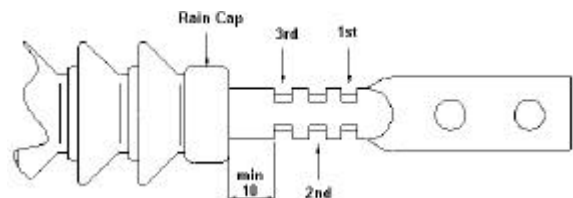
- Slide round plain washer on the upper module.  
\* Plain washer serves in fixing modules in proper position.

- Insert terminal lug into rain cap and push down the terminal lug over conductor, until plain washer comes down to the upper module. Push down rain cap once again until the plain washer is fitted within the inside of rain cap



## STEP 5 CRIMPING CONNECTOR

Compress terminal lug with compression device three times as shown in the figure. Make the first crimp at the top of the crimping zone, rotate each successive crimp 180°.



**"MAKE SURE THE LAST CRIMP AT THE BOTTOM OF CRIMP ZONE SHOULD BE APART MINIMUM 10mm FROM THE TOP OF THE RAIN CAP"**

## STEP 6 GROUNDING EYE

1. Apply filler tape half-overlapped twice from the tied copper wire to the position just below the earth ear. Then connect the extra length of the copper wire to the earth ear. Apply filler tape half-overlapped twice again from the position just below the earth ear to 20mm of heatshrinkable tube. Tape should be half-overlapped with slight tension (elongation to be 25% to 50%) The procedure is as shown in the figure.
2. Apply PVC tape half-overlapped twice over the filler tape. Make sure that PVC tape should be applied without any stretch force.

