

## 36kV Cold Shrinkable Termination INSTALLATION

### DESCRIPTION

The Chardon Cold Shrinkable Termination offers easy installation and reliable performance when terminating indoor medium voltage cables. Made from high quality, UV resistant, silicone rubber, the Chardon Cold Shrinkable termination offers a combination of durability and high performance in the field.

The Chardon Cold Shrinkable Terminations include a stress controlling compound housing, preassembled on a plastic “hold out” tube. As the plastic hold out is removed, the stress-relief housing shrinks onto the cable. Chardon terminations are easy to install, and have a wide application range. No tools or heat sources are required. The products are designed to last the entire life of the cable.

The Chardon Cold Shrinkable terminations are tested according to IEEE Standard 48 and IEC 60502 .

### ORDERING INSTRUCTIONS:

| Standard Voltage Class | Part Number | Cable Insulation O.D. Range |
|------------------------|-------------|-----------------------------|
| 36kV                   | 36-CSTI -A  | 18.7 - 26.0                 |
|                        | 36-CSTI -B  | 24.9 – 41.1                 |
|                        | 36-CSTI -C  | 36.6 – 59.0                 |



### COLD SHRINKABLE TERMINATION KIT CONTENT:

- - Cold shrinkable termination
- – Jacket seal
- - Paper towel
- - Silicone lubricant
- – Sealing tape
- - PVC tape
- - Sandpaper belt
- - Gloves
- - Installation & Operating instructions
- - Cable lug (Optional)
- - Grounding kit (Optional)



**CAUTION:** All associated apparatus must be de-energized during installation and/or maintenance.



**DANGER:** Do not touch or move energized product by hand. Failure to follow this instruction may result in serious or fatal injury, as well as damage to the product.

## SAFETY INFORMATION

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

### Chardon Cold Shrinkable Termination for Single Conductor Tape Shielded , Wire Shielded or Jacketed Concentric Neutral (JCN) Cable



Tape Shielded Cable



Wire Shielded Cable



Jacketed Concentric Neutral (JCN) Cable

## INSTALL PROCEDURE

### A. Prepare Cable

**Tape Shielded Cable  
(Only this cable can use the  
grounding kit.)**

#### STEP 1

● Prepare cable using dimensions as shown in Fig.1 .

**NOTE:** Ensure that all parts of the cable are not damaged. If there is any irreparable damage, a new cable needs to be made .If there is any impurity or slight damage on the surface of the insulation, it can be polished with fine sandpaper.

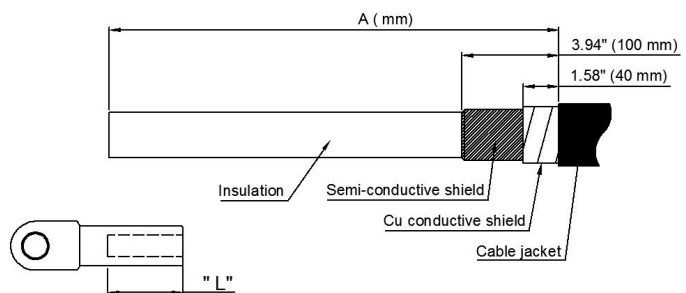


Fig.1

| Part Number                                   | 36-A      | 36-B      | 36-C      |
|-----------------------------------------------|-----------|-----------|-----------|
| Cable Insulation<br>O.D. Range                | 18.7~26.0 | 24.9~41.1 | 36.6~59.0 |
| A (mm)                                        | 480+L     | 490+L     | 495+L     |
| "L" refers to the hole depth of the connector |           |           |           |

## STEP 2

- Sand off the sharp corners of the Cu conductive shield with coarse sandpaper and secure with copper tape.
- Use coarse sandpaper to grind the cable jacket about 30mm to rough the surface.
- Clean cable jacket and Wrap 1 circle of sealing tape in the polished area of the cable sheath.
- Measure down 25mm from top of the cable jacket use constant-force spring to fix ground braid onto Cu conductive shield.

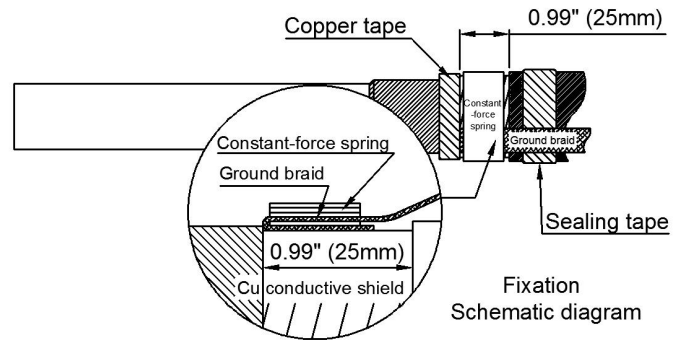
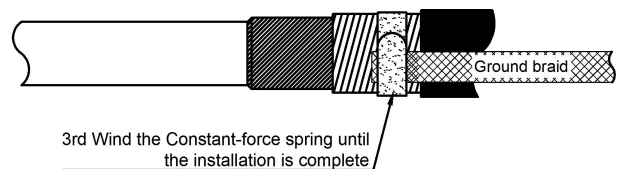
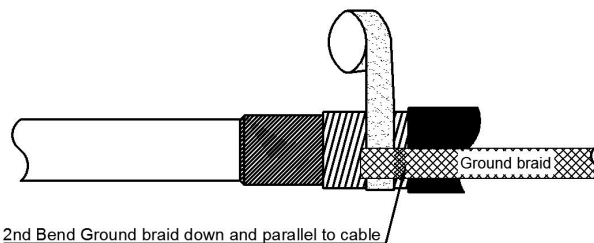
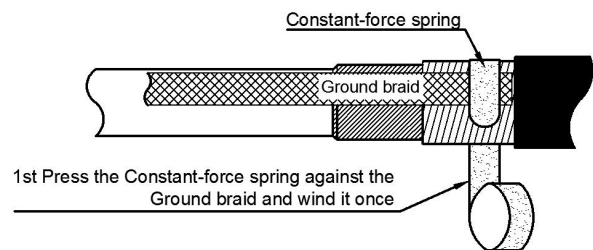


Fig.2

## Constant-force spring installation instructions

- 1<sup>st</sup> Press the Constant-force spring against the Ground braid and wind it once.
- 2<sup>nd</sup> Bend Ground braid down and parallel to cable.
- 3<sup>rd</sup> Wind the remaining Constant-force spring until the installation is complete



## STEP 3

- Use sandpaper to grind the cable jacket to rough the surface
- Wrap the sealing tape onto the ground braid.
- Wrap the PVC tapes on top of it, wound 4 laps.

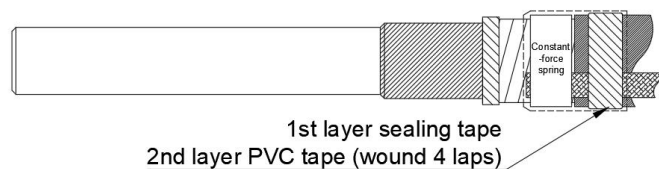


Fig.3

## STEP 4

- Mark semi-conductive shield for 45mm on the line.
- Place the Cold Shrinkable Jacket Seal onto the cable, aligning the mark with the end of the rubber tube. Pull the chord slowly to complete the installation.
- Proceed to step B.



Fig.4

## Wire Shielded Cable / JNC Cable STEP 1

- Measure down from top of the cable as shown in Fig.4 . Remove cable jacket ( if jacketed cable is used) to expose neutral wires.
- Use copper wire to lash the neutral wires. Use coarse sandpaper to grind the cable jacket about 25mm to rough the surface.
- Clean cable jacket and Neutral wires.
- Wrap 1 circle of sealing tape in the polished area of the cable sheath.

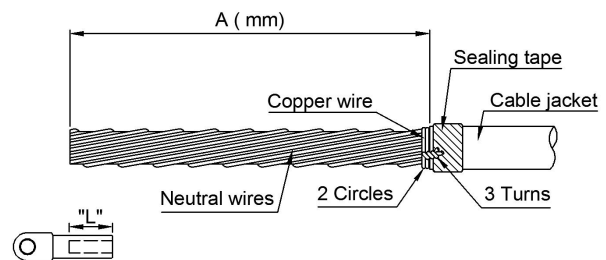


Fig.5

| Part Number                                   | 36-A      | 36-B      | 36-C      |
|-----------------------------------------------|-----------|-----------|-----------|
| Cable Insulation O.D. Range                   | 18.7~26.0 | 24.9~41.1 | 36.6~59.0 |
| A (mm)                                        | 465+L     | 475+L     | 480+L     |
| "L" refers to the hole depth of the connector |           |           |           |

## STEP 2

- Wrap the sealing tape onto the neutral wires.
- Wrap the PVC tapes on top of it, wound 4 laps.
- The 60mm semi-conductive layer was retained and the rest was removed.

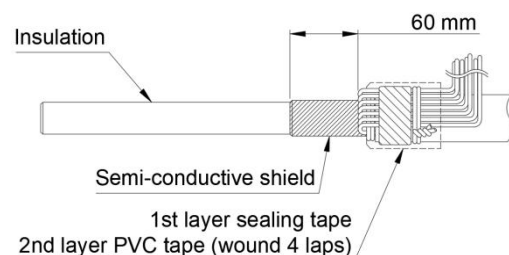


Fig.6

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### STEP 3

- Mark semi-conductive shield for 45mm on the line.
- Place the Cold Shrinkable Jacket Seal onto the cable, aligning the mark with the end of the rubber tube. Pull the chord slowly to complete the installation.
- Proceed to step B.

#### Proceed to step B.

**NOTE:** Ensure that all parts of the cable are not damaged. If there is any irreparable damage, a new cable needs to be made. If there is any impurity or slight damage on the surface of the insulation, it can be polished with fine sandpaper.

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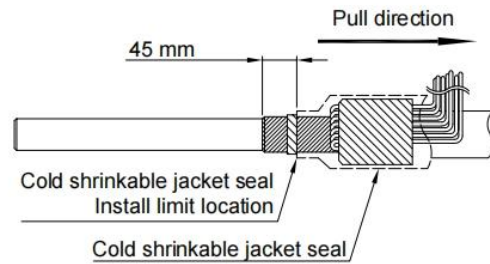


Fig.7

## B. Install Termination

### STEP 1

- Polish and clean thoroughly the insulation by using sandpaper belt and paper towel then apply the silicone lubricant around the dotted line area.

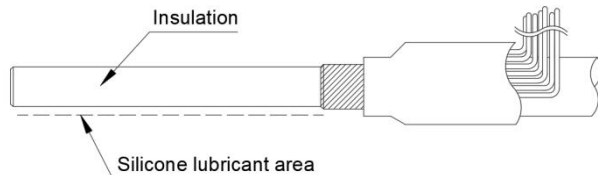


Fig.8

### STEP 2

- Mark insulation shield for 70mm on the Jacket seal.
- Place the cold shrink termination onto the cable, aligning the mark with the end of the hold out tube.

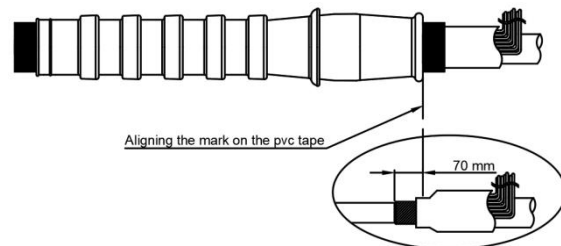


Fig.9

### STEP 3

- Take out the hold out tube to complete the installation.



Fig .10

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## C. Install Compression Connector

### STEP 1

- Keep the “L+0.39”(10mm)” insulation and remove the excess part.
- Remove the insulation to expose the bare conductor according to lug depth “L” as shown in Fig.11.

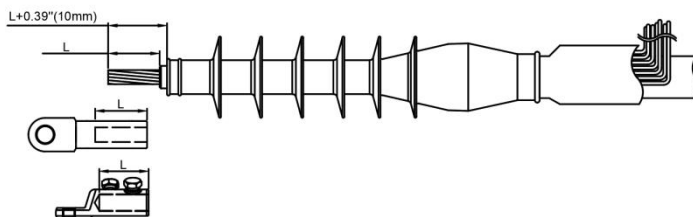


Fig.11

### STEP 2

- Clean the exposed conductor by using a wire brush.
- Place the connector on the exposed conductor and Install it.



Fig.12

### STEP 3

- Wrap the sealing tape between the insulation and connector.

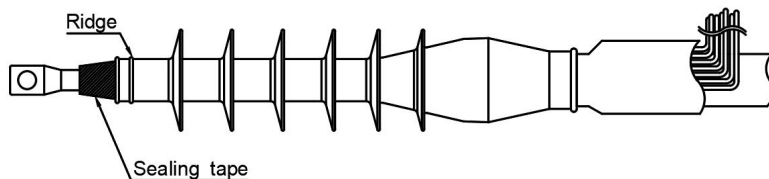


Fig.13

### STEP 4

- Seal the top of the terminator at the connector area with Silicone tape.

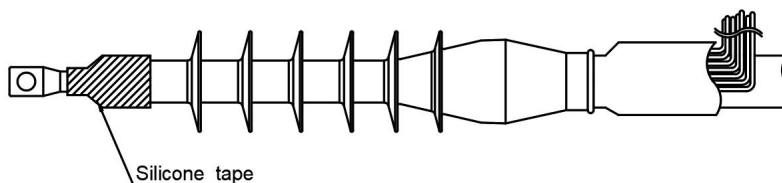


Fig.14

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