

**Accessories for Covered Conductor Network** 





Electro Niroo Taban Control Engineering Company (NETCO) began its operations in 2009 with the aim of producing accessories for aerial bundled cable networks, focusing on reducing energy losses and unserved energy, as well as training on the proper installation of these products, based on the CENELEC standard EN50483. The company successfully obtained the necessary permits to be included in the vendor list of all distribution companies and Tavanir (Iran's Power Generation, Transmission and Distribution Company).

Subsequently, NETCO equipped its own physics, chemistry, and electronics laboratories and established separate research and development, marketing, and sales departments, setting customer-oriented production as its future goal.

The company performs all its activities, including bimetallic metal coating, in-house according to the ASTM B 579 standard.

The company's vision is to produce all types of accessories for distribution networks across all voltage levels and to enter international markets.



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# **Insulation Piercing Connector IPC0101**

**Description:** This connector is for covered conductor connection to join aluminum conductors to aluminum conductors in non-tension applications within medium-voltage networks up to 36 kV, without the need to remove the conductor's insulation. The connector is watertight with silicone grease-coated teeth. The nominal thickness of the conductor's insulation should be between 2.3 and 3.3 mm. This connector can be used with Cover Conductor and can be applied with a B3-sized cover for added protection.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
IDO0404	20 pieses with 20 severs included	Main:AL 70-120	0.2541	40±2
IFCUIUI	PC0101 20 pieces with 20 covers included	Tap:AL 70-120	0.251kg	40±2

# **Insulation Piercing Connector IPC0102**.

**Description**: The bare to covered conductor connector is designed for electrically connecting aluminum bare conductors with covered conductors in non-tension applications within medium-voltage networks up to 36 kV. One side of the connector is toothed for attachment to the covered conductors without peeling, while the other side is parallel grooved where the bare conductor is placed. The connector is watertight with silicone grease-coated teeth. To prevent water ingress, short circuits, and to enhance network reliability and stability, the B3 cover should be used.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
IPC0102	20 pieces with 20 covers included	Main:AL 70-120	0.286kg	40±2
IF G0 102	20 pieces with 20 covers included	Tap:AL 70-120	0.200kg	4012

# **Tension Clamp for Dead-end Covered Conductors**

**Description**: This type of clamp is specifically designed for tension medium voltage covered conductors. The connection method is typically wedge-shaped, and there is no need to remove the conductor's insulation.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
TE0101	12 pieces	50 - 70	1.200kg	40±2
TE0102	10 pieces	70 – 120	2.300kg	40±2

## **Suspension Clamp**

**Description**: The clamp includes metallic rolls that enable the conductor to pull through the clamp. Conductor joints with diameters under 30 mm can be pulled through the suspension clamp. The clamp has waterproof insulation piercing contact part, which can be used for overvoltage protection and to bring the clamp>s body to line's electrical potential to prevent partial discharges and radio interference. Suitable for angles up to 90°.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
SU0101	12 pieces	50 –157	1.22kg	40



### **Power Arc Device**

**Description**: This product serves as a network protection device against lightning, used on tension and suspension insulators in combination with tension clamps (codes TE0101, TE0102) and suspension clamps (code SU0101). It is specifically designed for networks with phase spacing greater than 60 cm. The air gap for arc protection can be adjusted between 95 to 230 mm for voltage levels ranging from 12 to 36 kV.



Product Code	Packing	Rated Voltage (Un) (KV)	Weight (kg)
PAD0101	15 pieces	12-36	0.83Kg

#### **Power Arc Device**

**Description**: This product is specifically designed to protect covered conductors from lightning. It should be used on networks with silicone insulators where the phase spacing exceeds 60 cm. The gap between the horns is adjusted with an M16 full-thread bolt. The air gap for arc protection can be set between 95 to 230 mm for voltage levels ranging from 12 to 36 kV.



Product Code	Packing	Rated Voltage (Un) (KV)	Weight (kg)	Tightening Torque (N.m)
PAD0102	10 pieces	12–36	1.95Kg	40

## **Arc Protection Device**

**Description:** This product is designed to protect covered conductors from lightning, specifically for networks where the phase spacing is less than 60 cm. It also includes a 25 mm² aluminum wire, 2.1 meters in length, which is wrapped around the insulator and covered conductor, then secured in the clamp and next to the horns.



Product Code	Packing	Conductor Cross–Section (mm²)	Weight (kg)	Tightening Torque (N.m)
APD0101	10 pieces	50-157	0.62Kg	40

### **Live Line Connector**

**Description:** This product is designed for branching into covered conductors in live-line conditions. One of the advantages of this type of connection is that it can be opened and closed from below using a hot stick. There is no need to remove the conductor's insulation for installing this connector, which helps preserve the integrity of the conductor's insulation and ensures network stability. The teeth of the connector are coated with a special silicone grease to watertight the connection.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
L.L.CO 0101	12 pieces	AL 50–157	0.50Kg	40

#### **Live Line Connector**

**Description**: This product is specifically designed for branching conductors in live-line conditions. One of the advantages of this connection model is the ability to open and close it from below using a hot stick. The design of this clamp allows for operation with a hot stick. It is important to note that all components of this fitting are made from aluminum and stainless steel, ensuring that the bolts can be easily tightened and loosened.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Tightening Torque (N.m)
L.L.CO 0102	12 pieces	AL 25-150	0.47Kg	40

#### **Helical Tie**

**Description**: This product is specifically designed to secure covered conductors to the top groove or neck of the insulator, ensuring firm attachment. It is used to fix the covered conductor to the insulator. It features an insulating cover that prevents damage to the conductor's coating and helps avoid partial discharges. The installation is very easy and requires no tools. Color-coded markings are used to simplify size selection.



Product Code	Packing	Conductor Cross-Section (mm²)	Weight (kg)	Type of insulator	Color
HT0101/1	20 pieces	35–50	0.52	Silicone	White
HT0101/2	20 pieces	35–50	0.52	Ceramic	Black
HT0101/3	20 pieces	70–95	0.52	Silicone	Blue
HT0101/4	20 pieces	70-95	0.52	Ceramic	Green
HT0101/5	20 pieces	120–150	0.52	Silicone	Red
HT0101/6	20 pieces	120-150	0.52	Ceramic	Yellow

## **Hotline Connector Stirrup**

This bracket is specifically designed for tapping from insulated live overhead lines and earthing, using L.L.CO0101 and L.L.CO0102 hotline saddle connectors. It is made of a corrosion-resistant aluminum alloy with high electrical conductivity.



Product Code	Packing	Weight (kg)
STIRRUP	15 pieces	0.109Kg



