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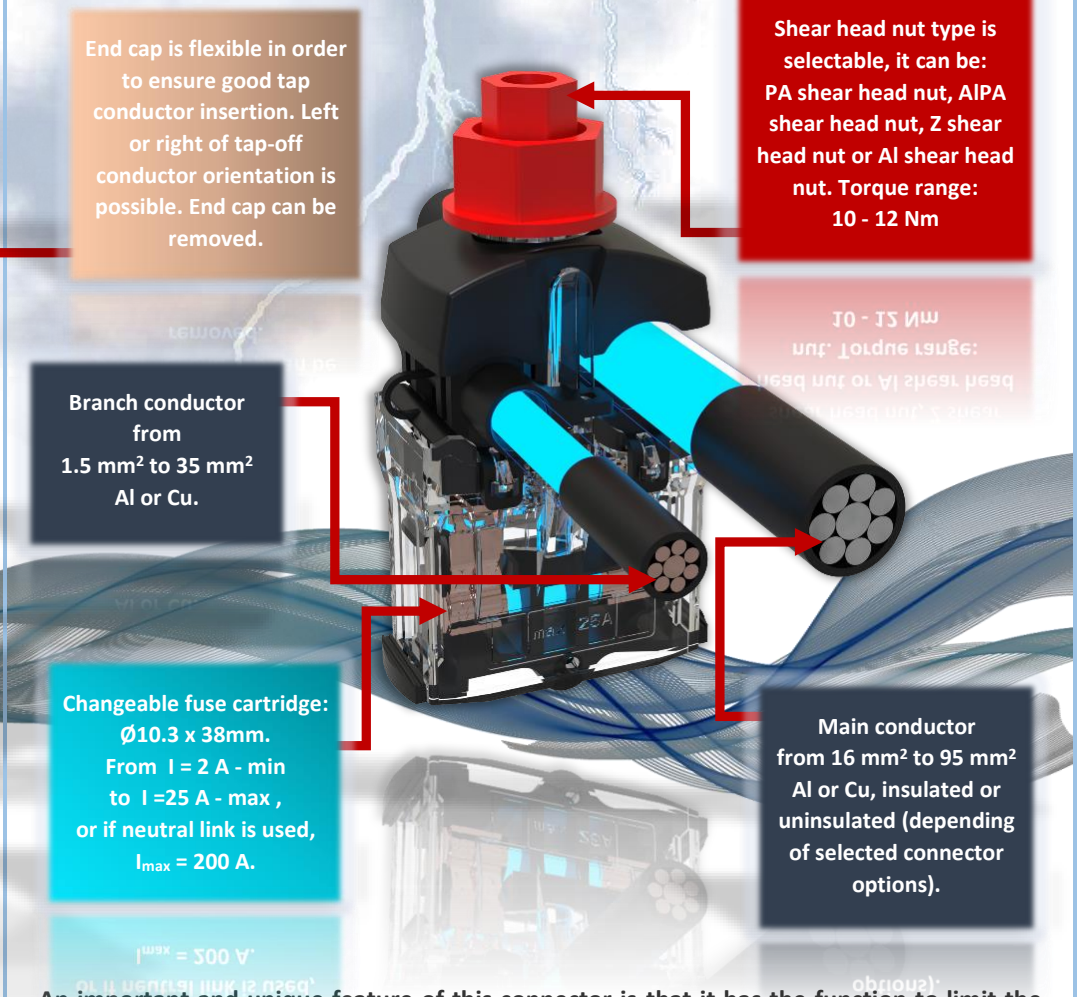
# INSULATED PIERCING CONNECTOR with fuse 1,5-35/16-95 mm² IPC FC 95

**MDS: 154 Cat. No: 370105** **Standard: EN 50483-4 / NFC 33 020**

**MAREL Insulated piercing connector with fuse** is used for simultaneous penetration of insulation on LV ABC conductors as well as for connecting of branch conductors or conductors for street lighting connection. This connector it has a variant for bare main line, with insulated contact place and uninsulated contact place (contact pads). It is manufactured in such way that it enables connection of LV ABC and branch conductor regardless of whether it an aluminum or copper. The body of the connector is made of Heat and UV resistant plastic and the elastomer insert eliminates the appearance of electrolytic corrosion since it prevents the appearance of moisture at contact points. The contacts are protected with electric contact grease.

## EXPLODED VIEW




**An important and unique feature of this connector is that it has the function to limit the maximum current ($I_{max}$) through the connector, which is important in order to protect power distribution network from overload and to protect electricity consumers from voltage drops in power distribution network.**

The connector has an electrically insulated housing where a standard fuse cartridge **10.3x38mm** is placed with current limit range from 2A to 25A. The number of fuse cartridge replacements is unlimited.

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## EXPLODED VIEW


Hole for sealing fuse housing. Sealing enables prevention of unauthorized opening of the connector and replacement of fuse cartridge.

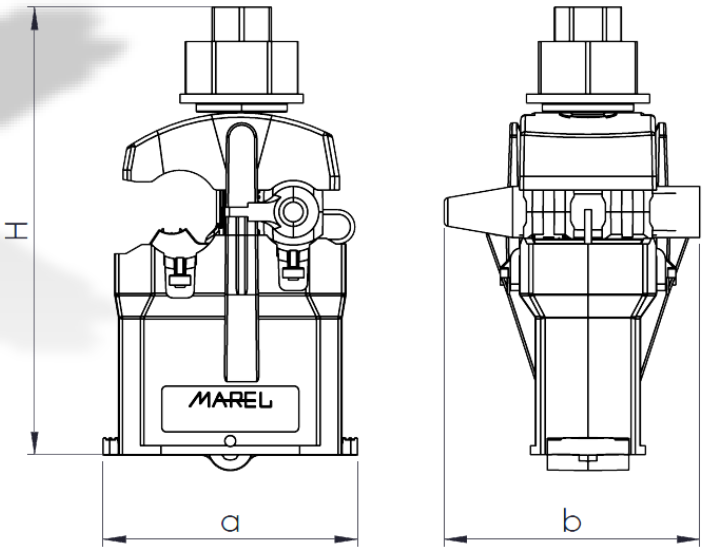
## MAIN ADVANTAGES

**Function to limit maximum current ($I_{max}$) trough connector and at the same time through branch line. The connector uses a standard fuse.** Operation under voltage is allowed in case there is no load on the tap-off line or if the fuse holder is empty. In case of overvoltage, i.e voltage increase on the main line of a power distribution network, the connector prevents increase of current through the branch line thus protecting the consumers.

In case of breakage of branch conductor, the connector protects the part of the network from the breakage point to the main conductor thus protecting the substation.

It is ideal due to its safety and possibility to be used more than once in cases of occasional temporary connections (seasonal connections).

**The fuse holder is opened by simply pulling it in the direction of the arrow engraved on the plastic housing of the connector.**




**Dimensions:**

**a [mm]** 56± 2 mm

**b [mm]** 56 ± 2 mm

**H [mm]** 98 ± 2 mm

**Packing:**
**Package: 40 pcs**

**Connector weight:**
**13,5 kg/100 pcs**

**Class 2 A connector (6kV for 1 min in air)**

**NOTE:**
**This connector it has a variant for bare main line, with insulated contact place and uninsulated contact place (contact pads).**

ISO 14001
ISO 45001
BUREAU VERITAS Certification

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## INSTALLATION INSTRUCTIONS

It is recommended that the connector is installed in an approximately vertical position so that the fuse holder is at the bottom, which will enable easier fuse cartridge replacement.

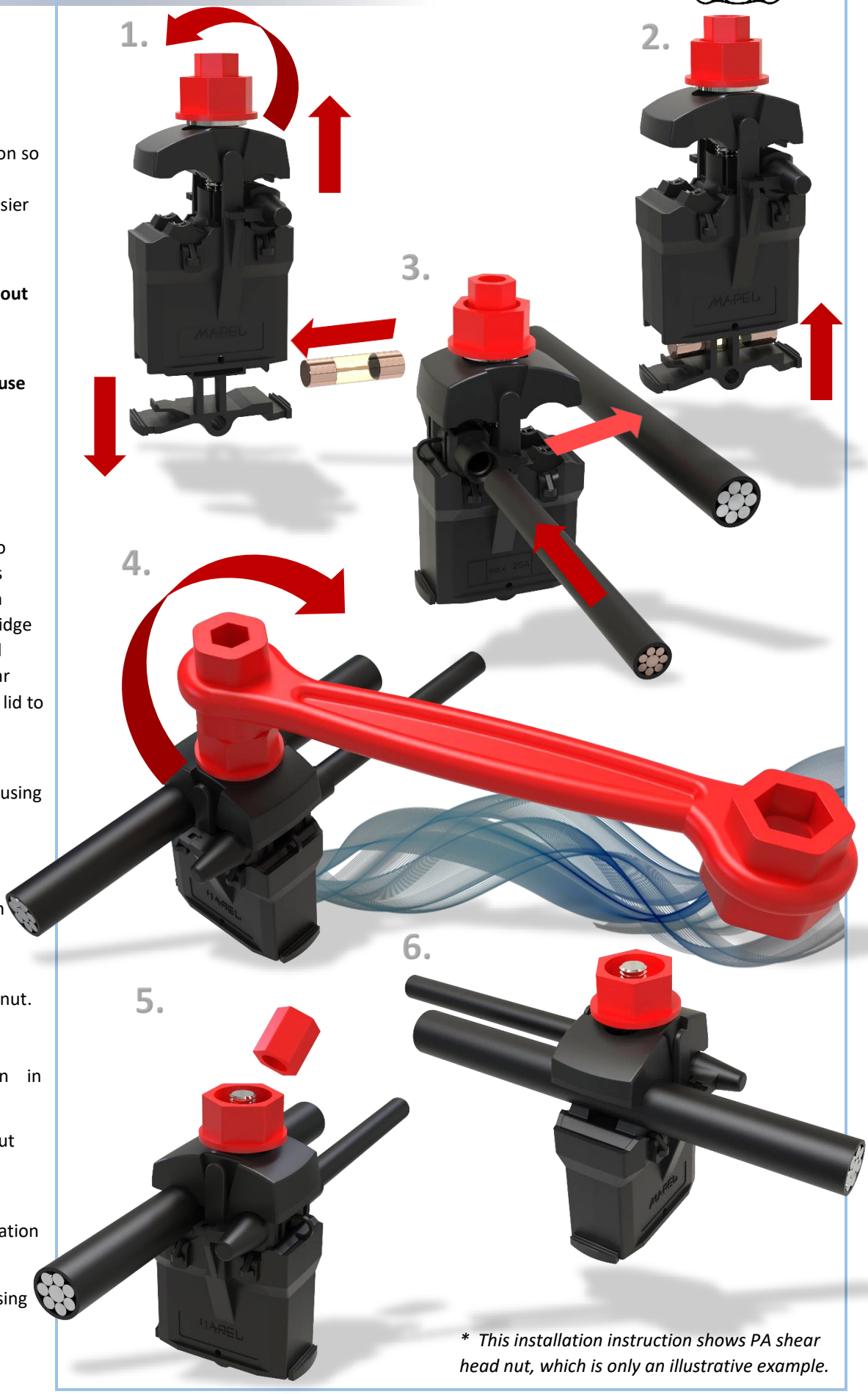
**Replacement of the fuse cartridge must be done without electrical load on branch conductor.**

**Always make sure that the fuse holder is fully closed before putting the connector into operation.**

### OPERATION ORDER

1. Pull down fuse holder to check if fuse cartridge is present, if it is not, then insert appropriate cartridge (**2 A – 25 A**) in indicated direction. Unscrew shear head nut, pull up upper lid to allow cable insertion.
2. Push in the fuse holder inside the connector housing and make sure that it is properly inserted in.
3. Install the connector on the main cable and then insert the branch cable inside the connector.
4. Tighten the shear head nut. The tightening shall be carried out at a rate of approximately 1 full turn in 8 s.
5. When the shear head nut brakes installation is complete.
6. Recommended Installation position is vertical.

- Seal the connector housing if needed to prevent unauthorized opening!




** This installation instruction shows PA shear head nut, which is only an illustrative example.*

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## CONNECTOR OPTIONS

**Customer selected options are marked red**

**The material of bolt, washer and nut can be: galvanized steel, stainless steel or Geomet coated steel.**

**Material of contact plates can be Al, Cu or Brass, zinc or tin plated.**

- Shear head can be:
  1. **PA Nut**
  2. **AlPA Nut**
  3. **Z Nut**
  4. **Al Nut**

  *Shear head can have optional indicator for signaling unproper installation.

- Optional end cap for bigger cable cross section 25– 35 mm$^2$:
  - **End cap CECT 4 - 50**

- Main line side of the connector can be optionally designed for bare (uninsulated) line with two type of contact plates:
  1. **Insulated contact** (gasket covers contact place on bare line).
  2. **Uninsulated contact** (contact pads on bare line).

## SHEAR HEAD TYPES

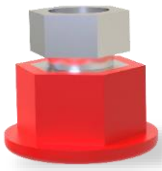
1. PA Nut

Mount: 13 HEX

Unmount: 22 HEX

* Color can be chosen

2. AlPA Nut

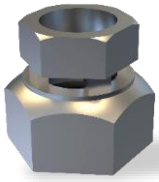


Mount: 13 HEX

Unmount: 17 HEX

* Color can be chosen

3. Z Nut



Mount: 13 HEX

Unmount: 17 HEX

4. Al Nut

Mount: 13 HEX

Unmount: 13 HEX

## OPTIONAL INDICATOR

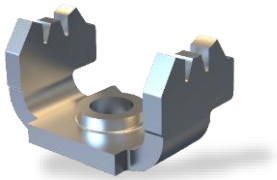
* Color can be chosen

## OPTIONAL END CAP

CECT 4 - 50

## BARE MAIN LINE OPTION (CONTACT PLATES TYPES)

1. Insulated contact (Contact plates)



2. Uninsulated contact (contact pads)

## CARTRIDGE FUSE

**2 A to 25 A**