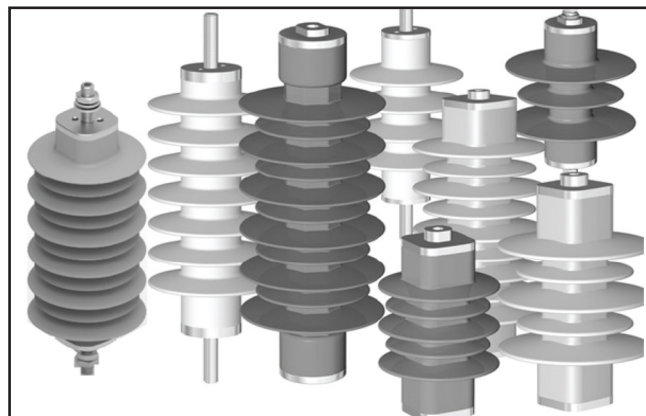


INSTALLATION INSTRUCTIONS

EPP-1267-2/21

**Medium voltage Surge Arrester /
Disconnecter**
DOV, DA1, HDA, OCP0, OCP1, OCP2



TE Connectivity Insulation & Protection

Safety Instructions

DANGER

Surge arresters should be installed by trained personnel. All health and safety procedures should be adhered to during handling and installation of surge arresters.

CAUTION

The enclosed installation instruction is not intended as a substitute for adequate training, nor to replace or supersede existing safety, operating and maintenance procedures.

NOTICE

Arresters are typically to be installed between line and ground conductors.

Before Starting

- Check if all parts (surge arrester & accessories) are included in the packaging according to the description printed on the packaging label.
 - Please assemble all parts as appropriate prior to the final installation. Please refer to the enclosed drawings for the appropriate torque limits.
 - Check the arrester and accessories for damage that may have occurred during transport. Never install a damaged arrester. It may fail violently, causing severe personal injury.
 - All surge arresters carry a nameplate giving details of arrester type and voltage rating. Check the voltage rating of each single arrester. Do not install arresters with voltage ratings other than those specified for your system.
 - Check arrester and accessories that they fulfil both electrical and mechanical requirements. Do not alter the arrangement of the accessories or the accessory itself. Do not leave out any parts!
 - For minimum installation clearance please contact your system engineer and or refer to minimum clearances as in IEC Standard 60071-2.
-

Email: surgearresters@te.com

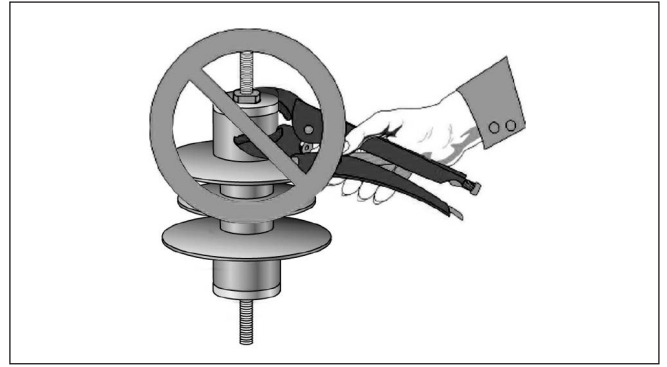
For more information: te.com/energy

Tyco Electronics Raychem GmbH
a TE Connectivity Ltd. Company
Finsinger Feld 1
85521 Ottobrunn/Munich, Germany
Tel: + 49-89-6089-0
TE.com/energy

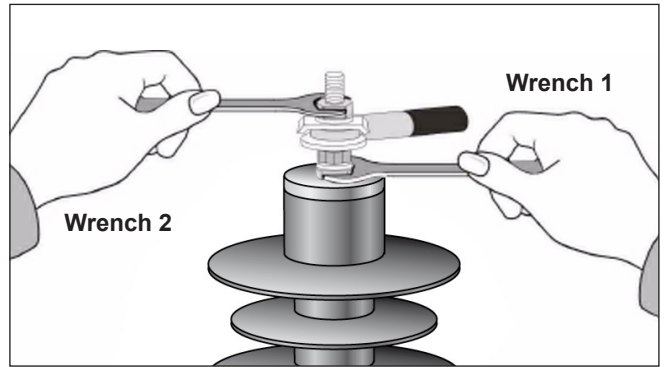
Installation

NOTICE

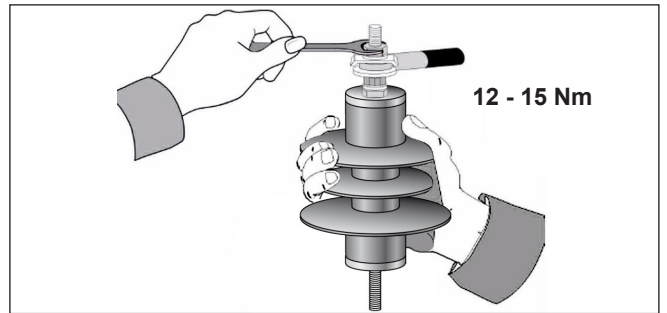
The polymeric housing should not be put under any mechanical stress. Therefore, do not handle or hold the polymeric housing using hand tools.



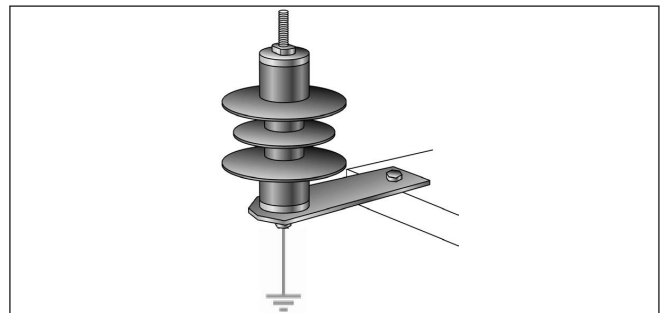
The arrester can be held safely using a “Two wrench method”. Connect the Line/ Earth lead as shown. Hold the lower nut with wrench 1 while tightening the upper nut with wrench 2. This method should be used to eliminate any mechanical stress that might otherwise be placed on the surge arrester.



In cases where there is only one nut on the surge arrester, it is recommended to hold the surge arrester with other hand. Recommended torque to surge arrester terminals or disconnecter terminal 12 – 15 Nm.



It is recommended to install surge arrester as close to the vertical position as possible with the line terminal on the top.



- Make sure that the electrical system is de-energized and earthed.
- Strictly follow the local safety instructions and maintenance procedures.
- Connect the line and ground leads to their respective terminals and fasten the nut to the torque indicated in the relevant drawing.
- Make the arrester ground and line connections as short as possible avoiding sharp bends and loops. If the line connection cannot be made short, consider connecting the line directly to the arrester and continue from there.
- The continuous mechanical stress applied to the arrester i.e. via the connection shall not exceed the specified values. Mechanical overload may shorten the arrester’s service lifetime significantly.
- In cases where the arrester is equipped with a disconnecter device make sure that the ground lead is flexible enough to allow the disconnecter to operate properly.
- Re-energize the electrical system. Avoid single-phase switching because this may lead to ferro-resonance and subsequently damage the arrester. Please use Personal Protective Equipment during installation.

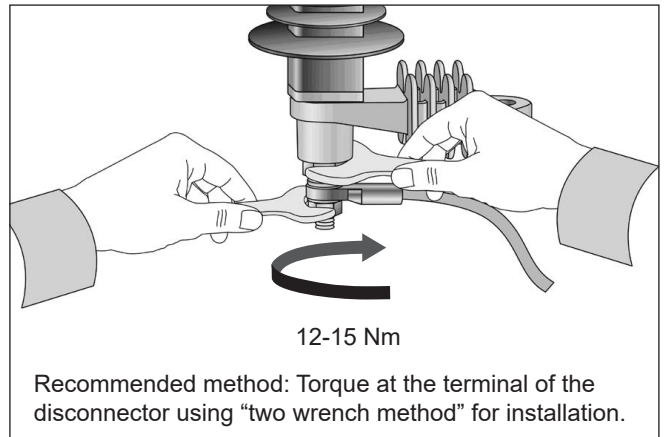
Mounting and Disconnecter Installation

When installing an insulating bracket and disconnecter the installation should be in accordance with associated drawings. Do not exceed the specified torque values. If recommended torque levels are exceeded, disconnecter reliability may be reduced or disconnecter may fail prematurely.

The disconnecter should only be used in outdoor applications. It is intended for use in accordance with IEC60099-4 surge arrester standard.

CAUTION

Never install a damaged disconnecter!



Maintenance

NOTICE

TE Connectivity Bowthorpe EMP/ Raychem arresters are maintenance free. There are no serviceable parts inside.

Performance checks are not required during the expected service life.

Under normal conditions of service surge arresters covered by this document should not require any attention other than a visual examination during routine maintenance. If the surge arrester appears heavily contaminated, we recommend using a clean cloth and water for the removal of contamination on the surface.

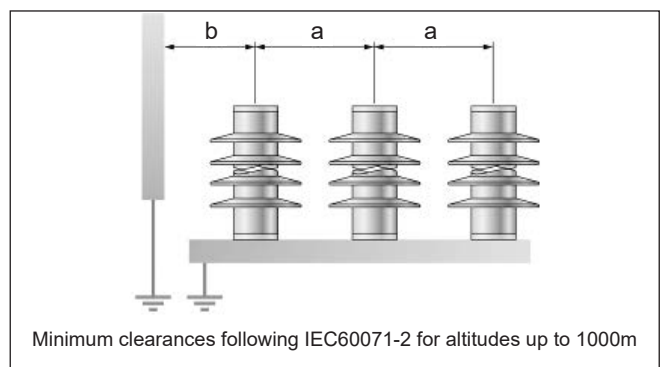
If a disconnecter is used the resistance between the two terminals can be measured. There are no serviceable parts inside. Please contact your local TE representative for further information.

Removing Arresters

- Make sure that the electrical system is de-energized.
- Strictly follow the local safety instructions and maintenance procedures.
- Disconnect the line lead from the circuit.
- Disconnect the ground lead from the circuit.

Clearances

For minimum installation clearance please contact your system engineer and/or refer to minimum clearances as in IEC Standard 60071-2



Handling

Improper handling and use of disconnectors may represent a high risk of injury to personnel and can cause severe damage to adjacent equipment.

Do not store the disconnecter above an ambient temperature of 65°C nor close to any heat source!

Storage

It is recommended to store products that are packed in cardboard boxes in a dry ventilated location where there is no risk from rodents or mechanical damage. For long term storage, stacking should be avoided. Storage should be regularly inspected.

Disposal



Please dispose of all waste according to environmental regulations.

When a polymeric surge arrester is taken out of service due to either an arrester overload or age, it is recommended that the arrester shall be disposed of according to local country regulations in force at that time, which can be through normal industrial waste.

Polymeric surge arresters typically are of either a crimped cage or wrap design with stable ceramic doped Zinc Oxide (ZnO) varistor blocks. In the cage design the ZnO is chemically bonded to a silicone rubber housing along the entire length of the core. The wrap design arresters typically have a number of layers of fibreglass wrapped around the ZnO in which the silicone is chemically bonded to.

The silicone insulation is made of a non-halogenated silicone rubber with glass-fibre reinforced epoxy rods with end fittings and spacers made of Aluminium. The metal-oxide varistors are sintered bodies composed mainly of ZnO (90%), with the following other substances less than 1% weight (in accordance with the common market rules for hazardous components):

Bi₂O₃, Sb₂O₃ For hazardous substances (according to the Council Directive 91/689/EEG on hazardous waste), the following substances are existing in more than 0,1% weight but less than 1%: Co₂O₃, NiO, Cr₂O₃. In addition the metal-oxide varistors may be coated with a thin glass layer (<0.1% weight) containing PbO.

When the arrester is disposed of the polymer parts will eventually decompose into SiO₂ and CO₂. As the substances of the sintered metal oxide exists in oxidized state, a leaching test to EPA-test (Federal Register/ vol.45, No 98/Rules and Regulations), has shown that the sintered ceramic bodies may be disposed without violating the EEG Directive.

The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, TE Connectivity has no control over the field conditions which influence product installation. It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. TE Connectivity's only obligations are those in TE Connectivity's standard Conditions of Sale for this product and in no case will TE Connectivity be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

Raychem, TE, TE Connectivity and TE connectivity (logo) are trademarks. © 2021 TE Connectivity. All Rights Reserved.