



Installation Instruction

**LVA-280B, LVA-440B
Gapless Low Voltage
MO-Surge Arresters**

Safety Warning

Surge arresters should be installed only by operators familiar with good safety practice and the handling of low voltage electrical equipment.



Do not expose the arrester to temperatures above 60°C.

Do not drop the arrester.



The enclosed installation instruction is not intended to replace or supersede existing safety, operating and maintenance procedures.



Installation Note

This arrester is typically to be installed in AC systems between the line conductor and ground. The system voltage must not exceed the rated voltage of the arrester mentioned on the name plate. The arrester is capable to operate under temporary power frequency overvoltages as stated in the data sheet. Do not expose to temperatures above 60°C.

Before Starting

- ☒ A cross section of the connecting leads of not less than 6 mm² is recommended. Leads included as an accessory have a min. cross section of 6 mm².
- ☒ Check if all parts (surge arrester & accessories) are included in the box according to the description printed on the carton label.
- ☒ If the accessories come disassembled please assemble all parts as appropriate prior to the final installation. Please refer to the relevant section in the installation instruction for the correct torque.
- ☒ Check if the arrester or the accessories have been damaged during transport. Never install a damaged arrester. It may fail violently, causing severe personal injury.
- ☒ Check the voltage rating of each single arrester shown on the name plate of the arrester. Do not install arresters with voltage ratings other than specified by your system administrator.
- ☒ Check if the arrester and the accessories fulfill the local requirements in terms of mechanical dimensions.
Do not alter the arrangement of the accessories or the accessory itself!
Do not leave out any parts!

Installation

Do not handle the polymeric housing of the arrester with tools! The maximum torque at the line terminal is 7Nm and at the earth terminal is 2,5Nm. Do not replace the wing nut at the earth terminal by normal nuts. The wing nut must be torqued by hand. No tools!!!



Life line installation is possible but requires a special procedure, certain accessories and isolated tools! Please refer to the appropriate section below.



Make sure that the electrical system is de-energized and earthed.



Strictly follow the local safety instructions and maintenance procedures.



Select a mounting position as close as possible to the equipment (transformer, house entry point, ...) that the arrester is to protect in order to get the best protection margin.



The line and earth leads shall be as short as possible for the same reason.

Installation with C, D or F-type accessory



Connect the ground lead to the arrester ground terminal stud if not factory installed. Fasten the wing nut by hand only.



Connect the ground lead to ground.



Connect the line lead accessory to the line using a piercing connector (C or F-type) or attach it to the transformer bushing (D-type).



Re-energize the electrical system.

Installation with other accessory types



Connect the line terminal stud of the arrester to the line. The max. torque on the stud is 7 Nm. Fasten the arrester by hand only. Do not use tools to hold the arrester body.



Connect the ground lead to the arrester ground terminal stud if not factory installed. Fasten the wing nut by hand only.



Connect the ground lead to ground.



Re-energize the electrical system.

Maintenance

The LVA arresters are maintenance free. There are no serviceable parts inside.

Performance checks are not required during the expected service life.



Washing is not required. If cleaning is desired we recommend to use warm soapy water.

In case of a thermal overload the rating plate will be dropped and disconnects the arrester from ground. Allow approx. 15cm distance to other objects below the arrester for free movement of the disconnecter parts.

After an operation as described above the arrester must be replaced. No repair possible!

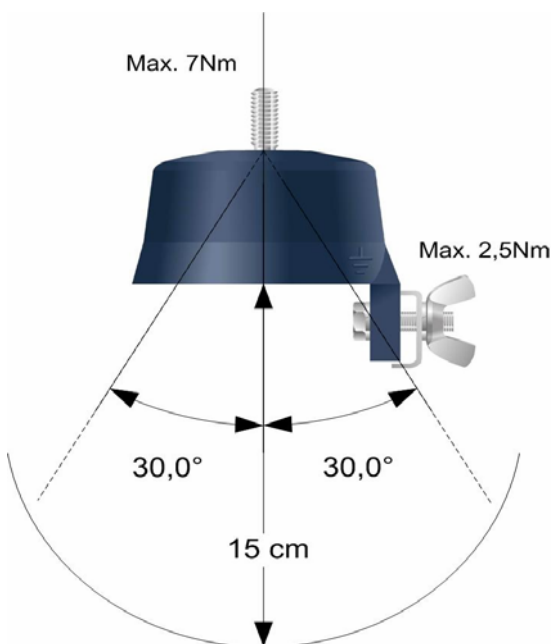


Removing Arresters

- ✓ 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.
- ✓ Separate metallic parts and dispose the rest in the waste box.

Clearances

The arrester must be installed in the vertical position $\pm 30^\circ$ to the line terminal facing the top.



The information contained in this installation instruction is intended to describe the correct method of installation for this product. However, Raychem has no control over the field conditions which influence product installation. It is user's responsibility to determine the suitability of the installation method in the user's field conditions. Raychem's only obligations are those in Raychem's standard Conditions of Sale for this product and in no case will Raychem be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the product.

Tyco Electronics Raychem GmbH
Energy Division
Finsinger Feld 1
85521 Ottobrunn/Munich
Germany
Tel. (089) 6089-0
Fax (089) 6089-581

Printed in Germany