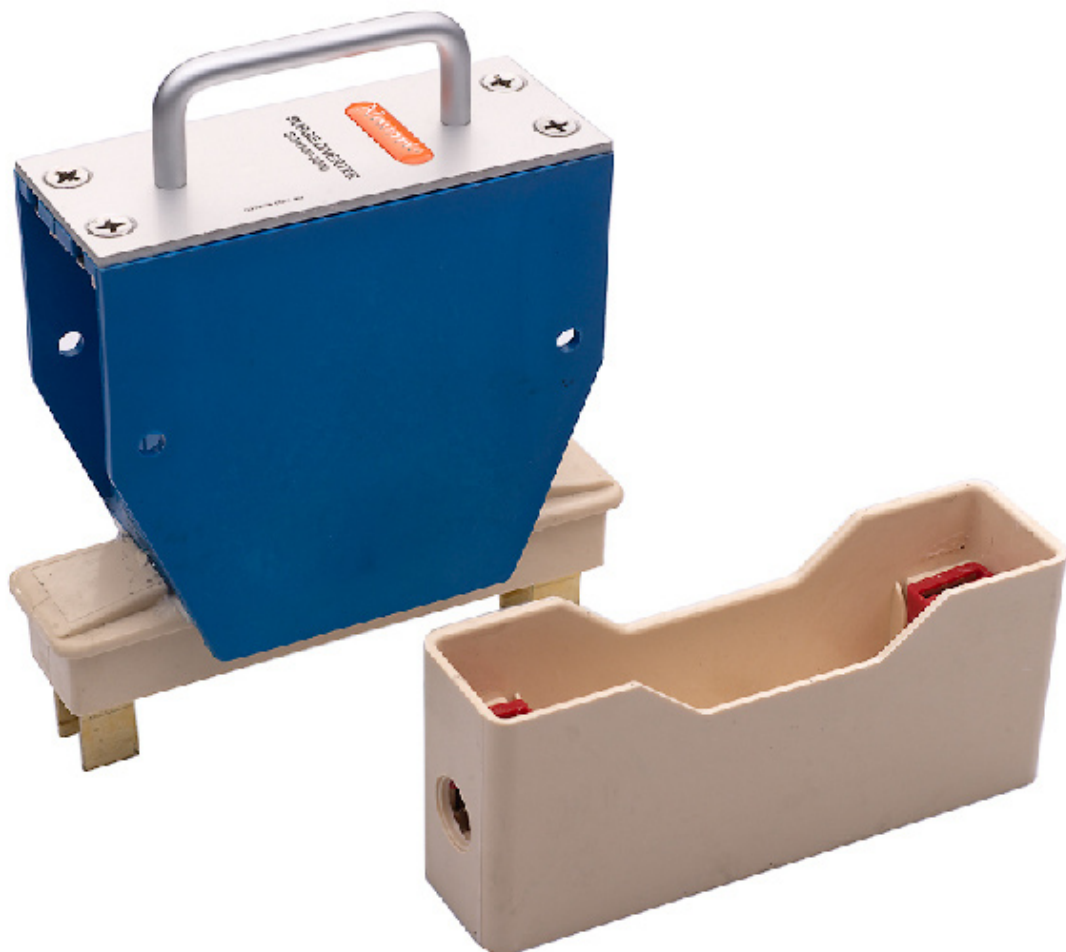


Novaris[®]

PART OF THE POWERCOM GROUP

High Voltage Surge Diverters

Installation Instructions



IMPORTANT: Please read these instructions carefully. Whilst straightforward, the installation of these devices is critical to their performance. Installation should only be carried out by a suitably qualified person in accordance with all relevant standards.

1. Introduction

- 1.1 These installation instructions apply to Novaris High Voltage Surge Diverters.

Cat No.: **SDH - 70 - 2000 - H**
 I_{max} (kA) — U_c (V) — Options

For details about the maximum continuous operating voltages, maximum surge currents and options available, please refer to the Novaris product handbook or contact Novaris.

- 1.2 Novaris High Voltage Surge Diverters are engineered for system voltages greater than 240/415V. Applications include but not limited to mining equipment, airport runway lighting and railway signalling.

- 1.3 Each surge diverter consists of a pluggable protection module and a base. They are designed to be mounted in distribution boards and main switch boards.

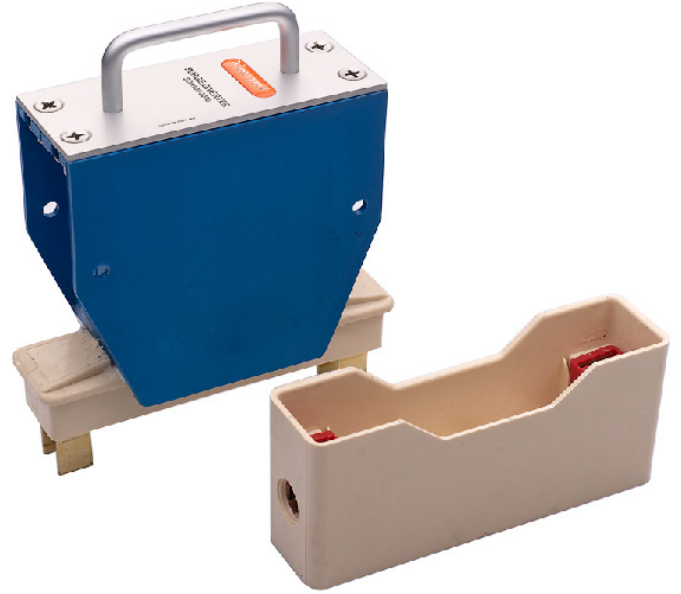
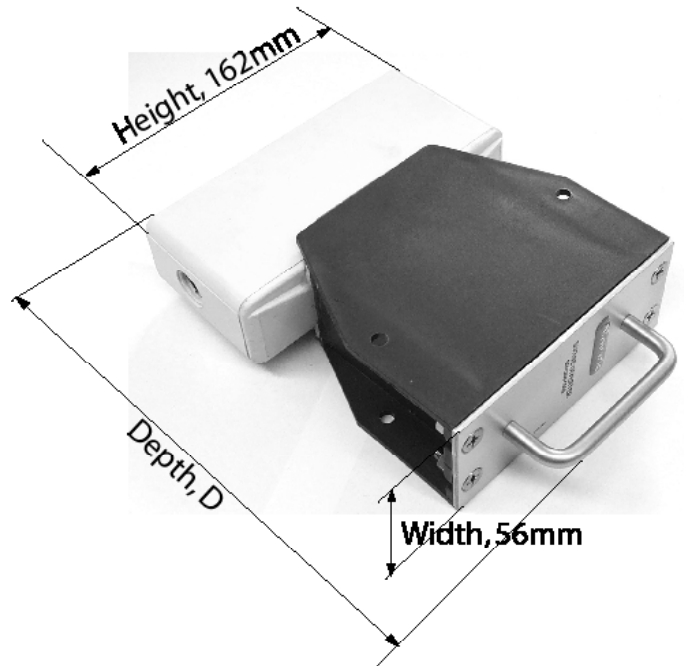


Figure 1: SDH - 100 - 2000

2. Before Installation

- 2.1 The high voltages that Novaris SDH surge diverters are designed for are extremely DANGEROUS. Installation must ONLY be carried out by a suitably qualified person comfortable working with high voltages and in accordance with all relevant standards.
- 2.2 Any equipment will only be fully protected from the effects of a transient over voltage if all entry points are protected. This includes signal lines. Novaris manufacture surge protection for all common signalling protocols. Please contact Novaris if you have any concerns.
- 2.3 Before installation, ensure the voltage across the device is within its working range. Continuous overvoltage will damage Novaris surge diverters.
- 2.4 Switch off the power before undertaking installation of Novaris surge diverters.



Cat No	Depth, D
SDH-140-1000	164mm
SDH-200-1000	193mm
SDH-70-2000	164mm

Figure 2: Dimensions

3. Installation

- 3.1 Connection:** The high voltage surge diverters are designed to be shunt connected between active and neutral or earth (Figure 3). Neutral-earth protection must be considered to effectively protect equipment when applicable.
- 3.2 Point of Connection:** The surge diverter should be positioned so that all connecting leads can be kept as short as possible. This means mounting the unit as close to the point of connection as possible.

If the unit is to be positioned external to the main switch board or distribution board, it should be installed in a suitable enclosure. Suitable enclosures are available from Novaris.

- 3.3 Connecting Leads:** Novaris high voltage surge diverters have a maximum terminal capacity of 25mm². A minimum wire of dia. 10mm² (multi strand) is recommended for use as connection leads.

To obtain optimum performance of the surge diverter, the inductance of all the connecting leads and connections should be kept to a minimum. **All lead lengths must be kept as short as possible.**

- 3.4 Wiring:** To install Novaris high voltage surge diverters, the base should first be wired into the system, and the diverter plugged into the base.

To access the terminal screws in the base, unplug the diverter from the base. In the bottom of the base, two screws should be visible at either end. These screws should be removed and the coloured plastic covering the terminals should be removed. The terminal screws should be visible.

Once wiring is complete, the plastic covers and screws should be replaced before the surge diverter is plugged into the base.

- 3.5 Isolation:** Novaris recommends the installation of a 32A HRC fuse in series with the surge diverter to protect the surge diverter from continuous overvoltage (Figure 3).

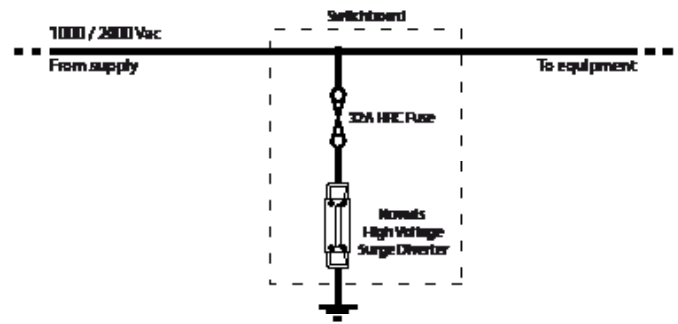


Figure 3: Installation

4. After Installation

- 4.1** Check the installation of the surge diverter by switching the power on to the system and ensuring all equipment is operating correctly.
- 4.2** Novaris surge diverters are very robust and require very little maintenance. However the unit should be inspected periodically.
- 4.3** If the surge diverter or base appear damaged or defective in any way please contact Novaris about replacing the surge diverter.



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