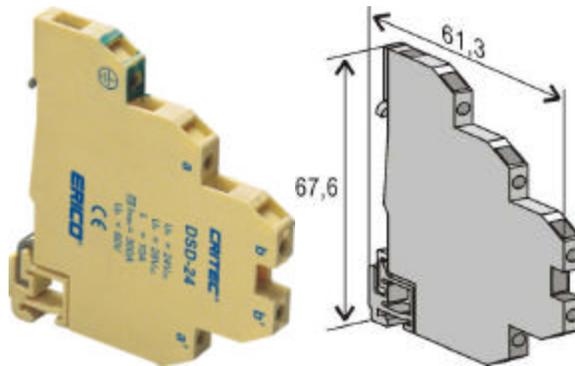


## INSTALLATION INSTRUCTIONS



**PRODUCT SERIES**  
**DSD-12, DSD-24**

### 1. PREPARATION

**DANGER:** Possible electrical shock or burn hazard. Qualified personnel should only install this product. Failure to lockout electrical power during installation or maintenance can result in fatal electrocution or severe burns. Before making any connections to this electrical panel please ensure that power has been removed from all associated wiring, electrical panels, and other electrical equipment.

- CAUTION NOTES:**
1. The installation of this DIN Surge Diverter (DSD) should follow observe nationally recognized codes of authorities having jurisdiction to ensure correct and safe operation.
  2. Check to ensure that the maximum continuous operating voltage  $U_c$  of the DSD selected is higher than that expected on the circuit being protected.
  3. It is important to ensure that the maximum line current rating  $I_L$  of the DSD is not exceeded.
  4. The ground (earth) terminal must be connected to a low impedance earth ( $<10$  ohms) for correct operation.
  5. Do not perform a "Flash Test" or use a Megger to test circuits that are protected with these DSD units. This may damage the DSD(s) and affect the insulation readings being performed.
  6. Do not attempt to open or tamper with the DSD unit in any way as this may compromise performance and will void warranty.

### 2. INTRODUCTION

The CRITEC low voltage DIN Surge Diverter (DSD12 and DSD24) protectors have been designed to protect equipment from the damaging effects of surges on low voltage data, control and signaling lines.

### 3. ELECTRICAL CONNECTION

Please follow the sequence indicated:

1. First, ensure that power is removed from the area and the circuits to be connected.
2. Connect line side wiring to the DSD screw terminals marked (a, b). The "line side" of the DSD is the "exposed side" where the surge is expected to originate.
3. Connect equipment side wiring to the DSD screw terminals marked (a', b'). The "equipment side" of the DSD is the protected side and wires to the equipment being protected.
4. The DSD should be installed as close to the equipment being protected as possible. Where protecting long cable runs ( $< 30$  meters), a DSD unit should be installed at either end of the cable.
5. Connect the DSD ground terminal to a low impedance ground using as direct a path as possible. When the DSD is installed on a DIN rail, grounding of the unit can be achieved by connecting the rail to ground.

Table 1. DSD operating specifications

Model	DSD 12	DSD 24
Nominal System Voltage $U_n$	12V--	24V--
Max. Cont. Operating Voltage $U_c$	15V--	28V--
Max. Line Current $I_L$	10A	
$I_{max}$	600A 8/20 $\mu$ s	300A 8/20 $\mu$ s
Dimensions	67mm x 62mm x 6mm	
Connection	=2.5 mm <sup>2</sup> (#18 to #13 AWG)	
Mounting	35mm top hat DIN rail	
Temperature	-25 to +70°C (-13 to +158°F)	