Data Sheet

DC Surge Protection Unit

- Protection from atmospheric transient overvoltage
- Diversion of DC current to ground
- Assembled in a molded enclosure
- Complete solution for any DC-powered device

The DC surge protection unit limits transient overvoltage of atmospheric origin and diverts current to ground, preventing damage to the product.

The DC surge protection unit eliminates the following types of overvoltage:

- Between positive and negative poles to ground in common (longitudinal) mode
- Between positive and negative poles in differential (transverse) mode.

The unit is installed between a DC source and protected device.

The DC surge protector employs a two stage transient protection technique. All its components are passive and do not require additional power.

The first stage provides the transient current reduction and the second stage provides the transient voltage clamping and diversion to ground.

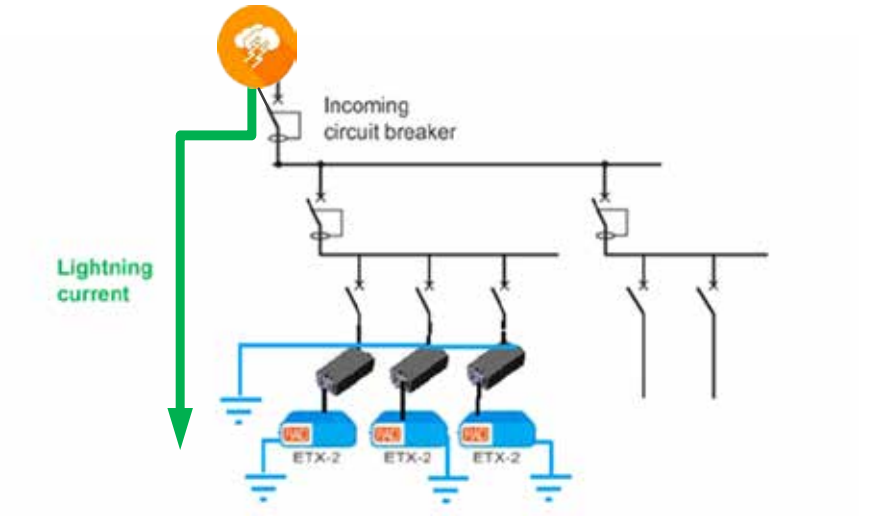

Figure 1. Installing DC Surge Protectors in Systems Connected in Parallel

Specifications

VOLTAGE

36–72 VDC /100W

COMPLIANCE

IEC 61000-4-5: 1.2/50 µs, 8/20 µs combination wave, 2 kV, between lines and between lines to ground

ITU-T K.21 enhanced mode, 5 kA between lines to ground

GENERAL

Connection Terminals
3-pin terminal block, 15–18 AWG

Physical
Height: 33.0 mm (1.3 in)
Width: 37.0 mm (1.4 in)
Depth: 76.0 mm (2.9 in), excluding cable

Environment
Temperature: -20°C to 65°C
Humidity: Up to 90%, non-condensing

DC Surge Protection Unit

Installation

KIT CONTENTS

- One short bracket and one long bracket
- Four 6-32 UNC (3.5 mm) screws
- One DC Surge Protection Unit Cable

INSTALLATION PROCEDURE

Warning: *Disconnect all cables including the power cord from the unit, prior to mounting.*

To install a single unit:

1. Fasten the short bracket to the left or right side of the unit using two 6-32 UNC screws (see *Figure 2*).
2. Repeat step 1 to fasten the long bracket if needed to the other side of the unit.
3. Place the unit in the rack and fasten the brackets to the side rails of the rack using four 5-mm Phillips screws on each side (not included in the kit).

The DC surge protector is installed between the DC power source and protected unit (see *Figure 2*). The installation does not require any additional tools.

Use a flat-head screwdriver to connect the ground terminals of the DC surge protector and of the protected unit to the common ground.

Figure 2 illustrates how to connect the surge protectors to the units that are fed from the same DC source and explains the connection of the terminal block of the DC Surge Protection Unit to the circuit breaker.

Note: *Use 18 AWG wires shorter than 30 cm to connect the DC Surge Protection Unit cable to the circuit breaker. If a longer wire is needed for the* **+** *and* **-** *, the ⏚ cannot be longer than 30 cm and must be connected to the earth distribution block.*

Ordering

Upon request

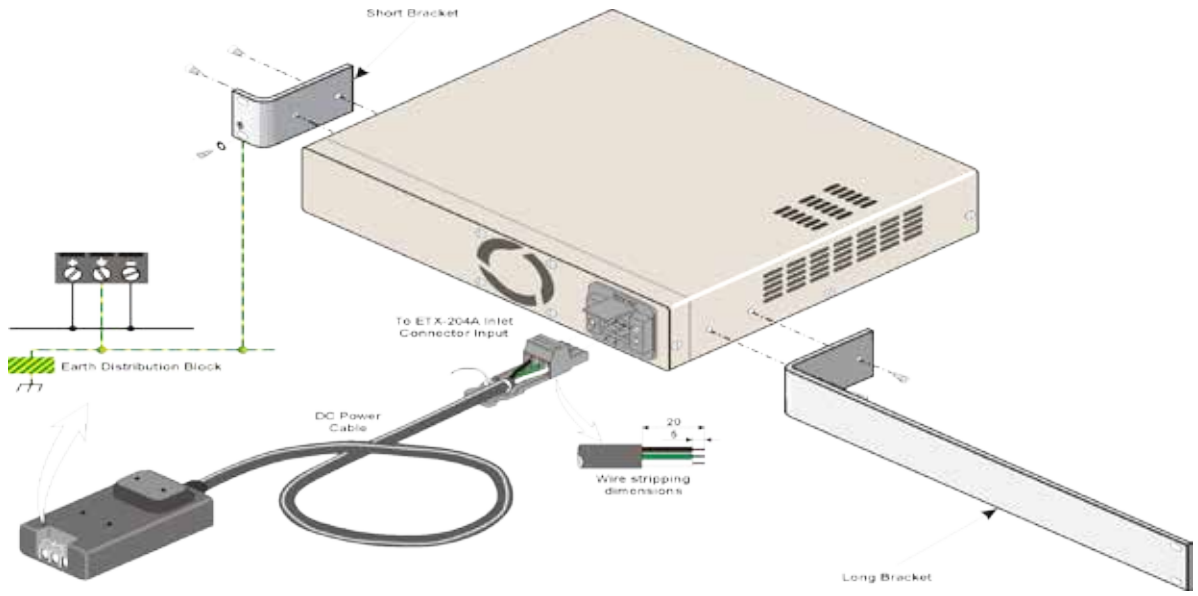

Figure 2. Installing a Single Unit

Caution*: One bracket is mandatory in case two cannot be mounted. The short or long bracket must be connected to the cabinet and the cabinet must be grounded.*

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