

DLP-25/DLP-25AMP Series

Data/Signal Line Surge Suppression Device

For protecting Instrumentation, Telecom and Telco equipment

1.0 GENERAL

1.1 DESCRIPTION

These specifications describe the electrical and mechanical requirements for a rapid-responding transient voltage surge suppressor. The specified surge protective device shall provide effective high-energy surge diversion for a broad range of applications. Tested & certified per UL 497. The specified surge protective device shall provide the following performance per class of DLP-25 or DLP-25AMP:

DLP-25-xxxV5 (Heavy Duty models)

- 20,000 A (8/20us) Ipeak rating per circuit.
- All signal lines protected with respect to chassis ground.
- Protector shall be provided with DIN rail (35mm) mountable enclosure.
- Protector shall be able to be mounted to surfaces not including a DIN rail.
- Must protect five wires and use less than three inches of DIN rail space.
- Must have a series resistance no more than 6 Ohms per wire.
- Must have a maximum system current capacity of 350 mA per wire.
- TWENTY YEAR WARRANTY. Replacement units are sent from factory, located in Deer Park, New York, USA.

DLP-25-xxxV2 (Standard Duty models)

- 10,000 A (8/20us) Ipeak rating per circuit.
- All signal lines protected with respect to chassis ground.
- Protector shall be provided with DIN rail (35mm) mountable enclosure.
- Protector shall be able to be mounted to surfaces not including a DIN rail.
- Must protect five wires and use less than three inches of DIN rail space.
- Must have a series resistance no more than 3 Ohms per wire.
- Must have a maximum system current capacity of 350 mA per wire.
- TWENTY YEAR WARRANTY. Replacement units are sent from factory, located in Deer Park, New York, USA.

DLP-25-xxxV (Light Duty models)

- 5,000 Watt (10/1000 microsecond) rating per circuit.
- All signal lines protected with respect to chassis ground.
- Protector shall be provided with DIN rail (35mm) mountable enclosure.
- Protector shall be able to be mounted to surfaces not including a DIN rail.
- Must protect five wires and use less than three inches of DIN rail space.
- Must have a series resistance of 0 (zero) Ohms.
- Must have a maximum system current capacity of 5A per wire when series connected and unlimited when shunt/parallel connected.
- TWENTY YEAR WARRANTY. Replacement units are sent from factory, located in Deer Park, New York, USA.

DLP-25AMP-xxxW-x (Amplifier Protector models)

- 15,000 Watt (10/1000 microsecond) rating per mode per channel.
- Protection modes shall be + to -, + to GND, - to GND.
- Protector shall be provided with DIN rail (35mm) mountable enclosure.
- Protector shall be able to be mounted to surfaces not including a DIN rail.
- Protector shall be capable of protecting two channels.
- Must have a series resistance of 0 (zero) Ohms.
- Protector shall be internally fused.
- Protector shall be transparent to audio signal.
- Must be compatible with nominal speaker impedances of four or eight Ohms.
- ONE YEAR WARRANTY. Replacement units are sent from factory, located in Deer Park, New York, USA.

1.2 STANDARDS

The specified suppressor shall be designed, manufactured, tested and installed in compliance with:

- Institute of Electrical and Electronic Engineers IEEE-472
- Federal Communications Commission Docket 68
- Bellcore standards 974 and 1089
- National Fire Protection Association (NFPA 20, 70, 75 and 78)
- Underwriters Laboratories (497B) listed
- CAN/C22.2 No. 8-M1986; CSA Electrical Certification Notice No. 516

1.3 PROTECTED EQUIPMENT ELECTRICAL REQUIREMENTS**1.3.1 Environmental Requirements****A. Operating Requirements:**

1. Operating temperature range shall be -55°C to 65°C.
2. Storage temperature range shall -55°C to 75°C.
3. Operation shall be reliable in an environment with 0% to 95% non-condensing relative humidity.
4. The system shall be capable of operation up to an altitude of 13,000 feet above sea level.

1.3.2 Electrical Requirements**A. Electrical Requirements:**

1. Preferred method of ground connection, protector to protected device chassis, 6" or less lead length.
2. Standard Voltage ratings available shall be 6V, 12V, 25V, 36V, 55V, 100V, 150V, and 180V and the attenuation less than 1 db @ 10 MHz for DLP-25 Heavy Duty, Standard Duty, and Light Duty models. For the DLP-25AMP amplifier protector series, protector must be able to be used with stereo amplifiers rated at up to 300 Watts rms output into 4 or 8 Ohms.
3. The transient suppression capability shall be bi-directional and suppress both positive and negative impulses.

4. The suppressor shall be designed so as to minimize the internal surge path impedance. Direct point-to-point internal wiring is inherently inductive and not acceptable. Connection to the protected device shall be constructed as shown in the installation notes for best performance.
5. Equipment shall be as manufactured by MCG Surge Protection; Model: DLP-25/DLP-25AMP or engineering department approved equal with supporting data.

2.0 ENCLOSURE AND DIMENSIONS

A. Enclosure: Aluminum

B. Dimensions: 2.95”L x 2.83”W x 1.86”D (74.9mm L x 71.9mm W x 47.3mm D)

3.0 INSTALLATION AND MAINTENANCE

- A.** The unit shall be installed in accordance with the manufacturer's printed instruction to maintain warranty. All local and national codes must be observed.
- B.** Units shall be installed as close as possible to the device to which it is connected
- C.** Detailed installation/maintenance notes shall be provided to insure safety of maintenance personnel.

4.0 20 YEAR WARRANTY (on DLP-25 5-wire heavy duty, standard duty, and light duty protector series)

Manufacturer to provide 20-year warranty to cover repair or replacement with a new device. Manufacturer to provide no cost replacement of DLP-25. Restrictions apply. See “Warranty & Limitations of Liability”, document part No. 299-200-06.

4.1 1 YEAR WARRANTY (on DLP-25AMP Amplifier protector series)

Manufacturer to provide 1-year warranty to cover repair or replacement with a new device. Manufacturer to provide no cost replacement of DLP-25AMP Amplifier protector series.