

## DLP-20HH

### Heavy Duty Surge Protection Device

(Hybrid Models with model name buildup DLP-20HH-xxxV5)

For protecting Instrumentation, Control Circuits, and PLC I/O ports

#### 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 application where universal termination connectors are required. Tested & certified per UL497B. The specified surge protective device shall provide:

- 20,000 A (8/20us) per wire. Ipeak ratings must be independently tested & verified.
- All signal lines protected with respect to chassis ground.
- Must be provided with #6 screw terminals for hard-wire termination.
- Series resistance less than 6 Ohms per wire.
- DIN rail mounting available.
- TWENTY 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 -40 to +85 degrees C (-40 to +185 degrees F).
2. Storage temperature range shall be -40 to +85 degrees 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.
2. Protector voltages available shall be 6, 8, 12, 15, 25, 36, 55, 100, 150, and 180 Volts and the attenuation less than 1 db @ 10 MHz.

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. 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-20HH or engineering department approved equal with supporting data.

## 2.0 PROTECTION SYSTEM

- A. Protection Modules:** The suppressor shall be constructed as a low profile, high-impact 94V.0 flammability, plastic module. The suppressor shall provide, for entering signal wire, a high speed avalanche diode and a gas discharge tube. Care should be taken to adhere to installation notes supplied with protector that requires a short (6" or less) direct connection to ground.
- B. Enclosure:** UL 94V.0 high-impact plastic.
- C. Dimensions:** 5.0"x 2.8"x 1.1"

## 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.
- D.** Repair time should not exceed 5 minutes.

## 4.0 20 YEAR WARRANTY

Manufacturer to provide 20-year warranty to cover repair or replacement with a new device. Manufacturer to provide no cost replacement of DLP-20HH. Restrictions apply. See "Warranty & Limitation of Liability".