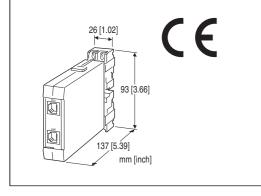
## Lightning Surge Protectors for Electronics Equipment M-RESTER

# LIGHTNING SURGE PROTECTOR FOR ISDN CIRCUIT USE

#### Functions & Features

• Designed specifically to protect devices connected to ISDN circuit from lightning surges



## **MODEL: MD-INS**

#### **ORDERING INFORMATION**

Code number: MD-INS

## **GENERAL SPECIFICATIONS**

Construction: Plug-in Connection ISDN circuit: Modular jack or M3.5 screw terminals (torque 0.8 N·m) Grounding: M3.5 screw terminals (torque 0.8 N·m) Modular jack cord: 6-pole, 2-core Screw terminal: Nickel-plated steel Housing material: Flame-resistant resin (black)

## INSTALLATION

Operating temperature: -5 to +55°C (23 to 131°F) Operating humidity: 30 to 90 %RH (non-condensing) Mounting: Surface or DIN rail; Standard Rack Mounting Frame BX-16H available Weight: 150 g (0.33 lb)

## PERFORMANCE

Discharge voltage (peak voltage) Line to line: ±65 V min. Line to ground: ±290 V min. Maximum surge voltage Line to line: ±100 V max. (The maximum voltage that could pass through M-RESTER.

Line to ground: ±650 V max.

Protected equipment must be able to withstand this voltage for very short time period.)

**Response time**:  $\leq 0.1 \ \mu sec$ .

#### Leakage current

Line to line:  $\leq$  50 µA at ±65 V DC

Line to ground:  $\leq$  50 µA at ±140 V DC

#### Discharge current capacity

Modular jack connection: 500 A (8 / 20 µsec.)

Screw terminal connection: 10000 A (8 / 20 µsec.)

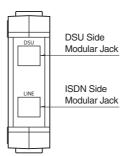
Max. load current: 100 mA

Internal series resistance: Approx. 4  $\Omega$  including return Maximum line voltage: ±65 V

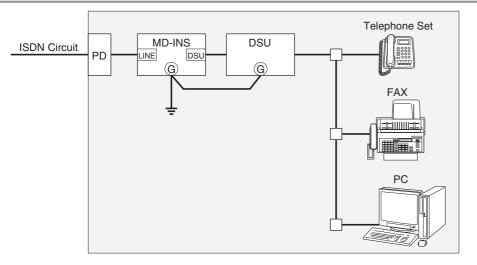
## **STANDARDS & APPROVALS**

**EU conformity**: RoHS Directive

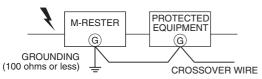
## **EXTERNAL VIEW**



## **CONNECTION EXAMPLES**



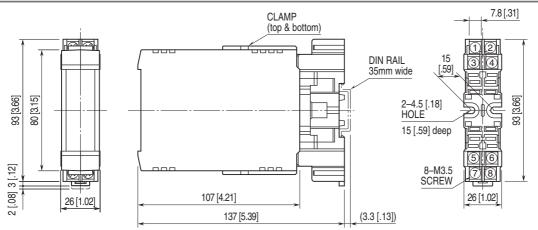
## GROUNDING



A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection. If the protected equipment has no ground terminal, ground the M-RESTER only.

## MODEL: MD-INS

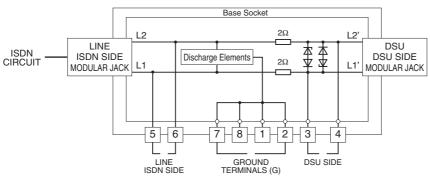
#### EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



•When mounting, no extra space is needed between units.

## SCHEMATIC CIRCUITRY

 $\mathbb{A}$ 



Be sure to cross-wire between the G terminal of telephone set and one of the terminals 7, 8, 1, or 2 of the MD-INS.

Specifications are subject to change without notice.