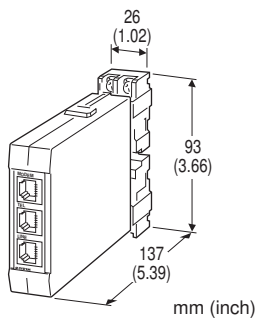


**Lightning Surge Protectors for  
Electronics Equipment M-RESTER**

**LIGHTNING SURGE PROTECTOR  
FOR TELECOMMUNICATION LINE USE**

**Functions & Features**

- Designed specifically to protect telecommunication equipment from lightning surges entering through telecommunication line network
- Easy connection with protected equipment with modular jacks
- Connection with a telephone and a modem in parallel



Line to ground:  $\pm 350$  V max.

**Maximum surge voltage**

Line to line:  $\pm 650$  V max.

Line to ground:  $\pm 900$  V max.

(The maximum voltage that could pass through M-RESTER. 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:  $\leq 100$   $\mu$ A @  $\pm 160$  V DC

Line to ground:  $\leq 100$   $\mu$ A @  $\pm 160$  V DC

**Discharge current capacity:** 1000 A (8 / 20  $\mu$ sec.)

(Modular jack contact welding is out of the scope of this protection. (The surge protector still works even when welding.))

**Maximum load current:** 500 mA

**Internal series resistance:** Approx. 0.1  $\Omega$  including return

**MODEL: MD-TL**

**ORDERING INFORMATION**

- Code number: MD-TL

**GENERAL SPECIFICATIONS**

**Construction:** Plug-in

**Connection:**

Line: Modular jack

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 lbs)

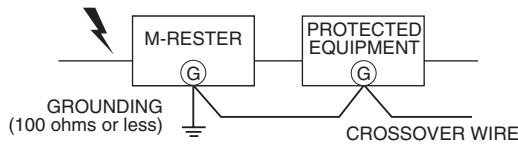
**PERFORMANCE**

**Discharge voltage (peak voltage)**

Line to line:  $\pm 270$  V min.

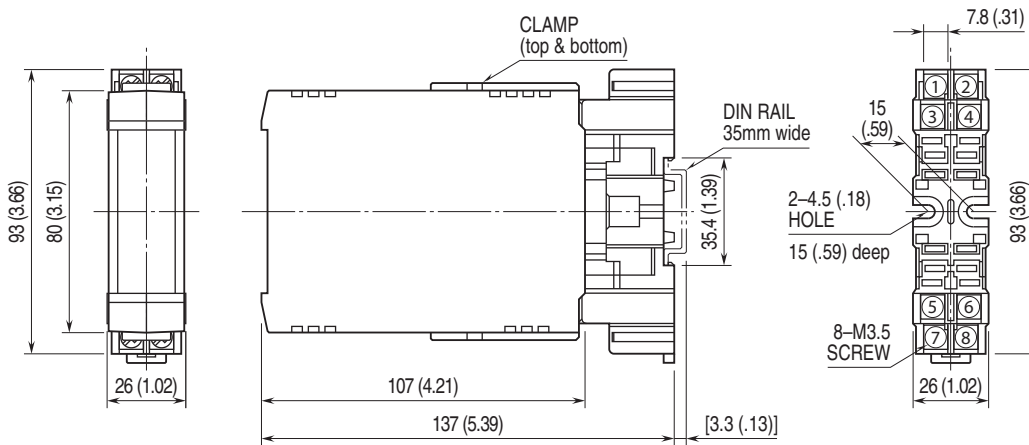


## GROUNDING



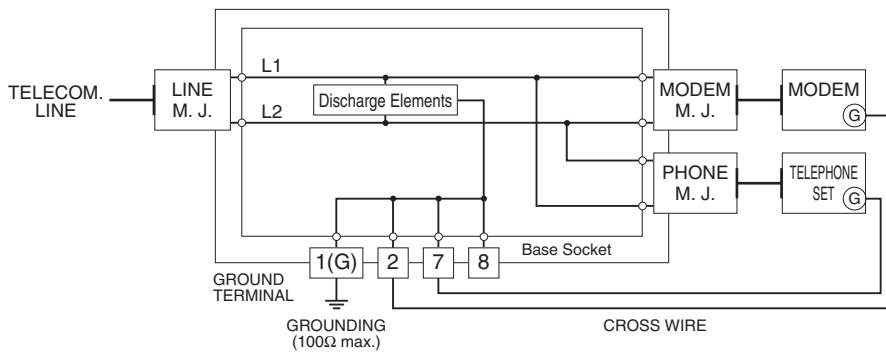
A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection.  
If the protected equipment has no ground terminal, ground the M-RESTER only.

## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Be sure to cross-wire between G terminals of modem / telephone set and the terminals 2 & 7 of the MD-TL.



Specifications are subject to change without notice.

