

**Lightning Surge Protectors for Electronics Equipment M-RESTER****LIGHTNING SURGE PROTECTOR FOR POWER SUPPLY USE  
(2A)**MODEL **MA-100  
MA-200****MODEL & SUFFIX CODE SELECTION**MA-100   
MA-200 

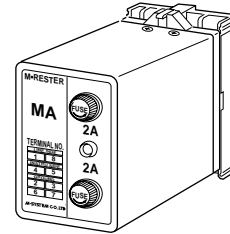
MODEL \_\_\_\_\_

MA-100 : 2A, 100V/110V/120V AC line voltage use

MA-200 : 2A, 200V/220V/240V AC line voltage use

OPTIONS \_\_\_\_\_

/CE: CE marking

**Functions & Features**

- Designed specifically for AC power supplies up to 2 amps
- No degradation of normal (50/60 Hz) line frequency
- Power indicator lamp provided

**ORDERING INFORMATION**

Specify code number. (e.g. MA-100)

**GENERAL SPECIFICATIONS****Construction:** plug-in**Connection:** M3.5 screw terminals  
(chromated steel; torque  $\leq 0.8$  N·m)**Housing material:** flame-resistant resin (black)**Monitor lamp:** green neon lamp turns on when power is supplied.**INSTALLATION****Operating temperature:** -5 to +55°C (23 to 131°F)**Operating humidity:** 30 to 90% RH (non-condensing)**Mounting:** surface or DIN rail**Dimensions:** W50×H85×D119.5 mm  
(1.97"×3.35"×4.70")**Weight:** 330 g (0.73 lbs)**PERFORMANCE****Discharge voltage (peak-to-peak)****Between lines:** 190V min. (MA-100)

410V min. (MA-200)

**Line to ground:** 410V min.**Maximum surge voltage (peak-to-peak)\*****Between lines:** 350V max. (MA-100)

700V max. (MA-200)

**Line to ground:** 700V max.

\*The maximum voltage that could pass through M-RESTER. Protected equipment must be able to withstand this voltage for very short time period.

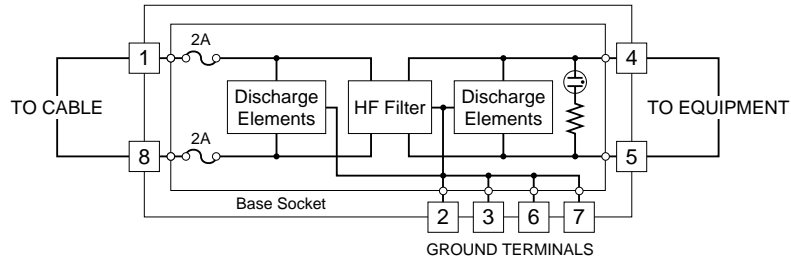
**Response time:**  $\leq 0.1$  microseconds**Discharge current capacity:** 1000A (8 / 20  $\mu$ sec.)**Maximum load current:** 2A**Voltage drop:**  $\leq 2$ V (50/60 Hz)**Leakage current****Between lines:**  $\leq 1$ mA at 150V DC (MA-100) $\leq 1$ mA at 300V DC (MA-200)**Line to ground:**  $\leq 1$ mA at 300V DC**Rated line voltage:**

100V/110V/120V AC (MA-100)

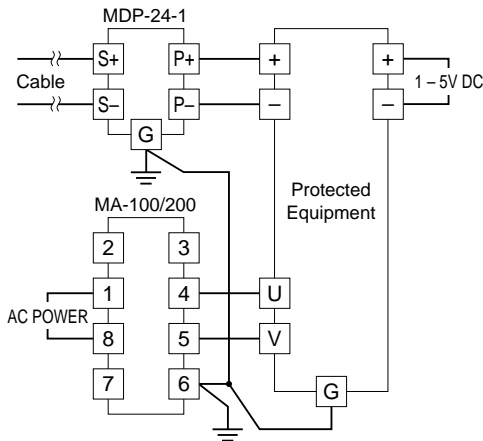
200V/220V/240V AC (MA-200)

**CE conformity (Europe):** 89/336/EEC. Electromagnetic Compatibility (EMC) Directive

**SCHEMATIC CIRCUITRY**



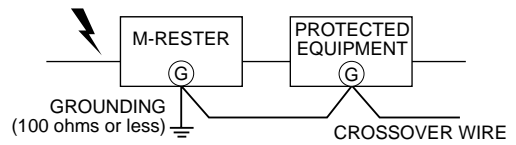
**CONNECTION DIAGRAM**



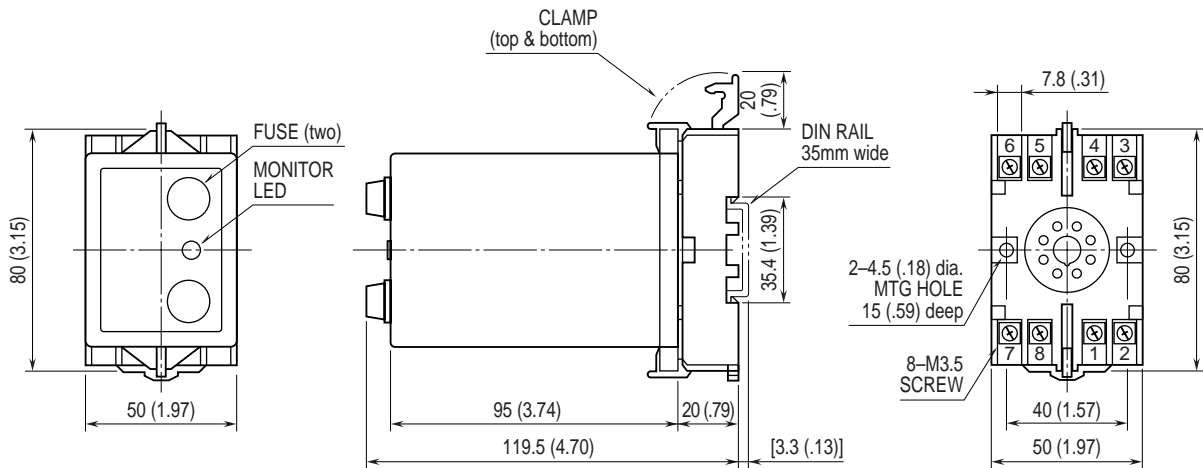
Ground one of the terminals 2, 3, 6 and 7.

**GROUNDING**

A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection.



**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENT mm (inch)**



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