MM·SYSTEM CO.,LTD.

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 -

 $\begin{array}{ll} \textbf{MA-100} &: 2A,\, 100V/110V/120V \,AC \,\, line \,\, voltage \,\, use \\ \textbf{MA-200} &: 2A,\, 200V/220V/240V \,AC \,\, line \,\, voltage \,\, use \\ \end{array}$

ORDERING INFORMATION

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

GENERAL SPECIFICATIONS

Construction: plug-in

Connection: M3.5 screw terminals

 $\label{eq:chromated steel} \begin{tabular}{ll} (chromated steel; torque \le 0.8 \ N\cdot m) \\ \begin{tabular}{ll} Housing material: flame-resistant resin (black) \\ \begin{tabular}{ll} Monitor lamp: green neon lamp turns on when \\ \begin{tabular}{ll} (chromated steel) & (chromated steel) &$

power is supplied.

INSTALLATION

Operating temperature: -5 to +55°C (23 to $131^\circ F$) Operating humidity: 30 to 90% RH (non-condensing)

Mounting: surface or DIN rail **Dimensions**: W50×H85×D119.5 mm $(1.97"\times3.35"\times4.70")$

Weight: 330 g (0.73 lbs)



7)

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

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: ≤0.1 microseconds

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

Maximum load current: 2AVoltage drop: $\leq 2V (50/60 \text{ Hz})$

Leakage current

Between lines: ≤1mA at 150V DC (MA-100)

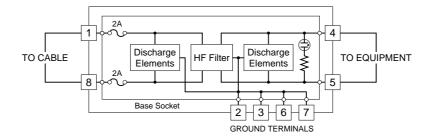
 $\leq 1 mA \ at \ 300V \ DC \ (MA-200)$ Line to ground: $\leq 1 mA \ at \ 300V \ DC$

Rated line voltage:

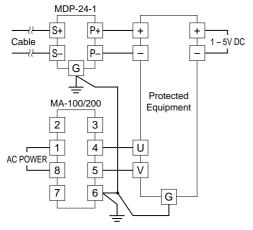
100V/110V/120V AC (MA-100) 200V/220V/240V AC (MA-200)

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

SCHEMATIC CIRCUITRY



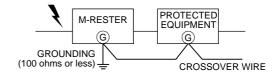
CONNECTION DIAGRAM



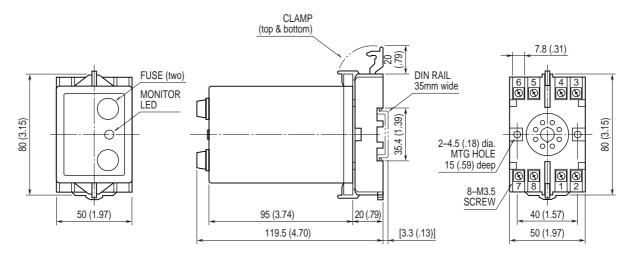
Ground one of the terminals 2, 3, 6 and 7.

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.