

## Lightning Surge Protectors for Electronics Equipment M-RESTER

### LIGHTNING SURGE PROTECTOR FOR POWER SUPPLY USE

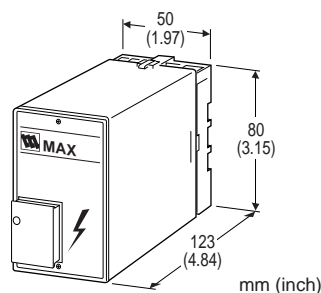
(5 A; high discharge current capacity)

#### Functions & Features

- Designed specifically for AC power supplies up to 5 A
- Discharge current capacity 10000 A
- Absorbing surges only without affecting instrumentation signal
- No power supply interruption even when the surge absorber is broken
- Relay contact turns ON with surge absorber failure
- Surge absorber element replaceable without power interruption

#### Typical Applications

- High discharge current capacity is beneficial for use in area with frequent lightnings



### MODEL: MAX-[1]

#### ORDERING INFORMATION

- Code number: MAX-[1]
- Specify a code from below for [1].  
(e.g. MAX-100)

#### [1] OPERATIONAL VOLTAGE

100: 100 V / 110 V / 120 V AC

200: 200 V / 220 V / 240 V AC

#### RELATED PRODUCTS

- Lightning surge protector for standard signal line use (model: MMD-24)
- Surge absorber element (model: MEL)

#### GENERAL SPECIFICATIONS

**Construction:** Plug-in

**Connection:** M3.5 screw terminals (torque 0.8 N·m)

**Screw terminal:** Chromated steel

**Housing material:** Flame-resistant resin (black)

**Alarm indicator:** Surge absorber failure indicator turns white when the fuse is blown.

**Alarm contact:** Turns ON with surge absorber failure (when the fuse is blown or when the surge absorber element is extracted.)

#### • Rating:

125 V AC @1 A (cos  $\phi$  = 1)

30 V DC @1 A (resistive load)

• **Maximum switching voltage:** 220 V AC, 250 V DC

• **Maximum switching power:** 125 VA, 100 W

• **Minimum load:** 5 V DC @1 mA

#### INSTALLATION

**Operating temperature:** -10 to +55°C (14 to 131°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Surface or DIN rail

**Weight:** 470 g (1.04 lb)

#### PERFORMANCE

##### Discharge voltage (peak-to-peak)

Line to line:

≥ 190 V (MAX-100)

≥ 410 V (MAX-200)

Line to ground: ≥ 640 V

##### Maximum surge voltage

Line to line:

≤ 350 V (MAX-100)

≤ 700 V (MAX-200)

Line to ground: ≤ 800 V

(Withstand voltage of protected equipment between circuit and metal housing must be 1000 V AC or more.)

Note: This is 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:** ≤ 0.01  $\mu$ sec.

##### Leakage current

Line to line:

≤ 1 mA at 150 V DC (MAX-100)

≤ 1 mA at 300 V DC (MAX-200)

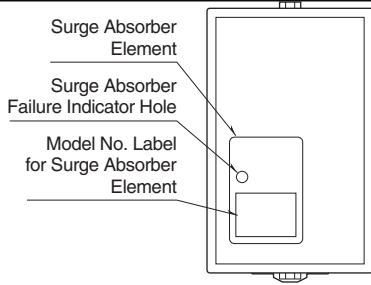
Line to ground: ≤ 1 mA at 300 V DC

**Discharge current capacity:** 10000 A (8/ 20  $\mu$ sec.)

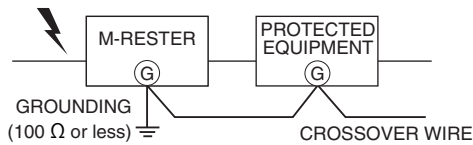
**Maximum load current:** 5 A

**Internal series resistance:** ≤ 0.5  $\Omega$  including return

## EXTERNAL VIEW

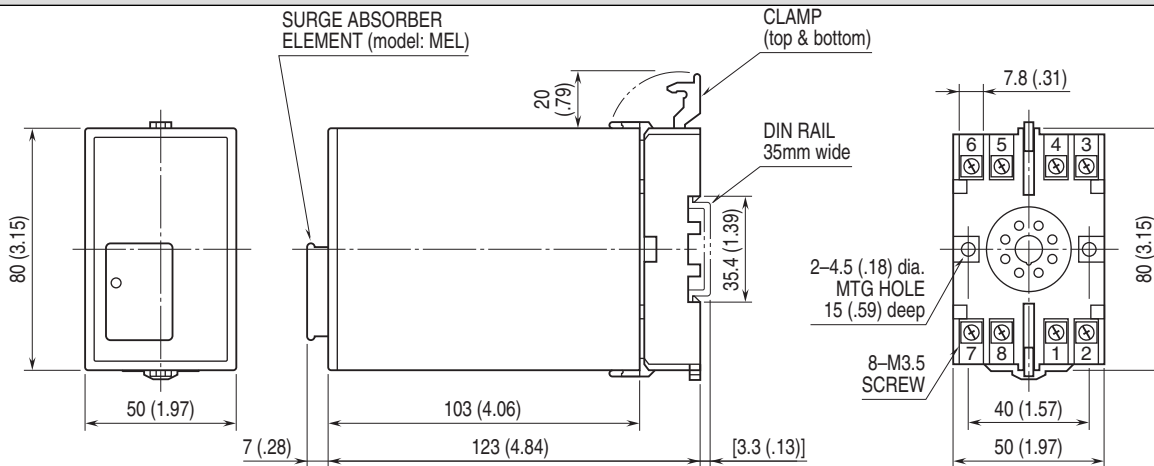


## GROUNDING



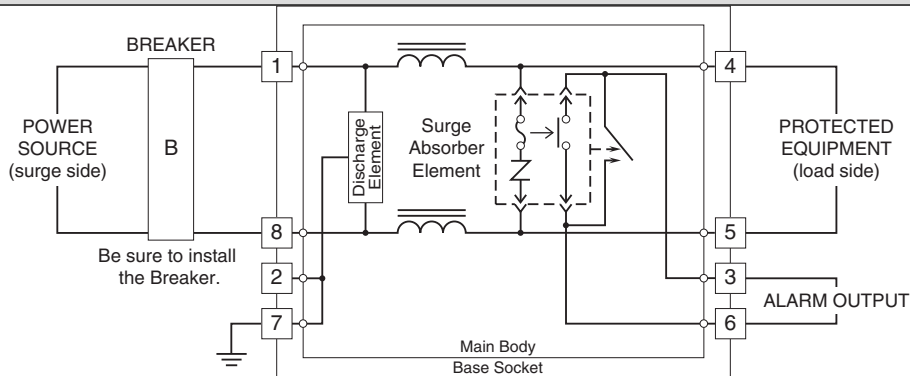
A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection.

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



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

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.