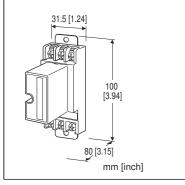
# Lightning Surge Protectors for Electronics Equipment M-RESTER

# LIGHTNING SURGE PROTECTOR FOR SELF-SYNCH USE

#### **Functions & Features**

- Designed specifically for self-synchronizing motor circuit
- Protects self-synch transmitter and converter from damage caused by surges on the wiring
- Absorbs surges only without affecting instrumentation signal
- No interruption of signal by unplugging the protector element



MODEL: MDP-JS[1]

## **ORDERING INFORMATION**

• Code number: MDP-JS[1]

Specify a code from below for [1].

(e.g. MDP-JS/A33/Q)

• Specify the specification for option code /Q

(e.g. /C01)

# [1] OPTIONS (multiple selections)

## **DIN Rail Mounting Adapter**

blank: Without

/A33: With adapter (model A-33)

Other Options blank: none

/Q: Option other than the above (specify the specification)

## **SPECIFICATIONS OF OPTION: Q**

COATING (For the detail, refer to our web site.)

/C01: Silicone coating /C02: Polyurethane coating /C03: Rubber coating

### **GENERAL SPECIFICATIONS**

Construction: Plug-in

Connection: M4 screw terminals (torque 0.8 N·m)

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

Weight: 100 g (0.22 lb), standard; 125 g (0.28 lb), with DIN

rail mounting adapter

#### **PERFORMANCE**

Max. continuous operating voltage (Uc):

A to B to C: ±170 V Line to earth: ±290 V Voltage protection level (Up):

@ 1 kV (100 A)
1 to 2 to 3: ±350 V
Line to earth: ±650 V
@ 2 kV (1 kA)
1 to 2 to 3: ±450 V
Line to earth: ±800 V

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

Leakage current:

A to B to C:  $\leq$  50  $\mu$ A @  $\pm$ 170 V DC Line to earth:  $\leq$  50  $\mu$ A @  $\pm$ 290 V DC

Max. discharge current (Imax):  $5000 \text{ A} (8 / 20 \mu \text{s})$ 

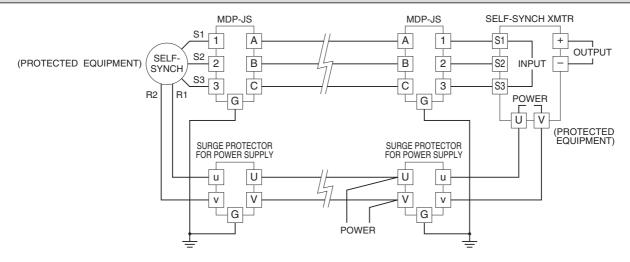
Nominal current (I<sub>N</sub>): 500 mA

Internal series resistance: Approx. 2  $\Omega$  (per wire)

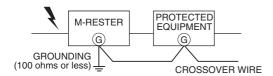
Rated line voltage: 90 V AC Capacitance @ 1 MHz: Line to line: ≤ 1.5 nF Line to earth: ≤ 50 pF

Surge protection: IEC 61643-21 Categories C1, C2, D1

## **CONNECTION EXAMPLES**



# **GROUNDING**

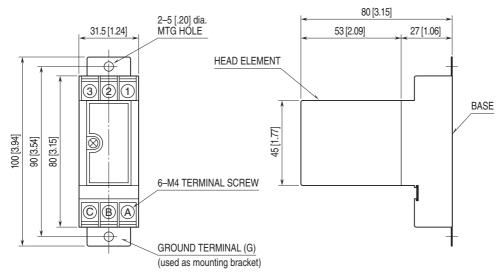


A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection. If the protected equipment has no ground terminal, ground the M-RESTER only.

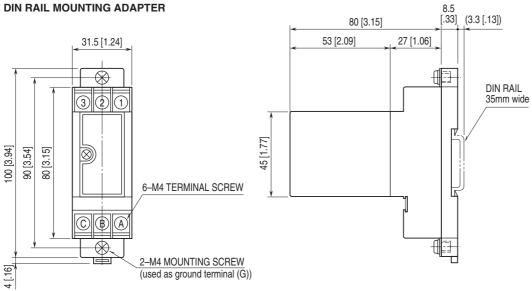
When the M-RESTER is mounted with DIN Rail Mounting Adapter, connect the grounding wire to the mounting screw of the M-RESTER.

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

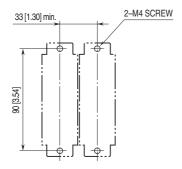
#### **■ STANDARD**



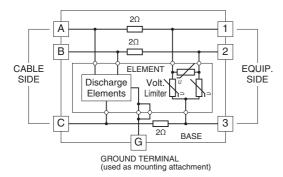
#### ■ WITH DIN RAIL MOUNTING ADAPTER



# MOUNTING REQUIREMENTS unit: mm [inch]



## **SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**





Specifications are subject to change without notice.