

# EI-MSB10-400 Surge Protector

Protects Critical Substation Equipment



## Features

- Designed to protect critical substation equipment from damaging transients.
- Utilizes a multi-stage protection scheme designed to improve equipment reliability by shunting and absorbing dangerous spikes and surges before they reach the electronics of the installed equipment.
- Use for protection of relays, meters, panel alarms, or any other critical equipment.
- Fully compliant with IEC61643-1 and EN61643-11, Class 2 or Class 3 Test.
- Internal Thermal Fusing - see figure on back.
- Designed to show when unit needs replacement.
- The EI-MSB10-400 has an LED to provide a replacement alert:
  - When the LED is On, the EI-MSB10-400 is in normal operation and is providing surge protection.
  - When the LED is Off, the EI-MSB10-400 needs to be replaced.

## Description

The EI-MSB10-400 has been designed specifically to protect substation equipment from dangerous spikes and transients. It absorbs the event utilizing a multi-stage transient suppression scheme, before critical equipment is reached. This unit is very low cost and is essential to significantly improve equipment reliability. The EI-MSB10-400 is connected by wires in parallel with the network to be protected. It can be mounted easily on a wall or plate with self-adhesive tape. See the back of this page for installation instructions.

## General Application

The EI-MSB10-400 surge protector is designed to protect sensitive equipment from the damaging effects of lightning strikes and/or industrial switching surges in single phase AC networks up to 320 V AC (L-N/L-G), and DC networks up to 400 V DC.

## Installation

- 1. Confirm Power Service** – Compare voltage measurements of your system to the line voltage (L-N or L-G) listed on the product label.
- 2. Disconnect Power** – Turn off all power supplying the distribution panel or meter before installing the EI-MSB10-400.
- 3. Mount Protector** – Flanges are provided to mount the EI-MSB10-400 to a flat surface. Install the EI-MSB10-400 at the electrical switchboard or electrical meter, downstream of the main circuit breaker, as close as possible to the protected device. A 20 A time delay fuse or circuit breaker should be used to provide over-current protection for each phase conductor.
- 4. Wire to Service Panel** – Connect leads of the EI-MSB10-400 to the corresponding electrical terminal lug as follows:
  - Red Conductor (Phase/Neutral).
  - Blue Conductor (Phase/Neutral).
  - Green/Yellow Conductor (Ground).
- 5. Restore Power** – Confirm Green LED is lit. The EI-MSB10-400 is properly installed and protection is present.

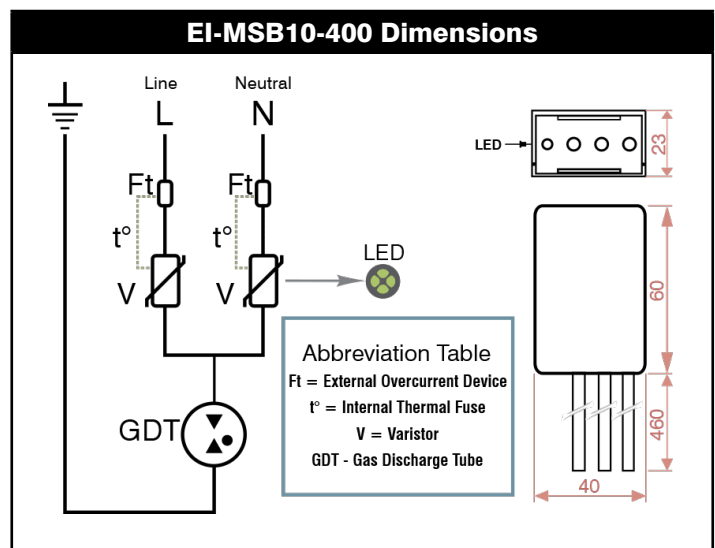
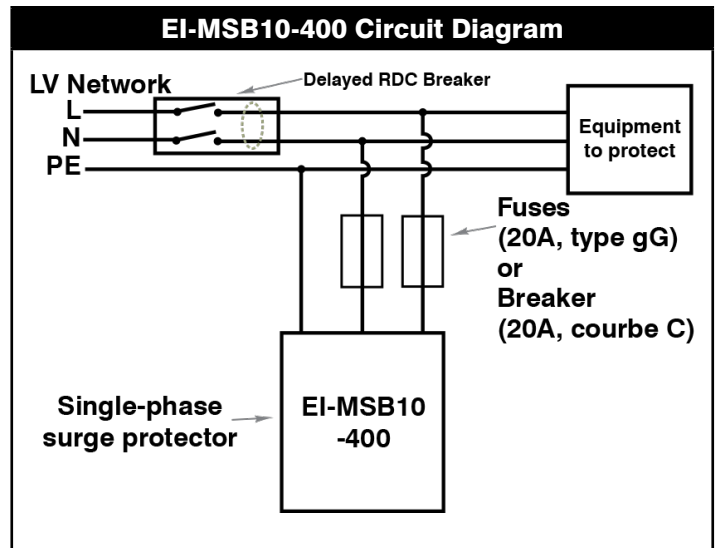
## Earth Grounding Connection

The green/yellow earth conductor must be connected to the grounding system of the facility by the most direct path, and in accordance with national and local electrical codes.

## Maintenance

EI-MSB10-400 Surge Protectors are maintenance free. The unit automatically resets after each transient event. If the EI-MSB10-400 sustains internal damage due to a catastrophic surge or long duration over voltage:

- The internal fuse will open and the EI-MSB10-400 will safely disconnect itself from the power line.
- The green LED will be off, indicating the EI-MSB10-400 must be replaced.



Specifications and Ordering Information	
AC Operational Voltage Max	320 V AC
DC Operational Voltage Max.	400 V DC
Clamping Voltage	1.5 kV
Discharge Current (15 times - 8/20μs)	3 kA
Discharge Current Max	10 kA
Model Number	EI-MSB10-400



1800 Shames Drive, Westbury, NY 11590  
**1-877-EIMETER** (1-877-346-3837) | **Tel:** 516-334-0870  
**Fax:** 516-338-4741 | **Email:** sales@electroind.com  
**www.electroind.com**

