TripSafe™

Enhanced Surge Protection and Monitoring for Networks

The TripSafe™ Monitoring and Protection Module for the MPCV relay adds enhanced surge protection to your network protectors that are subjected to unusually extreme transient activity.

TripSafe™ is designed to work with any MPCV Relay controlled network protector regardless of model or vintage. TripSafe™ provides enhanced transformer and network bus surge protection in addition to its ability to detect an unpowered MPCV relay.

TripSafe™ has an output TRIP contact that can be paralleled with the Network breaker trip contact to provide a backup trip mechanism for when bus voltages are sensed to be present and the MPCV is unpowered. It is engineered with appropriate algorithms to insure that noise or other disturbances will not cause nuisance tripping.

The TripSafe™ device has 4 dry contact outputs as described below:

- **TRIP:** Can be wired in parallel with the Network Breaker contact to trip the Network Protector in the event that the MPCV Relay is unpowered.

- **CLOSE:** For GE-type protectors. This contact provision should be wired in series with the GE close circuit to prohibit dead-network re-closure if TripSafe™ initiates a protector trip.

- **STATUS:** Monitors the status of the TripSafe™ and can be wired to a local indicator and/or a communications system as an alarm for when a trip is initiated.

- **PROTECT:** The TripSafe™ is designed to issue a contact closure if any of the surge protection circuitry is jeopardized, this contact can be used to signal a remote alarm via communications for maximum observability and reliability of your network.

For more information visit: www.eaton.com/nwp
**MPCV Network Protector Communicating Relay**

**Increase the capabilities of your Network Protectors**

The MPCV Network Relay brings the proven performance of a sequence based microprocessor design in order to give your NWPS in service the most intelligent relay available in the market.

**The advantages of the MPCV are:**

- **Gull Wing Trip Curve** - Built in 5 degree shift in trip curve for high X/R transformers
- **Anti-Pump Protection Algorithm** - Reduces pump- ing on Network Protectors per your setpoints
- **Sensitive and Non-Sensitive trip setpoints**
- **Built-in time delay function**
- **Circular Close option permits close at lower loads while assuring the watt flow is into the network**

**Remote operation & control**

- **Remote Open Block Open Command** - Trips and blocks Network Protector Open under wired or wireless communications
- **Protective Remote Closing Command** - Advanced Safety Algorithm insures a positive close without sacrificing safety
- **Advanced safety algorithms** insure that the MPCV always call for a trip under adverse system conditions

**Access and display information from the MPCV such as:**

- Voltages
- Currents
- Power Factor
- Status
- Temperature
- Phasing voltage
- Pos. sequence phase voltage (complex form)

**Designed for safety, communications, and ease of use**

Each MPCV relay is enclosed in a solid brass casted "25" submersible enclosure. LEDs on the front of the relay alert the user if the relay senses adversed or problematic conditions. Your operator can use the programmer to:

- Utilize the new capability of choosing from two selectable closing curves

**The circular close permits the network protector to close at lower loads while assuring the watt flow is into the network.**

**Communications Capability**

The MPCV Relay has the capability of communicating via DNP 3.0, Ethernet TCP/IP and 802.11 b/g protocols using VaultGard TM communication platform. The MPCV data can be transferred directly into the customer SCADA system.

**MPCV RELAY GUIDE**

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<th>Catalog #</th>
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<th>CT Configuration</th>
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<td>MPCV-D</td>
<td>CMD &amp; CM52</td>
<td>GRD-Y</td>
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<tr>
<td>6417C83G01</td>
<td>MPCV-22</td>
<td>CM52, CM-22, CMR-8</td>
<td>Energized*</td>
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<tr>
<td>6417C84G03</td>
<td>MPCV-2X</td>
<td>CM52, CM-22, CMR-8</td>
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<td>6417C84G01</td>
<td>MPCV-GE</td>
<td>MG8-9 &amp; MG-14</td>
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<td>NAS0129G01</td>
<td>MPCV-P</td>
<td>MV Substation Breaker</td>
<td>Customer Specific</td>
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</tbody>
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* Note: CT’s in network protector can be converted to GRD-Y configuration in order to accept MPCV-2X.

**The Benefits of a Microprocessor Design**

Our enhanced sequence filtering algorithm provides exceptional performance and stability over a wide range of temperatures and voltages in comparison with a power-based algorithm.

**Selectivity of the Extreme Nonsensitive Trip Region**

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