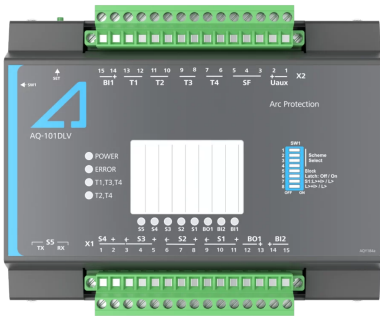


AQ-101DLV Arc flash protection device

Description



The AQ-101DLV arc flash protection device is a sophisticated microprocessor-based arc flash protection unit for arc light detection. It is designed to minimize the damage caused by an arcing fault (arc flash) by tripping the circuit breaker that sources the fault current. The complete system self-supervision function of AQ-101DLV provides the highest level of dependability by continuously monitoring all internal system functions as well as with external connections.

The AQ-101DLV arc flash protection device acts as a sub-unit to AQ-110P (or, AQ-110PLV) in an AQ 100 arc protection system. It can also function as a stand-alone unit in light-only systems.

Highlights:

- Easy DIN rail installation.
- A wide range for the power supply (18...72 V DC **or** 92...265 V AC/DC).
- Max. 12 arc light point sensors (3 point sensors per channel) and 1 fiber loop sensor (optional) per device.
- 4 trip relays (with 7 ms total trip time).
- Complete system self-supervision.
- 2 binary inputs and 1 binary output.
- A multifunction push button ("SET") with auto-configuration, indication reset, and system check.
- 12 indication LEDs.

Learn more about how different protection techniques affect the consequences of an arc flash:

"Arc flash comparison" by Arcteq Relays (https://youtu.be/EUIZ_a_rclg)

Technical data

PROTECTION

- Light only
- Light and pressure
- Circuit breaker failure protection (50BF/52BF)
- Total trip time: 7 ms

APPLICABLE SENSORS

- AQ-01 light sensor (activation thresholds: 8 klx, 15 klx, 50 klx)
- AQ-02 light and pressure sensor (activation thresholds: 8 klx, 15 klx, 50 klx)
- AQ-06 plastic fiber sensor (3...40 m)
- AQ-07 glass fiber sensor (3...50 m length)
- AQ-08 glass fiber sensor (3...15 m)

INPUTS AND OUTPUTS

Trip relays (T1, T2, T3, T4)

- 4 NO or 3 NO + 1 NC
- Rated voltage: 250 V AC/DC
- Continuous carry: 5 A
- Make-and-carry for 3 s: 16 A
- Make-and-carry for 0.5 s: 30 A

Binary output (B01)

- Number of outputs: 1
- Rated voltage: +24 V DC

Binary inputs (BI1, BI2)

- Number of inputs: 2
- Threshold voltage: 24 V DC
- Rated voltage: 250 V AC/DC

Power supply

- Auxiliary power supply: 92...265 V AC/DC
- Auxiliary power supply: 18...72 V DC (optional)

HMI

12 indication LEDs

Multi-function push button (SET) with auto-configuration, indication reset, and system check

SELF-SUPERVISION

Internal functions:

- Power supply
- Trip coil
- Internal voltages
- Settings

External connections:

- Sensors and wiring
- Binary I/O

SYSTEM CONNECTIVITY

- AQ 100 series
- AQ 200 series
- AQ 300 series

Application Drawing

