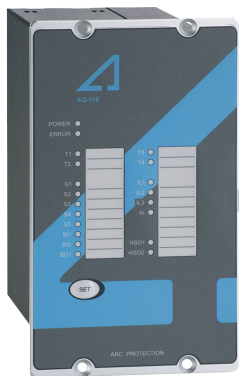


## AQ-110F Arc fiber sensor unit with overcurrent



AQ 110 is a sophisticated micro-processor based arc flash protection unit with combined current and arc sensing. Combined current and arc sensing provides an integrated dual trip criteria. It is designed to minimize the damage caused by an arcing fault (arc flash) by tripping the circuit breaker sourcing the fault current. The AQ 110 complete system self-supervision function provides the highest level of dependability by continuously monitoring all internal system functions along with external connections.

AQ 110 is a multipurpose arc flash protection unit and can be applied for variety of applications. AQ 110 can be used as a stand-alone unit or as a main unit of a more complex arc protection system through the binary bus.

AQ 110 comes in two versions, AQ 110F and AQ 110P.

Features:

- Wide range power supply (18-72Vdc or 80-265Vac/dc)
- 3 phase current detection
- Residual current detection
- Max 12 arc light point sensors and 1 fiber loop sensor (AQ 110P)
- Max 3 fiber loop sensors (AQ 110F)
- Connectivity to AQ 2000 arc quenching system
- 2 high Speed Outputs (2ms trip time)
- 4 trip relays (7ms trip time)
- 1 system failure relay
- 1 fast binary output
- 2 fast binary inputs
- 1 push button
- Non-volatile memory
- 20 indication LEDs

## Technical Data

### PROTECTION

50ARC Overcurrent

## AQ-110F Arc fiber sensor unit with overcurrent

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50NARC Earthfault

Light L>

Light and Pressure L>/P>

Circuit Breaker Failure Protection 50BF

Trip time using mechanical trip relays: 7 ms

Reset time (arc light stage)

Protection operational after power up

## I/O

Applicable sensors: max. 3 sensors fibers

AQ 06 plastic fiber sensor (5-50m length) (option)

AQ 07 glass fiber sensor (5-60m length) (option)

Trip Relays T1, T2, T3, T4

Number: 3 NO + 1 NC or 4 NO

Rated voltage: 250V ac/dc

Continuous carry 5A

Make and carry for 0.5s: 30A

Make and carry for 3s: 16A

Breaking capacity DC, when time constant L/R=40ms: 40W; 0.36A at 110 Vdc

Contact material: AgNi 90/10

Rated voltage: +24V dc

Rated current: 20mA (max)

Number of outputs: 1

Binary Inputs BI1, BI2

Threshold Voltage voltage : 24 or 110 or 220Vdc

Rated Voltage: 250 V

Rated current: 3 mA

Number of inputs: 2

Power supply

Us: 80...265Vac/dc (option 18...72Vdc)

AQ-110F Arc fiber sensor unit with overcurrent

Maximum interruption: 100ms

Maximum power consumption: 5W

Standby current: 90mA

## HMI

Indication LEDs: 20

Multifunction push button

Autoconfiguration

Indication reset

System check

## SELF SUPERVISION

Sensors and wiring

Binary I/O

Trip coil

Power supply

Internal voltages

Settings

CT connections

## SYSTEM CONNECTIVITY

AQ 1000 Quenching device

AQ 2000 Quenching device

AQ 200 series

AQ 300 series

AQ 100 series

See AQ SAS manual

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## Application Drawing

