

## AQ-102 Arc flash protection



AQ 102 is a sophisticated micro-processor 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 sourcing the fault current. The AQ 102 complete system self-supervision function provides the highest level of dependability by continuously monitoring all internal system functions along with external connections.

## Technical Data

### PROTECTION

ARC

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): 2 ms

Protection operational after power up: 88 ms

### I/O

Applicable sensors: max. 3 sensor loops

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

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

## AQ-102 Arc flash protection

42technology AG (Ltd.)  
Bützbergstrasse 2c  
CH-4912 Aarwangen  
Tel: +41(0) 62-923 79 93  
www.42technology.ch  
info@42technology.ch

### 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

### Binary Output B01

Rated voltage: +24V dc

Rated current: 20mA (max)

Number of outputs: 1

### Binary inputs B11, B12

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)

Maximum interruption: 100ms

Maximum power consumption: 5W

Standby current: 90mA

### HMI

12 Indication LED's

Autoconfiguration

Indication reset

System check

AQ-102 Arc flash protection

42technology AG (Ltd.)  
Bützbergstrasse 2c  
CH-4912 Aarwangen  
Tel: +41(0) 62-923 79 93  
www.42technology.ch  
info@42technology.ch

## SELF SUPERVISION

Sensors and wiring

Binary I/O

Trip coil

Power supply

Internal voltages

Settings

## SYSTEM CONNECTIVITY

AQ 200 series

AQ 300 series

AQ 100 series

[Link to AQ SAS manual](#)

Application Drawing

