ARCON® arc fault protection
Arc fault protection system in the event of internal
switchgear faults, to protect people and systems!
In order to protect people and systems in accordance with
DIN EN 61439-2, supplement 1, and VDE 0660-600-2, supplement 1, it is
necessary to install an arc fault protection system,
consisting of sensors, an evaluation unit and
a quenching device. In the event of an arc fault,
a switching command is sent to the quenching device, while
the evaluation unit sends a trip signal to the
circuit breaker. The switchgear is immediately ready for operation again
once the cause of the fault has been rectified and the quenching device
has been replaced.
If installed with our xEnergy Main switchgear system,
ARCON® meets criteria 1-7 of IEC/TR 61641 ed.3 (2014),
as well as the requirement for unrestricted access with normal clothing
(cotton indicators with a density of 40 g/m² ± 20%) outlined in section 8.6.4,
even if the covers / doors and/or rear panels are open
(e.g., in the event of maintenance work)
Test short-circuit current: Ipc arc max. = 100 kA
Rated voltage Ue: 690 V
Rated short-time withstand current of the quenching device Icw: 85 kA / 1 s, 105 kA / 500 ms, 150 kA / 200 ms
In less than 2 ms, the arc fault is detected, electronically evaluated and then quenched by means of a 3-phase short circuit.

Electronic evaluation unit (master)
Electronic evaluation unit (master) for the arc fault protection system
for connecting 16 slaves and
1 current transformer set. For mounting in the
control panel door. Automatic self-monitoring
of the entire system, as well as status indication
with adjustable system configurations on the display.
For separate monitoring of two main busbar sections
and controlling the associated quenching devices (max. 2).
Supply voltage: 40 - 265 V / AC/DC
Power consumption: 20 W
Current input signal: 1 / 5 A
Seven relay outputs with 5 A / 230 V / AC/DC each (incl. Watchdog, Alarm, Trip status)
same as make/part no: Eaton / ARC-EM/2.0 or equivalent

Electronic current evaluation unit (slave)
Current sensors;
Electronic evaluation unit (slave) for the arc fault protection system
for connecting 1 current transformer set.
Automatic self-monitoring as well as LED status indication.
Supply voltage: 24 V / DC (usually via COM-cable to master unit)
3-phase input: 1 / 5 A
Trip contact output: 5 A / 230 V / AC/DC
same as make/part no: Eaton / ARC-EC1/2.0 or equivalent

Electronic fiber-optic evaluation unit (slave)
Electronic evaluation unit (slave) for the arc fault protection system
for connecting up to 3 linear light sensors.
Automatic self-monitoring as well as LED status indication.
Supply voltage: 24 V / DC (usually via COM-cable to master unit)
Optical inputs: 3
Trip contact output: 5 A / 230 V / AC/DC
same as make/part no: Eaton / ARC-EL3/2.0 or equivalent

Linear light sensor (11 m)
Special light sensor for detecting the light emitted
by an arc fault. Blue coating
for reduced sensitivity to light sources with an infrared
portion from 550 nm to 750 nm, such as camera flashes or halogen lamps.
The temperature resistance up to 125 °C
allows for optimized installation in the immediate vicinity of the busbar.
Total length: max. 11 m, active sensor range 6 m, color: blue
includes mounting clip, fixing bracket,
adhesive base and positioning aid for the light sensor
same as make/part no: Eaton / ARC-SL11/BL; ARC-CL095;
ARC-MB814; ARC-MKS; ARC-MFR; ARC-MF or equivalent

Linear light sensor (13 m)
Special light sensor for detecting the light emitted
by an arc fault. Blue coating
for reduced sensitivity to light sources with an infrared
portion from 550 nm to 750 nm, such as camera flashes or halogen lamps.
The temperature resistance up to 125 °C
allows for optimized installation in the immediate vicinity of the busbar.
Total length: max. 13 m, active sensor range 8 m, color: blue
includes mounting clip, fixing bracket,
adhesive base and positioning aid for the light sensor
same as make/part no: Eaton / ARC-SL13/BL; ARC-CL095;
ARC-MB814; ARC-MKS; ARC-MFR; ARC-MF or equivalent

Connecting cable to slave (1 m)
same as make/part no: Eaton / ARC-CC01 or equivalent

Connecting cable to slave (3 m)
same as make/part no: Eaton / ARC-CC03 or equivalent

Connecting cable to slave (5 m)
same as make/part no: Eaton / ARC-CC05 or equivalent

Connecting cable to quenching device
same as make/part no: Eaton / ARC-CCAT02

ARCON® quenching device
The arc fault is quenched by a 3-phase short circuit
directly at the main busbar in the feeder circuit.
The short response time of ≤ 2 ms after the occurrence of the arc fault
cuts off its power supply at the onset and thereby limits its destructive force.
Rated impulse-withstand voltage Uimp: 8 kV
Rated insulation voltage Ui: 1,000 V
Rated operational voltage: 690 V / AC
Overvoltage category/degree of pollution: III / 3
Rated short-time withstand current Icw:
85 kA / 1 s
105 kA / 500 ms
150 kA / 200 ms
same as make/part no: Eaton / ARC-AT-B (ARC-AT-T) or equivalent.