



POWER ARC REDUCTION TECHNOLOGY



Fast, active arc fault extinction systems for low-voltage switchgear.

PART-LOG(ic) Multimaster for integrated detection and analysis in the EATON ARCON® and DEHNshort K arc extinction systems



The **PART** arc protection system was created together with the SYMAP®-COMPACT of stucke elektronik GmbH. The PART Multimaster detection and analysis system was especially developed for use in the familiar ARCON® arc extinction systems as well as for DEHNshort K.

KÖHL unites both requirements by introducing its new Power Arc Reduction Technology System **PART** which combines the physical basis of speed of light with the latest research knowledge in the area of power electronics.

The light flash, which is characteristic for arc faults, is detected by the coupled fibre optic elements installed in the sectional part of the switchboard and, together with a massive current increase, triggers a chain of functions in the newly developed electronic **PART-LOG(ic)** multimaster detection and assessment unit.

This system short-circuits the busbars of low-voltage power distribution through triggering of the detection and assessment unit. At the same time a trip signal is sent to the upstream circuit breaker. This switches the infeed off, following its device-specific break time and therewith increases personnel and plant protection. The impact of the electrical arc is significantly reduced. The system is slightly contaminated and can be operated considerably faster.

The extinction systems are suitable within the range of low-voltage switchgear assemblies from 400V to 690V rated voltage.

To ensure the highest availability level, the protective units can be positioned in the safe device installation space. This enables the owner to quickly restart the plant following triggering, by renewing the extinction units as a new ready assembled unit - whether DEHNshort K or ARCON®.

Following a functional test, the entire system is now operating at its highest control level.

FEATURES: ARCON®

Nominal voltage	230 - 725 V, 50 Hz
Prospective short-circuit current	5 - 100 kA
High short-circuit current carrying capacity	150 ms (at 100 kA) 300 ms (at 65 kA)
Typical response time	2 ms (at 65 kA)

FEATURES: DEHNshort K

Nominal voltage	230/400 V, 50 Hz
Prospective short-circuit current	5 - 65 kA
High short-circuit current carrying capacity	80 ms (at 50 kA) 50 ms (at 65 kA)
Typical response time	2 ms (at 65 kA)



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