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SYMAP[®]ARC

Arc Protection System










For medium voltage
power systems

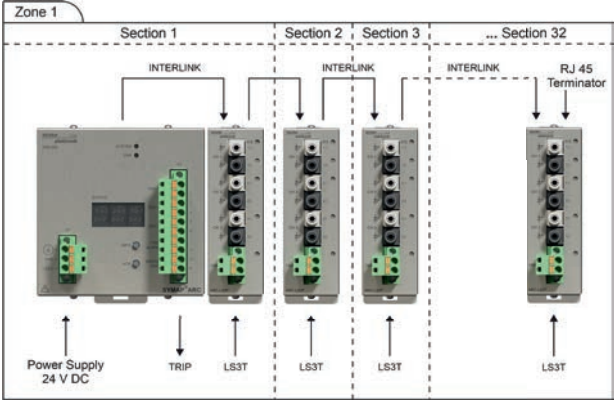
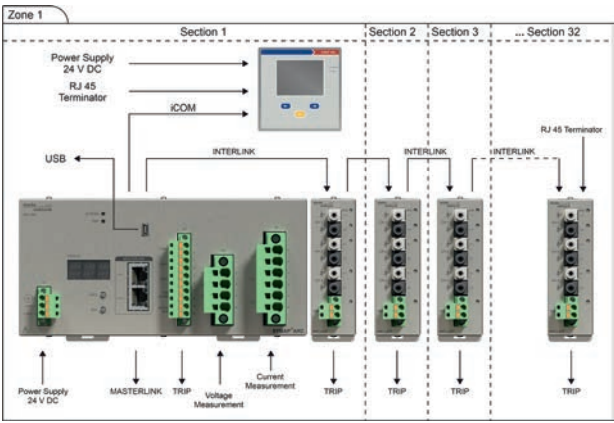
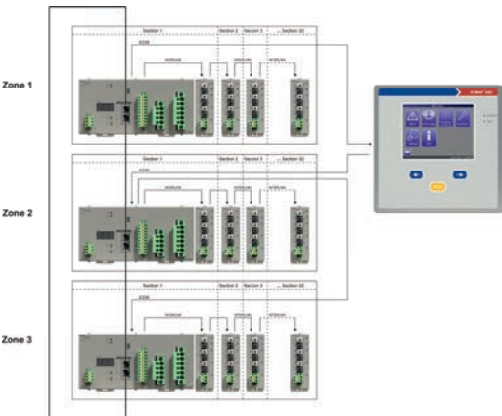


Modular & compact

Durable in harsh environment

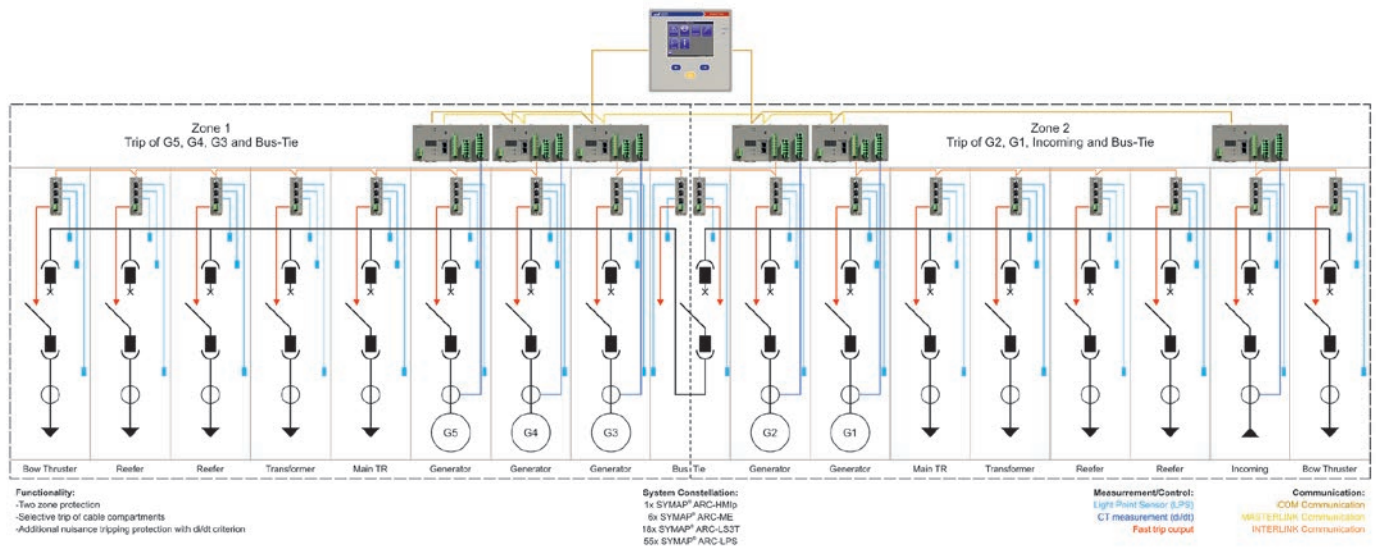
SYMAP®ARC is an efficient, modular arc protection system for medium voltage systems to protect people and equipment.

Category	Components		Weight & Dimensions	Level 1	Level 2	Level 3
Master modules	ARC-MS Master Simple module providing trip contacts and interlink to connect light detection modules		0,6 kg W 91,44 mm H 91,44 mm D 76,20 mm	✓		
	ARC-ME Master Extended module providing trip contact, current measurement and interlink to connect light detection modules. Optional HMI and quenching device		1,4 kg W 193,04 mm H 91,44 mm D 76,20 mm		✓	✓
Light detection modules	ARC-LS3T Up-to 3 Light Sensors and one fast Tripping output		0,3 kg W 30,48 mm H 91,44 mm D 76,20 mm	✓	✓	✓
Optional modules	ARC-HMI Human Machine Interface to operate the extended arc protection system		0,8 kg W 210,00 mm H 210,00 mm D 47,80 mm		✓	✓
	ARC-IGN-A IGNition module including system cable to operate external quenching device		0,5 kg W 91,44 mm H 91,44 mm D 76,20 mm		✓	✓
Light sensors	ARC-LLS Light Line Sensor length: 10/15/20/25 m active sensor part is 5 m less		10/15/20/25 m	✓	✓	✓
	ARC-LPS Light Point Sensor length: 3/5/10 m intermediate sizes available		up-to 10 m	✓	✓	✓

	Application	Features
Level 1	<p>SIMPLE arc protection system</p> 	<ul style="list-style-type: none"> • stainless steel housing • easy mounting on DIN rail TS35 • up-to 31 light detection modules can be connected to the master module via INTERLINK communication • up-to 100 m of INTERLINK length between the master module and the last connected light detection module • 15 segment displays for status and alarms • 3 parallel operating fast binary tripping outputs with ≤ 2 ms tripping time • 1 binary output for alarm indication • 1 binary Watch Dog output (system supervision) • no parameter setting required
Level 2	<p>EXTENDED arc protection system</p> 	<p>Included are all features of Level 1! (exception: parameterizing of extended master is required)</p> <p>PLUS ...</p> <ul style="list-style-type: none"> • voltage and current measurement • rate of change of current di/dt as additional protective criterion for a safe tripping in fault conditions • SYMAP®ARC Parameter Tool (SAPT) allows easy system configuration and adaptation to the individual application • cable compartment selectivity <p>OPTIONS</p> <ul style="list-style-type: none"> • optional connection of ARC-IGN-A to operate separate quenching device • optional connection of detached Human Machine Interface ARC-HMI for user-friendly operation
Level 3	<p>COMPLEX arc protection system</p> 	<p>Included are all features of Level 2!</p> <p>PLUS ...</p> <ul style="list-style-type: none"> • up-to 8 extended arc protection systems can be linked together via MASTERLINK connection • up-to 100 m MASTERLINK length between 2 ARC-ME master modules • MASTERLINK topology: line or ring (redundancy) • zone protection

SYMAP®ARC detects arcs caused by short circuits in electrical systems immediately (< 1 ms) and extinguishes arc faults quickly (< 2 ms) by using a quenching device. Light sensors and an optional current measurement are used to reliably detect arcs.

Example of a COMPLEX Arc Protection System



SYMAP®ARC system installation of light point sensors in a medium voltage cabinet



1x ARC-LPS3 for busbar compartment

1x ARC-LPS3 for breaker compartment

1x ARC-LPS3 for cable compartment



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