ferroamp

Fireman switch

For EnergyHub system 7-152 kW

State of the art firefighter safety

- Simultaneous disconnection of all strings
- Circuit breaking close to PV string
- Redundant switches
- Cost effective solution

The cost-efficient firefighter breaker system

The EnergyHub system with its Solar String Optimizers brings a new cost-effective way to completely disconnect all PV strings in case of a fire hazard. The system utilizes the existing safety relays in the Ferroamp Solar String Optimizers to disconnect as close to the PV strings as possible. No additional expensive DC-breakers are required. The system comprise a single remotely operated fireman switch that interrupts DC bus voltage and also interrupts keep-alive messages from the EnergyHub sent to the Solar String Optimizers that will force their internal safety relays to trip within 10 seconds.

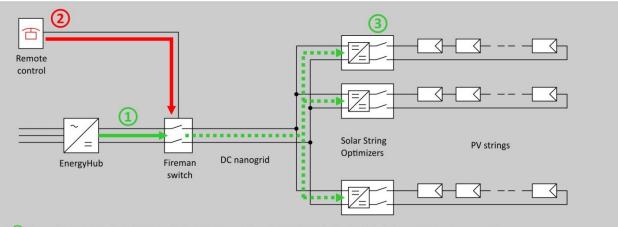


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System topology



① Keep-alive messages to Solar String Optimizers are continuosly sent from the EnergyHub during normal system operation

(2) When the fireman switch is activated, a DC-relay breaks the DC bus connection to the EnergyHub. This also interrupts the keep-alive messages.

③ In absence of keep-alive messages all solar string optimzers will open their internal relays to make all PV strings potential free.

Specifications

	Fireman switch	
Fireman switch	7 – 76 kW	7 – 152 kW
Rated DC current	10 – 100 A	10 – 200 A
Maximum DC voltage	1000 VDC	1000 VDC
Contact form	2 A	2 A
Number of operations	100	100
Trip time, maximum	10 s	10 s
Remote control		
Control device	Single pole breaker	Single pole breaker
Control voltage	230 VAC	230 VAC
Power consumption	30 VA max	30 VA max
Physical		
Dimensions H x W x D	400 x 300 x 150 mm	508 x 355 x 199 mm
Weight	8,5 kg	14 kg
Color	Grey	Grey
Installation		
Ambient temperature	-10°C – 45°C	-10°C – 45°C
Degree of protection	IP 65	IP 65
Remote control connection	Screw terminals	Screw terminals
DC bus connection	Screw terminals, 1,5 - 50 mm ²	Screw terminals, 6 - 95 mm ²