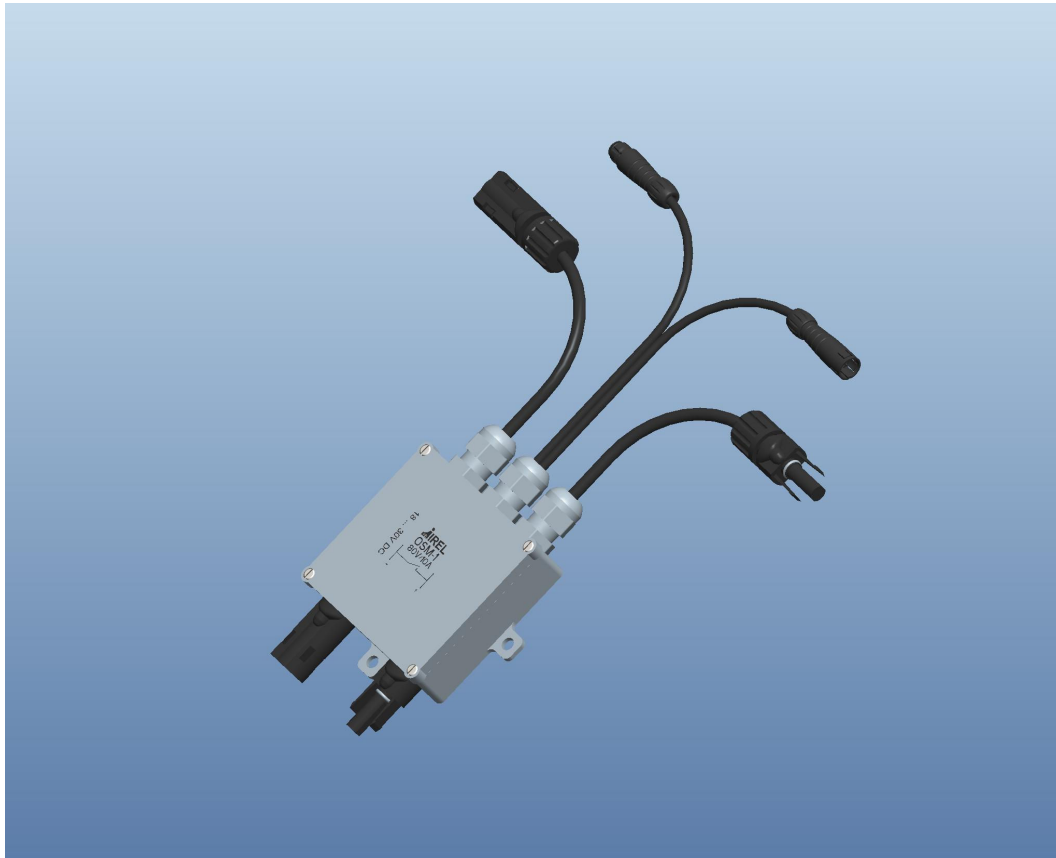




Solar Module Switch OSM-1



Use:

With the new safety switch system for solar modules OSM-1 you can safely and automatically power down the PV-system in case of fire. Also in case of maintenance you can simply power down and power up again.

Often we aren't aware that PV-systems are real generators. While normal operating a PV-system produces voltages up to 1000V. These voltages are absolutely dangerous. In case of fire on buildings with PV-systems fire extinguishing is life threatening for firefighters due to electrical voltage, since illuminated solar modules produce electricity continuously.

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In emergency cases it's not possible to power down individual modules from network manually. Also the main switch-off button, which shuts down PV-system to DC current, doesn't assure safety for firefighters, since there still can exist voltages in the whole system.

With the solar module OSM-1 SV-system can be powered down manual or automatically and so there's no danger for high voltages. By pushing the button or automatically the system shortcuts each module directly, so the entire PV-system is free of any voltages. Power down can be activated manual (with the safety switch) or automatically (fire protection sensor). With the solar module switch OSM-1 PV-system, is safer. Solar module switch OSM-1 can be installed on new PV-systems or upgraded on existing systems.

Solar modules get dirty with time (dust, soot, ...), what causes loss of energy, so OSM-1 switch enables safe cleaning of the solar modules. If your PV-system doesn't have installed the solar module switch OSM-1, the cleaning of solar modules must be done very carefully and with cleaner, which doesn't conduct electric current. New connectors are waterproof, but after few years in every system leakages will come up. OSM-1 switch enables cleaning of solar modules without voltages in the PV-system with usual cleaners and water. It's recommendable to clean solar modules at least once a year.

Each solar module of the PV-system should have installed the safety switch OSM-1. OSM-1 switches can be operated through switch or using an automatic controller, to which different sensors (fire-sensor) can be connected. In case of danger or maintenance all solar modules can be powered down at once, so that the PV-system is voltage free.

PV-system installed with OSM-1 switch is powered down in following cases:

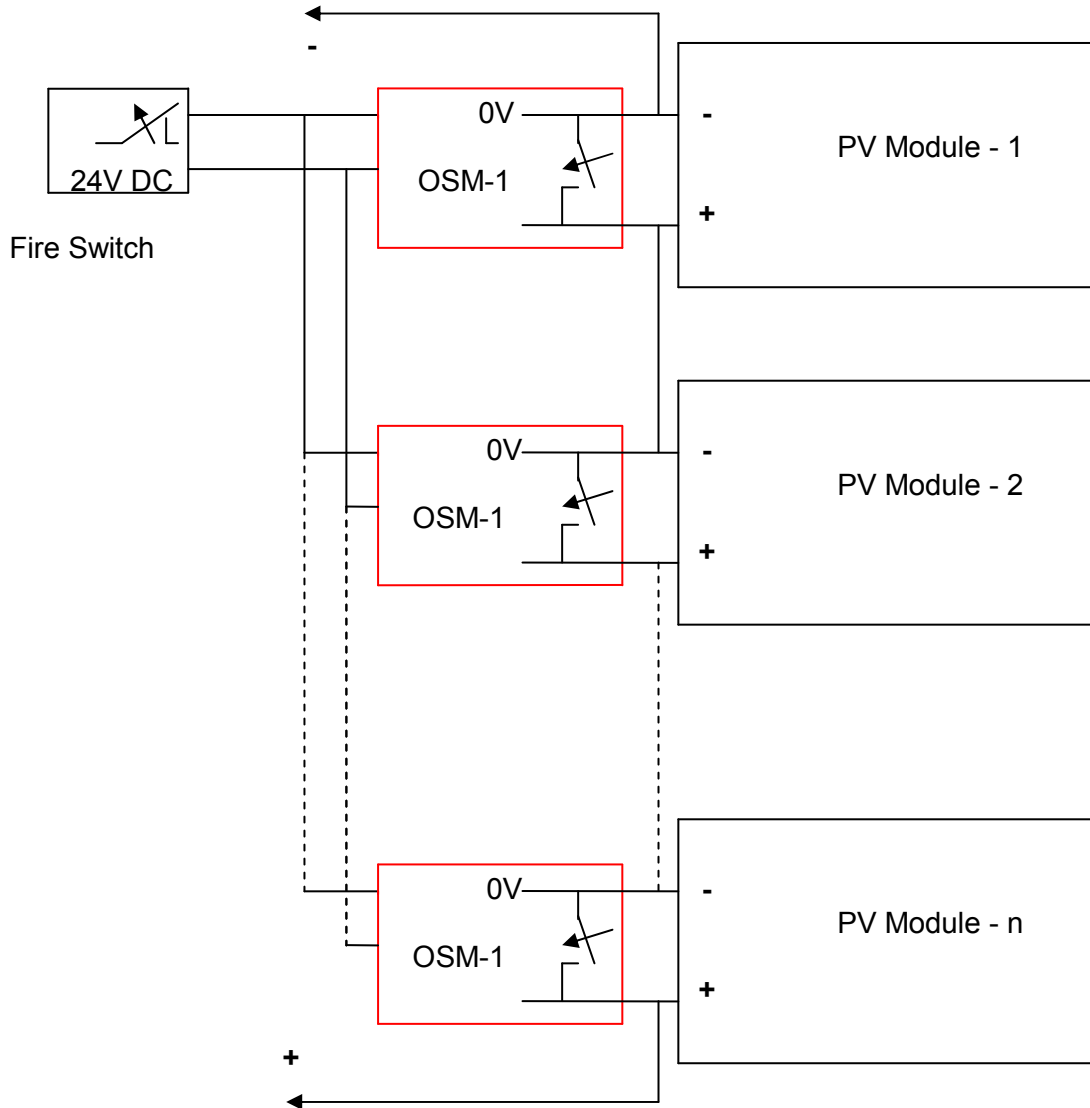
- at power outage
- main fuse switching off
- if OSM-1 power cable is interrupted
- if main safety switch is activated
- if fire protection sensor is activated
- if water flooding sensor is activated etc.

Technical Data:

Dimensions:	85 x 80 x 28 mm
Power supply:	18 to 30 V DC
Own consumption:	<1 mA / 24 V DC per Module
Switching capacity:	800 W, 40 V / 20 A DC to 80 V / 10 A DC
Ambient temperature:	-40 °C to +85 °C
Protection class:	IP65

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Schematic Circuit:



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