



FIRE SAFETY STARTS WITH INSTANT DC SHUTDOWN

- Increased MPPT capacity (up to 12 strings per unit)
- Smart switch control unit
- Compliant with IEC 60947-3:2025 standard
- Intelligent DC safety for modern photovoltaic systems



AC OFF = DC OFF
Ratings up to 1500V - 50A



MDX 2.0
Intelligent Control



Using proven Santon
switch technology



Plug & Play
(MC4, pre-wired)



IP66 indoor
& outdoor

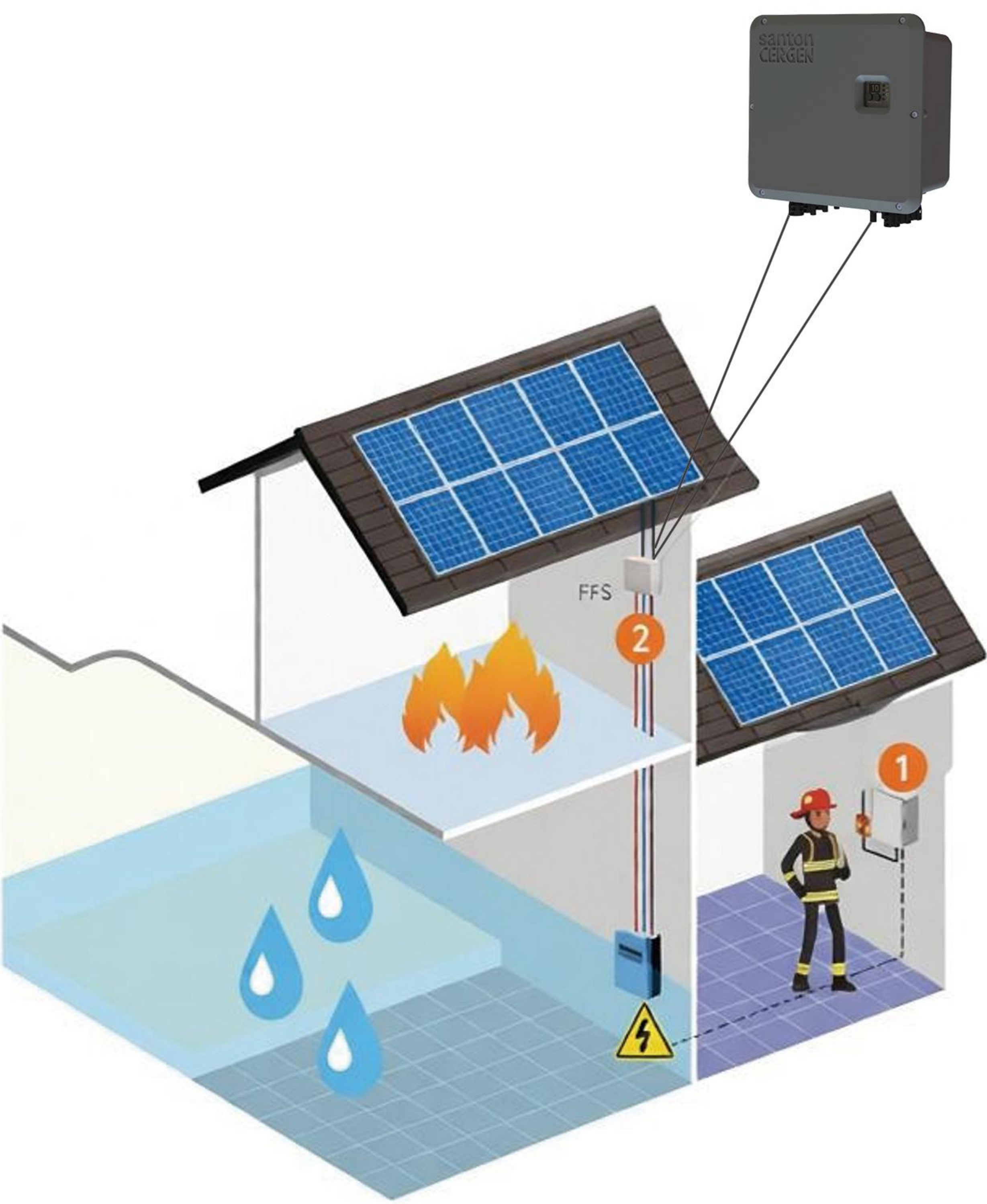
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How It Works

FFS (FIREFIGHTER SAFETY SWITCH) IN ACTION

Instant DC power shutdown for maximum safety.

- String / load cable +
- String / load cable -
- AC power (AC off = DC off)



1 MANUAL AC POWER SHUT DOWN

The first step for any firefighter in fighting a fire is to shut down the main AC power circuit.

This makes it possible to start extinguishing the actual fire without the risk of electrocution.

The FFS follows global firefighter safety standards and is designed to this standard of safety routine.

This prevents firefighters from having to take any extra action in case of a fire, maximizing their and your safety in the event of a fire.

2 AUTOMATIC FFS DC POWER SHUT DOWN

As soon as a firefighter shuts down the main AC circuit, the FFS will detect this.

If AC power is lost, the FFS will immediately switch to the OFF position.

Since the FFS is installed close to the PV modules, the high voltage DC current from the PV modules will be completely isolated, which leaves a safe situation for the firefighter when fighting a fire in the commercial or residential building.

THE RISK IS REAL. OUR SOLUTION IS SMART.

- Hidden Risk:
PV panels remain live under sunlight, dangerous DC voltage remains even when inverter is off.
- Our Solution:
FFS eliminates risk by disconnecting DC near pannels.

Technical Specifications

- Up to 1500 V – 50 A
- Ratings IEC 60947-3:2021
Ready for IEC 60947-3:2025
- PV 1: 1500 V – 50 A*
- PV 2: 1500 V – 25 A / 1100 V -50 A*
- IP 66 enclosure
- MC 4 connectors
- Temperature automatic shutdown above 90°C
- Fully pre-wired with 10 mm² (AWG 8) wire used inside

* : The ratings are per circuit, which means plus and minus switching



INTELLIGENT CONTROL THROUGH MODBUS / RS485 CONNECTION

Function	Info Status
Remote Monitoring	
AC status	ON / OFF
Energy bank status	Loading / Ready / Fault
Switch status	ON / OFF / Fault
Inside temperature	°C
Remote Actions (individual FFS or group of FFS products)	
Restart device to clear fault	Restart
Set delay time from OFF to ON	0-90 s in 10 s intervals
Reset device to factory settings	Reset
Change between modes (individual FSS)	Manual(Hd) / Automatic(AU)

For more technical information, please see our FFS Manual

Santon | Cergen FFS

Ensuring safety. Protecting lives. Supporting solar energy.

DESIGNED FOR REAL-WORLD INSTALLATIONS

- Installed close to PV modules
- Minimizes high-voltage supply cable length
- Enhances firefighter and system safety



FLEXIBLE ENCLOSURE PLATFORM

- Three optimized enclosure designs for different installation scenarios.



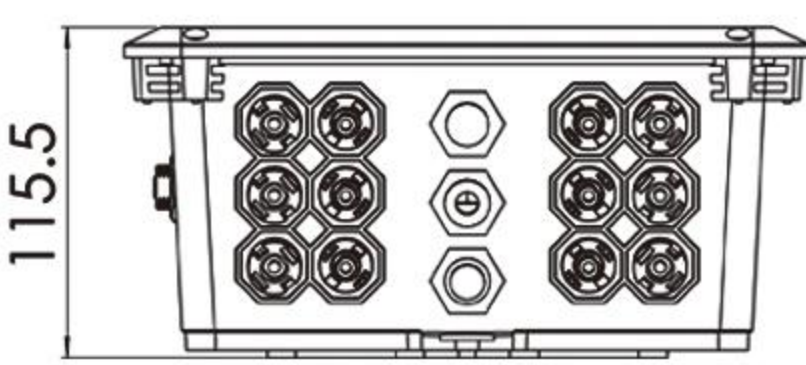
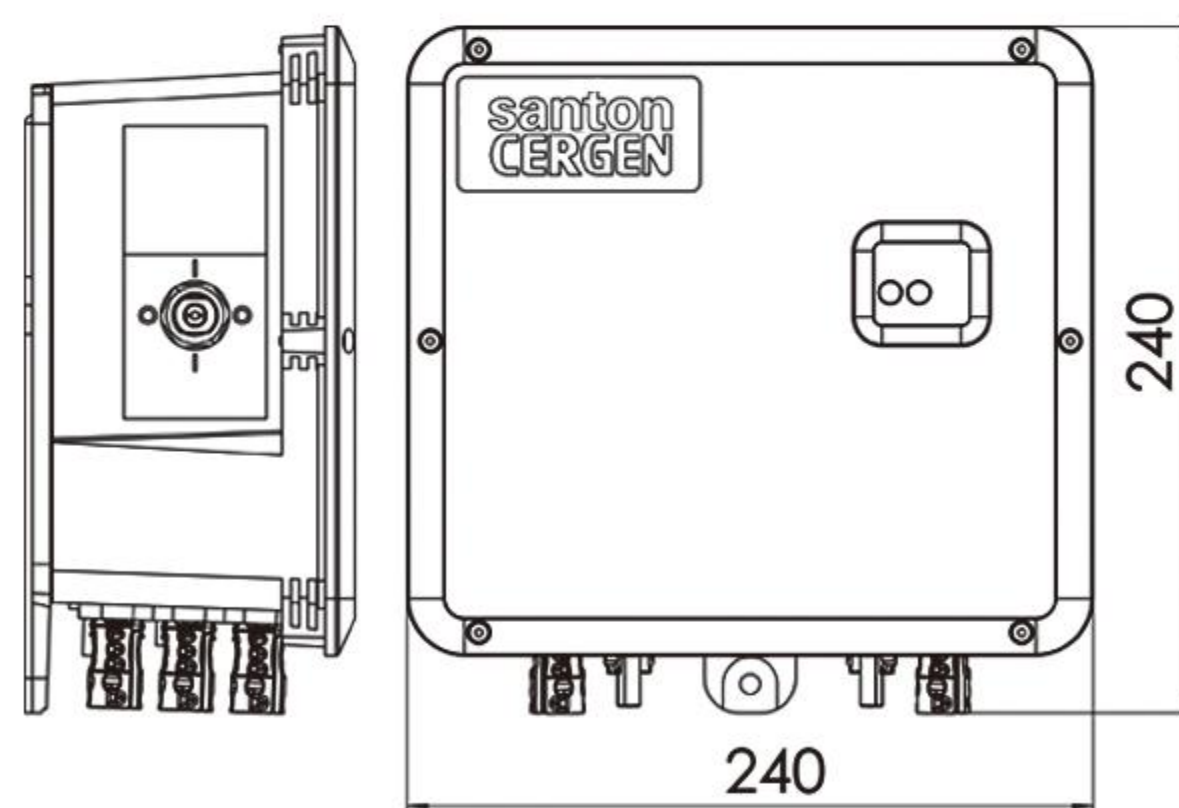
Small



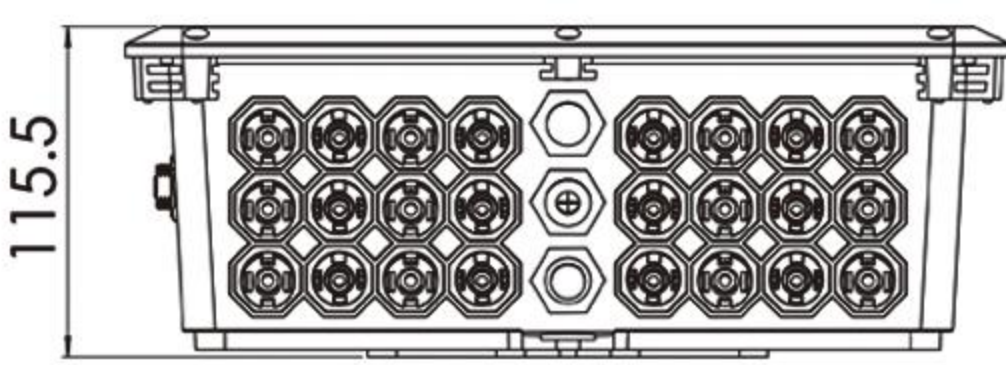
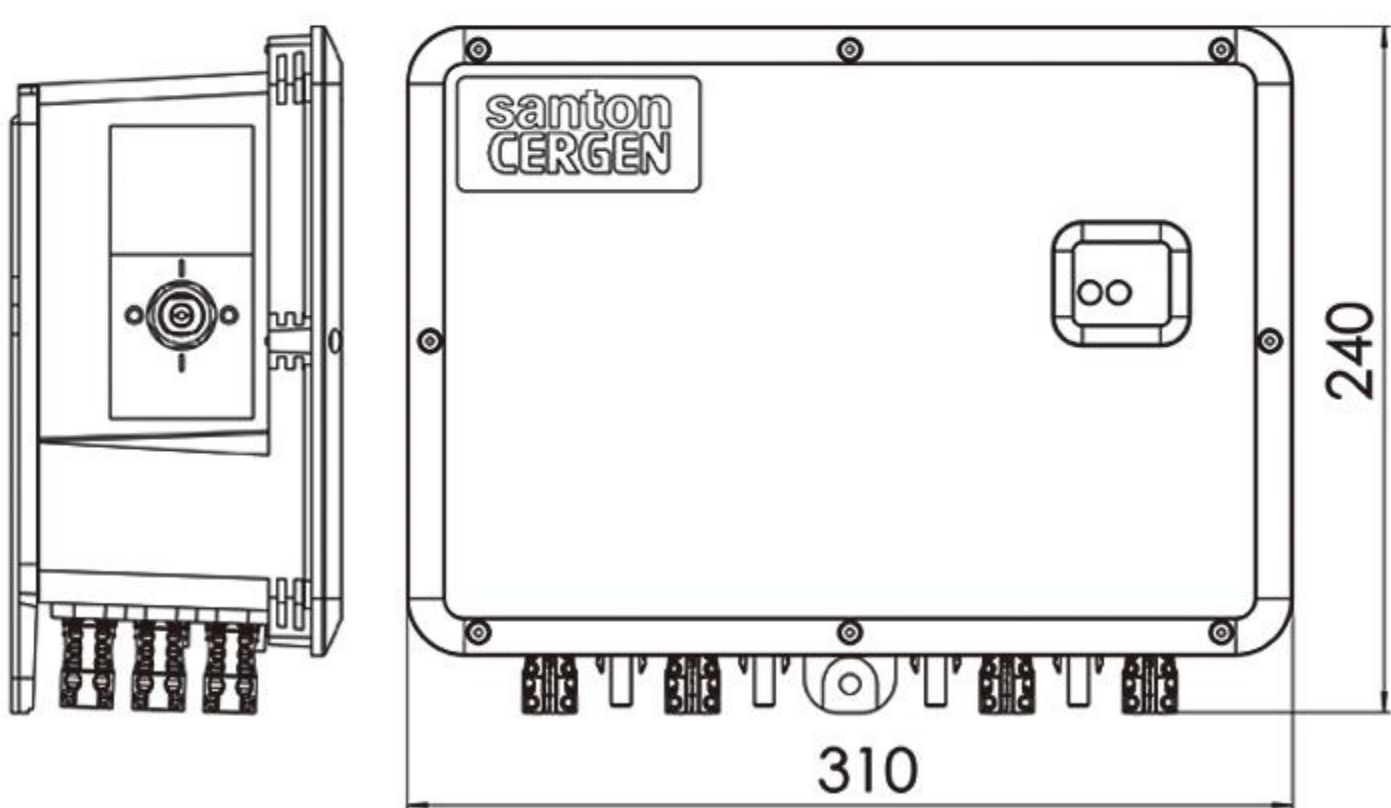
Medium



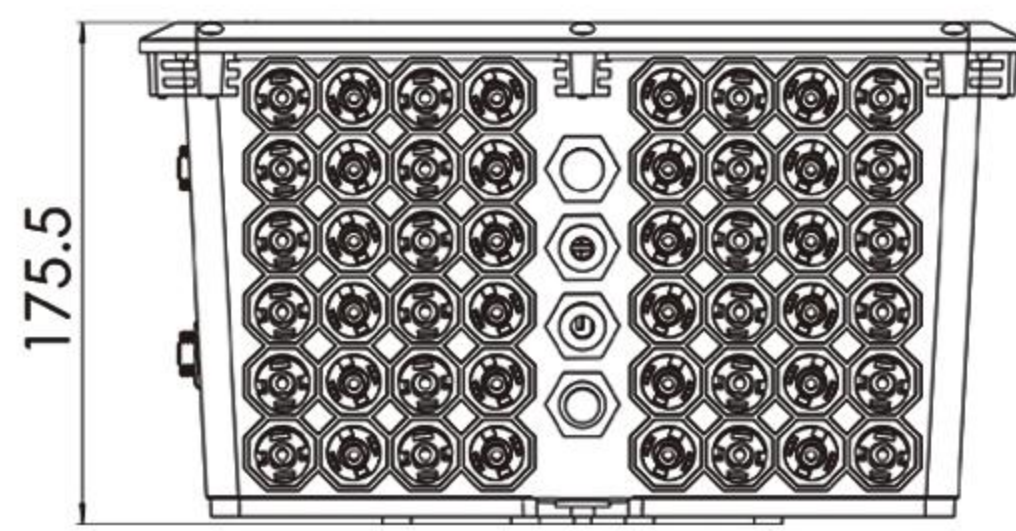
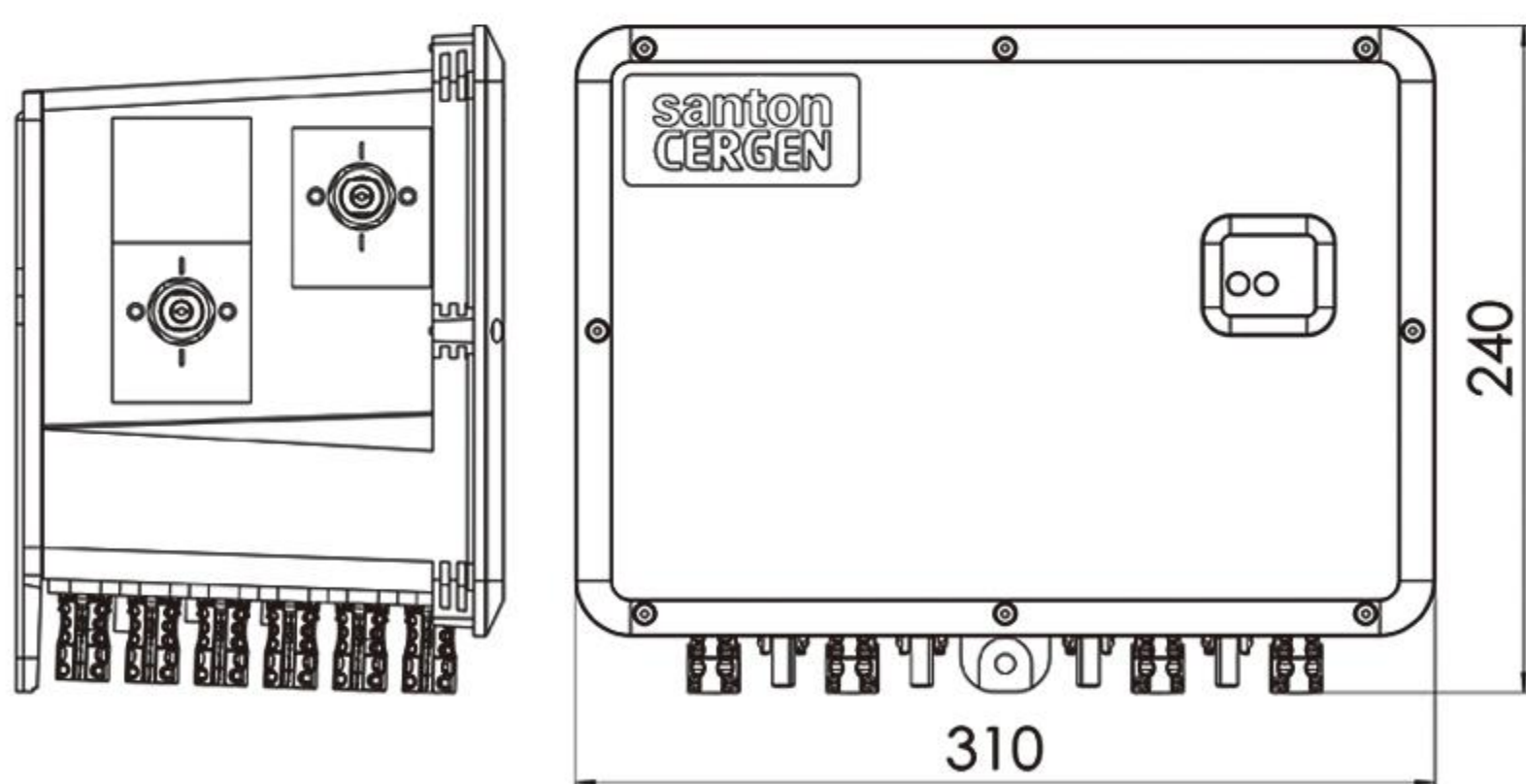
Large



Small
2-3 strings



Medium
4- 6 strings



Large
8-10-12 strings



OVER 30,000,000
DC SWITCHES INSTALLED
WORLDWIDE



OVER 100 YEARS
OF DC SWITCHING
EXPERTISE (SANTON)



GLOBAL INNOVATION
& MANUFACTURING
BY CERGEN

CERGEN | Powering a Smarter Future

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Cergen GmbH

Your trusted partner in electrical safety solutions.

