

RAPID SHUTDOWN SAFETY SOLUTION

VERSION : 20250310



Original manufacturer's facility — reference only

COMPANY INTRODUCTION

Original manufacturer's reference information

Experience innovation with our leading brand. We produce cutting-edge DC protection products, rapid shutdown safety solution, EV charging stations, and more. Our products ensure reliability and performance for solar photovoltaic, battery energy storage, and EV charging systems. We hold certifications from renowned organizations such as UL, SAA, CB, CE, TUV, UKCA, ISO, and RoHS. Our patented DC switch is an industry first.

Explore our groundbreaking solutions, including AFCI for rooftop fire protection, dynamic load balancing, and PEN fault detection EV charger. Join us at the forefront of energy technology and discover limitless possibilities.

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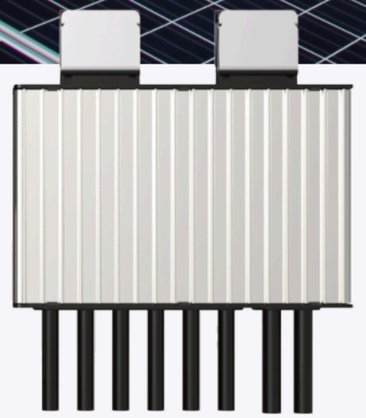
FS-A1/A2 Monitoring Version Module Level Rapid Shutdown 01

Module Level Rapid Shutdown

FS-A1/A2 Monitoring Version







- Module Level Rapid Shutdown With Monitoring Fuction
- Aluminum Enclosure With Higher Safety Level and Better Heat Dissipation Function
- Manual Shutdown by emergency button
- Automatic Shutdown on AC Power Loss
- Over temperature Automatic Shutdown
- Compatible with most string inverters and panels
- No cross-talk with inverter or WIFI

Application

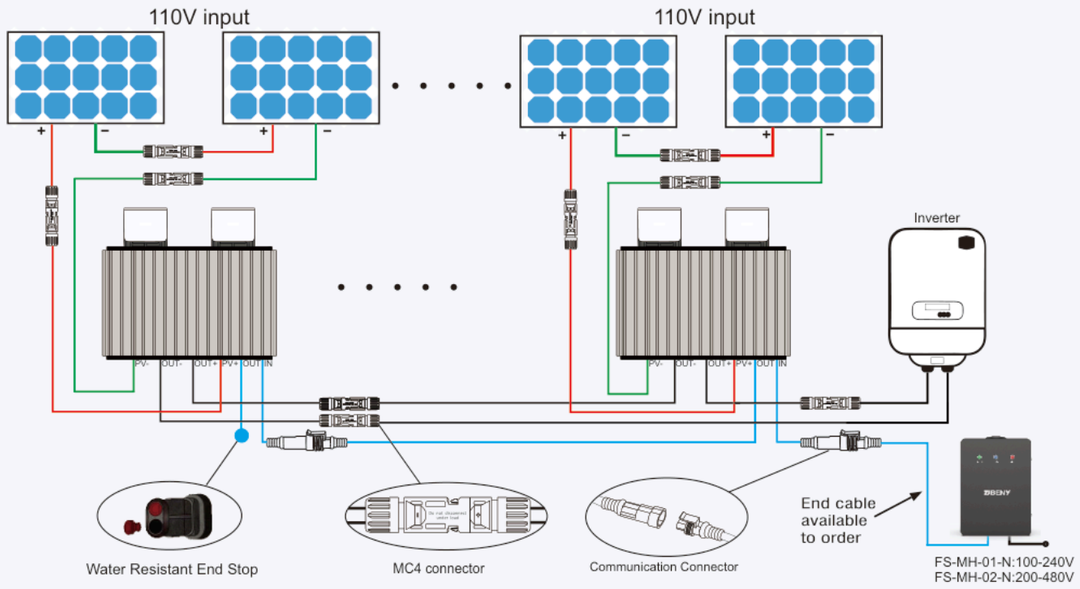
The FS-A1/A2 Monitor version is a module-level rapid shutdown device designed to enhance fire safety for solar rooftops and buildings. It maintains rapid shutdown functionality throughout the entire lifespan of the solar PV system.

Utilizing a unique POWERBUS communication method, it continuously monitors the temperature, voltage, current, and other data of the Rapid Shutdown Device (RSD) in real-time. This enables immediate observation of RSD status and early detection of issues, facilitating replacement and maintenance, thereby enhancing the safety of the PV power generation system.

The accompanying RSD monitoring equipment is required to utilize monitoring functions. Additionally, the monitoring equipment is equipped with emergency stop functionality alongside its monitoring capabilities.

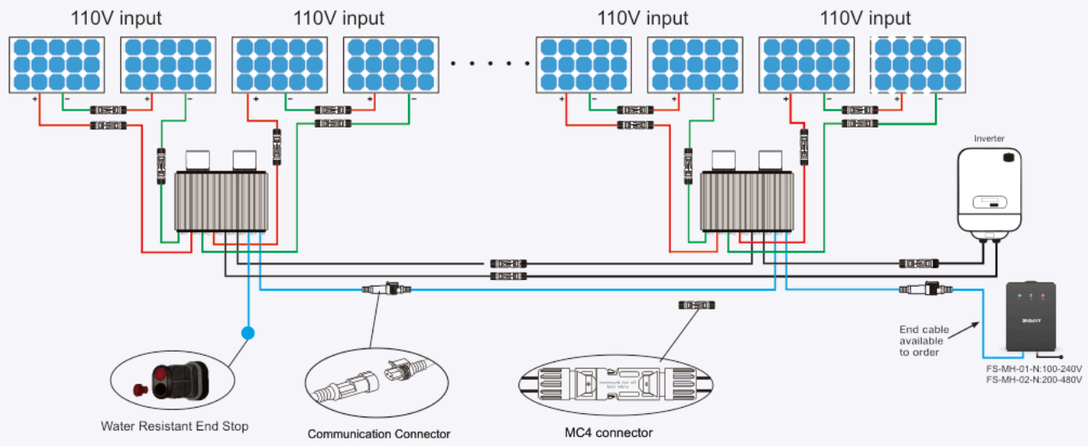
FS-A1 RSD Monitoring Version

Model	FS-A1	
Maximum Input Voltage	110V	70V
Maximum Input Current	20A	25A
Maximum Power	2200W	1750W
PV Input and Output Cables	4.0mm² (12AWG) Cables + MC4 Connectors	
PV Input Cables Length	180mm	
PV Output Cables Length	1800mm	
IP Protection	IP68	
Operating Temperature	-40˚C to +85˚C	
Storage Temperature	-40˚C to +85˚C	
Standard Compliance	EN 62109-1:2010, EN 61058-1:2018	
PV Connectors	1500V MC4 Connector	
DC Power Supply for each RSD		
Voltage Range	14V ~ 28V	
Maximum Current	15mA	
Maximum Power	0.2W	
Power Supply Cables (Signal Cables)	2*0.823mm^2 (18AWG) Signal Cables + Signal Connectors	
Power Supply Cables Length	1800mm	
Mechanical		
Enclosure Material	Aluminum	
Dimension	118mm*107mm*28.4mm	



FS-A2 RSD Monitoring Version

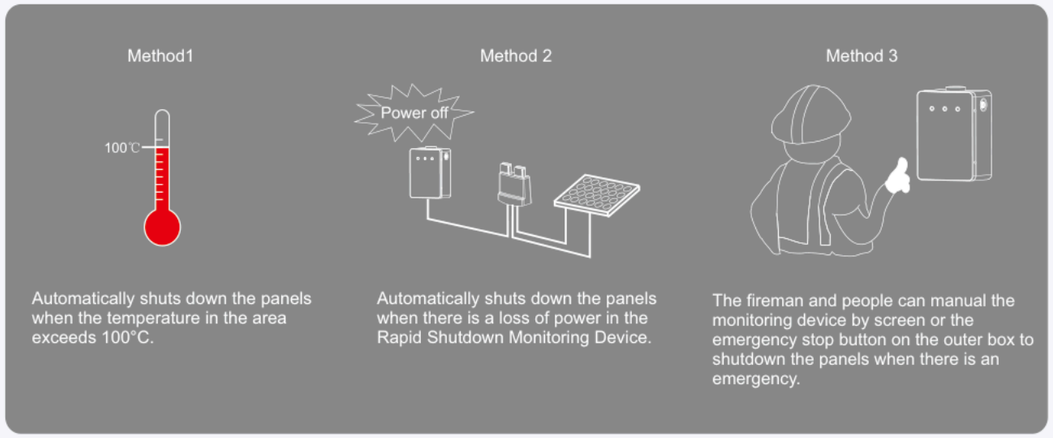
Model	FS-A2	
Maximum Input Voltage	110V*2	70V*2
Maximum Input Current	20A	25A
Maximum Power(Input1+Input2)	2200W*2	1750W*2
PV Input and Output Cables	4.0mm² (12AWG) Cables + MC4 Connectors	
PV Input 1 Cables Length	180mm	
PV Input 2 Cables Length	300mm	
PV Output Cables Length	1800mm	
IP Protection	IP68	
Operating Temperature	-40˚C to +85˚C	
Storage Temperature	-40˚C to +85˚C	
Standard Compliance	EN 62109-1:2010, EN 61058-1:2018	
PV Connectors	1500V MC4 Connector	
DC Power Supply for each RSD		
Voltage Range	14V ~ 28V	
Maximum Current	20mA	
Maximum Power	0.3W	
Power Supply Cables (Signal Cables)	2*0.823mm² (18AWG) Signal Cable + Signal Connectors	
Power Supply Cables Length	1800mm	
Mechanical		
Enclosure Material	Aluminum	
Dimension	136.4mm*113.5mm*31.2mm	



Each FS-A1/ FS-A2 device can accommodate solar modules with a total max output of 1500V. The modules connect in series as the solar string links to the inverter as will be stated in the PV design. The FS-A1/ FS-A2 and Rapid Shutdown Monitoring Device are connected via communication cable.

Note: If your market requires NEC2017/NEC2020 requirement, we recommend one RSD FS-A1 connects 1 panel (≥40V) or 2 panels (<40V); FS-A2 connects 2 panels (≥40V) or 4 panels (<40V).

A Complete RSD Solution





Rapid Shutdown Monitoring Device



Rapid Shutdown Monitoring Device can simultaneously monitor the failure and communication status of multiple Rapid Shutdown Devices.

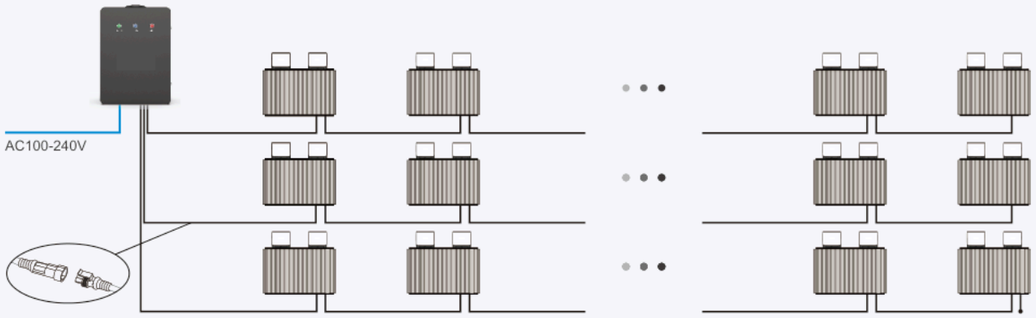
AC power from grid or AC side at solar inverter both could be the power source for the Rapid Shutdown Monitoring Device.

And when the AC power loss, automatically shuts down the DC panels at the meantime.

Rapid Shutdown Monitoring Device Specifications

Product Model	FS-MH-01-N	FS-MH-01-N	FS-MH-02-N
	One Channel	Three Channel	Three Channel
Rated Working Voltage	100V-240VAC		200V-480VAC
Interactive Mode	Touch screen and indicator light		
Maximum Power consumption	60W	180W	
Operating Temperature	-25℃~55℃		
Storage Temperature	-30℃~80℃		
IP Class Protection	IP65		
Overvoltage Category	II		
Maximum Altitude	2000m		
Mechanical			
Dimension	360mm*260mm*152.5mm		
Weight	3.1kg	8.2kg	9.1kg
Communication Mode	POWERBUS		
Max. Number of Channel	1	3	
Max. Number of Circuit Per Channel (1 end cable is required per circuit)	4		
Max. Distance: (End cable length: from first RSD to the Monitoring Device)	150m		
Max. Number of RSD Per Circuit	FS-A1:40		
	FS-A2:20		
Total max. Number of RSD Per Monitoring Device	A1:100	A1:3*4*40=480	
	A2:50	A2:3*4*20=240	

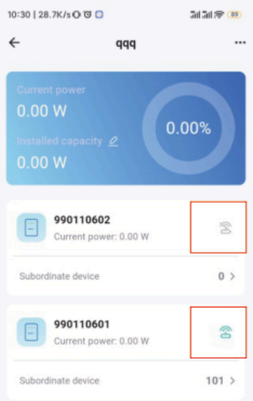
Monitoring-device dimensions: confirm the channel version before ordering.
The shared table and the one-channel drawing differ.

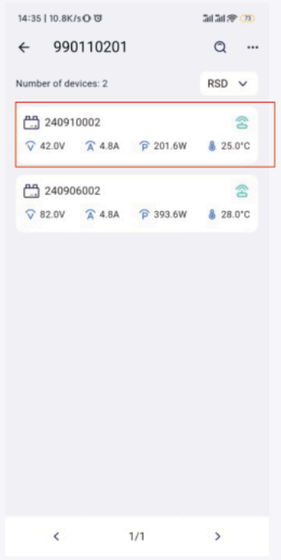


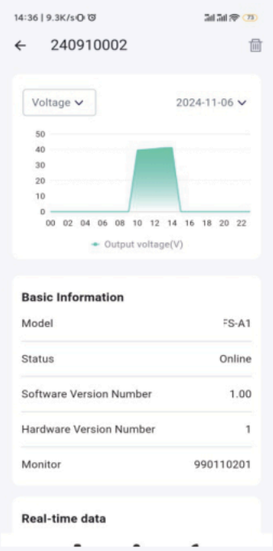
FS device data viewing

As shown, the green icon represents the gateway online or the FS device online, and the gray icon represents the gateway offline or the FS device offline.

Click a single FS device in the list to enter the "Device Details" page to view various data of the device.





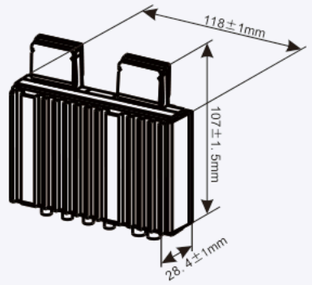


Ordering Information

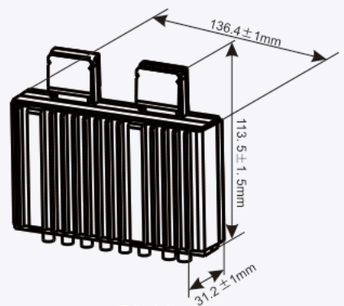
Model Number	Description
FS-A1	Rapid Shutdowm Unit with Monitoring for solar panel(s).
FS-A2	Rapid Shutdowm Unit with Monitoring for solar panel(s).
FS-MH-01-N	Rapid Shutdown Monitoring Device for FS-A1/ FS-A2.(100-240V AC input)
FS-MH-02-N	Rapid Shutdown Monitoring Device for FS-A1/ FS-A2.(200-480V AC input)
FS-CCABLE	20m signal cable with female connector for end of string.
FS-CCABLES	2m signal cable with male and female connectors for between strings or panels.

Install Dimension

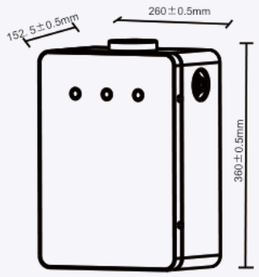
Unit: (mm)



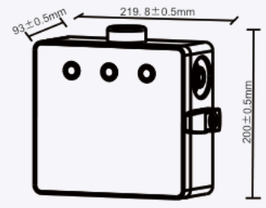
FS-A1



FS-A2



FS-MH-01/02-N(Three Channel)



FS-MH-01/02-N(One Channel)