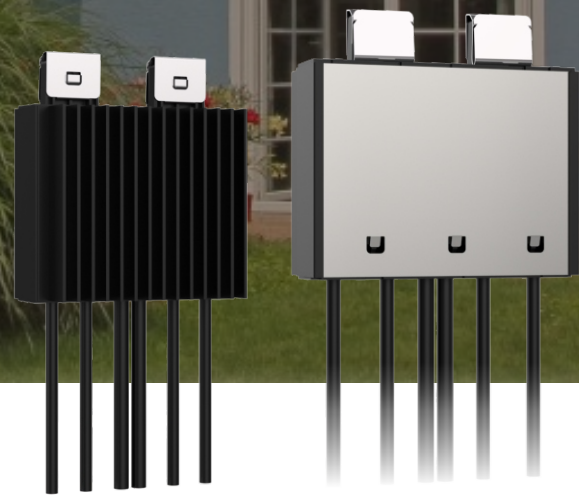
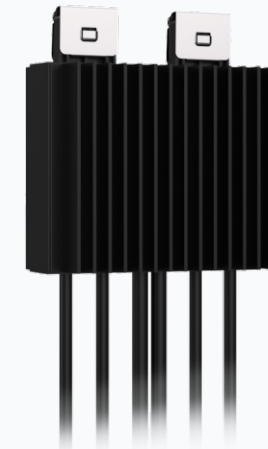


Solar Module Level Power Optimizer Safety Solution

BFS-O1B/O2B Series



- Module Level Optimization
- Safe Shutdown Voltage
- Over temperature Automatic Shutdown
- Compatible with most string inverters and panels
- Module Level Power Generation Monitoring
- Accurately locate and troubleshoot faults



Application

The BFS-O1B/O2B PV Power Optimizer is a PV module that can optimize the power generation efficiency of PV systems and ensure the normal operation of PV systems. It improves the power generation of PV systems by continuously tracking the maximum power point (MTTP) of each PV module, and also has functions such as module level rapid shutdown and module level monitoring.

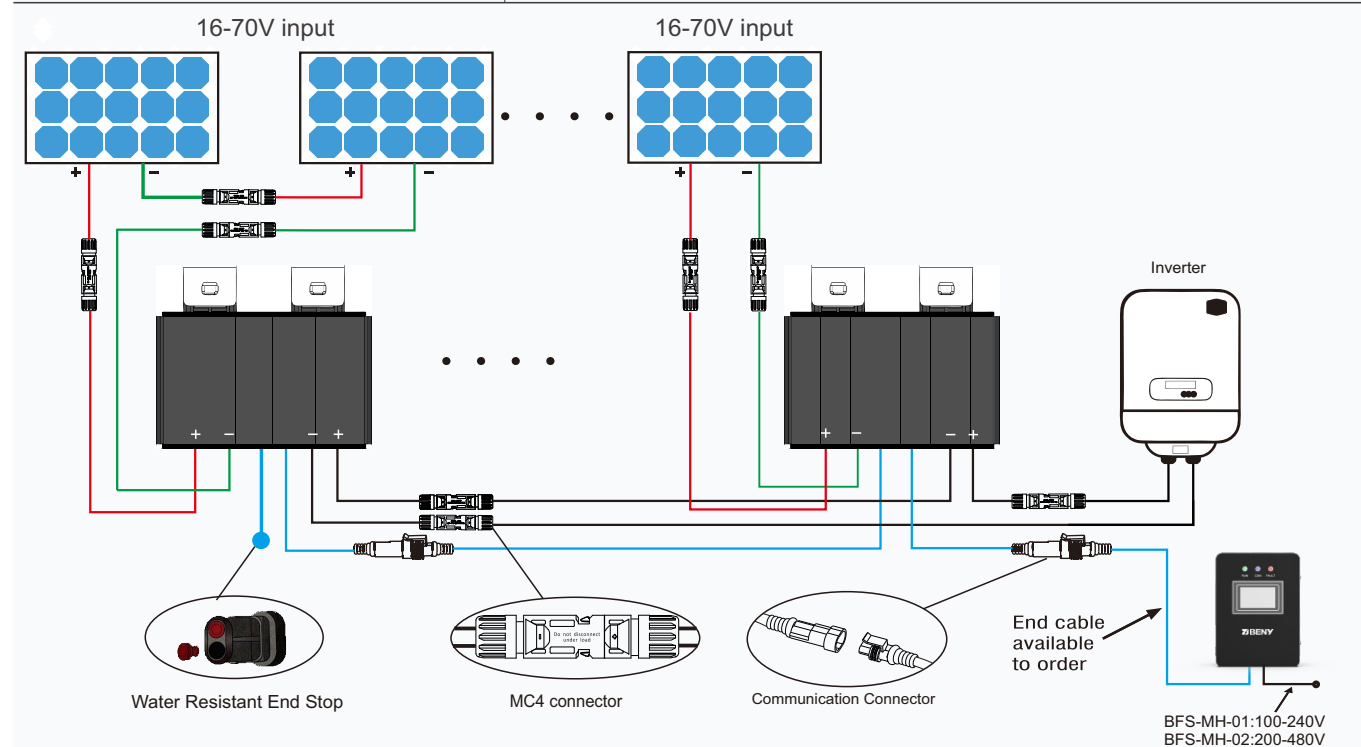
Using MPPT to perform real-time optimization on each PV panel, optimize and enhance the power generation efficiency of the PV system, suitable for situations such as PV panels being obstructed, uneven lighting, and system aging.

The PV optimizer can detect the operation of components, achieve component level monitoring function, and accurately identify problems.

Installing with snap fasteners is simple and does not require additional drilling or wiring.

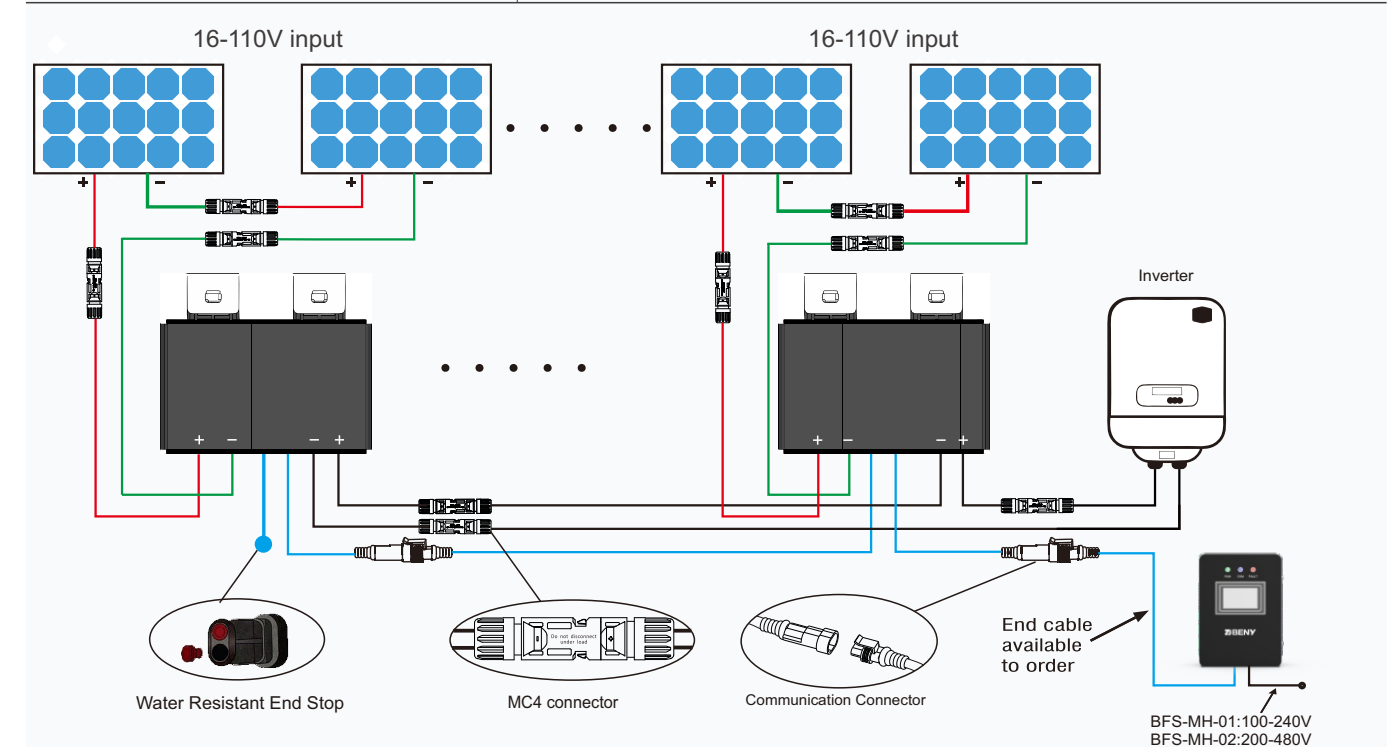
BFS-O1B PV Power Optimizer

Model	BFS-O1B	BFS-O1B Pro
MPPT Categories	BUCK	BOOST-BUCK
Maximun MPPT efficiency	99.8%	
Weighted MPPT efficiency	99.3%	
Rated Input Power	550W	
Maximun Input Voltage	70V	
MPPT Input Voltage Range	16-70V	
MPPT Output Voltage Range	1-70V	
Maximun Input/Output Current	15.5A	
Cable Lengths Type	4.0mm ² (12AWG) Cables + MC4 Connectors	
PV Input Cables Length	310mm	
PV Output Cables Length	1800mm	
PV Connectors	Staubli MC4 (Standard) Jinko and QC connectors for option	
Signal Cable Type	2 *0.823mm ² (18AWG) Signal Cable + Signal Connectors	
Signal Cable Length	1800mm	
IP Protection	IP68	
Operating Temperature	-40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Maximum Altitude	2000m	
Overvoltage Category	II	
Standard Compliance	EN 62109-1:2010, EN 61058-1:2018	
Dimension	L115.8*W125.8*H52.1mm	
Weight	1317.6g	



BFS-O2B PV Power Optimizer

Model	BFS-O2B	BFS-O2B Pro
MPPT Categories	BUCK	BOOST-BUCK
Maximun MPPT efficiency	99.8%	
Weighted MPPT efficiency	99.3%	
Rated Input Power	1100W	
Maximun Input Voltage	110V	
MPPT Input Voltage Range	16-110V	
MPPT Output Voltage Range	1-110V	
Maximun Input/Output Current	15.5A	
Cable Lengths Type	4.0mm ² (12AWG) Cables + MC4 Connectors	
PV Input Cables Length	310mm	
PV Output Cables Length	1800mm	
PV Connectors	Staubli MC4 (Standard) Jinko and QC connectors for option	
Signal Cable Type	2 *0.823mm ² (18AWG) Signal Cable + Signal Connectors	
Signal Cable Length	1800mm	
IP Protection	IP68	
Operating Temperature	-40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Maximum Altitude	2000m	
Overvoltage Category	II	
Standard Compliance	EN 62109-1:2010, EN 61058-1:2018	
Dimension	L135.4*W125.8*H52.1mm	
Weight	1446.1g	

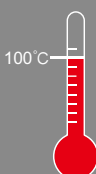


Each BFS-O1B/BFS-O2B device can hold solar modules output max: 1500V total, the modules connect in series as solar string goes to inverter as PV system designing. The connection of BFS-O1B/BFS-O2B RSD and Rapid Shutdown Monitoring Device is via communication cable.

Note: If your market requires NEC2017/NEC2020 requirement, we recommend one BFS-O2B connects 1 panel($\geq 40V$) or 2 panels($< 40V$).

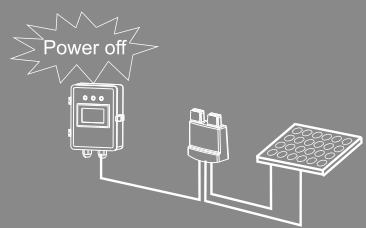
A Complete RSD Solution

Method 1



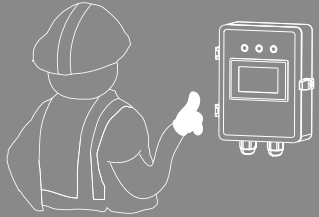
Automatic shutdown the panels when there is a temperature in the area higher than 100°C detected.

Method 2



Automatic shutdown the panels when the power supply loss in the Rapid Shutdown Monitoring Device.

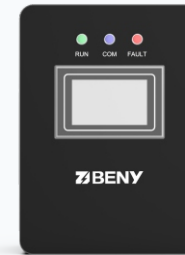
Method 3



The fireman and people can manual the monitoring device by screen or the emergency stop button on the outer box to shutdown the panels when there is an emergency.



Rapid Shutdown Monitoring Device



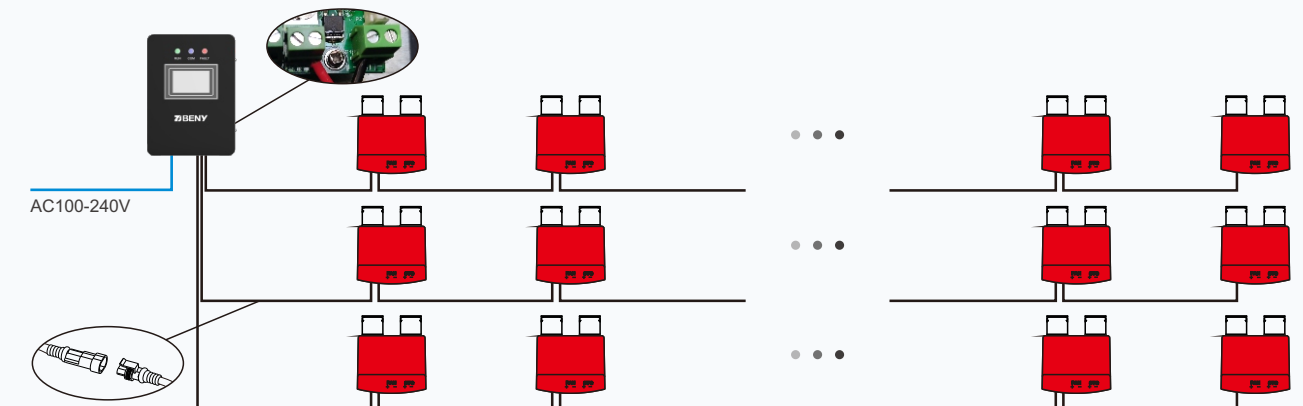
Rapid Shutdown Monitoring Device can simultaneously monitor the failure and communication status of multiple Rapid Shutdown Devices.

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	BFS-MH-01	BFS-MH-02
Rated Working Voltage	100V-240VAC	200V-480VAC
Communication Mode	POWERBUS	
The Maximum Distance: (From the First RSD to the Monitoring Device)	150m	
The Maximum Number of Circuit	3	
The Maximum Number of Strings Per Circuit	4	
The Maximum On-load Per String	BFS-11B:40	
	BFS-12B:20	
Total maximum number of standby	BFS-O1B:3*4*40=480	
	BFS-O2B:3*4*20=240	
Polling Speed	4 times per second is for each channel, and 12 times per second can be achieved when three channels work simultaneously.	
Interactive Mode	Touch screen and indicator light	
Maximum Power consumption	180W	
Operating Temperature	-25°C~55°C	
Storage Temperature	-30°C~80°C	
IP Class Protection	IP65	
Humidity Range	5%~95%	
Overvoltage Category	II	
Maximum Altitude	2000m	
Class of Contamination	PD3	

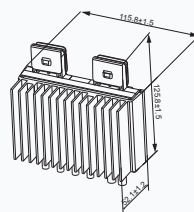


Ordering Information

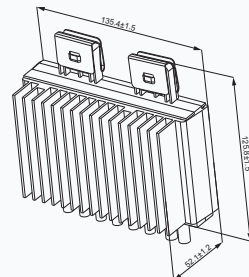
Model Number	Description
BFS-O1B	PV Power Optimizer
BFS-O2B	PV Power Optimizer
BFS-MH-01	Rapid Shutdown Monitoring Device for BFS-O1B/BFS-O2B.(100-240V AC power input)
BFS-MH-02	Rapid Shutdown Monitoring Device for BFS-O1B/BFS-O2B.(200-480V AC power input)
BFS-CCABLE	20m signal cable with female connector for end of string.
BFS-CCABLES	2m signal cable with male and female connectors for between strings or panels.

Install Dimension

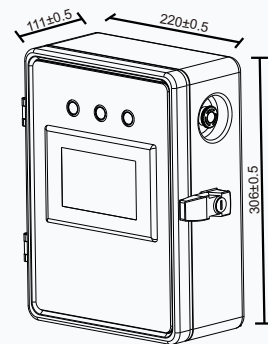
Unit: (mm)



BFS-O1B



BFS-O2



BFS-MH-01/02



CASE STUDY: Philippines with 1.2MW solar installation.



CASE STUDY: Pampanga, Philippines 1.3MW.