

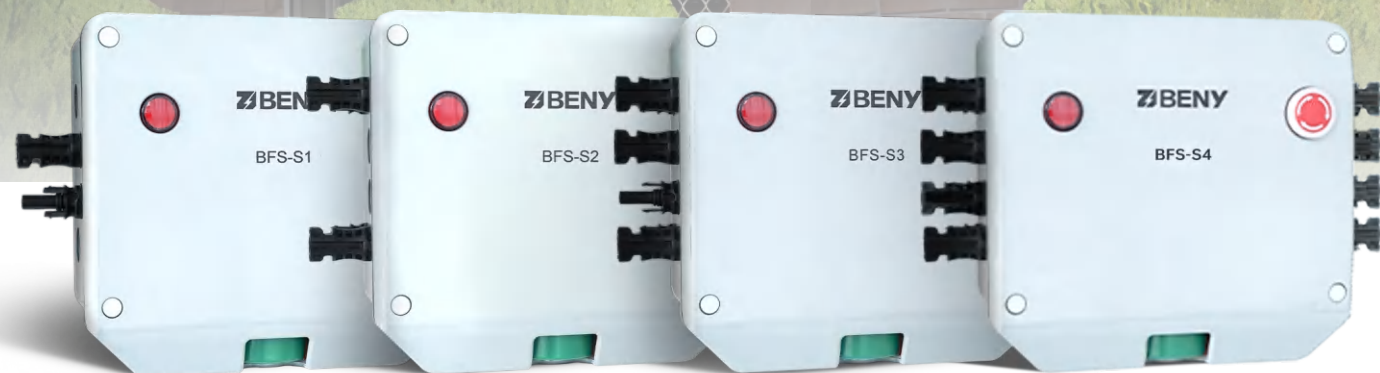
Fire Fighter Safety Switch for Solar Building



Automatic DC
Power Shutdown



AC Power Manual
Shutdown



Application

ZBENY The BFS-S Series Firefighter Safety Switch is a DC Isolation Solution for solar rooftop fire safety, providing DC power mechanical and complete isolation in the event of a fault. Make a safe area and operating space to protect the firefighter from DC electric shock. As the firefighter cut off the AC power in the house, the safety switch will disconnect the DC power at the same time.

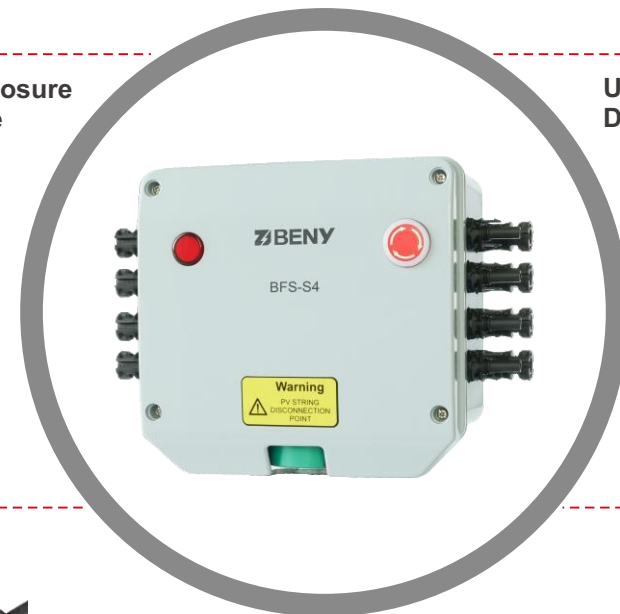
- String Level Rapid Shutdown
- Up to 1500VDC, 50A per string
- Plug and Play for easy installation
- No cross-talk with inverter or Wifi
- Compatible with most string inverters and panels

Features

IP66 Aluminum enclosure
with breathing valve



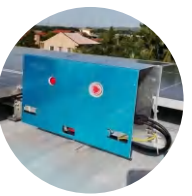
UI508i listed and IEC PV2
DC switch built-in




Genuine MC4 Plug
and Play



Protection cover for
rooftop installation
is available

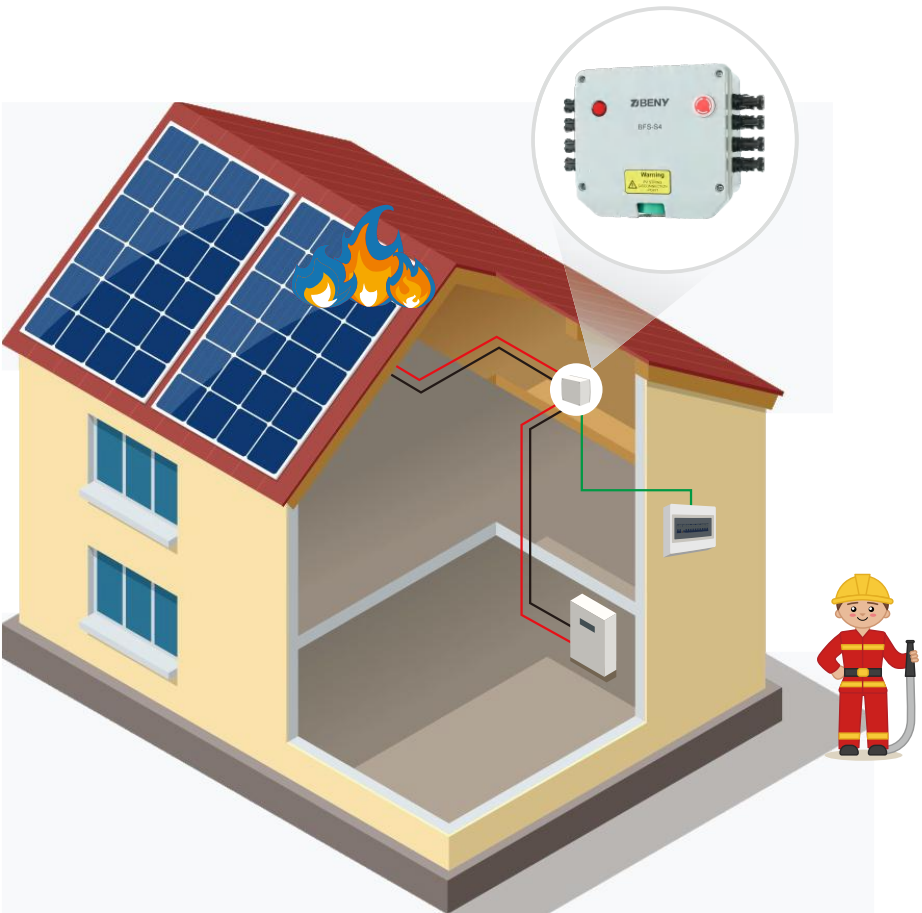


Specifications (1-4 strings)

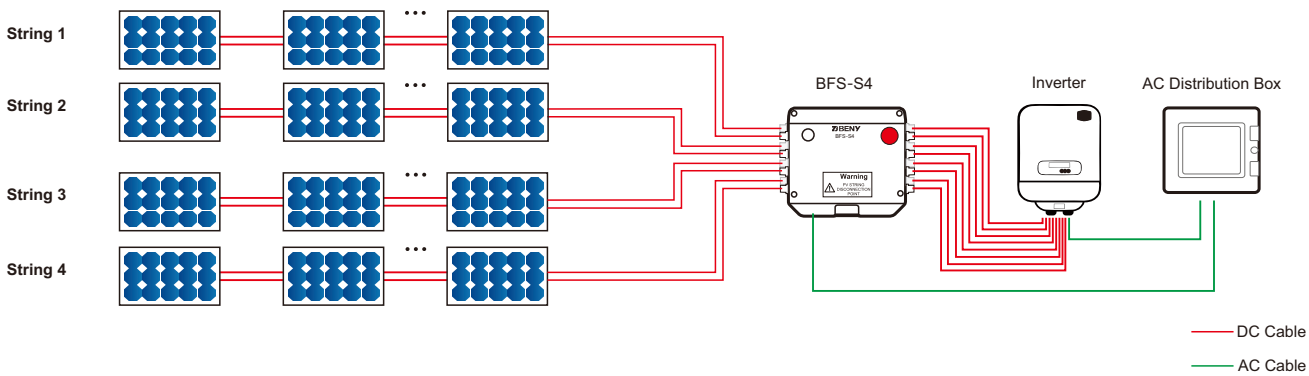
Models	BFS-S			
Models	BFS-S1	BFS-S2	BFS-S3	BFS-S4
Number of Strings	1 strings	2 strings	3 strings	4 strings
				
Max Stting Voltage(Vdc)	300V-1500V			
Max String Current(A)	50A			
Operating Voltage	90Vac-260Vac			
Nominal Voltage	230Vac			
Nominal Current	30mA			
Start up Currentc	Average 100mA			
Switch on Action Current	Max 300mA			
Standard Compliance	IEC/EN 60947-3			
Protection Degree	IP65			
Storage Temperature Allowed Between	-40℃-85℃			
Operating Temperature Range	-20℃-50℃			
Maximum Operating Temperature Before Automatic Switch OFF	+85℃			
Mechanical Endurance	9700			
Electrical Enduranc	300			

How the solution works?

- DC Cable +
- DC Cable -
- AC Cable

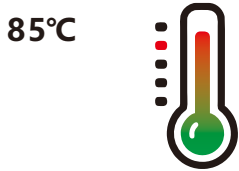


Diagram



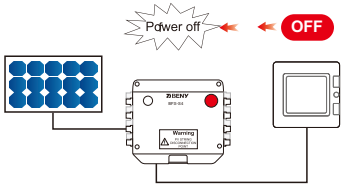
Shutdown Mode

Automatic Shutdown When Over Temperature



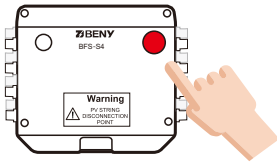
Automatically OFF the DC Power, when temperature inside of BFS-S enclosure $\geq 85^{\circ}\text{C}$. Once temperature drop to $\leq 75^{\circ}\text{C}$, DC power will be back automatically.

Automatic Shutdown When AC Power Loss



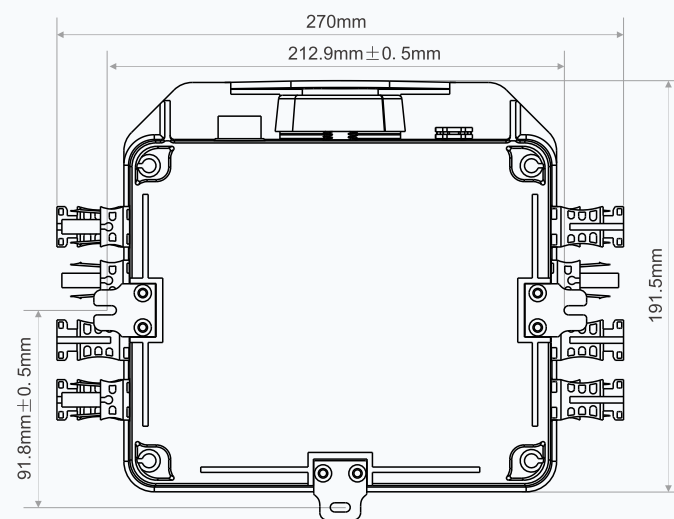
Automatically OFF the DC Power, when AC Power is loss accidentally or manually turn off by firefighter, so to make safety zone for firefighters. Once AC Power is back, DC Power will be back automatically.

100% Shutdown By Emergency Button

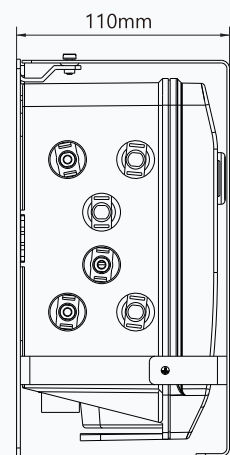
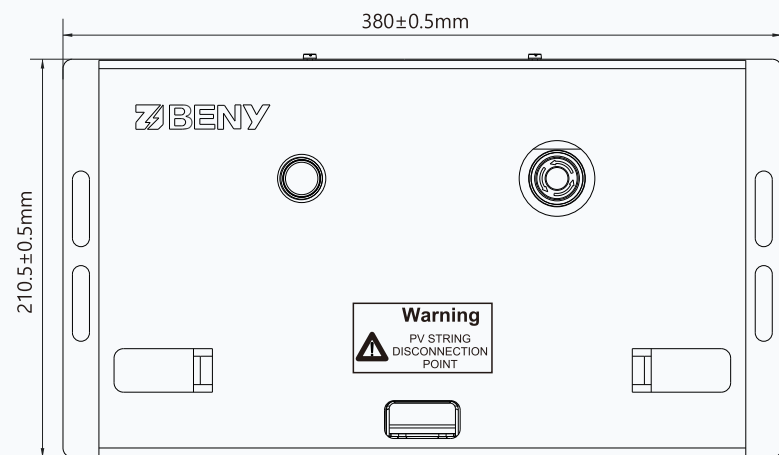
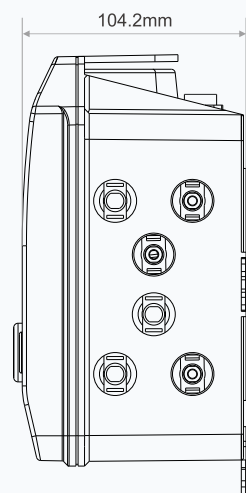


Press the emergency button to keep DC Power 100% OFF even when AC Power is back, so to keep a total safety zone for firefighters.

Dimensions



BFS-S1/S2/S3/S4



CASE STUDY: 6kW Grid-tied System in the Philippines



CASE STUDY: 5kW Grid-tied System in Asia

PV combiner Box with Rapid Shutdown

Automatic DC Power Shutdown

AC Power Manual Shutdown



Application

ZBENY The BHT-X/X Series PV Combiner Box with Rapid Shutdown is a DC Isolation Solution for solar rooftop fire safety providing DC manual switch-off in the event of a fault. Make a safe area and operating space to protect the firefighter from DC electric shock. As the device cuts off the AC power in the house, the safety switch will disconnect the DC power at the same time.

- String Level Rapid Shutdown
- Up to 1500VDC, 50A per string
- Plug and Play for easy installation
- No cross-talk with inverter or Wifi
- Compatible with most string inverters and panels

Features

IP65 Aluminum enclosure with breathing valve

IEC PV2 DC switch built-in

Genuine MC4 Plug and Play

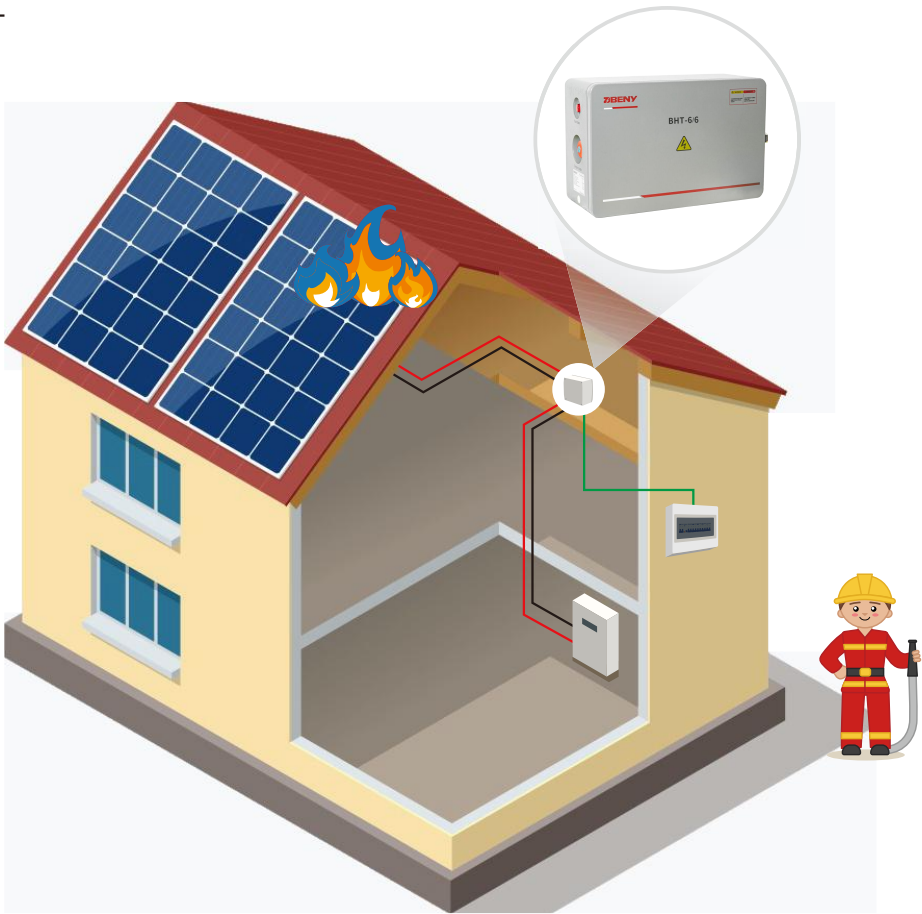
The bottom MC4, switch and socket are as shown in the figure.

Specifications (5-10 strings)

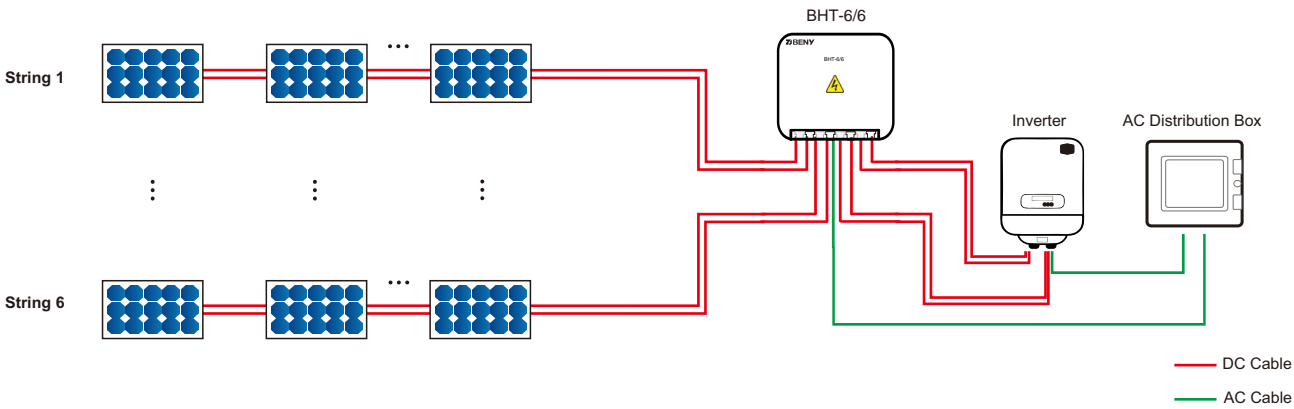
Models	BHT-X/X			
Models	BHT-5/5	BHT-6/6	BHT-8/8	BHT-10/10
Number of Strings	5 strings	6 strings	8 strings	10 strings
				
Max Stting Voltage(Vdc)	300V-1500V			
Max String Current(A)	50A			
Operating Voltage	90Vac-260Vac			
Nominal Voltage	230Vac			
Nominal Current	30mA			
Start up Currentc	Average 100mA			
Switch on Action Current	Max 300mA			
Standard Compliance	IEC/EN 60947-3			
Protection Degree	IP65			
Storage Temperature Allowed Between	-40℃-85℃			
Operating Temperature Range	-20℃-50℃			
Maximum Operating Temperature Before Automatic Switch OFF	+85℃			
Mechanical Endurance	9700			
Electrical Enduranc	300			

How the solution works?

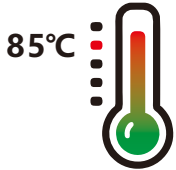
- DC Cable +
- DC Cable -
- AC Cable



Diagram

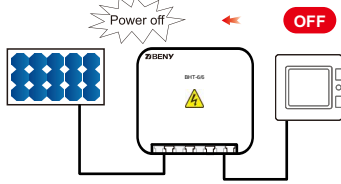


Automatic Shutdown When Over Temperature



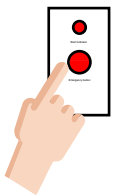
DC Power will automatically switch off when the temperature inside the BFS-S enclosure is $\geq 85^{\circ}\text{C}$. Once the temperature drops to $\leq 75^{\circ}\text{C}$, the DC power will automatically return.

Automatic Shutdown When AC Power Loss

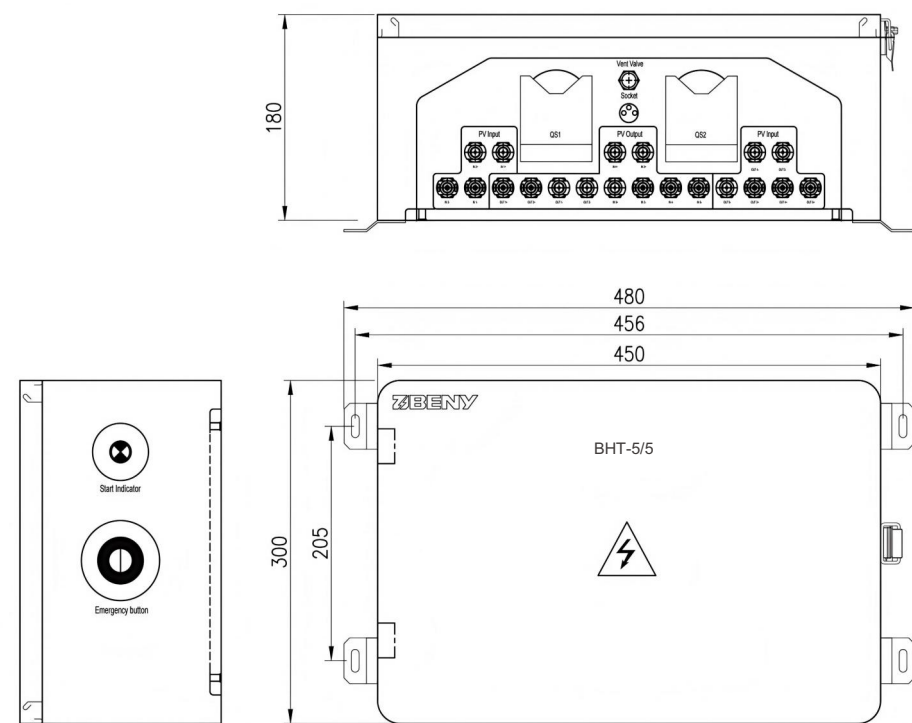


DC Power will automatically switch off when AC Power is lost accidentally or is manually turned off by the firefighter in order to ensure a wholly safe zone for the firefighters. Once the AC Power is back on, DC Power will automatically return.

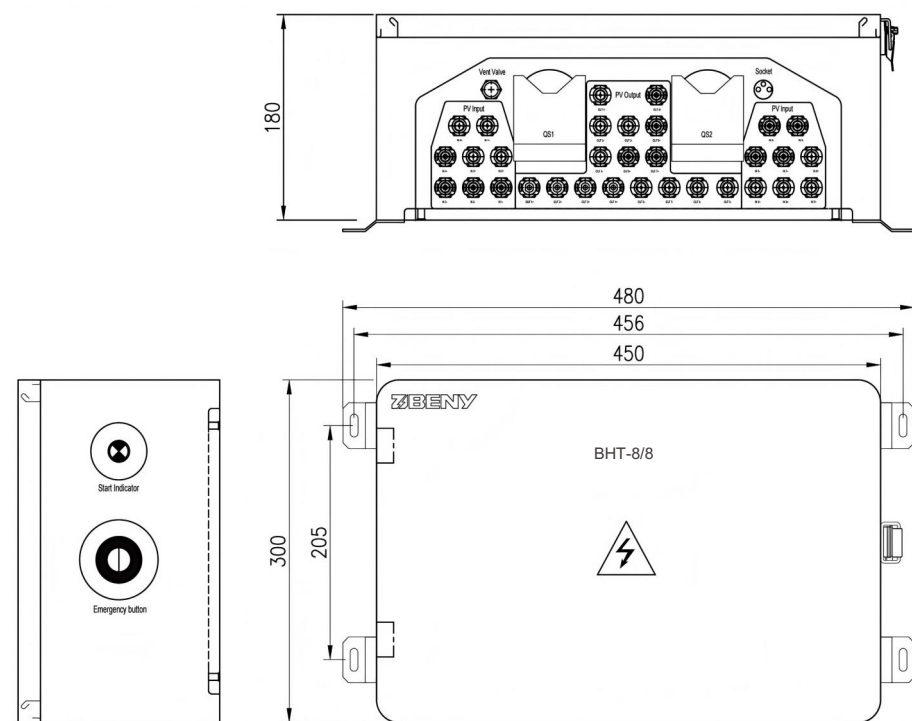
100% Shutdown By Emergency Button



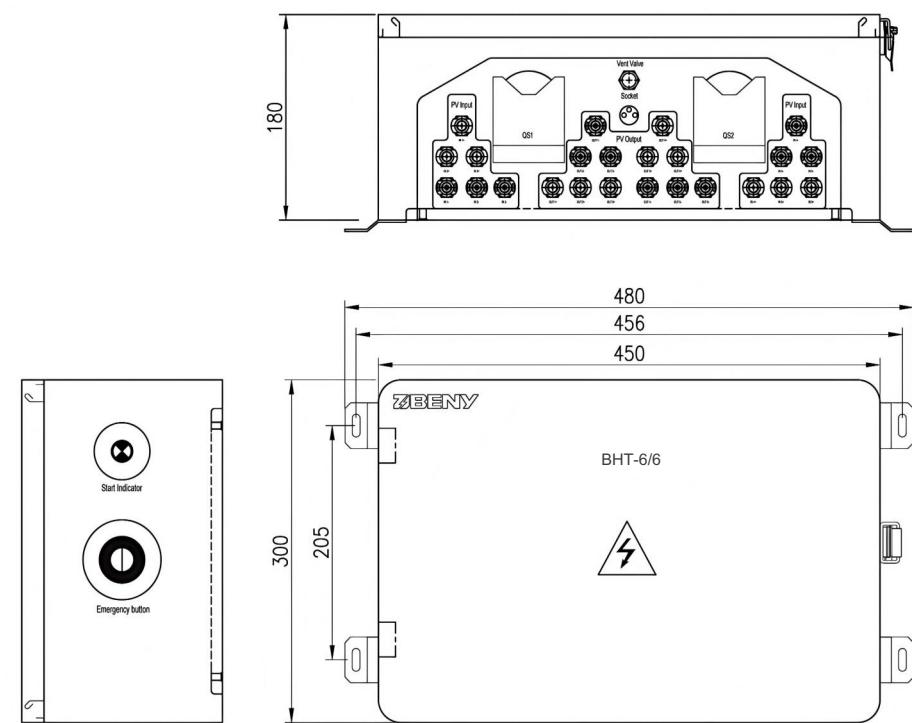
Press the emergency button to keep DC Power 100% OFF even when AC Power is back in order to ensure a wholly safe zone for firefighters.



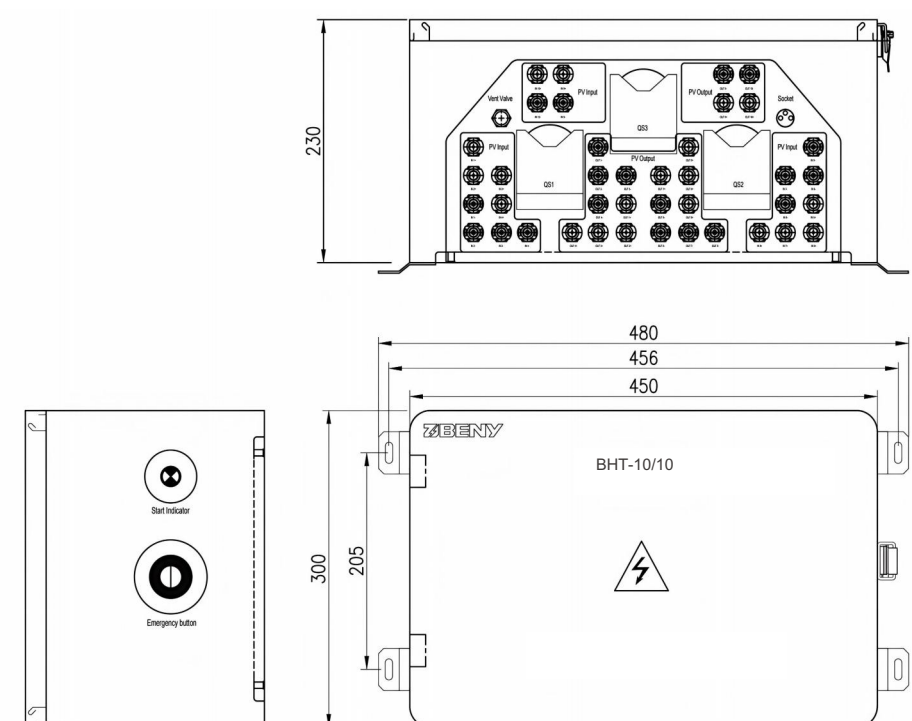
BHT-5/5



BHT-8/8



BHT-6/6



BHT-10/10