

# SHLX-PV Junction Box of Lightning Protection



## SHLX-PV DC Combiner box



Combiner Box provides a means of combining multiple source circuits from a PV array into a single DC output. Each source circuit is fused separately using a touch-safe fuse holder. The combiner box allows for fail-safe operation of the system in the unlikely event that a problem with a source circuit leads to abnormally high current. In addition, the combiner box provides a convenient means of accessing the DC portion of a PV system for routine maintenance and troubleshooting.



### Description

- The IP66 design is used for outdoor installation
- MC4 compatible input/output connectors for easy installation
- DC fuse for each PV string with fuse links meet PV standard
- DC isolator or DC MCB for isolation or over-voltage protection with inside operation
- Anti-lighting and surge protector only for PV
- Each channels has 6 sets of input/output connectors
- The enclosure is made by polycarbonate and ABS, anti-UV or Stainless steel material

### Specifications

Electric Data		
Type No.	SHLX-PV2	SHLX-PV3
Max.input voltage	1000VDC	
No. of input/output array	2	3
Max.current on each input/output array	10A	
DC fuse rating	20A	
Connector type	MC4	MC4 compatible
Protectoin function		
PV DC isolator switch/mcb	SUNTREE brand: SISO-32 International brand optional	SUNTREE Brand:SISO-32
PV DC surge protection device	SUNTREE brand: SUP4-PV	
PV DC fuse	International brand optional	SUNTREE Brand:SRD-PV
International brand optional		
Parameter		
Protection grade	IP65	
Operating temperature	-25°C ~ +70°C	
Relative humidity	0~99%	
Anti-corrosion	anti-corrosion of rain,hail and snow	corrosion of rain, hail and snow
Temperature resistance(Box)	-40°C ~ 120°C	
Poison-free material	conform to Rohs	exclusive of silicon & halogen
Flame retardance	conform to IEC60695-2-11,UL subject to 94V-2	
Chemical resistance	prevent 10% of acid,alkali,gasoline and heavy oil	
UV resistance	UV resistance for outdoor installation	
Impact resistance level	degree of resistance to impact IK08: IK08(5 Joule)	

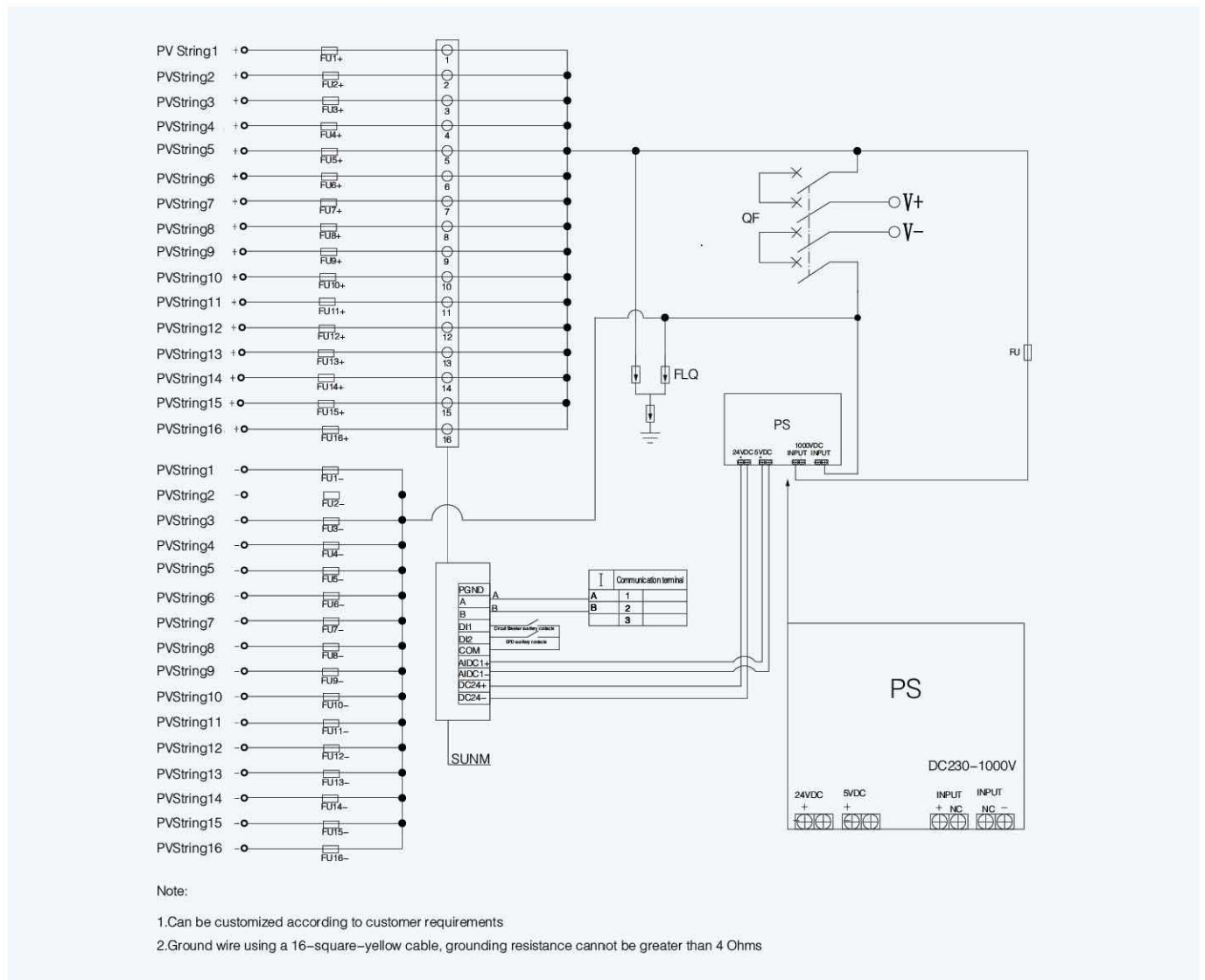
## SHLX-PV DC Combiner box

Electric Data		
Type No.	SHLX-PV6	SHLX-PV8
Max.input voltage	1000V DC	
No. of input/output array	3	-
Max.current on each input/output array	10A	
DC fuse rating	20A	
Connector type	MC4 compatible	-
Max. diameter of each input cable(mm)	-	10mm
Max. diameter of each output cable(mm)	-	40mm
Protectoin function		
PV only circuit breaker/switch	SUNTREE Brand:SL7-63	SUNTREE Brand:SM1-250
	International brand optioal	
PV only surge protection device	SUNTREE Brand:SUP4-PV	
	International brand optioal	
PV only fuse	SUNTREE Brand:SRD-PV	
	International brand optioal	
Parameter		
Protection grade	IP65	
Operating temperature	- 25~+70°C	
Reletive humidity	0~99%	
Anti-corrosion	corrosion of rain, hail and snow	
Temperature resistance(Box)	- 40°C ~120°C	
Poison-free material	exclusive of silicon & halogen	
Flame retardance	conform to IEC60695-2-11, ULsubject to 94V-2	
Chemical resistance	prevent 10% of acid, alakli, gasoline and heavy oil.	
UV resistance	UV resistance for outdoor installation	
Impact resistance level	Degree of resistance to impact IK08:1K08(5 Joule)	

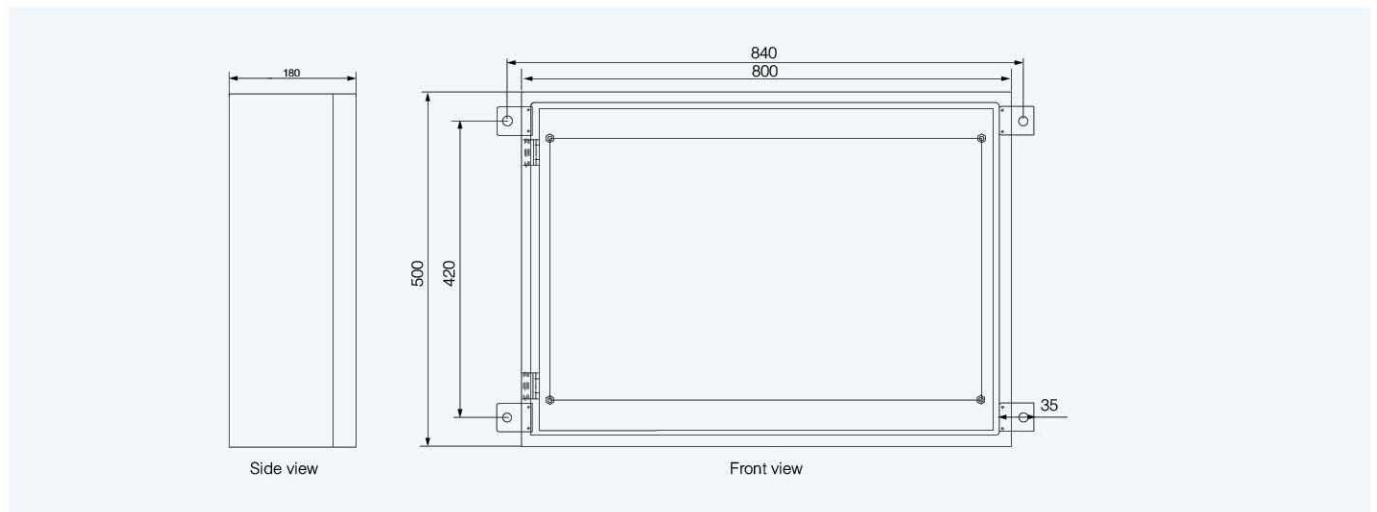
Electric Data		
Type No.	SHLX-PV10	SHLX-PV16
Max.input voltage	1000V DC	
No. of input/output array	10	16
Max.current on each input/output array	10A	
DC fuse rating	15A	20A
Max. diameter of each input cable(mm)	10mm	
Max. diameter of each output cable(mm)	40mm	
Smart communication		
Communication interface	Rs485 Modbus	
Each circuit current measurement	Default	
Voltage measurement system	Default	
Switch state upload	Optional	
Surge protector state upload	Optional	
Temperature measurement inside box	Optional	
Alarm	Optional	
Parameter		
Protection grade	IP65	
Operating temperature	- 25°C ~+70°C	
Reletive humidity	0~99%	
Anti-corrosion	corrosion of rain, hail and snow	
Temperature resistance(Box)	- 40°C ~120°C	
Poison-free material	exclusive of silicon & halogen	
Flame retardance	conform to IEC60695-2-11, ULsubject to 94V-2	
Chemical resistance	prevent 10% of acid, alakli, gasoline and heavy oil.	
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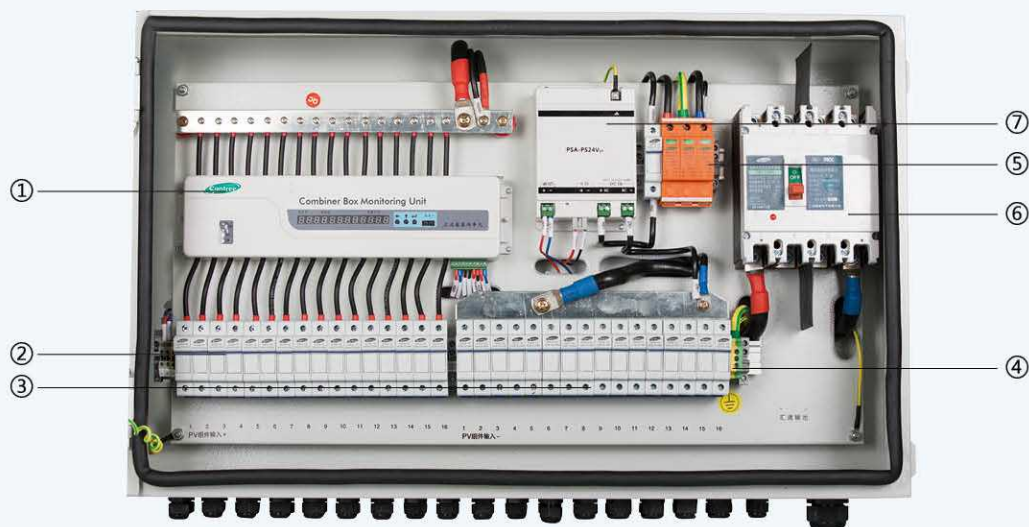
## Schematic diagram



## Dimensions(mm)



## Layout diagram



Combiner box within the picture

- |                   |                         |
|-------------------|-------------------------|
| ① Monitoring unit | ⑤ SPD                   |
| ② + Input         | ⑥ DC circuit breaker    |
| ③ -Output         | ⑦ Self generating power |
| ④ RS485           |                         |

