1 tow 2 Rapid Shutdown Devices SUNGO RSD-2 & Rapid Shutdown Transmitter SUNGO SD Quick Installation Guide

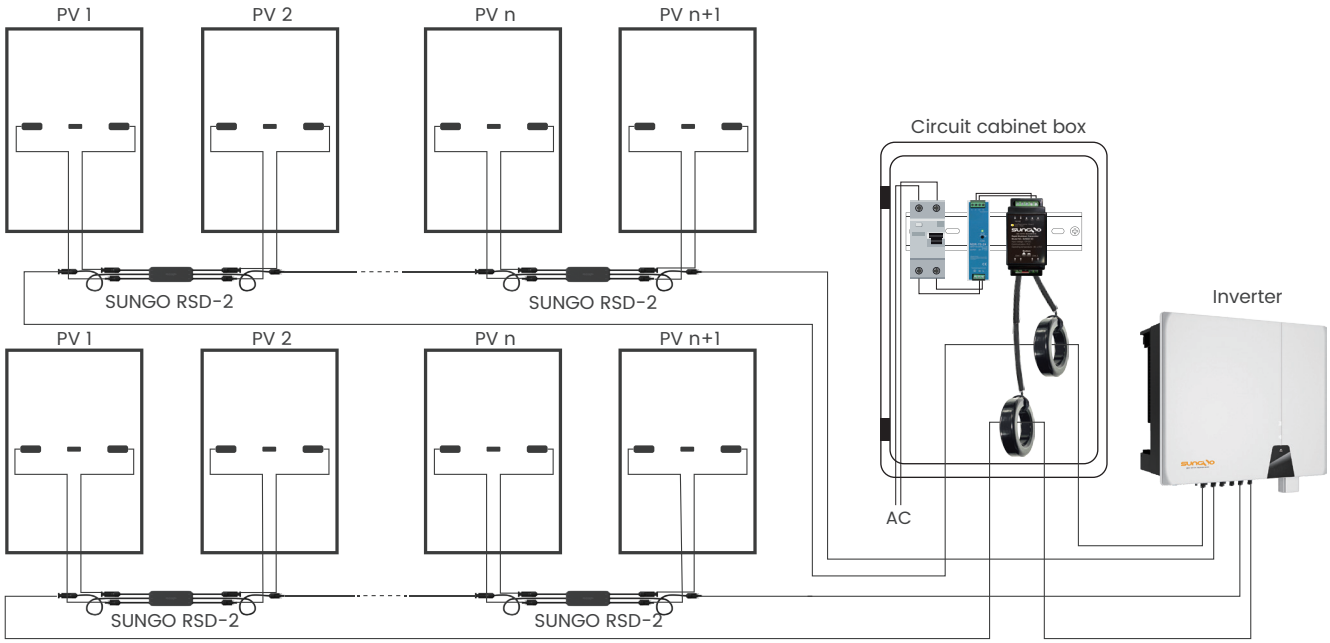
Document version：SUNGO-RSD-2^{IM}-V1-2024 EN
Release Date：2024.5

1 Product Overview

1 tow 2 Rapid Shutdown Devices
SUNGO RSD-2

Rapid Shutdown Transmitter
SUNGO SD

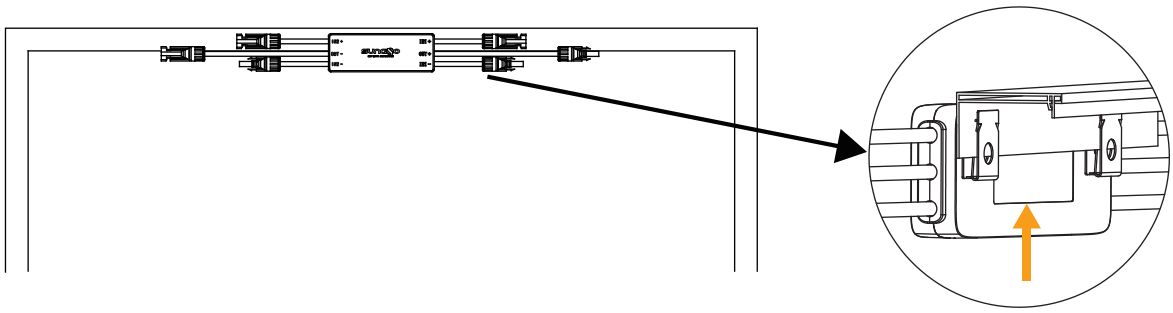
SUNGO RSD-2 is a 1 tow 2 rapid shutdown devices, which maintains normal power-on operation by continuously receiving heartbeat frames sent from SUNGO SD, and when the SUNGO SD signal disappears, SUNGO RSD-2 performs a rapid shutdown operation. Users can turn off the power of SUNGO SD to realize the rapid shutdown of the system, complying with NEC 2017&2020 (690.12) specifications.



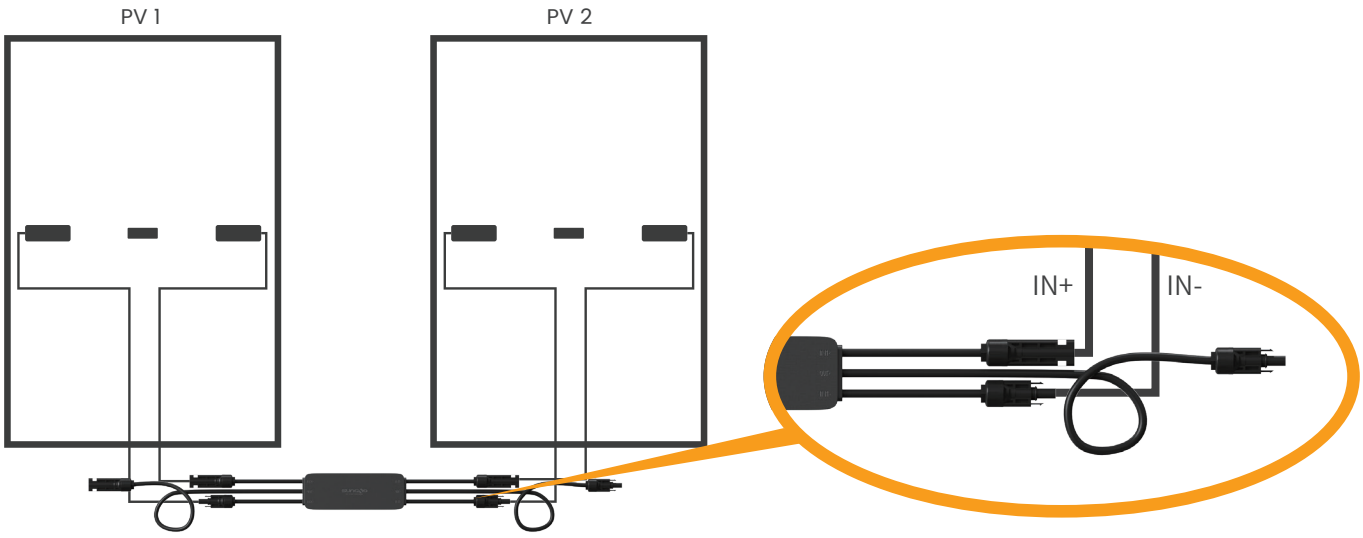
System Wiring Diagram

2 SUNGO RSD-2 Product Installation

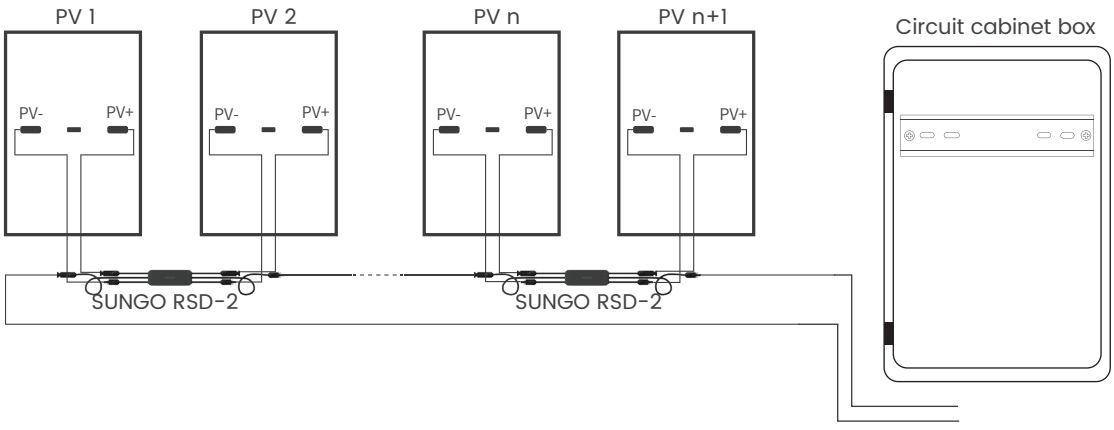
1. Install the RSD-2 by snapping the RSD-2 upward onto the PV module frame.



2. Connect IN+ and IN- of RSD-2 to the positive and negative terminals of the first and second PV module junction boxes respectively, and so on.



3. Connect two adjacent RSD-2 output ports in series and then connect them to the circuit cabinet box with a homemade DC extension cable.

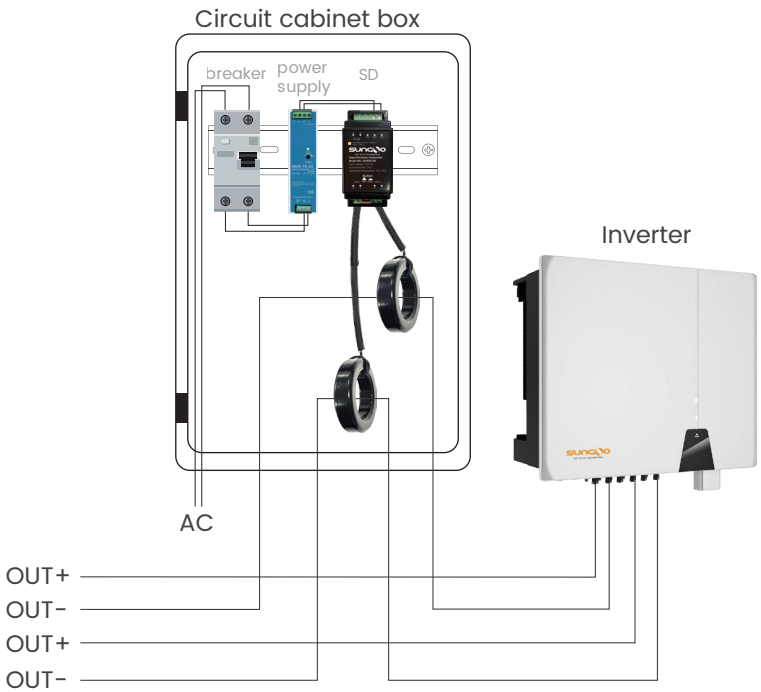


3 SUNGO SD Product Installation

1. Install the SD in the electrical cabinet box (must be waterproof) near the inverter.
This product is divided into two ways of use: Host and Slave.

Note: This product is used on the user's side, a single magnetic ring can wear the PV module bus up to 5 strings, a single product hooked up to two magnetic rings, a total of 10 strings can be the maximum number of group strings.
*Need to reduce the number of strings according to the field wiring distance,Ensure PLC communication is working properly.

2. Connect the PV string OUT+ to the inverter PV+.
3. Connect the PV string OUT- to the inverter PV- through the SD magnetic ring.



Note: The SD can accommodate a string with a maximum round trip distance of 300 meters from positive to negative.

Function debugging:

When used as a Host (number of SDs used in the power station = 1)
There is no need to connect RS-485 line, just connect DC power supply 12V+, 12V-, and Button button is placed at Host (normally open state). The Host function can be realized.

When used as a Master/Slave (power station using SD number > 1)
1. Master/Slave definition:
Host definition: choose the one that defines the closest distance to the inverter to transmit the magnetic ring through which the PV module passes as the SD Host.
Slave definition: In the same power station, all except the master are slaves.
2. Master/Slave Function Selection:
Host function: the host needs to put the Button button to Host (normally open state);
Slave function: the slave needs to put the Button button to Slave (normally closed state).
3. Host/Slave connection mode (Twisted pair cable for RS-485 communication is required):
①. RS-485 line needs to connect RS-485 B of the master to RS-485 B of the slave, and RS-485 A of the master to RS-485 A of the slave;
②. The subsequent slaves need to access RS-485 B at the RS-485 B end of the last slave that has been connected to the host; and RS-485 A at the RS-485 A end of the slave that has been connected to the host.
③. The back of the expansion of SD slaves in turn from the last SD has been able to receive the RS-485 signal, access to the RS-485 signal.
④. The host running light shows yellow, the slave running light shows red; all the running lights flashing synchronously, indicating that the signal is normal, if there is no flashing indicates that there is a problem in receiving RS-485 signals, please check the wiring.

Host-slave connection

Host Slave Slave

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