APsmart

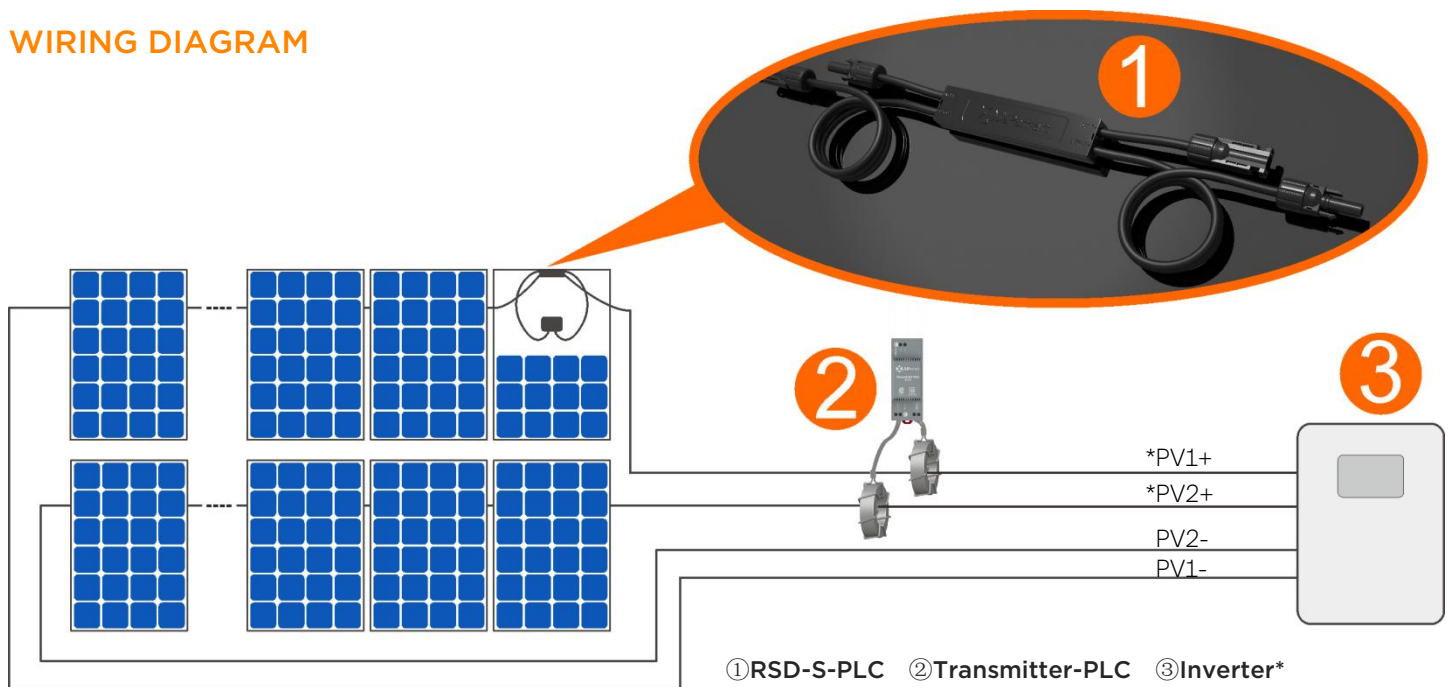# RSD-S-PLC

RAPID SHUTDOWN DEVICE

✓ Meets NEC 2017, 2020&2023 (690.12) requirements

✓ Executes rapid shutdown of system when Transmitter-PLC signal is absent

✓ Meets SunSpec requirements

WIRING DIAGRAM

①**RSD-S-PLC**   ②**Transmitter-PLC**   ③**Inverter***

*PV1+
*PV2+
PV2-
PV1-

*Homerun only PV+ cable through core.
*If the inverter includes an integrated SunSpec-certified Rapid Shutdown Transmitter, remove the external transmitter-PLC in the wiring diagram.

The RSD-S-PLC meets SunSpec requirements, maintaining normal function by continually receiving a heartbeat signal from the APsmart Transmitter. The RSD executes rapid system shutdown when the Transmitter signal is absent. Users can manually execute rapid shutdown using Transmitter breaker switch.*[1][2]

*(1) RSD-S-PLC does not have automatic shutdown function for arc detection. When the system is abnormal, the transmitter signal is cut off by pulling the gate, which triggers shutdown.
*(2) RSD-S-PLC is designed to reduce the risk of fire suppression but does not solve the risk of a arc fire.
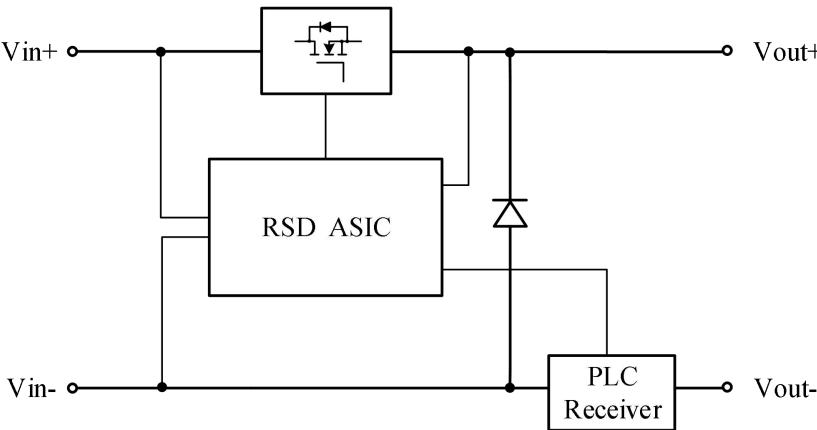
TECHNICAL DATA

MODEL	RSD-S-PLC
INPUT DATA (DC)	
Input Operating Voltage Range	10.5-80V
Maximum Cont. Input Current (Imax)	15A
Maximum Short Circuit Current（Isc）	25A*****
OUTPUT DATA (DC)	
Output Operating Voltage Range	10.5-80V
Maximum System Voltage	1000V/1500V
Maximum Series Fuse Rating	30A
MECHANICAL DATA	
Operating Ambient Temperature Range	-40°F to +185°F (-40 °C to + 85 °C)
Dimensions (without cable & connectors)	5.5″ x 1.3″ x 0.7″(140 mm x 32 mm x 18 mm)
Cable Length	Input 250mm/Output 1200mm
Cable Cross Section Size	UL:12AWG
Connector	Input: Stäubli MC4 PV-KBT4&KST4 or Customized
	Output: APsystems specified or Customized
Enclosure Rating	NEMA Type 6P/IP68
Protection Temperature	100°C
FEATURES & COMPLIANCE	
Communication	PLC
Safety Compliance	NEC 2017, 2020&2023 (690.12); UL1741; CSA C22.2 No. 330-17; IEC/EN62109-1; 2PFG2305
EMC Compliance	FCC Part15; ICES-003;IEC/EN61000-6-1/-2/-3/-4

*Only upgrade the authentication parameters, no other changes.

WORKING SCHEMATIC DIAGRAM

ORDERING INFORMATION

415002	1500V UL, 1.2m cable, Stäubli MC4 PV-KBT4&KST4
4150XX*	1500V UL, 15A, 1.2m cable, Customized connector

please see the RSD Series Ordering Information

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