APsmart

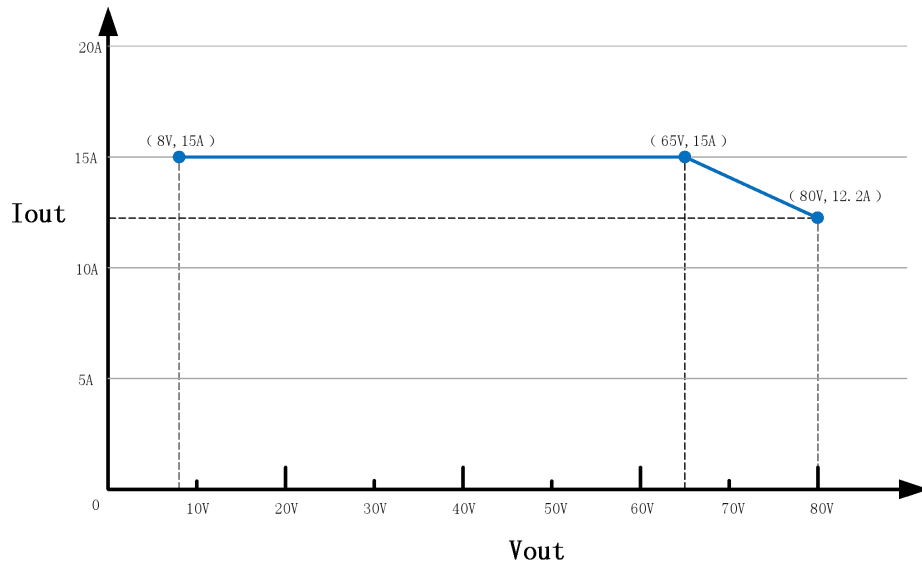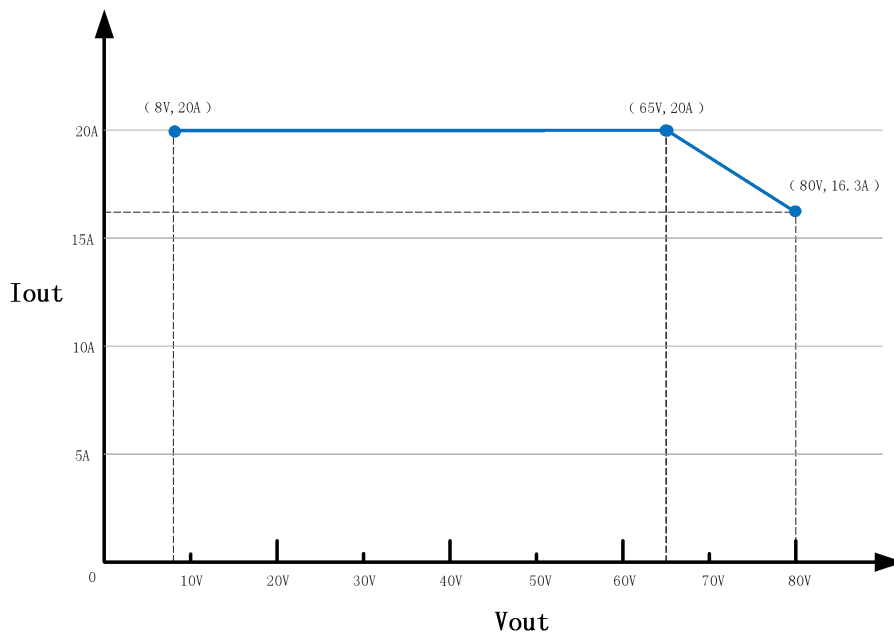## Raising the bar in innovative DC MLPE solar power systems

RSD-D

- Meets NEC 2017 & 2020 (690.12) requirements
- Executes rapid shutdown of system when Transmitter-PLC signal is absent
- Meets SunSpec requirements
- Dual-input channel

RSD-D Technical Data

Model	RSD-D-15	RSD-D-20
Input Data (DC)		
Input operating Voltage Range	8-80V Per Channel	
Maximum Cont. Input Current (Imax)	15A Per Channel	20A Per Channel
Output Data (DC)		
Output operating Voltage Range	16-160V	
Maximum Cont. Output Current	15A	20A
Maximum System Voltage	1000V/1500V	
Mechanical Data		
Operating Ambient Temperature Range	-40 °F to +167 °F (-40 °C to + 75 °C)	
Dimensions (without cable & connectors)	5.5″ x 2″ x 0.8″(140 mm x 50.6 mm x 20 mm)	
Cable Length	Input 500mm/Output 2200mm	
Cable Cross Section Size	TUV:4mm² /UL:12AWG	
Connector	MC4 or Customize	
Enclosure Rating	NEMA Type 6P/IP68	
Over temperature protection	Yes	
Features & Compliance		
Communication Compliance	PLC	
Safety Compliance	NEC 2017 & 2020 (690.12); UL1741; CSA C22.2 No. 330-17; IEC/EN62109-1	
EMC Compliance	FCC Part15; ICES-003	

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

RSD-D Wiring Diagram

① RSD-D
② Transmitter-PLC
③ Inverter*

*If the inverter includes an integrated SunSpec-certified Rapid Shutdown Transmitter, remove the external transmitter-PLC in the wiring diagram.

*PV1+
PV1-
*PV2+
PV2-

*Only (+) or (-) through core

Working Schematic Diagram

Vin1+   Vout+

RSD ASIC

Vin1-

Vin2+

PLC Receiver

Vin2-   Vout-

APsmart

I-V Curve — RSD-D-15

I-V curve showing Iout vs Vout with points (8V, 15A), (65V, 15A), and (80V, 12.2A).

I-V Curve — RSD-D-20

I-V curve showing Iout vs Vout with points (8V, 20A), (65V, 20A), and (80V, 16.3A).

ORDERING INFORMATION

426101	1500V UL/1000V TUV, 15A, 2.2m cable, MC4
446101	1500V UL/1000V TUV, 20A, 2.2m cable, MC4
4261xx*	15A, 2.2m cable, Customize connector
4461xx*	20A, 2.2m cable, Customize connector

*please see the RSD Series Ordering Information

APsmart