

## ABB solar system accessories

### Rapid Shutdown for 600V applications



ABB now offers a low-profile behind the module rapid shutdown solution for 600V systems. This product provides a fail-safe solution for emergency responders to eliminate voltage at the PV array in compliance with NEC 2014 Rapid Shutdown code requirements.

**The ABB Rapid Shutdown system requires no extra conduit; minimizing additional material cost and associated labor.**

Shutdown occurs at the rooftop box when utility power is lost or when the PV system's AC disconnect switch is opened. The Rapid Shutdown box can mount directly to the PV mounting rail or PV module and lay parallel to the roofing surface. The NEMA 4X design permits installation angles from 0-90° while maintaining its water-tight seal from mounted snow and driven rain.

**Two models are available to cover all system configurations; including a single input/output version and a two-input/two-output version.**

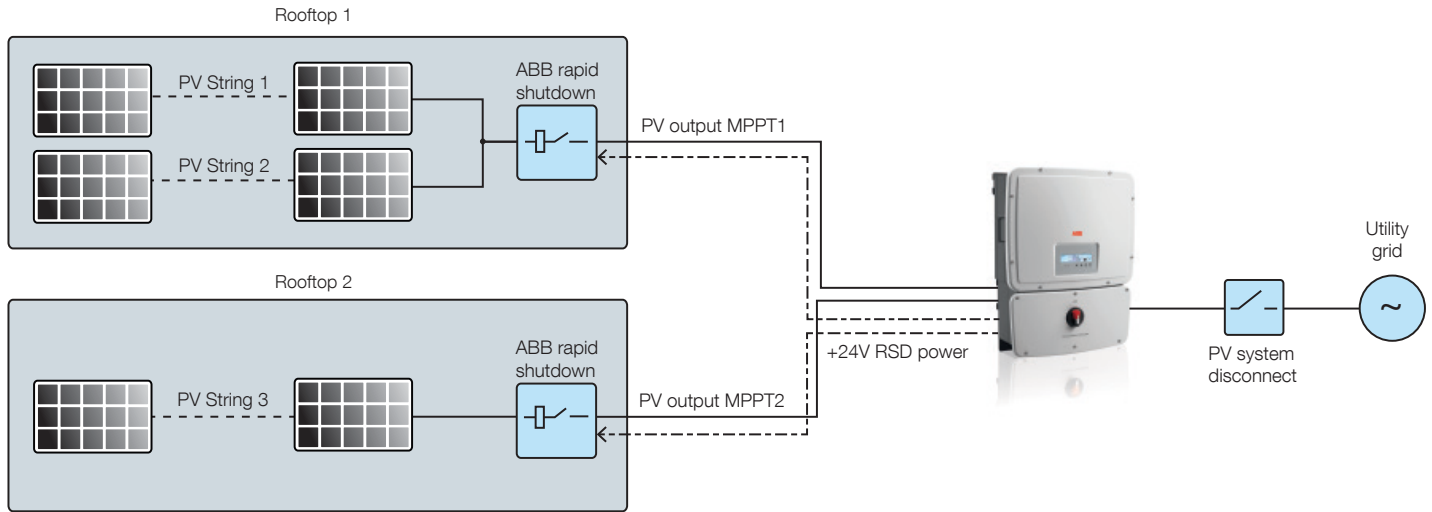
The unique features of each box can be used to maintain the specific configuration of the PV system. Dual outputs in the box maintain the benefits of ABB's dual MPPT inverter channels, while the single output box is perfect for small PV arrays utilizing one MPPT channel or systems requiring two rapid shutdown boxes.

To further reduce system cost, the input channels are rated up to 25A allowing paralleled strings on one input.

#### Highlights:

- Meets NEC 690.12 while avoiding the cost of additional conduit making this solution the most cost-effective rapid shutdown product available
- NEMA 4X enclosure provides added protection from the harshest rooftop conditions
- The 25A rated inputs allow for paralleled strings to provide additional savings by reducing the number of DC conductors to the inverter
- New low-profile, behind the module design improves the look of the overall system by keeping wire management behind the array

## Rapid shutdown wiring diagram: 2-RSD system



The inputs of both rapid shutdown boxes are rated for 25A which allows for single or paralleled string to be connected to one input. On a 2 rooftop system either version of the Rapid Shutdown box, or both, may be used.

### Technical data and types

Type code	Single input	Double input
<b>PV source conductor input</b>		
Max input current (per input)		22.5A <sub>imp</sub> / 25A <sub>isc</sub>
Max input voltage		600V
Number of PV source/output pairs	1	2
Conductor size		14-8 AWG
<b>PV output conductors output</b>		
Number of PV output circuit pairs	1	2
Conductor size		14-8 AWG
<b>Control power</b>		
Power consumption	<3.6W/24V/0.15A	<7.2W/24V/0.3A
Power conductor size		18-16 AWG
Number of RSD boxes allowed per power supply	4	2
<b>Environmental</b>		
Mounting angle		0-90°
Dimensions L x W x D	7.1"x6.7"x2.0"	7.1"x6.7"x2.0"
Weight	2.2lb	3lb
Operating temperature range		-40°C to +75°C
Enclosure rating		Type 4X
Certifications	UL1741:2010, FCC Part 15 Class B	
<b>Available models</b>		
Rapid shutdown kit	RS1-1PN6-MC4-KIT	RS2-2PN6-MC4-KIT
Rapid shutdown (box only)	RS1-1PN6-MC4	RS2-2PN6-MC4

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### Support and service

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For more information please contact your local ABB representative or visit:

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