

SOLAR INVERTERS

# **ABB solar system accessories** Rapid Shutdown for 600V applications



RSD2.0

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 snow and 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. The second generation ABB rapid shutdown solution for 600V systems is even easier to implement. This behind the module product provides a fail-safe solution for emergency responders to eliminate voltage at the PV array in compliance with NEC Rapid Shutdown code requirements. The ABB Rapid Shutdown system requires no extra conduit; minimizing additional material cost and associated labor.

### **Highlights**:

- Meets NEC 690.12 while avoiding the cost of additional conduit making this solution one of the most costeffective 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 theoverall system by keeping wire management behind the array
- Second generation design is even easier to install eliminating the crimp tool used with generation one.



#### Rapid shutdown wiring diagram: 2-RSD system



I he 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
PV source conductor input		· · · · · ·
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	10 AWG	
PV output conductors output		
Number of PV output circuit pairs	1	2
Conductor size	10 AWG	
Control power		
Power consumption	<3.6W/24V/0.15A	<7.2W/24V/0.3A
Power conductor size	18 AWG min	
Number of RSD boxes allowed per power supply	4	2
Environmental		
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	NEMA 4X	
Certifications	UL1741:2010	
Warranty		
Standard warranty	5 Years	
Available models		
Rapid shutdown kit for PVI-3.0/3.6/3.8/4.2/5000/6000/7.6/8.6	RSD2.0-1PN6-MC4-kit	RS2.0-2PN6-MC4-kit
Rapid shutdown (box only) for UNO-DM-3.3/3.8/4.6/5.0/6.0	RSD2.0-1PN6-MC4	RS2.0-2PN6-MC4
Rapid shutdown with CSB*	RSD2.0-1PN6-MCR-CSB	RSD2.0-2PN6-MC4-CSB
* Customer specific bracket		

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This device is shipped with the certification mark shown here.



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