



# Rapid Shutdown Datasheet

## HRSD-1C

### Description

As part of Hoymiles Rapid Shutdown Solution for PV system, HRSD-1C is connected with one module. It meets NEC 2017, NEC 2020, UL 1741 and SunSpec Rapid Shutdown requirements, guaranteeing PV system safety.

The HRSD device enables proper operation of the PV system when it is installed and receives a "permission to operate" signal from the Hoymiles Transmitter. In an emergency, PV system would enter module-level rapid shutdown mode by simply disconnecting the AC power of Transmitter or using an external initiator.

### Features

- 01

**Module-level Rapid Shutdown**  
*Meets SunSpec RSD, NEC 2017&NEC 2020 690.12 requirements*
- 02

**Increased Reliability**  
*Uses Active Bypass to reduce heat generation in shade and other situations*
- 03

**Better Temperature Uniformity**  
*Uses graphene heat spreader to improve heat dissipation*
- 04

**Easy Installation**  
*Plug & play, no configuration required*
- 05

**High Efficiency**  
*Lower power consumption and wider operating voltage range*
- 06

**Reliable Communication**  
*Able to avoid crosstalk with special communication modulation technique*

# Technical Specifications

Model	HRSD-1C	HRSD-1C-B
<b>Electrical Data</b>		
Input Voltage Range	13-80 V	13-65 V
Maximum Current	15 A	20 A
Maximum Short Circuit Current	25 A	
Maximum System Voltage	1000/1100 V (1500 V optional)	
Communication Type	SunSpec PLC	
Shutdown Output Voltage	1 V	
Power Consumption	200 mW	
<b>Mechanical Data</b>		
Input Connectors	MC4 / MC4 EVO2, Customisable	
Input Cable Length	0.15 m (0.49 ft.) <sup>1</sup> , Customisable	
Output Connectors	MC4 / MC4 EVO2, Customisable	
Output Cable Length	1.2 m (3.94 ft.) <sup>2</sup> , Customisable	
Dimensions	113 x 54 x 16 mm (4.45 x 2.13 x 0.63 inch)	
<b>Environmental</b>		
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)	
Outdoor Rating	IP68 / NEMA6P	
<b>Compliance</b>		
Safety	UL1741, CSA C22.2 No. 330-17, IEC/EN 62109-1	
EMC	FCC Part15 Class B, ICES-003, IEC/EN 61000-6-1/-2/-3/-4	

\*1: Applicable to PV modules with 1 meter- (3.3 ft.) long output cables at minimum.

\*2: Fits PV module in landscape and portrait installation.

