



Rapid Shutdown Datasheet

HRSD-1C

Description

As part of Hoymiles Rapid Shutdown Solution for the 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, the PV system would enter module-level rapid shutdown mode by simply disconnecting the AC power of the 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
Electrical Data		
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 V / 1100 V (1500 V optional)	
Communication type	SunSpec PLC	
Shutdown output voltage	1 V	
Power consumption	200 mW	
Mechanical Data		
Input connectors	MC4 / MC4 EVO2, optional	
Input cable length ¹	0.3 m (0.98 ft.) / 1.4 m (4.59 ft.), optional	
Output connectors	MC4 / MC4 EVO2, optional	
Output cable length ²	1.35 m (+) / 0.1 m (-) 4.43 ft. (+) / 0.33 ft. (-)	
Dimensions	113 x 54 x 16 mm (4.45 x 2.13 x 0.63 inch)	
Environmental		
Operating temperature range	-40°C to +85°C (-40°F to +185°F)	
Outdoor rating	IP68 / NEMA6P	
Compliance		
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: The former matches PV module output cables of 1.3 m (4.27 ft.) at minimum, and the latter matches those of 0.2 m (0.66 ft.) at minimum.
2: Fits PV module in portrait installation. Contact Hoymiles if horizontal installation is needed.

