Easy to install and commission for Rapid Shutdown PV arrays and NEC 2017 compliance

MPPT Disconnect RS

A Rapid Shutdown transmitter, arc fault detection, and PV disconnect for use with MPPT 60 150, MPPT 80 600, and MPPT 100 600 charge controllers

Solution at a glance

The MPPT Disconnect RS is an accessory for the Conext™ MPPT charge controllers. It provides a disconnect for the photovoltaic (PV) circuits, an integrated Rapid Shutdown transmitter, and arc fault detection for enhanced safety.

The MPPT Disconnect RS provides simplified NEC 2017 Compliance

• Integrated Rapid Shutdown transmitter using power line communication (PLC)
• Tested and PVRSS certified with Tigo® TS4-A-F or TS4-A-2F Fire Safety receivers
• Arc fault detection certified to UL 1699B
• Compatible with Conext™ MPPT 100 600, MPPT 80 600, and MPPT 60 150 charge controllers

Integrated PV Disconnect

• 2 leg disconnect, compliant with NEC 2017
• LOTO capability
• 2 input channels with up to 2 strings per channel

Flexible Installation

• Multiple configurations with Conext™ MPPT charge controllers
• Single Rapid Shutdown Initiator Switch can be used with multiple MPPT Disconnect RS for larger systems
• Side or bottom cable entry
• Mount on either side of the Conext™ MPPT charge controllers

Charge Controller Configurations with MPPT Disconnect RS

| Configuration | Charge Controller
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Strings x 1 Channel</td>
<td>MPPT 100/80 600</td>
</tr>
<tr>
<td>2 Strings x 2 Channels</td>
<td>Qty 2 MPPT 100/80 600</td>
</tr>
<tr>
<td>4 Strings 2 Strings x 2 Channels</td>
<td>MPPT 60 150</td>
</tr>
</tbody>
</table>
Technical Specifications

MPPT Disconnect RS

Device short name: MPPT Disconnect RS

Electrical specifications

- Max. PV array open circuit voltage: 600 VDC
- Max. array short-circuit current: 32 A (25.6 A @ STC) x 2 channels
- Max. and min. PV input/output wire size: #6 AWG to #14 AWG (13.5 to 2.5 mm²)
- Control power input: 48 VDC nominal (22-60 VDC)

General specifications

- PV Disconnect: 2 channel, 4 pole DC disconnect switch
- Arc fault circuit protection: Type 1
- Rapid Shutdown: PLC transmitter included, Rapid Shutdown Initiator Switch ordered separately
- Network communications: Xanbus
- Enclosure type: Type 1, indoor rated
- Product weight: 4.5 kg (10 lb)
- Product dimensions (H x W x D): 36.8 x 22 x 14.5 cm (14.48 x 8.66 x 5.7 in)
- Shipping dimensions (H x W x D): 28.5 x 44.0 x 29.0 cm (11.22 x 17.32 x 11.41 in)
- Ambient air temperature for operation: -20°C to +50°C (-4°F to 122°F)
- Operating altitude: Sea level to 2000 m (6562 ft)

Regulatory

- EMC: FCC and Industry Canada (Class B)

Rapid Shutdown Initiator Switch (Ordered separately)
- Enclosure type: Type 4X, outdoor rated
- Ambient air temperature for operation: -20°C to +50°C (-4°F to 122°F)

Compatible Product Part Numbers And Example Configurations

<table>
<thead>
<tr>
<th>Products</th>
<th>Part Number</th>
<th>1 x MPPT 100/80</th>
<th>2 x MPPT 100/80</th>
<th>3 x MPPT 100/80</th>
<th>4 x MPPT 100/80</th>
<th>1 x MPPT 60</th>
<th>2 x MPPT 60</th>
<th>3 x MPPT 60</th>
<th>4 x MPPT 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPPT 100 600 or</td>
<td>865-1034 or</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MPPT 80 600</td>
<td>865-1032</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPPT 60 150</td>
<td>865-1030-1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MPPT Disconnect RS</td>
<td>865-1036</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>RS Initiator Switch</td>
<td>865-1039</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PV Rapid Shutdown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example System Solution with MPPT Disconnect RS

1. Refer to MPPT Charge Controller data sheet for total allowable short circuit current
2. With Xanbus communication to MPPT charge controller