**MPPT Disconnect RS**

**865-1036**

**Quick Start Guide**

**A Safety Information**

**Important Information**

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING** indicates a hazardous situation which, if not avoided, can result in death or serious injury.

**Please Note**

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material. A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

**Conventions Used**

- Step: Quick Start Guide and “RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM” label
- A: Mounting:
- #10 screws (x3)
- DC disconnect switch
- Wall mounting screws

**Exclusion for Documentation**

Unlikely specifically agreed to as writing, seller:

(A) MAKES NO WARRANTY AS TO THE ACCURACY, SUITABILITY OR SATISFACTORY OF ANY TECHNICAL, OR OTHER INFORMATION PROVIDED IN ITS MANUALS OR OTHER DOCUMENTATION;

(B) DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR LOSSES, DAMAGES, COSTS OR EXPENSES, WHETHER SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL, WHICH MIGHT ARISE OUT OF THE USE OF SUCH INFORMATION. THE USE OF ANY SUCH INFORMATION WILL BE ENTIRELY AT THE USER’S RISK AND;

(C) REMINDS YOU THAT IF THIS MANUAL IS IN ANY LANGUAGE OTHER THAN ENGLISH, ALTHOUGH STEPS HAVE BEEN TAKEN TO MAINTAIN THE ACCURACY OF THE TRANSLATION, THE ACCURACY CANNOT BE GUARANTEED. APPROVED CONTENT IS CONTAINED WITH THE ENGLISH LANGUAGE VERSION WHICH IS POSTED AT HTTPS://SOLAR.SCHNEIDER-ELECTRIC.COM/.

**Accuray of the translation, the accuracy cannot be guaranteed.**

**B Product Safety Information**

**DANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR FIRE

This document is in addition to, and incorporates by reference, the relevant product manuals for this device. Before reviewing this document, you must read the relevant product manuals. Unless specified, information on safety, specifications, installation and operation is as shown in the primary documentation for each device. Ensure you are familiar with that information before proceeding.

Failure to follow these instructions will result in death or serious injury.

**WARNING**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR FIRE

- This product/pv rapid shutdown equipment (PvRSE) does not perform all of the functions of a complete photovoltaic rapid shutdown system (PVSS). This PVSS must be installed with other equipment to form a complete PVSS that meets the requirements of NEC (NFPA 70) section 690.12 for controlled conductors outside the array.
- Other equipment installed in or on this PV System may adversely affect the operation of the PVSS.
- It is the responsibility of the installer to ensure that the completed PV system meets the rapid shutdown functional requirements.
- This equipment must be installed according to the manufacturer’s installation instructions.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

**WARNING**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR FIRE

- This equipment is not ignition protected. Do not install this product in locations that require ignition-protected equipment. This includes any confined space containing lead acid batteries, or flammable chemicals such as, natural gas (NG), liquid petroleum gas (LPG) or gasoline (Benzine/Petrol).
- Do not install in a confined space with machinery powered by flammable chemicals, or storage tanks, fillings, or other connections between components of fuel or flammable chemical systems. Keep flammable materials a minimum distance of 10 meters (33 feet) from the top surface and 30 cm (12 in) from either side edges and the front of the MPPT Disconnect RS.
- The MPPT Disconnect RS must be mounted vertically and installed indoors in a dry, protected location away from flammable materials, sources of high temperature, moisture, vibration, direct sunlight, dust, and wind-blown debris.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

**WARNING**

HAZARD OF INJURY OR EQUIPMENT DAMAGE

The installer must provide signage that complies with section 690.56(C) of the NEC (NFPA 70).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

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**C Introduction**

The MPPT Disconnect RS is an accessory for the Conext MPPT 60 150 and MPPT 80 600 charge controllers. It provides a disconnect for the photovoltaic (PV) circuits, an integrated Rapid Shutdown transmitter, and arc fault detection. Rapid shutdown functionality is achieved only when the PV modules are equipped with compatible models of TIG06 TS4-F (not supplied) installed according to local codes and standards (see the MPPT Disconnect RS Installation and Owner’s Guide (990-91315) for more information).

**D Materials List**

**NOTE:** Before unpacking the MPPT Disconnect RS, check the outer packaging for materials for damage. If any damage is found, contact your supplier before proceeding.

**E Physical Features**

**Materials**

- Quick Start Guide
- LED display panel
- Top cover screws
- Wall mounting screws
- DC disconnect switch
- Knockouts
- R4AS network terminator
- Battery cable (with fuse)
- PV jumpers for Conext MPPT 60 150 configurations (x2)

**F Tools and Equipment**

The following materials and tools are not supplied but are required to complete the installation:

- Personal protective equipment (PPE)
- Voltage meter
- Locks and tags
- Power drill (use only for mounting)
- Screwdriver sets (flat-head and Phillips)
- Wire stripper
- Calibrated torque wrench set for torque values ranging from 0.5–3.1 Nm (0.4–2.3 lb-ft)
- M4 screws for mounting the RSD Initiator switch
- Spirit level
**Wiring – Terminal Connections**

**NOTE:** For more information and additional wiring diagrams, see the MPPT Disconnect RS Installation and Owner’s Guide (990-91313), and installation guides for all other equipment.

**For Conext MPPT 60 150 only:**
32 A max. per input channel. Install the provided jumpers between output terminals PV1+ and PV2+, and PV1- and PV2- to combine output channels.

For Conext MPPT 80 600 Solar Charge Controllers (1 or 2), wiring section only

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**Lock-out and Tag-out**

**DANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E or CSA Z462.
- This equipment must only be installed by qualified electrical personnel.
- Never energize this equipment with covers removed.
- This equipment is energized from multiple sources. Before removing covers identify all sources, de-energize, lock-out, and tag-out and wait 2 minutes for circuits to discharge.
- Always use a properly rated voltage sensing device to confirm all circuits are de-energized.
- Do not install/store this equipment near flammable material.
- Ensure that Control and PV cables are properly inserted in their respective terminal blocks.
- Follow all Schneider Electric and battery manufacturer guidelines for battery protection.
- Do not attempt to replace components inside the MPPT Disconnect RS.

Failure to follow these instructions will result in death or serious injury.

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**Wiring – Preparation**

**NOTICE**

**EQUIPMENT DAMAGE**

Do not drill, cut, or punch holes in the MPPT Disconnect RS. Use only the knockouts provided. You can use either the bottom or side knockouts.

Failure to follow these instructions can result in equipment damage.

1. Remove the DC Disconnect switch knob.
2. Remove the four front cover screws and then lift off the cover (see section D).
3. Remove the knockout plugs for battery, PV array, and network cables and set aside.
4. Follow the pre-installation and wiring instructions in the installation manuals for the MPPTs and RS Initiator switch.

**IMPORTANT:** The RS Initiator switch must be installed in an accessible location, per 690.12 (C) of NEC 2017.

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Electrical specifications

Max. PV array open circuit voltage | 600 VDC

Conductor type | Certified for use with 75°C copper conductors
PV Input and Output connection | Push In cage clamp, CU type cable compatible
Battery connection | Push In cage clamp, CU type cable compatible
RS Initiator switch connection | Push In cage clamp, CU type cable compatible

General specifications

Ambient air temperature for operation | 20°C to 50°C (-4°F to 122°F)
Storage temperature range | 40°C to 85°C (-40°F to 185°F)
Relative humidity | Less than 85%, non-condensing
Operating altitude | Sea level to 6562 ft (2000 m)

Regulatory

EMC | FCC and Industry Canada (Class B)

Rapid Shutdown Initiator Switch (ordered separately)

Part number | 865-1039
Enclosure type | NEMA 4x
Ambient air temperature for operation | -20°C to 50°C (-4°F to 122°F)

Compatible products

Conext MPPT charge controller | Conext MPPT 80 600, Conext MPPT 60 150
Rapid Shutdown Receivers

- TS4-F
- TS4-A-F
- TS4-R-F
- TS4-A-2F

<table>
<thead>
<tr>
<th>Fastener type</th>
<th>Torque Nm (ft-lb)</th>
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<tbody>
<tr>
<td>Front cover screws</td>
<td>2.6 (1.9)</td>
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<tr>
<td>DC switch knob fastener</td>
<td>0.5-0.7 (0.4-0.5)</td>
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<tr>
<td>Plastic nut for DC switch</td>
<td>2-2.5 (1.5-1.8)</td>
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<tr>
<td>Wall mounting screws</td>
<td>3.1 (2.3)</td>
</tr>
<tr>
<td>Ground/Earth nut</td>
<td>2.7 (1.99)</td>
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