

### 1. General Information - Specifications

#### ⚠ ATTENTION - READ FIRST

1. This document is for quick guidance only. For details, please refer to the TS4-A-F/-2F Installation Manual.
2. Damage caused by failure to follow the contents of the TS4-A-F/-2F Installation manual is not covered by the warranty.
3. Install all TS4-A-F, and/or TS4-A-2F BEFORE powering on the RSS transmitter.
4. TS4-A-F, TS4-A-2F and a Tigo RSS Transmitter are a solution to meet NEC 2017 & 2020 690.12 Rapid Shutdown requirements. TS4-A-F and TS4-A-2F units automatically enter rapid shutdown mode when the RSS Transmitter is switched off, and resumes energy production when power is restored to the RSS Transmitter. Wait 30 seconds after rapid shutdown activation before disconnecting DC cables or turning off DC disconnect.

#### 1.1 Package Contents

| Item                 | Quantity |
|----------------------|----------|
| TS4-A-2F             | 20       |
| Quick Start Guide    | 1        |
| Rapid Shutdown label | 1        |

🌿 A **Tigo RSS Transmitter** is required for the proper operation of this rapid shutdown system. For more information, scan the QR code here.



Tigo RSS

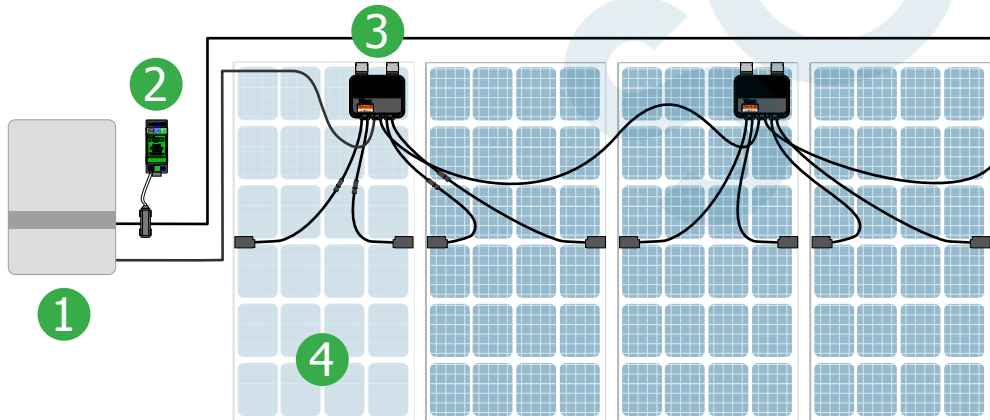
#### 1.2 Rapid Shutdown (RSD) System Wiring Diagram

⚠ Each module in the PV system must contain a TS4-A-F or TS4-A-2F for safe and proper operation of the PV system.

System components:

1. PV inverter
2. Tigo RSS Transmitter
3. Tigo TS4-A-2Fs (qty. will vary)
4. PV modules (qty.  $\leq \frac{1}{2}$  TS4)

A PLC-based RSD system consists of a transmitter and receivers.



🌿 Many leading inverters integrate the Tigo RSS Transmitter. Look for the Tigo Enhanced label or check for Tigo integration partners at <https://www.tigoenergy.com/ul-pvrs>

#### 1.3 TS4-A-2F Overview

1. PV module Input 1
  - Negative (-) LEFT
  - Positive (+) RIGHT
2. Output to String
  - Negative (-) LEFT
  - Positive (+) RIGHT

3. Module clips
  - With clips on, mount to PV module
  - Remove clips to reveal M8 mounting holes
4. PV module Input 2
  - Negative (-) LEFT
  - Positive (+) RIGHT

Max voltage: 80V<sub>DC</sub>  
 Max current Imp/Isc: 20/25A<sub>DC</sub>  
 Max power: 700W (per input - 2) = 1400W  
 Max string voltage: 1000/1500V<sub>DC</sub> (connector dependent)

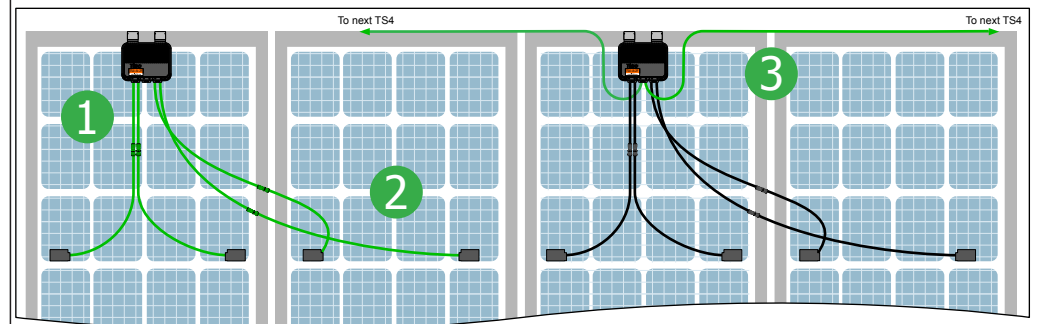
⚠ Wear and USE appropriate PPE for the application.

⚠ Energy is supplied to the Tigo TS4 output cables immediately upon connection to a PV module exposed to sunlight. Use care when handling. Do not mate connectors from different manufacturers.

### 2. Installation

⚠ Install the TS4-A-F, and/or TS4-A-2F BEFORE powering on the RSS transmitter. All PV modules from the same inverter must have a TS4 connected.

1. MOUNT    2. Connect MODULES to TS4s    3. Connect the TS4s



🌿 Mounting the TS4 to the PV module frame and dressing the input conductors BEFORE taking the module to the roof helps save time.



### 3. Commissioning

#### 3.1 Pre-commissioning checklist

**⚠ Wear and USE appropriate PPE for the application. Suggestions: gloves, sunscreen,....**

| ✓ | Check Item               | Acceptance Criteria   |
|---|--------------------------|---|
|   | TS4 installation         | <b>All PV modules are connected to a TS4-A-F/TS4-A-2F.</b>  |
|   | Tigo RSS Transmitter/PST | The Tigo RSS Transmitter is installed per the RSS Transmitter Installation Manual. If inverter integrated, follow the inverter manufacturer's instructions for signal/power.  |
|   | Voltage check            | The TS4-A-2F passes 0.6VDC at the output to the string.<br>String voltage = 0.6VDC x # TS4s in the system.<br>If TS4-A-F are also used in the same string, add 0.6V for each additional TS4-A-F.                                    |
|   | Connections              | All connectors are securely mated and of same type.   |
|   | Wire Management          | All conductors are properly secured throughout the array. ANSI/NFPA 70 wiring methods used. Multi transmitter systems have PST transmitters installed and properly wired. Refer to RSS Transmitter Installation manual for details. |
|   | Workmanship              | Wire management and general best practices were used.   |

#### 3.2 Commissioning notes

1. Each PV string will produce less than 30VDC until the RSS Transmitter is activated/powered.
2. When power is provided to the RSS Transmitter the PV strings will produce full voltage under the environmental conditions.
3. Commission the PV system as per best practice.

### 4. Troubleshooting

**⚠ Wear and USE appropriate PPE for the application. Live voltages may be present.**

| Issue  | Check   |
|--|---|
| No string voltage                                      | Check that all string connectors are securely connected.  |
| Lower voltage than expected                            | Check that all PV module connectors are securely connected.<br><b>Note</b> – with no keep-alive signal the string voltage will less than 30VDC.<br>Check that the RSS transmitter is powered on. If multiple transmitters are used, check that all are of the Pure Signal Technology (PST) series and are properly wired. |
| Inconsistent voltage reading when no signal is present | 1. Apply power to the RSS Transmitter<br>2. Use an RSS Signal Detector to determine if the individual TS4s are receiving the keep alive signal. If so, check the string is less than 300m.  |

### 5. Your Customer Service Contact

United States (HQ):

**Tigo Energy, Inc.**  
655 Campbell Technology Pkwy  
Campbell, CA 95008

EMEA Office:

**Tigo Energy Italy**  
Srl Via Calamandrei 36 52025  
Montevarchi Tuscany, Italy

Americas: +1 408 402 0802  
International: 00800 2255 8446

<https://support.tigoenergy.com/>



Tigo RSS



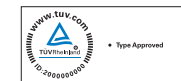
Community



Tigo TS4-A-2F



Support



Class II double insulation

High Voltage

**DANGER**



SOLSOL s.r.o.  
Králůva 298/4, Brno, 616 00, Czech Republic  
[podpora@solsol.cz](mailto:podpora@solsol.cz)  
[www.solsol.cz](http://www.solsol.cz)

