



TS4-A-2F

Module-level rapid shutdown for two modules

The TS4-A-2F (Fire Safety) is the advanced add-on rapid shutdown solution that brings smart module functionality to standard PV modules for higher reliability. Ensure safety by upgrading existing PV systems or by adding safety features to new installations.

The TS4-A-2F complies with NEC 2017, 2020, and 2023 690.12 Rapid Shutdown specifications when installed with the Tigo RSS Transmitter or an inverter with a built-in Tigo certified transmitter.

Features

- High input current rating – now rated for 20 A I_{MP} /25 A I_{SC} to better accommodate bifacial and high-current modules
- Simple, fast installation – snaps to a standard PV module frame or mounts to racking
- Power-line communications (PLC) signaling – rapid shutdown signaling over PV conductors
- Automatic shutdown – PV array enters rapid shutdown mode in the event of AC grid loss
- UL Standards-certified – tested and certified with hundreds of top inverter models
- 25-year warranty

Specifications

| | 20 A | 25 A |
|--------------------------------------|--|-------------------------|
| Electrical | | |
| Maximum current (I_{MP}/I_{SC}) | 15 A/20 A | 20 A/25 A |
| Input voltage range (V_{MP}) | 16 – 80 V | |
| Maximum input voltage | 80 V | |
| Maximum system voltage (V_{MAX}) | 1000 V/1500 V* | |
| Maximum output current (I_{MAX}) | 15 A | |
| Maximum output power (P_{MAX}) | 1000 W (500 W/input) | 1400 W (700 W/input) |
| Maximum fuse rating | 25 A | 30 A |
| Maximum efficiency | 99.9% | |
| Rapid Shutdown | | |
| TS4 conductor AWG | 12 | |
| Rapid shutdown time limit | <30 sec. | |
| PVRSE-controlled conductor limits | ≤ 240 VA, ≤ 8 A, ≤ 30 V _{DC} | |
| UL 1741-compliant PVRSE | Yes | |
| Communications | PLC | |
| Connections | | |
| Input (from modules) cable lengths | 0.13/0.2/1.2/1.3 m | |
| Output (to string) cable lengths | 2.2/2.4 m | |
| Connectors | MC4/EVO2 | |

* Depending on UL/IEC certification



Specifications

| | 20 A | 25 A |
|-----------------------------|---|------|
| Environmental | | |
| Operating temperature range | -40 – 85 °C (-40 – 185 °F)* | |
| Storage temperature range | -40 – 85 °C (-40 – 185 °F) | |
| Maximum elevation | 3000 m (9840 ft.) | |
| Outdoor IP rating | IP68/NEMA 3R | |
| Mechanical | | |
| Dimensions (H/W/D) | 139.7 x 138.4 x 22.9 mm (5.4 x 5.5 x 0.9 in.) | |
| Weight | 590 g (1.3 lb.) | |
| General | | |
| Standards compliance | UL 1741 PVSRE, UL 1741 PVRSS, CSA 22.2, IEC 62109, NEC 690.12 | |
| Warranty | 25 years | |

* 20 A UL rating: -30 – 75 °C (-22 – 167 °F)

More Resources



Ordering Information

| Part Number | V _{MAX} Certifications UL/IEC | Cable Lengths | Connectors |
|----------------------------|---|------------------|------------|
| 20 A I_{sc} | | | |
| 484-00252-22 | 1500 V/1000 V | 0.13/0.2/2.2 m | MC4 |
| 484-00252-24 | 1500 V/1000 V | 1.2/1.3/2.4 m | MC4 |
| 484-00261-24 | 1500 V/1500 V | 1.2/1.3/2.4 m | EVO2 |
| 484-00261-22 | 1500 V/1500 V | 0.13/0.2/2.2 m | EVO2 |
| 484-01252-22 | 1500 V/1000 V | 0.13/0.2/2.2 m | MC4 |
| 484-01252-24 | 1500 V/1000 V | 1.2/1.3/2.4 m | MC4 |
| 484-01261-22 | 1500 V/1500 V | 0.13/0.2/2.2 m | EVO2 |
| 484-01261-24 | 1500 V/1500 V | 1.2/1.3/2.4 m | EVO2 |
| 25 A I_{sc} | | | |
| 485-00252-22 | 1500 V/1000 V | 0.13/0.2/2.2 m | MC4 |
| 485-00252-24 | 1500 V/1000 V | 1.2/1.3/2.4 m | MC4 |
| 485-00261-22 | 1500 V/1500 V | 0.13/0.2/2.2 m | EVO2 |
| 485-00261-24 | 1500 V/1500 V | 1.2/1.3/2.4 m | EVO2 |
| 487-00252-22 | 1000 V* | 0.13/0.2/2.2 m | MC4 |
| 487-00252-24 | 1000 V* | 1.2/1.3/2.4 m | MC4 |
| 487-00261-22 | 1500 V* | 0.13/0.2/2.2 m | EVO2 |
| 487-00261-24 | 1500 V* | 1.2/1.3/2.4 m | EVO2 |

* IEC certified only