



TS4-A-F

Module-level PV Rapid Shutdown

The TS4-A-F (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-F complies with NEC 690.12 Rapid Shutdown specifications when installed with the Tigo RSS Transmitter or an inverter with built-in Tigo certified transmitter.

Included Features



Fire Safety

Enhanced **safety** for NEC 690.12 rapid shutdown compliance

Easy Installation

Snap to standard module frame or remove brackets for rack mounting

PLC Signaling

Control rapid shutdown with the Tigo RSS Transmitter

Automatic Shutdown

PV array enters rapid shutdown in event of AC grid loss



TS4-A-F SPECIFICATIONS

Environmental

Operating Temperature Range	UL: -30°C to +75°C (-22°F to +167°F)
	IEC: -40°C to +85°C (-40°F to +185°F)
Outdoor Rating	IP68, NEMA 3R

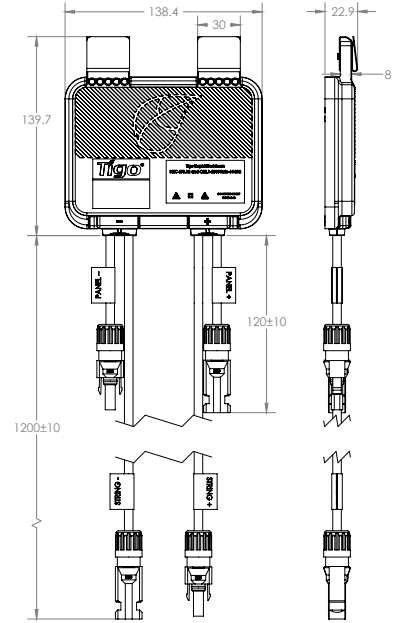
Mechanical

Dimensions	138.4mm x 139.7mm x 22.9mm
Weight	490g

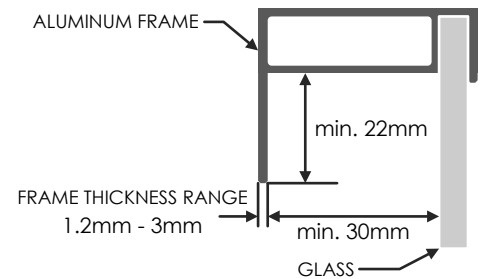
Electrical

Voltage Range	16 - 90V
Maximum Current	15A
Maximum Power	700W
Cable Lengths (in/out)	0.12/1.2m (standard), 0.62/1.2m (optional)
Connectors	MC4 (standard)
Communication Type	PLC

Rapid Shutdown UL Listed (NEC 2017 & 2020 690.12)
 Rapid shutdown activation of TS4-A-F requires RSS Transmitter.



Module frame specifications for mounting TS4-A



ORDERING INFORMATION

Standard

459-00252-32 1500V UL / 1000V TÜV, 1.2m cable, MC4

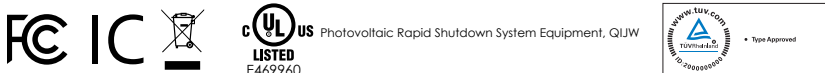
Options

459-00257-12 1000V UL / TÜV, 1.2m cable, MC4 comparable

459-00261-32 1500V UL / TÜV, 1.2m cable, EVO2

459-00252-62 1500V UL / TÜV, 0.62/1.2m Cable, MC4

459-00261-62 1500V UL / TÜV, 0.62/1.2m Cable, EVO2



Photovoltaic Rapid Shutdown System Equipment, QIUV



For sales info:

sales@tigoenergy.com or 1.408.402.0802

For product info:

Visit tigoenergy.com/products

For technical info:

Visit support.tigoenergy.com

For additional info and product selection assistance, use Tigo's online design tool at tigoenergy.com/design



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RSS Transmitter with Pure Signal technology

Rapid Shutdown Activator

The Tigo Rapid Shutdown System (RSS) Transmitter is a part of Module Level rapid shutdown solution when paired with Tigo Module Level Power Electronics (MLPE). The RSS Transmitter can link multiple RSS transmitters together, this enables Tigo's Pure Signal Technology, providing one coordinated keep-alive signal to the array.

Features

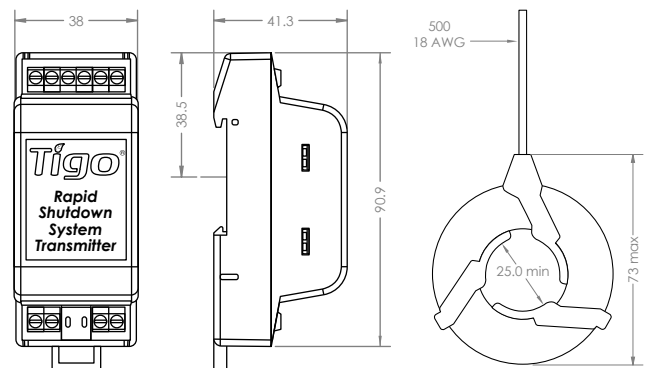
- PLC Communication
- Scalable from residential to large utility projects
- Patented Pure Signal Technology for multiple transmitters
- Configurable with one or two RSS Cores
- Bi-colored core ensures accurate signal directionality

Benefits

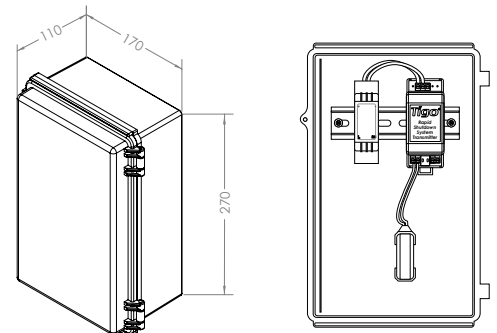
- Meets NEC 690.12 2014, 2017, and 2020 requirements
- Automatic or manual shutdown
- Reduce balance of system cost
- Easy and fast to install
- Compatible with majority of the inverters in the market

Dimensions

Dimensions (W x D x H)	38 x 41.3 x 90.9 mm (1.5 x 1.63 x 3.58in)
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Outdoor Enclosure (optional)	
Dimensions (W x D x H)	170 x 110 x 270 mm (6.69 x 4.33 x 10.63in)



Input

Transmitter Input Voltage	12V _{DC} (+/- 2%)
Transmitter Input Current	1A
Power consumption (Max/Average)	5.5W/0.85W

RSS Core

Max Current	150A per RSS Core (Single Core: 150A, Dual Core: 300A)
Max String Voltage	1500V _{DC}
Max Number of Strings per Core	10
Max Supported PV Modules per String	30

Environmental

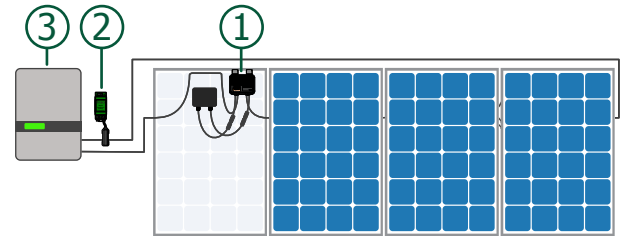
Operating Temperature Range	-40°C to +85°C (-40°F to +185°F)
Outdoor Enclosure Temperature Range (optional)	-20°C to +50°C (-4°F to +122°F)
Enclosure Rating (optional)	IP68, NEMA 4

Ordering Options

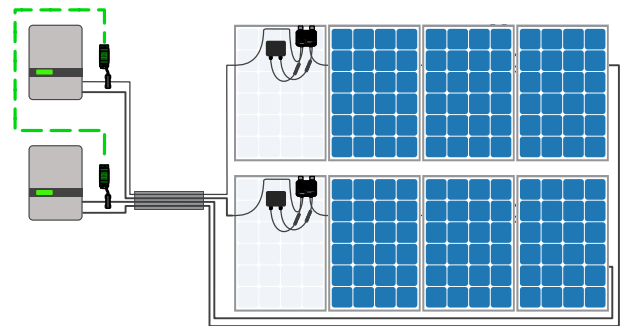
Item #	Description
490-00000-51	Single Core, Pure Signal RSS Transmitter, Din Rail (no PS or enclosure)
490-00000-52	Dual Core, Pure Signal RSS Transmitter, Din Rail (no PS or enclosure)
492-00000-51	Single Core, Pure Signal RSS Transmitter, Din Rail, 120/240VAC PS, Outdoor Enclosure kit
492-00000-52	Dual Core, Pure Signal RSS Transmitter, Din Rail, 120/240VAC PS, Outdoor Enclosure kit
493-00000-52	Dual Core, Pure Signal RSS Transmitter, Din Rail, Commercial 480/277VAC PS (no enclosure)

System Components:

1. Modules equipped with Tigo MLPE
2. Tigo RSS Transmitter and RSS Core
3. Inverter



Typical Multi-Inverter Application



Photovoltaic Rapid Shutdown System Equipment, QIJW

Additional resources



tigoenergy.com

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