



TS4-X-S

Module-level monitoring, and rapid shutdown for modules up to 800 W

Tigo TS4-X-S module-level power electronics (MLPE) improves production, enhances safety, and adds intelligence to both new and existing systems. With patented technology, it offers superior performance and high efficiency, delivering a fast return on investment. Its easy installation and long-lasting reliability reduce system downtime and operational costs. Additionally, Tigo's Energy Intelligence platform accelerates on-site commissioning and provides comprehensive remote monitoring. By incorporating module-level monitoring and rapid shutdown, O&M expenses and truck rolls are significantly minimized.

Features

- Rated 800 W, 25 A I_{sc} to accommodate the latest high-power, high-current modules
- Simple, fast installation – snaps to a standard PV module frame or mounts to racking
- Module-level monitoring – full visibility into module- and system-level production
- Rapid shutdown – a UL Standards-certified component for photovoltaic rapid shutdown systems (PVRSS) worldwide
- Required - Tigo Access Point (TAP) and Cloud Connect Advanced (CCA) for rapid shutdown and module-level monitoring
- Multi-factor Rapid Shutdown capability for enhanced safety when combined with RSS Transmitter (optional)
- Works with any system – fully compatible with thousands of different inverter models from more than 50 inverter brands
- 25-year warranty

Specifications

Functionality

Monitoring	✓
Rapid shutdown	✓

Electrical

Maximum current (I_{MP}/I_{SC})	20 A/25 A
Input voltage range (V_{MP})	12 – 80 V
Maximum input voltage	80 V
Maximum system voltage (V_{MAX})	1000 V/1500 V ¹
Maximum output current (I_{MAX})	20 A
Maximum output power (P_{MAX})	800 W
Maximum efficiency	99.6%
Recommended fuse rating	30 A

AS 5033: Operational Output

Maximum output current	$I_{DCU MAX}$
Maximum output voltage	$V_{DCU MAX}$
Maximum output power	$P_{DCU MAX}$

Rapid Shutdown

TS4 conductor AWG	12
Rapid shutdown time limit	<30 sec.
PVRSE-controlled conductor limits	$\leq 240 VA, \leq 8 A, \leq 30 V_{DC}$
UL 1741 PVRSE	Yes
Communications	Wireless ² and/or PLC ³

¹ Depending on UL/IEC certification

² Using Tigo Access Point (TAP) and Cloud Connect Advanced (CCA)

³ Using Tigo RSS transmitter power-line communications



Specifications

Connections

Input (from module) cable lengths*	0.6 m or 1.2 m
Output (to string) cable lengths*	1.2 m or 2 m
Connectors	MC4/EVO2

Environmental

Operating temperature range	-40 – 85 °C (-40 – 185 °F)
Storage temperature range	-20 – 65 °C (-4 – 149 °F)
Maximum elevation	3000 m (9840 ft.)
Outdoor IP rating	IP68

Mechanical

Dimensions (H/W/D)	139.7 x 138.4 x 22.9 mm (5.4 x 5.5 x 0.9 in.)
Weight	520 g (1.15 lb.)

General

Standards compliance	FCC, IC, CE-EMC, CE-RED, CISPR 31, CSA 22.2, IEC 62109, UL 1741 PVRSE/PVRSS, UL3741 PVHCE
Warranty	25 years

* Exact lengths within 3%.

More Resources



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Ordering Information

Part Number	V _{MAX} Certifications UL/IEC	Cable Lengths* (input/output)	Connectors
TS4-X-S			
506-320612-2501	1500 V/1500 V	0.6/1.2 m	EVO2
506-321220-2501	1500 V/1500 V	1.2/2 m	EVO2
506-340612-2501	1500 V/1000 V	0.6/1.2 m	MC4
506-341220-2501	1500 V/1000 V	1.2/2 m	MC4

* Exact lengths within 3%.