

# THEIA™ S STRING

A comprehensive range of galvanically isolated string inverters that will provide reliable and steady power for more time during the day, even under highly fluctuating environmental conditions, making the THEIA™ S String range suitable for a wide variety of applications.



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SOLAR INVERTERS: 2.1 kW – 4.6 kW

## PERFORMANCE

- Quick, efficient, MPP tracking to maximize Whr gained from a PV generator
- THEIA™ S String inverters provide more power for more of the day, maximizing the working time of the installation
- Models 4301S and 4601S offer an especially high DC input current of up to 16 A

## RELIABILITY

- Smart thermal design for a wide operating temperature range
- Able to withstand high humidity and dust levels
- Galvanic isolation for improved resilience to electrical disturbances

## EASE OF USE

- Able to ground the positive or the negative terminal on the DC side
- Pluggable AC and DC connectors, accessible without opening the inverter
- Automatic transfer of settings from one inverter to all other connected THEIA™ S String inverter

## MONITORING AND COMMUNICATION

- Large, backlit, full graphical liquid crystal display
- Quick site performance checks at any time, even after sunset
- Built-in datalogger with space for 30 years of measured values, yield and performance data

MODEL	2100 S	2800 S	3100 S	3800 S	4300 S	4301 S	4600 S	4601 S
<b>INPUT DATA</b>								
Nominal DC power	2100 W	2800 W	3100 W	3800 W	4300 W	4300 W	4600 W	4600 W
Max. PV power	2300 W <sub>p</sub>	3200 W <sub>p</sub>	3450 W <sub>p</sub>	4200 W <sub>p</sub>	4800 W <sub>p</sub>	4800 W <sub>p</sub>	5100 W <sub>p</sub>	5100 W <sub>p</sub>
Max. DC voltage	480 V <sub>dc</sub>	780 V <sub>dc</sub>	780 V <sub>dc</sub>	780 V <sub>dc</sub>	780 V <sub>dc</sub>	580 V <sub>dc</sub>	780 V <sub>dc</sub>	580 V <sub>dc</sub>
Voltage range MPPT	206 to 390 V <sub>dc</sub>	313 to 630 V <sub>dc</sub>	314 to 630 V <sub>dc</sub>	315 to 630 V <sub>dc</sub>	320 to 630 V <sub>dc</sub>	277 to 470 V <sub>dc</sub>	320 to 630 V <sub>dc</sub>	278 to 470 V <sub>dc</sub>
Max. input current	9.0 A	9.0 A	9.0 A	12.0 A	12.5 A	15.0 A	13.0 A	16.0 A
Number of PV string inputs	1	1	1	2	2	2	2	2
Number of MPP trackers	1							
Input protection	Optional DC switch disconnector Integrated in the device Reverse voltage protection							
<b>OUTPUT DATA</b>								
Nominal output power	1750 W	2400 W	2550 W	3300 W	3680 W	3680 W	3800 W	3800 W
Max. apparent power	1900 VA	2600 VA	2800 VA	3600 VA	4050 VA	4050 VA	4200 VA	4200 VA
Nominal AC current	7.6 A	10.4 A	11.1 A	14.3 A	16.0 A	16.0 A	16.5 A	16.5 A
Max. AC current	8.3 A	11.3 A	12.2 A	15.7 A	17.6 A	17.6 A	18.3 A	18.3 A
Mains output voltage range	230 V <sub>ac</sub> (+/-20 %) single phase							
Mains frequency	50 Hz (+/- 5 %)							
Output protection	Short circuit detection 1-phase or 3-phase grid monitoring							
<b>PERFORMANCE DATA</b>								
Maximum efficiency	> 94.7 %	> 95.3 %	> 95.3 %	> 95.6 %	> 95.6 %	> 94.6 %	> 95.6 %	> 94.6 %
EU efficiency	> 93.7 %	> 94.4 %	> 94.4 %	> 94.6 %	> 94.7 %	> 93.5 %	> 94.8 %	> 93.6 %
Power feed starts at	13 W	14 W	14 W	18 W	18 W	17 W	18 W	17 W
Night mode power	< 2.5 W							
<b>MECHANICAL DATA</b>								
Protection degree (EN 60529)	IP 54							
Dimensions	720 H x 320 W x 250 D mm							
Weight	30 kg	35 kg	35 kg	42 kg	42 kg	43 kg	42 kg	43 kg
Cable access	Bottom							
Input cable connection	MC4							
Output cable connection	Wieland RST 3i or 5i (dependant upon 1-phase or 3-phase grid monitoring)							
<b>DESIGN STANDARDS</b>								
EM compatibility	EN 61000-6-2, EN 61000-6-3							
CE marking	Yes							
Other standards	VDE V 0126-1-1, G83/1, EN 50438, AS 4777, RD 1663, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, C10/11, G59/2, ÖNORM E8001-4-712, UTE C15-712-1, AS 3100							
<b>ENVIRONMENTAL DATA</b>								
Operating temperature	- 20 °C to + 60 °C (output power derating above + 45 °C)							
Storage temperature	- 20 °C to + 80 °C							
Ventilation	Convection cooling (fan assist at high temperature)							
<b>INTERFACE</b>								
Topology	LF Transformer, RAC-MPP Technology							
Protection class / Overvoltage category	I / III							
Communication	Full graphic LCD: 170 x 76 pixels. EIA 232: 9-pin D-sub female. EIA 485: 2x RJ45 for network components							
Warranty	10 years, 15 years and 20 years							
Volt free contact option	Normally open contact: 24 V <sub>ac</sub> / 2 A rated							