SolarMax P series

The new power package

Specifically for private roof-mounted systems up to 6 kWp, SolarMax will offer new string inverters as of June 2013. With efficiencies of up to 98 %, as well as maximum reliability and simplicity, they provide the plant operator with maximum energy yields. Installers will be enthusiastic about the P series on the basis of its ease of use during planning and commissioning.

Dual tracker concept
By means of a new tracker concept, solar generators can now be operated even more flexibly and efficiently. East-west arrangements or even an odd number of modules no longer constitute limitations. This way, the entire roof surface area can be used ideally to generate power. Yield losses caused by partial shading can also be minimised by using the dual trackers. Alternatively, a single-tracker mode is also available.

Low amount of installation work
The integrated connection area allows for quick and easy connection of all required cables:

- Thanks to the spring-type terminal, no complex switchover from installation wire to a flexible AC cable is required
- Comfortable cable glands with slotted sealing insert – for example, for Ethernet patch cables
- Connections of the input / output interfaces on PCB terminal; no plug packing required
- MC4-compatible DC terminals

Operational safety thanks to passive cooling
The devices of the SolarMax P series do not require any external fans and, thus, are less susceptible to failures. Thanks to a special housing concept, cooling is passive.

Further advantages
- Simple configuration (Plug&Play) via Ethernet
- Quick Integration (Plug&Play) into existing domestic networks

The devices of the SolarMax P series are reliable Swiss quality products and secure long-term and trouble-free operation of each plant.

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More than
20 years Swiss Quality
and Experience

SolarMax®
SWISS QUALITY

Specifications

SWISS QUALITY

		SolarMax 2000P	SolarMax 3000P	SolarMax 4000P	SolarMax 4600P	SolarMax 5000P
Input values	MPP voltage range [1]	210 .. 480 V	310 .. 480 V	190 .. 480 V	240 .. 480 V	260 .. 480 V
	Minimum MPP voltage	100 V	100 V	100 V	100 V	100 V
	Maximum DC voltage	600 V	600 V	600 V	600 V	600 V
	Maximum DC current	10 A	10 A	10 + 10 A	10 + 10 A	10 + 10 A
	Number of MPP trackers	1	1	2	2	2
	Number of string connections	1	1	2	2	2
	Connection type	Plug-in				
	Overvoltage category	II				
Output values	Rated output power	2'000 W	3'000 W	3'680 W	4'600 W	5'000 W
	Maximum apparent output power	2'000 VA	3'000 VA	4'000 VA	4'600 VA	5'000 VA
	Maximum AC current	9 A	13.5 A	17.5 A	22 A	22 A
	Nominal mains voltage / range	230 V / 184 .. 276 V				
	Mains nominal frequency / range	50 Hz / 45Hz…55 Hz				
	Power factor cos(φ)	Adjustable from 0.9 overexcited to 0.9 underexcited				
	Distortion factor at rated output power	< 3 %				
	Connection type	1 / N / PE (2.5 – 10mm²)				
	Grid connection	One-phase				
	Overvoltage category	III				
Efficiency	Maximum efficiency	97.5 %	97.5 %	98.0 %	98.0 %	98.0 %
	Europ. Efficiency	97.0 %	97.0 %	97.5 %	97.5 %	97.5 %
Power input	Own consumption (night)	0W				
Ambient conditions	Protection class compliant with EN 60529	IP65				
	Ambient temperature range	-20 °C … +60 °C				
	Ambient temperature range for rated power output	-20 °C … +45 °C				
	Relative humidity	0 … 98 % (no condensation)				
	Protection class IEC62103	I				
Configuration	Display	Graphic LC display with backlighting and status LED				
	Inverter topology	HERIC®, transformerless				
	DC disconnector	Integrated (DC21-A)				
	Data logger	Data logger for energy yield, peak output, and operating duration for the last 31 days, 12 months, and 10 years Daily power curve for the last 7 days				
	Fault current monitoring	Internal, AC/DC sensitive				
	Casing	Aluminium				
	Service cover	Plastic				
	Overvoltage conductor DC	Requirement class D (VDE 0675-6) and/or type 3 (EN 61643-11)				
	Overvoltage conductor AC	Requirement class D (VDE 0675-6) and/or type 3 (EN 61643-11)				
Standards & guidelines	CE-compliant	Yes				
	EMC	EN 61000-3-2 / EN 61000-3-3 / EN 61000-3-11 / EN 61000-3-12 / EN 61000-6-2 / EN 61000-6-3				
	Standard / guideline compliance	VDE 0126-1-1 / VDE-AR-N 4105 / CEI 0-21 [2] / RD 661 / RD 1699 / G83/2 / G59/2 / PPC Guide / C10/11 / EN 50438 [3]				
	Device safety	VDE "GS certified safety" / EN 62109-1 / IEC62106-2				
Interfaces	Data communication	RS485 / Ethernet				
	Status signalling contact (optional)	Terminal with relay as NC contact / NO contact				
	Interface to ripple control signal receiver (optional)	Terminal with 6 inputs				
	Monitoring external lightning protection (optional)	Terminal				
	Connection external NA protection (optional)	Terminal				
Weight & dimensions	Weight	17 kg	17 kg	19 kg	19 kg	19 kg
	Dimensions in mm (W x H x D)	476 x 360 x 180mm				
Warranty		Standard 5 years / extension to 10, 15, 20, or 25 years possible				

[1] for rated output power
[2] for plants < 6kW
[3] Portugal and Czech Republic

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