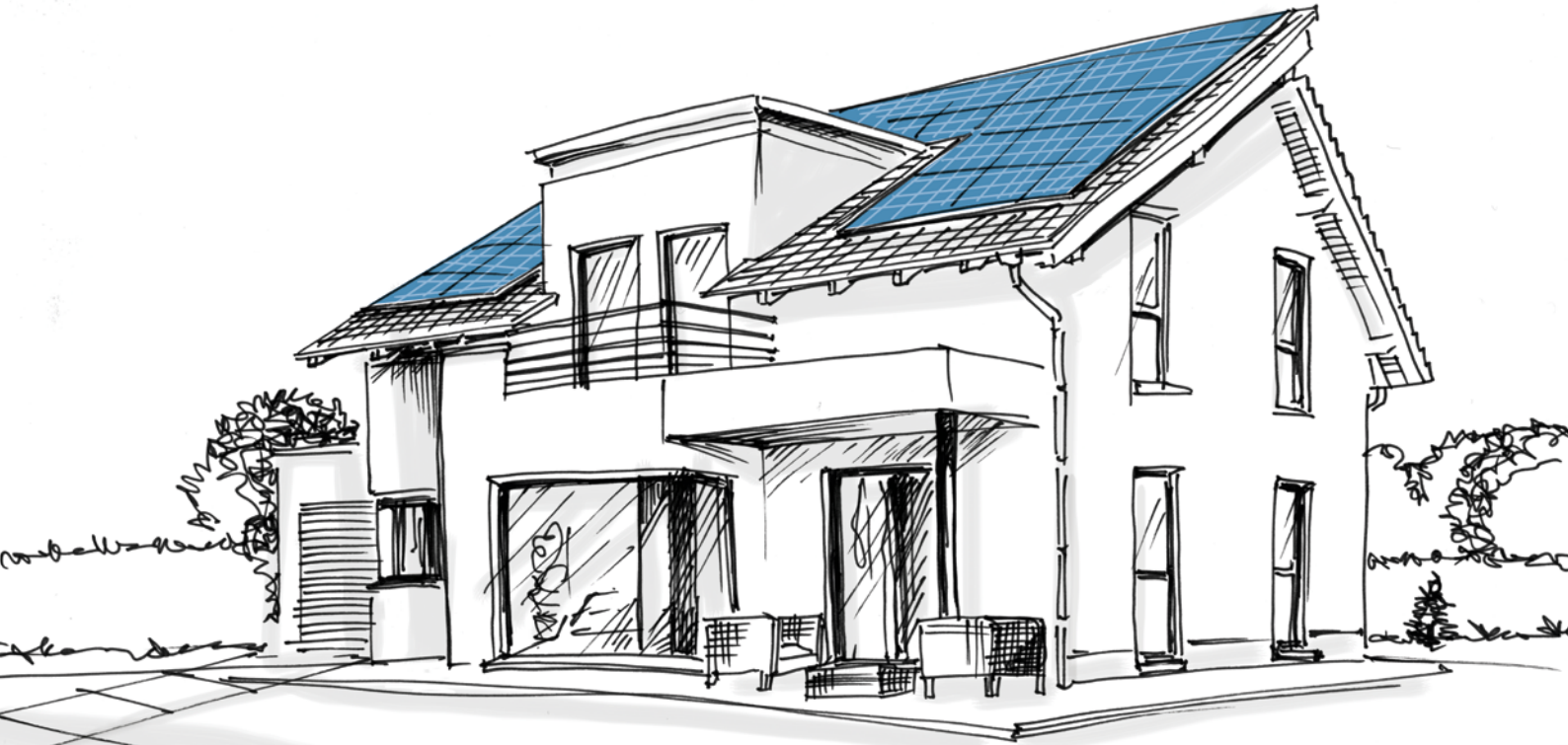


# SolarMax P series

The power package for residential solar plants



**20**  
More than  
20 years Swiss Quality  
and Experience

 **SolarMax**<sup>®</sup>  
+ SWISS QUALITY

## The future-proof solution

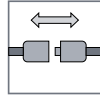
The requirements regarding private PV power plants have increased continuously over the past years. Due to our 20 years of experience in the development and manufacture of transformerless inverters, as well as cooperation with long-standing customers, we are familiar with the needs of installers and plant operators. With the SolarMax P series, we have developed a string inverter adapted ideally to the current, but also the future requirements of small solar plants. Thanks to its comprehensive features allowing for simple and flexible installation in the house, this inverter sets new standards and is the durable, comfortable, and future-proof solution for private solar plants.





## Individual tracker concept

Thanks to the **Dual Tracker** concept, east-west orientations or an odd number of modules do not constitute any limitations. Even module tolerances can be compensated efficiently. This way, every roof surface can be used ideally for the production of power. Alternatively, a **single tracker** mode is also available.



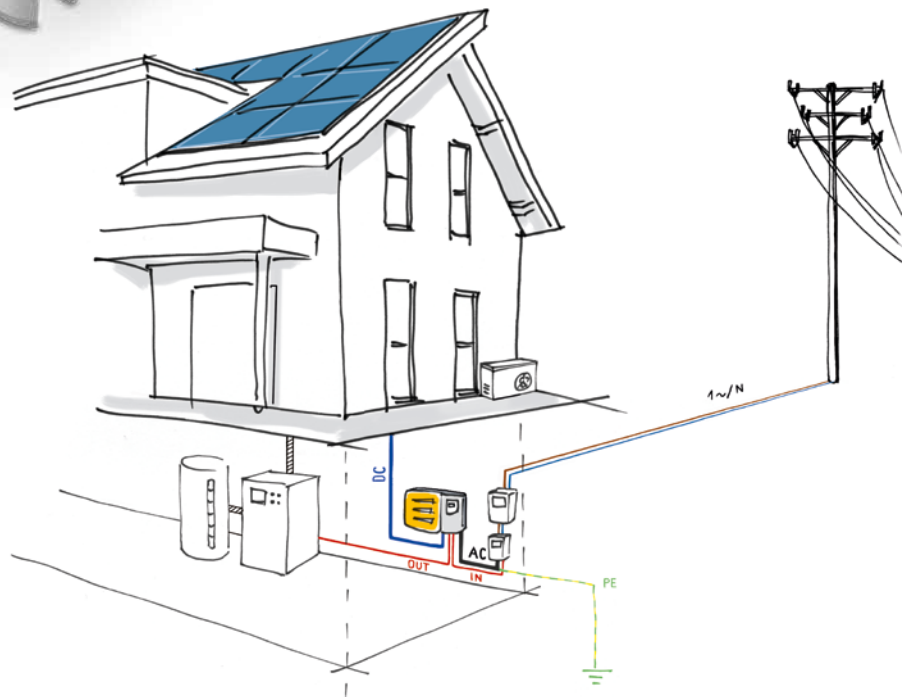
## Safe and comfortable connection area

Due to the simple **connection concept**, the P series can be installed in the blink of an eye – this saves time and money. Thanks to the divided connection area the plant operator also has safe access to the communications connections. For instance, Firmware-Updates can be performed quickly and easily.



## Highest efficiency of its class

By using the highly efficient HERIC® topology, the SolarMax P series achieves maximum efficiencies of up to **98%** and provides the plant operator with the quickest possible returns. All devices are equipped with a low-noise **passive cooling system** and are therefore ideally suited for use in residential solar plants.







## Direct Internet connection

The **free MaxView** solution allows for long-term and location-independent plant monitoring without external data logger. Using **Plug&Play**, the P series is connected directly to commercially available Internet routers. This way, the plant can be monitored at any time either on site or from any other location. All one has to do is to register the inverters and plants at [maxview.solarmax.com](http://maxview.solarmax.com) – that's all.

The plant operator may view the current performance and operating data, as well as the yield data of his plant at any time.

MaxView can be used on the computer with any web browser or is available as an app for IOS and Android at no charge.

## Professional configuration via notebook

In order to individually configure the inverter, the free **MaxTalk** software is available. This software offers numerous setting and diagnostics options – country-specific at that. The connection to the inverter is performed easily using **Plug&Play**.

## Reducing the energy costs

Using an optional **I/O module**, both data from an external energy meter can be read in and controllable electrical loads can be switched. This way, the **self-consumption** of the self-generated PV current can be increased without further ado. This guarantees independence and reduces the annual energy bill.



### Maximum yield

Plant operators benefit from the high efficiency and the two MPP trackers.



### Maximum safety

With warranty extensions of up to 25 years, plant operators minimise their financial risk in the long run.



### Maximum flexibility

The broad selection of device types and the optional interfaces allow for flexible and individual plant planning.



### Maximum communication

Thanks to the direct connection to the Internet, the plant data can be retrieved from everywhere using a smartphone, tablet, or computer.



### Maximum comfort

A simple connection concept and Plug&Play installation render the installation extremely comfortable.

# Specifications



		SolarMax 2000P	SolarMax 3000P	SolarMax 4000P	SolarMax 4600P	SolarMax 5000P	
<b>Input values</b>	MPP voltage range <sup>1)</sup>	210 ... 480V	310 ... 480V	200 ... 480V	240 ... 480V	260 ... 480V	
	Control range	120 ... 580 V	120 ... 580 V	120 ... 580 V	120 ... 580 V	120 ... 580 V	
	Minimum DC voltage	120V	120V	120V	120V	120V	
	Maximum DC voltage	600V	600V	600V	600V	600V	
	Maximum DC current	10A	10A	10 + 10A	10 + 10A	10 + 10A	
	Number of MPP trackers	1	1	2	2	2	
	Number of string connections	1	1	2	2	2	
	Connection type	Wieland PST40i1 (MC4 identical in design)					
<b>Output values</b>	Rated output power <sup>2)</sup>	2,000W	3,000W	4,000W (3,680 W for G83/2)	4,600W	5,000W	
	Maximum apparent output power <sup>2)</sup>	2,000VA	3,000VA	4,000VA (3,680 VA for G83/2)	4,600VA	5,000VA	
	Maximum AC current	9A	13.5A	17.5A (16 A for G83/2)	22A	22A	
	Nominal mains voltage / range	230V / 184 ... 276V					
	Mains nominal frequency / range	50Hz / 45 ... 55Hz					
	Power factor cos(φ)	Adjustable from 0.8 overexcited to 0.8 underexcited					
	Distortion factor at rated output power	< 3%					
	Connection type	Terminal (2.5 – 10mm <sup>2</sup> )					
	Grid connection	Single phase (L / N / PE)					
	Power input at night	0W					
<b>Efficiency</b>	Max. efficiency	97.5%	97.5%	98.0%	98.0%	98.0%	
	European efficiency	97.0%	97.0%	97.5%	97.5%	97.5%	
<b>Ambient conditions</b>	Protection type	IP65					
	Ambient temperature range (for rated power output)	-20°C ... +60°C (+45°C)					
	Relative humidity	0 ... 100% (condensation)					
	Max. operating level above sea level	2000m (without derating)					
	Fire protection class	V0					
	Noise emissions (↔ 1.5 m)	< 30 dB(A)					
<b>Configuration</b>	Display	Graphic LC display with backlighting and status LED					
	Inverter topology	HERIC <sup>®</sup> , transformerless					
	DC disconnect	Integrated					
	Data logger	Energy yield, peak output and operating hours of the last 31 days, 12 months, 10 years. Performance curves of the last 7 days.					
	Fault current monitoring	Internal, AC/DC sensitive					
	Housing / service cover	Aluminium / plastic ASA+PC					
	Surge protection DC and AC	Requirement class D (VDE 0675-6) and/or type 3 (EN 61643-11)					
	<b>Standards &amp; guideline compliance</b>	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				
Grid connection		VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 <sup>3)</sup> / CEI 0-21 / RD 661 / RD 1699 / G83/2 / G59/2 / PPC Guide / C10/11 / EN 50438 / AS4777					
Device safety		IEC / EN 62109-1 / -2					
<b>Interfaces</b>	Data communication	RS485 / Ethernet (Plug&Play)					
	Status signalling contact						
	Connection ripple control signal receiver						
	Connection of external lightning protection control	With optional I/O module					
	Connection external grid monitoring						
	Connection of external energy meter						
<b>Weight &amp; dimensions</b>	Weight	17kg	17kg	19kg	19kg	19kg	
	Dimensions in (W x H x D)	476 x 360 x 180mm					
<b>Warranty</b>	Standard warranty	5 years					
	Warranty extensions	to 10, 15, 20, or 25 years					

<sup>1)</sup> For AC rated power output

<sup>2)</sup> Depending on the country setting, deviating values are possible. Details can be found at [www.solarmax.com](http://www.solarmax.com)

<sup>3)</sup> not for 5000P

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## SolarMax 5000P efficiency curve

