

# SolarMax S Series

Maximising solar plant yields can be so easy.



 **SWISS QUALITY**

 **SolarMax**<sup>®</sup>  
by Sputnik Engineering

# The convincing solution.

We have been developing and producing transformerless inverters for over 20 years. Our engineers have used this know-how in adapting the single-phase SolarMax S series string inverters to satisfy a broad range of requirements even better. Installation operators benefit from our inverters because they are convenient, reliable and high-performance; our installers appreciate them because they can be quickly installed, are easily commissioned and can be expanded without difficulty. Although all the inverters in the S series are smaller than other comparable devices, in the long term their performance is more reliable. It is this reliability, together with our unique after-sales service, which is the best possible guarantee for every investment.



## Maximum pay-back

An investment in the SolarMax S series is free of risk. These long-lasting, rugged and high-quality devices have a consistently high euro-efficiency of up to 96.2 %, meaning they get more out of any solar installation. They are a worthwhile investment.



## Swiss Quality

Each inverter in the SolarMax S series is TÜV type approved and satisfies all the requirements of the GS mark of conformity for product safety. Thanks to our high quality standards we can grant a standard five-year manufacturer's warranty for each string inverter which can be extended to 10 or 12 years.



### **Suitable for outdoor and indoor installation**

High-quality and rugged aluminium housing gives the electronic components the best possible protection. The IP54 protection class also permits all inverters in the SolarMax S series to be installed and safely operated both indoors and outdoors.



### **Competent after-sales service**

If a device fails to function normally there is a hotline in five languages ready to help you find the source of the malfunction. If the device is the cause of the malfunction we will replace it without delay. In addition, we also support our partners with regular training and our free "MaxDesign" design software, which makes creating an installation as easy as anything!



## Innovative cooling system

No matter how hot the sun shines, the inverters in the SolarMax S series always deliver best performance. The intelligent cooling concept exhausts heat efficiently out of the housing while the sensors continuously monitor the operating temperature. In extreme cases the output is reduced to protect the inverters against over-heating.



## Smart operation and communication

All the relevant information and settings are presented on the straight-forward graphics display. An integrated data logger stores all the important data from the sensors. Every inverter is equipped with an RS485 and Ethernet standard interface and can be easily enhanced by adding on "MaxComm" components.

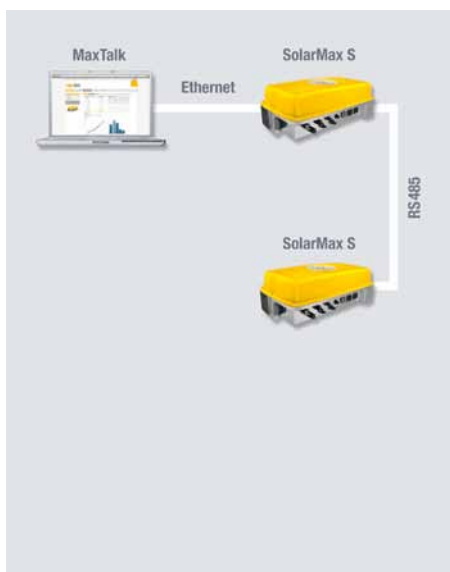


## Easier-than-ever installation

The SolarMax S series inverters are easy, compact and their plug-in, easily accessible connections can be installed in no time. Thanks to the included mounting rails they can be easily mounted on the wall. The integrated DC circuit breakers enable the inverters to be disconnected from the solar generator in one step.

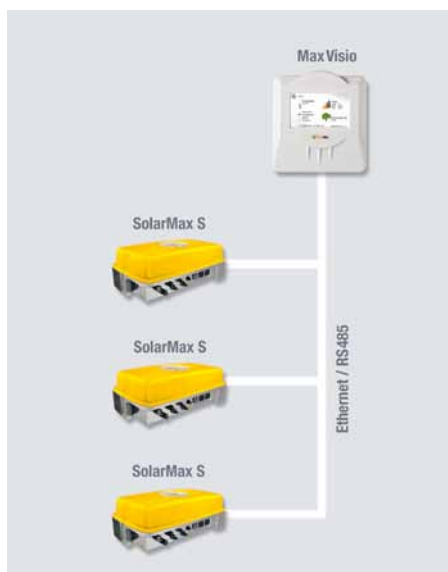


# Accessories



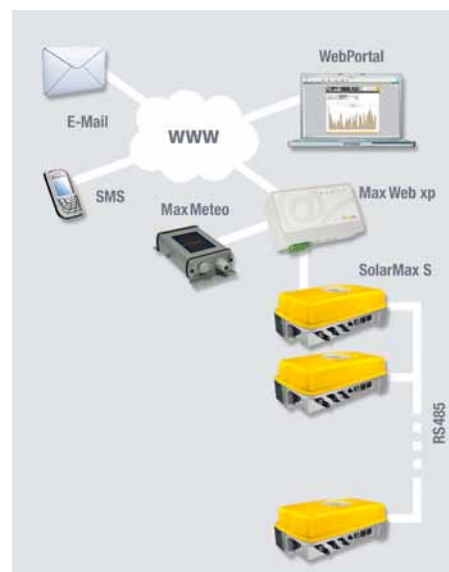
## MaxTalk

MaxTalk 2.0, the new user-friendly PC software for communication on site. MaxTalk provides you with an installation overview showing the most important data and status of the installation. You can select the measurement values and status of each device. In addition, various device parameters such as the time and limit values can be configured. The computer is connected either via Ethernet or a serial interface. The free PC program can be downloaded from [www.solarmax.com](http://www.solarmax.com).



## MaxVisio

The MaxVisio graphic display unit is ideal for visualising your PV installation on site. MaxVisio records the data of the whole installation as well as the measurement values of individual inverters and presents them continuously on the colour touch display. Your installation values for up to 20 inverters can be stored by the integrated data logger for as long as 20 years. The USB interface enables you to transfer all the data to your PC or perform SW device updates. Your PV installation is connected either via Ethernet or the RS485 interface. Operating the touch display is extremely simple and will again convince you of our proven SolarMax quality.



## MaxWeb xp

MaxWeb xp opens up the world of internet-supported communication. MaxWeb xp is simultaneously a data logger, monitoring unit and a link between your PV installation and the internet. The data logger records current measurements, yield values and events and communicates the data automatically to the server of the SolarMax web portal. Your personal user account enables you to access your installation data on the Internet from any PC. The integrated installation monitoring keeps you informed at all times of the status of your PV plant. All the devices are permanently monitored and any malfunctions are reported by e-mail or SMS to as many as three recipients.

# Specifications

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		SolarMax 2000S	SolarMax 3000S	SolarMax 4200S	SolarMax 6000S
<b>Input values</b>	Maximum PV generator output power <sup>1)</sup>	2'300 W	3'300 W	5'000 W	6'000 W
	MPP voltage range	100 V...550 V	100 V...550 V	100 V...550 V	100 V...550 V
	Minimum voltage for rated power	170 V	235 V	180 V	220 V
	Maximum DC voltage	600 V	600 V	600 V	600 V
	Maximum DC current	11 A	11 A	22 A	22 A
	Connection type	MC4	MC4	MC4	MC4
<b>Output values</b>	Rated output power	1'800 W	2'500 W	3'800 W	4'600 W
	Maximum output power	1'980 W	2'750 W	4'180 W	5'060 W
	Nominal mains voltage / range	230 V / 184 V...300 V	230 V / 184 V...300 V	230 V / 184 V...300 V	230 V / 184 V...300 V
	Maximum AC current	12 A	12 A	19 A	22 A
	Mains nominal frequency / range	50 Hz / 45 Hz...55 Hz			
	Power factor (cos phi)	> 0.98			
	Distortion factor at rated power	< 1.5 %			
	Connection type	Wieland			
	Grid connection	One-phase			
<b>Efficiency</b>	Max. efficiency	97 %	97 %	97 %	97 %
	Europ. efficiency	95.4 %	95.5 %	95.8 %	96.2 %
<b>Power input</b>	Own consumption (night)	0 W			
<b>Ambient conditions</b>	Protection type compliant with EN 60529	IP54			
	Ambient temperature range	-20 °C...+60 °C			
	Ambient temperature range at rated power	-20 °C...+45 °C			
	Relative humidity	0...98% (no condensation)			
<b>Configuration</b>	Display	Graphic LC display with backlight and status LED			
	Circuit type	Two-stage, transformerless (no galvanic isolation)			
	Data logger	Data logger for energy yield, peak output and operating duration for the last 31 days, 12 months and 10 years			
	Fault current monitoring	Internal, AC/DC sensitive			
	Casing	Aluminium, cover powder-coated			
<b>Standards &amp; guidelines</b>	CE-compliant	Yes			
	EMC	EN 61000-6-2 / EN 61000-6-3 / EN 61000-3-2 / EN 61000-3-3 / EN 61000-3-11 / EN 61000-3-12			
	Standard/guideline compliance	VDE 0126-1-1 / DK 5940 Ed. 2.2 / RD 661 / G83/1			
	Device safety	"Type approved" TÜV Rheinland, "GS certified safety" VDE			
<b>Interfaces</b>	Data communication	RS485 / Ethernet via two RJ45 sockets			
	Status signalling contact	M12 connector with relay as N/C contact / N/O contact			
<b>Weight &amp; dimensions</b>	Weight	13 kg	13 kg	15 kg	15 kg
	Dimensions in mm (W x H x D)	545 x 290 x 185	545 x 290 x 185	545 x 290 x 185	545 x 290 x 185

<sup>1)</sup> recommended overdimensioning 15 % (ISE Fraunhofer study).

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## SolarMax 6000S efficiency curve

