SolarMax S series

Maximising solar plant yields can be so easy.

More than
20 years Swiss Quality
and Experience

SolarMax®
SWISS QUALITY

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 optionally to a maximum of 25 years.

Suitable for outdoor and indoor installation

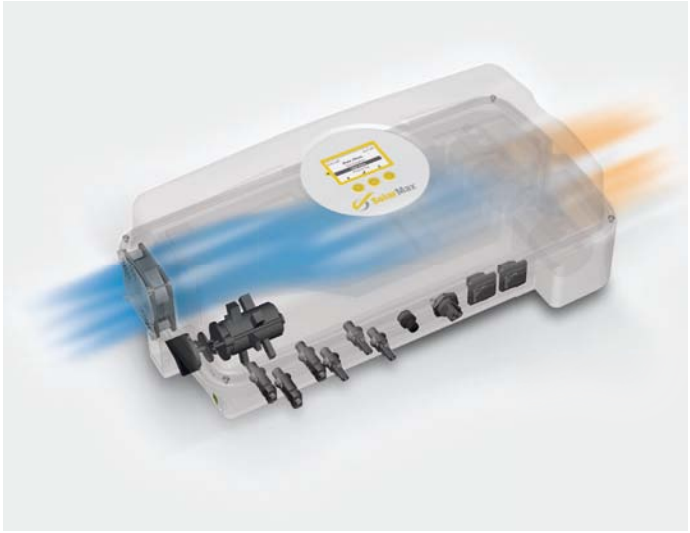
High-quality and rugged aluminium housing gives the electronic components the best possible protection. The IP54 protection class also permits all inverters in the SolarMax S series to be installed and safely operated both indoors and outdoors.

Competent after-sales service

If a device fails to function normally there is a hotline 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. For example, the free MaxMonitoring App represents the output data in a clear manner so that you can see at any time how much environmentally friendly solar energy a facility is generating and has fed into the public grid.

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.

MaxComm for system monitoring

MaxWeb

The MaxWeb xp data logger forms the core of the web-based monitoring system; it enables multimedia communication with the photovoltaic plant and sends information via the internet to wherever you wish to receive it. MaxRemote enables remote-controlled performance reduction by the operator.

MaxMonitoring

The cost-free app visualises the performance data of the photovoltaic system and of individual inverters on site.

MaxTalk

User-friendly PC software for on site communication and for local system monitoring.

Specifications

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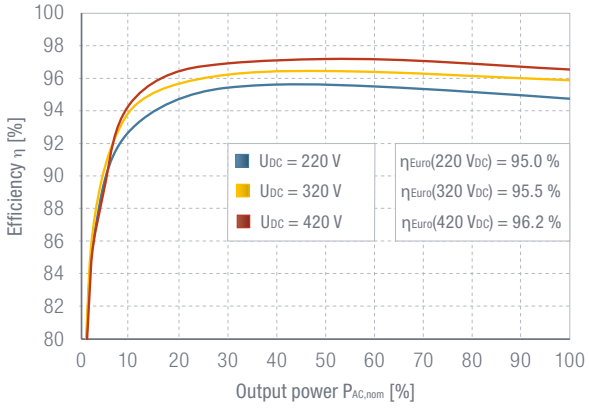
		SolarMax 2000S	SolarMax 3000S	SolarMax 4200S	SolarMax 6000S
Input values	MPP voltage range	100 V…550 V	100 V…550 V	100 V…550 V	100 V…550 V
	Minimum voltage for rated power	190 V	260 V	200 V	240 V
	Maximum DC voltage	600 V	600 V	600 V	600 V
	Maximum DC current	11 A	11 A	22 A	22 A
	Connection type	MC4	MC4	MC4	MC4
Output values	Rated output power at cos(φ) = 1	1'980 W	2'750 W	4'180 W	5'060 W
	Maximum apparent output power	1'980 VA	2'750 VA	4'180 VA	5'060 VA
	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(φ)	Adjustable from 0.8 overexcited to 0.8 underexcited			
	Distortion factor at rated power	< 1.5 %			
	Connection type	Wieland			
	Grid connection	One-phase (1 / N / PE)			
Efficiency	Max. efficiency	97 %	97 %	97 %	97 %
	Europ. efficiency	95.4 %	95.5 %	95.8 %	96.2 %
Power input	Own consumption (night)	0 W			
Ambient conditions	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)			
Configuration	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			
	Overvoltage conductor DC	Requirement class D (VDE 0675-6) or type 3 (EN 61643-11)			
	Overvoltage conductor AC	Requirement class D (VDE 0675-6) or type 3 (EN 61643-11)			
Standards & guidelines	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-AR-N 4105 / VDE 0126-1-1 / CEI 0-21 [1] / DK 5940 Ed. 2.2 / RD 661 / RD 1699 / G83/1-1 / G83/2 [2] / G59/2 [3] / PPC Guide / C10/11 / EN 50438 [4] / AS 4777			
	Device safety	"Type approved" TÜV Rheinland, "GS certified safety" VDE AS 3100			
Interfaces	Data communication	RS485 / Ethernet via two RJ45 sockets			
	Status signalling contact	M12 connector with relay as N/C contact / N/O contact			
Weight & dimensions	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
Warranty		Standard 5 years / extension to 10, 15, 20 or 25 years possible			

[1] available as of July 2012
[2] in development
[3] Only the inverters SolarMax 4200S and SolarMax 6000S
[4] Portugal

SolarMax 6000S efficiency curve



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