

SolarMax MT Series

The power pack for maximum yields.



 **SWISS QUALITY**

 **SolarMax**[®]
by Sputnik Engineering

All good things come in three phases.

We have been developing and producing transformerless inverters for over 20 years. Our engineers have effectively exploited this know-how to develop the new SolarMax MT series. The result is a highly efficient inverter which feeds the grid with three-phase power and which gets more power out of each PV installation – whether it is a medium-size home installation or a major industrial project. A high input voltage reduces cable losses and expenses to a minimum. Thanks to the multi-tracking concept providing for as many as three MPP trackers, different roof surfaces, inclination angles and orientations present no problem – for greater layout flexibility. In addition, all inverters are light-weight, easily installed and compatible with the proven “MaxComm” components.



Maximum pay-back

With a euro efficiency of 97.5 % the inverters of the SolarMax MT series maximise yields of any PV plant. Maximum DC voltages of up to 900 V enable longer strings reducing cable losses and expenses.



Swiss Quality

Each SolarMax MT series inverter 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.



Clever multi-tracking

PV installations equipped with inverters from the Solar Max MT series make more efficient use of different roof surfaces. Multi-tracking enables the operating point of individual module fields to be set, and thus optimised, individually. The innovative and flexible multi-tracking enables the solar generator to be segmented specifically to minimise the power losses which can arise from temporary shading.



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

A new, intelligent cooling concept exhausts the heat more efficiently out of the housing, thus reducing rate at which the electronic components age. All SolarMax MT series inverters also work under the harshest conditions without any loss in performance – and that at ambient temperatures as high as 50 °C. This is why sensors monitor the operating temperature 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. And 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.

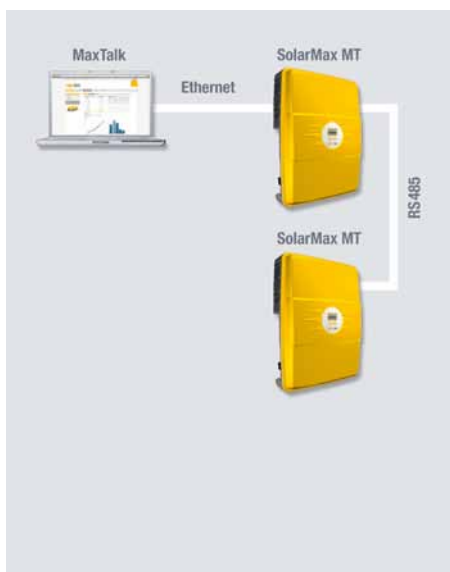


Easier-than-ever installation

The inverters of SolarMax MT series 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.

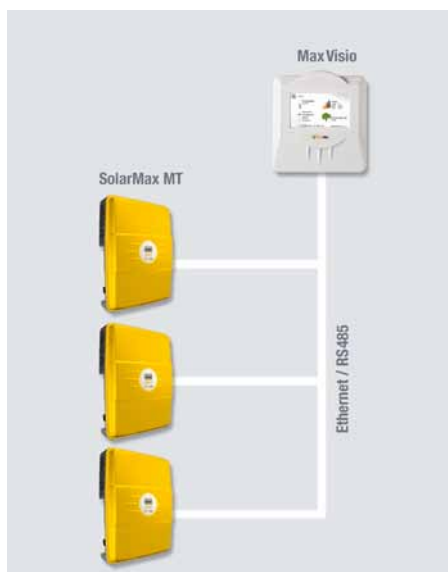


Accessories



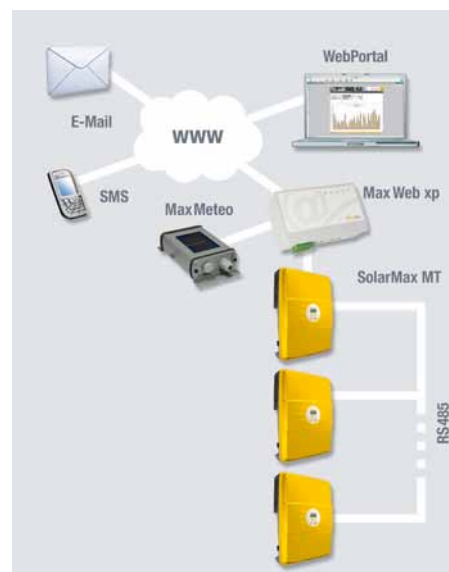
MaxTalk

MaxTalk 2.0, the new user-friendly PC software for communication on site. MaxTalk provides you with a 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.



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 10MT	SolarMax 13MT	SolarMax 15MT
Input values	Maximum PV generator output power ¹⁾	12'000 W	15'000 W	18'000 W
	Max. PV generator output per MPP tracker	9'000 W	9'000 W	9'000 W
	MPP voltage range	250 V...750 V	250 V...750 V	250 V...750 V
	Minimum voltage for rated power ²⁾	320 V	280 V	320 V
	Maximum DC voltage	900 V	900 V	900 V
	Maximum DC current	2 x 16 A	3 x 16 A	3 x 16 A
	Number of MPP-Trackers	2	3	3
	String connections	2 x 2	3 x 2	3 x 2
	Connection type	MC4	MC4	MC4
Output values	Rated output power	10'000 W	13'000 W	15'000 W
	Maximum output power	10'000 W	13'000 W	15'000 W
	Nominal mains voltage	3 x 400 V	3 x 400 V	3 x 400 V
	Maximum AC current	3 x 16 A	3 x 20 A	3 x 22 A
	Mains nominal frequency / range	50 Hz / 45 Hz...55 Hz		
	Power factor (cos phi)	> 0.98		
	Distortion factor at rated power	< 3 %		
	Connection type	Amphenol		
	Grid connection	Three-phase		
Efficiency	Max. efficiency	98.0 %		
	Europ. efficiency	97.5 %		
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...+50 °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 C (VDE 0675-6) or type 2 (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 61000-3-2 / 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 / DK 5940 Ed. 2.2 / RD 661 / G59/2		
	Device safety	"GS certified safety" VDE with EN 50178		
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	39 kg	42 kg	42 kg
	Dimensions in mm (W x H x D)	550 x 750 x 200	550 x 750 x 200	550 x 750 x 200

¹⁾ recommended overdimensioning 15 % (ISE Fraunhofer study).

²⁾ with the same generator layout for each tracker

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SolarMax 15MT efficiency curve

