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# Samil Power



**Better Energy Better Life**

- PV Grid-tied Inverters
- System Monitor
- Ambient Monitor
- SolarArray Combiner



## Samil Power Co., Ltd.

### Company Profile

#### Who we are

Samil Power was established in 2008 and a Spin-off from the Samil Group which was founded in 1992 and focused on research & design, manufacture and sales of variable speed drives and lift controllers.

Samil Power has more than 10 main branches worldwide, namely: Germany, Italy, Australia, Beijing, Shenzhen, Wuxi, Suqian, Shanghai, Xian, Xinjiang etc. The main factory occupies 33,000m<sup>2</sup> with a workshop and test centre of 11,000m<sup>2</sup> and two R&D centres of 1,000m<sup>2</sup> each. To cope with the rapid increase in demand a 300,000m<sup>2</sup> manufacturing facility is under construction on the Suqian site.

#### What we offer

Samil Power is specialized in solar photovoltaic grid-tied inverters' development, manufacture, sales and service.

#### Our staff

The founder and CEO is of Australian Chinese extraction with an engineering background.

The workforce comprising more than 600 professionals, 30% of which are dedicated to R&D, is a key asset to Samil Power.

# Product Range



## PV Grid-tied Inverters

- SolarRiver Inverters **1~5KW** (Single Phase)
- SolarLake Inverters **10~17KW** (Three Phase)
- SolarOcean Inverters **100~500KW** (Central Inverters)

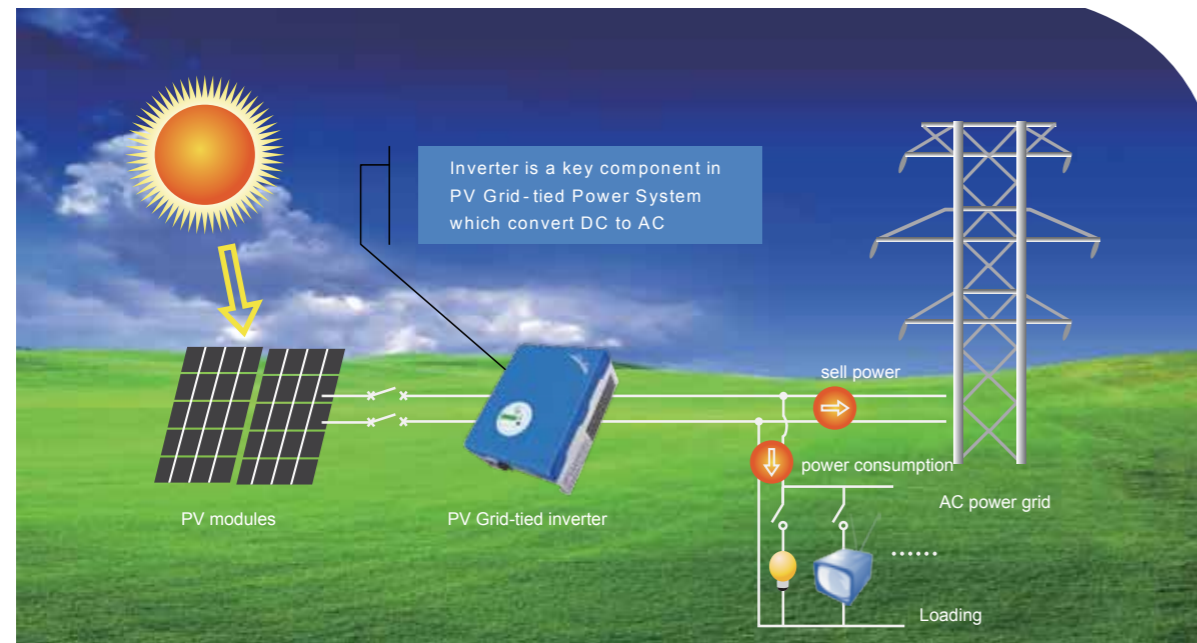


## Accessories for PV System

- SolarPower Manager
- SolarEnvi Monitor
- SolarArray Combiner

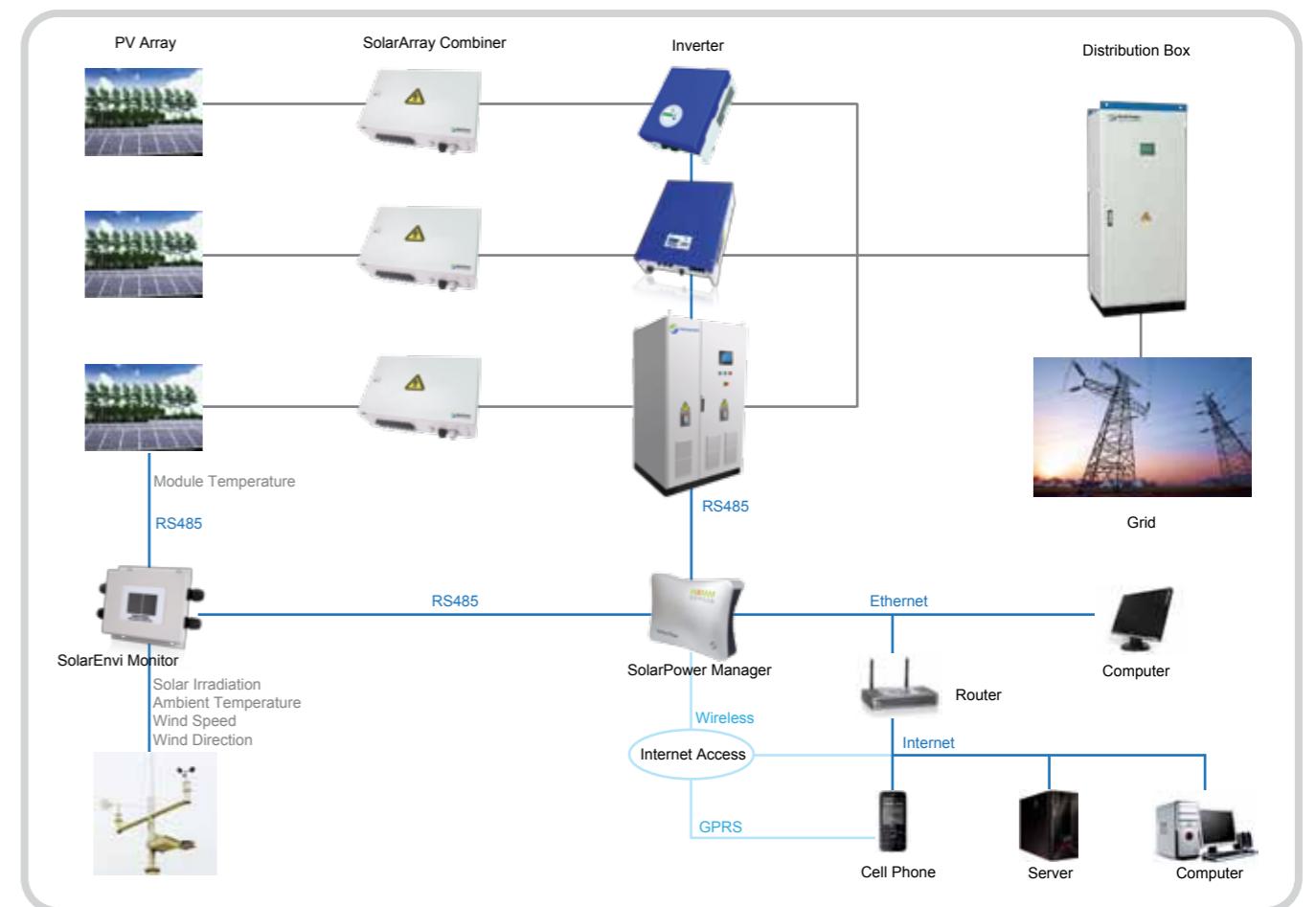


## PV Grid-tied Power System



One supplier  
for **All** PV Grid-tied systems

### Structure of String Grid-tied System



### V- iPlant (Online monitoring)

[www.viplant.com](http://www.viplant.com)

#### How to view your plant from your Android/iPhone system?

Step 1: Go to <https://market.android.com>

Step 2: Search VIPLANT

Step 3: Download and install it



#### Steps to benefit V-iPlant of Samil Power:

Step 1: Create a user name and password from SAMIL POWER

Step 2: Log in via [www.samilpower.com](http://www.samilpower.com)

Step 3: Select the plant you want to view



### Convenient

- Central management of all customers and plants data
- Easy understanding report
- User and plant information maintenance
- World-wide access via the internet (use PC or mobile phones)

### Informative

- Plant data monitoring
- Real time Data and historic data statistics of plant
- Data statistics of each inverter
- Maintenance of inverters

### Personalization

- Individual yield and reports send via e-mail
- Use your IOS and Andriod system to view your plant at anytime you want
- OEM is available for different level of requirement

SolarRiver 1100TL / 1600TL / 1700TL / 2300TL / 3000TL  
( Single phase )

Features:

Leading-edge Technology

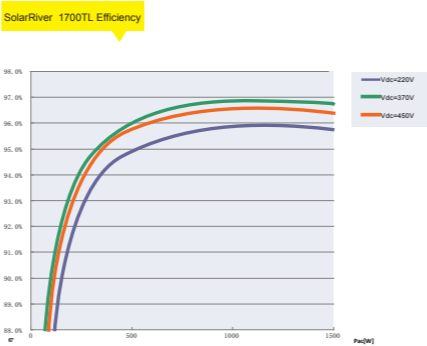
- Transformerless H6 Topology
- Wide MPP voltage range
- Compact design
- Small size and lightweight

Flexibility

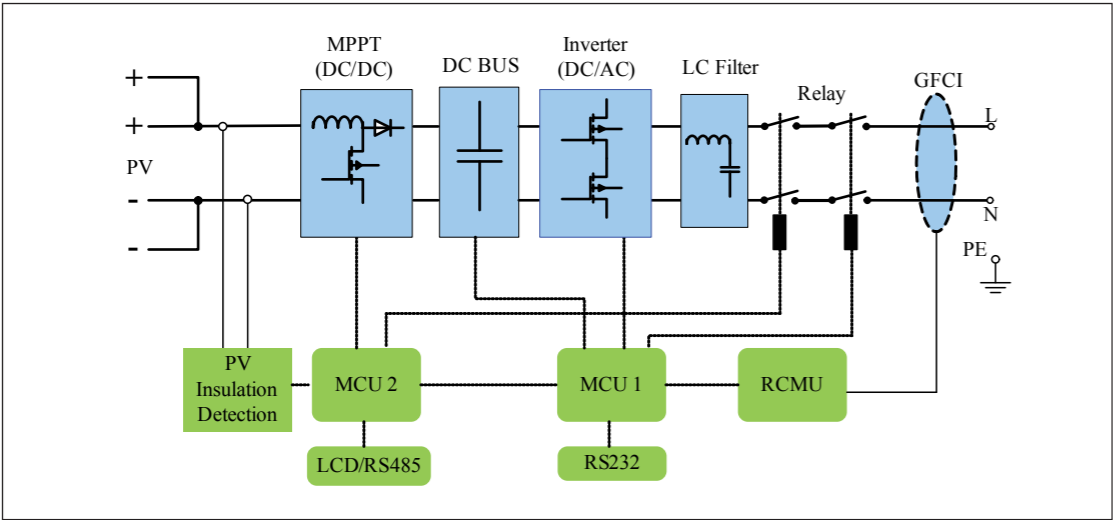
- Use for indoor or outdoor (IP65)
- “Plug and play” connection for easy installation and maintenance
- Multi-lingual display
- Easy configuration for different country grid standard

Built to last

- Stainless steel housing
- Automatic protection including over voltage, islanding, short circuit, overload and under voltage, under load, etc.
- 5 years standard warranty, up to 25 years warranty extension.



SolarRiver Topology



Datasheet

Inverter Model	SolarRiver 1100TL	SolarRiver 1600TL	SolarRiver 1700TL	SolarRiver 2300TL	SolarRiver 3000TL
Input (DC)					
Max. DC power [W]	1100	1600	1700	2300	3000
Max. DC voltage [V]	500	500	550	550	550
Max. input current [A]	8.8	9.7	9	11	13.5
Number of MPP trackers / Strings per MPP tracker	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
MPPT voltage range at rated power) [V]	120 ~ 425	160 ~ 425	180 ~ 500	200 ~ 500	210 ~ 500
Shutdown voltage /Start voltage [V]	70 / 100				
Output (AC)					
AC nominal power [W]	1000	1500	1500	2000	2600
Max. AC power [W]	1000	1500	1650	2200	2800
Max. AC current [A]	5.5	8.3	8.6	11	13.8
Nominal AC voltage / range [V]	230 / 180~270				
AC grid frequency / range [Hz]	50 / 47~52				
Power factor (cosφ)	1				
Total harmonic distortion (THDi) (at nominal power)	<3%				
Efficiency					
Max. efficiency	96.6%	96.8%	96.8%	96.8%	97.0%
Euro efficiency	95.5%	96.0%	95.8%	96.2%	96.3%
MPPT efficiency	99.9%				
General data					
Dimensions (W / H / D) [mm]	285 / 385 / 145	285 / 385 / 145	332 / 450 / 161	332 / 450 / 161	332 / 450 / 161
Weight [kg]	15	15	17.1	17.5	17.9
Operating temperature range [°C]	-20 ~ +60				
Ingress protection	IP65				
Topology	transformerless				
Internal consumption (night) [W]	0				
Cooling concept	Convection				
Noise (typical) [dB]	<28	<28	<30	<30	<30
LCD display	Backlight, 16*2 Character LCD				
Communication port	RS232	RS232	RS485 / RS232	RS485 / RS232	RS485 / RS232
Standard warranty [year]	5				
Inverter Model	SolarRiver 1100TL	SolarRiver 1600TL	SolarRiver 1700TL	SolarRiver 2300TL	SolarRiver 3000TL

SolarRiver 3300TL / 4400TL / 5200TL  
( Single phase )

Features:

Leading-edge Technology

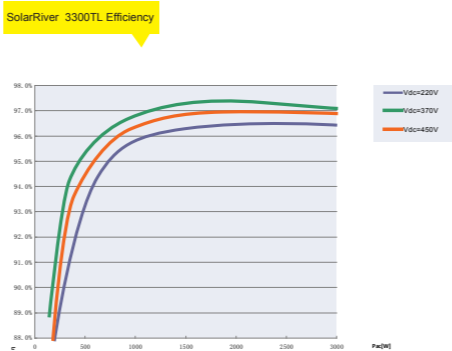
- Transformerless H6 Topology
- Wide MPP voltage range
- Compact design
- Small size and lightweight

Flexibility

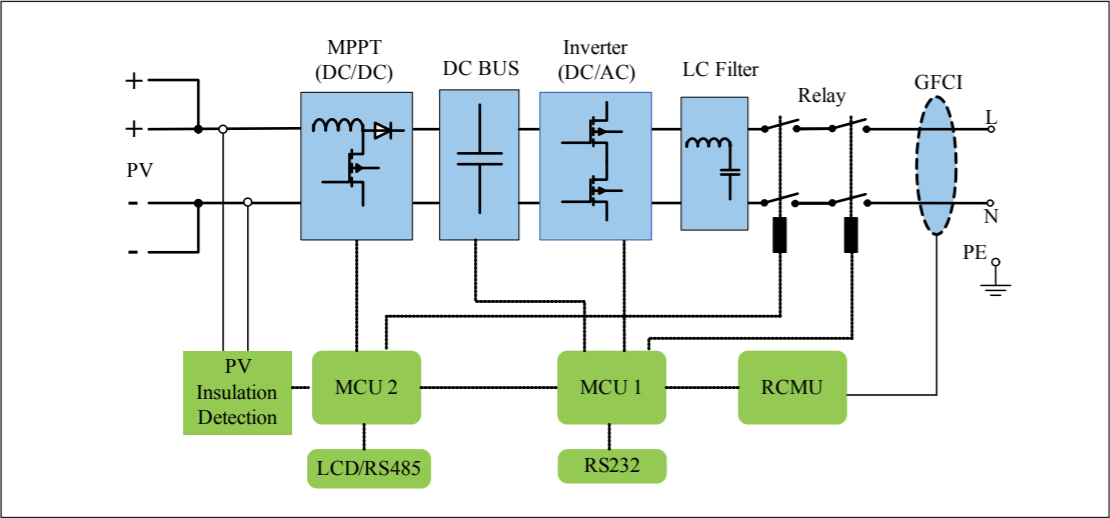
- Use for indoor or outdoor (IP65)
- “Plug and play” connection for easy installation and maintenance
- Multi-lingual display
- Easy configuration for different country grid standard

Built to last

- Stainless steel housing
- Automatic protection including over voltage, islanding, short circuit, overload and under voltage, under load, etc.
- 5 years standard warranty, up to 25 years warranty extension.



SolarRiver Topology



Datasheet

Inverter Model	SolarRiver 3300TL	SolarRiver 4400TL	SolarRiver 5200TL
Input (DC)			
Max. DC power [W]	3480	4580	5200
Max. DC voltage [V]	550		
Max. input current [A]	17.5	21	26
Number of MPP trackers /Strings per MPP tracker	1 / 2		
MPPT voltage range (at rated power) [V]	200 ~ 500		
Shutdown voltage /Start voltage [V]	70 / 100		
Output (AC)			
AC nominal power [W]	3000	4000	4600
Max. AC power [W]	3300	4400	5000
Max. AC current [A]	16	22	24
Nominal AC voltage / range [V]	230 / 180~270		
AC grid frequency / range [Hz]	50 / 47~52		
Power factor (cosφ)	1		
Total harmonic distortion (THDi) (at nominal power)	<3%		
Efficiency			
Max. efficiency	97.4%	97.6%	97.6%
Euro efficiency	96.5%	97.1%	96.8%
MPPT efficiency	99.9%		
General data			
Dimensions (W / H / D) [mm]	329 / 433 / 180		
Weight [kg]	18.9	19.2	19.4
Operating temperature range [°C]	-20 ~ +60		
Ingress protection	IP65		
Topology	transformerless		
Internal consumption (night) [W]	0		
Cooling concept	Convection	Fan	Fan
Noise (typical) [dB]	<30	<40	<40
LCD display	Backlight, 16*2 Character LCD		
Communication port	RS485 / RS232		
Standard warranty [year]	5		
Inverter Model	SolarRiver 3300TL	SolarRiver 4400TL	SolarRiver 5200TL

## SolarRiver 3400TL-D / 4500TL-D / 5000TL-D\* / 5200TL-D ( Single phase )

### Features:

#### Leading-edge Technology

- Transformerless H6 Topology
- Dual MPPT** for independent or parallel input mode (auto detecting)
- Wide MPP voltage range
- No fan design for higher reliability and lower noise
- Embedded DC switch (optional)
- Reactive power control compatible for **VDE AR-N-4105**
- Frequency shift power control compatible for **VDE AR-N-4105**

#### Flexibility

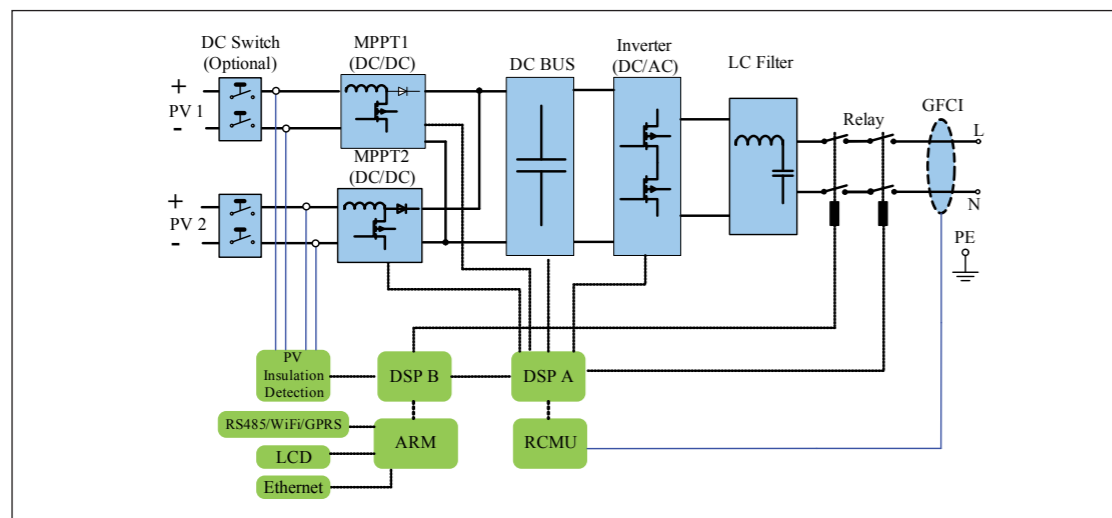
- Tool-free DC connector for easy installation and maintenance
- RS485,GPRS,WiFi and Ethernet communication for more flexible configuration and monitoring
- Use for indoor or outdoor (IP65)
- 3.5 inch TFT LCD display and Multi-lingual display
- Grid protection standard setting is more convenient and safe by using service password

#### Built to last

- Stainless steel housing
- Anti-theft protection
- 5 years standard warranty, up to 25 years warranty extension.



### SolarRiver Topology



### Datasheet

Inverter Model	SolarRiver 3400TL-D	SolarRiver 4500TL-D	SolarRiver 5000TL-D *	SolarRiver 5200TL-D
Input (DC)				
Max. PV power [W]	3400	4500	5000	5200
Max. DC voltage [V]	550			
Max. input current [A]	10.5/10.5	13.5/13.5	15/15	15/15
Number of MPP trackers Strings per MPP tracker	2 / 1			
Max power of Track 1/Track 2 [W]	2200/2200	2750/2750	3000/3000	3100/3100
MPPT voltage range (at rated power) [V]	160~500	165~500	175~500	175~500
DC Sw itch	optional			
Shutdown n voltage /Start voltage [V]	60 / 100			
Output (AC)				
AC nominal pow er [W]	3000	4000	4600	4600
Max. AC power [W]	3200	4300	4600	5000
Max. AC current [A]	16	22	23	24
Nominal AC voltage / range [V]	230 / 180~270			
AC grid frequency / range [Hz]	50 / 47~52			
Pow er factor (cosφ)	0.8 lagging ~ 0.8 leading			
Total harmonic distortion (THDi) (at nominal pow er)	<3%			
Efficiency				
Max. efficiency	97.4%	97.6%	97.6%	97.6%
Euro efficiency	96.5%	97.1%	97.1%	97.1%
MPPT efficiency	99.9%			
General data				
Dimensions (W / H / D) [mm]	520 / 380/ 175			
W eight [kg]	26			
Operating temperature range [°C]	-20 ~ +60			
Ingress protection	IP65			
Topology	transformerless			
Internal consumption (night) [W]	<3			
Cooling concept	Convection			
Noise (typical) [dB]	<30			
LCD display	3.5 inch TFT LCD			
Communication	Ethernet / optional for RS485 / GPRS / WiFi			
Standard w aranty [year]	5			
Inverter Model	SolarRiver 3400TL-D	SolarRiver 4500TL-D	SolarRiver 5000TL-D *	SolarRiver 5200TL-D

\* SolarRiver 5000TL-D is for the country which restrict power of single phase to 4600W. Such as Germany

## SolarLake 10000TL / 12000TL / 15000TL / 17000TL ( Three phase )

### Features:

#### Leading-edge Technology

- DC input voltage up to 1000v
- Dual MPPT inputs accommodating wide voltage range
- Transformerless - minimizing size and weight
- Maximum Efficiency 98%
- Integrated DC switch

#### Flexibility

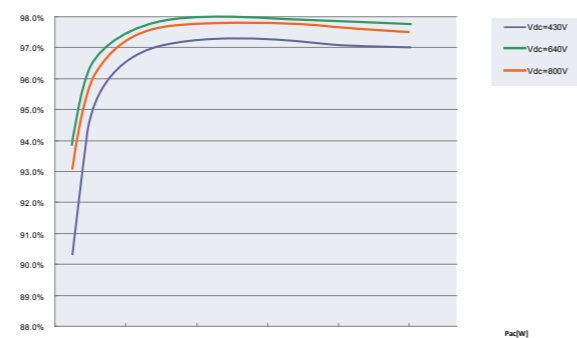
- Use for indoor and outdoor (IP65)
- “Plug and play” connection for easy installation and maintenance
- Multi-lingual display
- Easy configuration for different country grid standard

#### Built to Last

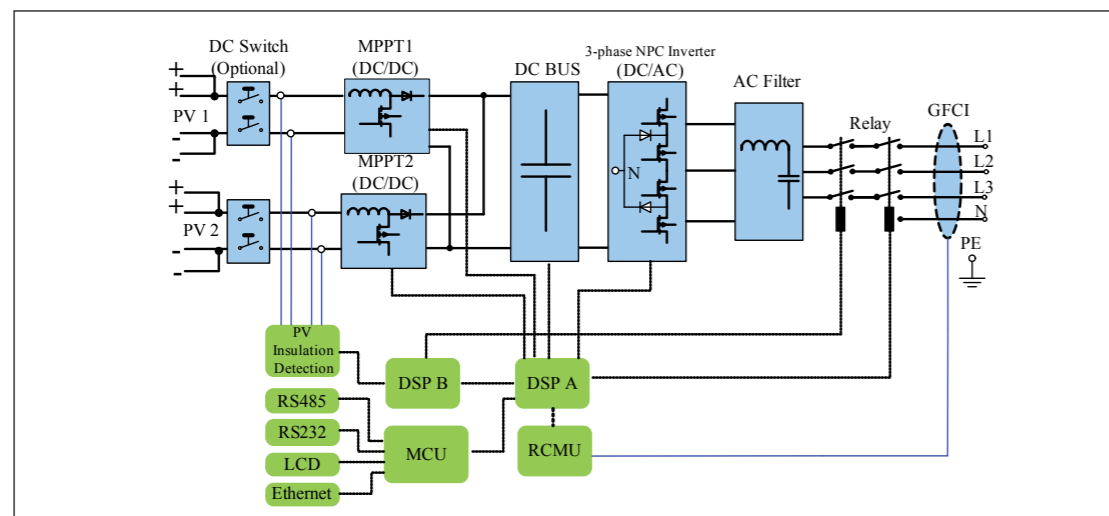
- Stainless steel housing
- Automatic protection including over voltage, islanding, short circuit, overload and under voltage, under load, etc.
- 5 years standard warranty, up to 25 years warranty extension.



SolarLake 17000TL Efficiency



SolarLake 17000TL Topology



### Datasheet

Inverter Model	SolarLake 10000TL	SolarLake 12000TL	SolarLake 15000TL	SolarLake 17000TL
Input (DC)				
Max. PV power [W]	11500	13800	17300	19600
Max. DC power [W]	10400	12500	15600	17700
Max. DC voltage [V]	1000	1000	1000	1000
Max. input current [A]	A: 16 / B:16	A: 16 / B:16	A:20 / B:20	A:20 / B:20
Number of MPP trackers / strings per MPP tracker	2 / 2			
MPPT v oltage range (at rated power) [V]	320~800	380~800	380~800	430~800
Shutdown v oltage / Start voltage [V]	160 / 210			
Output (AC)				
AC nominal power [W]	10000	12000	15000	17000
Max. AC power [W]	10000	12000	15000	17000
Max. AC current [A]	16	19.2	24	25
Nominal AC voltage [V]	3 / N / PE,230 / 400			
AC grid frequency / range [Hz]	50			
Power factor (cosφ), adjustable	0.9 leading ... 0.9 lagging			
Total harmonic distortion (THDi)	<3%			
Efficiency				
Max. Efficiency	97.9%	97.9%	98.0%	98.0%
Euro-efficiency	97.4%	97.4%	97.6%	97.6%
MPPT efficiency	99.9%			
General data				
Dimensions(W / H / D) [mm]	520 / 716 / 230			
Weight [kg]	50			
Operating temperature range [°C]	-20~+60			
Ingress protection	IP65			
Topology	Transformerless			
Internal consumption(night) [W]	<5			
Cooling concept	Fan			
Noise (typical) [dB]	<47			
Display	3.5 inch, TFT-LCD			
Communication port	Ethernet/ RS232/ RS485			
Standard warranty [year]	5			
Grid management	Yes			
DC switch	Integrated			
Inverter Model	SolarLake 10000TL	SolarLake 12000TL	SolarLake 15000TL	SolarLake 17000TL

## SolarOcean 100 / 250 / 100TL / 250TL / 500TL ( Central Inverter )

### Features:

#### Leading-edge technology

- Max. Efficiency **98.6%**
- Wide DC voltage
- Using effective IGBT power module
- Optimal MPPT technology
- Suitable for applications under harsh power grid conditions
- Low frequency transformer for isolation
- Advanced DSP digital control techniques
- Cost-effective guarantee for the PV power plant system

#### Flexibility

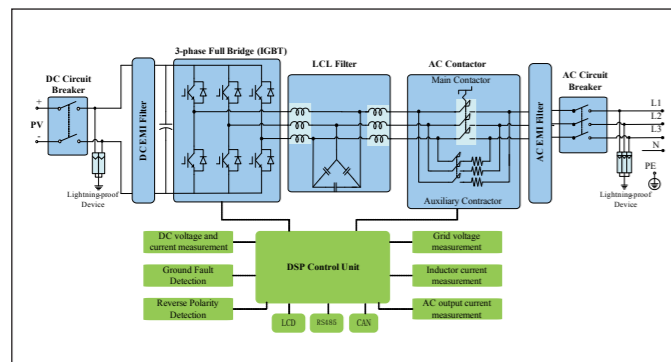
- Easy for local setting
- Multi-lingual LCD monitoring
- Multi-communication interfaces
- Friendly interface, easy to install and maintain

#### Reliability

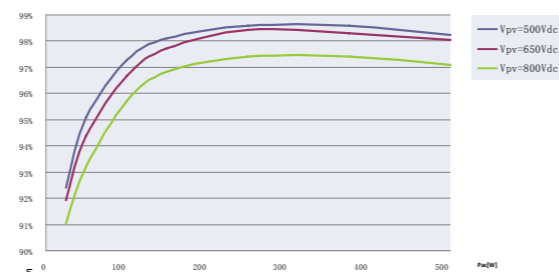
- Comprehensive protection for overvoltage, islanding, short-circuit, overloading, overheating, etc.  
( 18 protection systems )



### SolarOcean 500TL Topology



### SolarOcean 500TL Efficiency



### Datasheet

Inverter Model	With Transformer		Without Transformer		
	SolarOcean 100	SolarOcean 250	SolarOcean 100TL	SolarOcean 250TL	SolarOcean 500TL
<b>Input (DC)</b>					
Max. DC power(@ cos φ=1)	115 kW	285 kW	115 kW	285 kW	570 kW
Max. DC voltage	880 V / 1000 V (optional)		880 V / 1000 V (optional)		
MPPT voltage range	450 V - 820 V		450 V - 820 V		
Minimum input voltage	450 V		450 V		
Max. input current	250 A	600 A	250 A	600 A	1200 A
Number of independent MPP inputs	1		1		
Number of DC inputs	2	8	2	8	4+8
<b>Output (AC)</b>					
Nominal AC power	100 kW	250 kW	100 Kw	250 kW	500 kW
Max. AC power	110 Kw	275 Kw	110 Kw	275 Kw	550 Kw
Nominal AC voltage / range	400 V / 360 V – 440 V		270 V / 243 V – 297 V		
AC power frequency / range	50 Hz / 45 Hz ... 55 Hz		50 Hz / 45 Hz ... 55 Hz		
Rated power frequency / rated power voltage	50 Hz / 400V		50 Hz / 270 V		
Max. output current	160 A	400 A	235 A	590 A	1200 A
Total harmonic distortion (THDi) at nominal power	<3%		<3%		
Power factor (cosφ)	0.9lagging...0.9leading		0.9lagging...0.9leading		
<b>Efficiency</b>					
Max. efficiency	97.1%	96.8%	98.0%	98.1%	98.6%
European efficiency	96.3%	96.0%	97.7%	97.5%	98.3%
MPPT efficiency	99.9%		99.9%		
<b>Protection</b>					
Input side disconnection device	DC circuit breaker		DC circuit breaker	DC circuit breaker	Motor-driven switch-disconnector / circuit
Output side disconnection device	AC circuit breaker		AC circuit breaker	AC circuit breaker	Motor-driven switch-disconnector / circuit
DC overvoltage protection / AC overvoltage protection	Surge arrester type II / surge arrester type II		Surge arrester type II / surge arrester type II		
Grid monitoring	Yes		Yes		
Ground fault monitoring	Optional		Optional		
Insulation monitoring	Optional		Optional		
Surge arrester for auxiliary supply	Yes		Yes		
Protection class (as per IEC 62103) / overvoltage category (as per IEC 60664-1)	I / III		I / III		
<b>General data</b>					
Topology	Industrial frequency transformer		Transformerless		
Dimensions (W / H / D)	1160 / 1970 / 900 mm	2200 / 2180 / 850 mm	1160 / 1970 / 900 mm	2200 / 2180 / 850 mm	2600 / 2180 / 850 mm
Weight	935 kg	2200 kg	530 kg	1700 kg	2300 kg
Operating temperature range	-20 °C ... +50 °C		-20 °C ... +50 °C		
Acoustic noise level	65 db(A)	65 db(A)	65 db(A)	65 db(A)	65 db(A)
Max. self-consumption (in operation) / self-consumption (at night)	500 W / <100 W	1000 W / <100 W	500 W / <100 W	1000 W / <100 W	1500/ <100 W
External auxiliary supply voltage	230 / 400 V (L-N-PE/ L-L-PE)		230 / 400 V (L-N-PE/ L-L-PE)		
Cooling concept	Forced fan cooling		Forced fan cooling		
Degree of protection	IP20		IP20		
Application	Protected indoors		Protected indoors		
Maximum permissible value for relative humidity (non-condensing)	5 % ... 95 %		5 % ... 95 %		
Maximum operating altitude	3000 m		3000 m		
Fresh air consumption	4500 m³/h	8000 m³/h	4500 m³/h	8000 m³/h	15000 m³/h
DC terminal	Terminal block	Busbar	Terminal block	Busbar	Busbar
AC terminal	Terminal block	Busbar	Terminal block	Busbar	Busbar
Display	Touch screen LCD		Touch screen LCD		
Communication interface	RS485 / CAN		RS485 / CAN		
Standard warranty	5 year		5 year		
Grid management	Yes		Yes		
<b>Inverter Model</b>	<b>SolarOcean 100</b>	<b>SolarOcean 250</b>	<b>SolarOcean 100TL</b>	<b>SolarOcean 250TL</b>	<b>SolarOcean 500TL</b>

SolarArray Combiner

For large scale grid-tied PV systems, a DC combining device is installed between the PV arrays and the inverters to minimize the cable length, increase reliability and stability, and also simplify maintenance by reducing the connections between PV modules and the inverter. The DC Combiner box achieves this by grouping multiple source circuits from a PV array into a single DC Source which is then fed directly into the inverter. Beyond this grouping function the DC combiner also includes protection devices to significantly increase long term reliability for the PV system as a whole.

SolarArray combiner-1 Features:

- Meet the basic features of PV array combiner box
- Positive feed fuse for each string of PV array and anti-reverse function
- Lightning proof protection
- IP65 reinforced polyester enclosure for 2,4,6,8 string version
- IP65 painted steel enclosure for 10,12,16 string version



SolarArray combiner-2 Features:

- Positive and negative fuses for each string of PV array, overvoltage protection and anti-reverse function
- Data collection function: Real-time monitoring and display of the string input current and output voltage
- Equipped with RS485 communication port
- Positive and negative feed lightning-proof protection after input grouping
- IP65 reinforced polyester enclosure for 6,8 string version
- IP65 painted steel enclosure for 10,12,16 string version



Datasheet

Model	SAC-2C-A1	SAC-4C-A1	SAC-6C-A1	SAC-8C-A1	SAC-10C-A1	SAC-12C-A1	SAC-14C-A1	SAC-16C-A1
Max. input strings number	2	4	6	8	10	12	14	16
Input cable size	4mm²	4mm²	4mm²	4mm²	4mm²	4mm²	4mm²	4mm²
Output cable size	≥6mm²	≥10mm²	≥16mm²	≥25mm²	≥35mm²	≥35mm²	≥50mm²	≥70mm²
Grounding cable size	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²
Max. output current	20A	40A	60A	80A	100A	120A	140A	160A
Number of SPD	3	3	3	3	3	3	3	3
Ingress protection	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65
Output Water-proof terminal	PG13.5	PG13.5	PG13.5	PG16	PG21	PG21	PG29	PG29
Humidity	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%
Cooling method	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
Material	polyester	polyester	polyester	steel	steel	steel	steel	steel
Operating temperature range	-30℃-70℃	-30℃-70℃	-30℃-70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃
Dimension (W*H*D)[mm]	280×280×130	400×300×150	400×300×150	380×380×210	600×380×210	600×380×210	600×380×210	600×380×210
Weight(kg)	8	10	10	18	18	18	18	18

Model	SAC-6C-A2	SAC-8C-A2	SAC-10C-A2	SAC-12C-A2	SAC-14C-A2	SAC-16C-A2
Max. input strings number	6	8	10	12	14	16
Input cable size	4mm²	4mm²	4mm²	4mm²	4mm²	4mm²
Output cable size	≥16mm²	≥25mm²	≥35mm²	≥35mm²	≥50mm²	≥70mm²
Grounding cable size	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²	≤16mm²
Max. output current	60A	80A	100A	120A	140A	160A
Number of SPD	3	3	3	3	3	3
Ingress protection	IP65	IP65	IP65	IP65	IP65	IP65
Output Water-proof terminal	PG13.5	PG16	PG21	PG21	PG29	PG29
Humidity	0-99%	0-99%	0-99%	0-99%	0-99%	0-99%
Cooling method	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling	Natural cooling
Material	polyester	steel	steel	steel	steel	steel
Operating temperature range	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃	-30℃-+70℃
Dimension (W*H*D)[mm]	400×500×200	400×500×210	600×600×210	600×600×210	600×600×210	600×600×210
Weight(kg)	12	22	22	22	22	22

SolarPower Manager  
(Global GPRS monitoring system + Data Logger)

The SolarPower Manager is the communication centre of the PV power system, monitoring the system's operation, providing remote diagnostics and data acquisition. All the data from the inverters connected with the SolarPower Manager is available for continuous updating and provides real-time running status of the PV power system at all times.



Features:

Monitor function:

- Monitor the PV power system continuously
- Analysis and archiving of PV operation data by Microsoft Excel (PC and software needed)
- Monitor inverter status via GPRS connection
- Monitor data stored in database, with high security
- Remote access to browse logged data via any internet connection

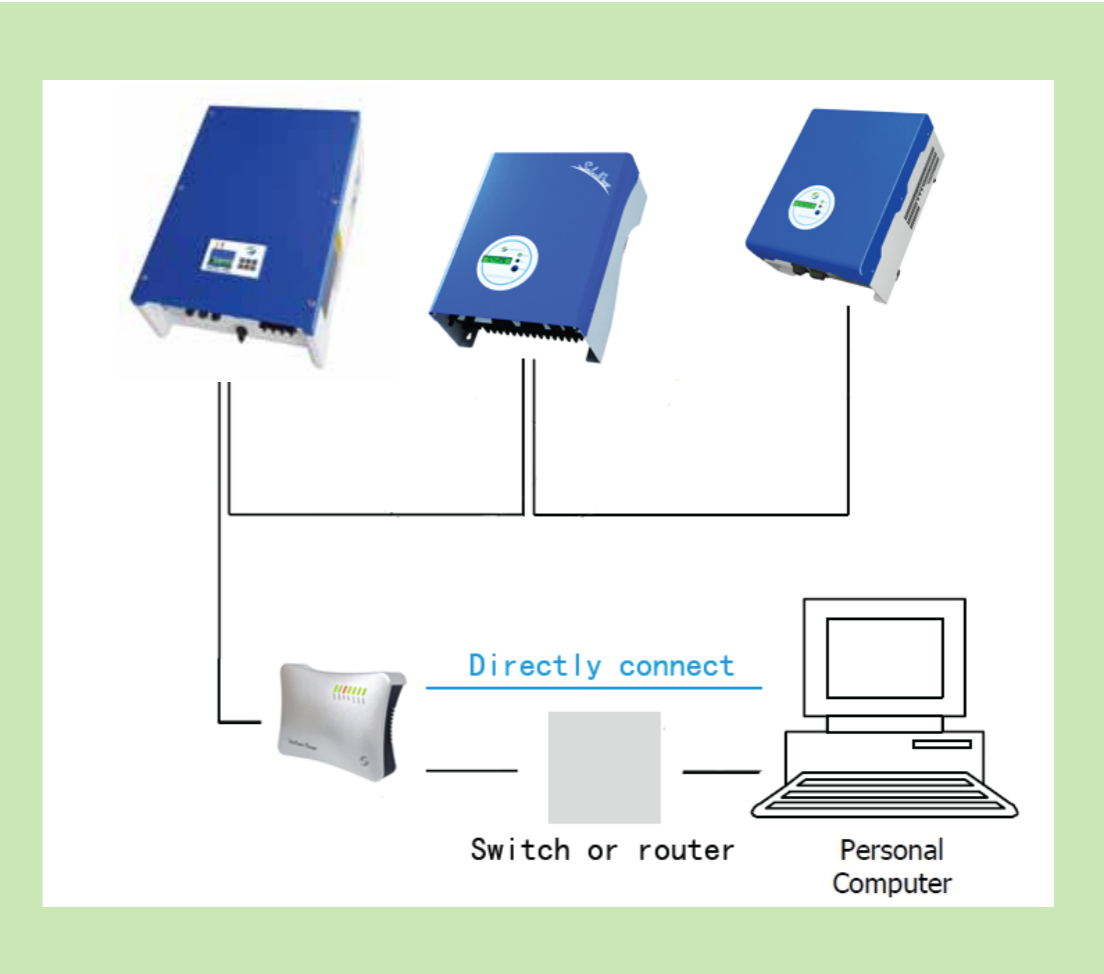
Storage function:

- Detect and record system faults fully automatically
- Record and store PV power system data at preset sample time
- Record inverter PV/AC voltage, PV/AC current, PV/AC power, AC frequency, energy today, total yield, etc..
- 2 Gigabyte SD card for storing and recording data, which can be transferred from SD card to computer via USB2.0 connection allowing captured data analysis when off line.
- Three LED indicators confirm the GPRS connection, RS232/RS485 connection and power supply status
- Easy installation; via optional connection port: RS232 or RS485
- Data diagnostics and system configuration by PC

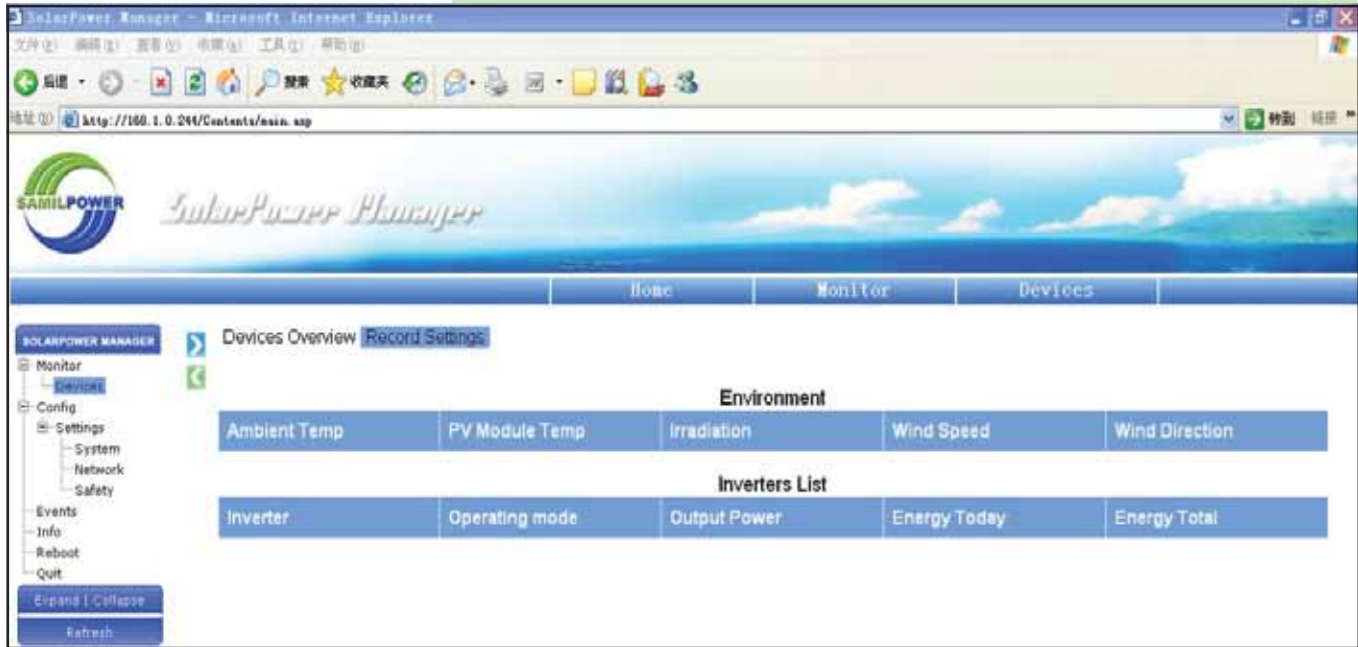
Datasheet

■ SolarPower Manager

■ Interfaces		■ Power Supply	
Inverter communication	RS485 (up to 32 inverters, max.1200m cable)	Plug-in power supply	115V-230V 50/60Hz
Ethernet	10/100M LAN	Power consumption	3W (Typ.)/10W (Max.)
Wireless		GPRS	
■ Storage		■ Operation Conditions	
Internal storage	32MB in a ring memory configuration	Ambient temperature	-20°C~+55°C
External storage	SD card 2GB	Relative air humidity	
■ Mechanical Data		■ Other Data	
Width/height/depth	222 /153/45 mm	Status display	Built-in LED
Weight	720g	Installation	DIN rail installation, Wall-mounting, tabletop device

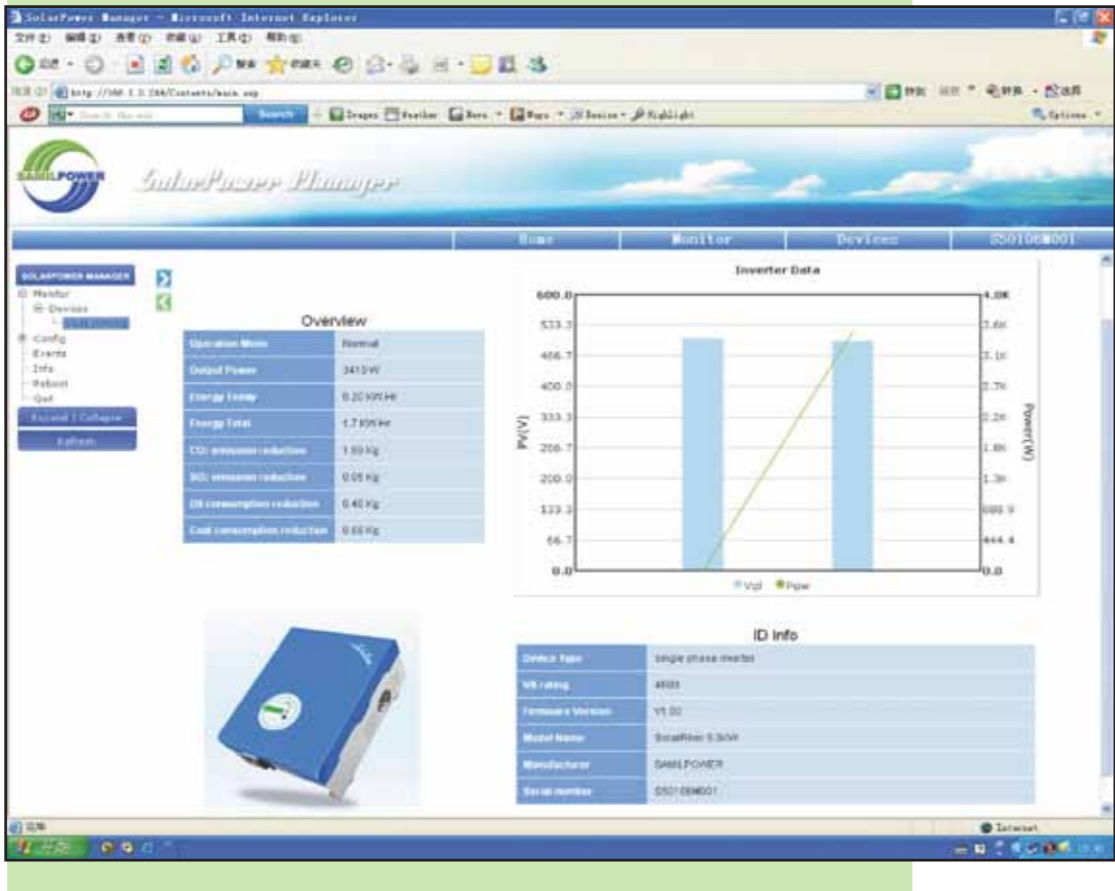


SolarPower Manager



▲  
Log in page

►  
Data view via web Interface



SolarEnvi Monitor

(The weather station for your solar power system)



The SolarEnvi Monitor is an environment-monitoring device developed by Samil Power Co., Ltd. specifically for PV plants. With the SolarEnvi Monitor and the external sensors, environmental data can be collected and used to make a comprehensive performance analysis of the PV system.

The SolarEnvi Monitor has a small integrated solar module to measure solar irradiation and two external platinum sensors to measure ambient and module temperature. Wind speed and wind direction can also be measured with optional sensors.

The SolarEnvi Monitor transfers the sensor data to the SolarPower Manager through a RS485 communication interface; the SolarPower Manager acts as a server so that sensor data can be read via the web.

Features

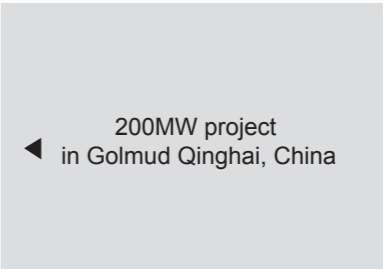
- Comprehensive performance analysis of the PV power system
- Precise acquisition of solar irradiation, module temperature, ambient temperature, wind speed and wind direction values
- Communication with the SolarPower Manager via RS-485
- Easy to install on the PV power system

■ SolarEnvi Monitor

Datasheet

■ Interfaces		Wind direction		Precision: ±3°	
Data logger communication		RS-485		Range: 0~360°	
■ Sensors		■ Power Supply			
Solar irradiation		Precision: ±8%		External power adaptor	5±0.3V/3W
		Range: 0~1500W/m²		Protection degree	IP65
Module temperature(PT100)		Precision: ±0.5°C			
		Range: -20°C~+100°C		■ Mechanical Data	
Ambient temperature(PT100)		Precision: ±0.5°C		Width/height/depth	120X90X50 mm
		Range: -20°C~+100°C		Weight	500g
Wind speed		Precision: ±(0.3+0.03V)m/s			
		Range: 0~75m/s			

Reference



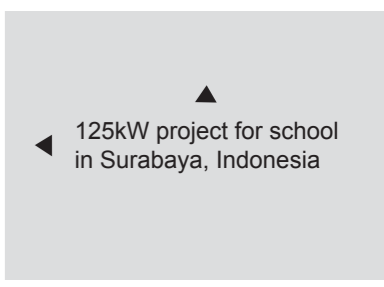
◀ 200MW project  
in Golmud Qinghai, China



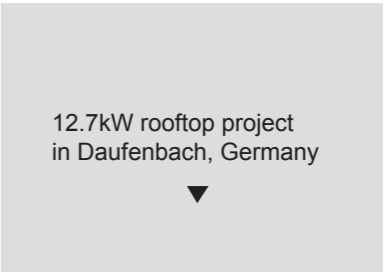
▲ 100kW project  
in Torino, Italy



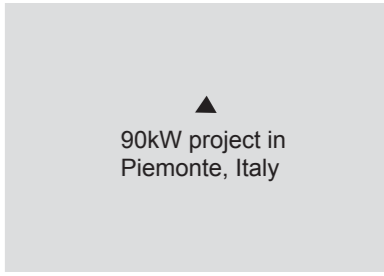
▲ 1200kW project  
in Venice, Italy



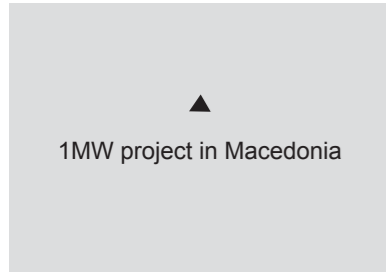
▲ 125kW project for school  
in Surabaya, Indonesia



▼ 12.7kW rooftop project  
in Daufenbach, Germany



▲ 90kW project in  
Piemonte, Italy



▲ 1MW project in Macedonia



◀ Project in France



◀ 102kW project in Italy



◀ Project in South Australia ▶



Certificates



European Union Products safety certificate



Products International standard certificate



TüV is a safety certificate for component products made by Germany



Golden solar certificate is the best authoritative solar certificates in China



VDE is one of the certificate institute owned high reputation in European

Member of



18 Countries Grid standard Applied



Australia



China



Portugal



UK



Italy



Israel



Germany



Belgium



America



France



Greece



Tunisia



Spain



Netherlands



Malaysia



Czech Republic



Bulgaria



Canada

Patents



## Samil Power System Design



### Features:

- All technical data of SolarRiver series, SolarLake series and SolarOcean series inverters.
- Over 90% of all PV panel/module brands and their technical data.
- World major cities annual sunshine radiation data.
- Providing one minute system design solutions, including sunshine radiation data of different installation sites (refer to NASA and others).
- Calculates sunshine radiation onto PV panels over full day's sun position to calculate optimum PV array angle to maximize the annual power generation.
- Choice of different cable sizes to estimate cable length according to cable loss standards.
- Online report
- Adaptable to OEM client's requirements.

### Sample of 10KW configuration



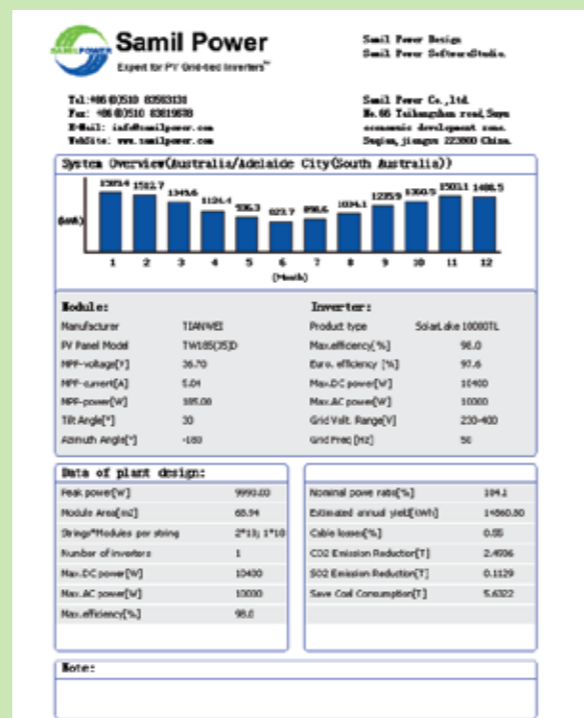
◀ Step 2: Choose inverters



Step 3: See the cable calculation ▶



▲ Step 1: Choose the location and panels for your system



▲ Step 5: The complete report with annual power yield analysis



◀ Step 4: View the report

## Why Samil Power

- ※ Capital: 12 million euros
- ※ Production Capacity: 4GW
- ※ Complete Product Range: 1kW - 500kW inverters
- ※ R&D Capacity: More than 150 R&D experts
- ※ Factory: State-of-the-art production facilities, comply with ISO9001:2008 & ISO14000:2004
- ※ Global Sales & Service Network: USA, Germany, Australia, Italy, France, UK, China
- ※ 10 – 15 days delivery
- ※ Insurance: All products are covered by product commercial liability insurance

**We Guarantee your yield**



## Bankability

Macedonia



UK



Czech Republic



France



Austria



## Service

- ※ 5-year standard warranty
- ※ Up to 25 years warranty extension
- ※ Worldwide service network
- ※ 48-hour service response

