

FSP SOLAR POWERMANAGER HYBRID SERIES



Smart Energy for Smart Home

3KW-10KW

FSP Solar PowerManager-Hybrid

Offers a more intelligent power solution for our customers to reduce the energy bill and make a contribution to our homeland, to our earth. Your energy can be used as efficiently, as smart as possible under current power consumption environment.

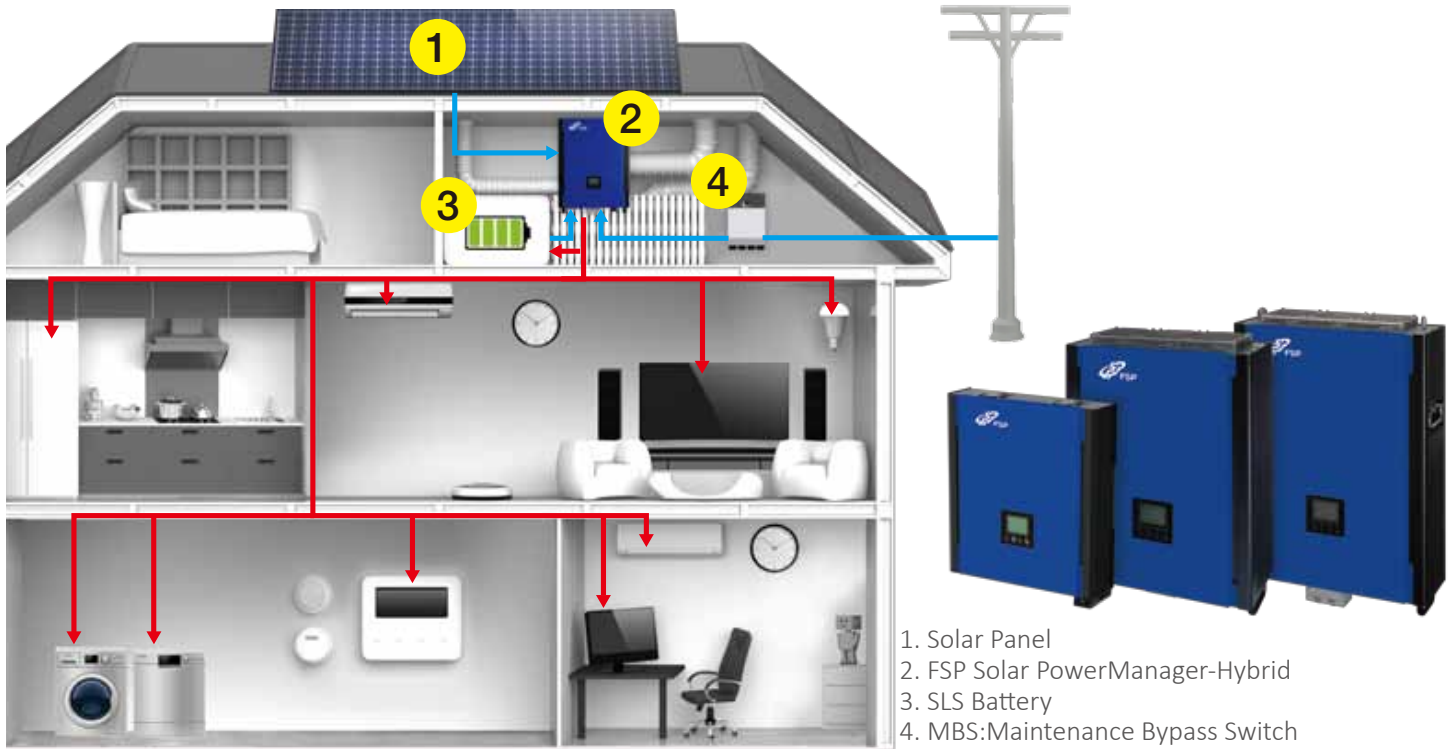
YOUR ENERGY, YOU DECIDE!

By the unique optimum technology of FSP Solar PowerManager-Hybrid Series you can control whether or how to use your energy, to store the generated power into battery or feed into the grid. Moreover, if grid power failed, by the brilliant ability of FSP Solar PowerManager-Hybrid Series, the load will be handled smartly by direct support from solar, by combining solar & storage energy or withdrawing storage power only. Multiple communication methods for different applications: FSP Solar PowerManager-Hybrid Series implements USB, RS232 ports and also fits with intelligent slot for SNMP card monitoring or Modbus Card for smart meter compensation applicable to keep your electricity meter at zero. to stay your electricity meter at zero.



GENERAL FEATURES

- Just ONE integrated design of Grid-tied & Off-Grid function
- Solar PowerManager-Hybrid implements AC I/P breaker and DC switch
- Solar Energy Storage
- Optimized Self-Consumption
- Load Dual-compensated: Solar & Storage Power or Grid & Storage Power
- Power securing during Grid Failure
- Back-up function
- Intuitive LCD Display
- SNMP, Modbus AS400 Support
- Certified VDE0126 & VDE4105
- 5kW&10kW Model Parallel function available, up to 6PC



Multi-Operation Mode



Solar Energy Multi-Use

Intelligent design adding more options to use Solar Energy: It is not just conventional PV inverter Feed-in function, the system with sufficient solar power will not only feed in grid, but also store energy and support loads.



Self-Consumption

When Solar Energy is low e.g. at night, the FSP Solar PowerManager will automatically withdraw the power from Energy storage (Battery) without using power from utility; saving & reducing your energy bill.

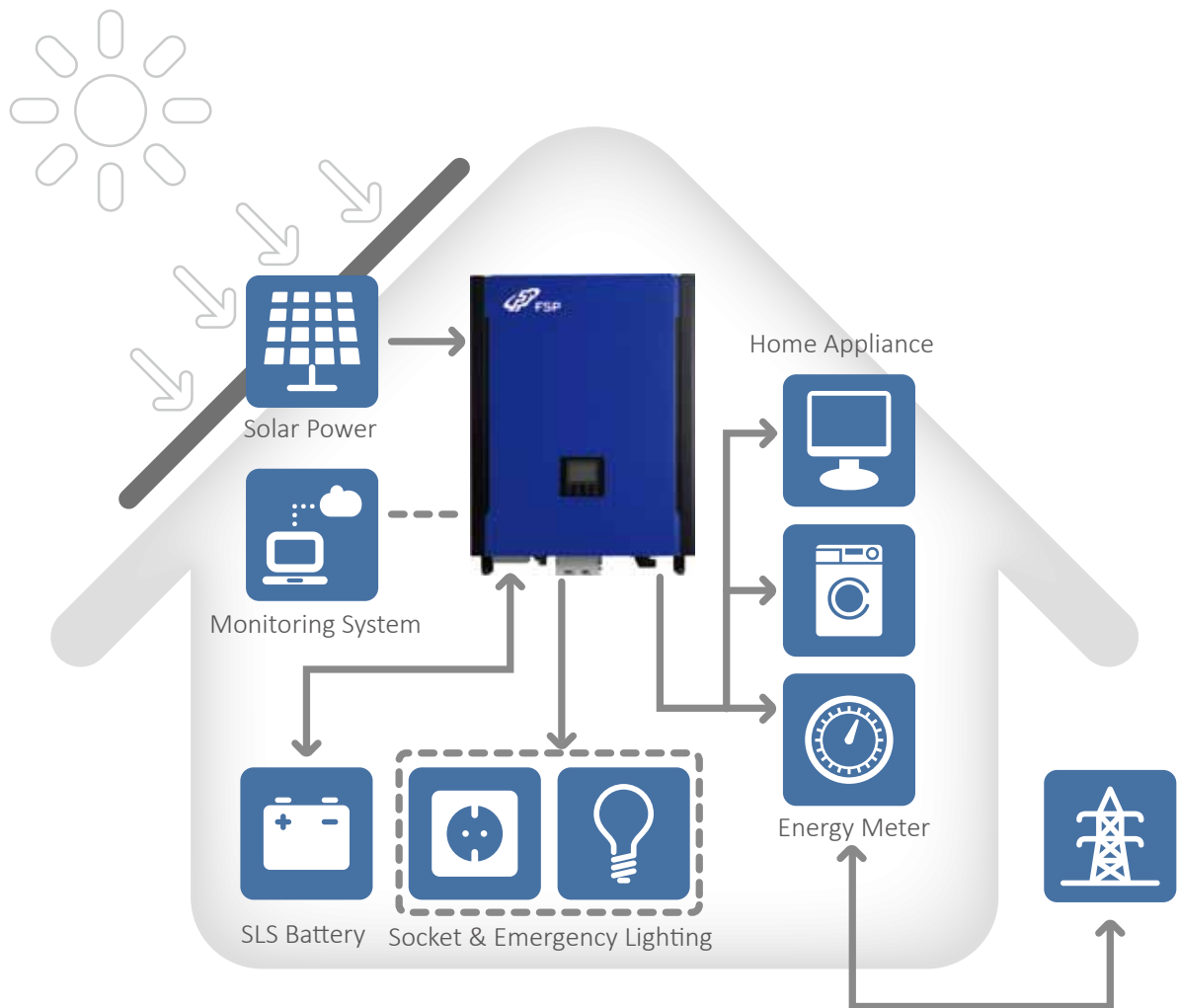


Back-up Power when Grid Outage

FSP Solar PowerManager implements off-grid inverter function. If a utility failure or outage occurs, the system will switch to back-up mode and offer continuous power.

Manage Your Own Power

FSP Solar PowerManager-Hybrid is an ingenious design unit. Product achieves tri-power source, Solar, Utility, and Battery Management.



FSP Solar PowerManager-Hybrid Compensation Mode:

Modbus Card for smart meter compensation applicable to keep your electricity meter at zero. All the loads are connected with Grid FSP Solar PowerManager-Hybrid which is an auxiliary power. At daytime, Solar Power is sufficient to feed in grid and store energy at the same time. At nighttime, FSP Solar PowerManager-Hybrid will withdraw the power constantly from the battery providing energy to your home appliances in order to decrease your energy bill. If a utility outage occurs, FSP Solar PowerManager-Hybrid will generate the back-up power for emergency demand, e.g. lighting which is connected to the unit.

TECHNICAL SPECIFICATIONS

MODEL	PowerManager-Hybrid 3kW	PowerManager-Hybrid 5kW	PowerManager-Hybrid 10kW
PHASE	Single phase		3-phase in / 3-phase out
MAXIMUM PV INPUT POWER	4500 W	10000 W	14850 W
RATED OUTPUT POWER	3000 W	5000 W	10000 W
MAXIMUM CHARGING POWER	1200 W	4800 W	9600 W
GRID-TIE OPERATION			
PV INPUT			
Nominal DC Voltage / Maximum DC Voltage	360VDC / 500VDC	720VDC / 900VDC	720VDC / 900VDC
Start-up Voltage / Initial Feeding Voltage	116VDC / 150VDC	225VDC / 250VDC	320VDC / 350VDC
MPP Voltage Range	250VDC / 450VDC	250VDC / 850VDC	400VDC / 800VDC
Number of MPP Trackers / Maximum Input Current	1/1 x 18A	2/2 x 10A	2/2 x 18.6A
GRID OUTPUT			
Nominal Output Voltage	208/220/230/240VAC		230VAC(P-N) / 400VAC(P-P)
Output Voltage Range	184- 265 VAC*		184-265 VAC* per phase
Nominal Output Current	13 A	21 A	14.5A per phase
Power Factor	> 0.99		
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	96 %		
European Efficiency@ Vnominal	95 %		
HYBRID / OFF-GRID OPERATION			
PV INPUT			
Nominal DC Voltage /Maximum DC Voltage	360VDC / 500VDC	720VDC / 900VDC	720VDC / 900VDC
Start-up Voltage / Initial Feeding Voltage	116VDC / 150VDC	225VDC / 250VDC	320VDC / 350VDC
MPP Voltage Range	250VDC / 450VDC	250VDC / 850VDC	400VDC / 800VDC
Number of MPP Trackers / Maximum Input Current	1/1 x 18A	2/2 x 10A	2/2 x 18.6A
GRID OUTPUT			
Nominal Output Voltage	202/208/220/230/240VAC		230VAC(P-N) / 400VAC(P-P)
Output Voltage Range	184- 264.5 VAC*		184-264.5 VAC* per phase
Nominal Output Current	13 A	21 A	14.5A per phase
AC IUTPUT			
AC Start-up Voltage/Auto Restart Voltage	120- 140 VAC / 180 VAC		120-140VAC per phase / 180VAC per phase
Acceptable Input Voltage Range	170- 280 VAC		170-280 VAC per phase
Maximum AC Input Current	30 A	40 A	40 A
BATTERY MODE OUTPUT			
Nominal Output Voltage	202/208/220/230/240VAC		230VAC(P-N) / 400VAC(P-P)
Efficiency (DC to AC)	93%		91%
BATTERY & CHARGER			
Nominal DC Voltage	48 VDC		
Maximum Charging Current	30 A	Default 60A, 5A-100A (Adjustable)	Default 60A, 10A-200A (Adjustable)
GENERAL			
PHYSICAL			
Dimension, D x W x H (mm)	107 x 438 x 480	204.2 x 460 x 600	167.5 x 500 x 622
Net Weight (kgs)	15.5	29	45
INTERFACE			
Communication Port	RS-232 / USB	RS-232/USB and CAN Interface	
Intelligent Slot	Optional SNMP, Modbus, and AS-400 cards available		
ENVIRONMENT			
Humidity	0 ~ 90% RH (No condensing)		
Ingress Protection Rating	IP20		
Cooling system	AirForce cooling		
Operating Temperature	0 to 40°C	-10 to 55°C	
Altitude	0 ~ 1000 m** Max2000m		

*These figures may vary depending on different AC voltage and country requirements.

** Power derating 1% every 100 m when altitude is over 1000m.

* Product specifications are subject to change without further notice