SOF Pro Series
Off-Grid Solar Inverter
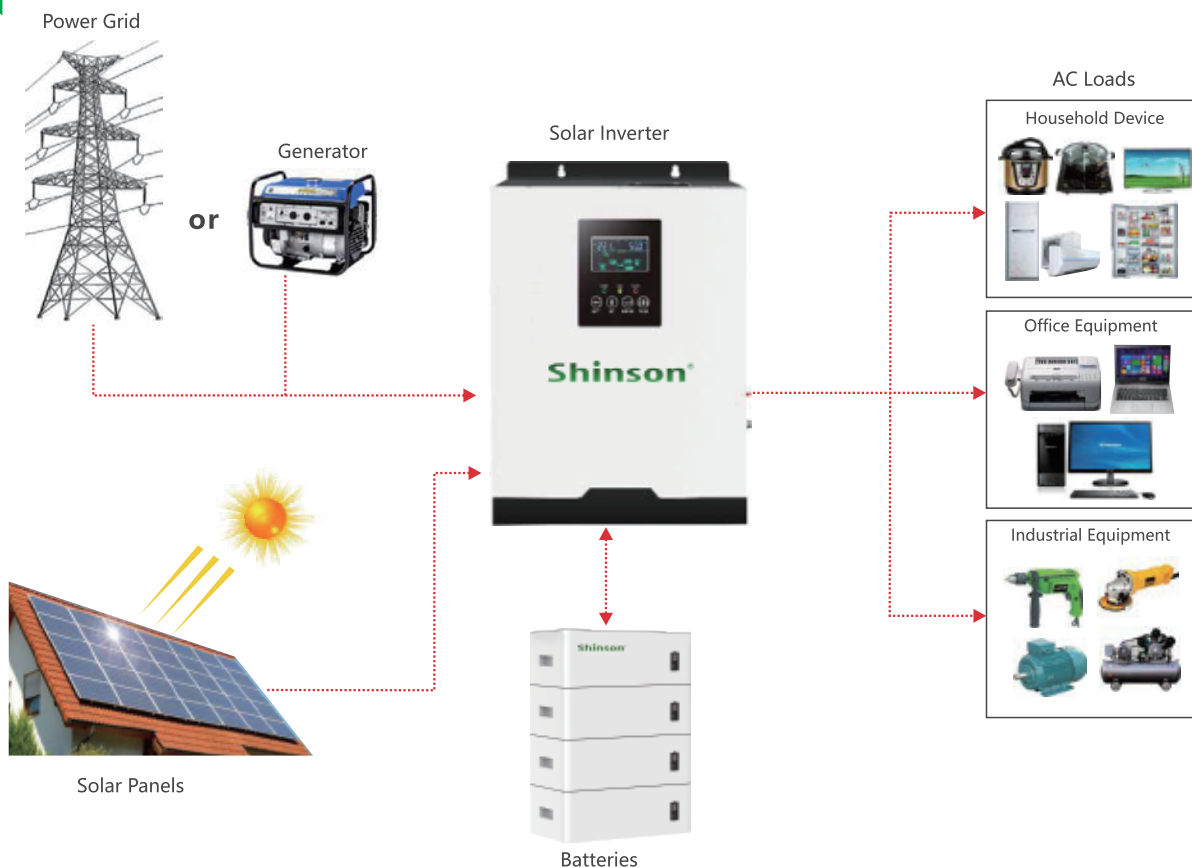
Product Description

- Adopt high-frequency design, high power density, small size, high efficiency and low no-load loss;
- Built-in MPPT controller, integrated solar charging and mains complement design;
- Pure sine wave output, adaptable to any types of loads;
- Battery charge and discharge voltage parameters adjustable, suitable for different types of batteries;
- AC charge current adjustable, battery capacity configuration more flexible;
- Three working modes adjustable: AC first, battery first, PV first;
- Output voltage/frequency adjustable function,adapt to different grid environment;
- Extra wide voltage and frequency input range, support mains or generator;
- LED+LCD display,easy operation and data checking,can set each function and data directly;
- Multi-protection function(overload,over temperature,short circuit protection and so on);
- RS485 communication port/APP optional.

Application Area

- Office and public facilities, household system, network transmission equipment, manufacturing, control system, solar energy system, oil field, drilling field operation, etc.
- Provide stable, reliable and safe solutions for families, islands, ships and other small photovoltaic power systems

System Application Diagram

Power Grid

Generator

or

Solar Inverter

AC Loads

Household Device

Office Equipment

Industrial Equipment

Solar Panels

Batteries

Technical Parameters

Model: HP Pro			SPRO-1K	SPRO-1.5K	SPRO-2K	SPRO-3.2K	SPRO-5K	SPRO-7.2K	SPRO-8K
Rated Power			1000W	1500W	2000W	3200W	5000W	7200W	8000W
Peak power(20mS)			3000VA	4.5KVA	6KVA	9.6KVA	15KVA	21.6KVA	24KVA
Battery Voltage			12VDC	24VDC	24VDC	24VDC	48VDC	48VDC	48VDC
Installation Method			Wall-Mounted						
PV	Charging Mode		MPPT						
	MPPT tracking voltage range		15V-80VDC	30V-100VDC		120VDC-450VDC	120VDC-450VDC		
	Rated PV input voltage		15V-30VDC	30V-60VDC		360VDC	360VDC		
	Max PV Input Voltage Voc (At the lowest temperature)		120VDC			500VDC	500VDC		
	PV Array Maximum Power		840W	1680W		4000W	6000W	4000W*2	
	MPPT tracking channels (input channels)		1				2		
Input	DC Input Voltage Range		10.5-15VDC	21-30VDC			42-60VDC		
	Rated AC input voltage		220VAC / 230VAC / 240VAC						
	AC Input Voltage Range		170VAC~280VAC（UPS mode）/ 120VAC~280VAC（INV mode）						
	AC Input Frequency Range		45Hz~55Hz（50Hz），55Hz~65Hz（60Hz）						
Output	Output efficiency(Battery/PV Mode)		94%（Peak value）						
	Output Voltage(Battery/PV Mode)		220VAC±2% / 230VAC±2% / 240VAC±2%						
	Output Frequency(Battery/PV Mode)		50Hz±0.5 or 60Hz±0.5（INV mode）						
	Output Wave(Battery/PV Mode)		Pure Sine Wave						
	Efficiency(AC Mode)		≥99%						
	Output Voltage(AC Mode)		Follow input						
	Output Frequency(AC Mode)		Follow input						
	Output waveform distortion Battery/PV Mode)		≤3%(Linear load)						
	No load loss(Battery Mode)		≤1% rated power						
	No load loss(AC Mode)		≤0.5% rated power(charger does not work in AC mode)						
Battery	Battery Type	VRLA Battery	Charge Voltage :13.8V; Float Voltage:13.7V(Single battery voltage)						
		Customize battery	Charging and discharging parameters of different types of batteries can be customized according to user requirements (charging and discharging parameters of different types of batteries can be set through the operation panel)						
	Maximum charging current (mains + PV)		120A	100A	110A	100A	100A	150A	
	Max PV Charging Current		60A	60A	60A	100A	100A	150A	
	Max AC Charging Current		60A	40A	50A	60A	60A	80A	
	Charging method		Three-stage (constant current, constant voltage, floating charge)						
Protection	Battery low voltage alarm		Battery undervoltage protection value+0.5V(Single battery voltage)						
	Battery low voltage protection		Factory default: 10.5V(Single battery voltage)						
	Battery over voltage alarm		Constant charge voltage+0.8V(Single battery voltage)						
	Battery over voltage protection		Factory default: 17V(Single battery voltage)						
	Battery over voltage recovery voltage		Battery overvoltage protection value-1V(Single battery voltage)						
	Overload power protection		Automatic protection (battery mode), circuit breaker or insurance (AC mode)						
	Inverter output short circuit protection		Automatic protection (battery mode), circuit breaker or insurance (AC mode)						
	Temperature protection		>90°C(Shut down output)						
Working Mode			Mains priority/Solar priority/Battery priority(Can be set)						
Transfer Time			10ms (typical value)						
Display			LCD+LED						
Thermal method			Cooling fan in intelligent control						
Communication(Optional)			RS485/APP(WIFI monitoring or GPRS monitoring)						
Environment	Operating temperature		-10°C~40°C						
	Storage temperature		-15°C~60°C						
	Noise		≤55dB						
	Elevation		2000m(More than derating)						
	Humidity		0%~95% (No condensation)						

Note: 1. Specifications are subject to change without prior notice; 2. Special voltage and power requirements can be customized according to the actual situation of users.