

Renewable
Reliable
Responsible



Residential Solar Hybrid Inverter
SPH 48V Series

Enjoy an energy independent life

With the Kehua SPH energy storage system and PV, it is now possible to effectively manage full energy cycle in your home through self generation, storage and consumption. Now you can enjoy a house full of energy with less electricity costs that is secured power against outage, or join an integrated energy sharing community.



Greater energy cost-efficiency

Self-consumption

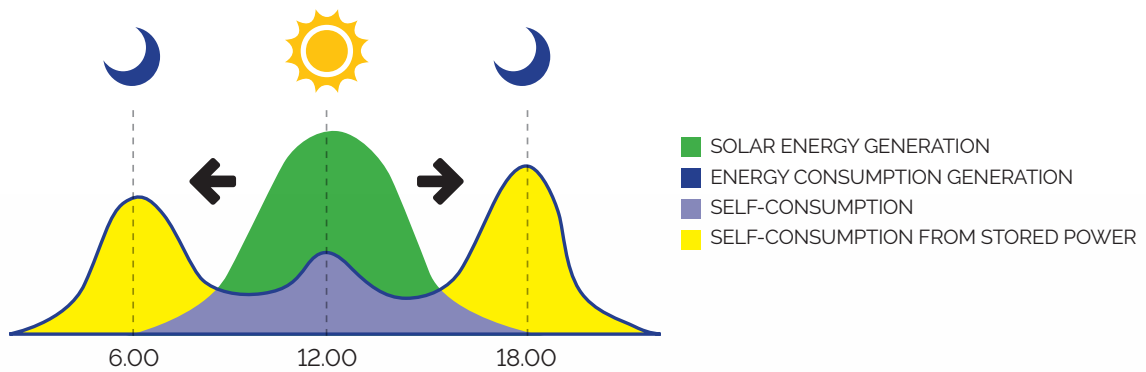
Think about this: During the day, PV is generating but no one is using, energy will be wasted without storage; however at night, you still buying energy as before because there is no Sunlight. SPH will allow you to use solar generation at night and truly minimize electricity you need to pay for.

Load Shifting (Peak Shaving)

Because of the rate fluctuation, your actual electricity cost will go up and down time to time. SPH provides charging / discharging time setting which will help you store cheaper power for later use and increase money saving.

Operation Scheduling

Being part of a community, rate fluctuation will affect your neighbors in the same way as it did to you. SPH allows you to decide discharging power and time; that means storage energy can be shared by neighbors and brings you additional income.





Energy Network Interconnect

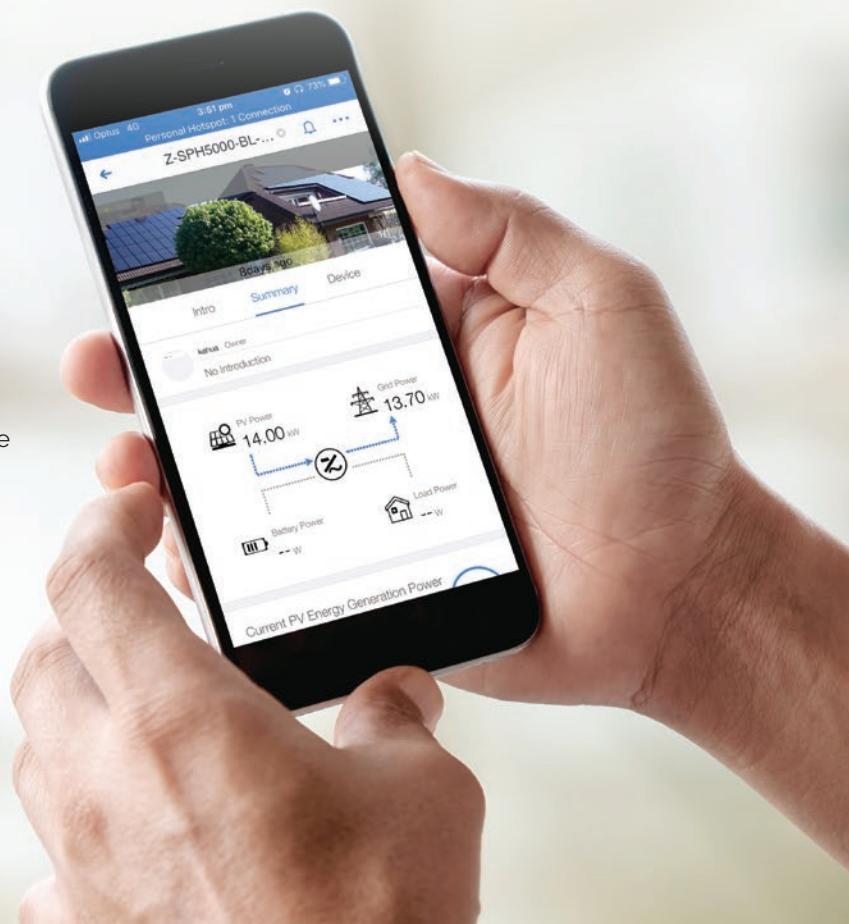
For our energy future, community based smart grid will be big part of utility structure. SPH supports remote real time energy dispatching communication; connect with a virtual power pool that serves all members.

Energy Backup (UPS Mode)

Energy blackout, which is unpredictable, can always cause problems no matter hours or minutes. SPH can work as energy backup unit, providing reliable power supply with always fully charged battery.

Manage Your Energy Anytime Anywhere

With Kehua App, you can manage and control your energy consumption and production. Download the Kehua App to your smartphone or tablet for access to your SPH smart energy system. The App allows you to monitor, analyze and control the supply and demand of your household or business anytime and anywhere.



Kehua SPH

Become energy independent



USER FRIENDLY

Easy installation

Ultra silent design,
noise < 25dB

Multiple battery configuration,
support different battery types
·Flexible application for either
new installation or retrofit.



RELIABLE

Water and dust proof (IP 65),
OK for outdoor use ·Cutting
edge design and technology

High quality components
maximize service life



BATTERY

Easy compatibility with Lithium-ion,
Pb, Pb-C, Flow Battery etc.

Wall mounted and rack-
mounted optional



EFFICIENT

Maximum efficiency
up to 97.8%

Super wide MPPT range:
125Vdc – 580Vdc



INTELLIGENT

Full automatic control,
minimized daily operation

APP available for monitoring
and control

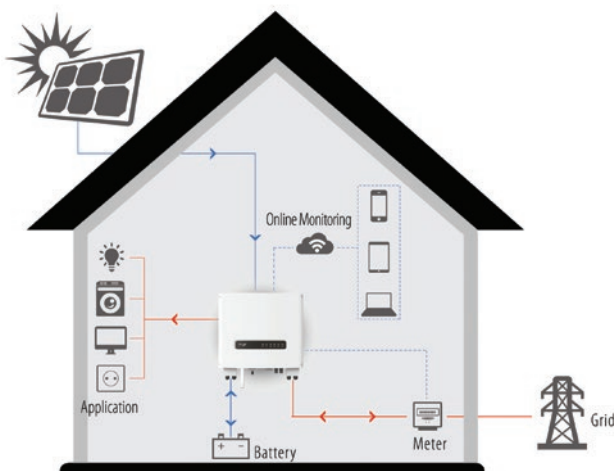
Seamless transfer makes power
outage un-realizable



OPTIONAL

CT or Smart Meter increase
power control precision

GPRS



OFF-GRID APPLICATION COMPATIBLE

In addition, SPH can be installed in a completely off-grid application when no grid power is available; you can always be served by our system no matter in city or remote areas.

POWER EXPORT CONTROL

SPH system gives you the right to adjust you system export power. If energy back feed is prohibited, system output will be adjusted according to load status and restrict power send to grid.

Technical Specifications

PV INPUT	SPH3600-BL	SPH5000-BL
PV Max Power (W)	4000	5500
Max Voltage (Vdc)		550
MPPT Range (Vdc)		125 ~ 550
Max Input Current (Adc)		11×2
MPPT Number / Strings		2/2 (can be parallel)
ON-GRID OUTPUT		
Rated Power (W)	3600	5000
Rated Output Voltage (Vac)		220/230/240
Grid Voltage Range (Vac)		184-265
Grid Frequency Range (Hz)		47.5~ 52.5 or 57.5~ 62.5
Rated Output Current (A)		17 22.7 Power Factor > 0.99
Max Efficiency		97.80%
Europe Efficiency		97.20%
THDi (%)		<2%(Full load)
BATTERY INVERTER (EMERGENCY MODE)		
Rated Output Voltage (Vac)		220/230/240
Output Frequency (Hz)		50(60)±0.5
Output Power (W/VA)		2500/3500
Transfer Time (ms)		6 ms (Typical)
Voltage Harmonic(%)		<2% (Linear load)
CHARGE-DISCHARGE		
Nominal Voltage (Vdc)		48
Max Charging Power (W)		2500 (Settable)
Max Charging Current (A)		52 (Settable)
Max Discharging Power (W)		2500
Max Discharging Current (A)		52
Battery Type		Lithium / Pb-C / Lead acid
SYSTEM		
Installation		Wall mounted
Ingress protection		IP65
Isolation method (solar)		Transformerless
Isolation method (battery)		HF
Cooling		Natural cooling
Noise emission (dB)		<25
Display		LED/APP
Ambient humidity		0 ~ 90% , non condensation
Temperature (°C)		-25°C ~ +60°C
Operation Altitude		0 ~ 3000m
On-grid standard		VDE0126-1-1, VDE-AR-N4105,G83/2, G59/3, AS4777.2/.3, ERDF, CEI 0-21
Safety		IEC62109-1, IEC62109-2, AS62040-1-1
EMC		EN61000-6-3, EN61000-6-2
Communication interface		RS485(Modbus) / WiFi / DRM
Accessories		CT, Smart meter (Optional)
Dimension (W×H×D)(mm)		480 × 420 × 185
Weight (kg)		25

Specifications are subject to change without prior notice.