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BKS Series

Single Phase Off-grid Inverter



BKS-PV5000-24L Brief

A 4kVA single-phase off-grid inverter with a built-in 100A MPPT solar charger that takes up to 5000W of PV. It runs from a 24V lithium or lead-acid battery, works with the grid and a generator, and switches over in 10ms.

The system diagram shows solar panels, grid and generator feeding the inverter, which supplies the home loads and charges the battery, with optional Wi-Fi monitoring to the cloud, app and web.

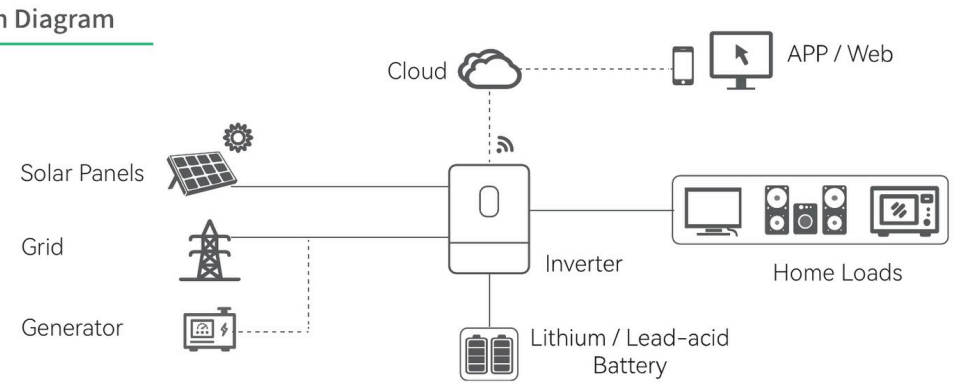
Main Features

- Built-in 100A solar charger
- Workable with generator
- Supports lithium and lead-acid batteries (BMS)
- Detachable dust cover
- Wide MPPT range 40-500V
- Complete CE certificate
- Lithium battery activation
- Wi-Fi monitoring

Application

- Off-grid homes
- Small shops and offices
- Weak-grid sites with solar backup

System Diagram



Technical Specifications

	Model	BKS-PV5000-24L
AC Input	Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L+N+PE
	Voltage Range (VAC)	90~280 ±3 (normal mode); 170~280 ±3 (UPS mode)
	Frequency (Hz)	50 / 60 (auto adaptive)
AC Output	Rated Capacity (kVA)	4
	Surge Power (kVA)	5.7
	Voltage (VAC)	208 / 220 / 230 / 240
	Power Factor (PF)	1
	Frequency	50/60Hz ±0.1%
	Switch Time (ms)	10 (normal mode) / 10 (UPS mode)
	Wave Form	Pure sine wave
	Overload Capacity (Battery Mode)	60s @102%~110% load; 10s @110%~130% load; 3s @130%~150% load; 0.2s @>150% load
	Max. Efficiency (Battery Mode)	92.7% @24VDC
	Parallel Quantity	NA
Charger (PV / AC)	Solar Charger Type	MPPT
	Max. PV Input Current / Input Power	18A / 5000W
	MPPT Range @ Operating Voltage (VDC)	40~450
	Max. PV Open Circuit Voltage (VDC)	500
	Max. PV Charge Current (A)	100
	Max. AC Charge Current (A)	100
	Max. Charge Current (PV + AC) (A)	100
Battery	Rated Voltage (VDC)	24
	Floating Charge Voltage (VDC)	27
	Overcharge Protection (VDC)	30.5
	Battery Type	Lithium and lead-acid
Interface	HMI	LCD
	Interface	RS485 / RS232 / USB / dry contact
	Monitoring	Wi-Fi (optional)
General Data	Ingress Protection	IP21
	Operating Temperature	-10°C~50°C
	Relative Humidity	5%~95% (non-condensing)
	Storage Temperature	-15°C~60°C

	Model	BKS-PV5000-24L
General Data (cont.)	Net Weight (kg)	6.4
	Dimensions (W×H×D)	490×306×115mm (without bracket)
	Max. Operating Altitude	4000m (derating above 1000m)

Product specifications are subject to change without further notice.