



Solar Inverter PowerHub 3300



The PowerHub 3300 is the latest addition to Sun King's solar inverter product range, combining powerful capability with cutting-edge analytics. Available on pay-as-you-go finance options, the PowerHub 3300 presents a sustainable, cost-effective alternative to diesel generators for weak-grid and off-grid homes and businesses.

Capable of powering an extensive range of appliances, from domestic equipment such as lights, refrigerators, and televisions, to small businesses' computers, food processing equipment, and light machinery, the PowerHub 3300 can deliver up to 3.3kW of electricity, equivalent to the electrical grid.

A hybrid solar inverter, the PowerHub 3300 connects to two sources of energy: solar panels and, if available, the electrical grid. This dual functionality allows for continuous operation regardless of weather, time of day, or grid stability. The PowerHub's solar panels generate direct current (DC), which can be stored in the Lithium Iron Phosphate (LFP) battery or directly used by the PowerHub 3300 to convert DC to alternating current (AC) for appliance use.

Web-Hosted Energy Data Analysis and Tracking

A new feature for a Sun King product, the PowerHub has GSM-enabled monitoring and analytics. A cloud-based online tool allows users to monitor the performance of their PowerHub in near-to-real time. The system allows users to see data on grid power, solar power, and battery state from anywhere in the world. This technology enables Sun King to provide optimised customer support and empowers PowerHub owners to monitor and optimise their set-up to protect against power outages and reduce energy costs.

Next-Generation Pay-As-You-Go, EasyBuy Technology

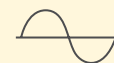
Sun King's pay-as-you-go (PAYG) system enables customers to take home the PowerHub 3300 after making a modest deposit. Following this initial deposit, customers then make small, regular top-up payments via mobile money or cash.

The PowerHub 3300 has onboard device management technology built in that enables remote activation and deactivation based on the customer's payment status. The PowerHub 3300 integrates the latest PAYG technology, which enables instant payment tracking through GSM coverage.

The PowerHub 3300's Key Features



3300W
inverter



Pure Sine Wave



**Lithium Iron
phosphate (LFP)
battery**



10-year
projected
battery lifespan

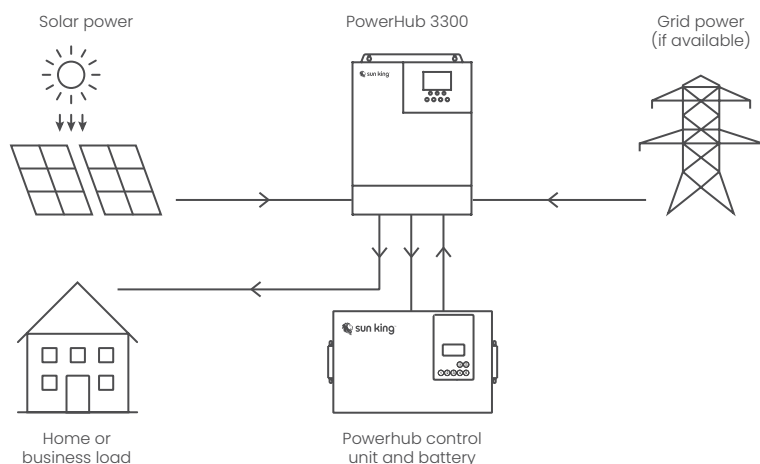


4000W
maximum
solar power



3-year
warranty

System Layout



PRODUCT SPECIFICATIONS

Inverter

Max AC Output (One Battery)	2000W
Max AC Output (Two Batteries)	3300W
Rated Output Voltage (Vac)	230Vac, $\pm 5\%$
Output Voltage Waveform	Pure sine wave
Maximum Efficiency	$\geq 92\%$
Rated Input Voltage	220/230Vac
Frequency	50Hz/60Hz (auto-detection)
Maximum Charge Current	0-80A, adjustable
Rated Battery Input Voltage	24V (minimum starting voltage 22V)
Maximum PV Input Power	4000W

Battery Control Unit

Battery	25.6V 2.56kWh Lithium-Iron Phosphate (LFP) battery
Output Voltage Range	21.6V - 27.2V
LCD Display System	Displays connection, usage, and battery consumption
PAYG Enforcement	GSM-based activation using Sun King Link API compatible with major PAYG software platforms (licensed separately)

Solar Power

Total Solar Power	From 1800W to 3600W (4-8 450W panels)
Solar Panel Specification	Maximum Power: 450W
	Technology: Monocrystalline
	Open-Circuit Voltage (Voc): 49.35V
	Short-Circuit Current (Isc): 11.61A
	Maximum Power Voltage (Vmp): 41.56V
	Maximum Power Current (Imp): 10.83A

About Sun King

Sun King is the world's leading off-grid solar energy company with cutting-edge product design, affordable financing, and a grassroots installation model to provide energy to the 1.8 billion consumers across Africa and Asia who lack access to reliable electricity. Founded in 2007, Sun King sets the gold standard for off-grid solar performance and design as part of its mission: power your life.

Paying with Sun King EasyBuy Pay-As-You-Go Technology

- Customer makes a down payment with cash or mobile money.
- A sales agent records the customer's information and activates the product.
- The customer makes scheduled payments for the product. If a payment is not made, the product will not work.
- The system unlocks permanently when the customer completes payment.

Daily Powering Capacity of Household and Business Appliances





Solar Inverter System PowerHub 5000



The PowerHub 5000 is a modular, scalable solar inverter system designed for flexibility and demanding needs. Each inverter provides a continuous 5 kW of AC power output. Up to six units can be combined in parallel to deliver a total capacity of 30 kW. PowerHub 5000's flexibility makes it an ideal solution for diverse energy requirements — from residential homes and apartment blocks to offices, commercial establishments, public institutions, and light industrial applications.

Flexible and Expandable Configuration

PowerHub 5000 can be configured to deliver between 5 kW and 30 kW of continuous power, along with up to 120 kWh of battery storage, and up to 48 kWp of solar power generation. A 5 kW starter configuration efficiently powers essential appliances in homes or small businesses, including multiple refrigerators, freezers, washing machines, electric irons, induction cookstoves, water pumps, and other high-demand equipment.

For large homes and more demanding commercial or institutional applications, additional solar inverters, batteries, and solar panels can be added to the system to supply higher power output. These systems can support multiple air conditioners, light industrial machinery, computer servers, and a range of office, medical, and food processing equipment, as well as other high-demand appliances.










Control Panel and Remote Monitoring

The system features a hard-wired LCD control panel that can be conveniently installed in an accessible location, providing centralised monitoring of grid power, solar generation, and battery status. Equipped with GSM and Bluetooth connectivity, the control panel enables local system monitoring via a mobile app and remote monitoring for institutional users. This connectivity enables Sun King to optimise customer support, while allowing customers to fine-tune their system and usage to protect against power outages and reduce energy costs.

Pay As You Go Payment Modalities

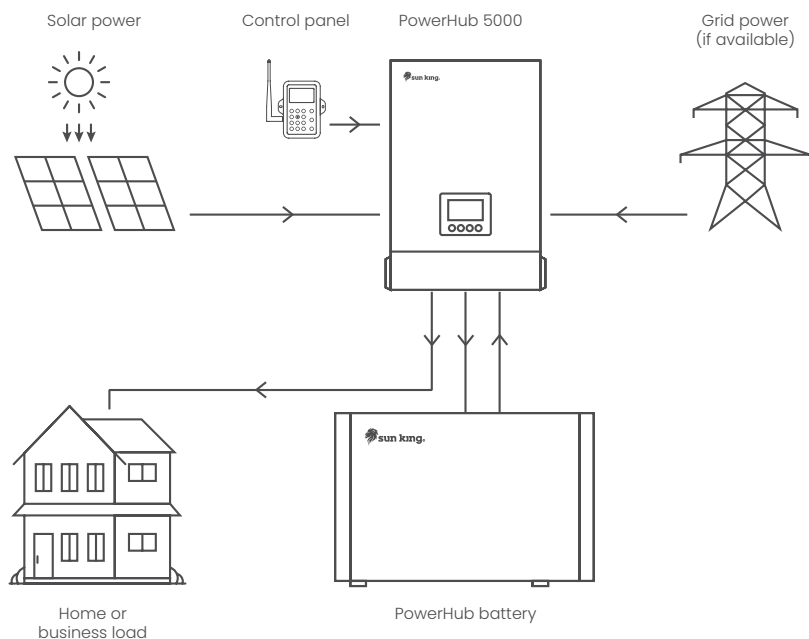
Sun King's EasyBuy Pay-As-You-Go (PAYG) technology allows customers to get their system installed and start generating their own electricity with just a small initial deposit, followed by incremental payments using mobile money, bank transfer, or cash. The PowerHub 5000 uses its GSM cellular modem to automatically reconcile payments, eliminating the manual effort of keycode entry and ensuring seamless, uninterrupted service.

Key Features

-  **5 kW to 30 kW**
expandable power output
-  **5 kWh to 120 kWh**
expandable battery storage
-  **Up to 48 kWp**
solar panel input (capacity for a 30 kW system)
-  **3-year**
warranty
-  **10-year lifespan**
with typical daily use
(over 3,500 battery cycles)
-  **25-year**
anticipated PV module lifespan
-  **Pure-Sine-Wave**
electricity output
-  **PAYG-enabled**
EasyBuy technology allows
customers to pay in small
instalments
-  **Cellular-GSM**
remote performance monitoring
and PAYG payment reconciliation

System Layout

The below system layout is for reference only.



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PRODUCT SPECIFICATIONS

Inverter

Rated Power	5 kW
Surge Power	10 kW within 5 seconds
Output Voltage Waveform	Pure Sine Wave
Maximum Inverter Efficiency	93%
Voltage	230 Vac
Frequency Range	50 Hz/60 Hz (autodetection)
Nominal Battery Voltage	51.2 V
PV Input Voltage Range	100 V ~ 480 V
MPPT Voltage Range	105 V ~ 385 V
Number of MPPT Trackers	2
Maximum PV Input Power	8000 W
Maximum PV Input Current	17 / 17 A
Maximum AC Charge Current	35 A
Battery Module Connections (Per Inverter)	1-4 in parallel
Ingress Protection Rating	IP20
Size (Length x Width x Depth)	600 x 430 x 240 mm
Gross Weight	16 kg

Solar Power

Maximum Power 450 Wp	450 Wp
Solar Cell Type	Monocrystalline
Open-Circuit Voltage (Voc)	41.0 V
Short-Circuit Current (Isc)	13.6 A
Maximum Power Voltage (V _m)	34.6 V
Maximum Power Current (I _{mp})	13.0 A
Size (Length x Width x Depth)	1908 x 1134 x 35 mm
Gross Weight	23.25 kg

Battery Control Unit

Battery Type	LiFePO4
Energy Capacity	5.12 kWh
Usable Energy Capacity	4.86 kWh
Rated Capacity	100 Ah
Nominal Voltage	51.2 V
Battery Voltage Range	44.8 V ~ 57.6 V
Maximum Discharging Current	108 A
Maximum Pulse Discharge Current	120 A 13 s; 162 A 8 s
Maximum Charging Current	50 A
Communication	RS485
Ingress Protection Rating	IP40
Cycle Life	3500 cycles
Size (Length x Width x Depth)	363 x 177 x 554 mm
Gross Weight	46 kg

*Standard test conditions parameters for electrical performance: 1000 W/m² irradiance, 25°C module temperature, AM1.5 spectrum.

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