

5K Hybrid Inverter by LuxPower

High Performance

Up to 66A Charge/Discharge current and 3600W Charge/Discharge power.

Enhanced UPS

Doesn't lose power when the grid powers down with seamless switching within 0.01s.

Easy To Use

Schedulable working modes and easy installation due to its slim design and light weight.



Remote Monitoring and Maintenance

Monitor and easily update the system via a free desktop application that connects directly to the unit.

High IP Rating

IP65 Certification protects from dust, oil, non-corrosive material and water for outdoor and indoor installation.

Safe Operation

Protected connection area with multiple protection devices to assist with operation and installation.

Compatible With Lithium, Gel And Lead Acid Batteries

The Invicta Difference

Invicta Hybrid Inverter by LuxPower is an innovative solar and energy storage solution that increases energy efficiency for on-grid solar, off-grid solar and back-up systems. Invicta enables a programmable and schedulable smart solar energy storage system to help increase the rate of solar energy consumption, protect household appliances from grid shortage and balance energy usage. Using the latest technology available on the market, Invicta Hybrid Inverter will ensure its connected system is optimised for years.

Optimised Modes For Any System

Self Consumption

Energy generated by PV will be mainly used for local loads and the rest will be stored with excessive power fed back in to the grid, reducing the energy bill significantly.

Force Time Use

Take advantage of time sensitive tariffs and choose when charging/discharging should happen.

Zero Export

Limit the export rate of the system's output to the grid.

Off-grid Working

Seamlessly keeps your load working even during accidental protection. This specially designed function can utilise the system as a back-up powers system or off-grid system, even when PV is only available.

Run Without Battery

Easily retrofit an on-grid solar system to a solar battery system by plugging in a energy storage battery to the reserved interfaces.

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Compatible With A Range Of Solar Topologies

Paralleling Extensions

- Paralleling inverters in one phase to extend the single system capacity for either hybrid or AC coupled energy storage applications.
- Paralleling Inverters (single phase inverters) to build three phase system for either hybrid or AC coupled energy storage.
- Smart paralleling algorithm enables multiple configurable working modes under on-grid, off-grid or micro grid applications.

Micro-grid Systems

- Compatible with micro-grid applications with various AC sources.
- Multiple configurations available for various applications of micro-grid solutions.
- Support multiple types of loads
- System extendable
- Support purely off-grid installation

Invicta Hybrid Inverter 5K Specifications

Solar Input		Battery Input/Output		AC Input/Output	
Max. DC Input Power	8000W	Compatible Battery Type	Lithion-ion/Lead-Acid	Nominal AC Output Power	5000W
Nominal DC Input Range	360V.d.c	Nominal Battery Voltage	48V.d.c	Max. AC Output Power	5000VA
DC Input Voltage Range	100 - 55V.d.c	Battery Voltage Range	40 - 60V.d.c	Max. AC Output Current	25A
MPPT Voltage Range	120 - 500V.d.c	Max. Charge/Discharge Current	66A/66A	Nominal AC Voltage	230V.d.c
Start-up Voltage	140V.d.c	Max. Charge /Discharge Power	3600W/3600W	AC Voltage Range	180 - 270V.a.c
MPPT Number	2	Charging Curve	3 Stages	Nominal AC Frequency	50Hz/60Hz
Max. DC Input Current	12.5A/12.5A	Max. Charge Voltage	59V	AC Frequency Range	45-55HZ/55-65Hz
		Capacity of Battery	2-20kWh	Power Factor	Adjustable 0.8
				THDI	<3%

UPS Output - with Battery		Protection		General Data	
UPS Max. Output Power w/o Solar	3600W	Reverse Polarity Protection	Yes	Dimensions (W/H/D)	455/476 (565)/181
UPS Max. Output Power w Solar	5000W	Over Current/Voltage Protection	Yes	Weight	20Kg
UPS Nominal Output Voltage	230V.a.c	Anti-islanding Protection	Yes	Topology	Transformerless (solar), HF (battery)
UPS Nominal Output Frequency	50Hz/60Hz	AC Short-circuit Protection	Yes	Cooling Concept	Natural Convection
UPS Nominal Output Current	13A	Leakage Current Protection	Yes	Relatively Humidity	0 - 100%
Peak Power	4500W, 30s	Ground Fault Monitoring	Yes	Operating Temp. Range	-25 - 60C
THDV	<5%	Grid Monitoring	Yes	Altitude	<2000m
Switching Time	<0.01s	Ingress Protect Degree	IP65/NEMA4X	Noise Emission	<25dB
		DC Switch	Yes	Standby Consumption	5W
				Display & Comms Interface	LCD, RS485, Wi-Fi, Ethernet

Efficiency		Certification & Approvals	
Europe Efficiency	97.5%	AS 4777, VDE-AR-N4105, VDE-126, G83, G59, ENSO438, EIO-21	
Max. Efficiency	97.9%	IEC62109-1-2, IEC62040, EN61000-6-1, EN61000-6-2, EN61000-6-3	
Battery Charge/Discharge Efficiency	94.5%		