

Off-grid residential – go for the best

- 5 kVA/48V inverter
 - Incl. 1 MPPT, controlling up to 4 kW of solar/PV panels
 - Incl. specific battery management system (BMS) for lead crystal batteries
 - Incl. UPS (uninterruptable power supply) to bridge grid power outages in less than 20ms
- Lead Crystal batteries
 - No outgasing; OK to install indoor; allowed to transport by air
 - 12V/100Ah
 - Allows to discharge down to 0% without distroying battery
 - Lifetime of up to 3100 cycles

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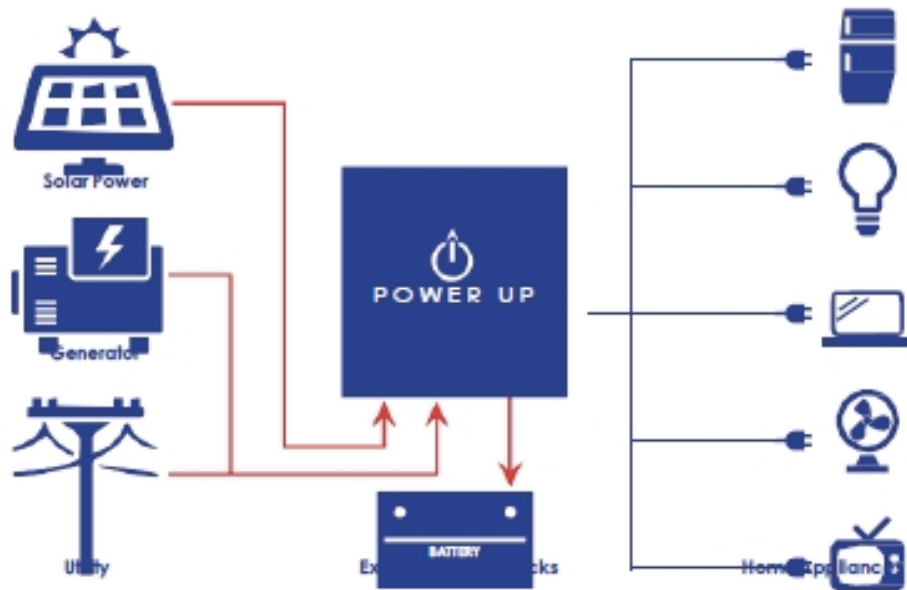


- Complete package including
 - 1 x 5kVA inverter
 - 4 x lead crystal batteries
 - 1 x battery shelf
 - 8 x 300 W solar/PV panels
 - 1 x mounting system (ground) for 8 solar/PV panels
 - Installation

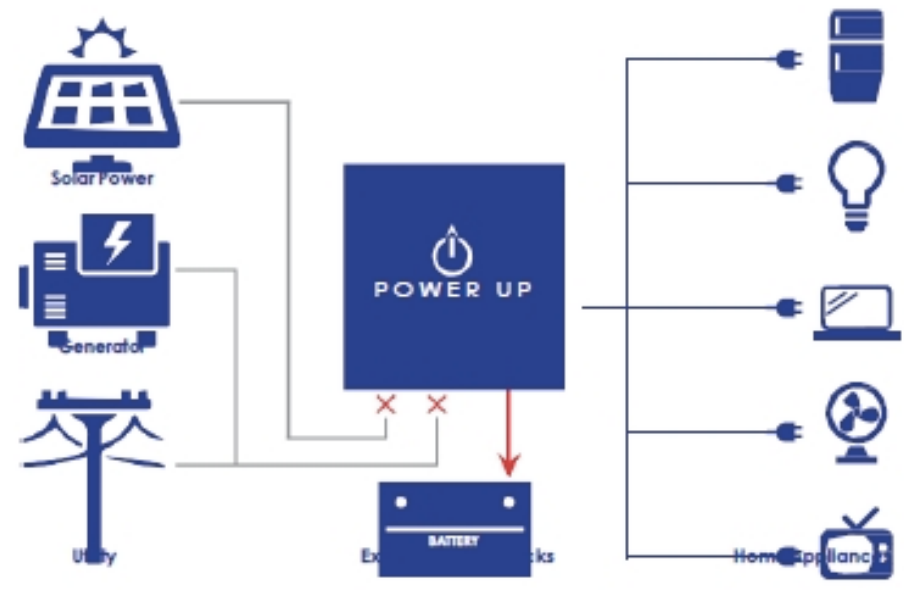
Total \$ 4599,00

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1. AS HYBRID POWER SYSTEM



2. AS POWER BACKUP SYSTEM



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	LEAD ACID	LEAD GEL	LEAD CRYSTAL	LITHIUM
TEMPERATURE	-18°C → 45°C	-18°C → 50°C	-40°C → 65°C	-20°C → 65°C
USAGE LIFE	2 – 3 Years	3 – 4 Years	7 – 10 Years	5 – 6 Years
ENVIRONMENTAL IMPACT	Harmful	Harmful	Friendlier	Friendlier
TRANSPORT SAFETY	Poor	Average	Very Good	Good
HANDLING SAFETY	Average	Good	Very Good	Average
AVERAGE DISCHARGE CYCLE	350	400	3100	1000
HIGH CURRENT DISCHARGE ABILITY	Poor	Poor	Very Good	Average
PERFORMANCE	Average	Average	Very Good	Good
RECYCLABILITY	Good	Good	Very Good	Poor
SIZE	Average	Average	Average	Small
COST	Lowest	Low	Low – Med	5 – 6 x higher than Gel

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- 8 solar/PV modules will typically produce 3840 kWh/year
 - 10,52 kWh/day
 - The bank of 4 batteries stores 4,8 kWh
 - Assume a load profile of
 - 0 – 6 am = 0,2 kW = 1,2 kWh
 - 6 – 9 am = 1,0 kW = 3,0 kWh
 - 9 – 12 am = 0,3 kW = 0,9 kWh
 - 12 – 2 pm = 1,0 kW = 2,0 kWh
 - 2 – 5 pm = 0,3 kW = 0,9 kWh
 - 5 – 10 pm = 1,2 kW = 6,0 kWh
 - 10 – 12 pm = 0,2 kW = 0,4 kWh
 - Total = 14,4 kWh per day
- Typical consumption of electrical appliances
 - LED light bulbs (8 Watt x10) = 80 Watt
 - LED light bulbs (16 Watt x 5) = 80 Watt
 - Fridge Freezer = 235 Watt
 - Computer with screen = 300 Watt
 - Alarm system = 40 Watt
 - HiFi system = 125 Watt
 - etc

- Should allow... **Grid independent power supply!**