

i-G3N

INNOVATION GENERATION



Z-Range

Spec Sheet

Premium, Lithium-Iron Phosphate batteries



LEVEL 2 BBBEE CONTRIBUTOR

High-quality energy storage unit

The Z-Range module is a 48V small high-end power supply by using high-performance lithium-ion cells. It adopts advanced design such as high-efficiency conversion topology, intelligent charge, and discharge control, automatic battery balance, real-time sampling of the main status. The optional 19-inch standard battery cabinet is suitable for areas with strict environmental protection and safety requirements, such as residences, hotels, and shopping malls. Built-in large-capacity lithium iron phosphate battery pack, charge controller, lithium battery management system, seamless switch, RS485, CAN communication full-function module. Small size, long life, stable and reliable performance. The battery management

system (BMS) automatically balances the control according to the state of the single battery to ensure the consistency and safety of the battery.

The internally designed BMS can protect the battery under abnormal conditions such as temperature, current, voltage, SoC, SoH.

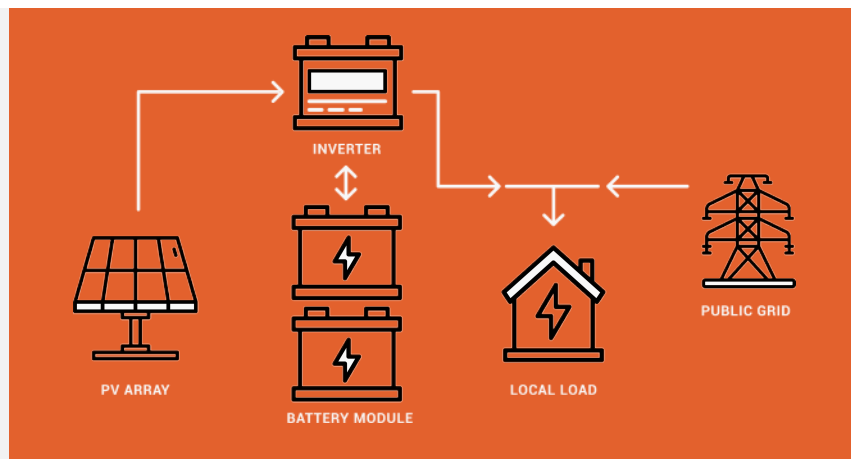
Vertical industrial integration ensures that the product service life can reach more than 3500 cycles.

Modular design can customize capacity according to customer requirements.

Can be matched with global mainstream brand photovoltaic inverters, such as SMA, Studer, Victron, Goodwe, Growatt, Solis, Sofar, Sermatec.

Top Features

- Scalable in 5.120 kWh increments
- RS485/RS232/CAN
- Modular design that can be customized according to customers requirements
- The battery management system (BMS) automatically balances the control according to the state of the single battery to ensure the consistency and safety of the batteries
- The Z-Range supports the following inverter brands; SMA, Victron, Studer, Goodwe, Growatt, Solis, Sofar



Why Z-Range

- Local assembly and technical support
- Optional Off-site diagnostics (via VRM or the system)
- Nationwide support and maintenance
- Built for homes and small businesses

Reasons for lithium-iron being selected include:

- Lower lifetime costs.
- Lower impact on the environment.
- Longer warranty available.
- Lighter weight.
- Higher efficiency.
- Higher cycle life.
- Better maintained voltage during the discharge cycle.
- Greater depth of discharge
- Lower maintenance.
- Predictable Service Life

Product Name	Z-Range
Cell Type (LFP prismatic) Ah	100
Battery nominal capacity kWh	5.120
Battery usable capacity 90% DoD kWh	4 608
Design life	>10 years (>5500 cycles) expected life at 80% DoD
Warranty	>10 years (>4000 cycles) @ 25°C
Nominal energy	100
Module voltage	51,2V _{DC} nominal
Maximum discharge current (continuous) A	≤100
Maximum discharge current (not continuous - 3sec) A	≤100
Discharging cut-off voltage (LVD)	48V
Operating Conditions	Temperature range recommended Charge -> (0°C~+45°C) Discharge -> (-10°C~ +55°C)
Protection class	IP55
Safety	Safest LFP design with BMS protection built in
BMS	BMS system with safety lines & multi-level fault detection system - multi inverter pairing CANbus
Cells thermal management	BMS controlled active cooling
Transport	UN 3480, CE
Mechanical	
Dimensions (W x H x L)	408(L)*440(W)*132(H)
Weight Storage unit	45Kg
Communication	RS485/RS232/CAN