

Yolaness Battery Module

The RS-R51100A battery is designed for commercial and residential applications and works as a storage unit in a photovoltaic system.

The battery is a 51.2V lithium (LiFePo4) system, with built in BMS to optimise and maximise the lifespan and service. It can be operated in either on-grid, back-up, and off-grid modes with compatible inverters with the ability to connect multiple batteries to give up to 160Kwh of storage.

With multiple mounting and installation options the RS-R51100A gives ultimate flexibility to any energy storage solution.



Compatible with the following inverter brands:

Victron, SMA, Schneider, Studer, Goodwe, Sol-Ark, Growatt, Solis, Deye, Sunsynk, SAJ, Luxpower, Megarevo, Must, Alpha & Outback, Voltronic, Phocos & MPP.



Prismatic Cells

Prismatic cells are safer and more stable than pouch cell.

Bigger Storage System

Support 32 pcs in parallel connection to extend 160KWh system.

Pre-charge Ability (Single Battery)

100000uF - Capable of pre-charging higher power inverters.

Battery Chemistry

Latest LiFePo4 Lithium Ion technology.

Yolaness

Battery Module

Items	Yolaness
Part Code	RS-R51100A
Nominal Voltage	51.2V
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Total Cells	16
Max. Voltage Range	44.8V - 57.6V
Charge Voltage	56V
Float Voltage	54.6
Recommended Charge Current	50A
Max. Charge Current	70A
Recommended Discharge Current	50A
Max. Discharge Current	100A
Communication	RS485 /CAN
Peak Discharge Current	101~119A@5mins 120~149A@15S
IP Rating	IP65 (with suitable enclosure)
Cycle Life	≥6000 Cycles
Net Weight	~46kg (101.4lb)
Dimensions (W*H*D)	482*113.5*460mm (18.9*5.2*18.1 inch)
Cell Type	Lithium-iron Phosphate (LiFePO ₄)
Design Life	15 Years
Operation Temperature	-10~50°C (14~122°F) ** Extended with heater option
Storage Temperature	-10~45°C (14~113°F)
Relative Humidity	5%~90%, No Condensation
Install Altitude	≤3000m
Install Location	Indoor
Installation	Wall Mounted/ Floor Mounted/ Stack Mounted/ Rack Mounted
Certification	IEC62619 / UL1973 / UN38.3 / CE / UKCA / CEC

[1] Test Conditions: 90% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C

[2] System Usable Energy may vary different Inverter brand.

[3] Derating occurs when the operating temperature is from -10°C to 10°C and 40°C to 50°C.



Safe & Reliable

High safety LiFePO₄ battery.
Compliance with IEC62619, UL 1973, UN 38.3, CE, UKCA, etc.



Compact & Flexible

3U (133mm) standard height design.
Optional bracket kits for different installation heights.



Modular

Support up to 32 units in parallel, scale from 5kWh to 160 kWh configuration without external controller.



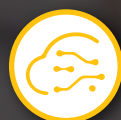
Compatibility

Compatible with most hybrid/battery inverter in self-consumption, back-up and off-grid applications *.



Ultra Performance

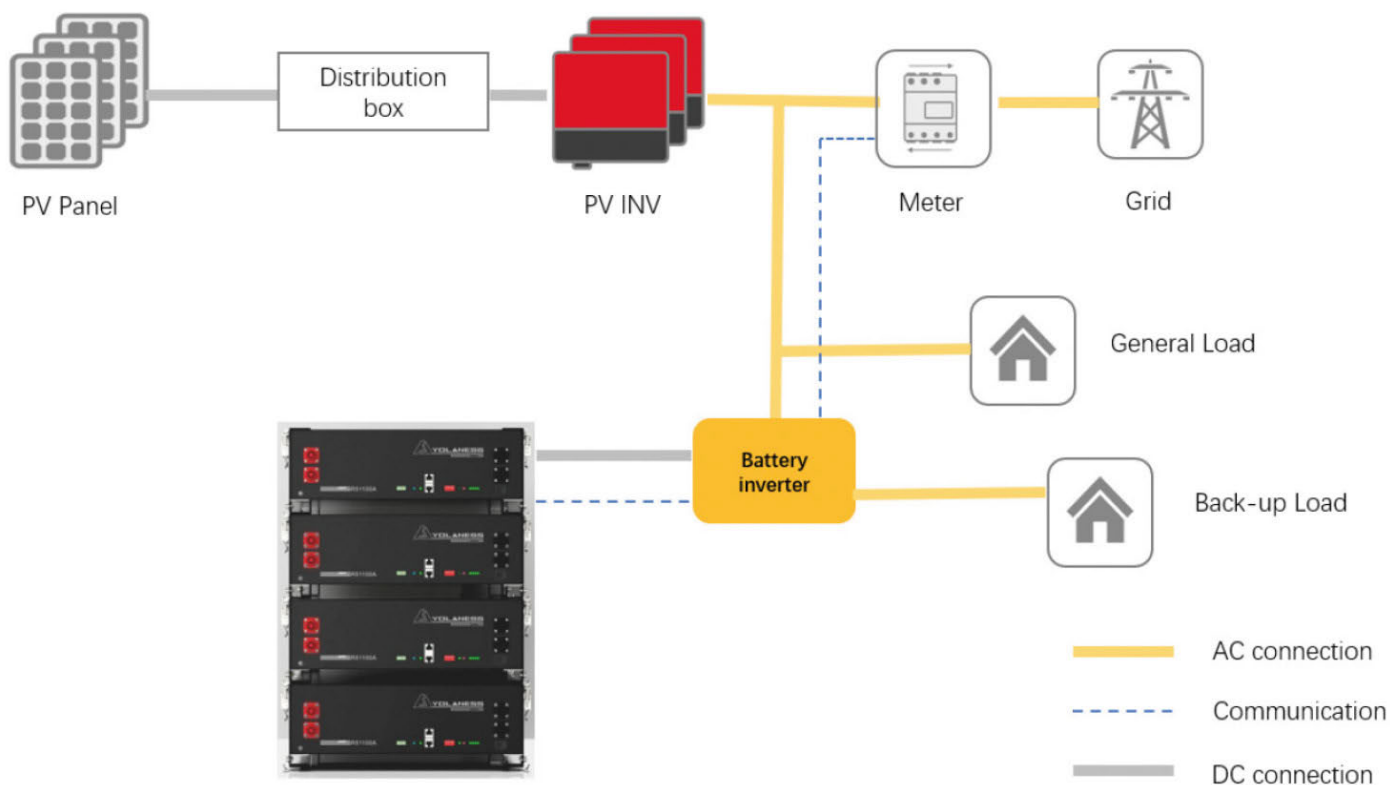
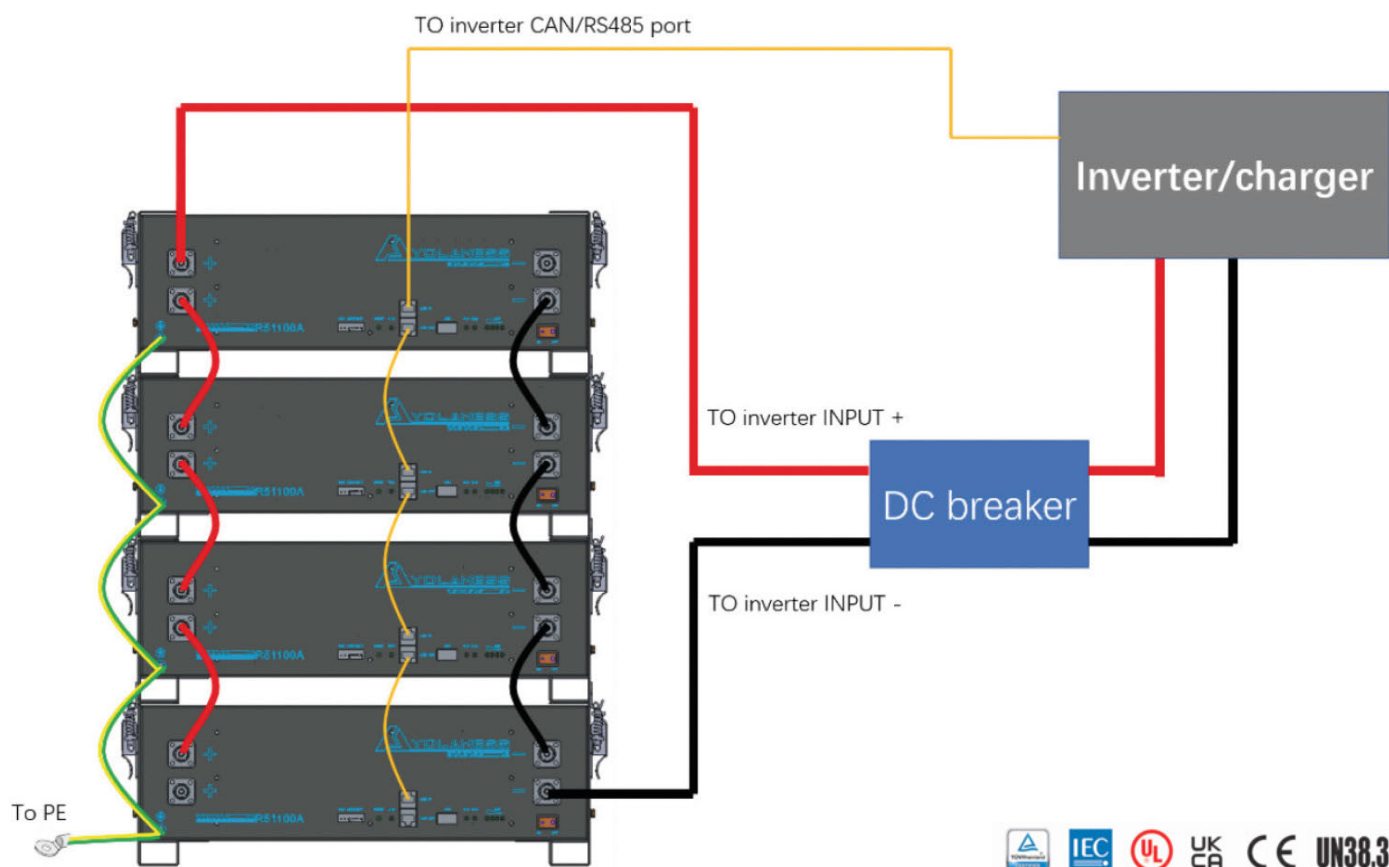
More than 6000 cycles, self-developed BMS/Cell/Pack to ensure best quality.



Intelligence

Strong pre-charge and balancing capability.
Remote data history & firmware upgrading function via T-smart Cloud platform.

Yolaness Battery Module

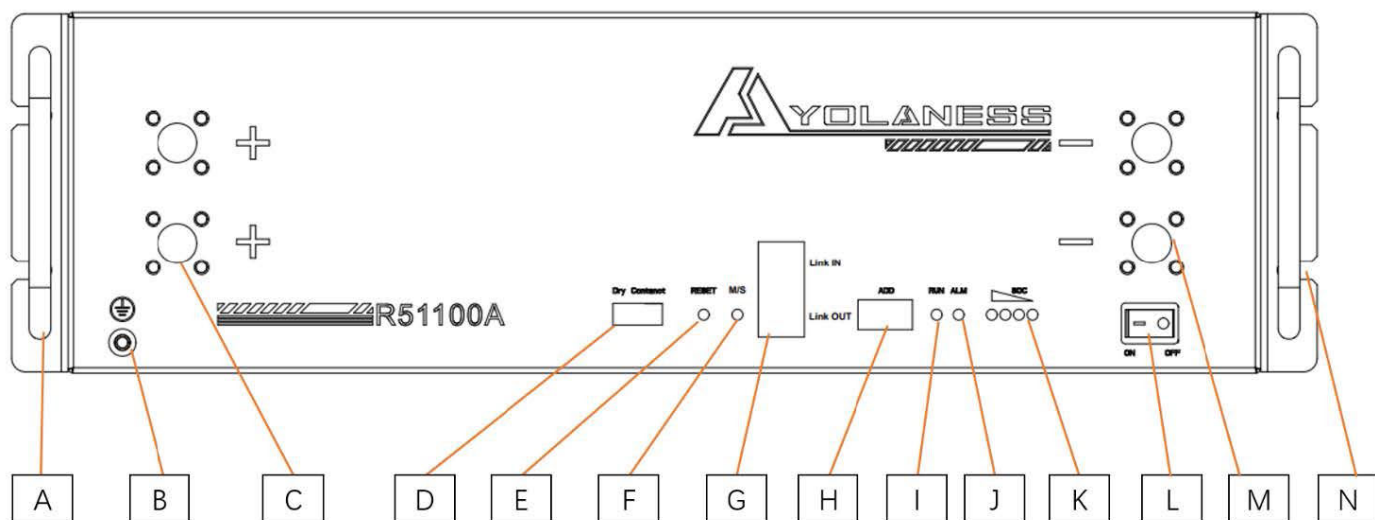


The RS-R51100A battery is designed for residential application and works as a storage unit in the photovoltaic system. It is a 51.2V lithium battery system, with BMS inside. It could be operated in both on-grid, back-up and off-grid modes with compatible inverters. Above is the general schematic of an ac-coupled system with the batteries.

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Battery Module

Panel Interface



No.	Items	Usage Description	Remark
A	Handles	For handling, installation and disassembly of battery	
B	Grounding	Used to connect battery with ground	
C	Positive Terminal	Used to connect the inverter/charger	
D	Dry Contact	1 channel input signal 2 channels output signal	
E	Reset	Used to reset BMS or sleep /awake BMS in power on mode.	
F	M/S	Used to indicate the module is Master or Slave battery	Single mode: OFF Parallel mode: ON Master battery OFF Slave battery
G	Link IN Link OUT	For internal and external communication	
H	DIP	Used to set the RS485 baud rate and inverter protocol choosing	
I	RUN	Used to show battery is in running status when lighting or flashing	
J	ALM	Used to show battery Alarm/Protection status	
K	SOC	Used to show battery real time SOC	
L	Power Switch	Used to Power on/off battery	
M	Negative Terminal	Used to connect the inverter/charger	
N	Mounting Ear	Used to fix with rack or cabinet	

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Mounting Options



Wall Mounted



Floor Mounted



Rack Mounted



Stack Mounted



For ANY others installations, please avoid the battery directly contacting the ground and avoid of high salinity, humidity to prevent the product from rusting and corrosion.