

### RESS

# Residential Energy Storage System ePower All In One Series

# Application Scenarios

### Sustainable

- ◆ Complete energy management
- ◆ Retrofit table and modular expandable
- ◆ Smart home automation
- ◆ E-mobility and heat pumps

### **Emergency power capable**

◆ Real power plant (solar rechargeable)

### Technology

- ◆ All in one (maximum compact)
- ♦ Integrated hard- and software from one single source

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### **Product Features**

- ◆ Pure sine wave output
- ◆ Self-consumption and Feed-back to the Grid
- ◆ Programmable supply priority for PV, battery or Grid
- ◆ User-adjustable battery charging current
- Programmable multiple operation models: Grid-tie, off-grid and grid-tie with backup
- ◆ Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS232, Modbus, SNMP, GPRS and Wi-Fi
- ♦ Monitoring software for real-time status display and control
- ◆ Enhance AC/Solar charger to 100A
- ◆ Scalable LI-Lon battery expansion
- ◆ Li-Lon battery life cycle: 8000cycles at 25-degree C
- ♦ High surge discharging current up to 3C

### **Product Advantage**

- Real independence from your energy provider during a blackout
- 1/3-phase emergency power supply or constant island mode for your entire property
- ♦ Complete home supply with a real and own grid
- DC-side rechargeable: via the PV-system the House can constantly ride on sunlight
- No additional control boxes, switches and no additional energy supply necessary
- ♦ Automatic switch and switch back to island and grid mode

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## Specifications

INVERTER MODEL	ESS 5.5KW
Maximum PV Input Power	6500W
Rated Output Power	5500W
Maximum Charging Power	2880W
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	116 VDC / 150 VDC
MPP Voltage Range	120 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	2 / 2 x 13 A
GRID OUTPUT (AC)	
Nominal Output Voltage	208/220/230/240 VAC
Output Voltage Range	184 - 264.5 VAC
Max. Output Current	23.9A
Maximum Conversion Efficiency (DC/AC)	96%
European Efficiency @ Vnominal	95%
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC
Acceptable Input Voltage Range	170 -280 VAC
Maximum AC Input Current	40 A
BATTERY MODE OUTPUT (AC)	·
Nominal Output Voltage	208/220/230/240 VAC
Efficiency (DC to AC)	93%
BATTERY CHARGER	
Nominal DC Voltage	48 VDC
Maximum Charging Current	100 A
PHYSICAL	
Dimension, D x W x H (mm)	214 x 621 x 500
Net Weight (kgs)	25

BATTERY MODULE	ESS LIO-I 4810
CAPACITY	5120Wh
PARAMETERS	
Nominal Voltage	51.2VDC
Full Charge Voltage (FC)	56V
Full Discharge Voltage (FD)	36.8V
Typical Capacity	100Ah
Max Continuous Discharging Current	120A
Max Discharging Current	192A at 1min
Charge Voltage	56V
Charge Current	20A (0.2C)
Maximum Charge Current	50A (0.5C)
Standard Charge Method	0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C
Net Weight (kgs)	55
Dimension, D x W x H (mm)	214 x 621 x 550