






- Long life and safety**  
Vertical industry integration ensures more than 6000 cycles with 80% DoD.
- Easy to install and use**  
Integrated inverter design, easy to use and quick to install. Small size, minimizing installation time and cost Compact and stylish design suitable for your sweet home environment.
- Multiple working modes**  
The inverter has a variety of working modes. Whether it is used for main power supply in the area without electricity or backup power supply in the area with unstable power to deal with sudden power failure, the system can respond flexibly.
- Fast and flexible charging**  
A variety of charging methods, which can be charged with photovoltaic or commercial power, or both at the same time
- Scalability**  
You can use 4 batteries in parallel at the same time, and can provide a maximum of 20kwh for your use.

Applications



  
**MODULAR ALL-IN-ONE ESS**

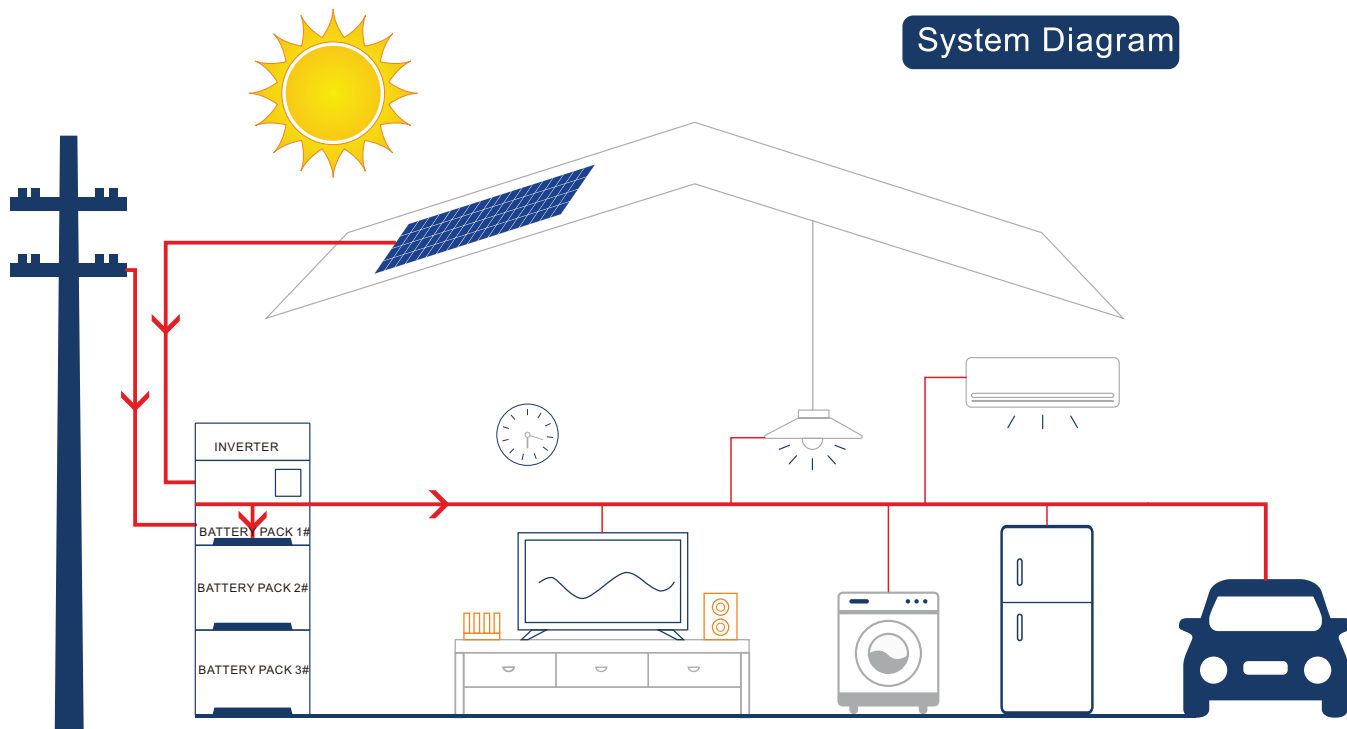
  
 Battery Capacity :  
 5.12-25.6kWh stackable

  
 Rated Power: 5kW

**5.5" colorful LCD with touch pad**

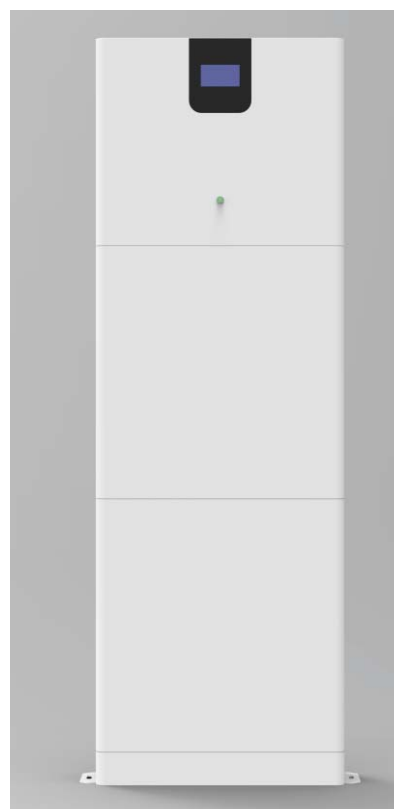
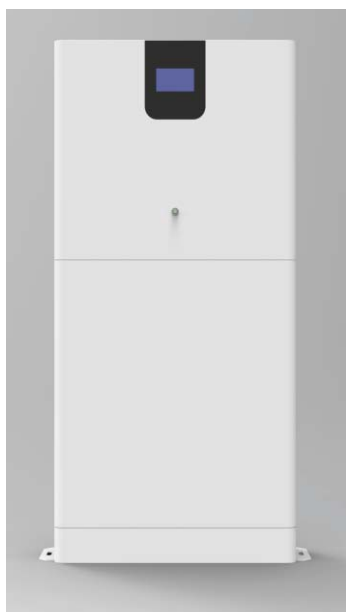


#### System Diagram



**CONNECT ESS INTO HOME GRID ,STAY POWERED FOR THE WHOLE HOUSE ;**

FLEXIBLE STACKS  
POWER AS YOUR NEEDS



	VESS48-5.0S-S1	VESS48-10.0S-S1	VESS48-15.0S-S1	VESS48-20.0S-S1
Battery Module	1	2	3	4
Battery Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Battery Capacity	100AH	200AH	300AH	400AH
Weight	80kg	130kg	190kg	250kg
Dimension L× D× H	1190X600X184	1800X600X184	1800×600×184 690×600×184	1800×600× 184 1300×600× 184
<b>BATTERY</b>	Battery Type	LiFePO4	LiFePO4	LiFePO4
	Battery Rated Voltage	51.2V	51.2V	51.2V
	Battery Working Voltage Range	44.8 ~ 57.6V	44.8 ~ 57.6V	44.8 ~ 57.6V
	Maximum Charging Current	100A	100A	100A
	Maximum Discharging Current	100A	100A	100A
	DOD	80%	80%	80%
	Parallel Quantity	1	2	3
	Designed Life-span	15years	15years	15years
<b>PV CHARGE</b>	Solar Charge Type	MPPT	MPPT	MPPT
	Maximum Output Power	5KW	5KW	5KW
	PV Charging Current Range	0~80A	0~80A	0~80A
	PV Operating Voltage Range	120~500V	120~500V	120~500V
	MPPT Voltage Range	120~450V	120~450V	120~450V
<b>AC CHARGE</b>	Maximum Charge Power	3150W	3150W	3150W
	AC Charging Current Range	0 ~ 60A	0 ~ 60A	0 ~ 60A
	Rated Input Voltage	220/230Vac	220/230Vac	220/230Vac
	Input Voltage Range	90~280Vac	90~280Vac	90~280Vac
<b>INVERTER OUTPUT</b>	Rated Output Power	5KW	5KW	5KW
	Maximum Peak Power	10KVA	10KVA	10KVA
	Power Factor	1	1	1
	Rated Output Voltage (Vac)	230Vac	230Vac	230Vac
	Frequency	50Hz	50Hz	50Hz
	Auto Switch Period	< 15ms	< 15ms	< 15ms
	THD	< 3%	< 3%	< 3%
<b>GENERAL DATA</b>	Communication	RS485/CAN/WIFI	RS485/CAN/WIFI	RS485/CAN/WIFI
	Storage time / temperature	12 months @25°C;	12 months @25°C;	12 months @25°C;
	Charging temperature range	0~45°C	0~45°C	0~45°C
	Discharging temperature range	'-10~45°C	'-10~45°C	'-10~45°C
	Operation Humidity	5% ~ 85%	5% ~ 85%	5% ~ 85%
	Nominal Operation Altitude	< 2000m	< 2000m	< 2000m
	Cooling Mode	Force-Air Cooling	Force-Air Cooling	Force-Air Cooling
	Noise	60dB(A)	60dB(A)	60dB(A)
	Ingress Protection Rating	IP20	IP20	IP20
	Recommended Operation Envir	Indoor	Indoor	Indoor
	Installation Method	Vertical	Vertical	Vertical
Certification	UN38.3,MSDS,EN55032,EN55024,EN61000-3-2,EN61000-3-3			

### Technical specifications according EU regulation (ES) 2023/1542 VESS48-5S-S1 and VESS51.2V100AH LiFePo4 batteries

Rated capacity 100Ah

Capacity fade < 1%

Power 5120 W

Power fade < 1%

Internal resistance < 20mΩ

Internal resistance increase 0,5%

Energy round trip efficiency 99,98%

Energy round trip fade < 0.5%

Battery design time 15 years

Battery design in cycles > 6000cycles@0.2C

Applied discharge rate 1C = 100A

Applied charge rate 1C = 100A

Ratio between nominal battery power (W) and battery energy (Wh) > 98%

Depth of discharge in the cycle-life test 80%DOD

Power capability at 80 % state of charge > 80%

Power capability at 20 % state of charge > 20%

