



# All in One EV Charger Integrated Battery ESS

**7KW/11.04KWh**  
Up to 6 towers (From 11.04 kWh to 66.24 kWh)

**7KW/19.8KWh**  
Up to 6 towers in parallel (From 19.8 kWh to 118.8 kWh)

- All-in-one integrated
- High efficient & economy
- Intelligent & convenient
- Safe & Reliable

## Product features

### 1. All-in-one integrated

- An integrated Solution of PV+BESS+V2G(Vehicle-to-Grid) EV charger +EMS
- Maximize the use of green energy , reducing carbon emissions and lowering your energy bills.

### 2. High efficient and economy

- Support 2 channels of PV and 2 channels of Battery access  
Maximum PV Input 10.5KW and Flexible battery capacity from 11.04kwh--118.8kwh
- Battery Inverter Integrated with 7KW Bi-directional EV charger, enables V2G(Vehicle-to-Grid) and V2H (Vehicle to Home) function,Increase the grid capacity for VPP and reducing the total cost of energy usage.

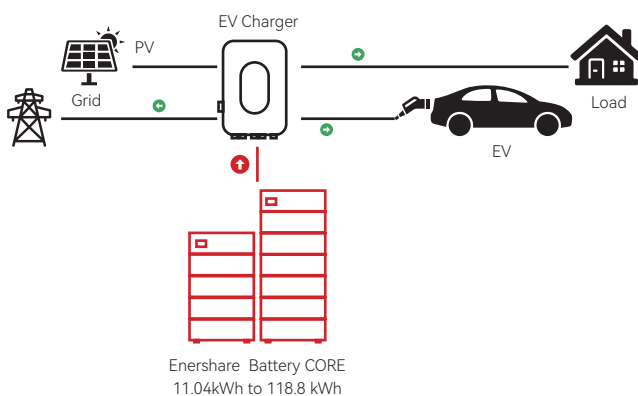
### 3. Intelligent and convenient

- Support grid-tied and off-Grid operation mode, on/off-Grid switching time≤10ms
- Served as a UPS for critical loads during power outages  
Support Multiple working mode : General Mode /Backup Mode/ Economy Mode
- Wifi and 4G communication for remote real-time monitoring and parameter control via app

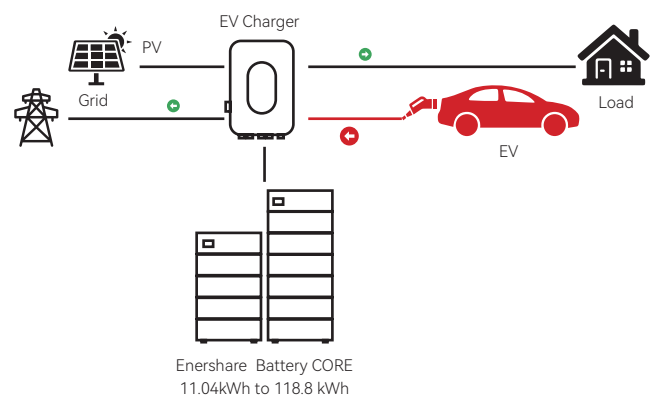
### 4. Safe and Reliable

- Independent air duct dissipation design IP65 Protection level
- Equipped with anti-backflow function, Integrated surge protection , EV-charging with isolation for safer whole-house power usage.

#### ① Battery CORE Discharge



#### ② EV Discharge



## Battery CORE Parameters

System Energy	11.04 kWh	19.8 kWh
Usable Energy	10.72kWh	19.2kWh
Number of Stacks	4	6
Max Output Current	25 A	30 A
Peak Output Current	50 A (5s)	50 A (5s)
Nominal Voltage	409.6 V	384 V
Operating Voltage Range	345.6~467.2 V	324~438 V
Scalability	Up to 6 towers (From 11.04 kWh to 66.24 kWh)	Up to 6 towers in parallel (From 19.8 kWh to 118.8 kWh)
Dimensions (H*W*D) (mm)	975* 650* 260mm	1325* 650*260 mm
Weight	160 kg	239 kg
Operation Temperature	-10~55 °C	-10~55 °C
Protection Rating	IP65	IP65
Round-trip Efficiency	≥ 96 %	≥ 96 %
Certification & Compliance	VDE2510-50/UKCA / IEC62619 / CEC / CE / UN38.3	VDE2510-50/UKCA / IEC62619 / CEC / CE / UN38.3
Applications	ON Grid / ON Grid Backup / OFF Grid	ON Grid / ON Grid Backup / OFF Grid
Warranty	10 Years	10 Years

## Core plus Parameters

<b>EV Charge</b>	Rated Power	7KW
	DC side voltage range	Rectifier Mode: 150 ~ 1000Vdc (150~300Vdc, Constant current 23.3A) Inverter Mode: 300 ~ 1000Vdc
	DC side current range	0 ~ 23.5A (charge) 0 ~ 25A (discharge)
	Voltage regulation accuracy	≤ ±0.5%
	Current regulation accuracy	≤ ±1%
	Charging Connector	CCS, Single Gun ( 3m cable )
	<b>Grid Input&amp;output</b>	AC output Topology
Nominal voltage(range (V)		220Vac(176 ~ 275Vac)
Max output current(A)		43.75A (Calculated at 10% overload)
Rated Power(VA)		7kVA
Frequency(Hz)		50Hz (±5Hz) /60Hz (±5Hz)
Power factor		≥ 0.98 ( 50% ~ 100% Full load output)
THDi		≤ 5% (50% ~ 100% Full load output)
<b>off-Grid EPS output</b>	Nominal Voltage(V)	220Vac
	Frequency(Hz)	50/60HZ
	Rated Power(VA)	5000VA
	Rated Current(A)	22.7A
	THDu	< 3%
	Automatic switching time	< 10mS
<b>Battery</b>	Voltage range	350-450V
	Charging/discharging current	2 channels (6.94A/13.89A)
	Charge & discharge Power	2 channels (1 channel 2.5kW/ 1 channel 5kW)
	Battery type	LiFePO4 Battery
	Communication interface	CAN2.0/ RS485
<b>PV Side Parameter</b>	Maximum input power(kW)	10.5kW
	Maximum DC Voltage(V)	550V
	Start-up Voltage(V)	120V
	Nominal Voltage(V)	360V
	MPPT voltage range(V)	120-550V
	MPPT tracker strings	2
	Max Input Current (A)	13.5A
	Max Short Circuit Current (A)	16.5A
<b>Protection</b>	PV ground fault detection, EV insulation fault detection, Leakage current detection, Islanding protection, Dc (PV/ battery) reverse connection protection, PV side/AC side, lightning protection, short-circuit protection, overload protection, DC switch, Over and under voltage protection	
<b>Common Parameter</b>	Operating temperature	— 40°C ~ + 75°C , derates when > 55°C
	Cooling Mode	forced air cooling (Independent air duct dissipation)
	Altitude (m)	2000m, derates when > 2000m
	Protection Grade	IP65
<b>Others</b>	Dimensions (H*W*D)mm	755*450*200mm (without hanging board)
	Net weight(kg)	43kg
	Maximum Efficiency (%)	≥ 95% ( Rectifier Mode/Inverter Mode)
	Noise (dB)	< 55dB ( Rated working conditions)
	Display	LCD/LED
	Communication Interface	BMS/Electric Meter/CT/CAN
	Monitor Interface	GPRS/WIFI/RJ45
	Certification and Standards	IEC/EN62109, EN62477 /EMC EN61000/Grid-connected certification/ CCS Charging standard