

Energy Storage System Series

## Outdoor cabinet energy storage system



### Key strengths

- Support flexible expansion of PV capacity.
- Support simultaneous access to load, battery, grid, DG, and PV.
- Integrated EMS function, safe and stable.
- Support battery capacity and discharge time prediction.
- Built-in isolation transformer has strong load adaptability.

### Applications

- » Off-grid area
- » Without electricity (power shortage) area
- » Remote rural area

**AC data**

Model	ESSA0030B-0055	ESSA0050B-0055	ESSA0050B-0100	ESSA0100B-0215
Rated power (kW)	30	50	50	100
Rated voltage (V)	400			
Rated current (A)	43	72	72	144
Voltage range (V)	320V-460V			
Rated frequency	50/60Hz			
Frequency Range	45-55/55-65Hz			
THDi(on-grid)	<3%			
THDu (off-grid)	≤ 1% linear; ≤ 5% non-linear			
Power factor	1 (0.8 leading ~ 0.8 lagging can be set)			
Overload capacity	110% Long term			
AC output	3W+N+PE			
Isolation transformer	100/400	200/400	200/400	270/400
On -grid off-grid switching	Support			

**PV data**

Max.PV input voltage (V)	1,000			
Max. PV power (kW)	60/120	60/120	60/120	120/180/240
MPPT operating voltage range (V)	250~850			
MPPT full load voltage range (V)	450~850			
Buck-boost mode	Support			

**Battery data**

Cell type	3.2V/120Ah/1C,LFP	3.2V/120Ah/1C,LFP	3.2V/280Ah/1C,LFP	3.2V/280Ah/1C,LFP
Nominal voltage(V)	460.8V, 1P144S	460.8V, 1P144S	358.4V, 1P112S	768V, 1P240S
Nominal energy (kWh)	55.296	55.296	100.352	215.04
Working voltage range (V)	403.2~511.2	403.2~511.2	319.2~397.6	672~850
Max. charge and discharge rate	1C@25°C	1C@25°C	0.5C@25°C	0.5C@25°C
Number of Battery Cycles	≥3,800	≥3,800	≥5,000	≥5,000

**System data**

Dimensions W *D *H (mm)	1,770×1,510×2,270	1,770×1,510×2,270	1,770×1,510×2,270	2,450×1,550×2,400
Net weight (kg)	2,000	2,200	2,400	3,900
Operating temperature (°C)	0 ~ +45			
Relative humidity	0 ~95% (non-condensing)			
Ingress protection	IP54			
Noise emission (dB)	<75			
Operating altitude	3,000m			
Cooling	Intelligent air cooling			
fire extinguishing system	Aerosols/NOVEC1230			
Display	Touch LCD display+cloud platform			
EMS communication	RS485, TCP/IP			