

ESSA Series

Outdoor cabinet energy storage system



KEY STRENGTHS

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

APPLICATIONS



Off-grid area



Areas without electricity(power shortage)



Remote rural area

Model	ESSA0030B-0055	ESSA0050B-0055	ESSA0050B-0100	ESSA0100B-0215
AC data				
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 (Hz)	50/60			
Frequency Range (Hz)	45-55 / 55-65			
THDi (on-grid)	<3%			
THDu (off-grid)	≤ 1% linear; ≤ 5% non-linear			
Power factor	1leading~1lagging(settable)			
Overload capacity	110% long-term			
Grid type	3W+N+PE			
Isolation transformer	100/400	200/400	200/400	270/400
On / off-grid switching	Support			

PV data

Max. PV input voltage (V)	1,000			
Max. PV power (kW)	36/72	60/120	60/120	120/180/240
MPPT operating voltage range (V)	250~850			
Buck-boost mode	Support			

Battery data

Cell type	3.2V/120Ah/LFP	3.2V/120Ah/LFP	3.2V/280Ah/LFP	3.2V/280Ah/LFP
Rated voltage (V)	460.8V, 1P144S	460.8V, 1P144S	358.4V, 1P112S	768V, 1P240S
Rated energy (kWh)	55.296	55.296	100.352	215.04
Operating voltage range (V)	403.2~511.2	403.2~511.2	319.2~397.6	672~850
Max. charge and discharge rate	1C@25℃	1C@25℃	0.5C@25℃	0.5C@25℃
Number of battery cycles	≥3,800	≥3,800	≥6,000	≥6,000

General data

Dimensions W *D *H (mm)	1,780×1,520×2,290	1,780×1,520×2,290	1,780×1,585×2,290	2,460×1,560×2,425
Weight (kg)	2,000	2,200	2,400	3,900
Operating temperature (℃)	0 ~ +45			
Relative humidity	0 ~95% (non-condensing)			
Ingress protection	IP54			
Noise emission (dB)	<75			
Max. operating altitude (m)	5,000(>3,000 derating)			
Cooling	Intelligent air cooling			
Fire extinguishing system	Aerosols/NOVEC1230(optional)			
Display	Touch LCD display+cloud platform			
EMS communication	RS485, TCP/IP			