



## RT-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	RT-ESSA0030B-0055	RT-ESSA0050B-0055	RT-ESSA0050B-0100	RT-ESSA0100B-0215
<b>AC data</b>				
Rated power (kW)	30	<b>50</b>	<b>50</b>	100
Rated voltage (V)	<b>400</b>			
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	<b>Support</b>			
<b>PV data</b>				
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	<b>Support</b>			
<b>Battery data</b>				
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°C	1C@25°C	0.5C@25°C	0.5C@25°C
Number of battery cycles	≥3,800	≥3,800	≥6,000	≥6,000
<b>General data</b>				
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 (°C)	0 ~ +45			
Relative humidity	0 ~95% (non-condensing)			
<b>Ingress protection</b>	IP54			
Noise emission (dB)	<b>&lt;75</b>			
Max. operating altitude (m)	5,000(>3,000 derating)			
<b>Cooling</b>	<b>Intelligent air cooling</b>			
Fire extinguishing system	Aerosols/NOVEC1230(optional)			
Display	Touch LCD display+cloud platform			
<b>EMS communication</b>	RS485, TCP/IP			