

# HYBRID ESS CABINET

50– 125kW  
215kWh



## SAFE & RELIABLE

- Five-level safety design
- 300m AFCI detection with 0.5s rapid shutdown
- Support three-phase unbalance output
- IP66 for inverter, IP54 for cabinet

## CONVENIENT & USER-FRIENDLY

- Compact & Lightweight Design, pre-installed for easy installation
- Flexible parallel connection of cabinets
- App-based quick setup, simple and efficient

## PROFITABLE & EFFICIENT

- PV-ESS integrated, lower system cost
- AI dynamic MPPT, boosting power generation by 5%
- DC coupled solution, higher system efficiency

## SMART & MANAGEABLE

- Three-phase wiring sequence adaptive, easy system wiring
- Supports on&off-grid switching, suitable for various application scenarios
- Real-time monitoring with OTA for online maintenance

# Technical Specifications

## Hybrid ESS Cabinet Inverter

Product Model		RBT-50K	RBT-75K	RBT-99K
DC Input (PV)	Max. Input Voltage		1,100V <sup>1</sup>	
	Rated Input Voltage		650V	
	Start-up Voltage		160V	
	MPPT Operating Voltage Range		140V - 1,000V	
	Max. Input Current per MPPT		40A	
	Max. Input Current per String		20A	
	Max. Short-circuit Current per MPPT		50A	
	Number of MPPTs	4	6	8
	Number of Input	8	12	16
		Max. Backfilling Current		0A
DC Input (Battery)	Rated Input Voltage		768V	
	Battery Voltage Range		600V-950V	
	Max. Charge/Discharge Current	80.8A	121.3A	161.7A
AC Output	AC Output Power	50kW	75kW	99.9kW
	Max. Apparent Power	55kVA	82.5kVA	109.9kVA
	Rated Output Voltage	220/380V, 230/400V, 3L/N/PE		
	AC Grid Frequency	50 / 60Hz		
	Rated Output Current	75.9A/380V 72.1A/400V	113.9A/380V 108.2A/400V	151.9A/380V 144.3A/400V
	Max. Output Current	83.5A/380V 79.4A/400V	125.3A/380V 119.0A/400V	167.1A/380V 58.7A/400V
	Adjustable Power Factor	0.9 leading...0.9 lagging		
	Three Phase Unbalanced Output	100% Unbalanced Output		
		THDi	< 3%	
Efficiency	Max. Efficiency	98.5%		
	European Weighted Efficiency	98.0%		
	MPPT Efficiency	99.9%		
Protection	Active Anti-islanding Protection	Yes		
	Residual Current Monitoring	Yes		
	DC Reverse Polarity Protection	Yes		
	DC Switch	Yes		
	DC Overvoltage Protection	Yes		
	DC Overcurrent Protection	Yes		
	AC Overfrequency/Underfrequency Protection	Yes		
	AC Short-Circuit Protection	Yes		
	AC Overvoltage Protection	Yes		
	AC Overcurrent Protection	Yes		
	DC Surge Protection	Type II		
	AC Surge Protection	Type II		
	Ground Fault Detection	Yes		
	AFCI	Optional		
PID Recovery	Optional			
General Data	Operating Temperature Range	-30 to + 60°C		
	Relative Operating Humidity	0 - 100% RH		
	Max. Operating Altitude	4,000m		
	Cooling	Smart Air Cooling		
	Display	LED+APP		
	Communication	RS485 / 4G / WIFI / HPLC		
	Weight	95kg		
	Dimensions (W*H*D)	880*760*340mm		
	Topology	Non-Isolated		
	Degree of Protection	IP66		

1: When connected to the battery cabinet, the maximum PV input voltage is 650V.

# Technical Specifications

## Hybrid ESS Cabinet Inverter

Product Model		RBT-100K	RBT-110K	RBT-125K
DC Input (PV)	Max. Input Voltage		1,100V <sup>1</sup>	
	Rated Input Voltage		650V	
	Start-up Voltage		160V	
	MPPT Operating Voltage Range		140V - 1,000V	
	Max. Input Current per MPPT		40A	
	Max. Input Current per String		20A	
	Max. Short-circuit Current per MPPT		50A	
	Number of MPPTs		8	
	Number of Input		16	
	Max. Backfilling Current		0A	
DC Input (Battery)	Rated Input Voltage		768V	
	Battery Voltage Range		600V-950V	
	Max. Charge/Discharge Current	161.7A	177.9A	183.8A
AC Output	AC Output Power	100kW	110kW	125kW
	Max. Apparent Power	110kVA	121kVA	125kVA
	Rated Output Voltage	220/380V, 230/400V, 3L/N/PE		
	AC Grid Frequency	50 / 60Hz		
	Rated Output Current	151.9A/380V 144.3A/400V	167.1A/380V 158.7A/400V	189.9A/380V 180.4A/400V
	Max. Output Current	167.1A/380V 158.7A/400V	183.8A/380V 174.6A/400V	189.9A/380V 180.4A/400V
	Adjustable Power Factor	0.9 leading...0.9 lagging		
	Three Phase Unbalanced Output	100% Unbalanced Output		
	THDi	< 3%		
Efficiency	Max. Efficiency	98.5%		
	European Weighted Efficiency	98.0%		
	MPPT Efficiency	99.9%		
Protection	Active Anti-islanding Protection	Yes		
	Residual Current Monitoring	Yes		
	DC Reverse Polarity Protection	Yes		
	DC Switch	Yes		
	DC Overvoltage Protection	Yes		
	DC Overcurrent Protection	Yes		
	AC Overfrequency/Underfrequency Protection	Yes		
	AC Short-Circuit Protection	Yes		
	AC Overvoltage Protection	Yes		
	AC Overcurrent Protection	Yes		
	DC Surge Protection	Type II		
	AC Surge Protection	Type II		
	Ground Fault Detection	Yes		
	AFCI	Optional		
PID Recovery	Optional			
General Data	Operating Temperature Range	-30 to + 60°C		
	Relative Operating Humidity	0 - 100% RH		
	Max. Operating Altitude	4,000m		
	Cooling	Smart Air Cooling		
	Display	LED+APP		
	Communication	RS485 / 4G / WIFI / HPLC		
	Weight	95kg		
	Dimensions (W*H*D)	880*760*340mm		
	Topology	Non-Isolated		
Degree of Protection	IP66			

1: When connected to the battery cabinet, the maximum PV input voltage is 650V.

# Technical Specifications

## Hybrid ESS Cabinet Battery

Product Model		RBT-215K
Technical Parameter	Battery Type	LiFePO4
	Battery Module Capacity	14.336kWh
	Battery Module Nominal Voltage	51.2V
	Battery Module Qty In Series	15
	System Nominal Voltage	768V
	System Operating Voltage	672V - 864V
	System Capacity	215kWh
	Charge/Discharge Current	Recommend: 140A / Maximum: 170A (60s)
	Calendar Life	≥6000 (25±2°C, 0.5C / 0.5C, 70%EOL)
General Parameter	Operating Temperature Range	Charge: 0 to +55°C / Discharge: -20 to +55°C
	Operating Humidity Range	0 - 95% RH
	Max. Operating Altitude	≤2000m
	Cooling Method	Smart Air Cooling
	Protection Degree	IP54
	Dimensions (W*H*D)	1440*2200*1170mm
	Weight	2700kg
	Communication	CAN
	Installation Location	Outdoor
	Fire Protection Method	Aerosol Fire Suppression
	Networking Mode	WIFI / LAN