

# **Residential ESS**

Smart Residential Energy Storage Solutions

Manage Energy Intelligently and Effectively



### **ABOUT RAJA**

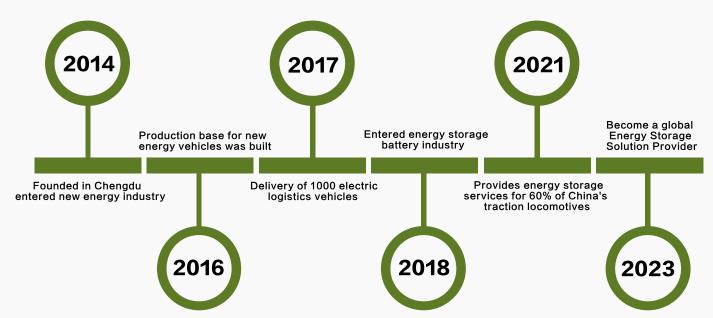
RAJA New Energy Technology Co., Ltd, founded in 2014 in Chengdu, is a full-backed company of RAJA New Energy Vehicles Technology Co., Ltd.

As the first and leading manufacturer that obtains the Production Qualification of EVs in China, RAJA owns its self-developed BMS, MCU and VCU system.

With the passion for the innovation and application of battery technology, RAJA's Energy Storage Batteries are produced according to the highest standard in EV power batteries.

As of today, over 60% of China's Tunnel Tractors have been installed with RAJA's Large Energy Storage Batteries, RAJA has 260 professional qualifications and over 60 industrial awards.

RAJA's business covers a full range of Electric Truck, EV Batteries, RV batteries, Residential Energy Storage Batteries, Telecom Base Station backup batteries, Energy Solutions.
RAJA's products and solutions have been increasingly recognized worldwide.



Standard and tailor-made solutions to meet your various demands for energy storage: Resident/Household Storage System, Commercial & Industrial Storage System, Lithium Battery full-life cycle solution, Logistics EV Battery Swapping Solution.

Over 10 years of expertise and professionalism in R&D, design, manufacturing Electric Vehicles, EV battery and Energy Storage System. RAJA dedicates to providing tailor-made, cost-effective and reliable energy solutions to global clients, power your life with a smart, reliable, and safe home battery. Together, we are powering world's future—and that future is looking brighter and greener than ever before!

### **Energy Solutions**









### **Product Lines**



### Residential ESS

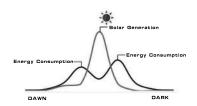
Green energy is the trend. As green, effective and safe energy supply system, Residential ESS dissolves the electricity demand, and also functions feeding surplus electricity to grid, working as Emergency Power, making use of the peak-to-valley price difference to reduce energy costs. Integrated lithium-ion battery energy storage system with home energy management system, Residential ESS is scalable on demand and available in a variety of combinations.



### Scheme advantage

#### **Efficient & Profitable**

The peak fills the valley, saving electricity. 98% charge and discharge efficiency, high utilization rate.



#### Safe & Reliable

Seamless switching between on-grid and off-grid without power failure High-quality lithium battery cell, fire-proof, anti-explosive. Multi-level protection, fast fault isolation



#### **Convenient & Flexible**

Modular design, plug and play, convenient installation High protection level, wide installation environment Comprehensive cloud monitoring, rapid fault alarming









## All-in-one Series





FA3000A		FA5000A
Inverter Type	Off grid	Inverter Type
AC Rated Power	3kW	AC Rated Power
AC Peak Power	6kW	AC Peak Power
Vac Input Voltage	230 ± 5%	Vac Input Voltage
Vac Output Voltage	230 ± 5%	Vac Output Voltage
PV Voltage Range	120V-450V	PV Voltage Range
PV Maximum Input Current	18A	PV Maximum Input Current
Maximum Charging Current	100A	Maximum Charging Current
Battery Nominal Voltage	25.6V	Battery Nominal Voltage
Battery Rated Capacity	160Ah(0.5C/25℃)	Battery Rated Capacity
Battrey Rated Energy	4.096kWh(0.5C/25℃)	Battrey Rated Energy
Operation Interaction	Display Screen/App	Operation Interaction
Product Dimension	520×210×750mm	Product Dimension
Veight	60kg	Weight
Protection Level	IP40	Protection Level
Vorking Temperature	Charge: 0-45℃	Working Temperature
	Discharge: -20-60℃	
Storage Temperature	10-35℃	Storage Temperature
Standards & Certification	UN38.3/MSDS/CE/EMC	Standards & Certification

FA5000A	
Inverter Type	Off grid
AC Rated Power	5kW
AC Peak Power	10kW
Vac Input Voltage	230 ± 5%
Vac Output Voltage	230 ± 5%
PV Voltage Range 120V-450V	
PV Maximum Input Current	18A
Maximum Charging Current	100A
Battery Nominal Voltage	51.2V
Battery Rated Capacity	100Ah(0.5C/25℃)
Battrey Rated Energy	5.12kWh (0.5C/25℃)
Operation Interaction	Display Screen/App
Product Dimension	500 × 240 × 780mm
Weight	70kg
Protection Level	IP40
Working Temperature	Charge: 0-45℃
	Discharge: -20-60℃
Storage Temperature	10 <del>-3</del> 5℃
Standards & Certification	UN38.3/MSDS/CE/EMC

## High Voltage Stackable Series



High Voltage Stackal	ole Battery	Modular			FD3000A
NOS of Modules	2	3	4	5	6
Battery Energy	6kWh	9kWh	12kWh	15kWh	18kWh
Battery Capacity			30Ah		
Rated Voltage	204V	307V	409V	512V	614V
Working Voltage	160~233	240~350	320~467	400~584	480~700
NOS of Cells	2P64S	2P96S	2P128S	2P160S	2P192S
Battery type			LFP		
Cycle Life			>6000		
Rated Charge Current			15A		
Rated Discharge Current			30A		
Display			LCD		
Communication			CAN		
Working Temperature		Charge: 0~45℃ Discharge: -20~60℃			
Storage Temperature			10-35℃		
Relative Humidity			0~95%		
Highest Altitude			2000		
Dimension	520*320*510mm	520*320*690mm	520*320*870mm	520*320*1050mm	520*320*1230mm
Weight	70kg	100kg	130kg	160kg	190kg
Protection Level			IP65		
Mounting		Stack	king on the grou	und	
Standards & Certification	UN38.3/MSDS EN: ICE62619/ICE62040/IEC60730				

## High Voltage Stackable Series



High Voltage Stackab	le Battery	Modular			FD50000
NOS of Modules	2	3	4	5	6
Battery Energy	10kWh	15kWh	20kWh	25kWh	30kWh
Battery Capacity			100Ah		
Rated Voltage	102.4V	153.6V	204.8V	256V	307.2V
Working Voltage	80~116	120~175	160~233	200~292	240~350
NOS of Cells	1P32S	1P48S	1P64S	1P80S	1P96S
Battery type			LFP		
Cycle Life			>6000		
Rated Charge Current			50A		
Rated Discharge Current			100A		
Display			LCD		
Communication			CAN		
Working Temperature			narge: 0~45℃ harge: -20~60°	C	
Storage Temperature			10-35℃		
Relative Humidity			0~95%		
Highest Altitude			2000		
Dimension	650*430*640mm	650*430*800mm	650*430*960mm	650*430*1120mm	650*430*1280mr
Weight	120kg	170kg	220kg	270kg	320kg
Protection Level			IP65		
Mounting		Stack	ing on the grou	und	
Standards & Certification			N38.3/MSDS		

## Low Voltage Stackable Module



Low Voltage Stackat	ole Battery Mo	dular	FD5000A
NOS of Modules	1	2	3
Battery Energy	5kWh	10kWh	15kWh
Battery Capacity	100Ah	200Ah	300Ah
Rated Voltage		51.2V	
Working Voltage		40~58V	
NOS of Cells	1P16S	2P16S	3P16S
Battery type		LFP	
Cycle Life		>6000	
Rated Charge Current	50A	100A	100A
Rated Discharge Current	100A	200A	200A
Display		LCD	
Communication		CAN/RS485	
Working Temperature		Charge: 0~45℃ Discharge: -20~60℃	
Storage Temperature		10-35℃	
Relative Humidity		0~95%	
Highest Altitude		2000	
Dimension	590*400*300mm	590*400*490mm	590*400*680mm
Weight	60kg	110kg	160kg
Protection Level		IP65	
Mounting		Stacking on the ground	
Standards & Certification	EI	UN38.3/MSDS N: ICE62619/ICE62040/IEC60730	

## Wall Mounting Module



Low Voltage Separa	ated Battery Mo	odular	FD5000B
	1	2	3
Battery Energy	5kWh	10kWh	15kWh
Battery Capacity	100Ah	200Ah	300Ah
Rated Voltage		51.2V	
Working Voltage		40~58V	
NOS of Cells	1P16S	2P16S	3P16S
Battery type		LFP	
Cycle Life		>6000	
Rated Charge Current	50A	100A	100A
Rated Discharge Current	100A	200A	200A
Display		LCD	
Communication		CAN/RS485	
Working Temperature		Charge: 0~45℃ Discharge: -20~60℃	
Storage Temperature		10-35℃	
Relative Humidity		0~95%	
Highest Altitude		2000	
Dimension	485*200*520mm	(485*200*520)*2mm	(485*200*520)*3mm
Weight	50kg	100kg	150kg
Protection Level		IP65	
Mounting		Wall Mounting	
Standards & Certification	EN	UN38.3/MSDS J: ICE62619/ICE62040/IEC6073	0

### Residential ESS Inverter Series





Single-Phase Hybrid Inverter	,
Rated Output Power	5kW
Maximum Dc Voltage	550V
Maximum Power	7kW
Maximum Output Current	21.7A
Grid Voltage Range	230/176~270V
Battery Voltage Range	40~58V
Maximum Charging Voltage	58V
Maximum Charging / Discharging Current	95/104.2A
Communication Interface	CAN/RS485
Emergency Power Output	5EPS
Rated Output Voltage	230V
Rated Output Current	21.7A
Rated Output Frequency	50/60Hz
Automatic Switching Time	<20ms
Battery Charge and Discharge Efficiency	95.0%
Protection Level	IP65
Ambient Temperature Range	-25℃~60℃
Dimension	550*200*515mm
Weight	25kg

Standards & Certification IEC/EN62109-1/-2,IEC/EN62477-1 IEC/EN 61000-6-1,IEC/EN 61000-6-3 UK G98,G99

Three-Phase Hybrid Inverter	
Rated Output Power	8.8kW
Maximum Dc Voltage	1000V
Maximum Power	10.4kVA
Maximum Output Current	12.7A
Grid Voltage Range	400/360~440V
Battery Voltage Range	125~600V
Maximum Charging Voltage	600V
Maximum Charging / Discharging Current	40/40A
Communication Interface	CAN/RS485
Emergency Power Output	8.8EPS
Rated Output Voltage	400V
Rated Output Current	12.7A
Rated Output Frequency	50/60Hz
Automatic Switching Time	<20ms
Battery Charge and Discharge Efficiency	96.6%
Protection Level	IP65
Ambient Temperature Range	-25℃~60℃
Dimension	530*200*600mm
Weight	29kg

Standards & Certification

IEC/EN62109-1/-2,IEC/EN62477-1 IEC/EN 61000-6-1,IEC/EN 61000-6-3 Europe: EN50549-1,UK: G99

Germany: VDE4105/0124

Building B1-4, Xinxing Industrial Park, Tianfu New Area, Shuangliu District, Chengdu, China

www.rajaev.com info@rajaev.com











Power Your Green Life