

# **Residential ESS**

Smart Residential Energy Storage Solutions

Manage Energy Intelligently and Effectively



### **ABOUT RAJA**

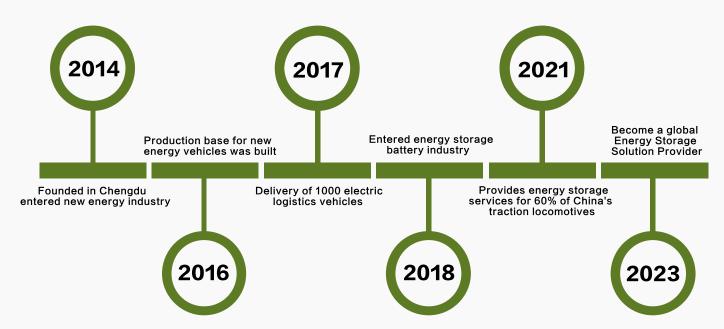
RAJA New Energy Technology Co., Ltd, founded in 2014 in Chengdu, is a full-backed company of RAJA New Energy Vehicles Technology Co., Ltd.

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.

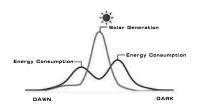


## Scheme advantage

#### **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









y Installation Flexible Configuration

## All-in-one Series

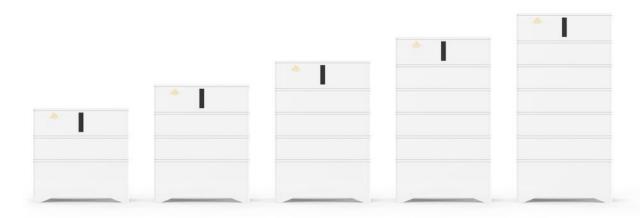




FA3000A	
Inverter Type	Off grid
AC Rated Power	3kW
AC Peak Power	6kW
Vac Input Voltage	230 ± 5%
Vac Output Voltage	230 ± 5%
PV Voltage Range	120V-450V
PV Maximum Input Current	18A
Maximum Charging Current	100A
Battery Nominal Voltage	25.6V
Battery Rated Capacity	160Ah(0.5C/25℃)
Battrey Rated Energy	4.096kWh(0.5C/25℃)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

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	10-35℃
Standards & Certification	UN38.3/MSDS/FCC

## High Voltage Stackable Series



High Voltage Stackat	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℃ charge: -20~60		
Storage Temperature			10-35℃		
Relative Humidity			0~95%		
Highest Altitude			2000		
Dimension	520*320*510mm 52	20*320*690mm :	520*320*870mm	520*320*1050m	nm 520*320*1230mi
Weight	70kg	100kg	130kg	160kg	190kg
Protection Level			IP65		
Mounting		Stac	king on the gro	und	
Standards & Certification		UN	38.3/MSDS/F0	cc	

## High Voltage Stackable Series



High Voltage Stack	able Batter	y 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			Charge: 0~45℃ charge: -20~60		
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*1280mm
Weight	120kg	170kg	220kg	270kg	320kg
Protection Level			IP65		
Mounting		Stac	king on the gro	ound	
Standards & Certification		UN	138.3/MSDS/F0	CC	

## 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		UN38.3/MSDS/FCC	

# Wall Mounting Module



Low Voltage Separat	ed Battery Mc	dular	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)*3mn
Weight	50kg	100kg	150kg
Protection Level		IP65	
Mounting		Wall Mounting	
Standards & Certification		UN38.3/MSDS/FCC	

## Residential ESS Inverter Series





Three-Phase Hybrid Inverter

Rated Output Power

Standards & Certification

Single-Phase Hy	brid Inve	rter
Rated Output Power		5kW
Maximum Dc Voltage		500V
Maximum Power		7.5kW
Maximum Output Current		24A
Grid Voltage Range	208V(2/3-phas	120/240V(split-phase) se),230V(single-phase)
Battery Voltage Range		40~58V
Maximum Charging Voltag	ie	58V
Maximum Charging / Disch	narging Current	120/120A
Communication Interface		CAN/RS485
Emergency Power Output		5EPS
Rated Output Voltage		230V(split-phase)
Rated Output Current		24A
Rated Output Frequency		50/60Hz
Automatic Switching Time		<20ms
Battery Charge and Disch	arge Efficiency	95.0%
Protection Level		IP65
Ambient Temperature Ran	nge	-25℃~60℃
Dimension		430*220*710mm
Weight		41kg

Standards & Certification

Maximum Dc Voltage	500V
Maximum Power	10.4kVA
Maximum Output Current	12A
Grid Voltage Range	240/211~264V
Battery Voltage Range	85~400V
Maximum Charging Voltage	400V
Maximum Charging / Discharging Current	80/80A
Communication Interface	CAN/RS485
Emergency Power Output	8EPS
Rated Output Voltage	220-240 /110-120V
Rated Output Voltage  Rated Output Current	220-240 /110-120V 36A
Rated Output Current	36A
Rated Output Current Rated Output Frequency	36A 50/60Hz
Rated Output Current Rated Output Frequency Automatic Switching Time	36A 50/60Hz <20ms
Rated Output Current  Rated Output Frequency  Automatic Switching Time  Battery Charge and Discharge Efficiency	36A 50/60Hz <20ms 96.6%
Rated Output Current  Rated Output Frequency  Automatic Switching Time  Battery Charge and Discharge Efficiency  Protection Level	36A 50/60Hz <20ms 96.6% IP65

UL1741SA all options, UL1699B CSA 22.2, FCC(EMC),EEE 1547 IEEE 2030.5,Hawaii Rules 14H Rule 21 Phase I,II,III ,NRS UL1741SA all options, UL1699B CSA 22.2, FCC(EMC),IEEE 1547 IEEE 2030.5,Hawaii Rules 14H Rule 21 Phase I,II,III

8kW

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Power Your Green Life