POWER UP YOUR BUSINESS.

Lower your electricity bill with solar energy and battery power. Commercial and industrial storage systems.

RCT power

RCT Power provides you with battery storage solutions that reduce your electricity costs and dependence on the power grid effectively and improve security of supply sustainably.

Back-up Power

Self-Consumption

Demand Mitigation

Rate Arbitration

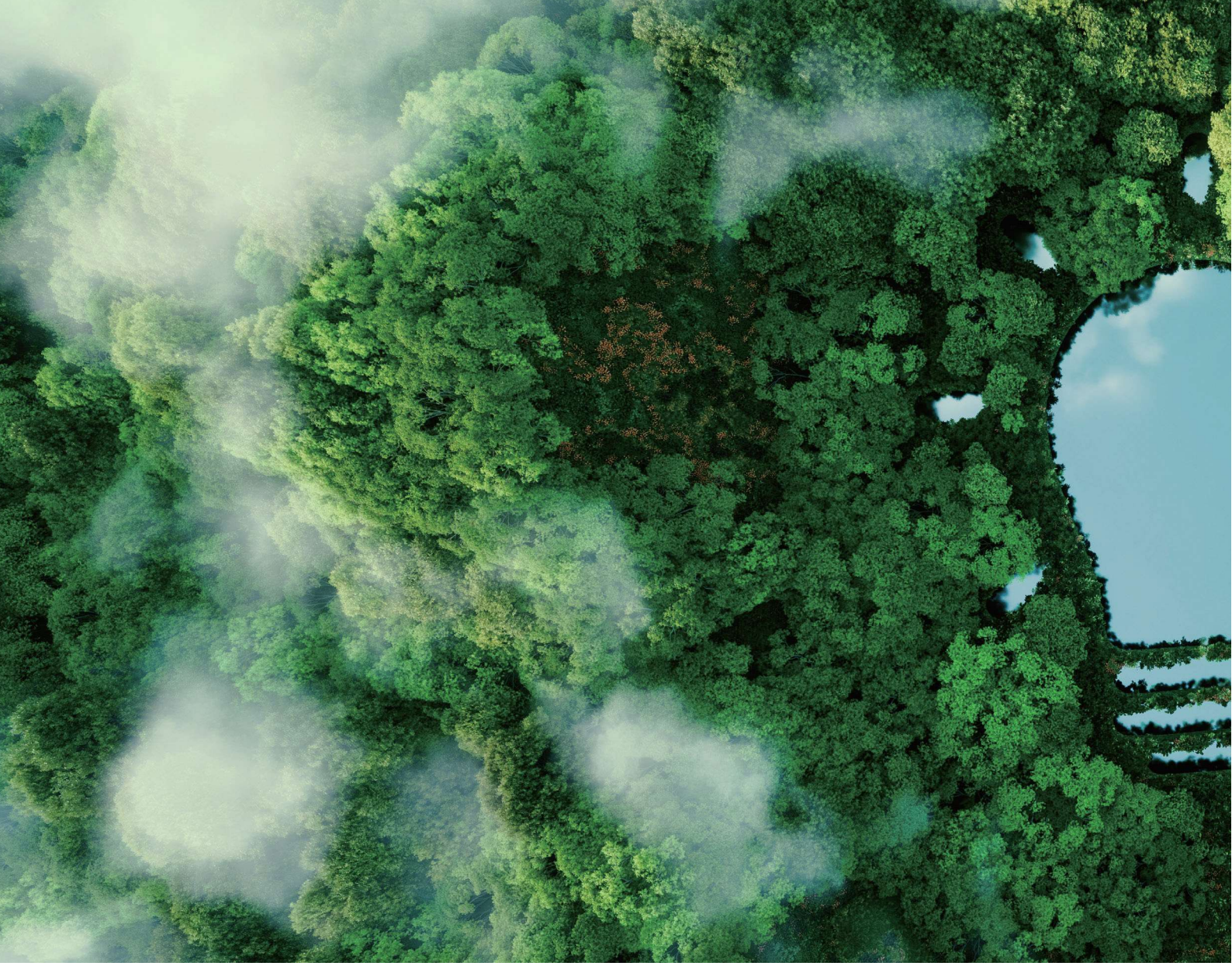
UNLOCK YOUR BUSINESS WITH INNOVATIVE BATTERY STORAGE SOLUTIONS.

Does your business rely on a stable and uninterrupted power supply?

If your business is similar to most, the answer is likely yes. However, what do you do when faced with an unexpected outage or a sudden surge in demand? You can't simply rely on, you need a well-thought-out plan in place.

That is why RCT Power storage solutions are designed to provide stable electricity supply. At RCT Power, we offer battery storage solutions that effectively reduce electricity costs, enhance power supply resilience, and provide various other benefits.

RCT power



IMAGINE YOUR INDUSTRY PROVIDING POWER TO A BRIGHTER FUTURE.

Battery storage systems are experiencing a surge in popularity within the commercial and industrial sectors due to their ability to optimize energy efficiency, curtail operating expenses, and enhance grid adaptability.

These systems serve various purposes, including peak shaving, load shifting, maximizing the utilization of renewable energy sources like solar or wind, offering backup power during outages, and participating in grid flexibility services.

Peak shaving is the practice of smoothing out energy consumption during periods of peak demand, typically when electricity rates are at their highest. By strategically managing energy usage, you can avoid higher costs.

Load shifting involves moving a portion of the overall energy consumption from high-cost periods to low-cost periods. This is advantageous for businesses operating in environments with time-varying energy prices, as it enables them to capitalize on lower electricity rates during off-peak hours.

Maximizing self-consumption is a significant advantage of energy storage systems. By capturing and storing renewable energy, these systems enable businesses to utilize that energy when needed. This reduces their reliance on external grid power and leads to cost savings over time.

Backup power capability is crucial to ensure critical operations during outages, minimizing downtime, and safeguarding productivity.

Battery storage systems play a pivotal role in offering grid flexibility services. By acting as responsive energy resources, storage systems contribute to maintaining a stable and balanced electricity network.

As a result, battery storage systems are becoming increasingly valuable assets for grid operators and utility companies as they work to manage the complexities of the modern energy landscape effectively.

RCT power

RCT POWER CESS STORAGE SOLUTIONS

Wisely making a safe investment into the future of your business and our planet. Industrial, commercial and agricultural facilities optimize their power consumption and become more efficient and independent with a RCT Power CESS storage system.

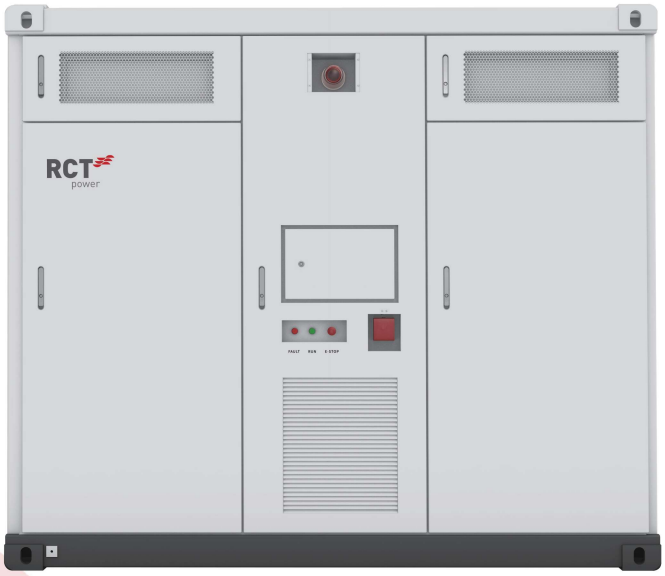
The safe lithium iron phosphate battery systems (LFP) are designed for a variety of commercial and industry applications behind the meter: from energy trading to increasing solar self-consumption to peak shaving to backup power.

The advanced battery management system (BMS) ensures safe and reliable operation of the product.

RCT Power develops and manufactures in-house with high quality components that meet stringent industry standards for safety, reliability and longevity. With decades of engineering expertise and the latest technology, our advanced battery system offers superior performance, versatility and cost-effectiveness.

RCT POWER CESS 200 DC

This all-in-one cabinet offers high performance in a small space. It is fully equipped with LFP battery modules, AC/DC inverter, direct PV DC conection, liquid cooling, multi-level battery management system.



RCT POWER CESS
900 AC I 700 AC I 450 AC

This efficient industrial storage container is fully equipped with LFP battery modules, AC/DC inverter, liquid cooling, multi-level battery management system and backup power switch for grid outages.

STORAGE SYSTEMS RETHOUGHT.

RCT Power is a technology leader in stationary storage solutions for residential and industrial use.

The brand has its origin in the city of Konstanz, Germany. Here we have brought together an experienced team of experts in the field of power electronics. Together with our manufacturing in Jiangsu, China, we work on innovative solutions enabling a better and sustainable usage of solar power.

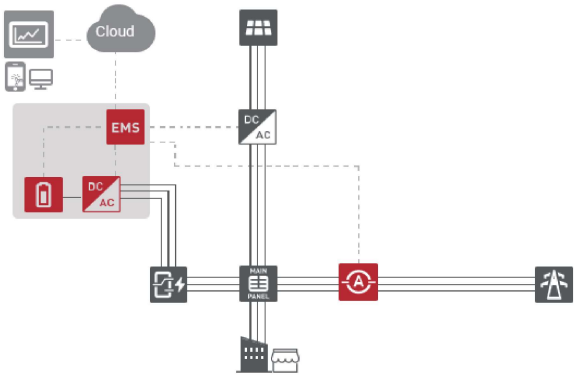
At RCT Power we strongly believe that innovation, quality and superior customer service are the foundations for success.

Our main focus in product development is always based on the simple and flexible design of reliable and sustainable solutions for our customers. Experience it yourself: We are happy to show you how you can use our high voltage technology to harness solar energy and create independence from conventional power suppliers.

RCT power

RCT POWER CESS 261

COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM



HIGH EFFICIENT POWER SUPPLY

- 261 kWh Outdoor-rated cabinet storage system
- Modular, High-efficiency PCS
- Smart Energy Cloud Platform
- Multi-unit parallel support for the flexible capacity

SAFETY TECHNOLOGY

- Five-Tier Protection System: Cell-level Protection, Pack-level Shutdown, Rack-level Disconnect, PCS Isolation, Container-level Electrical Disconnect
- Lithium iron phosphate (LFP) chemistry provides highest level of safety, thermal stability and reliability
- A three-stage fire system ensures safety: continuous cell-level monitoring for early detection, automatic aerosol suppression at the source, and integrated water sprinklers for full compartment protection
- Integrated multi-level battery management system(BMS) assures optimized and well-balanced power storage

APPLICATION SCENARIOS

- Self-consumption
- T.O.U (Time of Use)
- Peak Shaving
- Third-party Power Dispatching

RCT power

POWER CESS 261

CESS261-125-01D

GENERAL

Nominal Capacity	261 kWh
Usable Capacity (95% DOD)	247.95 kWh
Maximum Charge/Discharge Rate	0.5 P
Relative Operating Humidity	0% - 95% RH, Non-condensing
Operating Temperature Range	-30°C - 50°C (>45°C derating)
Storage Temperature Range	-35°C - 55°C (Recommended 0°C to 30°C)
Operating Altitude	≤3000 m (>2000 m derating)
Dimension (mm)*	W1130×H2328×D1385
Corrosion-proof Grade of Cabinet	C4 (C5 Optional)
Weight	Approximately 2700 kg
IP Rating	IP54
Noise Level	≤70 dB
Communication Protocol	Modbus TCP
Off-grid Operation	Yes
BMS	Integrated
EMS	Integrated

BATTERY

Battery Pack Quantity	5
Battery Pack Structure	1P52S
Battery Capacity per Pack	52.25 kWh
Battery Type	$LiFePO_4$
DC-side Rated Voltage	832 Vdc
DC-side Operating Voltage Range	689-930.8 Vdc
Cooling	Liquid-cooling
Cycle Lifetime	≥8000 cls (70%SOH, 25±2°C)

AC SIDE

Rated AC Power	125 kW
Rated AC Current	180 A
Rated AC Voltage	400 Vac (3P+N+PE)
AC Line Frequency	50 / 60 Hz
Long-term Overload Capacity	110%
Power Factor Adjustable Range	-1 - +1

SAFETY FEATURES

Flammable/explosive Gas Detection, Flammable/explosive Gas Exhaust, Smoke Detection, Temperature Detection, Aerosol Fire Suppression, Siren and Strobe Alarm, Water Fire Suppression, Emergency Stop Button

STANDARDS

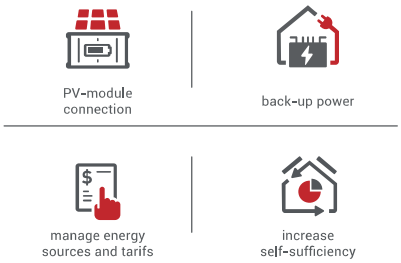
IEC 62619, IEC 63056 (62477-1 & 62619 Cover), IEC 60730-1 Annex H, EN 62477-1, EN 62040-1, EN 61000-6-2/-4 (EMC), EN 62933-5-2, VDE-AR-E 2510-50, UN 38.3

***Note:**
1.The foundation dimension of the cabinet is 1130mm×1385mm. If we consider the Label and the door lock, the maximum dimension is W1184mm×D1421mm×H2328mm.

RCT power

RCT POWER CESS 200 DC

COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM



RELIABLE POWER SUPPLY

- 233 kWh outdoor-rated cabinet storage system
- Backup power for grid outages
- Solar integration, storing excess solar power

SAFE TECHNOLOGY

- Multi-level protection
- Lithium iron phosphate (LFP) chemistry provides highest level of safety, thermal stability and reliability
- Preinstalled liquid cooled RCT Power Battery modules
- Integrated multi-level battery management system (BMS) assures optimized and well-balanced power storage

SMART ENERGY MANAGEMENT

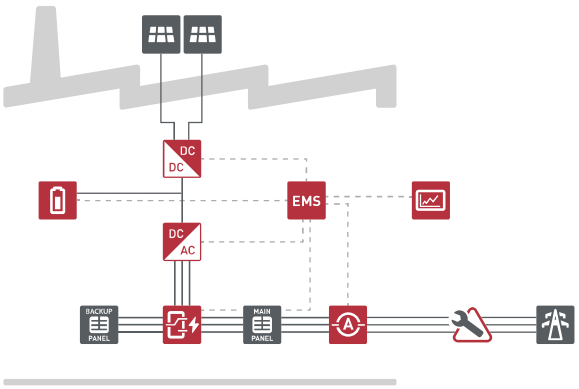
- Software RCT RPEMS
- Self-consumption
- Back-up power
- Peak shaving
- Micro-grids
- Demand management
- Demand response
- PV-storage integration

HIGH EFFICIENCY

- Highly efficient AC/DC inverter
- Smart energy monitoring cloud platform for remote monitoring and control
- Intelligent charging and reduction of peak loads
- High degree of performance
- Automatic back-up power switching within 50ms

EASY OPERATION

- Modular, scalable design for precise project sizing
- Unlimited number of cabinets in parallel
- Optional DC/DC converter for PV-module connection



RCT power

POWER CESS 200 DC

GENERAL

Nominal Capacity	233 kWh
Usable Capacity(95% DOD)	221.35 kWh
Maximum Charge/Discharge Rate	0.5C
Self-Discharge Rate	≤3.5% (Per Month)
Relative Operating Humidity	0%-95% RH, No-condensation
Operating Temperature Range	-25°C-45°C
Storage Temperature Range	-20°C-50°C
Operating Altitude	≤2000m
Dimensions（mm）	W1600×H2200×D1300
Corrosion-proof Grade/Salt Spray Resistance	C4
Weight	Approximately 3200 kg
Max. Number Of ESS used in parallel(On-grid)	12
Max. Number Of ESS used in parallel(Off-grid)	5
IP Rating	IP54（Battery room IP55）
Noise Level	≤70dB
Communication Protocol	Modbus TCP/RTU, CAN
Black-start Function(Dark start)	Yes
AC Line Frequency	50/60Hz
Auxiliary Power Supply	Outside Power Supply
BMS	Integrated
EMS	Integrated

BATTERY

Battery Rack Quantity	1
Battery Pack Quantity Per Rack	5
Battery Pack Structure	1P52S
Battery Capacity per Pack	46.592 kWh
Battery Type	$LiFePO_4$
DC-side Rated Voltage	832 Vdc
DC-side Operating Voltage Range	715-928 Vdc
Cooling Method	Liquid-cooling
Cycle Lifetime	≥6000cls (80%SOH,25±2°C)

PCS

DC Operating Voltage Range	650-950 Vdc
Max. DC Current	160 A
Rated AC Power	100 kW
Rated AC Current	144 A
Rated AC Voltage	400 Vac, 3P+N+PE
Power Factor Adjustable Range	-1 - 1
Peak Efficiency	＞98.5%
Long-term Overload Capacity	110%
Cooling Method	Air-cooling

DC/DC CONVERTER（Optional）

Max. Number of MPPTs	2
Max. String Voltage	950 Vdc
Min. String Voltage	200 Vdc
Max. Input Current per MPPT	80 A
MPPTS Voltage Range	180 Vdc-900 Vdc
Rated Power	2×50=100 kW
Peak Efficiency	＞99%

STS（Optional）

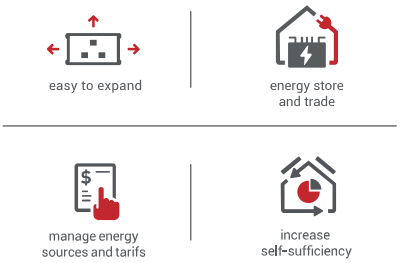
Rated Power	200 kW
Rated Voltage	400 Vac
Rated Frequency	50/60 Hz
Long-term Overload Capacity	110%

SAFETY FEATURE	STANDARDS
Flammable/explosive Gas Detection	UN 38.3、IEC 62619、IEC 63056、EN 62477
Flammable/explosive Gas Exhaust	IEC 60730、EN 62933、EN 61000
Smoke Detection、Temperature Detection	
Aerosol Fire Suppression、Siren and Strobe Alarm	
Dry Pipe and Sprinkle、Emergency Stop Button	

RCT power

RCT POWER CESS
900 AC | 700 AC | 450 AC

COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM



RELIABLE POWER SUPPLY

- 932 kWh outdoor-rated container storage system
- ALL-IN-ONE Solution

SAFE TECHNOLOGY

- Multi-level protection
- Lithium iron phosphate (LFP) chemistry provides highest level of safety, thermal stability and reliability
- Preinstalled liquid cooled RCT Power Battery modules
- Integrated multi-level battery management system (BMS) assures optimized and well-balanced power storage

SMART ENERGY MANAGEMENT

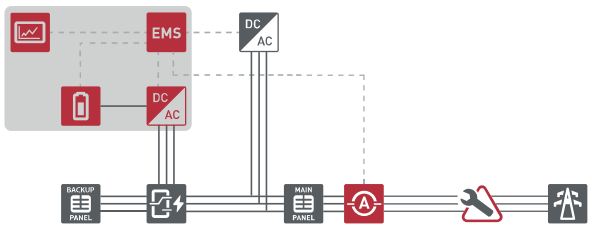
- Software RCT RPEMS
- Peak shaving
- Demand management
- Demand response
- Self-consumption
- Back-up power
- Micro-grids

HIGH EFFICIENCY

- Highly efficient modularized AC/DC inverter for each battery rack independently
- Smart energy monitoring cloud platform for remote monitoring and control
- Intelligent charging and reduction of peak loads
- High degree of performance

EASY OPERATION

- Modular, scalable design for precise project sizing
- Non-walk-in double-sided door design
- Multi-parallel system supported



RCT power

POWER CESS	900 AC	700 AC	450 AC
GENERAL			
Nominal Capacity	932 kWh	699 kWh	466 kWh
Usable Capacity(95% DOD)	885.4 kWh	664.05 kWh	442.7 kWh
Maximum Charge/Discharge Rate	0.5C		
Self-Discharge Rate	≤ 3,5 % (Per Month)		
Relative Operating Humidity	0%-95% RH, No-condensation		
Operating Temperature Range	-20°C-45°C		
Storage Temperature Range	-20°C-50°C		
Operating Altitude	≤2000m		
Dimensions（mm）	W2991×H2591×D2438		
Corrosion-proof Grade/Salt Spray Resistance	C4/C5		
Weight	Approximately 11.6 Tons	Approximately 9.7 Tons	Approximately 7.8 Tons
Max. Number Of ESS used in parallel(On-grid)	4	5	8
Max. Number Of ESS used in parallel(Off-grid)	2	2	4
IP Rating	IP54		
Noise Level	≤70dB@1m		
Communication Protocol	Modbus TCP/RTU, CAN		
Black-start Function(Dark start)	Yes		
Auxiliary Power Supply	Self Power Supply		
BMS	Integrated		
EMS	Integrated		
BATTERY			
Battery Rack Quantity	4	3	2
Battery Pack Quantity per Rack	5		
Battery Pack Structure	1P52S		
Battery Capacity per Pack	46.592 kWh		
Battery Type	LiFePO4		
DC-side Rated Voltage	832 Vdc		
DC-side Operating Voltage Range	715-928 Vdc		
Cooling Method	Liquid-cooling		
Cycle Lifetime	≥6000cls (80%SOH,25±2°C)		
PCS			
DC Operating Voltage Range	680-1000 Vdc		
Max. DC Current	4×198=792 A	3×198=594 A	2×198=396 A
Rated AC Power	4×125=500 kW	3×125=375 kW	2×125=250 kW
Rated AC Current	4×180=720 A	3×180=540 A	2×180=360 A
Rated AC Voltage	400 Vac, 3P+N+PE		
AC Line Frequency	50/60 Hz		
Power Factor Adjustable Range	-1 - 1		
Peak Efficiency	>98.6%		
Long-term Overload Capacity	110%		
Cooling Method	Liquid-cooling		

SAFETY FEATURE

Flammable/explosive Gas Detection、Flammable/explosive Gas Exhaust、Smoke Detection、Temperature Detection、
Aerosol Fire Suppression、Siren and Strobe Alarm、Dry Pipe and Sprinkle、Fire Alarm Control Panel、Emergency Stop Button

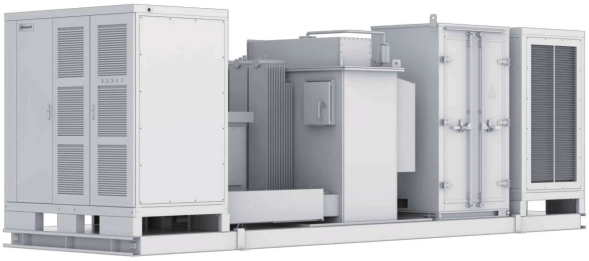
STANDARDS

UN 38.3、IEC 62619、IEC 63056、EN 62477、EN 62040、IEC 60730、EN 62933、EN 61000

RCT power

RCT POWER CESS 4000

COMMERCIAL AND INDUSTRIAL LARGE-SCALE ENERGY STORAGE SYSTEM



Flexible and Scalable for Any Application

Advanced Thermal Design

Environmentally Friendly Operation

EMS

Intelligent Energy Management System (EMS)

Reliable Power Supply

- A robust, outdoor 4,073 kWh containerized Energy Storage System (ESS)
- Compatible with a wide range of inverters
- Offers flexible grid integration

Versatile Configurations

- Easily meet diverse energy demands by connecting 1 to 10 battery clusters in parallel for seamless expansion
- High energy density maximizes storage capacity while minimizing the system's footprint
- Ensures high-efficiency operation by minimizing auxiliary power consumption

Reduced Environmental Impact

- Effectively smooths the output from renewable energy sources
- Simplifies the integration of renewable energy and helps reduce CO_2 emissions from conventional power generation
- Features an advanced, low-noise fan system for quiet operation

* Two Power Conversion Systems (PCS), one MV transformer and Ring Main Unit (RMU), and one auxiliary cabinet and transformer are all integrated onto a single skid base.

* Simplified Containerized Shipping:
• Core System (SOC): Shipped as a complete, ready-to-use unit.
• Support Skid: Safely transported in a standard 40'FR refrigerated container (one per container).

Proven Safety

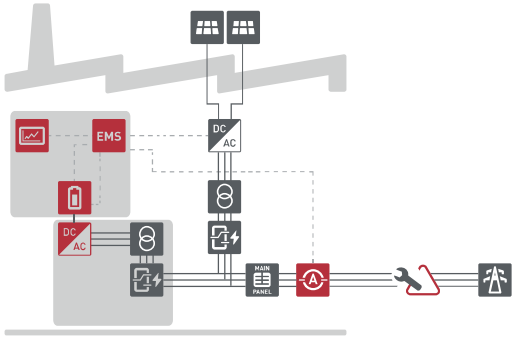
- The fan system is compliant with the NFPA 69 standard
- Fire suppression systems comply with NFPA 855 standards for all country-specific models
- Includes an emergency gas detection port to ensure operator safety

Advanced Thermal Design

- A smart, dual-mode cooling system (liquid and air conditioning) maintains stable, 24/7 operation for both the battery compartment and the electrical room

Intelligent Energy Management System (EMS)

- Enables unified power plant communication with autonomous container operation
- Features self-sufficient control with a versatile HMI suitable for all users
- An ALL-IN-ONE solution for seamless energy management



RCT power

POWER CESS 4000

BATTERY CABINET DATA

Dimensions	W6058×H2896×D2438 mm	Battery Rack Quantity	10
Weight	Approx. 38 ton	Battery Pack Quantity per Rack	8
Ingress Protection Class	IP55	Battery Pack Structure	1P52S
Configuration	10Rx8Px52S	Battery Capacity per Pack	50.918 kWh
Cell Capacity	306Ah	Battery Type	$LiFePO_4$
Output DC voltage Range	1164-1498 VDC	DC-side Rated Voltage	1331.2 Vdc
Nominal Charge/Discharge Rate	0.1-0.5C	BMS	Integrated
Nominated Energy	4.07MWh	EMS	Integrated
Rated Power DC	2MW	Cooling Method	Water and glycol mix
Auxiliary Load Voltage	380-415V, 50-60Hz, 3P4W		
Auxiliary Peak Load	30kW		
Operating Temperature	-30°C to 50°C		
Painting/Coating Class	C4/C5 (optional)		
Noise Level	84 dBA at 1m (50 Hz) 86 dBA at 1m (60 Hz)		
Fire Suppression System	Gas detection, Gas exhaust, Smoke detection, Fire control panel, Horn and Strobe		
Standards & Certification	EN IEC 62619、IEC 63056、IEC 60730 Annex H、UL 1973、CE LVD ESS EN 62477-1、AK Certificate IEC 62040-1、CE EMC ESS EN 61000-6-2/-4, Emission EN 55011, CISPR11、TUV mark ESS IEC 62933-5-2、Test Reports IEC 62933-5-1/-2-1 with EVE Rack、AS/EC 61439-1/-2、UL9540、UL9540A、NFPA69、UN38.3		

AUX CABINET AND TRANSFOMER DATA

Aux. Transformer	100kVA / 690V / 400V
UPS	Up to 1kVA (0.5h standard) (Consult with RCT for more capacity)
Meter	Meters for Aux. Power Consumption and PCS
Communication method	Gateway
Cooling Method	Temperature controlled forced air cooling
Output Power	400V/50Hz 3P4W (Power supply for external equipment)
Communication	RS 485, Ethernet, CAN

MV TRANSFORMER AND RMU DATA

Nominal AC power	2580kVA@45°C		
Transformer Vector	Oil-immersed transformer		
Transformer protection	Protection relay for pressure, temperature (two levels) and gas		
Oil retention tank	Galvanized steel. Integrated with hydrocarbon filter. Optional		
Switchgear configuration	DeV / CV (RMU)		
Switchgear protection	Circuit breaker (V)		
Switchgear short circuit rating	20 kA 1s (Consult with RCT for customized)		
Transformer winding type	Dy11y11 (Consult with RCT for customized)		
Overload capability	100%		
MV AC voltage	10kV-33kV （Consult with RCT for other voltage level）		
LV AC voltage	690V	AC PF	0.99/-1-1
AC frequency	50Hz / 60Hz	Insulation Level	A
Transformer impedance	5.75%-8%	LV-MV connections	Copper bar or cable
Cooling type	KNAN	LV protection	Motorized CB in PCS
THDi	≤3%	MV protection	Microcomputer protection

PCS DATA

Nominal AC power	1075kVA
AC connection	Three-phase three-wire (3P3W)
Overload Capability	1183kVA
AC voltage	690(-15%-10%) V
AC frequency	50/60（-5-5）Hz
THDi	≤3%
AC PF	-1-1
Number of DC branch	1
Voltage regulation accuracy	≤±1%
Peak efficiency (with auxiliary source)	98.5%
Size (W*H*D)	2200*2160*1300 mm
Weight	1921 kg
Noise	<75dB
Protection	IP54
Operating temp.	-20°C to 50°C (De-rating over 45°C)
Cooling	Air cooling
Humidity (storage)	0-95%（No condensing）
Max altitude	3000m (De-rating over 3000 m)
Communication	RS 485, Ethernet, CAN
Protocol	Modbus TCP/RTU, IEC104, IEC61850

SKID DATA

Size (W*H*D)	7600*2600*2200 mm
Weight	≤20t
Enclosure	IP54
Corrosion Prevention	C4
Operating temp.	-20°C to 50°C (De-rating over 45°C)
Storage temp.	-50°C to 70°C
Cooling	Air cooling
Humidity	0-95% (No condensing)
Max elevation	Standard 1000m/3300feet (Consult with RCT for other elevation)
Certification	PCS, transformer, RMU certification base on project country

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POWER.

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