


# POWER UP YOUR BUSINESS.

Manage your electricity consumption in a smart & simply efficient way with RCT Power commercial and industrial storage systems.

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RCT Power commercial and industrial energy storage systems offers a wide range of features 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.

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# 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.

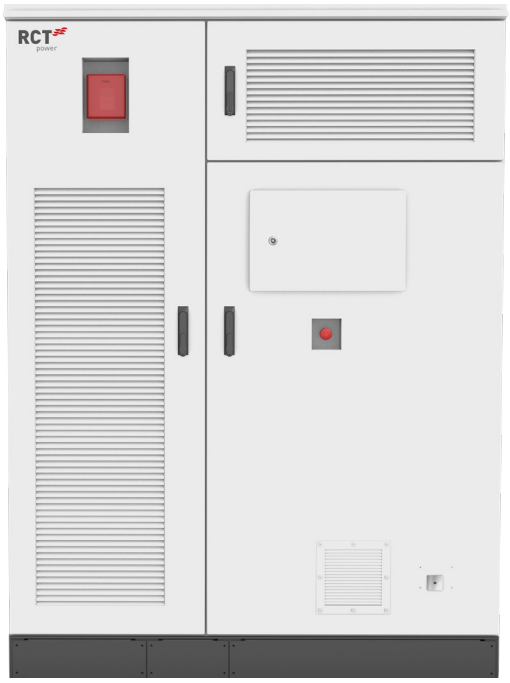
# RCT POWER CESS STORAGE SOLUTIONS

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.

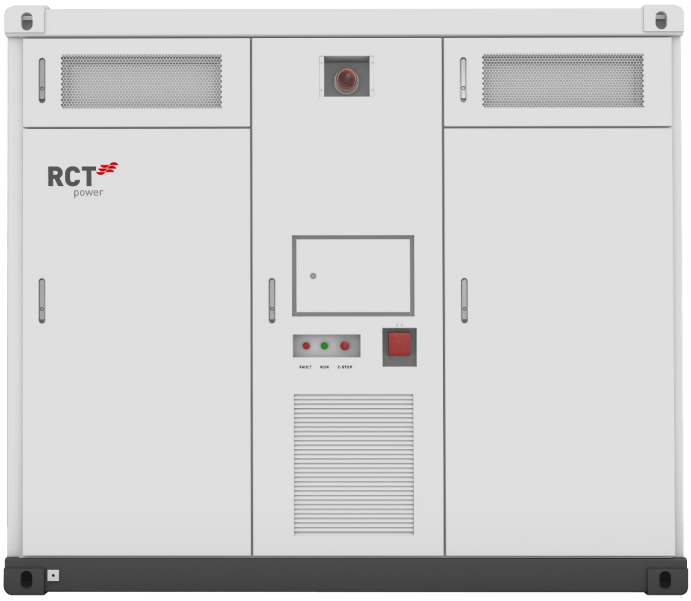
RCT Power develops and manufactures in-house with high quality components that meet stringent industry standards for safety, reliability and longevity. With decades of engineering expertise and the latest technology, our advanced battery system offers superior performance, versatility and cost-effectiveness.




## RCT POWER CESS

### 200 DC STS I 200 AC STS I 200 DC I 200 AC

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 and Energy Management System (EMS).




## RCT POWER CESS

### 900 AC I 700 AC I 450 AC

This efficient industrial storage container is fully equipped with $LiFePO_4$ 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 global R&D teams and various manufacturing locations 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.

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# POWER CESS

## 200 DC STS I 200 AC STS I 200 DC I 200 AC

## INDUSTRIAL CABINET ENERGY STORAGE SYSTEM

PV-module connection

store and trade energy

manage energy sources and tarifs

increase self-sufficiency

## RELIABLE POWER SUPPLY

- 233 kWh outdoor-rated cabinet storage system
- All-in-one solution incl. direct solar electricity storage
- Automatic backup power for grid outages

## SAFE TECHNOLOGY

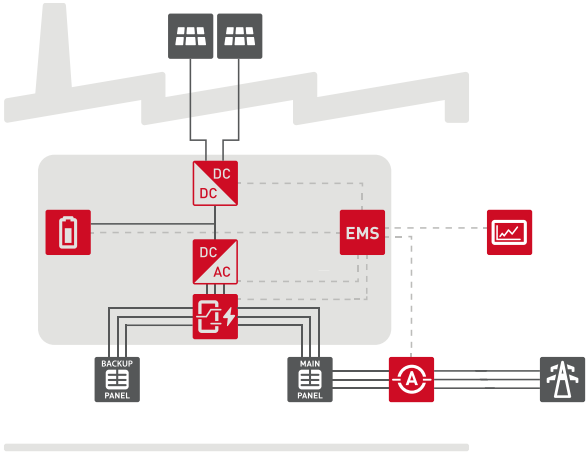
- Multi-level protection
- Lithium iron phosphate ($LiFePO_4$) chemistry provides highest level of safety, thermal stability and reliability
- Preinstalled liquid cooled RCT Power Battery modules
- Integrated multi-level battery management system (BMS) assures optimized and well-balanced power storage

## ENERGY MANAGEMENT SYSTEM

- Optimize self-consumption
- Back-up power
- Peak shaving
- Micro-grids
- Demand mitigation
- Rate arbitration
- Diesel genset coupling

## SMART & HIGH EFFICIENCY

- Highly efficient AC/DC inverter
- DC/DC converter with solar input
- Smart energy monitoring cloud platform for remote monitoring and control
- Intellige nt charging and reduction of peak loads
- High degree of performance
- Parallel installation (on-grid: up to 12; off-grid: up to 5)



| POWER CESS | 200 DC STS | 200 AC STS | 200 DC | 200 AC |
|---|---|---|---|---|
| **BATTERY** | | | | |
| Nominal Capacity | 233 kWh | | | |
| Usable Capacity (95% DoD) | 221 kWh | | | |
| Battery Technology | $LiFePO_4$ (LFP) | | | |
| Charge/Discharge Rate | 0,5 C | | | |
| DC Voltage Range | 715 ... 928 V | | | |
| DC Nominal Voltage | 832 V | | | |
| Cooling | Liquid Cooling | | | |
| Self Discharge Rate | ≤3,5% per Month | | | |
| **DC INPUT** | | | | |
| MPPT | 2 | n.v. | 2 | n.v. |
| Maximum DC Current per MPPT | 80 A | n.v. | 80 A | n.v. |
| DC Starting Voltage | 200 V | n.v. | 200 V | n.v. |
| DC Rated Power | 100 kW | n.v. | 100 kW | n.v. |
| MPP Voltage Range | 180 V ... 900 V | n.v. | 180 V ... 900 V | n.v. |
| Maximum DC Voltage | 950 V | n.v. | 950 V | n.v. |
| **AC OUTPUT (Grid Operation)** | | | | |
| AC Rated Power | 100 kW | | | |
| Maximum AC Current per Phase | 144 A | | | |
| Rated Frequency | 50 Hz / 60 Hz | | | |
| AC Rated Voltage | 230 V / 400 V (L1, L2, L3, N, PE) | | | |
| **BACKUP** | | | | |
| AC Rated Power | 100 kW | 100 kW | n.a. | n.a. |
| AC Rated Voltage | 230 V / 400 V (L1, L2, L3, N, PE) | 230 V / 400 V (L1, L2, L3, N, PE) | n.a. | n.a. |
| Maximum AC Current per Phase | 144 A | 144 A | n.a. | n.a. |
| Rated Frequency | 50 Hz / 60 Hz | 50 Hz / 60 Hz | n.a. | n.a. |
| Long-term Overload Capacity | 110 % | 110 % | n.a. | n.a. |
| **PERFORMANCE DATA** | | | | |
| Maximum Efficiency PV to Battery | 99 % | n.a. | 99 % | n.a. |
| Maximum Efficiency Battery to AC Output | >98,5 % | | | |
| **GENERAL** | | | | |
| Dark Start | Yes | | | |
| Cooling Power Electronics | Air Cooling | | | |
| IP Protection Class | 54 (Battery Room IP55) | | | |
| Operating Temperature Range | -25 °C ... +45 °C | | | |
| Storage Temperature Range | -20 °C ... +50 °C | | | |
| Maximum Relative Humidity | 0 - 95 % (non-condensing) | | | |
| Typical Noise Level | ≤ 70 dB @1 m | | | |
| Corrosion-proof Grade/Salt Spray Resistance | C4 | | | |
| Maximum Installation Height Above Sea Level | 2000 m | | | |
| Dimensions (Width x Height x Depth) | 1600 x 2200 x 1300 mm | | | |
| Weight | 3200 kg | 3150 kg | 3150kg | 3100kg |
| BMS | Integrated | | | |
| **COMMUNICATION / INTERFACES** | | | | |
| Communication Protocol | Modbus TCP / RTU, CAN | | | |
| Communication Interfaces | Ethernet, CAN, RS485, MFR | | | |
| Energy Management System (EMS) | Integrated | | | |
| **STANDARDS** | | | | |
| Safety | IEC 60730, EN 62477, IEC 62619, EN 62933, IEC 63056, UN 38.3 | | | |
| EMC | EN 61000 | | | |
| **SAFETY** | | | | |
| Detection and Extraction of Flammable and Explosive Gases | Yes | | | |
| Smoke Sensor | Yes | | | |
| Temperature Sensor | Yes | | | |
| Fire Extinguishing Agent | Aerosol | | | |
| Audible and Visual Alarm | Yes | | | |
| Dry Pipe and Sprinkler System | Yes | | | |
| Emergency Stop | Yes | | | |

* For specific details, please refer to the RCT power warranty documentation.

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# POWER CESS
# 900 AC | 700 AC | 450 AC

## INDUSTRIAL CONTAINER ENERGY STORAGE SYSTEM

high scalability

store and trade energy

manage energy sources efficiently

increase self-sufficiency

## RELIABLE POWER SUPPLY

- 466-932 kWh outdoor-rated container storage system
- AC coupled system
- Automatic backup power for grid outages

## SAFE TECHNOLOGY

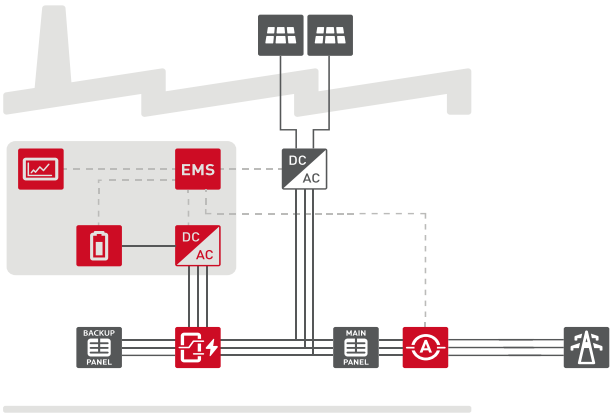
- Multi-level protection
- Lithium iron phosphate ($LiFePO_4$) chemistry provides highest level of safety, thermal stability and reliability
- Preinstalled liquid cooled RCT Power Battery modules
- Integrated multi-level battery management system (BMS) assures optimized and well-balanced power storage

## ENERGY MANAGEMENT SYSTEM

- Optimize self-consumption
  Back-up power
- Peak shaving
- Micro-grids
- Demand mitigation
- Rate arbitration
- Diesel genset coupling

## SMART & HIGH EFFICIENCY

- Highly efficient power conversion system
- Smart energy monitoring cloud platform for remote monitoring and control
- Intelligent charging and reduction of peak loads
- High degree of performance
- Parallel installation (on-grid: up to 12; off-grid: up to 5)



| POWER CESS* | 900 AC | 700 AC | 450 AC |
|---|---|---|---|
| **BATTERY** | | | |
| Nominal Capacity | 932 kWh | 699 kWh | 466 kWh |
| Usable Capacity (95% DoD) | 885 kWh | 664 kWh | 442 kWh |
| Battery Technology | | $LiFePO_4$ (LFP) | |
| Charge/Discharge Rate | | 0,5 C | |
| Number of Cycles at 80 % Remaining Capacity | | 6000 | |
| DC Voltage Range | | 715 ... 928 V | |
| DC Nominal Voltage | | 832 V | |
| Cooling | | Liquid Cooling | |
| Self Discharge Rate | | ≤3,5% per Month | |
| **AC OUTPUT (Grid Operation)** | | | |
| AC Rated Power | 4 x 125kW=500 kW | 3 x 125 kW=375 kW | 2 x 125kW=250 kW |
| AC Rated Current | 4 x 180 A=720 A | 3 x 180 A=540 A | 2 x 180 A=360 A |
| Rated Frequency | | 50 Hz / 60 Hz | |
| AC Rated Voltage | | 230 V / 400 V (L1, L2, L3, N, PE) | |
| **PERFORMANCE DATA** | | | |
| Maximum Efficiency Battery to AC Output | | 98,60 % | |
| **GENERAL** | | | |
| Dark Start | | Yes | |
| Cooling Power Electronics | | Liquid Cooling | |
| IP Protection Class | | 54 | |
| Ambient Temperature Range | | -20 °C ... +45 °C | |
| Storage Temperature Range | | -20 °C ... +50 °C | |
| Maximum Relative Humidity | | 0 - 95 % (non-condensed) | |
| Typical Noise Level | | ≤ 70 dB @1 m | |
| Corrosion-proof Grade/Salt Spray Resistance | | C4 / C5 optional | |
| Maximum Installation Above Sea Level | | 2000 m | |
| Dimensions (Width x Height x Depth) | | 2991 x 2591 x 2438 mm | |
| Weight | 11600 kg | 9700 kg | 7800 kg |
| BMS | | Integrated | |
| **COMMUNICATION / INTERFACE** | | | |
| Communication Protocol | | Modbus TCP / RTU | |
| Energy Management System (EMS) | | Integrated | |
| **STANDARDS** | | | |
| Safety | | IEC 60730, EN 62477, IEC 62619, EN 62933, IEC 63056, EN 62040, UN 38.3 | |
| Public Grid | | EN 61000 | |
| **SAFETY** | | | |
| Detection and Extraction of Flammable and Explosive Gases | | Yes | |
| Smoke Sensor | | Yes | |
| Temperature Sensor | | Yes | |
| Fire Extinguishing Agent | | Aerosol | |
| Audible and Visual Alarm | | Yes | |
| Dry Pipe and Sprinkler System | | Yes | |
| Emergency Stop | | Yes | |

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