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Project Case



Chad, Africa PV-Diesel-ESS Hybrid Power System

2.5MW/7.83MWh

PV-Storage Microgrid & Back-up Power



Frankfurt, Germany Vehicle Manufacturer

1MW/1.86MWh

Back-up Power & Renewable Energy Absorption



Gorinchem, Netherlands High-Tech Farm

500kW/1165kWh

Renewables Integration & Carbon Mitigation



Sydney, Australia IKEA Distribution Center

500kW/1165kWh

Peak-Load Shifting with PV storage



Zagreb, Croatia Wood Processing Plant

100kW/233kWh

Dynamic Regulation & Load Balancing



Jiangsu, China Aseptic Packaging Plant

2.99MW/5.96MWh

Dynamic Regulation & Real-time Market Trading

RCT POWER CESS 4000

Large-Scale Energy Storage System

- Scalable building blocks for different applications and use cases
- Shoulder-to-shoulder design reduces land required to achieve a high energy dense site
- Configurable hybrid cooling system to maximise system performance while reducing auxiliary power consumption
- Designed for lowest installation and lifecycle cost

FEATURES

Optimised for large-scale deployments: CESS 4000 offers streamlined design, enabling more compact site layouts via multiple parallel units. The design maximises energy density per land space while performing efficiently—suited for global 2- to 8-hour applications—and reducing auxiliary power consumption.

Safety: CESS 4000 is designed with safety at the forefront. The platform is fitted an end-to-end fire safety approach, compliant with international safety standards, including NFPA 855.

High availability: CESS 4000 is designed for a long lifespan in all conditions with minimum service interventions. Features include the ability to withstand wind, seismic capabilities, and long duration surface treatment.

High-efficiency deployment: CESS 4000 is designed to minimise the amount of field wiring and civil work needed to deploy an ESS. Units are delivered to site fully-tested with integrated batteries and a cooling system. CESS 4000 is a 20-foot integrated container with ISO blocks, enabling standard equipment handling to deploy an energy storage system.

SPECIFICATION

Item	CESS 4000
Nominal energy	4073 kWh
Configuration	10P x 8S x52S
Voltage range	1164 – 1498 VDC
Nominal voltage	1331 VDC
Nominal C-rate	0.1 – 0.5 C
Auxiliary load voltage	480V 60Hz and 380 – 415V 50/60Hz 3-phase
Auxiliary peak load	30 kW
Weight	83775 / 38000 lbs/kg
Operating temperature	-30 + 50°C
Footprint	20' high - cube ISO container
Dimensions(W*D*H)	6.1 x 2.4 x 2.8m
Noise	84 dBA at 1m
Coolant type	Water and glycol mix



NEW

RCT POWER CESS 1500

COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM

- 1491 kWh outdoor-rated container storage system
- Standard 10ft container storage system, easy transportation
- Highest level of safety, thermal stability and reliability
- High degree of performance, intelligent charging and reduction of peak loads



BATTERY

Nominal capacity	1491 kWh
Battery technology	LiFePO ₄
Charge / discharge rate	0.5 P
Battery pack structure	1P52S
Cooling	Liquid Cooling
BMS	Integrated
Rated DC voltage	1331 Vdc
DC voltage range	1144 ~ 1485 Vdc

INVERTER

DC Operating voltage range	1060 ~ 1450 Vdc
Rated DC current	560A
Rated DC power	748kW
Rated AC power	822.8kW
Rated AC current	624A
AC rated voltage	690 Vac (-15% to 10%)
AC line frequency	50 / 60 Hz
Peak efficiency	98.80%

ENERGY MANAGEMENT SYSTEM

EMS	Integrated
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COMMUNICATION

Communication protocol	Modbus TCP/RTU, CAN
Touch panel	15.6" industrial standard
Cloud / APP	Yes

OPERATION

Relative operating humidity	0 ~ 95% RH, no-condensation
Operating temperature range	-20 C ... +45 C
Operating altitude	≤ 2000m

DIMENSIONS (TOTAL)

Dimensions(W x H x D)	2991 x 2896 x 2438 mm (ISO 10ft HQ)
Weight	Approximately 16600 kg

SAFETY / STANDARDS

Protection	IP54	
Corrosion-proof grade	C4	
Safety	a. Flammable/explosive Gas detection	e. Aerosol Fire Extinguish
	b. Flammable/explosive Gas exhaust	f. Siren and Strobe Alarm
	c. Smoke Detection	g. Emergency Stop Button
	d. Temperature Detection	h. Dry Pipe and Sprinkle

RCT POWER CESS 1000 SERIES



COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM

- Modular battery racks and PCS for flexible combination
- Support parallel connection and block-building construction
- Multi-level electrical safety and six-dimensional fire protection systems



BATTERY		
Nominal capacity	932 kWh	
Battery technology	LiFePO ₄	
Charge / discharge rate	0.5 P	
Battery pack structure	1P52S	
Cooling	Liquid Cooling	
BMS	Integrated	
Rated DC voltage	832 Vdc	
DC voltage range	715 ~ 928 Vdc	
INVERTER		
	IEC	UL
DC Operating voltage range	680 - 1000 Vdc	700 - 1000 Vdc
Rated AC power	4 x 125 kW = 500 kW	4 x 125 kW = 500 kW
Rated AC current	4 x 180 A = 720 A	4 x 150 A = 600 A
AC rated voltage	400 Vac	480 Vac
AC line frequency	50 / 60 Hz	60 Hz
Peak efficiency	98.60%	98.60%
ENERGY MANAGEMENT SYSTEM		
EMS	Integrated	
COMMUNICATION		
Communication protocol	Modbus TCP/RTU, CAN	
Touch panel	15,6" industrial standard	
Cloud / APP	Yes	
OPERATION		
Relative operating humidity	0 ~ 95% RH, no-condensation	
Operating temperature range	-20 °C ... +45 °C	
Operating altitude	≤ 2000m	
DIMENSIONS (TOTAL)		
Dimensions(W x H x D)	2991 x 2591 x 2438 mm	
Weight	Approximately 11600 kg	
SAFETY / STANDARDS		
Protection	IP54 / NEMA 3R	
Corrosion-proof grade	C4 / C5	
Safety	a. Flammable/explosive Gas detection	e. Aerosol Fire Extinguish
	b. Flammable/explosive Gas exhaust	f. Siren and Strobe Alarm
	c. Smoke Detection	g. Emergency Stop Button
	d. Temperature Detection	h. Dry Pipe and Sprinkle
Certification	UN 38.3, IEC 62619, IEC 63056, EN 62477, EN 62040, IEC 60730, EN 62933, EN 61000	
	NFPA 69, UL 1973, UL 60730, UL 9540A, UL 9540	

RCT POWER CESS 200



COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM

- PV module connection, PV-storage integration
- Highly efficient STS, automatic backup power for grid outages
- Modular and flexible options for fine items
- All-in-one solution incl. direct solar electricity storage



BATTERY		CONVERTER (OPTIONAL)		IEC	
Nominal capacity	233 kWh	Max. number of MPPTs	2		
Battery technology	LiFePO ₄	Max. string voltage	900 Vdc		
Charge / discharge rate	0.5 P	Max. input current per MPPT	80 A		
Battery pack structure	1P52S	Rated power	100 kW		
Cooling	Liquid Cooling				
BMS	Integrated				
Rated DC voltage	832 Vdc				
DC voltage range	715 ~ 928 Vdc				
INVERTER		IEC	UL	BACKUP POWER (OPTIONAL)	IEC
DC Operating voltage range	650 - 950 Vdc	700 - 950 Vdc	Rated power	200 kW	
Rated AC power	100 kW	125 kW	Rated voltage	400Vac	
Rated AC current	144 A	150 A	Rated Frequency	50 / 60 Hz	
AC rated voltage	400 Vac	480 Vac	Long-term overload capacity	110%	
AC line frequency	50 / 60 Hz	60 Hz			
Peak efficiency	98.50%	98.60%			
ENERGY MANAGEMENT SYSTEM					
EMS	Integrated				
COMMUNICATION					
Communication protocol	Modbus TCP/RTU, CAN				
Touch panel	15,6" industrial standard				
Cloud / APP	Yes				
OPERATION					
Relative operating humidity	0 ~ 95% RH, no-condensation				
Operating temperature range	-20°C ... +45°C				
Operating altitude	≤ 2000m				
DIMENSIONS (TOTAL)					
Dimensions(W x H x D)	1600 x 2200 x 1300 mm				
Weight	Approximately 3200 kg				
SAFETY / STANDARDS					
Protection	IP54 / NEMA 3R				
Corrosion-proof grade	C4				
Safety	a. Flammable/explosive Gas detection	e. Aerosol Fire Extinguish			
	b. Flammable/explosive Gas exhaust	f. Siren and Strobe Alarm			
	c. Smoke Detection	g. Emergency Stop Button			
	d. Temperature Detection	h. Dry Pipe and Sprinkle			
Certification	UN 38.3, IEC 62619, IEC 63056, EN 62477, IEC 60730, EN 62933, EN 61000				
	NFPA 69, UL 1973, UL 60730, UL 9540A, UL 9540				



About RCT Power

Founded in Konstanz, Germany in 2015, RCT Power is a globally recognized leader in energy storage solutions and a BloombergNEF (BNEF) Tier 1 manufacturer. Drawing on Germany's renowned technology and quality standards, we are one of the earliest German brands dedicated to residential energy storage systems. Guided by our mission to "Deliver Reliable Green Energy, Power a Sustainable Future," RCT Power provides comprehensive green energy solutions worldwide for Residential (RESS), Commercial & Industrial (CESS), and Grid-Scale (GESS) Energy Storage Systems.

The company owns key patents and delivers world-class technical performance. All products meet rigorous global safety standards (including UL, IEC, and AS/NZS) and are listed by both the U.S. California Energy Commission (CEC) and Australia's Clean Energy Council (CEC).

With a vertically integrated supply chain spanning R&D, manufacturing, sales, and service, RCT Power has strategically expanded its global presence.

The company operates dedicated R&D hubs and regional sales centers in Konstanz (Germany), Suzhou (China), California (USA), and Melbourne (Australia), supported by state-of-the-art manufacturing facilities in Penang (Malaysia) and Suzhou (China), enabling worldwide client support.

RCT Power's technological leadership is evidenced by six consecutive years as the #1 ranked provider in SPI Testing. The company has also earned prestigious EuPD Research awards, including "Top Energy Storage Inverter Brand" and "Top Residential ESS Brand."

As a catalyst for the global energy transition, RCT Power drives innovation in energy storage technology, empowering industries and communities with scalable, sustainable solutions.





COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM SOLUTIONS

EMPOWER TOMORROW WITH TRUSTED GREEN ENERGY

