



RCTerra Class 1.0 233-100-01A ~ D

COMMERCIAL AND INDUSTRIAL ENERGY STORAGE SYSTEM



PV-module
connection



back-up power



manage energy
sources and tariffs



increase
self-sufficiency

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

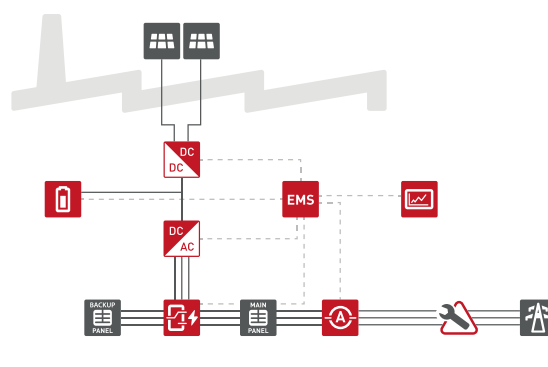
- Off-grid Operation
- Self-consumption
- T.O.U (Time of Use)
- Peak Shaving
- Third-party Power Dispatching
- Backup Power Supply

HIGH EFFICIENCY

- Highly efficient PCS
- 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
- Multi-parallel system supported
- Optional DC/DC converter for PV-module connection



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, non-condensing
Operating Temperature Range	-25°C ~ 45°C
Storage Temperature Range	-30°C ~ 50°C (recommended 0°C to 30°C)
Operating Altitude	≤ 2000 m
Dimensions (mm)	W1600×H2200×D1300
Corrosion-proof Grade of Cabinet	C4
Weight	Approximately 2900 kg
IP Rating	IP54 (battery room IP55)
Noise Level*	≤ 70 dB
Communication Protocol	Modbus TCP/RTU, CAN
AC Line Frequency	50/60 Hz
Auxiliary Power Supply	External powered
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 Concept	Liquid-cooling
Cycle Lifetime of Cell	≥ 6000 cycles (70%SOH,25±2 °C)

PCS (Optional)

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 Concept	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 ~ 900 Vdc
Rated Power	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

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

STANDARDS

EN IEC 62619, IEC 63056, EN 62477-1, IEC 60730-1 Annex H, EN62040-1, EN 62109-1&-2, EN IEC 61000-6-2&-6-4, EN 62933-5-2, VDE-AR-E 2510-50, UN 38.3, RED, NRS 097-2-1 Clause 4.1.13

*1: Average noise level after the system has stabilized