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CONTAINER ENERGY STORAGE SYSTEM

RV-MG-1000

Integrated energy storage
for commercial, industrial and grid applications.



500 kW	1000 kWh	716.8 V	IP65
Rated AC Power	Rated Battery Energy	Rated DC Voltage	Enclosure Protection

Integrated Control

PCS, BMS and local monitoring EMS.

Modular Design

Flexible expansion and front maintenance.

Thermal Management

HVAC for DC; forced air cooling for PCS.

Multiple Protections

Three-level BMS with event and caution alarms.

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TECHNICAL SPECIFICATIONS

RV-MG-1000

DC DATA

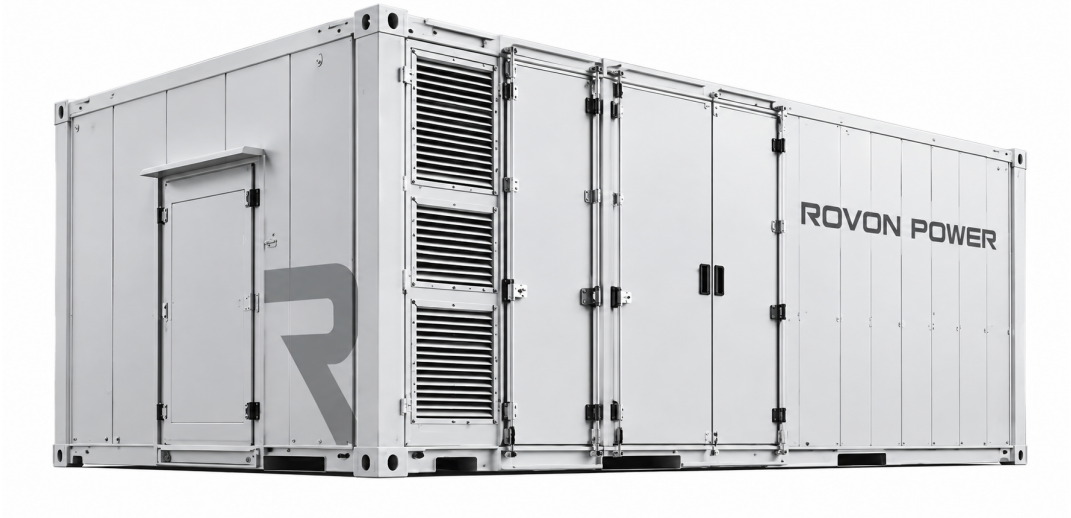
Battery Cell Type	Prismatic LFP
Cell Brand	HiGEE
Cell Cycle Life	>8,000 cycles @ 0.5C, 25°C
Cell Specification	3.2 V / 280 Ah
String Configuration	1P224S
Number of Strings	5
Rated String Energy	200 kWh
Rated DC Energy	1000 kWh
Rated DC Voltage	716.8 V
DC Voltage Range	628-806 V
BMS Communication Interface	Ethernet / CAN / RS485
BMS Communication Protocol	Modbus RTU / Modbus TCP

AC DATA

Rated AC Power	500 kW
Maximum AC Power	550 kW
Rated AC Voltage	400 V
AC Power Factor	1 leading to 1 lagging
Output THDi	≤3%
Nominal Grid Frequency	50 / 60 Hz
Isolation Method	Three-phase, four-wire transformer

THREE-LEVEL BMS

Overcharge, over-discharge and overvoltage protection with system monitoring.



Container exterior illustration

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CONTAINER & OPERATING PARAMETERS

RV-MG-1000

GENERAL DATA

Dimensions (L x W x H)	6058 x 2438 x 2591 mm
Whole System Weight	<30 metric tons
Protection Level	IP65
Operating Temperature	-20°C to 65°C
Relative Humidity	0-95% (non-condensing)
Max. Working Altitude	3000 m / 9842 ft
DC Compartment Cooling	HVAC
PCS Compartment Cooling	Forced air cooling
Fire Extinguishing System	HFC bottle group
Communication Interfaces	RS485 / Ethernet / GPRS
Communication Protocols	Modbus RTU / Modbus TCP

CONTAINER LAYOUT

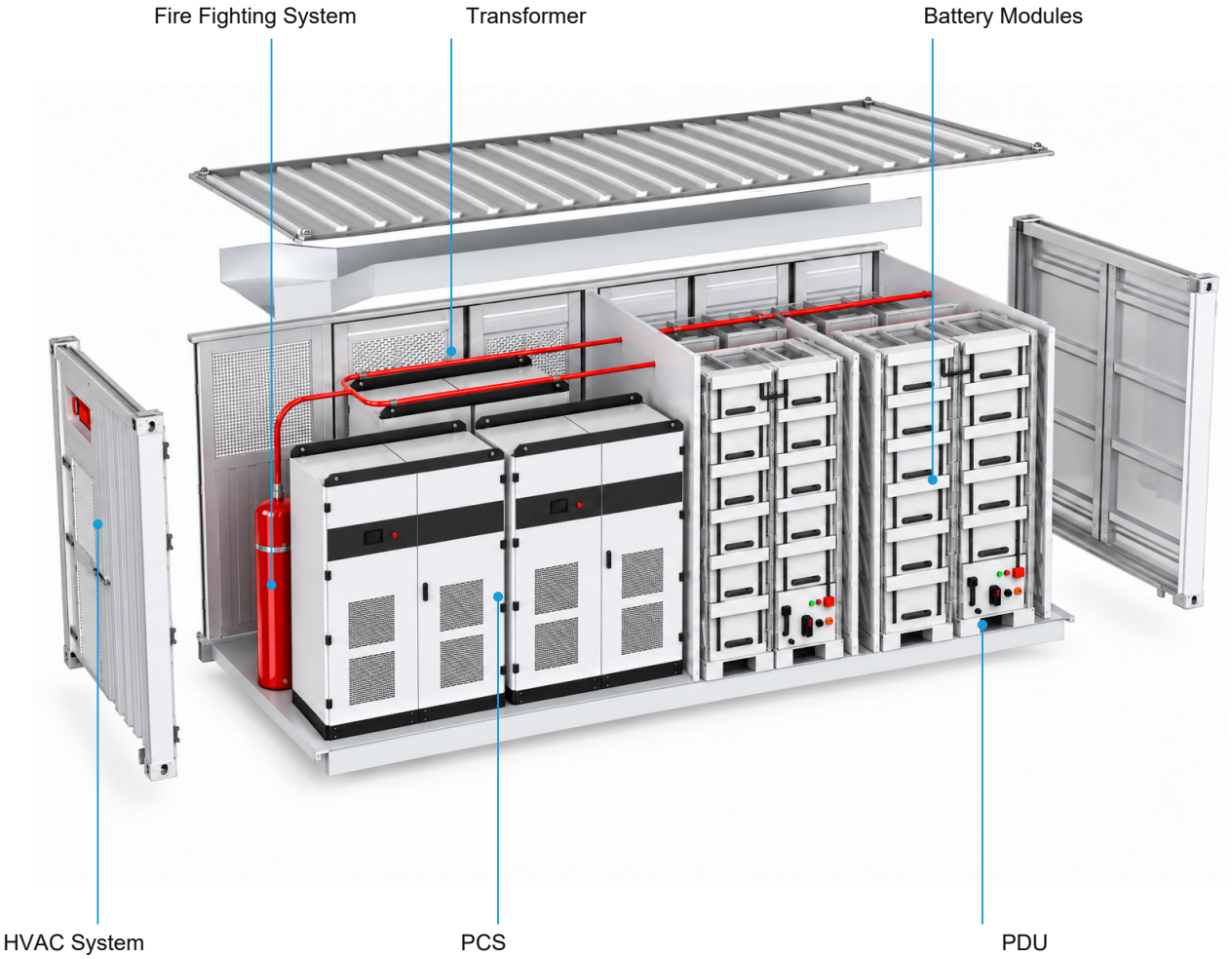


Top view illustration | Dimensions exclude installation clearances.

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SYSTEM ARCHITECTURE

RV-MG-1000



System architecture illustration

CONTROL & MONITORING

- Integrated PCS, BMS and EMS
- PV / battery / generator / grid access
- Automatic on-grid / off-grid switching
- Event and caution alarms
- Real-time and historical data logging

SERVICE & TRANSPORT

- Modular design and front maintenance
- Forklift and hoisting transportation
- Dual working power supply support
- Local monitoring and remote viewing
- Warning system and multiple protections

Optional customized microgrid EMS can coordinate energy storage, PV, grid, loads, generators and video monitoring.

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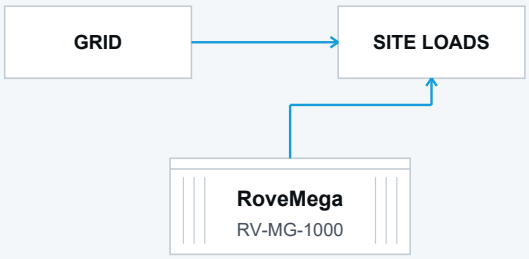
APPLICATION SCENARIOS

RV-MG-1000

01 Power Expansion

Supply additional power when site demand exceeds the available distribution capacity.

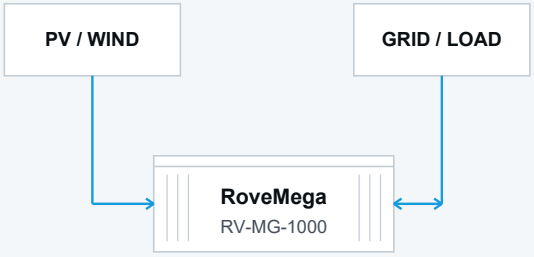
Factories / charging stations



02 Renewable Energy Integration

Store surplus renewable energy for later use, including evening discharge.

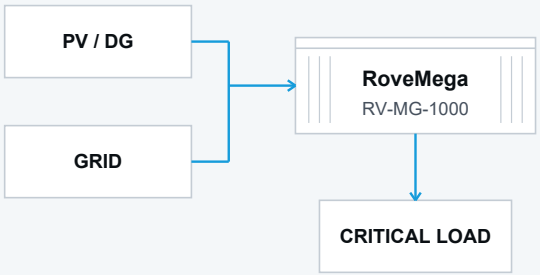
PV plants / wind farms / hybrid charging



03 Microgrid & Backup Power

Support backup power and microgrid operation for areas with limited grid access.

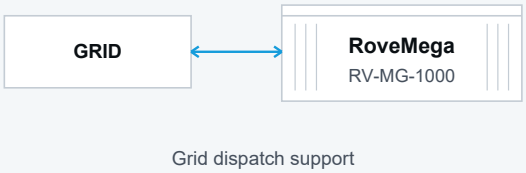
Factories / remote sites / charging stations



04 Demand Response

Support grid dispatch and participate in demand response programs.

Factories / office blocks / shopping malls



Grid dispatch support

Specifications are subject to change. System configuration depends on project requirements.