



RE**SOURCE**

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GRID FLOW 418K

RESOURCE

RESOURCE

offers a comprehensive solution for businesses and large energy consumers, allowing you to reduce electricity costs, reduce the risk of tariff increases, receive up to proceeds from the purchase/sale of electricity and get backup power supply

RESOURCE GRID FLOW 418K— is a modular energy storage system (ESS) specifically designed for industrial-scale energy project supply



314Ah

418 kWh

~1330V

The main component of the system is LFP battery modules last generation. Battery Management System BMS and the EMS system which combines data from battery modules, inverters and cabinets, and also provides interaction with other devices.

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MAIN ADVANTAGES OF THE RESOURCE SYSTEM



MAXIMUM ENERGY – MINIMUM SPACE

418 kWh in a compact form factor is the optimal solution for large-scale facilities with limited space.



INTELLIGENT COOLING AND BMS

The liquid cooling system and modern BMS ensure stable operation, correct temperature regime, monitoring and balancing of each cell.



FLEXIBLE INTEGRATION AND SCALABILITY

The modular structure allows the system to be easily scaled – up to 10 cabinets per DC combiner.



FIRE SAFETY

The system is equipped with an aerosol fire extinguishing system that is activated automatically in the event of overheating or short circuit.



VERSATILITY AND ADAPTABILITY

Perfect integration for manufacturing plants, shopping malls, residential complexes, hospitals, office centers – one architecture for different scenarios.



ENVIRONMENTAL FRIENDLY

LiFePO₄ batteries are cobalt-free, have a long life cycle, and meet modern environmental standards.



RELIABLE IP55 HOUSING

Protects the system from dust and water, allowing safe installation both indoors and outdoors.

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INTELLIGENT MANAGEMENT PLATFORM

Together with the physical energy storage system, you get a built-in cloud monitoring and management platform, developed by our own team taking into account the requirements of critical infrastructure and in accordance with European standards and local market specifics.

MAIN ADVANTAGES

Comprehensive monitoring and control in real time:

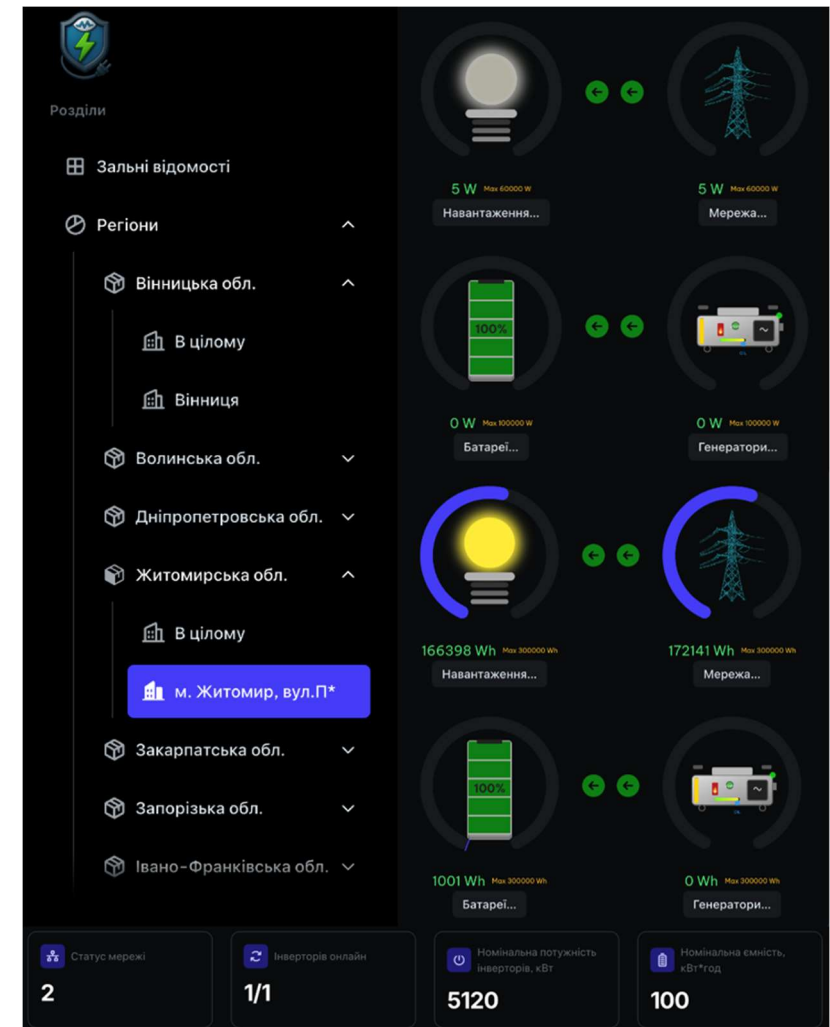
- Charge/Discharge Indicators
- Economic performance indicators
- Prices of consumed/sold energy
- Capacity status
- Consumption infographic

Operational management and analytics – automatic response to tariff changes, reservations, and balancing.

Complete autonomy and cyber protection – complete independence from Chinese cloud services, own data protection algorithms.

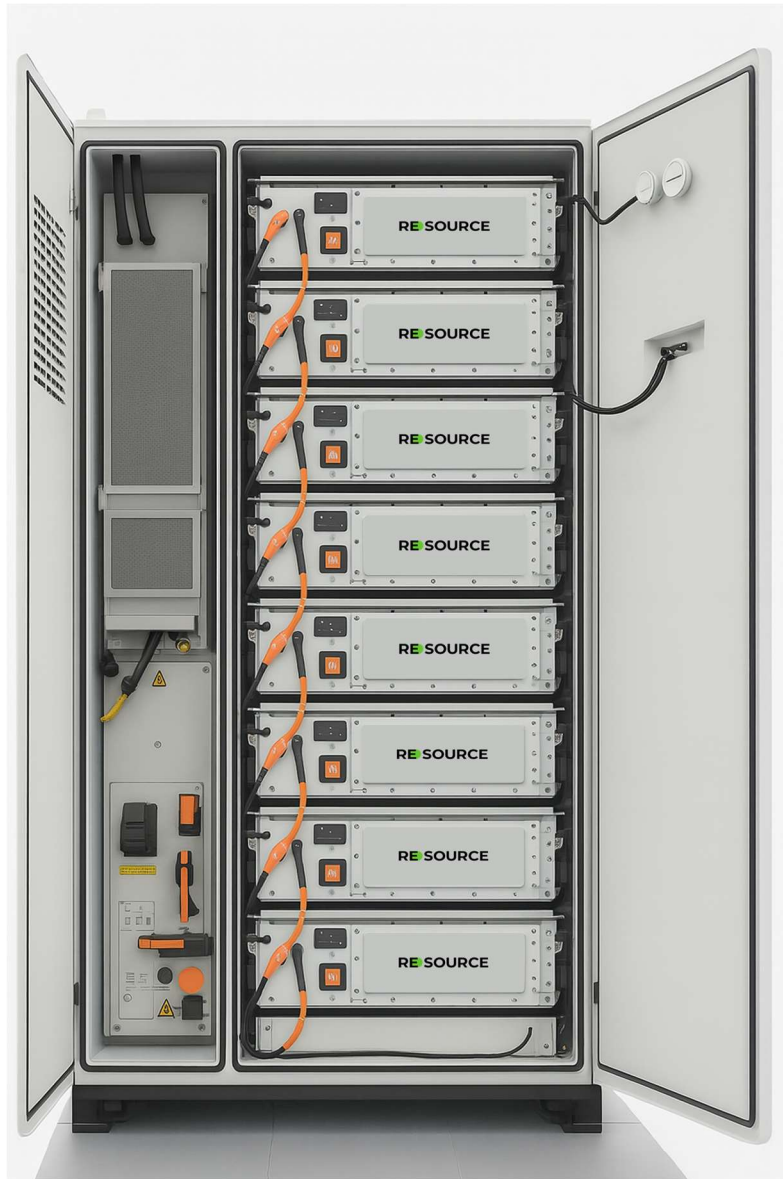
WHY IS THIS IMPORTANT?

- Reduces the human factor in decision-making
- Increases equipment durability through optimal charging strategy
- Minimizes risks and maximizes financial returns from using the system



Technical characteristics of the RESOURCE system GRID FLOW 418K

System type	Liquid-cooled energy storage system
AC output frequency and voltage:	50/60Hz; 3L/N/PE 380, 400Vac
Network type:	Three phases
Energy capacity configuration (kWh):	418
Dimensions (W x D x H, mm):	1300x1300x2340
Approximate weight (kg):	3500
Battery operating voltage (V):	1164.8~1500 DC
Battery chemical composition:	LiFePO ₄
Enclosure protection level (IP):	IP55
Scalability	Up to 10 cabinets per DC combiner
System certification:	UL1973, UL9540A, IEC/EN62619, IEC/EN63056, IEC/UL60730, IEC/EN61000 FCC Part15, UN38.3
Installation type:	Floor-standing
Guarantee	10 years



Battery specifications

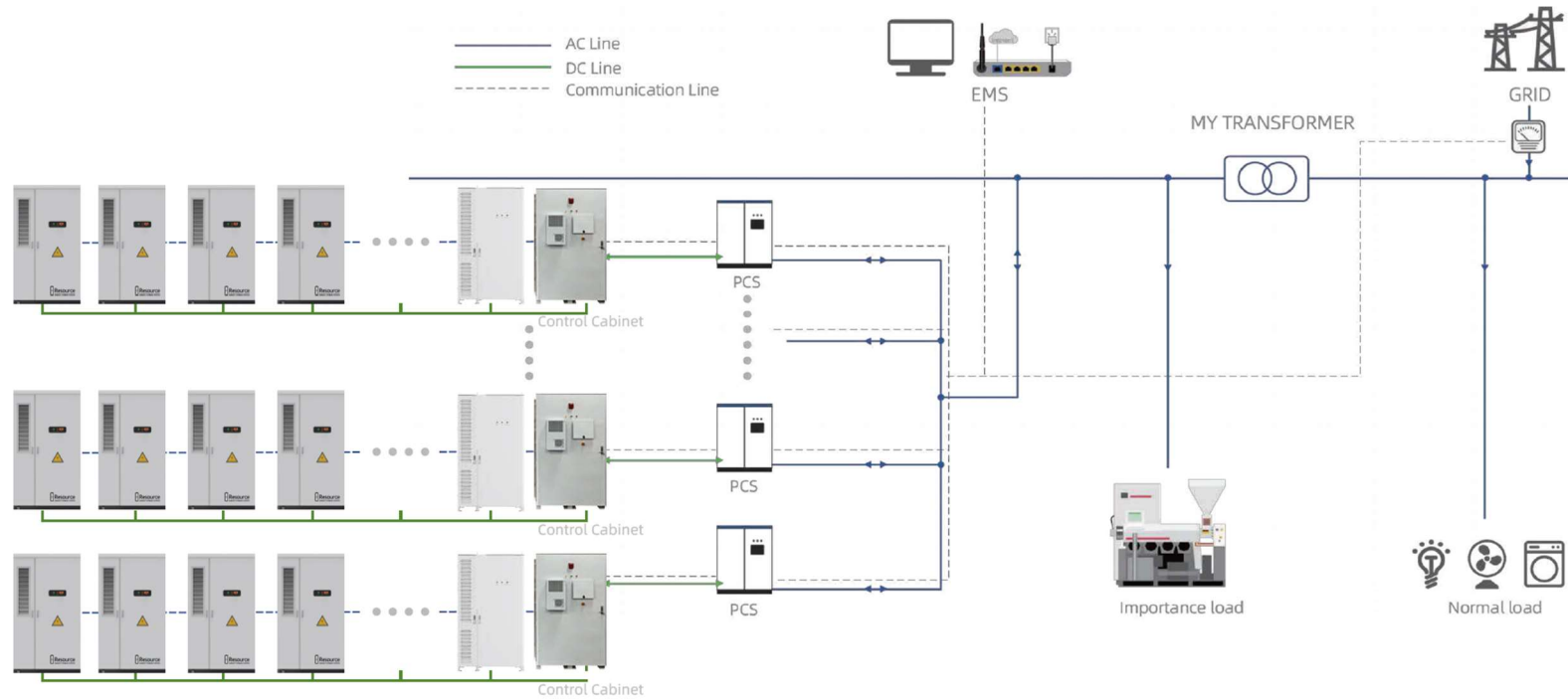
Nominal voltage of the battery module (V):	51.2V
Number of modules in the system:	8
Battery capacity:	314Ah
Battery capacity (kWh):	240KWH
BMS communication:	CAN, RS485, Wi-Fi
Support for parallel BMS connections:	3 sets
Maximum charging current (A):	100A
Maximum discharge current (A):	100A
Battery system weight (kg):	2400
Operating temperature range (°C):	Charge: 0~55°C/ Discharge: -20°C~55°C
Cyclic resource:	≥8000 at DoD 80%, t ≤ 25°C
Battery module certification:	CE, IEC62619, IEC62040, UN38.3, MSDS



Inverter specifications

Rated AC power:	215 kVA – 1.72 kVA (from 1 – 8 modules)
Max DC power	up to 1897 kW
Input DC voltage range	1000–1500 V
Full DC operating range (charge/discharge)	1070–1500 V
Maximum DC current per branch	201 A
AC network type	3 phases, three-wire
Rated AC voltage	690 V (tolerance -15% ~ +10%).
Network frequency	50/60 Hz (tolerance ±5%)
Power Factor (PF)	adjustable from -1 to 1, typical 0.99
Harmonic current distortion (THDi)	≤ 3%
Max. system efficiency	98.5%
Dimensions (W×H×D)	2200×2160×1300 mm.
Case protection	IP54 / NEMA3R (outdoor version)
Operating temperature range	-20°C...+60°C (derating above +50°C)
Communication interfaces	RS485, Ethernet, CAN; support for Modbus TCP/RTU, IEC104, IEC61850 protocols

System diagram



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