

PARAMETERS

High-voltage Battery System

System Voltage Range	172.8 ~ 688.8 V
Single-Tower Capacity Range	20 ~ 60 kWh
Maximum System Capacity	240 kWh (4 towers in parallel)
Continuous Discharge Current	100 A
Continuous Charge Current	50 A
Operating Temperature	-20°C ~ 55°C (with heating)
Cooling Method	Natural Cooling
Altitude	<2000m
Communication	RS 485 / WiFi / Bluetooth
Protection Rating	IP55
Certifications	IEC 62619, CE, UN 38.3, DGM, MSDS
Master Module Dimension (W x D x H)	590 x 390 x 132 mm
Base Dimension (W x D x H)	590 x 390 x 73 mm

Low-voltage Battery System

System Voltage Range	43.2 ~ 57.4 V
Single-Tower Capacity Range	5 ~ 60 kWh
Maximum System Capacity	240 kWh (4 towers in parallel)
Continuous Discharge Current	100A(5kWh), 200A(≥5kWh)
Continuous Charge Current	50A(5kWh), 100A(10kWh), 150A(15kWh), 200A(≥20kWh)
Operating Temperature	-20°C ~ 55°C (with heating)
Cooling Method	Natural Cooling
Altitude	<2000m
Protection Rating	IP55
Communication	RS 485 / WiFi / Bluetooth
Certifications	IEC 62619, CE, UN 38.3, DGM, MSDS
Master Module Dimension (W x D x H)	590 x 390 x 102 mm
Base Dimension (W x D x H)	590 x 390 x 73 mm

PARAMETERS

Unified Battery Module (Used for both LV and HV systems)

Cell Chemistry	LFP
Battery Module Capacity	5 kWh
Scalability	12S or 12P
Continuous Discharge Current	100 A
Continuous Charge Current	50 A
Module Balancing Current	5 A
Operating Temperature	-20°C ~ 55°C (with heating)
Cooling Method	Natural Cooling
Altitude	<2000m
Cycle Life	8000
Protection Rating	IP55
Dimension (W x D x H)	590 x 390 x 133 mm
Weight	50 kg
Certifications	IEC 62619, CE, UN 38.3, DGM, MSDS

Smart Charging Module (Optional for HV Battery)

Power	7 kW
Output Voltage Range	200 ~ 500 V DC
Charging Cable	2m
Charging Port	CCS2
Cooling Method	Air Cooling
Function	Plug-and-charge / Scheduled charging
Operating Temperature	-20°C ~ 55°C
Protection Rating	IP55
Dimension (W x D x H)	590 x 390 x 215 mm



POWERROAD Renewable Energy Co., Ltd.

18th Floor, F5 Building, Xiamen Software Park III, Jimei District, Xiamen, Fujian, China 361023

+86 592 5558101

sales@poweroad.com

www.poweroad.com

POWERROAD
202605 EN



www.poweroad.com



Follow us on LinkedIn



META Node

Stacking Battery Solution

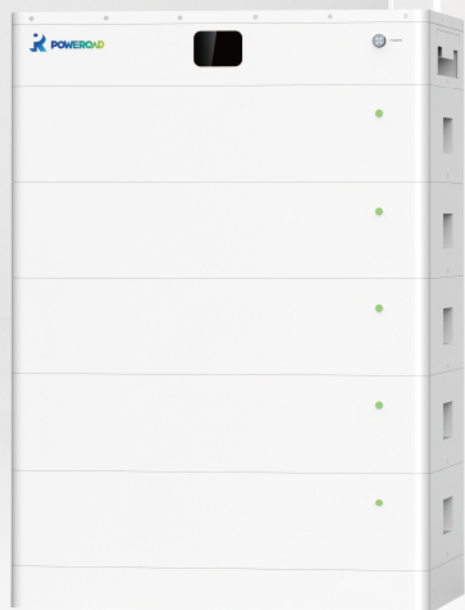
Innovative Low-Voltage / High-Voltage Configurations



META Node

Stacking Battery

Meta Node is Poweroad's new platform-based residential and small C&I ESS solution, with a unified 5kWh battery module, flexible low-voltage and high-voltage configurations, integrated fire safety protection, optional low-temperature charging down to -20°C, and optional high-efficiency DC EV charging.



Wider Applications, Less Stock.

Master Module
High-voltage / Low-voltage

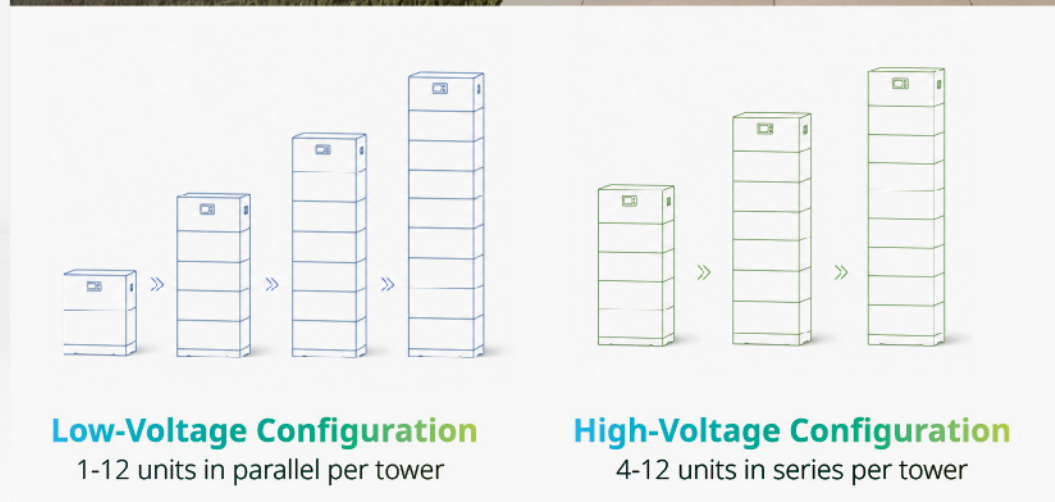
Up to 4 towers in parallel
Max. **240 kWh**

Unified Battery Module
5 kWh

Base

Multi-Layer System Protection

- BMS Monitoring**
Real-time protection and intelligent management
- Integrated Fire Protection**
Active detection and rapid response for safety
- IP55 Outdoor Protection**
IP55-rated protection supports reliable outdoor and indoor installation



All-Weather Reliability

-20°C

Freezing Cold

55°C

Scorching Heat

- Wider Applications, Less Stock**
One module for HV series connection and LV parallel expansion, cover more applications with fewer SKUs
- Grow with Your Needs**
Max.12 packs per tower, 4 towers in parallel, 5-240 kWh capacity
- All-Weather Reliability**
Built-in heating & IP55 protection for indoor/outdoor reliability
- Multi-Layer Safety**
Integrated fire safety module, BMS Monitoring
- EV DC Charging Ready**
With direct DC EV charging support, this system enables faster, more efficient charging
- Smart Energy Coordination**
Hybrid inverter integration for solar self-consumption, backup power, peak shaving, and VPP-ready applications

Poweroad APP & Web Portal

Poweroad IoE APP
For Homeowners & Installers

Unified Web Portal
For Distributors

Powerful digital tools to reduce O&M cost and improve energy efficiency.

Unlock Value of Your Home Energy

- EV DC Charging*
- PV Self-consumption
- Backup Power
- VPP-ready

*Optional for HV Battery