

EENOVANCE COMPANY PROFILE

Shenzhen EEnovance Energy Technology CO., Ltd.

www.eenovance.com

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EENOVANCE

Shenzhen EEnovance Energy Technology CO., Ltd.

Shenzhen EEnovance Energy Technology CO., Ltd. (EENOVANCE) , since its foundation in 2020, has always been at the forefront of the energy storage industry, innovating for customer needs with its forward-looking R&D layout and experienced team. We focus on providing high-quality products and services for residential, Commercial & Industrial, Grid and utility-scale. Relying on our core self-developed technologies, combined with the highly integrated features of our energy storage products, we are committed to providing one-stop solutions for the whole chain of energy storage application scenarios, such as renewable energy consumption, peak shifting and frequency regulation, grid expansion, power quality, backup power, micro-grids, virtual power plants, and others.

Company Strength



Headquarter
Shenzhen, China



Staff
200+



R&D Staff
30%



Production Base
20000+m²



Global Products Underwriter
CHUBB

Eenovance's
revenue compounded growth rate of

238%. (2021-2023)





R&D Strength

Eenovance emphasizes on products innovation and has excellent strength in R&D. We have a first class R&D team and advanced laboratory and R&D equipment to drive product R&D to ensure that Eenovance keeps a strong competitiveness in the industry.



10+ yrs of experience in the Renewable Energy



10+ yrs of experience in developing and delivering Li-ion battery ESS



10+ yrs of experience in PACK and ESS production

Certificates & Patents



Certificates

- ✓ UN
- ✓ NFPA
- ✓ UL
- ✓ CB
- ✓ UKCA
- ✓ IEC



ISO System

- ✓ ISO9001 Quality Management System
- ✓ ISO14001 Environmental Management System
- ✓ ISO45001 Occupational Safety and Health Management System



Patents

Patents in the ESS field
50+

Manufacturing

We have advanced production capacity, a higher degree of automation manufacturing, and has reached a long-term strategic partnership with a number of industry-leading enterprises.

We insist on international top-tier brands (Panasonic, ST, etc.) as the procurement standard for key components. Songshan Lake Base has achieved digital and standardized production in the manufacturing center.



Advanced Production Control

- Fully automatic sorting equipment
- Fully automatic laser welding equipment
- Fully automatic aging system
- Advanced MES system to monitor the whole production process



Top Brand Component

Adoption of international top-tier brands for core components further guarantees product quality.



Strict Quality Control

Mature and strict quality control standards and processes, system-wide process control and traceability.



Robust QMS

ISO9001、ISO14001、
ISO45001

Global Network

Headquarter

Shenzhen, China

Production Bases

Shenzhen, China
Dongguan, China

Subsidiaries

Köln, Germany
Pretoria, South Africa
California, US

Eenovance's local team provides comprehensive technical support to customers, with 24 hours quick online and offline response, as well as technical training sessions for dealers and installers.



Map source: GS(2016)1611
Supervised by
the Ministry of Natural Resources of the PRC

Our Team

We always uphold the principle of people-oriented, actively introduce outstanding talents and energize the innovative development of the company. We are committed to creating a fair, diversified and inclusive working environment, continuously improving employee welfare, comprehensively protecting employee rights and interests, providing diversified career development opportunities for employees, and continuously improving the training system to help employees achieve growth. Meanwhile, we take employee health and safety seriously, implementing rigorous safety policies to protect both their physical and mental well-being.



Follow the ESG Standards



As a member of the Trust and Integrity Enterprise Alliance, we closely follow the international ESG (Environmental, Social, Governance) standards, and uphold corporate social responsibility in collaboration with our partners.

⊕ With a cumulative shipment of 200,000+ sets ESS, it provides green power for people's life and company development, and boosts global green energy development.

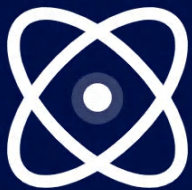
Business Matrix



**Energy Storage on
Power Consumption**



**Energy Storage on
Grid-side**



Core Control System



EENOVANCE Diverse Energy Storage Products



MANA 5.3



MANA 5.12-S



MANA 5.12 Ultra



MANA 14.33



CHAKRA 2.5-H Pro



RT 5320



RT 11.77



RT 2560



RT 5.12-H



E-MATE 50-61-A



E-MATE 100-221-A



E-MATE 200-418-L



G-Power 5016-L

Residential Energy Storage

MANA Series

5.12kWh ~ 16kWh (LV)



More usable energy, 100% DOD



Safe & Reliable, LFP cell, 6000 cycles



Modular design, support Max. 15 batteries in parallel



Perfect compatibility, compatible with major PCS brands



MANA 5.3/10.6/16.0



MANA 5.12 Ultra



MANA 14.33



MANA 5.12-S

Residential Energy Storage



RT 2560 / RT 11.77 / RT 5320

RT Series

2.56kWh ~ 11.77kWh (LV)



Safe & Reliable, LFP cell, 6000 cycles



Modular design, support Max. 15 batteries in parallel



Easy installation, Rack / Wall / Cabinet-mounted

Residential Energy Storage

CHAKRA Series

5kWh ~ 25.6kWh (HV)



Internal plug design and no additional wiring



2.5 kWh modular design, Max. 10 modules per stack, support 4 stacks in parallel



Smart control, remotely monitoring and upgrade



CHAKRA 2.5-H Pro

Small C&I Energy Storage

RT-H Series

20.48kWh ~ 61.44kWh (HV)



One button ON/OFF, automatic assignment



5.12 kWh modular design, Max. 12 modules per stack, support 4 stacks in parallel



Quick plug design, easy wiring

RT 5.12-H



E-MATE Series C&I PV&ESS Solution

E-MATE series C&I PV&ESS products adopt 100Ah long-life batteries, which are equipped with efficient air/liquid cooling and thermal management system, gas fire protection system, PCS and EMS. Further, it supports up to 6 sets of parallel units on AC or DC side.

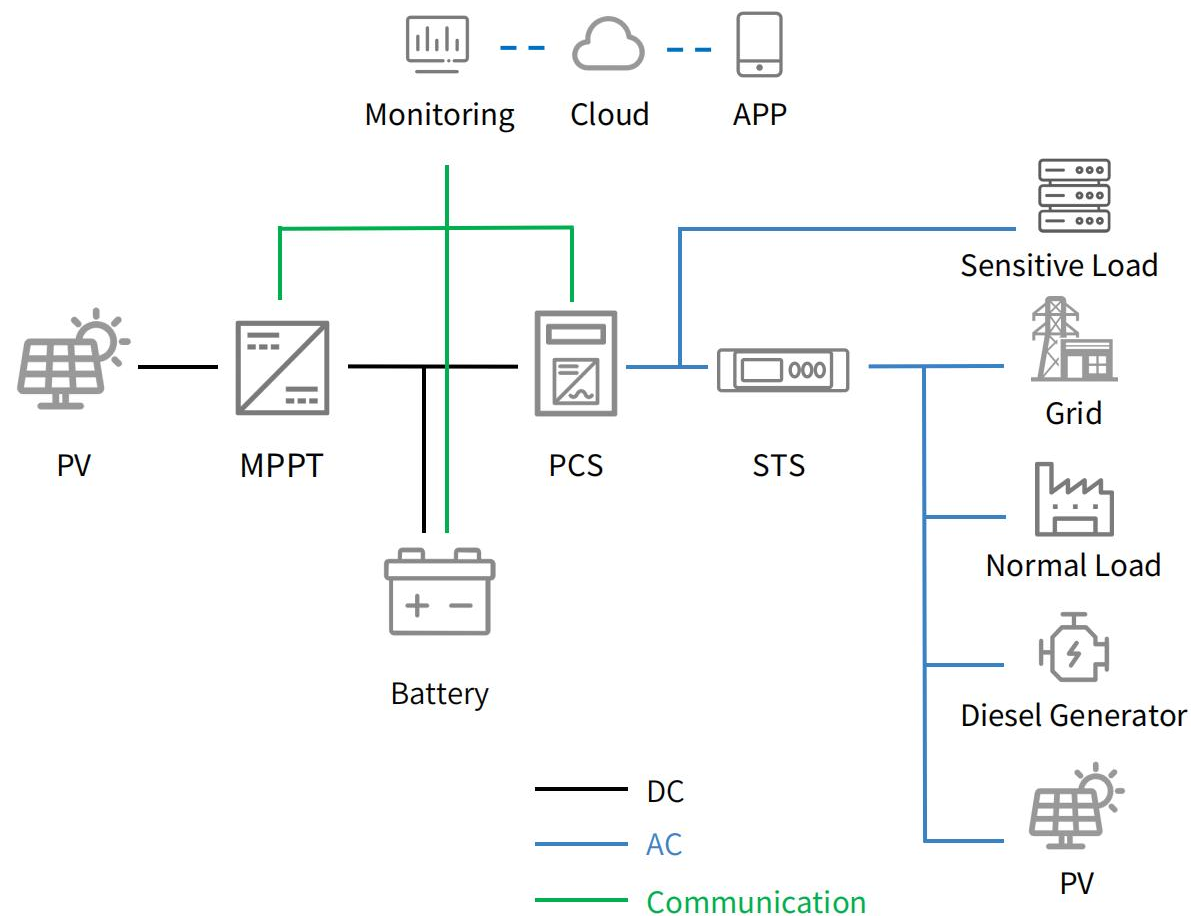
Eenovance provides a comprehensive set of flexibly configurable energy storage solutions for small-medium scale C&I ESS applications based on diversified market demands.

Applicable Model

- ✓ E-MATE 50-61-A (50kW/100kWh)

Applications







- ✓ Peak shaving
- ✓ Backup power
- ✓ Dynamic capacity expansion
- ✓ PV+ESS+EV Charging
- ✓ Micro-grid
- ✓ Power quality control
- ✓ ...



E-MATE Series C&I PV&ESS

E-MATE 50-61-A

Air Cooling All-in-One ESS

-  Flexible applications, such as on-grid, on/off-grid, off-grid, etc.
-  Multi-level early warning and fire suppression design
-  Front maintenance & modular design, facilitates station deployment and equipment maintenance
-  High integration, supports AC and DC integration, save on-site installation and debugging workload
-  Flexible expansion, supports up to 6 sets of parallel units on AC or DC side
-  Supports remote monitoring, troubleshooting and data analysis



E-MATE Series C&I ESS Solution

E-MATE series C&I energy storage products adopt 314Ah high-capacity and long-life batteries, which are equipped with efficient air/liquid cooling and thermal management system, gas fire protection system, PCS and EMS. They feature modular design, flexible configuration, easy installation and maintenance.

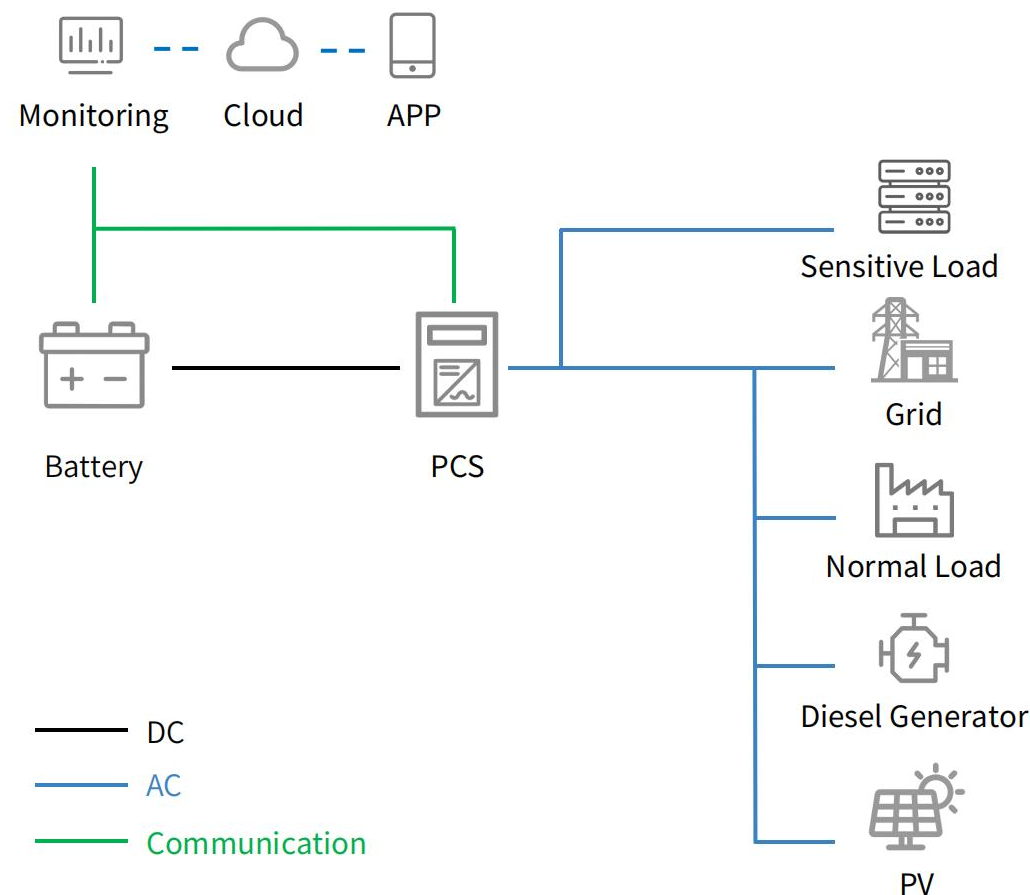
Eenovance provides a comprehensive set of flexibly configurable energy storage solutions for small-medium scale C&I ESS applications based on diversified market demands.

Applicable Models

- ✓ E-MATE 100-221-A (100kW/221kWh)
- ✓ E-MATE 200-418-L (200kW/418kWh)

Applications

- ✓ Peak shaving
- ✓ Backup power
- ✓ Dynamic capacity expansion
- ✓ PV+ESS+EV Charging
- ✓ Power quality control
- ✓ ...








E-MATE Series C&I Energy Storage



E-MATE 100-221-A







Air-cooled C&I All-in-One Storage Cabinet

-  Multi-level early warning and fire suppression design
-  Front maintenance & modular design, facilitates station deployment and equipment maintenance
-  High integration, supports AC and DC integration, save on-site installation and debugging workload
-  Efficient thermal management system, system temperature difference $\leq 7^{\circ}\text{C}$, operating temperature rise $< 10^{\circ}\text{C}$
-  Supports remote monitoring, troubleshooting and data analysis

E-MATE Series C&I Energy Storage

E-MATE 200-418-L

Liquid-cooled C&I All-in-One Storage Cabinet

-  Multi-level early warning and fire suppression design
-  Front maintenance & modular design, facilitates station deployment and equipment maintenance
-  High integration, supports AC and DC integration, save on-site installation and debugging workload
-  Efficient thermal management system, system temperature difference $\leq 7^{\circ}\text{C}$, operating temperature rise $< 10^{\circ}\text{C}$
-  Supports remote monitoring, troubleshooting and data analysis
-  Supports one-to-one management for batteries cluster, reduce the risk of thermal spread and prevent inter-cluster circulation



G-Power Series ESS on Grid-side

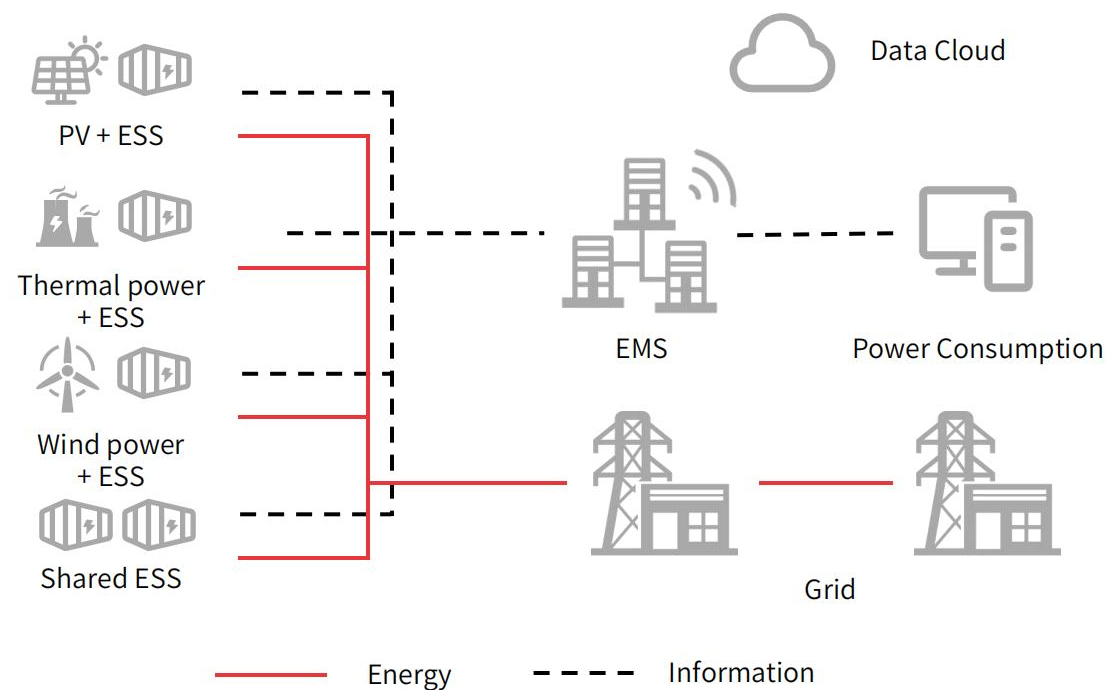
G-Power 5016-L is a latest containerized battery system for energy storage applications of the Grid. It features a 20-foot standard container, with deep integration, safety, reliability, intelligence and high efficiency.

Applicable Models

- ✓ G-Power 5016-L

Applications

- ✓ Renewable energy consumption
- ✓ Peak Regulation & Frequency Modulation
- ✓ Planning curve
- ✓ Grid expansion
- ✓ Black start
- ✓ Large-scale micro-grid
- ...



G-Power Series ESS on Grid-side

G-Power 5016-L

Containerized Battery System



Deep Integration

- High energy density
- 4S deep integration
- Modular Design
- Small footprint



Safe & Reliable

- Fire safety
- Electrical safety
- Isolation and fire resistance
- High ingress protection rating



Smart & Efficient

- High conversion efficiency
- Low consumption of auxiliary power
- Intelligent Management



Self-developed Core Control System - BMS

CUSTOMER NEEDS



System Safety



O&M Efficiency



Expandability



System Performance

ADDRESSING

Proactive Safety

Three levels of fault protection, full life cycle monitoring, and early warning of thermal runaway ensure stable system operation.

Smart O&M

Comprehensive fault localization and remote monitoring, to achieve rapid response and accurate O&M.

Flexible & Expandable

Supports multi-voltage platforms and number of battery clusters for rapid capacity expansion and customized solutions.

Precise SOX

High-precision SOX self-learning algorithm to enhance the depth of battery charging and discharging, and realize precise monitoring and control of the system.

Self-developed Core Control System - PCS



String PCS GRFM-215kW

- Adapt to the high proportion of renewable energy access and power electronics equipment.
- It can greatly increase the penetration rate of renewable energy and enhance the carrying capacity of the grid.



Digital Control Center

Adopting DSP+CPLD digital control core, three-level modular design, up to 99% efficiency; integrated level 2 BMS.



Black Start

Ability to start and support restoration after crash, multiple units reboot to set up the grid voltage.



Quality of Power

Pure sine wave output, low current harmonic content, no pollution and no impact on the power grid.



Weak Grid Operation

Stable operation under extremely weak grid with SCR=1.03.



Inertia Support

Simulation of synchronous generator model VSG to provide inertia support after system disturbances and reduce the rate of change of frequency.



Communication Response

Supports IEC61850, IEC104, Modbus TCP protocols and fast communication interfaces, milliseconds response.

Self-developed Core Control System - EMS

Eenovance's self-developed EMS is based on Linux operating system, integrates edge computing and cloud platform, leverages big data and AI technology, empowers the energy storage system, achieves smart scheduling and O&M.

Cloud Integration

- A comprehensive solution for local monitoring, coordinated control, web presence, and mobile app
- Support remote operation and maintenance

Platform Software

- Support energy storage equipment combination access, support IEC61850, IEC104, Modbus and other communication protocols
- Configurable and modelable device data to build energy storage systems of different capacities

Diversification

- Flexible applications: power source-side / Grid-side / C&I / residential ...
- Variety of scheduling strategies, full life cycle management, energy optimized

Reliable in Real Time

- Based on a complete real-time data acquisition system, build a reliable operation scheme to monitor and manage the core data of the energy storage system at multiple levels.

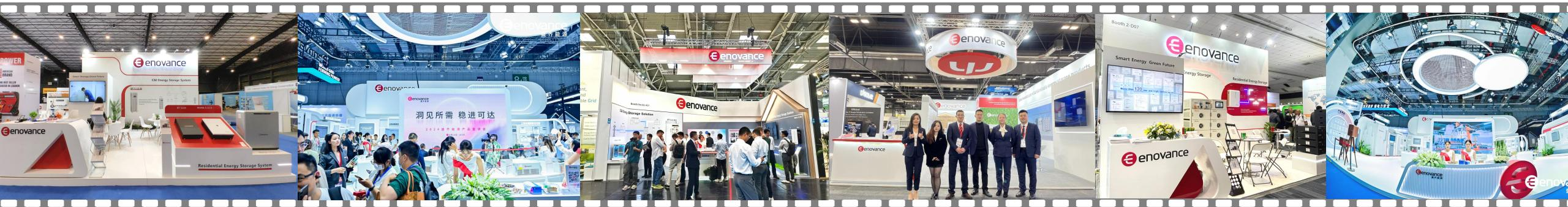
Industrial-grade Design

- Local controller with high-performance 4-core ARM Cortex-A55 processor
- Touch - control integrated, nice UI interface and user experience



Global Marketing

Eenovance actively works on a variety of online and offline marketing events to promote interactions with customers, speed up brand promotion, and expand a broader market space and, and empowers global clients to grow together.





Diverse Applications


We are deeply involved in the energy storage industry with a globally oriented business network. Our core products hold authoritative certifications such as UN, IEC, UL, and NFPA, which are widely used in Europe, North America, Africa, Asia-Pacific and beyond.



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