EENOVANCE

Products and Solutions

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Energy Technologies Build Life Better

Visionary Insights, Solid Progress

As a comprehensive energy solution provider, we agilely respond to our customers' needs. Insisting data driven and empirical analysis, we gain deep insights into the facts of science, delivering reliable and innovative products with localized services to users worldwide.

Rooted in our engineering DNA, we relentlessly seek breakthroughs in energy technologies with ambition and competency. Together with our global partners, we strive to co-create a sustainable and better life for users throughout the world.

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About Eenovance

Who we are?

Eenovance is a tech company dedicated to innovative energy storage solutions. Our team of skilled professionals brings a wealth of R&D experience to the table. We offer a variety of products, such as home energy storage inverters, commercial energy storage systems, and batteries. With our proprietary technology, we're here to provide tailored solutions that meet your specific energy needs. Let's work together to find the best fit for you!

Our Mission

Energy Technologies Build Life Better

Our Vision

Aspiring to be globally acclaimed energy solution provider

Our Value

Quest for Truth
Practical Innovation
Diversified Integration
Aspire for Tech

Our Main Business

Comprehensive Energy Storage Solutions Provider

EENOVANCE Cloud

- Storage Inverter
- Battery Pack
- Integrated Power Station Solutions
- Energy Storage System Solutions
- Battery Product Solutions
- EMS
- PCS
- BMS

Why Eenovance

30%
R&D Staff

20000+m²
Production Base

CHUBB
Global Products Underwriter

4+
Global Offices and Service Centers

Professional Team, Reliable Products, Dedicated Services

We approach business development with a calm mindset, supported by a professional and friendly team ready to meet your needs. Our localized teams ensure that our technology and services seamlessly integrate into local communities, enhancing their quality of life. You can rely on us as your immediate partner for support.

We prioritize product research and development and the integration of new technologies, with core self-developed capabilities in EMS, PCS, and BMS.

We maintain strict standards in our manufacturing processes, sourcing key components only from top international brands like Panasonic, ST, and Socomec. We prioritize safety and quality, ensuring our customers receive reliable and secure products you can trust.

Our products have received international certifications from UN, IEC, UL, NFPA, and are widely used in many countries around the world. They've been tested in the market and deliver reliable performance you can count on.

We adhere to international ESG standards and collaborate with our upstream and downstream partners to sign corporate social responsibility agreements, jointly fulfilling our corporate social responsibilities.

Energy Your Home,
No Bill Worries.

We offer a smart home energy storage solution with high-efficiency inverters, batteries, and smart monitoring. It will keep your home powered up with comprehensive green energy, making you less reliant on the grid, and let city and countryside homes live self-sufficiently with green energy.

Maximize Your Business Profits,
Power Up Your Success!

We offer commercial & Industry energy storage solutions for global clients. Our systems ensure business continuity with reliable emergency power, optimize costs via smart peak-off-peak management, and enhance industrial efficiency, safeguarding continuous operations especially in critical sectors. Discover how our technology drives smarter, greener energy usage for your business.

Your Energy, Your Community

Large-scale battery energy storage systems are a promising technology for increasing the share of renewable energy available to the grid and energy consumers.
Eenovance G-Power 5016-L battery system is designed for utilities and large-scale commercial projects. It features a 20-foot standard container, with deep integration, safety, reliability, intelligence and high efficiency.

Residential Battery

MANA 5.12 Ultra | Low Voltage

Safe and Reliable
Meet diverse home energy needs with LFP batteries that offer 6000 cycles for longer-lasting performance, and with IP65 protection, ensuring higher safety for your peace of mind.

Hassle-Free Setup
Easily choose between floor or wall installation, and effortless maintenance.

Flexible and Expandable
Easily connect up to 15 units in parallel, don't worry about future power increases in your home.

Smart Home
Use your smartphone to control your home energy freely.

Datasheet

CE UN38.3

Model	MANA 5.12 Ultra
Performance	
Cell technology	LFP ($LiFePO_4$)
Battery usable energy [1]	5.120 kWh
Nominal voltage	51.2 V
Operating voltage	448 - 56.16 V
Max. charge and discharge current [2]	100 A
Communication	
Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232 / Wi-Fi
General Specification	
Dimension (W×D×H)	470×160×635 mm
	18.5×63×25 inch
Weight	48.8 kg (107.5 lbs)
Installation	Floor stand or wall mounted
Operating temperature [3]	Charge: 0 to 50°C (32 to 122*F) Discharge: -15 to 50°C (5 to 122°F)
Environmental humidity	≤ 95%RH (No condensation)
Ingress protection rating	IP 65
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C / 0.5C, 70% EOL
Scalability	Max 15 batteries in parallel
Application	ON Grid / ON Grid + Backup / OFF grid
Compatible inverters	Refer to compatible inverter list (Compatible with major PCS brands)
Standard Compliance	
Compliance	UN38.3 / IEC62619 / IEC61000 / IEC62040-1 / FCC / UL1973 / UL9540A (More available upon request)
Ordering and Deliverable Part	
Part	MANA 5.12 Ultra Battery
	MANA 5.12 Ultra Parallel cable
	MANA 5.12 Ultra to PCS cable

(1) Test conditions: 100% depth of discharge (DOD), 02C rate charge & discharge at 25°C.
(2) There is 0.5C or 1C configurations optional in factory default.
(3) Charge/discharge derating occurs when the temperature is below 0'C or above 45°C
(4) Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first

Residential Storage Inverter

SQ 6kW-LV-1P Hpro | Single Phase

Stronger Compatibility
- IP65 design, more installation scenario
- Smart fan control, less noise

Scalable & Flexible
- 10 units in parallel (single-phase) in on/off grid mode
- 3 units in parallel to built three phase in on/off grid mode

Easy Installation
- Opened front panel for wiring easily
- Wireless current limiter (CT) on grid side

Smart Home
- Multiple operating modes to optimize energy utilization
- Remote real-time monitoring via WiFi/Bluetooth

Datasheet

Model	SQ 6kW-LV-1P Hpro

Battery Input Parameters

Supported battery type	Li-Ion or Lead-acid
Nominal battery voltage	48 V
Battery input voltage range	40~60 V
Max. charge voltage	≤60 V (Configurable)
Max. charge / discharge current	120 A / 130 A / Configurable
Battery capacity (Recommend)	100~2000 Ah
Battery Communication	CAN

PV String Input Parameters

Max. DC input power	4000 × 2=8000 W
Max. DC input voltage	500 V
MPPT voltage range	120 ~ 450 V
Start-up voltage	150 V
Max. input current	15 × 2 =30 A // 2 MPPT channels
PV Switch	Yes

AC Output Parameters (Back-Up) (Feed to essential load)

Max. output power	6000 W
Max. / Peak output apparent power	6000 VA / 12000 VA
Max. output current	28 A
Nominal output voltage	220 V / 230 V / 240 V (Configurable) 1 phase
Nominal output frequency	50Hz / 60Hz (±0.2%) (Configurable)
Max. bypass current	40 A
Shift time (Bypass and inverter)	10ms
Output THD (Resistor load)	<3%

AC Input Parameters (On-grid)(Bypass to essential load & Charge the battery/ Feed to home load) (GEN)

Max. (apparent) power for bypass / battery charging/home load feeding	6000 W
Nominal input / output voltage	220 V / 230 V / 240 V (Auto adjusted)
Nominal input / output frequency	50Hz / 60Hz (Auto adjusted)
Max. bypass current	40 A
Shift time (Bypass and inverter)	10ms
Sell Power to Grid	Yes
Parallel Function	Max. 10 units in parallel
Indepent Generator Port	Yes

Efficiency

Max. efficiency	97.60%
Max. battery to load efficiency	94.00%
Europe efficiency	97.00%
MPPT efficiency	99.90%

Protection

Protection	Battery over charge / discharge, Over temperature, Output over load, Output short circuit, Output over voltage

Monitoring&HMI

Monitoring	WIFI / Bluetooth
HMI	3.5 inch touchscreen interface

Certifications & Standards Compliance

Grid regulation	IEC 61727 / IEC 62116 / EN50549 / ABNT NBR / MEA,PEA (more available upon request)
Safety regulation	IEC / EN62109-1/2, IEC 62477-1
EMC	IEC / EN61000-6-1/3

General Parameters

Ingress protection	IP65
Operating temperature range	-25°C~60°C
Net weight / Gross weight	25 kg / 27 kg
Product size / Packing size (WxDxH)	402×227×536 mm / 460×315×640 mm

Residential Storage Inverter

SQ 4kW/6kW-LV-1P Ecco | Single Phase

Stronger Compatibility & Stability
- Compatible with Li-ion and Lead-acid batteries
- UPS 10ms switching time for seamless power continuity

High Efficiency
- Max. efficiency up to 97.6%
- High battery input current up to 130A
- Zero export control to make full use of PV power

Easy Installation
- Opened front panel for wiring
- Small in size, light in weight
- Free IP41 magnetic dust cover

Smart Home
- User-friendly segment display interface and operation buttons
- Remote real-time monitoring via WiFi/Bluetooth

Datasheet

Model	SQ 4kW-LV-1P Ecco	SQ 6kW-LV-1P Ecco
Battery Input Parameters		
Supported battery type	Li-Ion or Lead-acid	Li-Ion or Lead-acid
Nominal battery voltage	48 V	48 V
Battery input voltage range	40~60 V	40~60 V
Max. charge voltage	≤60 V (Configurable)	≤60 V (Configurable)
Max. charge / discharge current	60 A (Configurable) / 80 A (Configurable)	100 A (Configurable) / 130 A (Configurable)
Battery capacity (Recommend)	70~1000 Ah	100~2000 Ah
Battery Communication	CAN	CAN
PV String Input Parameters		
Max. DC input power	4500 W	4000 x 2=8000 W
Max. DC input voltage	500 V	500 V
MPPT voltage range	120 ~ 450 V	120 ~ 450 V
Start-up voltage	150 V	150 V
Max. input current	15 A // 1 MPPT channels	15 × 2 =30 A // 2 MPPT channels
AC Output Parameters (Back-Up) (Feed to essential load)		
Max. output power	4000 W	6000 W
Max. / Peak output apparent power	4000 VA / 8000 VA	6000 VA / 12000 VA
Max. output current	18 A	26 A
Nominal output voltage	220 V / 230 V / 240 V (Configurable) 1 phase	220 V / 230 V / 240 V (Configurable) 1 phase
Nominal output frequency	50Hz / 60Hz (±0.2%) (Configurable)	50Hz / 60Hz (±0.2%) (Configurable)
Max. bypass current	40 A	40 A
Shift time (Bypass and inverter)	10ms	10ms
Output THD (Resistor load)	<3%	<3%
AC Input Parameters (On-grid)(Bypass to essential load & Charge the battery/ Feed to home load)		
Max. (apparent) power for bypass/ battery charging / home load feeding	4000 W	6000 W
Nominal input / output voltage	220 V / 230 V / 240 V (Auto adjusted)	220 V / 230 V / 240 V (Auto adjusted)
Nominal input / output frequency	50Hz / 60Hz (Auto adjusted)	50Hz / 60Hz (Auto adjusted)
Max. bypass current	40 A	40 A
Shift time (Bypass and inverter)	10ms	10ms
Efficiency		
Max. efficiency	97.60%	97.60%
Max. battery to load efficiency	94.00%	94.00%
Europe efficiency	97.00%	97.00%
MPPT efficiency	99.90%	99.90%
Protection		
Protection	Battery over charge / discharge, Over temperature, Output over load, Output short circuit, Output over voltage	
Monitoring&HMI		
Monitoring	WIFI / Bluetooth	WIFI / Bluetooth
HMI	3 inch Segment display interface	3 inch Segment display interface
Certifications & Standards Compliance		
Grid regulation	IEC 61727 / IEC 62116 / MEA, PEA (more available upon request)	
Safety regulation	IEC / EN62109-1/2, IEC 62477-1	IEC / EN62109-1/2, IEC 62477-1
EMC	IEC / EN61000-6-1/3	IEC / EN61000-6-1/3
General Parameters		
Ingress protection	IP20	IP20
Operating temperature range	-25°C~60°C	-25°C~60°C
Net weight / Gross weight	10 kg / 12 kg	13.7 kg / 16 kg
Product size / Packing size (WxDxH)	307×133×430 mm / 420×220×520 mm	353×134×500 mm / 485×243×620 mm

Residential Battery

MANA 5.3/10.6/14.33 | Low Voltage

[MANA 5.3] [MANA 10.6] [MANA 14.33]

Safe and Reliable
Meet diverse home energy needs with LFP batteries that last up to 6,000 cycles, ensuring safety and reliability.

Hassle-Free Setup
Easily choose between floor or wall installation, and effortless maintenance.

Flexible and Expandable
Easily connect up to 15 units in parallel, don't worry about future power increases in your home.

Smart Home
Use your smartphone to control your home energy freely.

Datasheet

CE UN38.3 UK CA IEC RoHS

Model	MANA 5.3	MANA 10.6	MANA 14.33
Performance			
Cell technology	LFP ($LiFePO_4$)		
Battery usable energy [1]	5.324 kWh	10.649 kWh	14.33kWh
Nominal voltage	51.2 V	51.2 V	51.2V
Operating voltage	44.8 - 56.16 V	44.8 - 56.16 V	44.8~56.16V
Max.charge and discharge current [2]	100 A	200 A	280A
Communication			
Display	SOC status indicator, LED indicator		
Communication	CAN / RS485 / RS232 / Wi-Fi		
General Specification			
Dimension (W×D×H)	450×150×533 mm	550×160×836 mm	700x250x758.5 mm
	17.7×5.9×21.0 inch	21.7×6.3×32.9 inch	27.5x9.8x29.8 inch
Weight	46 kg (101.4 lbs)	89 kg (196.2 lbs)	141kg (310.81 lbs)
Installation	Floor stand or wall mounted		
Operating temperature [3]	Charge : 0 to 50°C (32 to 122°F) Discharge: -15 to 50°C (5 to 122°F)		Charge: 0 to 55°C (32 to 131°F) Discharge: -20 to 55°C (-4 to 131°F)
Environmental humidity	≤ 95%RH (No condensation)		
Ingress protection rating	IP 20		
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C / 0.5C, 70% EOL		
Scalability	Max 15 batteries in parallel		
Application	ON Grid / ON Grid + Backup / OFF grid		
Compatible inverters	Refer to compatible inverter list (Compatible with major PCS brands)		
Standard Compliance			
Compliance	UN38.3 / IEC62619 / IEC61000 (More available upon request)		
Ordering and Deliverable Part			
Part	MANA 5.3 Battery	MANA 10.6 Battery	MANA 14.33 Battcry
	MANA 5.3 Parallel cable	MANA 10.6 Parallel cable	MANA 14.33 Parallel cable
	MANA 5.3 to PCS cable	MANA 10.6 to PCS cable	MANA 14.33 to PCS cable

[1] Test conditions: 100% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.
[2] There is 0.5C or 1C configurations optional in factory default.
[3] Charge/discharge derating occurs when the temperature is below 0°C or above 45°C.
[4] Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first.

Residential Battery

RT 5320 / RT 11.77 | Low Voltage

Versatile Solutions
Meet diverse home energy needs with LFP batteries that last up to 6,000 cycles, ensuring safety and reliability.

Hassle-Free Setup
Easily choose between rack, wall, or cabinet-mounted, and effortless maintenance.

Flexible and Expandable:
Modular design, easily connect up to 15 units in parallel, don't worry about future power increases in your home.

Smart Home
Use your smartphone to control your home energy freely.

Datasheet

CE UN38.3 UK CA IEC RoHS

Model	RT 5320	RT 11.77
Performance		
Cell technology	LFP ($LiFePO_4$)	
Battery usable energy [1]	5.324 kWh	11.776 kWh
Nominal voltage	51.2 V	51.2 V
Operating voltage	44.8 - 56.16 V	44.8 - 56.16 V
Max.charge and discharge current [2]	104 A	205 A
Communication		
Display	SOC status indicator, LED indicator	
Communication	CAN/RS485 / RS232	
General Specification		
Dimension (W×D×H)	440×550×130 mm	440×600×220 mm
	17.3×21.7×5.1 inch	17.3×23.6×8.7 inch
Weight	46 kg (101.4 lbs)	80 kg (176.4 lbs)
Installation	Rack / Wall / Cabinet-Mounted	
Operating temperature [3]	Charge: 0 to 50°C (32 to 122°F) Discharge: -15 to 50°C (5 to 122°F)	
Environmental humidity	≤ 95%RH (No condensation)	
Ingress protection rating	IP 20	
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C / 0.5C, 70% EOL	
Scalability	Max 15 batteries in parallel	
Application	ON Grid / ON Grid + Backup / OFF grid	
Compatible inverters	Refer to compatible inverter list (Compatible with major PCS brands)	
Standard Compliance		
Compliance	UN38.3 / IEC62619 / IEC61000 (More available upon request)	
Ordering and Deliverable Part		
Part	RT 5320 Battery	RT 11.77 Battery
	RT 5320 Parallel cable	RT 11.77 Parallel cable
	RT 5320 to PCS cable	RT 11.77 to PCS cable

[1] Test conditions: 100% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.
[2] There is 0.5C or 1C configurations optional in factory default.
[3] Charge/discharge derating occurs when the temperature is below 0°C or above 45°C.
[4] Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first.

Residential Battery

CHAKRA 2.5-H Pro | High Voltage | 5.12kWh~25.6kWh

Safe and Durable
The LFP battery cells offer 6,000 cycles of longevity and an IP65 rating for enhanced safety, ensuring reliable performance in any conditions.

Hassle-Free Setup
Enjoy the convenience of plug-and-play installation—no external wiring required. Automatic ID assignment makes for quick and easy setup.

Flexible and Expandable
With a 2.5 kWh modular design, each cluster supports up to 10 packs, connecting up to 4 clusters for versatile energy solutions.

Smart Home
Control your home energy effortlessly via App or Web, keeping you connected anytime, anywhere.

Datasheet

CE UN38.3 IEC RoHS

Model	CHAKRA 2.5-H2 Pro	CHAKRA 2.5-H3 Pro	CHAKRA 2.5-H4 Pro	CHAKRA 2.5-H5 Pro	CHAKRA 2.5-H6 Pro
	CHAKRA 2.5-H7 Pro	CHAKRA 2.5-H8 Pro	CHAKRA 2.5-H9 Pro	CHAKRA 2.5-H10 Pro	
Performance					
Cell technology	LFP ($LiFePO_4$)				
Battery module	2.56 kWh, 51.2 V, 30 kg (67 lbs)				
Number of modules	2	3	4	5	6
	7	8	9	10	
Battery usable energy [1]	5.12 kWh	7.68 kWh	10.24 kWh	12.8 kWh	15.36 kWh
	17.92 kWh	20.48 kWh	23.04 kWh	25.60 kWh	
Nominal voltage	102.4V	153.6V	204.8 V	256.0 V	307.2 V
	358.4V	409.6 V	460.8 V	512.0 V	
Operating voltage	89.6 - 112.32V	134.4 - 168.48 V	1792 - 224.64 V	224 - 280.8 V	268.8 - 336.96 V
	313.6 - 393.12V	358.4 - 449.28 V	403.2 - 505.44 V	448 - 561.6 V	
Max.charge and discharge current [2]	50 A				
Communication					
Display	SOC status indicator, LCD indicator				
Communication	CAN / RS485 / RS232 / Wi-Fi				
General Specification					
Dimension (W×D×H)	570×370×525 mm	570×370×665 mm	570×370×805 mm	570×370×945 mm	570×370×1085 mm
	22.4×14.6×20.6 inch	22.4×14.6×26.1 inch	22.4×14.6×31.6 inch	22.4×14.6×37.2 inch	22.4×14.6×42.7 inch
	570×370×1225 mm	570×370×1365 mm	570×370×1505 mm	570×370×1645 mm	
	22.4×14.6×48.2 inch	22.4×14.6×53.7 inch	22.4×14.6×59.2 inch	22.4×14.6×64.7 inch	
Weight	86 kg (189.60 lbs)	117 kg (257.94 lbs)	148 kg (326.28 lbs)	179 kg (394.63 lbs)	210 kg (462.97 lbs)
	241 kg (531.3 lbs)	272 kg (599.66 lbs)	303 kg (668.00 lbs)	334 kg (736.34 lbs)	
Installation	Floor stand				
Operating temperature [3]	Charge : 0 to 50°C (32 to 1227) Discharge: -20 to 50°C (-4 to 1227F)				
Environmental humidity	≤ 95%RH (No condensation)				
Ingress protection rating	IP 65				
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C/05C, 70% EOL				
Scalability	Max 10 modules per stack, 4 stacks in parallel				
Application	ON Grid / ON Grid + Backup / OFF grid				
Compatible inverters	Refer to compatible inverter list (Compatible with major PCS brands)				

Standard Compliance

Compliance	UN38.3 / IEC62619 / IEC62040-1 / IEC61000-6-2 / IEC1000-6-4 / IEC62477-1 (More available upon request)

Ordering and Deliverable Part

	CHAKRA 2.5-H Pro
Part	CHAKRA 2.5-H Pro-BCU

[1] Test conditions: 100% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.

[2] There is 0.5C or 1C configurations optional in factory default.

[3] Charge/discharge derating occurs when the temperature is below 0°C or above 45°C.

[4] Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first.

Commercial Battery

RT 5.12-H | High Voltage | 20.48~61.44kWh

Versatile Solutions
Meet diverse home energy needs with LFP batteries that last up to 6,000 cycles, ensuring safety and reliability.

Hassle-Free Setup
Quick-connect coupling, facilitating easy wiring, and effortless maintenance.

Flexible and Expandable
With a 5.12 kWh modular design, each cluster supports up to 12 packs, connecting up to 4 clusters for versatile energy solutions.

Smart Home
Use your smartphone to control your home energy freely.

Datasheet

CE UN38.3 IEC

Model	RT 5.12-H4	RT 5.12-H5	RT 5.12-H6	RT 5.12-H7	RT 5.12-H8
	RT 5.12-H9	RT 5.12-H10	RT 5.12-H11	RT 5.12-H12	
Performance					
Cell technology	LFP (LiFePO4)				
Number of modules	4	5	6	7	8
	9	10	11	12	
Battery usable energy [1]	20.48 kWh	25.6 kWh	30.72 kWh	35.84 kWh	40.96 kWh
	46.08 kWh	51.2 kWh	56.32 kWh	61.44 kWh	
Nominal voltage	204.8 V	256 V	307.2 V	358.4V	409.6 V
	460.8 V	512V	563.2 V	614.4 V	
Operating voltage	179.2 - 224.64 V	224.0 - 280.80 V	268.8 - 336.96 V	313.6 - 393.12 V	358.4 - 449.28 V
	403.2 - 505.44 V	448.0 - 561.60 V	492.8 - 617.76 V	537.6 - 673.92 V	
Max.charge and discharge current [2]	100 A				
Communication					
Display	SOC status indicator, LED indicator, LCD display				
Communication	CAN / RS485 / RS232				
Functions	Remote upgrade, EMS, Real-time monitoring of local data				
General Specification					
Dimension (W×D×H)	566×630×2220 mm				
	22.3×24.8×87.4 inch				
Weight	327.5 kg (722.0 lbs)	370.5 kg (816.8 lbs)	413.5 kg (911.6 lbs)	456.5 kg (1006.4 lbs)	499.5 kg (1101.2 lbs)
	542.5 kg (1196.0 lbs)	585.5 kg (1290.8 lbs)	628.5 kg (1385.6 lbs)	671.5 kg (1480.4 lbs)	
Installation	Floor stand				
Operating temperature [3]	Charge : 0 to 50°C (32 to 122°F) Discharge: -15 to 50°C (5 to 122°F)				
Environmental humidity	≤ 95%RH (No condensation)				
Ingress protection rating	IP 20				
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C / 0.5C, 70% EOL				
Scalability	Max 12 modules per stack, 4 stacks in parallel				
Application	ON Grid / ON Grid + Backup / OfF grid				
Compatible inverters	Refer to compatible inverter list (Compatible with major PCS brands)				

Standard Compliance

Compliance	UN38.3 / IEC62619 / IEC62040-1 / IEC61000-6-2 / IEC61000-6-4 / IEC62477-1 (More available upon request)

Ordering and Deliverable Part

Part	RT-5.12-QC-A
	RT 5.12-H-BCU
	RT-R12-A
	RT-DS-7
	LED/LCD display (Optional)

[1] Test conditions: 100% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.
[2] There is 0.5C or 1C configurations optional in factory default.
[3] Charge/discharge derating occurs when the temperature is below 0°C or above 45°C.
[4] Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first.

Commercial Battery

E-MATE-114R-229R | High Voltage | 114.6~229.3kWh

Easy Maintenance
Standard rack&module design, reducing footprint and easing front maintenance.

Safe and Reliable
LFP battery cells offer 6,000 cycles of longevity, self-developed 2-level/3-level BMS, and indoor battery rack with IP20.

Cell Ballancing Tech
Advanced cell balancing technology for optimal performance and efficient energy utilization.

High-density Cell
Equipped with high-density battery cells, it maximizes energy capacity in a compact design to achieve cost savings and diverse business needs.

Datasheet

UN38.3

Model	E-MATE-114R	E-MATE-129R	E-MATE-143R	E-MATE-157R	E-MATE-172R	E-MATE-186R
	E-MATE-200R	E-MATE-215R	E-MATE-229R			

Performance

Cell technology	LFP ($LiFePO_4$)					
Battery module	14.336 kWh, 51.2 V, 110 kg (242.5 lbs)					
Number of modules	8	9	10	11	12	13
	14	15	16			
Battery usable energy [1]	114.688 kWh	129.024 kWh	143.36 kWh	157.696 kWh	172.032 kWh	186.368 kWh
	200.704 kWh	215.04 kWh	229.376 kWh			
Nominal voltage	409.6 V	460.8 V	512V	563.2 V	614.4V	665.6 V
	716.8 V	768.0 V	819.2 V			
Operating voltage	358.4 - 449.28 V	403.2 - 505.44 V	448 - 561.6 V	492.8 - 617.76 V	537.6 - 673.92 V	582.4 - 730.08 V
	627.2 - 786.24 V	672 - 842.4 V	716.8 - 898.56 V			
Max. charge and discharge current	280 A					

Communication

Display	SOC status indicator, LED indicator, LCD display
Communication	Ethernet / CAN / RS485

General Specification

Dimension (W×D×H)	1164×840×1776 mm	1164×840×1776 mm	1164×840×1776 mm	1164×840×2050 mm	1164×840×2050 mm	1721×840×1776 mm
	1721×840×1776 mm	1721×840×1776 mm	1721×840×1776 mm			
	45.8×33.1×69.9 inch	45.8×33.1×69.9 inch	45.8×33.1×69.9 inch	45.8×33.1×80.7 inch	45.8×33.1×80.7 inch	67.8×33.1×69.9 inch
	67.8×33.1×69.9 inch	67.8×33.1×69.9 inch	67.8×33.1×69.9 inch			
Weight	1130 kg (2491.2 lbs)	1240 kg (2733.7 lbs)	1350 kg (2976.2 lbs)	1540 kg (3395.1 lbs)	1650 kg (3637.6 lbs)	1760 kg (3880.1 lbs)
	1870 kg (4122.6 lbs)	1980 kg (4365.2 lbs)	2090 kg (4607.7 lbs)			
Installation	Floor stand					
Operating temperature [3]	Charge: 0 to 55°C (32 to 131°F) Discharge:-20 to 55°C (-4 to 131°F)					
Environmental humidity	≤ 95%RH (No condensation)					
Ingress protection rating	IP 20					
Cycle life [4]	6000 Cycles or ten (10) years @ 80% DOD / 25°C/ 0.5C, 70% EOL					
Scalability	Max 16 modules per stack, 10 stacks in parallel					
Application	ON Grid / ON Grid + Backup / OFF grid					
Compatible inverters	Refer to compatible PCS list					

Standard Compliance

Compliance	UN38.3 / (More available upon request)

Ordering and Deliverable Part

Part	E-MATE-14.3-QC					
	E-MATE-BCU-M-114-QC	E-MATE-BCU-M-129-QC	E-MATE-BCU-M-143-QC	E-MATE-BCU-M-157-QC	E-MATE-BCU-M-172-QC	E-MATE-BCU-M-186-QC
	E-MATE-BCU-M-200-QC	E-MATE-BCU-M-215-QC	E-MATE-BCU-M-229-QC			
	E-MATE-R12	E-MATE-R12	E-MATE-R12	E-MATE-R14	E-MATE-R14	E-MATE-R18
	E-MATE-R18	E-MATE-R18	E-MATE-R18			

[1] Test conditions: 100% depth of discharge (DOD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the temperature is below 0°C or above 45°C.
[3] Please refer to the Warranty Letter for applicable conditions, the warranty is due whichever comes first.

C&I Energy Storage System

Air Cooling ESS (On&Off Grid Application)

E-MATE 50-61-A | 50kW/61kWh

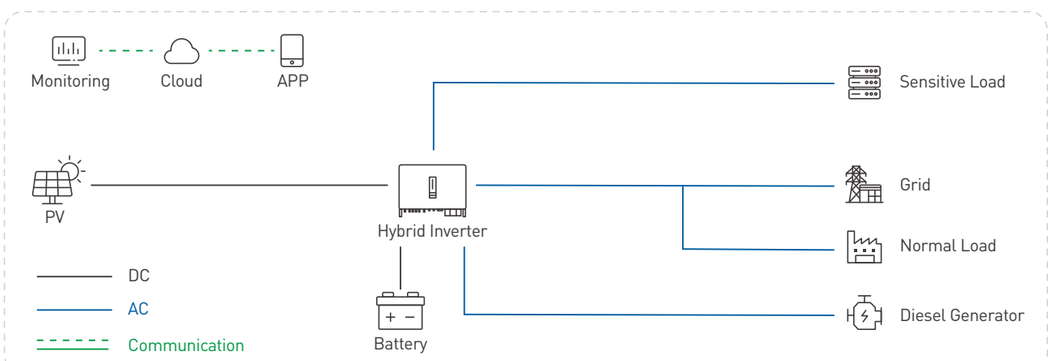
Profit Maximization
Adapts to on-grid, off-grid, and hybrid modes for optimal revenue. Uses 4-channel MPPT PV DC bus to boost energy efficiency and profitability.

Comprehensive Safety
Integrates multi-level alerts and fire suppression (gas, water, ventilation) for asset protection. Remote monitoring and real-time analysis ensure operational safety.

Intelligent O&M
One-click management for remote monitoring, troubleshooting, and data analysis. Seamless grid-switching ensures reliable power supply.

Modular Design
AC/DC integration simplifies installation and reduces costs. Modular structure allows for quick maintenance and upgrades.

System Diagram



Datasheet

CE UN38.3

Model	E-MATE 50-61-A
Battery Side Parameters	
Cell technology	LFP-3.2 V / 100 Ah
Battery module	5.12 kWh, 51.2 V
Number of packs	12
Battery system rated capacity	61.44 kWh
Battery system rated voltage	614.4 V
Battery system rated current	80 A
Battery system voltage range	480 V - 700.8 V
Battery system charge / discharge rate	0.8P
AC Side Parameters	
Rated output power	50 kW
Rated grid voltage	3L / N / PE220 / 380, 230 / 400Vac
Maximum output current	76 A
Allowable grid voltage range	230 V - 400 V
Rated grid frequency	50Hz / 60Hz
Output THDi	< 3%
Power factor	-1~1
Overload capacity	110% (long term), 120% (1 min)
On/Off grid switching time	< 20ms
Charge/discharge switching time	< 100ms
Maximum efficiency	97.80%
PV Side Parameters	
PV side voltage range	150 V - 850 V (full power above 500 V)
DC maximum current	4*30A
DC maximum power	75 kW
MPPT quantity	4
Other Parameters	
Dimension (W×D×H)	735×1045×2235 mm
	29×41×88 inch
Weight	1220 kg (2689.6 lbs)
Operating temperature	-30°C~+55°C (-22°F~+131°F) (Derating Below - 15°C or above 45°C)
Relative humidity	0~95% (No condensation)
Maximum working altitude	3000 m (> 2000 m Derating)
Noise	≤75dB
Ingress protection rating	IP55
Heat dissipation method	Forced air cooling
Firefighting	Aerosol: module-level (optional) + stack-level, water firefighting, combustible gas detection and exhaust
Communication	CAN / RS485 / TCP
Cycle life	6000 cycles (25±2°C, 0.5P / 0.5P, 70% SOH)
Standard Compliance	
Compliance	UN38.3 / UN3480 / IEC62619 / IEC61000 / IEC62477-1 / CQC (More available upon request)

C&I Energy Storage System

Air Cooling ESS (On Grid Application)

E-MATE 100-221-A | 100kW/221kWh

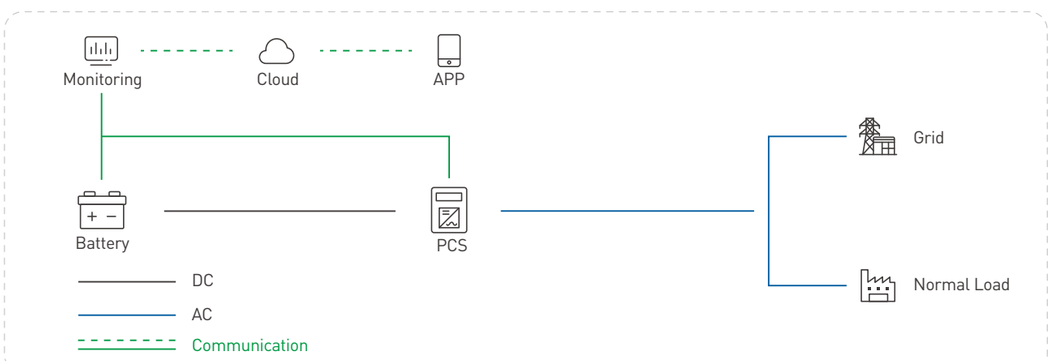
Profit Maximization
Supports peak shaving, demand response, and grid expansion for max revenue.

Safety System
Integrates multi-level warnings (gas/water fire protection, exhaust) for asset safety. Efficient thermal management ensures long-term stability.

Intelligent O&M
One-click management, remote monitoring, and seamless grid switching for hassle-free operation.

Integrated Design
Front-access, modular, and AC/DC integrated for easy deployment and maintenance.

System Diagram



Datasheet

CE UN38.3

Model	E-MATE 100-221-A
Battery Side Parameters	
Cell technology	LFP-3.2 V / 314 Ah
Battery module	20. 096 kWh, 64 V
Number of packs	11
Battery system rated capacity	221.056 kWh
Battery system rated voltage	704 V
Battery system rated current	157 A
Battery system voltage range	616 V - 792 V
Battery system charge / discharge rate	0.5P
AC Side Parameters	
Rated output power	100 kW
Rated grid voltage	400 V
Maximum output current	167 A
Allowable grid voltage range	340 V - 440 V
Rated grid frequency	50Hz / 60Hz
Output THDi	< 3%
Power factor	-1~1
AC output format	3W+PE
Overload capacity	110% (long-term), 120% (1min)
Charge / discharge switching time	<100ms
Maximum efficiency	98.5%
Other Parameters	
Dimension (W×D×H)	1380×1540×2330 mm
	54×61×90 inch
Weight	2750 kg (6062.71 lbs)
Operating temperature	-30°C~+55°C (-22°F~+ 131°F) (Derating below -15°C or above 45°C)
Relative humidity	0 ~ 95% (No condensation)
Maximum working altitude	3000m (> 2000m Derating)
Noise	≤75dB
Ingress protection rating	IP55
Heat dissipation method	Forced air cooling
Firefighting	Aerosol: module-level (optional) + stack-level, water firefighting, combustible gas detection and exhaust
Communication	CAN / RS485 / TCP
Cycle life	8000 cycles (25±2°C, 0.5P / 0.5P, 70% SOH)
Standard Compliance	
Compliance	UN38.3 / UN3480 / IEC62619 / IEC61000 / IEC62477-1 / CQC (More available upon request)

C&I Energy Storage System

Liquid Cooling ESS (On Grid Application)

E-MATE 200-233-L | 200kW/233kWh

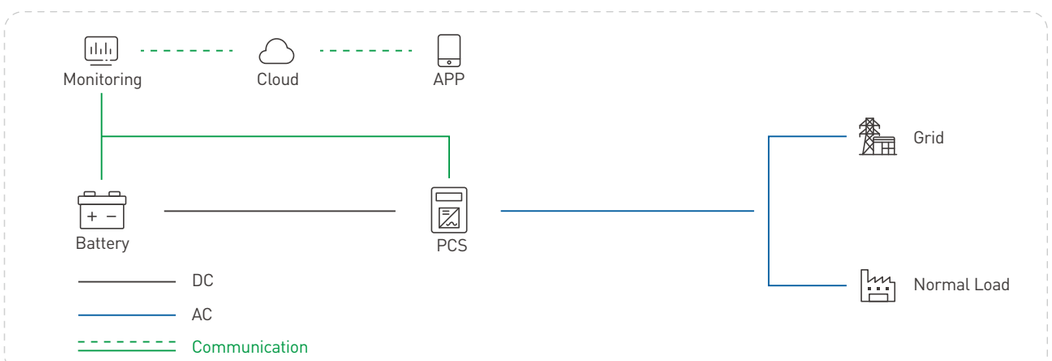
Profit Maximization
One-to-one management for batteries cluster, reduces thermal risks, prevents inter-cluster issues, enhances stability, lowers costs, and adapts to various scales.

Safety System
Integrates multi-level warnings (gas/water fire protection, exhaust) for your asset safety.

Intelligent O&M
One-click management, remote monitoring, and seamless grid switching for hassle-free operation.

High Rate System
Equipped with advanced 1C high-capacity cells, it easily empowers you to handle high-demand scenarios like frequency modulation and capacity expansion.

System Diagram



Datasheet

CE UN38.3

Model	E-MATE 200-233-L
Battery Side Parameters	
Cell technology	LFP-3.2 V / 280 Ah
Battery module	46.592 kWh,166.4 V
Number of packs	5
Battery pack protection level	IP67
Battery system rated capacity	232.96 kWh
Battery system rated voltage	832 V
Battery system rated current	280 A
Battery system voltage range	650 V - 949 V
Battery system charge / discharge rate	1P
AC Side Parameters	
Rated power	200 kW
Rated voltage	400V±15%
Rated frequency	50Hz / 60Hz
Maximum output current	334 A
Power factor	-1~1
Charge/discharge switching time	＜100ms
PCS maximum efficiency	98.5%
Overload capacity	110% (long-term), 120% (1 min)
Other Parameters	
Dimension (W×D×H)	1000×1450×2300 mm
	39.37×57.09×90.55 inch
Weight	2500 kg (5511.56 lbs)
Heat dissipation method	Liquid cooling
Ingress protection rating	IP55
Firefighting	Aerosol + combustible gas detection and exhaust
Standard Compliance	
Compliance	UN38.3 / EN 62477-1 / EN IEC 61000-6-2 / EN IEC 61000-6-4 / IEC62619

C&I Energy Storage System

Liquid Cooling ESS (On Grid Application)

E-MATE 200-418-L | 200kW/418kWh

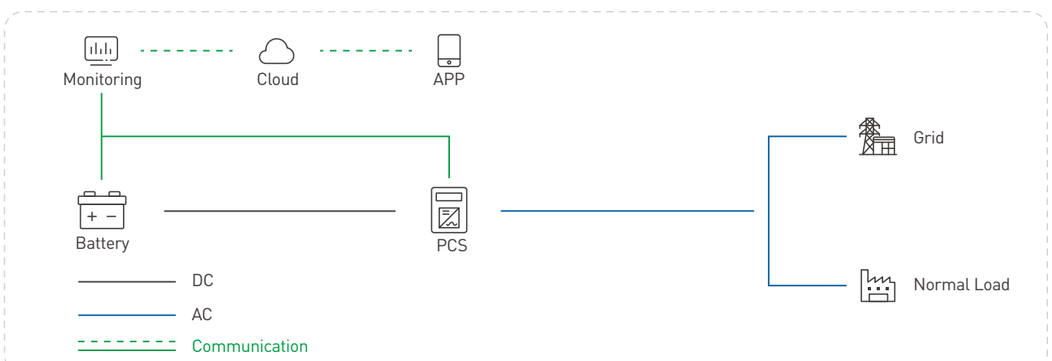
Profit Maximization
One-to-one management for batteries cluster, reduces thermal risks, prevents inter-cluster issues, enhances stability, lowers costs, and adapts to various scales.

Comprehensive Safety
Multi-level warnings (gas/water fire protection, exhaust) ensure safety. Efficient thermal management (temp. diff. ≤3°C, rise <7°C) extends lifespan and ensures stability.

Intelligent O&M
One-click management, remote monitoring, fault diagnosis, and seamless grid switching ensure continuous, reliable power with reduced on-site workload.

Highly Integrated Design
Front-access, modular, and AC/DC integrated for easy deployment, maintenance, and cost-effective installation.

System Diagram



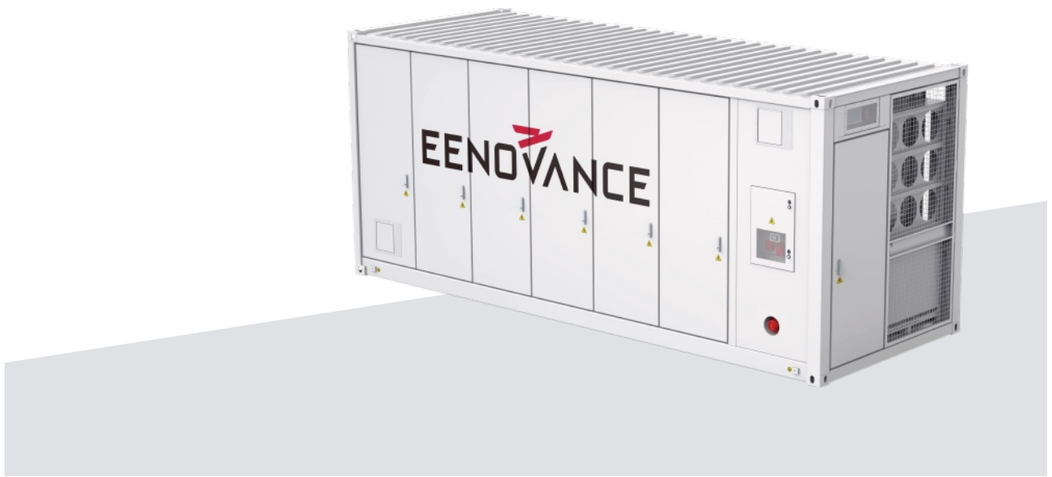
Datasheet

CE UN38.3

Model	E-MATE 200-418-L
Battery Side Parameters	
Cell technology	LFP-3.2 V / 314 Ah
Battery module	52.25 kWh, 166.4 V
Number of packs	8
Battery system rated capacity	418 kWh
Battery system rated voltage	1331.2 V
Battery system voltage range	1040 V - 1497.6 V
Battery system charge / discharge rate	0.5P
AC Side Parameters	
Rated output power	200 kW
Rated grid voltage	690V±15%
Maximum output current	184.1 A
Allowable grid voltage range	3W+PE, -15% ~+10% (Settable)
Rated grid frequency	50Hz / 60 Hz
Output THDi	< 3%
Power factor	-1~1
Overload capacity	110% (long term), 120% (1 min)
Charge / discharge switching time	< 100ms
Maximum efficiency	99%
Other Parameters	
Dimension (W×D×H)	1500×1450×2350 mm
	59×57×93 inch
Weight	3560 kg (7848.46 lbs)
Operating temperature	-30°C~+55°C (-22°F~+131°F) (Derating below - 15°C or above 45°C)
Relative humidity	0 ~ 95% (No condensation)
Maximum working altitude	3000m (> 2000m Derating)
Noise	≤75dB
Ingress protection rating	Liquid cooling
Heat dissipation method	IP55
Firefighting	Aerosol: module-level + stack-level, water firefighting, combustible gas detection and exhaust
Communication	CAN / RS485 / TCP
Cycle life	8000 cycles (25±2°C, 0.5P/0.5P, 70% SOH)
Standard Compliance	
Compliance	UN38.3 / UN3480 / IEC62619 / IEC61000 / IEC62477-1 / CQC (More available upon request)

Battery Energy Storage System

G-Power 5016-L | 5.016MWh



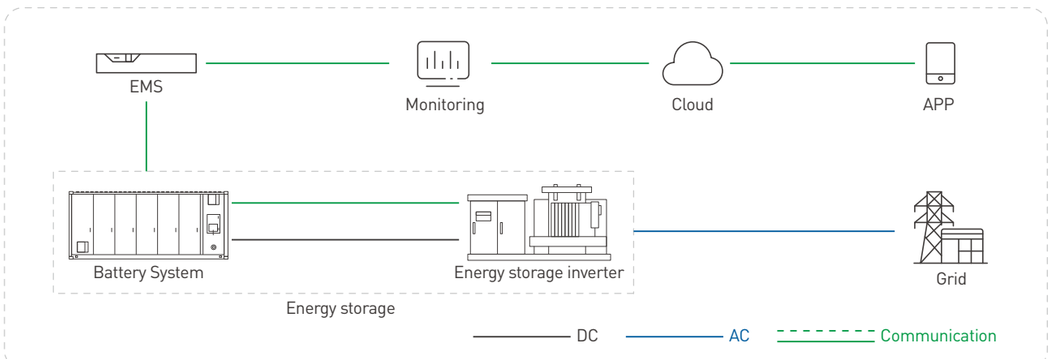
Comprehensive Protection
Integrated multi-level alerts and fire systems to keep your assets secure from every angle.

Long-lasting Performance
Efficient thermal management keeps temperature differences within ≤3°C and temperature rise under <7°C, enhancing performance and lifespan.

Easy Maintenance
Front-access and modular design make station deployment simpler, reducing footprint and easing maintenance.

Smart Expansion & Operations
Flexible parallel support and smart EMS for remote monitoring and diagnostics help you boost operational efficiency with ease.

System Diagram



Datasheet

CE UN38.3

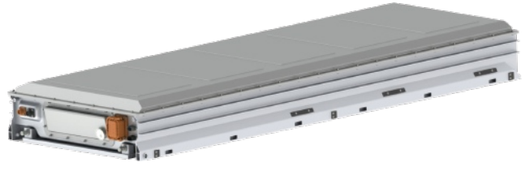
Model	G-Power 5016-L
Battery Side Parameters	
Cell technology	LFP-3.2 V / 314 Ah
Battery pack configuration	1P104S
Battery cluster configuration	1P416S
System configuration	12*1P416S
Rated power	5.016 MWh
Rated voltage	1331.2 V
Battery voltage range	1040 V - 1497.6 V
Battery system charge / discharge rate	0.5P
Other Parameters	
Dimension (W×D×H)	6058×2438×2896 mm 238.5×96×114 inch
Weight	40T-45T (88184.9 lbs-99208.0 lbs)
Operating temperature range	-30°C~+55°C (-22°F~+ 131°F) (Derating below -15°C or above 45°C)
Relative humidity	5 ~ 95% (No condensation)
Maximum working altitude	3000 m (> 2000 m Derating)
Noise	≤75dB
Ingress Protection Rating	IP55
Firefighting	Aerosol: module-level + containerized-level, water firefighting, combustible gas detection and exhaust, explosion venting design
Heat dissipation method	Liquid cooling
Communication	CAN / RS485 / TCP
Cycle life	8000 cycles (25±2°C, 0.5P/0.5P, 70% SOH)
Standard Compliance	
Compliance	UN38.3 / UN3536 / IEC62619 / IEC61000 / IEC62477-1 / CQC (More available upon request)

Commercial Battery Pack

E-MATE-BATT-1P20S-314-A

E-MATE-BATT-1P52S-314-L

E-MATE-BATT-1P104S-314-L



Datasheet

Model	E-MATE-BATT-1P20S-314-A
Basic Parameters	
Configuration	1P20S
Rated capcity	314Ah
Rated voltage	64V
Rated energy	20.096kWh
Charge and discharge rate	0.5P
Cooling method	Air cooling
Dimension (WxDxH)	420x910x228 mm
Weight	142.6kg±2kg

Model	E-MATE-BATT-1P52S-314-L
Basic Parameters	
Configuration	1P52S
Rated capcity	314Ah
Rated voltage	166.4V
Rated energy	52.249kWh
Charge and discharge rate	0.5P
Cooling method	Liquid cooling
Dimension (WxDxH)	790x1140x247 mm
Weight	330kg±2kg

Model	E-MATE-BATT-1P104S-314-L
Basic Parameters	
Configuration	1P104S
Rated capcity	314Ah
Rated voltage	332.8V
Rated energy	104.499kWh
Charge and discharge rate	0.5P
Cooling method	Liquid cooling
Dimension (WxDxH)	2150x779x250 mm
Weight	690kg±5kg

Smart Energy Management System

Download the Eenovance APP

Manage your home energy effortlessly anytime, anywhere.
Monitor and optimize your power station on the go for business success.

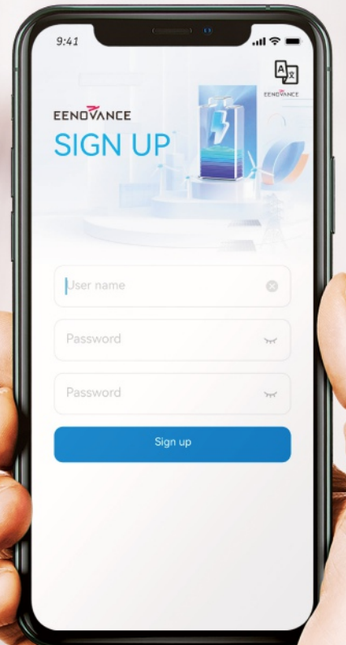
Real-time monitoring to prevent risks and prompt alerts for swift action.

Intelligent optimization, remote management, and extended equipment lifespan.

Precise assessments, early detection, and avoidance of unexpected shutdowns.

Accurate diagnostics, quick restoration, and improved operational efficiency.

Comprehensive data, informed decision-making, and optimized operations.



Cases

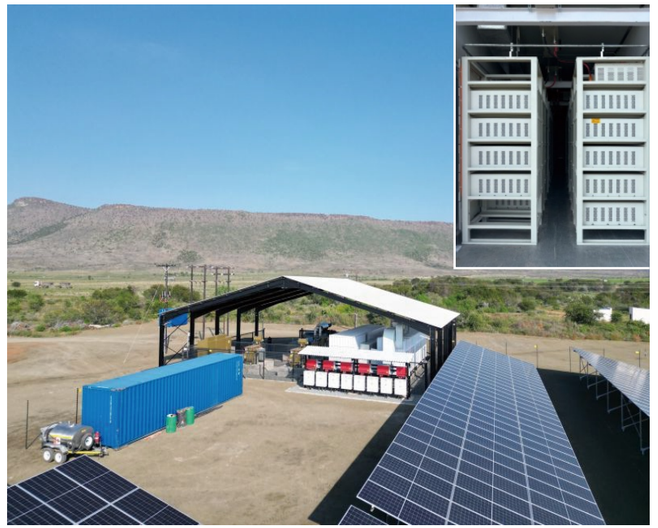
Residential Storage System Cases

15.96kWh_MANA 5.3

10.65kWh_MANA 10.6

10.65kWh_MANA 5.3

C&I Storage System Cases



600kWh_E-MATE 100-221-A

2.29MWh_E-MATE-229R