



PRODUCTS BROCHURE



Shenzhen EEnovance Energy Technology CO., LTD

- 🌐 www.eenovance.com
- ✉ info@eenovance.com
- ☎ +86 755 8656 6313
- 📍 Room 1209, Building 6, Skyworth Innovation Valley, No. 1 Tangtou Road, Shiyan Street, Baoan District, Shenzhen City 518000, GD Prov, China.



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Energy Technologies
Build Life Better

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ABOUT EENOVANCE

Eenovance is a global technology company dedicated to energy storage innovation. We provide efficient, reliable, and intelligent energy solutions for residential, commercial & industrial, and utility-scale applications. With our self-developed core technologies --EMS, BMS and PCS, we provide fully integrated energy storage systems to meet different needs. Our products are certified by UL, IEC, EU CE, VDE, UN 38.3, and NFPA, and are widely deployed across global markets, with over 300,000 units shipped to date.

Driven by technological innovation, Eenovance is committed to accelerating the global energy transition-working together with partners worldwide to build a greener, smarter, and more sustainable future.



200+

Employees Worldwide



7+

Offices
Worldwide



20,000+m²

Production Base



6.5GWh+

Annual
Capacity



\$137M+

Annual
Revenue



60+

Countries and Regions'
Business Coverage

GLOBAL LAYOUT



★ Headquarter

📍 Subsidiaries

● Offices

▲ In Progress



7

local office & global
service center

7*24

hours response
service

CHUBB

world coverage up
to \$5 million



RESIDENTIAL ENERGY STORAGE SOLUTION

The Eenovance home smart energy system is equipped with high-efficiency inverters, batteries and real-time monitoring. It reduces electricity costs through intelligent scheduling, improves the utilization rate of new energy, and has emergency power backup functions.

At the same time, it can automatically optimize the operation strategy based on the user's electricity usage habits and peak and valley electricity prices, adapt to multiple electricity usage scenarios, and help families achieve low-carbon life upgrades.



Accurate prediction enables energy efficiency management, and intelligent regulation responds to electricity price fluctuations



Multiple device access, intelligent energy scheduling, and create a smart energy ecosystem



Intelligent switching mechanism to ensure the operation of key electrical appliances and say goodbye to power outages



Cloud interconnection, intelligent adjustment of power consumption plans, and adaptation to diverse scenarios

RESIDENTIAL
STORAGE INVERTER

SQ 4kW / 6kW / 8kW
-LV-1P Ecco

Single Phase



Hybrid inverter with PV self-use function



UPS 10ms on / off grid switching



Opened front wiring



User friendly LCD display + WIFI / Bluetooth monitoring



Easy cleaning IP41 dust cover



Max. Efficiency up to 97.6%



Smart fan control, less noise

DATASHEET

Model	SQ 4kW-LV-1P Ecco	SQ 6kW-LV-1P Ecco	SQ 8kW-LV-1P Ecco
Battery Input Parameters			
Supported battery type	LiFePO ₄ or Lead-acid		
Battery input voltage range	40 ~ 60 V		
Max. charge / discharge current	60 A (Configurable) / 90 A (Configurable)	120 A (Configurable) / 130 A (Configurable)	150 A (Configurable) / 180 A (Configurable)
Battery capacity (Recommend)	70~1000Ah	100~1000Ah	100~1000Ah
Battery communication	CAN		
PV String Input Parameters			
Max. DC input power	4500 W	4000 × 2=8000 W	5000 × 2=10000 W
Max. DC input voltage	500 V		
MPPT voltage range	120 ~ 450 V		
Start-up voltage	150 V		
Max. input current	15 A // 1 MPPT channels	15 × 2 =30 A // 2 MPPT channels	23 × 2 =46 A // 2 MPPT channels
AC Output Parameters (Back-Up) (Feed to essential load)			
Max. output power	4000 W	6000 W	8000 W
Max. / Peak output apparent power	4000 VA / 8000 VA	6000 VA / 12000 VA	8000 VA / 16000 VA
Max. output current	18 A	27 A	36 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	42 A	
Shift time (Bypass and inverter)	10ms		
Output THD (Resistor load)	<3%		
AC Input Parameters (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	8000 W
Nominal input / output voltage	220 V / 230 V / 240 V (Auto adjusted)		
Nominal input / output frequency	50Hz / 60Hz (Auto adjusted)		
Efficiency			
Max. efficiency	97.60%		
Europe efficiency	97.60%		
MPPT efficiency	99.90%		
Max. battery to load efficiency	94.00%		
Protection			
Protection	Battery over charge / discharge, Over temperature, Output over load, Output short circuit, Output over voltage		
Monitoring&HMI			
Monitoring	WIFI / Bluetooth		
HMI	indicators+LCD		
Certifications & Standards Compliance			
Grid regulation	IEC 61727 / IEC 62116 / MEA, PEA (more available upon request)		
Safety regulation	IEC / EN62109-112, IEC / EN 62477-1		
EMC	IEC / EN61000-6-1/3		
General Parameters			
Ingress protection	IP20		
Operating temperature range	-25°C ~ 60°C		
Net weight / Gross weight	9.5 kg / 11 kg	13. 7 kg / 16 kg	20.5 kg / 23 kg
Product size / Packing size (WxDxH)	307×133×430 mm / 423×230×518 mm	353×134×500 mm / 475×240×620 mm	450×119×539 mm / 580×230×660 mm

RESIDENTIAL STORAGE INVERTER

SQ 6kW-LV-1P Hpro

Single Phase



IP65 design, more installation scenario



10 units in parallel in on / off grid



Smart fan control, less noise



3 units in parallel to built three phase



Opened front cover, easy wiring



Multiple Operation Modes



Wireless CT (optional), easy installation



User friendly LCD display + WIFI / Bluetooth monitoring

DATASHEET

Model	SQ 6kW-LV-1P Hpro
Battery Input Parameters (DC Input)	
Supported battery type	LiFePO ₄ or Lead-acid
Battery Voltage range	40 ~ 60 V
Max. charge / discharge current	120 A (Configurable) / 130 A (Configurable)
Battery capacity (Recommend)	100 ~ 2000 Ah
Battery communication	CAN
PV String Input Parameters (DC Input)	
Max. DC input power	4000 x 2=8000 W
Max. DC input voltage	500 V
MPPT voltage range	120 ~ 450 V
Start-up voltage	150 V
Max. input current	15 x 2 =30 A // 2 MPPT channels
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: Bypass to essential load & Charge the battery Feed to home load	6000 W
Nominal input/output voltage	22 0V / 230 V / 240 V (Auto adjusted)
Nominal input/output frequency	50Hz / 60Hz (Auto adjusted)
Parallel Function	Max. 10 units in parallel
Indepent Generator Port	Yes
Efficiency	
Max. efficiency	97.60%
Europe efficiency	97.60%
MPPT efficiency	99.90%
Max. battery to load efficiency	94.00%
Protection	
Protection	Battery over charge / discharge, Over temperature, Output over load, Output short circuit, Output over voltage, Battery low-voltage.
Monitoring&HMI	
Monitoring	WIFI / Bluetooth
HMI	Touch Screen + Indicators
Certifications & Standards Compliance	
Grid regulation	IEC 61727 / IEC 62116 / EN50549 / ABNT NBR / MEA, PEA (more available upon request)
Safety regulation	IEC / EN62109-112, IEC / EN 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 (W×D×H)	402×227×536 mm / 460×315×640 mm

RESIDENTIAL BATTERY

MANA 5.12 / MANA 10.24 / MANA 16

Low Voltage



Full automatic manufacturing products



One button start / stop and parallel connection



100% tested for safety, readability and capacity



Real-time data monitoring and firmware update



Top-notch LFP Class A cell / Strict capacity grading



LCD display shows data visually



Precise voltage / temperature / SOC detection



Easy movement and installation roller (MANA16)

DATASHEET

Model	MANA 5.12	MANA 10.24	MANA 16
Performance			
Cell technology	LFP (LiFePO ₄)		
Battery usable energy [1]	5.12 kWh	10.24 kWh	16.07 kWh
Nominal voltage	51.2 V	51.2 V	51.2 V
Operating voltage	44.8 ~ 56.16 V	44.8 ~ 56.16 V	44.8 ~ 56.16 V
Max. charge and discharge current [2]	100 A	200 A	200 A
Communication			
Display	SOC status indicator, LED indicator, LCD display		
Communication	CAN / RS485 / RS232 / Wi-Fi		
General Specification			
Dimension (W×D×H)	450×150×533 mm	550×160×836 mm	450×245×790 mm
	17.7×5.9×21.0 inch	21.7×6.3×32.9 inch	17.7×9.6×31.1 inch
Weight	46 kg (101.4 lbs)	87.45 kg (192.7 lbs)	120 kg (264.55 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	IP20		
Warranty Period [4]	5 years / 10years (Optional)		
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 Delivery Parts			
Parts	MANA 5.12 Battery	MANA 10.24 Battery	MANA 16 Battery
	MANA 5.12 Parallel cable	MANA 10.24 Parallel cable	MANA 16 Parallel cable
	MANA 5.12 to PCS cable	MANA 10.24 to PCS cable	MANA 16 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.

RESIDENTIAL BATTERY

MANA 5.12 Ultra

Low Voltage



Full automatic manufacturing,
CCS technique



One button start / stop and
parallel connection



100% tested for safety,
readability and capacity



Real-time data monitoring and
firmware update



Top-notch LFP Class A cell
/ Strict capacity grading



IP 65 design, more installation
scenario



Precise voltage / temperature
/ SOC detection



Comprehensive verification,
TÜV / UL Certificated

DATASHEET

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	44.8 ~ 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	IP65	
Warranty Period [4]	10 years	
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 Delivery Parts		
Parts	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), 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.




RESIDENTIAL BATTERY

RT 5120


Low Voltage

 Full automatic manufacturing products

 Standard 3U rack modular design

 100% tested for safety, readability and capacity

 Precise voltage / temperature / SOC detection

 Top-notch LFP Class A cell / Strict capacity grading

 One button start / stop and parallel connection

DATASHEET

Model		RT 5120
Performance		
Cell technology		LFP (LiFePO ₄)
Battery usable energy [1]		5.12 kWh
Nominal voltage		51.2 V
Operating voltage		44.8 ~ 56.16 V
Max. charge and discharge current [2]		100 A
Communication		
Display		SOC status indicator, LED indicator
Communication		CAN / RS485 / RS232
General Specification		
Dimension (W×D×H)	440×550×130 mm	
	17.3×21.7×5.1 inch	
Weight		46 kg (101.4 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		IP20
Warranty Period [4]		10 years
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 Delivery Parts		
Parts	RT 5120 Battery	
	RT 5120 Parallel cable	
	RT 5120 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.

RESIDENTIAL BATTERY

CHAKRA 2.5-HX Pro (High Voltage)

5.12kWh~25.6kWh



Plug&play Installation,
less wiring



Top-notch LFP Class A cell
/ Strict capacity grading



IP 65 design, more
installation scenario



Modular design, 5-25 kWh
flexible configuration



Precise voltage / temperature
/ SOC detection



Three level passive and
active protection



Build in WIFI for monitoring and
firmware update



LCD display shows
data visually

DATASHEET

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	
System Nominal voltage	102.4 V	153.6 V	204.8 V	256.0 V	307.2 V
	358.4 V	409.6 V	460.8 V	512.0 V	
System Operating voltage	89.6 ~ 112.32 V	134.4 ~ 168.48 V	179.2 ~ 224.64 V	224 ~ 280.8 V	268.8 ~ 336.96 V
	313.6 ~ 393.12 V	358.4 ~ 449.28 V	403.2 ~ 505.44 V	448 ~ 561.6 V	
System Max.charge and discharge current [2]	50 A				
Communication					
Display	LCD Display (battery operating status, SOC, alerts, etc.)				
Communication	CAN / RS485 / RS232 / Wi-Fi / LAN				
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	22.4x14.6×31.6 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	22.4x14.6×59.2 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 122°F) Discharge: -20 to 50°C (-4 to 122°F)				
Environmental humidity	≤ 95%RH (No condensation)				
Ingress protection rating	IP65				
Warranty Period [4]	10 years				
Scalability	Max. 10 modules per stack, 15 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 Delivery Parts					
Parts	CHAKRA 2.5-H Pro (Battery Pack)				
	CHAKRA 2.5-H Pro-BCU and battery base is packed together (Battery Control Unit)				

[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.



COMMERCIAL & INDUSTRIAL ENERGY STORAGE SOLUTION

It offers multiple advantages such as safety, reliability, ease of use, and flexible adaptability.

It can be widely used in various application scenarios including industrial parks, community business districts, and photovoltaic storage charging stations to meet company needs such as peak shaving and valley filling, dynamic capacity expansion, demand-side response, and virtual power plants, thereby promoting efficient energy utilization.



Safety Protection

- Multi-level fire protection ensures safety
- Multi-layer collaboration between cloud, edge and end predicts battery safety



Cost-effective

- Dynamic adjustment of temperature control system
- Effectively reduce auxiliary power consumption



Flexible Configuration

- Modular integration, debugging-free installation, and easy deployment
- Flexible capacity modification and expansion
- Scene digital coupling, supporting multi-platform scheduling interaction



Intelligent Management

- Remote upgrade and intelligent maintenance
- Active balancing technology, intelligent optimization of battery status
- Full life cycle management system

COMMERCIAL
BATTERY

RT 5.12-HX
(High Voltage)


20.48~61.44kWh



 Full automatic manufacturing,
CCS technique


 Precise voltage / temperature
/ SOC detection

 Top-notch LFP Class A cell
/ Strict capacity grading

 Build in WIFI for monitoring and
firmware update

 Plug&play wiring cable,
easy installation

 LCD display shows
data visually

 Modular design, 20-61kWh
flexible configuration

DATASHEET

Model	RT 5.12-H4 RT 5.12-H7	RT 5.12-H5 RT 5.12-H8	RT 5.12-H6	RT 5.12-H9 RT 5.12-H11	RT 5.12-H10 RT 5.12-H12
Performance					
Cell technology	LFP (LiFePO ₄)				
Battery mudule	5.12 kWh, 51.2 V, 43 kg				
Number of modules	4	5	6	9	10
	7	8		11	12
Battery usable energy [1]	20.48 kWh	25.6 kWh	30.72 kWh	46.08 kWh	51.2 kWh
	35.84kWh	40.96 kWh		56.32 kWh	61.44kWh
System Nominal voltage	204.8 V	256 V	307.2 V	460.8 V	512 V
	358.4 V	409.6 V		563.2 V	614.4 V
System Operating voltage	179.2 ~ 224.64 V	224.0 ~ 280.80 V	268.8 ~ 336.96 V	403.2-505.44 V	448.0-561.60 V
	313.6-393.12 V	358.4-449.28 V		492.8-617.76 V	537.6-673.92 V
System Max. continuous charge and discharge current [2]	100 A				
Communication					
Display	LCD Display (battery operating status, SOC, alerts, etc.)				
Communication	CAN / RS485 / RS232 / Wi-Fi / LAN				
General Specification					
Dimension (W×D×H)	566×630×1652 mm			566×630×2220 mm	
	22.3×24.8×65.0 inch			22.3×24.8×87.4 inch	
Weight	250 kg (551.2 lbs)	295 kg (650.4 lbs)	340 kg (749.6 lbs)	542.5 kg (1196.0 lbs)	628.5 kg (1385.6 lbs)
	385 kg (848.8 lbs)	430 kg (948.0 lbs)		585.5 kg (1290.8 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	IP20				
Warranty Period [4]	10 years				
Scalability	Max. 12 modules per stack, 15 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 Delivery Parts					
Parts	RT-5.12-QC-A (Battery Pack)				
	RT 5.12-H-BCU (Battery Control Unit)				
	RT-R8-A (Battery Rack)			RT-R12-A (Battery Rack)	

[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.



COMMERCIAL BATTERY

E-MATE-114R-229R (High Voltage)

114.6~229.3kWh



Full automatic manufacturing,
CCS technique



Precise voltage / temperature
/ SOC detection



Top-notch LFP Class A cell
/ Strict capacity grading



LCD display shows
data visually



Plug&play wiring cable,
easy installation



Maximum 14 in parallel,
up to 3.2MWh storage

DATASHEET

Model	E-MATE-114R E-MATE-200R	E-MATE-129R E-MATE-215R	E-MATE-143R E-MATE-229R	E-MATE-157R	E-MATE-172R	E-MATE-186R	
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				
System Nominal voltage	409.6 V	460.8 V	512 V	563.2 V	614.4V	665.6 V	
	716.8 V	768.0 V	819.2 V				
System 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				
System Max. Charge and Discharge Current	280 A						
Communication							
Display	LCD Display (battery operating status, SOC, alerts, etc.)						
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 [2]	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	IP20						
Warranty Period [3]	10 years						
Scalability	Max. 16 modules per stack, 14 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 Delivery Parts							
Parts	Battery Pack		E-MATE-14.3-QC				
	Battery Control Unit	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			
	Battery Rack	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.

C&I ENERGY STORAGE SYSTEM

E-MATE 50-61-A
(Air Cooling)

50kW/61kWh



PV / Battery / AC / DG all in one hybrid system



4*MPPT / 2* BAT and 2* COMS



Used in both on grid and off grid application



10ms UPS switching backup power



Supports 6 in parallel both AC and DC side



Multi-Level protection and alarm (gas, water, ventilation)



IP55 protection rating, outdoor installation

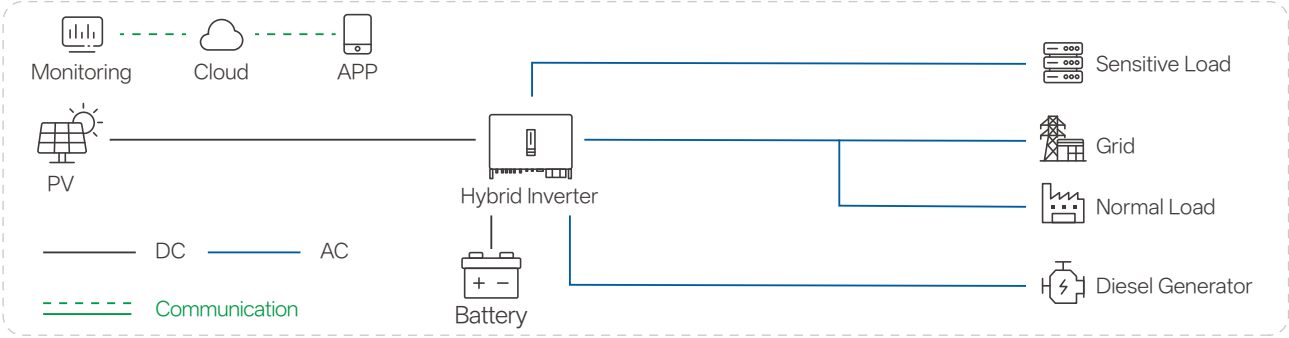


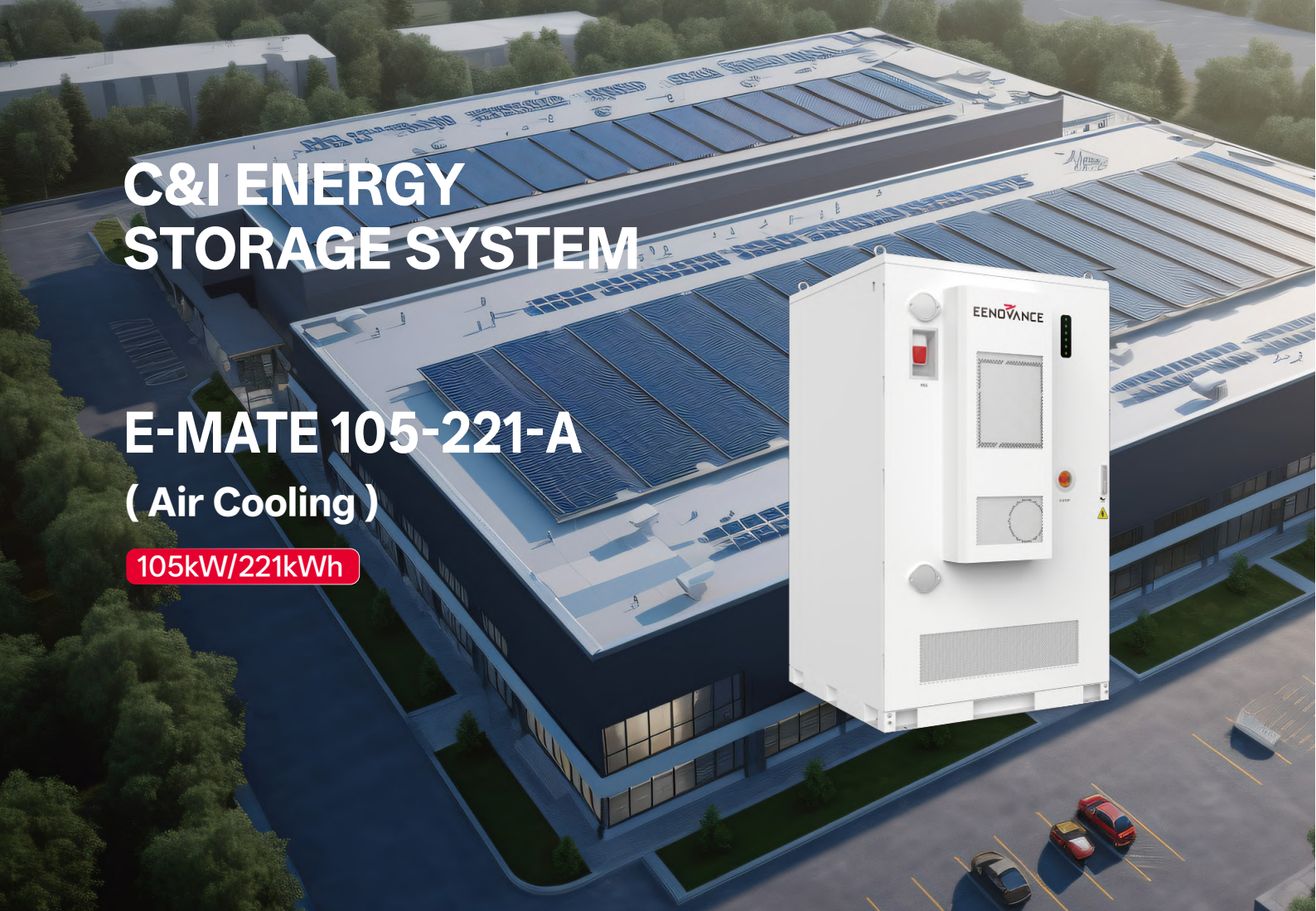
Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model	E-MATE 50-61-A
Battery Parameters	
Cell technology	LFP-3.2 V / 100 Ah
Battery pack	5.12 kWh, 51.2 V
Number of packs	12
Rated capacity	61.44 kWh
Rated voltage	614.4 V
Rated current	80 A
Voltage range	480 V ~ 700.8 V
Charge / discharge rate	0.8P
AC Side Parameters	
Rated output power	50 kW
Rated grid voltage	3L / N / PE220 / 380, 230 / 400Vac
Rated 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*30 A
DC maximum power	75 kW
MPPT quantity	4
Other Parameters	
Dimension (W×D×H)	740×1040×2330 mm
	29.1x40.9x91.7 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
IP Rating	IP55
Cooling method	Forced air cooling
FSS	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 / IEC6100-6-2 / IEC62477-1 / CQC (More available upon request)

SYSTEM DIAGRAM





C&I ENERGY STORAGE SYSTEM

E-MATE 105-221-A (Air Cooling)

105kW/221kWh



Battery + PCS on grid storage system



20kWh modular design air cooling battery



Used in on grid storage / PV AC couple system



Multi-Level protection and alarm (gas, water, ventilation)



Supports 10 in parallel in AC side

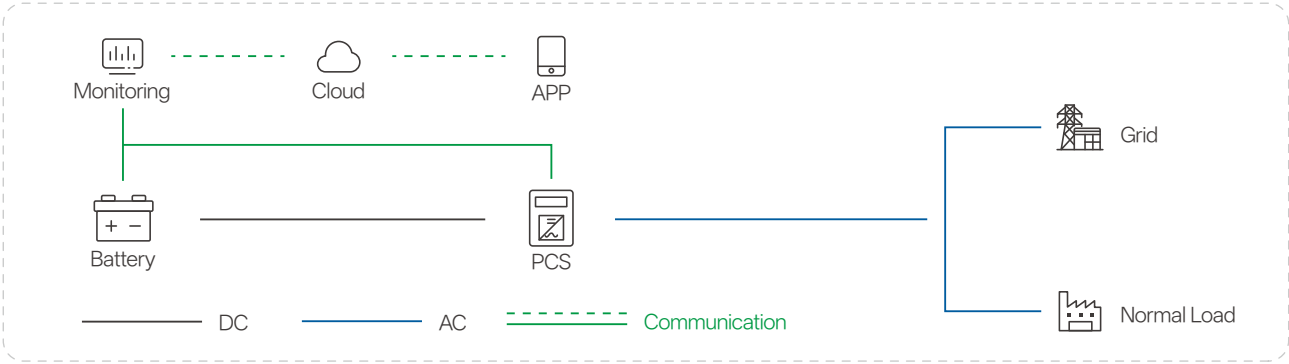


Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model		E-MATE 105-221-A
Battery Parameters		
Cell technology	LFP-3.2 V / 314 Ah	
Battery pack	20. 096 kWh, 64 V	
Number of packs	11	
Rated capacity	221.056 kWh	
Rated voltage	704 V	
Rated current	157 A	
Voltage range	616 V ~ 792 V	
Charge / discharge rate	0.5P	
AC Side Parameters (optional)		
Rated output power	105 kW	
Rated grid voltage	400 V	
Rated 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+N	
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℃~-+55℃ (-22°F~-+ 131°F) (Derating below -15℃ or above 45℃)	
Relative humidity	0 ~ 95% (No condensation)	
Maximum working altitude	3000m (> 2000m Derating)	
Noise	≤75dB	
IP Rating	IP55	
Cooling method	Forced air cooling	
FSS	Aerosol: module-level (optional) + stack-level, water firefighting, combustible gas detection and exhaust	
Communication	CAN / RS485 / TCP	
Cycle life	8000 cycles (25±2℃, 0.5P / 0.5P, 70% SOH)	
Standard Compliance		
Compliance	UN38.3 / UN3480 / IEC62619 / IEC6100-6-2 / IEC62477-1 / CQC (More available upon request)	

SYSTEM DIAGRAM





Battery + PCS on grid storage system



52.25kWh modular design liquid cooling battery



Used in on grid storage / PV AC couple system



Multi-Level protection and alarm (gas, water, ventilation)



Supports 10 in parallel in AC side

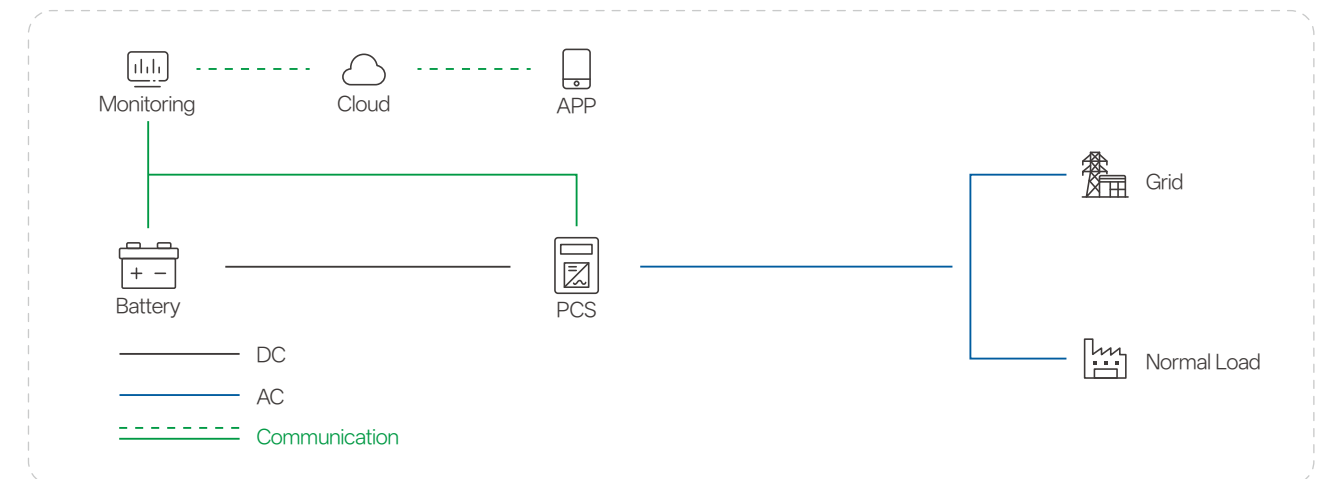


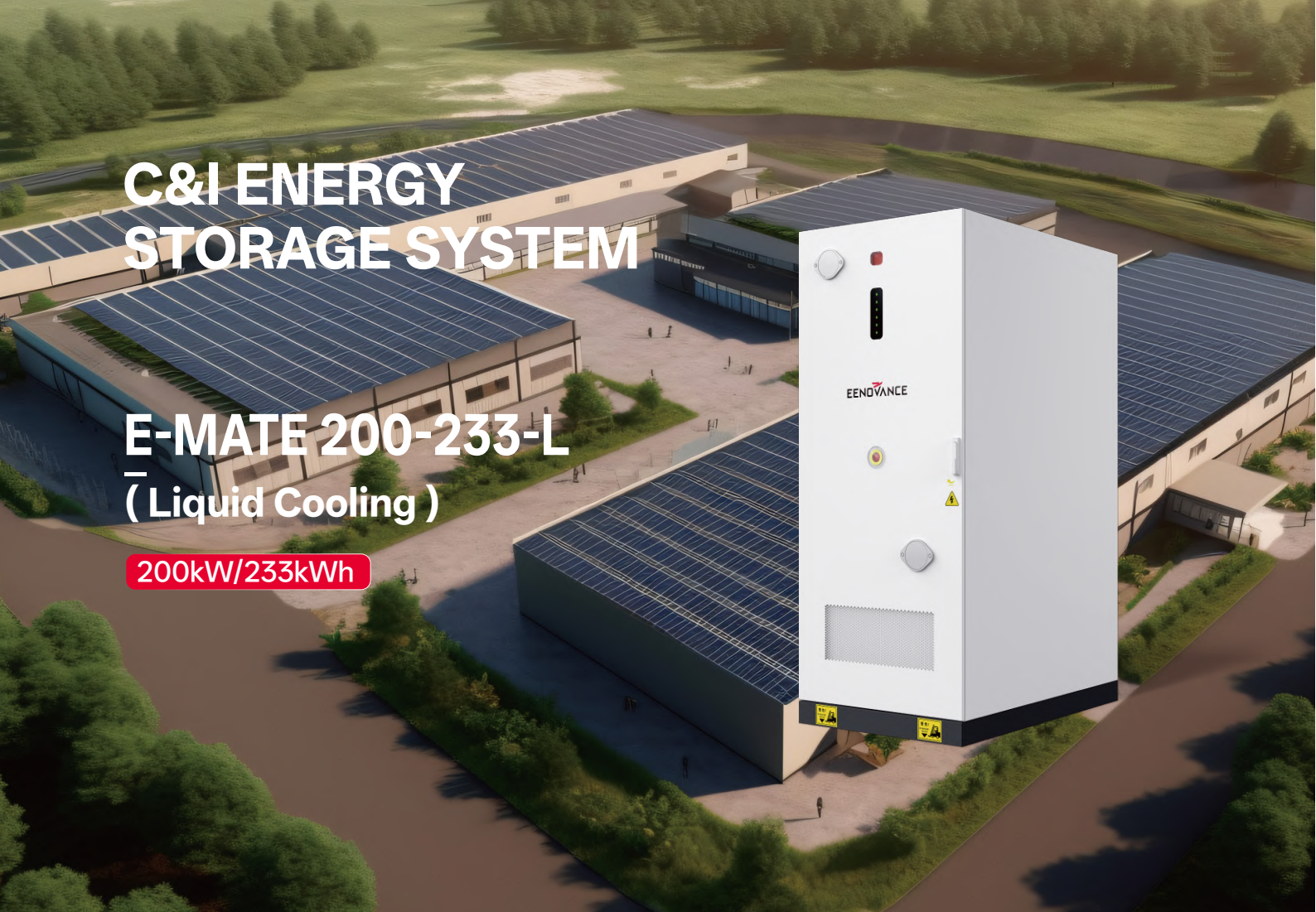
Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model		E-MATE 125-261-L
Battery Parameters		
Cell technology	LFP-3.2 V / 314 Ah	
Battery pack (Wh/V)	52.25 kWh, 166.4 V	
Number of packs	5	
Battery pack protection level	IP67	
Rated capacity	261.25 kWh	
Rated voltage	832 V	
Rated current	157 A	
Voltage range	650 V ~ 949 V	
Charge / discharge rate	0.5 P	
AC Side Parameters		
Rated power	125 kW	
Rated voltage	400V±15%	
Rated frequency	50Hz / 60Hz	
Rated output current	180 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)	1100×1424×2350 mm	
	43.31×56.06×92.52 inch	
Weight	2500 kg	
IP Rating	IP55	
Cooling method	Liquid cooling	
FFS	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	

SYSTEM DIAGRAM







C&I ENERGY STORAGE SYSTEM

E-MATE 200-233-L (Liquid Cooling)


200kW/233kWh

 Battery + PCS on grid storage system

 Used in on grid storage / PV AC couple system

 Supports 10 in parallel in AC side

 0.85C Charge rate

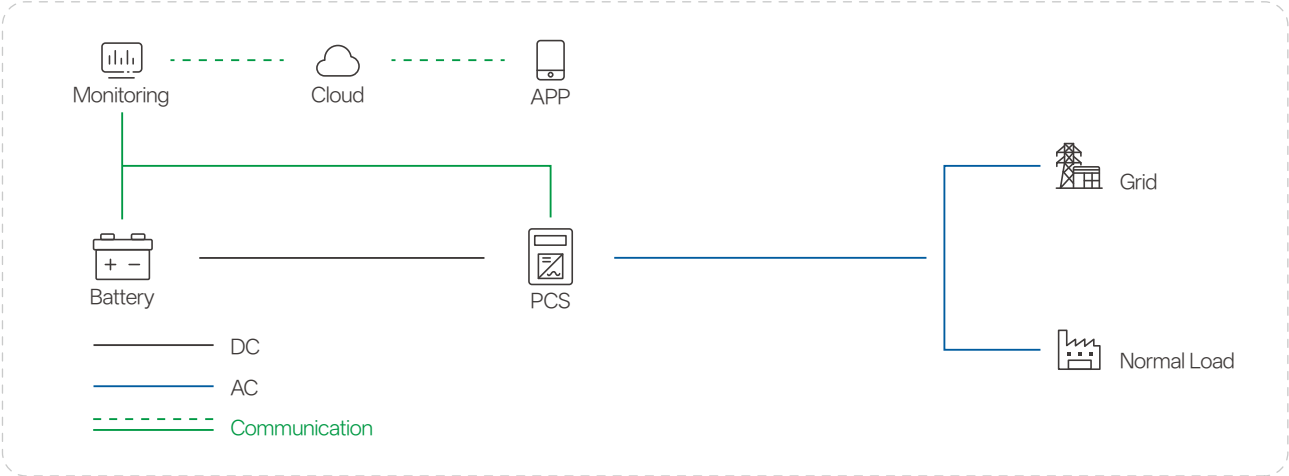
 Multi-Level protection and alarm (gas, water, ventilation)

 Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model		E-MATE 200-233-L
System Parameters		
System rated power	200 kW	
Battery pack protection level	IP67	
Rated capacity	232.96 kWh	
Charge / discharge rate	1P	
AC Side Parameters (optional)		
Rated power	200 kW	
Rated voltage	400 V ± 15%	
Rated frequency	50Hz / 60Hz	
Rated 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)	1100×1424×2350 mm	
	43.31×56.06×92.52 inch	
Weight	2500 kg (5511.56 lbs)	
IP Rating	IP55	
Cooling method	Liquid cooling	
FSS	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	

SYSTEM DIAGRAM





C&I ENERGY STORAGE SYSTEM

E-MATE 200-418-L (Liquid Cooling)

200kW/418kWh



Battery + PCS on grid storage system



52.25kWh modular design liquid cooling battery



Used in on grid storage / PV AC couple system



Multi-Level protection and alarm (gas, water, ventilation)



Supports 10 in parallel in AC side

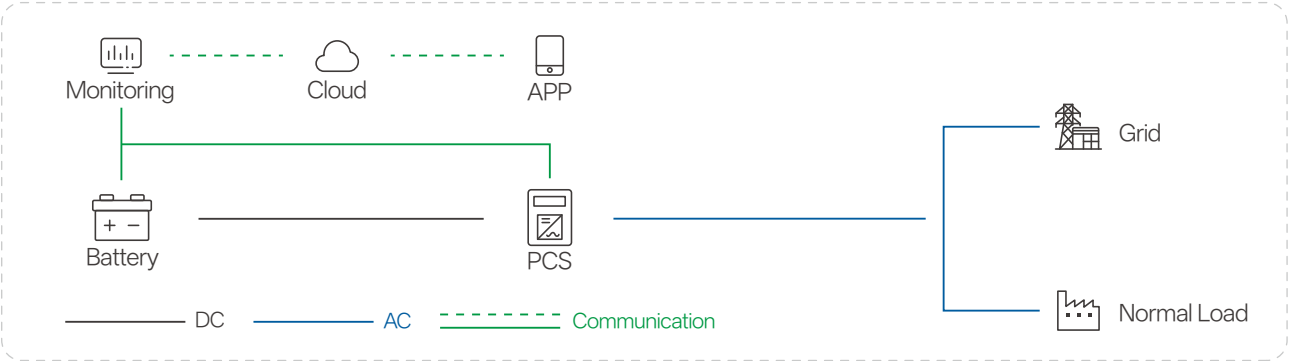


Intelligent EMS, remote monitoring and fault diagnose

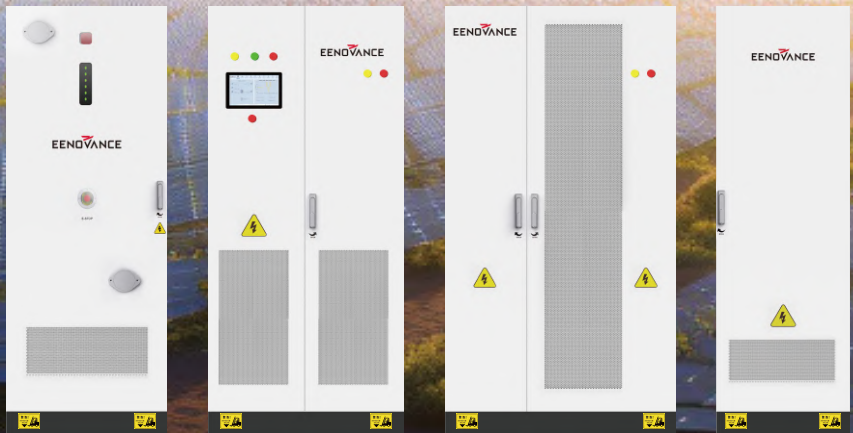
DATASHEET

Model		E-MATE 200-418-L
Battery Parameters		
Cell technology	LFP-3.2 V / 314 Ah	
Battery packs	52.25 kWh, 166.4 V	
Number of packs	8	
Rated capacity	418 kWh	
Rated voltage	1331.2 V	
Voltage range	1040 V ~ 1497.6 V	
Charge / discharge rate	0.5P	
AC Side Parameters (optional)		
Rated output power	200 kW	
Rated grid voltage	690V ± 15%	
Rated 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	4300 kg (9479.88 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	
IP Rating	IP55	
Cooling method	Liquid cooling	
FSS	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 / IEC6100-6-2 / IEC62477-1 / CQC (More available upon request)	

SYSTEM DIAGRAM



C&I ENERGY STORAGE SYSTEM



FlexCore Series

125kW~500kW/261kWh~1044kWh



Use in different applications by choosing cabinets



Intelligent EMS, remote monitoring and fault diagnose

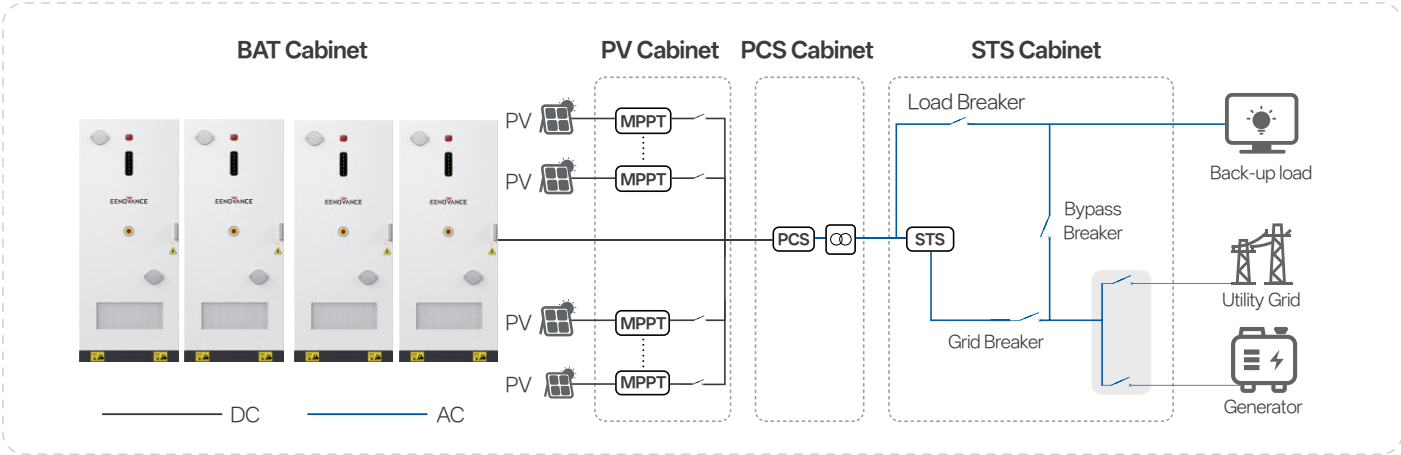


Multi-Level protection and alarm (gas, water, ventilation)



Single cluster battery management

SYSTEM DIAGRAM (FlexCore 125kW~500kW/261kWh~1044kWh)



DATASHEET

Model	FlexCore 125kW-261kWh	FlexCore 250kW-522kWh	FlexCore 500kW-1044kWh			
System Composition						
Electrical cabinet	Includes PCS / MPPT / STS, 1000×1000×1960 mm, 1.1t	1 set	Includes PCS / STS, 1200×1000×2060 mm,1.6t	1 set	Includes STS etc., 800×1000×2060 mm, 530 kg	1 set
PCS (PCS cabinet)	125 kW isolated type, built into electrical cabinet	/	250 kW isolated type, built into electrical cabinet	/	500 kW isolated type, 1200×1000×2060mm, 2.1t	1 set
MPPT (MPPT cabinet)	180 kW, built into electrical cabinet	/	360 kW, 1100×900×2060 mm, 530 kg	1 set	720 kW, 1100×900×2060 mm, 680 kg	1 set
Battery cabinet(optional, <16)	261 kWh, 1000×1450×2300 mm, 2.7t	1 set	261 kWh,1000×1450×2300 mm, 2.7t	2 set	261 kWh,1000×1450×2300 mm, 2.7t	4 set
PV DC Input (Optional)						
Input voltage range			150-Vbat, min			
Full power MPPT voltage range			340-Vbat, min			
Maximum input voltage			1000 V			
Maximum module number			3		6	
Maximum PV power			180 kW (60 kW*3)		360 kW (60 kW*6)	
Single module MPPT channel number			4			
Maximum MPPT current of each channel			45 A			
Maximum MPPT power of each channel			15 kW			
Battery DC Input						
Input voltage range			728 V ~ 936 V			
Maximum charge and discharge power			0.5P			
Battery cabinet energy (single)			261 kWh			
AC Grid Connection						
Rated capacity			125 kVA		250 kVA	
Rated AC voltage			400 V			
Rated frequency			50 / 60Hz			
Rated output current			182 A		364 A	
Maximum input current			364 A		728 A	
Power factor range			>0.99 (-0.8 ~ 0.8)			
AC connection			3W+N+PE			
AC off-grid						
Rated output power			125 kW (@ Resistive load)		250 kW (@ Resistive load)	
Rated output voltage			400 V			
Rated output current			182 A		364 A	
Rated frequency			50 / 60Hz			
Overload capacity			120%-1min			
Basic Parameters						
Built-in isolation transformer			Yes			
Diesel Generator connection			Yes			
IP Rating			IP20 / IP54			
On-grid to off-grid switching time (with STS)			<10ms			
Cooling method	Electrical cabinet	Intelligent air cooling				
	Battery cabinet	Intelligent liquid cooling				
Operating temperature range			-25 ~ 45℃			
Relative humidity			0-95% (No condensation)			
Compliance						
Electrical cabinet			IEC 62109-1 / IEC62109-2 / IEC62477-1 / IEC61000-6-2 / IEC61000-6-4 / NRS 097-2-1			
Battery cabinet			UN38.3 / IEC62619 / UL1973			



BATTERY ENERGY STORAGE SYSTEM

G-Power 5016-L

5.016MWh



Supports (BMS, PCS, PMS, EMS) deep integration



Multi-Level protection and alarm (gas, water, ventilation)



Modular design, flexible cluster selection



IP55 protection rating, outdoor installation



Electrical safety / Isolation and fire resistance

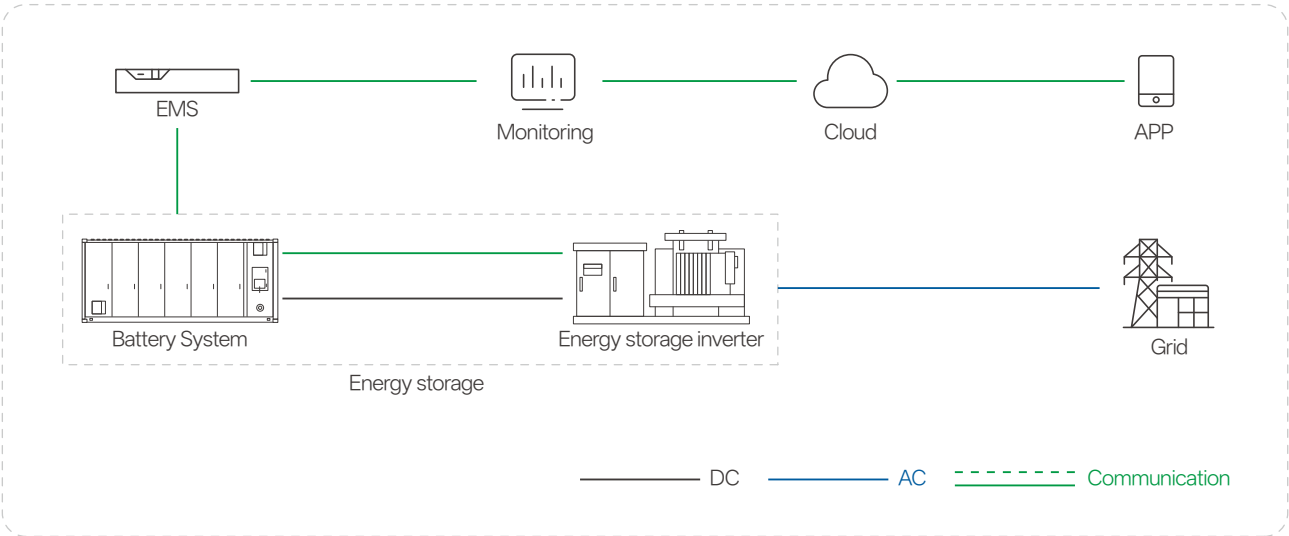


Intelligent EMS, remote monitoring and fault diagnose

DATASHEET

Model		G-Power 5016-L
Battery 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	
Voltage range	1040 V ~ 1497.6 V	
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	
IP Rating	IP55	
Cooling method	Liquid cooling	
FSS	Aerosol: module-level + containerized-level, water firefighting, combustible gas detection and exhaust, explosion venting design	
Communication	CAN / RS485 / TCP	
Cycle life	8000 cycles (25±2°C, 0.5P/0.5P, 70% SOH)	
Standard Compliance		
Compliance	UN38.3 / UN3536 / IEC62619 / IEC6100-6-2 / IEC62477-1 / CQC (More available upon request)	


SYSTEM DIAGRAM




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.




Data acquisition and real-time monitoring




Data analysis and optimization



Intelligent control and scheduling security and alarms



Data visualization and integrated management



APP and web real-time monitoring



CASES

Residential Storage System Cases



10kW/10.65kWh	10kW/10.65kWh	10kW/15.96kWh
December, 2024 Location: Vietnam Configuration: 10kW inverters +2 * MANA 5.3 batteries	July, 2024 Location: South Africa Configuration: 10kW inverter +MANA 10.6 battery	August, 2024 Location: Germany Configuration: 2 * 5kW inverters +3 * MANA 5.3 batteries

C&I Storage System Cases



Farm _ 250kW/305kWh	Small Factory _ 50kW/61kWh	Factory _ 1MW/2.29MWh
April, 2024 Location: South Africa Configuration: 5 * 50kW inverters +5 * RT 5.12-H12 (61kWh batteries)	June, 2024 Location: Poland Configuration: 50kW inverter +RT 5.12-H12 (61kWh battery)	August, 2024 Location: South Africa Configuration: 2 * 500kW inverters +10 * E-MATE-229R (229kWh batteries)