



Product Catalogue

Energy Smart Innovation CO., LTD



☎ 0830497301

✉ info@esithai.com

🌐 www.esi.com

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About Us

Shenzhen EEnovance Energy Technology CO., LTD is a high-tech company that focuses on the research, development, design, production, sales, and support of household and small commercial energy storage and larger industrial and commercial energy storage systems (ESS). Adhering to the principle of "product is life", the company is committed to providing safe, stable, and efficient energy storage products and solutions to global customers and also strives for global sustainable green smart energy.

Specializing in research and development, the company has obtained multiple product patents, with a comprehensive product range. The household and small commercial ESS range includes low-voltage MANA series and high-voltage CHAKRA series batteries, with energy storage capacities ranging from 5kWh to 25kWh. ESSs up to 100kWh can be configured using batteries in parallel, meeting a wide range of household and small commercial requirements. The larger E-MATE industrial and commercial storage series with capacities ranging from 50kWh to 500kWh, can also be configured using multiple models of the same type to create systems meeting user needs. The products include indoor models, outdoor cabinets, outdoor all-in-one systems, containerized systems, and other products, which provide users the flexibility to configure ESSs to meet their specific requirements. The existing products are widely used in European and African countries with high customer satisfaction for quality and stable solutions.

Since its establishment, the company has focused on technological research and development, products, quality, and services to enhance its competitiveness. Located in the manufacturing center of Songshan Lake, Dongguan, the company has established multiple automated production lines, with an annual production capacity of 5GWh, which ensures timely and high-quality deliveries for customer orders. The company has always been customer-focused and established product service centers in many countries, responding promptly to product inquiries and ensuring excellent after-sales service experience.



5.0 + GWh
Annual production capacity



30%
Employees of R&D



300+
Company employees



48~1000 V
Flexible battery solutions



150,000+
Installed in the world



50+
Patents in the ESS field



Model

MANA 5.0 / 5.3 / 10.6 / 16.0



MANA 5.0



MANA 5.3



MANA 10.6



MANA 16.0

[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

Up to 15 units in parallel

[Safe & Reliable]

Premium Lithium Iron Phosphate(LFP)
6000 cycles

[Easy Installation]

Floor stand or wall mounted

[Quick Commissioning]

One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]

Compatible with major PCS brands

DATASHEET

Model	MANA 5.0	MANA 5.3	MANA 10.6	MANA 16.0
Performance				
Cell technology	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)
Battery usable energy [1]	5.120 kWh	5.324 kWh	10.649 kWh	15.974 kWh
Nominal voltage	51.2 V	51.2 V	51.2 V	51.2 V
Operating voltage	45.6 - 56.16 V	45.6 - 56.16 V	45.6 - 56.16 V	45.6 - 56.16 V
Nominal output current	100 A / 50 A	100 A / 50 A	200 A / 100 A	300 A / 150 A
BMS protection current	110 A, 1 s	110 A, 1 s	210 A, 1 s	310 A, 1 s

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232

General Specification

Dimension (W*D*H)	450×150×533 mm 17.7×5.9×20.9 inch	450×150×533 mm 17.7×5.9×20.9 inch	550×160×836 mm 21.6×6.3×32.9 inch	720×160×916 mm 28.3×6.3×36.1 inch
	stand or Wall mounted	mm	mm	mm
Weight	-20 to 60°C (-4 to 140°F)	17.7×5.9×20.9	21.6×6.3×32.9	28.3×6.3×36.1
Installation	≤ 95%RH (No condensation)	inch 46 kg (101 lbs)	inch 89 kg (196 lbs)	inch 130 kg (287 lbs)
Operating temperature [2]	IP 20	lbs)	lbs)	lbs)
Environmental humidity	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL			
Protection rating	Max 15 batteries in parallel			
Cycle life [3]	ON Grid / ON Grid + Backup / OFF grid			
Scalability	Refer to compatible inverter list (Compatible with major PCS			
Application	brands)			
Compatible inverters				

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Battery pack: UN38.3 / IEC62619 / IEC61000 / UKCA (More available upon request)

Ordering and Deliverable Part

Part	MANA 5.0 Battery	MANA 5.3 Battery	MANA 10.6 Battery	MANA 16.0 Battery
	MANA 5.0 Parallel cable	MANA 5.3 Parallel cable	MANA 10.6 Parallel cable	MANA 16.0 Parallel cable
	MANA 5.0 to PCS cable	MANA 5.3 to PCS cable	MANA 10.6 to PCS cable	MANA 16.0 to PCS cable

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

MANA 5.0 Pro / 5.3 Pro / 10.6 Pro / 16.0 Pro



[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

Up to 15 units in parallel

[Safe & Reliable]

Premium Lithium Iron Phosphate(LFP)
6000 cycles

[Easy Installation]

Floor stand or wall mounted

[Quick Commissioning]

One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]

Compatible with major PCS brands

DATASHEET

Model	MANA 5.0 Pro	MANA 5.3 Pro	MANA 10.6 Pro	MANA 16.0 Pro
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Performance				
Cell technology	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)
Battery usable energy [1]	5.120 kWh	5.324 kWh	10.649 kWh	15.974 kWh
Nominal voltage	51.2 V	51.2 V	51.2 V	51.2 V
Operating voltage	45.6 - 56.16 V	45.6 - 56.16 V	45.6 - 56.16 V	45.6 - 56.16 V
Nominal output current	100 A / 50 A	100 A / 50 A	200 A / 100 A	300 A / 150 A
BMS protection current	110 A, 1 s	110 A, 1 s	210 A, 1 s	310 A, 1 s

Communication	
Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232 / Wi-Fi

General Specification				
Dimension (W*D*H)	500×150×563 mm	500×150×563 mm	600×160×836 mm	750×160×950 mm
	19.7×5.9×22.2 inch	19.7×5.9×22.2 inch	23.6×6.3×32.9 inch	29.5×6.3×37.4 inch
Weight	19.7×5.9×22.2	19.7×5.9×22.2	23.6×6.3×32.9	29.5×6.3×37.4
Installation	≤ 95%RH (No condensation)	inch 46 kg (101 lbs)	inch 89 kg (196 lbs)	inch 130 kg (287 lbs)
Operating temperature [2]	IP 55	lbs)	lbs)	lbs)
Environmental humidity	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL			
Protection rating	Max 15 batteries in parallel			
Cycle life [3]	ON Grid / ON Grid + Backup / OFF grid			
Scalability	Refer to compatible inverter list (Compatible with major PCS brands)			
Application				
Compatible inverters				

Standard Compliance	
Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Battery pack: UN38.3 / IEC62619 / IEC61000 / UKCA (More available upon request)

Ordering and Deliverable Part				
Part	MANA 5.0 Pro Battery	MANA 5.3 Pro Battery	MANA 10.6 Pro Battery	MANA 16.0 Pro Battery
	MANA 5.0 Pro Parallel cable	MANA 5.3 Pro Parallel cable	MANA 10.6 Pro Parallel cable	MANA 16.0 Pro Parallel cable
	MANA 5.0 Pro to PCS cable	MANA 5.3 Pro to PCS cable	MANA 10.6 Pro to PCS cable	MANA 16.0 Pro to PCS cable

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

MANA 14.33



[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

Up to 15 units in parallel

[Safe & Reliable]

Premium Lithium Iron Phosphate(LFP)
6000 cycles

[Easy Installation]

Floor stand or wall mounted

[Quick Commissioning]

One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]

Compatible with major PCS brands

DATASHEET

Model	MANA 14.33
Performance	
Cell technology	LFP (LiFePO4)
Battery usable energy [1]	14.33 kWh
Nominal voltage	51.2 V
Operating voltage	45.6 - 56.16 V
Nominal output current	140 A / 280 A
BMS protection current	600 A, 300 μs
Communication	
Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232 / Wi-Fi
General Specification	
Dimension (W*D*H)	800×250×839 mm 31.5×9.8×33.0 inch 145 kg (320 lbs) Floor stand or Wall mounted -20 to 60°C (-4 to 140°F) ≤ 95%RH
Weight	(No condensation) IP 20 6000 Cycles @ 80% DOD / 25°C /
Installation	0.5C, 60% EOL Max 15 batteries in parallel ON Grid / ON Grid
Operating temperature [2]	+ Backup / OFF grid Refer to compatible inverter list
Environmental humidity	(Compatible with major PCS brands)
Protection rating	
Cycle life [3]	
Scalability	
Application	
Compatible inverters	
Standard Compliance	
Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET Battery pack: UN38.3 / IEC62619 / IEC61000 / UKCA (More available upon request)
Ordering and Deliverable Part	
Part	MANA 14.33 Battery MANA 14.33 Parallel cable MANA 14.33 to PCS cable

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

MANA 5.12-S



[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

Up to 15 units in parallel

[Safe & Reliable]

Premium Lithium Iron Phosphate(LFP)
6000 cycles

[Easy Installation]

Floor stand or wall mounted

[Quick Commissioning]

One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]

Compatible with major PCS brands

DATASHEET

Model	MANA 5.12-S
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Performance

Cell technology	LFP
Battery usable energy [1]	(LiFePO4)
Nominal voltage	5.12 kWh
Operating voltage	51.2 V 55.2-
Nominal output current	56.16 V 100
BMS protection current	A / 50 A 110
	A, 1 s

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232 / Wi-Fi

General Specification

Dimension (W*D*H)	460×161.5×614 mm 18.1×6.4×24.2 inch
Weight	47 kg (104 lbs)
Installation	Floor stand or Wall mounted
Operating temperature [2]	-20 to 60°C (-4 to 140°F)
Environmental humidity	≤ 95%RH (No condensation)
Protection rating	IP 20
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% 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

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET Battery pack: UN38.3 / IEC62619 / IEC61000 / UKCA (More available upon request)
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Ordering and Deliverable Part

Part	MANA 5.12-S Battery MANA 5.12-S Parallel cable MANA 5.12-S to PCS cable
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[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model RT 2560 / RT 5120 / RT 5320



[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

Modular design
Max 15 batteries in parallel

[Safe & Reliable]

Premium Lithium Iron Phosphate(LFP)
6000 cycles

[Easy Installation]

Rack / Wall / Cabinet-mounted

[Quick Commissioning]

Automatic ID assignment

[Perfect Compatibility]

Compatible with major PCS brands

DATASHEET

Model	RT 2560	RT 5120	RT 5320
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Performance			
Cell technology Battery	LFP (LiFePO4)		
usable energy [1]	2.560 kWh	5.120 kWh	5.324 kWh
Nominal voltage	51.2 V	51.2 V	51.2 V
Operating voltage	45.6 - 56.16 V	45.6 - 56.16 V	45.6 - 56.16 V
Nominal output current	50 A / 25 A	100 A / 50 A	100 A / 50 A
BMS protection current	110 A, 1 s	110 A, 1 s	110 A, 1 s

Communication	
Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232

General Specification			
Dimension (W*D*H)	440×480×115 mm	440×550×130 mm	440×550×130 mm
	17.32×18.90×4.53 inch	17.3×21.6×5.12 inch	17.3×21.6×5.12 inch
Weight	30 kg (66 lbs)	45 kg (99 Ibs)	46 kg (101 Ibs)
Installation	Rack / Wall / Cabinet-Mounted		
Operating temperature [2]	-20 to 60°C (-4 to 140°F)		
Environmental humidity	≤ 95%RH (No condensation)		
Protection rating	IP 20		
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% 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	
Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Battery pack: UN38.3 / IEC62619 / IEC61000 / UKCA (More available upon request)

Ordering and Deliverable Part			
Part	RT 2560 Battery RT	RT 5120 Battery	RT 5320 Battery
	2560 Parallel cable	RT 5120 Parallel cable	RT 5320 Parallel cable
	RT 2560 to PCS cable	RT 5120 to PCS cable	RT 5320 to PCS cable

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

RT 5.12-H



[More Usable Energy]
100% Depth of Discharge

[Flexible Investment]
5.12 kWh modular design
Max 12 modules per stack, 4 stacks in parallel

[Safe & Reliable]
Cobalt Free Lithium Iron Phosphate (LFP)
battery has maximum safety and 6000 cycles

[Easy Installation]
Internal plug design and
no additional wiring

[Quick Commissioning]
One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]
Compatible with leading PCS brands

DATASHEET

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
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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	358.4 V	409.6 V	460.8 V	512 V	563.2 V	614.4 V
Operating voltage	182.4 - 224.64 V	228.0 - 280.80 V	273.6 - 336.96 V	319.2 - 393.12 V	364.8 - 449.28 V	410.4 - 504.48 V	456.0 - 516.60 V	501.6 - 617.76 V	547.2 - 673.92 V
Max output current	100 A (1C)								
Charge/Discharge current	50 A / 100 A								

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232
Functions	Remote upgrade, EMS, Real-time monitoring of local data

General Specification

Dimension (W*D*H)	620×630×2240
	mm
Weight	290 kg (639.3 lbs) 359 kg (792.2 lbs) 430 kg (948.2 lbs) 500 kg (1102.3 lbs) 570 kg (1256.6 lbs) 640 kg (1408.8 lbs) 710 kg (1555.1 lbs) 780 kg (1718.3 lbs) 850 kg (1888.1 lbs)
Installation	Free stand
Operating temperature [2]	-20 to 60°C (-4 to 140°F)
Environmental humidity	≤ 95%RH (No condensation)
Protection rating	IP 20
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% 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

Certificates	UN38.3 / IEC62619 / IEC62040-1(More available upon request)
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Ordering and Deliverable Part

Part	RT-5.12-QC-A								
	RT-BCU-M-20.48-QC	RT-BCU-M-25.60-QC	RT-BCU-M-30.72-QC	RT-BCU-M-35.84-QC	RT-BCU-M-40.96-QC	RT-BCU-M-46.08-QC	RT-BCU-M-51.20-QC	RT-BCU-M-56.32-QC	RT-BCU-M-61.44-QC

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

RT 5.32-H



[More Usable Energy]
100% Depth of Discharge

[Flexible Investment]
5.32 kWh modular design
Max 12 modules per stack, 4 stacks in parallel

[Safe & Reliable]
Cobalt Free Lithium Iron Phosphate (LFP)
battery has maximum safety and 6000 cycles

[Easy Installation]
Internal plug design and
no additional wiring

[Quick Commissioning]
One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]
Compatible with leading PCS brands

DATASHEET

Model	RT 5.32-H4	RT 5.32-H5	RT 5.32-H6	RT 5.32-H7	RT 5.32-H8	RT 5.32-H9	RT 5.32-H10	RT 5.32-H11	RT 5.32-H12
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Performance

Cell technology	LFP (LiFePO4)								
Number of modules	4	5	6	7	8	9	10	11	12
Battery usable energy [1]	21.29 kWh	26.62 kWh	31.94 kWh	37.27 kWh	42.59 kWh	47.92 kWh	53.24 kWh	58.57 kWh	63.89 kWh
Nominal voltage	204.8 V	256 V	307.2 V	358.4 V	409.6 V	460.8 V	512 V	563.2 V	614.4 V
Operating voltage	182.4 - 224.64 V	228.0 - 280.80 V	273.6 - 336.96 V	319.2 - 393.12 V	364.8 - 449.28 V	410.4 - 505.44 V	456.0 - 516.60 V	501.6 - 617.76 V	547.2 - 673.92 V
Max output current	104 A (1C)								
Charge/Discharge current	52 A / 104 A								

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232
Functions	Remote upgrade, EMS, Real-time monitoring of local data

General Specification

Dimension (W*D*H)	620×630×2240 mm								
Weight	290 kg (639.3 lbs)	365 kg (805.2 lbs)	440 kg (969.0 lbs)	515 kg (1135.5 lbs)	590 kg (1300.7 lbs)	665 kg (1466.0 lbs)	740 kg (1630.9 lbs)	815 kg (1796.2 lbs)	890 kg (1960.5 lbs)
Installation	Floor stand								
Operating temperature [2]	-20 to 60°C (-4 to 140°F)								
Environmental humidity	≤ 95%RH (No condensation)								
Protection rating	IP 20								
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% 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

Certificates	UN38.3 / IEC62619 / IEC62040-1(More available upon request)
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Ordering and Deliverable Part

Part	RT-5.32-QC-A								
	RT-BCU-M-21.29-QC	RT-BCU-M-26.62-QC	RT-BCU-M-31.94-QC	RT-BCU-M-37.27-QC	RT-BCU-M-42.59-QC	RT-BCU-M-47.92-QC	RT-BCU-M-53.24-QC	RT-BCU-M-58.57-QC	RT-BCU-M-63.89-QC

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model CHAKRA 2.5-H



[More Usable Energy]

100% Depth of Discharge

[Flexible Investment]

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

[Safe & Reliable]

Cobalt Free Lithium Iron Phosphate (LFP) battery
has maximum safety and 6000 cycles

[Easy Installation]

Internal plug design and
no additional wiring

[Quick Commissioning]

One button ON/OFF
Automatic ID assignment

[Perfect Compatibility]

Compatible with leading PCS brands

DATASHEET

Model	CHAKRA 2.5-H4	CHAKRA 2.5-H5	CHAKRA 2.5-H6	CHAKRA 2.5-H7	CHAKRA 2.5-H8	CHAKRA 2.5-H9	CHAKRA 2.5-H10
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Performance							
Battery module (Wh/V)	2.56 kWh, 51.2 V, 30 kg (67 lbs)						
Number of modules	4	5	6	7	8	9	10
Cell technology	LFP (LiFePO4)						
Battery usable energy [1]	10.24 kWh	12.8 kWh	15.36 kWh	17.92 kWh	20.48 kWh	23.04 kWh	25.60 kWh
Nominal voltage	204.8 V	256.0 V	307.2 V	358.4 V	409.6 V	460.8 V	512.0 V
Operating voltage	182.40 - 224.64 V	228 - 280.8 V	273.6 - 336.96 V	319.2 - 393.12 V	364.8 - 449.28 V	410.4 - 505.44 V	456 - 561.6 V
Max output current	25 A (0.5C)						

Communication	
Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232

General Specification							
Dimension (W*D*H)	560×359×815 mm	560×359×950 mm	560×359×1085 mm	560×359×1220 mm	560×359×1355 mm	560×359×1490 mm	560×359×1625 mm
	22.1×14.2×32.1 inch	22.1×14.2×37.4 inch	22.1×14.2×42.7 inch	22.1×14.2×48.0 inch	22.1×14.2×53.4 inch	22.1×14.2×58.7 inch	22.1×14.2×64.0 inch
Weight	160 kg (352.8 lbs)	221 kg (487.1 lbs)	282 kg (621.5 lbs)	343 kg (755.9 lbs)	404 kg (890.3 lbs)	465 kg (1025.7 lbs)	526 kg (1160.1 lbs)
Installation	Floor stand	inch 190	kg 485	inch 250	kg (551)	inch 280	kg (617)
Operating temperature [2]	-20 to 60°C (-4 to 140°F)						
Environmental humidity	≤ 95%RH (No condensation)						
Protection rating	IP 20						
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% 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	
Certificates	UN38.3 / IEC62619 / IEC62040-1 (More available upon request)

Ordering and Deliverable Part	
Part	CHAKRA 2.5-H (Battery module)
	CHAKRA 2.5-H-BCU

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 50-A



[Overview]

Indoor battery rack with IP20 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-Ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long life cycle, 6000 cycles*

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 50-A	E-MATE 60-A	E-MATE 70-A
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Performance

Battery module (Wh/V)	5.12 kWh, 51.2 V, 45.9 kg (101 lbs)		
Number of modules	10	12	14
Cell technology	LFP (LiFePO4)		
Battery usable energy [1]	51.20 kWh	61.44 kWh	71.68 kWh
Nominal voltage	512.0 V	614.4 V	716.8 V
Operating voltage	456.00 - 561.60 V	547.20 - 673.92 V	638.40 - 786.24 V
Nominal output current	50 A		

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232

General Specification

Dimension (W*D*H)	1410×320×1043 mm	1410×320×1187 mm	1410×320×1331 mm
	55.5×12.6×41.1 inch	55.5×12.6×46.7 inch	55.5×12.6×52.4 inch
Weight	About 508 kg (1120 lbs)	About 600 kg (1323 lbs)	About 692 kg (1526 lbs)
Operating temperature [2]	-20 to 60 °C (-4 to 140 °F)		
Environmental humidity	≤ 95%RH (No condensation)		
Protection rating	IP 20		
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL		
Scalability	Yes		
Application	ON Grid / ON Grid + Backup / OFF grid		
Compatible PCS	Refer to compatible PCS list		

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET		
	Pack: UN38.3 / IEC62619 / IEC61000		
	Available upon request		

Ordering and Deliverable Part

Part	E-MATE-5.12-QC-B (Battery module)		
	E-MATE-BCU-M-50-QC (Main control box)	E-MATE-BCU-M-60-QC (Main control box)	E-MATE-BCU-M-70-QC (Main control box)
	E-MATE-BP-5.12 (Battery pedestal)		

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 80



[Overview]

Indoor battery rack with IP20 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long cycle life, 6000 cycles *

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 80
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Performance

Battery module (Wh/V)	6.144 kWh, 51.2 V, 64 kg (141 lbs)
Number of modules	13
Cell technology	LFP (LiFePO4)
Battery usable energy [1]	79.87 kWh
Nominal voltage	665.6 V
Operating voltage	592.8 - 730.08 V
Nominal output current	48 A

Communication

Display	SOC status indicator, LED indicator
Communication	CAN / RS485 / RS232

General Specification

Dimension (W*D*H)	2420×305×1150 mm 95.3×12×45.3 inch
Weight	About 886 kg (1953 lbs)
Operating temperature [2]	-20 to 60°C (-4 to 140°F)
Environmental humidity	≤ 95%RH (No condensation)
Protection rating	IP 20
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL
Scalability	Yes
Application	ON Grid / ON Grid + Backup / OFF grid
Compatible PCS	Refer to compatible PCS list

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Pack: UN38.3 / IEC62619 / IEC61000
	Available upon request

Ordering and Deliverable Part

Part	E-MATE-6.1P-OT (Battery module)
	E-MATE-BCU-080H1-OT (Main control box)
	E-MATE-6.1BP (Battery pedestal)

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 143R



[Overview]

Indoor battery rack with IP20 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long cycle life, 6000 cycles *

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 114R	E-MATE 129R	E-MATE 143R
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Performance

Battery module (Wh/V)	14.336 kWh, 51.2 V, 110 kg (242.5 lbs)		
Number of modules	8	9	10 LFP
Cell technology	LFP (LiFePO4)	LFP (LiFePO4)	(LiFePO4)
Battery usable energy [1]	114.688 kWh	129.024 kWh	143.36 kWh
Nominal voltage	409.6 V	460.8 V	512 V 456 -
Operating voltage	364.8 - 449.28 V	410.4 - 505.44 V	561.6 V 140
Nominal output current	140 A / 280 A	140 A / 280 A	A / 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		
	45.8×33.1×69.9 inch		
Weight	1130 kg (2491 lbs)	1240 kg (2734 lbs)	1350 kg (2976 lbs)
Operating temperature [2]	-20 to 60°C (-4 to 140°F)		
Environmental humidity	≤ 95%RH (No condensation)		
Protection rating	IP 20		
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL		
Scalability	Yes		
Application	ON Grid / ON Grid + Backup / OFF grid		
Compatible PCS	Refer to compatible PCS list		

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET		
	Pack: UN38.3 / IEC62619 / IEC61000		
	System: UL 9540 (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-R12		

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 229R



[Overview]

Indoor battery rack with IP20 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long cycle life, 6000 cycles *

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 157R	E-MATE 200R	E-MATE 215R	E-MATE 229R
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Performance

Battery module (Wh/V)	14.336 kWh, 51.2 V, 110 kg (242.5 lbs)			
Number of modules	11	14	15 LFP	16
Cell technology	LFP (LiFePO4)	LFP (LiFePO4)	(LiFePO4)	LFP (LiFePO4)
Battery usable energy [1]	157.696 kWh	200.704 kWh	215.04 kWh	229.376 kWh
Nominal voltage	563.2 V	716.8 V	768.0 V 684	819.2 V
Operating voltage	501.6 - 617.76 V	638.4 - 786.24 V	- 842.4 V	729.6 - 898.56 V
Nominal output current	140 A / 280 A	140 A / 280 A	140 A / 280	140 A / 280 A

Communication

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

General Specification

Dimension (W*D*H)	1721×840×1776 mm 66.8×33.1×69.9 inch			
Weight	1540 kg (3395 lbs)	1870 kg (4122 lbs)	1980 kg (4365 lbs)	2090 kg (4608 lbs)
Operating temperature [2]	-20 to 60°C (-4 to140 °F)			
Environmental humidity	≤ 95%RH (No condensation)			
Protection rating	IP 20			
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL			
Scalability	Yes			
Application	ON Grid / ON Grid + Backup / OFF grid			
Compatible PCS	Refer to compatible PCS list			

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Pack: UN38.3 / IEC62619 / IEC61000
	System: UL 9540 (More available upon request)

Ordering and Deliverable Part

Part	E-MATE-14.3-QC			
	E-MATE-BCU-M-157-QC	E-MATE-BCU-M-200-QC	E-MATE-BCU-M-215-QC	E-MATE-BCU-M-229-QC
	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 operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 200C



[Overview]

Outdoor battery cabinet with IP55 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long cycle life, 6000 cycles

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 200C
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Performance

Battery module (Wh/V)	14.336 kWh, 51.2 V, 110 kg (242.5 lbs)
Number of modules	14
Cell technology	LFP (LiFePO4)
Battery usable energy [1]	200.704 kWh
Nominal voltage	716.8 V
Operating voltage	638.4 - 786.24 V
Nominal output current	140 A / 280 A

Communication

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

General Specification

Dimension (W*D*H)	1500×1050×2200 mm 50.1×41.3×86.6 inch
Weight	1900 kg (4189 lbs)
Operating temperature [2]	-20 to 60°C (-4 to 140°F)
Environmental humidity	≤ 95%RH (No condensation)
Protection rating	IP 55
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL
Scalability	Yes
Application	ON Grid / ON Grid + Backup / OFF grid
Compatible PCS	Refer to compatible PCS list

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Pack: UN38.3 / IEC62619 / IEC61000
	System: UL 9540 (More available upon request)

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Model

E-MATE 500GP



[Overview]

Outdoor battery container with IP55 protection level, inbuild lithium-ion battery and BMS

[Easy Installation and Maintenance]

Local and remote management, standard rack&module design, front maintenance

[Safe & Reliable]

Self-developed 2-level / 3-level BMS, complex protection, safe and reliable

[High Density]

LP high-capacity Li-ion battery with aluminum shell, over 130wh/kg

[Long Lifespan]

Long cycle life, 6000 cycles *

[Cell Balancing Technology]

Active cell balancing and passive cell balancing

DATASHEET

Model	E-MATE 500GP
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Performance

Battery module (Wh/V)	14.336 kWh, 51.2 V, 110 kg (242.5 lbs)
Number of modules	18*2
Cell technology	LFP (LiFePO4)
Battery usable energy [1]	516.096 kWh
Nominal voltage	921.6 V
Operating voltage	820.8 - 1010.9 V
Nominal output current	140 A*2 / 280 A* 2

Communication

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

General Specification

Dimension (W*D*H)	2991×2438×2591 mm 117.8×95.9×102 inch
Weight	8000 kg (17637 lbs)
Operating temperature [2]	-20 to 60°C (-4 to 140°F)
Environmental humidity	≤ 95%RH (No condensation)
Protection rating	IP 55
Cycle life [3]	6000 Cycles @ 80% DOD / 25°C / 0.5C, 60% EOL
Scalability	Yes
Application	ON Grid / ON Grid + Backup / OFF grid
Compatible PCS	Refer to compatible PCS list

Standard Compliance

Certificates	Cell: UN38.3 / IEC62619 / UL 1642 / JET
	Pack: UN38.3 / IEC62619 / IEC61000
	System: UL 9540 (More available upon request)

[1] Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C.
[2] Charge/discharge derating occurs when the operating temperature from -10°C to 5°C & 45°C to 55°C.
[3] Please refer to the Warranty Letter for applicable conditions.

Certificate

