Commercial & Industrial

Energy Storage Solution

FOR EU MARKET

Renon Power Technology Inc.

2024-08-05

RENON
RENON POWER

Renon Power

We Care The Sustainability

With our own R&D team and automatic production factory, we are dedicated to delivering innovative, reliable, and affordable energy storage solutions to global customers.

At Renon, we believe that sustainable energy is the future. We are passionate about reducing carbon emissions and preserving our planet for future generations. That's why we invest heavily in research and development, leveraging the latest technologies to design and manufacture energy storage systems that are efficient, scalable, and adaptable.

Our products are designed to meet the needs of a wide range of applications, from residential and commercial buildings to industrial facilities and utility-scale projects. Whether you're looking to reduce your energy bills, increase your energy independence, or support your sustainability goals, Renon has the right solution for you.

Our commitment to quality and customer satisfaction is unwavering. We work closely with our clients to understand their unique needs and provide customized solutions that meet or exceed their expectations. We also provide comprehensive technical support, maintenance, and warranty services to ensure that our customers get the most out of their investment.

JOIN US ON OUR MISSION TO MAKE GREEN POWER WITHIN REACH.

PROVIDE INNOVATIVE, RELIABLE, AND AFFORDABLE ENERGY STORAGE SOLUTIONS TO CUSTOMERS WORLDWIDE.

Content

Meeting the highest standards of quality and safety in the global market.

Industry Application

Renon's energy storage products are extensively applied across residential, commercial, and industrial sectors. With exceptional performance, cutting-edge technology, and efficient energy management, they provide reliable, innovative, and eco-friendly energy solutions, helping global users achieve their sustainability goals.

Residential
Apartment

Residential
Detached House

Agriculture & Livestock
Farm & Ranch

Commercial
Supermarket & Kiosk

Commercial
Charging Station

Commercial
Community

Industrial
Manufactory

Industrial
Supercomputing

Industrial
Electricity Generating Station

As a company that values renewable energy, we are passionate about developing solutions that contribute to a greener, more sustainable future. Our products are designed to reduce carbon emissions and promote environmental conservation.

Products Display

Our integrated C&I solutions offer autonomous energy storage and management for commerce and industry.

Battery Storage System

P03
ECube 60AP

P05
MPack 215B

P07
PV Combiner Cube

P09
Smart Cube

Distribution Cabinet System

P11
MPack 233A

P13
AC Combiner Cube

Distribution Container System

P15
Smart Matrix

Battery-Buffered Charging System

P17
EStand M260

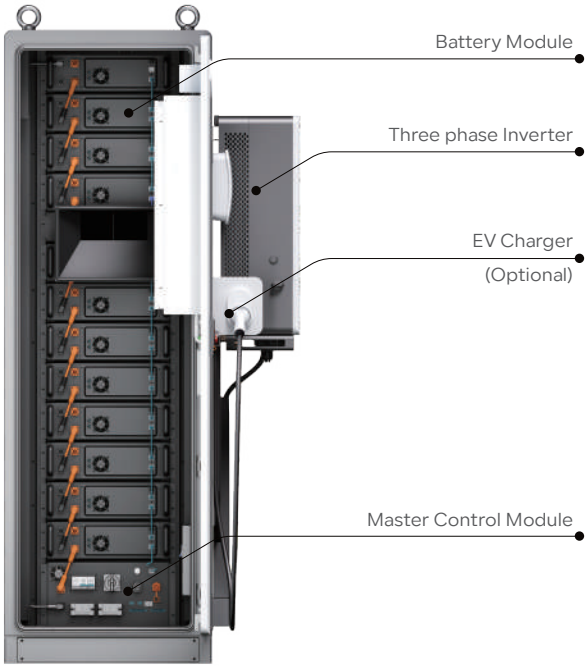
P19
EStand 240/480

ECube 60AP

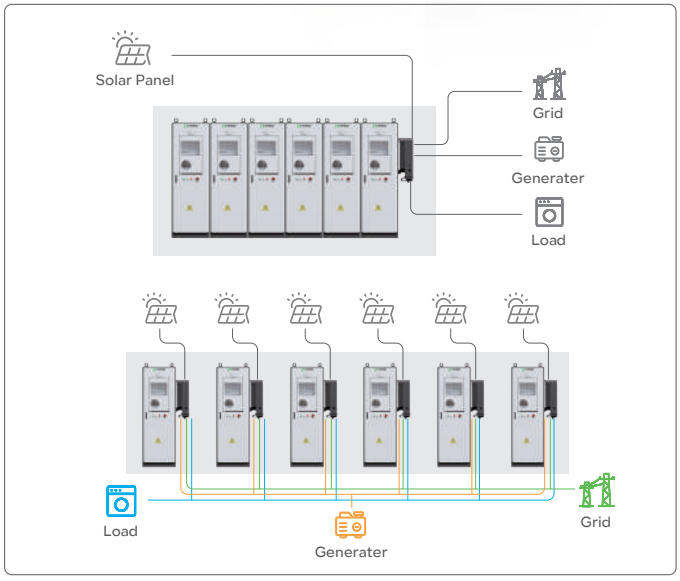
60kWh Air-Cooling Battery

The ultimate commercial and industrial energy storage solution with optimized temperature control, high-rate energy cycling, comprehensive fire and gas safety detection, and advanced integrated power management technologies.

System Demonstration



System Layout



Application Scenario


MANUFACTORY


OFFICE SPACE


SUPERMARKET & KIOSK

Battery Energy Storage	
Cell Chemistry	LiFePO4
Module Energy (kWh)	5.12
Module Nominal Voltage (V)	51.2
Module Capacity (Ah)	100
Battery Module Combination	12S1P
System Nominal Voltage (V)	614.4
System Operating Voltage (V)	562.5~681.6
System Energy (kWh)	61.44
Charge Current (A)	95
Discharge Current (A)	100

PV Input	
Max. Input Power(kW)	90
Max. Input Voltage(V)	1100
Start-up Voltage(V)	200
Rated Voltage(V)	620
MPPT Voltage Range(V)	180~1000
Number of MPP Trackers	4
Number of String per MPPT	8
Max. Current per MPPT(A)	40
Max. Short Circuit Current per MPPT(A)	50

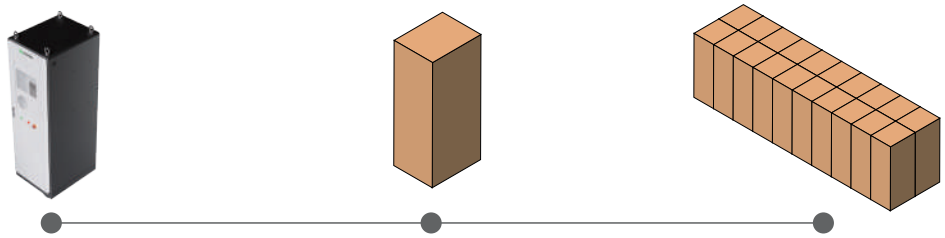
Charging System(Optional)	
Charging Type	Charging Mode 3 Case B & Case C
Outlet Options	AC Type 2 (IEC 62196-2)
Input/Output Current rating(A)	32, three phase
Input/Output Power rating(kW)	23@ 415 VAC
Input/Ouput Voltage(VAC)	380~415
Input Frequency(Hz)	50/60
Cable Length	5.0 m, Optional: 7.5 m
Distribution Systems	TT, TN system
Connector Type	3P + N + PE
Certifications	IEC/EN 61851-1, IEC 61851-21-2 IEC 62196-1, IEC 62196-2, IEC62109

AC Output(On-Grid)	
Rated Output Power(kW)	60
Max. Output Power(kVA)	66
Max. Output Current(A)	100
Max. Input Power from Grid(kW)	90
Max. input Current from Grid(A)	136.4
Rated Grid Voltage	3 / N / PE, 230 V / 400 Vac
Rated Grid Frequency(Hz)	50 / 60
THDi(@Rated Power)	<3%
Power Factor	0.8 leading ~ 0.8 lagging

AC Output (EPS)	
Rated Output Power(kW)	50
Max. Output Power	1.5 times / 10s
Max. Output Current(A)	91
Switch Time	<10ms
Rated Voltage	3 / N / PE，230V / 400Vac
Rated Frequency(Hz)	50/60
Max. AC passthrough current(A)	150
THDv (@linear load)	<2%

General Parameters	
Battery Model	R-060060A1-EU
Dimension (W*D*H)	750*950*2280mm / 29.5*37.4*89.7in
Weight Approximate	1050kg / 2314.8lb
Working Temperature	-20°C~50°C
Communication Interface	CAN, RS485, Wi-Fi, LTE
Humidity	5%~85%RH
Altitude	≤2000m
IP Rating	IP55
Storage Temperature	-20°C~35°C
Recommend Depth of Discharge	90%
Cycle Life	>8000 cycles
Warranty	3 years free, paid from the 4th to the 15th year
Certification	UN38.3, MSDS, UL1973, UL9540A, UL9540

Packaging & Shipping Details



Product
750*950*2280mm
1050kg

1Set
850*1050*2350mm
1100kg

40C
20 Set
22000kg

ECube 215B

114~215kWh Air-Cooling Battery

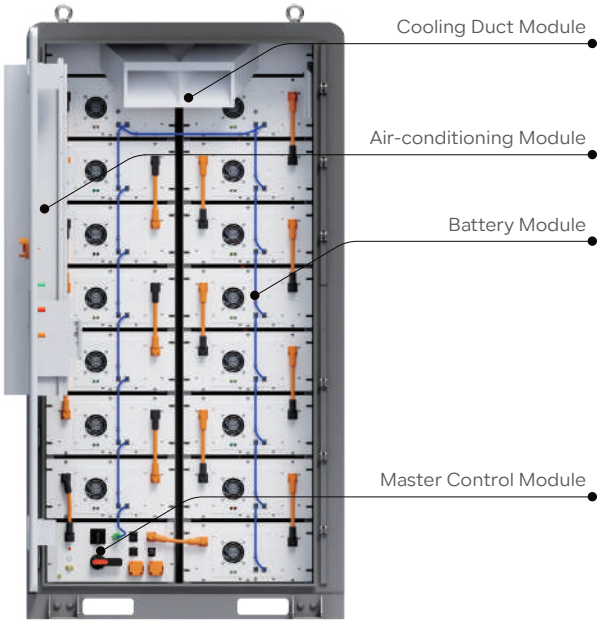
High Security: Utilizes high-safety lithium iron phosphate batteries, with partition safety isolation, built-in module-level and system-level fire protection, and an active safety early warning system to ensure reliable operation.

Efficient BMS Technology: Features high-efficiency equalization technology and low power consumption BMS sampling chips, reducing module inconsistencies and eliminating series loss for optimal performance.

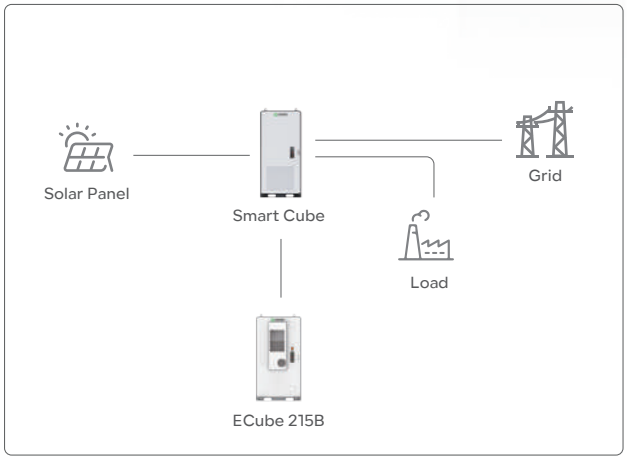
Long Life Cycle & Thermal Management: Offers over 8000 cycle times with a lifespan exceeding 15 years, supported by laser welding and a high-efficiency Air-cooling and heating system maintaining cell temperature consistency.

Easy Installation & Maintenance: Standardized design for simplified installation and user deployment, with a fully modular setup for convenient operation and maintenance, both locally and via cloud systems.

System Demonstration



System Layout



Application Scenario

COMMUNITY

OFFICE SPACE

FARM

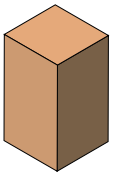
Battery Energy Storage	114kWh	129kWh	143kWh	157kWh	172kWh	186kWh	200kWh	215kWh
Single Cell Type	LFP 3.2V / 280AH							
Module Combination	1P16S							
System Combination (Modules)	8	9	10	11	12	13	14	15
Capacity (kWh)	114.69	129.02	143.36	157.70	172.03	186.37	200.70	215.04
Nominal Voltage (Vdc)	409.6	460.8	512	563.2	614.4	665.6	716.8	768
Voltage Range (Vdc)	345.6~460.8	388.8~518.4	432~576	475.2~633.6	518.4~691.2	561.6~748.8	604.8~806.4	648~864
Charge/Discharge Current	0.5C							
Discharge Depth	100% DoD							
Service Life	>8000 cycles@80% DoD							
Thermal Management Mode	Air-cooling Technology							
Thermal Runaway Management	Aerosol Extinguishing or PFH							

System Characteristic	
Communication Interface	CAN
Warranty	3 years free, paid from the 4th to the 15th year
Certifications(Cell)	UN38.3, UL1973, IEC62619, UL9540A, GB/T 36276
Certifications(System)	IEC62477, IEC62619, IEC61000-6-2/4, UN3480

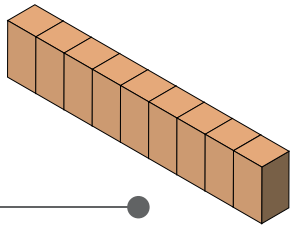
General Parameters								
System Model	R-EC144LCB01	R-EC129LCB01	R-EC143LCB01	R-EC157LCB01	R-EC172LCB01	R-EC186LCB01	R-EC200LCB01	R-EC215LCB01
Dimensions (W*D*H)	1250*1200*2350mm / 49.2*47.2*92.5in							
Total Weight	1394kg 3073lb	1502kg 3311lb	1610kg 3549lb	1718kg 3787lb	1826kg 4025lb	1934kg 4263lb	2042kg 4462lb	2150kg 4740lb
Operation Altitude	2000m / 6561ft							
Noise Level @1m	<75 dB(A)							
IP Rating	IP55							
Operating Temperature	-30°C ~ 55°C							
Operating Humidity (RH)	0 ~ 95%							
Storage Conditions	-20°C ~ 30°C, Up to 95% RH,non-condensing, State of Energy (SoE): 50% initial							

Packaging & Shipping Details

Battery System
1250*1200*2350mm
2150kg



1Set
1450*1400*2520mm
2700kg



40C
8 Set
21600kg

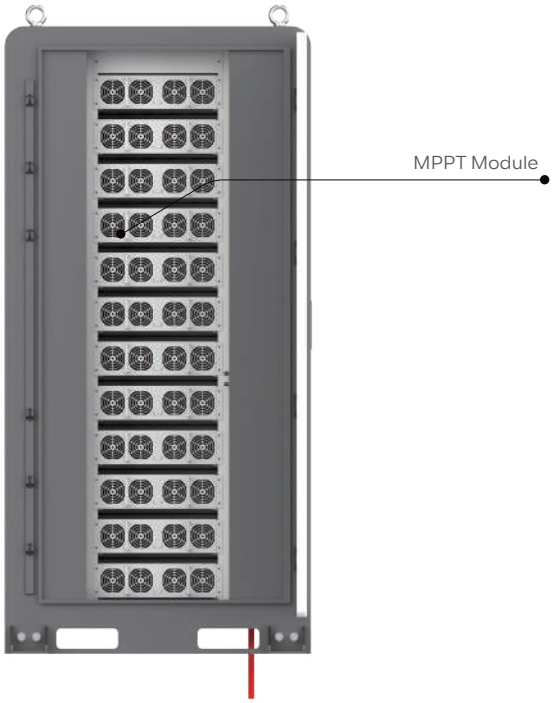
PV Combiner Cube

PV Combiner Cabinet (for ECube 215B)

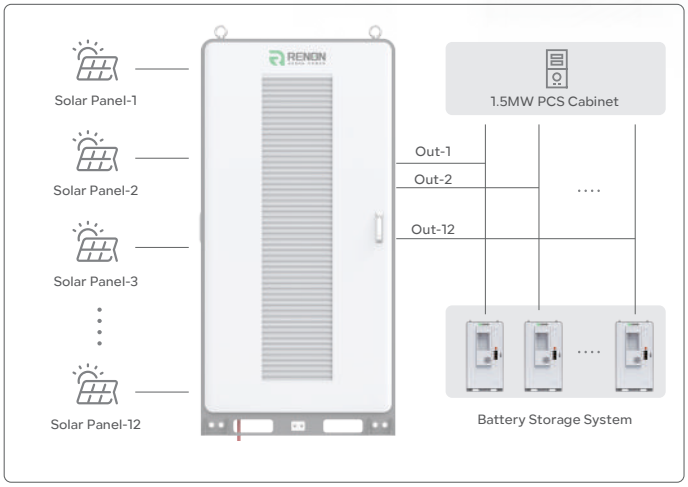
The "PV Combiner Cube" is specifically designed for the Renon Power "ECube 215B" pure battery cabinet product, serving as an essential photovoltaic combiner box. This advanced system enhances energy collection efficiency by integrating multiple photovoltaic arrays seamlessly.

One PV Combiner Cube can support up to 12 ECube 215B.

System Demonstration



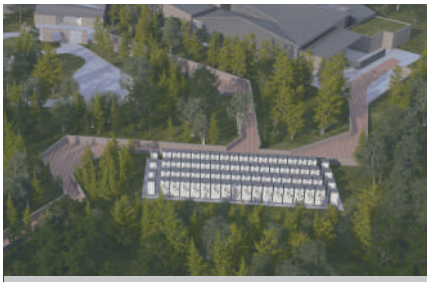
System Layout



Application Scenario

ELECTRICITY GENERATING STATION

INDUSTRIAL PARK



REMOTE AREA OFF-GRID

PV Input	
Input Voltage(Vdc)	300~825
The Max. Static Voltage Borneunder No Operation(Vdc)	900
Rated Voltage(Vdc)	700
MPPT Operating Voltage Range(Vdc)	300~740
MPPT Full Load Voltage Range(Vdc)	650~740
MPPT Starting Voltage(V)	375
MPPT Efficiency	>99.5%(MPP≥5000W)
Max. Input Current(Adc)	50*12
Number of MPPT	12
No. of PV Strings per MPP Trackers	4

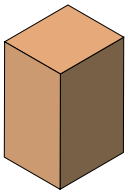
DC Output	
Individual Module Output Power(kW)	30
Max. Number of Modules	12
Total Output Power(kW)	360
Output Voltage Range(Vdc)	150 ~ 1000
Output Current Range(Adc)	0~100@Per MPPT
Voltage Regulation Accuracy	<±0.5%(150~1000V, 0~20MHz)
Precision of Steady Current	≤±1%(Output load 20% ~ 100%)
Load Regulation	≤±0.5%
Source Adjustment Rate	≤±0.1%(The test range is 650V~825V)
Start the Overshoot	≤±3%
Voltage Ripple Factor	≤1%(150~1000V, 0~20MHz)

System Characteristic	
Communication Interface	CAN bus, LAN
Warranty	3 years free, paid from the 4th to the 15th year
EMC/EMI	EN61851-21-2, class B
Safety	UL2202, EN61851-1, EN61851-23

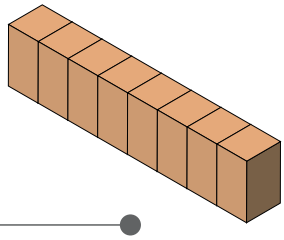
General Parameters	
Product Model	R-PV360PVC01
Type of Cooling	Forced Air-cooling
Dimensions (W*D*H)	1120*1220*2170mm / 44*48*85.4in
Total Weight	1100kg / 2425lb
Altitude	<2000m
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	-40°C~75°C (above 55°C needs to be reduced)
Storage Temperature	-40°C~70°C
Relative Humidity	≤95%RH, non-condensing

Packaging & Shipping Details

Product
1120*1220*2170mm
1100kg



1Set
1320*1420*2340mm
1300kg



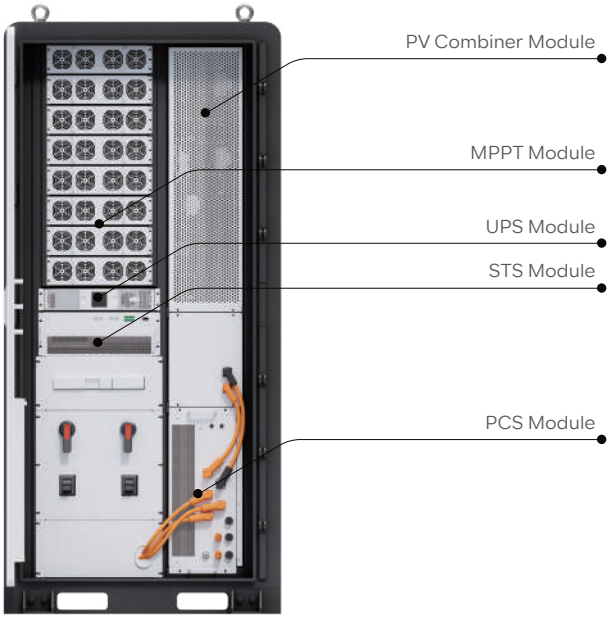
40C
8 Set
10400kg

Smart Cube

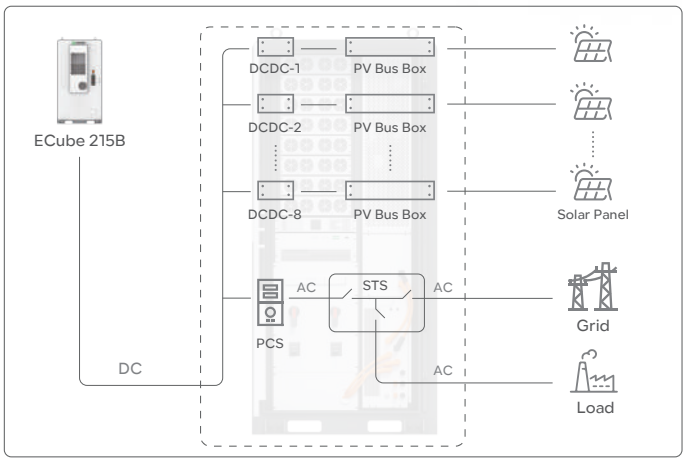
Intelligent EMS Cabinet (For 215B)

The "Smart Cube" intelligent EMS cabinet is designed for the ECube 215B, integrating PCS, DCDC, and STS modules into a unified energy management system. Utilizing advanced EMS technology, it provides real-time monitoring and optimization of energy flow, enhancing system stability and efficiency. Smart Cube offers reliable energy storage, conversion, and intelligent scheduling, catering to diverse application needs. It is an ideal solution for improving energy efficiency and supporting sustainable development.

System Demonstration



System Layout



Application Scenario

COMMUNITY

OFFICE SPACE

FARM

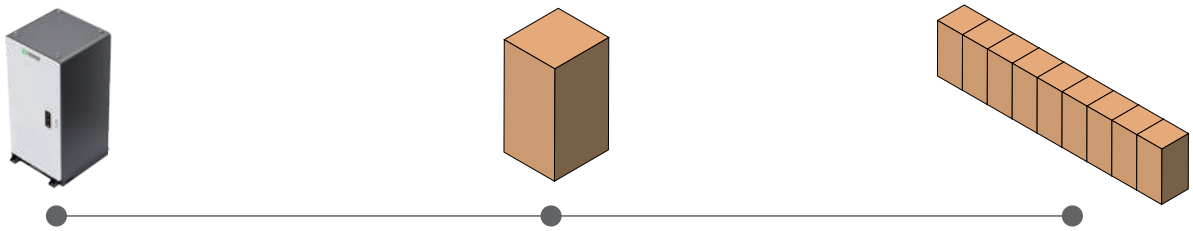
PV Input	
Rated Power (kW)	240
Input Voltage(Vdc)	300~825
The Max. Static Voltage Borneunder No Operation(Vdc)	900
Rated Voltage(Vdc)	700
Standby Power Consumption	<14W*8 @700Vdc with normal sandby mode / <4W*8 @700Vdc with super sandby mode
Max. Input Current(Adc)	50*8
Number of MPPT	8
No. of PV Strings per MPP Trackers	4

AC Output	
Rated Grid Voltage (Vac)	400 / 3P3W
Max. Continuous Input Current (Aac)	165.4
Rated Frequence (Hz)	50/60
Rated Power (kW)	107
Power Factor	>0.99(at rated power)
Adjustable Power Factor	-1~1
THDi	<3%(at rated power)
Overload Capacity	120%
Integrated STS	Yes(≤10mS)

System Characteristic	
Warranty	3 years free, paid from the 4th to the 15th year
Certification(PCS)	EN50549
Certification(MPPT)	EN61851

General Parameters	
Product Model	R-SC107CBS01-EU
Dimensions (W*D*H)	1100*1200*2350mm / 43.3*47.2*92.5in
Total Weight	800kg / 1763.7lb
Cooling	Intelligent air-cooling
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	-35°C ~ 60°C
Operating Humidity (RH)	0 ~ 95%

Packaging & Shipping Details



Product
1100*1200*2350mm
800kg

1Set
1300*1400*2520mm
1400kg

40C
9 Set
12600kg

MPack 233A

233kWh Liquid-Cooling Battery

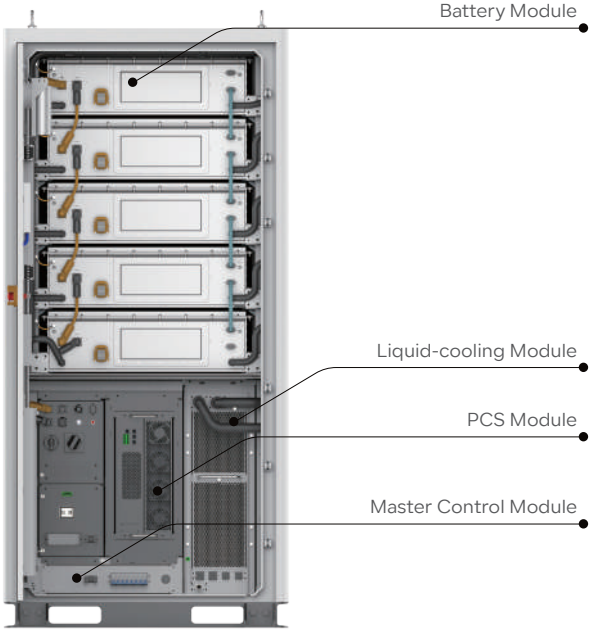
Highly Integrated: Combines an all-in-one design with high power density, requiring minimal space and offering flexible transportation and installation.

Safety & Reliability: Features comprehensive battery monitoring, multi-level fire prevention, top venting design, and proactive AI management to ensure maximum safety and reliability.

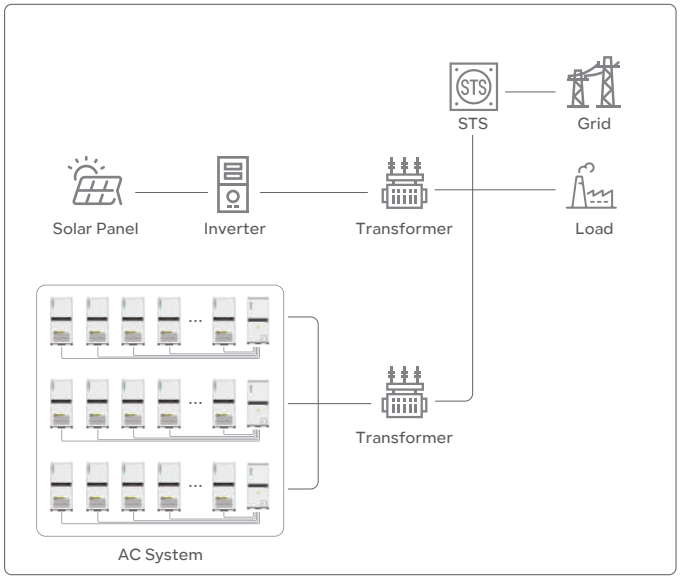
Efficient & Flexible: Boasts a modular structure with high-efficiency liquid cooling, adaptable to extreme environments, maximizing battery life and performance.

Intelligent Operation & Maintenance: Equipped with a full EMS for easy upgrades, big data-managed inspection, proactive handling, and intelligent SOC calibration for optimal performance without downtime.

System Demonstration



System Layout



Application Scenario

FARM & RANCH

SUPERCOMPUTING

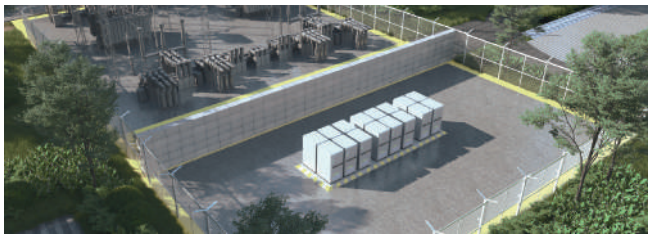
MANUFACTORY

Battery Energy Storage	
Cell Type	LFP 3.2V/280AH
Module Combination	1P52S
System Combination	5 modules in series
Capacity (kWh)	233
Nominal Voltage (V)	832
Operation Voltage Range (Vdc)	761~923
Discharge Depth	90% DoD
Thermal Management Mode	liquid cooling
Thermal Control Management	Aerosol Extinguishing

AC Output	
Rated AC Output Power(kW)	125
Max. AC Output Power(kVA)	150
Rated Output Voltage(Vac)	400
Output Voltage Range(Vac)	-15%~10%(settable)
Rated Grid Frequency(Hz)	50/60
Max. Output Current(A)	182
Adjustable Power Factor	>0.99
THDi	<3%

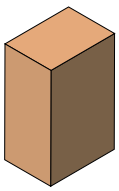
System Characteristic	
Communication Interface	CAN, RS485, Wi-Fi, LTE
Warranty	3 years free, paid from the 4th to the 15th year
Certifications	IEC62619, UL1973, UL9540A, UL9540 EN 61000-6-1/2/3/4, EN 62109-1/2

General Parameters	
Battery Model	R-MP233125A1-EU
Dimensions (W*D*H)	1100*1450*2320mm / 43*57*91.3in
Total Weight	2860(±5)kg / 6305(±11)lb
Operation Altitude	2000m / 6561ft
Noise Level @1m	<75 dB(A)
IP Rating	IP54
Operating Temperature	–20°C to 55°C
Operating Humidity (RH)	0 to 95%
Storage Conditions	–20°C to 30°C Up to 95% RH, non-condensing State of Energy (SoE): 50% initial

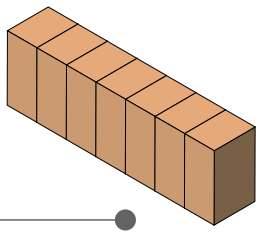


Packaging & Shipping Details

Product
1100*1450*2320mm
2950kg



1Set
1150*1600*2520mm
3200kg



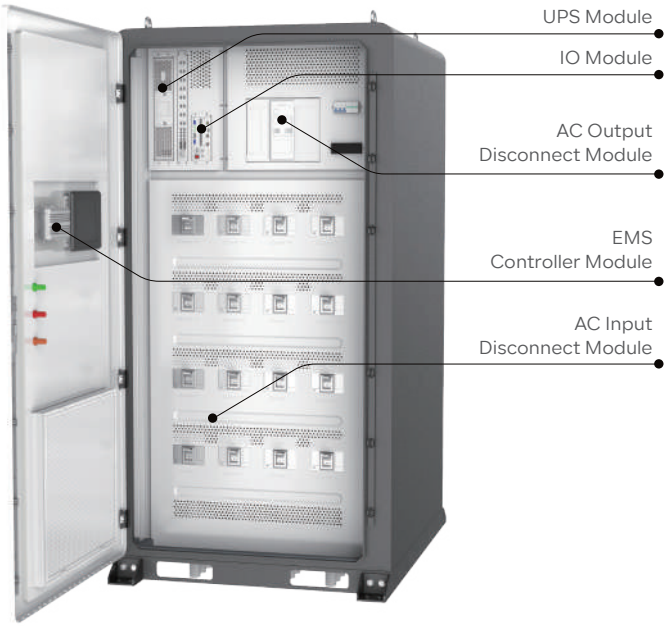
40C
7 Set
22400kg

AC Combiner Cube

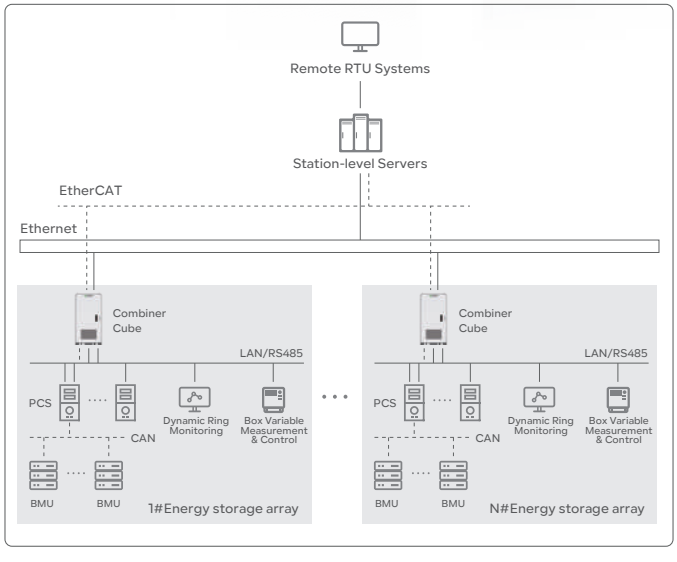
AC Combiner Cabinet (for Mpack 233A)

The Combiner Cube is your ideal solution for enhancing the functionality and reliability of the Mpack 233A configuration, ensuring a seamless and efficient energy management experience.

System Demonstration



System Layout



Application Scenario

FARM & RANCH

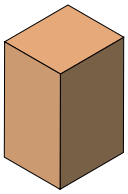
SUPERCOMPUTING

MANUFACTORY

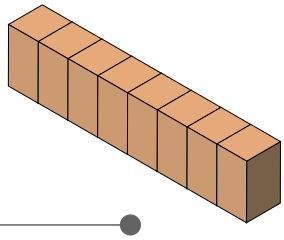
Model	Combiner Cube-16EU	Combiner Cube-16C
Input Voltage(Vac)	400	690
Access Channel	16	16
Output Channel	1	1
Max. Rated Power(kW)	2000	3200
Rated Current(A)	2887	2678
Measuring Accuracy	Class 0.5 (bidirectional meter)	
Overload Protection	Yes	
UPS	Optional	
System Characteristic		
Communication Interface	CAN, LAN, RS485	
Warranty	3 years free, paid from the 4th to the 15th year	
General Parameters		
Product Model	R-AC2000ACC01-EU	R-AC3200ACC01-C
Dimensions (W*D*H)	1200*1450*2350mm / 47.2*57*92.5in	
Total Weight	1200kg / 2645.5lb	
Altitude	<2000m	
Noise Level @1m	<65 dB(A)	
IP Rating	IP54	
Operating Temperature	–35°C ~ 55°C	
Storage Temperature	–40°C ~ 70°C	
Relative Humidity(Rh)	≤95%, non-condensing	

Packaging & Shipping Details

Product
1200*1450*2350mm
1200kg



1Set
1640*1840*2760mm
1400kg



40C
8 Set
11200kg

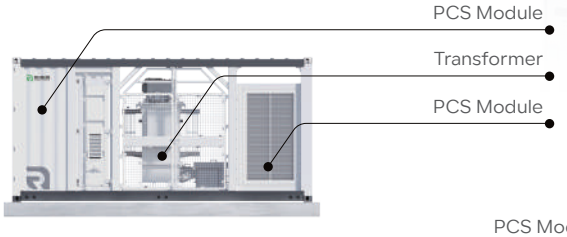
Smart Matrix

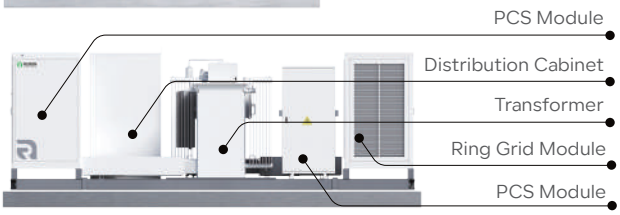
Liquid-cooling Distributed Container System

New Generation of Distributed
Industrial and Commercial Storage Solutions

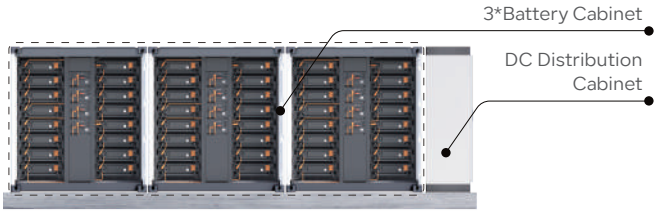
Converter Boost System(30ft)

System Demonstration



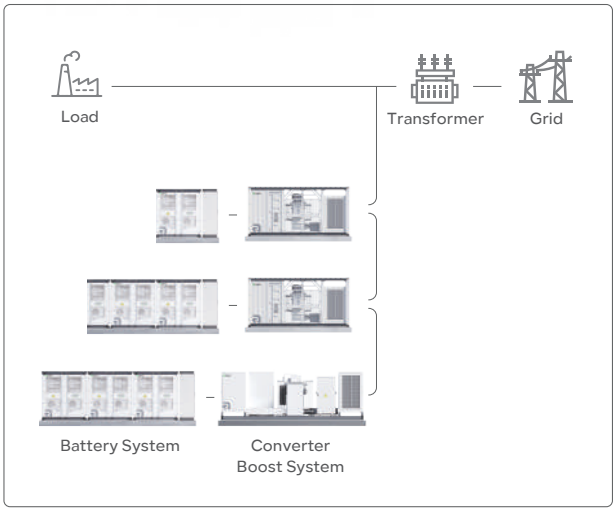


Converter Boost System



Battery System

System Layout



Application Scenario

REMOTE AREA OFF-GRID

ELECTRICITY GENERATING STATION

ISLAND

Battery Energy Storage	1672kWh	3344kWh	5016kWh
Cell Type		LFP 3.2V/314Ah	
Module Configuration		1P104S	
String Configuration		1P416S	
Number of Battery System	1	2	3
Number of Strings	4	8	12
Capacity (kWh)	1672	3344	5016
Nominal Voltage(V)		1331.2	
Operation Voltage Range(Vdc)		1218.88~1476.8	
Discharge Depth		90% DoD	
Thermal Management Mode		Liquid Cooling	
Thermal Control Management		Aerosol Extinguishing or PFH	

AC Output			
Rated AC Output Power(kVA)	840	1670	2500
Max. AC Output Power(kVA)	860	1725	2580
Output Voltage Range(Vac)		11kV ~ 33kV	
Rated Grid Frequency(Hz)		50/60	
AC PF		0.99/-1~1	
THDi		≤3%	

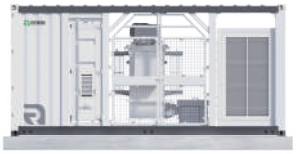
System Characteristic	
Communication Interface	CAN, RS485, Ethernet
Warranty	3 years free, paid from the 4th to the 15th year
Certifications	IEC62619, IEC62477, EN61000-6-2/4, UL9540A, UL9540, UN3536

General Parameters			
Product Model	R-SM1672LCB01	R-SM3344LCB01	R-SM5016LCB01
Battery System Dimensions(W*D*H)	2991*2438*2591mm 117.8*96*102in	2991*4952*2591mm 117.8*195*114in	2991*7466*2591mm 117.8*294*102in
Battery System Total Weight	~15000kg / 33069lb	~30000kg / 66139lb	~45000kg / 99208lb
Converter Boost System Dimensions(W*D*H)	6058*2438*2896mm 238.5*96*114in	6058*2438*2896mm 238.5*96*114in	7600*2200*2553mm 229*86.6*100.5in
Converter Boost System Total Weight	15000kg / 33069lb	15000kg / 33069lb	20000kg / 44092lb
Operation Altitude	3000m / 10000feet(>3000m/10000feet derating)		
Nosie Level@1m	<75dB		
IP Rating	IP54		
Operation Temperature	-30°C to 55°C (De-rating over 45°C)		
Operation Humidity(Rh)	≤95%, No condensation		
Storage Conditons	-20°C to 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial		

Packaging & Shipping Details

1*Battery System
2991*2438*2591mm
~15000kg

2*Battery System
6058*2438*2591mm
~30000kg



Converter Boost System(20ft)
6058*2438*2896mm
~15000kg

Converter Boost System(30ft)
7600*2200*2553mm
~20000kg

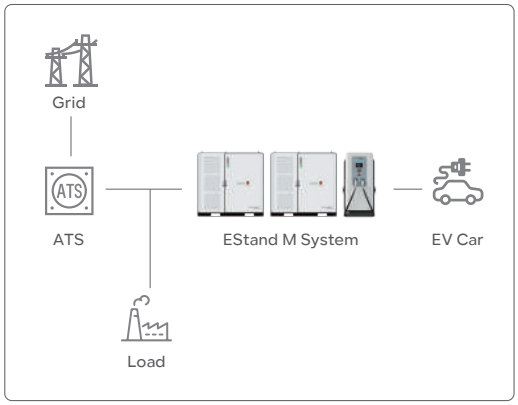
EStand M260

Mobile Battery-Buffered EVC System

Scalable to 520kWh
2*260kWh liquid-cooled lithium-ion battery

System Demonstration

System Layout



Application Scenario

CONSTRUCTION SITE

MINES

PARKING

Energy Storage System	
Battery Capacity(kWh)	261
Battery Charging Rate	≤0.95C
Battery Discharge Rate	≤0.95C
Battery Efficiency	≥97%
Battery Module IP Rating	IP65
Battery Cooling System	Liquid-cooling
Thermal Control Management	Aerosol Extinguishing
Dimensions (W*D*H)	1800*1500*1750mm / 70.8*59*68.9in
Weight	2850kg / 6283lb

AC Input	
Rated AC Output Power(kW)	250
Max. AC Output Power(kVA)	250
Rated Output Voltage(Vac)	400
Output Voltage Range	-15%~10%(settable)
Grid Frequency Range(Hz)	50/60
Max. Output Current(A)	360
Adjustable Power Factor	>0.99
THDi	<3%

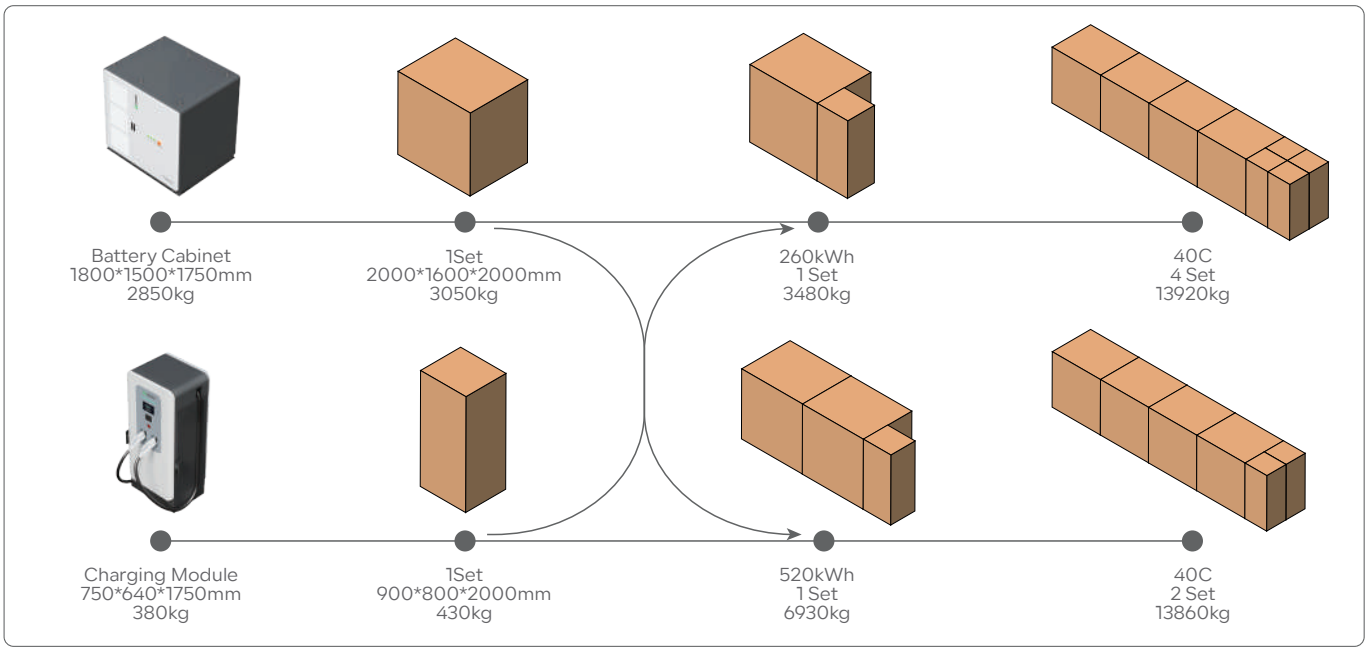
Standard	
Battery	IEC62619
EV Charger	EN 61851-1 EN 61851-23, EN 61000-2/-4
System Level	IEC 62619 EN62109-1/2 EN61000-6-2/4, UN38.3

Charging System	
Charging Type	DC fast charging
DC Output Power(kW)	240
DC Output Voltage(Vdc)	200~1000*
Maximum Current(A)	250
Distribution Systems	TN-S.TN-C, TN-C-S, TT (required external RCD)
Connector Type	3P +N + PE
Protection	Overcurrent, overvoltage, undervoltage integrated surge protection,ground fault including DC leakage protection, door opening protection
Power Factor (Full Load)	≥0.99
THDi	<5%
Efficiency	≥ 94% (peak)
Dimensions (W*D*H)	750*640*1750mm / 29.5*25*68.9in
Weight	380kg / 837.7lb

*Constant power from 300~1000

General Parameters	
Product Model	R-ST261250A0-EU
Ambient Temperature	-25°C~50°C(over 45°C derating)
Humidity	≤95%, No condensation
Storage Conditions	–20°C to 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial
Altitude	2000m / 6561ft
Noise Level @1m	<80 dB(A)
EMC Emission	Type A
Medium Interference	No explosive hazardous, No toxic & harmful gases Without strong vibration and shock, no strong electromagnetic interference
System IP Rating	IP54

Packaging & Shipping Details

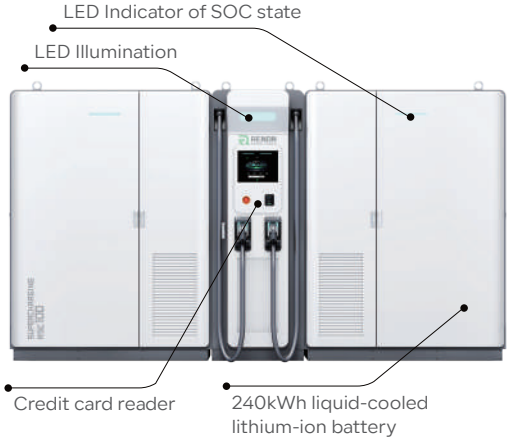


EStand 240

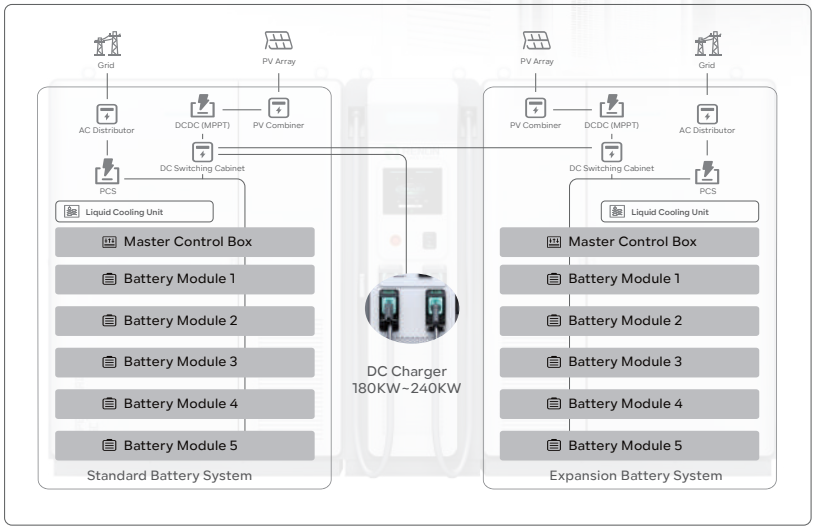
Battery-Buffered EVC System

Scalable to 480kWh
2*240kWh liquid-cooled lithium-ion battery

System Overview



System Layout



Application Scenario

UNDERGROUND PARKING

PARKING

ENERGY STORAGE CHARGING STATION

Product Specification	EStand 240	EStand 480
Type	DC Charging Station With ESS	
Installation	On Ground	
Applicable Site	Outdoors or Underground Parking	
Material	Industrial Grade Alloy	
Color	White weather-resistant coating	
Dimensions (W*D*H)	2557*700*2350mm / 100.7*27.5*92.5in	4314*700*2350mm / 201.4*27.5*92.5in
Weight	3850kg / 8487.8lb	7350kg / 16204lb

Energy Storage System		
Battery Capacity(kWh)	240	480
Battery Charging Rate	≤0.5C	
Battery Discharge Rate	<1C	
Battery Efficiency	≥97%	
Battery Module IP Rating	IP65	
Battery Cooling System	Liquid-cooling	
Thermal Control Management	Aerosol Extinguishing	

AC Output		
Rated AC Output Power(kW)	125	250
Max. AC Output Power(kVA)	150	300
Rated Output Voltage(Vac)	400	400
Output Voltage Range(Vac)	-15%~+10%(settable)	
Rated Grid Frequency(Hz)	50/60	
Max. Output Current(A)	182	364
Adjustable Power Factor	>0.99	
THDi	<3%	

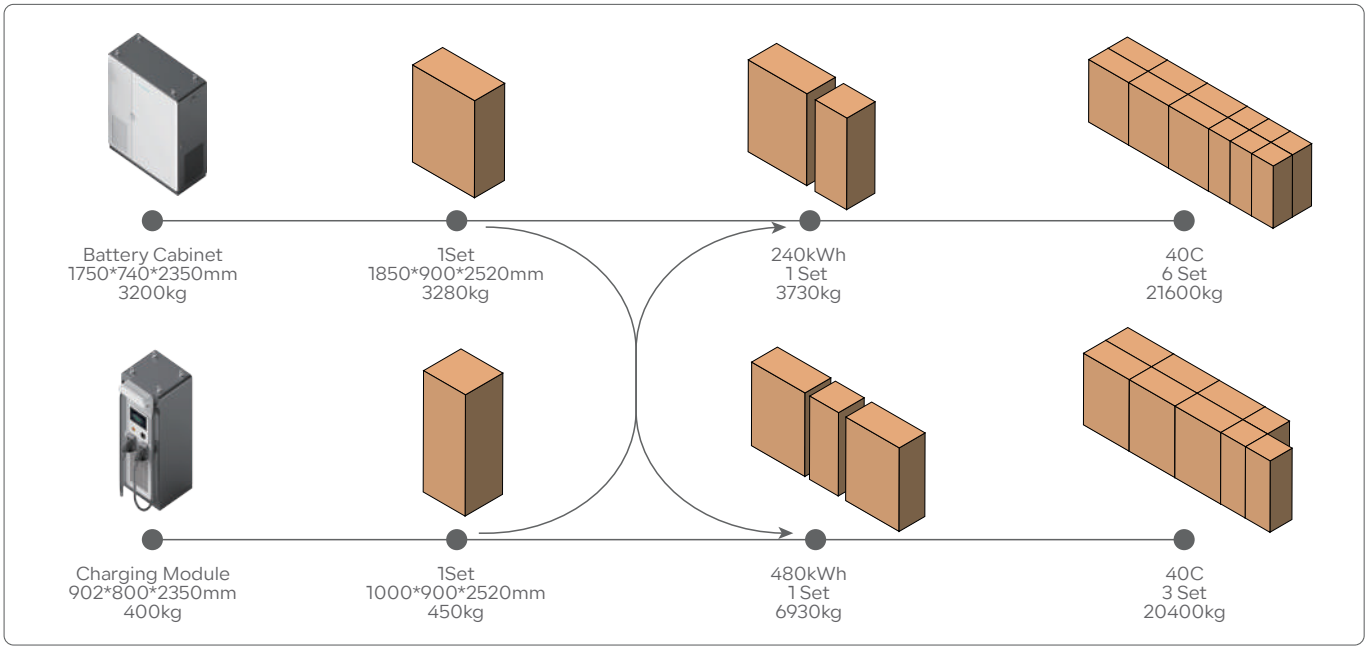
PV Input		
DC Input Voltage(Vdc)	300~825(Start up Voltage:375)	
Max Input current(Adc)	100	200
Rated Power(kW)	60	120
Number of MPPT	2	4
Cooling System	Air-cooled	

Standard	
Battery	IEC 62619
EV Charger	EN 61851-1, EN 61851-23, EN 61000-2/-4
System Level	IEC 62619, EN62109-1/2, EN61000-6-2/4, UN38.3

Safety	
Input Protection	Under voltage protection,over voltage protection,over current protection, over temperature protection,leakage protection, lightning protection, short circuit protection
Output Protection	Short circuit protection,over-temperature protection,communication fault protection,leakage protection,over-current protection
Emergency Protection	Set emergency stop button,leakage protection function,high-precision output insulation monitoring function
Special Protection	IP54 protection level, anti-salt damage

Charging System	EStand 240	EStand 480
Charging Voltage(Vdc)	150~1000(Constant power from 300-1000)	
Charging Efficiency	95% (peak)	
Connctors	2	
Power Distribution	2 connectors intelligent distribution	
Charging Power	180kW/240kW	
Cable	400A, 5m, CCS	
Cooling System	Air-cooling	
User Interface	7" LCD high-contrast touchscreen, optional 15.6" or 32" LCD display	
User Authentication	RFID, QR code	
RFID Reader	ISO/IEC 14443 A Mifare RFID reader	
Connectivity	4G/3G/Ethernet (RJ45)	
Communication	Proprietary and OCPP 1.6J	
Emergency Button	Yes	
Meter		
AC Side	AC meter	
DC Side	2-access DC meter	
General Parameters		
Product Model	R-ST240125A0-EU	R-ST480250A0-EU
Ambient Temperature	-25°C ~ 50°C(over 45°C derating)	
Humidity	≤95%, No condensation	
Storage Conditions	–20°C ~ 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial	
Altitude	2000m / 6561ft	
Noise Level @1m	<80 dB(A)	
EMC Emission	Type A	
Medium	No explosive hazardous, No toxic & harmful gases	
Interference	Without strong vibration and shock,no strong electromagnetic interference	
System IP Rating	IP54	

Packaging & Shipping Details



Selection



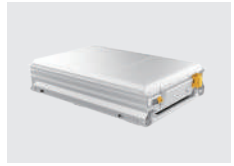
Intelligent PCS	30kW	60kW	125kW
Voltage Range(Vdc)	150~750	400~800	580~1000
AC Output(Vac)	3P4W+PE, 400 (±15%)	3 / N / PE, 230 V / 400	400
AC frequency(Hz)	50 (±2.5)	50/60	50/60



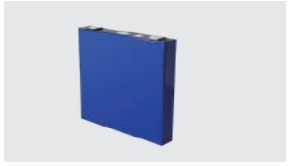
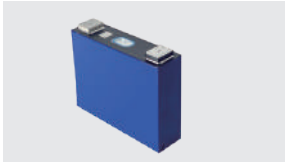
Master Control	R-MC150-EC04	R-MC150-EC01	R-MC250-EU01
Rated Voltage(Vdc)	750	750	1000
Voltage Range(Vdc)	200~750	200~750	400-1500
Rated Current(A)	100	150	200
Weight	28kg / 61.7 lb	32kg / 70.5lb	38kg / 83.7lb
W*D*H(prediction)	494*510*132mm / 19.4*20*5.2in	440*620*230mm / 17.3*24.4*9in	251*900*325mm / 9.8*35.4*12.8in







Flexible Battery Module	R-EMO51100-ECHO1	R-EMO96100-ECH03	R-EM25280-ECHO1	R-EM166280-ECHO1-RP	R-EM166314-ECH01-RP
Rated Energy(kWh)	5.12	9.6	7.17	46.59	52.25
Rated Voltage(V)	51.2	96	25.6	166.4	166.4
Rated Capacity(Ah)	100	100	280	280	314
Max. Charging Current(A)	100	100	140	140	157
Peak Charging Current(A)	200(30S)	200(30S)	280(30S)	280(60S)	314(60S)
Max. Discharge Current(A)	100	100	140	140	157
Peak Discharge Current(A)	200(30S)	200(30S)	280(30S)	280(60S)	314(60S)
W*D*H	482.6*627.5*132mm 19*24.7*5.2in	494*680*132mm 19.4*26.7*5.2in	250.5*763.5*228mm 9.8*30*8.9in	812*1133*238.5mm 32*44.6*9.4in	779*1135*250mm 30.6*44.7*9.8in
Weight	43kg / 94.7lb	73kg / 161lb	60kg / 132lb	330kg / 727.5lb	348kg / 767lb

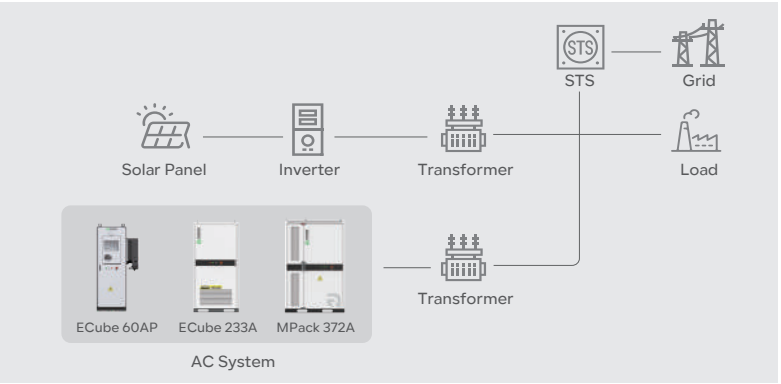
Battery Cell	RF100	RF205	RF280	RF314
Rated Capacity(Ah)	100	205	280	314
Rated Voltage(V)	3.2	3.2	3.2	3.2
Max. Charge Rate	1C	1C	1C	1C
Internal Resistance	≤ 0.8mΩ	≤ 0.5mΩ	< 0.3mΩ	< 0.3mΩ
W*D*H(prediction)	174*27.2*207mm / 6.8*1*8.1in	174*53.7*207mm / 6.8*1.5*8.1in	174*71*207mm / 6.8*2.8*8.1in	174*71*174mm / 6.8*2.8 *8.1in

Solution

AC System Solution

Reliable Power for Commercial and Industrial Applications

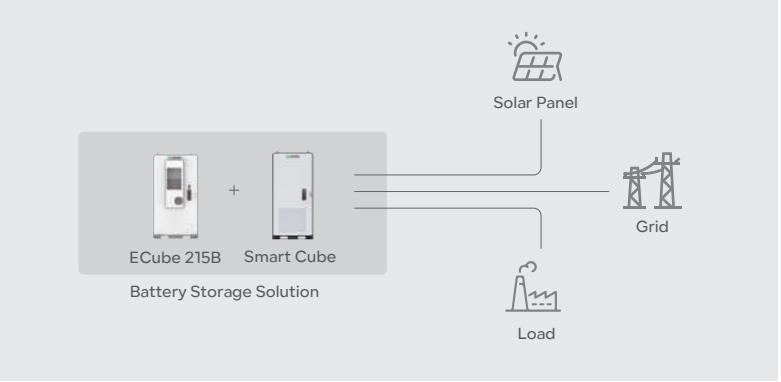
AC solutions provide consistent and efficient energy, ideal for factories, remote offices, suburban residences, farms, convenience stores, and supermarkets. Multiple product options ensure uninterrupted power supply.



Battery Storage Solution

High-Performance Energy Storage

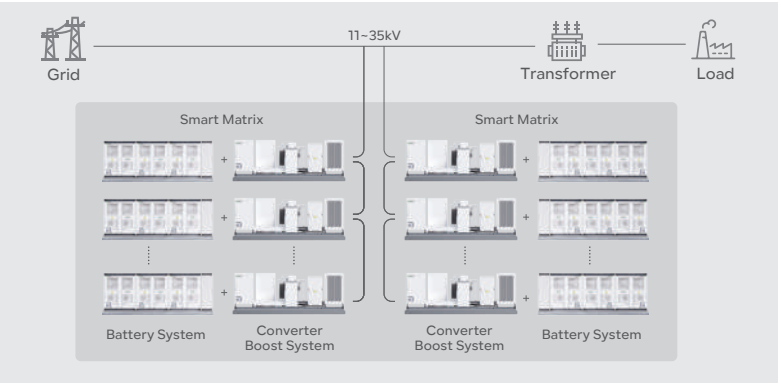
The battery system offers robust and scalable energy storage, perfect for commercial and industrial facilities. Various product options optimize energy use and enhance reliability in remote and urban settings.



Distributed Energy Storage Solution

Optimal Performance for Diverse Applications

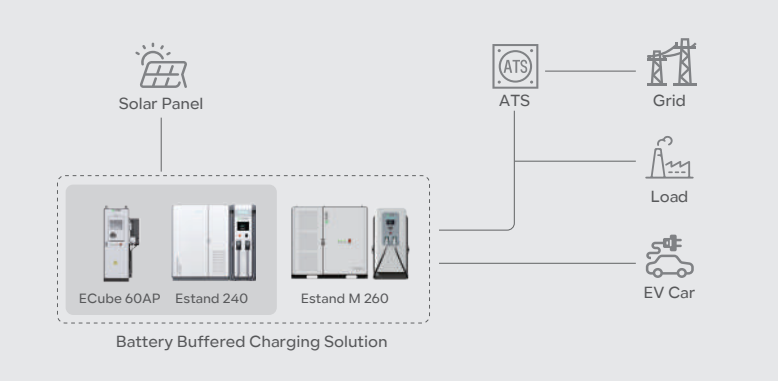
The distributed energy storage system delivers high-efficiency and modular energy storage, suitable for both urban and remote settings. This versatile solution ensures optimized energy management and enhanced reliability for commercial, industrial, and residential uses, offering scalable options to meet varying energy demands.



Battery Buffered Charging Solution

Efficient and Sustainable Charging for Parking Lots

The battery-buffered charging solution delivers efficient and sustainable energy for parking lots in shopping malls, hotels, large office buildings, and supermarkets, reducing grid dependency and enhancing energy efficiency.



ProControl Base

Cabinet Level Local ESMU

High-end integrated display and control systemfor commercial and industrial energy storage solutions.

Features

High-Performance Data Processing MCU

Equipped with a powerful processor and ample memory, ensuring fast response to demand-side instructions and efficient data processing.

Independent Smart Local Control

Built-in modes such as self-use, peak shaving, PV priority, grid priority, backup, and battery modes provide convenient local operation. Supports local intelligent monitoring, data curve generation, parameter settings, firmware updates, maintenance report generation, and log recording for simplified after-sales service.

Advanced Graphics and AI Capabilities

Featuring advanced graphics processing and AI capabilities, offering robust performance for enhanced device intelligence.

Flexible Cloud Connectivity

Supports multiple interfaces including LAN, WiFi, and LTE for versatile cloud platform connections based on customer needs.

High-Brightness Full-View Touch Display

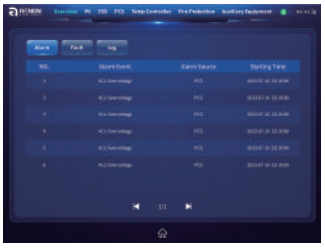
1280*800 resolution, 45cd/m² brightness, full viewing angle, and three-point capacitive touch screen, allowing easy viewing of system data and settings both indoors and outdoors.

Comprehensive Communication & Control Interfaces

Includes CAN, RS485, RS232, Type-C, USB3.0, LAN, TF card slot, Nano SIM, HDMI, and RTC interfaces, enabling connection to various external devices and sensors for centralized management and control.

Interface Showcase






Parameters

General Parameters	
CPU	RK3568 4xA53@2.0GHz
Memory	RAM: 4GB, EMMC: 64GB, EEPROM:64KB, SSD: 1T(Optional)
GPU	Mail-G52
NPU	Support 1 Tops computing power
OS	Ubuntu 20.04
Brightness	450cd/m²
Resolution	1280*800
Angle	Full viewing Angle
Touch	3 point capacitive screen
Communication interface	3* CAN, 6* RS485, 1*RS232, 1*Type-C, 1* USB3.0, 4* 1000Mbps, Lan, 1* TF card, 1* Nano SIM card, 1* HDMI, 1* RTC
Control interface	12* DO, 16* DI, 2* NTC, 1* Buzzer
Wireless communication	Wifi/BT, 4G, GPS
IP Rating	IP65
Operating temperature	-20°C~70°C

ProControl Prime

Station Level Local EMS

Reliable control and display solution for large distributed energy storage systems.

Features

Information Summarization and Monitoring

EMS collects and uploads operational data of distributed energy storage systems for centralized monitoring. It displays system trends, performance metrics, and fault history to help users optimize operations.

Energy Metering and Anti-Reverse Flow Control

EMS handles energy metering and anti-reverse flow control, effectively managing energy flow within the storage system and ensuring stable PCS operation.

Strategy Algorithm Configuration

EMS offers flexible strategy algorithms for customizing energy storage system operations based on specific needs and system conditions. This allows for optimal energy dispatch and management to maximize efficiency and cost-effectiveness.

BMS Data Collection and Display

EMS communicates with Battery Management Systems (BMS) to collect real-time data on battery parameters and displays it graphically. This includes battery health, charge/discharge status, SOC, and SOH.

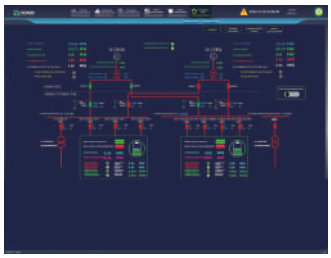
Alarm Generation and Handling

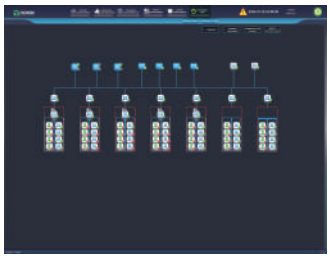
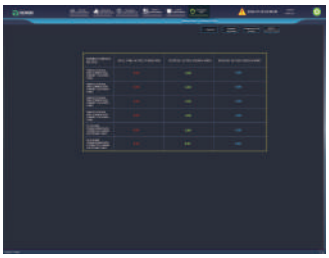
EMS provides a user-friendly tool for creating graphical interfaces of energy storage systems. It allows real-time monitoring and management through topology, status diagrams, and device controls.

Profit Analysis

EMS includes robust profit analysis capabilities for in-depth assessment of energy storage system operational data. This analysis helps users evaluate economic benefits, providing strong support for decision-making.

Interface Showcase



Parameters

General Parameters	
CPU	2U Rack Server
Memory	Intel® Xeon® Gold 5218 Processor 22M Cache, 2.30 GHz, Qty 2
Hard disk capacity	64G
NIC	3*1.2T SAS
PCIE	4 Gigabit LAN cards6 PCLe 3.0
Power Supply	slots 550W power supply*2
Chassis Size	Chassis Specifications: 445*87*746mm
IP Rating	IP20
Operating Temperature	5.0°C~40.0°C (41.0°F~104.0°F)
Operating Humidity	85% RH

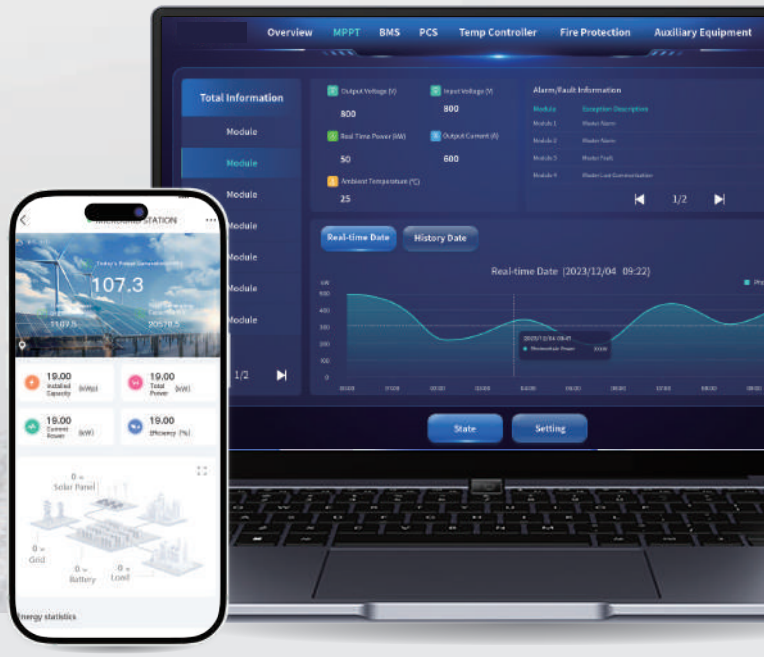
Renon Smart

Cloud Energy Management System

We're Using Smart Power to Simplify Your Life.

Renon Smart is a comprehensive device management and monitoring solution for national agents, secondary agents, installers and users.

Comprehensive system for managing large-scalepower station and commercial and industrial energy storage systems



Features

Instant Clarity with Remote Data Monitoring and Analysis

Remote data monitoring, automatic curve generation, and big data analysis management make the product operation status clear at a glance.

Enhanced Security with Distributed Architecture and Data Encryption

Distributed architecture deployment and data security encryption ensure that cloud data is more secure and reliable.

Seamless Connections with Intelligent Mall and Trial Applications

Intelligent mall application and new product trial application enable users to contact source manufacturers directly, making product promotion faster and more accurate.

Boost Customer Satisfaction with Remote Firmware Upgrades

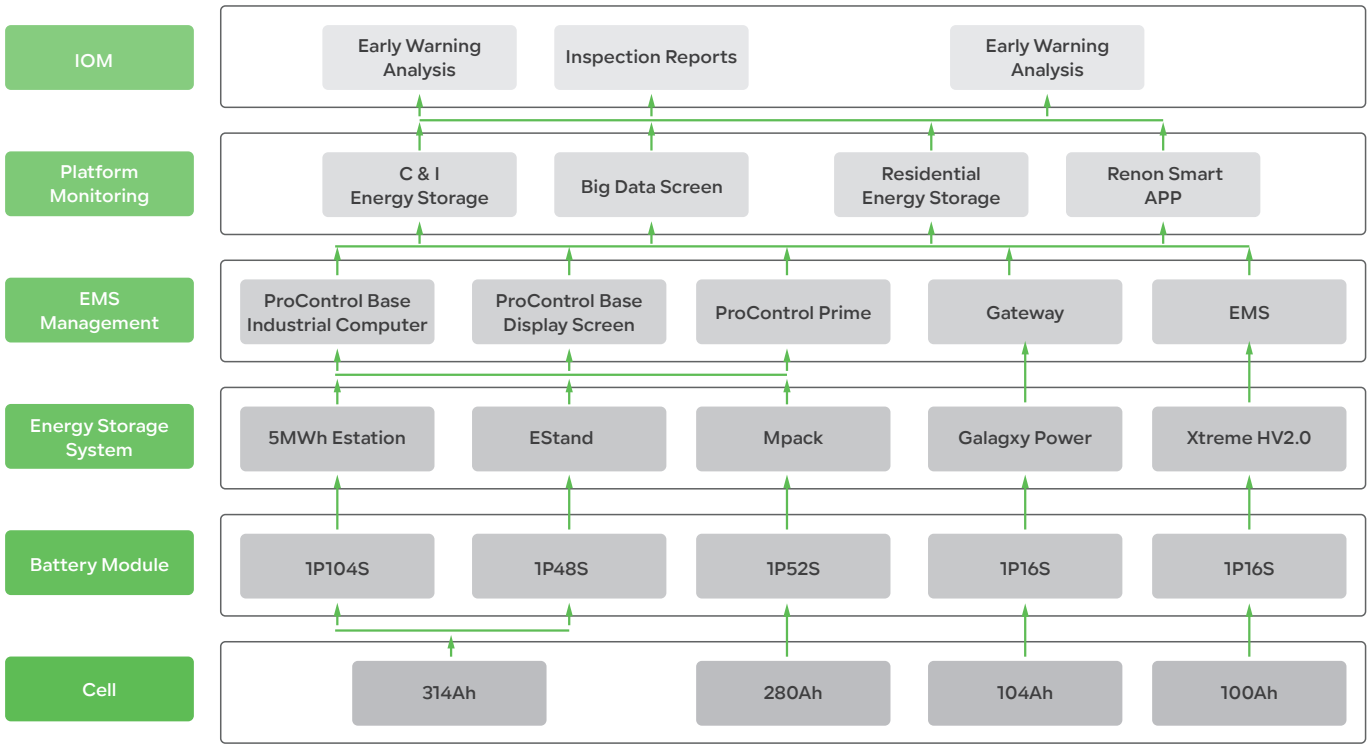
Remote firmware upgrading and intelligent operation and maintenance report generation effectively improve customer satisfaction.

Optimized Channel Construction with a Six-Level Distribution System

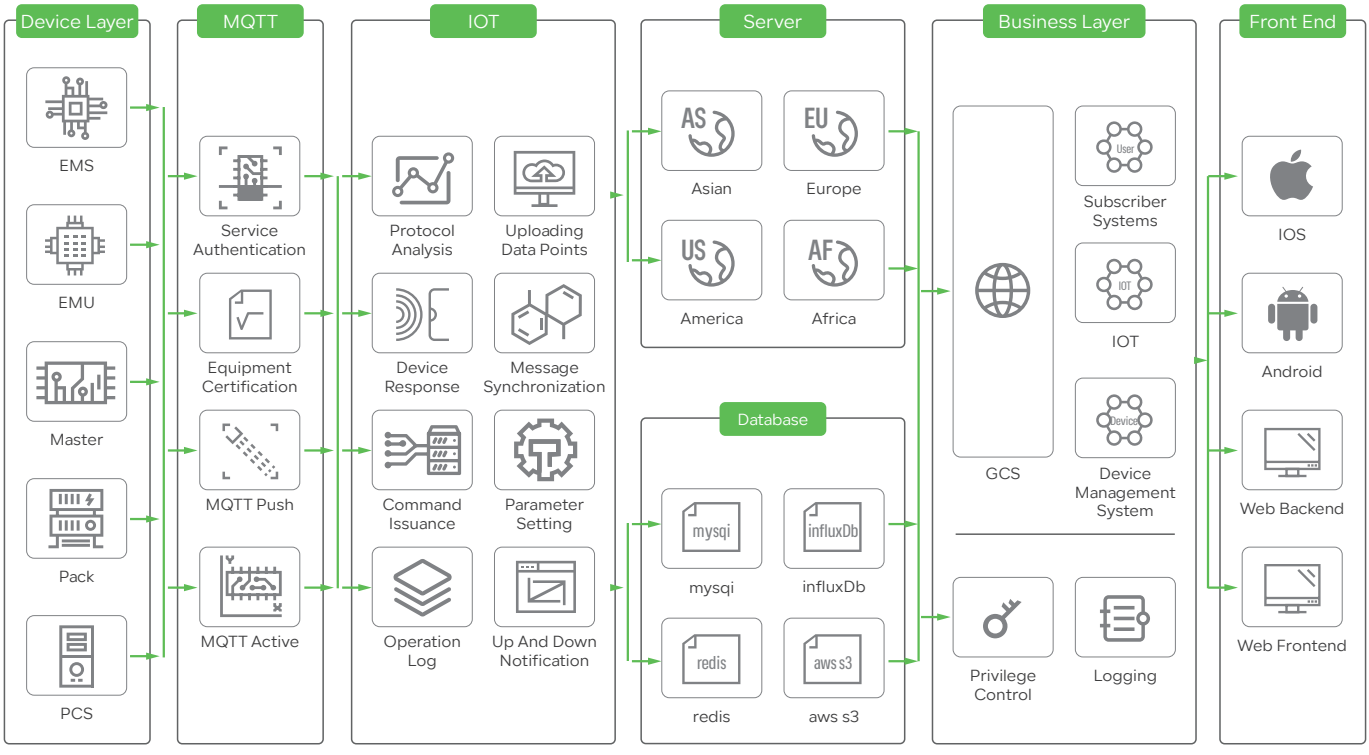
The six-level distribution system, from the brand owner to end-users, is more conducive to robust product channel construction.

Interface Showcase

Physical Link



Platform Architecture



Installation Cases

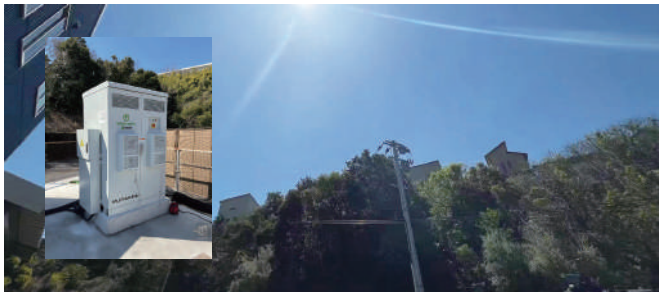
Renon Power's global installations of microgrid systems enhance energy efficiency and sustainability, providing reliable power solutions for diverse commercial and industrial applications.

Renon AC ECube 186kWh Johannesburg, South Africa

Renon DC ECube 157kWh Kitsuki City, Japan

Renon DC ECube 38kWh Chiba Prefecture

Renon DC ECube 157kWh Fukushima, Japan



Renon DC ECube 157kWh Kagoshima, Japan

Renon DC ECube 15kWh Saitama, Japan

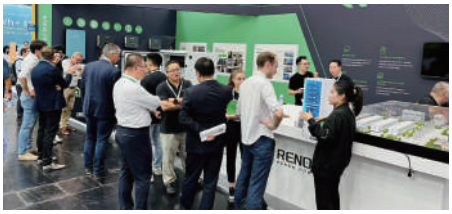
Renon Estation 744kWh Capte Town, SA

Renon DC Ecube 38kWh Gunma prefecture, Japan

Renon Exhibition

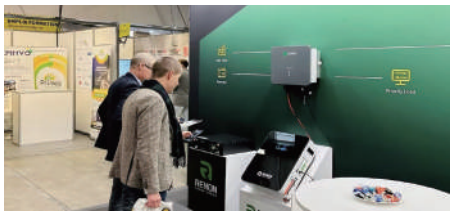
At Renon Power, our team is our greatest asset.
We are a diverse group of passionate professionals, united by a shared mission to make green power within reach.

The Smarter E 2024 — Germany




RE Plus 2023 — The United States


EnerGaïa 2023 — French



Energy Storage Summit Central Eastern Europe — Eastern Europe

PV EXPO 2024 Tokyo — Japan

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Renon Power Technology Inc.

5900 Balcones Drive Suite 100, Austin, TX 78731 USA

Renon Power Solutions Sp.z o.o.

ul. ELBLĄSKA 1, 93-459, ŁÓDŹ, POLAND

Renon Power Technology B.V.

Rietbaan 10, 2908 LP Capelle aan den IJssel

Renon Power 株式会社

東京都中央区日本橋箱崎町20-5 VORT箱崎5F

瑞智新能源(惠州)有限公司

广东省惠州市惠阳区三和街道下桥背康易工业园

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