

# Residential Series

## Battery Storage System

FOR GLOBAL MARKET



**Renon Power Technology Inc.**

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# Renon Power

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## 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.](#)

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

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

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# 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

Featuring straightforward installation and flexible, scalable capacity, these products address a broad spectrum of home energy storage requirements.

## ■ LV Battery Storage System



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Xtreme LV



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Xcellent



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Xcellent Plus



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## ■ HV Battery Storage System



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## ■ One-stop Solution



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Flex LV-US 02



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Flex LV-EU 01



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Flex LV-EU 03



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Flex HV-EU 03



# Xtreme LV

## Modular LV Battery System

**Scalability:** The system can be expanded with up to 30 systems in parallel, offering flexibility and future-proofing for growing energy needs.

**High Efficiency:** Designed for peak shaving and self-consumption, it helps reduce energy bills by optimizing the use of solar power and minimizing reliance on the grid.

**Strong Compatibility:** The system is designed to work seamlessly with various inverters and energy management systems, providing flexibility in integration with existing setups.

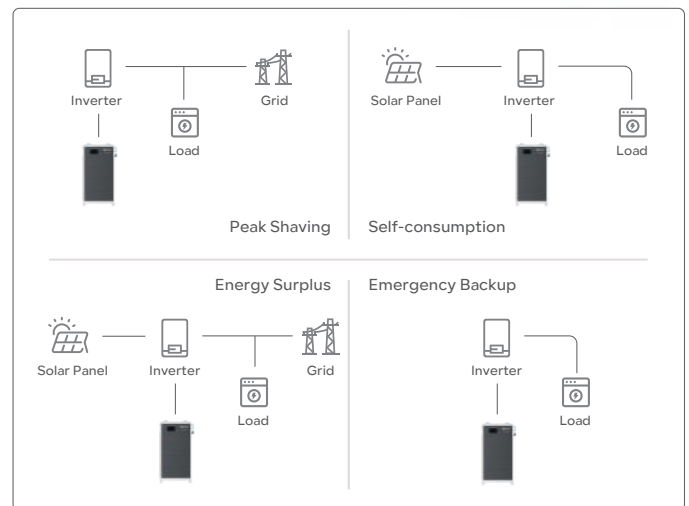
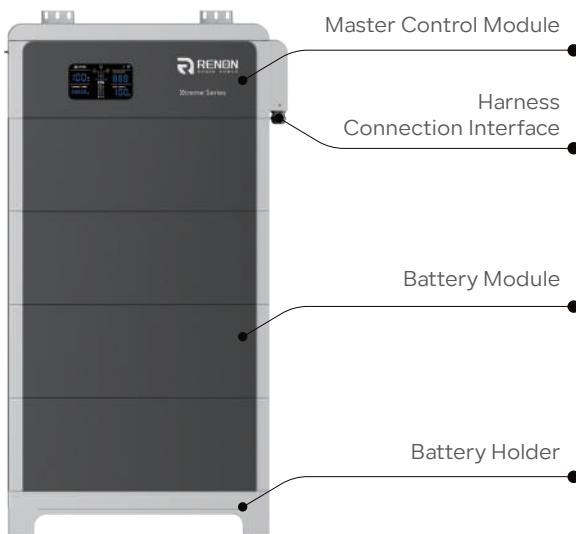
**Comprehensive Warranty:** Backed by a 10-year warranty, the Xtreme LV system assures long-term peace of mind and protection for the investment.

**Wi-Fi Connectivity and APP Control:** Enables remote monitoring and management of the energy storage system through a dedicated mobile application, enhancing user convenience and control.



System Layout

### Product Details



### Application Scenario



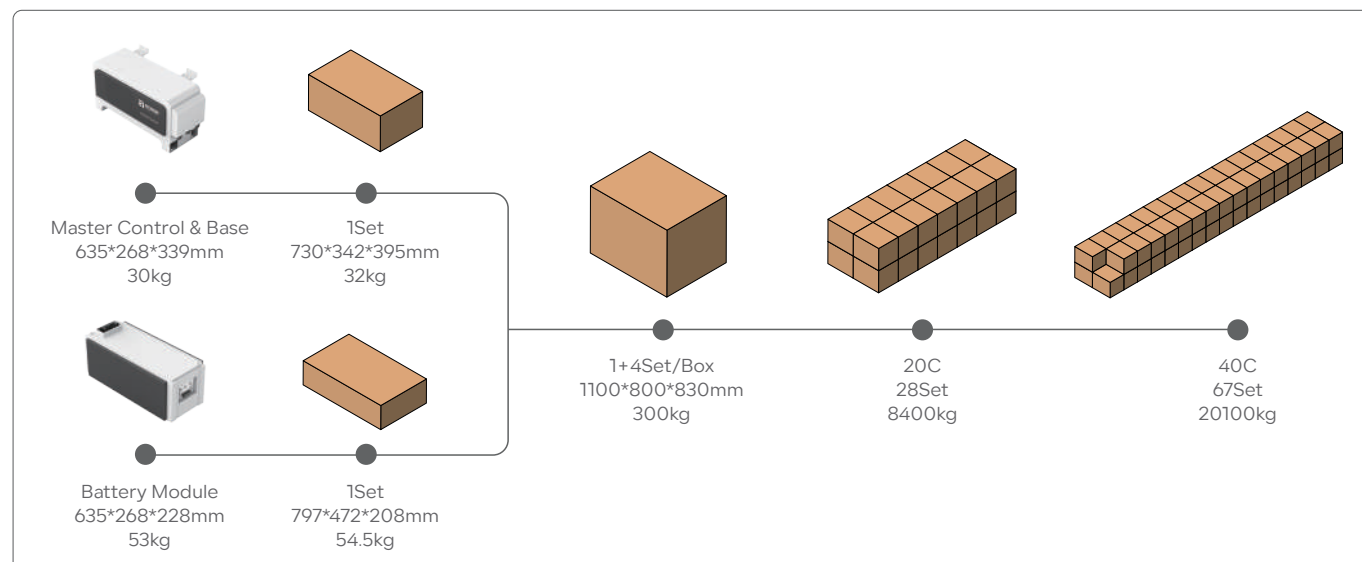
Battery Energy Storage(4.8/5.12V)	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Product Model (4.8V)	R-XL009021	R-XL014031	R-XL019021	R-XL024021	R-XL028021
Product Model (5.12V)	R-XL010021	R-XL015031	R-XL020041	R-XL025051	R-XL030061
Nominal Energy (kWh)	9.6/10.24	14.4/15.36	19.2/20.48	24/25.6	28.8/30.72
Output Power (kW)	9.1/9.7	13.7/14.6	14.4/15.4	14.4/15.4	14.4/15.4
Max. Operation Current (A)	190	285	300	300	300
Peak for 10s (A)	196	297	392	490	500
Peak for 2s (A)	240	360	480	500	500
Max. Charging Voltage (Vdc)	54.75/58.4				
Discharge Cut-off (Vdc)	40.5/43.2				
Nominal Voltage (Vdc)	48/51.2				
Recommend Charging Voltage(Vdc)	53.25/56.8				
Dimension (W*D*H)	635*268*795mm 25*10.6*31.3in	635*268*1023mm 25*10.6*40.3in	635*268*1250mm 25*10.6*49.2in	635*268*1478mm 25*10.6*58.2in	635*268*1705mm 25*10.6*67.1in
Net Weight (Approximate)	139/141kg 306/311lb	192/194kg 423/428lb	245/247kg 540/545lb	298/300kg 656/661lb	351/353kg 773/778lb

General Parameters	
Scalability	Max. 15 systems in parallel
Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C
Cooling	Natural Cooling
Max. Altitude	2000m / 6561ft
Cycle Life	8000 Cycles
Communication	RS485, CAN, WiFi

System Characteristic	
Master Control Model	R-MC300-XTL01
Battery Model	R-EM51100-XTL01
Battery Compliances	UL1973,UL9540, UL9540A UKCA, IEC 62619, IEC62040 CEI 0-21, UN 38.3, EN-61000, EN-62311
Installation Method	Stack Mounting
Installation Scene	Indoor or Outdoor
IP Rating	IP65
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

## Packaging & Shipping Details





# Xcellent

## Wall-Mounted LV Battery System

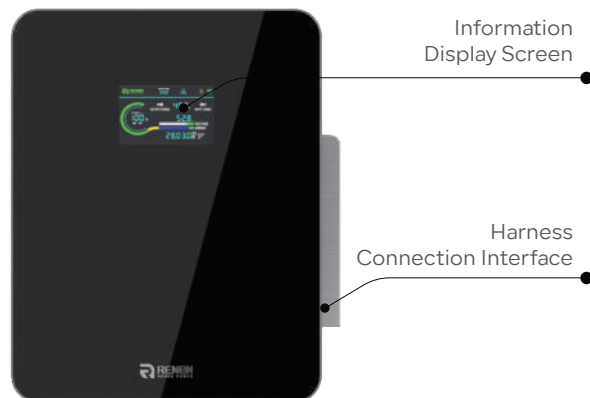
**Safe and Stable LFP Technology:** The Xcellent series uses Lithium Iron Phosphate (LFP) battery chemistry, known for its safety, stability, and long lifespan, ensuring reliable performance.

**Minimalist and Compact Design:** The Xcellent batteries feature a minimalist, noise-free design that can be seamlessly integrated into various residential settings, both indoor and outdoor.

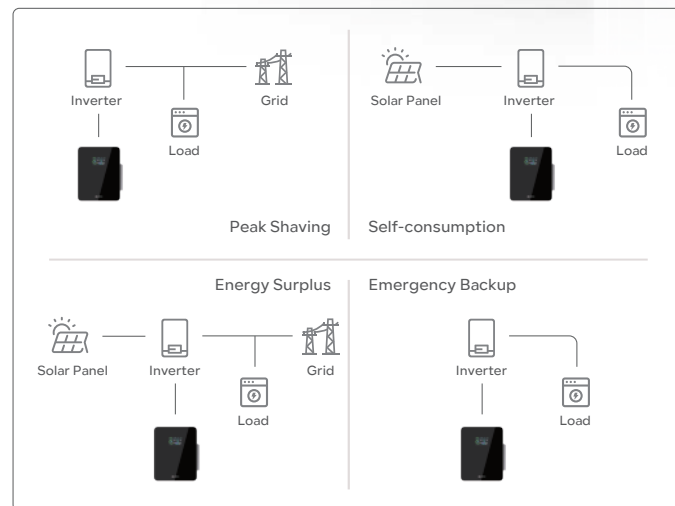
**High Compatibility and Flexibility:** The Xcellent series is designed to be highly compatible with various inverters and can be easily scaled to meet different energy storage needs, from small residential setups to larger installations.



### Product Details



### System Layout



### Application Scenario

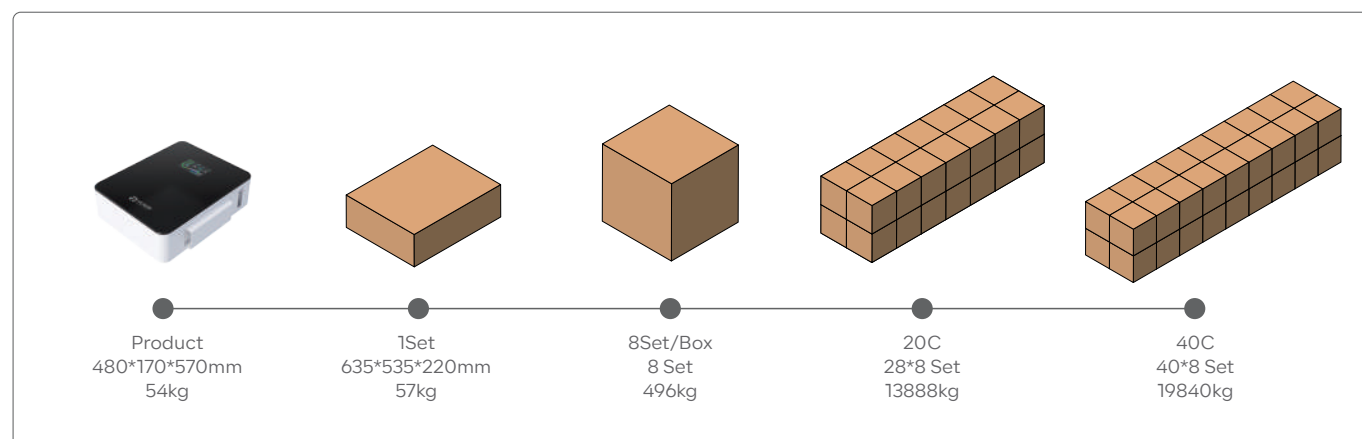




Battery Energy Storage		General Parameters	
Battery Chemistry	LiFePO4	Scalability	Max. 31 systems in parallel
Cell Capacity (Ah)	100	Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Nominal Energy (kWh)	5.12	Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C
Output Power (kW)	4.8	Cooling	Natural Cooling
Default Voltage (V)	51.2	Max. Altitude	2000m / 6561ft
Voltage Range (V)	43.2 ~ 59.2	Cycle Life	8000 Cycles
Max. Operation Current (A)	95	Communication	RS485, CAN, WiFi
Primary Overcurrent Protection (A)	98@10S	System Characteristic	
Secondary Overcurrent Protection (A)	120@2S	Battery Model	R-XC005161
Max. Charging Voltage (V)	58.4	Battery Compliances	IEC 62619, UN 38.3, UL1973 UKCA, CEI 0-21, EN-62311, EN-61000
Discharge Cut-off (V)	43.2	Installation Method	Wall-Mounting
Recommended Charging Voltage (V)	56.8	Installation Scene	Indoor
Dimension (W*D*H)	480*170*570mm 18.9*6.7*22.4in	IP Rating	IP20
Net Weight (Approximate)	54kg 119lb	Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

## Packaging & Shipping Details



# Xcellent Plus

## Wall-Mounted LV Battery System

**Dependable Safety:** Designed with a high level of safety features, including dependable lithium iron phosphate (LiFePO<sub>4</sub>) technology, ensuring safe and stable operation.

**Sleek Aesthetics:** Modern and sleek design that integrates seamlessly into residential environments, enhancing the aesthetic appeal of installation areas.

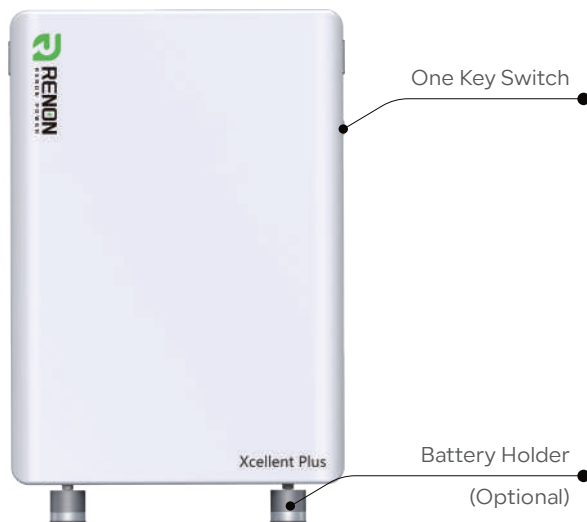
**Whisper-Quiet Operation:** Engineered for silent operation, making it ideal for home settings where noise levels need to be minimal.

**Versatile Compatibility:** Compatible with various inverters and energy systems, allowing for flexible integration with existing home energy setups.

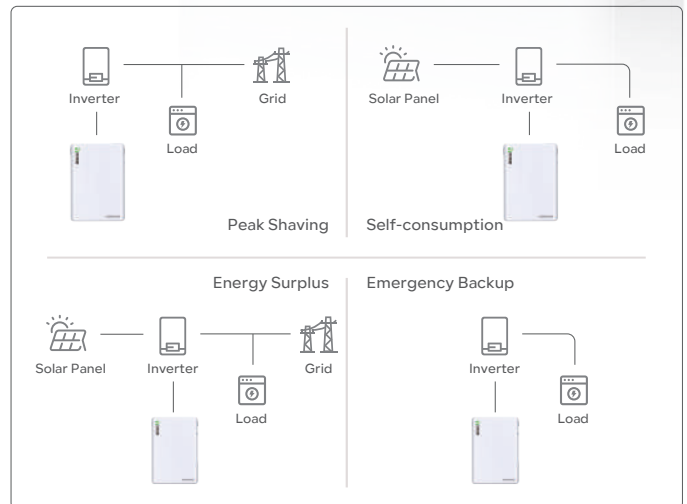
**Long Cycle Life:** Offers an impressive cycle life of up to 8000 cycles, providing long-term reliability and cost-effectiveness.



### Product Details



### System Layout



### Application Scenario



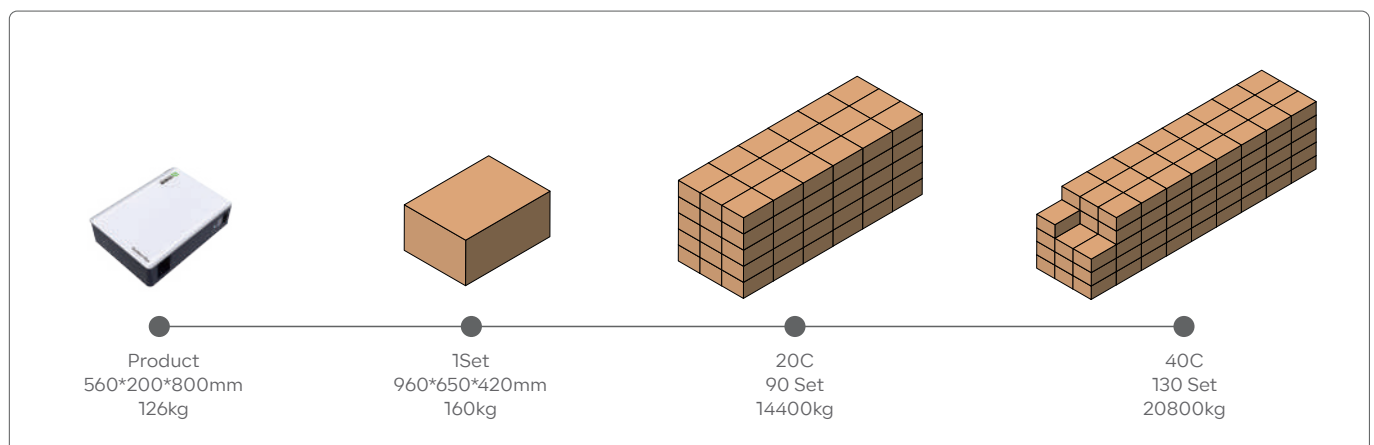
Battery Energy Storage	
Battery Chemistry	LiFePO4
Cell Capacity (Ah)	314
Nominal Energy (kWh)	16
Output Power (kW)	10.2
Default Voltage (V)	51.2
Voltage Range (V)	43.2 ~ 59.2
Max. Operation Current (A)	200
Primary Overcurrent Protection (A)	210@10S
Secondary Overcurrent Protection (A)	250@500mS
Max. Charging Voltage (V)	58.4
Discharge Cut-off (V)	43.2
Recommended Charging Voltage (V)	56.8
Dimension (W*D*H)	560*200*800mm 22*7.8*31.5in
Net Weight (Approximate)	126kg 278lb

General Parameters	
Scalability	Max. 15 systems in parallel
Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C
Cooling	Natural Cooling
Max. Altitude	2000m / 6561ft
Cycle Life	8000 Cycles
Communication	RS485, CAN, RS232

System Characteristic	
Battery Model	R-XC016161
Battery Compliances	IEC 62619, UN 38.3, CEI 0-21, EN-61000
Installation Method	Wall-Mounting or Floor Mounting
Installation Scene	Indoor or Outdoor
IP Rating	IP65
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

## ■ Packaging & Shipping Details



# EBrick

## Rack Mounted LV Battery System

**Modular Design and Easy Installation:** EBrick's rack-mount design allows for customizable and simple installation, with the flexibility to connect multiple units in parallel. This reduces installation time and costs.

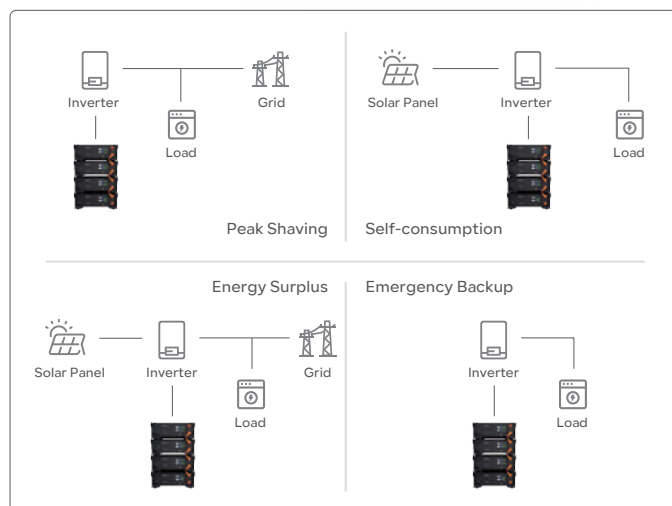
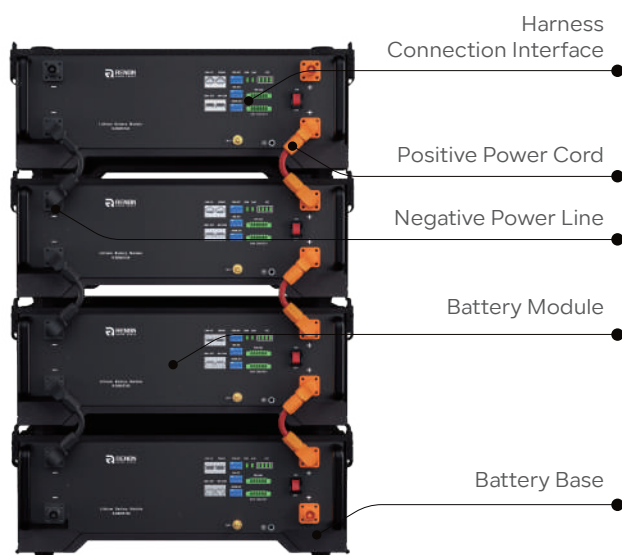
**Wi-Fi Connectivity and App Control:** EBrick features Wi-Fi connectivity, enabling users to remotely monitor and control the system via a dedicated app. This enhances user experience with real-time monitoring and efficient system management.

**Stable LiFePO4 Battery Technology:** EBrick uses reliable lithium iron phosphate (LiFePO4) batteries, offering up to 8000 cycles. Its efficient battery management system ensures high performance and safety.

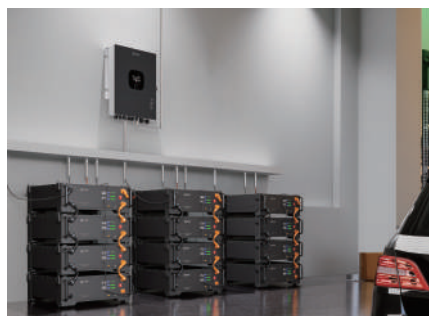


System Layout

### Product Details



### Application Scenario

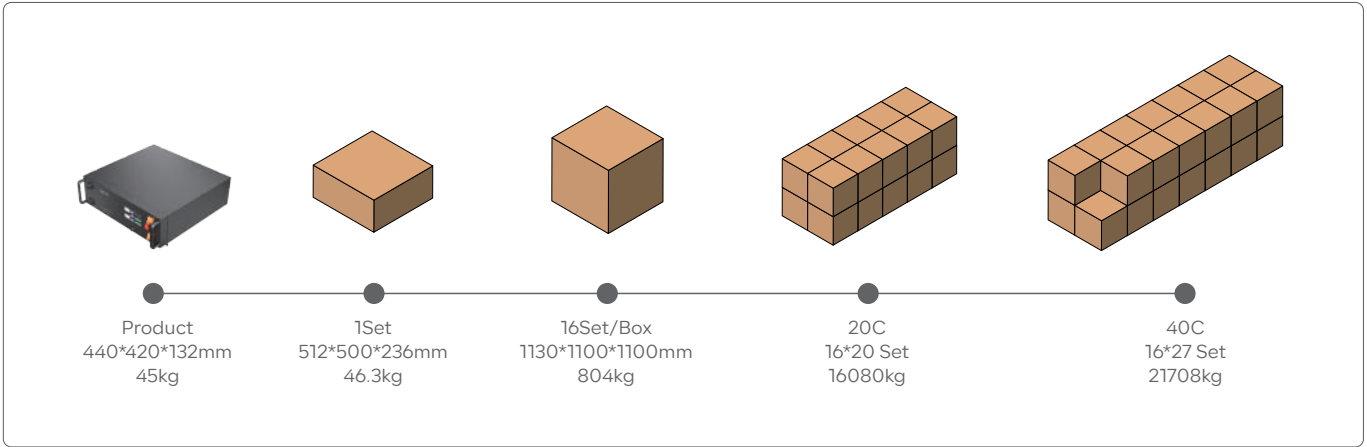




Battery Energy Storage		General Parameters	
Battery Chemistry	LiFePO4	Scalability	Max. 31 systems in parallel
Cell Capacity (Ah)	100	Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Nominal Energy (kWh)	5.12	Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C
Output Power (kW)	4.8	Cooling	Natural Cooling
Default Voltage (V)	51.2	Max. Altitude	2000m / 6561ft
Voltage Range (V)	43.2 ~ 59.2	Cycle Life	8000 Cycles
Max. Operation Current (A)	95	Communication	RS485, CAN, WiFi
Primary Overcurrent Protection (A)	98@10S	System Characteristic	
Secondary Overcurrent Protection (A)	120@30mS	Battery Model	R-EB005161
Max. Charging Voltage (V)	58.4	Battery Compliances	UL1973, UL9540A, IEC 62619, UN 38.3 CEI 0-21, UKCA, EN-61000, EN-62311
Discharge Cut-off (V)	43.2	Installation Method	Rack Mounting
Recommended Charging Voltage (V)	56.8	Installation Scene	Indoor
Dimension (W*D*H)	440*420*132mm 17.3*16.5*5.2in	IP Rating	IP20
Net Weight (Approximate)	45kg 99.2lb	Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

### Packaging & Shipping Details



# Xtreme HV 1.0

## Modular HV Battery System

**High Efficiency and Scalability:** The high voltage system offers a nominal voltage of 204.8~614.4V, reducing transmission losses, and its modular design provides 2 to 6 module stacking solutions, ensuring high operational reliability with dynamic current equalizing techniques.

**Advanced Smart Management:** Wireless design with Wi-Fi connectivity, and the intelligent energy management system (EMS) allow for easy activation, unified management, and real-time monitoring and fault pre-warning.

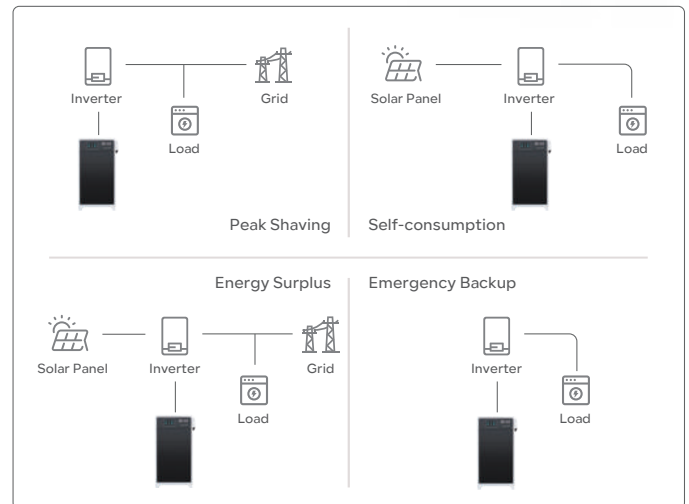
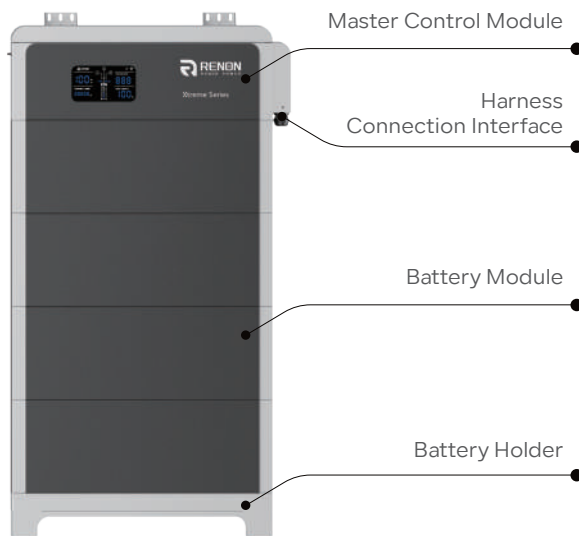
**Superior Safety and Durability:** With a built-in battery optimizer, up to 8000 cycle life, IP55 protection rating, and comprehensive certifications, the system ensures long-term stable operation and global safety compliance.

**User-Friendly Integrated Solutions:** The integration with Renon Flex Inverter eliminates the need for additional third-party inverters, and the 10-year warranty enhances user confidence and satisfaction.



System Layout

### Product Details



### Application Scenario

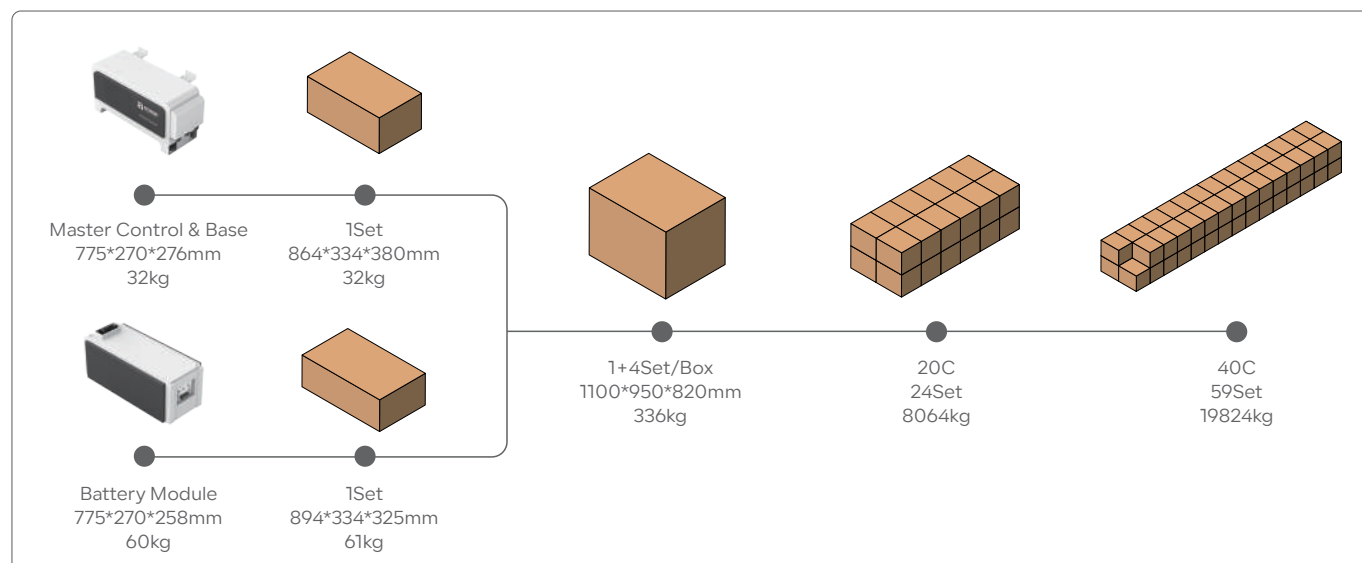


Battery Energy Storage	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Battery Combination	1P32S				
Cell Capacity (Ah)	50				
Nominal Energy (kWh)	10.24	15.36	20.48	25.6	30.72
Nominal Power (kW)	9.83	14.75	19.66	24.58	29.5
Nominal Voltage (V)	204.8	307.2	409.6	512	614.4
Max. Operating Current (A)	48				
Max. Current (A)@2S	60				
Operating Voltage Range (V)	172.8~233.6	259.2~350.4	345.6 ~ 467.2	432 ~ 584	518 ~ 700.8
Dimensions (W*D*H)	775*270*854mm 30.5*10.6*33.6in	775*270*1112mm 30.5*10.6*43.8in	775*270*1370mm 30.5*10.6*53.9in	775*270*1628mm 30.5*10.6*64.1in	775*270*1886mm 30.5*10.6*74.3in
Total Weight	152kg 335lb	212kg 467lb	272kg 600lb	332kg 731lb	392kg 862lb

General Parameters		System Characteristic	
Scalability	Max. 3 cluster in parallel	Master Control Model	R-MC050-XTH01
Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%	Battery Model	R-EM102050-XTH01
Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C	Battery Compliances	IEC62619, MSDS, UN38.3 CEI 0-21, EN62477
Cooling	Natural Cooling	Installation Method	Stack Mounting
Max. Altitude	2000m / 6561ft	Installation Scene	Indoor or Outdoor
Cycle Life	8000 Cycles	IP Rating	IP55
Communication	RS485, CAN, WiFi	Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

## Packaging & Shipping Details



# Xtreme HV 2.1

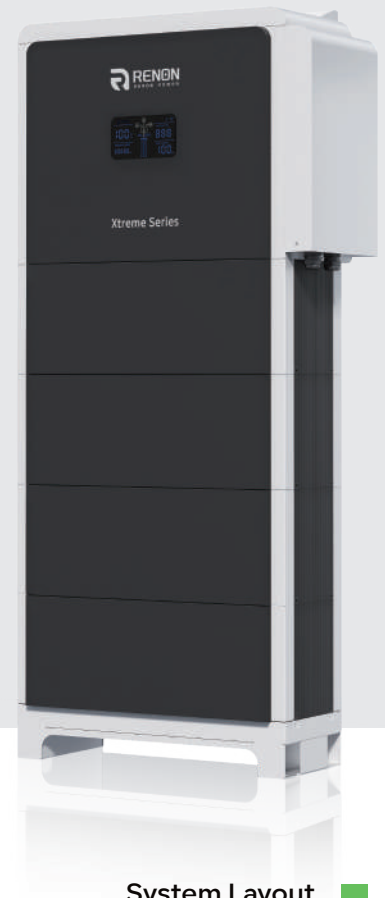
## Modular HV Battery System

**Enhanced Efficiency and Scalability:** The voltage range of 367.2~496.4V reduces transmission losses, and its modular design supports stacking of 2 to 6 modules, ensuring high operational reliability with dynamic current equalizing techniques.

**Advanced Smart Management:** Features such as one-key start, built-in battery optimizer, and wireless design with Wi-Fi connectivity allow for easy activation, unified management, and real-time monitoring and fault pre-warning.

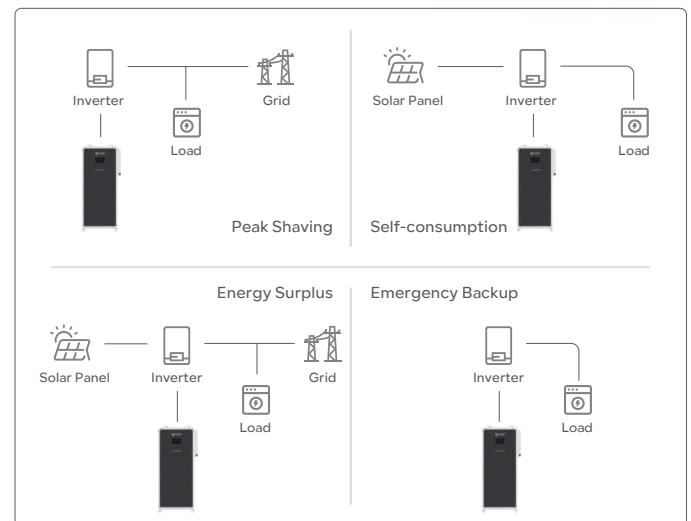
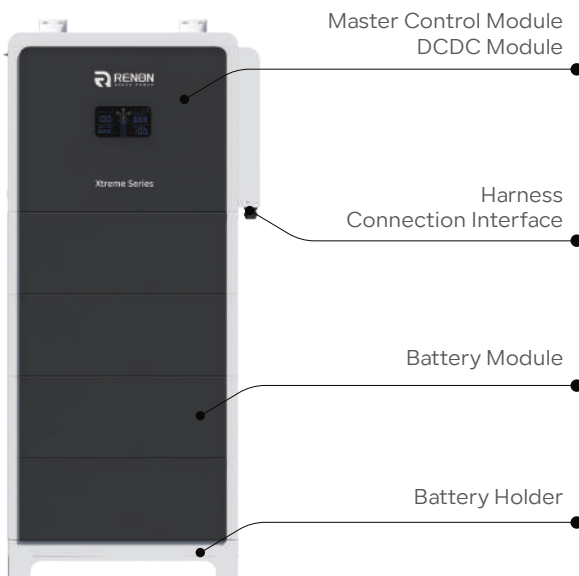
**Superior Safety and Durability:** With a built-in battery optimizer, up to 8000 cycle life, IP55 protection rating, and comprehensive certifications, the system ensures long-term stable operation and global safety compliance.

**User-Friendly Integrated Solutions:** The system supports seamless integration with various components and a 10-year warranty, enhancing user confidence and satisfaction.



System Layout

### Product Details



### Application Scenario

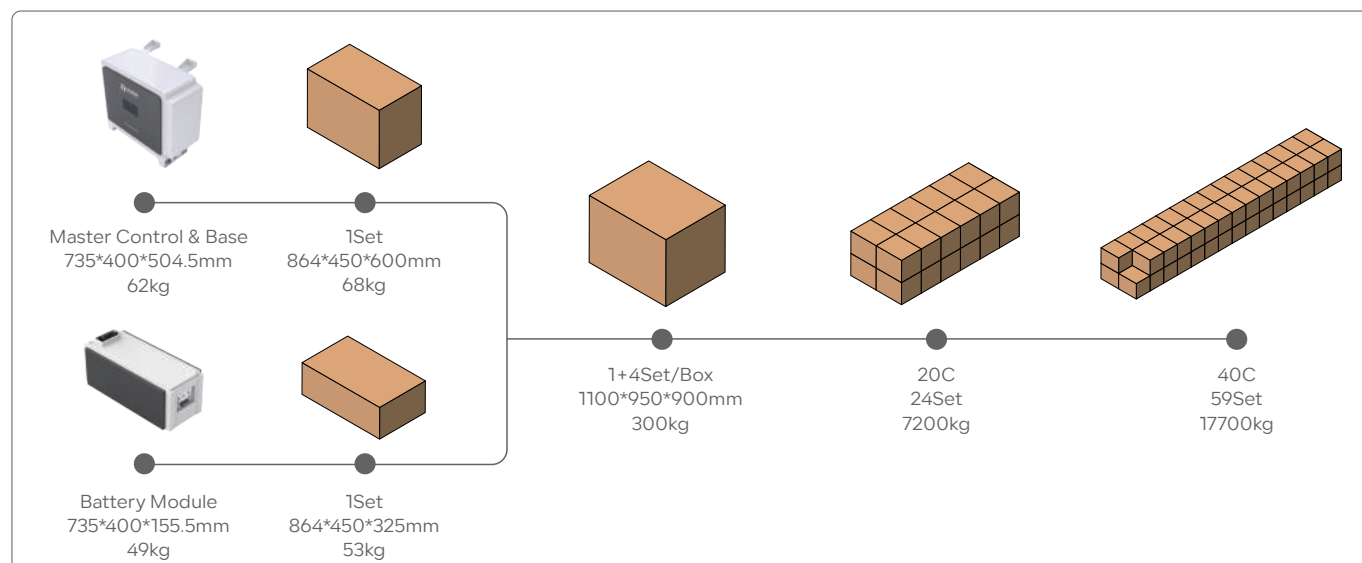




Battery Energy Storage	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Battery Combination	1P16S				
Battery Modular Capacity (Ah)	100				
Nominal Energy (kWh)	10.24	15.36	20.48	25.6	30.72
Output Power (kW)	13	19.6	19.6	19.6	19.6
Default Voltage (V)	435.2				
Settable Voltage Range (V)	367.2~496.4				
Nominal Current (A)	25	37.5	37.5	37.5	37.5
Max. Current (A)@10S	30	45	45	45	45
Dimensions (W*D*H)	735*400*775.5mm 29*15.7*30.5in	735*400*911mm 29*15.7*35.8in	735*400*1046.5mm 29*15.7*41.2in	735*400*1317.5mm 29*15.7*51.8in	735*400*1453mm 29*15.7*57.2in
Total Weight	160kg 353lb	209kg 461lb	257kg 567lb	306kg 675lb	355kg 783lb

General Parameters		System Characteristic	
Scalability	Max. 15 cluster in parallel	Master Control Model	R-EM51100-XTL01
Storage Conditions	-20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50%	Battery Model	R-PDO15-XTH01
Operating Temperature	Charge: 0°C ~ 50°C Discharge: -20°C ~ 50°C	Installation Method	Stack Mounting
Cooling	Natural Cooling	Installation Scene	Indoor or Outdoor
Max. Altitude	2000m / 6561ft	IP Rating	IP55
Cycle Life	8000 Cycles	Warranty [1]	10 Years
Communication	RS485, CAN, WiFi	[1] Please refer to the warranty letter for details	

## Packaging & Shipping Details



# Flex LV-US 02

## LV Split-phase Hybrid Inverter

**Integrated Design:** Renon Power's Flex LV-US 02 series features an integrated design with a built-in Renon Flex inverter, eliminating the need for third-party inverters. Users can monitor and control both the inverter and battery through the Renon Smart app, simplifying the user experience.

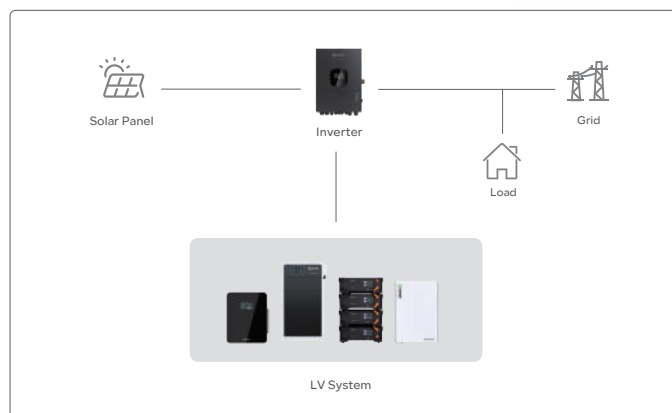
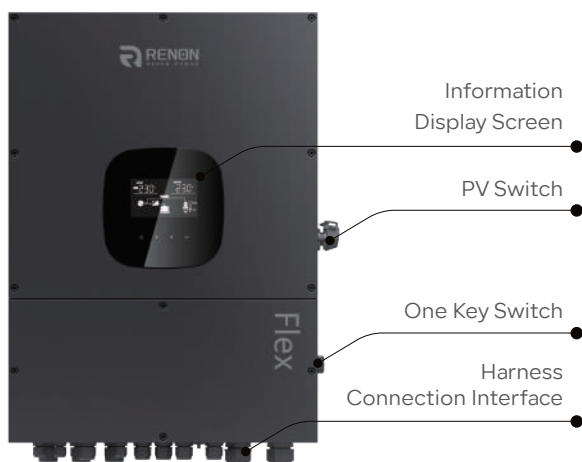
**Efficiency and Reliability:** Equipped with dual high-efficiency MPPT channels (18A each), the Flex LV-US series maximizes solar energy capture. It meets US safety and performance standards with certifications including IEEE 1547.1, UL 1741SA, and UL9540.

**Easy Installation and Flexible Expansion:** The system supports stackable modules and requires no cable connections, simplifying installation. Users can expand capacity by adding more modules, offering flexibility to meet future energy needs.



System Layout

### Product Details



### Application Scenario



Model	
Inverter Model	R-IFL12-US02
Phase(V)	120 / 240 Split phase, 120 / 208 Split phase
Max. PV Input Power(kW)	12
Rated Output Power(kVA/kW)	10/10
Max. Charging Power(kW)	10

#### Grid-tie Operation - PV Input (DC)

Max. DC Voltage(Vdc)	600
Start-up Voltage / Initial Feeding Voltage(Vdc)	125 / 160
MPP Voltage Range(Vdc)	120 ~ 550
Number of MPPT / Max. Input Current(A)	2 / 18

#### Grid-tie Operation - Grid Output (AC)

Nominal Output Voltage(Vac)	120 (P-N), 208 (P-P), 240 (P-P)
Output Voltage Range(Vac)	105.5 ~ 132(per phase)
Nominal Output Current(A)	41.5 (per phase)
Power Factor	0.9 lag to 0.9 lead

#### Grid-tie Operation - Efficiency

Max. Conversion Efficiency (DC/AC)	96%
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#### Off-grid Operation - AC Input

AC Start-up Voltage / Auto Restart Voltage(Vac)	85 / 90(per phase)
Acceptable Input Voltage Range(Vac)	85 ~ 140(per phase)
Frequency Range(Hz)	50 / 60(Auto sensing)
Max. AC Input Current(A)	40 (per phase)

#### Off-grid Operation - PV Input (DC)

Max. DC Voltage(Vdc)	600
MPP Voltage Range(Vdc)	120 ~ 550
Number of MPPT / Max. Input Current(A)	2 / 18

#### Off-grid Operation - Battery Mode Output (AC)

Nominal Output Voltage(Vac)	120 (P-N), 208 (P-P), 240 (PP)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	91%

#### Hybrid Operation - PV Input (DC)

Max. DC Voltage(Vdc)	600
Start-up Voltage / Initial Feeding Voltage(Vdc)	125 / 160
MPP Voltage Range(Vdc)	120 ~ 550
Number of MPPT / Max. Input Current(A)	2 / 18

#### Hybrid Operation - Grid Output (AC)

Nominal Output Voltage(Vac)	120 (P-N), 208 (P-P), 240 (P-P)
Output Voltage Range(Vac)	105.5 ~ 132 (per phase)
Nominal Output Current(A)	41.5 per phase

#### Hybrid Operation - AC Input

AC Start-up Voltage / Auto Restart Voltage(Vac)	85 / 90(per phase)
Acceptable Input Voltage Range(Vac)	85 ~ 140(per phase)
Max. AC Input Current(A)	40(per phase)

#### Hybrid Operation - Battery Mode Output (AC)

Nominal Output Voltage(Vac)	120 (P-N), 208 (P-P), 240 (P-P)
Efficiency (DC to AC)	91%

#### Hybrid Operation - Battery & Charger

Nominal DC Voltage(Vdc)	40 ~ 62
Max. Solar Charging Current(A)	200
Max. AC Charging Current(A)	200
Max. Charging Current(A)	200

#### General Parameters

Dimensions (W*D*H)	515*215.5*715mm / 20.2*8.5*28in
Weight	45kg / 99lb
Scalability	Max. 6 systems in parallel
Communication Port	RS232, RS485, WI-FI, USB
IP Rating	IP65
Operating Temperature	-25 ~ 60°C (>45°C derating)
Certifications	UL1741SB, FCC, CEC

# Flex LV-EU 01

## LV Single-phase Hybrid Inverter

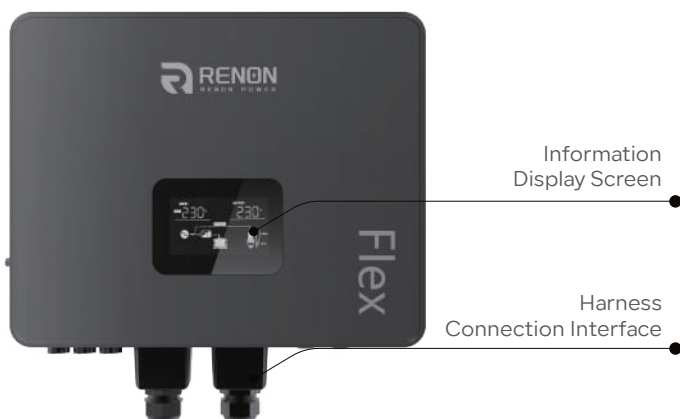
**Integrated Design:** Renon Power's Flex LV-EU 01 series includes a built-in Renon Flex inverter, eliminating the need for third-party inverters. Users can monitor and control the system through the Renon Smart app, simplifying the user experience.

**Easy Installation and Expansion:** The system supports stackable modules without cables, simplifying installation. It allows easy expansion to meet future energy needs, and its compact design saves space.

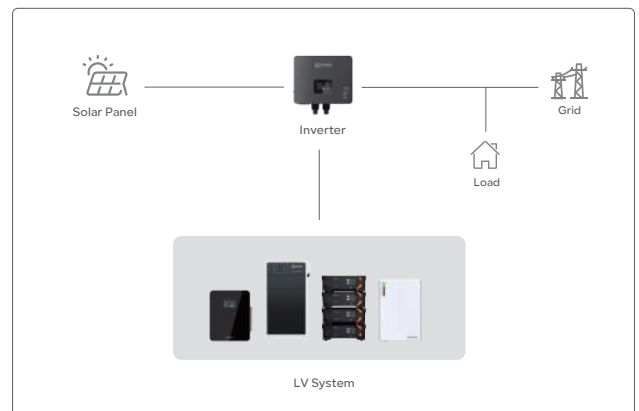
**Durability and User-Friendly:** With an IP65 protection rating, the Flex LV-EU 01 series is water and dust resistant. It offers mobile access for setup and maintenance, customizable charging profiles, and remote firmware upgrades, enhancing user experience and efficiency.



### Product Details



### System Layout



### Application Scenario





Model							
Inverter Model	R-IFL03-EU01	R-IFL03a-EU01	R-IFL04-EU01	R-IFL04a-EU01	R-IFL05-EU01	R-IFL06-EU01	R-IFL08-EU01
Interface	RS485, Wifi, 4G, CAN, DRM						
Certifications	C10/11, VDE, EMC, EN50549-1, IEC 62109-1/IEC 62109-2, EN62109-1/EN62109-2, CE, G99, G98, CEI 0-21						
PV Input							
Max. Input Power (kW)	4.5	5.4	6	6.9	7.5	9	12
Start-up Voltage (V)	100						
Max. PV Input Voltage(V)	550						
MPPT Range/nominal (V)	80~500/360						
Max.Input Current of Single MPPT(A)	16/16	16/16	16/16	16/16	16/16	16/16	16/32
MPPT Tracker Quantity	2						
MPPT Quantity / The Number of Input Strings Per MPPT	1/1	1/1	1/1	1/1	1/1	1/1	1/2
AC Output							
Rated Power (kW)	3	3.68	4	4.6	5	6	8
Rated Current Output to Grid (A)	13	16	17.4	20	21.7	26	35
Nominal Voltage/Range(V)	230/176~270						
Frequency (Hz)	50/60						
Power Factor	1(0.8 leading-0.8 lagging)						
THDi	<3%						
Grid Type	L+N+PE						
Battery Data							
Battery Voltage Range(V)	40~58						
Max. Charging Voltage(V)	58						
Max. Charge/Discharge Current(A)	60/60	72/72	80/80	92/92	100/100	120/120	160/160
Communication Interface	CAN						
EPS Output							
Rated Power (kW)	3.68	3.6	4	4.6	5	6	8
Rated Voltage(V)	230						
Rated AC Current Output to Grid (A)	13	16	17.4	20	21.7	26	35
Rated Frequency(Hz)	50/60						
Automatic Switchover Time(ms)	<10						
THDu	<2%						
Overload Capacity	100%, 60s/120%, 30s/150%, 10s						
General Parameters							
Scalability	Max. 4 systems in parallel						
Max. Efficiency	98%						
Europe Efficiency	97%						
Mppt Efficiency	99.9%						
IP Rating	IP65						
Operation Temperature	-25~60°C						
Cooling	Natural						
Relative Humidity	0~95% (non-condensing)						
Operating Altitude	0-2000m (no derating below 2000m)						
Dimensions(W*D*H)					454.5*200*467mm 8*7.8*18.3in		467*200*484mm 8.3*7.8*19in
Weight					18kg / 40lb		20kg / 44lb
Topology	Non-isolated						
Self-consumption At Night (W)	<20						

# Flex LV-EU 03

## LV Three-phase Hybrid Inverter

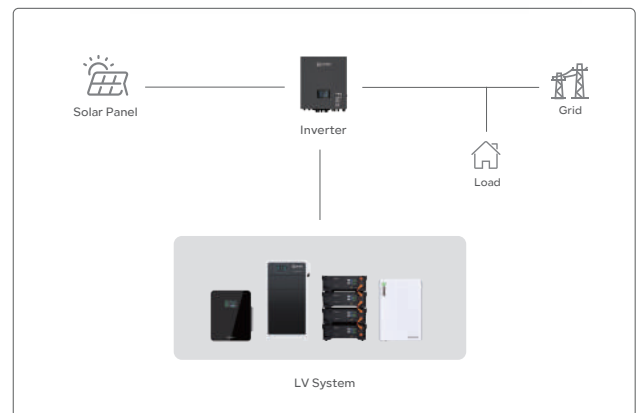
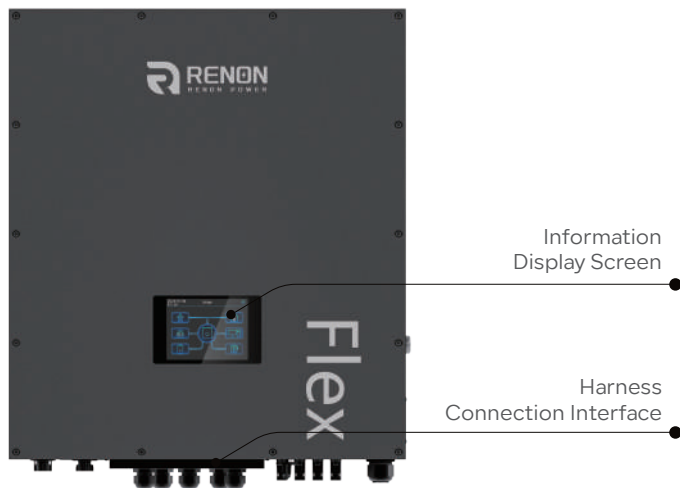
**Robust and Reliable Performance:** The Flex LV-EU 03 is IP65 rated for waterproof and dustproof protection, ensuring stable operation indoors and outdoors. It supports 150% unbalanced load for reliable output under high load. Built-in WiFi allows remote monitoring via an app.

**High Efficiency and Intelligent Management:** With a maximum PV input current of 26A, the Flex LV-EU 03 optimizes solar resource use and system efficiency. Dual outputs enable smart load management, and user-adjustable charging current allows for performance optimization.

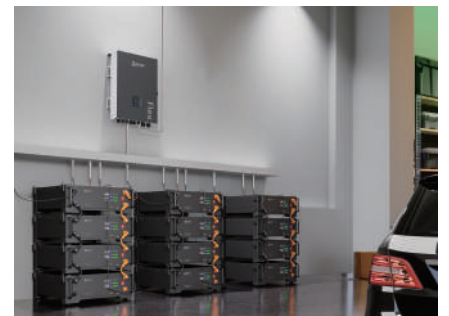
**Advanced Connectivity and Expandability:** The Flex LV-EU 03 features an RS485 port for seamless integration with battery management systems (BMS). It supports parallel operation of up to six units for scalable expansion. Robust construction and easy maintenance enhance reliability and reduce costs.



### Product Details



### Application Scenario



Model			
Inverter Model	<b>IFL12:</b> R-IFL12-EU03	<b>IFL15:</b> R-IFL15-EU03	
Max. PV Input Power(kW)	<b>IFL12:</b> 16	<b>IFL15:</b> 22.5	
Rated Output Power(kW)	<b>IFL12:</b> 12	<b>IFL15:</b> 15	
Max. Charging Power(kW)	<b>IFL12:</b> 12	<b>IFL15:</b> 15	

#### Grid-tie Operation - PV Input (DC)

Nominal DC Voltage / Max. DC Voltage(Vdc)	720 / 1000
Start-up Voltage / Initial Feeding Voltage(Vdc)	320 / 350
MPP Voltage Range(Vdc)	350 ~ 950
Number of MPP Trackers / Max. Input Current(A)	2 / A: 26, B: 26
Number of Strings Per MPP Tracker	A: 2, B: 2

#### Grid-tie Operation - Grid Output (AC)

Nominal Output Voltage(Vac)	230 (P-N) / 400 (P-P)
Output Voltage Range(Vac)	184 ~ 265(per phase)
Nominal Output Current(A)	<b>IFL12:</b> 21.7 / <b>IFL15:</b> 17.4(per phase)
Power Factor Range	0.9 lag ~ 0.9 lead

#### Grid-tie Operation - Efficiency

Max. Conversion Efficiency (DC/AC)	>96%
European Efficiency@ Vnominal	>95%

#### Off-grid Operation - AC Input

AC Start-up Voltage / Auto Restart Voltage(Vac)	120 ~ 140 / 180
Acceptable Input Voltage Range(Vac)	170 ~ 290 (per phase)
Max. AC Input Current(A)	40

#### Off-grid Operation - PV Input (DC)

Max. DC Power(kW)	<b>IFL12:</b> 16 <b>IFL15:</b> 22.5
Max. DC Voltage(Vdc)	1000
MPP Voltage Range(Vdc)	350 ~ 950
Number of MPP Trackers / Max. Input Current(A)	2 / A: 26, B: 26
Number of Strings Per MPP Tracker	A: 2, B: 2

#### Off-grid Operation - Battery Mode Output (AC)

Nominal Output Voltage(Vac)	230 (P-N) / 400 (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	91%

#### Hybrid Operation - PV Input (DC)

Max. DC Voltage(Vdc)	1000
Start-up Voltage / Initial Feeding Voltage(Vdc)	320 / 350
MPP Voltage Range(Vdc)	350 ~ 950
Number of MPP Trackers / Max. Input Current(A)	2 / A: 26, B: 26
Number of Strings Per MPP Tracker	A: 2, B: 2

#### Hybrid Operation - Grid Output (AC)

Nominal Output Voltage(Vac)	230(P-N) / 400(P-P)
Output Voltage Range(Vac)	184 ~ 265 (per phase)
Nominal Output Current(A)	<b>IFL12:</b> 17.4 / <b>IFL15:</b> 21.7 (per phase)

#### Hybrid Operation - AC Input

AC Start-up Voltage / Auto Restart Voltage(Vac)	120 ~ 140 / 180
Acceptable Input Voltage Range(Vac)	170 ~ 290 (per phase)
Max. AC Input Current(A)	40

#### Hybrid Operation - Battery Mode Output (AC)

Nominal Output Voltage(Vac)	230 (P-N) / 400 (P-P)
Efficiency (DC to AC)	91%

#### Hybrid Operation - Battery & Charger

Battery Voltage Range(Vdc)	40 ~ 62
Max. Charging Current(A)	<b>IFL12:</b> 250 <b>IFL15:</b> 300

#### General Parameters

Scalability	Max. 6 systems in parallel
Dimension(W*D*H)	660*255*750mm / 26*10*30in
Net Weight	<b>IFL12:</b> 75kg / 165lb <b>IFL15:</b> 78kg / 172lb
Communication Port	RS-232, RS-485, USB, CAN, Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards
Humidity	0 ~ 100% RH (Non-condensing)
Operating Temperature	-25 to 60°C (> 45°C power derating)
Altitude	≤1000m
IP Rating	IP65
Safety	IEC 62109, IEC 62116, IEC 61727, IEC 61683
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105

# Flex HV-EU 03

## HV Three-phase Hybrid Inverter

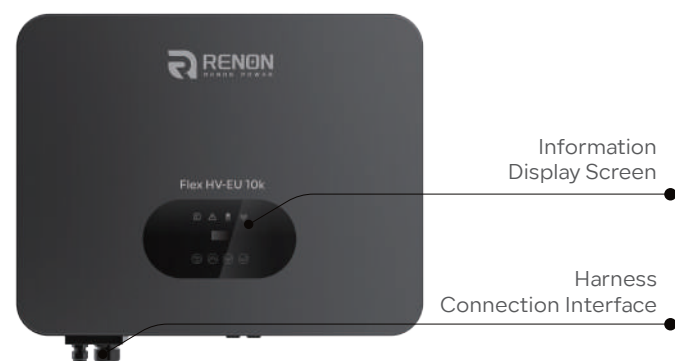
**Integrated Design:** The Flex HV-EU 03 series includes a built-in Renon Flex inverter, eliminating the need for third-party inverters. Users can monitor and control the system via the Renon Smart app, simplifying the user experience.

**High Efficiency and Scalability:** The series offers high efficiency with reduced transmission losses and supports up to 10 units in parallel, allowing easy expansion. The integrated management system provides insights and predictive maintenance.

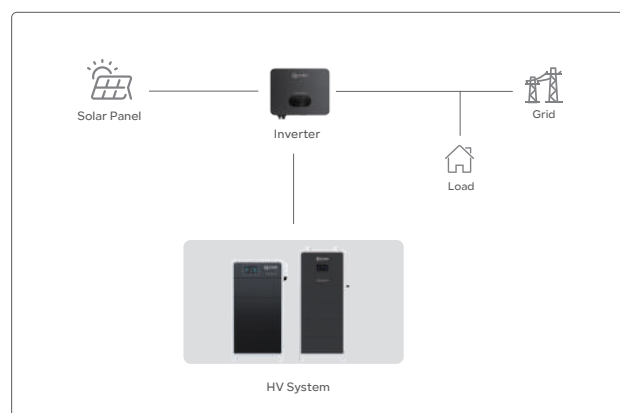
**Easy Installation and Advanced Control:** Designed for simple installation, the Flex HV-EU 03 series supports stackable modules. It features remote firmware upgrades, customizable charging profiles, and supports VPP and FFR functions.



### Product Details



### System Layout



### Application Scenario





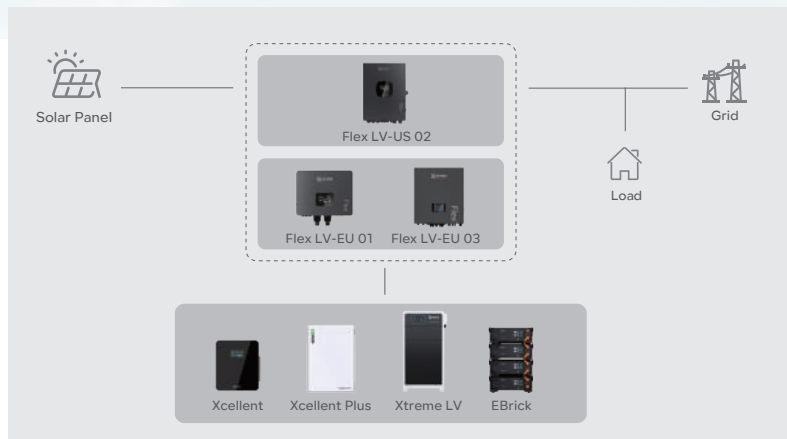
Model					
Inverter Model	R-IFH05-EU03	R-IFH06-EU03	R-IFH08-EU03	R-IFH10-EU03	R-IFH10-A-EU03
Recommended Max.PV Power (kWp)	7.5	9	12	15	15
Max. PV Input Voltage (V)	1000				
MPPT Voltage Range (V)	160 ~ 950				
Rated PV Input voltage (V)	600				
Start-up Voltage (V)	160				
No. of MPP Trackers	2				
No. of Input Strings per Tracker	1				
Max. Input Current per MPPT (A)	36(18/18)				
Max. Short-circuit Current per MPPT(A)	46(23/23)				
AC Output					
Max. Apparent Power (kVA)	5.5	6.6	8.8	10	11
Rated Power(kW)	5	6	8	10	10
Max. Current (A)	7.6	9.1	12.2	14.4	15.2
Rated Current (A)	7.2	8.7	11.5	14.4	14.4
Rated Voltage / Range (V)	3/ N / PE,220 / 380, 230 / 400;20%				
Grid Frequency / Range (Hz)	50 / 60;±5				
Adjustable Power Factor	0.8 leading ~ 0.8 lagging				
Output THDi(@Rated Output)	<3%				
AC Input					
Max .apparent Power (kVA)	10	12	16	20	20
Max. Current (A)	15.2	18.2	24.3	28.8	30.4
Rated Voltage / Range (V)	3 / N / PE, 220 / 380, 230 / 400; ± 20%				
Grid Frequency / Range (Hz)	50 / 60; ± 5				
Battery Data					
Battery Voltage Range (V)	160 ~ 700				
Max. Charging / Discharging Current (A)	30 / 30				
Communication Interface	CAN				
EPS Output Data (With Battery)					
Rated Power (kW)	5	6	8	10	10
Rated Voltage (V)	3 / N / PE, 220 / 380, 230 / 400				
Rated Frequency (Hz)	50 / 60				
Rated Current (A)	7.6	9.1	12.2	14.4	15.2
Output THDi (@Rated Output)	<3%				
Automatic Switch Time (ms)	<10				
Peak Apparent Power, Duration (kVA, s)	7.5, 60	9, 60	12,60	15, 60	15, 60
Efficiency					
Max. Efficiency	98.00%				
Euro Efficiency	97.70%				
Max. Battery Charge / Discharge Efficiency	97.60%				
General Parameters					
Scalability	Max. 5 systems in parallel				
Dimensions(W*D*H)	520*188 *412mm / 20.5*7.4*16in				
Weight	27kg / 59.5lb				
User Interface	LED + OLED				
Communication	RS485, USB, Wifi, 4G (Optional)				
Operating Temperature Range	-25~60°C				
Relative Humidity	0~100%				
Operating Altitude(m)	≤2000				
Standby Self Consumption (W)	<15				
Topology	Transformerless				
IP Rating	IP65				
Warranty	5 years				
Certifications	VDE 4105, EN 50549-1, VDE 0126, CEI 0-21, EN 50549-GR, EN 50549-PL, TOR Erzeuger, EN50549-CZ, AS4777, C10/11, IEC 62109-1, IEC 62109-2, EN/IEC 61000-6-1, EN/IEC 61000-6-3				

# Solution

## LV Solution

### Low Voltage Energy Storage for Everyday Needs

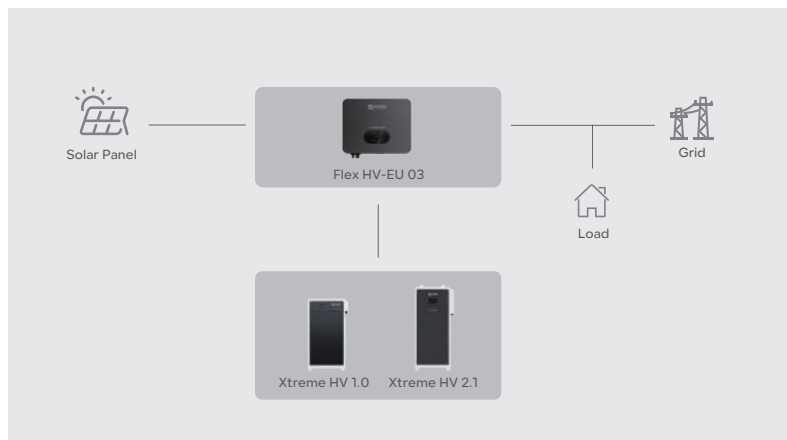
Residential LV solutions offer dependable and affordable energy storage for everyday household needs. Ideal for small to medium-sized homes, these low voltage systems provide continuous power supply, enhancing energy independence and reducing electricity costs.



## HV Solution

### High Voltage Energy Storage for Modern Homes

Residential HV solutions deliver robust and reliable energy storage, designed for larger homes with higher energy demands. These high voltage systems provide efficient power management, ensuring your home remains powered through peak usage times and outages.



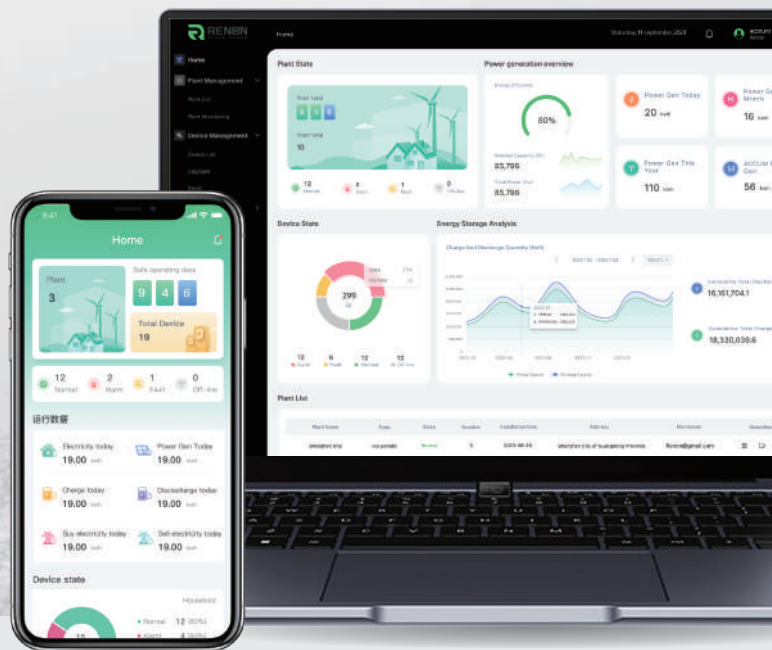
# Renon ColudX

## Cloud Energy Management

### We're Using Smart Power to Simplify Your Life.

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

Comprehensive system for managing large-scale power 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

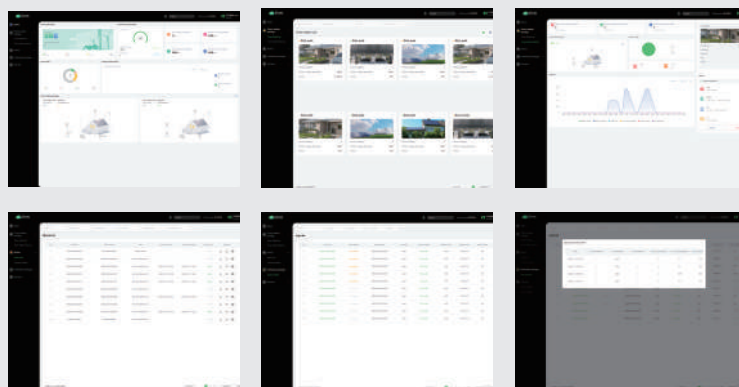
Remote firmware upgrading and intelligent operation and maintenance report generation effectively improve customer satisfaction.



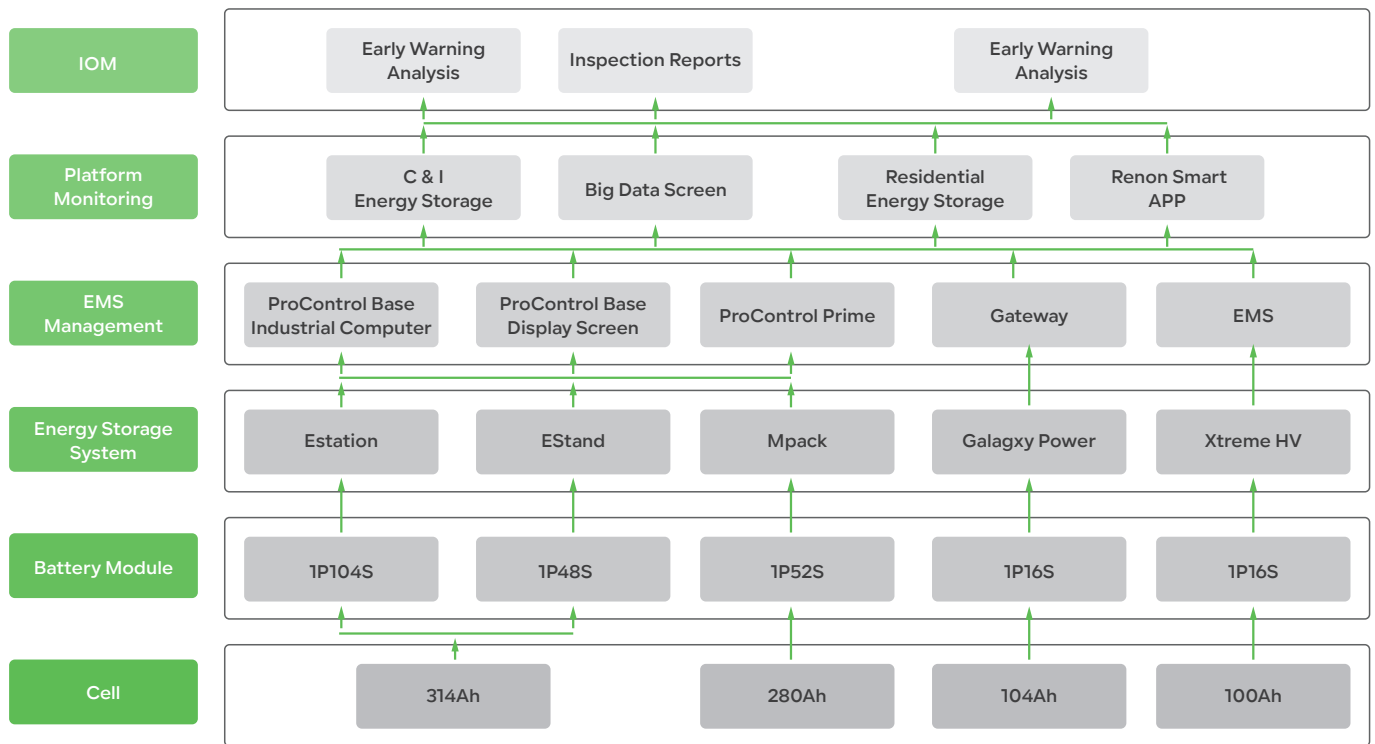
### Optimized Channel Construction with a Six-Level Distribution System

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

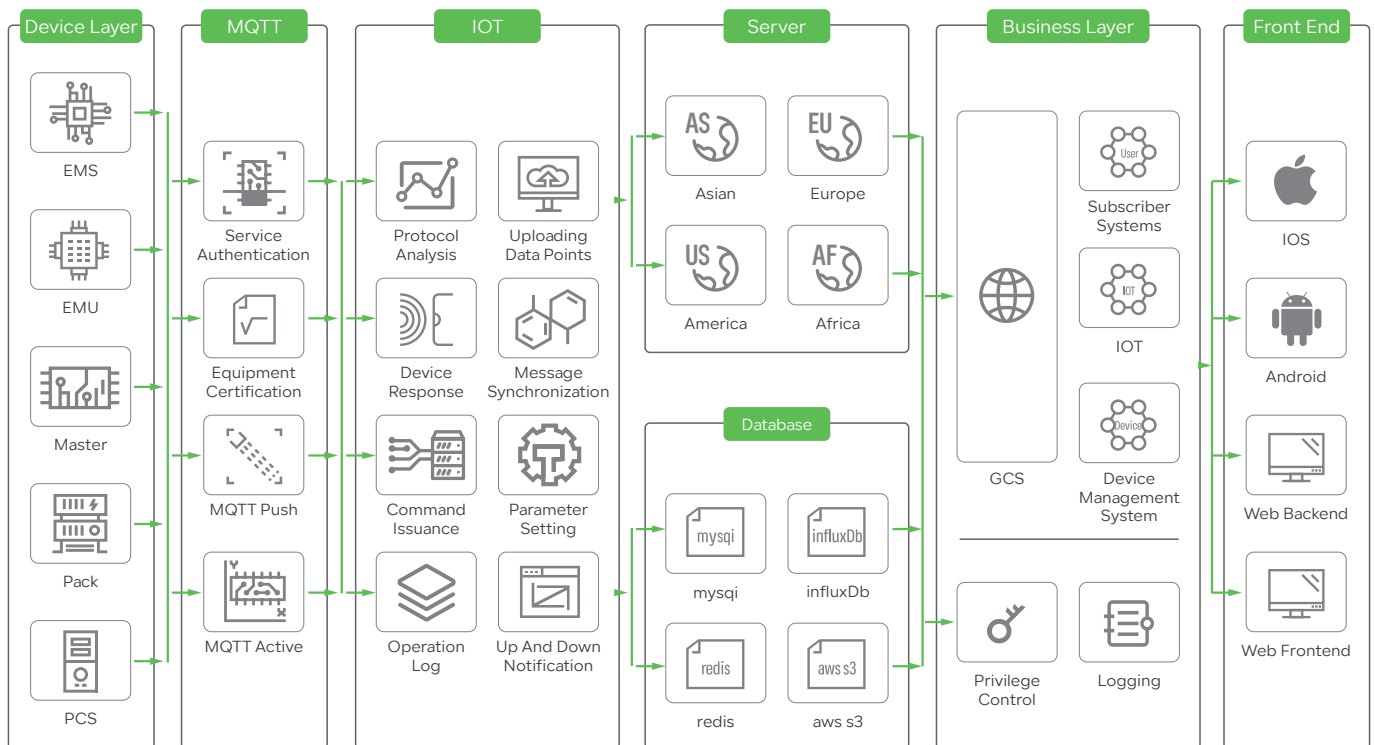
## Interface Showcase



## Physical Link



## Platform Architecture





# Installation Cases

"As an installer, I appreciate the reliability and efficiency of Renon Power's solutions. Their technical support team is always available to assist with any questions or challenges, ensuring a smooth installation process from start to finish."

- Samantha J., Electrical Contractor



Lithuanian Xtreme LV



Germany EBrick



South Africa Xcellent



Italy Xcellent



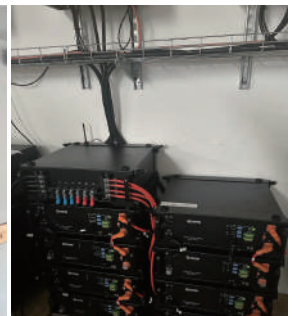
Italy Xcellent



Italy Xcellent



Italy Xcellent



Portugal Ebrick



South Africa Xcellent



South Africa Xtreme LV



Netherlands Xcellent



South Africa Xtreme LV



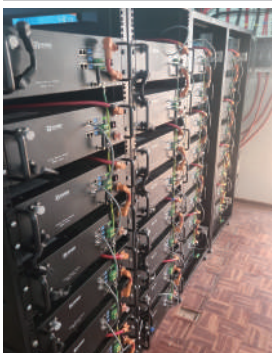
South Africa Xtreme LV



South Africa Xtreme LV



South Africa Xcellent



South Africa Ebrick



USA Xtreme LV



USA Xtreme LV



USA Xtreme LV



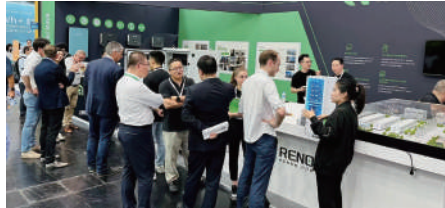
# Renon Exhibition

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.

## Intersolar Europe 2024

Germany



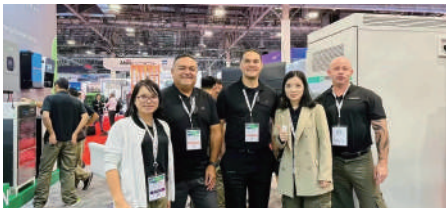
## Energy Storage Summit Central Eastern Europe

Eastern Europe



## RE Plus 2023

The United States



## EnerGaia 2023

French



## PV EXPO 2024 Tokyo

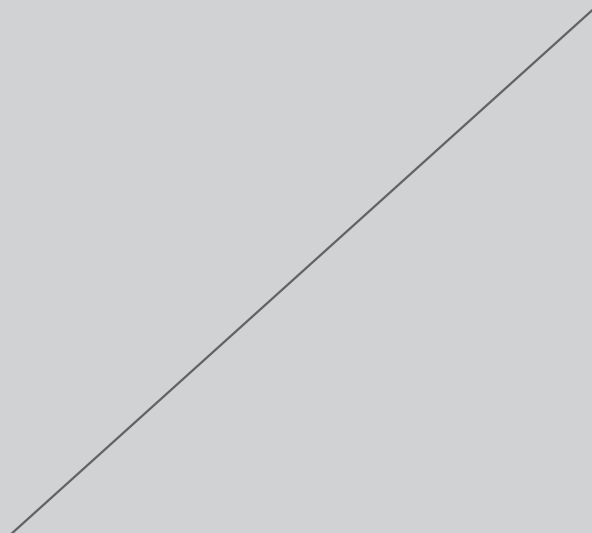
Japan



# Note Book

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





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