# **Residential Series**

**Battery Storage System** 





### Renon Power Technology Inc.

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## Renon Power

### We Care About 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 RENEWABLE ENERGY WITHIN REACH.

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



# Content

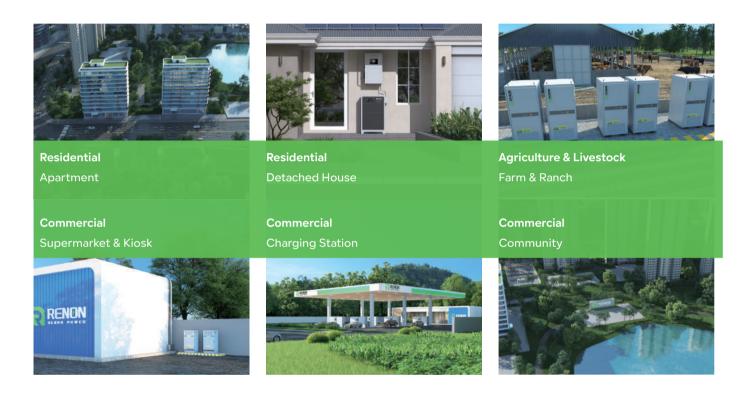
Meeting the highest standards of quality and safety in the global market.

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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.



### Industrial



### Industrial Supercomputin



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.



P03 Xtreme LV

### LV Battery Storage System





P07 Xcellent Plus



P09 EBrick



### HV Battery Storage System



P11 Xtreme HV 2.1

### One-Stop Solution



P13 Sol-Ark 12K 2p



P15 Sol-Ark 15K 2p



# Xtreme LV

### Modular LV Battery System

**Scalability:** The system can be expanded with up to 15 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.

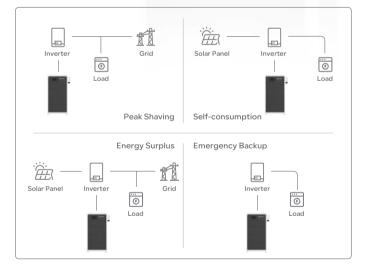
**Strong Compatibility:** The system is designed to work seamlessly with various inverters and energy management systems, providing flexibility in integration with existing setups.

**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 Demonstration





### Application Scenario







### System Layout

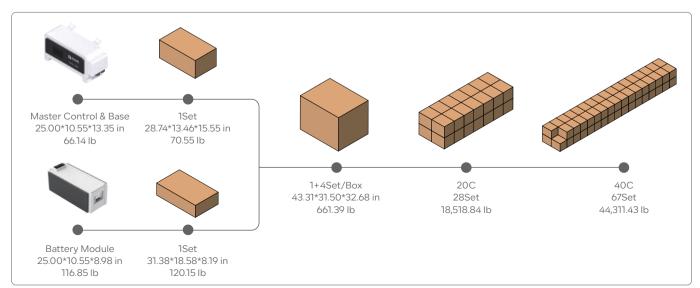
RENON

Battery Energy Storage	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Product Model	R-XL010021	R-XL015031	R-XL020041	R-XL025051	R-XL030061
Nominal Energy (kWh)	10.24	15.36	20.48	25.6	30.72
Output Power (kW)	9.7	14.6	15.4	15.4	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)			58.4		
Discharge Cut-off (Vdc)			43.2		
Nominal Voltage (Vdc)			51.2		
Recommend Charging Voltage(Vdc)			56.8		
Battery Chemistry			LiFePO4		
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)	141kg 3111b	194kg 428lb	247kg 545lb	300kg 661lb	353kg 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	4000m / 13123ft
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

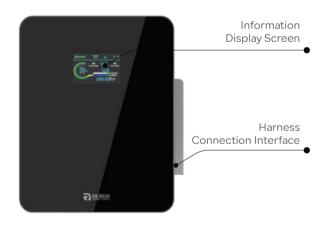
Safe and Stable LFP Technology: The Xcellent series uses Lithium Iron Phosphate (LFP) battery chemistry, known for its safety, stability, and long lifespan, ensuring reliable performance.

**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



#### Ħ Ê L Ы Inverter Grid Solar Panel Inverter ... © ... (5) Load Load Peak Shaving Self-consumption Energy Surplus Emergency Backup TI. Â Ŀ. Solar Panel Grid Inverter Inverter ... (9) ... (9) Load Load

### Application Scenario







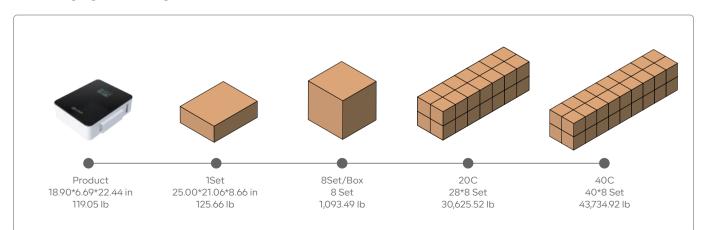
### System Layout

#### Battery Energy Storage

Battery Chemistry	LiFePO4
Cell Capacity (Ah)	100
Nominal Energy (kWh)	5.12
Output Power (kW)	4.8
Default Voltage (V)	51.2
Voltage Range (V)	43.2 ~ 59.2
Max. Operation Current (A)	95
Primary Overcurrent Protection (A)	98@10S
Secondary Overcurrent Protection (A)	120@2S
Max. Charging Voltage (V)	58.4
Discharge Cut-off (V)	43.2
Recommended Charging Voltage (V)	56.8
Dimension (W*D*H)	480*170*570mm 18.9*6.7*22.4in
Net Weight (Approximate)	54kg 119lb

General Parameters	
Scalability	Max. 31 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	4000m / 13123ft
Cycle Life	8000 Cycles
Communication	RS485, CAN, WiFi
System Characteristic	
Battery Model	R-XC005161
Battery Compliances	IEC 62619, UN 38.3, UL1973 UKCA, CEI 0-21, EN-62311, EN-61000
Installation Method	Wall-Mounting
Installation Scene	Indoor
IP Rating	IP20
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 (LiFePO4) 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.

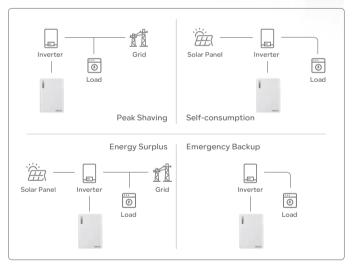
Versatile Compatibility: Compatible with various inverters and energy systems, allowing for flexible integration with existing home energy setups.

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



### Product Details





### Application Scenario



### System Layout

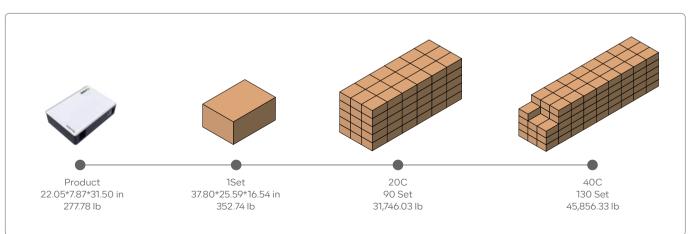
#### Battery Energy Storage

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	5000m / 13123ft
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

[1] Please refer to the warranty letter for details

### Packaging & Shipping Details



Warranty [1]

10 Years

# **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.

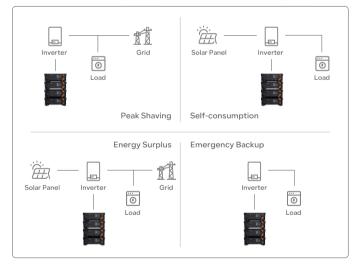
**Stable LiFePO4 Battery Technology:** EBrick uses reliable lithium iron phosphate (LiFePO4) batteries, offering up to 8000 cycles. Its efficient battery management system ensures high performance and safety.



#### Product Details



#### System Layout



### Application Scenario







#### Battery Energy Storage

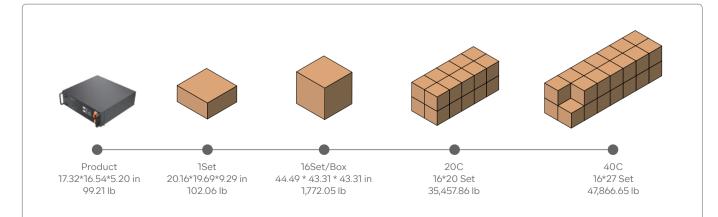
Battery Chemistry	LiFePO4
Cell Capacity (Ah)	100
Nominal Energy (kWh)	5.12
Output Power (kW)	4.8
Default Voltage (V)	51.2
Voltage Range (V)	43.2 ~ 59.2
Max. Operation Current (A)	95
Primary Overcurrent Protection (A)	98@10S
Secondary Overcurrent Protection (A)	120@30mS
Max. Charging Voltage (V)	58.4
Discharge Cut-off (V)	43.2
Recommended Charging Voltage (V)	56.8
Dimension (W*D*H)	440*420*132mm 17.3*16.5*5.2in
Net Weight (Approximate)	45kg 99.21b

### **General Parameters** Scalability Max. 31 systems in parallel Storage Conditions -20°C ~ 55°C(0°C ~ 35°C Recommended) Up to 90%RH, non-condensing Initial SoC: 50% Charge: 0°C ~ 50°C Operating Temperature Discharge: -20°C ~ 50°C Cooling Natural Cooling Max. Altitude 4000m / 13123ft Cycle Life 8000 Cycles Communication RS485, CAN, WiFi System Characteristic

Battery Model	R-EB005161
Battery Compliances	UL1973, UL9540A, IEC 62619, UN 38.3 CEI 0-21, UKCA, EN-61000, EN-62311
Installation Method	Rack Mounting
Installation Scene	Indoor
IP Rating	IP20
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.



### Product Details



#### Ħ Ĥ Ð Inverter Grid Solar Panel Inverter ... © ... (5) Load Load Peak Shaving Self-consumption Energy Surplus Emergency Backup Ĥ T I le l Solar Panel Grid Inverter Inverter 1 1 Load Load

### Application Scenario







### System Layout

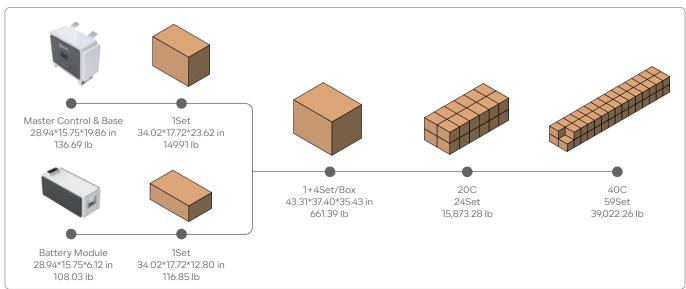
Battery Energy Storage	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Battery Combination			1P16S		
Battery Modular Capacity (Ah)			100		
Nominal Energy (kWh)	10.24	15.36	20.48	25.6	30.72
Output Power (kW)	13	19.6	19.6	19.6	19.6
Default Voltage (V)			435.2		
Settable Voltage Range (V)			367.2~496.4		
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	
Scalability	Max. 15 cluster 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	4000m / 13123ft
Cycle Life	8000 Cycles
Communication	RS485, CAN, WiFi

System Characteristic	
Master Control Model	R-EM51100-XTL01
Battery Model	R-PDO15-XTH01
Installation Method	Stack Mounting
Installation Scene	Indoor or Outdoor
IP Rating	IP55
Warranty [1]	10 Years

[1] Please refer to the warranty letter for details

### Packaging & Shipping Details



# Sol-Ark 12K-2P

### LV Split-phase Hybrid Inverter

Partial Home Backup: Ensure your essential home appliances stay powered during outages, maintaining comfort and convenience.

Built-In Transfer Switch: Simplify your solar energy system installation with an integrated transfer switch, seamlessly compatible with any AC power source.

Battery Agnostic: Enjoy unparalleled flexibility with compatibility across all 48V batteries on the market.

**Military-Grade Reliability:** Opt for up to twice the military-grade protection, guaranteeing operation even during lightning strikes and other extreme conditions.

**EV Home Charging:** Power your electric vehicle efficiently with dedicated circuit loading for hassle-free home charging.



### Product Details



# Solar Panel

### Application Scenario







### System Layout

PV Input	
Max. Allowed PV Power(kW)	13
Rated MPPT Operating Voltage Range(V)	175 ~ 425
MPPT Voltage Range(V)	150 ~ 500
Startup Voltage(V)	125
Max. Input Voltage <sup>1</sup> (V)	500
Max. Operating Input Current per MPPT(A)	20(self-limiting)
No. of MPP Trackers	2
No. of PV Strings per MPPT	2
Max. AC Coupled Input(kW)	9.6

AC Output	
Nominal AC Voltage(V)	120/240, 120/208, 220
Grid Frequency(Hz)	50 / 60
Real Power, max continuous ²(kW)	9
Max. Output Current(A)	37.5
Peak Apparent Power(kVA)(10s, off-grid)	16@240V
Peak Apparent Power(kVA)(100ms, off-grid)	25@240V
Max Output Fault Current(A)(100ms)	104
Max. Grid Passthrough Current(A)	63
Power Factor Output Range	± 0.9 adjustable
Backup Transfer Time	4ms
CEC Efficiency	96.5%
Max Efficiency	97.5%
Design (DC to AC)	Transformerless DC
Stackable	Up to 9 in parallel

 See Installation Guide for more details on sizing array strings. The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature.
Max. continuous AC output of 9kW (loads / grid sell) + DC output of 3kW (batteries) = 12kW total



Battery Input	
Battery Technologies	Lithium / Lead Acid
Nominal DC Voltage(V)	48
Operating Voltage Range(V)	43 ~ 63
Capacity(Ah)	50 ~ 9900
Max. Battery Charge / Discharge Co	urrent(A) 185
Charging Controller	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
External Battery Temperature Sens	or (BTS) Included
Automatic Generator Start (AGS)	2 Wire Start - Integrated
BMS Communication	CANBus, RS485 MODBUS
General Parameter	
Inverter Model	Sol-Ark-12K-P
Dimensions (W*D*H)	450*254*750mm/17.7*10*29.5in
Weight	35.4kg / 78lb
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~55°C(>45°C Derating)
Noise	< 30 dB @ 25°C (77°F)
Idle consumption - No Load(W)	60
Communication and Monitoring	Wi-Fi & LAN Hardware Included

Protection & Certifications

Standard Warranty

Certifications and Listings	UL1741-2010/2018 IEEE1547a 2003/2014 FCC 15 Class B, UL1741SB CA Rule 21, HECO Rule 14H
PV DC Disconnect Switch — NEC 240.1	5 Integrated
Ground Fault Detection — NEC 690.5	Integrated
PV Rapid Shutdown Control — NEC 690	0.12 Integrated
PV Arc Fault Detection — NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protec	tion Integrated
AC Output Breaker - 63A	Integrated
250A Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II

10 Years

# Sol-Ark 15K-2P

### LV Split-phase Hybrid Inverter

**Grid Down Generation:** Continue generating power independently from the grid during prolonged power outages or blackouts. Never have to worry about how full your generator fuel tank is or manage run-times.

**No Operating Cost:** Minimal to no operating or maintenance costs. Most user-friendly method of backing up household loads.

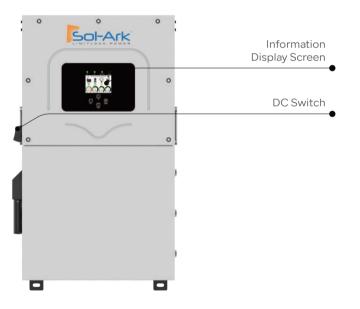
**DC to DC Architecture:** Maximize your battery efficiency with DC-to-DC architecture. Your same kWh batteries last longer.

**2\*Military-Grade Reliability Option:** Exceeds military-grade standards to keep working through lightning strikes and other military-grade weapons.

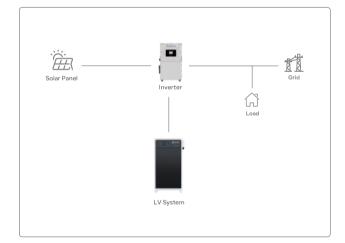
EV Home Charging: Charge your electric vehicle with the ability to load a single circuit.



### Product Details



### System Layout



### Application Scenario







Max. Allowed PV Power(kW)19.5Rated MPPT Operating Voltage Range(V)175 - 425MPPT Voltage Range(V)150 - 500Startup Voltage (V)125Max. DC Input Voltage '(V)500Max. Operating Input Current per MPPT(A)26Max. Short Circuit Current per MPPT(A)44No. of MPP Trackers3No. of PV Strings per MPPT2Max. AC Coupled Input(kW)19.2Max. AC Coupled Input(kW)19.2Max. Output50 / 60Real Power, max continuous(kW)15Max. Output Current(A)62.5Real Power, max continuous(kW)(batteries only)12(50A @ 240V)Peak Apparent Power(kVA)(100ms, off-grid)24@240VPeak Apparent Power(kVA)(100ms)120Max. Output Fault Current(A)(100ms)120Max. Grid Passthrough Current(A)200Power Factor Output Range±0.9 adjustableBackup Transfer Time5msCEC Efficiency96.5%Max Efficiency97.5%Design (DC to AC)Transformerless DCStackableUp to 12 in parallel	PV Input	
MPPT Voltage Range(V)   150 - 500     Startup Voltage(V)   125     Max. DC Input Voltage '(V)   500     Max. Operating Input Current per MPPT(A)   26     Max. Short Circuit Current per MPPT(A)   44     No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   192     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±09 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. Allowed PV Power(kW)	19.5
Startup Voltage(V)   125     Max. DC Input Voltage '(V)   500     Max. Operating Input Current per MPPT(A)   26     Max. Short Circuit Current per MPPT(A)   44     No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     Max. AC Coupled Input(kW)   19.2     Mominal AC Voltage(V)   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10S, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(5)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±09 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%	Rated MPPT Operating Voltage Range(V)	175 ~ 425
Max. DC Input Voltage '(V)   500     Max. Operating Input Current per MPPT(A)   26     Max. Short Circuit Current per MPPT(A)   44     No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(100, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(55)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	MPPT Voltage Range(V)	150 ~ 500
Max. Operating Input Current per MPPT(A)   26     Max. Short Circuit Current per MPPT(A)   44     No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ± 0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Startup Voltage(V)	125
Max. Short Circuit Current per MPPT(A)   44     No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10S, off-grid)   24@240V     Peak Apparent Power(kVA)(10S, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ± 0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. DC Input Voltage ¹(V)	500
No. of MPP Trackers   3     No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ± 0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. Operating Input Current per MPPT(A)	26
No. of PV Strings per MPPT   2     Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(100s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. Short Circuit Current per MPPT(A)	44
Max. AC Coupled Input(kW)   19.2     AC Output   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(55)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ± 0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	No. of MPP Trackers	3
AC Output     Nominal AC Voltage(V)   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ± 0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	No. of PV Strings per MPPT	2
Nominal AC Voltage(V)   120/240, 120/208, 220     Grid Frequency(Hz)   50 / 60     Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. AC Coupled Input(kW)	19.2
Grid Frequency(Hz)50 / 60Real Power, max continuous(kW)15Max. Output Current(A)62.5Real Power, max continuous(kW)(batteries only)12(50A @ 240V)Peak Apparent Power(kVA)(10s, off-grid)24@240VPeak Apparent Power(kVA)(100ms, off-grid)30@240VMax Output Fault Current(A)(5s)94(with PV), 75(batteries only)Max Output Fault Current(A)(100ms)120Max. Grid Passthrough Current(A)200Power Factor Output Range±0.9 adjustableBackup Transfer Time5msCEC Efficiency96.5%Max Efficiency97.5%Design (DC to AC)Transformerless DC	AC Output	
Real Power, max continuous(kW)   15     Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   24@240V     Max Output Fault Current(A)(100ms, off-grid)   30@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Nominal AC Voltage(V)	120/240, 120/208, 220
Max. Output Current(A)   62.5     Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   30@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Grid Frequency(Hz)	50/60
Real Power, max continuous(kW)(batteries only)   12(50A @ 240V)     Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   30@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Real Power, max continuous(kW)	15
Peak Apparent Power(kVA)(10s, off-grid)   24@240V     Peak Apparent Power(kVA)(100ms, off-grid)   30@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Max. Output Current(A)	62.5
Peak Apparent Power(kVA)(100ms, off-grid)   30@240V     Max Output Fault Current(A)(5s)   94(with PV), 75(batteries only)     Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC	Real Power, max continuous(kW)(batteries or	nly) 12(50A @ 240V)
Max Output Fault Current(A)(100ms)   120     Max. Grid Passthrough Current(A)   200     Power Factor Output Range   ±0.9 adjustable     Backup Transfer Time   5ms     CEC Efficiency   96.5%     Max Efficiency   97.5%     Design (DC to AC)   Transformerless DC		
Max. Grid Passthrough Current(A) 200   Power Factor Output Range ±0.9 adjustable   Backup Transfer Time 5ms   CEC Efficiency 96.5%   Max Efficiency 97.5%   Design (DC to AC) Transformerless DC	Max Output Fault Current(A)(5s) 94(with	n PV), 75(batteries only)
Power Factor Output Range ±0.9 adjustable Backup Transfer Time 5ms CEC Efficiency 96.5% Max Efficiency 97.5% Design (DC to AC) Transformerless DC	Max Output Fault Current(A)(100ms)	120
Backup Transfer Time 5ms CEC Efficiency 96.5% Max Efficiency 97.5% Design (DC to AC) Transformerless DC	Max. Grid Passthrough Current(A)	200
CEC Efficiency 96.5% Max Efficiency 97.5% Design (DC to AC) Transformerless DC	Power Factor Output Range	±0.9 adjustable
Max Efficiency 97.5% Design (DC to AC) Transformerless DC	Backup Transfer Time	5ms
Design (DC to AC) Transformerless DC	CEC Efficiency	96.5%
	Max Efficiency	97.5%
Stackable Up to 12 in parallel	Design (DC to AC)	Transformerless DC
	Stackable	Up to 12 in parallel

 See Installation Guide for more details on sizing array strings. The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature.



Battery Input	
Battery Technologies	Lithium / Lead Acid
Nominal DC Voltage(V)	48
Operating Voltage Range(V)	43 ~ 63
Capacity(Ah)	50 ~ 9900
Max. Battery Charge / Discharge Curre	ent(A) 275
Battery Disconnecting Means(A)	200/pole*2
Charging Controller	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
External Battery Temperature Sensor (	BTS) Included
Automatic Generator Start (AGS)	2 Wire Start - Integrated
BMS Communication	CANBus, RS485 MODBUS

General Parameters	
Inverter Model	Limitless 15K-LV
Dimensions (W*D*H)	494*306*807mm / 19.4*12*31.8in
Weight	61.2kg / 135lb
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~55°C(>45°C Derating)
Noise	< 30 dB @ 25°C (77°F)
Idle Consumption - No Load(W)	90
Communication and Monitoring	Wi-Fi & LAN Hardware Included
Standard Warranty	10 Years

### **Protection & Certifications**

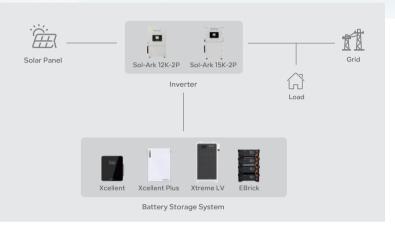
Certifications and Listings	UL1741-2010/2018 IEEE1547a 2003/2014 FCC 15 Class B, UL1741SB CA Rule 21, HECO Rule 14H
PV DC Disconnect Switch — NEC 240.1	5 Integrated
Ground Fault Detection — NEC 690.5	Integrated
PV Rapid Shutdown Control — NEC 690	0.12 Integrated
PV Arc Fault Detection — NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protec	tion Integrated
AC Output Breaker - 200A	Integrated
Surge Protection	DC Type II / AC Type II

# Solution

### LV Solution

### Low Voltage Energy Storage for Everyday Needs

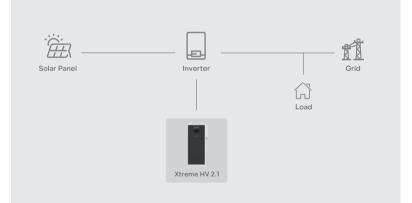
Residential LV solutions offer dependable and affordable energy storage for everyday household needs. Ideal for small to medium-sized homes, these low voltage systems provide continuous power supply, enhancing energy independence and reducing electricity costs.



### **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** Smart

**Cloud Energy Management** 

### 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-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

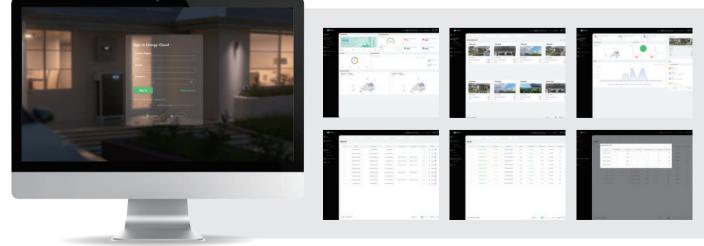
Remote firmware upgrading and intelligent operation and maintenance report generation effectively improve customer satisfaction.

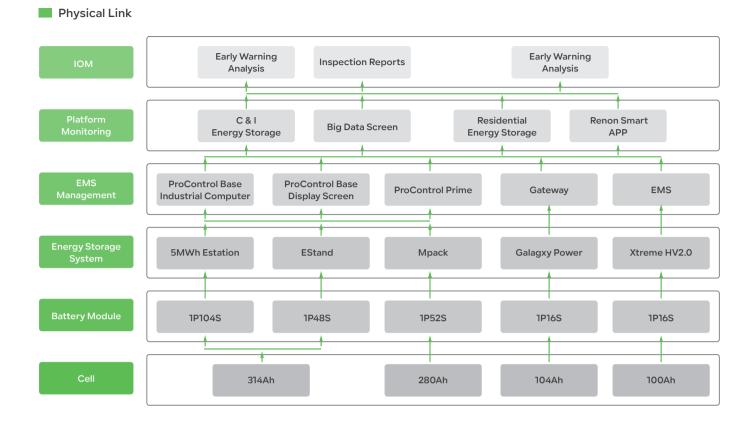


#### Optimized Channel Construction with a Six-Level Distribution System

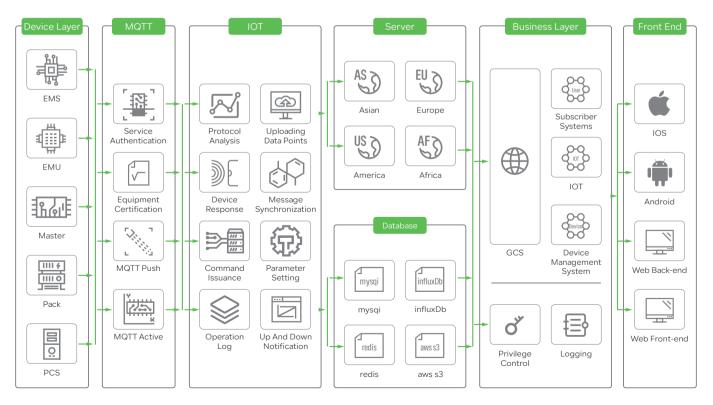
The six-level distribution system, from the brand owner to end-users, is more conducive to robust product channel construction.

### Interface Showcase





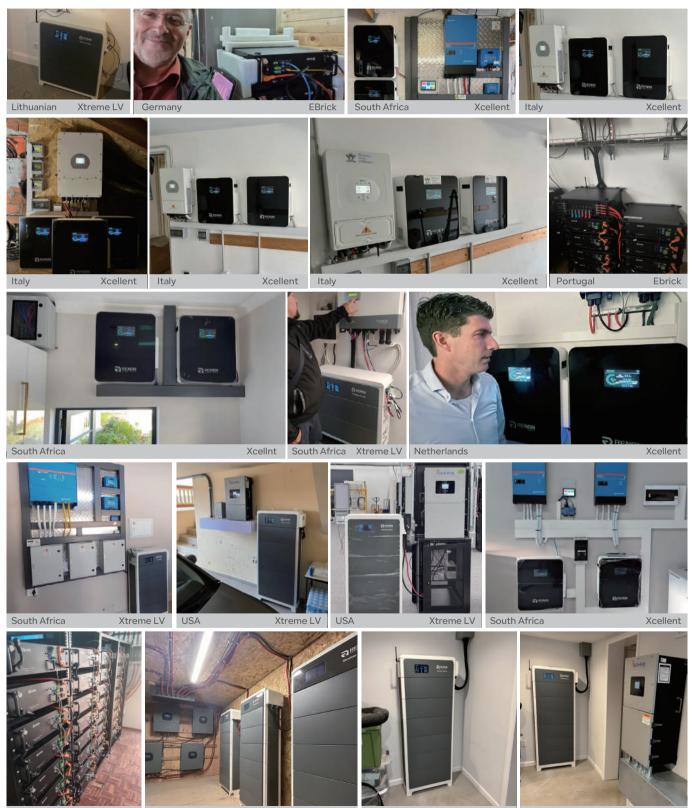
### Platform Architecture



# **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



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 2023

Germany



### Energy Storage Summit Central Eastern Europe



### RE Plus 2023

**The United States** 

**Eastern Europe** 



### EnerGaïa 2023

French

Japan



### PV EXPO 2024 Tokyo

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

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











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Riman Riman	
Katiwe Pro	

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