

RESIDENTIAL

Energy Storage Solutions

RenonPower provides a comprehensive portfolio of residential energy storage solutions, including the Ebrick, Xcellent, XtremeLV, XtremeHV1.0, XtremeHV2.0 battery systems, as well as the integrated one-stop solution with Renon Flex inverter. Featuring straightforward installation and flexible scalable capacity, these products address a broad spectrum of home energy storage requirements.



Renon Power Technology

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RENON POWER

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 WORLD-
WIDE.**

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1 LV PRODUCTS



Xtreme LV

- One-key start
- Cable-free
- 2-6 modules easily stackable
- Wi-Fi connectivity & APP Control



Xcellent

- Safe And Stable LFP
- Minimalist Design
- Noise-free
- Strongly Compatible
- Resilient Store And Discharge



EBrick

- Rack-mount design
- Customizable and simple installation
- 10 years Warranty



Xtreme LV



General Parameters

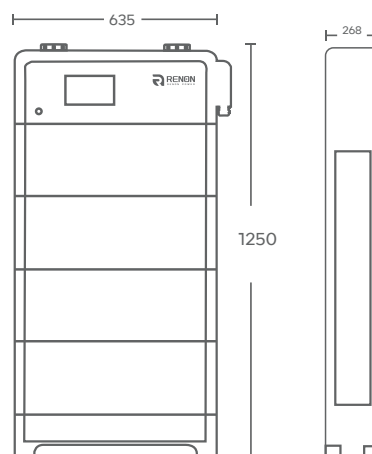
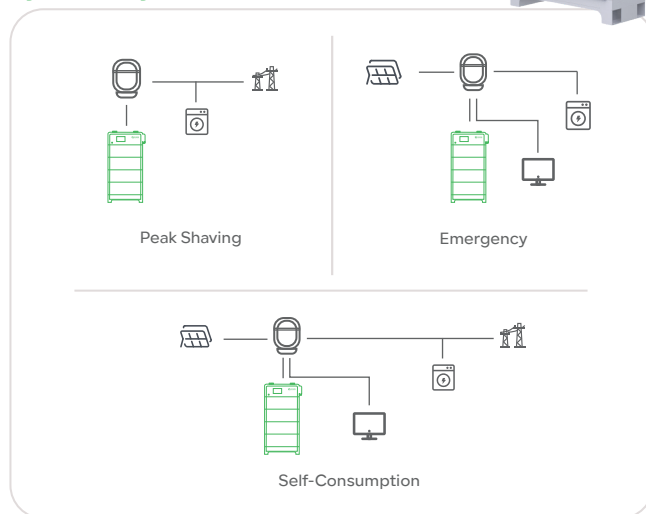
Scalability	Max. 30 systems in parallel
Storage Conditions	-20°C to 55°C/-4°F to 131°F (0°C to 35°C/32°F to 95°F Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Discharge: -20°C to 50°C/-4°F to 122°F Charge: 0°C to 50°C/32°F to 122°F
Cooling	Natural Cooling
Max. Altitude	2000m / 6561ft
Cycle Life	8000 Cycles
Communication	RS485/CAN/WiFi

System Characteristic

Battery Compliances	IEC 62619, UN 38.3, UL1973 CE-RED, UKCA, CEI021
Installation Method	Stack Mounting
Installation Scene	Indoor or Outdoor
Enclosure	IP65
Warranty ^[1]	10 Years

[1] Please refer to the warranty letter for details

System Layout



LV BESS Specification	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules
Nominal Energy (kWh)(15s/16s)	9.6/10.24	14.4/15.36	19.2/20.48	24/25.6	28.8/30.72
Max. Operation Current (A)	190	285	300	300	300
Peak for 10s (A)	196	294	392	490	500
Peak for 2s (A)	240	360	480	500	500
Max. Charging Voltage (Vdc)(15s/16s)	54.75/58.4				
Discharge Cut-off (Vdc)(15s/16s)	40.5/43.2				
Nominal Voltage (Vdc)(15s/16s)	48/51.2				
Recommend Charging Voltage (Vdc)(15s/16s)	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 15*10.6*67.1in
Net Weight (Approximate)(15s/16s)	139/141kg 306/311lb	192/194kg 423/428lb	245/247kg 540/545lb	298/300kg 656/661lb	351/353kg 773/778lb



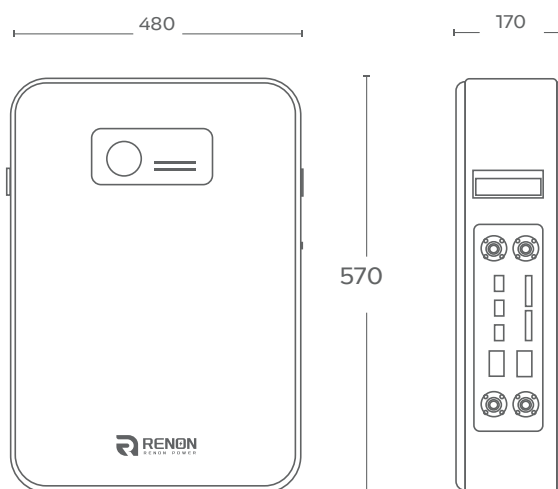
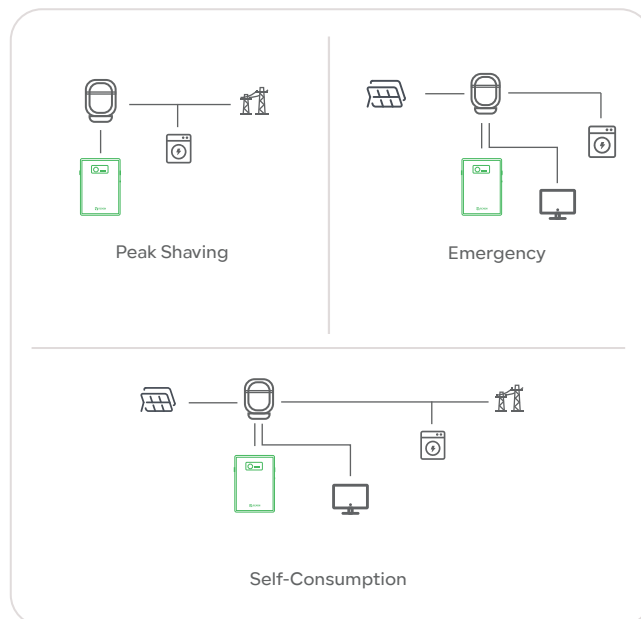
Battery

Battery Chemistry	LiFePO4
Cell Capacity (Ah)	100
Nominal Energy (kWh)	5.12
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

General Parameters

Parallel Capacity	Maximum 31 units
Dimension (W*D*H)	480*170*570mm / 18.9*6.7*22.4in
Net Weight (Approximate)	54kg / 119lb
Storage Conditions	-20°C to 55°C/-4°F to 131°F (0°C to 35°C/32°F to 95°F Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Discharge: -20°C to 50°C/-4°F to 122°F Charge: 0°C to 50°C/32°F to 122°F
Cooling	Natural Cooling
Max. Altitude	2000m / 6561ft
Cycle Life	8000 Cycles
Communication	RS485/CAN/WiFi

System Layout



System Characteristic

BESS Compliances	IEC 62619, UN 38.3, UL1973 CE-RED, UKCA, CEI021
Installation Method	Wall Mounting
Installation Scene	Indoor
Enclosure	IP20
Warranty ^[1]	10 Years

[1] Please refer to the warranty letter for details

EBrick Series



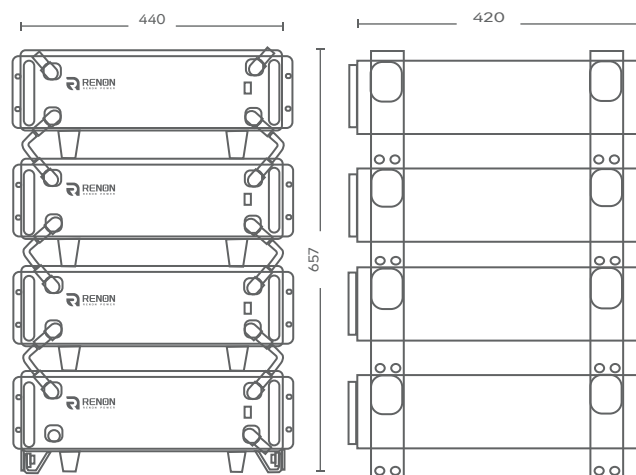
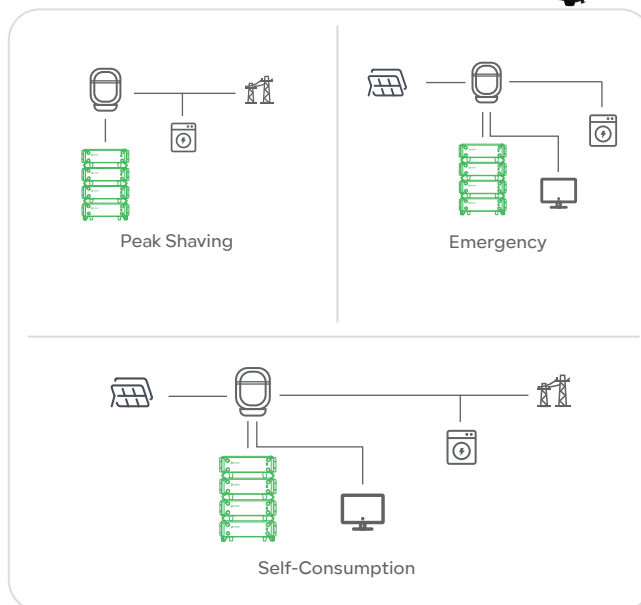
Battery

Battery Chemistry	LiFePO4
Cell Capacity (Ah)	100
Nominal Energy (kWh)	5.12
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

General Parameters

Parallel Capacity	Maximum 31 units
Dimension (W*D*H)	440*420*132mm / 17.3*16.5*5.2 in
Net Weight (Approximate)	45kg / 99.2lb
Storage Conditions	-20°C to 55°C/-4°F to 131°F (0°C to 35°C/32°F to 95°F Recommended) Up to 90%RH, non-condensing Initial SoC: 50%
Operating Temperature	Discharge: -20°C to 50°C/-4°F to 122°F Charge: 0°C to 50°C/32°F to 122°F
Cooling	Natural Cooling
Max. Operating Altitude	2000m / 6561ft
Cycle Life	8000 Cycles
Communication	RS485/CAN/WiFi

System Layout



System Characteristic

Battery Compliances	IEC 62619, UN 38.3, UL1973 CE-RED, UKCA, CEI021
Installation Method	Rack Mounting
Installation Scene	Indoor
Enclosure	IP20
Warranty ^[1]	10 Years

[1] Please refer to the warranty letter for details

2

HV PRODUCTS



Xtreme HV 1.0

- One-key power on
- Provided 2-5 module stacking solutions
- Simple structure and quick installation, shorten your installation time
- High safety, long battery life (up to 8000 cycles)
- Intelligent EMS, showing real-time running states and helping fault pre-warning

Xtreme HV 2.0

- Stacked assembly, simple installation, and customized design to meet the requirements of various scenarios.
- Built-in battery optimizer
- Dynamic current equalizing technique
- Utilize the most advanced dynamic current equalizing technique to ensure the module's high operation reliability and security.



Xtreme HV 1.0



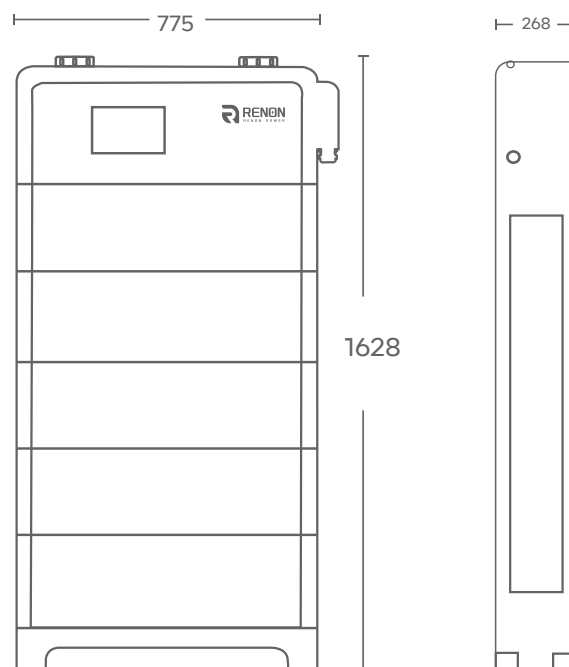
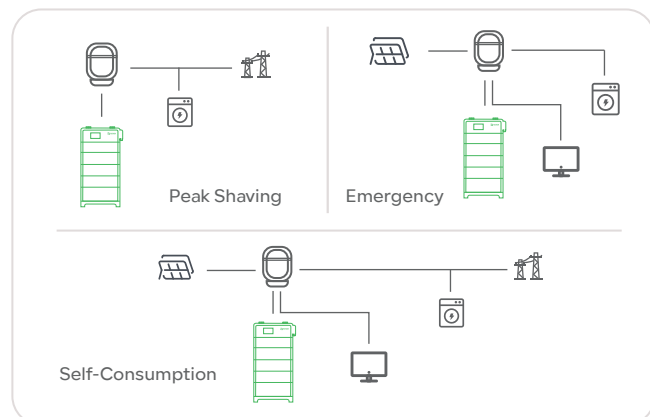
BESS Specifications	2 Modules	3 Modules	4 Modules	5 Modules
Battery Combination	1P32S			
Cell Capacity (Ah)	50			
Nominal Energy (kWh)	10.24	15.36	20.48	25.6
Nominal Power (kW)	9.83	14.75	19.66	24.58
Nominal Voltage (V)	204.8	307.2	409.6	512
Max. Operating Current (A)	≤48			
Max. Current (A)@2S	60			
Operating Voltage Range (V)	172.8 ~ 233.6	259.2 ~ 350.4	345.6 ~ 467.2	432 ~ 584
Cycle Life	8000 Cycles			
General Parameters				
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*1628 mm 30.5*10.6*64.1 in
Total Weight	152kg 335lb	212kg 467lb	272kg 600lb	332kg 731lb
Enclosure	IP55			
Operating Temperature	-20°C to 50°C (-4°F to 122°F)			
Recommended Temperature	0°C to 30°C (32°F to 86°F)			
Operating Humidity (RH)	Up to 100%, non-condensing			
Storage Conditions	-20°C to 55°C/-4°F to 131°F(0°C to 35°C/32°F to 95°F Recommended) Up to 90%RH, non-condensingInitial SoC: 50%			
Max. Elevation	2000m / 6561ft			
Installation Scene	Indoor and Outdoor			

System Characteristic

Certifications	IEC62619, MSDS, UN38.3 UL1973, UL9540
Communication Interface	CAN, WiFi, RS485
Warranty ^[1]	10 Years

[1] Please refer to the warranty letter for details

System Layout



Xtreme HV 2.0



BESS Specification	2 Modules	3 Modules	4 Modules	5 Modules
Battery module Combination	1P16S			
Battery Moudular Capacity(Ah)	100			
Nominal Energy (kWh)	10.24	15.36	20.48	25.6
Default Voltage (V)	400			
Settable Voltage Range (V)	350~450			
Nominal Current (A)	25	37.5	50	50
Max. Current (A)@10S	30	45	60	60
Cycle Life	8000 Cycles			

General Parameters

Parallel Capacity	Maximum 10 Cluster			
Dimensions (W*D*H)	680*320*796mm 26.8*12.6*31.4in	680*320*1023.5mm 26.8*12.6*40.3in	680*320*1251mm 26.8*12.6*49.3in	680*320*1478.5mm 26.8*12.6*58.3in
Total Weight (kg)	153.5kg 338lb	213.5kg 470lb	273.5kg 603lb	333.5kg 735lb
Enclosure	IP55 / NEMA 3R			
Operating Temperature	-20°C to 50°C (-4°F to 122°F)			
Recommended Temperature	0°C to 30°C (32°F to 86°F)			
Storage Conditions	-20°C to 55°C/-4°F to 131°F (0°C to 35°C/32°F to 95°F Recommended) Up to 90%RH, non-condensing Initial SoC: 50%			
Operating Humidity (RH)	Up to 95%, non-condensing			
Maximum Elevation	2000m / 6561ft			
Environment	Indoor and outdoor			

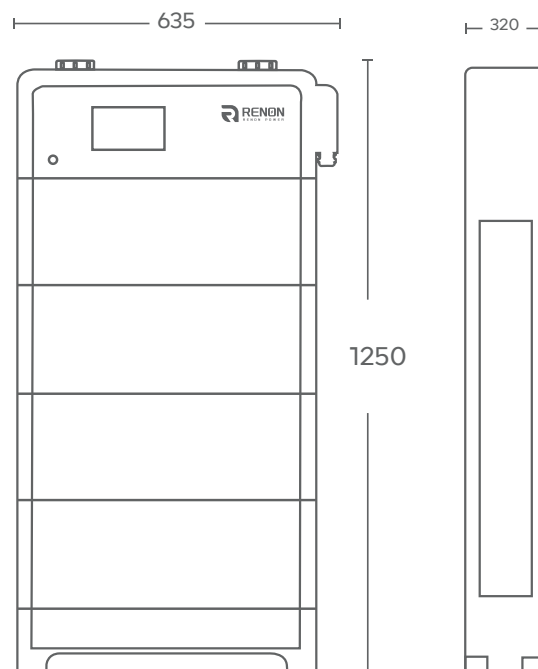
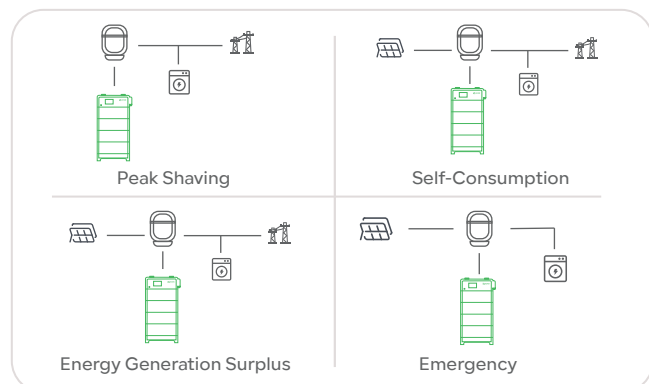
System Characteristic

BESS Certifications	UL1973, UN 38.3, IEC62619 ^[1]
Communication Interface	CAN, Wi-Fi, RS485
Warranty ^[2]	10 Years

[1] Pending Certification

[2] Please refer to the warranty letter for details

System Layout



3

ONE-STOP SOLUTION



Flex LV-US Series

- Withstand tough conditions with IP65 waterproofing and dustproofing
- Flexible power configuration for split phase 208/240Vac
- Built-in AC coupled function
- Get backup power readiness with generator input compatibility
- Maximize self-consumption by adding optional external CT sensors
- Customizable charging profiles with adjustable voltage and current



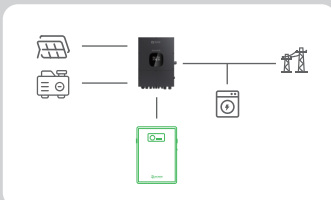
Flex LV-EU Series

- Compatible with various battery types
- Convenient mobile access for setup and maintenance
- Best-in-class efficiency of $\geq 97.5\%$
- Compact size saves installation space
- Integrated anti-backflow functionality
- Reverse battery protection
- Home energy management terminal
- Electricity scheduling and demand response
- Distributed VPP management

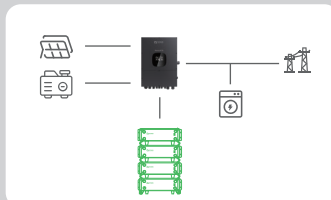


Flex HV-EU Series

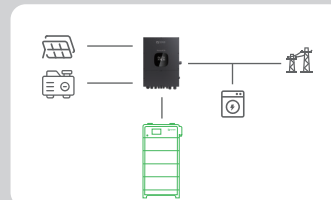
- Compatible with high power PV modules with 18A
- Support up to 10 units parallel connections
- Support 100% unbalanced loads
- Remote firmware upgrade & work mode setting
- $< 10\text{ms}$ UPS-level switching
- Support VPP / FFR function



Flex & Xcellent



Flex & Ebrick



Flex & Xtreme

Flex LV-US Series



MODEL		IFL12
	Phase	120V / 240V Split phase, 120V / 208V Split phase
	Maximum PV Input Power	12000W
	Rated Output Power	10000VA/10000W
	Maximum Charging Power	10000W
GRID-TIE OPERATION		
PV INPUT (DC)	Maximum DC Voltage	600 VDC
	Start-up Voltage / Initial Feeding Voltage	125 VDC / 160 VDC
	MPP Voltage Range	120 VDC ~ 550 VDC
	Number of MPP Trackers / Maximum Input Current	2 / 18A
GRID OUTPUT (AC)	Nominal Output Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (P-P)
	Output Voltage Range	105.5 VAC ~ 132 VAC (per phase)
	Nominal Output Current	41.5 A per phase
	Power Factor	0.9 lag to 0.9 lead
EFFICIENCY	Maximum Conversion Efficiency (DC/AC)	96%
OFF-GRID OPERATION		
AC INPUT	AC Start-up Voltage / Auto Restart Voltage	85 VAC (per phase) / 90 VAC (per phase)
	Acceptable Input Voltage Range	85 - 140 VAC (per phase)
	Frequency Range	50 Hz / 60 Hz (Auto sensing)
	Maximum AC Input Current	40A per phase
PV INPUT (DC)	Maximum DC Voltage	600 VDC
	MPP Voltage Range	120 VDC ~ 550 VDC
	Number of MPP Trackers / Maximum Input Current	2 / 18A
BATTERY MODE OUTPUT (AC)	Nominal Output Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (PP)
	Output Waveform	Pure sine wave
	Efficiency (DC to AC)	91%
HYBRID OPERATION		
PV INPUT (DC)	Maximum DC Voltage	600 VDC
	Start-up Voltage / Initial Feeding Voltage	125 VDC / 160 VDC
	MPP Voltage Range	120 VDC ~ 550 VDC
	Number of MPP Trackers / Maximum Input Current	2 / 18A
GRID OUTPUT (AC)	Nominal Output Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (P-P)
	Output Voltage Range	105.5 VAC - 132 VAC (per phase)
	Nominal Output Current	41.5 A per phase
AC INPUT	AC Start-up Voltage / Auto Restart Voltage	85 VAC (per phase) / 90 VAC (per phase)
	Acceptable Input Voltage Range	85 - 140 VAC (per phase)
	Maximum AC Input Current	40 A per phase
BATTERY MODE OUTPUT (AC)	Nominal Output Voltage	120 VAC (P-N), 208 VAC (P-P), 240 VAC (P-P)
	Efficiency (DC to AC)	91%
BATTERY & CHARGER	Nominal DC Voltage	40-62 VDC
	Maximum Solar Charging Current	200A
	Maximum AC Charging Current	200A
	Maximum Charging Current	200A
GENERAL		
PHYSICAL	Dimensions (W*D*H)	515*215.5*715mm / 20.2*8.5*28in
	Weight	45kg / 99lb
INTERACE	Parallel Function	Yes, 6 units
	Communication Port	RS232, RS485, WI-FI, USB
ENVIRONMENT	Protection Degree	IP65
	Operating Temperature	-25°C to 60°C (>45°C derating)
	Certifications	UL1741SA/IEEE1547.1/CEC

Flex LV-EU Series



MODEL	IFL03	IFL03a	IFL04	IFLO4a	IFLO5	IFLO6	IFLO8
Display	Optional (colorful touch screen /no screen)						
Interface	RS485/Wifi/4G/CAN/DRM						
Certifications	EMC, EN50549-1, IEC 62109-1/IEC 62109-2, EN62109-1/EN62109-2, CE, NRS, G99, CEI021						
PV Input Data							
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	2	2	2	2	2	2
MPPT quantity/ The number of input strings supported by each mppt	1/1	1/1	1/1	1/1	1/1	1/1	1/2
AC Output Data							
Rated power (kW)	3	3.68	4	4.6	5	6	8
Rated AC 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%						
AC 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
Battery type	Lithium /Lead-acid						
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 Data							
Battery Charge/Discharge Efficiency				96%			
Max. Efficiency				98%			
Europe Efficiency				97%			
Mppt Efficiency				99.9%			
Ingress Protection				IP65			
Noise Emission (dB)				<35			
Operation Temperature (*c)				-25~60			
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 18.3*7.8*19in		
Weight				18kg / 40lb	20kg / 44lb		
Topology	Non-isolated						
Self-consumption At Night (W)	<20						

Flex HV-EU Series



PV Input Data	IFH05	IFH06	IFH08	IFH10a	IFH10
Recommended Max.PV Power (Wp)	7500	9000	12000	15000	15000
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. ofInput Strings per Tracker			1		
Max. Input Current per MPPT (A)			36(18 / 18)		
Max. Short-circuit Current per MPPT(A)			46(23 / 23)		
DC Switch			Integrated		
AC Output Data					
Maximum Apparent Power (VA)	5500	6600	8800	10000	11000
Rated AC Power(w)	5000	6000	8000	10000	10000
Maximum AC Current (A)	7.6	9.1	12.2	14.4	15.2
Rated AC Current (A)	7.2	8.7	11.5	14.4	14.4
Rated AC Voltage / Range (V)			3/ N / PE,220 / 380, 230 / 400;20%		
Grid Frequency / Range (Hz)			50 / 60;±5		
Adjustable Power Factor (cos ϕ)			0.8 leading ~ 0.8 lagging		
Output THDi(@Rated Output)			<3%		
AC Input Data					
Max .apparent AC Power (VA)	10000	12000	16000	20000	20000
Max. AC Current (A)	15.2	18.2	24.3	28.8	30.4
Rated AC Voltage / Range (V)			3 / N / PE, 220 / 380, 230 / 400; ± 20%		
Grid Frequency / Range (Hz)			50 / 60; ± 5		
Battery Data					
Battery Type			Lithium		
Battery Voltage Range (V)			160 ~ 700		
Max. Charging / Discharging Current (A)			30 / 30		
Communication Interface			CAN		
EPS Output Data (With Battery)					
EPS Rated Power (W)	5000	6000	8000	10000	10000
EPS Rated Voltage (V)			3 / N / PE, 220 / 380, 230 / 400		
EPS Rated Frequency (Hz)			50 / 60		
EPS 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 (VA, s)	7500, 60	9000, 60	12000,60	15000, 60	15000, 60
Efficiency					
Max. Efficiency	98.00%	98.00%	98.00%	98.00%	98.00%
Euro Efficiency	97.70%	97.70%	97.70%	97.70%	97.70%
Max. Battery Charge / Discharge Efficiency	97.60%	97.60%	97.60%	97.60%	97.60%
Protection					
DC Insulation Monitoring			Integrated		
Input Reverse Polarity Protection			Integrated		
Anti-island Protection			Integrated		
Residual Current Monitoring			Integrated		
Over-heat Protection			Integrated		
AC Overcurrent Protection			Integrated		
AC Short-circuit Protection			Integrated		
AC Overvoltage Protection			Integrated		
DC Surge Protection			Integrated (Type II)		
AC Surge Protection			Integrated (Type II)		
General Data					
Dimensions(W*D*H)			520*188 *412mm / 20.5*7.4*16in		
Weight			27kg / 59.5lb		
User Interface			LED + OLED		
Communication			RS485 and USB or Wifi or 4G (Optional)		
Operating Temperature Range (°C)			-25 ~ +60		
Relative Humidity			0 ~ 100%		
Operating Altitude (m)			≤2000		
Standby Self Consumption (W)			<15		
Topology			Transformerless		
Cooling			Natural		
Enclosure			IP65		
Noise (dB)			<35		
Warranty (years)			5		
Certifications & Standards					
Grid Regulation	VDE 4105, EN 50549-1, VDE 0126, CEI 0-21, EN 50549-GR, EN 50549-PL, TOR Erzeuger, EN50549-CZ, AS4777, UNE217002				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	EN/IEC 61000-6-1, EN/IEC 61000-6-3				

Renon Smart

● INTRODUCTION

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

It provides device monitoring, device list, device status monitoring, parameter setting, device protection display, device firmware upgrade and user management. With Renon Smart, users can easily manage devices to improve performance and reliability while reducing downtime and maintenance.



● FUNCTIONALITY

Equipment Monitoring

Equipment List

Equipment status monitoring

Parameter setting

Upgrade firmware

User management



● SERVICE TARGETS



National
Distributor



Agency



Installer



User

MAKE GREEN POWER WITHIN REACH

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