

SUMRY

really 广东瑞锂新能源有限公司
Guangdong Ruili lithium Energy Co., Ltd

广东三瑞电源有限公司
GUANGDONG SUNRAYPOWERCO.,LTD

GUANGDONG SUNRAY POWER CO.,LTD

Guangdong Ruili lithium Energy Co., Ltd

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FACTORY:No. 5 Jiayu Road, Dongxing Area, Dongjiang Science and Technology Park, Zhongkai High tech Zone, Huizhou

Company website

VERSION:V20261007



HuiZhou Industrial Park
Huizhou plant area(61000M^2)



R&D and sales center

ABOUT US

COMPANY PROFILE >>>>>

Guangdong Ruili lithium Energy Co., Ltd is a wholly-owned subsidiary of GUANGDONG SUNRAY POWER CO., LTD. Since its establishment, Guangdong Ruili lithium Energy Co., Ltd. has always been focusing on lithium battery and battery pack integrated machine field, and is a high-tech enterprise integrating research and development, production, sales and service.

We have a research and development team composed of senior industry experts and professional technical personnel, and continue to invest a lot of resources in technological innovation, so far we have more than 800 patented technologies.

The company has established a modern production base, covering an area of 61,000 square meters, equipped with a number of advanced automated production lines, introducing the world's leading production equipment and testing instruments, every link strictly follows the ISO9001 quality management system standards, to ensure the reliability and consistency of product quality.

The company's products cover a variety of types and specifications of lithium batteries, battery pack all-in-one machines, widely used in household electricity, outdoor energy storage, new energy vehicles, energy storage systems, power tools, smart wearable devices, medical equipment and other fields. The products are sold well in the domestic market, and exported to Africa, Asia Pacific, the Middle East, Europe and America and other countries and regions.

In terms of service, the company has built a perfect pre-sale, sales and after-sales service system to provide customers with a full range of solutions and technical support.

Guangdong Ruili lithium Energy Co., Ltd adheres to the development concept of "innovation driven, quality first, customer first", constantly improving technological innovation ability and product quality, expanding market areas.

Industry Experience
20+ yers

Patents
800+ sum

Team Members
1000+ people

Installation Case
100+ countries or regions

Corporate Mission

Committed to become a global leading supplier of energy equipment and system solutions

Corporate Vision

Pursue the material and spiritual happiness of all partners

Core Values

University, effort, modesty, introspection, gratitude, altruism, optimism, innovation

Enterprise Spirit

Swift and resolute, truly practical and diligent

QUALIFICATIONS >>>>>









COMPANY HISTORY >>>>>

Company History

2004 - 2005

In 2004.
Shenzhen Qingneng Electronics Co., Ltd. was established

In 2005.
the company completed the team building and started product development

2007 - 2011

In 2007.
it became afamous UPS supplier athome and abroad

In 2008.
Shenzhen Sunray Power Co.,Ltd.was established

In 2009.
off grid inver terand grid connected inverter were launched

In 2010.
solar inverter and parallel off grid integrated inverter were launched

In 2011.
TUV certification was obtained

2012 - 2016

In 2012.
the companyentered the self built plantand began to enter the photovoltaic inverterindustry

In 2014.
obtained the EU CE certification and VDE certification

In 2015.
Pakistan factory was responsible for the localization operation service of the company'sproducts,and the company established its first overseas project; the company established four foreign trade platforms of Ali international station

In 2017.
obtained the EU CE certification and VDE certification

2017 - 2019

In 2017.
Shenzhen Next Power Technology Co.,Ltd was established.Three people formed a R&D team.

In 2018.
We obtained patent certificate of appearance Design for Energy storage solar inverters.VICTOR XM series and VICTOR NM I series came out.

In 2018.
In 2018, the company's performance exceeded 100 million yuan for the first time, and the business market was divided into global regions

In 2019.
obtained IS09001 quality management system certification

In 2019.
Island detection control software V1.0for NEXT POWER PV 500E on grid solar system.PV 500V off grid MPPT charger controller software for solar inverters.Solar inverter software V1.0 that can support mutiple monitoring methods such asWIF/GPRS/RS232/USB

2020 - 2021

In 2020.
Certificate of high-tech enterprise Is09001 quality management system certification
Control software 1 .0 for 1-10KW off grid solar inverters
Victor NM Series 3.2KW off grid solar inverters came out
Employees up to 20 members

In 2021.
Patent certificate of appearance Design for off grid solar inverters
Software (Android version)V1.0 for Fronus SolarCE certification for Victor NM series, Victor NM-IV Plus series Victor NM II PLUS series and Victor NM II series, 3.5kW and5.5KW off grid solar inverters.Strategic Cooperation with Fronus, the 1st overseas projectThe1st production line was established Turnover 30 millionUSD

2022 - 2023

In 2022.
Victor NM Series,1.5KW/1.6KW/2.4KW/3KW off grid solar inverters.Victor NM-IV PLUS Series and Victor NM-PRO Series.3.6KW.4.2KW and 6.2KW hybrid solar inverters.CE for Victor NM MAX, Victor NML.4 production lines150 employees.Turnover 75 million USD

In 2022.
Sales performance reached 1 billion yuan

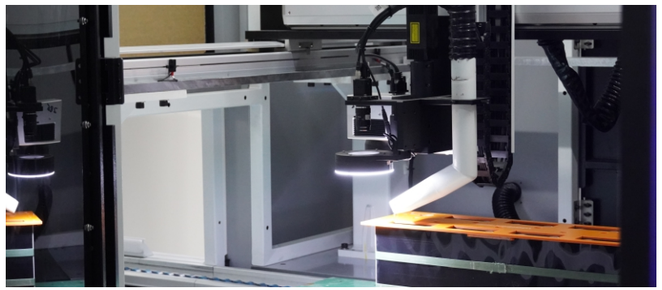
In 2023.
Victor NML Series, 1.6kW,3.0KW off grid solar inverters Victor ECO Series,3.6kW,6.2kW hybrid solar inverters Victor MAX Series ,7.2KW/8.2KW/10.2KW hybrid solar inverters.CE for Victor NM ECO Strategic cooperation with Fronus 6 production lines 300 employees Estimated turnover 1 billion USD

2024

In 2024.
Shenzhen Sunray Power and Shenzhen Next Power Technology merged to form Guangdong Sunray

FACTORY >>>>>









CAREFULLY CRAFTED

ABUNDANT INVENTORY









EXQUISITE WORKMANSHIP





CORE ADVANTAGES >>>>>

MES System

Increase product traceability and monitor product quality throughout the entire process

Complete Processing Technology

Reduce outsourcing quality risks and meet the needs of customers in the photovoltaic industry

ONE STOP SERVICE

Provide one-stop services from complete machine production to overall design solutions for customers in the photovoltaic industry

High Quality Partners

Strategic cooperation with top equipment and material suppliers both domestically and internationally

Experienced R&D Team

More than 50 professional technical talents with over 20 years of experience in the photovoltaic industry have been dedicated to R&D and manufacturing for 20 years

Intelligent Manufacturing Enterprise

Production efficiency increased by 30%
Artificial reduction of 50%
Scrap reduced by 40%

Quick View Guide

LITHIUM BATTERY

EB SERIES



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EB PLUS SERIES



PAGE:13-14

EB-H1 SERIES



PAGE:15-16

EB-V1 SERIES



PAGE:17-18

EB-H2 SERIES



PAGE:19-20

EB-V2 SERIES



PAGE:21-22

ENERGY STORAGE SYSTEM

ESSM II SERIES



PAGE:23-26

ESS1 SERIES



PAGE:27-30

ENERGY STORAGE SYSTEM

ESS II SERIES



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PORTABLE POWER STATION

ESS PLUS II SERIES



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PORTABLE POWER STATION

PPS SERIES



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RACK-MOUNTED BATTERY

EB-R1 SERIES



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Wall Mounted Lithium Battery

EB SERIES

- Using safe and eco-friendly LiFePO4 battery,with MSDS,UN38.3,ROHS,IEC62619,UL
- Equipped with BMS Battery management system to intelligently manage and maintain each battery unit
- Support for up to 16 batteries in parallel
- 6000+Cycle Life,intelligent balance
- Quality of vehicle specification,high quality battery
- Low power and no relay design,milliwatt standby loss
- The safest,environmentally friendly Lithium ion Phosphate technology
- Higher energy density and efficiency
- Focusing on the layout of the whole industrial chain of advanced lithium battery key materials, batteries battery management and system integration, it has core technology intellectual property rights

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



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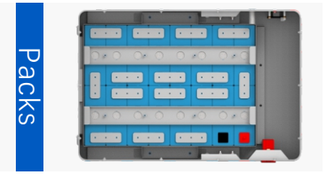
BATTERY

MODEL	EB-25.6V-100AH	EB-25.6V-205AH	EB-25.6V-280AH	EB-25.6V-314AH	EB-51.2V-100AH
Rated Voltage	25.6V				51.2V
Rated Capacity	100Ah	205Ah	280Ah	314Ah	100Ah
Rated Energy	2560Wh	5250Wh	7168Wh	8038Wh	5120Wh
Voltage Range	21.6V~29.2V				43.2V~58.4V
Max.Charging Current	100A	150A	200A	200A	100A
Recommended Charging Current	50A	100A	140A	157A	50A
Max.Discharging Current	100A	150A	200A	200A	100A
Communication Interface	RS485/CAN/WIFI/BLE				
Dimension H*W*D(mm)	435*300*185	570*390*185	550*370*235	550*370*235	570*390*185
Carton Dimension,H*W*D(mm)	490*355*255	625*455*255	610*430*255	610*430*255	625*455*255
Net Weight(kg)	24.3	45.2	58.5	61.1	45.2
Gross Weight(kg)	26.2	47.9	60.9	63.5	47.9
Humidity	5%~95%				
Charging Temperature	0 ~ 55℃				
Discharging Temperature	-20 ~ 55℃				
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)				
Cycle Life	6000 cycles at 80% DOD,25℃				
Design Life	10 years				

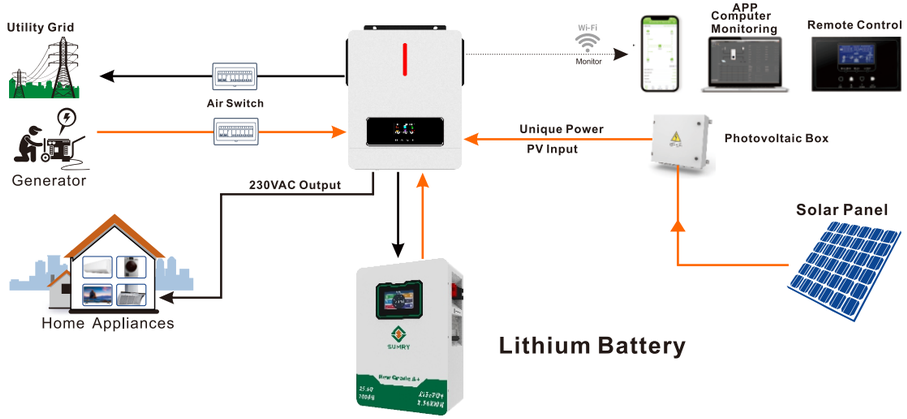
DETAILS







SYSTEM DIAGRAM



Wheel-Mounted Lithium Battery

EB-PLUS SERIES

- Using safe and eco-friendly LiFePO4 battery,with MSDS,UN38.3,ROHS,IEC62619,UL
- Equipped with BMS Battery management system to intelligently manage and maintain each battery unit
- Support for up to 16 batteries in parallel
- 6000+Cycle Life,intelligent balance
- Quality of vehicle specification,high quality battery
- Low power and no relay design,milliwatt standby loss
- The safest,environmentally friendly Lithium ion Phosphate technology
- Higher energy density and efficiency
- Focusing on the layout of the whole industrial chain of advanced lithium battery key materials, batteries battery management and system integration, it has core technology intellectual property rights

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



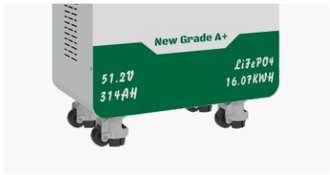
SUMRY

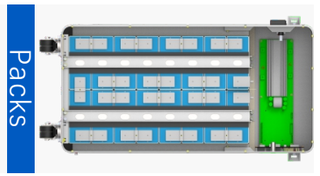
BATTERY

MODEL	EB-PLUS-51.2V-205Ah	EB-PLUS-51.2V-280AH	EB-PLUS-51.2V-314AH
Rated Voltage	51.2V		
Rated Capacity	205Ah	280Ah	314Ah
Rated Energy	10500Wh	14336Wh	16076Wh
Voltage Range	43.2VDC ~ 58.4VDC		
Max.Charging Current	200A	200A	200A
Recommended Charging Current	100A	140A	157A
Max.Discharging Current	200A	200A	200A
Communication Interface	RS485/CAN/WIFI/BLE		
Dimension H*W*D(mm)	730*550*235	785*415*235	785*415*235
Carton Dimension,H*W*D(mm)	885*660*420	960*515*435	960*515*435
Net Weight(kg)	90	113.5	115.6
Gross Weight(kg)	115	135.8	137.9
Humidity	5%~95%		
Charging Temperature	0 ~ 55℃		
Discharging Temperature	-20 ~ 55℃		
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)		
Cycle Life	6000 cycles at 80% DOD,25℃		
Design Life	10 years		

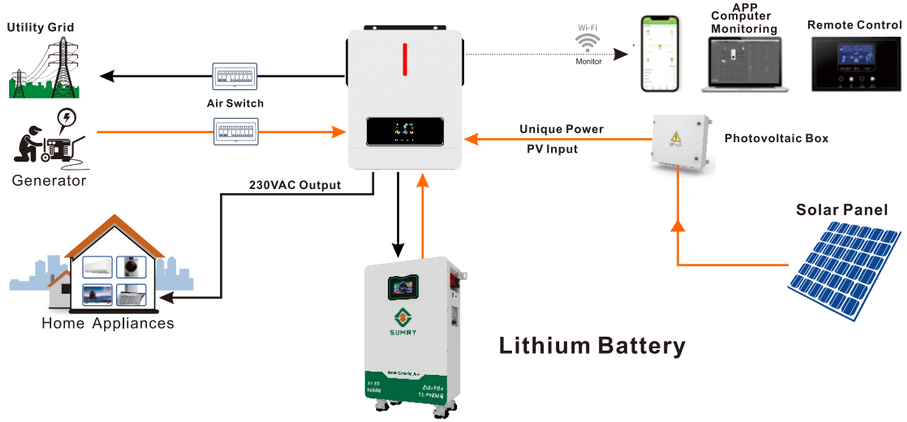
DETAILS







SYSTEM DIAGRAM



Wall Mounted Lithium Battery

EB-H1 SERIES

- Using safe and eco-friendly LiFePO4 battery,with MSDS,UN38.3,ROHS,IEC62619,UL
- Equipped with BMS Battery management system to intelligently manage and maintain each battery unit
- Support for up to 16 batteries in parallel
- 6000+Cycle Life,intelligent balance
- Quality of vehicle specification,high quality battery
- Low power and no relay design,milliwatt standby loss
- The safest,environmentally friendly Lithium ion Phosphate technology
- Higher energy density and efficiency
- Focusing on the layout of the whole industrial chain of advanced lithium battery key materials, batteries battery management and system integration, it has core technology intellectual property rights

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity

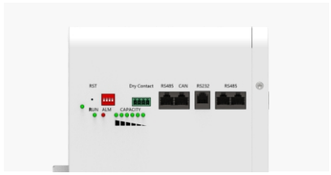


SUMRY

BATTERY

MODEL	EB-H1-25.6V-100AH	EB-H1-25.6V-205AH	EB-H1-25.6V-280AH	EB-H1-25.6V-314AH	EB-H1-51.2V-100AH
Rated Voltage	25.6V				51.2V
Rated Capacity	100Ah	205Ah	280Ah	314Ah	100Ah
Rated Energy	2560Wh	5250Wh	7168Wh	8038Wh	5120Wh
Voltage Range	21.6V~29.2V				43.2V~58.4V
Max.Charging Current	100A	150A	200A	200A	100A
Recommended Charging Current	50A	100A	140A	157A	50A
Max.Discharging Current	100A	150A	200A	200A	100A
Communication Interface	RS485/CAN/WIFI/BLE				
Dimension H*W*D(mm)	480*315*185	550*370*235	550*370*235	550*370*235	620*390*185
Carton Dimension,H*W*D(mm)	540*375*250	620*440*310	620*440*310	620*440*310	675*445*250
Net Weight(kg)	24.47	44.2	58.2	60.7	44.7
Gross Weight(kg)	26.2	47	61.5	64	48
Humidity	5%~95%				
Charging Temperature	0 ~ 55℃				
Discharging Temperature	-20 ~ 55℃				
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)				
Cycle Life	6000 cycles at 80% DOD,25℃				
Design Life	10 years				

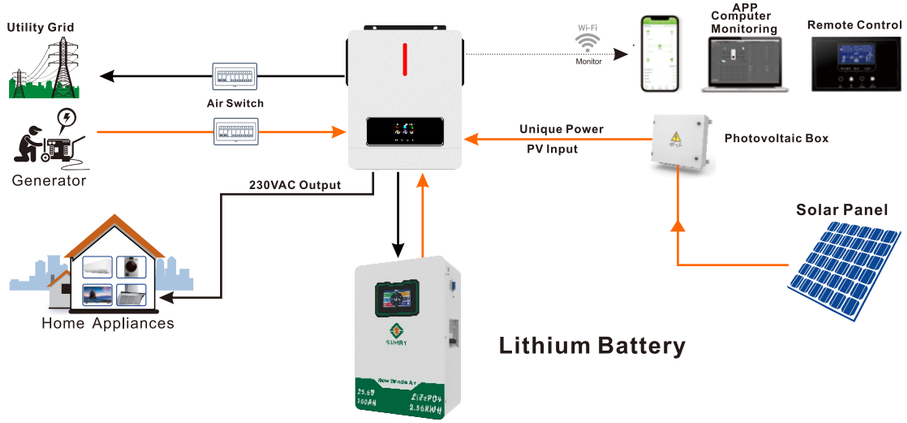
DETAILS







SYSTEM DIAGRAM



Wheel-Mounted Lithium Battery

EB-V1 SERIES

- Using safe and eco-friendly LiFePO4 battery,with MSDS,UN38.3,ROHS,IEC62619,UL
- Equipped with BMS Battery management system to intelligently manage and maintain each battery unit
- Support for up to 16 batteries in parallel
- 6000+Cycle Life,intelligent balance
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- Low power and no relay design,milliwatt standby loss
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- Higher energy density and efficiency
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Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity

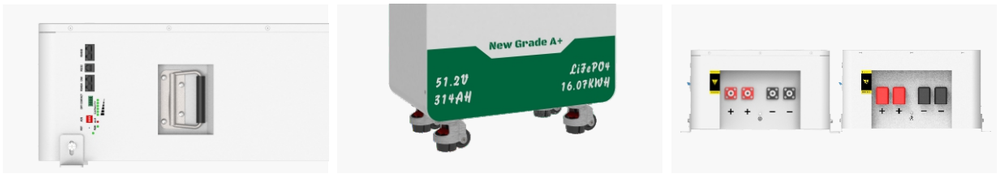


SUMRY

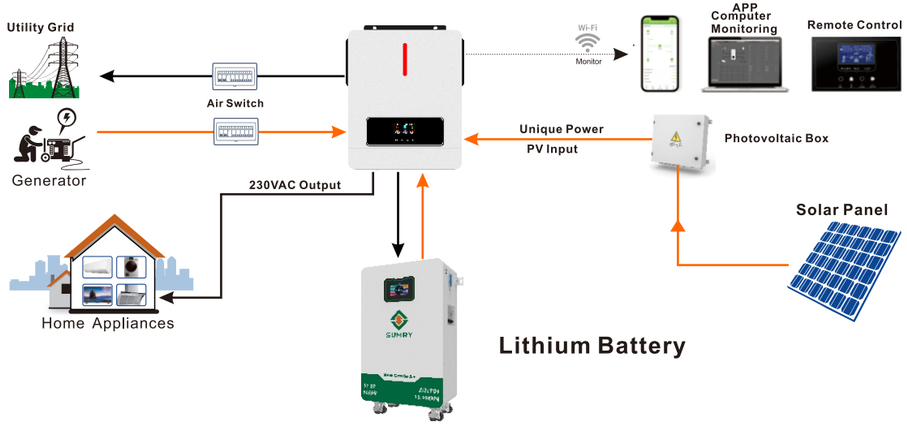
BATTERY

MODEL	EB-V1-51.2V-205Ah	EB-V1-51.2V-280AH	EB-V1-51.2V-314AH
Rated Voltage	51.2V		
Rated Capacity	205Ah	280Ah	314Ah
Rated Energy	10500Wh	14336Wh	16076Wh
Voltage Range	43.2VDC ~ 58.4VDC		
Max.Charging Current	200A	200A	200A
Recommended Charging Current	100A	140A	157A
Max.Discharging Current	200A	200A	200A
Communication Interface	RS485/CAN/WIFI/BLE		
Dimension H*W*D(mm)	645*415*235	785*415*235	785*415*235
Carton Dimension,H*W*D(mm)	790*490*405	960*515*435	960*515*435
Net Weight(kg)	86.6	114.5	117.3
Gross Weight(kg)	98	129.5	131.5
Humidity	5%~95%		
Charging Temperature	0 ~ 55℃		
Discharging Temperature	-20 ~ 55℃		
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)		
Cycle Life	6000 cycles at 80% DOD,25℃		
Design Life	10 years		

DETAILS



SYSTEM DIAGRAM



Wall Mounted Lithium Battery

EB-H2 SERIES

- Using safe and eco-friendly LiFePO4 battery,with MSDS,UN38.3,ROHS,IEC62619,UL
- Equipped with BMS Battery management system to intelligently manage and maintain each battery unit
- Support for up to 16 batteries in parallel
- 6000+Cycle Life,intelligent balance
- Quality of vehicle specification,high quality battery
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Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

BATTERY

MODEL	EB-H2-25.6V-100AH	EB-H2-25.6V-205AH	EB-H2-25.6V-280AH	EB-H2-25.6V-314AH	EB-H2-51.2V-100AH
Rated Voltage	25.6V				51.2V
Rated Capacity	100Ah	205Ah	280Ah	314Ah	100Ah
Rated Energy	2560Wh	5250Wh	7168Wh	8038Wh	5120Wh
Voltage Range	21.6V~29.2V				43.2V~58.4V
Max.Charging Current	100A	150A	200A	200A	100A
Recommended Charging Current	50A	100A	140A	157A	50A
Max.Discharging Current	100A	150A	200A	200A	100A
Communication Interface	/				RS485/CAN/WIFI/BLE
Dimension H*W*D(mm)	420*260*150	465*280*235	500*340*235	500*340*235	560*350*150
Carton Dimension,H*W*D(mm)	490*315*215	545*340*305	580*400*305	580*400*305	635*410*215
Net Weight(kg)	21	42	55	55	40
Gross Weight(kg)	23	45	58.5	58.5	43
Humidity	5%~95%				
Charging Temperature	0 ~ 55℃				
Discharging Temperature	-20 ~ 55℃				
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)				
Cycle Life	6000 cycles at 80% DOD,25℃				
Design Life	10 years				

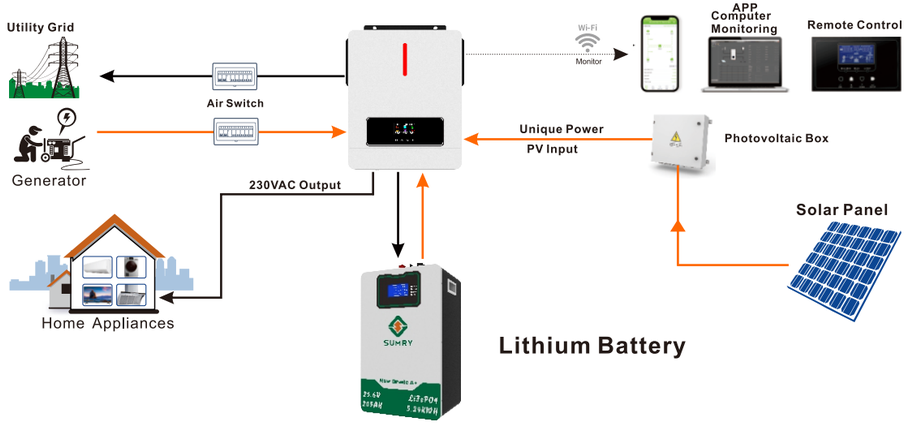
DETAILS







SYSTEM DIAGRAM



Wheel-Mounted Lithium Battery

EB-V2 SERIES

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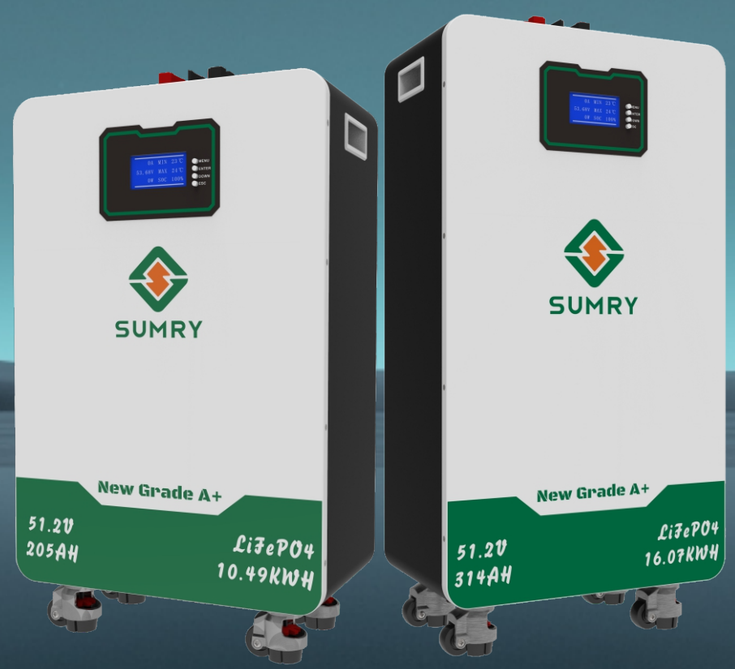
Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

BATTERY

MODEL	EB-V2-51.2V-205Ah	EB-V2-51.2V-280AH	EB-V2-51.2V-314AH
Rated Voltage	51.2V		
Rated Capacity	205Ah	280Ah	314Ah
Rated Energy	10500Wh	14336Wh	16076Wh
Voltage Range	43.2VDC ~ 58.4VDC		
Max.Charging Current	200A	200A	200A
Recommended Charging Current	100A	140A	157A
Max.Discharging Current	200A	200A	200A
Communication Interface	RS485/CAN/WIFI/BLE		
Dimension H*W*D(mm)	600*400*235	710*400*235	710*400*235
Carton Dimension,H*W*D(mm)	750*475*410	860*475*410	860*475*410
Net Weight(kg)	85	109.5	109.5
Gross Weight(kg)	98	123	123
Humidity	5%~95%		
Charging Temperature	0 ~ 55℃		
Discharging Temperature	-20 ~ 55℃		
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃ (Short-term storage)		
Cycle Life	6000 cycles at 80% DOD,25℃		
Design Life	10 years		

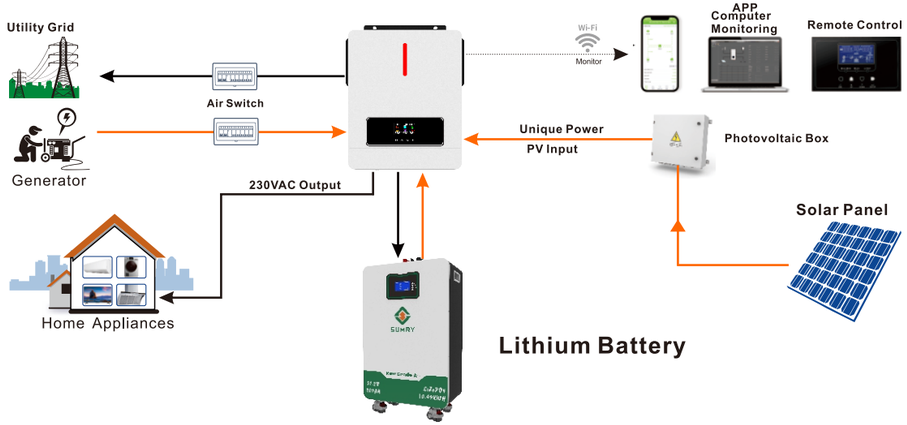
DETAILS







SYSTEM DIAGRAM



Energy Storage System

ESSM II 4.2K/6.2K SERIES

- Integrated design
- Support quick replacement of inverter modules
- BMS protection
- Built-in 120A MPPT Solar charge max6200W(for 4.2kW);max8000W(for 6.2KW)
- High PV input voltage range(60~450VDC)
- WIFI available for IOS and Android
- Dual output
- Receptacle
- Universal wheel
- Pure sine wave solar inverter(on/off Grid)
- Built-in Lithium battery automatic activation
- Built-in anti-dust kit for harsh environment
- One-key restoration to factory Settings
- Constant voltage technology protects the circuit

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

INVERTER		
MODEL	ESSM II-QR-4.2KW-205AH	ESSM II-QR-6.2KW-100AH
Phase	1-phase	
Maximum PV Input Power	6200W	8000W
Rated Output Power	4200W/4200VA	6200W/6200VA
Maximum Solar Charging Current	120A	
GRID-TIE OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
Power Factor	>0.99	
EFFICIENCY		
Maximum Conversion Effciency(DC/AC)	98%	
TWO LOAD OUTPUT POWER		
FullLoad	4200W	6200W
Maximum Main Load	4200W	6200W
Second Load Range	2940W	4340W
Maximum Load Cut OffVoltage	22VDC	44VDC
Maximum Load Return Voltage	24VDC	46VDC
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Frequency Range	49~51±1Hz	
MaximumAC Input Current	24.7A	36.4A
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
BATTERY MODE OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Wave Form	Pure sine wave	
Effciency(DC to AC)	94%	
BATTERY&CHARGER		
Nominal DC Voltage	24VDC	48VDC
Maximum Solar Charging Current	120A	120A
MaximumAC Charging Current	100A	100A
Maximum Solar+AC Charging Current	120A	120A
HYBRID OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90-280VACor 170-280VAC	
MaximumAC Input Current	24.7A	36.4A
Maximum Charging Current	100A	

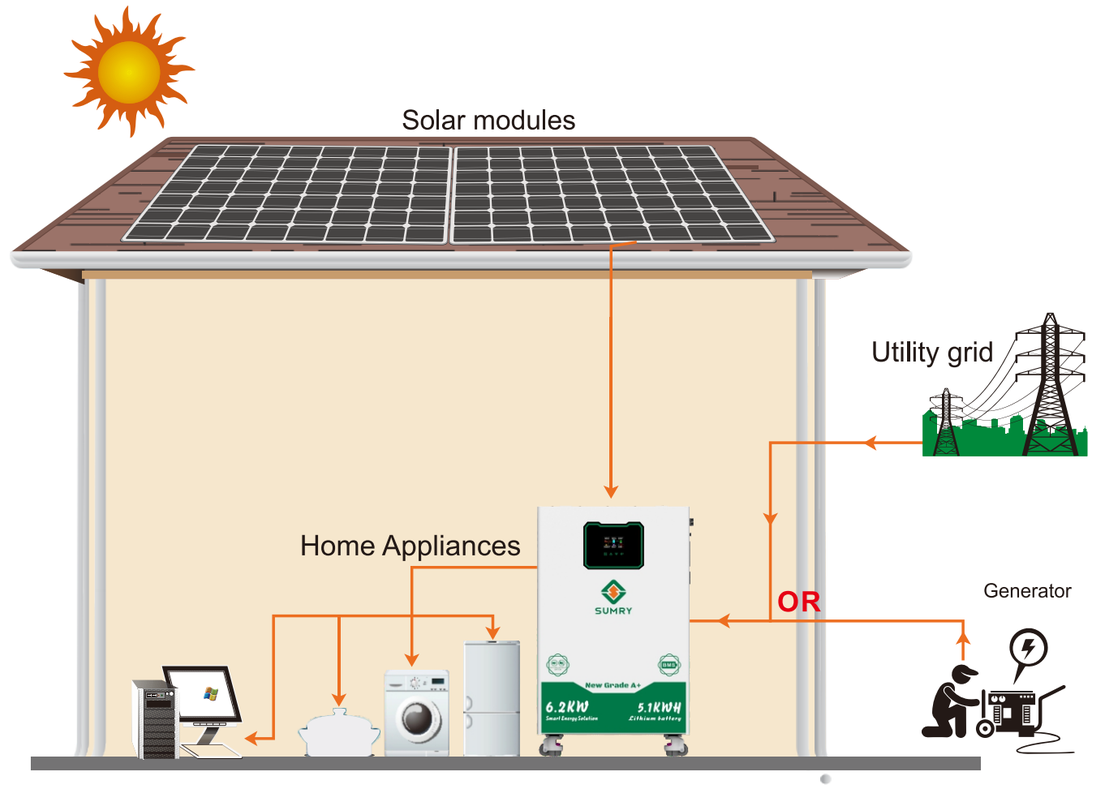
BATTERY

MODEL	ESSM II-QR-4.2KW-205AH	ESSM II-QR-6.2KW-100AH
	25.6V 205AH	51.2V 100AH
Normal charging voltage	29.2V	58.4V
Maximum charging current	120A	100A
Discharge termination voltage	20V	40V
Maximum discharge currentt	200A	100A
Single cell charging over voltage protection	3.65V	3.65V
Over voltage protection for the whole battery	29.2V	58.4V
Low voltage protection for single cell discharge	2.5V	2.5V
Low voltage protection for whole group discharge	20V	40V
Charge over current protection	220A	110A
Discharge over current protection	220A	110A
BMS Features	High accuracy cell level voltage,current measuring Over-charge,over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Parallel connect function	
Working temperature	-20℃~65℃	
Storage temperature	-10℃~50℃	
GENERAL		
PHYSICAL		
Dimension,H*W*D(mm)	785*475*225	
Carton Dimension,H*W*D(mm)	855*545*300	
INTERACE		
Communication Port	BMS（Built-In）、WIFI（Optional）	
ENVIRONMENT		
Humidity	5%to 95%Relative Humidity(Non~condensing)	
STANDARD		
Compliance Safety	CE UN38.3;MSDS	

APPLICATION



SYSTEM DIAGRAM



Energy Storage System

ESS1 SERIES

- Integrated design
- Receptacle
- RGB light
- Universal wheel
- BMS protection
- Pure sine wave solar inverter(on/off Grid)
- Built-in 120A MPPT Solar charge max6200W(for 4.2kW);max6500W(for 6.2KW)
- Built-in Lithium battery automatic activation
- High PV input voltage range(60~500VDC)
- Built-in anti-dust kit for harsh environment
- WIFI&GPRS available for IOS and Android
- One-key restoration to factory Settings
- Dual output
- Constant voltage technology protects the circuit

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

INVERTER MODEL	ESS1-4.2KW-25.6V-314AH	ESS1-6.2KW-51.2V-205AH
Phase		
Maximum PV Input Power	6200W	8000W
Rated Output Power	4200W/4200VA	6200W/6200VA
Maximum Solar Charging Current	120A	
GRID-TIE OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/18A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
Power Factor	>0.99	
EFFICIENCY		
Maximum Conversion Effciency(DC/AC)	98%	
TWO LOAD OUTPUT POWER		
Full Load	4200W	6200W
Maximum Main Load	4200W	6200W
Second Load Range	1400W	2067W
Maximum Load Cut OffVoltage	26VDC	52VDC
Maximum Load Return Voltage	27VDC	54VDC
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Frequency Range	49~51±1Hz	
MaximumAC Input Current	24.7A	36.4A
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/18A	1/22A
BATTERY MODE OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Wave Form	Pure sine wave	
Effciency(DC to AC)	94%	
BATTERY&CHARGER		
Nominal DC Voltage	24VDC	48VDC
Maximum Solar Charging Current	120A	120A
MaximumAC Charging Current	100A	100A
Maximum Solar+AC Charging Current	120A	120A
HYBRID OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/18A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90-280VACor 170-280VAC	
MaximumAC Input Current	24.7A	36.4A
Maximum Charging Current	100A	

BATTERY

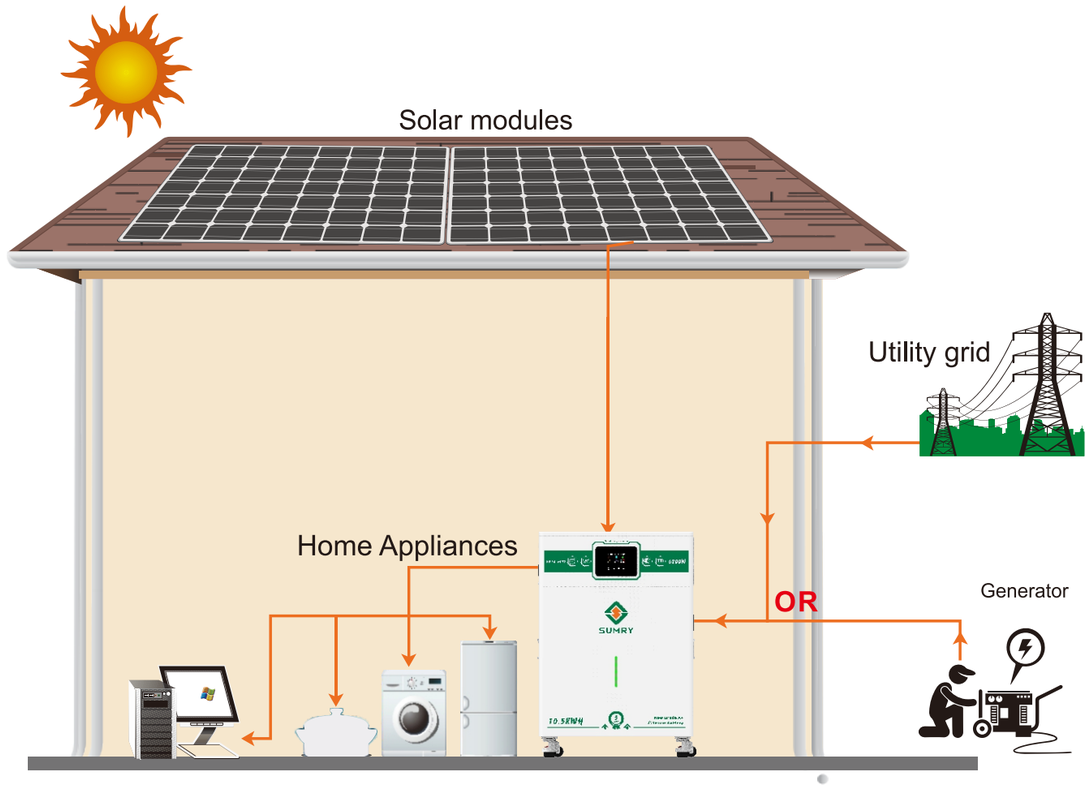
MODEL	ESS1-4.2KW-25.6V-314AH	ESS1-6.2KW-51.2V-205AH	ESS1-6.2KW-51.2V-314AH
Nominal voltage	25.6V	51.2V	51.2V
Nominal capacity	314Ah	205Ah	314Ah
Nominal Energy	8.03KWh	10.49KWh	16.07KWh
Single cell charging over voltage protection	3.65V	3.65V	3.65V
Normal charging voltage	29.2V	58.4V	58.4V
Maximum charging current	150A	150A	150A
Charge over current protection	160A	160A	160A
Single cell discharge cut-off votage	2.7V	2.7V	2.7V
discharge cut-off votage	21.6V	43.2V	43.2V
Maximum discharge currentt	150A	150A	150A
Discharge over current protection	160A	160A	160A
BMS Features	High accuracy cell levelvoltage,current measuring Over-charge,over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Parallel connect function		

GENERAL DAT			
Dimension,H*W*D(mm)	585*520*330	690*520*330	835*520*330
Carton Dimension,H*W*D(mm)	847*607*417	962*607*417	1107*607*417
Net Weight(kg)	87	116	146
Gross Weight(kg)	97	129	164
Communication Port	RS232/RS485/CAN		
Compliance Safety	CE UN38.3;MSDS		
Working temperature	-20℃~60℃		
Humidity	5% to 95% Relative Humidity(Non~condensing)		

APPLICATION



SYSTEM DIAGRAM



Energy Storage System

ESS II SERIES

- RGB light
- Dual communication ports for Battery communication and Wifi communication
- Output power factor 1.0
- Built-in 160A MPPT solar charger (for 8.2kw,10.2kw)
- High PV input voltage range(90~500VDC)
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- Dual Pv input
- Dual output
- Pure sine wave solar inverter(on/off Grid)
- Built-in Lithium battery automatic activation
- Built-in anti-dust kit for harsh environment
- One-key restoration to factory Settings
- Smart battery charge design to optimize battery life

Touchable Screen | Customized Logo | Multiple Shell Colors | Customized Capacity



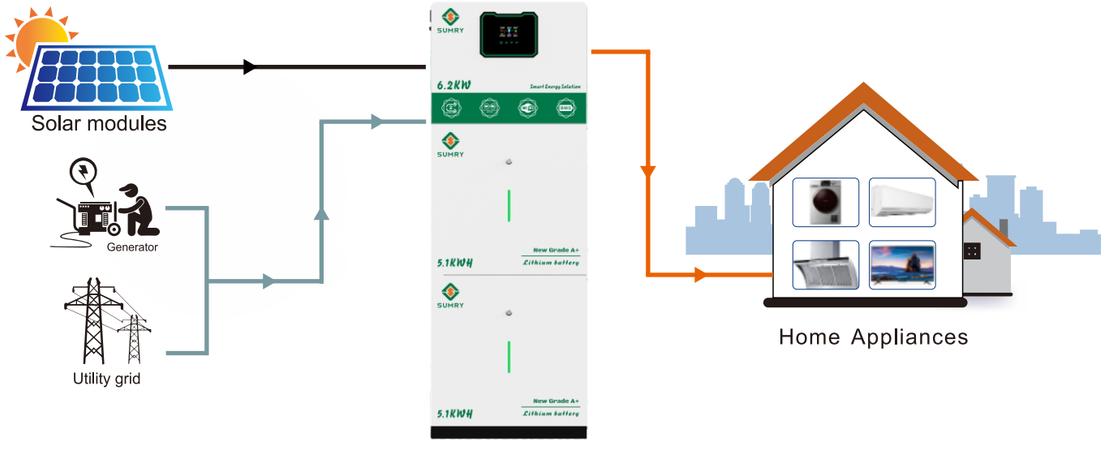
SUMRY

INVERTER		
MODEL	ESS II-4.2KW	ESS II-6.2KW
Phase	1-phase	
Maximum PV Input Power	6200W	8000W
Rated Output Power	4200W/4200VA	6200W/6200VA
Maximum Solar Charging Current	120A	
GRID-TIE OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
Power Factor	>0.99	
EFFICIENCY		
Maximum Conversion Efficiency(DC/AC)	98%	
TWO LOAD OUTPUT POWER		
Full Load	4200W	6200W
Maximum Load(Terminal block)	4200W	6200W
Maximum Load（Socket）	2940W	4340W
Nominal Cut Off Voltage（Socket）	22VDC	44VDC
Nominal Return Voltage（Socket）	24VDC	46VDC
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Frequency Range	50±1Hz/60±1Hz	
Maximum AC input Current	24.7A	36.4A
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
BATTERY MODE OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Wave Form	Pure sine wave	
Efficiency(DC toAC)	94%	
BATTERY&CHARGER		
Nominal DC Voltage	24VDC	51.2VDC
Maximum Solar Charging Current	120A	
MaximumAC Charging Current	100A	
Maximum Sotar+AC Charging Current	120A	
HYBRID OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90-280VAC or 170-280VAC	
Maximum AC Input Current	24.7A	36.4A
Maximum Charging Current	100A	

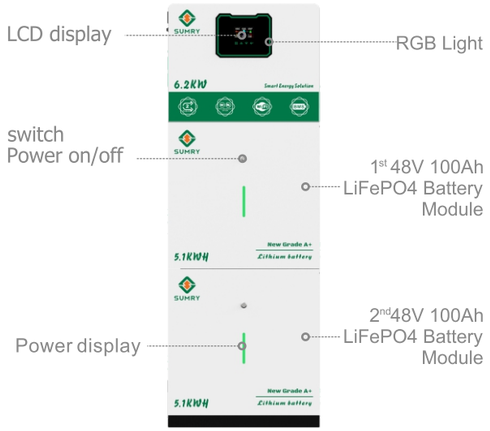
BATTERY

MODEL	25.6V 100AH	25.6V 200AH	51.2V 100AH	51.2V 200AH
Normal charging voltage	29.2V	29.2V	58.4V	58.4V
Maximum charging current	100A	100A	100A	100A
Discharge termination voltage	21.6V	21.6V	40.5V	40.5V
Recommended discharge termination voltage	22.4V	22.4V	42V	42V
Maximum discharge current	100A	100A	100A	100A
Single cell charging over voltage protection	3.8V	3.8V	3.8V	3.8V
Over voltage protection for the whole battery	29.2V	29.2V	58.4V	58.4V
Low voltage protection for single cell discharge	2.7V	2.7V	2.7V	2.7V
Low voltage protection for whole group discharge	21.6V	21.6V	40.5V	40.5V
Charge over current protection	102~112A	102~112A	102~112A	102~112A
Discharge over current protection	102~122A	102~122A	102~122A	102~122A
BMS Features	High accuracy cell level voltage,current measuring Over-charge,over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Parallel connect function			
Working temperature	-20℃~65℃			
Storage temperature	-10℃~50℃			
Dimension,H*W*D(mm)	480*510*175			
Carton Dimension,H*W*D(mm)	600*600*260			
Net Weight(kg)	25	46.8		46.8(2PCS)
Gross Weight(kg)	28.2	50		50(2PCS)

SYSTEM DIAGRAM



FUNCTION



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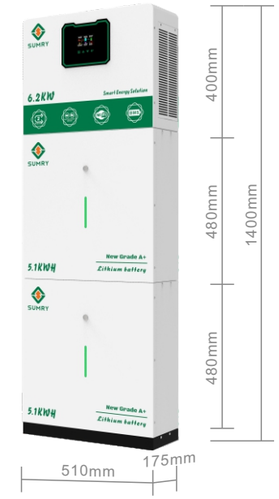
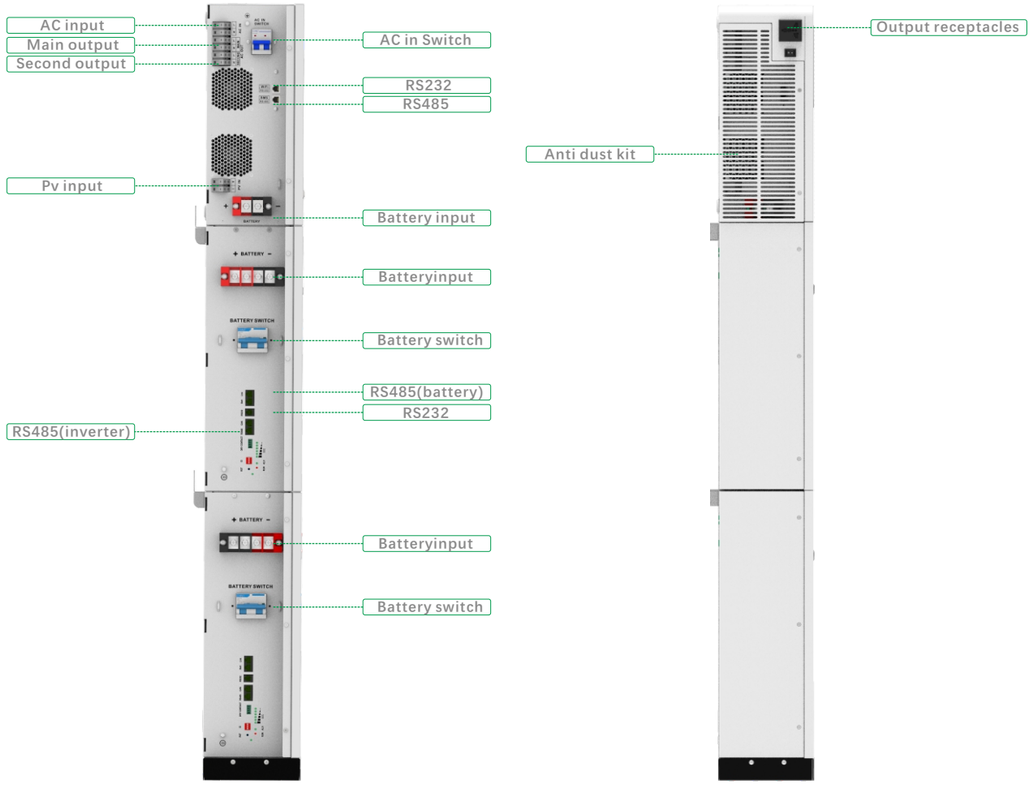


BACK PANEL DESCRIPTION



Energy Storage System

ESS II US SERIES

- RGB light
- Dual communication ports for Battery communication and Wifi communication
- Output power factor 1.0
- Built-in 160A MPPT solar charger (for 8.2kw,10.2kw)
- High PV input voltage range(90~500VDC)
- WIFI&GPRS available for IOS and Android
- Inverter can run without battery
- Dual Pv input
- Dual output
- Pure sine wave solar inverter(on/off Grid)
- Built-in Lithium battery automatic activation
- Built-in anti-dust kit for harsh environment
- One-key restoration to factory Settings
- Smart battery charge design to optimize battery life

Touchable Screen | Customized Logo | Multiple Shell Colors | Customized Capacity



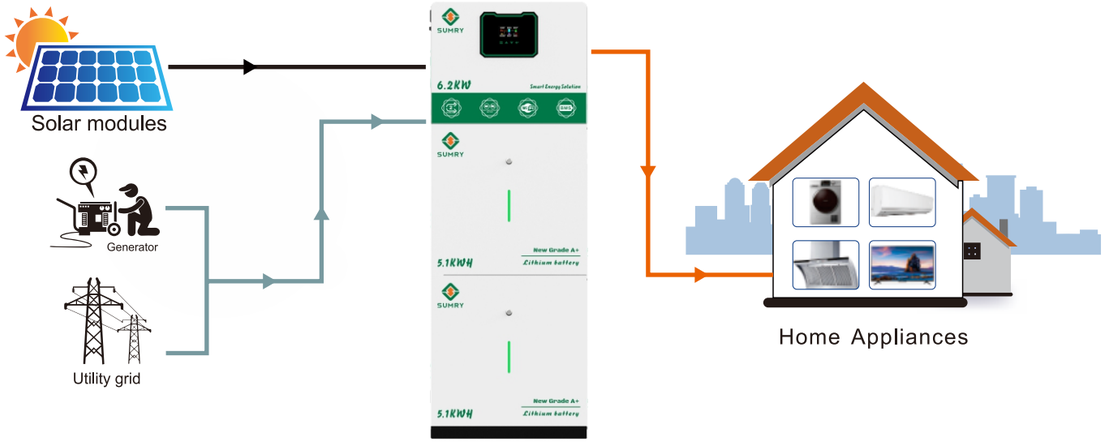
SUMRY

INVERTER	
MODEL	ESS II US-3.6KW
Phase	Single-phase
Maximum PV Input Power	6000W
Rated Output Power	3600W/3600VA
Maximum Solar Charging Current	120A
GRID-TIE OPERATION	
PV INPUT(DC)	
Nominal DC Voltage/Maximum DC Voltage	300/450VDC
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC
MPPT Voltage Range	60~450VDC
Maximum Input Current	1/26A
GRID OUTPUT(AC)	
Nominal Output Voltage	120VAC
Output Voltage Range	100~132VAC
Nominal Output Current	30A
Power Factor	1
EFFICIENCY	
Maximum Conversion Efficiency(DC/AC)	> 95%（Rated R load，battery full charged）
TWO LOAD OUTPUT POWER	
Full Load	3600W
Maximum Load(Terminal block)	3600W
Maximum Load（Socket）	720W~2520W
Nominal Cut Off Voltage（Socket）	22VDC
Nominal Return Voltage（Socket）	26VDC
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage/Auto Restart Voltage	90VAC
Acceptable Input Voltage Range	90 ~ 145(VDC)
Frequency Range	40 ~ 65(Hz)
Maximum AC input Current	45A
PV INPUT(DC)	
Nominal DC Voltage/Maximum DC Voltage	360/500VDC
MPPT Voltage Range	60~450VDC
Maximum Input Current	26A
BATTERY MODE OUTPUT(AC)	
Nominal Output Voltage	120VAC
Output Wave Form	Pure sine wave
Efficiency(DC toAC)	> 95%（Rated R load，battery full charged）
BATTERY&CHARGER	
Nominal DC Voltage	24VDC
Maximum Solar Charging Current	120A
MaximumAC Charging Current	100A
Maximum Sotar+AC Charging Current	120A
GRID-TIE OPERATION	
PV INPUT(DC)	
Nominal DC Voltage/Maximum DC Voltage	300/450VDC
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC
MPPT Voltage Range	60~450VDC
Maximum Input Current	26A
GRID OUTPUT(AC)	
Nominal Output Voltage	120VAC
Output Voltage Range	100~132VAC
Nominal Output Current	30A
AC INPUT	
AC Start-up Voltage/Auto Restart Voltage	90VAC
Acceptable Input Voltage Range	90-145VAC
Maximum AC Input Current	40 ~ 65(Hz)
Maximum Charging Current	45A

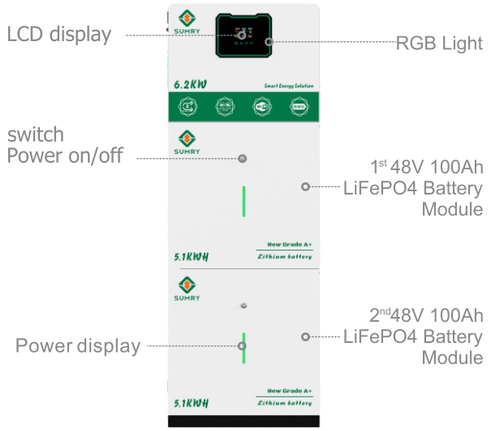
BATTERY

MODEL	25.6V 100AH	25.6V 200AH	51.2V 100AH	51.2V 200AH
Normal charging voltage	29.2V	29.2V	58.4V	58.4V
Maximum charging current	100A	100A	100A	100A
Discharge termination voltage	21.6V	21.6V	40.5V	40.5V
Recommended discharge termination voltage	22.4V	22.4V	42V	42V
Maximum discharge current	100A	100A	100A	100A
Single cell charging over voltage protection	3.8V	3.8V	3.8V	3.8V
Over voltage protection for the whole battery	29.2V	29.2V	58.4V	58.4V
Low voltage protection for single cell discharge	2.7V	2.7V	2.7V	2.7V
Low voltage protection for whole group discharge	21.6V	21.6V	40.5V	40.5V
Charge over current protection	102~112A	102~112A	102~112A	102~112A
Discharge over current protection	102~122A	102~122A	102~122A	102~122A
BMS Features	High accuracy cell level voltage,current measuring Over-charge,over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Parallel connect function			
Working temperature	-20℃~65℃			
Storage temperature	-10℃~50℃			
Dimension,H*W*D(mm)	480*510*175			
Carton Dimension,H*W*D(mm)	600*600*260			
Net Weight(kg)	25	46.8		46.8(2PCS)
Gross Weight(kg)	28.2	50		50(2PCS)

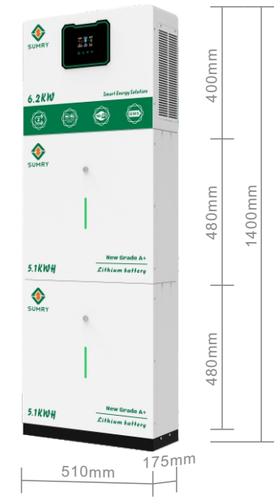
SYSTEM DIAGRAM



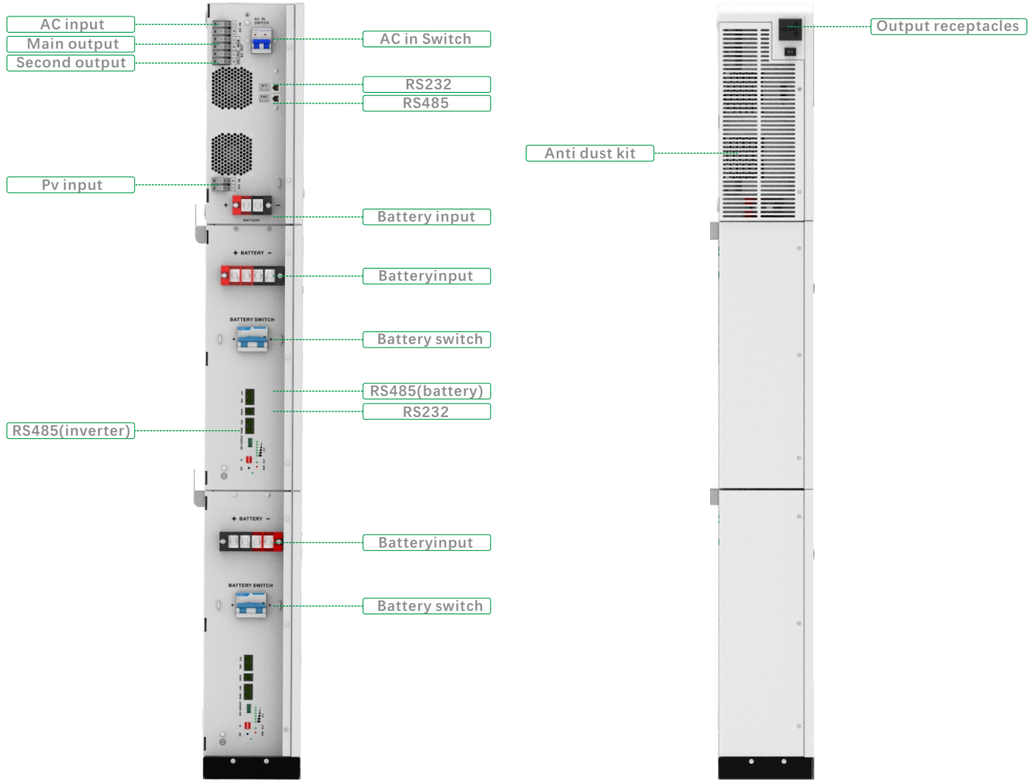
FUNCTION



DIMENSION



BACK PANEL DESCRIPTION



Energy Storage System

ESS PLUS II SERIES

- Dual communication ports for Battery communication and Wifi communication
- Dual output
- Output power factor 1.0
- Pure sine wave solar inverter(on/off Grid)
- Built-in120A MPPT Solar charge:max 6200W(for 4.2Kw),max6500W(for 6.2KW)
- Built-in Lithium battery automatic activation
- High PV input voltage range(90~500VDC)
- Built-in anti-dust kit for harsh environment
- WIFI&GPRS available for IOS and Android
- One-key restoration to factory Settings
- Inverter can run without battery
- Smart battery charge design to optimize battery life

Independent Module | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

INVERTER		
MODEL	ESS PLUS II-4.2KW	ESS PLUS II-6.2KW
Phase	1-phase	
Maximum PV Input Power	6200W	8000W
Rated Output Power	4200W/4200VA	6200W/6200VA
Maximum Solar Charging Current	120A	
GRID-TIE OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	60VDC/90VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
Power Factor	>0.99	
EFFICIENCY		
Maximum Conversion Efficiency(DC/AC)	98%	
TWO LOAD OUTPUT POWER		
Full Load	4200W	6200W
Maximum Load(Terminal block)	4200W	6200W
Maximum Load（Socket）	2940W	4340W
Nominal Cut Off Voltage（Socket）	22VDC	44VDC
Nominal Return Voltage（Socket）	24VDC	46VDC
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90~280VAC or 170~280VAC	
Frequency Range	40~65Hz	
MaximumAC input Current	24.7A	36.4A
PVINPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
BATTERY MODE OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Wave Form	Pure sine wave	
Efficiency(DC to AC)	94%	
BATTERY&CHARGER		
Nominal DC Voltage	24VDC	48VDC
Maximum Solar Charging Current	120A	120A
MaximumAC Charging Current	100A	100A
Maximum Sotar+AC Charging Current	120A	120A
HYBRID OPERATION		
PV INPUT(DC)		
Nominal DC Voltage/Maximum DC Voltage	360/500VDC	
Start-up Voltage/Initial Feeding Voltage	90VDC/120VDC	
MPPT Voltage Range	60~450VDC	
Maximum Input Current	1/22A	1/22A
GRID OUTPUT(AC)		
Nominal Output Voltage	220/230/240VAC	
Output Voltage Range	195~253VAC	
Nominal Output Current	18.2A	27.0A
AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	120-140VAC/180VAC	
Acceptable Input Voltage Range	90-280VAC or 170-280VAC	
Maximum AC Input Current	24.7A	36.4A
Maximum Charging Current	100A	

BATTERY

MODEL	ESS PLUS II 4.2KW			ESS PLUS II 6.2KW			
System schematic							
Nominal voltage	25.6V			51.2V			
Number of module	1	2	3	1	2	3	4
Nominal capacity	200AH	400AH	600AH	100AH	200AH	300AH	400AH
Normal charging voltage	29.2V	29.2V	29.2V	58.4V	58.4V	58.4V	58.4V
Maximum charging current	100A	100A	100A	100A	100A	100A	100A
Discharge termination voltage	21.6V	21.6V	21.6V	40.5V	40.5V	40.5V	40.5V
Recommended discharge termination voltage	22.4V	22.4V	22.4V	42V	42V	42V	42V
Maximum discharge current	100A	100A	100A	100A	100A	100A	100A
Single cell charging over voltage protection	3.8V	3.8V	3.8V	3.8V	3.8V	3.8V	3.8V
Over voltage protection for the whole battery	29.2V	29.2V	29.2V	58.4V	58.4V	58.4V	58.4V
Low voltage protection for single celli discharge	2.7V	2.7V	2.7V	2.7V	2.7V	2.7V	2.7V
Low voltage protection for whole group discharge	21.6V	21.6V	21.6V	40.5V	40.5V	40.5V	40.5V
Charge over current protection	102~112A	102~112A	102~112A	102~112A	102~112A	102~112A	102~112A
Discharge over current protection	102~122A	102~122A	102~122A	102~122A	102~122A	102~122A	102~122A
BMS Features	High accuracy cell level voltage,current measuring Over-charge,over-discharge protection Short-circuit protection Self-learning intelligent SOC calculation Cell level active equalization Multiple communication type Paralel connect function						
Working temperature	-20℃~65℃						
Storage temperature	-10℃~50℃						
Dimension,H*W*D(mm)	190*530*400						
Carton Dimension,H*W*D(mm)	265*600*470						
Net Weight(kg)	46.8	46.8(2PCS)	46.8(3PCS)	46.8	46.8(2PCS)	46.8(3PCS)	46.8(4PCS)
Gross Weight(kg)	50	50(2PCS)	50(3PCS)	50	50(2PCS)	50(3PCS)	50(4PCS)

SYSTEM DIAGRAM



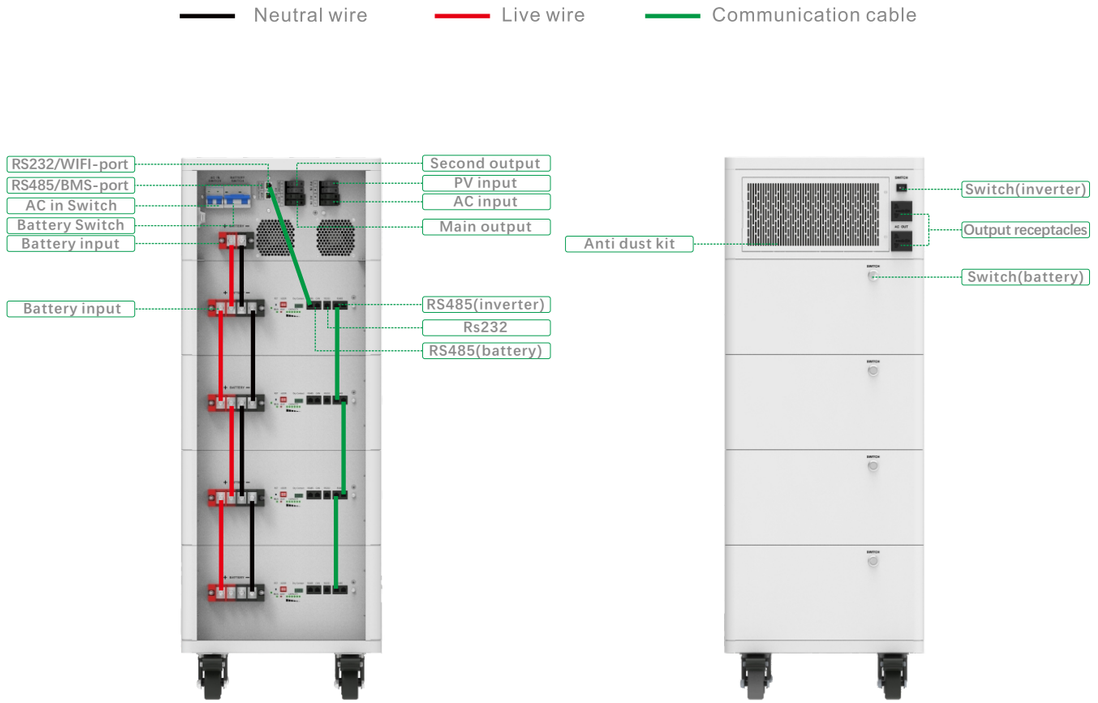
FUNCTION



DIMENSION



BACK PANEL DESCRIPTION

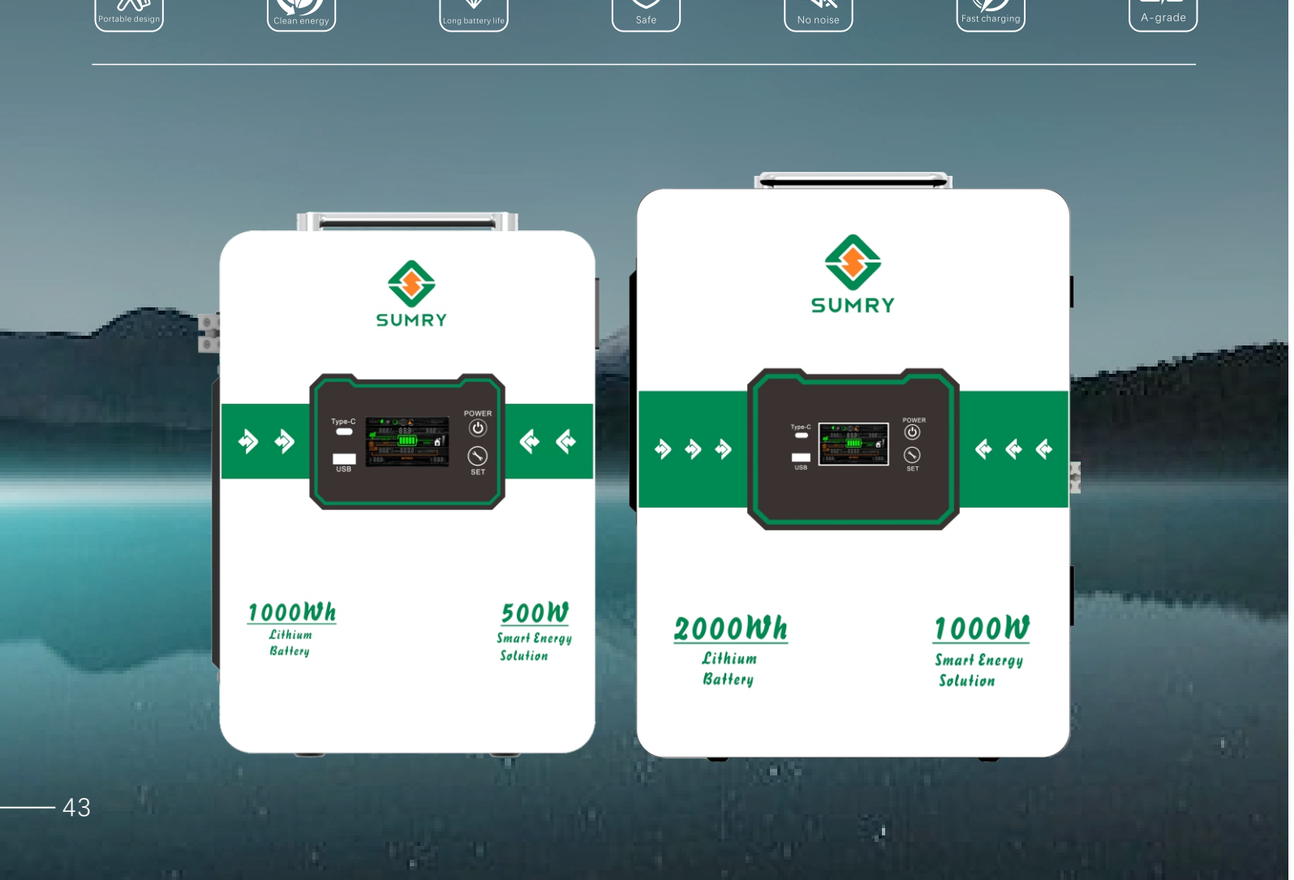


Portable Power Station

PPS SERIES

- Support fast charging technology
- Environmentally friendly and clean energy
- Long battery life: Equipped with a built-in 314Ah high-capacity battery, providing long-term power supply, suitable for long-term outdoor activities or travel.
- The portable power supply supports continuous discharge at minus 20 degrees Celsius and can be used normally in cold regions.
- Safe and reliable: It has multiple protection functions such as overcharging, over dischargingshort circuit,and overheating to ensure safe use.
- No noise: Compared with fuel generators, portable power sources have very low noise during operation and are suitable for use in quiet environments
- Supports simultaneous charging of photovoltaic input and discharge of load, and supports AC bypass output.
- Portable design: small size, light weight, easy to carry, suitable for outdoor activities travel, and mobile office.





SUMRY

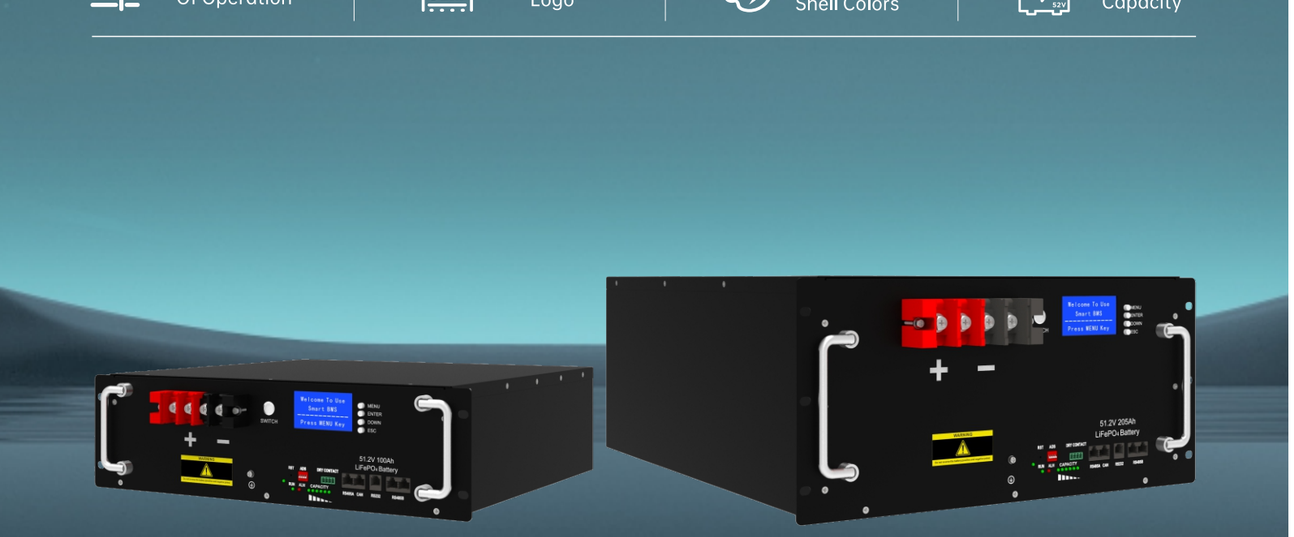
MODEL	PPS-500W-1KWH	PPS-1000W-2KWH
AC INPUT/OUTPUT		
Rated Power	500W	1000W
Output Waveform	Pure Sine Wave	
Output Voltage Range	185 ~ 230VAC	
Output Frequency	50Hz	
Nominal AC Input Voltage	230VAC	
AC Input Range	90 ~ 280VAC;170 ~ 280VAC	
AC Input Frequency Range	45-65Hz	
Maximum AC Charging Power	500W	1000W
MPPT		
Rated Power	400W	550W
PV Input Voltage Range	10 ~ 50VDC	10 ~ 60VDC
Maximum PV Input Voltage	55VDC	70VDC
Start-Up Voltage	10VDC	15VDC
BATTERY		
Typical Energy	1004.8Wh	2009.6Wh
Nominal Voltage	3.2VDC	6.4VDC
Working Voltage Range	2.9VDC ~ 3.6VDC	5.8VDC ~ 7.2VDC
Capacity	314Ah	314Ah
Maximum Charge current	220A	220A
Maximum Discharge current	220A	220A
DC OUTPUT		
USB Charger	5V 1A ; 1PCS	
Type-C Charger	5V 1A ; PCS	
OTHER		
Application	Indoor	
Protection	Ip21	
Operating Temperature	-10℃ ~ 50℃	
Operating Relative Humidity	5% ~ 95%	
Operating Altitude	⩽2000m	
Dimensions(L*W*H)	322*230*150(mm)	430*296*157(mm)
Packing Dimensions(L*W*H)	385*300*230(mm)	505*371*242(mm)
Net Weight	10.3Kg	20Kg
Gross Weight	11.5Kg	21.6Kg

Rack-mounted Battery

EB-R1 SERIES

- Long life type prismatic LiFePO4 cells, suitable for energy storage application.
- Battery certification: UN38.3, MSDS, CE.
- Standard 19" rack design, flexible and easily installation.
- Parallel support for more energy or more capacity inverter.
- OVP, LVP, OCP, OTP, LTP, Short circuit protection.
- Independent protection for charge and discharge.
- Optional part: Bluetooth module, Heater.
- Low voltage system, safety for application.
- Cycle life>6000 cycles.
- -20~+55°C widely temperature range.
- SOC, RUN, ALARM display and BMS PC software.
- Rs485, CAN communication port.
- High reliability: AFE microchip is Panasonic & MCU is ST.
- Optional: standard screw type connectors.

Multiple Modes Of Operation | Customized Logo | Multiple Shell Colors | Customized Capacity



SUMRY

BATTERY

MODEL	EB-R1-51.2V-100AH	EB-R1-51.2V-205AH
Rated Voltage	51.2VDC	
Rated Capacity	100Ah	205Ah
Rated Energy	5120Wh	10500Wh
Charging Voltage	56.8VDC ~ 57.6VDC	
Cut-off Voltage	43.2VDC	
Max.Charging Current	100A	200A
Recommended Charging Current	50A	100A
Max.Discharging Current	100A	200A
Communication interface	Rs485 RS232 CAN WIFI（Optional）	
Dimension H*W*D(mm)	435*440*133.5	590*440*222
Carton Dimension,H*W*D(mm)	520*520*198	680*520*292
Net Weight(kg)	39.5	83.5
Gross Weight(kg)	41.5	86.5
Humidity	5%~95%Relative humidity	
Charging Temperature	0℃~50℃	
Discharging Temperature	-20℃~55℃	
Storage Temperature	-20 ~ 45℃;-20 ~ 60℃（Short-term storage）	
Cycle Life	6000（4000cycles at 25°C, 0.5C/0.5C, 100%D0D and 80% EOL;6000cycles at 25°C, 0.5C/0.5C, 80%D0D and 80% EOL）	
Design Life	10 years	

FRONT PANEL

