RESIDENTIAL
ENERGY STORAGE SYSTEM
Product Catalog

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COMPANY PROFILE

Vodloon New Energy Co., Ltd. is a dynamic enterprise at the forefront of designing, developing, manufacturing, and selling industrial, commercial, and residential energy storage systems. By integrating key technologies across the industrial chain—from integrated battery packs (PACKs) and precision-engineered battery management systems (BMS) to smart power conversion systems (PCS) and adaptive energy management system (EMS) solutions—we achieve seamless innovation collaboration between upstream and downstream partners, delivering end-to-end system control capabilities to global clients.

Guided by a customer-centric philosophy, Vodloon New Energy focuses its expertise on four strategic pillars: residential energy storage systems, smart grid networks, industrial and commercial energy clusters, and modular containerized storage solutions. Our solutions go beyond hardware by integrating AI-powered energy management platforms that enable optimized operations, predictive maintenance, and full lifecycle sustainability for next-generation power ecosystems.

Product Directory

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Residential Energy Storage System

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Certification

- ISO9001, ISO14001, OHSAS18001 system
- Germany Nord Laboratory which is highest stardard in EU Market
- CEC certificate for electrical and mechanical products approved by Australia
- MCS certificate for electrical and mechanical products approved in UK
- IDCOL certificate aprroval by Bangadesh market
- INMETRO certificate for Brazil
- All the QC control system and certificate approval make isola's solar panels more reliable in the market



VSR Series

Standard Proposal

Residential Energy Storage System

- VSR-1KW-1.28KWh-Eco-EU
- VSR-3KW-5.12KWh-Eco-EU
- VSR-3KW-5.12KWh-EU
- VSR-5KW-10.24KWh-EU
- VSR-6.2KW-14.3KWh-EU
- VSR-11KW-30.7KWh-EU
- VSRS-6.2KW-15.3KWh
- VSRS-11KW-30.7KWh

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01

RESIDENTIAL ENERGY STORAGE SYSTEM

Residential Energy Storage System

Provide users with a one-stop photovoltaic energy storage solution

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VSR Series
VSR-1KW-1.28KWh-Eco

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Standard Proposal

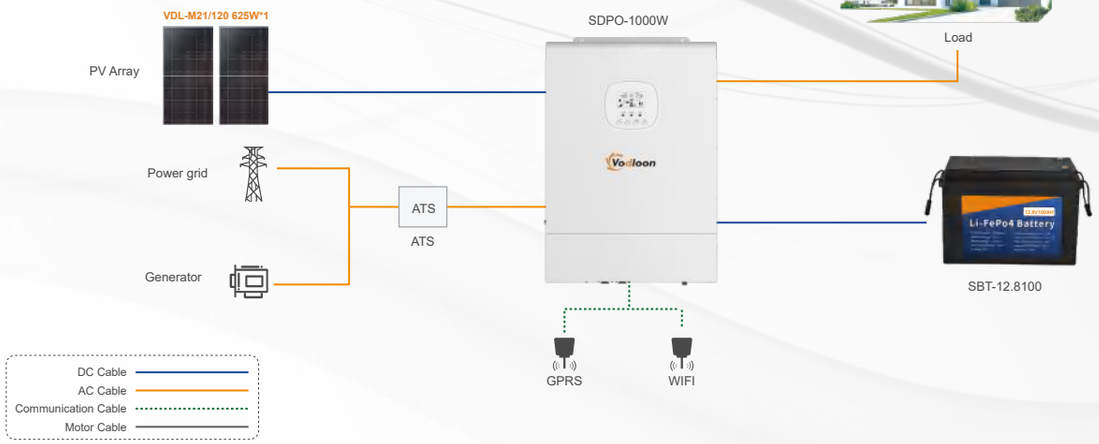
PV Power	Equipment	Remark
VSR-1KW-1.28KWh-Eco	PV	625Wp (VDL-M21/120 625W*1)
	Inverter	1000W (SDPO-1000W*1)
	Battery	1.33KWh (LL-12.8V/100AH*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 1KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

PRODUCT TOPOLOGY



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RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-1KW-1.28KWh-Eco 625Wp/1kW/1.28kWh	PV modules	VDL-M21/120 625W	pcs	1	1pcs/string, 1string
	Inverter	SDPO-1000W	pcs	1	
	Batttery	SBT-12.8100	pcs	1	Power cable included
	Connector	MC4	pair	1	
	PV cable	PV1-F 1*4mm²	m	25	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-1KW-1.33KWh-Eco
System Parameter	
AC rated power	1kW
Battery capacity	1280Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-1000W
Rated power	1000VA 1000W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	430VDC
PV Array MPPT Voltage Range	30~430VDC
Max . Solar Input Current	30A
Max. Short Current(A)	30A
Dimensions, D x W x H(mm)	290*240*91
Weight (Kgs)	3.0
Battery Parameter	
Model	SBT-12.8100
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	12.8
Nominal Capacity (WH)	1280
Voltage Range (V)	10~14.6
Max. Charge/Discharge Current(A)	50 / 100
Communicaiton	/
Weight (Kgs)	10.3
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSR-3KW-5.12KWh-Eco

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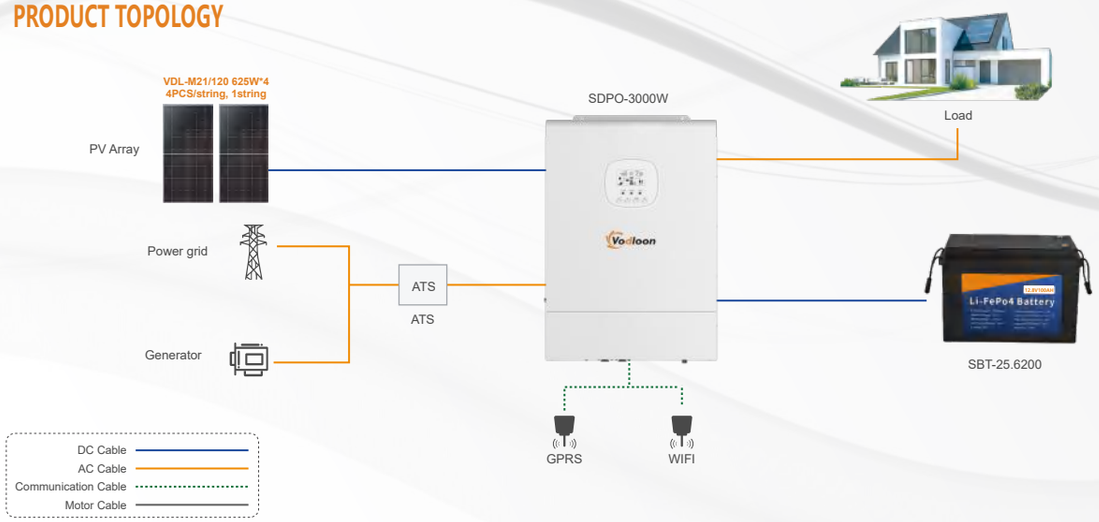
PV Power	Equipment	Remark
VSR-3KW-5.12KWh-Eco	PV	625Wp (VDL-M21/120 625W*4)
	Inverter	3000W (SDPO-3000W*1)
	Battery	5.12KWh (L: 25.6V/200AH*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 3KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

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PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-3KW-5.12KWh-Eco 2500Wp/3kW/5.12kWh	PV modules	VDL-M21/120 625W	pcs	4	4pcs/string, 1string
	Inverter	SDPO-3000W	pcs	1	
	Batttery	SBT-25.6200	pcs	1	Power cable included
	Connector	MC4	pair	2	
	PV cable	PV1-F 1*4mm²	m	75	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-3KW-5.12KWh-Eco
System Parameter	
AC rated power	3kW
Battery capacity	5120Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-3000W
Rated power	3000VA 3000W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	100A
Max. Short Current(A)	100A
Dimensions, D x W x H(mm)	495*312*125
Weight (Kgs)	9.13
Battery Parameter	
Model	SBT-25.6200
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	25.6
Nominal Capacity (WH)	5120
Voltage Range (V)	20-29.2
Max. Charge/Discharge Current(A)	50 / 100
Communicaiton	/
Weight (Kgs)	38
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSR-3KW-5.12KWh

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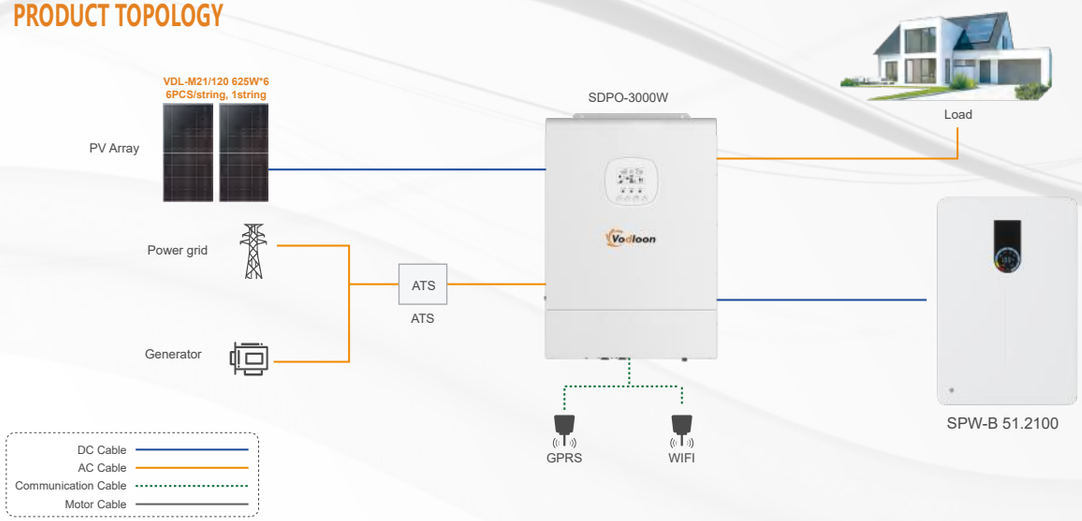
PV Power	Equipment	Remark
VSR-3KW-5.12KWh	PV	3750Wp (VDL-M21/120 625W*6)
	Inverter	3000W (SDPO-3000W*1)
	Battery	5.12KWh (SPW-B 51.2V/100Ah*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 3KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

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PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-3KW-5.12KWh 3750Wp/3KW/5.12KWh	PV modules	VDL-M21/120 625W	pcs	6	6 pcs/string, 1string
	Inverter	SDPO-3000W	pcs	1	
	Batttery	SPW-B 51.2100	pcs	1	Power cable included
	Connector	MC4	pair	4	
	PV cable	PV1-F 1*4mm²	m	200	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-3KW-5.12KWh
System Parameter	
AC rated power	3kW
Battery capacity	5120Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-3000W
Rated power	3000VA 3000W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	100A
Max. Short Current(A)	100A
Dimensions, D x W x H(mm)	495*312*125
Weight (Kgs)	9.13
Battery Parameter	
Model	SPW-B 51.2100
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	5120
Voltage Range (V)	43.2-57.6V
Max. Charge/Discharge Current(A)	50 / 100
Communicaiton	/
Weight (Kgs)	48
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSR-5KW-10.24KWh

Residential Energy Storage System
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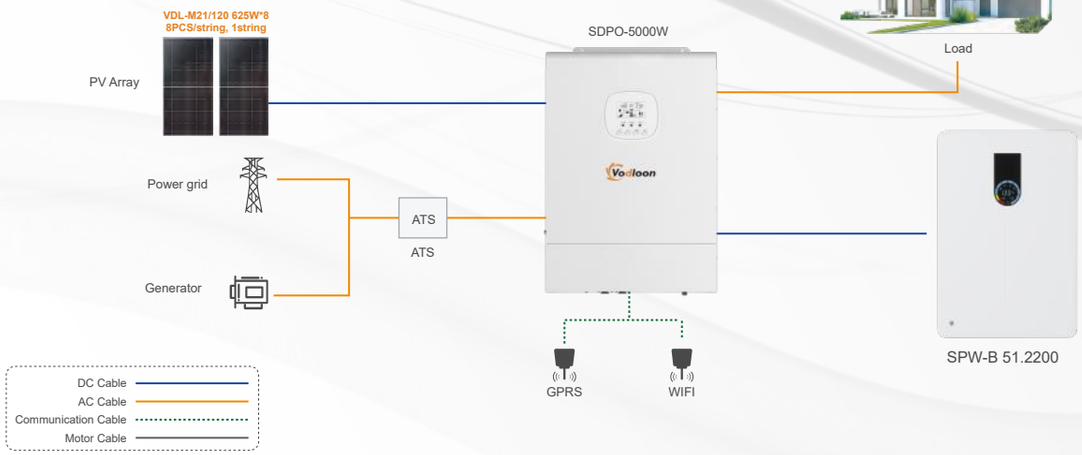
PV Power	Equipment	Remark
VSR-5KW-10.24KWh	PV	5000Wp (VDL-M21/120 625W*8)
	Inverter	5000W (SDPO-5000W*1)
	Battery	10.24KWh (L.L 51.2V/200AH*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 5KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

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RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-5KW-10.24KWh 5000Wp/5KW/10.24KWh	PV modules	VDL-M21/120 625W	pcs	8	8 pcs/string, 1string
	Inverter	SDPO-5000W	pcs	1	
	Batttery	SPW-B 51.2200	pcs	1	Power cable included
	Connector	MC4	pair	6	
	PV cable	PV1-F 1*4mm²	m	300	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-5KW-10.24KWh
System Parameter	
AC rated power	5kW
Battery capacity	10240Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-5000W
Rated power	5000VA 5000W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	100A
Max. Short Current(A)	100A
Dimensions, D x W x H(mm)	495*312*125
Weight (Kgs)	10.83
Battery Parameter	
Model	SPW-B 51.2200
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	10240
Voltage Range (V)	43.2-57.6V
Max. Charge/Discharge Current(A)	100 / 100
Communicaiton	/
Weight (Kgs)	91
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSR-6.2KW-14.3KWh

Residential Energy Storage System
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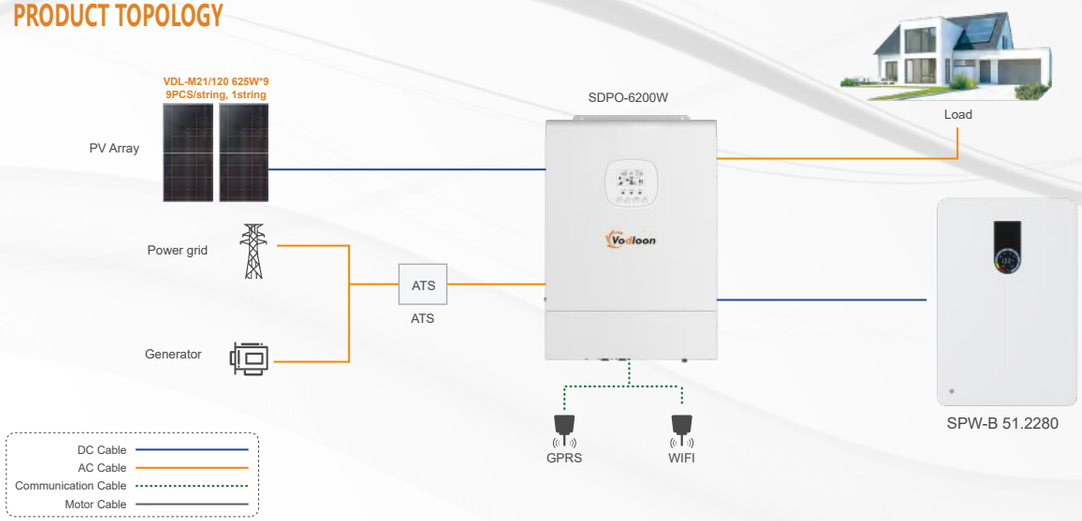
PV Power	Equipment	Remark
VSR-6.2KW-14.3KWh	PV	5625Wp (VDL-M21/120 625W*9)
	Inverter	6200W (SDPO-6200W*1)
	Battery	14.34KWh (LL-51.2V/280AH*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 6.2KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

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RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-6.2KW-14.3KWh 5625Wp/6.2KW/14.3KWh	PV modules	VDL-M21/120 625W	pcs	9	8 pcs/string, 1string
	Inverter	SDPO-6200W	pcs	1	
	Batttery	SPW-B 51.2280	pcs	1	Power cable included
	Connector	MC4	pair	2	
	PV cable	PV1-F 1*4mm²	m	200	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-6.2KW-14.3KWh
System Parameter	
AC rated power	6.2kW
Battery capacity	14336Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-6200W
Rated power	6200VA 6200W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	100A
Max. Short Current(A)	100A
Dimensions, D x W x H(mm)	495*312*125
Weight (Kgs)	10.83
Battery Parameter	
Model	SPW-B 51.2280
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	14336
Voltage Range (V)	43.2-57.6V
Max. Charge/Discharge Current(A)	150 / 200
Communicaiton	/
Weight (Kgs)	120
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSR-11KW-30.7KWh

Residential Energy Storage System
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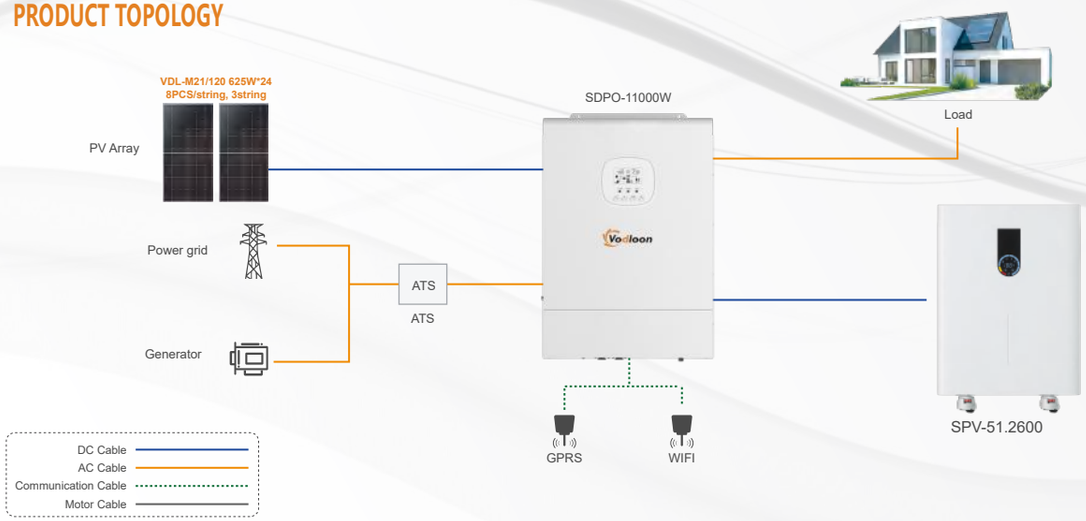
PV Power	Equipment	Remark
VSR-11KW-30.7KWh	PV	15000Wp (VDL-M21/120 625W*24)
	Inverter	11000W (SDPO-11000W*1)
	Battery	30.7KWh (5L 51.2V/600Ah*1)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 11KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

PRODUCT TOPOLOGY



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSR-11KW-30.7KWh 15KWp/11KW/30.7KWh	PV modules	VDL-M21/120 625W	pcs	24	8 pcs/string, 3string
	Inverter	SDPO-11000W	pcs	1	
	Batttery	SPW-B 51.2600	pcs	1	Power cable included
	Connector	MC4	pair	6	
	PV cable	PV1-F 1*4mm²	m	200	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSR-11KW-30.7KWh
System Parameter	
AC rated power	11kW
Battery capacity	30720Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SDPO-11000W
Rated power	11000VA 11000W
Frequency	50/60 Hz
Nominal Voltage	110/120VAC±20% ;220/230/240VAC±20%
Max. Efficiency	>95% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	150A
Max. Short Current(A)	150A
Dimensions, D x W x H(mm)	570*500*148
Weight (Kgs)	19.27
Battery Parameter	
Model	SPV-51.2600
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	30720
Voltage Range (V)	43.2-57.6V
Max. Charge/Discharge Current(A)	200 / 200
Communicaiton	/
Weight (Kgs)	234.2
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSRS-6.2KW-15.4KWh

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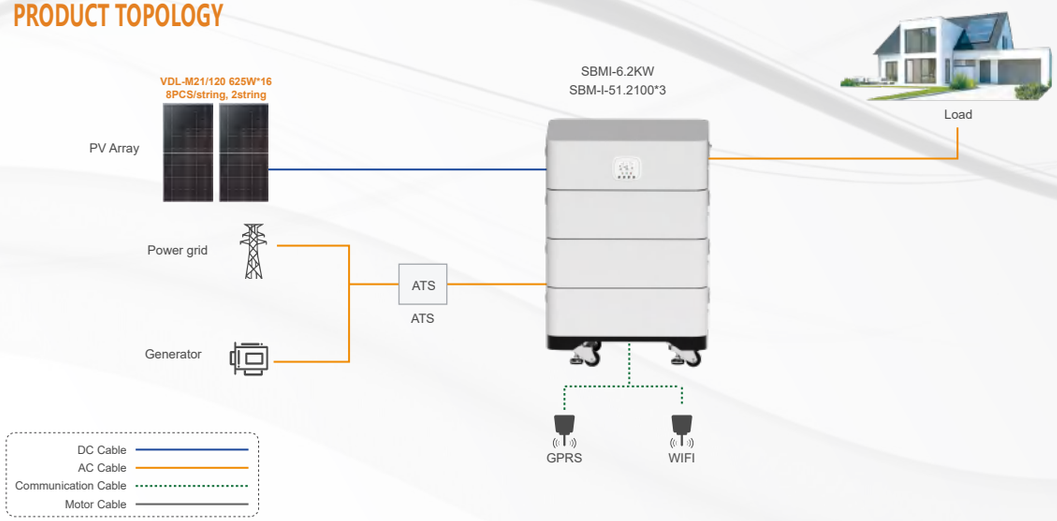
PV Power	Equipment	Remark
VSRS-6.2KW-15.4KWh	PV	10000Wp (VDL-M21/120 625W*16)
	Inverter	6200W (SBMI-6.2KW*1)
	Battery	15.4KWh (LL 51.2V/100Ah*3)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 6.2KW Single-phase output
- The entire system has been fully tested and works perfectly
- Optimal configuration, high cost performance ratio

PRODUCT TOPOLOGY



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSRS-6.2KW-15.4KWh 10KWp/6.2KW/15.4KWh	PV modules	VDL-M21/120 625W	pcs	16	8 pcs/string, 2string
	Inverter	SBMI-6.2KW	pcs	1	
	Batttery	SBM-L-512100	pcs	3	Power cable included
	Connector	MC4	pair	8	
	PV cable	PV1-F 1*4mm^2	m	200	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSRS-6.2KW-15.4KWh
System Parameter	
AC rated power	6.2kW
Battery capacity	15360Wh
AC voltage	220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SBMI-6.2KW
Rated power	6200VA 6200W
Frequency	50/60 Hz
Nominal Voltage	220/230/240VAC±20%
Max. Efficiency	>98% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	150A
Max. Short Current(A)	150A
Dimensions, D x W x H(mm)	550*500*(178*3+105)
Weight (Kgs)	45.8*3+14.2(base)
Battery Parameter	
Model	SBM-L-512100*3
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	5120*3
Voltage Range (V)	18.4-694.4V
Max. Charge/Discharge Current(A)	25 / 50
Communicaiton	/
Weight (Kgs)	45.8*3+14.2(base)
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C

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VSR Series
VSRS-11KW-30.7KWh

Residential Energy Storage System
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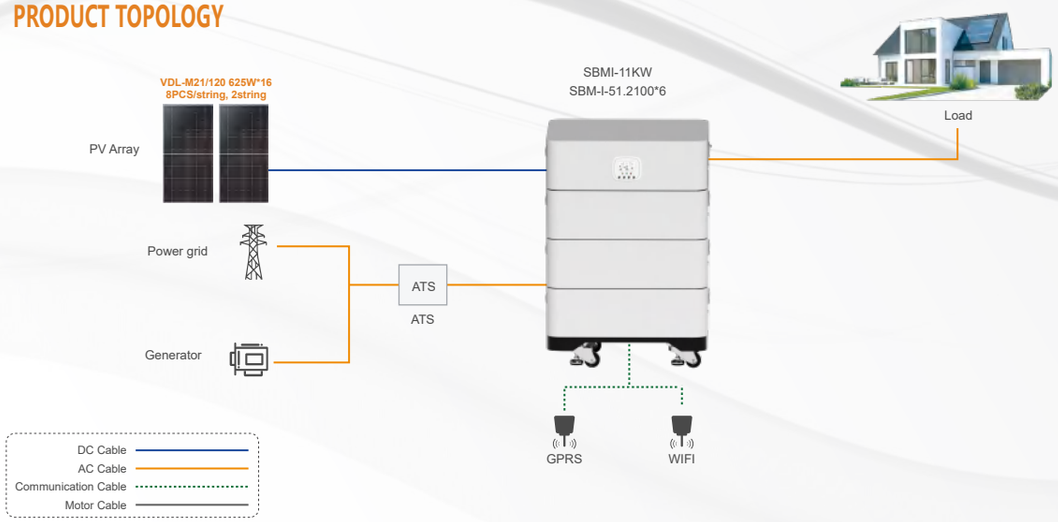
PV Power	Equipment	Remark
VSRS-11KW-30.7KWh	PV	15000Wp (VDL-M21/120 625W*24)
	Inverter	11000W (SDPO-11000W*1)
	Battery	30.7KWh (LL 51.2V/100Ah*6)



HIGHLIGHTS

- Provides the integrated system solution with one stop service
- Supports up to 11KW Single-phase output
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- Optimal configuration, high cost performance ratio

PRODUCT TOPOLOGY



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
VSRS-11KW-30.7KWh 15KWp/11KW/30.7KWh	PV modules	VDL-M21/120 625W	pcs	24	8 pcs/string, 3string
	Inverter	SBMI-11KW	pcs	1	
	Batttery	SBM-L-512100	pcs	6	Power cable included
	Connector	MC4	pair	6	
	PV cable	PV1-F 1*4mm^2	m	200	
	Moniting	WIFI module	pcs	1	Optional

MODEL	VSRS-11KW-30.7KWh
System Parameter	
AC rated power	11kW
Battery capacity	30720Wh
AC voltage	110/120VAC±20% ;220/230/240VAC±20%
Rated grid frequency	50/60Hz
Inverter Parameter	
Model	SBMI-11KW
Rated power	11000VA 11000W
Frequency	50/60 Hz
Nominal Voltage	220/230/240VAC±20%
Max. Efficiency	>98% (load, full battery)
Max. PV Voltage (V)	500VDC
PV Array MPPT Voltage Range	120~500VDC
Max . Solar Input Current	150A
Max. Short Current(A)	150A
Dimensions, D x W x H(mm)	550*500*(178*6+105)
Weight (Kgs)	45.8*6+14.2(base)
Battery Parameter	
Model	SBM-L-512100
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	5120*6
Voltage Range (V)	18.4-694.4V
Max. Charge/Discharge Current(A)	25 / 50
Communicaiton	/
Weight (Kgs)	45.8*6+14.2(base)
Design Life	10 years+
Cycle Life	>6000 @25°C
Environment	
Maximum operation altitude	2000m
Working Temperature	0°~ 50°C Charge ; -10°~ 50°C Discharge
Shelf Temperature	-20°~ 60°C