

# **Household Energy Storage System**

## Introduction

Supply electricity for some residents without grid or with instable grid



Output 110/220/230/240VAC±1%; Frequency 50/60±1%Hz

## **Product advantages**

Applicable to off-grid or instable grid Environment friendly, convenient, longlife Fasy to install and use Seamless power switch Can be customized

## **Technical data**

Туре	Total load	Available Energy	Charging	Recommended
500W Off-grid system	≤500W	2kWh	8h	≤1.2kWh
1000W Off-grid system	≤1000W	4.2kWh	8h	≤2.1kWh
2KW Off-grid system	≤2000W	8.4kWh	8h	≤4.2kWh
3KW off grid system	≤3000W	8.4kWh	8h	≤4.2kWh
4KW off grid system	≤4000W	10kWh	8h	≤5kWh
5KW off grid system	≤5000W	16.8kWh	8h	≤8.4kWh
10KW off grid system	≤10KW	37.8kWh	8h	≤18.9kWh
15KW off grid system	≤15KW	42kWh	8h	≤21kWh
20KW off grid system	≤20KW	67.2kWh	8h	≤33.6kWh

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## 500W Off-grid system

1. Total load≤500W; 2. provide 2kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption 1-1.2kWh.

	Configuration							
NO.	Product name	Specification	Qty	Note:				
1	Solar panel	POLY275W	2 pcs	2 in series				
2	Bracket	C-type steel	1 set	Hot dip galvanized				
	Inverter&Controller	VDC24-500W	1 pcs	1, 20A PWM controller built-in				
3	integrated cabinet			2,Power frequency sine wave output				
	with battery pack			3, Grid/Diesel input supported				
4	Li battery	12V-120AH	2 pcs	Daily discharge: 2kWh; 2 in series connection				
5	Connector	MC4	2 pairs					
6	PV Cable	PV-F1*4mm²	40M	Panels to Inverter&Controller integrated cabinet				
7	Cable	BVR16 mm²	20M	Connecting cables between batteries and battery pack to				
7				controller&Inverter BAT terminal				

#### 1000W Off-grid system

1. Total load≤1000W; 2. provide 4.2kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤2.1kWh.

	Configuration							
No.	Product name	Specification	Qty	Note:				
1	Solar panel	POLY-275W	4pcs	2 in series connection* 2 parallel, 2 parallel connected for 1 by MC transfer connector				
2	Bracket	C-type Steel	1set	Hot dip galvanized				
	Inverter&Controller		1, 60A PWM controller built-in					
3	integrated cabinet	VDC24-2KVA	1set	2,Power frequency sine wave output				
	with battery pack			3, Grid/Diesel input supported				
4	Li battery	12V-250AH	2pcs	Daily discharge: 4.2kWh; 2 in series				
5	Connector	MC4	4pairs					
6	Transfer connector		1pair					
7	PV Cable	PV-F1*4mm²	40M	Panels to Inverter&Controller integrated cabinet				
8	Cable	BVR16 mm²	20M	Connecting cables between batteries and battery pack to controller&Inverter BAT terminal				

## 2KW Off-grid system

1. Total load≤2000W; 2. provide 8.4kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤4.2kWh.

Configuration							
No.	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	6pcs	3 series connection* 2 parallel			
2	Bracket	C-type Steel	1set	Hot dip galvanized			
	Inverter&Controller			1, 60A MPPT controller built-in			
3		VDC48-3KVA	1set	2,Power frequency sine wave output			
	integrated cabinet			3, Grid/Diesel input supported			
4	Li battery	12V-250AH	4pcs	Daily discharge: 8.4kWh; 4 in series connection			
		PV-F1*4mm²	40M	Panels to Inverter&Controller integrated cabinet			
5	Cable	BVR-16mm²	10M	Batteries to (battery end of )Inverter&Controller integrated			
5	Cable			cabinet			
		BVR-4mm <sup>2</sup>	10M	Inverter&Controller integrated cabinet AC output			
6	Battery pack	Angle steel	1	Connecting wires between batteries included			
7	Connector	MC4	4pairs				
8	Transfer connector		1pair				



## 3KW off grid system

1. Total load≤3000W; 2. provide 8.4 kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤4.2kWh.

	Configuration						
No	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	9pcs	3 series connection* 3 parallel			
2	Bracket	C-type steel	1set	Hot dip galvanized			
3	Solar Combiner box	71	1set	Lightning protection ; Fuse; Water-proof;			
	Solar Combiner box	1 304-1	1361	1, 60A MPPT controller built-in			
4	Inverter&Controller integrated cabinet	VDC48-4KVA	1set	2,Power frequency sine wave output 110/220/230/240VAC± 1%;50/60±1%Hz			
				3, Grid/Diesel input supported			
5	Li battery	12V-250AH	4pcs	Daily discharge: 8.4kWh; 4 in series connection			
		PV-F1*4mm²	60M	Panels to Combiner			
		BVR-16mm <sup>2</sup>	30M	Combiner to Inverter&Controller integrated cabinet			
6	Cable	BVR-16mm²	10M	Batteries to (battery end of )Inverter&Controller integrated cabinet			
		BVR-4mm²	10M	Inverter&Controller integrated cabinet to AC power distribution cabinet			
7	Battery rack	Angle steel	1set	Connecting wires between batteries included			
8	AC power distribution cabinet	4KW/220VAC	1set	Air switch、fusing, Lightning protection			
9	Connector	MC4	6pairs				

#### 4KW off grid system

Total load≤4000W; 2. provide10.08 kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤5kWh.

1. I ota	1. Total load≤4000W; 2. provide10.08 kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤5kWh.						
	Configuration						
No	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	9pcs	3 series connection* 3 parallel			
2	Bracket	C-type steel	1set	Hot dip galvanized			
3	Solar Combiner box	FSB4-1	1set	Lightning protection; Fuse; Water-proof;			
				1, 60A MPPT controller built-in			
4	Inverter&Controller	VDC48-5KVA	1set	2,Power frequency sine wave output 110/220/230/240VAC±			
4	integrated cabinet	VDC46-5KVA	ISEL	1%;50/60±1%Hz			
				3, Grid/Diesel input supported			
5	Li battery	12V-150AH	8pcs	Daily discharge: 10.08kWh; 4 in series connection* 2 parallel			
	PV cable	PV-F1*4mm²	60M	Panels to Combiner			
		BVR-16mm <sup>2</sup>	30M	Combiner to Inverter&Controller integrated cabinet			
6		BVR-25mm <sup>2</sup>	10M	Batteries to (battery end of )Inverter&Controller integrated			
	1 7 64516	2717 2011111	10111	cabinet			
		BVR-4mm <sup>2</sup>	R-4mm² 10M	Inverter&Controller integrated cabinet to AC power distribution			
				cabinet			
7	Battery rack	Angle steel	1set	Connecting wires between batteries included			
8	AC power	5KW/220VAC	1set	Air switch、fusing,Lightning protection			
	distribution cabinet	5.17772257710	1301	7.11 Officers (100mg , Lightning protootion			
9	Connector	MC4	6pairs				



## 5KW off grid system

1. Total load≤5000W; 2. provide 16.8 kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤8.4kWh.

	Configuration							
No	Product name	Specification	Qty	Note				
1	Solar panel	POLY-275W	18pcs	6 series connection* 3 parallel				
2	Bracket	C-type steel	1set	Hot dip galvanized				
3	Solar Combiner box	FSB4-1	1set	Lightning protection ; Fuse; Water-proof;				
4	Inverter&Controller integrated cabinet	VDC96-8KVA	1set	1, 50A MPPT controller built-in 2,Power frequency sine wave output 110/220/230/240VAC± 1%;50/60±1%Hz 3, Grid/Diesel input supported				
5	Li battery	12V-250AH	8pcs	Daily discharge: 16.8kWh; 8 in series connection				
		PV-F1*4mm²	60M	Panels to Combiner				
		BVR-16mm <sup>2</sup>	30M	Combiner to Inverter&Controller integrated cabinet				
6	Cable	BVR-16mm²	10M	Batteries to (battery end of )Inverter&Controller integrated cabinet				
		BVR-6mm²	10M	Inverter&Controller integrated cabinet to AC power distribution cabinet				
7	Battery rack	Angle steel	1set	Connecting wires between batteries included				
8	AC power distribution cabinet	8KW/220VAC	1set	Air switch、fusing, Lightning protection				
9	Connector	MC4	6pairs					

## 10KW off grid system

1. Total load≤10KW; 2. provide 37.8kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤18.9kWh.

	Configuration						
No	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	30pcs	10 series connection* 3 parallel			
2	Bracket	C-TYPE	1set	Hot dip galvanized			
3	Solar Combiner box	FSB4-1	1set	Lightning protection; Fuse; Water-proof;			
				1, 50A MPPT controller built-in			
4	Inverter&Controller	VDC220-	1set	2,Power frequency sine wave output 110/220/230/240VAC±			
4	integrated cabinet	15KVA/50A	1561	1%;50/60±1%Hz			
				3, Grid/Diesel input supported			
5	Li battery	12V-250AH	18pcs	Daily discharge: 37.8kWh; 18 in series connection			
	Cable	PV-F1*4mm²	60M	Panels to Combiner			
		BVR-16mm <sup>2</sup>	30M	Combiner to Inverter&Controller integrated cabinet			
6		BVR-16mm²	10M	Batteries to (battery end of )Inverter&Controller integrated			
0			TOW	cabinet			
		BVR-16mm <sup>2</sup> 10M	10M	Inverter&Controller integrated cabinet to AC power distribution			
		DVIV-TOITIIT	10101	cabinet			
7	Battery rack	Angle steel	1set	Connecting wires between batteries included			
8	AC power	10KW/220VAC	1set	Air switch、fusing,Lightning protection			
	distribution cabinet	101111/1/2201740	1361	All Switch, Tusing , Lightning protection			
9	Connector	MC4	6pairs				



#### 15KW off grid system

1. Total load≤15KW; 2. provide 42kWh; 2.Battery fill time need 8h; 3. Recommended daily consumption ≤21kWh.

	Configuration						
No	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	50pcs	10 series connection* 5 parallel			
2	Bracket	C-TYPE	1set	Hot dip galvanized			
3	Solar Combiner box	FSB6-1	1set	Lightning protection; Fuse; Water-proof;			
				1, 50A MPPT controller built-in			
4	Inverter&Controller	VDC240-	1set	2,Power frequency sine wave output 110/220/230/240VAC±			
7	integrated cabinet	20KVA	rset	1%;50/60±1%Hz			
				3, Grid/Diesel input supported			
5	Li battery	12V-250AH	20pcs	Daily discharge: 42kWh; 20 in series connection			
		PV-F1*4mm²	100M	Panels to Combiner			
		BVR-16mm <sup>2</sup>	30M	Combiner to Inverter&Controller integrated cabinet			
6	Cable	BVR-16mm²	10M	Batteries to (battery end of )Inverter&Controller integrated			
	Cabio	2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	10141	cabinet			
		BVR-25mm²	10M	Inverter&Controller integrated cabinet to AC power distribution			
				cabinet			
7	Battery rack	Angle steel	1set	Connecting wires between batteries included			
8	AC power	15KW/220VAC	1set	Air switch、fusing, Lightning protection			
	distribution cabinet	101111/2201710	.500	7 iii omitori, ruomig , Eightimig proteotion			
9	Connector	MC4	10pairs				

#### 20KW off grid system

1. Total load≤20KW; 2. provide 67.2kWh; 2.Battery fill time need 7h; 3. Recommended daily consumption ≤33.6kWh.

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	Configuration						
No	Product name	Specification	Qty	Note			
1	Solar panel	POLY-275W	72pcs	12 series connection* 6 parallel			
2	Bracket	C-TYPE	1set	Hot tip galvanized			
3	Solar Combiner box	FSB4-1	2set	Lightning protection; Fuse; Water-proof;			
				1, 100A MPPT controller built-in			
4	Inverter&Controller	VDC240-	1set	2,Power frequency sine wave output 110/220/230/240VAC±			
	integrated cabinet	30KVA		1%;50/60±1%Hz			
				3, Grid/Diesel input supported			
5	Li battery	12V-200AH	40pcs	Daily discharge: 67.2kWh; 20 in series connection*2 parallel			
		PV-F1*4mm²	120M	Panels to Combiner			
		BVR-16mm <sup>2</sup>	80M	Combiner to Inverter&Controller integrated cabinet			
6	Cable	BVR-25mm²	10M	Batteries to (battery end of )Inverter&Controller integrated cabinet			
		BVR-25mm²	10M	Inverter&Controller integrated cabinet to AC power distribution cabinet			
7	Battery rack	Angle steel	1set	Connecting wires between batteries included			
8	AC power distribution cabinet	25KW/220VAC	1set	Air switch、fusing, Lightning protection			
9	Connector	MC4	12pairs				



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