

Outdoor Communication Single Warehouse Cabinet

Model: HJ-SG-D01 Power: AC 220V, DC 48V, -12V

Summary

The HJ-SG-D01 series is a lineup of outdoor communication single-bay cabinets designed for floor-standing installations in the fields of communication base stations, smart cities, smart transportation systems, power systems, and more edge sites.



Outdoor Communication Single Warehouse Cabinet (HJ-SG-D01)

Product Features

Multiple Green Power Integration

This option supports the introduction of multiple power sources, such as photovoltaic, wind, and oil generators, and offers multiple voltage outputs (AC 220V, DC 48V, -12V)

High Protection Level

Cabinet protection level IP55, salt spray resistance of up to 500 hours, FRP material ensures strong anti-corrosion performance in harsh outdoor environments

Smart Thermal Management

Temperature-controlled fan with adjustable wind speed and low power consumption, supporting RS485 serial communication for data upload

Superior Insulation

Double-layer insulated structure with a low thermal conductivity coefficient of $0.024\text{W}/(\text{m}\cdot\text{K})$, ensuring optimal thermal management

Technical Parameters

Parameters

Product Specifications	Overall dimensions (width x depth x height)	900mm(W)×900mm(D)×2200mm(H) IP55 protection;
	Installation Mode	Landing
	Cooling Solution	Intelligent temperature control (Heat exchange/air conditioning, energy-saving automatic switching refrigeration)
AC Input	AC input voltage	Single phase/three phase 380VACInput (dual input interlock)
	Rectifier module	50A, fully equipped 400A Shared slot with photovoltaic module
Photovoltaic input	Photovoltaic module capacity	550Wp*8 pieces;=4.4kw
	Photovoltaic modules	50A(3000W)*2
Wind power	Wind power	600W~2000W
	Fan control module	2KW
Energy storage and backup	Lithium iron phosphate battery	100AH, 51.2V; fully equipped with 4 groups,Energy storage 20KWH

Output Characteristics	DC output voltage	432VDC~58VDC(Default 535VDC)
	Output Configuration	Battery: 4*125ADC:63A*4, 32A*4, 16A*6; AC: input 32A*3, lightning protection level C; socket: 2-way;
Monitoring unit system	Signal input	1Analog input(Battery temperature) 4Number of dry contact inputs
	Alarm output	4Road dry contact
	Communication interface	RS485
	Storage capacity	Up to 1000 historical alarm records
	Sensor	Temperature and humidity, smoke, access control, water immersion
Environment	Operating temperature	-20~+75°C(-40°CCan be started)
	Storage temperature	-40°C~+75°C
	Operating humidity	5%~95%(No condensation)
	Altitude	≤4000m(1800m~4000m, each increase in altitude200m, the temperature drops by 1°C.)

Typical configuration one: 8050

Serial number	Name	Parameter Description	Quantity	Unit
1	Outdoor cabinet body	2100*900*900 mm (H*W*D), the cabinet frame is made of 1.5mm galvanized material, with thermal insulation material inside; front/side door opening operation, wall hanging, pole, and floor installation; photovoltaic panel installation position is reserved on the top	1	Tower

Typical configuration two: 12644

Serial number	Name	Parameter Description	Quantity	Unit
1	Outdoor cabinet body	2100*900*900 mm (H*W*D), the cabinet frame is made of 1.5mm galvanized material, with thermal insulation material	1	Tower

		inside; front/side door opening operation, wall hanging, pole, and floor installation; photovoltaic panel installation position is reserved on the top		
2	Air conditioner + emergency fan	AC1500W air conditioner + air volume 20m3/min emergency fan	1	Set

Typical configuration three: 27079

Serial number	Name	Parameter Description	Quantity	Unit
1	Outdoor cabinet body	2100*900*900 mm (H*W*D), the cabinet frame is made of 1.5mm galvanized material, with thermal insulation material inside; front/side door opening operation, wall hanging, pole, and floor installation; photovoltaic panel	1	Tower

		installation position is reserved on the top		
2	Air conditioner + emergency fan	AC1500W air conditioner + air volume 20m3/min emergency fan	1	Set
3	Hybrid power box (400A)	6U high, using 3U air switch, AC input: 63A/3P*2 with interlocking device; AC lightning protection: Class C 20KA-40KA; AC output 332 A/1P*10A/1P*2, national standard socket*2; DC output Power distribution: 63A*3, 32A*3*16A*4; equipped with 3 intelligent circuit breakers, battery circuit breaker 125A*4; including monitoring unit, excluding rectifier module	1	Set
4	Rectifier module	Rectifier module 50A, high	2	Set

		efficiency		
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Typical configuration four: 24693

Serial number	Name	Parameter Description	Quantity	Unit
1	Outdoor cabinet body	2100*900*900 mm (H*W*D), 42U capacity, the cabinet adopts a sandwich composite board structure, 50mm thick insulation material, specific thermal and cold insulation functions, front door structure, IP55 protection level;	1	Tower
2	Air conditioner + emergency fan	AC1500W air conditioner + air volume 20m3/min	1	Set
3	photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	3	Set
4	Photovoltaic	Photovoltaic	1	Set

	module	module 50A, MPPT efficiency: ≥99%		
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Typical configuration five: 39128

Serial number	Name	Parameter Description	Quantity	Unit
1	Outdoor cabinet body	2100*900*900 mm (H*W*D), the cabinet frame is made of 1.5mm galvanized material, with thermal insulation material inside; front/side door opening operation, wall hanging, pole, and floor installation; photovoltaic panel installation position is reserved on the top	1	Tower
2	Air conditioner + emergency fan	AC1500W air conditioner + emergency fan with air volume 20m3/min	1	Set
3	Hybrid power box (400A)	6U high, using 3U air switch, AC input: 63A/3P*2 with	1	Set

		<p>interlocking device; AC lightning protection: Class C 20KA-40KA; AC output 332 A/1P*10A/1P*2, national standard socket*2; DC output Power distribution: 63A*3, 32A*3*16A*4; equipped with 3 intelligent circuit breakers, battery circuit breaker 125A*4; including monitoring unit, excluding rectifier module</p>		
4	Rectifier module	1U, rectifier module 50A, efficiency 95%, hot-swappable structure	2	Set
5	photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	3	Set
6	Photovoltaic module	Photovoltaic module 50A, MPPT	1	Set

		efficiency: ≥99%		
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Typical configuration six: 56152

Name	Parameter Description	Quantity	Unit
Outdoor cabinet body	2100*900*900mm (H*W*D), 42U capacity, the cabinet adopts a sandwich composite board structure, 50mm thick insulation material, specific thermal and cold insulation functions, front door structure, IP55 protection level;	1	Set
Air conditioner + emergency fan	AC1500W air conditioner + air volume 20m3/min	1	Set
Hybrid power box (400A)	6U high, using 3U air switch, AC input: 63A/3P*2 with interlocking device; AC lightning protection: Class C 20KA-40KA; AC output 332A/1P*1 0A/1P*2, national standard socket*2; DC output Power distribution: 63A*3, 32A*3*16A*4; equipped with 3 intelligent circuit	1	Set

	breakers, battery circuit breaker 125A*4; including monitoring unit, excluding rectifier module;		
Rectifier module	1U, rectifier module 50A, efficiency 95%, hot-swappable structure;	1	Set
Lithium iron phosphate battery	100AH, rack-mounted -51.2V, more than 3000 charging cycles, 16S	1	Set
photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	1	Set
Photovoltaic module	Photovoltaic module 50A, MPPT efficiency: $\geq 99\%$	1	Set

Optional accessories configuration list

Serial number	Name	Parameter Description	Quantity	Unit
1	Dynamic environment monitoring unit FSU	4 RS485 serial ports, 4 DI inputs, and 4 DO dry contact outputs. The software has a web	1	Set

		<p>management interface. The collector can be configured through a web browser. It supports access to the background monitoring system for centralized monitoring through SNMP or B interface.</p>		
2	<p>Hybrid power box (200A)</p>	<p>6U high, using 3U air switch, AC input: 63A/3P*2 with interlocking device; AC lightning protection: Class C 20KA-40KA; AC output 332 A/1P*10A/1P*2, national standard socket*2; DC output Power distribution: 63A*3, 32A*3*16A*2; battery circuit breaker 125A*2; including monitoring unit, excluding rectifier module;</p>	1	Set
3	<p>Lithium iron phosphate battery</p>	<p>100AH, rack-mounted -51.2V, more than 3000</p>	1	Set

		charging cycles, 16S		
4	Dome camera	≥2 million infrared hemisphere (POE) (can support external memory card)	1	Set
5	Smart Lock	Smart lock: remote switch, swipe card, mechanical key;	1	Set
6	Photovoltaic panel	Single crystal panel complete set 335W, including adapter and installation accessories	1	Set
7	photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	1	Set
8	Photovoltaic bracket	Suitable for ground installation of four 550W photovoltaic panels.	1	Set
9	Photovoltaic module	Photovoltaic module 50A,	1	Set

		MPPT efficiency: ≥99%		
10	Wind Turbines	1KW, including pole body 6 meters high, including wind energy control module	1	Set
11	Heat exchange	120w/K, DC 48V	1	Set
12	Simple monitoring unit	4 RS485 serial ports, 4 DI inputs, and 4 DO dry contact outputs. The software has a web management interface. The collector can be configured through a web browser. It supports access to the background monitoring system for centralized monitoring through SNMP or B interface. Environmental detection: smoke detector, access control, temperature and humidity, water	1	Set

		immersion, etc.		
13	Inverter module	3KW	1	Set
14	Rectifier module	1U, rectifier module 50A, general efficiency (92-95), hot- swappable structure	1	Set
15	Sensor	Environmental detection: smoke sensor, access control, temperature and humidity, water immersion, need to be applied to monitoring;	1	Set

Application

Communication Base Stations · Smart Cities and Transportation Systems · Power Systems · Industrial and Mining Sites · Border Defense and Field Stations · Emergency Rescue and Remote Field Construction

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