

# Outdoor Communication Single Warehouse Cabinet

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

## Summary

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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

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### 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

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

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

## 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

## 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 20m <sup>3</sup> /min	1	Set
3	Hybrid power box (400A)	6U high, using 3U air switch, AC input: 63A/3P*2 with	1	Set

		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		
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;		
<b>Rectifier module</b>	<b>1U, rectifier module 50A, efficiency 95%, hot-swappable structure;</b>	<b>1</b>	<b>Set</b>
<b>Lithium iron phosphate battery</b>	<b>100AH, rack-mounted -51.2V, more than 3000 charging cycles, 16S</b>	<b>1</b>	<b>Set</b>
<b>photovoltaic panel</b>	<b>Single crystal panel complete set 550W, including adapter and installation accessories</b>	<b>1</b>	<b>Set</b>
<b>Photovoltaic module</b>	<b>Photovoltaic module 50A, MPPT efficiency: <math>\geq 99\%</math></b>	<b>1</b>	<b>Set</b>

## Optional accessories configuration list

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

		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.		
2	Hybrid power box (200A)	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;	1	Set
3	Lithium iron phosphate battery	100AH, rack-mounted -51.2V, more than 3000	1	Set

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

		<b>MPPT efficiency: ≥99%</b>		
<b>10</b>	<b>Wind Turbines</b>	<b>1KW, including pole body 6 meters high, including wind energy control module</b>	<b>1</b>	<b>Set</b>
<b>11</b>	<b>Heat exchange</b>	<b>120w/K, DC 48V</b>	<b>1</b>	<b>Set</b>
<b>12</b>	<b>Simple monitoring unit</b>	<b>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</b>	<b>1</b>	<b>Set</b>

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

## Application

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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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