

Communication container station energy storage systems

Model: HJ-SG-R01 Power: 100AH, 51.2V, 50KWH

Summary

Highjoule HJ-SG-R01 Communication Container Station is used for outdoor large-scale base station sites.



Communication container station energy storage systems (HJ-SG-R01)

Product Features

Supports Multiple Green Energy Sources

Integrates solar, wind power, diesel generators, and energy storage systems to achieve an energy-saving solution, with a maximum load capacity of up to 600A

Easy to Transport

The cabinet is made of lightweight aluminum alloy, allowing for manual transportation. It supports factory prefabrication and can be lifted and installed as a whole unit

Durable Design

The outer layer of the cabinet is made of corrosion-resistant FRP material, making it suitable for coastal environments

Fully Integrated System

Combines power generation, energy storage, and communication infrastructure in a single system, enabling rapid and efficient deployment

Technical Parameters

Parameters

Container Product Specifications	Overall dimensions (width x length x height)	2400mm(W)×6000mm(L)×2800mm(H) IP55 protection;
	Installation Mode	Landing
	Cooling Solution	Intelligent temperature control (Fresh air system / precision air conditioning, energy-saving automatic switching refrigeration)
AC Input	AC input voltage	Single-phase/three-phase 380VAC input (dual input interlock)
	Rectifier module	50A, fully equipped 600A Shared slot with photovoltaic modules
Photovoltaic input	Photovoltaic module capacity	550Wp*12 pieces;=6.6kw
	Photovoltaic modules	50A(3000W)*4
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 50KWH

Output Characteristics	DC output voltage	432VDC~58VDC (default 535VDC)
	Output Configuration	Battery: 2*600A DC: 63A*6, 32A*4, 16A*6; AC: input 32A*4, lightning protection level C; socket: 2-way;
Monitoring unit system	Signal input	analog input (battery temperature) 4 digital dry contact inputs
	Alarm output	4-way 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(can be started at -40°C)
	Storage temperature	-40°C~+75°C
	Operating humidity	5%~95%(no condensation)
	Altitude	≤4000m (1800m~4000m, the temperature decreases by 1°C for every 200m increase in altitude.)

Typical configuration one: 140000

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*2890 (length*width*height), container 20 feet, six-sided PU thermal insulation layer, electrostatic floor laid inside, sufficient for 6 rack positions;	1	Tower

Typical configuration two: 162712

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*2890 (length*width*height), container 20 feet, six-sided PU thermal insulation layer, electrostatic floor laid inside, sufficient for 6 rack positions;	1	Tower
2	Air conditioner	3P energy-saving air conditioner, AC input	1	Set

		220V/380V, cabinet base station air conditioner, with power start, commun ication 485 interface;		
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Typical configuration three: 182085

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*2890 (length*width*height), container 20 feet, six-sided PU thermal insulation layer, electrostatic floor laid inside, sufficient for 6 rack positions;	1	Tower
2	Hybrid power supply box 600A (including AC power distribution box)	6U, rack-mounted, AC input: 100A/3P*2 with interlocking device; AC lightning protection: Class C 30KA-60KA; AC output 63A/2P**2, 16A/1P*3, national standard socket*2; DC Output power	1	Set

		distribution: 63A*4, 32A*4*16A*4; equipped with intelligent circuit breaker*3 channels, battery circuit breaker 125A*6;		
3	Rectifier module	Rectifier module 50A, high efficiency	4	Set
4	Air conditioner	3P energy- saving air conditioner, AC input 220V/380V, cabinet base station air conditioner, with power start, commun ication 485 interface;	1	Set

Typical configuration four: 193354

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*28 90 (length*wi dth*height), container 20 feet, six-sided PU thermal insulation layer, electrostatic floor laid inside,	1	Tower

		sufficient for 6 rack positions;		
2	Photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	8	Set
3	Photovoltaic module	Photovoltaic module 50A, MPPT efficiency: $\geq 99\%$	2	Set
4	Air conditioner	3P energy-saving air conditioner, AC input 220V/380V, cabinet base station air conditioner, with power start, communication 485 interface;	1	Set

Typical configuration five: 216696

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*2890 (length*width*height), container 20 feet, six-sided PU thermal insulation layer,	1	Tower

		electrostatic floor laid inside, sufficient for 6 rack positions;		
2	Dynamic environment 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 immersion, etc.	1	Set
3	Sensor	Environmental detection: smoke sensor, access control, temperature and humidity,	1	Set

		water immersion, need to be applied to monitoring;		
4	Fire extinguisher	Suspended 6kg temperature-controlled gas fire extinguishing device machine room gas fire extinguisher, heptafluoropropane	1	Set
5	Hybrid power supply box 600A (including AC power distribution box)	6U, rack-mounted, AC input: 100A/3P*2 with interlocking device; AC lightning protection: Class C 30KA-60KA; AC output 63A/2P*2, 16A/1P*3, national standard socket*2; DC Output power distribution: 63A*4, 32A*4*16A*4; equipped with intelligent circuit breaker*3 channels, battery circuit breaker 125A*6;	1	Set

6	Rectifier module	Rectifier module 50A, high efficiency	4	Set
7	Photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	8	Set
8	Photovoltaic module	Photovoltaic module 50A, MPPT efficiency: $\geq 99\%$	2	Set
9	Air conditioner	3P energy-saving air conditioner, AC input 220V/380V, cabinet base station air conditioner, with power start, communication 485 interface;	1	Set

Typical configuration six: 356974

Serial number	Name	Parameter Description	Quantity	Unit
1	Container site	5950*2500*2890 (length*width*height), container 20 feet, six-sided PU thermal insulation	1	Tower

		layer, electrostatic floor laid inside, sufficient for 6 rack positions;		
2	Dynamic environment 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 immersion, etc.;	1	Set
3	Sensor	Environmental detection: smoke sensor, access control, temperature	1	Set

		and humidity, water immersion, need to be applied to monitoring;		
4	Fire extinguisher	Suspended 6kg temperature-controlled gas fire extinguishing device machine room gas fire extinguisher, heptafluoropropane	1	Set
5	Hybrid power supply box 600A (including AC power distribution box)	6U, rack-mounted, AC input: 100A/3P*2 with interlocking device; AC lightning protection: Class C 30KA-60KA; AC output 63A/2P**2, 16A/1P*3, national standard socket*2; DC Output power distribution: 63A*4, 32A*4*16A*4; equipped with intelligent circuit breaker*3 channels, battery circuit breaker 125A*6;	1	Set

6	Rectifier module	Rectifier module 50A, high efficiency	4	Set
7	Lithium iron phosphate battery	100AH, rack-mounted -48V, more than 3000 charging cycles, 16S	8	Set
8	Photovoltaic panel	Single crystal panel complete set 550W, including adapter and installation accessories	8	Set
9	Photovoltaic module	Photovoltaic module 50A, MPPT efficiency: $\geq 99\%$	2	Set
10	Air conditioner	3P energy-saving air conditioner, AC input 220V/380V, cabinet base station air conditioner, with power start, communication 485 interface;	1	Set

Application

Telecom Networks: Ideal for powering medium- to large-scale telecom stations in off-grid areas. Other Applications: Suitable for communication base stations, smart cities, transportation, and power systems, providing stable backup power and optical fiber connectivity in edge site scenarios.

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