

# 100KWh Outdoor Cabinet Series Energy Storage System

Model: HJ-G20-100F/HJ-G50-100F□HJB-G20-100F/HJB-G50-100F    Power: 20KW/100KWh;50KW/100KWh

## Summary

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HighJoule 100KWh outdoor industrial and commercial energy storage system HJ-G20-100F/HJ-G50-100F; HJB-G20-100F/HJB-G50-100F, integrated LFP/semi-solid battery, intelligent air cooling, millisecond-level off-grid switching, support microgrid/photovoltaic/backup power scenarios. IP54 protection, 8000 cycles, 15-year design life, help industrial and commercial peak load shaving and valley filling, and optimize electricity costs.



*100KWh Outdoor Cabinet Series Energy Storage System (HJ-G20-100F/HJ-G50-100F□HJB-G20-100F/HJB-G50-100F)*

## Product Features

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100KWh High-Capacity Storage

100KWh LFP/SSB 3.2V/280Ah battery with over 8000 cycles at 70% DOD, ensuring

stable long-term energy supply for commercial and industrial needs.

#### Rugged Outdoor Design

IP54 protection + C4/C5 anti-corrosion grade, operating at -30°C~50°C and 5%-95% humidity (non-condensing) for harsh outdoor environments.

#### Modular & Scalable

Supports parallel connection expansion; 20kW/50kW options with 30kW/75kW max PV input, adapting to growing energy demands.

#### All-in-One Integrated Cabinet

Integrates BMS, EMS, PCS, and fire protection system, reducing installation complexity and improving operational efficiency.

#### Ultra-High Efficiency

98.4% maximum efficiency and 97.5% European efficiency with less than 3% THDi, minimizing energy loss for higher output.

#### Intelligent Remote Monitoring

Supports RS485, CAN, Ethernet and Modbus protocols for real-time data transmission and remote operation via EMS platform.

#### Multi-Layer Safety Protection

PACK-grade aerosol + cabinet-grade perfluorohexanone fire suppression + less than 10ms off-grid switching for comprehensive safety.

#### Flexible Application Scenarios

Suitable for peak shaving, PV self-consumption and backup power; compatible with 380/400V grid and off-grid modes.

## Technical Parameters

Technical Parameters	HJ-G20-100F/HJB-G20-100F	HJ-G50-100F/HJB-G50-100F
<b>DC Side Parameters</b>		
<b>Cell Type</b>	<b>LFP3.2V/280Ah□SSB 3.2V/280Ah</b>	<b>LFP3.2V/280Ah□SSB 3.2V/280Ah</b>
<b>Combined Configurations</b>	<b>1P112S</b>	<b>1P112S</b>
<b>Energy Rating</b>	<b>100kWh</b>	<b>100kWh</b>
<b>Voltage Range</b>	<b>280~408V</b>	<b>280~408.8V</b>
<b>Number Of Cycles</b>	<b>&gt;8000 cycles @70%EOL,25°C</b>	<b>&gt;8000 cycles @70%EOL,25°C</b>
<b>Communication Interface</b>	<b>RS485,CAN,Ethermet</b>	<b>RS485,CAN,Ethernet</b>
<b>Standards-compliant</b>	<b>gb/t 36276,gb/t34131</b>	<b>gb/t 36276,gb/t34131</b>
<b>AC Parameters</b>		
<b>Photovoltaic input parameters</b>		
<b>Maximum Input Power</b>	<b>30kW</b>	<b>75kW</b>
<b>Maximum Input Voltage</b>	<b>1000V</b>	<b>1000V</b>
<b>MPPT Voltage Range</b>	<b>180V-900V</b>	<b>180V~900V/630V</b>
<b>Starting Voltage</b>	<b>120V</b>	<b>180V</b>
<b>Maximum Input Current</b>	<b>28A/28A</b>	<b>36A/36A/36A/36A/36A</b>

<b>Maximum short-circuit current</b>	<b>32A/32A</b>	<b>42A/42A/42A/42A</b>
<b>Number of MPPTs</b>	<b>2</b>	<b>4</b>
<b>Number of strings per MPPT input</b>	<b>45690</b>	<b>2/2/2/2</b>
<b>Grid-connected output parameters</b>		
<b>Rated output power</b>	<b>20kW</b>	<b>50kW</b>
<b>Rated grid voltage</b>	<b>380/400V,3L/N/PE</b>	<b>380/400V,3L/N/PE</b>
<b>Rated current</b>	<b>31A</b>	<b>75A</b>
<b>Power factor</b>	<b>1 (0.8 ahead ~ 0.8 lag can be set)</b>	<b>~1 (0.8 ahead ~ 0.8 lag can be set)</b>
<b>Rated grid frequency</b>	<b>50/60Hz</b>	<b>50/60Hz</b>
<b>Total current waveform distortion rate (THDi)</b>	<b>2000m derating)</b>	
<b>Fire Fighting Methods</b>	<b>PACK-grade aerosol + cabinet-grade perfluorohexanone + active warning</b>	<b>PACK-grade aerosol + cabinet-grade perfluorohexanone + active warning</b>
<b>External communication protocol</b>	<b>Modbus RTU,CAN20,Modbus TCP</b>	<b>Modbus RTU,CAN2.0,Modbus TCP</b>

## Application

The HighJoule 100KWh Outdoor Cabinet Series (HJ-G20-100F/HJ-G50-100F; HJB-G20-100F/HJB-G50-100F), equipped with LFP/SSB 3.2V/280Ah batteries, offers 98.4% efficiency and >8000 charge cycles, designed for commercial and industrial use. With an IP54 protection and C4/C5 anti-corrosion grade, it operates reliably in harsh environments. Ideal for solar microgrids, peak shaving, PV self-consumption, and emergency backup power, its modular design and 20kW-50kW scalable capacity support up to 75kW photovoltaic input. Featuring

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