

B04 SERIES

Outdoor Air-cooled Energy Storage Cabinet



Product Introduction

This system highly integrates multiple core modules, including energy storage batteries, battery management systems (BMS), hybrid inverters, air-cooled thermal management systems, high-voltage boxes, and automatic fire protection systems. It primarily provides commercial and industrial users with efficient, safe, and intelligent power storage and scheduling solutions, supporting multiple application scenarios such as peak shaving and valley filling, self-consumption of self-generated power, and on/off-grid switching.



Complete Functions

It supports remote and local control, on-grid/off-grid operation, and allows real-time access to status and fault information anytime, anywhere.



Easy Installation

All components are integrated into the cabinet. On-site installation only requires connecting external wiring harnesses, with no secondary assembly needed.



Safe and Reliable

Built-in smoke detectors, temperature sensors, temperature control systems, and fire protection systems continuously monitor the internal status of the cabinet. In case of emergencies, the system can suppress or control the situation immediately.



Convenient Transportation

Supports transportation with battery modules installed.



Model: WKC	
Battery Type	
Module Capacity (Ah)	
Module Nominal Voltage (Vdc)	
Module Energy (kWh)	
Number of Battery Modules in Series	
System Nominal Energy (kWh)	
System Nominal Voltage (Vdc)	
System Operating Voltage (Vdc)	
Max Charge/Discharge Current (A)	
Fire Protection System	
Cooling Method	
Communication Port	
Operating Temperature (°C)	
Recommended Storage Temperature (°C)	
Humidity	
Altitude	
Protection Degree (IP Rating)	
Anti-corrosion Grade	
Dimensions (L*W*H, mm)	
Weight (kg)	
Installation Location	
Cycle Life	
Certification	

B04-112	
	Lithium Iron Phosphate (LFP)
	314
	51.2
	16.08
	7
	112.53
	358.4
	313.6~408.8
	0.5C
	Heptafluoropropane
	Intelligent Air Cooling
	CAN/RS485
	-30~55, derating operation above 45°C
	0~35
	5%~95%RH (non-condensing)
	<3000m
	IP54
	C4-M
	1290 * 1200 (including inverter) * 2200
	1220 (including inverter)
	Outdoor Installation
	≥8000 cycles (25°C, 0.5P, 70% residual capacity)
	UN38.3, MSDS, CE

Note: The above data are for reference. In case of any changes, no further notice will be given. For special customization requirements, please contact the equipment manufacturer.

Model	SUN-50K-SG02HP3-AU-BM4(-P)
Battery Input Data	
Battery Type	Lithium Battery
Battery Voltage Range (V)	160~800
Max. Charging Current (A)	100(160)
Max. Discharging Current (A)	100(160)
Lithium Battery Charging Strategy	Adaptive BMS
PV String Input Data	
Max. DC Input Power (W)	100000
Max. PV Input Power (W)	80000
Max. PV Input Voltage (V)	1000
Startup Voltage (V)	180
MPPT Voltage Range (V)	150~850
Rated PV Input Voltage (V)	600
Max. Operating PV Input Current (A)	36+36+36+36
Max. Input Short Circuit Current (A)	55+55+55+55
No. of MPP Trackers / Strings per Tracker	4/2+2+2+2
AC Input/Output Data	
Rated AC Input/Output Active Power (W)	50000
Max. AC Input/Output Apparent Power (VA)	55000
Rated AC Input/Output Current (A)	75.8/72.5
Max. AC Input/Output Current (A)	83.4/79.8
Max. Continuous AC Passthrough Current (Grid to Load) (A)	200
Peak Power (Off-grid) (W)	1.5 times rated power, lasting for 10s
Power Factor Adjustment Range	0.8 leading ~ 0.8 lagging
Rated Input/Output Voltage/Range (V)	220/380V、 230/400V; 0.85Un-1.1Un
Rated Input/Output Grid Frequency/Range (Hz)	50/45-55、 60/55-65
Grid Connection Form	3L+N+PE
Total Current Harmonic Distortion THDi	<3%(at rated power)
DC Injection Current	<0.5%In
Efficiency	
Max. Efficiency	97.0%
MPPT Efficiency	>99%
Integrated Protection Features	DC Reverse Polarity, AC Overvoltage/Overcurrent/Short Circuit, Over-temp, DC Component Mon., AFCI (Opt.), Anti-islanding, DC Switch, Insulation & Residual Current Det.
Surge Protection Level	TYPE II(DC), TYPE II(AC)

Model	SUN-50K-SG02HP3-AU-BM4(-P)
Equipment Interface	
Display Interface	LCD
Communication Interface	WIFI/RS485/CAN
Monitoring Method	GPRS/WIFI/Bluetooth/4G
Basic Parameters	
Operating Temperature Range (℃)	-40~+60
Permissible Ambient Humidity	0~100%RH
Permissible Altitude	<3000m
Noise (dB)	≤65
Protection Level	IP65
Inverter Topology	Non-isolated
Overvoltage Category	OVC II (DC) ,OVC III (AC)
Cabinet Dimensions (W*H*D, mm)	528*793*278 (excluding connectors and brackets)
Weight (kg)	65
Cooling Method	Intelligent air cooling
Warranty Period	Standard 5 years, extendable
Grid Regulation	AS/NZS 4777.2
Safety/EMC Standard	IEC/EN 61000-6-1/2/3/4、 IEC/EN 62109-1、 IEC/EN 62109-2