

F07 SERIES Portable

Household energy storage lithium battery



Product Introduction

The F07 portable power supply series adopts a control technology that combines analog and digital technology, with multiple comprehensive soft and hard protections. It can efficiently control the energy conversion between solar energy, mains electricity, battery energy storage and loads, with a peak efficiency of over 90%. It has over-temperature, overload and short-circuit protection, supports non-linear loads and motor starting applications, and is widely used in mobile and home energy storage.



Excellent load adaptability: 50Hz pure sine wave AC power with strong overload capacity makes it suitable for a wide range of IT equipment, power tools, and household appliances, regardless of load.



High safety factor: with over-temperature, overload, overvoltage, undervoltage, short circuit and other protections, supporting non-linear load and motor starting applications;



High Performance and Compact Size: Utilizing advanced design technology, the product offers low loss and heat generation, peak efficiency exceeding 90%, high power density, and a compact footprint.

Model: WKC		F07-200	F07-300
Rated power		200W	300W
Rated capacity		1kWh	
Number of output phases		Single-phase output	
Battery type		Single lithium iron phosphate battery string	
Grid Mode	Rated input voltage	230 Vac	
	Input voltage range	176~264 Vac	
	Rated input frequency	50/60 Hz	
	Power factor	≧ 0.97 full load	
	Maximum input current	1.5A	2A
Inverter Mode	Efficiency	85.0% max	
	Output voltage	176~230 Vac ± 5%	
	Rated output frequency	50/60 Hz	
	Grid-switched inverter mode	20 ms	
Photovoltaic Input	Maximum solar charging power	200W(input 20V or higher)	
	PV voltage range	12~36 Vdc	12~55 Vdc
	PV startup voltage	≥9.1V	
	Maximum input current limit	10A	
	Maximum open-circuit voltage	42 Vdc	60 Vdc
	MPPT tracking efficiency	≥99%	
	PV to battery charging efficiency	90%(max)	
Battery	Battery rated voltage	3.3 Vdc (discharge mode, battery voltage ≥ 2.6V starts)	
	Battery voltage range	2.8~3.65 Vdc	
	Charging method	Three-stage charging (lithium iron phosphate battery)	
	Battery undervoltage threshold	2.8±0.1V	
	Battery overvoltage threshold	3.65±0.1V	
Protection Function	Inverter protection function	Input undervoltage, overvoltage, output overload, overtemperature, and short-circuit protections	
Size	Height*width*depth	290*230*135mm	
	Net weight	8.7kg	
Operating Environment	Usage scenario	Indoor	
	IP rating	IP21	
	Noise level	< 50dB	
	Humidity	5%~95% relative humidity	
	Operating temperature	-0°C~60°C(power derating applies at 45°C~60°C)	
	Storage temperature	-20°C~ 60°C	
	Altitude	3000m (power derating applies above 2000m)	
	Cooling method	Forced air cooling (two internal 5V/0.15A fans)	

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.