



广州富能电力科技有限公司  
Guangzhou Funeng Electric Power Technology Co., Ltd

型号/Our model:  
SGR-PPS3012-3C Pro

编号/Numbered:  
YF-GPPS059

版本/Version: V1.0

日期/Date: 2022-10-10

# 承认书

## SPECIFICATION FOR APPROVAL

### Portable Power Station/便携储能电源

客户:

CUSTOMER: \_\_\_\_\_

产品描述:

DESCRIPTION: 296Wh /300W AC220V /DC12V /PD100W

机种型号:

OUR MODEL NO: SGR-PPS3012-3C Pro

DATE: 2022-10-10

COLOR 颜色:  Black 黑+Dark Grey 铁灰

AC OUTLET 插座:  Universal 通用  GB 国标  UK 英规  EU 德规

AC VOLTAGE 电压:  100V  110V  220V FREQ 频率:  50Hz  55Hz  60Hz

Battery Capacity 电池:  296Wh/80000mAh

#### APPROVAL SIGNATURE/客户确认

核准/APPROVED BY	审核/CHECKED BY	检测/TESTED BY

#### Manufacturer/制造商

制作/Make	检测/TESTED BY	核准/APPROVED BY

Company website: <https://fnepower.en.alibaba.com/>

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## I.SPECIFICATION (产品规格书)

Battery Power/电池容量	296Wh $\pm$ 5%(20Ah/14.8V) High Quality Lithium Batteries 高品质锂电池
AC Input Charging /充电	External 19V3A Adapter/外置 19V3A 适配器 (恒流)
CAR Input Charging /充电	DC12V~24V/120W Max (Start Car Charging/启动汽车充电)
Solar Panel Input/太阳能充电	DC12V~24V/120W Max
USB-C Charging/USB-C 充电	PD100W Max (由于 PD 充电存在线损, 电池端最大充电功率在 80-85W)
DC Output /直流输出	1x Cigarette Lighter/点烟器输出+2x DC Rated Output /DC5521 额定输出 12.8~16.5V/10A (Total 10A Max)
AC Output/交流电输出	Pure SineWave Output;纯正弦波输出; AC Continuous Output/输出额定功率: 300W Max AC Max Output/峰值输出功率: 600W@1 seconds (秒) AC Voltage/输出: 220VAC $\pm$ 10% Output Frequency/输出频率: 50Hz $\pm$ 5%
AC Plug support/交流插座支持	1x 3-pin UK outlet/英规插座
USB Output/输出	USB-C1: 双向 PD100W Max, 5V5A&9V5A&12V5A&15V5A&20V5A PD3.0 USB-C2: PD27W Max, 5V3A&9V3A&12V2.25A PD3.0 USB-A1: Blue QC24W Max, 5V3A&9V2A&12V2A QC3.0 USB-A2: Blue QC24W Max, 5V3A&9V2A&12V2A QC3.0
Bulb Type/照明	2W Max, 3 Levels( L/M/H) + SOS+Strobe 三挡亮度可调 (低、中、高) + SOS+频闪
Operation temperature/工作温度	0 $^{\circ}$ C~40 $^{\circ}$ C
Lifecycle/循环寿命	1000 times charge-discharge cycles 充放电循环后 DOD $\geq$ 80% (注: 25 $^{\circ}$ C 环境 0.3C)
Charge While Discharge/边充边放	Support 支持
Product Size/产品尺寸	230*140*169mm L*W*H
Product Weight/产品重量	About 3.2kgs, without package and accessories (单个产品裸机净重, 不含包装及配件重量)
MultiSafety Protections/产品保护	a. Short-circuit protection/短路保护 b. Over-current protection/过流保护 c. Over-voltage protection/过压保护 d. Low-voltage protection/欠压保护 e. Over-load Protection/过载保护 f. Over-temperature protection/过温保护
Certification/安规认证	CE/ROHS/UN38.3/MSDS/OCEAN/AIR shipment Report/AC adapter(UL/CE)
Accessories/产品配件	1 x AC Power Adapter 适配器 1 x AC Power Cord-UK Standard AC 英规电源线 (按订单要求) 1 x Car Cigarette Cable 点烟器转接线 1 x User manual 说明书



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## II.DC OUTPUT PARAMETERS (DC 输出参数) 注: 测试环境温度 25°C ± 3°C

项目 Item	USB Outputs/输出				5521DC/DC 座输出		Cigarette Lighter 点烟器座
	USB-C1	USB-C2	USB-A1	USB-A2	DC1	DC2	
Output Voltage Range(V) 输出电压范围(V)	5V~20V AUTO	5V~12V AUTO		5V~12V AUTO	12.8V~16.5V		
Ripple&Noise 纹波&噪音 (mV) Vp-p	<150 mV	<150 mV		<150 mV	<150 mV		
Output Current 输出电流	5V5A&9V5 A&12V5A &15V5A&2 0V5A	5V3A&9V3 A&12V2.25 A	5V3A&9V2 A&12V2A	5V3A&9V2 A&12V2A	10A		
Over Current point 输出过流点	>5.1A	>3.1A	>3.6A	>3.6A	>10.1A		
Rated Power 额定功率	100W Max	27W Max	24W Max	24W Max	120W Max		
Over-Load Protection 过载保护方式	Recover when loads removed and reconnection 负载去除后重新插入恢复				Locked,need re-start 锁死, 需重启开关激活		
Short-Circuit Protection 短路保护方式	Recover when loads removed and reconnection 负载去除后重新插入恢复				Locked,need re-start 锁死, 需重启开关激活		
Remark 备注	<p>1.Ripple&amp;Noise test method: Connect the unit and the loads by a 30cm long stranded wire. Load is connected with A 0.1uF ceramic disk capacitor &amp; 10uF electrolytic (low ESR) capacitor. Test the load with 20M oscilloscope. 纹波测试用 30CM 长绞线连接电源和负载, 负载端并 0.1uF 和 10uF 电容, 用 20M 示波器于负载端测试。</p> <p>2.When DC and AC Output work at the same time, the maximum output power shall not be exceed 300W DC 输出跟 AC 输出同时使用时, 最大输出功率不超过 300W。</p> <p>3.When DC Output work at the same time, the maximum output power shall not be exceed 240W DC 输出同时使用时, 最大输出功率不超过 240W。</p> <p>4.DC1-DC2 and Cigarette port total output current do not exceed 10A. DC1-DC2 以及点烟器座合计最大输出电流 10A.</p> <p>5.USB-C2 PD27W 与 USB-A1 QC24W 为同一电路, 当单独使用 USB-C2 口时为 PD27W, 当单独使用 USB-A1 口时为 QC24W, 两口同时使用输出 5V4.8A Max。</p> <p>The USB-C2 PD27W and the USB-A1 QC24W are the same circuit. When the USB-C2 port is used alone, it is PD27W, and when the USB-A1 port is used alone, it is QC24W. Both ports are used at the same time to output 5V4.8A Max.</p>						



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### III. INVERTER PARAMETERS (逆变器输出参数) 注: 测试环境温度 25°C ± 3°C

范围 Range	Min 最小值	典型值 Typical	Max 最大值	Unit 单位	Remark 备注
Output Voltage Range(V) 输出电压范围	200	230	240	V	
Output Frequency 输出电压频率	50HZ±5%			Hz	
Output Waveform 输出波形	Sine wave 正弦波				
Rated Power 额定 输出功率	Resistive load/阻性负载	300W MAX		W	负载 PF ≥ 0.8
	Inductive load/感性负载	≥ 240W			
	capacitive load/容性负载	≥ 240W			
Output VA 输出伏安	230V/1.3A Max			VA	
Surge power (Resistive load) 峰值输出功率(阻性负载)	300W@1s			W	
Standby power 待机功率	<12W			W	
Efficiency (Resistive load) 转换效率(阻性负载)	>88%			%	逆变 DC 输入板端 Inverter DC Input Board
Over-load power(Resistive load) 过载功率(阻性负载)	360±50W			W	
Overload Protection Mode 过载保护方式	Locked, need re-start 锁死, 需重启开关激活				
short circuit protection Mode 短路保护方式	Locked, need re-start 锁死, 需重启开关激活				
Over Temperature protection Mode 过温保护方式	Locked, need re-start 锁死, 需重启开关激活				
Heat-Dissipating Method 散热方式	Built-in Cooling Fan 内置主动散热风扇				
Fan to Run When Temperature Meets 启动散热风扇温度	≥ 65			°C	前级 MOS 管旁边的环境温度 Ambient temperature next to the front MOS Tube
Fan to Run When Temperature Meets 关闭散热风扇温度	< 40			°C	前级 MOS 管旁边的环境温度 Ambient temperature next to the front MOS Tube



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#### IV. BATTERY PACK (电池组相关参数) 注: 测试环境温度 25°C±3°C

项目 item	范围 Range	Min 最小值	Typical 典型值	Max 最大值	Unit 单位	Remark 备注
Battery Type/电池类型	Lithium Batteries/锂离子电池					
Battery Pack/电池包	4S7P/4 串 7 并					
Battery Capacity/电池容量	296Wh±5% (20Ah/14.8V 或 或 Equivalent 等效 80000mAh /3.7V)				Wh	
Charge Voltage/充电电压	12	---	---	24	V	Product 产品端
Charge cut-off Voltage/充电截止电压	16.6	16.8	---	17.0	V	Battery 电池端
Under/Over Voltage Protection 电池欠压 /过压保护	By Software(MCU) 软件保护	11.6	/	17.0	V	Battery 电池端
	By Hardware(BMS) 硬件保护	10.8	/	17.0	V	Battery 电池端
容量转换效率 Capacity conversion efficiency	85%	---	---	---	%	
	AC 额定功率 (单位: W)、放电时长 (单位: h)、电池标称容量 (单位: Wh) 容量转换效率 = [(AC 额定功率*放电时长/AC 转换效率)/电池标称容量]*100%					
充电效率 Efficiency	88%	---	---	---	%	
充电时长 Time of Charging	19V3A 适配器	5h30m	---	6h30m		
	19V3A 适配器 +PD100W 充电器	2h30m	---	3h30m		PD100W Adapter need to Purchased separately PD100W 适配器另行购买
	车载充电	3h30m	---	4h30m		启动汽车充电 Start Car Charging
	太阳能充电	受阳光强度、太阳能板类型及功率影响 (120W 太阳能板串联, 并且在阳光充足情况下 3-4 小时) Affected by sunlight intensity, solar panel type and power (120W solar panels connected in series, and 3-4 hours in full sun)				

#### V. ENVIRONMENT (环境)

Work Temperature 工作温度	0°C~40°C
Work Humidity 工作湿度	20%~85%RH
Storage Temperature 存储温度	-20°C~60°C
Storage Humidity 存储湿度	20%~85%RH

