

All-in-One

CFE-Power Stream 1 / CFE-Power Stream 2

500W / 1.0kWh Portable Solar & Grid Power Box / 1000W / 2.0kWh Portable Solar & Grid Power Box



Leading Technology

- Advanced inverter technology enables direct AC 220V power conversion from a single battery cell, Proprietary power-conversion and protection architecture with integrated monitoring and safety logic. (Battery Management System) and resolving the issues caused by voltage differences between battery cells.



High Quality and Competitive Price

- Cost-effective options.
- Superior minimalist design.
- Aluminum alloy casing with excellent heat dissipation.



Ultra Safety Reliability

- Lithium iron phosphate battery with highest safety rating.
- Multiple safety protection strategies.
- Featuring quick-connect technology and insulation protection.
- Portable and easy to use.



Comprehensive Smart System

- Simple and reliable small off-grid system.
- Can be charged with a single solar panel and features fast charging speed.

| Model | | Power Stream 1 | | Power Stream 2 | |
|---------------------------------|--------------------|---|--|---|--|
| Output | | | | | |
| AC Output | Rated Voltage | 220 – 230 Vac | | | |
| | Rated Power | 500 W | | 1000 W | |
| | Overload Power | 600 W (10s) | | 1100 W (10s) | |
| | Frequency | 50 / 60 Hz | | | |
| DC Output | USB-A Output: | 5 Vdc, 2.4 A max, QC3.0 up to 18 W | | | |
| | USB-C Output: | 5 Vdc, 2.4 A max, QC3.0 up to 18 W | | | |
| | 12V DC Output | 12 Vdc, 10 A max (120 W max) | | | |
| Input | | | | | |
| AC Charging Input | | 90 – 280 Vac, 45 / 65 Hz 500 W max | | 90 – 280 Vac, 45 / 65 Hz 1000 W max | |
| PV Input (MPPT) | MPPT Voltage Range | 11 – 55 Vdc | | | |
| | MPPT Connector | XT 60 | | | |
| | Max. Input Power | 300 W | | 550 W | |
| Battery | | | | | |
| Battery Type | | Lithium Iron Phosphate · LFP (LiFePO4) | | | |
| Nominal Voltage | | 3.2 Vdc | | 6.4 Vdc | |
| Battery Voltage Range | | 2.8 - 3.6 Vdc | | 6.0 - 7.3 Vdc | |
| Capacity | | 314 Ah | | | |
| Total Energy | | 1.005 kWh | | 2.009 kWh | |
| Max. Charge Current | | 150 Adc | | | |
| Max. Discharge Current | | 150 Adc | | | |
| General | | | | | |
| Ingress Protection | | IP21 | | | |
| Charge Operating Temperature | | -10 to 70 °C | | | |
| Discharge Operating Temperature | | -20 to 70 °C | | | |
| Size (W × D × H) | | 310 × 210 × 142 mm (12.2 × 8.27 × 5.59 in) | | 233 × 310 × 255 mm (9.17 × 12.20 × 10.04 in) | |
| Net Weight | | 9.8 kg | | 19 kg | |
| Certification | | CE / RoHS / SAA / FCC / PSE | | | |
| Warranty | | 3 years | | | |
| Design Cycle Life | | 8000 cycles | | | |

Real-World Runtime Examples

All runtimes are theoretical values based on 1,005Wh battery energy with typical appliance power. Results may vary with actual devices and conditions.(Assumes 25 °C and new battery.)

1. Household & Shop Scenarios

| Scenario & Typical Loads | Approx. Power | Estimated Runtime |
|--|---------------|-------------------|
| Essential Night – 3 × LED lights, Wi-Fi router, phones charging | 50 W | ≈ 20 hours |
| Family Evening – lights, small fan, 32" TV, Wi-Fi | 150 W | ≈ 6.7 hours |
| Small Shop Mode – shop lights, fan, POS + printer, Wi-Fi | 140 W | ≈ 7.2 hours |
| Study Mode – 2 × study lamps, laptop, Wi-Fi | 95 W | ≈ 10.6 hours |

Keep lights, fan, Wi-Fi and TV running for a full evening during power cuts with just one CFE-PS1.

2. DC & USB Device Charging

- Up to 80+ smartphone recharges (5,000mAh class, ~12Wh each)
- Around 50 tablet recharges (~20Wh each)
- About 15 full laptop charges (~65Wh battery)
- Around 35 drone battery charges (~28.4Wh pack)

can support essential communication and lighting for multiple nights, even in off-grid or weak-grid areas.

CFE ESS Co., Ltd.

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