

All In One Energy Storage System

Single Phase Home Storage Solution (LV)



IP65 Outdoor Design



Modular Design
Plug & Play



AFCI Standard



Scalable Design
Up To 30.72kWh



150% Backup
Overloading for 10 mins



RSD Ready
VPP Ready



Super Safety
Aerosol fire extinguishing device

CF-PowerOne-5000W Series is an all-in-one solar and storage solution that integrates the inverter, battery charger, UPS-level switching, and battery enclosure into a pre-wired modular system for easier and faster installation. The compact, elegantly designed, and robust unit is IP65 rated, so it can be mounted either inside or outside withstanding all weather conditions and brings a reduction of installation time of up to 50%.

FOR SOLAR + ENERGY STORAGE SYSTEM

POWER 3 / 3.6 / 4 / 4.6 / 5 / 5.5 / 6kW

CAPACITY 5.12kWh - 30.72kWh Battery Capacity

Technical Data

PV Input

Max. Input Power (kW)	4.5	5.4	6.0	6.9	7.5	8.3	9.0
Max. PV Voltage (V)	550						
MPPT Range (V)	80 - 500						
Full MPPT Range (V)	90 - 500	110 - 500	120 - 500	130 - 500	150 - 500	160 - 500	170 - 500
Normal Voltage (V)	360						
Startup Voltage (V)	100						
Max. Input Current (A)	18.5 x 2						
Max. Short Current (A)	26 x 2						
No. of MPP Tracker / No. of PV String	2 / 2						

Battery Port

Max. Charge/Discharge Power (kW)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Max. Charge/Discharge Current (A)	80						
BaNery Normal Voltage (V)	51.2						
BaNery Voltage Range (V)	40 - 60						
BaNery Type	Li-ion / Lead-acid etc.						

AC Grid

Max Continuous Current (A)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Nominal Grid Current (A)	13.7 / 13.1	16.4 / 15.7	18.2 / 17.4	21.0 / 20.0	22.8 / 21.8	25.0 / 24.0	27.3 / 26.1
Nominal Grid Voltage (V)	198 to 242 @ 220 / 207 to 253 @ 230						
Nominal Grid Frequency (Hz)	50 / 60						
Power Factor	0.999 (Adjustable from 0.8 overexcited to 0.8 underexcited)						
Current THD (%)	< 3						

AC Load Output (Back-up)

Max Continuous Current (A)	14.0	17.0	19.0	22.0	23.0	26.0	28.0
Max Continuous Power (kVA)	3.0	3.6	4.0	4.6	5.0	5.5	6.0
Max Peak Current (A) (10min)	20.5 / 19.6	24.6 / 23.5	27.3 / 26.1	31.4 / 30	34.1 / 32.7	37.8 / 36.1	41.0 / 39.2
Max Peak Power (kVA) (10min)	4.5	5.4	6.0	6.9	7.5	8.3	9.0
Nominal AC Voltage L-N (V)	220 / 230						
Nominal AC Frequency (Hz)	50 / 60						
Switching Time (ms)	< 10						
Voltage THD (%)	< 3						

Efficiency

CEC Efficiency (%)	97.0	98.1
Max. Efficiency (%)	97.6	98.1
PV to Bat. Efficiency (%)	98.1	98.1
Bat. Between AC Efficiency (%)	96.8	96.8

Unit 5-531 Huanghua Comprehensive Bonded Zone, No.109 Dayuan Rd, Changsha, Hunan, China 430137

www.chalongfly.com

Protection

PV Reverse Polarity Protection	✓
Over Current/Voltage Protection	✓
Anti-Islanding Protection	✓
AC Short Circuit Protection	✓
Residual Current Detection	✓
Ground Fault Monitoring	✓
Insulation Resister Detection	✓
PV Arc Detection	✓
Enclosure Protect Level	IP65 / NEMA4X

General Data

Dimensions (W x H x D, mm)	600 x 430 x 210
Weight (kg)	25
Topology	Transformerless
Cooling	Intelligent Fan
Relatively Humidity	0 - 100 %
Operating Temperature Range (°C)	- 25 to 60
Operating Altitude (m)	< 4000
Noise Emission (dB)	< 25
Standby Consumption (W)	< 10
Mounting	Wall Bracket
Communication with RSD	SUNSPEC
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2
EMC	EN61000-6-2, EN61000-6-3

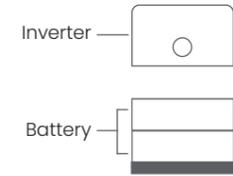
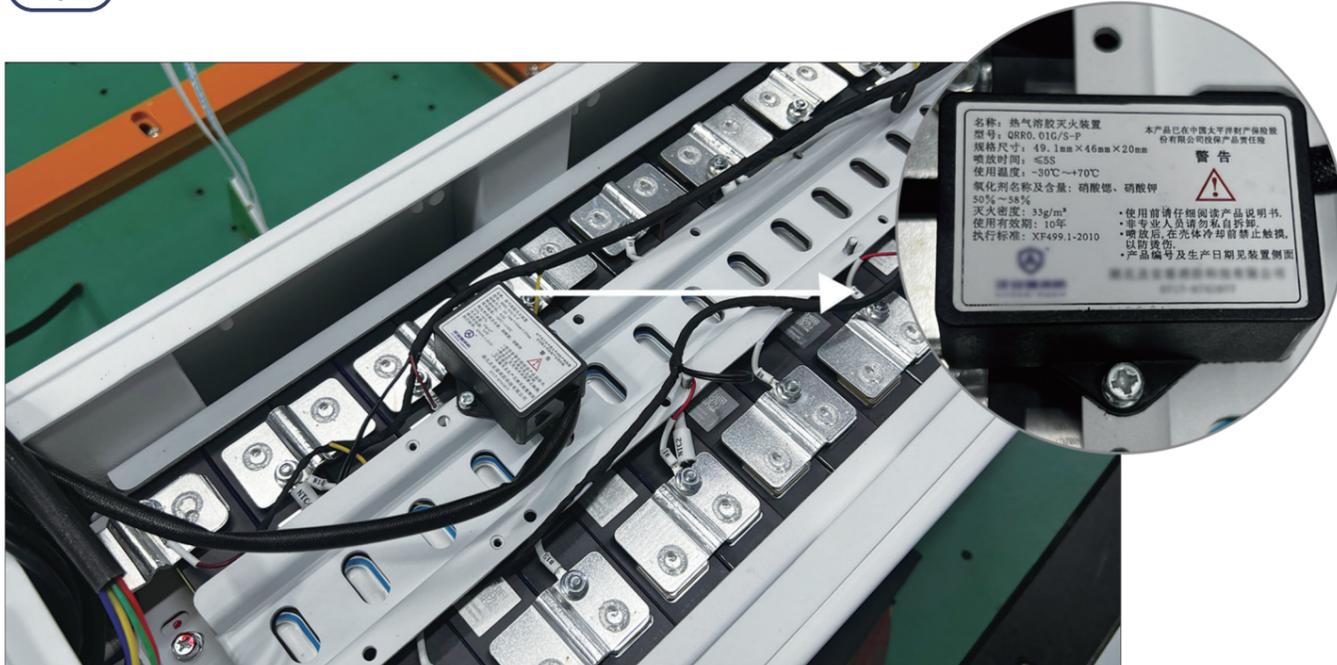
*The actual product may have slight differences from some promotional videos or pictures. Please refer to the actual product. Unless otherwise specified the data on this page are all from our company's laboratory. The data may have errors due to changes in the objective environment.

*The specifications are subject to change without prior notice.



Super Safety

Each battery pack has a built-in aerosol fire extinguishing device



1 Packs	2 Packs	3 Packs	4 Packs	5 Packs	6 Packs
5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh

Model

CF-PowerOne-5000W LE(All-In-One Stackable ESS)

Parameter

Nominal Voltage(Vdc)	51.2
Nominal Capacity(Wh)	5120
Working Voltage Range(Vdc)	44.8-56.16
Charge Voltage(Vdc)	58.4
Nominal Charge/Discharge Current(A)	50
Max.Charge/Discharge Current(A)	100
Peak Current(A)	200@3sec
Parallel Connection	≤ 6 pcs
Cycle Life	6000 @ 80% DOD, 25°C / 0.5C

Structure

Dimension(mm)	600*210*300
Weight(kg)	50.5
IP Rating	IP65
Environment	Indoor/outdoor under roof(avoid direct sunlight)
Installation	Stacked

Working Environment

Charge Working Temperature(°C)	0-55
Discharge Working Temperature(°C)	-20~60
Altitude(M)	<2500
Humidity(RH)	5-95% (w/o condensing)

Communication

Communication Port	RS485, CAN
Display	SOC status indicator, LED indicator

Certification

CB, IEC62619; CE-EMC, CE-GPSP, UKCA; UN38.3, MSDS

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