



First-class power battery system supplier  
 First-class supplier of energy storage and microgrid

# CFE Residential ESS



Global Exclusive Distributor



**CF Energy Co., Ltd.**

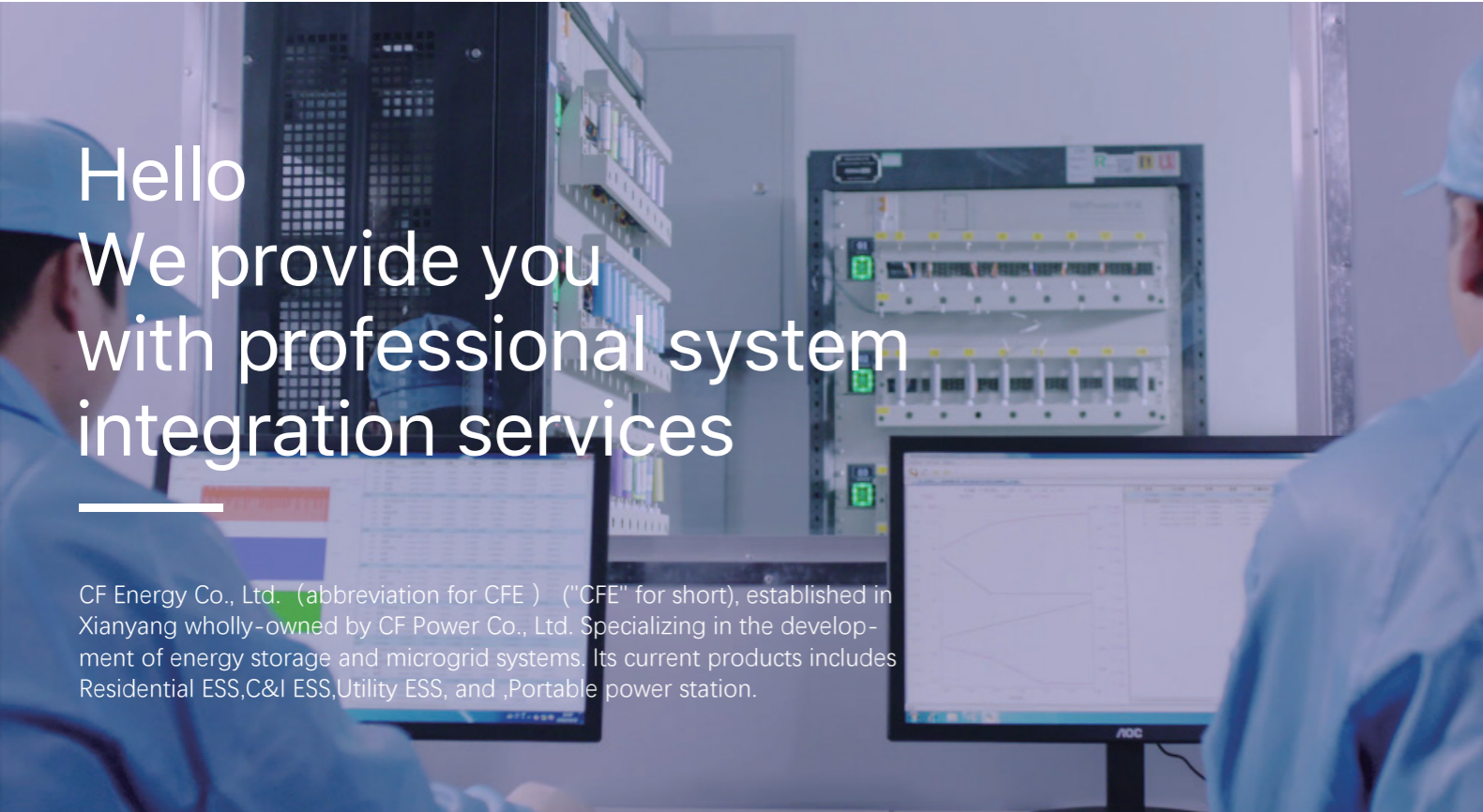
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Hello  
We provide you  
with professional system  
integration services

CF Energy Co., Ltd. (abbreviation for CFE) ("CFE" for short), established in Xianyang wholly-owned by CF Power Co., Ltd. Specializing in the development of energy storage and microgrid systems. Its current products includes Residential ESS, C&I ESS, Utility ESS, and Portable power station.



## About CFE

CFE is committed to the R&D and production of Residential ESS, actively respond to customer needs, and provide customers with professional, skill leading system integration and service solutions through technological innovation and industry chain resource integration. CFE Residential ESS can be combined with photovoltaic and other power generation systems to improve power supply quality and provide power supply guarantee for users all day; through valley time charging and peak time discharge, it can reduce household power consumption expenses of users, and at the same time, it can obtain economic benefits by selling power to the grid.



### Top 5 battery pack manufacturer in China

12 GWh manufacture capacity  
3+ GWh deployed to market  
200+ R&D engineers and scientists  
6% of revenue devoted to R&D



### Proven track record to supply to mobility industry

15% market share for power pack for e-bike  
Major player for power pack for e-bus  
Zero safety incident for deployed packs



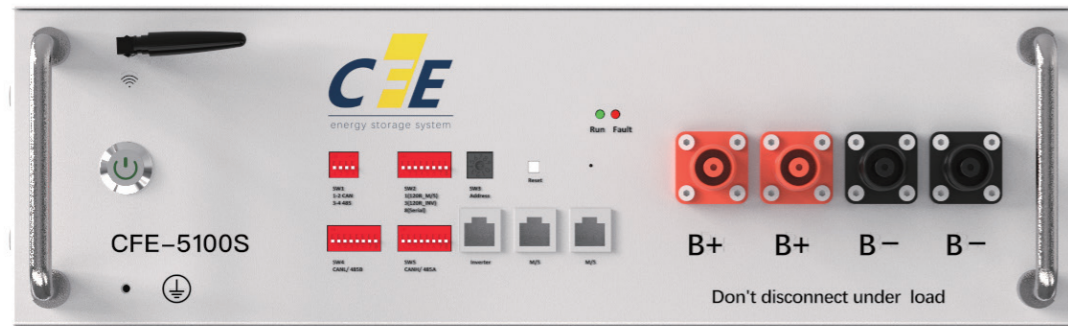
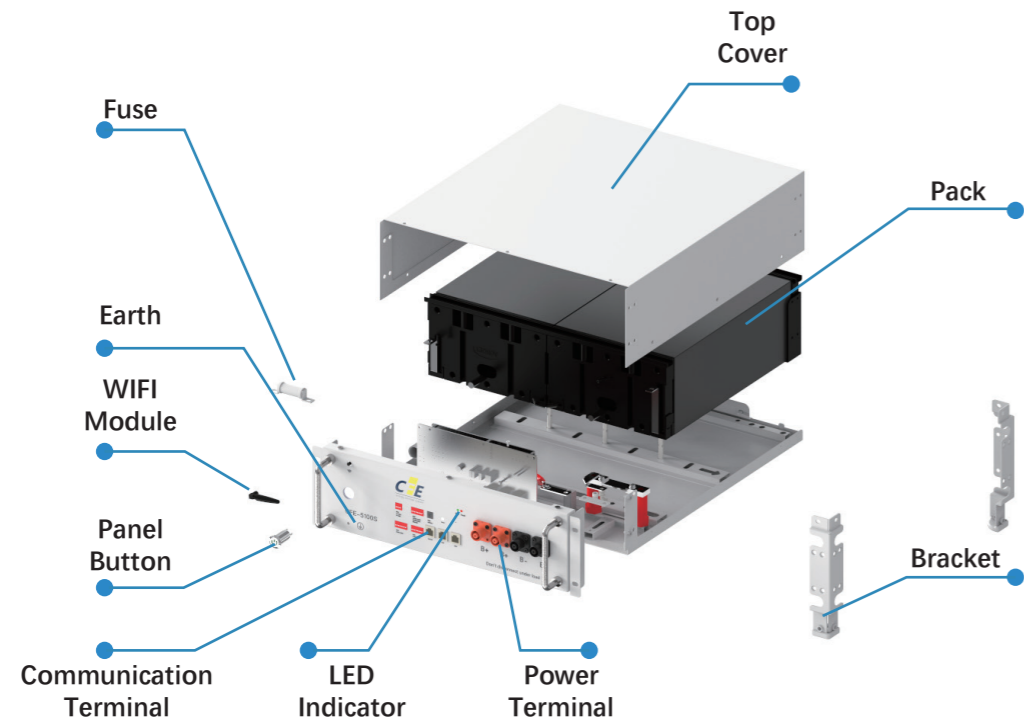
### Quality Certifications

IATF16949, ISO14001/9001, OHSAS18001





# CFE-5100S



SW1	DIP switch select for CAN or RS485
SW2	Resistance for communication and DIP switch for parallel connection
SW3	Switch for battery's Address select
SW4 & SW5	Communication interface for battery or master battery with Inverter
Reset	Reset the WIFI or GPPS/GPS module configure



## Main models & Technical spec

Model	CFE-5100S
Nominal Battery Energy	5.1kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Range of Voltage	44.8V~58.4V
Recommend C Rate	1C
Continuous Max C Rate	1C
Net Weight	51Kg
Dimension [W*D*H]	442*500*133mm
Charging Temp. Range	0 ~ 50°C
Discharging Temp. Range	-10 ~ 55°C
Calendar Life <sup>[1]</sup>	6000 Cycles
Protection Level	IP20
Communication	CAN / RS485
Certification & Safety Standard	CB (UL1973,IEC62040,IEC62619)
Warranty	10 Years
Scalability	Can be connected in parallel (≤8)

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% Dod





# CFE Residential ESS Products SPEC

## Advantages of CFE Residential ESS

- Signal module could be installed in parallel connection.
- Integrated WIFI Modem in each unit, helps to solve problem quickly for after service.
- Direct connect with smart phone and battery BMS, solve after service for those site without internet.
- Remote upgrade firmware decrease after service.
- Radom connect battery ignore the voltage different.
- Provide wall mountain and ground install methods.
- Voltage, current sampling precision, benefits SOC mathematic more accurate.
- SOC mathematic more accurately and never jump.



## Main models & Technical spec

Model	Powercube						
	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules	7 Modules	8 Modules
Battery Module	2 Modules	3 Modules	4 Modules	5 Modules	6 Modules	7 Modules	8 Modules
CFE-5100S Battery Capacity [Ah]	200	300	400	500	600	700	800
CFE-5100S Nominal Battery Energy [kWh]	10.24	15.36	20.48	25.6	30.72	35.84	40.96
Working Voltage [V]	42~54						
Operating Temp. Range [°C]	-20~50						
Calendar Life [Cycles] <sup>[1]</sup>	6000						
Nominal Voltage [V]	51.2						
Protection Level	IP65						
Communication	CAN / RS485						
Certification & Safety Standard	TUV/CE/EN62619/IEC62040/UN38.3/CEC Accredited						
Compatible Inverters	Goodwe Victron Imeon Solis Luxpower Growatt GMDE Sofar Voltronic Deye						
	Matching of other brand inverters within three days						
Warranty	10 Years						
Warranty Document Supplied	Yes						
Color	White						
Pros	Can be used in both off-grid and hybrid setups, compact design, module expansion						
Battery Protection	Over-Current/Over-Voltage/Short Circuit/Under-Voltage/Over Temperature						
Installation	Cabinet or Wall Mounting						
Protective Class	I						
Relative Humidity (R H)	20~60 (No condensed water)						
Cooling Type	Ambient cooling						

[1] Test conditions: 0.2C Charging/Discharging, @25°C, 80% Dod







Model	Powercube 1	
Battery Module	2 * CFE-5100S	4 * CFE-5100S
Nominal Voltage [V]	51.2	
CFE-5100S Battery Capacity [Ah]	200	400
CFE-5100S Nominal Battery Energy [kWh]	10.24	20.48
Working Voltage [V]	42~54	
Operating Temp. Range [°C]	-20~50	
Calendar Life [Cycles] <sup>[1]</sup>	6000	
Protection Level	IP55	
Size L*W*H [mm]	568 * 146 * 1047	580 * 387 * 1117

The color of power box shell can be customized

[1] Test condition: 0.2C Charging/Discharging,@25°C , 80%DOD



Model	Powercube 2	
Battery Module	2 * CFE-5100S	4 * CFE-5100S
Nominal Voltage [V]	51.2	
CFE-5100S Battery Capacity [Ah]	200	400
CFE-5100S Nominal Battery Energy [kWh]	10.24	20.48
Working Voltage [V]	42~54	
Operating Temp. Range [°C]	-20~50	
Calendar Life [Cycles] <sup>[1]</sup>	6000	
Protection Level	IP55	
Size L*W*H [mm]	568 * 146 * 1300	580 * 387 * 1300

The color of power box shell can be customized

[1] Test condition: 0.2C Charging/Discharging,@25°C , 80%DOD

