

# BESS Residential Solution



CF Energy GmbH  
Custozzagasse 13 / Top 4,  
1030, Vienna, Austria  
Tel: +43 664 9996 3994  
Web: <https://cfenergy.co/>  
E-mail: [emea@cfenergy.co](mailto:emea@cfenergy.co)



**PICC**



# Top Li-ion Battery Manufacturer in China

- More than 200 experienced engineers team
- R&D investment exceeds 6% of sales revenue
- 12GWh annual fully automatic lithium battery production capacity
- The R&D management team has more than 20 years of experience in the clean energy industry





### Safety

LFP (Lithium Iron Phosphate) the highest safety



### Up to 8 Series or Parallel

Flexible to increase voltage capacity without any other equipment or settings



### Cycle Life

≥6000 Cycles



### WiFi & APP

Integrated WiFi Modem  
OTA online upgrade convenient after-sales service



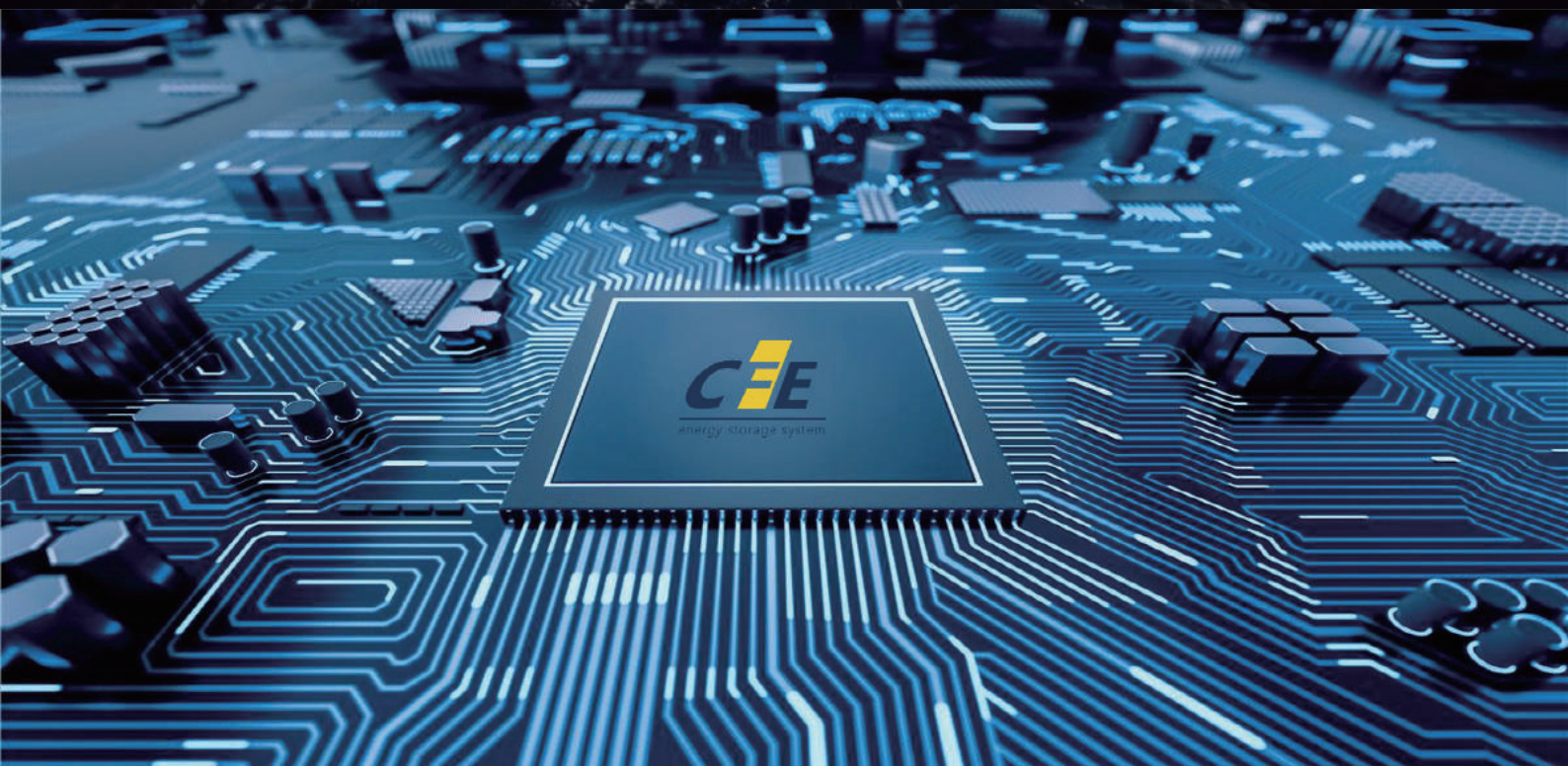
### Installation

Simple buckle fixing  
minimize the installation time and cost



### High-precision SOC

Accurate sampling of voltage and current SOC mathematic more accurate and never jump



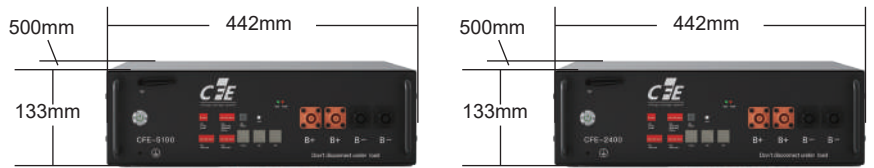
RECOGNIZED  
COMPONENT



PICC



Intertek



| Basic Parameters               | CFE 5100         | CFE 2400        |
|--------------------------------|------------------|-----------------|
| Nominal Voltage (V)            | 51.2             | 51.2            |
| Nominal Capacity (Wh)          | 5120             | 2457            |
| Usable Capacity (Wh)           | 4608             | 2211            |
| Dimension (mm)                 | 442*500*133      | 442*500*133     |
| Weight (kg)                    | 42               | 27              |
| Voltage (V)                    | 48 ~ 56          | 48 ~ 56         |
| Charge / Discharge Current (A) | 60 (Recommend)   | 30 (Recommend)  |
|                                | 60 (Max)         | 48 (Max)        |
|                                | 100 (Peak @ 15s) | 60 (Peak @ 15s) |



|                                    |                                        |
|------------------------------------|----------------------------------------|
| Commucation Port                   | CAN / RS485                            |
| Single string quantity (pcs)       | 8                                      |
| Working Temperature/°C (Charge)    | 0~45                                   |
| Working Temperature/°C (Discharge) | -10~55                                 |
| Shelf Temperature/°C               | -20~60                                 |
| Humidity                           | 5~85%                                  |
| Altitude (m)                       | <2000                                  |
| IP Rating                          | IP20                                   |
| Warranty                           | 10 years                               |
| Cycle life [1]                     | 6000                                   |
| Authentication Level               | CE & TUV (IEC 62619, IEC 62040) UN38.3 |
| Cooling Type                       | Ambient Cooling                        |
| Installation                       | Cabinet or Wall Mounting               |

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



| Basic Parameters                      | Powercube (Parallel)     |           |           | Powercube (Series) |           |           |
|---------------------------------------|--------------------------|-----------|-----------|--------------------|-----------|-----------|
| Battery Module                        | 2 Modules                | 3 Modules | 4 Modules | 2 Modules          | 3 Modules | 4 Modules |
| CFE-2400 Battery Capacity (Ah)        | 96                       | 144       | 192       | 48                 | 48        | 48        |
| CFE-5100 Battery Capacity (Ah)        | 200                      | 300       | 400       | 100                | 100       | 100       |
| CFE-2400 Nominal Battery Energy (kWh) | 4.914                    | 7.317     | 9.828     | 4.914              | 7.317     | 9.828     |
| CFE-5100 Nominal Battery Energy (kWh) | 10.24                    | 15.36     | 20.48     | 10.24              | 15.36     | 20.48     |
| Working Voltage (V)                   | 48~56                    | 48~56     | 48~56     | 96~112             | 114~168   | 192~224   |
| Nominal Voltage (V)                   | 51.2                     | 51.2      | 51.2      | 102.4              | 153.6     | 204.8     |
| Operating Temp. Range (°C)            | -20 ~ 50                 |           |           |                    |           |           |
| IP Rating                             | IP55                     |           |           |                    |           |           |
| Color                                 | White / Silver           |           |           |                    |           |           |
| Installation                          | Cabinet or Wall Mounting |           |           |                    |           |           |

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

| Battery Specifications            | CREEK2-5-A                     | CREEK2-10-A  | CREEK5-10-A  | CREEK5-15-A  | CREEK5-20-A  |
|-----------------------------------|--------------------------------|--------------|--------------|--------------|--------------|
| Capacity (kWh)                    | 4.91                           | 9.83         | 10.24        | 15.36        | 20.48        |
| Battery voltage range (V)         | 48 ~ 56                        | 48 ~ 56      | 48 ~ 56      | 48 ~ 56      | 48 ~ 56      |
| Recommended battery voltage (V)   | 51.2                           | 51.2         | 51.2         | 51.2         | 51.2         |
| Cut Off Voltage (V)               | 48                             | 48           | 48           | 48           | 48           |
| Max. charging Voltage (V)         | 56                             | 56           | 56           | 56           | 56           |
| Max. Protective Voltage (V)       | 58                             | 58           | 58           | 58           | 58           |
| Dimension (W/D/H [mm])            | 580*350*1280                   | 580*350*1800 | 580*350*1280 | 580*350*1800 | 580*350*1800 |
| System Weight (kg)                | 110                            | 167          | 149          | 197          | 245          |
| Max. charge/discharge current (A) | 60/60                          | 120/120      | 120/120      | 120/120      | 120/120      |
| Peak charge/discharge current (A) | 60/60                          | 120/120      | 120/120      | 120/120      | 120/120      |
| Communication interfaces          | CAN / RS485 / WiFi / LAN / DRM |              |              |              |              |
| Reverse connect protection        | Yes                            | Yes          | Yes          | Yes          | Yes          |
| Warranty                          | 10 Year Performance Warranty   |              |              |              |              |



5-20kWh Flexible Portfolio

Fast Installation

High Energy Density

All in One

Scalability

WIFI & APP

## Efficiency

MPPT Efficiency 99.90%

Euro Efficiency 97%

Max. Efficiency 97.60%

Max. Battery charge Efficiency 95%

Max. Battery discharge Efficiency 95%

RECOGNIZED  
COMPONENT



PICC



Intertek

| PCS Specifications                      | CREEK2-5-A                  | CREEK2-10-A | CREEK5-10-A | CREEK5-15-A | CREEK5-20-A |
|-----------------------------------------|-----------------------------|-------------|-------------|-------------|-------------|
| DC input                                |                             |             |             |             |             |
| Max. recommended DC power (W)           | 4600                        | 6000        | 6000        | 6000        | 7000        |
| Max. DC voltage (V)                     | 500                         | 500         | 500         | 500         | 500         |
| Nominal DC operating voltage (V)        | 360                         | 360         | 360         | 360         | 360         |
| MPPT voltage range (V)                  | 125 ~ 500                   | 125 ~ 500   | 170 ~ 500   | 170 ~ 500   | 220 ~ 500   |
| MPPT voltage range @ full load (V)      | 150 ~ 500                   | 150 ~ 500   | 150 ~ 500   | 150 ~ 500   | 150 ~ 500   |
| Max. input current (A)                  | 14/14                       | 14/14       | 14/14       | 14/14       | 14/14       |
| Max. short circuit current (A)          | 17.5/17.5                   | 17.5/17.5   | 17.5/17.5   | 17.5/17.5   | 17.5/17.5   |
| Start input voltage (V)                 | 125                         | 125         | 125         | 125         | 125         |
| No. of MPP trackers                     | 2                           | 2           | 2           | 2           | 2           |
| Strings per MPP tracker                 | 1                           | 1           | 1           | 1           | 1           |
| Max. inverter backfeed current to array | 0                           | 0           | 0           | 0           | 0           |
| DC disconnection switch                 | /                           | /           | /           | /           | /           |
| AC output                               |                             |             |             |             |             |
| Nominal AC power (VA)                   | 3600                        | 4000        | 4000        | 5000        | 5000        |
| Max. apparent AC power (VA)             | 3600                        | 4000        | 4000        | 5000        | 5000        |
| Rated grid voltage(range) (V)           | 230 (176 to 270)            |             |             |             |             |
| Rated grid frequency (Hz)               | 50/60                       | 50/60       | 50/60       | 50/60       | 50/60       |
| Nominal AC current (A)                  | 16                          | 16          | 16          | 16          | 16          |
| Max.AC current (A)                      | 16                          | 16          | 16          | 16          | 16          |
| Displacement power factor               | 0.99 leading...0.99 lagging |             |             |             |             |
| Total harmonic distortion (THDI)        | < 2%                        | < 2%        | < 2%        | < 2%        | < 2%        |
| Load control                            | optional                    | optional    | optional    | optional    | optional    |
| AC input                                |                             |             |             |             |             |
| Nominal AC power (VA)                   | 3600                        | 4000        | 4000        | 5000        | 5000        |
| Rated grid voltage(range) (V)           | 230 (176 to 270)            |             |             |             |             |
| Rated grid frequency (Hz)               | 50/60                       | 50/60       | 50/60       | 50/60       | 50/60       |
| Nominal AC current (A)                  | 16                          | 17.4        | 17.4        | 21.7        | 21.7        |
| Max.AC current (A)                      | 16                          | 17.4        | 17.4        | 21.7        | 21.7        |
| Displacement power factor               | 0.99 leading...0.99 lagging |             |             |             |             |
| AC inrush current                       | 35                          | 35          | 35          | 35          | 35          |
| EPS output                              |                             |             |             |             |             |
| EPS rated power (VA)                    | 3600                        | 4000        | 4000        | 5000        | 5000        |
| Max. EPS power (VA)                     | 3600                        | 4000        | 4000        | 5000        | 5000        |
| EPS rated voltage, Frequency            | 230VAC, 50/60Hz             |             |             |             |             |
| EPS rated current (A)                   | 16                          | 17.4        | 17.4        | 21.7        | 21.7        |
| Max. EPS current (A)                    | 16                          | 17.4        | 17.4        | 21.7        | 21.7        |
| Switch time (s)                         | <500ms                      | <500ms      | <500ms      | <500ms      | <500ms      |
| Total harmonic distortion (THDv)        | <2%                         | <2%         | <2%         | <2%         | <2%         |
| Parallel operation                      | Yes                         | Yes         | Yes         | Yes         | Yes         |
| Compatible with the generator           | Yes (signal provided only)  |             |             |             |             |



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

#### CF Energy GmbH

Company Address:

Custozzagasse 13 / Top 4, 1030, Vienna, Austria

Tel: +43 664 9996 3994

Web: <https://cfenergy.co/>

E-mail: [emea@cfenergy.co](mailto:emea@cfenergy.co)

#### CF Energy Co., Ltd.

Company Address:

Intelligent Manufacturing Base, Xianyang, Shaanxi, PRC.

Tel: (+86) 029-38367888

Web: [www.cfenergygroup.com](http://www.cfenergygroup.com)

E-mail: [sales@cfenergygroup.com](mailto:sales@cfenergygroup.com)