

YOUR SAFE ENERGY

CF PowerCore 6-208
CF PowerCore 6-156



A+ Grade Lithium
Iron Phosphate Cells



15-year Design Lifespan

Version:V1.1

Liquid Cooled Battery
All-in-One C&I BESS



● Features and Advantages

Safety Technology

- A+ grade lithium iron phosphate
- The system is configured with a multi-level fuse protection
- Built-in aerosol fire extinguishing systems at the package and rack levels

More Reliable

- The system is rigorously designed and tested to operate stably under various conditions
- Equipped with protections against overcharge, over-discharge, and over-temperature to prevent accidents

Easy to Install and Use

- Highly integrated for ease of transportation, installation and deployment
- Modular design with flexible system capacity configuration

Energy Management System

- Emergency power supply
- Peak shaving
- Demand mitigation
- Self-consumption
- Micro-grids
- Price arbitrage

System Technical Parameters

Model	CF PowerCore 6-208	CF PowerCore 6-156
Battery Data		
Nominal Energy	208kWh	156kWh
Nominal Voltage	665.6V	499.2V
Battery Model	SC52T04-314	SC52T03-314
Battery Chemistry	Lithium Iron Phosphate(LiFePO4)	
Cycle Life	≥8000 cycles(@25°C, 0.5P/0.5P)	
Cell Specification	3.2V 314Ah	
Battery Pack Energy	52.24kWh	
String Configuration	1P208S	1P165S
Number Of Strings	1	
Operating Voltage	582.4~759.2V	436.8~569.4V
Rated Charging Power	0.5P	
Rated Discharging Power	0.5P	
Safety		
Fire Extinguishing System	Aerosol fire extinguishing	
Inverter Data		
Rated Power	50kW	
Please refer to the inverter section for more details.		
General		
Dimension(WxDxH)	1300 x 1450 x 1890mm	
Weight	Approximately 2000 kg	Approximately 1700 kg
IP Rating	IP54	
Cooling Method	Liquid cooling	
Operating Ambient Temperature Rang	-25°C - +55°C	
Relative Humidity	15% - 90%(Non-condensing)	
Max. Operating Altitude	≤3000m	
Communication Interfaces	LAN/CAN/RS485	
Compliance	IEC 62619, IEC/EN 61000, UN 38.3, MSDS	

* 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.

Hybrid Inverter

Three Phase | High Voltage

50kW



● Inverter Features

- 4 Integrated MPPTs with string current capacity of up to 20A.
- Maximum charge/discharge current of up to 70A+70A on two independently controlled battery ports.
- Supports peak shaving control in both "self-use" and "generator" mode.
- Backup port supports 1.6 times overload for short durations.
- Generator connectivity with multiple input methods and automatic generator On/Of control.
- Allows parallel operation of up to 6 units for both on-grid and of-grid applications.
- Support to work as grid-tied inverter without battery connection during on-grid.
- Compatible with a wide voltage range to accommodate various batteries.

Inverter Technical Parameters Part 1

Model	S6-EH3P50K-H
Input DC (PV side)	
Recommended max PV array size	100 kW
Max. usable PV input power	96 kW
Max. input voltage	1000 V
Rated voltage	600 V
Start-up voltage	180 V
Mppt voltage range	150-850 V
Max. input current	4*40 A
Max. Short circuit current	4*60 A
Mppt number/max. Input strings number	4/8
Battery	
Battery type	Li-ion
Battery voltage range	150-800 V
Max. Charge / discharge power	55 kW
Max. Charge / discharge current	70 A*2 ⁽¹⁾
No. Of battery inputs	2
Max. charge / discharge power of each input	35 kW
Communication	CAN/RS485
Output AC (Grid side)	
Rated output power	50 kW
Max. apparent output power	50 kVA
Rated grid voltage	3/N/PE, 220 V / 380 V ; 3/N/PE, 230 V / 400 V
Rated grid frequency	50 Hz / 60 Hz
Rated grid output current	76 A / 72.2 A
Max. output current	76 A / 72.2 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)
THDI	< 3%
Input AC (Grid side)	
Max. AC passthrough current	152 A /144.4 A
Rated input voltage	3/N/PE, 220 V / 380 V ; 3/N/PE, 230 V / 400 V
Rated input frequency	50 Hz / 60 Hz
Input Generator	
Max. input power	50 kW
Rated input current	76 A / 72.2A
Rated input voltage	3/N/PE, 220 V / 380 V ; 3/N/PE, 230 V / 400 V

Inverter Technical Parameters Part 2

Model		S6-EH3P50K-H
Rated input frequency		50 Hz / 60 Hz
Output AC (Back-up)		
Rated output power		30 kW
Max. apparent output power		1.6 times of rated power, 2 s
Back-up switch time		< 10 ms
Rated output voltage		3/N/PE, 220 V / 380 V ; 3/N/PE, 230 V / 400 V
Rated frequency		50 Hz / 60 Hz
Rated output current		45.6 A / 43.3 A
THDV (@linear load)		< 2%
Efficiency		
Max. Efficiency		97.8%
Eu efficiency		97.4%
Bat charged by pv max. Efficiency		98.5%
Bat charged/discharged to ac max. Efficiency		97.5%
Protection		
Anti-islanding protection		Yes
Output over current protection		Yes
Short circuit protection		Yes
Integrated dc switch		Yes
DC reverse-polarity protection		Yes
Surge protection		DC Type II / AC Type II
Integrated afci 2.0		Optional
General Data		
Dimensions (W x H x D)		530 x 880 x 290 mm
Weight		73 kg
Topology		Transformerless
Self-consumption (night)		<35 W
Operating ambient temperature range		-25°C - +60°C
Relative humidity		0-95%
Ingress protection		IP66
Cooling concept		Intelligent redundant fan-cooling
Max. Operation altitude		4000 m

Inverter Technical Parameters Part 3

Model

S6-EH3P50K-H

Grid connection standard G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1/EN 50549-10, VDE 0126/UTE C 15/VFR:2019, NTS 631/RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA N° 140, DE 21 DE MARCO DE 2022

Safety/emc standard

EC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011

Features

PV connection

MC4 Quick connection plug

Battery connection

Terminal connector

AC connection

Terminal Block

Display

7.0" LCD display & Bluetooth + APP

Communication

CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN

(1) Supporting parallel 140A input.

