

# IC418-690 IC418-800



## LEADING - EDGE TECHNOLOGY

### Overview

Outdoor All-in-one 215kW, 418kWh BESS cabinet with IP66/IP55 protection level, inbuilt PCS and liquid-cooling lithium-ion battery. Suitable for factory, industrial park, office, malls etc. to do peak-shaving and load-shifting. Integrated with black-start function.

### Features

- ▶ **Parallel up to 10 units**  
Max. 10 units in parallel in off-grid mode, no limit in on-grid mode.
- ▶ **100% three-phase unbalanced load**  
Supports 100% three-phase unbalanced load and 110% overload in 10 mins.
- ▶ **Distributed PV integration solution**  
Reduces system investment, saves cabling, reduces losses.
- ▶ **AI-driven revenue optimization**  
Supports AI-driven revenue optimization based on dynamic electricity prices.
- ▶ **Liquid-cooling battery ensure long life span**  
≥8000 cycles of battery life span, cell temperature difference <3°C.
- ▶ **Black start function**  
Grid-forming PCS self-start to build AC grid during full blackout.
- ▶ **All-in-one compact design**  
Integrate PCS+battery+EMS+fireprotection system in one box, with a footprint of 2m<sup>2</sup> only.
- ▶ **IP66/IP55 protection**  
IP55 for outdoor installation (IP66 for battery compartment), C4 anti-corrosion (C5 optional).
- ▶ **Comprehensive protection**  
Level 3 BMS+module-level fire protection+explosion protection+leakage current detection.

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# Datasheet

| Battery specification      |                                                                                              | IC418-690                                               | IC418-800      |
|----------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------|
| Cell type                  |                                                                                              | LFP/314                                                 | LFP/314        |
| Pack configuration         |                                                                                              | 52.2kWh/1P52S                                           | 52.2kWh/1P52S  |
| System configuration       |                                                                                              | 418kWh/1P416S                                           | 418kWh/1P416S  |
| Rated capacity             |                                                                                              | 314Ah                                                   | 314Ah          |
| Rated voltage              |                                                                                              | 1331.2V                                                 | 1331.2V        |
| Voltage range              |                                                                                              | 1164.8~1497.6V                                          | 1164.8~1497.6V |
| Rated charge/discharge     |                                                                                              | 157A(0.5C)                                              | 157A(0.5C)     |
|                            |                                                                                              |                                                         |                |
| PCS specification          |                                                                                              |                                                         |                |
| Rated output power         |                                                                                              | 215kW                                                   | 215kW          |
| Rated AC voltage           |                                                                                              | 690V                                                    | 800V           |
| AC voltage range           |                                                                                              | 586.5V-759V                                             | 586.5V-759V    |
| Grid type                  |                                                                                              | 3W+PE                                                   | 3W+PE          |
| Rated frequency            |                                                                                              | 50/60Hz                                                 | 50/60Hz        |
| PF                         |                                                                                              | 0.99/ -1 ~ +1                                           | 0.99/ -1 ~ +1  |
| THDI                       |                                                                                              | ≤3%                                                     | ≤3%            |
|                            |                                                                                              |                                                         |                |
| General information        |                                                                                              |                                                         |                |
| Dimensions (W*D*H)         |                                                                                              | 1400*1450*2400 mm                                       |                |
| Weight                     |                                                                                              | 3900kg                                                  |                |
| Max. round trip efficiency |                                                                                              | 92%                                                     |                |
| Cycle life                 |                                                                                              | ≥8000 cycles                                            |                |
| Communication              |                                                                                              | MODBUS TCP/IP or RTU                                    |                |
| HMI                        |                                                                                              | Optional                                                |                |
| Fire suppression system    |                                                                                              | Aerosol                                                 |                |
| Ingress rating             |                                                                                              | IP66(Battery Compartment)/ IP55                         |                |
| Cooling                    |                                                                                              | Liquid cooling for battery + Forced air cooling for PCS |                |
| Operating temperature      |                                                                                              | -25℃~55℃ (Derating after 45℃)                           |                |
| Anti-corrosion rating      |                                                                                              | C4 (C5 optional)                                        |                |
| Humidity                   |                                                                                              | 0~95% RH (non-condensing)                               |                |
| Noise                      |                                                                                              | ≤75 dB                                                  |                |
| Altitude                   |                                                                                              | 3000m (Derating above 2000m)                            |                |
|                            |                                                                                              |                                                         |                |
| Certificate                |                                                                                              |                                                         |                |
| Safety/EMC                 | IEC/EN 61000-6-2/4, IEC/EN 62109-1, IEC/EN 62109-2, IEC62933, IEC 62619, IEC 63056, UN 38.3  |                                                         |                |
| Grid code                  | EN50549-1/-10, EN50549-2/-10, VDE-AR-N 4105/4110, NRS 097-2-1, C10/11, PSE:2018-12, IEC62116 |                                                         |                |