

# ESS Cabinet

Commercial Energy Storage System

# LIPAL



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Commercial Energy Storage System

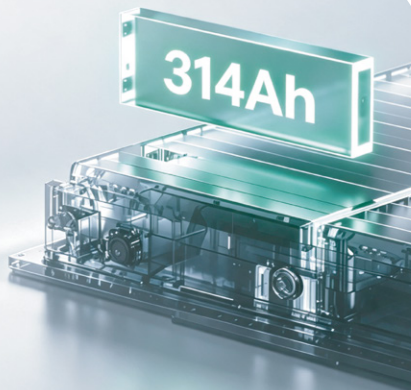
## LiPal ESS Cabinet

ALL IN ONE LIQUID-COOLED ESS CABINET, ECO-E418LP is Sunpal's compact, integrated energy storage solution, built on its expertise in ESS integration and digital monitoring. Its all-in-one design integrates a lithium battery system, PCS, HVAC, FSS, BCQ and other key components into a single cabinet. Featuring a compact footprint, easy installation and flexible capacity expansion, it supports self-consumption, peak shaving, load shifting and backup power applications.



### LiFePO4

LFP314Ah battery cell system integration, leading cost advantage, 3S fusion



### High Integration

418kWh energy in one cabinet with remarkable endurance.



### Easy O&M

Support multiple ways of operation and maintenance, including onsite, cloud.



### Ultimate Safety

In-PACK fire warning and protection with aerosol, prevent heat diffusion and runaway.



### Long Cycle Life

Over 8,000 times cycle life, excellent performance of battery system.



### Flexible Expansion

Modular design, simplified parallel expansion.



| Model                      | ECO-E418LP-A40                                     |       | ECO-E418LP-A69 | ECO-E418LP-A80 |
|----------------------------|----------------------------------------------------|-------|----------------|----------------|
| DC Side                    |                                                    |       |                |                |
| Cell Type                  | LFP / 314Ah                                        |       |                |                |
| Pack Configuration         | 52.248kWh / 1P52S                                  |       |                |                |
| System Configuration       | 418kWh/1P416S                                      |       |                |                |
| Rated DC Voltage           | 1331.2V                                            |       |                |                |
| DC Voltage Range           | 1164.8~1497.6V                                     |       |                |                |
| Max. Charge/Discharge Rate | 0.25P                                              | 0.5P  |                | 0.5P           |
| Max. Depth of Discharge    | 100% (25 + 2°C)                                    |       |                |                |
| Cycle Life                 | ≥ 8,000 cycles                                     |       |                |                |
| AC Side                    |                                                    |       |                |                |
| Rated Output Power         | 125kW                                              | 215kW |                | 210kW          |
| Rated AC Voltage           | 400V                                               | 690V  |                | 800V           |
| AC Voltage Range           | -15% ~ +10%                                        |       |                |                |
| Grid Type                  | 3W+PE                                              |       |                |                |
| Rated Frequency            | 50Hz/60Hz                                          |       |                |                |
| Power Factor               | 0.99/-1 ~ +1                                       |       |                |                |
| THDi                       | ≤3%                                                |       |                |                |
| DC Ratio                   | <0.5%Ipn                                           |       |                |                |
| General                    |                                                    |       |                |                |
| Max. Round Trip Efficiency | 89%                                                |       |                |                |
| Communication              | Modbus TCP/IP                                      |       |                |                |
| Fire Suppression System    | Aerosol                                            |       |                |                |
| Ingress Rating             | IP55                                               |       |                |                |
| Cooling                    | Liquid cooling+Forced air cooling                  |       |                |                |
| Operating Temperature      | -25°C ~55°C (Derating after 45 °C)                 |       |                |                |
| Anticorrosion Rating       | C4 (C5 optional)                                   |       |                |                |
| Humidity                   | 0~95% RH (non-condensing)                          |       |                |                |
| Noise                      | ≤ 80dB                                             |       |                |                |
| Altitude                   | 3000m (Derating above 2000m)                       |       |                |                |
| Dimensions (W*D*H)         | 1,050*1,350*2,400mm                                |       |                |                |
| Weight                     | 3,800kg                                            |       |                |                |
| Safety/EMC                 | UN38.3,IEC62619,IEC63056,IEC62477-1,IEC61000-6-2/4 |       |                |                |
| Grid code                  | EN50549-1/-10,EN50549-2/-10,PN-EN-50549-1/-2       |       |                |                |



## Sunpal Power Co., Ltd.

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