

## HYBRID C&I ESS CABINET

# AELIO

## “INTRODUCTION”



Aelio series is a highly integrated, all-in-one, C&I Hybrid energy storage cabinet with multiple application scenarios. It has outstanding advantages such as intelligent charge and discharge management, safety and reliability, and simple operation and maintenance.

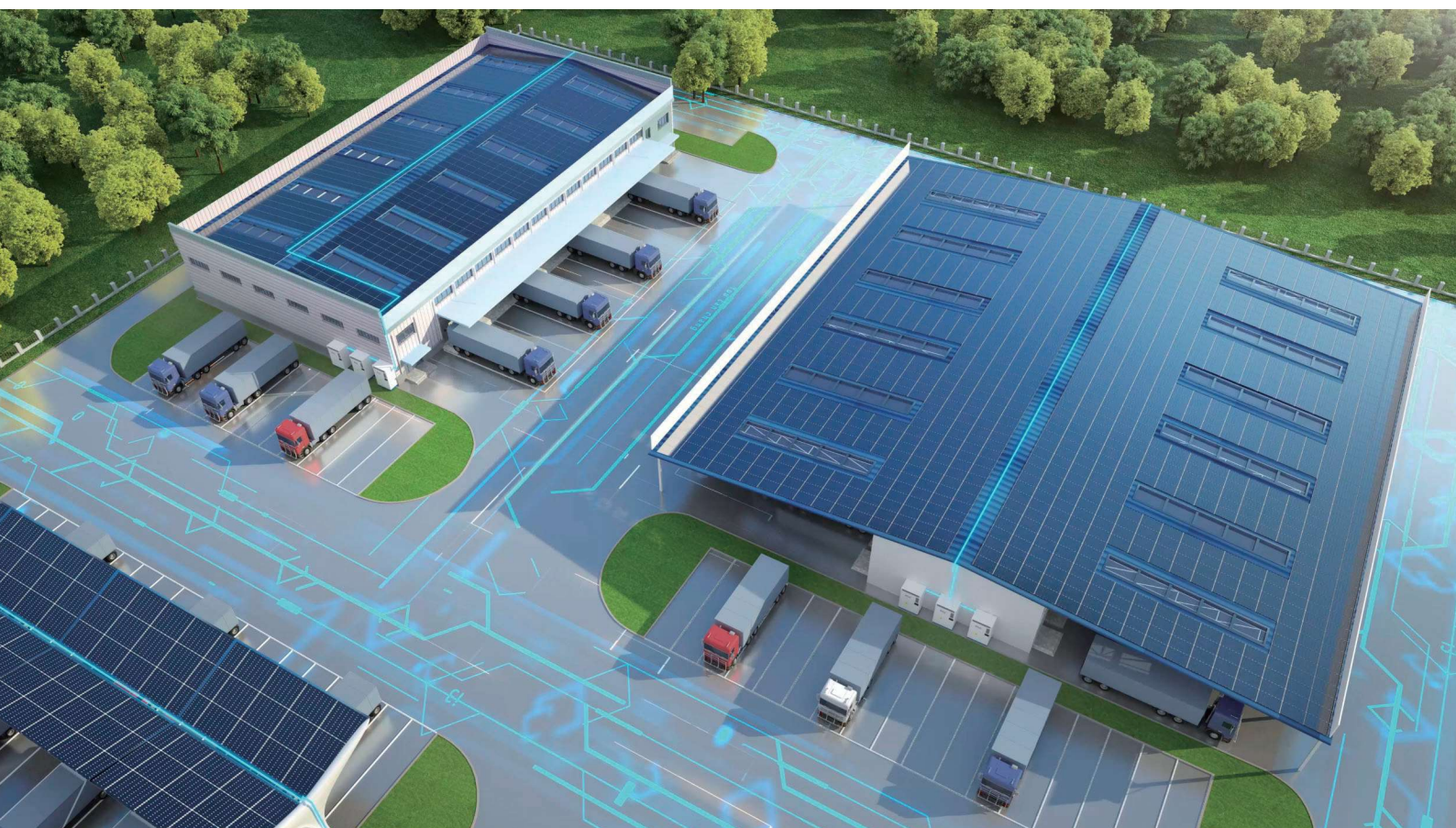
First of all, Aelio cabinet uses high-density, high-safety, and high-performance LFP batteries. There are two models with capacity of 100kWh and 200kWh. When used in a single cabinet or multiple cabinets, it can charge and discharge stably according to the set working modes at different time periods, and the large-capacity battery cell of 280Ah also reduces the initial cost of the system.

Secondly, the cabinet is equipped with a self-developed Energy Management System (EMS) that can monitor the working status and abnormal alerts of each battery cell, PCS, and fire protection system in real-time. The local data storage capability allows for data analysis and verification for up to 1 year. The advanced EMS system also has leading advantages in intelligent control of different smart operation

strategies, autonomous scheduling based on local electricity prices, and comprehensive management of photovoltaic, energy storage systems, EV charging and generators at power plant level. These features improve the overall system efficiency and shorten the investment return period.

In addition, the cabinet also has multiple safety protection measures. It has built-in protection functions such as overvoltage, overcurrent, and overtemperature. It is also equipped with fireproof materials and 4 levels of fire protection system, which can promptly detect and respond to potential fire risks, effectively control the spread of fires and reduce the risk of safety accidents.

The cabinet is suitable for various C&I PV&ESS scenarios, including peak shaving, demand response, backup mode, photovoltaic and energy storage integration, and stable load consumption curves. It also supports applications such as virtual power plants(VPP) and frequency regulation.



|                                               | AELIO-P50B100      | AELIO-P50B200                                         | AELIO-P60B100      | AELIO-P60B200      |
|-----------------------------------------------|--------------------|-------------------------------------------------------|--------------------|--------------------|
| DC Side                                       |                    |                                                       |                    |                    |
| Max. PV input power [kW]                      | 100                |                                                       | 120                |                    |
| Max. PV input voltage [V]                     |                    | 1000                                                  |                    |                    |
| Start output voltage [V]                      |                    | 200                                                   |                    |                    |
| Rated input voltage [V]                       |                    | 650                                                   |                    |                    |
| MPPT voltage range [V]                        |                    | 160 ~ 950                                             |                    |                    |
| No. of MPP trackers / Strings per MPP tracker | 5(2 per MPPT)      |                                                       | 6(2 per MPPT)      |                    |
| Max. input current [A]                        |                    | 40                                                    |                    |                    |
| Max. input short circuit current [A]          |                    | 50                                                    |                    |                    |
| AC Side                                       |                    |                                                       |                    |                    |
| Rated AC output power [kW]                    | 50                 |                                                       | 60                 |                    |
| Rated AC output current [A]                   | 72.2               |                                                       | 86.6               |                    |
| Max. AC output apparent power [kVA]           | 55                 |                                                       | 66                 |                    |
| Max. AC output current [A]                    | 83.6               |                                                       | 100.3              |                    |
| Nominal grid voltage [V]                      |                    | 3P4W, 400/230, 380/220                                |                    |                    |
| Nominal grid frequency [Hz]                   |                    | 50/60                                                 |                    |                    |
| Adjustable power factor range                 |                    | 1 (0.8 Leading ~ 0.8 Lagging)                         |                    |                    |
| THDi (Rated power) [%]                        |                    | < 3                                                   |                    |                    |
| Battery Side                                  |                    |                                                       |                    |                    |
| Battery type                                  |                    | LFP / 280Ah                                           |                    |                    |
| Rated battery capacity [kWh]                  | 100                | 200                                                   | 100                | 200                |
| Rated battery voltage [V]                     | 358.4              | 716.8                                                 | 358.4              | 716.8              |
| Battery voltage range [V]                     | 280 ~ 408.8        | 560 ~ 817.6                                           | 280 ~ 408.8        | 560 ~ 817.6        |
| Discharge depth [%]                           |                    | 90                                                    |                    |                    |
| Rated charge/discharge current [A]            |                    | 140                                                   |                    |                    |
| Max charge/discharge current [A]              |                    | 160 (80 × 2)                                          |                    |                    |
| General                                       |                    |                                                       |                    |                    |
| Dimensions(with Inverter) (W×H×D) [mm]        | 1310 × 2300 × 1140 | 2070 × 2420 × 1200                                    | 1310 × 2300 × 1140 | 2070 × 2420 × 1200 |
| Dimensions (without Inverter) (W×H×D) [mm]    | 1020 × 2300 × 1150 | 1680 × 2420 × 1200                                    | 1020 × 2300 × 1150 | 1680 × 2420 × 1200 |
| Weight (with Inverter) [kg]                   | 1600               | 2800                                                  | 1600               | 2800               |
| Weight (without Inverter) [kg]                | 1500               | 2700                                                  | 1500               | 2700               |
| Operating ambient temperature range [°C]      |                    | -30 ~ 55                                              |                    |                    |
| Relative humidity (Non-condensing) [%]        |                    | 0 ~ 95                                                |                    |                    |
| Max. operating altitude [m]                   |                    | 3000                                                  |                    |                    |
| Cooling concept                               |                    | Smart air cooling                                     |                    |                    |
| Ingress protection                            |                    | Cabinet: IP55; Inverter: IP66                         |                    |                    |
| Fire protection                               |                    | Aerosol(Optional:Novec1230 ) / Water                  |                    |                    |
| Topology                                      |                    | Non-isolated                                          |                    |                    |
| Standard                                      |                    | IEC62619, IEC63056:2000, IEC61000, IEC62477-1, UN38.3 |                    |                    |