

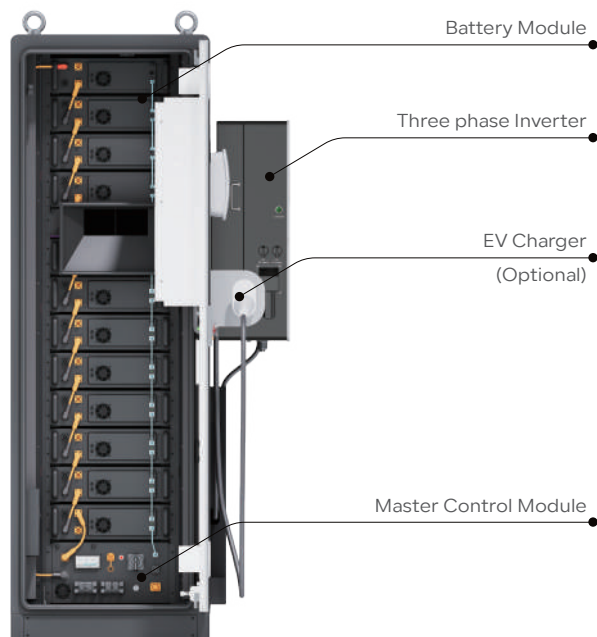
# ECube 60AP<sub>(US)</sub>

## 60kWh Air-Cooling Battery

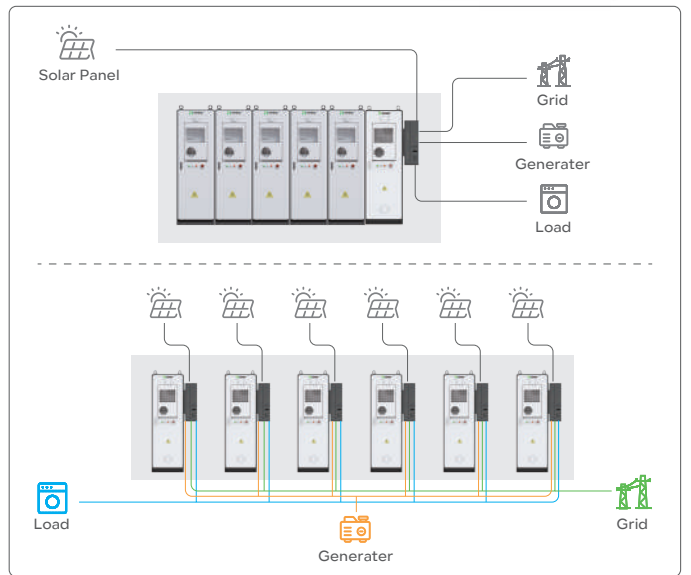
The ultimate commercial and industrial energy storage solution with optimized temperature control, high-rate energy cycling, comprehensive fire and gas safety detection, and advanced integrated power management technologies.



### System Demonstration



### System Layout



### Application Scenario



| Battery Energy Storage       | Optional 1   | Optional 2  |
|------------------------------|--------------|-------------|
| Cell Chemistry               | LiFePO4      | LiFePO4     |
| Module Energy (kWh)          | 5.12         | 5.12        |
| Module Nominal Voltage (V)   | 51.2         | 51.2        |
| Module Capacity (Ah)         | 100          | 100         |
| Battery Module Combination   | 6S2P         | 12S1P       |
| System Nominal Voltage (V)   | 307.2        | 614.4       |
| System Operating Voltage (V) | 281.25~340.8 | 562.5~681.6 |
| System Energy (kWh)          | 61.44        | 61.44       |
| Charge Current (A)           | 95           | 95          |
| Discharge Current (A)        | 100          | 100         |

| PV Input                                 | Optional 1 | Optional 2 |
|--|------------|------------|
| Max. Allowed PV Power (STC)(kW)          | 39         | 78         |
| MPPT Voltage Range(V)                    | 150~500V   | 150~850    |
| Startup Voltage(V)                       | 180        | 180        |
| Max. Input Voltage 1(V)                  | 550        | 1000       |
| Max. operating input current per MPPT(A) | 36         | 36         |
| Max. short circuit current per MPPT(A)   | 55         | 55         |
| No. of MPP Trackers                      | 4          | 4          |
| No. of PV Strings per MPPT               | 2          | 2          |
| Max. AC Coupled Input(kW)                | 30         | 60         |

#### Charging System(Optional)

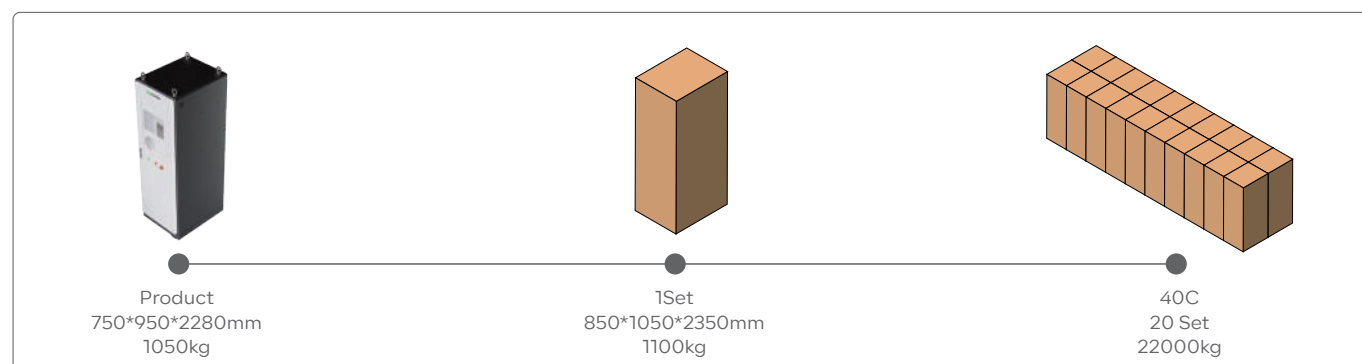
|                                |   |
|--------------------------------|---|
| Charging Type                  | Charging Mode 3 Case c, level 2   |
| Outlet options                 | AC Type 1 (SAEJ1772)  |
| Input/Output Current rating(A) | 32 / 48 / 80  |
| Input/Output Power rating(kW)  | 7.7 / 11.5 / 19.2@240VAC  |
| Input/output voltage(VAC)      | 208~240   |
| Input Frequency(Hz)            | 50/60   |
| Cable Length                   | 16 feet, Optional: 25 feet  |
| Distribution Systems           | Single phase, split-phase   |
| Connector Type                 | L1 + L2 + PE  |
| Certifications                 | UL2594, UL2231-1, UL2231-2, UL1998<br>UL991FCC Part 15 ClasS B, ENERGY STAR |

| AC Output (EPS)                              | Optional 1           | Optional 2 |
|--|----------------------|------------|
| Nominal AC Voltage(3Φ)(V)                    | 120/208              | 277/480    |
| Grid Frequency(Hz)                           | 50 / 60              | 50/60      |
| Real Power, max continuous(3Φ)(kW)           | 30                   | 60         |
| Max. Output Current(A)                       | 83.4                 | 72.3       |
| Peak Apparent Power (10s, off-grid, 3Φ)(kVA) | 45                   | 90         |
| Max. Grid Passthrough Current (10min)(A)     | 200                  | 200        |
| Continuous Grid Passthrough Current(A)       | 180                  | 180        |
| Power Factor Output Range                    | ±0.8 adjustable      |            |
| Backup Transfer Time                         | 5ms (adjustable)     |            |
| CEC Efficiency                               | 96.5%                |            |
| Max Efficiency                               | 97.5%                |            |
| Design (DC to AC)                            | Transformerless DC   |            |
| Stackable                                    | Up to 10 in parallel |            |

#### General Parameters

|                              |  |
|------------------------------|--|
| Product Model(Optional 1)    | R-EC060030A1-US  |
| Product Model(Optional 2)    | R-EC060060A1-US  |
| Dimension (W*D*H)            | 750*950*2280mm / 29.5*37.4*89.7in  |
| Weight Approximate           | 1050kg / 2314.8lb  |
| Working Temperature          | -20~55°C   |
| Communication Interface      | CAN, RS485, Wi-Fi, LTE   |
| Humidity                     | 5%~85%RH   |
| Altitude                     | ≤2000m   |
| IP Rating                    | IP55   |
| Storage Temperature          | -20~35°C   |
| Recommend Depth of Discharge | 90%  |
| Cycle Life                   | >8000 cycles   |
| Warranty                     | 3 years free, paid from the 4th to the 15th year   |
| Certification(Battery)       | UL1973U, L9540A<br>UL 1741-2021 (incl UL1741SB)<br>IEEE 1547-2018 & 1547a-2020<br>& 15471-2020 (SRD V2.0), UL1699B                               |
| Certification(Inverter)      | UL 1741-2021 (UL1741SB)<br>CSA C22.2 No 1071-16, IEEE 1547-2018<br>& 1547a-2020 & 15471-2020 (SRD V2.0)<br>UL 1741 CRD-PCS, UL1699B, CEC, SGIP 4 |

## Packaging & Shipping Details



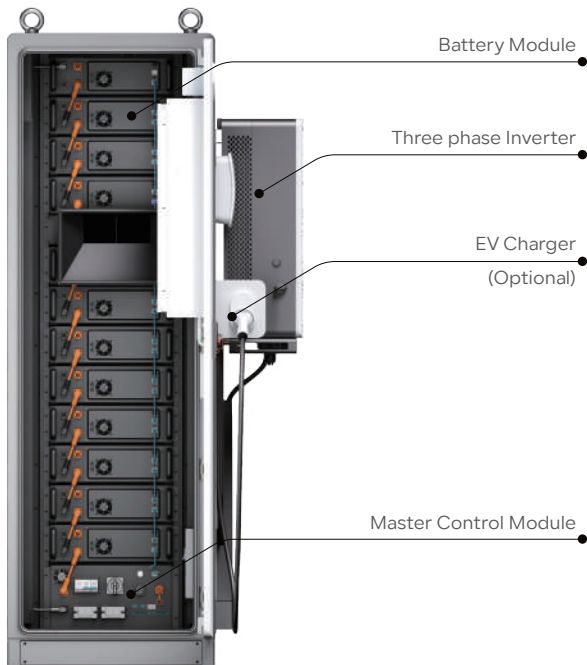
# ECube 60AP<sup>(EU)</sup>

## 60kWh Air-Cooling Battery

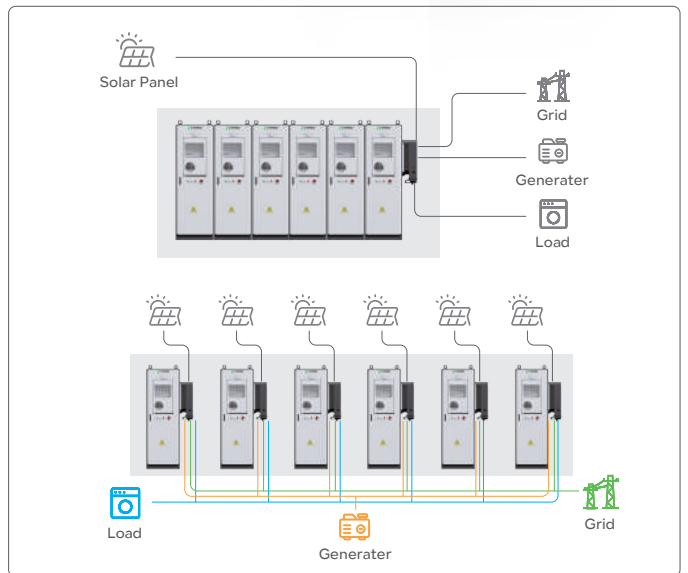
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### System Demonstration



### System Layout



### Application Scenario



| Battery Energy Storage       |             |
|------------------------------|-------------|
| Cell Chemistry               | LiFePO4     |
| Module Energy (kWh)          | 5.12        |
| Module Nominal Voltage (V)   | 51.2        |
| Module Capacity (Ah)         | 100         |
| Battery Module Combination   | 12S1P       |
| System Nominal Voltage (V)   | 614.4       |
| System Operating Voltage (V) | 562.5~681.6 |
| System Energy (kWh)          | 61.44       |
| Charge Current (A)           | 95          |
| Discharge Current (A)        | 100         |

| PV Input                               |          |
|--|----------|
| Max. Input Power(kW)                   | 90       |
| Max. Input Voltage(V)                  | 1100     |
| Start-up Voltage(V)                    | 200      |
| Rated Voltage(V)                       | 620      |
| MPPT Voltage Range(V)                  | 180~1000 |
| Number of MPP Trackers                 | 4        |
| Number of String per MPPT              | 8        |
| Max. Current per MPPT(A)               | 40       |
| Max. Short Circuit Current per MPPT(A) | 50       |

| Charging System(Optional)      |   |
|--------------------------------|---|
| Charging Type                  | Charging Mode 3 Case B & Case C                                     |
| Outlet Options                 | AC Type 2 (IEC 62196-2)   |
| Input/Output Current rating(A) | 32, three phase   |
| Input/Output Power rating(kW)  | 23@ 415 VAC   |
| Input/Output Voltage(VAC)      | 380~415   |
| Input Frequency(Hz)            | 50/60   |
| Cable Length                   | 5.0 m, Optional: 7.5 m  |
| Distribution Systems           | TT, TN system   |
| Connector Type                 | 3P + N + PE   |
| Certifications                 | IEC/EN 61851-1, IEC 61851-2-2<br>IEC 62196-1, IEC 62196-2, IEC62109 |

| AC Output(On-Grid)              |                             |
|---------------------------------|-----------------------------|
| Rated Output Power(kW)          | 60                          |
| Max. Output Power(kVA)          | 66                          |
| Max. Output Current(A)          | 100                         |
| Max. Input Power from Grid(kW)  | 90                          |
| Max. input Current from Grid(A) | 136.4                       |
| Rated Grid Voltage              | 3 / N / PE, 230 V / 400 Vac |
| Rated Grid Frequency(Hz)        | 50 / 60                     |
| THDi(@Rated Power)              | <3%                         |
| Power Factor                    | 0.8 leading ~ 0.8 lagging   |

| AC Output (EPS)                |                           |
|--------------------------------|---------------------------|
| Rated Output Power(kW)         | 50                        |
| Max. Output Power              | 1.5 times / 10s           |
| Max. Output Current(A)         | 91                        |
| Switch Time                    | <10ms                     |
| Rated Voltage                  | 3 / N / PE, 230V / 400Vac |
| Rated Frequency(Hz)            | 50/60                     |
| Max. AC passthrough current(A) | 150                       |
| THDv (@linear load)            | <2%                       |

| General Parameters           |  |
|------------------------------|--|
| Battery Model                | R-060060A1-EU                                    |
| Dimension (W*D*H)            | 750*950*2280mm / 29.5*37.4*89.7in                |
| Weight Approximate           | 1050kg / 2314.8lb                                |
| Working Temperature          | -20°C~50°C                                       |
| Communication Interface      | CAN, RS485, Wi-Fi, LTE                           |
| Humidity                     | 5%~85%RH   |
| Altitude                     | ≤2000m   |
| IP Rating                    | IP55   |
| Storage Temperature          | -20°C~35°C                                       |
| Recommend Depth of Discharge | 90%  |
| Cycle Life                   | >8000 cycles                                     |
| Warranty                     | 3 years free, paid from the 4th to the 15th year |
| Certification                | UN38.3, MSDS, UL1973, UL9540A, UL9540            |

## ■ Packaging & Shipping Details

