



**LEAPTON ENERGY**

# COMMERCIAL ESS EH-A16

VERSION: 2025 V3

\* For the most up-to-date information, please refer to the latest version of this datasheet.



## CONVENIENCE

The battery modules are placed on ground supports, each of which can bear the weight of up to four stacked battery layers. This design facilitates installation, commissioning, and maintenance.



## SMART BALANCING

It features multiple protection functions, including over-discharge, overcharge, overcurrent, and over-temperature or low-temperature protection. Each battery module is equipped with a Battery Management System (BMS) to ensure optimal charge and discharge distribution, extending battery life.



## SCALABILITY

The system can accommodate 6 to 16 modules, offering excellent scalability and easy adaptation to specific environments.



## ECO-FRIENDLY

The whole module is non-toxic, non-polluting and environmentally friendly.



## WIDE TEMPERATURE

Operating temperature range is 0° C to 55° C for charging, and -20° C to 55° C for discharging, with excellent discharge performance and long cycle life.



| Model                                   |                | EH-A16-51.2/307                           | EH-A16-51.2/358        | EH-A16-51.2/409        | EH-A16-51.2/460        | EH-A16-51.2/512        | EH-A16-51.2/563        |
|-----------------------------------------|----------------|-------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Cell Chemistry                          |                | LFP(LiFePO <sub>4</sub> )                 |                        |                        |                        |                        |                        |
| Module Energy (kWh)                     |                | 16                                        |                        |                        |                        |                        |                        |
| Module Nominal Voltage (V)              |                | 51.2                                      |                        |                        |                        |                        |                        |
| Module Capacity (Ah)                    |                | 314                                       |                        |                        |                        |                        |                        |
| Battery Module Qty In Series (Optional) |                | 6                                         | 7                      | 8                      | 9                      | 10                     | 11                     |
| Cell Configuration                      |                | 96S1P                                     | 112S1P                 | 128S1P                 | 144S1P                 | 160S1P                 | 176S1P                 |
| System Nominal Voltage (V)              |                | 307.2                                     | 358.4                  | 409.6                  | 460.8                  | 512                    | 563.2                  |
| System Operating Voltage (V)            |                | 268.8~350.4                               | 313.6~408.8            | 358.4~467.2            | 403.2~525.6            | 448~584                | 492.8~642.4            |
| System Energy (kWh)                     |                | 96                                        | 112                    | 128                    | 144                    | 160                    | 176                    |
| System Usable Energy (kWh)              |                | 86.4                                      | 100.8                  | 115.2                  | 129.6                  | 144                    | 158.4                  |
| Charge/Discharge Current                | Recommended    | 100                                       |                        |                        |                        |                        |                        |
|                                         | Max            | 160                                       |                        |                        |                        |                        |                        |
| Operating Temperature (℃)               |                | Charge: 0~55, Discharge: -20~55           |                        |                        |                        |                        |                        |
| Operating Temperature (Recommended) (℃) |                | 15~30                                     |                        |                        |                        |                        |                        |
| Storage temperature (℃)                 |                | -10~55                                    |                        |                        |                        |                        |                        |
| Storage temperature (Recommended) (℃)   |                | 20~30                                     |                        |                        |                        |                        |                        |
| Dimensions [W*D*H] [mm]                 | Battery Module | 560*825*290                               |                        |                        |                        |                        |                        |
|                                         | PCU Box        | 560*765*200                               |                        |                        |                        |                        |                        |
|                                         | System         | 1400±20*825±20*1050±20                    | 1400±20*825±20*1140±20 | 1400±20*825±20*1340±20 | 1960±20*825±20*1050±20 | 1960±20*825±20*1140±20 | 1960±20*825±20*1140±20 |
| Weight Approximate (kg)                 | Battery Module | 130                                       |                        |                        |                        |                        |                        |
|                                         | PCU Box        | 23                                        |                        |                        |                        |                        |                        |
|                                         | System         | 880±20                                    | 1010±20                | 1140±20                | 1270±20                | 1400±20                | 1530±20                |
| Communication                           |                | CAN, RS485                                |                        |                        |                        |                        |                        |
| Humidity                                |                | 5%~85%RH                                  |                        |                        |                        |                        |                        |
| Altitude                                |                | ≤2000m                                    |                        |                        |                        |                        |                        |
| IP Rating Of Enclosure                  |                | IP20                                      |                        |                        |                        |                        |                        |
| Mounting Method                         |                | Rack mounted                              |                        |                        |                        |                        |                        |
| Cooling Method                          |                | Smart fan cooling                         |                        |                        |                        |                        |                        |
| Cycle Life                              |                | 25 ± 2℃ , 0.5C / 0.5C , EOL70% ≥ 6000     |                        |                        |                        |                        |                        |
| Product Warranty                        |                | 10 years warranty                         |                        |                        |                        |                        |                        |
| Certificates                            |                | IEC62619, CE, UN38.3, MSDS                |                        |                        |                        |                        |                        |
| Compatible inverter brands              |                | Leapton, Solis, Growatt and others        |                        |                        |                        |                        |                        |
| 40HQ Container Capacity (pcs)           |                | 160(Battery)+10(PCU)+10(Sets Accessories) |                        |                        |                        |                        |                        |

1. Value for Battery Cell Only (Depth of Discharge 90%). Actual usable energy at the AC output may vary by condition, such as the battery converter, inverter efficiency and temperature.

2. Leapton Energy recommends 100A@5kW for maximum battery module lifetime. Max dis-/charge current and power derating will occur related to temperature and SOC.



| Model                                    |                | EH-A16-51.2/614                           | EH-A16-51.2/665        | EH-A16-51.2/716        | EH-A16-51.2/768        | EH-A16-51.2/819        |
|------------------------------------------|----------------|-------------------------------------------|------------------------|------------------------|------------------------|------------------------|
| Cell Chemistry                           |                | LFP(LiFePO <sub>4</sub> )                 |                        |                        |                        |                        |
| Module Energy (kWh)                      |                | 16                                        |                        |                        |                        |                        |
| Module Nominal Voltage (V)               |                | 51.2                                      |                        |                        |                        |                        |
| Module Capacity (Ah)                     |                | 314                                       |                        |                        |                        |                        |
| Battery Module Qty In Series (Optional)  |                | 12                                        | 13                     | 14                     | 15                     | 16                     |
| Cell Configuration                       |                | 192S1P                                    | 208S1P                 | 224S1P                 | 240S1P                 | 256S1P                 |
| System Nominal Voltage (V)               |                | 614.4                                     | 665.6                  | 716.8                  | 768                    | 819.2                  |
| System Operating Voltage (V)             |                | 537.6~700.8                               | 582.4~759.2            | 627.2~817.6            | 672~876                | 716.8~934.4            |
| System Energy (kWh)                      |                | 192                                       | 208                    | 224                    | 240                    | 256                    |
| System Usable Energy (kWh)               |                | 172.8                                     | 187.2                  | 201.6                  | 216                    | 230                    |
| Charge/Discharge Current (A)             | Recommended    | 100                                       |                        |                        |                        |                        |
|                                          | Max            | 160                                       |                        |                        |                        |                        |
| Operating Temperature (°C)               |                | Charge: 0~55, Discharge: -20~55           |                        |                        |                        |                        |
| Operating Temperature (Recommended) (°C) |                | 15~30                                     |                        |                        |                        |                        |
| Storage temperature (°C)                 |                | -10~55                                    |                        |                        |                        |                        |
| Storage temperature (Recommended) (°C)   |                | 20~30                                     |                        |                        |                        |                        |
| Dimensions [W*D*H] [mm]                  | Battery Module | 560*825*290                               |                        |                        |                        |                        |
|                                          | PCU Box        | 560*765*200                               |                        |                        |                        |                        |
|                                          | System         | 2520±20*825±20*1050±20                    | 2520±20*825±20*1140±20 | 2520±20*825±20*1140±20 | 2520±20*825±20*1140±20 | 2520±20*825±20*1340±20 |
| Weight Approximate (kg)                  | Battery Module | 130                                       |                        |                        |                        |                        |
|                                          | PCU Box        | 23                                        |                        |                        |                        |                        |
|                                          | System         | 1660±20                                   | 1790±20                | 1920±20                | 2050±20                | 2180±20                |
| Communication                            |                | CAN, RS485                                |                        |                        |                        |                        |
| Humidity                                 |                | 5%~85%RH                                  |                        |                        |                        |                        |
| Altitude                                 |                | ≤2000m                                    |                        |                        |                        |                        |
| IP Rating Of Enclosure                   |                | IP20                                      |                        |                        |                        |                        |
| Mounting Method                          |                | Rack mounted                              |                        |                        |                        |                        |
| Cooling Method                           |                | Smart fan cooling                         |                        |                        |                        |                        |
| Cycle Life                               |                | 25 ± 2°C , 0.5C / 0.5C , EOL70% ≥ 6000    |                        |                        |                        |                        |
| Product Warranty                         |                | 10 years warranty                         |                        |                        |                        |                        |
| Certificates                             |                | IEC62619, CE, UN38.3, MSDS                |                        |                        |                        |                        |
| Compatible inverter brands               |                | Leapton, Solis, Growatt and others        |                        |                        |                        |                        |
| 40HQ Container Capacity (pcs)            |                | 160(Battery)+10(PCU)+10(Sets Accessories) |                        |                        |                        |                        |

1. Value for Battery Cell Only (Depth of Discharge 90%). Actual usable energy at the AC output may vary by condition, such as the battery converter, inverter efficiency and temperature.

2. Leapton Energy recommends 100A@5kW for maximum battery module lifetime. Max dis-/charge current and power derating will occur related to temperature and SOC.



## EH-F0P

### Power Control Box

|                                      |                     |
|--------------------------------------|---------------------|
| Operating Voltage                    | 250~1000Vdc         |
| Recommended Charge/Discharge Current | 100A                |
| Max.Charge/Discharge Current         | 160A                |
| Operating Temperature Range          | -20~55°C            |
| Ingress Protection Rating            | IP20                |
| Dimensions (W/D/H)                   | 560±5*765±5*200±5mm |
| Weight Approximate                   | 23±2kg              |



## EH-A16

### 16 kWh Battery Module

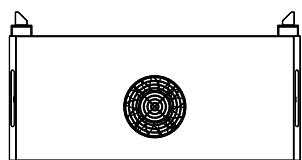
|                               |                           |
|-------------------------------|---------------------------|
| Battery Type                  | LFP(LiFePO <sub>4</sub> ) |
| Nominal Voltage               | 51.2Vdc                   |
| Rated Capacity                | 314Ah                     |
| Rated Energy                  | 16kWh                     |
| Max. Charge/Discharge Current | 160A                      |
| Charge Temperature            | 0~55°C                    |
| Discharge Temperature         | -20°C~55°C                |
| Ingress Protection Rating     | IP20                      |
| Dimensions (W/D/H)            | 560±5*825±5*290±5mm       |
| Weight Approximate            | 130±5kg                   |



## Preview



## Packing list of EH-A16



①



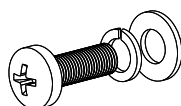
②



③



④

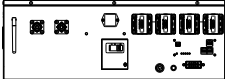
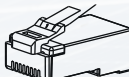


⑤

| No. | Description                               | Quantity |
|-----|-------------------------------------------|----------|
| ①   | 16kWh Battery                             | 1        |
| ②   | Communication Cable To Battery/ L360mm    | 1        |
| ③   | Copper Bar                                | 1        |
| ④   | M8X16 Combination Screw                   | 2        |
| ⑤   | M4X16 Screw / Spring Washer / Flat Washer | 4        |

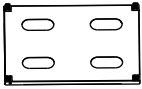
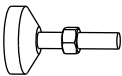
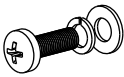


Packing list of EH-F0P(PCU)

| No. | Photo                                                                               | Description                                            | Quantity |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------------|----------|
| 1   |    | PCU                                                    | 1        |
| 2   |    | M8X16 Combination Screw                                | 6        |
| 3   |    | M6X20 Combination Screw                                | 1        |
| 4   |    | Pack Terminal Resistor                                 | 1        |
| 5   |   | AC Power Cord                                          | 1        |
| 6   |  | Power Cable-positive To Battery/<br>L3500mm, Red, 1AWG | 1        |
| 7   |  | Power Cable-positive To Battery/<br>L3500mm, Red, 1AWG | 1        |
| 8   |  | SC50-8                                                 | 6        |
| 9   |  | Ground Wire/ L1500mm,<br>Yellow Green, 10AWG           | 1        |
| 10  |  | Network Cable                                          | 1        |
| 11  |  | Parallel Connection Terminal Resistor                  | 1        |



## Packing list of Accessory Bag

| No. | Photo                                                                               | Description                                 | Quantity |
|-----|-------------------------------------------------------------------------------------|---------------------------------------------|----------|
| 1   |    | Pedestal                                    | 4        |
| 2   |    | Lid                                         | 3        |
| 3   |    | Footed Glass                                | 16       |
| 4   |    | Communication Cable To Battery/<br>L1000mm  | 3        |
| 5   |   | Serial Cable/L1000mm, Red,<br>1AWG, SC50-8  | 3        |
| 6   |  | Ground Wire/ L300mm,<br>Yellow Green, 10AWG | 3        |
| 7   |  | M6X20 Combination Screw                     | 7        |
| 8   |  | M4X16 Screw/ Spring Washer/<br>Flat Washer  | 20       |
| 9   |  | Cable Tie                                   | 12       |
| 10  |  | User Manual                                 | 1        |