

# Li+HUB®

Li+HUB E series Battery Energy Storage System (BESS) is designed for home use. Its safest Lithium Iron Phosphate (LiFePO4) battery chemistry provides energy storage for solar self-consumption, time-of-use, and back up.

E series is convenient connection to any home or building. Its modular design achieves fast scalable to 10kWh, 15kWh, 20kWh, 25kWh, 30kWh by connecting up more MagicPack1.0 units.



## Ultra Safe

So far the safest Lithium-ion chemistry available for maximum safety and longevity.

## Easy Installation

The innovative, utility patent protected MagicPack1.0 realizes interchange on wall-mount and stackable installation.

## Cloud Computing

With the LiHUB Energy cloud computing, you can monitor your solar energy in real time. Control your Li+HUB battery from anywhere with remote access and instant alerts.

## Modular Design & Scalable

Start with a 5kWh MagicPack1.0 and scalable to 10kWh, 15kWh, 20kWh, 25kWh, 30kWh by connecting up more MagicPack1.0 units as energy demands grows.



# MagicPack1.0

## Performance Specifications

|  |                           |
|--|---------------------------|
| Model                                      | MagicPack1.0              |
| Battery Chemistry                          | Lithium Iron Phosphate    |
| Nominal Capacity                           | 105 Ah                    |
| Nominal Voltage                            | 51.2 VDC                  |
| Rated Energy                               | 5.0 kWh                   |
| Scalable Units                             | Up to 6                   |
| Scalable Energy                            | 5.0 kWh - 30.0 kWh        |
| Standard Charge Voltage                    | 57.6 V                    |
| Recommended Floating Charge Voltage        | 56 V                      |
| Charge Cut-off Voltage                     | 58.4 V                    |
| Discharge Cut-off Voltage                  | 48 V                      |
| Continuous Charge Current* <sup>1</sup>    | 60 A                      |
| Continuous Discharge Current* <sup>1</sup> | 60 A                      |
| Continuous Discharge Power* <sup>2</sup>   | 3 kW                      |
| Peak Discharge Power* <sup>3</sup>         | 4 kW                      |
| Number of Cycles                           | 5,000 @ 90% DOD           |
| Round Trip Efficiency                      | 90%                       |
| Warranty                                   | 10 years limited warranty |

\*1 Suitable for individual unit, multiple units do not exceed 200 A.

\*2 Suitable for individual unit, multiple units do not exceed 10 kW.

\*3 Suitable for individual unit, multiple units do not exceed 12 kW.

## Environmental Specifications

|                        |                    |
|------------------------|--------------------|
| Charge Temperature     | 0°C to 45°C        |
| Discharge Temperature  | -10°C to 50°C      |
| Relative Humidity (RH) | 5% ~ 95%           |
|                        | -20°C to 35°C      |
| Storage Conditions     | 30% to 70% RH      |
|                        | 40% to 50% SOC     |
| Maximum Elevation      | 2,000 m            |
| Cooling                | Natural convection |
| Noise @ 1m distance    | <30 dBA            |

## Mechanical Specifications

|                            |                    |
|----------------------------|--------------------|
| Width                      | 681 mm/26.8 inch   |
| Depth                      | 316.5 mm/12.5 inch |
| Height                     | 205.5 mm/8.1 inch  |
| Weight                     | 50 kg/110 lb       |
| Ingress Rating             | IP 43              |
| Installation* <sup>4</sup> | Wall mount         |
|                            | Stackable          |
| Environment                | Indoor             |

## Compliance Information

|                               |                    |
|-------------------------------|--------------------|
| Certificates (cell)           | ANSI/UL 1973       |
|                               | IEC62619:2017      |
| Certificates (battery module) | EN 61000-6-1: 2019 |
|                               | EN 61000-6-3: 2021 |
| Shipping                      | UN38.3             |
|                               | UN3480, Class 9    |

\*4 Dual purpose is applicable.



## E15 Wall Mount



|  |                                  |
|--|----------------------------------|
| Battery Energy Storage System (BESS) Model     | E15                              |
| Battery Module                                 | MagicPack1.0                     |
| Battery Chemistry                              | Lithium Iron Phosphate (LiFePO4) |
| Battery Module Rated Energy                    | 5.0 kWh                          |
| Number of MagicPack1.0                         | 3                                |
| BESS Rated Energy                              | 15.0 kWh                         |
| Usable Energy* <sup>1</sup>                    | 14.4 kWh                         |
| Continuous Output Power                        | 8 kW                             |
| Peak Output Power* <sup>2</sup>                | 10 kW                            |
| Nominal Voltage (single phase system)          | 51.2 V                           |
| Operating Voltage Range (single phase system)  | 48 V ~ 58.4 V                    |
| Input/Charge Voltage* <sup>3</sup>             | 56.8 V ~ 57.6 V                  |
| Charge Cut-off Voltage                         | 58.4 V                           |
| Output/Discharge Cut-off Voltage* <sup>3</sup> | 48V                              |
| Round Trip Efficiency                          | 90%                              |
| Number of Cycles                               | 5,000 @ 90% DOD                  |
| Warranty* <sup>4</sup>                         | 10 years limited warranty        |
| Communication With Inverter                    | RS485, CAN                       |
| Operating Temperature                          | -10°C to 50°C                    |
| Relative Humidity (RH)                         | 5% ~ 95%                         |
| Enclosure Protection                           | IP 43                            |
| Cooling  | Natural convection               |
| Altitude                                       | 2000 m                           |
| Noise @ 1m distance                            | <30 dbA                          |
| Dimensions (W x D x H)                         | 685 x 205 x 1150 mm              |
|  | 27 x 8.1 x 45.3 inch             |
| Weight   | 156 kg/344 lb                    |
| Environment                                    | Indoor* <sup>5</sup>             |
| Installation                                   | Wall mount                       |
| Certificates (cell)                            | ANSI/UL 1973                     |
|  | IEC62619:2017                    |
| Certificates (battery module)                  | EN 61000-6-1: 2017               |
|  | EN 61000-6-3: 2021               |
| Shipping (battery module)                      | UN38.3                           |
|  | UN3480, Class 9                  |

\*1 It is calculated by 90% depth of discharge (DoD) after BESS is fully charged at 25°C.

\*2 The duration is 30 seconds.

\*3 set up battery voltage value on inverter will be changed depend on battery management strategy. Please refer to the user manual for more information.

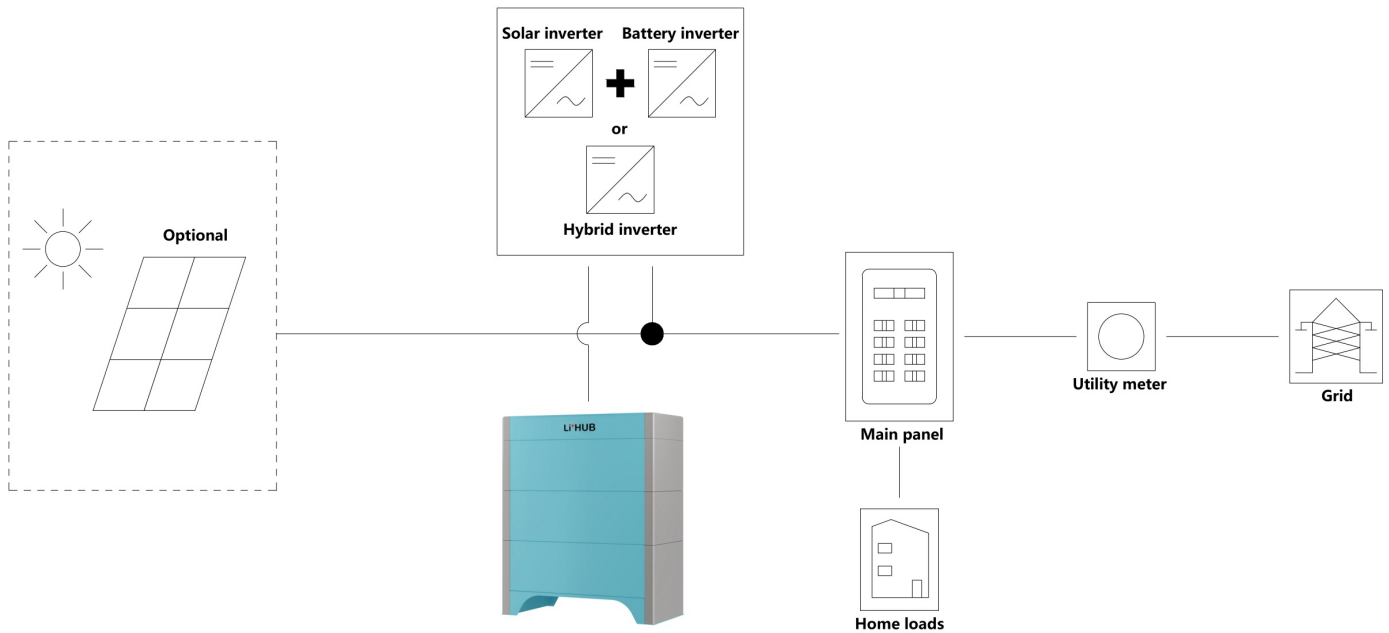
\*4 For warranty details please refer to the LiHUB Energy home BESS Limited Warranty.

\*5 Improper installation may compromise product warranty. The product should be installed by authorized installer.

# Typical System Layouts

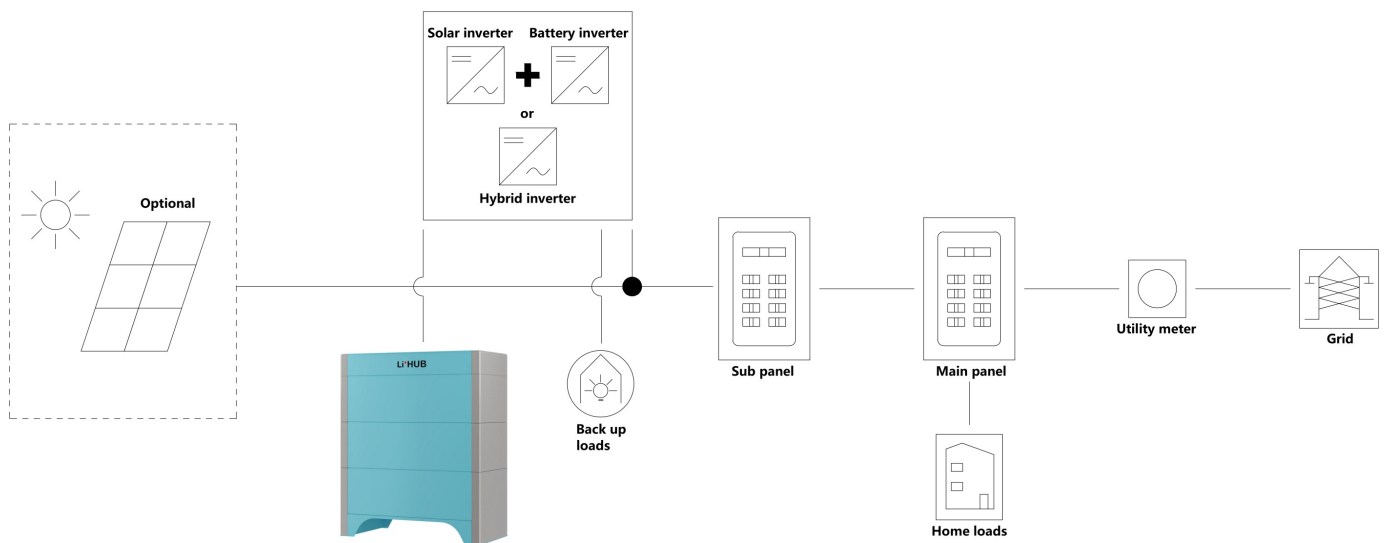
## Rate Arbitrage

Inverter remains grid-connected but prioritizes the use of battery and renewable sources to run loads during high rate periods. Power supplied from battery will attempt to match the load for as long as possible during peak Time-of-Use (TOU).



## Clean Backup

When grid service is interrupted, LiHUB BESS will begin anti-islanding, powering back up loads with solar power or battery stored power.



## Inverter Compatibility

### Compatible Inverters

Li<sup>+</sup>HUB E series BESS is designed to work with most 48V (hybrid) inverters available on the market. Below is a list of available inverters. If you can't find the inverter you are using on the list, please email us at [info@lihub.com.cn](mailto:info@lihub.com.cn) for technical support.

| Brand     | Mode Configuration   | Compatibility |
|-----------|--|---------------|
| Schneider | XW Pro 6848 NA 120/240V, XW Pro 6848 NA 120V<br>SW 4048 120/240, XW Pro 8.5kW 230V, SW 4048 230  | Available     |
| Victron   | EasySolar-II 48/3000/35-32 MPPT 250/70 GX<br>EasySolar-II 48/5000/70-50 MPP4 250/100 GX<br>Multi RS Solar 48/6000, Inverter RS Smart Solar 48/6000   | Available     |
| Goodwe    | GW3000/3600/3600M/5000/5000M/6000/6000M-ES-20<br>GW3600/5000/6000-SBP-20, GW3648D/5048D-ES<br>GW3048/3648/5048-EM, GW3600S/5000S-BP  | Available     |
| SMA       | Sunny Island 4548-US/6048-US<br>Sunny Island 4.4M/6.0H/8.0H  | Available     |
| Growatt   | SPH 3000/3600/4000/4600/5000/6000TL BL-UP, SPF 3000TL LVM-ES<br>SPF 3000/3500/5000 ES, SPF 3500/5000TL HVM-Pro<br>SPF 2000/3000TL HVM-48, SPF 6000T DVM-G2, SPF 3000T HVM-G2<br>SPF 4/5/6/8KT HVM, SPF 4000/5000/6000/8000T DVM<br>SPF 4000/5000/6000/8000T DVM-MPV  | Available     |
| Deye      | SUN-3K/3.6K/5K/6K-SG04LP1-EU, SUN-3.6K/5K/6K-SG03LP1-EU<br>SUN-5K/6K/7.6K/8K-SG01LP1-US/EU, SUN-5K/6K-SG04LP3-EU<br>SUN-3.6K/5K/6K/7.6K/8K-SG05LP1-EU  | Available     |
| SOL-ARK   | SOL-ARK-5K-1P-N, SOL-ARK-8K-2P-L<br>SOL-ARK-5K/8K-1P-L, SOL-ARK-5K/8K/12K-2P-N   | Available     |
| MEGAREVO  | R3KL1, R3K6L1, R4KL1, R4K6L1, R5KL1, R6KL1, R5/R6/R8/R10KLNA<br>R3KL1-G2, R3K6L1-G2, R4KL1-G2, R4K6L1-G2, R5KL1-G2, R6KL1-G2   | Available     |
| Voltronic | InfiniSolar V-3K/4K-48, InfiniSolar VII 6KW, InfiniSolar VIII<br>InfiniSolar V4-3.6KW/5.6KW/6KW, InfiniSolar 2KW, Infini V 4 WP 6K<br>InfiniSolar Plus 3KW/5KW, InfiniSolar Plus II 3KW, InfiniSolar E 5.5KW<br>Infini VII WP 2KW/3KW/5KW/6KW, InfiniSolar WP LV 6KW | Available     |
| SOFAR     | HYD 3000/3680/4000/4600/5000/5500/6000-EP<br>ME 3000SP   | Available     |