

Li<sup>+</sup>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.

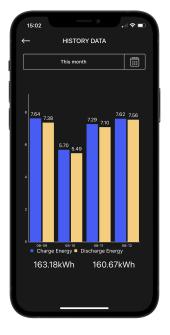
### **Cloud Computing**

With the LiHUB Energy cloud computing, you can monitor your solar energy in real time. Control your Li<sup>+</sup>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*1	60 A
Continuous Discharge Current* <sup>1</sup>	60 A
Continuous Discharge Power* <sup>2</sup>	3 kW
Peak Discharge Power*3	4 kW
Number of Cycles	5,000 @ 90% DOD
Round Trip Efficiency	90%
Warranty	10 years limited warranty
*4.0 ** 11.6 ** 11.11 ** 10.	1 '1 1 1 1000 *

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

## **Environmental Specifications**

Charge Temperature	0°C to 45°C
Discharge Temperature	-10°C to 50°C
Relative Humidity (RH)	5% ~ 95%
Storage Conditions	-20°C to 35°C
	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

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

<sup>\*4</sup> Dual purpose is applicable.





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

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

## E20 Stackable



Battery Energy Storage System (BESS) Model	E20	
Battery Module	MagicPack1.0	
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)	
Battery Module Rated Energy	5.0 kWh	
Number of MagicPack1.0	4	
BESS Rated Energy	20.0 kWh	
Usable Energy*1	19.2 kWh	
Continuous Output Power	10 kW	
Peak Output Power*2	12 kW	
Nominal Voltage (single phase system)	51.2 V	
Operating Voltage Range (single phase system)	48 V ~ 58.4 V	
Input/Charge Voltage*3	55.2 V ~ 57.6 V	
Charge Cut-off Voltage	58.4 V	
Output/Discharge Cut-off Voltage*3	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	
B: : (M, H, B)	685 x 316 x 1022 mm	
Dimensions (W x H x D)	27 x 12.5 x 40.3 inch	
Weight	212 kg/467 lb	
Environment	Indoor* <sup>5</sup>	
Installation	Stackable	
0 (7 1 / 11)	ANSI/UL 1973	
Certificates (cell)	IEC62619:2017	
	EN 61000-6-1: 2017	
Certificates (battery module)	EN 61000-6-3: 2021	
Shipping (battery module)	UN38.3	
	UN3480, Class 9	

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

<sup>\*2</sup> The duration is 30 seconds.

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

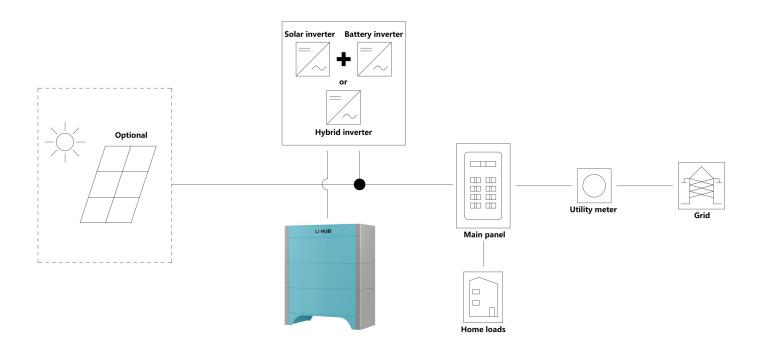
<sup>\*4</sup> For warranty details please refer to the LiHUB Energy home BESS Limited Warranty.

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

# Typical System Layouts

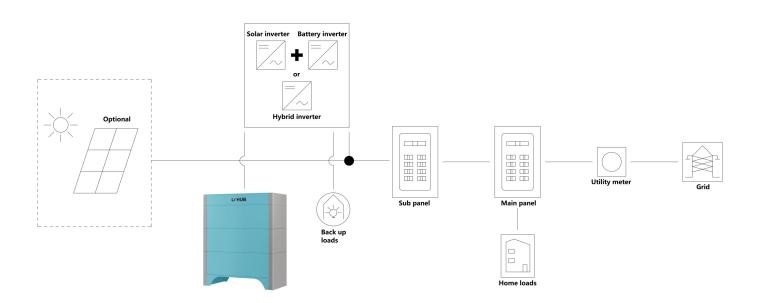
#### Rate Arbitrage

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 for technical support.

Brand	Mode Configuration	Compatibility	
Schneider	XW Pro 6848 NA 120/240V, XW Pro 6848 NA 120V	Available	
Scrineidei	SW 4048 120/240, XW Pro 8.5kW 230V, SW 4048 230	Available	
Victron	EasySolar-II 48/3000/35-32 MPPT 250/70 GX		
	EasySolar-II 48/5000/70-50 MPP4 250/100 GX	Available	
	Multi RS Solar 48/6000, Inverter RS Smart Solar 48/6000		
	GW3000/3600/3600M/5000/5000M/6000/6000M-ES-20		
Goodwe	GW3600/5000/6000-SBP-20, GW3648D/5048D-ES	Available	
	GW3048/3648/5048-EM, GW3600S/5000S-BP		
SMA	Sunny Island 4548-US/6048-US	A:!-L1-	
SIVIA	Sunny Island 4.4M/6.0H/8.0H	Available	
	SPH 3000/3600/4000/4600/5000/6000TL BL-UP, SPF 3000TL LVM-ES		
	SPF 3000/3500/5000 ES, SPF 3500/5000TL HVM-Pro		
Growatt	SPF 2000/3000TL HVM-48, SPF 6000T DVM-G2, SPF 3000T HVM-G2	Available	
	SPF 4/5/6/8KT HVM, SPF 4000/5000/6000/8000T DVM		
	SPF 4000/5000/6000/8000T DVM-MPV		
	SUN-3K/3.6K/5K/6K-SG04LP1-EU, SUN-3.6K/5K/6K-SG03LP1-EU		
Deye	SUN-5K/6K/7.6K/8K-SG01LP1-US/EU, SUN-5K/6K-SG04LP3-EU	Available	
	SUN-3.6K/5K/6K/7.6K/8K-SG05LP1-EU		
COL ADIZ	SOL-ARK-5K-1P-N, SOL-ARK-8K-2P-L	Aveilable	
SOL-ARK	SOL-ARK-5K/8K-1P-L, SOL-ARK-5K/8K/12K-2P-N	Available	
MECAREVO	R3KL1, R3K6L1, R4KL1, R4K6L1, R5KL1, R6KL1, R5/R6/R8/R10KLNA	Available	
MEGAREVO	R3KL1-G2, R3K6L1-G2, R4KL1-G2, R4K6L1-G2, R5KL1-G2, R6KL1-G2		
	InfiniSolar V-3K/4K-48, InfiniSolar VII 6KW, InfiniSolar VIII		
Voltronic	InfiniSolar V4-3.6KW/5.6KW/6KW, InfiniSolar 2KW, Infini V 4 WP 6K	Available	
VOILIOITIC	InfiniSolar Plus 3KW/5KW, InfiniSolar Plus II 3KW, InfiniSolar E 5.5KW		
	Infini VII WP 2KW/3KW/5KW/6KW, InfiniSolar WP LV 6KW		
SOFAR	HYD 3000/3680/4000/4600/5000/5500/6000-EP	Available	
SUFAR	ME 3000SP	Available	