



2022

# COMPANY PROFILE



BlauHoff

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BlauHoff

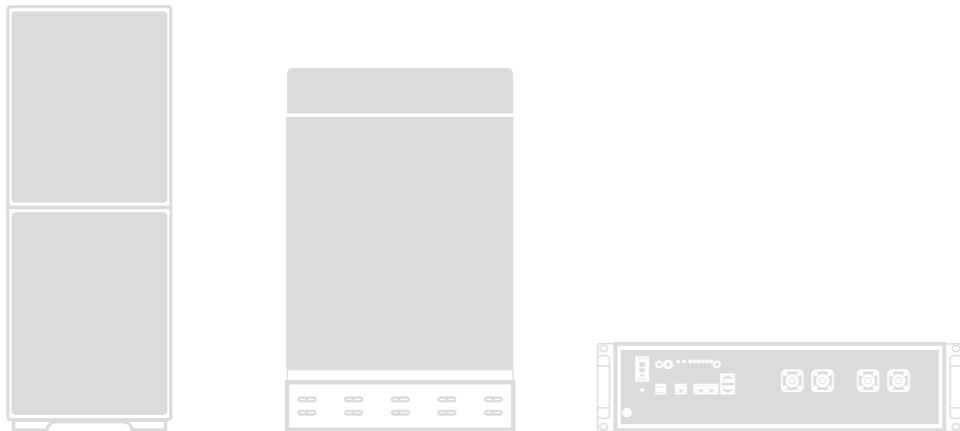
BATTERY EXPERT-GREEN ENERGY PROVIDER

## YOUR OWN POWER, A GOOD FEELING!



# 2022 COMPANY PROFILE

LI-ION BATTERY FOR ENERGY STORAGE



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# BLH-5KW



## Batteries



### BLH-5KW

L440mm\* W620mm \* H117mm (2.6U)  
51.2V100Ah 5.12kWh







## Operation Panel



## Introduction

BLH series, the new generation LFP battery for home energy storage system. It provides safe, well-designed and high-performance standard LFP battery pack for you. The battery pack is compact, easy to install, free of maintenance, and could be deployed to the building block of energy storage system by being assembled in parallel. It is widely applied in home applications, small commercial and industrial energy storage system as well as Telecom stations.

## Features

- 
**Self-Consumption**  
store excess energy generated by solar panels and use it whenever needed
- 
**Smart Energy Management**  
measure, monitor and manage the system in real-time  
optimize the system life span by intelligent algorithms
- 
**Back-Up Power Supply**  
provide emergency power supply during grid outage
- 
**Longest Life and Highest Safety**  
more than 6000 cycles @90%DOD
- 
**Electricity Bills Reduction**  
charge the battery during off-peak period and discharge the battery during peak period
- 
**Wide Compatibility**  
compatible with 16 mainstream inverters in the market

10 Years Warranty



## Brackets For BLH-5KW (2.6U)



## Technical Specifications

Battery Model	BLH-5KW
Chemistry	LFP
Nominal Voltage	51.2V
Voltage Range	47.5V-57.6V
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Unit Dimension	L440mm* W620mm* H117mm (2.6U)
Unit Weight	51kg
Standard Charge Current	50A
Maximum Charge Current	50A
Standard Discharge	50A
Maximum Discharge Rate	50A
Round-Trip Efficiency	≥95%
Communication Protocol	RS232, RS485, CAN
Cycle Life	≥6000cycles
Calendar Life	≥10years
Operating Temperature	-10°C~50°C
Connect style	Parallel
Storage Temperature	Within 1month: -20~55°C, 1-3months: 0~35°C, 3-12months: 20~25°C



## Cabinets

Homebox A



**Homebox A**

### Introduction

The BLH Homebox A is a state-of-the-art home energy storage system solution. It has a total usable energy capacity of 10kWh. Product features include quick and easy installation, a compact and elegant home style design and great extensibility. The BLH Homebox A can provide smart configurable backup power during grid outages and power smart homes with solar energy, day and night.

### Technical Specifications

Model	Homebox A
Total capacity	10.24kWh
Usable capacity	9.22kWh
Chemistry	Lithium iron phosphate(LFP)
Nominal voltage	51.2V
Max. charge/ discharge current	100A
Communication	CAN, RS485
Certificate	UL1973, IEC62619, CE, UN38.3
Operating Temperature	Charge:0~45°C; Discharge:-10~50°C
Altitude	Max.2000 meters
Compatibility	Deye, Solis, Victron, Voltronic, Sol-ark, Growatt, SRNE, Luxpower, Kelong, Goodwe, Studer, SMA,Sermatec, Megarevo etc.

Mechanical Design	Parameter
Dimensions(W*D*H)	280*510*700mm 310*510*780mm(including holder)
Weight	120kg
Mount	Wall/Floor mount
Enclosure rating	IP20
Enclosure material	Cool-rolled steel
Cooling	Natural convection
Warranty	6000 cycles or 10 years



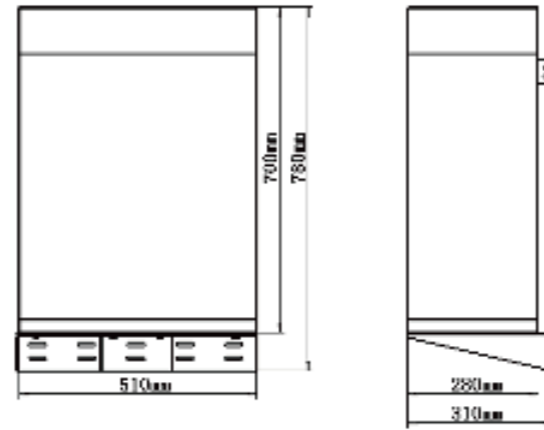
## Homebox F

Battery Capacity	4.8kWh	7.2kWh	9.6kWh	14.4kWh
Protect Level	IP20			

### 3D image



### Mechanical drawing



### Battery Expansion

BLH Home Energy Storage System can connect Homebox A up to 3 pcs without additional kit. You can use our BLH 1uHUB to get max 27 Homebox A connected in parallel.





## Homebox R-IP65

### Introduction

The BLH Homebox R-IP65 is a state-of-the-art home energy storage system solution. It has a total usable energy capacity of 10kWh. Product features include quick and easy installation, a compact and elegant home style design and great extensibility. The BLH Homebox R-IP65 can provide smart configurable backup power during grid outages and power smart homes with solar energy, day and night.

### Technical Specifications

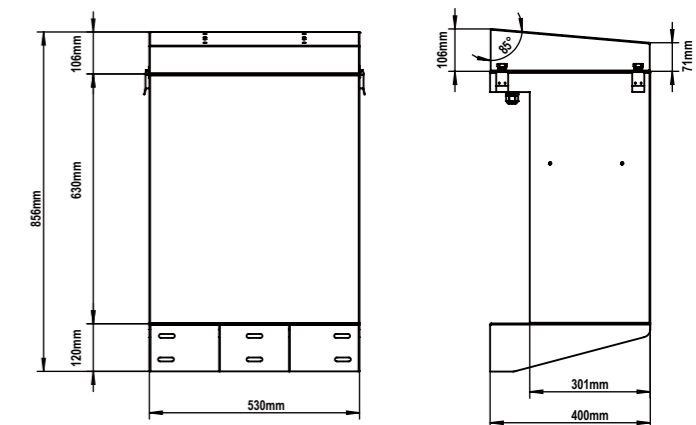
Model	Homebox R-IP65
Total capacity	10.24kWh
Usable capacity	9.22kWh
Chemistry	Lithium iron phosphate(LFP)
Nominal voltage	51.2V
Max. charge/discharge current	100A
Communication	CAN, RS485
Certificate	UL1973, IEC62619, CE, UN38.3
Operating Temperature	Charge:0~45°C; Discharge:-10~50°C
Altitude	Max.2000 meters
Compatibility	Deye, Solis, Victron, Voltronic, Sol-ark, Growatt, SRNE, Luxpower, Kelong, Goodwe, Studer, SMA,Sermatec, Megarevo etc.

Mechanical Design	Parameter
Dimensions(W*D*H)	310*530*736mm 310*530*856mm(including holder)
Weight	120kg
Mount	Wall/Floor mount
Enclosure rating	Homebox R-IP65
Enclosure material	Cool-rolled steel
Cooling	Natural convection
Warranty	6000 cycles or 10 years

### 3D image

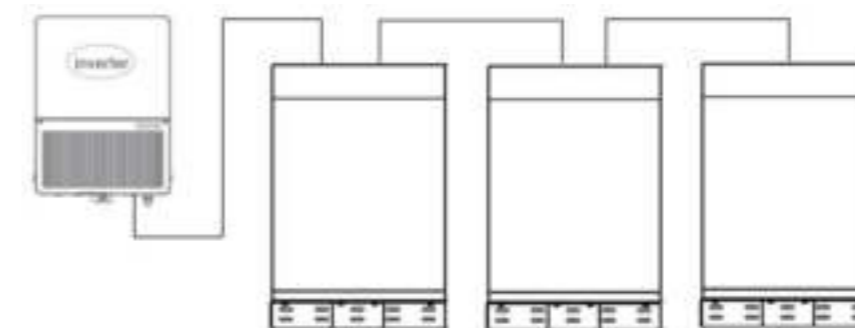


### Mechanical drawing



### Battery Expansion

BLH Home Energy Storage System can connect Homebox R-IP65 up to 3 pcs without additional kit. You can use our BLH 1uHUB to get max 27 Homebox R-IP65 connected in parallel.



# Homebox RB

- Easy to install
- Expandable up to 6 units BLH-5KW(30kWh in total)
- Long usage life
- Adapt to multiple inverters

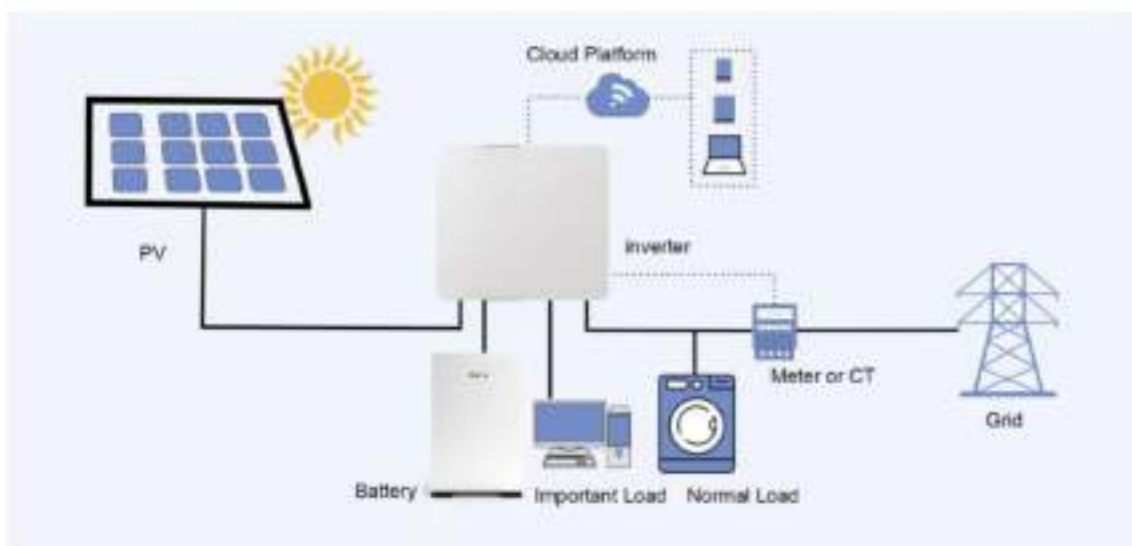
## Application Scenario



## Introduction

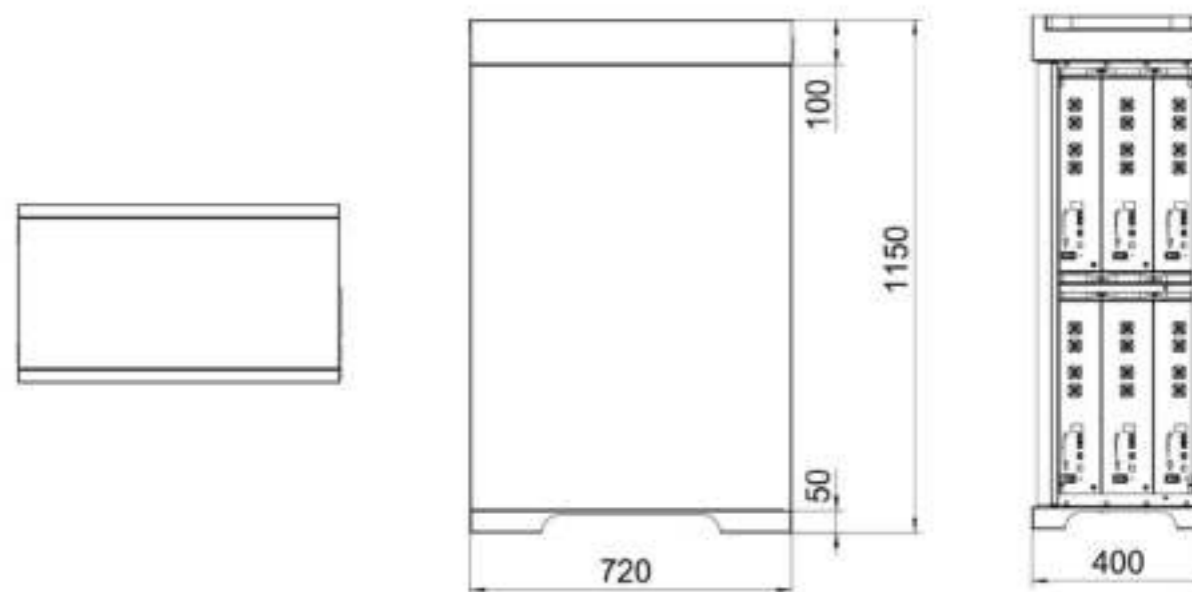
Expand your energy storage with the Homebox RB Cabinet! This iron enclosure stores up to 6 BLH-5KW batteries. The Homebox RB Cabinet paired with multiple batteries can build a 48V UPS server rack or provide storage capacity to home solar arrays.

## Product Topology



## Product Topology

	B2	B3	B4	B5	B6
Battery capacity	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
Nominal voltage	51.2V				
Standard Charge/Discharge Current	100A	150A	200A	250A	300A
Maximum Charge/Discharge Current	100A	150A	200A	250A	300A
Operating Temperature	Charging: 0~45°C; Discharge: -10~50°C				
Warranty	Cabinet: 3 years Battery: 10 years				
Positive and Negative Battery Busbars	2*8 points; M8 terminal rings				
Weight	120kg	170kg	220kg	270kg	320kg
Dimensions(W*D*H)	720mm*400mm*1150mm				
Enclosure Protection	IP20 (indoor)				
Altitude	<4000m				
Certificate	UL1973, IEC62619, CE, UN38.3				



# All-in-One ESS

Homebox-all in one



## Technical Specification

	R2	R3	R4	R5	R6
Capacity	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
Nominal voltage	51.2V				
Weight (approximate)	180kg	230kg	280kg	330kg	380kg
Dimensions W"/H"/D" (approximate)	720*400*2000mm				
<b>Inverter</b>	8K		10K		12K
PV input power	10400W		13000W		15600W
PV input voltage	550V(150V~800V)				
MPPT voltage range	200V~650V				
Start-up voltage	160V				
No.of MPPT trackers	2				
No.of strings per MPPT tracker	1+1		2+1		2+1
Rated AC output power	8000W		10000W		12000W
AC output rated current	12A		15A		18A
Grid type	Three Phases				

## Introduction

The Homebox-all in one, a new generation of energy storage products that integrate inverters and batteries, and is a landmark "New Home appliance". Homebox-all in one can manage your energy usage throughout the day, provide smart configurable backup power during grid outages and power smart homes with solar energy, day and night.

## Specification

### General Specification

Capacity	5.12kWh per battery module, up to 6 modules
Transfer switch	Automatic, integrated
Listed and recognized certificates	Battery modules: UL1973, IEC62619, CE, UN38.3 Inverter : IEC62109, IEC61727, TOR, IEC62116, IEC60068, IEC61683, NRS 097-2-1
Warranty	Battery: 10 years or 6,000 cycles Inverter: 5 years Cabinet: 10 years
Temperature range	Charge: 0~45°C Discharge: -10~50°C

### Battery Module Specification

DC battery input voltage	47.5~57.6V
Max charge current	50 A per module
Cell discharge	5.12kWh with 90% DoD
Overcharge Protection	MOSFET & Fuse protection





# Brackets

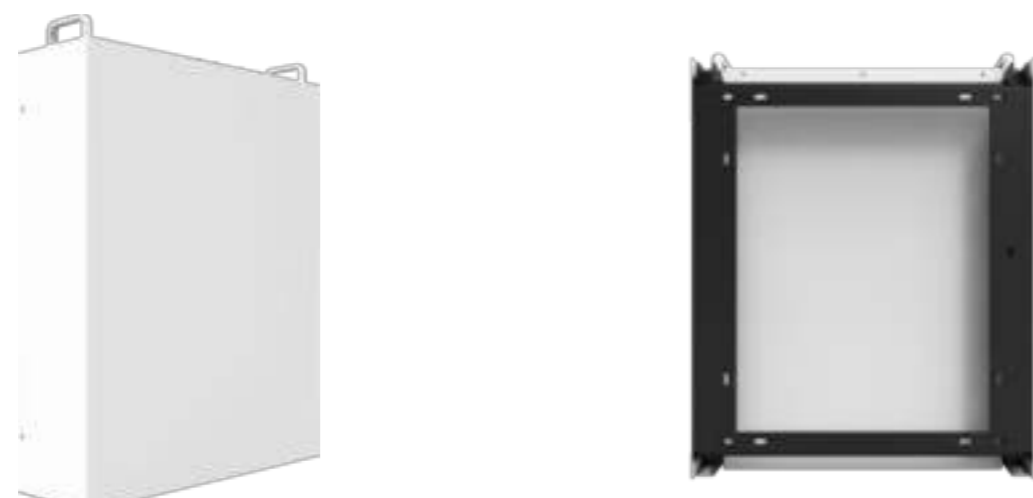


**Homebox-PLUS**

## Introduction

The Homebox-PLUS is a state-of-the-art wall-mounted home energy storage system solution. It has a total usable energy capacity of 5.12KWh. Product features include quick and easy installation, a compact and elegant home style design and great extensibility. The Homebox-PLUS can provide smart configurable backup power during grid outages and power smart homes with solar energy, day and night.

## Product Display



## Installation Steps

### Step 1

Fix the square wall mount bracket in place on the wall by screws.

### Step 2

Fix the battery bracket on the battery by screws.

### Step 3

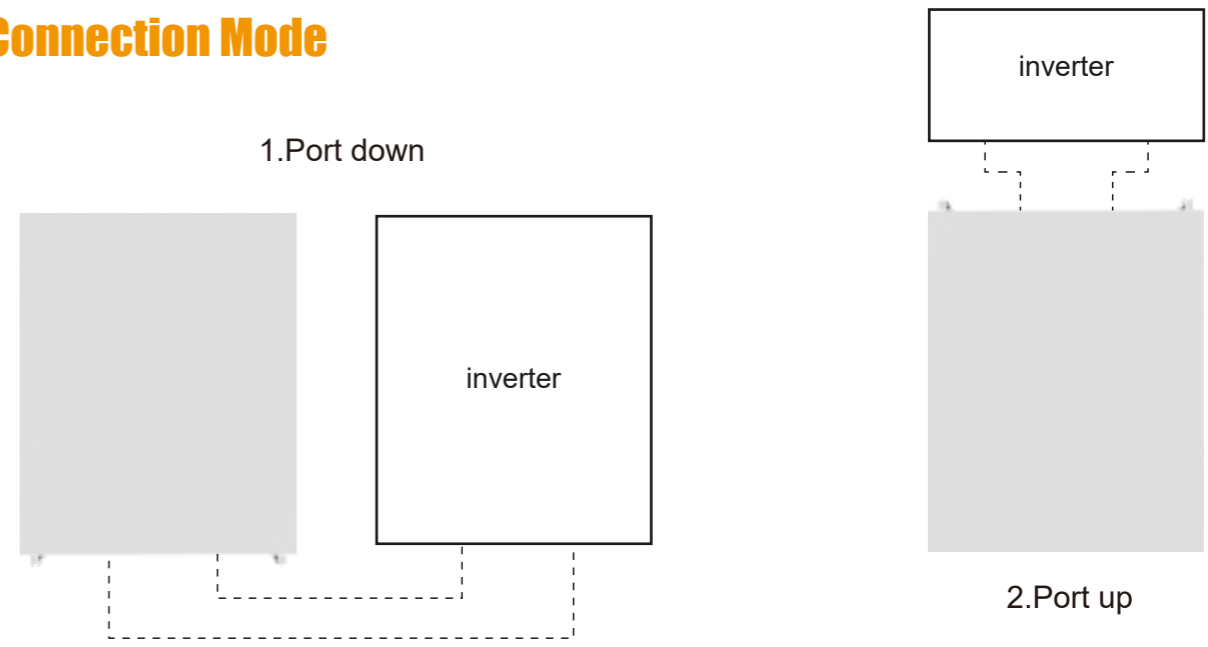
Hang the battery with battery bracket and cabinet on the square wall mount bracket.



## Battery Expansion

Homebox-PLUS can be parallel up to 8 pcs without additional kit.

## Connection Mode



# Bracket



## Parameters

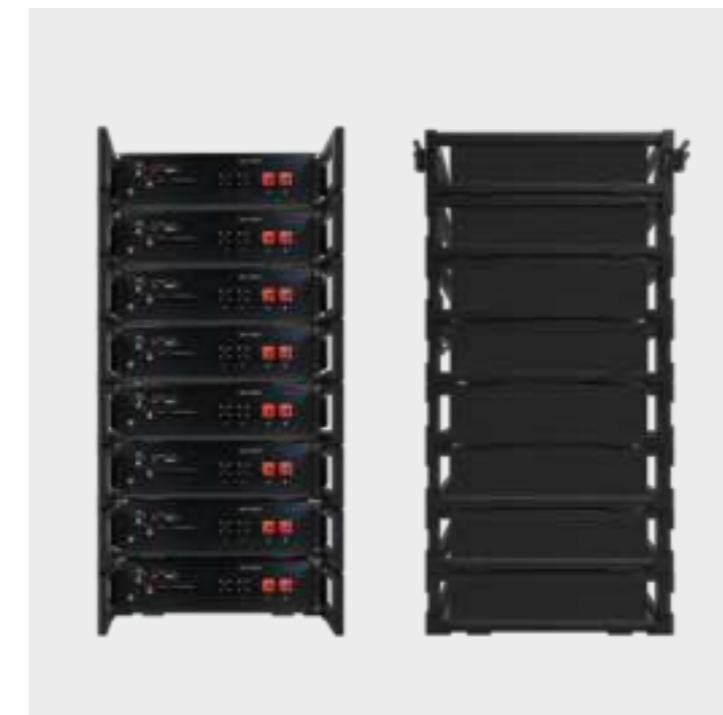
Unit Dimension	532mm*725mm*135mm
Unit Weight	8kg
Installation	<ol style="list-style-type: none"> <li>1.Install the parts by following the guide of the installation manual;</li> <li>2.Screws are needed to assemble single battery and rack;</li> <li>3.Multi-layer battery rack: after assembling all the single batteries and racks, stack them up vertically. Connection board is needed to install in between each two layers of battery racks ;</li> <li>4.Secure multi-layer battery rack with accessories to the wall;</li> <li>5.Connect multi-layer battery rack to the distribution box.</li> </ol>

## Introduction

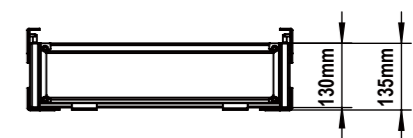
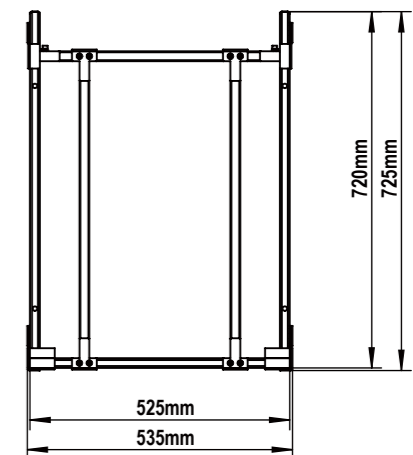
In order to install the BLH-5KW Battery more conveniently and reduce installation costs, BlauHoff has developed this battery bracket. You can use it on a single battery or on multiple battery packs. Compared with cabinet storage, besides taking up less space, the bracket can ventilate and reduce the heat much more easily.



## Can bear more weight



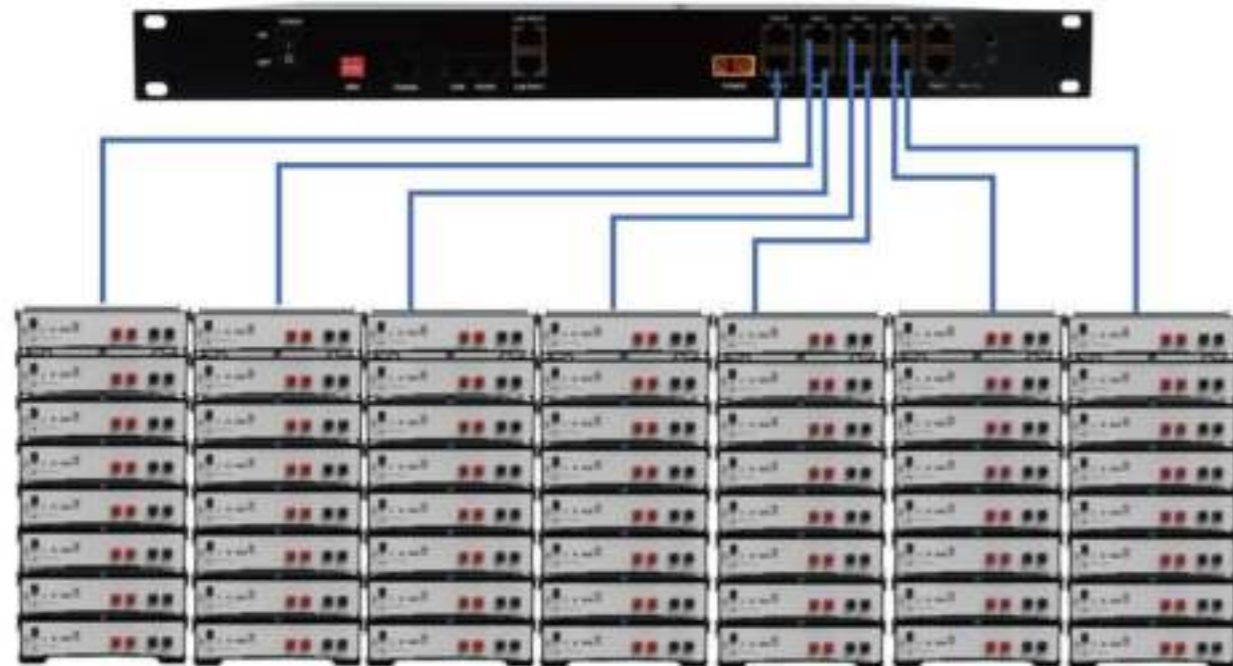
## Mechanical drawing



# HUB



Each communication hub connects maximum 7 battery groups



Each group supports maximum 8 pcs BLH-5KW in parallel

# Accessories



Battery to Battery

160mm Positive Power Cable  
160mm Negative Power Cable  
560mm Positive Power Cable  
560mm Negative Power Cable



Battery to Inverter

500mm Positive Power cable  
500mm Negative Power cable  
2000mm Positive Power cable  
2000mm Negative Power cable



Battery to Battery

220mm Standard communication cable  
350mm Standard communication cable  
500mm Standard communication cable



Battery to Inverter

B Class 500mm  
Compatible:solark、solis、growatt RS485/can SMA、goodwe can SRNE RS485

B Class 2000mm  
Compatible:solark、solis、growatt 485/can SMA、goodwe can SRNE RS485

B Class 3500mm  
Compatible:solark、solis、growatt 485&can、SMA、goodwe can、SRNE RS485

B Class 3500mm  
Compatible: Victron can

B Class 3500mm  
Compatible: Voltronic Off-grid RS485

B Class 3500mm  
Compatible: Voltronic On-grid RS485



RS 232 communication cable



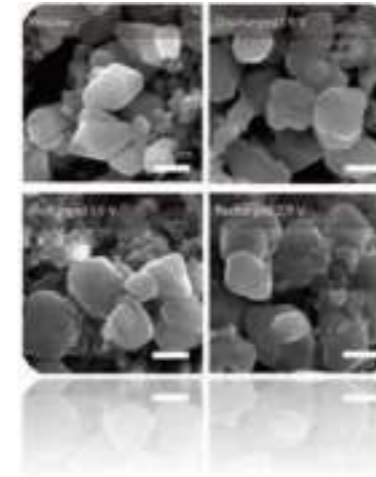
1000mm Earth Cable



Smart Meter



48V 300A Bus Bar



### Cells& Packs

- The olivine structure and the stability of P-O bond of LFP cells guarantee much higher safety than those of NCM cells.
- 17 years experiences of pack R&D ensure longer cycle life of the battery.

### Self-designed BMS

- Equipped with automotive grade chips by TI® system.
- Double protection by master chips. When the main chip fails, the back-up chip keeps protecting the system.
- Real-time temperature, current, voltage measuring and monitoring.
- Accurate SoC and SoH calculation.



### Quality Assurance

- UL1973/ IEC62619/ CE/ UN38.3 Certificates
- TÜV, SGS, BV International Certified Cooperative Testing Laboratories.

### Quick Response

Quick local after-sales response/ 24hours\*7days.



## Compatibility List of BLH ESS and Inverters



### BlauHoff

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