

HOME BATTERY

## Store your energy. Access anytime.

**We created libbi to store your self-generated energy, to use when you need it most.**

It allows you to capture as much surplus solar electricity as possible, whilst integrating with all other myenergi devices.

libbi is modular by design. Each module can store up to 5kWh of electricity so, combining 4 of them together would provide up to 20kWh of storage.

**3.6kW or 5kW Hybrid Inverter**  
**Up to 20 kWh Storage capacity**



## Features

### myenergi Ecosystem

Integrate with your myenergi devices, prioritising stored electricity to power your home, eddi or zappi.

### Ultimate Control

Choose whether you want to charge your libbi from solar, grid or a mixture of both. When charging from grid we will optimise around your time of use or dynamic tariff.

### Remote Access

myenergi app allows you to access and control your libbi from anywhere in the world. Live displays allow you to monitor your imported and exported electricity, all in one place.

### Modular Storage Design

Each battery module stores 5kWh of electricity. Combining four together provides up to 20kWh of storage.

### Flexible Install

libbi works with both AC and DC coupled solar PV. Connect PV without the need for a separate inverter or retrofit to any existing PV system.

### Optional Blackout Back Up

Instant energy availability to a dedicated socket or lighting circuit in the event of a power cut\*

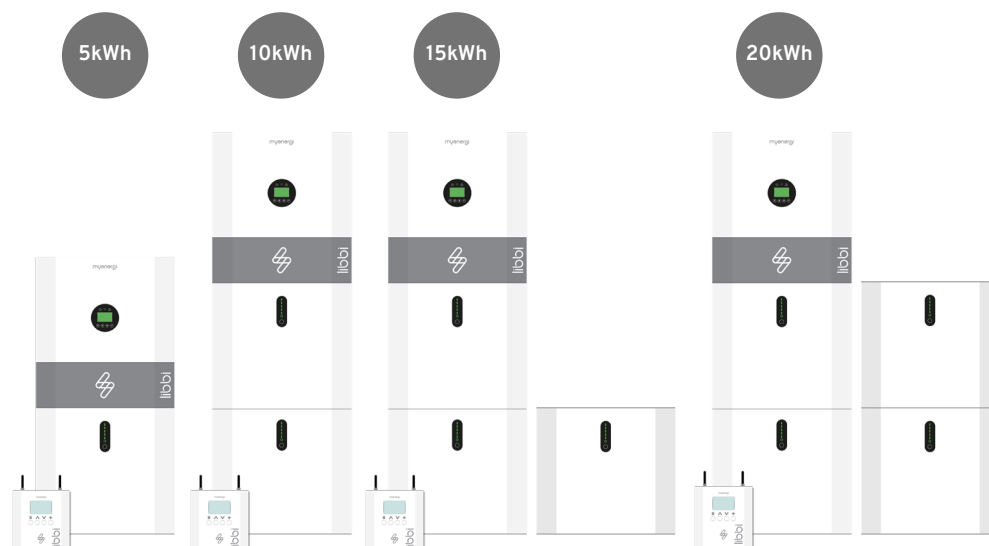
\*Additional installation costs may apply

# An energy storage system to suit your needs

Use Case	I haven't got solar but I'd like it with storage	I can't have/don't want solar it but I'd like storage	I have solar and want to add storage	I have solar and a battery already and want to add more solar and/or storage
Install Type	New Install	New Install	Retrofit	Retrofit
Set-Up	PV (Solar) supplied by others + libbi	only libbi	solar + libbi	Install alongside existing system
Solar Charging	✓		✓	✓
Charging from Grid	✓	✓	✓	✓
Key Benefits	Connect your new solar array directly to your libbi with no additional inverter needed	Optimise your time of use tariff, to store energy for use in more expensive periods	Add a libbi to your existing solar array; your existing inverter can be replaced	Expansion of a solar array without the need for an additional PV inverter

## Model Variations

Model No.	Inverter	Battery Capacity
LIBBI-305Sh	3.68kW	5kWh
LIBBI-310Sh	3.68kW	10kWh
LIBBI-315Sh	3.68kW	15kWh
LIBBI-320Sh	3.68kW	20kWh
LIBBI-505Sh	5.00kW	5kWh
LIBBI-510Sh	5.00kW	10kWh
LIBBI-515Sh	5.00kW	15kWh
LIBBI-520Sh	5.00kW	20kWh



# Battery Specification

Based on one 5kWh battery

## Electrical

Energy Capacity	5.12kWh
Usable Capacity	4.6kWh
Nominal Voltage	51.2V
Depth of Discharge	90%
Max Short Circuit Current	125A
Operating Voltage Range	44.8 – 56.5V
Internal Resistance	<20mΩ
Cycle Life	Unlimited*

## Operation

Max. Charge / Discharge Current	50 A / 80A
Operating Temperature Range	-10°C to +50°C
Storage Temperature Range	-20°C to +50°C
Humidity	0-95%

## Physical

Battery Type	LFP (LiFeP04)
Weight	54kg
Dimensions (WxHxD)	540 x 490 x 240mm
IP Protection	IP65

## BMS

Capacity	100 - 400Ah
Modules Connection	Max 4 in parallel
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Power Consumption	<2W

## Compliance

IEC 62040-1, IEC 62619, IEC 63056 & UN38.3. IEC/EN61000-6-1, IEC/EN61000-6-2, EN61000-6-3 & IEC/EN61000-6-4.

\*Subject to warranty criteria

# Controller Specification

Enclosure Material	Painted Zintec Steel
Dimensions	146 x 167 x 51mm - 146 x 218.5 x 51mm (including antenna)
Supply Frequency	50Hz
Max Current	0.1A
Rated Supply Voltage	230V AC Single Phase (+/- 10%)
Ethernet	1x LAN Port, RJ45 Connector
Grid Current Sensor	100A max Primary Current, 16mm max Cable Diameter
Dynamic Load Balancing	Optional Setting to Limit Current Drawn from the Unit Supply or the Grid
Mounting Location	Indoor
Supply Cable Entry	Rear or Bottom
Display	Graphical Backlit LCD
WiFi	802.11 b/g/n 2.4GHz
Serial	1x RS485 Port
Wireless Interface	868/915 MHz (Proprietary Protocol) for Wireless Sensor and Remote Monitoring Options
Metering Accuracy	CTs Designed to Meet Class B (1%) of EN 50470 External CTs: 0.25-100A

# Inverter Specification

## Inverter General

	3.68kW	5kW
Max Recommended PV Power (per MPPT String)	2400W (per MPPT String)	3750W <sup>3</sup> (per MPPT String)
Max DC Voltage	580V	580V
Nominal Voltage	400V	400V
MPPT Voltage Range	80V - 560V	80V - 560V
Start Voltage	150V	150V
Number of MPP Tracker:	2	2
Strings per MPP Tracker:	1	1
Max Input Current MPPT:	15A / 15A	15A / 15A
Max Short-Circuit MPPT:	18A / 18A	18A / 18A

## AC Output

	3.68kW	5kW
Nominal AC Output Power	3680W	5000W
Max. AC Output Power	3680W	5000W <sup>1</sup>
Max. Output Current	16A	22A <sup>2</sup>
Max. AC Apparent Power	7360VA (from grid)	7360VA (from grid)
Nominal AC Voltage	230V AC	230V AC
AC Grid Frequency Range	50 / 60Hz +/-5Hz	50 / 60Hz +/-5Hz
Max. Input Current	32A	32A
Power Factor (cos Φ)	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging
THDi	<3%	<3%

## Efficiency

	3.68kW	5 kW
Max PV Efficiency	97.6%	97.6%
Euro PV Efficiency	97.0%	97.0%

## General Spec

	3.68kW	5 kW
Dimensions WxHxD	540x590x240mm	540x590x240mm
Weight	32kg	32kg
Operating Temperature	-25 to +60°C*	-25 to +60°C*
Noise	<25dB	<25dB
Cooling Type	Natural Convection	Natural Convection
Max Operation Altitude	2000m	2000m
Max Operation Humidity	0-95% (No Condensation)	0-95% (No Condensation)
IP Class	IP65	IP65
Topology	Battery Isolation	Battery Isolation

## Battery Input

	3.68kW	5 kW
Max Charging Current	50A	100A
Max Discharging Current	80A	100A
Max Charge / Discharge Power (1 Battery Module)	2825/4000W	2825/4096W
Max Charge / Discharge Power (2-4 Battery Modules)	3000/4000W	4600/5000W
Battery Type	LFP (LiFeP04)	LFP (LiFeP04)
Nominal Battery Voltage	51.2V	51.2V
Charging Voltage Range	44-58V	44-58V
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-ion Battery	Depends on BMS	Depends on BMS

## AC Output (Backup)

	3.68kW	5 kW
Max Output Apparent Power	4000VA	5000VA
Max Output Current	16A	20A
Peak Output Apparent Power	6900VA 10 sec	6900VA 10 sec
Nominal Output Voltage	230V	230V
Nominal Output Frequency	50 / 60Hz	50 / 60Hz
Output THDv (Linear Load)	<3% Linear Load	<3% Linear Load

## Protection

	3.68kW	5 kW
DC Switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
AC/DC Surge Protection	DC Type II, AC Type III	DC Type II, AC Type III
DC Reverse Polarity Protection	Yes	Yes
Output Over Current Protection	Yes	Yes
Anti-islanding Protection	Yes	Yes
String Fault Detection	Yes	Yes
Insulation Detection	Yes	Yes
AC Short Circuit Protection	Yes	Yes

## Compliance

IEC/EN62109-1/2; IEC/EN61000-6-1; IEC/EN61000-6-2; EN61000-6-3; IEC/EN61000-6-4.

## Grid Compliance

DIN VDE 0126-1-1; VDE-AR-N-4105; G98/G99; DIN VDE V 0124-100; DIN VDE 0126-1-1 VFR 2019; Synergrid C10/26

<sup>1</sup> The rated AC output power is 4600W for Germany.

<sup>2</sup> The maximum output current is 20A for Germany.

<sup>3</sup> Firmware update may be required. Requires Firmware Version ARM V2.3.08 and DSP V2.5.76 or later.

\*Derating above 45 °C

