

# libbi

## 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.

Option of a 3.68kW or 5kW Hybrid Inverter

Up to 20kWh Storage Capacity



### Features

- myenergi Ecosystem** - Integrate with your myenergi devices, prioritising stored electricity to power your home, eddi or zoppi.
- Ultimate Control** - Choose whether you want to charge your libbi from solar, grid or a mixture of both. When charging from grid libbi optimises 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 By Design** - Each battery module stores 5kWh of electricity. Combining four together provides up to 20kWh of storage.
- Flexible Install** - libbi works as both an AC and DC coupled battery system with 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 will apply

### An energy storage system to suit your needs

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

### Model Variations

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

## Battery Specification (based on one 5kWh Battery)

Electrical			BMS				
Energy Capacity:	5.12kWh	Max. Short Circuit Current:	125A	Capacity:	100 – 400Ah	Power Consumption:	<2W
Useable Capacity:	4.6kWh	Operating Voltage Range:	44.8 – 56.5V	Modules Connection:	Max. 4 batteries in parallel		
Nominal Voltage:	51.2V	Internal Resistance:	<20mΩ	Monitoring Parameters:	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement		
Depth of Discharge:	90%	Cycle Life:	10000 Cycles				
Operation			Physical				
Max. Charge/Discharge Current:	Depends on Inverter	Storage Temperature Range:	-20°C to +50°C	Battery Type:	LFP (LiFeP04)	Dimension (WxHxD):	540 x 500 x 240mm
Operating Temperature Range:	-10°C to +50°C	Humidity:	0 – 90%	Weight:	58kg	IP Protection:	IP65
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.							

## Inverter Specification

Inverter General	3.68kW Inverter	5kW Inverter	AC Output	3.68kW Inverter	5kW Inverter
Max. Recommended PV Power:	4800W	6500W	Nominal AC Output Power:	3680W	5000W
Max. DC Voltage:	580V		Max. AC Output Power:	3680W	5000W
Nominal Voltage:	400V		Max. Output Current:	16A	22A
MPPT Voltage Range:	120V – 550V		Max. AC Apparent Power:	7360VA (from grid)	
Start Voltage:	130V		Nominal AC Voltage:	230Vac	
Number of MPP Tracker:	2		AC Grid Frequency Range:	50 / 60Hz +/-5Hz	
Strings Per MPP Tracker:	1		Max. Input Current:	32A	
Max. Input Current MPPT:	15A/15A		Power Factor (cosΦ):	0.8 leading – 0.8 lagging	
Max. Short-Circuit MPPT:	18A/18A		THDi:	<3%	
Battery Input	3.68kW Inverter	5kW Inverter	AC Output (Backup)	3.68kW Inverter	5kW Inverter
Max. Charging Current:	50A	100A	Max. Output Apparent Power:	4000VA	5000VA
Max. Discharging Current:	80A	100A	Max. Output Current:	16A	20A
Max. Charge/Discharge Power:	3000/4000W	4600/5000W	Peak Output Apparent Power:	6900VA 10sec	
Battery Type:	LFP (LiFeP04)		Nominal Output Voltage:	230V +/-0.2%	
Nominal Battery Voltage:	51.2V		Nominal Output Frequency:	50 / 60Hz +/-0.2%	
Max. Charging Voltage:	57.6V		Output THDv (@Linear Load):	<2% (Linear Load)	
Battery Capacity:	100 – 400Ah				
Charging Strategy For Li-Ion Battery:	Depends on the BMS				
Efficiencies	3.68kW Inverter	5kW Inverter	Protection	3.68kW Inverter	5kW Inverter
Max. PV Efficiency:	97.6%		DC Switch:	Bipolar DC Switch (125A/Pole)	
Euro PV Efficiency:	97.0%		AC/DC Surge Protection:	DC Type II, AC Type III	
Max. Battery To Load Efficiency:	94.0%		Anti-islanding Protection:	Yes	
Battery Charged by PV Max. Efficiency:	98.0%		Output Over Current:	Yes	
General Specification	3.68kW Inverter	5kW Inverter	DC Reverse Polarity Protection:	Yes	
Dimensions W x H x D:	540 x 590 x 240mm		String Fault Detection:	Yes	
Weight:	32kg		Insulation Detection:	Yes	
Operating Temperature :	0 to +55°C (Charging), -20 to +55°C (Discharging)*		AC Short Circuit Protection:	Yes	
Noise :	<25dB				
Cooling Type :	Natural Convection				
Max. Operation Altitude :	2000m		Compliance		
Max. Operation Humidity :	0-95% (No Condensation)		IEC/EN62109-1/2; IEC/EN61000-6-1; IEC/EN61000-6-2; EN61000-6-3; IEC/EN61000-6-4.		
IP Class :	IP65		Grid Compliance		
Topology :	Battery Isolation		DIN VDE 0126-1-1; VDE-AR-N-4105; AS 4777.2; G98/G99;		

\* Derating above 45°C

## Controller Specification

Enclosure Material:	Painted Zintec Steel	Mounting Location:	Indoor
Dimensions:	146 x 165 x 51mm or 146 x 217.5 x 51mm including antenna	Supply Cable Entry:	Rear or Bottom
Supply Frequency:	50Hz	Display:	Graphical Backlit LCD
Max. Current:	0.1A	Nominal Current:	25mA
Rated Supply Voltage:	230V AC Single Phase (+/- 10%)	WiFi:	802.11b/g/n 2.4GHz
Ethernet:	1 x LAN port, RJ45 connector	Serial:	1 x RS485 port
Grid Current Sensor:	100A max. Primary Current, 16mm max. Cable Diameter	Wireless Interface:	868/915 MHz (Proprietary Protocol) for Wireless Sensor and Remote Monitoring Options
Dynamic Load Balancing:	Optional Setting to Limit Current Drawn from the Unit Supply or the Grid	Metering Accuracy:	CTs Designed to Meet Class B (1%) of EN 50470 External CTs: 0.25-100A
Compliance			
IEC62368-1, EN 55014-1&2, EN 301489-1/3/17, EN 300 220-2, EN 300 328			