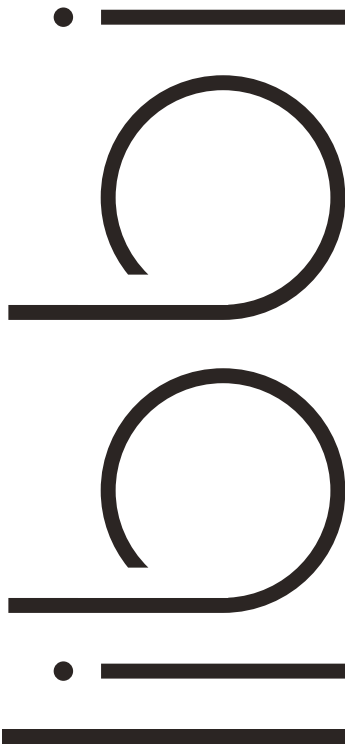


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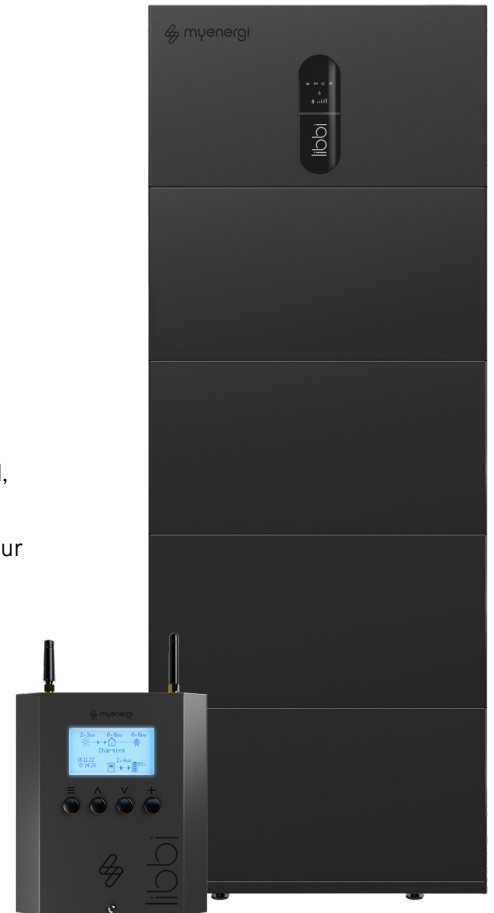


Smarter. Safer. In Control.

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

libbi 2.0 doesn't just store energy – it orchestrates your entire home. As a true hybrid system, it can be AC or DC coupled, making it ideal for both new installations and retrofit upgrades. Capture more of your solar, optimise around real-world tariffs, intelligently manage high-demand loads, and control everything securely through the myenergi ecosystem. One intelligent system total energy management.

5kW Hybrid Inverter
Up to 40 kWh Storage capacity



Features

One Ecosystem. Total Control.

Solar generation, battery storage, EV charging and hot water – all intelligently managed in one place. Monitor, optimise and control your entire home energy system at your fingertips through the myenergi app.

Modular Power with Built-In Resilience

5kWh modules, expandable up to 40kWh per system. 90% depth of discharge with integrated black start backup capability for essential power during outages. *

*Installation dependent

Hybrid Power, Engineered for Performance

5kW hybrid inverter with 200% PV oversizing. AC or DC coupled for seamless new installations or retrofit upgrades – delivering higher solar yield and installation flexibility.

Safe & Secure by Design

Engineered with module-level protection and intelligent system safeguards. Secure AWS-hosted infrastructure ensures your energy data remains protected and private.

Built for Smart Tariffs & VPPs

Optimises around time-of-use and dynamic pricing structures, with built-in capability for virtual power plant integration.

Intelligent Energy Orchestration

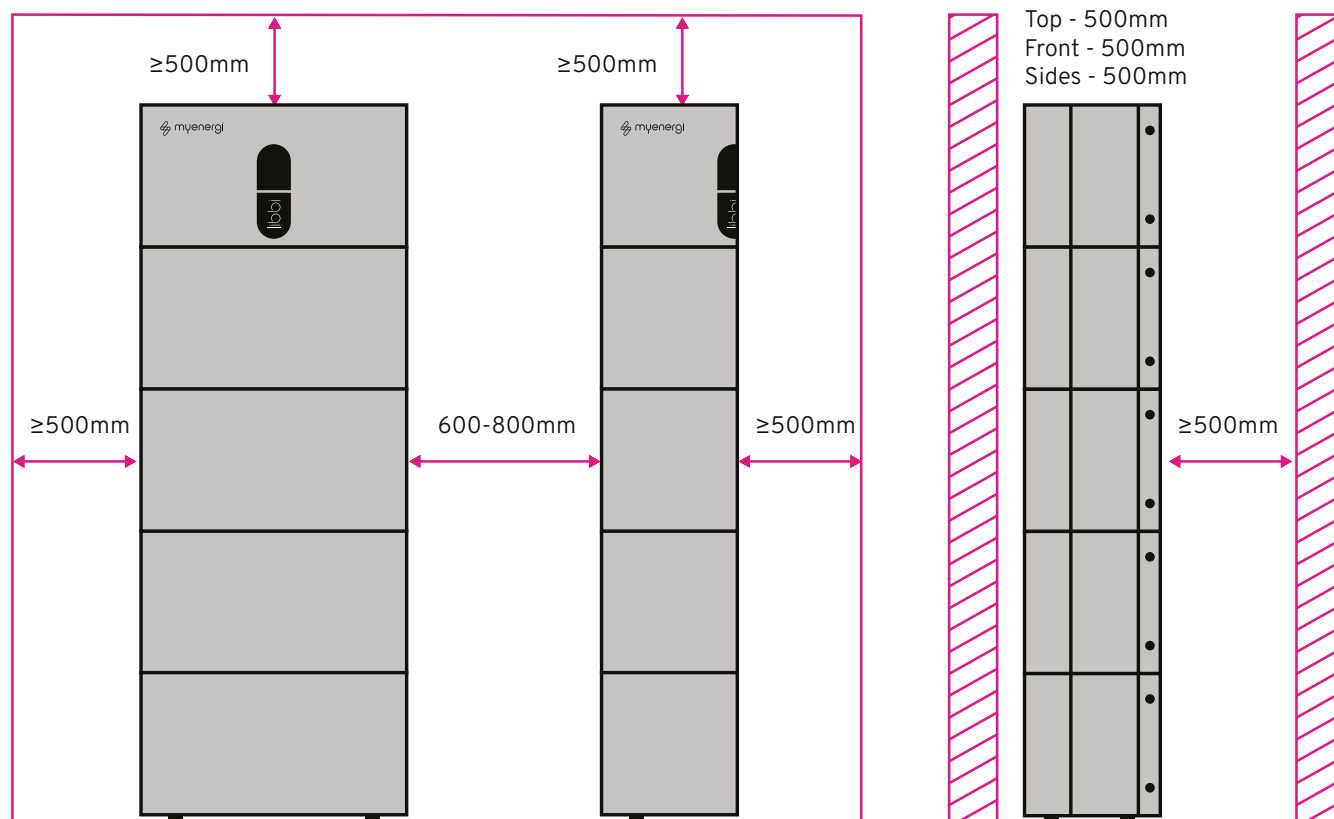
libbi doesn't just store energy – it orchestrates it. Automatically prioritising self-consumption, load shifting and system optimisation for maximum efficiency and value.

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

Clearance Requirements

Raincover



Battery Specification

Based on one 5kWh module: LIBBI-BM5D1-A

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 ~ 57.6V
Battery Pack Round-Trip Efficiency	>94%
Warranty	10 Years

Operation

Max. Charge / Discharge Current	80 A / 80A
Charging Temperature Range	-10°C to +50°C
Discharging Temperature Range	-10°C to +50°C
Humidity	0-95%
Rated DC Power	4.096W

Compliance

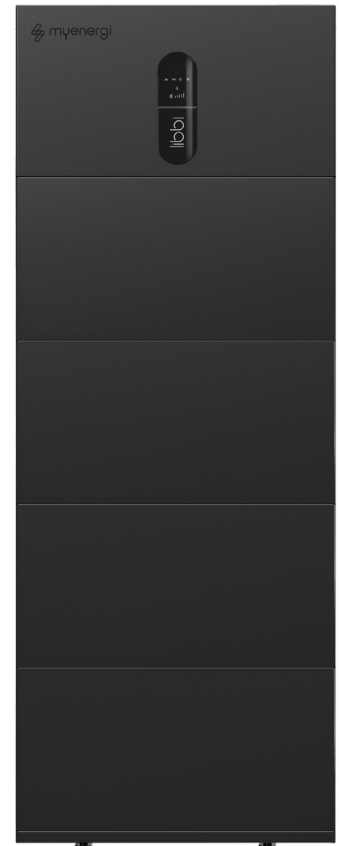
IEC/EN 62619; UN38.3; Cell: IEC/EN 62619; UN38.3; UL1973

Physical

Battery Type	LFP (LiFePO4)
Weight	51kg
Dimensions (WxHxD)	725 x 418 x 245mm
IP Protection	IP65
Country Of Origin	China

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



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
Country Of Origin	United Kingdom



Inverter Specification

Model Number: LIBBI-HS5D1-A

PV Input

	5kW
Max Total PV Power	10kW
Max DC Voltage	500V
Nominal Voltage	360V
MPPT Voltage Range	120V~480V
Start Voltage	120V
Number of MPPT:	2
Strings per MPPT:	1
Max Input Current MPPT:	20A / 20A
Max Short-Circuit MPPT:	25A / 25A

AC Input/Output

	5kW
Nominal AC Output Power	5000W
Max. AC Apparent Output Power	5000 VA
Rated Output Current	21.7A
Max. Output Current	22.7A
Max Continuous AC input Power	9200W
Nominal AC Voltage	230V AC
AC Grid Frequency Range	50 +/-5Hz
Max. Input Current	40A
Power Factor (cos)	0.8 leading - 0.8 lagging
THDi(Full Load)	<3%

Efficiency

LIBBI-HS5D1-A	5kW
Max PV Efficiency	97.0%
Euro PV Efficiency	96.3%

General Spec

	5kW
Dimensions WxHxD	725 x 390 x 245mm
Weight	25kg
Operating Temperature	-25°C to +60°C*
Noise	<25dB
Cooling Type	Natural Convection
Max Operation Altitude	≤ 4000m
Max Operation Humidity	0-95% (No Condensation)
IP Class	IP66
Topology	Non-isolated
Warranty	10 years
Country Of Origin	China

Battery Input

	5kW
Max Charging Current	120A
Max Discharging Current	120A
Max Charge / Discharge Power (1 Battery Module)	2825/4096W
Max Charge / Discharge Power (2-4 Battery Modules)	5000/5400W
Battery Type	LFP (LiFeP04)
Nominal Battery Voltage	48V
Charging Voltage Range	42-58V
Battery Capacity	100-400Ah
Topology	Isolated
Charging Strategy for Li-ion Battery	Depends on BMS

AC Output (Backup)

	5kW
Rated Output Apparent Power	5000VA
Rated Output Current	21.7A
Peak Output Apparent Power	6900VA 10 sec
Nominal Output Voltage	230V
Nominal Output Frequency	50 Hz
Output THDv (Linear Load)	<3% Linear Load

Protection

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

Compliance

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

Grid Compliance

EN 50549-1; EN 50549-10; VDE-AR-N 4105; G98/G99; NC RfG:2018;
C10/C11; CEI-021; AS/NZS4777.2:2024 Amd 2

