

# BATTERY-BOX PREMIUM LVS

LITHIUM IRON PHOSPHATE

4.0kWh ~ 256kWh



**HmT**  
electrical





## Battery Box Premium LVS

The BYD Battery-Box Premium LVS is a lithium iron phosphate (LiFePO<sub>4</sub>) battery pack designed to be paired with either a 1 phase or 3 phase external inverter. Each Battery-Box Premium LVS unit consists of 1 to 6 battery modules LVS arranged in parallel, providing a usable capacity ranging from 4 to 24.0 kWh in a single tower configuration.

## Backup & Off-grid

The Battery-Box excels in both off-grid applications and backup scenarios. Its high discharge capacity enables seamless operation even when disconnected from the electrical grid. Whether you need to power a remote household or ensure backup for sensitive loads, BYD offers the ideal energy storage solution to meet your requirements.

## Self Consumption Optimization

The future lies in maximizing self-consumption of renewable energy. With decreasing renewable generation subsidies worldwide and rising electricity prices, it becomes increasingly cost-effective to utilize the energy you produce for your own consumption.

## Applications

Whether it's a single-family home or a commercial setting, the Battery-Box fits any application you envision. As an installer, you benefit from the flexibility of using the same common building block and customizing it to suit your clients' requirements. Furthermore, you have the freedom to start with a smaller capacity and easily expand it at any point during the product's lifespan.

## Safety

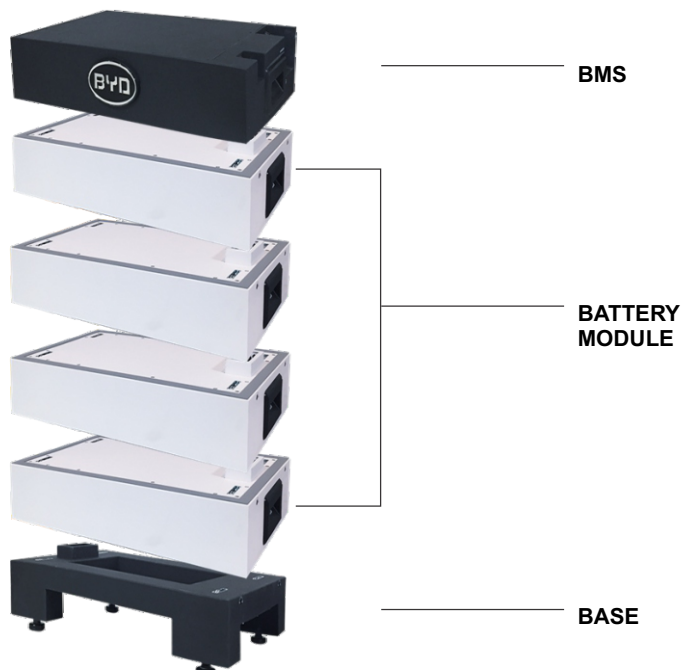
BYD's Lithium Iron Phosphate (LiFePO<sub>4</sub>) battery is cobalt-free, offering unrivaled safety, extended life cycle, and exceptional power output. Its robust chemistry and universal design enable reliable operation in diverse temperature conditions and various locations worldwide.



Power Distribution Unit (PDU) Connections



Power Distribution Unit (PDU)





# BYD Battery Box Premium LVS



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## Usable Capacity

A Battery Box Premium LVS contains between 1 to 6 battery modules LVS stacked in parallel and can reach 3.84 to 23.0 kWh usable capacity:

Battery Box LVS 4.0 (4 kWh)

Battery Box LVS 8.0 (8 kWh)

Battery Box LVS 12.0 (12 kWh)

Battery Box LVS 16.0 (16 kWh)

Battery Box LVS 20.0 (20 kWh - single tower only)

Battery Box LVS 24.0 (24 kWh - single tower only)

## BYD LV Battery Management Unit

BYD LV Battery Management Unit (BMU) is applicable for the BYD Battery-Box Premium LV systems (LVS and LVL), and works as a control unit for the systems. BMU is equipped with a WLAN interface as a standard. The APP – Be Connect – could communicate with BMU through the WLAN.

## Scalability

The system can be scaled from a minimum capacity of 4 kWh to a maximum capacity of 256 kWh. This flexibility allows you to tailor the energy storage solution according to your specific needs.

## Parallel Connection

With the ability to connect up to 64 modules in parallel, the Battery-Box Premium LVS ensures maximum flexibility for various applications. Whether it's for a single-family home or a large commercial setup, the system can adapt to your energy requirements.

## Emergency Backup and Off-Grid Capability

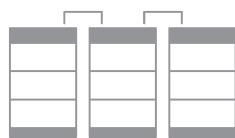
The system is capable of providing high-powered emergency backup and off-grid functionality. This means it can serve as a reliable backup power source during power outages or even operate independently in off-grid locations.

## Patented Internal Plug Design

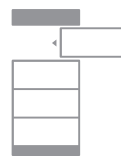
The Battery-Box Premium LVS features a patented internal plug design, eliminating the need for additional wiring during installation. This plug-and-play design streamlines the setup process, saving time and effort.



**Internal Plug Connection**  
No Additional Wiring Required



**4 - 256 kWh**  
Tailored Sizing for Each Application





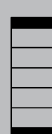



**Extend Anytime**  
Easily Adapts to New Requirements



**High Power**  
Power for Every Application



						
	LVS 4.0	LVS 8.0	LVS 12.0	LVS 16.0	LVS 20.0	LVS 24.0
Battery Module	LVS (4 kWh, 51.2 V, 45 kg)					
Number of Modules	1	2	3	4	5	6
Usable Energy [1]	4 kWh	8 kWh	12 kWh	16 kWh	20 kWh	24 kWh
Max Cont. Output Current [2]	65 A	130 A	195 A	250 A	250 A	250 A
Peak Output Current [2]	90 A, 5 s	180 A, 5 s	270 A, 5 s	360 A, 5 s	360 A, 5 s	360 A, 5 s
Dimensions (H/W/D)	528 x 650 x 298 mm	761 x 650 x 298 mm	994 x 650 x 298 mm	1227 x 650 x 298 mm	1460 x 650 x 298 mm	1693 x 650 x 298 mm
Weight	64 kg	109 kg	154 kg	199 kg	244 kg	289 kg
Nominal Voltage	51.2 V					
Operating Voltage	40-57.6 V					
Operating Temperature	-10 °C to +50°C					
Battery Cell Technology	Lithium Iron Phosphate (cobalt-free)					
Communication	CAN / RS485					
Enclosure Protection Rating	IP55					
Round-Trip Efficiency	≥95%					
Scalability [3]	Max. 64 Modules in Parallel (256 kWh)				Single Tower Only	
Certification	VDE2510-50 / IEC62619 / CE / CEC / UN38.3					
Applications	ON Grid / ON Grid + Backup / OFF Grid					
Warranty [4]	10 Years					
Compatible Inverters	Refer to BYD Battery-Box Premium LVS Minimum Configuration List					

[1] DC Usable Energy, Test conditions: 100% DOD, 0.2C charge & discharge at + 25 °C. System Usable Energy may vary with different inverter brands

[2] Charge derating will occur between -10 °C and +5 °C

[3] Parallel tower function only available for 1 to 4 battery modules per tower. LVS 20.0 and LVS 24.0 can only be used as a single tower.

[4] Conditions apply. Refer to BYD Battery-Box Premium Limited Warranty Letter.



## Mounting

Install the BMU on the wall or rack.  
The recommended expansion screw size is M4x12.  
Minimum distance from the ground is 50mm.



## BYD LV BMU

Crucial for low voltage batteries.