

Why LEGACY LHVS?

- ✓ **Flexible configuration:** Legacy LHVS series can be in parallel by multiple modules and sets for expanding capacity and power as required.
- ✓ **High compatibility performance:** Legacy LHVS series can be suitable for all kinds of low power UPS and other inverters, like Deye, Voltronic and etc...
- ✓ **Safe and reliable:** Cathode material is made from LiFePO4 with safety performance and long lifespan. Legacy batteries are with less self-discharge, no memory effect, excellent performance of shallow charge and discharge.
- ✓ **Intelligent BMS:** Legacy BMS has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage the charge and discharge state and balance current and voltage of each cell.
- ✓ **Integrated fire control system:** Legacy LHVS Series batteries are built-in fire-protecting system with “Legacy” APP supporting on-line monitoring all the time(7*24h), to protect the safety of the system and facilities without dead angles.
- ✓ **Remote supportive:** Legacy LHVS series, is supported with both USB and remote online upgrade by Wifi or bluetooth, for monitoring and maintenance. Download “Legacy” APP to get more instructions.
- ✓ **Wide temperature:** Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.



Outdoor Optional

Scalable High Voltage Lithium Battery-- LHVS 100



LHVS-51.2 KW

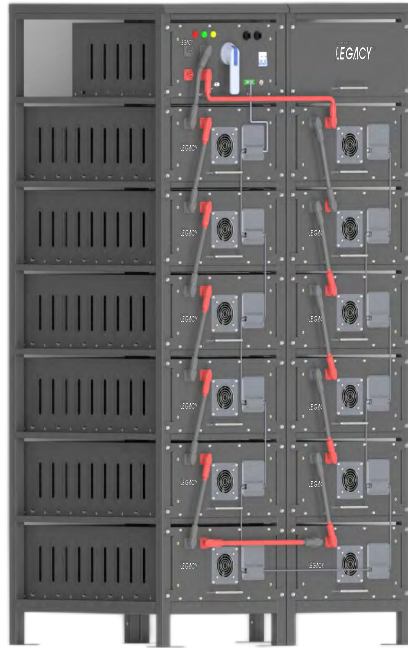
LHVS-20.48 KW

- Legacy standard control box supports up to 12 battery modules (61.44kw) in series. If you need more, we can provide a customized control box. For more details, please consult our sales consultant.
- DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
- The current is affected by temperature and SOC.
- The warranty is due whichever reached first of warranty period or life cycle power. Free maintenance for the first 5 years, paid maintenance for the next 5 years, except for damage caused by human factors.

LHVS-100 Technical Data

Cell Chemistry	LiFePO4						
Battery Module Energy (KWh)	5.12KWh						
Module Nominal Voltage (V)	51.2V						
Module Capacity (Ah)	100Ah						
Cell model/Configuration	3.2V100Ah /64S1P	3.2V100Ah /80S1P	3.2V100Ah /96S1P	3.2V100Ah /112S1P	3.2V100Ah /128S1P	3.2V100Ah /144S1P	3.2V100Ah /160S1P
System Nominal Voltage (V)	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
System Operating voltage (V)	172.8~224V	215~280V	259.2~336V	302.4~392V	345.6~448V	388.8~504V	432~560V
System Energy (KWh)	20.48KWh	25.6KWh	30.72KWh	35.84KWh	40.96KWh	46.08KWh	51.2KWh
Battery Module Quantity (PCS)	4 (Min)	5	6	7	8	9	10
Dimension (W/D/H,mm)	538*492*791	538*492*941	538*492*1091	538*492*1241	538*492*1391	538*492*1541	538*492*1541
Weight Approximate (kg)	195Kg	240Kg	285Kg	330Kg	375Kg	420Kg	467Kg
Charge/Discharge Current (A)	Recommend:50A, Max Support:100A						
Working Temperature (°C)	Charge: 0~55/Discharge: -20~55						
Communication Port	CAN2.0/RS485/Wifi/Bluetooth						
Humidity	5~85%RH Humidity						
Altitude	≤2000 m						
IP Rating of Enclosure	IP20						
Installation Location	Rack Mounting						
Storage Temperature (°C)	0~35						
Recommend Depth of Discharge	90%						
Warranty	10 Years						
Cycle Life	25±2°C, 0.5C/0.5C, EOL70%≥6000						

Scalable High Voltage Lithium Battery-- LHVS 280



LHVS-215.04 KW

- Legacy standard control box supports up to 12 battery modules (215.04kw) in series. If you need more, we can provide a customized control box. For more details, please consult our sales consultant.
- DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
- The current is affected by temperature and SOC.
- The warranty is due whichever reached first of warranty period or life cycle power. Free maintenance for the first 5 years, paid maintenance for the next 5 years, except for damage caused by human factors.

LHVS-280 Technical Data

Cell Chemistry	LiFePO4						
Battery Module Energy (KWh)	17.92KWh						
Module Nominal Voltage (V)	64.0V						
Module Capacity (Ah)	280Ah						
Cell model/Configuration	3.2V280Ah /120S1P	3.2V280Ah /140S1P	3.2V280Ah /160S1P	3.2V280Ah /180S1P	3.2V280Ah /200S1P	3.2V280Ah /220S1P	3.2V280Ah /240S1P
System Nominal Voltage (V)	384V	448V	512V	576V	640V	704V	768V
System Operating voltage (V)	350~425V	410~495V	470~560V	520~640V	580~710V	640~770V	695~840V
System Energy (KWh)	107.52KWh	125.44KWh	143.36KWh	161.28KWh	179.2KWh	197.12KWh	215.04KWh
Battery Module Quantity (PCS)	6	7	8	9	10	11	12(Max)
Dimension (W/D/H,mm)	1992*950*550	2250*950*550	1475*950*1100	1475*950*1100	1732*950*1100	1732*950*1100	1992*950*1100
Weight Approximate (Kg)	820Kg	960Kg	1080Kg	1200Kg	1350Kg	1500Kg	1650Kg
Max. Charge/Discharge Current (A)	140A/140A						
Working Temperature (°C)	Charge: 0~55/Discharge: -20~55						
Communication Port	CAN2.0/RS485/Wifi/Bluetooth						
Humidity	5~85%RH Humidity						
Altitude	≤2000 m						
IP Rating of Enclosure	IP20						
Installation Location	Rack Mounting						
Storage Temperature (°C)	0~35						
Recommend Depth of Discharge	90%						
Warranty	10 Years						
Cycle Life	25±2°C, 0.5C/0.5C, EOL70%≥6000						

LHVS Application on UPS Li-on System

To protect the safety of the whole system as first priority, Legacy UPS Li-on system's security control is divided into 4 levels:



1.Cell level:

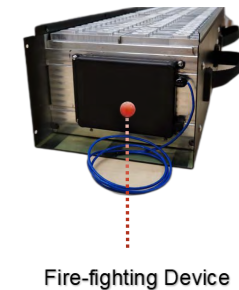
- Using high stability lithium iron phosphate of material and square aluminum shell for encapsulation, with higher safety,more superior performance and convenient expansion.
- Setting CID single-phase explosion-proof safety valve on the top to prevent potential safety hazards.

2.Module level:

- Advanced process,laser welding, high connection reliability.
- Equipped with high precision BMU and temperature control module to ensure cell consistency and long lifespan of the module.

3.Rack level:

- High precision BMS management system, multi-layer security.
- Shockproof cabinet, high stability, high immunity.
- Integrated fire-fighting device:** When a fire occurs in the battery, the flame ignites the thermal line of 170 °C (±15 °C), which will generate high-pressure gas to open the spray component of the fire-fighting device, and the perfluorohexanone agent inside will be instantly pushed out to flood the entire rack to extinguish fire.



Fire-fighting Device

4.System level:

- FUSE is added to the main loop, multiple reliable protection, avoid short circuit risk.
- Precharging loop controllable circulation control, improve the balance of parallel machine.
- Full system insulation protection design.

LHVS Application on UPS Li-on System

To ensure the Li-on system's reliability, Legacy's battery management system(BMS) also is divided into 3 levels:



1. BMU module level:

- Detect the voltage and temperature and other data of each cell.
- Ensure battery current equalization.
- Improve the consistency and smooth operation of the system.

2. CBMS rack(control box) level:

- Monitor real-time online with “Legacy” APP for each CBMS, integrated management device, with DC circuit breaker, relay, hall element, diode, pre-charge resistance and etc.
- Manage batteries of real-time analysis, report and feedback and BMU data transmission.
- Detect charge and discharge current of each battery and control current balance of the set.
- Switch AC and DC supply modes without interval. AC supply is preferred when it is normal, once AC is off, Legacy CBMS can directly switch to DC supply without switching time.
- Alarm and protect for abnormal cases.

3. GBMS system(UPS) level:

- Organize uploaded data of each CBMS, communication with UPS and network management.
- Real-time analyze and report of the system operation on display through communication with UPS by CANBUS or MODBUS
- Alarm, SOC and SOH management of the whole system.



Legacy App monitor page