VOLTAH™
Aapke Solar Ki Dhadkan

THE FUTURE OF ENERGY

Energy Storage System
Products & Solutions

VOLTAH™
Aapke Solar Ki Dhadkan

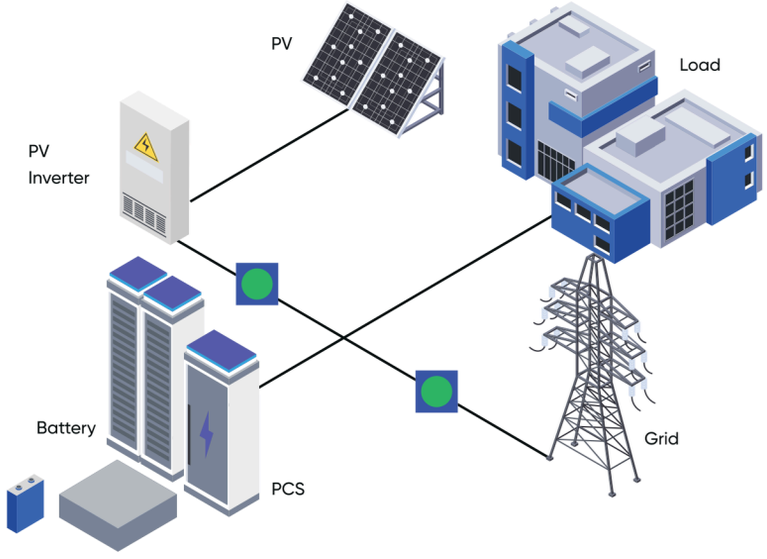
ABOUT US

Voltah is shaping the future of energy in India with its advanced Battery Energy Storage Systems (BESS) with cutting-edge technology and world-class infrastructure. The company is focused on creating indigenized BESS solutions with stateof-the-art gigafactory and top-tier R&D for renewable energy integration, grid stabilization, and enhanced energy reliability across residential, commercial,and industrial sectors.

VOLTAH™
Aapke Solar Ki Dhadkan

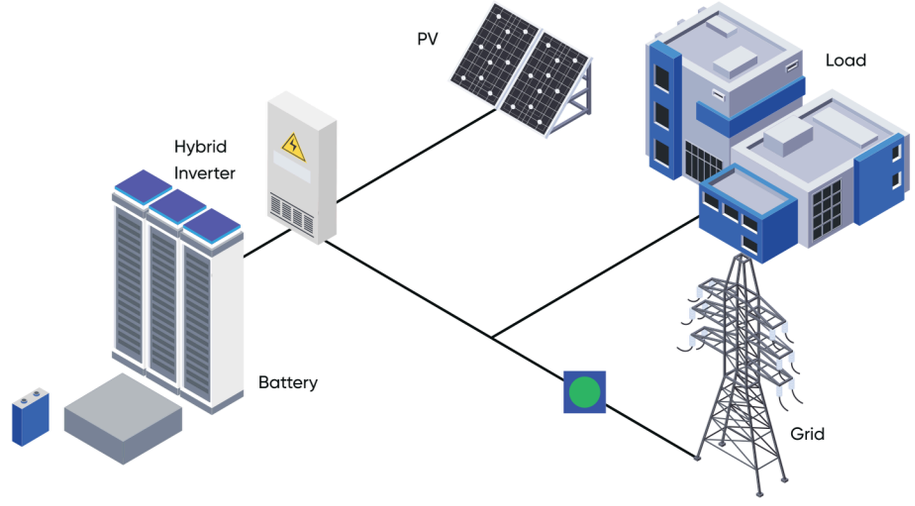
AC-COUPLED

In this configuration, both the battery system and the solar panels are connected on an AC bus, this fits best for the scenarios where solar is alreadyinstalled.

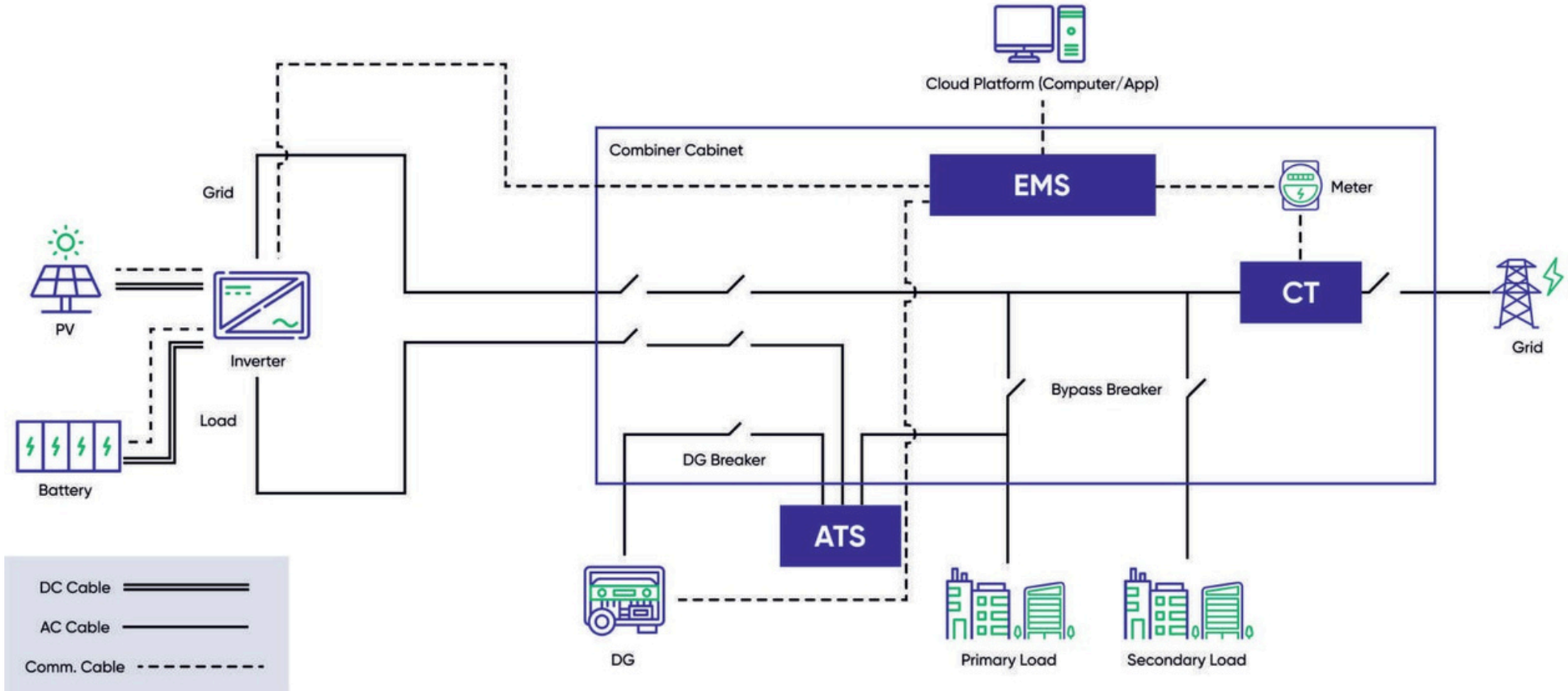


DC-COUPLED

In this configuration, the battery storage and solar are connected directly to a DC bus, Solar panel is directly connected to the BESS inverter, this fits best for the cases where new solar is being installed with the BESS.



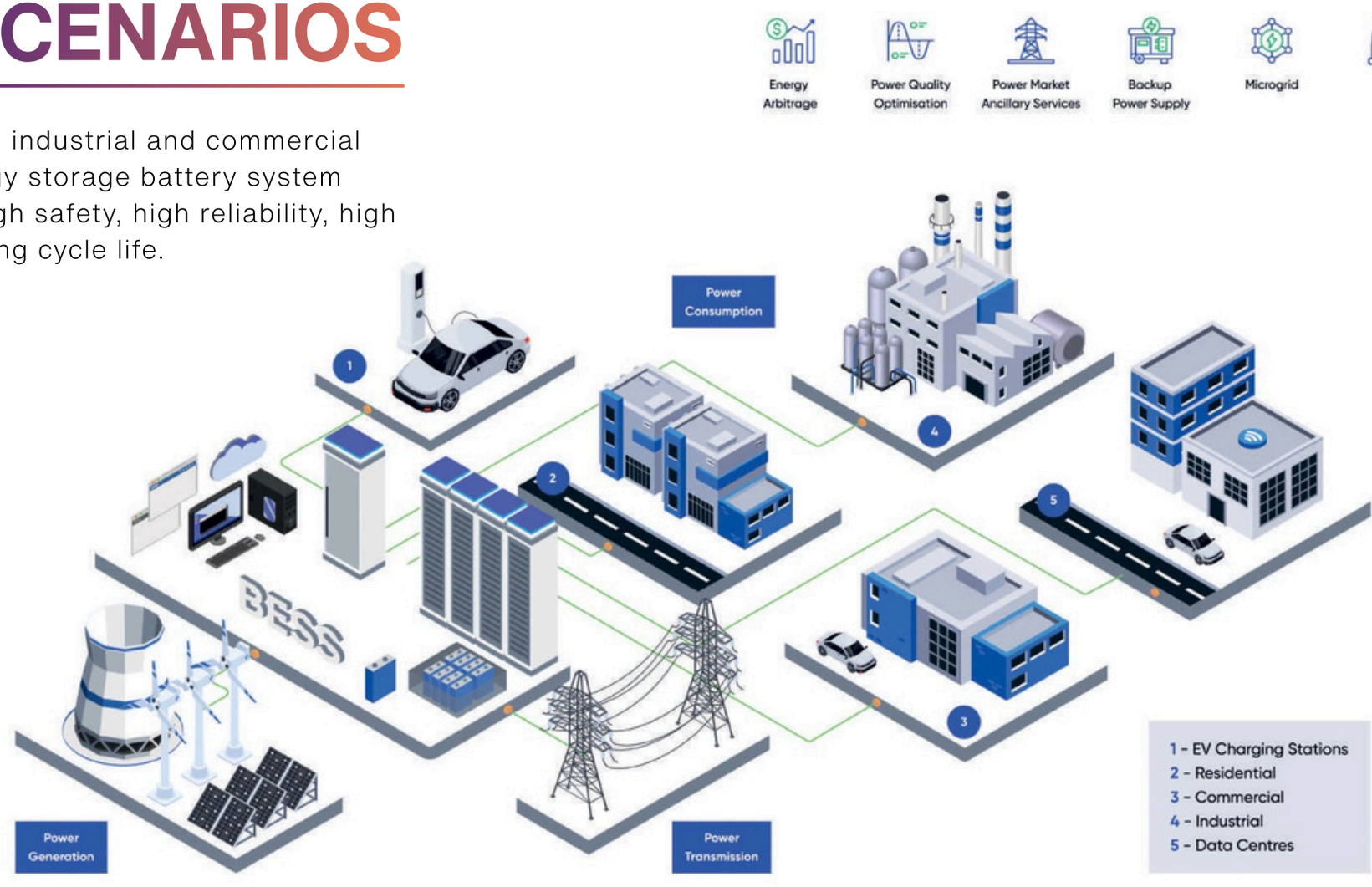
Voltah can work in synchronization with the DG, helping to minimize the consumption of DG, reducing the carbon footprint, and saving the per unit cost during gridoutages. Hence, offersacleaner, more efficient, and increasingly cost-effective solution



VOLTAH™
Aapke Solar Ki Dhadkan

ESS SCENARIOS

Provide one-stop industrial and commercial distributed energy storage battery system solutions with high safety, high reliability, high efficiency and long cycle life.



VOLTAH™
Aapke Solar Ki Dhadkan

AR-MAX

The ESS container product integrates PACK, EMS, BMS, HVAC, fire safety system into one container. It has the advantages of high energy density, easy transportation & installation, and high protection level. The DC output can combine with PCS-boost container to realize AC network connection at medium/high voltage . It can be applied to the generation and grid side.

1000 KWH | 2000 KWH | 4000 KWH

Better Temperature Control
Conversion efficiency over 90%, DoD over 96%

Higher Protection
IP55 Protection, optimized ventilation, cells temp. difference ≤6°C

Lower Local Power Consumption
1.6 m^2 footprint,modular, simplified parallel expansion

Higher Energy Desnsity
Diversified O&M access, both on app and cloud

Specifications

DC Side	
Cell Type	LFP 100Ah
PACK	15.36 kWh / 1P48S
Voltage Range	153.6 - 1075 Vdc
Rated Voltage	768 Cdc

AC Side	
Rated Power	400 kW
Max. Power	440 kW
THDi	≤ 3%
DC Ratio	0.5%Ipn
Nominal Voltage	400 Vac/3P+N+PE
Power Factor	-1 lagging -1 leading
Nominal Frequency	50 Hz/60 Hz

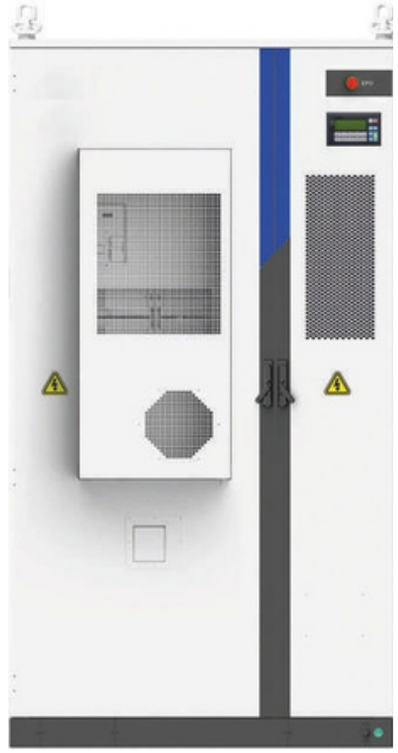
General	
Efficiency	≥ 90%
Charge/Discharge Rate	0.5 P
DoD	95% (25±2°C)
Cycle Life	≥ 50,000 times
Switching Time	100ms
Connectivity	Ethernet/RS485
Ingress Rating	IP55
Cooling	Forced air cooling
Operating Temperature	-25°C-55°C
Humidity	0-95%RH. non-condensing
Noise	80 dB
Altitude	≤ 2,000m (derating above 2,000m)
Fire Safety	Aerosol
Dimensions (W*D*H)	3,000*2,400*2,700 (mm)
Weight	~1,000 kg

VOLTAH™
Aapke Solar Ki Dhadkan

AR-100

The all-in-one air-cooled ESS cabinet integrates a long-life battery, efficient balancing BMS, high-performance PCS, active safety system, smart distribution, and HVAC into one cabinet, enabling long-term operation with safety, stability, and reliability. Through AC side parallel connection, itachievesflexible capacity expansionup to MWH.

1001 301/501] 602 KWH



Economical and Efficient

Conversion efficiency over 90%,
DoD over 96%

Safe and Reliable

IP55 Protection, optimized ventilation,
cells temp. difference ≤6°C

Compact and Modular

1.6 m^2 footprint,modular,
simplified parallel expansion

Smart O&M

Diversified O&M access, both
on app and cloud

Specification

DC Side	
Cell Type	LFP 100Ah
Battery System	15.3 kWh / 3P16S
Rated Energy	107.1 kWh
Voltage Range	307.2 - 614.4 V
Rated Voltage	460.8 V

AC Side	
Hybrid Inverter Power	50 kW
THDi	≤ 3%
DC Ratio	0.5%Ipn
Nominal Voltage	400 Vac/3P+N+PE
Power Factor	-1 lagging 1 leading
Nominal Frequency	50 Hz/60 Hz

General	
Efficiency	≥ 88%
Charge/Discharge Rate	0. SC
DoD	95 % (25±2°C)
Cycle Life	≥ 8,000 cycles
Ingress Rating	IP55
Cooling	Forced air cooling
Operating Temperature	-25°C - 55°C
Humidity	0-95%RH, non-condensing
Altitude	≤ 2,000m (derating above 2,000m)
Dimensions (W*D*H)	900*1,270*2,300 (mm)
Weight	~1,600 kg
Fire Safety	Aerosol
Connectivity	Ethernet/RS485/Can

VOLTAH™
Aapke Solar Ki Dhadkan

AR-100

The all-in-one air-cooled ESS cabinet integrates a long-life battery, efficient balancing BMS, high-performance PCS, active safety system, smart distribution, and HVAC into one cabinet, enabling long-term operation with safety, stability, and reliability. Through AC side parallel connection, itachievesflexible capacity expansionup to MWH.

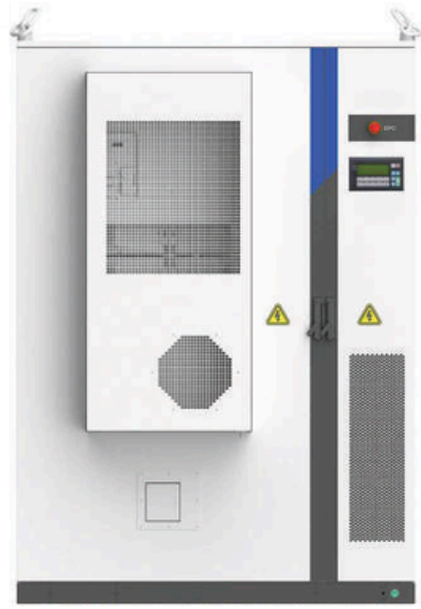
100 KWH | 215 KWH | 430 KWH | 860 KWH

Economical and Efficient
Conversion efficiency over 90%, DoD over 96%

Safe and Reliable
IP55 protection, optimized ventilation, cells temp. difference ≤6°C

Compact and Modular
1.6 m^2 footprint, modular, simplified parallel expansion

Smart O&M
Diversified O&M access, both on app and Cloud



Specification

DC Side	
Cell Type	LFP 100Ah
PACK	15.3 kWh / 3P16S
Voltage Range	153.6 - 1075 Vdc
Rated Voltage	768 Cdc

AC Side	
Rated Power	100 kW
Max. Power	110 kW
THDi	≤ 3%
DC Ratio	0.5%Ipn
Nominal Voltage	400 Vac/3P+N+PE
Power Factor	-1 lagging -1 leading
Nominal Frequency	50 Hz/60 Hz

General	
Efficiency	≥ 90%
Charge/Discharge Rate	0.5 P
DoD	95% (25±2°C)
Cycle Life	≥ 8,000 times
Switching Time	100ms
Connectivity	Ethernet/RS485/Can
Ingress Rating	IP55
Cooling	Forced air cooling
Operating Temperature	-25°C-55°C
Humidity	0-95%RH. non-condensing
Noise	80 dB
Altitude	≤ 2,000m (derating above 2,000m)
Fire Safety	Aerosol
Dimensions (W*D*H)	1,430*1,270*2,300 (mm)
Weight	~2,600 kg

VOLTAH™
Aapke Solar Ki Dhadkan

AR-HVC

Voltah high voltage series uses a 3U standard modular design, with multi-module in series and support multi-cluster in parallel. It's suitable for various application scenarios such as villas, farms, and small C&I power supplies, and provides a complete set of green, low-carbon, andreliable

30.72140.96151.2| 61.44 KWH

Ultra-Long Life

Design life of 15 years, can reach up to 6,000 cycles

Intelligent Management

Three-level architecture, identify the number and address of modules

Safe and Reliable

Design life of 15 years, can reach up to 6,000 cycles

Flexible configuration

Multi-module series, to meet the requirements

Specifications

Model	Model - 1	Model - 2	Model - 3	Model - 4
Battery Module	HVC05 [5.12 kWh]			
Cell Type	100Ah LFP Prismatic Cell			
Number of Modules	5 [Minimum]	7 [Normal]	9 [Normal]	11 [Max]
System Nominal Energy	25.60kWh	35.84kWh	46.08kWh	56.32kWh
Available System Nominal Energy	23.0kWh	32.2kWh	41.4kWh	50.6kWh
Nominal Voltage	256.0V	358.4V	460.8V	563.2V
Max. Output Power	23.0kW	32.2kW	41.4kW	50.6kW
Operating Voltage Range	224.0~288.0V	313.6~403.2V	403.2~518.4V	492.8~633.6V
Max. Charging Current	50A	50A	50A	50A
Max. Discharge Current	100A	100A	100A	100A
General				
Dimensions (W*D*H)	550*1492*590mm	550*1492*590mm	550*2100*590mm	550*2100*590mm
Weight	264kg	346kg	442kg	524kg
Communication	CAN			
Installation	Floor			
Enclosure Rating	IP20			
25℃ Cycle Life	≥6000Cycles@80%DOD&70%EOL			
Operating Temperature	Charge: -5~50℃; Discharge: -20~50℃; Recommended: 15~35℃			
Operating Humidity	5%~95% [Non-Condensing]			
Cooling Mode	Natural Cooling			
Operating Altitude	≤4000m			

VOLTAH™
Aapke Solar Ki Dhadkan

AR-HVD

Through modular design and flexible configuration, it covers the DC voltage range of 204v ~ 512v and the standby power demand of 10 ~ 60 minutes. |t can be used as a backup power supply in communication core machineroom, UPShostroom, Internet Data Center(IDC), edge data center, data information port, DC remote power supply, traffic dispatching center, intelligent manufacturing, and other fields.

30.72140.96 | 51.2| 61.44 KWH

Energy Saving and Fast

Conversion efficiency over 90%,
DoD over 96%

Economical and Efficient

Conversion efficiency over 90%,
DoD over 96%

Smart O&M

Conversion efficiency over 90%,
DoD over 96%

Safe and Reliable

Conversion efficiency over 90%,
DoD over 96%

Specifications

Model	HVD 51.2	HVD 102.4
Rated Voltage	512Vdc	
Rated Capacity	100Ah	200Ah
Rated Energy	51.2kWh	102.4kWh
Available System Energy	46.08kWh	92.16kWh
Operating Voltage Range	400~576Vdc	
Rated Charging Voltage	576Vdc	
Charging Current	0.5C, maximum 1C charge	
Communication Interface	RS485, CAN, cry contact, Ethernet port	
Battery Module Type	51.2V100Ah(1P16S)	51.2V200Ah(2P16S)
System Composition	10 battery modules + 1 high voltage box	
Size	600*1000*2000 (mm)	600*1100*2000 (mm)
Module Weight	51kg	98kg
Weight	About 720kg	About 1177.6kg
Parallel Number	Maximum 16 cabinets in parallel	
Working Temperature	0~45℃	
Storage Temperature	-20~55℃	
Altitude	0~4000m, above 1000m, derating according to EN/IEC 62040-3	
Humidity	5%~95%RH	
Compatible Device	Panama power supply, HVDC, UPS, DC power supply, etc.	
Protection Function	Over voltage, over temperature, under voltage, under temperature, etc.	
Communication Protocol	Modbus TCP/RTU，CAN2.0B	
Fire Fighting System	Perfluorohexanone (optional)	

VOLTAH™
Aapke Solar Ki Dhadkan

AR-LVS

It adopts an industrial aesthetic and N+1stackable design. The systemis composed of 100Ah modules, supports a maximum of 20 parallel groups, and the capacity can be expanded to 102kWh. Matched with mainstream brands of inverters, the system can be applied to gridconnected, offgrid, photovoltaic, and all kinds of green and low-carbon applications of household ESS.

5.1 | 10.2 | 15.3 | 20.4 KWH

Wide Compatibility
Matches 20+ brands of mainstream inverters

High Security
Self-produced 100Ah LFP prismatic cell, highly safe

Ultra-Long Life
Design of 15 years, can reach upto 6,000 cycles

High Scalability
Optional expansion functions like anti-theft, fire protection, etc.

Specifications

Model	MODEL 1	MODEL 2	MODEL 3	MODEL 4
Battery Module	LVS05			
Cell Type	100Ah LFP Prismatic Cell			
Number of Modules	1	2	3	4
Nominal Voltage	51.2V			
Operating Voltage Range	45.0~56.4V			
System Nominal Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Available System Nominal Energy	4.86kWh	9.72kWh	14.6kWh	19.45kWh
Max. Output Power	5kW	10kW	15kW	20kW
Peak Output Power	5.4kW, 10s	10.5kW, 10s	15.5kW, 10s	20.0kW, 10s
Max. Charging Current	50A	1000A	150A	200A
Max. Discharge Current	100A	180A	270A	270A
Charge and Discharge Efficiency	≥97%			
General				
Dimensions (W*D*H)	580*250*440mm	580*400*440mm	580*550*440mm	580*700*440mm
Weight	46kg	105kg	152kg	200kg
Communication	CAN/RS485			
Installation	Stack/Wall/Stand			
Enclosure Rating	IP21			
25°C Cycle Life	≥6000 Cycles @80%DOD&70%EOL			
Operating Temperature	Charge: -5~50°C; Discharge: -20~50°C; Recommended: 15~35°C			
Operating Humidity	5%~95% [Non-Condensing]			
Cooling Mode	Natural Cooling			
Operating Altitude	≤4000m			

VOLTAH™
Aapke Solar Ki Dhadkan

AR-LVW

This wall-mounted system is a compact, efficient, and space-saving solution for storing electrical energy, typically used inresidential or small commercial applications. These systems are installed on a wall, either inside or outside a building, and are designed to optimize energy usage, improve power reliability, and allow integration with renewable energy sources suchassolar panels. Can support a maximum of up to 8 batteries inparalleland the capacity can be expanded to 41kWh.

5.1 | 10.2 | 15.3 | 20.4 KWH

Flexible and Compatible

5.12kWh modular design, support 1-8 in parallel

Easy Installation

Wall mounted/floor mounted, save installation time & cost

Environmental Adaptability

Wider temperature range: -20°C~55°C

Long Lifespan

More then 15 years designed lifespan, >6000 cycles (0.5C, 25°C)

Specifications

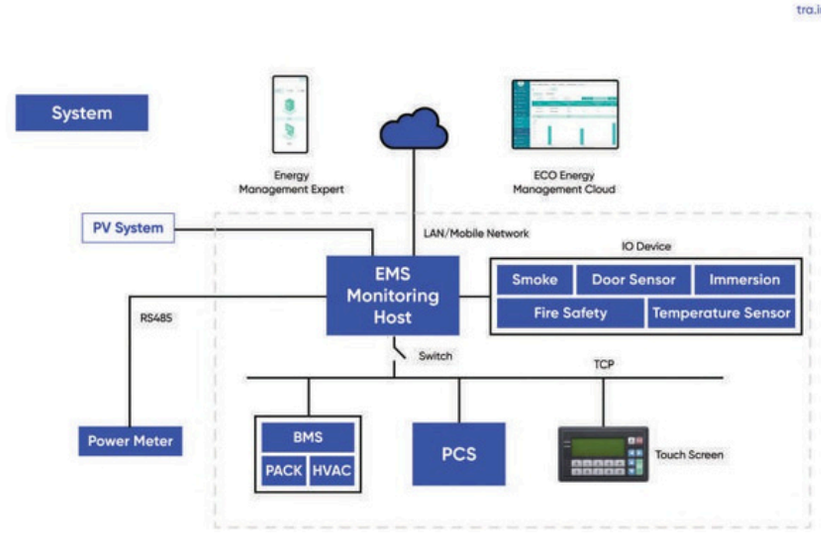
Battery Module	HP10-F5
Cell Type	LFP
Nominal Voltage	51.2V
Operating Voltage Range	45.0-56.4V
Number of Modules	1
Available Energy	5.12kWh
Max. Output Power	5kW
Peak Output Power	5.4kW, 10s
Max. Charging Current	50A
Max. Discharge Current	100A
Charge-Discharge Efficiency	≥97%

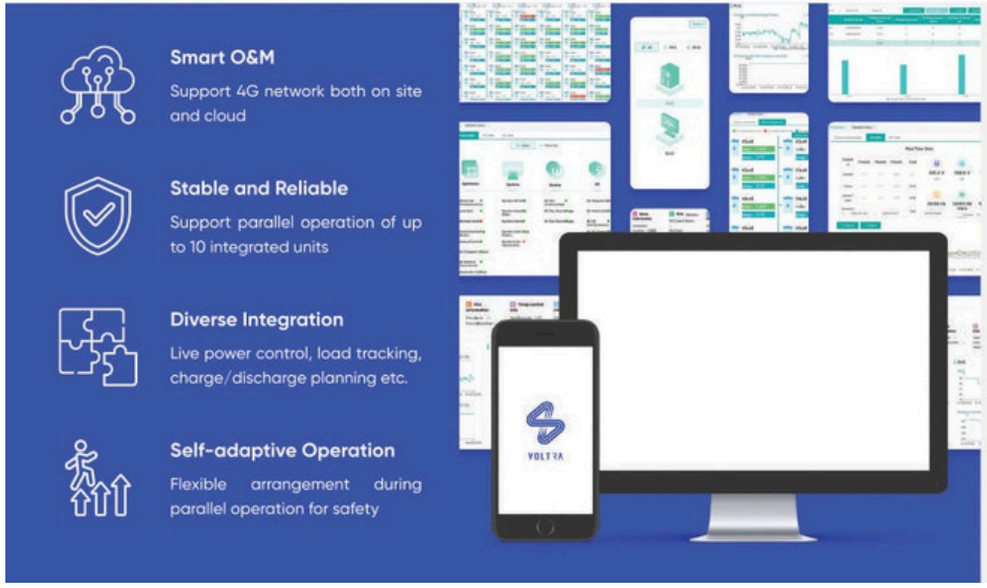
General	
Dimensions	590*510*177 (mm)
Weight	50kg
Communication	CAN/RS485
Installation	Floor/Wall Hanging
Operating Temperature	Charge: -5~50°C; Discharge: -20~50°C; Recommended: 15~35°C
Operating Altitude	≤4000m
Scalability	1~20

VOLTAH™
Aapke Solar Ki Dhadkan

ENERGY STORAGE MANAGEMENT SYSTEM

Voltah EMS series products are integrated EMS designed for ESS scenarios, enabling realtime monitoring to meet the requirements of comprehensive operation monitoring, ensuring the safe, reliable, and cost-effective operation of ESS. Adopting an integrated architecture design, the system is suitable for user-side ESS, microgrid and PV-plus ESSand more. It ensures that the system operates optimally at all times, maximizing overall benefits and shortening ROL.





System Monitoring
Real-time monitoring of PCS, BMS, air conditioning, fire protection, access control, smoke sensors, temperature, humidity & others

Peak Shaving
Adapt charge and discharge stategies to achieve energy arbitrage

Time Shifting
Intelligent prediction of new energy generation, maximizing the self-consumption utilisation of PV and reducing electricity costs

SOH Analysis
Collect data such as cell voltage, total current, SOC, and accurately assess the battery's health status based on cloud

Intelligent Alarms
Various notification methods help customers quickly address operational abnormalities and ensure reliable system operation

Demand Management
Smooth the electricity load through charge and discharge strategies, reduce peak power & maximum demand and lower costs

Remote O&M
Remote fault diagnosis and maintenance, reducing equipment downtime and safety risks, improving operation efficiency

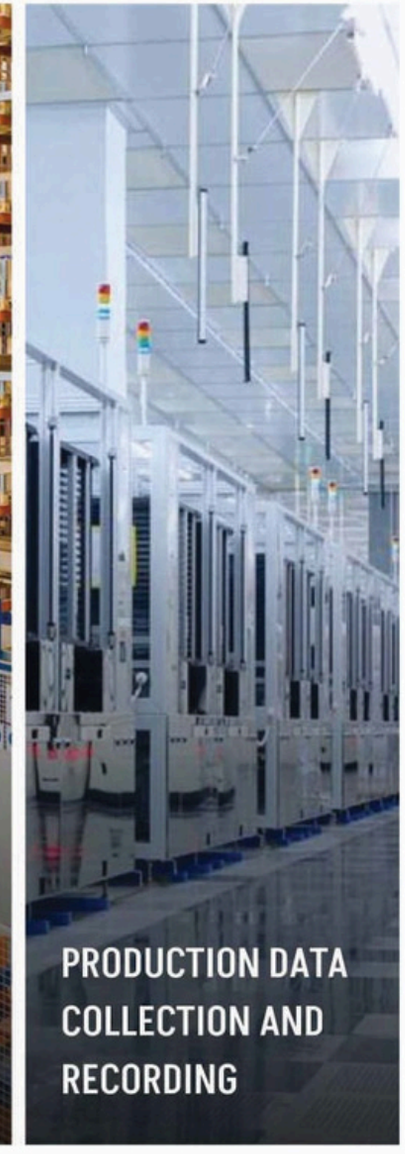
PV-ESS Coordination
Accurately predict electricity and intelligently control the output of PV generation and ESS, improving power supply reliability


ROBUST
TESTING


TROUBLE-
SHOOTING AND
EARLY WARNING


INTELLIGENT
PRODUCTION
LINE

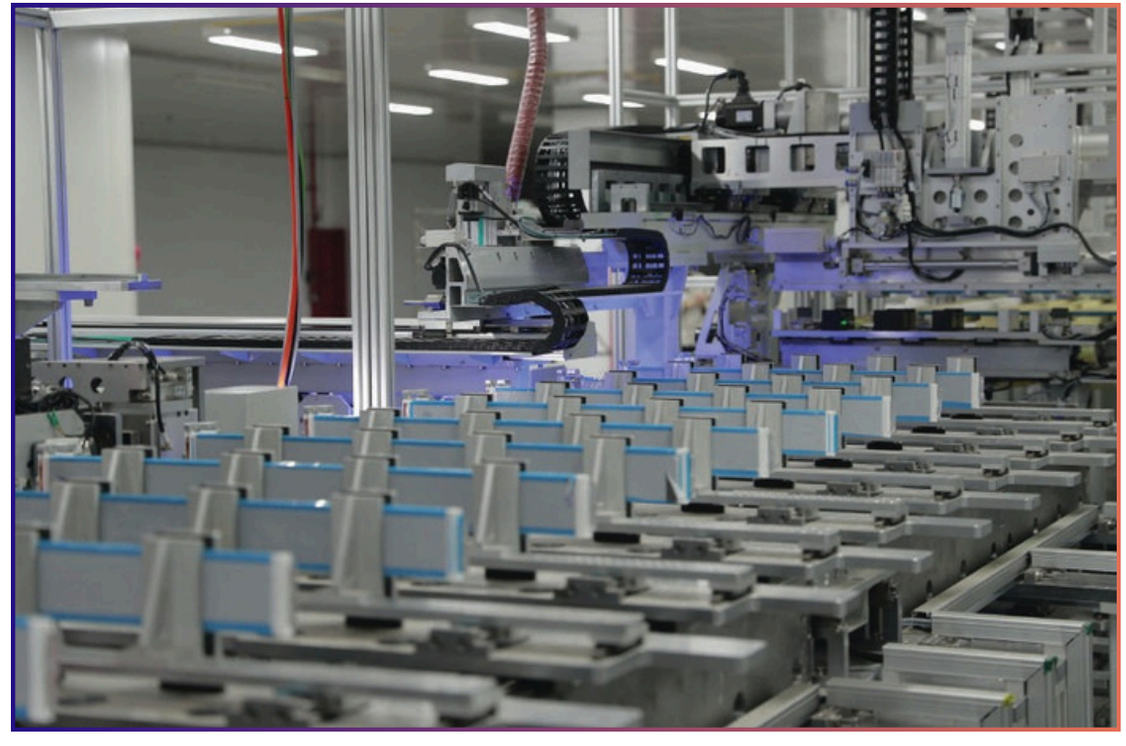

TECHNOLOGY
INTEGRATION AT
EVERY STEP


PRODUCTION DATA
COLLECTION AND
RECORDING

VOLTAH™
Aapke Solar Ki Dhadkan

TEST LABS

- Intelligent temperature control system
- Charge and discharge detection equipment
- System aging testing equipment
- Battery explosion-proof test chamber
- Salt spray detection equipment
- ICT In-Circuit Tester



MANUFACTURING:

Vadodara,Gujarat.

+91 85112 50173

info@lobelpower.com

thevoltah.com

Scan For More Details