



E-mail: info.lithium@leoch.com
URL: www.leoch.com

© LEOCH. All rights reserved.
Trademarks and logos are the property of LEOCH and its affiliates unless otherwise noted.
Subject to revisions without prior notice E&OE.

*Data above is recommended and the picture is only show as reference, the real product outlook might be slightly vary. The outlook shall refer to final product specs, LEOCH reserve the final right of explanation.

LB-C&I ESS-PB-EN-V1.0-202607

C&I AND UTILITY ENERGY STORAGE SOLUTIONS

All-In-One Ess | Lithium Battery | Hybrid Inverter

Stock Code: 00842.HK
www.leoch.com

ENERGY STORAGE SOLUTION

Specially designed for factories, industrial parks, commercial buildings, logistics stations and other C&I scenarios, our cabinet energy storage solution solves mainstream industrial power pain points including high basic electricity fees, peak-valley tariff gaps, grid power rationing, frequent load fluctuations and insufficient emergency backup power. It delivers stable, safe and intelligent energy regulation for commercial and industrial users, effectively avoiding production shutdown losses caused by power limits and grid failures. The solution maximizes energy economy, stabilizes on-site power quality, and supports enterprises in energy conservation, emission reduction and low-carbon transformation.



• Customer Value



Peak-Valley Arbitrage to Cut Electricity Bills

Store power during off-peak hours and discharge during peak hours based on time-of-use tariffs, effectively reducing power expenses and generating tangible economic benefits.



Emergency Power Backup to Avoid Outage Losses

Serve as reliable backup power. It kicks in immediately during blackouts to keep production and office equipment running, preventing losses from downtime.



Load Regulation to Lower Basic Power Charges

Smooth peak power demand to cut capacity and demand charges. It also easily supports power consumption growth from plant expansion and new equipment.



Maximize Renewable Energy Utilization

Store excess renewable energy for later use, increasing self-consumption and reducing dependence on the grid.

• Intelligent Energy Management System

Demand And Capacity Management



Effectively steer flexible energy resources to reduce-peak demand charges and enhance operational efficiency.

Peak Shaving & Time-of-Use Optimization



Reduces electricity costs by minimizing peak demand charges and optimizing battery charging and discharging based on time-of-use tariffs.

Real-time Monitoring & Remote O&M



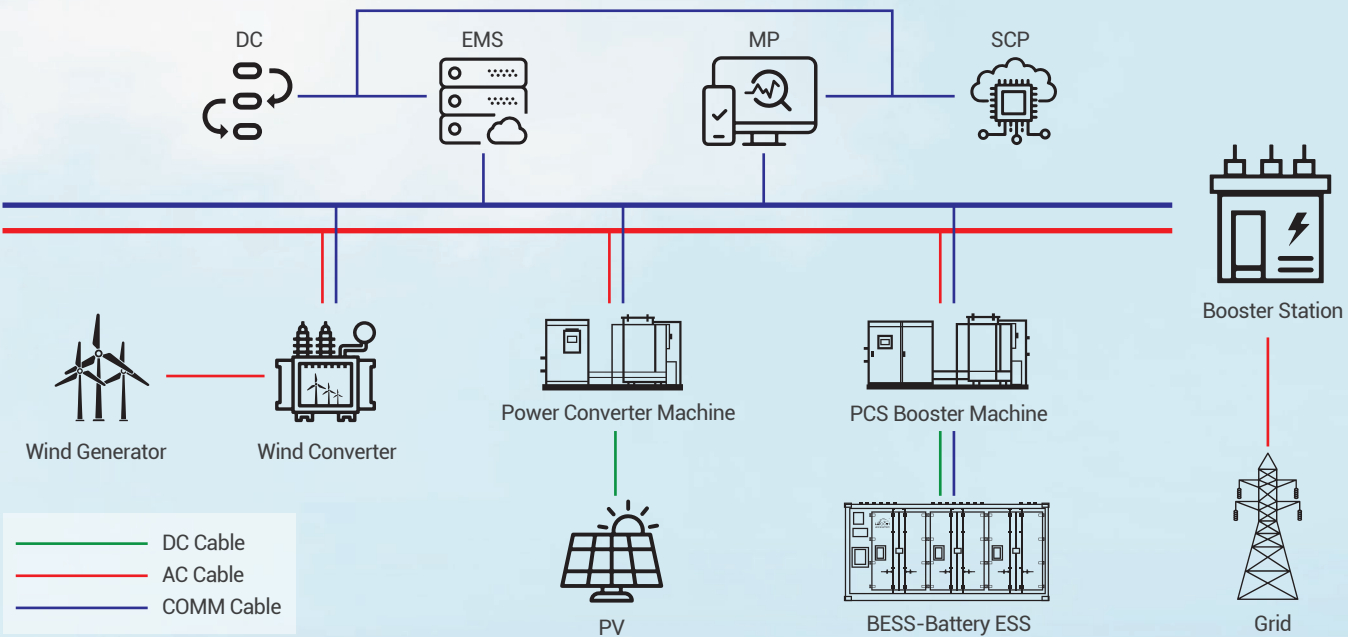
Cloud-based monitoring, alarms and performance analytics enable unattended operation.

Demand Response & Virtual Power Plant Ready

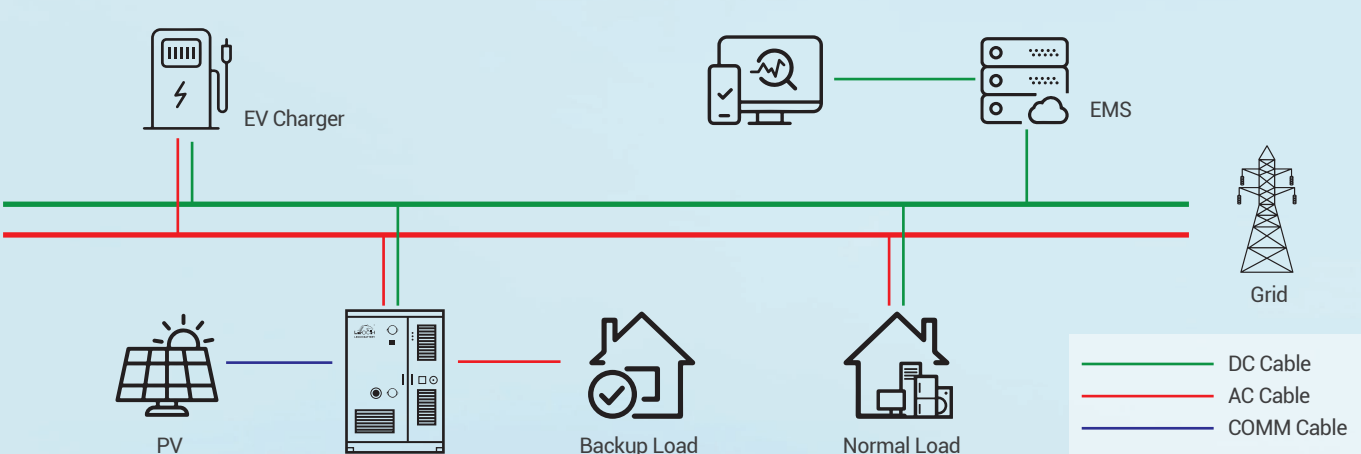


Supports demand response, power limitation and future VPP integration for additional revenue.

LARGE-SCALE ENERGY STORAGE SYSTEM SOLUTION



C&I ENERGY STORAGE SYSTEM SOLUTION



WHY CHOOSE US

Compact Design & Easy Deployment

The all-in-one cabinet saves space and allows quick, easy installation. It adopts lithium batteries and high-efficiency PCS modules for high efficiency, low attenuation and long service life.

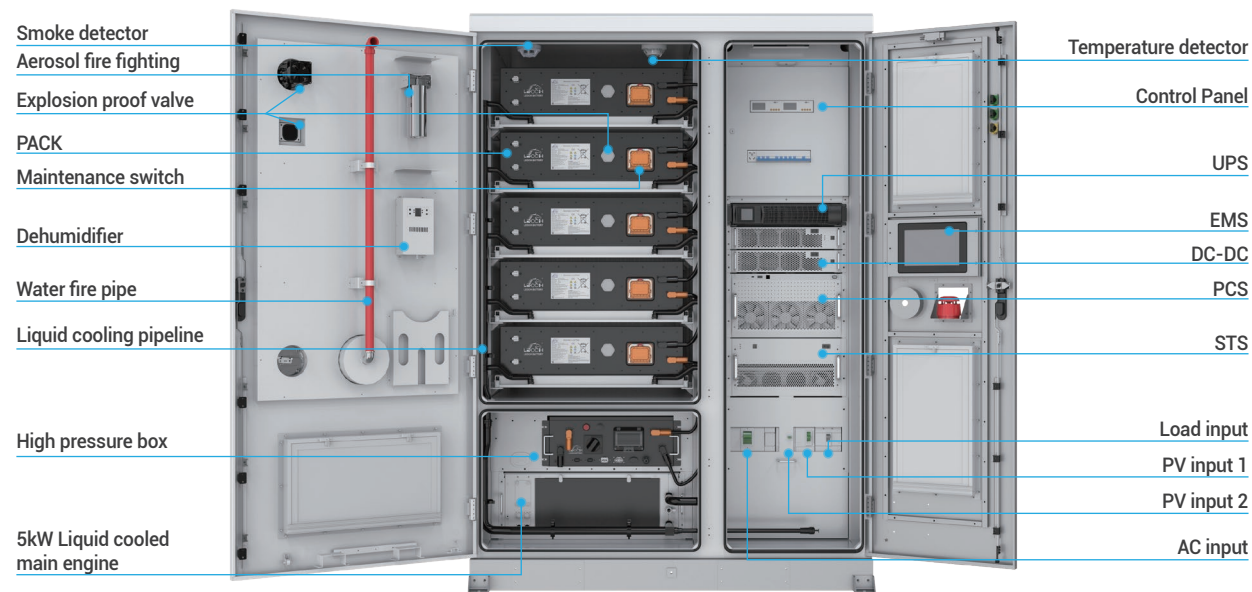
Comprehensive Safety & Wide Temperature Adaptation

Built with multi-level protection against common electrical risks, and works stably under various temperature conditions.

Durable & Low Maintenance

High dustproof and waterproof performance suits complex industrial environments, with low failure rate and less daily maintenance.

Compact Design & Easy Deployment



* The appearance of the product is for reference only.

Flexible Configuration

Power Flexibilit

Supports flexible selection of **50kW / 100kW** MPPT modules as required.

Expandable Functions

Optional **STS module** can be integrated to deliver seamless load transfer and enhance overall system reliability.



* The appearance of the product is for reference only.

Liquid-Cool PV ESS



Liquid-Cool Battery ESS



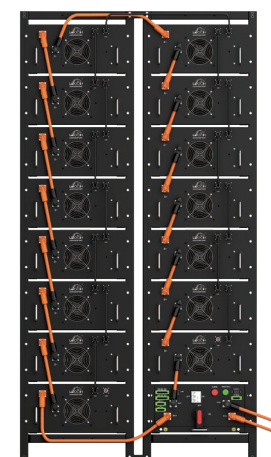
Air-Cool PV ESS–Hybrid Inverters



Air-Cool Battery ESS



Air-Cool Indoor Rack Battery ESS



5MWh 20-Foot Battery ESS



Titan-S105/261/100-LS

Liquid-Cool PV Energy Storage System



Highly Integrated

Intelligent switching of multi-mode energy regulation strategies, including peak shaving and valley filling, demand response, and virtual power plant.



Flexible Deployment

Support load, battery, grid or diesel generator, photovoltaic access at the same time.



Safe and Reliable

Multi-tier fire safety system: core temperature monitoring, PACK/cabinet aerosol & water fire suppression, explosion-proof pressure relief for reliable system operation.



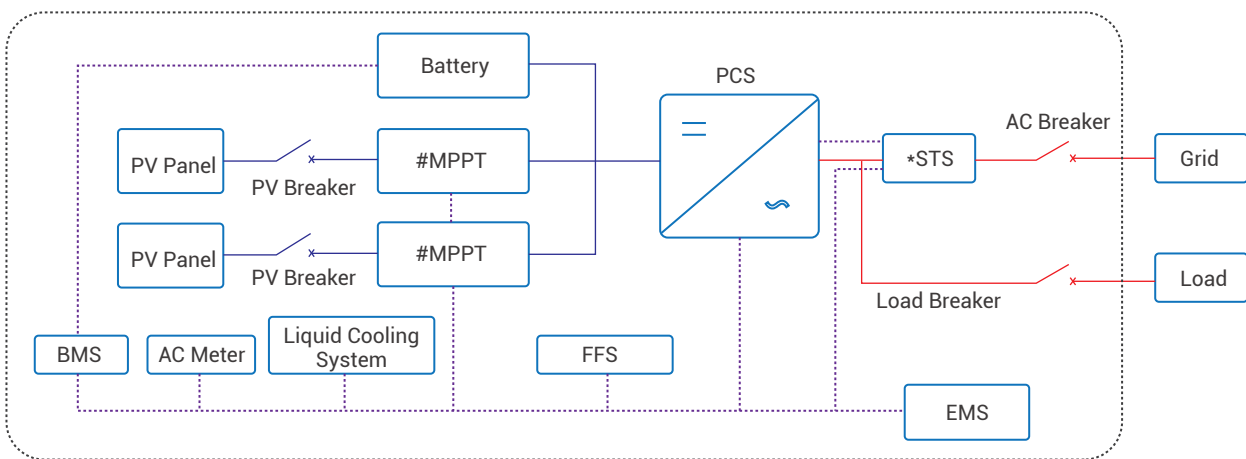
Rich Configuration

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO



----- Leoch Equipment Communication Line ——— DC Power Line ——— AC Power Line

Liquid-Cool PV Energy Storage System



System Model	Titan-S105/261/100-LS
Battery Parameters	
Cell Type	LFP3.2V, 314Ah
Battery PACK Type	1P52S
Cluster Configuration	1P260S
Nominal Energy	261kWh
Battery Voltage Range	728V~936V
AC Parameters (Grid mode)	
Rated Power	105kW
Rated Voltage	400V,3P4W
Rated Current	152A
Overload Capacity	110% long term
Rated Grid Frequency	50Hz/60Hz
Power Factor	0.99
Power Factor Range	1 (lead) ~ 1 (lag)
Current Distortion Rate	<3% (Rated power)
DC Component	0.50%
AC Parameters (Islanded mode)	
Rated Power	105kW
Rated Voltage	400V, 3P4W
Rated Current	152A
Rated Frequency	50Hz/60Hz
THDu	<3% (linear load)
Three-phase Unbalance	100%
System Parameters	
Charge and Discharge Rate	≤0.5C
Dimensions (W*D*H)	1570*1360*2273mm
Weight	About 2,985 kg
IP Level	IP54
Altitude	≤2000m (Derating over 2000 meters)
Operating Temperature	-20°C~55°C (>45°C derate for use)
Relative Humidity	5~95% (no condensation)
Operating Noise	≤75dB
Cooling Method (PCS)	Intelligent air cooling
Cooling Method (Battery)	Intelligent liquid cooling
Fire Fighting System	PACK + Cabinet aerosol fire extinguishing + water fire fighting + explosion-proof pressure relief
Communication Interface	RS485, CAN, Ethernet, Dry contact
STS Parameters (Optional)	
Rated Power	200kW (grid side 200kW, load side 100kW)
Switching Time	≤ 20ms
Photovoltaic Parameters (Optional)	
Maximum Photovoltaic Input Power	100kW
MPPT Voltage Range	200~720V
Number of MPPTs	2
Number of Photovoltaic Input Channels	2
Maximum Input Current	100A per circuit



IEC62619, IEC61000, IEC62477, UN38.3, IEC62109, IEC61727, IEC62116, EN50549, AS4777, G99, G100, VDE-AR-N 4105/4110/4120, Spain 217001/217002/NTS, TAI-MEA & PEA, NRS097, VDE, 4105 & 4110 & 4120, CEI 0-21 & 0-16

Titan-S125/241/250-WS Series

Air-Cool PV Energy Storage System–Hybrid Inverters



Easy to Install

Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.



Flexible Deployment

Support load, battery, grid or diesel generator, photovoltaic access at the same time.



Safe and Reliable

Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion-proof pressure relief + water fire fighting.



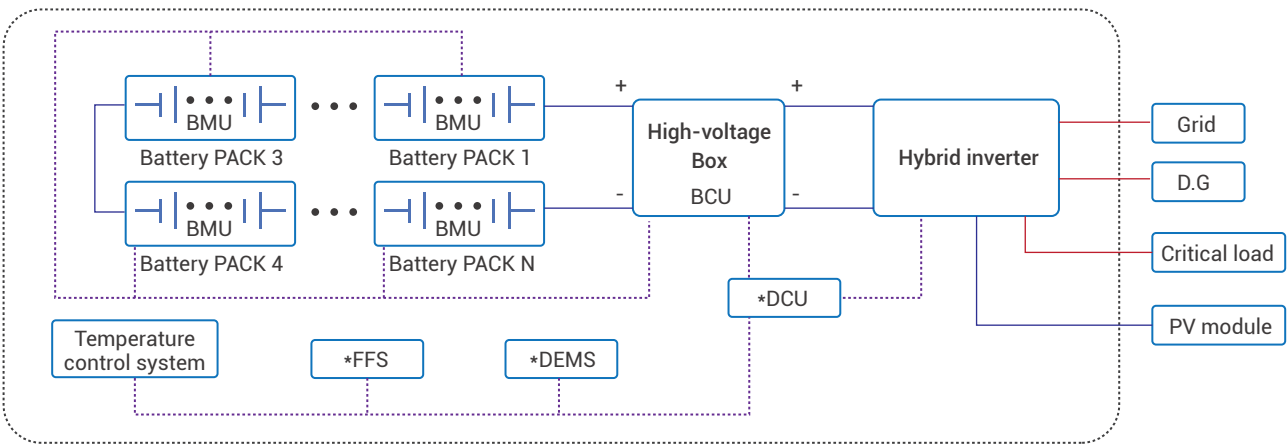
Rich Configuration

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



*The hybrid inverter needs to be wall-mounted.

APPLICATION SCENARIO



..... Leoch Equipment Communication Line — DC Power Line — AC Power Line

*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System; *DCU: Display & Control Unit

Air-Cool PV Energy Storage System–Hybrid Inverters



System Model	Titan-S125/241/250-WS		Titan-S100/241/200-WS	Titan-S100/221/200-WS
Battery Parameters				
Cell Type	LFP3.2V/314Ah			
Battery PACK Type	1P20S			
Cluster Configuration	1P240S	1P240S	1P220S	
Nominal Energy	241kWh	241kWh	221kWh	
Nominal Battery Voltage	768V	768V	704V	
Battery Voltage Range	672V~ 864V	672V~ 864V	616V~ 792V	
Charge and Discharge Rate	0.5C			
Battery Cabinet Certification	IEC62619, IEC61000, UN38.3			
AC Parameters				
Type of Grid Connection	3/N/PE			
Rated Power	125kW	100kW	100kW	
Rated Voltage	AC 220V / 380V, 230V / 400V	AC 220V / 380V, 230V / 400V	AC 220V / 380V, 230V / 400V	
Rated Current	180A	144A	144A	
Rated Grid Frequency	50/60Hz			
THD	≤3%			
Hybrid Inverter Certification	IEC61000, IEC62920, IEC62109, EN50549, G99, AS 4777,VDE 4110, VDE 4105, TOR-R25-TypeA			
System Parameters				
Dimensions (W*D*H)	Hybrid inverter: 1174*400*814mm; Battery Cabinet: 1170*1456*2100mm			
Weight	Hybrid inverter: About 170kg; Battery Cabinet: About 2367kg			
IP Level	Hybrid inverter: IP66; Battery cabinet: IP55			
Cooling Method	Hybrid inverter: Intelligent fan; Battery cabinet: air conditioner			
Fire Fighting System	Cabinet level aerosol fire extinguishing + explosion-proof pressure relief + water fire fighting			
Grade of Corrosion Protection	C3			
Relative Humidity	5-95% (no condensation)			
Operating Temperature	-20°C~50°C			
Altitude	≤2000m (Derating over 2000 meters)			
Communication Interface	RS485, Ethernet			
Communication Protocol	Modbus RTU, Modbus TCP/IP			
PV Parameters				
PV Input Power	250kW	200kW	200kW	
MPPT Voltage Range	150V-950V			
Maximum Input Current	10*42A			
Number of MPPTs	10			
Number of PV Inputchannels	20			
Hybrid Inverter Automatic Switching Function Between On-grid and Off-grid				
Switching Time	<10ms			

Titan-S50/221/100-WS

Air-Cool PV Energy Storage System–Hybrid Inverters



Easy to Install

Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.



Flexible Deployment

Support load, battery, grid or diesel generator, photovoltaic access at the same time.



Safe and Reliable

Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion- proof pressure relief + water fire fighting.



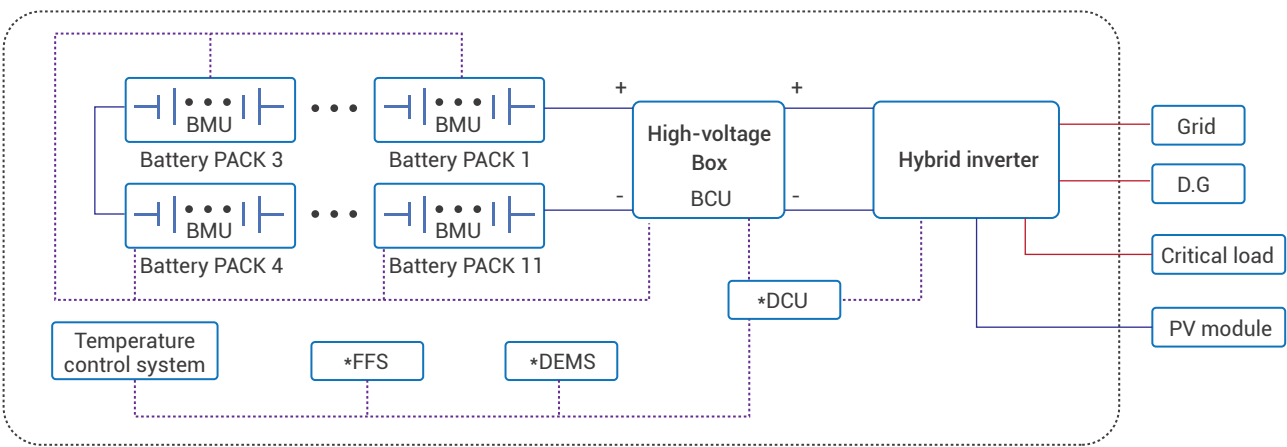
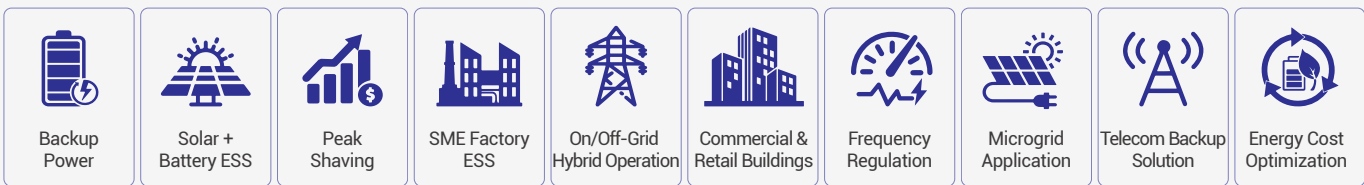
Rich Configuration

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO



----- Leoch Equipment Communication Line ——— DC Power Line ——— AC Power Line
*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System; *DCU: Display & Control Unit

Air-Cool PV Energy Storage System–Hybrid Inverters



System Model	Titan-S50/221/100-WS
Battery Parameters	
Cell Type	LFP3.2V, 314Ah
Battery PACK Type	1P20S
Cluster Configuration	1P220S
Nominal Energy	221kWh
Nominal Battery Voltage	704V
Battery Voltage Range	616V~ 792V
Charge and Discharge Rate	0.5C
Battery Cabinet Certification	IEC62619, IEC61000, UN38.3
AC Parameters	
Type of Grid Connection	3/N/PE
Rated Power	50kW
Rated Voltage	AC 220V / 380V, 230V / 400V
Rated Current	72A
Rated Grid Frequency	50/60Hz
THD	≤3%
Hybrid Inverter Certification	IEC62477, IEC61000, IEC62920, IEC62109, EN55011, EN50549, G99, AS 4777, VDE 4110, VDE 4105, TOR-R25-TypeA & TypeB
System Parameters	
Dimensions (W*D*H)	Hybrid inverter: 530*290*880mm; Battery Cabinet: 1170*1456*2100mm
Weight	Hybrid inverter: About 73kg; Battery Cabinet: About 2233kg
IP Level	Hybrid inverter: IP66; Battery cabinet: IP55
Cooling Method	Hybrid inverter: Intelligent fan; Battery cabinet: air conditioner
Fire Fighting System	Cabinet level aerosol fire extinguishing + water fire fighting + explosion-proof pressure relief
Grade of Corrosion Protection	C3
Relative Humidity	5-95% (no condensation)
Operating Temperature	-20°C~50°C
Altitude	≤2000m (Derating over 2000 meters)
Communication Interface	RS485, Ethernet
Communication Protocol	Modbus RTU, Modbus TCP/IP
PV Parameters	
PV Input Power	100kW
MPPT Voltage Range	150V-850V
Maximum Input Current	4*40A
Number of MPPTs	4
Number of PV Inputchannels	8
Hybrid Inverter Automatic Switching Function Between On-grid and Off-grid	
Switching Time	<10ms

Titan-S50/160/100-WS

Air-Cool PV Energy Storage System–Hybrid Inverters



Easy to Install

Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.



Flexible Deployment

Support load, battery, grid or diesel generator, photovoltaic access at the same time.



Safe and Reliable

Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion- proof pressure relief + water fire fighting.



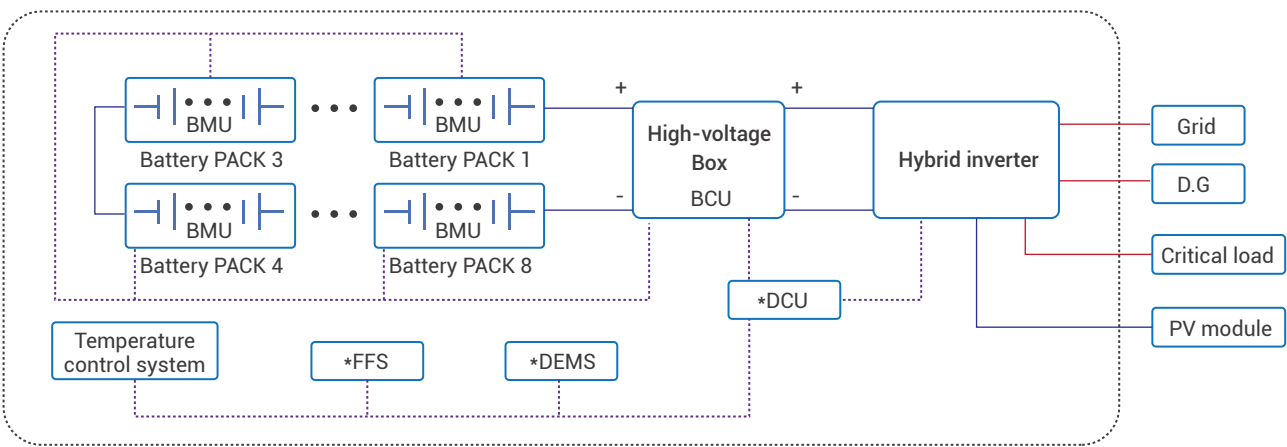
Rich Configuration

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO



..... Leoch Equipment Communication Line ——— DC Power Line ——— AC Power Line
*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System; *DCU: Display & Control Unit

Air-Cool PV Energy Storage System–Hybrid Inverters



System Model	Titan-S50/160/100-WS	Titan-S50/140/100-WS	Titan-S40/120/80-WS	Titan-S40/100/80-WS
Battery Parameters				
Cell Type	LFP3.2V, 314Ah			
Battery PACK Type	1P20S			
Cluster Configuration	1P160S	1P140S	1P120S	1P100S
Nominal Energy	160kWh	140kWh	120kWh	100kWh
Nominal Battery Voltage	512V	448V	384V	320V
Battery Voltage Range	448V ~ 576V	392V~ 504V	336V ~ 432V	280V ~ 360V
Charge and Discharge Rate	0.5C			
Battery Cabinet Certification	IEC62619, IEC61000, UN38.3			
AC Parameters				
Type of Grid Connection	3/N/PE			
Rated Power	50kW	50kW	40kW	40kW
Rated Voltage	AC 400V	AC 400V	AC 400V	AC 400V
Rated Current	72A	72A	58A	58A
Rated Grid Frequency	50/60Hz			
THD	≤3%			
Hybrid Inverter Certification	IEC62477, IEC61000, IEC62920, IEC62109, EN55011, EN50549, G99, AS 4777, VDE 4110, VDE 4105, TOR-R25-TypeA & TypeB			
System Parameters				
Dimensions (W*D*H)	Hybrid inverter: 530*290*880mm; Battery Cabinet: 800*1330*2360mm			
Weight	Hybrid inverter: About 73kg; Battery Cabinet: About 1620kg			
IP Level	Hybrid inverter: IP66; Battery cabinet: IP55			
Cooling Method	Hybrid inverter: Intelligent fan; Battery cabinet: air conditioner			
Fire Fighting System	Cabinet level aerosol fire extinguishing + water fire fighting + explosion-proof pressure relief			
Grade of Corrosion Protection	C3			
Relative Humidity	5-95% (no condensation)			
Operating Temperature	-20°C~50°C			
Altitude	≤2000m (Derating over 2000 meters)			
Communication Interface	RS485, Ethernet			
Communication Protocol	Modbus RTU, Modbus TCP/IP			
PV Parameters				
PV Input Power	100kW	100kW	80kW	80kW
MPPT Voltage Range	150V-850V			
Number of MPPTs	4			
Number of PV Inputchannels	8			
Hybrid Inverter Automatic Switching Function Between On-grid and Off-grid				
Switching Time	<10ms			

Titan-B180~B241-W

Air-Cool Battery Energy Storage Systems

- **Easy to Install**

Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.
- **Flexible Deployment**

Support load, battery, grid or diesel generator, photovoltaic access at the same time.
- **Safe and Reliable**

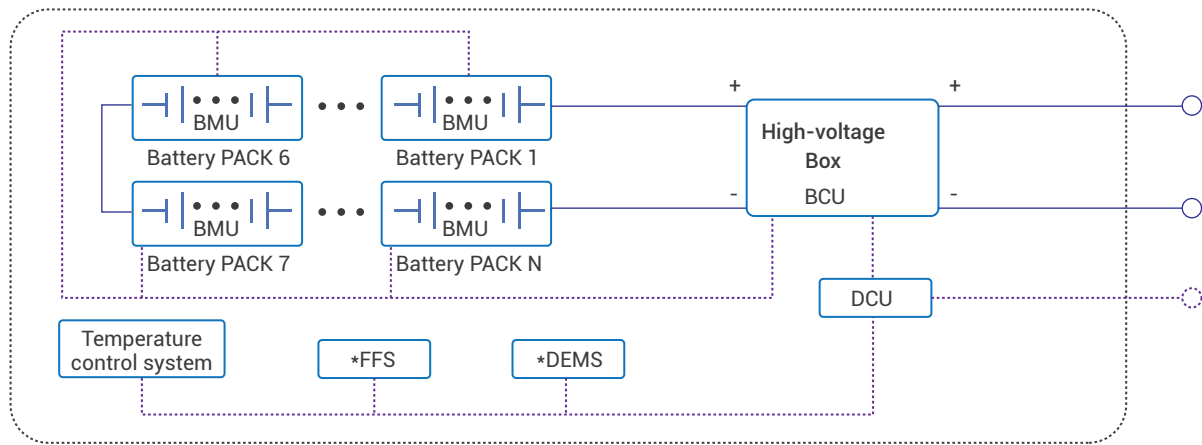
Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion- proof pressure relief + water fire fighting.
- **Rich Configuration**

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO



----- Leoch Equipment Communication Line ——— DC Power Line
*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System;

Air-Cool Battery Energy Storage Systems



System Model	Titan-B180-W	Titan-B200-W	Titan-B221-W	Titan-B241-W
Battery Parameters				
Cell Type	LFP3.2V, 314Ah			
Battery PACK Type	1P20S			
Cluster Configuration	1P180S	1P200S	1P220S	1P240S
Nominal Energy	180kWh	200kWh	221kWh	241kWh
Nominal Battery Voltage	576V	640V	704V	768V
Battery Voltage Range	504V ~ 648V	560V ~ 720V	616V ~ 792V	672V ~ 864V
Charge and Discharge Rate	0.5C			
Maximum Operating Current	157A			
System Parameters				
Dimensions (W*D*H)	1170 *1456 * 2100mm			
Weight	About 1961kg	About 2097kg	About 2233kg	About 2367kg
IP Level	IP55			
Cooling Method	Air			
Fire Fighting System	Cabinet level aerosol fire extinguishing + water fire fighting +explosion-proof pressure relief			
Grade of Corrosion Protection	C3			
Relative Humidity	5 ~ 95% (no condensation)			
Operating Temperature	-20℃ ~ 50℃			
Altitude	≤2000m(Derating over 2000 meters)			
Communication Interface	RS485, Ethernet			
Communication Protocol	Modbus RTU, Modbus TCP / IP			
Certifications	IEC62619, IEC61000, UN38.3			

Titan-B80~B160-W

Air-Cool Battery Energy Storage Systems



Easy to Install

Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.



Flexible Deployment

Support load, battery, grid or diesel generator, photovoltaic access at the same time.



Safe and Reliable

Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion-proof pressure relief + water fire fighting.



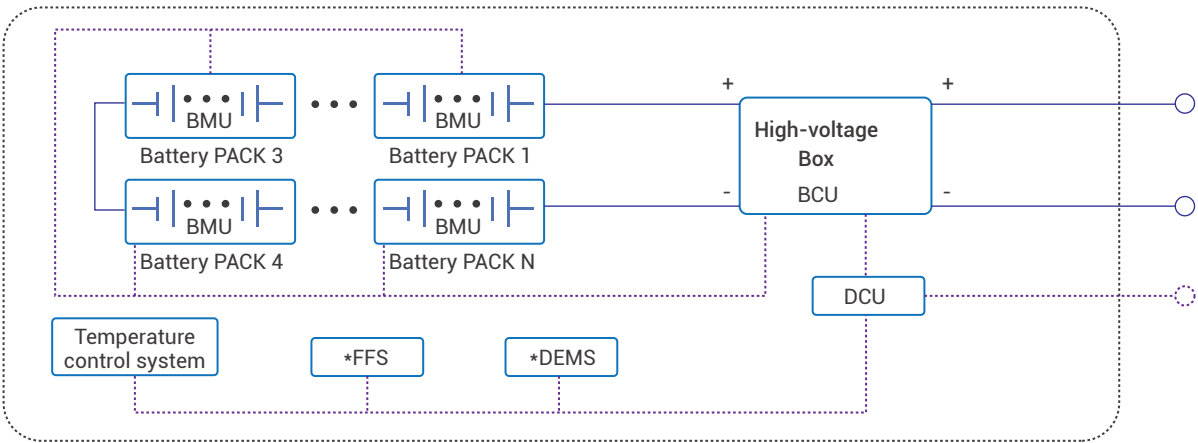
Rich Configuration

It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO



----- Leoch Equipment Communication Line ——— DC Power Line

*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System;

Air-Cool Battery Energy Storage Systems



System Model	Titan-B80-W	Titan-B100-W	Titan-B120-W	Titan-B140-W	Titan-B160-W
Battery Parameters					
Cell Type	LFP3.2V, 314Ah				
Battery PACK Type	1P20S				
Cluster Configuration	1P80S	1P100S	1P120S	1P140S	1P160S
Nominal Energy	80kWh	100kWh	120kWh	140kWh	160kWh
Nominal Battery Voltage	256V	320V	384V	448V	512V
Battery Voltage Range	224V ~ 288V	280V ~ 360V	336V ~ 432V	392V ~ 504V	448V ~ 576V
Charge and Discharge Rate	0.5C				
System Parameters					
Dimensions (W*D*H)	800 * 1330 * 2360mm				
Weight	About 1076kg	About 1212kg	About 1348kg	About 1484kg	About 1620kg
IP Level	IP55				
Cooling Method	Air				
Fire Fighting System	Cabinet level aerosol fire extinguishing + water fire fighting +explosion-proof pressure relief				
Grade of Corrosion Protection	C3				
Relative Humidity	5 ~ 95% (no condensation)				
Operating Temperature	-20℃ ~ 50℃				
Altitude	≤2000m(Derating over 2000 meters)				
Communication Interface	RS485, Ethernet				
Communication Protocol	Modbus RTU, Modbus TCP / IP				
Certifications	IEC62619, IEC61000, UN38.3				

Quark-B261~417-L

Liquid-Cool Battery Energy Storage Systems

- Easy to Install**
Plug and play, instant use; The battery cabinet has IP55 protection grade and C3 corrosion protection grade, and can be deployed outdoors.
- Flexible Deployment**
Support load, battery, grid or diesel generator, photovoltaic access at the same time.
- Safe and Reliable**
Multi-fire design, unit level temperature detection + Cabinet level aerosol fire extinguishing + explosion- proof pressure relief + water fire fighting.
- Rich Configuration**
It can integrate with hybrid inverters, PCS, PV systems and diesel generators to support use cases including solar-storage microgrids, peak shaving and valley filling, and emergency backup power.



* The appearance of the product is for reference only.

APPLICATION SCENARIO

Utility-Scale ESS

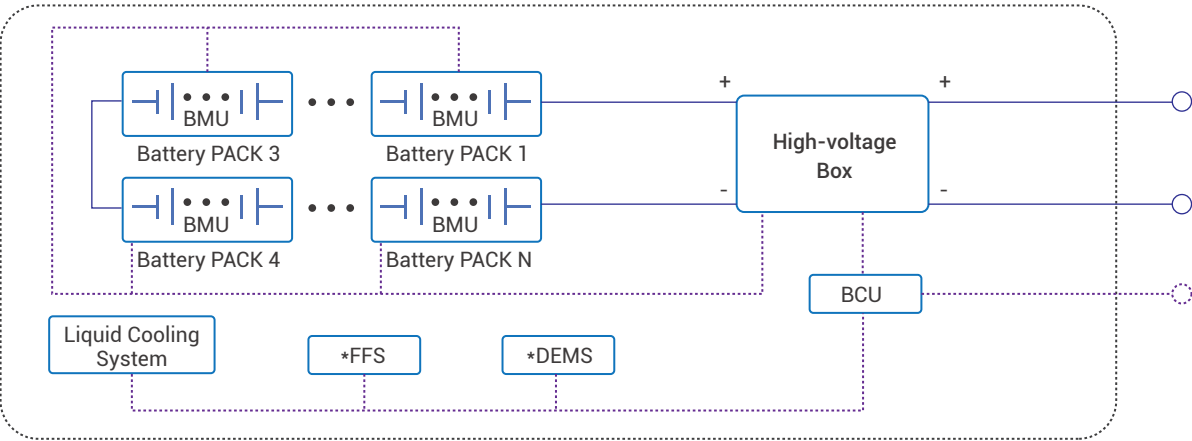
Renewable Power Plant Integration

Frequency Regulation

Grid Stabilization

Peak Shaving

Large Microgrid



..... Leoch Equipment Communication Line ——— DC Power Line
*DEMS: Dynamic Environment Monitoring System; *FFS: Fire Fighting System;

Liquid-Cool Battery Energy Storage Systems



System Model	Quark-B261-L	Quark-B313-L	Quark-B365-L	Quark-B417-L
Battery Parameters				
Cell Type	LFP3.2V, 314Ah			
Battery PACK Type	1P52S			
Cluster Configuration	1P260S(5 PACK)	1P312S(6 PACK)	1P364S(7 PACK)	1P416S(8 PACK)
Nominal Energy	261kWh	313kWh	365kWh	417kWh
Nominal Battery Voltage	832V	998.4V	1164.8V	1331.2V
Battery Voltage Range	728V ~ 936V	873.6V ~ 1123.2V	1019.2V ~ 1310.4V	1164.8V ~ 1497.6V
System Parameters				
Dimensions (W*D*H)	1360 * 1350 * 2400mm			
Weight	About 2865kg	About 3215kg	About 3565kg	About 3915kg
IP Level	IP55			
Corrosion Protection Level	C4 - H			
Balancing Mode	Passive equilibrium			
Cooling Method	Intelligent liquid cooling			
Fire Fighting System	Aerosol fire extinguishing + explosion-proof pressure relief(Meet 1-hour fire resistance rating)			
Relative Humidity	5 ~ 95% (no condensation)			
Operating Temperature	-20°C ~ 50°C			
Altitude	≤2000m(Derating over 2000 meters)			
Communication Interface	RS485, CAN, Ethernet			
Certifications	IEC61000, IEC62619, IEC62933-5-2*, IEC62477, UL9540A, UL1973, IEC60529(IP67) , (EU)2023 1542, UN38.3			

* IEC 62933.5-2 certification is currently available for the Quark-B417-L. Certification coverage for other models can be provided upon request.

CF-5S~15S-1P16S-314W0.5

Air-Cool Indoor Rack Battery Energy Storage System

- 

High Voltage &
High Efficiency
- 

Safe & Long
Lifespan
- 

Standard
Design
- 

Active
Balancing



*The product image shows 15 PACK.
*This product supports the connection of 5 to 17 PACKs in series. Customization can be done according to your needs. For more information, please contact the technical staff.

* The appearance of the product is for reference only.

APPLICATION SCENARIO

- 

Backup
Power
- 

Solar +
Battery ESS
- 

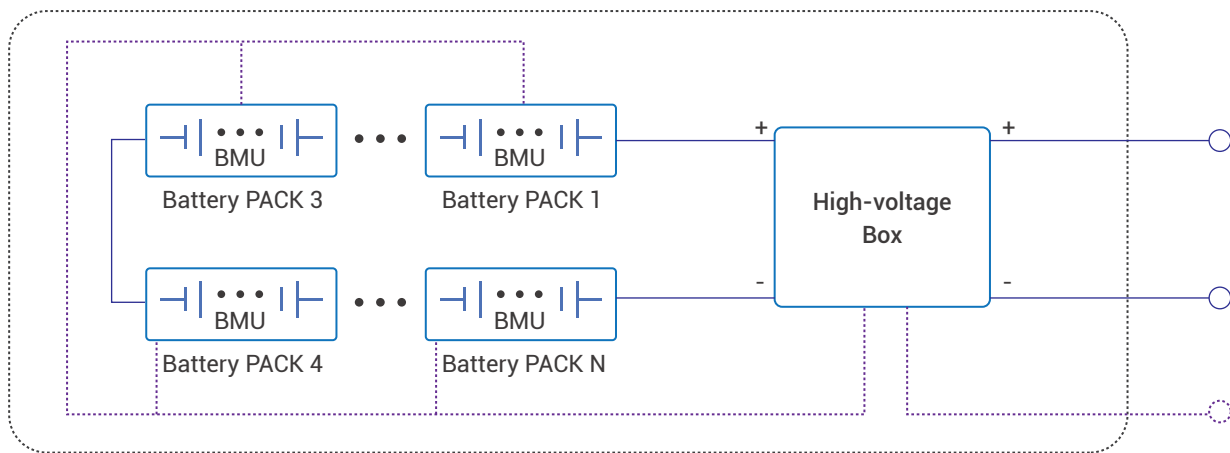
Peak
Shaving
- 

On/Off-Grid
Hybrid Operation
- 

Commercial &
Retail Buildings
- 

Microgrid
Application
- 

Energy Cost
Optimization



----- Leach Equipment Communication Line ——— DC Power Line

Air-Cool Indoor Rack Battery Energy Storage System



Model	CF-5S-1P16S-314W0.5	CF-10S-1P16S-314W0.5	CF-12S-1P16S-314W0.5	CF-15S-1P16S-314W0.5
PACK Parameters				
Cell Type	LFP			
Nominal Voltage	51.2V			
Nominal Capacity	314Ah			
Nominal Power Energy	16kWh			
Net Weight (Approximate)	About 112kg			
Dimensions (W*D*H)	482 * 770 * 227mm			
Charging Temperature Range	0 ~ 55℃			
Discharge Temperature Range	-20℃ ~ 55℃			
Cooling Mode	Intelligent Air Cooling			
Communication Interface	CAN			
IP Level	IP20			
RACK Specifications				
PACK Quantity	5	10	12	15
Nominal Voltage	256V	512V	614.4V	768V
Nominal Capacity	314Ah	314Ah	314Ah	314Ah
Nominal Power Energy	80kWh	160kWh	192kWh	241kWh
Operating Voltage Range	224 ~ 288V	448 ~ 576V	537.6 ~ 691.2V	672 ~ 864V
Charging Current	≤157A			
Discharging Current	≤157A			
Cycles	≥6000 times (25℃, 0.5C/0.5C, DOD 90% SOH 70%)			
Working Altitude	≤2000m(Derating over 2000 meters)			
Ambient Humidity	5 ~ 95% (non-condensing)			
Net Weight	About 829kg	About 1389kg	About 1613kg	About 1949kg
Dimensions (W*D*H)	555 * 780 * 1632mm	1110 * 780 * 1632mm	1110 * 780 * 1866mm	1110 * 780 * 2100mm
Round Trip Efficiency	≥94%			
Communication	RS485, CAN, Ethernet, Dry contacts			
Compatible Inverters	SMA etc.			
Pack Certification	UN38.3			

Epoch-B5015-20L

5MWh 20-Foot Battery Energy Storage System



High Energy Efficiency



Long Lifespan



Safe and Reliable



Easy Configuration



* The appearance of the product is for reference only.

APPLICATION SCENARIO



Utility-Scale ESS



Renewable Power Plant Integration



Frequency Regulation



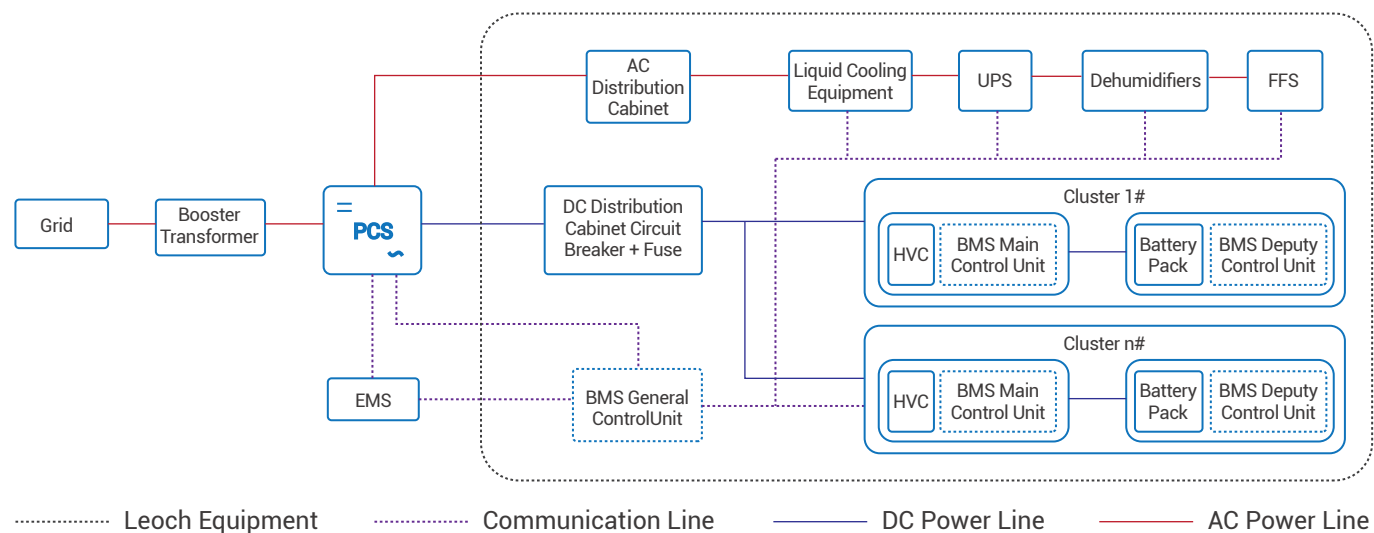
Grid Stabilization



Peak Shaving



Large Microgrid



5MWh 20-Foot Battery Energy Storage System



System Model	Epoch-B5015-20L
Battery Parameters	
Rated Voltage	1331.2V
Working Voltage	1164.8 ~ 1476.8V
Single Cell	314Ah, 3.2V
Battery Module	314Ah, 166.4V
Battery Clusters	314Ah, 1331.2V
Battery Storage Systems	3768Ah, 1331.2V
Operation Temperature Range	-20 ~ 55°C
Storage Temperature Range	-30 ~ 60°C
Operation Humidity	0% ~ 95%
Standard Charge/Discharge Power	0.5P
DC Side Parameters	
Cell Type	LFP 314Ah
Grouped Configurations	1P52S
Cluster Configuration	1P416S, 8 modules
System Configuration	12*1P416S
Nominal Battery Capacity	5015kWh
Battery Voltage Range	1164.8 ~ 1476.8Vdc
Charge/Discharge Ratio	0.5P
Anti-Corrosion Grade	C3 ~ C5
Dimension(W*D*H)	6058 * 2438 * 2896mm
Weight	About 43t
Ingress Protection	IP55
Altitude	≤2000m (Derating over 2000 meters)
Cooling Method	Intelligent Liquid Cooling
Communication Interface	RS485, CAN, LAN
Fire Protection System	Natural Gas Detection + Aerosol Fire Fighting + Sprinkler Fire Fighting + Ventilation + Explosion Relief System
Certifications	UL 1973, UL 9540A, FCC, IEC 62619, IEC 62477-1, IEC 61000, UN 3480, UN 3536, IEC 63056, IEC 62933-5-2, EU2023 / 1542

PROJECT CASE



Location: China Time: 2024.8
Application: Peak Shaving and Valley Filling

410kw/894kWh



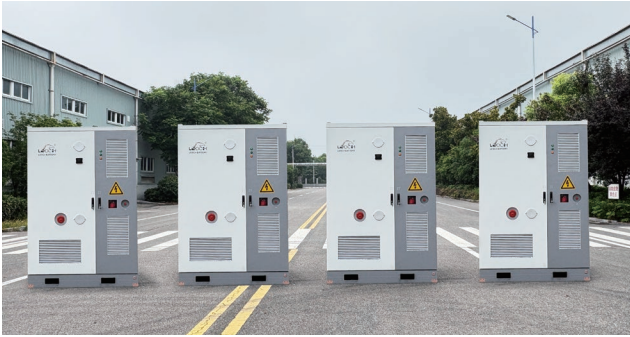
Location: Sulawesi, Indonesia Time: 2025.1
Application: Remote Island Off-Grid Microgrid

250kw/645kWh



Location: Dominican Time: 2026.03
Application: Dominican Energy Storage

1300kWh



Location: Caribbean Time: 2026.09
Application: Caribbean Energy Storage

420kw/1044kWh



Location: Japan Time: 2025.5
Application: Peak Shaving and Valley Filling

16.68MWh



Location: China Time: 2025.7
Application: Peak Shaving and Valley Filling

525kw/1160kWh



Location: Hong Kong, China Time: 2024
Application: Electric Vehicle Charging

3000kw/6450kWh



Location: China Time: 2024
Application: Peak Shaving and Valley Filling

10MW/27.5MWh



Location: China Time: 2025.7
Application: Peak Shaving and Valley Filling

500kw/1075kWh



Location: Belize Time: 2025.8
Application: Renewable Energy Microgrid

900kw/1935kWh



Location: UK Time: 2025
Application: Off-grid energy supply on farms

1159.2kWh



Location: China Time: 2025
Application: Peak Shaving and Valley Filling

0.5MW/1.044MWh



Location: Germany Time: 2025.9
Application: Photovoltaic Energy Storage

450kw/1185kWh



Location: UK Time: 2025.12
Application: Distributed Energy Storage

1050kw/2320kWh



Location: China Time: 2026
Application: Peak Shaving and Valley Filling

1MW/2.089MWh



Location: Switzerland Time: 2026
Application: Renewable Control Services

15MWh