Pytes

LI-ION BATTERY FOR ENERGY STORAGE

BATTERY EXPERT-GREEN ENERGY PROVIDER

2025 V1.0

MILESTONES

2004 ~ 2014
PACK Sector
• LEV
• Consumer sector

2015
Formally Established

2016
State Certificate High-tech enterprise

2017
Shandong Factory Production Capacity Doubled

2018
Entered ESS Market

2019
Top 3 in EU&USA LEV Market

Vietnam Factory

2020
EU & USA Offices

Awarded Shanghai "Professional and Innovative Enterprise"

2021
Renamed to Pytes

2022
Completed Shareholding System Reform

2024
$ 150M Annual Revenue
$ 118M Total Assets
1000+ Employees
4 GWh Annual Capacity

Pytes

As a leading lithium battery solution provider, Pytes is committed to providing energy storage solutions. Started in 2004, with continuous support and technical experience, more than 1,000 Pytes employees are now working to build a greener future.

Grasping the general trend of globalization, Pytes not only has multiple production bases in China, but also runs branches, offices and factories in North America, Europe, Vietnam and other sites to achieve multi-regional coverage of the service network, with faster delivery and quicker response.

Creating, Undertaking, Sharing, we practice our philosophy and fulfill the mission that to deliver safe, reliable and affordable clean energy to home and community for a more carbon-free future.

Glocalization service

- ✓ Hundreds of localization service teams
- ✓ 7*24H，fast feedback
- ✓ Digital after-sales service platform (CSS)

- **Shanghai PYTES Energy Co., Ltd.**
  Address: No. 3492 Jinqian Road, Fengxian DTS, Shanghai China
  TEL: +86 (21) 5747 5852
- **PYTES (USA) Energy, Inc**
  Address: 13921 Senlac Dr. Suite 100 Farmers Branch TX 75234 USA
  TEL: +1 (626) 734 3692
- **PYTES B.V.**
  Address: Molendijk-Zuid 23B, 5482 WZ Schijndel, Netherlands
  TEL: +31 (0) 625 560 152
- **PYTES Vietnam**
  Address: Lot B201A DH Street, Thai Hoa Industrial Park, Duc Hoa Ha Commune, Duc Hoa DST, Long An Province, Vietnam
  TEL: +84 (272) 381 9993
- **Shandong Pytes New Energy Technology Co., Ltd.**
  Address: Bld. 1 High Tech Industrial Park, No. 36 East Dongfeng Rd, Huishan Economic Development Zone, Jining, Shandong China
  TEL: +86 (537) 866 6008
- **Shangdong PYTES Electronics Co., Ltd.**
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  TEL: +86 (537) 866 6001

Residential Energy Storage Solutions

V 12

Wall Mounted LFP Battery

Features

Enhanced Safety

- Pre-charge Circuit Integrated
- Emergency Shutdown with Battery Breaker
- Built-in Fire Fighting System (Optional)

Higher Energy Density

- Tier 1 Automotive Grade 230Ah Cells Lighter and More Compact for Given Capacity

High Power Output

- 5.12kW Nominated Output Power

The All Weather Battery

- C4-M Certified Anti-Corrosion
- IP66 Rated Water & Dust Proof
- Heating Pad Integrated

Smart

- Remote Monitoring and Upgrading

Installer Friendly

- Wall or Ground Mounted
- Effortless Installation and Quick Commissioning

Optional Carrying Handle

Optional Carrying Handle

Dimensions: 328×136×20mm / 12.9×5.4×0.8 inch

V12 Specs

Electrical

Nominal Voltage	51.2V
Operating Voltage Range	47.5~57.6V
Nominal Capacity	230Ah
Battery Capacity in kWh	11.776kWh
Recommended Charge Current	100A(5.12kW)
Recommended Discharge Current	100A(5.12kW)
Peak Discharge Current	200A [for 180 seconds]
Rated DC Power	5.12kW
Battery Depth of Discharge	90%

General

Power Terminal	V12 PHOENIX BPC250 Quick Connector
Chemistry	LFP
Structure	DC Breaker & Pre-Charge Circuit Integrated
Communication Interface	RS485 / CAN / WIFI / Dry Contact
Dimensions(L x W x H)	640 x 230 x 520mm / 25.20 x 9.06 x 20.47inch
Weight	100kg / 220.5lbs
Operating Temperature	Charge: 0~55°C / 32~131°F Discharge: -20~55°C / -4~131°F
Cycle Life	6000 Cycles
Altitude	<13123.35ft / 4000m
Warranty	10 Years Basic Warranty [1]
Ingress Protection	IP66
Corrosion Resistance Class	C4-M [2]
Mounting Method	Wall / Ground (W/ Optional Battery Tray)
Heating Pad (Integrated)	Temperature Rise: 8°C/h / 14.4°F/h

[1] Test Conditions: 25° C, 0.5C/0.5C, 90% DoD,
[2] 70% SOH at Years Warranty Activation Date

Certifications

UL 9540, UL 9540A, UL 1973, CEC, IEC62619, CE, UN38.3

Residential Energy Storage Solutions

V5° / V5°α / V5°α plus

Features

Remote Monitoring and Upgrading
- Optional

Powerful
- 3.84kW Nominal Output Power

Wider Operation Temperature
- Heating Pad Integrated

Scalable
- Up to 491.52kWh Parallel Connection

Emergency Shutdown
- Upgrade with Battery Breaker (V5°a Plus)

Flexible Installation Options
- Compatible with Multi Enclosures & Brackets

CE CLEAN ENERGY COUNCIL UN38.3 SGS TUV CEC SGIP

V5°/ V5°α / V5°α Plus Specs

	V5°	V5°α	V5°α plus
Electrical			
Nominal Voltage	51.2V		
Voltage Range	47.5V~57.6V		
Nominal Capacity	100Ah		
Nominal Energy	5.12kWh		
Recommended Charge /Discharge Current [1]	75A		
Peak Charge /Discharge Current	101A~120A(3min); 121A~180A(15sec)		101A~120A(3min); 121A~200A(15sec)
Integrated Breaker			DC 125V/125A

[1]:The recommended and Max continuous charge and discharge current is for a battery cell temperature within 10°C~40°C(50°F~104°F) to consider. It will result in a derating on current if out of the temperature range.

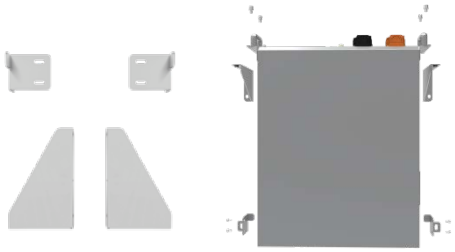
General

Power Terminal	PHOENIX M6 Bolt	Amphenol Surlok Plus 8.0mm	
Chemistry	LFP		
External Communication Protocol	CAN / RS485 / Dry Contact / WiFi(Optional Dongle)		
Dimension (With Handle) (L x W x H)	484 x 560.2 x 140 mm / 19.06 x 22.05 x 5.51 inch (3.2U)		484 x 578.2 x 140 mm / 19.06 x 22.76 x 5.51 inch (3.2U)
Dimensions (Without Handle) (L x W x H)	424 x 530 x 140 mm / 16.69 x 20.87 x 5.51 inch		432 x 540 x 140 mm / 17.01 x 21.26 x 5.51 inch
Weight	44 kg / 97 lbs		45.34 kg / 100 lbs
Ambient Temperature	-10°C~50°C/14°F~122°F		
Round-Trip Efficiency	⩾95%		
Cycle Life	⩾6000 Cycles		
Warranty	10 Years		
Add-on Functionalities			
Heating Pad	Temperature Rise: 10°C/ h/18°F/h Operation Temperature: -18°C~15°C/-0.4°F~59°F		
Scalability	16 pcs (81.92kWh) in a group 6 groups (491.52kWh) in a system w / a Hub		

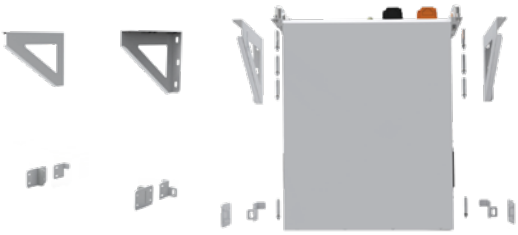
Certifications

UL9540 Ed.2 (2020), UL9540A, UL1973, CEC, SGIP, CE, IEC62619, UN38.3

V5° Compatible Bracket/Cabinet



V5 BK1
Wall Mounted
Load Capacity: 1×V5°/ V5°α / V5°α Plus
Dimensions(W×DxH):
27×92×145mm / 1.06×3.62×5.71inch(Upper bracket)
48×50×60mm / 1.89×1.97×2.36inch
(Lower auxiliary bracket)
Weight: 0.586kg / 1.29lbs



V5 BK2
Wall Mounted
Load Capacity: 2×V5°/ V5°α / V5°α Plus
Dimensions(W×DxH):
27×187×291mm / 1.06×7.36×11.46inch(Upper bracket)
53×50×60mm / 2.09×1.97×2.36inch(Lower Bracket)
Connection Board Dimensions(WxHxD):
27.5×60×100mm / 1.08×2.36×3.94inch
Weight: 2.09kg / 4.61lbs

V5° Bracket
Floor Mounted
Load Capacity: 1×V5°/ V5°α / V5°α Plus
Up to 6pcs per Stack
Dimensions(W×DxH):
50×177.8×62.2mm / 1.97×7×2.45inch
Weight: 1.44kg / 3.2lbs

V-BOX-IC
Floor Mounted
Load Capacity: 3×V5°/ V5°α
Dimensions(W×DxH):
533×616×650mm / 21.0×24.3×25.6inch
Weight: 42.2kg / 93lbs
Enclosure Rating: IP20

V-BOX-IC SE
Floor Mounted
Load Capacity: 3×V5°/ V5°α
Dimensions(W×DxH)**:**
533×565×660mm / 21.0×22.2×26.0inch
Weight: 27.7kg / 61.1lbs

V-BOX-NEMA3
Wall / Floor Mounted
Load Capacity: 2×V5°/ V5°α
Dimensions(W×DxH):
521.5×430.9×647.4mm / 20.5×17.0×25.5inch
Weight: 29.5kg /65.04lbs
Enclosure Rating: NEMA3

V-Box-OC(IV)
Floor Mounted
Load Capacity: 4×V5°/ V5°α
Dimensions(W×DxH):
645.16×396.24×1394.46mm / 25.4×15.6×54.9inch
Weight: 194lbs
Enclosure Rating: IP55

VR-BOX-IC
Wall Mounted
Load Capacity:
2×V5°/ V5°α / V5°α Plus / E-BOX 48100R
Dimensions(W×DxH):
681×341×851mm / 26.8×13.4×33.5inch
Weight: 35.3kg / 77.8lbs
Enclosure Rating: IP20

Residential Energy Storage Solutions

Pi LV1

Stackable LFP Battery System

Features

Safe
- LFP Chemistry, Field-Proven BMS Integrated in Individual Module, DC Breaker & Fuse Adapted

Scalable on Demand
- Flexible Configuration from 5.12 to 30.72 kWh per Stack, Up to 8 Stacks

Powerful
- Up to 10.24kW Continuous Output

Outdoor Rated Enclosure
- Water & Dust proof for Both Indoor and Outdoor

Plug-and-play (15-min installation)
- Quick Connectors, Hand-wiring Free

Smart
- Remote Upgrading & Monitoring

CE CLEAN ENERGY COUNCIL UN38.3 SGS TÜV CEC SGIP

Pi LV1 Specs

Battery Module Unit:

Cell Type	LFP
Nominal Energy	5.12kWh
Nominal Voltage	51.2V
Voltage Range	47.5V~56.8V
Nominal Capacity	100Ah
Recommended Continuous Discharge Current	50A
Recommended Continuous Charge Current	50A
Certifications	UL9540 Ed.2 (2020), UL9540A, UL1973, CEC, SGIP, CE, IEC62619, UN38.3

Model	1	2	3	4	5	6
Cell Type	LFP					
Nominal Voltage	51.2V					
Voltage Range	47.5V~56.8V					
Nominal Energy [1]	5.12kWh	10.24kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
Recommended Power	2.56kW	5.12kW	7.68kW	10.24kW	10.24kW	10.24kW
	681 x 242 x 540 26.8 x 9.5 x 21.3	681 x 242 x 800 26.8 x 9.5 x 31.5	681 x 242 x 1060 26.8 x 9.5 x 41.7	681 x 242 x 1320 26.8 x 9.5 x 52.0	681 x 242 x 1580 26.8 x 9.5 x 62.2	681 x 242 x 1840 26.8 x 9.5 x 72.4
Weight(kg/lbs)	71.7/158.1	125/275.6	178.3/393.1	231.6/510.6	284.9/628.1	338.2/745.6
Efficiency	⩾95%					
Communication	CAN, RS485, WIFI, Dry Contact					
WiFi Module	Wifi frequency range:2412-2472MHz Wifi Max. transmission power<20dBm Bluetooth frequency range: 2402-2480MHz Bluetooth Max. transmission power<4dBm					
Cycle Life [2]	⩾6000Cycles					
Protection level	IP55					
Ambient Temperature	Charge: 0°C ~ 45°C / 32°F ~113°F Discharge: -10°C~50°C / 14°F~122°F					
Storage Temperature	Within 1 month: -20°C~50°C / -4°F~122°F 1~3 months: -10°C~40°C /14°F~104°F 3~12 months: 0°C~30°C /32°F~86°F					
BCU						
BMU						

[1] : 4 models parallel in Pi LV1 is Recommended. [2]: @25°C, 0.5C Charging/Discharging, 90% DoD

Residential Energy Storage Solutions

E-BOX 48100R

Features

Scalable

- From 5.12kWh to 491.52kWh

Compact, Flexible and Easy Install

Long-lasting

- ≥6000Cycles @ 90%DoD

Safe & Reliable

- Tier 1 Automotive Grade A LiFePO4 cells
- Self-designed & Field-proven BMS

CE CLEAN ENERGY COUNCIL UN38.3 SGS TUV CEC SGIP

E-BOX 48100R Specs

Electrical

Nominal Voltage	51.2V
Voltage Range	47.5V~57.6V
Nominal Capacity	100Ah
Nominal Energy	5.12kWh
Recommended Charge/ Discharge Current	50A (2.56kW dc)
Maximum Charge/ Discharge Current	50A (2.56kW dc)
Peak Discharge Current	102A (5.22kW@15s)

General

Chemistry	LFP
Communication Protocol	CAN/RS485
Dimensions (With Handle) (L x W x H)	480 x 658 x 117 mm / 18.90 x 25.91 x 4.61 inch (2.6U)
Dimensions (Without Handle)) (L x W x H)	435 x 620 x 117 mm / 17.13 x 24..41 x 4.61 inch
Weight	51 kg / 112.5 lbs
Ambient Temperature	-10°C~50°C / 14°F~122°F
Round-Trip Efficiency	⩾95%
Cycle Life*	⩾6000Cycles
Warranty	10 Years

* Test Condition 0.5C, 25°C @90%DoD

Certifications

UL9540 Ed.2 (2020), UL9540A, UL1973, CEC, SGIP, CE, IEC62619, UN38.3

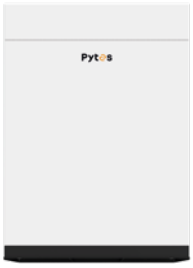
E-BOX 48100R Compatible Bracket/Cabinet

Forest RB Plus
Floor Mounted
Load Capacity: 6×E-BOX 48100R

Dimensions(W×DxH):
720×400×1150 mm / 28.3×15.7×45.3inch
Weight: 20kg / 44.1lbs
Enclosure Rating: IP20

E BK1
Floor Mounted
Load Capacity: 1×E-BOX 48100R
Up to 6pcs Stackable

Dimensions(W×DxH):
78.5×40×161.5mm / 3.09×1.57×6.36inch (Front Bracket)
62.2×76×155mm / 2.45×2.998×6.10inch(Rear Bracket)
Weight: 3.64lbs / 1.65kg



R-BOX
Wall / Floor Mounted
Load Capacity: 2×E-BOX 48100R
Dimensions(W×DxH):
279.4×510.54×698.5mm / 11.0×20.1×27.5inch
Weight: 37.5lbs
Enclosure Rating: IP20

R-BOX-NEMA3
Wall / Floor Mounted
Load Capacity: 2×E-BOX 48100R
Dimensions(W×D×H):
530.0×400.3×734.7mm / 21.0×15.7×28.9inch
Weight: 27.7kg / 61.06lbs
Enclosure Rating: NEMA3

R-BOX-OC
Floor Mounted
Load Capacity: 4×E-BOX 48100R
Dimensions(W×D×H):
800×330×1575mm / 31.5×13.0×62.0inch
Weight: 80kg / 176.4lbs
Enclosure Rating: IP55

VR-BOX-IC
Wall Mounted
Load Capacity:
2×V5°/ V5°α / V5°α Plus / E-BOX 48100R
Dimensions(W×D×H):
681×341×851mm / 26.8×13.4×33.5inch
Weight: 35.3kg / 77.8lbs
Enclosure Rating: IP20

Residential Energy Storage Solutions

Features

Safe
- LFP Chemistry, Tier 1 Automotive Cells & Field-Proven BMS
- Emergency Shutdown

Powerful
- 7.17kW Powerful Output,
- 14.34kWh High Capacity

Smart
- Remote Upgrading & Monitoring

Elegant
- Sleek and Minimalist Design with Clean Lines, Featuring Hidden Interface

Wide Compatibility Range
- Closed-Loop Compatible with Over 20+ Inverters

Easy To Install
- Wheelable & Less Wiring
  One Battery for the Whole Family

Optional Carrying Handle

Horizontal Carrying Handle

Dimensions: 489×225×272.5mm / 19.3×8.6×10.7 inch

Vertical Carrying Handle

Dimensions: 955×225×25 mm / 37.6×8.6×1 inch

V15 Specs

Electrical

Nominal Voltage	51.2V
Voltage Range	47.5V~57.6V
Nominal Capacity	280Ah
Nominal Energy	14.34kWh
Recommended Charge/ Discharge Current	140A (7.17kW)
Maximum Charge/ Discharge Current	200A (10.24kW@180s)
Peak Discharge Current	300A(@15.36kW@15s)
Battery Breaker	DC 250V 250A

General

Chemistry	LFP
Communication Protocol	RS485 / CAN / Dry Contact / Wifi
Dimensions (W x H x D)	282 x 727 x 730 mm / 11.10 x 28.62 x 28.74 inch
Weight	135kg / 297.6lbs
Operating Tempersture	Charge: 0° C~ 55° C / 32° F~131° F Discharge: -20° C~ 55° C / -4° F~131° F
Cycle Life	6000 Cycles @0.5C / 0.5C, 25° C / 77° F 90% DoD
Ingress Protection	IP21
Altitude	<4000m
Warranty	10 Years

Dimensions

RV Battery

Ecox 12100

Features

Lighter

- 50% lighter than lead-acid batteries of the same capacity

Higher Charge/Discharge Rate

- 30% higher energy density than lithium iron phosphate batteries of the same capacity

Long-lasting

- Up to 4500+ cycles, maximizing your return on investment

Remote Monitoring

- Built-in Bluetooth module, supports real-time battery monitoring via mobile devices

Scalable on Demand

- Supports up to 16 batteries in 4S4P configuration, with a maximum energy of 20.48 kWh

Application Scenarios

The Ecox 12100 is suitable for deep-cycle off-grid applications such as RVs, boats, trucks, and cabins, and can replace deep-cycle lead-acid batteries

Ecox 12100 Specs

Electrical

Nominal Voltage	12.8VDC
Nominal Capacity	100Ah
Internal Resistance	<10m Ω
Round-Trip Efficiency	99%
Self-discharge Rate	⩽3% per month
Scalability	4S4P
Cycle Life	＞4500
Maximum Continuous Discharge Current	100A
Maximum Discharge Current	200A@30s
Maximum Continuous Charge Current	100A
Recommended Continuous Charge Current	⩽50A
Recommended Charge Voltage	14V~14.8V

Environmental

Recommend Storage Temperature	-4°F~140°F ,-20°C~60°C
Discharging Temperature	-4°F~122°F ,-20°C~50°C
Autitude	<4000m
Relative Humidity	5%~95% (no condensation)

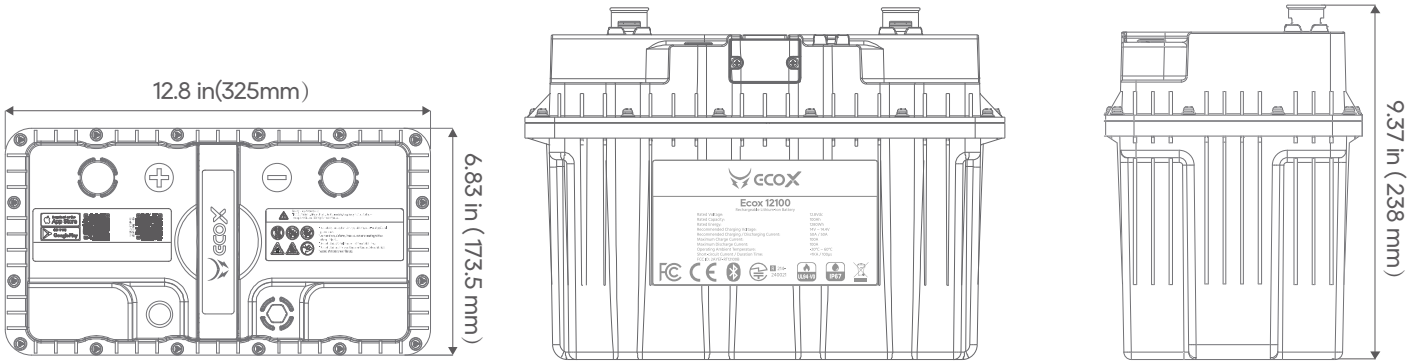
Mechanical

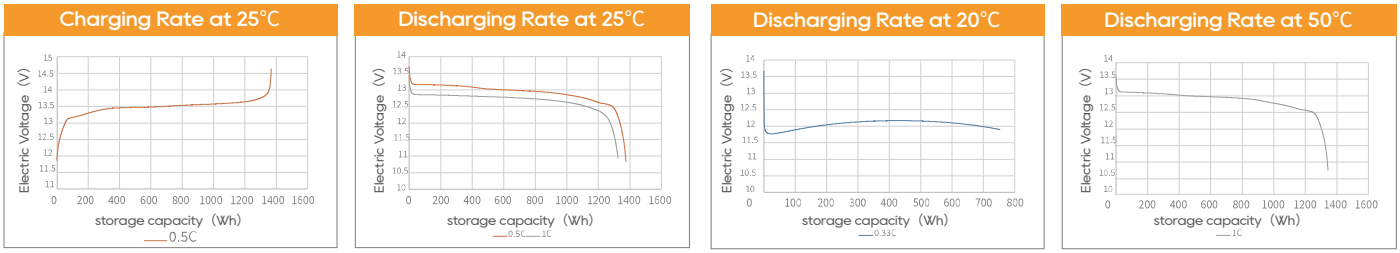
Dimensions	12.8 x 6.83 x 9.37 in (325 x 173.5 x 238mm)
Weight	approx 26.46 lbs (12kg)
Terminal Type	M8 x 14
Terminal Torque	9±1Nm
Housing Material	PC
Ingress Protection	IP67
Battery Type	LFP

Other

Certification	UN38.3, FCC, IEC 62619, CE
Communication	BLE 5.0
APP	Battery Cloud

Dimensions





* The above data is based on controlled environment test records, and actual usage may vary depending on external environmental conditions.

RV Battery

ECOX 12100 SE

Features

Lighter

- 50% lighter than lead-acid batteries of the same capacity

Higher Charge/Discharge Rate

- 30% higher energy density than lithium iron phosphate batteries of the same capacity

Long-lasting

- Up to 4000+ cycles, maximizing your return on investment

Remote Monitoring

- Operation indicator, warning light, and SOC indicator allow you to monitor the battery status in real-time

Scalable on Demand

- Supports up to 8 batteries in parallel, with a maximum energy of 10.24 kWh

Self-heat

- Built-in heating film, supports battery charging in cold environments

Application Scenarios

Ecox 12100 SE is suitable for deep-cycle off-grid applications such as RVs, boats, trucks, and cabins, and can replace deep-cycle lead-acid batteries

Ecox 12100 SE Specs

Electrical

Nominal Voltage	12.8VDC
Nominal Capacity	100Ah
Internal Resistance	<10mΩ
Self-discharge Rate	⩽3% per month
Scalability	8P
Cycle Life	＞4000
Maximum Continuous Discharge Current	100A
Peak Discharge Current	200A@10s
Maximum Continuous Charge Current	100A
Recommended Charge Current	⩽50A
Recommended Charge Voltage	14V-14.4V

Environmental

Recommened Storage Temperature	50°F~104°F , 10°C~40°C
Storage Temperature	-4°F~122°F , -20°C~50°C
Autitude	<4000m
Relative Humidity	5%~95% (no condensation)

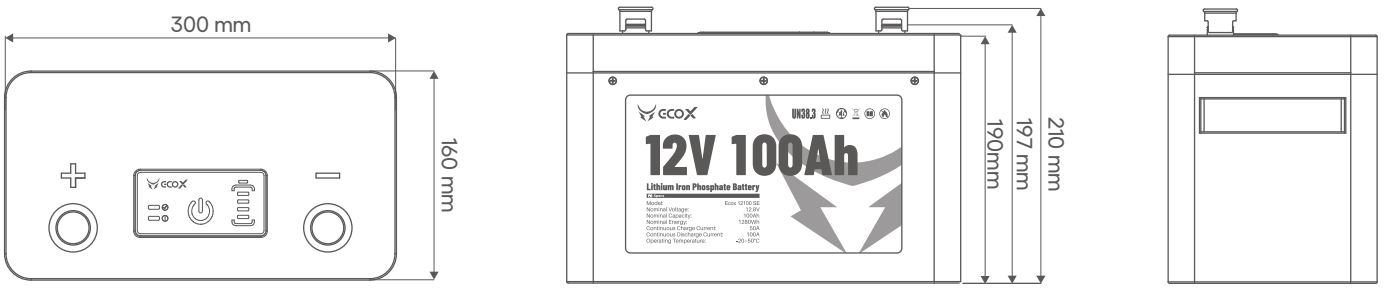
Mechanical

Dimensions	300 x 160 x 210 mm
Weight	approx 12kg
Terminal Type	M8 x 1.25 x 14mm
Terminal Torque	8±1Nm
Housing Material	Metal
Ingress Protection	IP20
Battery Type	LFP
Cooling	Nature Cooling

Other

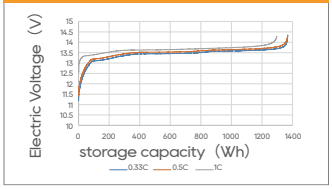
Certification	UN38.3, IEC 62619, CE
Heating	Support

Dimensions

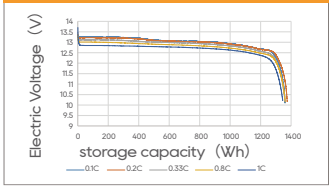


Unit: mm

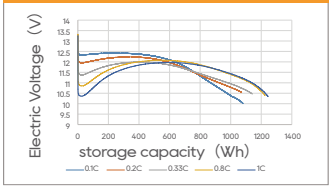
Charging Rate at 25°C



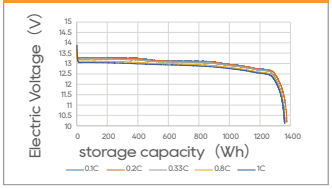
Discharging Rate at 25°C



Discharging Rate at -20°C



Discharging Rate at 50°C



* The above data is based on controlled environment test records, and actual usage may vary depending on external environmental conditions.

RV Battery

Ecox 12200

Features

Lighter

- 50% lighter than lead-acid batteries of the same capacity

Higher Charge/Discharge Rate

- 30% higher energy density than lithium iron phosphate batteries of the same capacity

Long-lasting

- Up to 4000+ cycles, maximizing your return on investment

Remote Monitoring

- Built-in Bluetooth module, supports real-time battery monitoring via mobile devices

Scalable on Demand

- Supports up to 16 batteries in 4S4P configuration, with a maximum energy of 40.96 kWh

Self-heat

- Built-in heating film, supports battery charging in cold environments

Application Scenarios

The Ecox 12200 is suitable for deep-cycle off-grid applications such as RVs, boats, trucks, and cabins, and can replace deep-cycle lead-acid batteries

Ecox 12200 Specs

Electrical

Nominal Voltage	12.8VDC
Nominal Capacity	200Ah
Internal Resistance	<10mΩ
Round-Trip Efficiency	99%
Self-discharge Rate	⩽3% per month
Scalability	4S4P
Cycle Life	＞4000 (80% DOD, 0.5 C, 25°C)
Maximum Continuous Discharge Current	100A
Maximum Discharge Current	200A@5s
Maximum Continuous Charge Current	100A
Recommended Charge Voltage	14V-14.6V

Environmental

Discharging Temperature	-20°C~60°C
Charging Temperature	0°C~55°C
Storage Temperature	-40°C~60°C
Autitude	<4000m
Relative Humidity	5%~95% (no condensation)

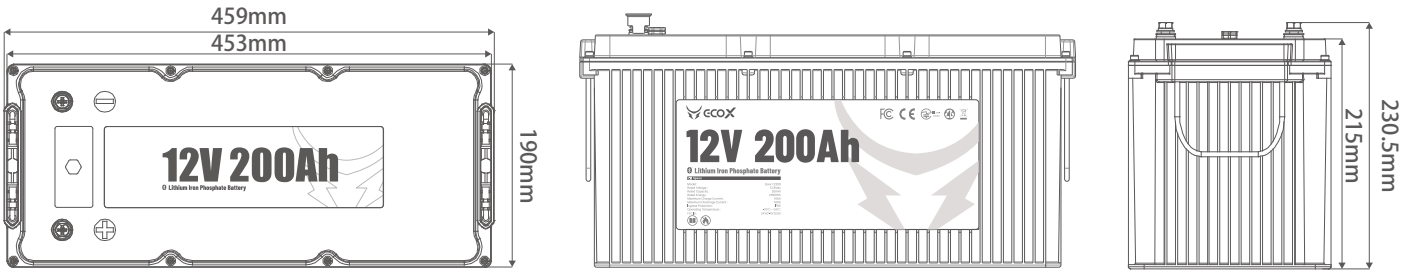
Mechanical

Dimensions	495 x 190 x 234.5 mm
Weight	approx 20.9kg
Terminal Type	M8 x 1.25 x 14mm
Terminal Torque	9±1Nm
Housing Material	PC
Ingress Protection	IP65
Battery Type	LFP

Other

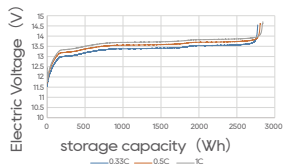
Certification	UN38.3, IEC 62619, FCC, CE
Communication	BLE 5.0
Heating Film	Support
APP	Battery Cloud

Dimensions

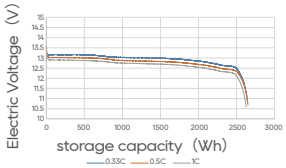


Unit: mm

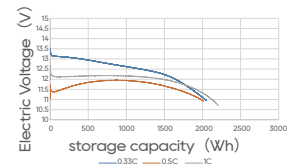
Charging Rate at 25°C



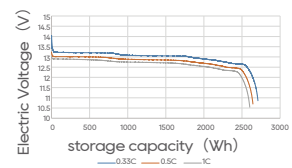
Discharging Rate at 25°C



Discharging Rate at -20°C



Discharging Rate at 50°C



* The above data is based on controlled environment test records, and actual usage may vary depending on external environmental conditions.

Balcony Solution

EX2000

Balcony Solution

Features

Installer Friendly
- 5-Minute Plug & Play

Long Service Life
- 6000 Cycles@90% DoD

Widely Applicable
- Apartment, Garden, House

Safe
- Tier 1 Grade A LFP Cells
- Pytes BMS Optimize Efficiency without Posing Risk
- IP65 Water and Dust Proof Enclosure

Giant Capacity & Powerful Output
- 2.56kWh per Unit
- 1.28kW Rated Output Power
  Scalable up to 10.24kWh

EX2000 Specs

Electrical

Nominal Voltage	51.2V
Operating Voltage Range	47.5~56.8V
Nominal Capacity	50Ah
Nominal Energy	2.56kWh
Recommended Charge/ Discharge Current	25A(1.28kW)
Peak Discharge Current	50A@10s

General

Chemistry	LFP
Communication Interface	CAN2.0 / WIFI
Dimensions(L x W x H)	450x 150 x 410mm / 17.72 x 5.91 x 16.14inch
Weight	27kg / 59.52lbs
Operating Temperature	Charge: 0~55°C / 32~131°F Discharge: -10~55°C / 14~131°F
Cycle Life*	6000 Cycles
Altitude	<13123.35ft / 4000m
Warranty	10 Years Basic Warranty
Ingress Protection	IP65
Corrosion Resistance Class	C4M
Mounting Method	Ground
Heating Pad (Integrated)	Temperature Rise: 8°C/h / 14.4°F/h

*Test Conditions: 25°C, 0.5C/0.5C, 90% DoD, 70% EOL.

Certifications

IEC62619, CE, UN38.3

C&I Energy Storage Solutions

HV48100

Features

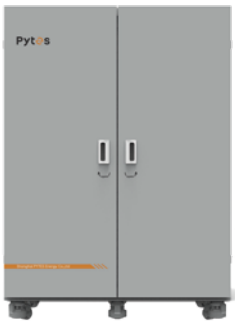
Safe
- LFP Chemistry
- Smart BMS

Efficiency
- High Voltage System
- Voltage Range 200V~870V

Compatible Cabinets

HV48100 8S
BMU Quantity: 5~8
Dimensions:
600×640×1555mm /
23.6×25.2×61.2inch
Weight: 89.6kg / 197.5lbs
Enclosure Rating: IP20

HV48100 12S
BMU Quantity: 9~12
Dimensions:
595 x 680 x 2100mm /
23.4 x 26.8 x 82.7 inch
Weight: 138kg / 304.2lbs
Enclosure Rating: IP20



HV48100 15S
BMU Quantity: 13-15
Dimensions:
1504 x 626 x 1463mm /
59.2 x 24.7 x 57.6 inch
Weight: 126.5kg / 278.9lbs
Enclosure Rating: IP20

HV48100 Specs

HV48100 BCU

Controller Working Voltage	200V~870V
Self-consumption Power	7.56W
Dimensions (W x D x H)	484 x 510 x 140 mm / 19.1 x 20.1 x 5.5 inch
Weight	13.3 kg / 29.3 lbs
Communication	CAN, RS485, Dry Contact, WiFi
Internal Communcation	RS232

HV48100 BMU

Cell Type	LFP
Nominal Energy	5.12kWh
Nominal Voltage	51.2V
Nominal Capacity	100Ah
Continuous Discharging/Charging Current	50Adc
Voltage Range	45.5~58V
Depth of Discharge	90%
Series Connection Qty	5~15pcs
Dimensions (W x D x H)	484 x 530 x 140 mm / 19.1 x 20.9 x 5.5 inch
Weight	43 kg / 94.8 lbs
Internal Communcation	RS232
External Communication	CAN, RS485
Cycle Life	⩾6000Cycles
Operation Temperature	Charge： 0°C~45°C(32°F~113°F)， Discharge: -10°C~50°C(14°F~122°F)
Storage Temperature	Within 1month: -20°C~50°C(-4°F~122°F) 1-3months: -10°C~40°C(14°F~104°F) 3-12months: > 0°C~30°C(32°F~86°F)

Certifications

UL9540 Ed.2 (2020), UL9540A, UL1973, CE, IEC62619, UN38.3, CEC

C&I Energy Storage Solutions

Pi Station 230EX

Liquid Cooling Outdoor Rated ESS

Introduction

Pytes liquid cooling battery cabinet integrates battery modules with a full configuration capacity of 232.96kWh. And can be widely used in various application scenarios such as generation and transmission grid, distribution grid, new energy plants.

Features

Flexible

- All-in-one design and highly integrated
- Modular design with different optional parts.

Compatible

- Grid-tied
- 400Vac 3P4W
- Optional backup module

Easy-to-Install

- IP54 rated
- Parallel installation back-to-back

Compliance

- Global grid certified & listed
- Compliance with global safety standards.

Pi Station 230EX Specs

Mode	PI STATION 230EX
System Specificatoin	
Battery Chemistry	LFP (LiFePO4)
Nominal Output Power	105KW
Battery Capacity	232.96kWh
Battery Nominal Voltage	832V
Operating DC Voltage Range	650V-949V(3P4W)
Recommended. Charging/ Discharging Current	140[1]
Fire Fighting System	1.Sensor Tube(Aerosol) 2.Water Fire Fighting System 3.Heat/Smoke/Gas sensor
Cell Cycle life	6000[2]
DOD	90%
Warranty	3 Year Product Warranty, 10 Year Battery Warranty
Conmmunication	
Communication port	CAN, RS485, Ethernet
Communication protocol	ModbusRTU/TCP
Mechanical	
Dimensions(W x D x H)	1000 x 1390 x 2430mm
Weight	2500kg
Cooling System	Liquid cooling
IP protection	IP54
Environmental	
Reactive Humidty	0-95% (no condensing)
Operating Temperature Range	-20~55°C
Recommended Cell Temperature Range	Charge:0~55°C; Discharge:-20~55°C
Altitude	2000m (>2000 derating)
Regulations	
Certification	CELL IEC 62619:2022, IS 16046 (PART 2) : 2018 / IEC 62133-2 : 2017, UL1642, UL1973, UL9540A, GB/T36276-2023, GB 38031-2020, GB/T 31486-2015, GB/T 31484-2015, GB/T 30512-2014, UN38.3, REACH, RoHS PCS CE-EMC, CE-LVD, South Africa NRS097, 50549-1 European general, 50549-2 European general, 50549-1 Netherlands, 50549-1 C10/11 Belgium, 50549-1 Greece, 50549-1 Sweden, 50549-1 Poland, England-G99, VDE-AR-N 4105:2018, GB/T 34120-2017 System UN38.3, IEC62619, IEC63056, IEC62477, CE-EMC

[1] Charge and discharge current derating will occur outside 0°C and 45°C
[2] Under test conditions(20~35°C, 0.5P/0.5P, EOL70%)

JS Series Hybrid Inverters

Features

Dual Backup Ports
- Customize Critical and Common Loads

Generator Compatible
- Dual Power Sources for Backup During Outage

200% Overload Capability
- 10 Seconds

Unbalanced Loads Supported
- 50% of Rated Power Each Phase

AC Coupling
- Solution for Legacy Users

Scalable
- Parallel up to 90kW to Form a Micro-grid

JS Series Hybrid Inverters Specs

Models	JS3PL8K	JS3PL10K	JS3PL12K	JS3PL15K
Input DC (PV side)				
Max. usable PV input power	12.8 kW	16 kW	19.2 kW	24 kW
Max. input voltage	1000 V			
Rated voltage	550 V			
Start-up voltage	160 V			
MPPT voltage range	200 – 850 V			
Max. input current	20A / 40A			40A / 40A
Max. short circuit current	30A / 50A			50A / 50A
MPPT number / Max. input strings number	2 / 3			2 / 4
Battery				
Battery type	Li-ion / Lead-acid			
Battery voltage range	40 – 60 V			
Max. charge / discharge current	180A	220A	250A	290A
Communication	CAN / RS485			
Output AC (Grid side)				
Rated output power	8 kW	10 kW	12 kW	15 kW
Max. apparent output power	8 kVA	10 kVA	12 kVA	15 kVA
Operation phase	3/N/PE			
Rated grid voltage	380 V / 400 V			
Rated grid frequency	50 Hz / 60 Hz			
Rated grid output current	12.2A / 11.5A	15.2A / 14.4A	18.2A / 17.3A	22.8A / 21.7A
Max. output current	12.2A / 11.5A	15.2A / 14.4A	18.2A / 17.3A	22.8A / 21.7A
Power factor	> 0.99 (0.8 leading – 0.8 lagging)			
THDi	< 3%			
Input AC (Grid side)				
Input voltage range	323 – 460 V			
Max. input current	18.3A / 17.3A	22.8A / 21.7A	27.3A / 26.0A	34.2A / 32.5A
Frequency range	45 – 55 Hz / 55 – 65 Hz			
Input Generator				
Max. input power	8 kW	10 kW	12 kW	15 kW
Max. input current	12.2A	15.2A	18.2A	22.8A
Rated input voltage	3/N/PE, 380 V / 400 V			
Rated input frequency	50 Hz / 60 Hz			
Output AC (Back-up)				
Rated output power	8 kW	10 kW	12 kW	15 kW
Max. apparent output power	2 times of rated power, 10 s			
Back-up switch time	< 10 ms			
Rated output voltage	3/N/PE, 380 V / 400 V			
Rated frequency	50 Hz / 60 Hz			
Rated output current	12.2 A / 11.5 A	15.2 A / 14.4 A	18.2 A / 17.3 A	22.8 A / 21.7 A
Max. continuous output current	12.2 A	15.2 A	18.2 A	22.8 A
Max. continuous AC passthrough current	50 A			
THDv (@linear load)	< 3%			
Efficiency				
Max. efficiency	97.60%			
EU efficiency	97.00%			
Protection	Anti-islanding , Output over current, Short circuit, DC reverse-polarity, Surge			
General Data				
Dimensions (W × H × D)	430 × 660 × 305 mm			
Weight	42 kg			
Topology	Non-isolated			
Operating ambient temperature	-40 ~ +60°C			
Ingress protection	IP66			
Noise emission (typical)	< 65 dB(A)			
Cooling concept	Intelligent fan-cooling			
Max. operation altitude	4000 m			
Features				
Display	7.0" LCD display & Bluetooth + APP			
Communication	CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN			

Accessories

LSW-5

162002100019

Compatible with V5°/ V5°a/ V5°a Plus/V10

WD01

Compatible with E-BOX 48100R

HUB

110409100001

Enables communication with multiple groups of batteries

Busbar:

110409100204

300A Busbar

12 x M6+2 x M8 Terminals

110409100205

600A Busbar

6 x M10+2 x M8 Terminals

Accessories

Cables

Power Cables

161412100245/161412100244
UL10269-4AWG-2000mm-Negative/Positive-Black/Orange-Amphenol 5.7mm+SC25-8

161412101029/161412101027
UL10269-0AWG-2000mm-Negative/Positive-Black/Orange-Amphenol 8.0mm+SC50-10

161412100468/161412100467
UL10269-4AWG-2000mm-Negative/Positive-Black/Orange-Amphenol 5.7mm+SC25-10

161412101026/161412101024
UL10269-0AWG-2000mm-Negative/Positive-Black/Orange-SC50-6+SC50-10

161412100466/161412100465
UL10269-00AWG-2000mm-Negative/Positive-Black/Orange-SC70-10*2

161412100462/161412100461
UL10269-0000AWG-2000mm-Negative/Positive-Black/Orange-DTF120*2

Communication Cable

161412101071
Standard Communication Cable
Compatible with: Sol-ark Megarevo Solis Deye Afore Luxpower Growatt Goodwe APsystems SMA Studer etc.

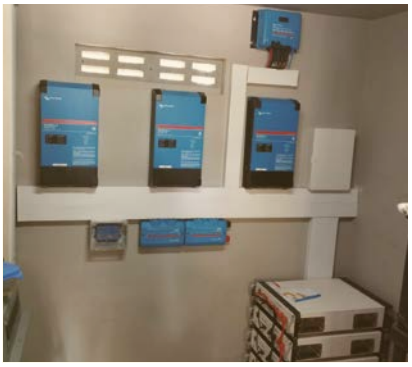
1614121010xx
Customized Communication Cable
Compatible with: Epever Phocos Voltronic Victron SRNE etc.

161412100916
Console Cable
USB to RJ45 cable for monitoring & upgrading

60kWh
Panama

45kW / 180kWh
Dakota

15kW / 160kWh
Florida



20kWh
Curacao

30kWh
Germany

18kW / 120kWh
Germany

10KWh
Puerto Rico

128kWh
Germany

45kW / 180kWh
Dakota

186kWh
China

186kWh
China

186kWh
China

186kWh
China

186kWh
China

232.96kWh
China

186kWh
China

186kWh
China

Compatibility List of PYTES ESS and Inverters

Low Voltage

victron energy
Sol-Ark
SMA
GROWATT
LUXPOWER TEK
Deye
GOODWE
solis
Voltronic Power
MPP Solar
SAJ
MEGAREVO
SRNE
Afore
SOLAX POWER
APsystems
hoymiles
EASUN POWER
Ingeteam
INHENERGY
EPEVER
MUST
SUN SYNK
Senergy
LIVOLTEK
Solplanet
phocos
STUDER

High Voltage

Sol-Ark
Deye
solis
MEGAREVO
Afore
Ingeteam
LUXPOWER TEK
Voltronic Power
AUXSOL
SINENG
hoymiles
SOLINTEG

Pytes

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Pytes

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