



A dedicated BESS (battery energy storage system) Provider

Pylon Technologies Co., Ltd  
No. 73, Lane 887, Zu Chongzhi Road,  
Zhangjiang Hi-Tech Park Pudong, Shanghai 201203, China

[www.pylontech.com](http://www.pylontech.com)  
[sales@pylontech.com.cn](mailto:sales@pylontech.com.cn)



**The future**  
is coming with sustainable,  
smart, stable energy

 **PYLONTECH**  
[www.pylontech.com.cn](http://www.pylontech.com.cn)



Follow our  
Heart-Oriented  
Always



A dedicated BESS  
(battery energy storage system) Provider

Pylontech, is a dedicated BSS (battery storage system) provider , by consolidating our expertise in electrochemistry power electronics and system integration, we have been providing reliable and affordable ESS battery products and solutions to

the global market, and been significantly contributing to a 6-years increasing rate by double, enabling our market position as one of the top suppliers of lithium battery storage world widely.

10+years  
Dedication

 **PYLONTECH**

-  **300,000**  
Global Residential ESS
-  **10+**  
Years Delivery experience
-  **7.34%**  
Continuous R&D investment
-  **TOP 2**  
Global residential ESS Supplier
-  **3GWH+**  
Delivered capacity
-  **60+**  
Self-developed Patents
-  **80+countries**  
Global Deliveries
-  **Flexible battery solutions**  
12V~1500V battery



# The road-map of Pylontech BESS

2009  
Found

2013  
Deployed the solution  
for BESS

2014  
Mass production for  
Europe and Australia

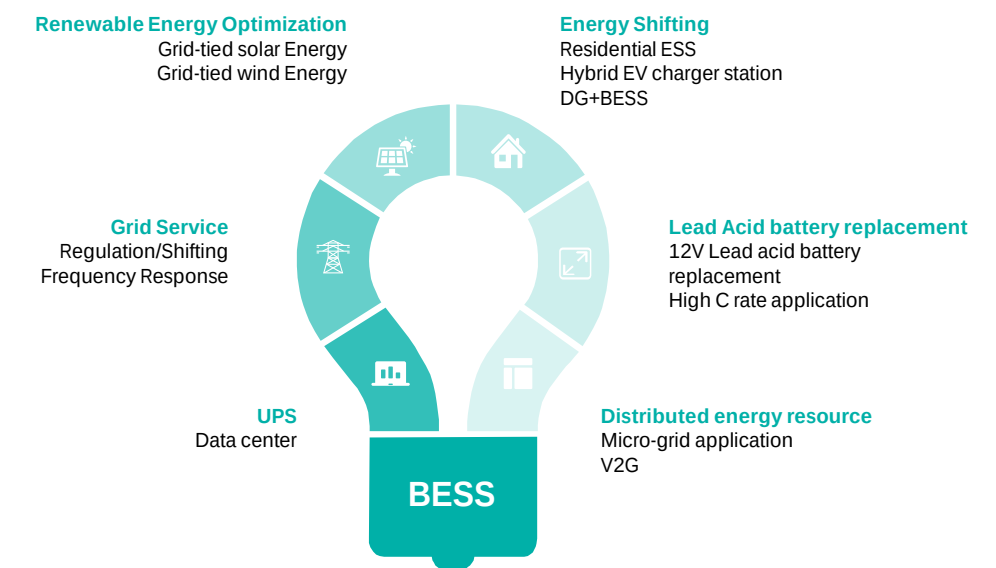
2015  
Domestic Grid-Scale BESS  
Deployment

2018  
1GWh  
ESS shipped globally

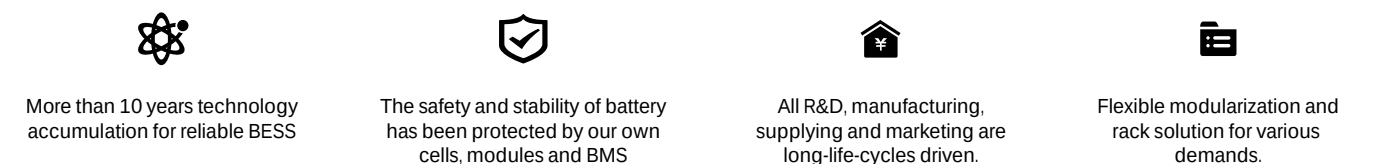
2019  
1.5GWh New Capacity  
built

2020  
Listed on  
STAR Market

## Main Applications



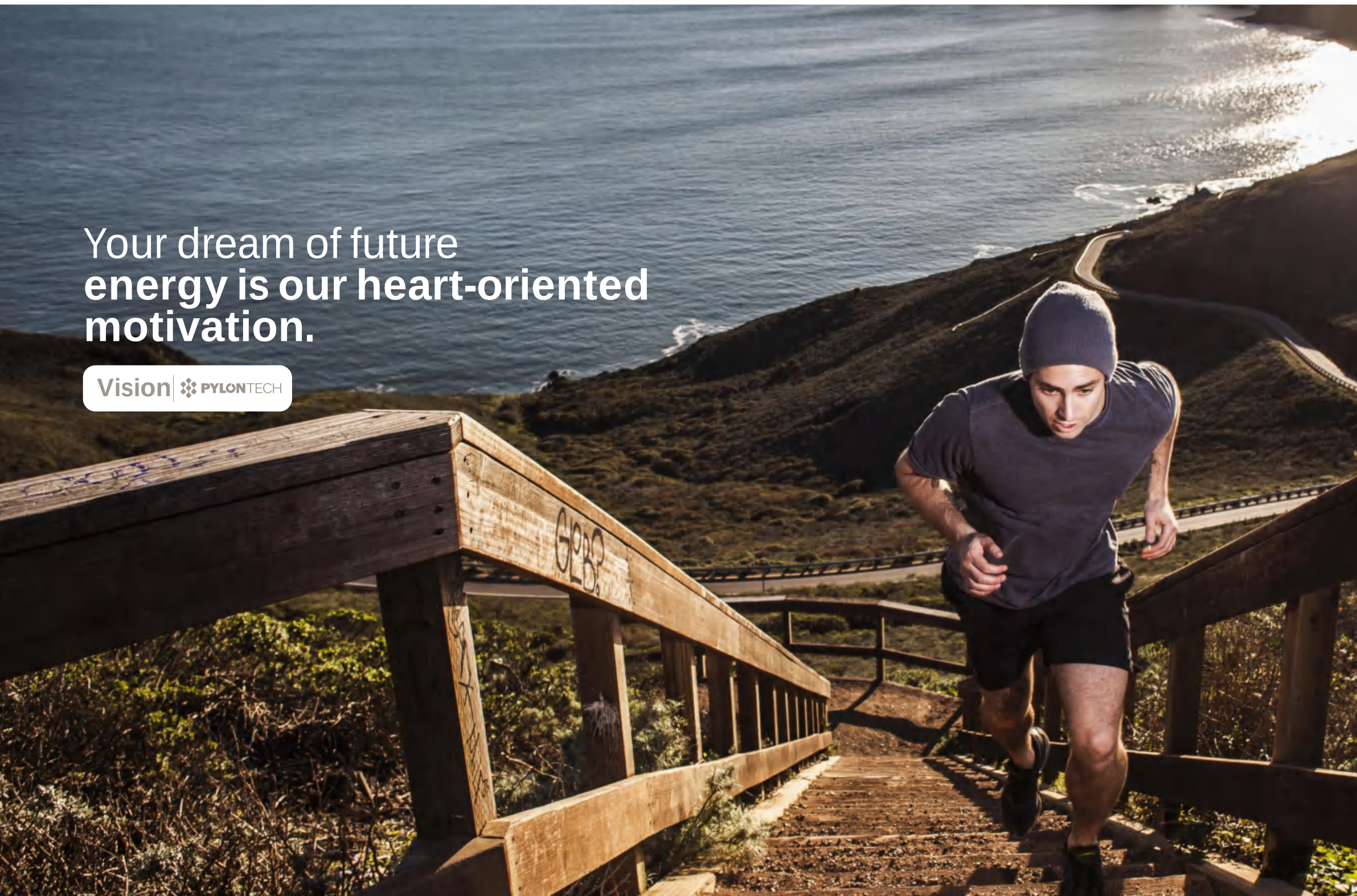
## Core Strengths



## Vertical Integration Chain is the **Key** of the performance







Your dream of future energy is our heart-oriented motivation.



DEDICATION  
Product Portfolio

- 01) Portable Power Station
- 02) Auto Aftermarket
- 03) Residential BESS
- 04) UPS Back Up
- 05) C&I ESS
- 06) Utility ESS

Over the past decade we have been redefining electric power generation, storage and usage with our partners globally. Continuous innovation and broad collaboration is the only route to an

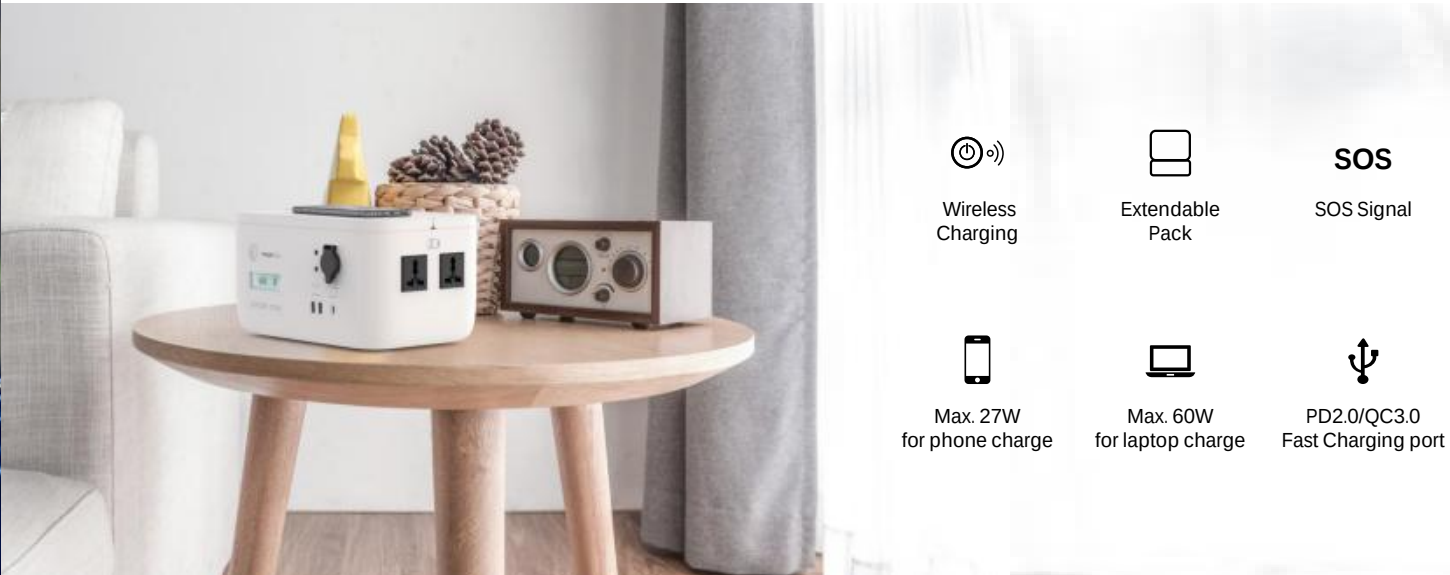
efficient, sustainable and affordable new energy structure. We strongly believe in the carbon neutral commitments from global leaders and strive to contribute our passion into the movement.



# Innovative Portable Power Station

Smart and clean portable power for your demanding devices

## Boosting more power with Extendable Battery Pack



Wireless Charging



Extendable Pack

SOS

SOS Signal



Max. 27W for phone charge



Max. 60W for laptop charge



PD2.0/QC3.0 Fast Charging port

### Specification

#### Amber Rock



#### Mini Amber



|                      |                                                                       |                 |
|----------------------|-----------------------------------------------------------------------|-----------------|
| Nominal Capacity:    | 473Wh                                                                 | 473Wh           |
| Cell Material:       | LFP lithium Ion                                                       | LFP Lithium Ion |
| Size :               | 303*198*161                                                           | 303*198*108     |
| Weight:              | 6.4kg                                                                 | 3.2kg           |
| Working temperature: | 0~40 C                                                                | 0~40 C          |
| Shelf Temperature:   | -20~60 C                                                              | -20~60 C        |
| Output:              | 2 AC                                                                  |                 |
|                      | 2 USB                                                                 | 1 USB           |
|                      | 1 PD2.0                                                               | 1 PD2.0         |
| Input:               | 1 Cigar Lighter                                                       |                 |
|                      | 2 DC jack                                                             |                 |
| Certification:       | 9hrs full charged-Standard Charger/2hrs full charged-Optional Charger |                 |
|                      | FCC CE MSDS UN38.3 PSE Rohs                                           |                 |

FCC CE MSDS UN38.3 PSE Rohs





# 12V Series

## All Purpose Lithium Ion Batteries



### Intelligent Battery Management System



Temperature Protection



Over-Voltage Protection



Over-Current Protection



Heating Film



Parallel & Serial Balancing Strategy



Short-circuit Protection

### KEY FEATURES

#### Ultra-Safety

The battery management system (BMS) provides comprehensive protection to the battery and manages the charging/discharging process wisely.

#### Auto-Balance

Connects multiple batteries in parallel safely without internal state non-uniformity issues.

#### Uncompromising Quality

State-of-the-art battery cells ensure a lifespan of more than 6000 cycles, 100A continuous discharge current, and a wide range of operation temperature.

#### Communication

CAN, RS485, Blue Tooth, Dry Contact enable data transmission to meet the needs of different usage scenarios.

### SPECIFICATION

| Model                                                               | RT12100G31             |
|---------------------------------------------------------------------|------------------------|
| Electrical                                                          |                        |
| Nominal Voltage(V)                                                  | 12.8                   |
| Nominal Capacity(Ah)                                                | 100                    |
| Working Voltage Range(VDC)                                          | 10.8~14.4              |
| Internal Resistance(mΩ)                                             | < 20                   |
| Charge Voltage(VDC)                                                 | 14 ~14.4               |
| Nominal Operation Current(A)                                        | 20                     |
| Continuous operation current(A)                                     | 100                    |
| Peak Current(A)                                                     | 200A@30sec             |
| Serial Connection                                                   | ≤ 4 pcs                |
| Parallel Connection                                                 | ≤ 4 pcs                |
| Structure                                                           |                        |
| Dimension (mm)                                                      | 325*173.5*226          |
| Weight(Kg)                                                          | 12kg±0.2               |
| IP rating                                                           | IP67                   |
| Power Terminal                                                      | M8 bolt                |
| Working Environment                                                 |                        |
| Charge working temperature (℃)                                      | 0 ~ 60                 |
| Discharge working temperature (℃)                                   | -20 ~ 60               |
| Working temperature (℃)                                             | -40 ~ 60*              |
| Altitude (M)                                                        | < 4,000                |
| Humidity(RH)                                                        | 5~95%( w/o condensing) |
| Design life                                                         | 10+years (25℃)         |
| Cycle life                                                          | >4500( 25℃)            |
| Communication                                                       |                        |
| RS485                                                               | 115200bps              |
| CAN                                                                 | 500Kbps                |
| Bluetooth                                                           | BLE5.0                 |
| Dry contactor                                                       | 2×inputs & 2×outputs   |
| Certification                                                       |                        |
| SAE J930, SAE J1455, UL1973, IEC62619,FCC,CE, Bluetooth SIG, UN38.3 |                        |

\*During -40℃ ~ -20℃ , only heater will be enabled for heating up the module, battery cannot charge/discharge during such period.







# 24V Back-Up Storage System



## Application

Back-up system for office computer,data center, load and other equipments of business building, bank,hospital, school, railway station, airport, telecom..



## Features



Cell Balance  
function



Voltage  
Protection



Over Charge  
Protection



Over Discharge  
Protection



Over Current  
Protection



Short-circuit  
Protection



Temperature  
Protection



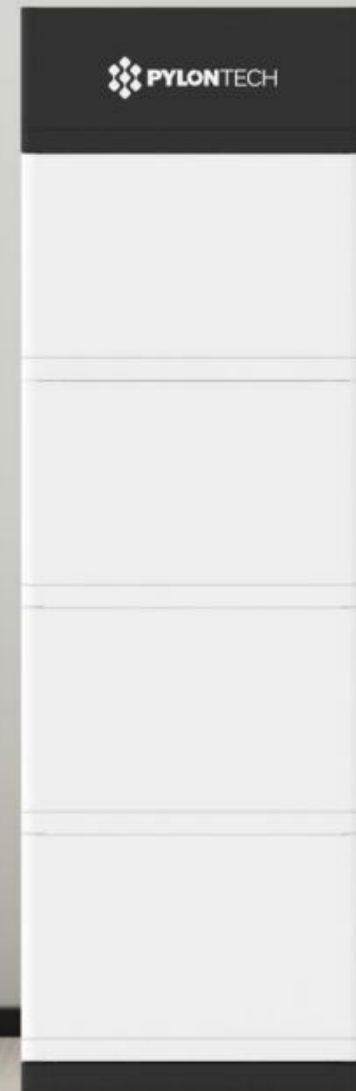
Soft Start  
Function

## Specification

| Basic Parameters            | UP2500                           |
|-----------------------------|----------------------------------|
| Nominal Voltage(V)          | 25.6                             |
| Nominal Capacity(Wh)        | 2840                             |
| Usable Capacity(Wh)         | 2550                             |
| Dimension(W*D*H, mm)        | 442*420*120                      |
| Weight(Kg)                  | 26.5                             |
| Discharge Voltage(V)        | 23.2~28.5                        |
| Charge Voltage(V)           | 28.2~28.5                        |
| Charge/Discharge Current(A) | 55(continuous)<br>100 (Peak@15s) |
| Communication Port          | CAN,RS485                        |
| Working Temperature(℃)      | 0~50                             |
| Shelf Temperature(℃)        | -20~60                           |
| Humidity                    | 5%~90%                           |
| Altitude (m)                | < 2000                           |
| Design Life                 | 15+Years (25℃@77°F)              |
| Cycle Life                  | > 6000, @25℃                     |
| Authentication level        | IEC62619/RoHS/UN38.3/CE          |

## Residential BESS

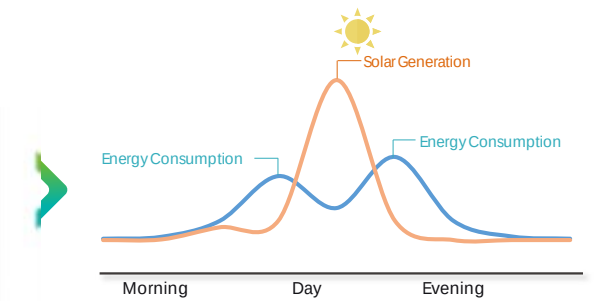
Save your bill, save the world, with our battery storage.  
Little step for our generations to enjoy the safe and clean environment



## How to save bill from Residential ESS?

### Self-Consumption Optimization

High energy demand in the morning and evening but solar generation is most sufficient during the Mid-Day. Battery Storage system balance the feeding and demands. Realize your grid independence.



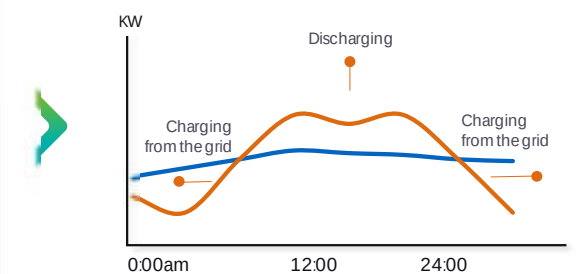
### Benefits from Peak Shaving

#### House: Load Shifting

Store the power during low-peak and use the energy at peak-time. Save the money which happens arising from peak rate.

#### Transmission&Distribution: peak Shaving

Save on the electricity bills by reducing peak demand



### VPP Revenue

VPP creates a network of renewable energy sources and battery storage systems, connected through a cloud-based technology that manages the stability of clean electricity to maximize your revenue.

Enabling a cost reduction, as well as boosting the system's efficiency







# Your ideal Residential BESS

- Safety**  
Multi-protection from self developed BMS
- Optimal Electricity Cost**  
Long cycle life and superior performance
- Compact Size & Easy installation**  
Module design help for quick installation
- Easy to Scale Up**  
Be workable to be parallel based on 48V
- Compatibility**  
Compatible with Tier 1 inverter brands

## Product Lineup

| 48 V                      |                          | 96~336 V                   |
|---------------------------|--------------------------|----------------------------|
| Cabinet/rack installation | Quick connector          | Quick connector            |
| US2000C (2.4 kWh)         | Force L1 (7.1~24.86 kWh) | Force H1 (10.65~24.86 kWh) |
| Phantom-S(2.4 kWh)        | Force L2 (7.1~14.2 kWh)  | Force H2 (7.1~14.2 kWh)    |
| US3000C (3.55 kWh)        |                          |                            |
| US5000 (4.8 kWh)          |                          |                            |

## SPECIFICATION (48V)

| Model                              | US2000C            | US3000C                                            | US5000                              | Phantom-S          |
|------------------------------------|--------------------|----------------------------------------------------|-------------------------------------|--------------------|
| Basic Parameters                   |                    |                                                    |                                     |                    |
| Nominal Voltage (Vdc)              | 48                 | 48                                                 | 48                                  | 48                 |
| Nominal Capacity(Wh)               | 2400               | 3552                                               | 4800                                | 2400               |
| Usable Capacity(Wh)                | 2280               | 3374                                               | 4560                                | 2280               |
| Dimension(mm)                      | 442*410*89         | 442*420*132                                        | 442*420*161                         | 440*440*88.5       |
| Weight(kg)                         | 24                 | 32                                                 | 39.5                                | 24                 |
| Charge/<br>Discharge<br>Current(A) | (Recommend)        | 25                                                 | 37                                  | 50                 |
|                                    | (Max@1min)         | 50                                                 | 74                                  | 100                |
|                                    | (Peak @15s)        | 90                                                 | 90                                  | 120                |
| Communication Port                 |                    | RS485, CAN                                         |                                     |                    |
| Single string quantity(pcs)        | 16                 | 16                                                 | 16                                  | 16                 |
| Working Temperature/ ℃             |                    | 0~50                                               |                                     |                    |
| Shelf Temperature/ ℃               |                    | -20~60                                             |                                     |                    |
| Attitude(m)                        |                    | <4000                                              |                                     |                    |
| Design Life                        |                    | 15+years (25 ℃)                                    |                                     |                    |
| Humidity                           |                    | 5%~95% (w/o condensing)                            |                                     |                    |
| Authentication Level               | IEC62619/CE UN38.3 | VDE2510-50<br>IEC62619/UL1973<br>UL9540A/CE/UN38.3 | IEC62619/UL1973 /UL9540A/CE /UN38.3 | IEC62619/CE UN38.3 |
| Cycle Life                         | > 6000, 25 ℃       | >6000, 25 ℃                                        | >6000, 25 ℃                         | >6000, 25 ℃        |



# Force Series

Concise steel color reflects the strong capability of holding energy. Furniture like design suits both indoor and outdoor installation. Ideal for large home and small commercial application.

7.10~24.86 kWh  
Flexible Mounting  
Plug&Play  
95% DOD

## SPECIFICATION (Force-L1/48V)

|                              |                                                                                     |             |             |              |              |              |
|------------------------------|-------------------------------------------------------------------------------------|-------------|-------------|--------------|--------------|--------------|
|                              |  |             |             |              |              |              |
| Model                        | 2                                                                                   | 3           | 4           | 5            | 6            | 7            |
| Basic Parameters             |                                                                                     |             |             |              |              |              |
| Battery System Capacity(kWh) | 7.1                                                                                 | 10.65       | 14.21       | 17.76        | 21.31        | 24.86        |
| Voltage Range(Vdc)           | 44.5~54                                                                             |             |             |              |              |              |
| Dimension(W*D*H mm)          | 600*380*530                                                                         | 600*380*700 | 600*380*870 | 600*380*1040 | 600*380*1210 | 600*380*1380 |
| Weight(kg)                   | 84                                                                                  | 119         | 154         | 189          | 224          | 259          |
| Depth of Discharge           | 95%                                                                                 |             |             |              |              |              |
| Charge/Discharge Current(A)  | (Recommend) 30                                                                      | 45          | 60          | 75           | 90           | 100          |
|                              | (Max) 75                                                                            | 100         | 100         | 100          | 100          | 100          |
|                              | (Peak @15s) 105                                                                     | 105         | 105         | 105          | 105          | 105          |
| Communication Port           | RS485, CAN                                                                          |             |             |              |              |              |
| Protection Class             | IP55                                                                                |             |             |              |              |              |
| Working Temperature/ °C      | 0~50                                                                                |             |             |              |              |              |
| Shelf Temperature/ °C        | -20~60                                                                              |             |             |              |              |              |
| Humidity                     | 5%~95%(w/o condensing)                                                              |             |             |              |              |              |
| Altitude                     | <2000                                                                               |             |             |              |              |              |
| Design Life                  | 15+ Years (25 °C/°F)                                                                |             |             |              |              |              |
| Cycle Life                   | >6000, 25 °C                                                                        |             |             |              |              |              |
| Authentication level         | VDE2510-50/IEC62619/IEC62477/IEC62040/CE/UN38.3                                     |             |             |              |              |              |



SPECIFICATION (Force-L2/48V)

|                              |                                                                                    |              |              |
|------------------------------|------------------------------------------------------------------------------------|--------------|--------------|
|                              |  |              |              |
| Model                        | 2                                                                                  | 3            | 4            |
| Basic Parameters             |                                                                                    |              |              |
| Battery System Capacity(kWh) | 7.1                                                                                | 10.65        | 14.21        |
| Voltage Range(Vdc)           | 44.5~54                                                                            |              |              |
| Dimension(W*D*H mm)          | 450*300*820                                                                        | 450*300*1120 | 450*300*1410 |
| Weight(kg)                   | 83                                                                                 | 119          | 14.21        |
| Depth of Discharge           | 95%                                                                                |              |              |
| Charge/ Discharge Current(A) | (Recommend) 30                                                                     | 45           | 60           |
|                              | (Max) 75                                                                           | 100          | 100          |
|                              | (Peak @15s) 105                                                                    | 105          | 105          |
| Communication Port           | RS485/CAN                                                                          |              |              |
| Protection Class             | IP55                                                                               |              |              |
| Working Temperature/ °C      | 0~50                                                                               |              |              |
| Shelf Temperature/ °C        | -20~60                                                                             |              |              |
| Humidity                     | 5%~95% (w/o condensing)                                                            |              |              |
| Altitude                     | < 2000                                                                             |              |              |
| Design Life                  | 15+ Years (25 °C /°F)                                                              |              |              |
| Cycle Life                   | >6000, 25 °C                                                                       |              |              |
| Authentication level         | VDE2510-50/IEC62619/IEC62477/IEC62040/CE/UN38.3                                    |              |              |

SPECIFICATION (96~336 V)

|                                |                                                                                     |                                                    |
|--------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|
|                                |  |                                                    |
| Basic Parameters               | Force-H1                                                                            | Force-H2                                           |
| Battery Module                 | FH48074                                                                             | FH9637M                                            |
| Battery Module Voltage(Vdc)    | 48                                                                                  | 96                                                 |
| Battery Module Capacity(Ah)    | 74                                                                                  | 37                                                 |
| Battery Module Qty. (Optional) | 3~7 pcs                                                                             | 2~4 pcs                                            |
| Battery System Capacity(kWh)   | 24.86                                                                               | 14.21                                              |
| Battery System Voltage (V)     | 336                                                                                 | 384                                                |
| Dimension (W*D*H mm)           | 600*380*1380                                                                        | 450*296*1415                                       |
| Weight(kg)                     | 259                                                                                 | 155                                                |
| Depth of Discharge             | 95%                                                                                 |                                                    |
| Charge/ Discharge Current(A)   | (Recommend ) 37                                                                     | 18.5                                               |
|                                | (Max.) 40                                                                           |                                                    |
| Communication                  | RS485, CAN                                                                          |                                                    |
| Protection Class               | IP55                                                                                |                                                    |
| Working Temperature/ °C        | 0~50                                                                                |                                                    |
| Shelf Temperature/ °C          | -20~60                                                                              |                                                    |
| Humidity                       | 5%~95%(w/o condensing)                                                              |                                                    |
| Altitude                       | < 2000                                                                              |                                                    |
| Design Life                    | 15+ Years (25 °C /°F)                                                               |                                                    |
| Cycle Life                     | > 6000, 25 °C                                                                       |                                                    |
| Authentication level           | UL1973/VDE2510-50 /IEC62619/IEC62477/ IEC62040/CE/UN38.3                            | VDE2510-50/IEC62619 /IEC62477/ IEC62040 /CE/UN38.3 |



Pylontech  
had been serving Over **300,000+**  
Residential ESS globally from 2014

...



OUR RELIABILITY IS PROVEN



# Helping You Stay connected...

## LiPower UPS Battery

Ideal backup power solution to meet your demands.  
Reserve power you can always rely on.



Data center



Bank



Public Utilities



## Features

- ◆ Master BMS support Modbus RTU, CANBUS, Dry contactor communication;
- ◆ BMS support neutral connection (+&- Vdc);
- ◆ Internal & External power supply dual back-up;
- ◆ Dual back-up of discharge circuit;
- ◆ Independent control of discharge circuit, even charge circuit failure discharge still available;
- ◆ Automatic Insulation Detection ;
- ◆ Pre-charge circuit;
- ◆ Operation Reliability 99.999%;

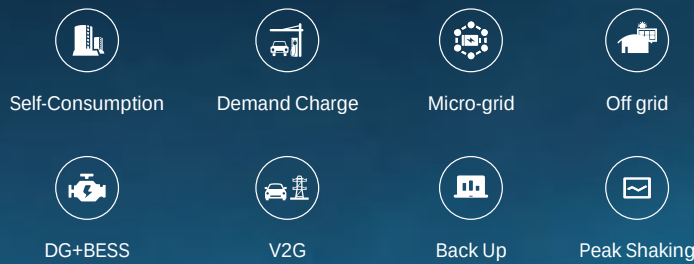


SPECIFICATION

|                                              |                                                          |
|----------------------------------------------|----------------------------------------------------------|
| Basic Parameters                             | LiPower-U400                                             |
| Cell Technology                              | Li-ion (LFP)                                             |
| Battery System Capacity (kWh)                | 56.8                                                     |
| Battery System Voltage (Vdc)                 | 512                                                      |
| Battery System Capacity(Ah)                  | 111                                                      |
| Battery Controller Name                      | S1000U400                                                |
| Battery Module Name                          | HLPU100                                                  |
| Battery Module Quantity (pcs)                | 10                                                       |
| Battery Module Voltage(Vdc)                  | 51.2                                                     |
| Battery Module Capacity(Ah)                  | 111                                                      |
| Battery System Charge Upper-Voltage(V)       | 576                                                      |
| Battery System Charge Current-Standard(A)    | 20                                                       |
| Battery System Charge Current-Max.(A)        | 100                                                      |
| Battery System Discharge lower-Voltage(V)    | 416                                                      |
| Battery System Discharge Current-Standard(A) | 100                                                      |
| Battery System Discharge Current-Max. (A)    | 360                                                      |
| Efficiency                                   | 1P ≥ 95%; 2P ≥ 92%; 3P ≥ 88%                             |
| Depth of Discharge                           | 95%                                                      |
| Operation Life                               | 15+years                                                 |
| Operation Cycle Life                         | > 3,000                                                  |
| Communication                                | Modbus RTU/CAN/Dry Contactor                             |
| Protection Class                             | IP20                                                     |
| Weight (kg)                                  | 580                                                      |
| Operation Temperature(℃)                     | 0~50 (ideal 20 – 30)                                     |
| Storage Temperature(℃)                       | -20~60                                                   |
| Battery Module Dimensions (W*D*H mm)         | 442*600*152                                              |
| Battery Controller Dimensions(W*D*H mm)      | 442*600*230                                              |
| Battery System Dimensions(W*D*H mm)          | 600*800*2200                                             |
| Certifications                               | IEC62619/IEC62040/UN38.3/EN61000-1/3/<br>EN55022/EN55024 |

DEDICATION

# Commercial & Industrial ESS



# Battery

storage systems have been proven to be “extremely lucrative” for commercial and industrial (C&I) filed.



SPECIFICATION

Battery Module



| Basic Parameters     | H48050      | H48074      | H32148        |
|----------------------|-------------|-------------|---------------|
| Energy (kWh)         | 2.4         | 3.55        | 4.74          |
| Nominal Voltage(V)   | 48          | 48          | 32            |
| Battery Capacity(Ah) | 50          | 74          | 148           |
| Voltage range(V)     | 45~54       | 45~54       | 30~36         |
| Dimension (W*D*H mm) | 442*390*100 | 442*390*132 | 330*628*150.5 |
| Weight(kg)           | 24          | 32          | 48            |

Powercube X series  
100~600V



| Basic Parameters                 | Powercube X1<br>(336V50Ah)        | Powercube X2<br>(336V74Ah) |
|----------------------------------|-----------------------------------|----------------------------|
| Battery Module                   | H48050                            | H48074                     |
| Battery System Capacity(kWh)     | 16.8                              | 24.9                       |
| Battery system Voltage(V)        | 336                               | 336                        |
| Battery System Voltage Range (V) | 315~378                           | 315~378                    |
| Efficiency(@0.5C-rate)           | 96%                               | 96%                        |
| Depth of Discharge               | 95%                               | 95%                        |
| Dimension (W*D*H mm)             | 600*505*1300                      | 600*505*1380               |
| Weight(kg)                       | 275                               | 330                        |
| Design Life                      | 15+Years                          | 15+Years                   |
| Operation Temperature (℃)        | 0~50                              | 0~50                       |
| Humidity                         | 5%~95%                            | 5%~95%                     |
| Altitude                         | <2000                             | <2000                      |
| Battery Module Qty.(Optional)    | 2~10                              | 2~10                       |
| Authentication level             | IEC62619/VDE2510-50/UL1973/CE/CEC |                            |

SPECIFICATION

Powercube H series  
200~1000V



| Basic Parameters                 | Powercube-H1<br>(720V50Ah)            | Powercube-H2<br>(576V74Ah) |
|----------------------------------|---------------------------------------|----------------------------|
| Battery Module                   | H48050                                | H48074                     |
| Battery System Capacity(kWh)     | 36                                    | 42.62                      |
| Battery system Voltage(V)        | 720                                   | 576                        |
| Battery System Voltage Range (V) | 664~810                               | 531~648                    |
| Efficiency(@0.5C-rate)           | 96%                                   | 96%                        |
| Depth of Discharge               | 95%                                   | 95%                        |
| Dimension (W*D*H mm)             | 600*505*2130                          | 600*505*2130               |
| Weight(kg)                       | 400                                   | 450                        |
| Design Life                      | 15+Years                              | 15+Years                   |
| Operation Temperature (℃)        | 0~50                                  | 0~50                       |
| Humidity                         | 5%~95%                                | 5%~95%                     |
| Altitude                         | <2000                                 | <2000                      |
| Battery Module Qty.(Optional)    | 5~15 pcs                              | 5~12 pcs                   |
| Authentication level             | IEC62619/VDE2510-50/<br>UL1973/CE/CEC |                            |

Powercube M1  
100~1000V



| Basic Parameters                 | Powercube-M1<br>(736V148Ah)                               |
|----------------------------------|-----------------------------------------------------------|
| Battery Module                   | H32148                                                    |
| Battery System Capacity(kWh)     | 108.93                                                    |
| Battery system Voltage(V)        | 736                                                       |
| Battery System Voltage Range (V) | 621~828                                                   |
| Efficiency(@0.5C-rate)           | 96%                                                       |
| Depth of Discharge               | 90%                                                       |
| Dimension (W*D*H mm)             | 815*659*2130                                              |
| Weight(kg)                       | 1250                                                      |
| Design Life                      | 15+Years                                                  |
| Operation Temperature (℃)        | 10~40                                                     |
| Humidity                         | 5%~95%                                                    |
| Altitude                         | <4000                                                     |
| Battery Module Qty.(Optional)    | 1~23 pcs                                                  |
| Authentication level             | IEC62619/IEC63056/UL1973/UL9540<br>A/VDE2510-50/CE/UN38.3 |



# Optimus all-in-one ESS



## KEY FEATURES



**High Integration**  
Highly integrated ESS with outdoors cabinet design provides high protection class



**Flexible**  
Supports system parallel connection and easy for expansion



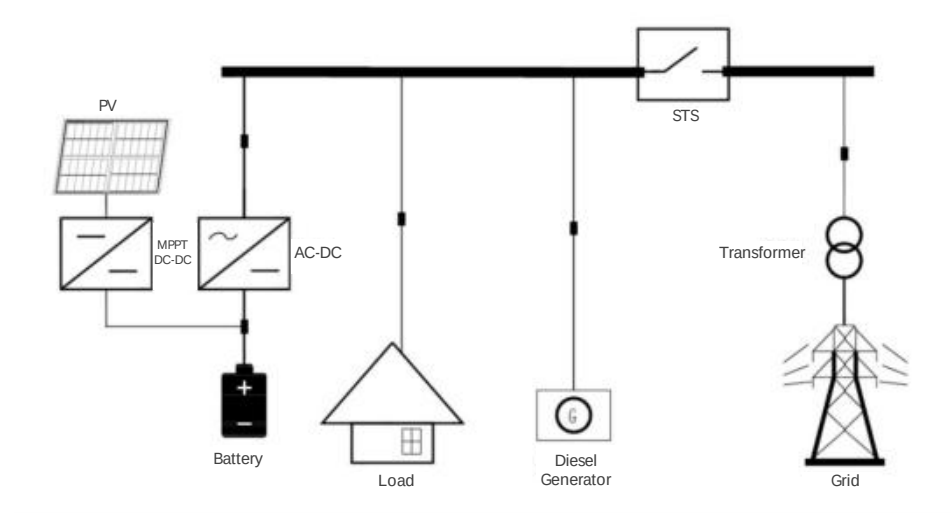
**Safe and Reliable**  
Three level BMS structure for good cooperation and better operation performance



**Pre-Engineered System**  
Easy for on-site installation and save the cost

## DIAGRAM

Outdoor Cabinet ESS for micro-grid island, hotel, fram... Applications  
PCS Power optional power range: 30~200KW  
Battery optional capacity range:100~400KWh  
Be suitable for 2~4 hours back up



## SPECIFICATION

| System Type                    | Optimus all-in-one ESS      |
|--------------------------------|-----------------------------|
| Battery Data                   |                             |
| Battery Type                   | Li-ion (LFP)                |
| Nominal Capacity (kWh)         | 107                         |
| Battery Item                   | Powercube-M2-180/M3A-100    |
| Battery Module Qty.            | 19                          |
| DC Voltage Range(V)            | 661~820                     |
| Max. Operation Current (A)     | 148                         |
| Efficiency                     | 95%                         |
| PCS DC/AC Data On-grid Mode    |                             |
| Rated AC Power (KW )           | 62.5 (expandable to 3*62.5) |
| Rated AC Output Voltage(V)     | 400                         |
| Rated AC Output Frequency (Hz) | 50/60                       |
| Max. AC Current(A)             | 95                          |
| Overload Capacity              | 110% 15mins; 120% 1mins     |
| AC PF                          | 1 (leading) ~1 (lagging)    |
| THDi                           | ≤ 3%                        |
| Isolation Type                 | Non-isolation               |
| Peak Efficiency                | 99%                         |



SPECIFICATION

|                                    |                                                                                                                   |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| System Type                        | Optimus all-in-one ESS                                                                                            |
| General Data                       |                                                                                                                   |
| Dimension(W*H*D mm)                | 1200*2100*1000                                                                                                    |
| Weight(Kg)                         | 500                                                                                                               |
| Working Temperature Range ( ( °C ) | -30~60                                                                                                            |
| Protection Class                   | IP65(battery room)+IP54(PCS room)                                                                                 |
| Altitude                           | 3000                                                                                                              |
| Humidity                           | 0~95%                                                                                                             |
| Fire Extinguishing                 | FM200                                                                                                             |
| Air Conditioner                    | 3kW                                                                                                               |
| Anti-Corrosion                     | C3 (Optional upgrade to C5)                                                                                       |
| Authentication level               | CE/IEC62619/UN38.3/UN3536                                                                                         |
| PCS DC/AC Data Off-grid Mode       |                                                                                                                   |
| Output voltage accuracy            | ≤ 1%                                                                                                              |
| AC PF                              | > 0.7                                                                                                             |
| Output voltage distortion factor   | < 3%                                                                                                              |
| PV DC/DC Data Parameter            |                                                                                                                   |
| Rated Power(kW)                    | 30 (expandable to 6*30)                                                                                           |
| PV Input Voltage(Vdc)              | 100 – 1000 (full power from 300)                                                                                  |
| Max. current(A)                    | 100                                                                                                               |
| Max. Efficiency(%)                 | 95.5%                                                                                                             |
| Operation Mode                     |                                                                                                                   |
| On/off-grid Switch                 | Optional STS module, switching time<20ms                                                                          |
| EMS                                | 10 inch LCD Touch Panel<br>Self-Consumption; Micro-grid control; Demand response;<br>Remote Control; Time of use; |
| Communication Type                 | Modbus TCP/IP                                                                                                     |



Utility ESS



Peak Shifting  
/Multi Purpose



Frequency  
Integration



Renewable  
Regulation



SPECIFICATION

Powercube M2  
100~1000V



| Basic Parameters                 | Powercube-M2A-180<br>(729.6V148Ah) |
|----------------------------------|------------------------------------|
| Battery System Capacity(kWh)     | 107.98                             |
| Battery Module                   | HM2A180                            |
| Battery system Voltage(V)        | 729.6                              |
| Battery System Voltage Range (V) | 615.6~820.8                        |
| Efficiency(@0.5C-rate)           | 96%                                |
| Depth of Discharge               | 90%                                |
| Dimension (W*D*H mm)             | 803*845*2130                       |
| Weight(kg)                       | 1228                               |
| Design Life                      | 15+Years                           |
| Operation Temperature (℃)        | 10~40                              |
| Humidity                         | 5%~95%                             |
| Altitude                         | < 4000                             |
| Battery Module Qty.(Optional)    | 1~19 pcs                           |
| Authentication level             | IEC62619/CE/UN38.3                 |

Powercube M3  
100~1400V



| Basic Parameters                 | Powercube-M3A-100<br>(729.6V148Ah) | Powercube- M3A-180<br>(1113.6V148Ah) |
|----------------------------------|------------------------------------|--------------------------------------|
| Battery Module                   | HM3A100                            | HM3A180                              |
| Battery System Capacity(kWh)     | 107.98                             | 164.81                               |
| Battery system Voltage(V)        | 729.6                              | 1113.6                               |
| Battery System Voltage Range (V) | 615.6~820.8                        | 939.6~1252.8                         |
| Efficiency(@0.5C-rate)           | 96%                                | 96%                                  |
| Depth of Discharge               | 90%                                | 90%                                  |
| Dimension (W*D*H mm)             | 803*845*2130                       | 1185*845*2130                        |
| Weight(kg)                       | 1228                               | 1798                                 |
| Design Life                      | 15+Years                           | 15+Years                             |
| Operation Temperature (℃)        | 10~40                              | 10~40                                |
| Humidity                         | 5%~95%                             | 5%~95%                               |
| Altitude                         | < 4000                             | < 4000                               |
| Battery Module Qty.(Optional)    | 1~19 pcs                           | 1~29 pcs                             |
| Authentication level             | UL1973/IEC62619/CE /UN38.3/UL9540A | IEC62619/VDE2510-50 /CE/UN38.3       |

SPECIFICATION



| Basic Parameter              | 20ft High Voltage<br>System Container |                 | 40ft High Voltage<br>System Container |                 |
|------------------------------|---------------------------------------|-----------------|---------------------------------------|-----------------|
| Container System Type        | Powercube-20H-M1                      |                 | Powercube-40H -M1                     |                 |
| System Charge/Discharge Rate | 0.5C                                  |                 | 0.5C                                  |                 |
| System Voltage Range(V)      | 736(690~828)                          |                 | 736(690~828)                          |                 |
| System Capacity(kWh)         | 1296                                  |                 | 2592                                  |                 |
| Container System Type        | Powercube-20H-M2                      |                 | Powercube-40H -M2                     |                 |
| System Charge/Discharge Rate | 0.5C                                  | 0.5C            | 0.5C                                  | 0.5C            |
| System Voltage Range(V)      | 806(680~907)                          | 1228(1036~1382) | 806(680~907)                          | 1228(1036~1382) |
| System Capacity(kWh)         | 1432                                  | 1454            | 2983                                  | 3273            |
| Container System Type        | Powercube-20H-M3                      |                 | Powercube-40H -M3                     |                 |
| System Charge/Discharge Rate | 0.5~1C                                | 0.5~1C          | 0.5~1C                                | 0.5~1C          |
| System Voltage Range(V)      | 806(680~907)                          | 1228(1036~1382) | 806(680~907)                          | 1228(1036~1382) |
| System Capacity(kWh)         | 1194                                  | 1091            | 2625                                  | 2546            |
| Dimension (L*W*H, M)         | 6.058*2.438*2.896                     |                 | 12.192*2.438*2.896                    |                 |
| Ambient Temperature (℃)      | -20~50                                |                 |                                       |                 |
| Communication                | CANBUS/Modbus TCP/IP                  |                 |                                       |                 |





# GLOBAL DELIVERY



**BEIJING  
CHINA** 2.65MWH/1.2MW Micro-grid Self-consumption /Back-up ESS PV+DG+BESS



**SHANGHAI  
CHINA** 2MWH/1MW IDC UPS Back Up Grid+BESS



**GERMANY** 213KWH/100KW Peak Shaving Arbitrage Grid service ESS Grid+ESS



**SENDAI  
JAPAN** 540KWH/250KW Micro-grid Self-consumption Commercial ESS PV+DG+BESS



**URUGUAY  
SOUTH  
AMERICA** 750KWH/500KW Micro-grid Self-consumption ESS PV+BESS



**U.S.A.** 2.MWH/1MW Self-consumption/Back-up Commercial ESS PV+Grid+BESS



**MADAGASCAR** 1.5MWH/500KW Micro-grid Self-consumption ESS PV+DG+BESS



**SOUTH  
EAST  
ASIA** 624KWH/50KW Micro-grid Self-consumption ESS PV+DG+BESS