

# ecobat

BATTERY





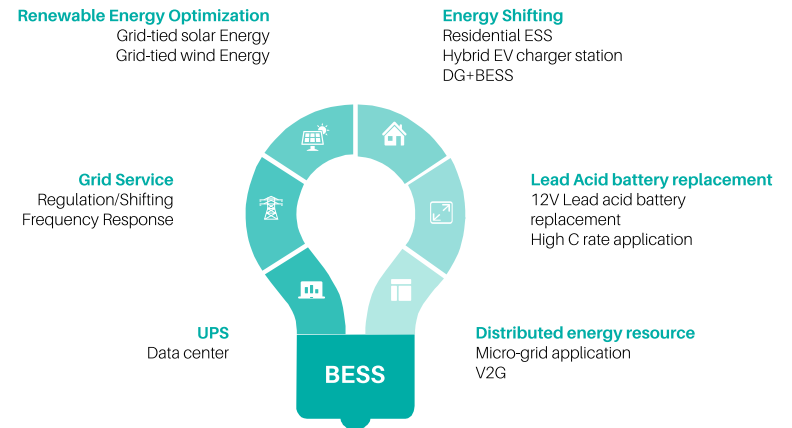


Approved European Distributors  
for Pylontech Battery Energy  
Storage Systems

## PYLONTECH Product Portfolio

- 04.12V Series - All Purpose Lithium Ion Battery
- 06. Residential - Battery Energy Storage Systems (BESS)
- 09. Utility ESS
- 11. Ecobat Lithium Services

### Main Applications



### Core Strengths

- More than 10 years technology accumulation for reliable BESS
- The safety and stability of battery has been protected by our own cells, modules and BMS
- All R&D, manufacturing, supplying and marketing are long-life-cycles driven.
- Flexible modularization and rack solution for various demands.
- 500,000+ Global Residential ESS
- TOP 2 Global residential ESS Supplier
- 4.5GWH+ ESS Battery Delivered
- Flexible battery solutions 12V~1500V battery



# 12V Series All Purpose Lithium Ion Battery

## 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.

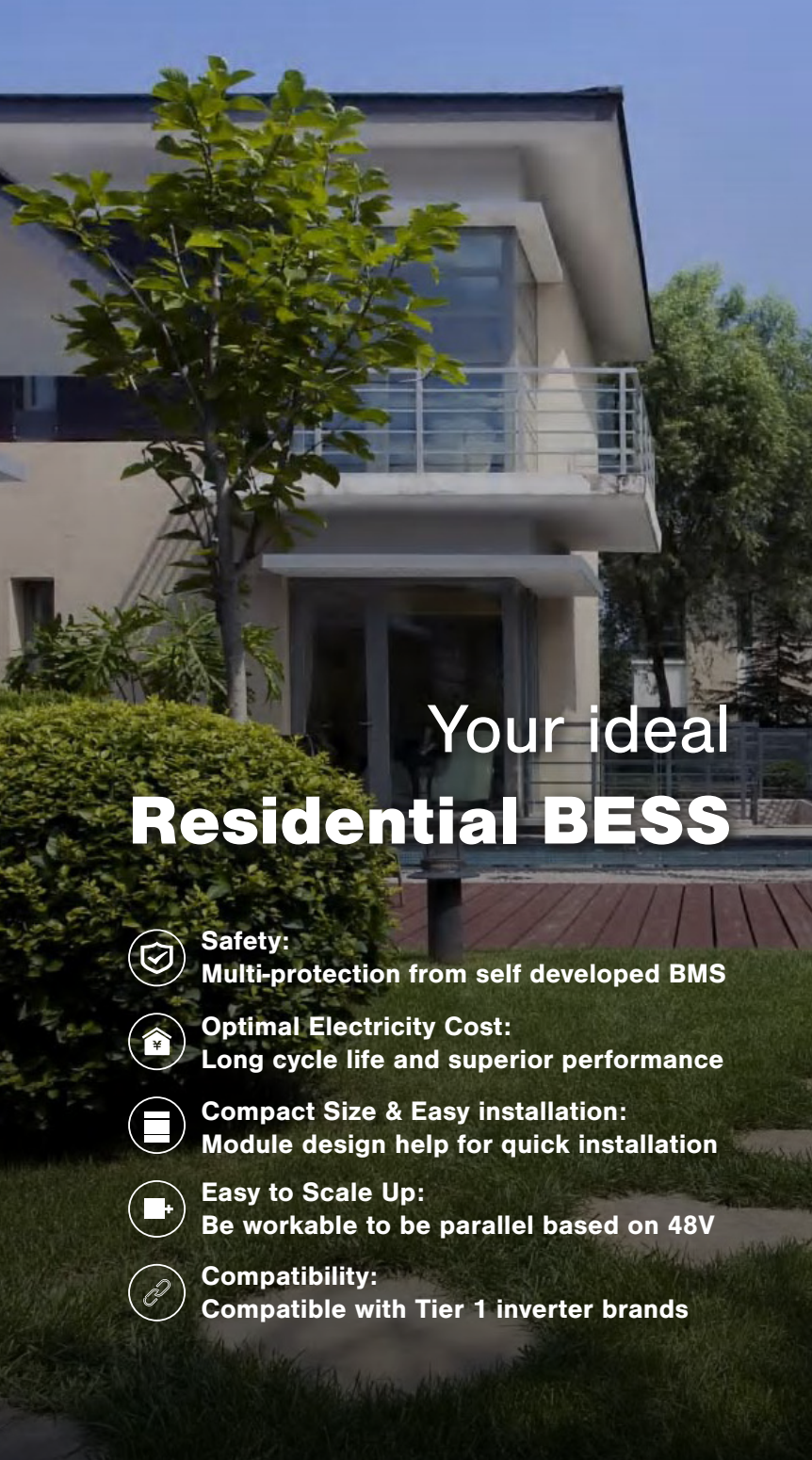


## SPECIFICATION (12V)






Model	RT12100G31
<b>Electrical</b>	
Nominal Voltage(V)	12.8
Nominal Capacity(Ah)	100
Working Voltage Range(VDC)	10.8~14.4
Internal Resistance(mΩ)	<20
Charge Voltage(VDC)	14V-14.4
Nominal Operation Current(A)	50
Max. continuous operation current(A)	100
Peak Current(A)	200@30sec
Serial Connection	≤4 pcs
Parallel Connection	≤4 pcs
<b>Structure</b>	
Dimension (mm)	325 x 173.5 x 226
Weight(Kg)	13±0.2
IP rating	IP67
Terminal	M8 bolt
<b>Working Environment</b>	
Charge working temperature (°C)	0~60
Discharge working temperature (°C)	-20~60
Working temperature (°C)	-40~60*
Altitude (M)	<4,000
Humidity(RH)	5~95%( w/o condensing)
<b>Communication</b>	
RS485	115200bps
CAN	500Kbps
Bluetooth	BLE5.0
Dry contactor	2×inputs & 2×outputs
<b>Certification</b>	
SAE J930, SAE J1455, UL1973, IEC62619,FCC,CE, Bluetooth SIG, UN38.3	

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





# 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	
Cabinet/rack installation	Quick connector
US2000C (2.4 kWh)	Force L1 (7.1~24.86 kWh)
Phantom-S(2.4 kWh)	Force L2 (7.1~14.2 kWh)
US3000C (3.55 kWh)	
US5000 (4.8 kWh)	

## SPECIFICATION (48V)



	US2000C	US3000C	US5000	
Nominal Voltage (Vdc)		48		
Nominal Capacity(Wh)	2400	3552	4800	
Usable Capacity(Wh)	2280	3374	4560	
Dimension(mm)	442 x 410 x 89	442 x 420 x 132	442 x 420 x 161	
Weight(kg)	24	32	39.5	
Charge/Discharge Current(A)	(Recommend) (Max) (Peak)	25 89@1min 200@15sec	37 89@601min 200@15sec	75 120@15min 200@15sec
Communication Port		RS485, CAN		
Single string quantity(pcs)		16		
Working Temperature/ °C		0~50		
Shelf Temperature/ °C		-20~60		
Cycle Life		>6000, 25°C		
Authentication Level	IEC62619/CE UN38.3	VDE2510-50 IEC62619/UL1973 UL9540A/CE/UN38.3	IEC62619/UL1973 /UL9540A/CE /UN38.3	



Complete Safety Certification

# Residential BESS

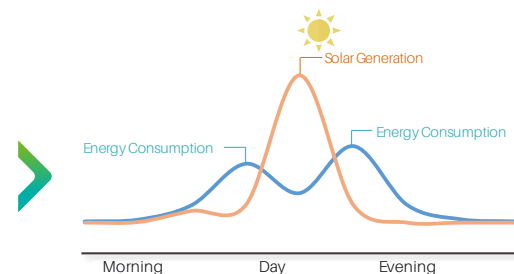
Save costs, save the planet, with our battery storage.  
So future generations can enjoy a safe and clean environment



## How to save cost from Residential ESS?

### Self-Consumption Optimization

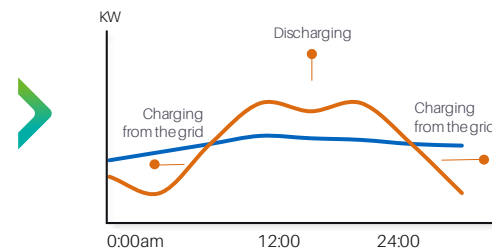
High energy demand in the morning and evening but solar generation is most sufficient during the Mid-Day. Battery Storage system balance the feeding and demands. Realize your grid independence.



### 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



PYLONTECH

HAS BEEN SERVING OVER

**500,000+**

Residential ESS globally from 2014



OUR RELIABILITY IS PROVEN

# Utility ESS



Peak Shifting  
/Multi Purpose



Frequency  
Integration



Renewable  
Regulation



## SPECIFICATION

Powercube M2  
100~1000V



Powercube M3  
100~1400V



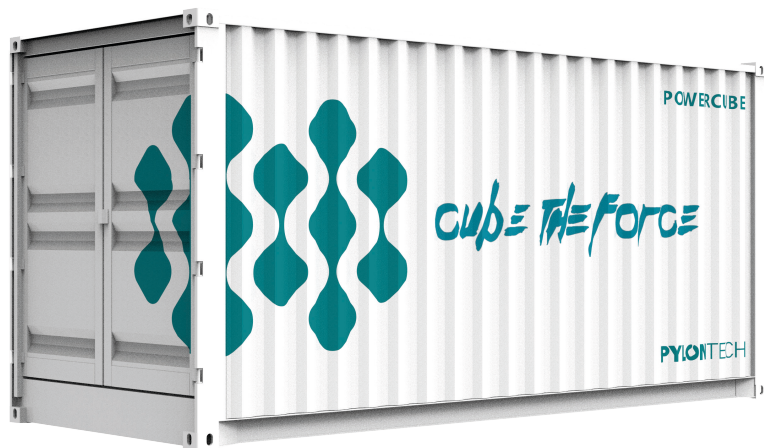
Basic Parameters	Powercube-M2A-180 (729.6V148Ah)
Battery System Capacity(kWh)	107.98
Battery Module	HM2A180
Battery system Voltage(V)	729.6
Battery System Voltage Range (V)	615.6~820.8
Efficiency (@0.5C-rate)	96%
Depth of Discharge	90%
Dimension (W*D*H mm)	803*845*2130
Weight(kg)	1228
Design Life	15+Years
Operation Temperature (°C)	10~40
Humidity	5%~95%
Altitude	<2000
Battery Module Qty.(Optional)	1~19 pcs
Authentication level	IEC62619/CE/UN38.3

Basic Parameters	Powercube-M3A-100 (729.6V148Ah)	Powercube- M3A-180 (1113.6V148Ah)
Battery System Capacity(kWh)	107.98	164.81
Battery Module	HM3A100	HM3A180
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 (°C)	10~40	10~40
Humidity	5%~95%	5%~95%
Altitude	<2000	<2000
Battery Module Qty.(Optional)	1~19 pcs	1~29 pcs
Authentication level	UL1973/IEC62619/CE / IEC62619/VDE2510-50 UN38.3/UL9540A /CE/UN38.3	

# SPECIFICATION



Basic Parameters	20ft High Voltage System Container		40ft High Voltage 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		939.6~1252.8	
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 x W x H, M)	6.058 x 2.438 x 2.896		12.192 x 2.438 x 2.896	
Ambient Temperature (°C)	-20~50			
Communication	CANBUS/Modbus TCP/IP			



## ECOBAT LITHIUM SERVICES

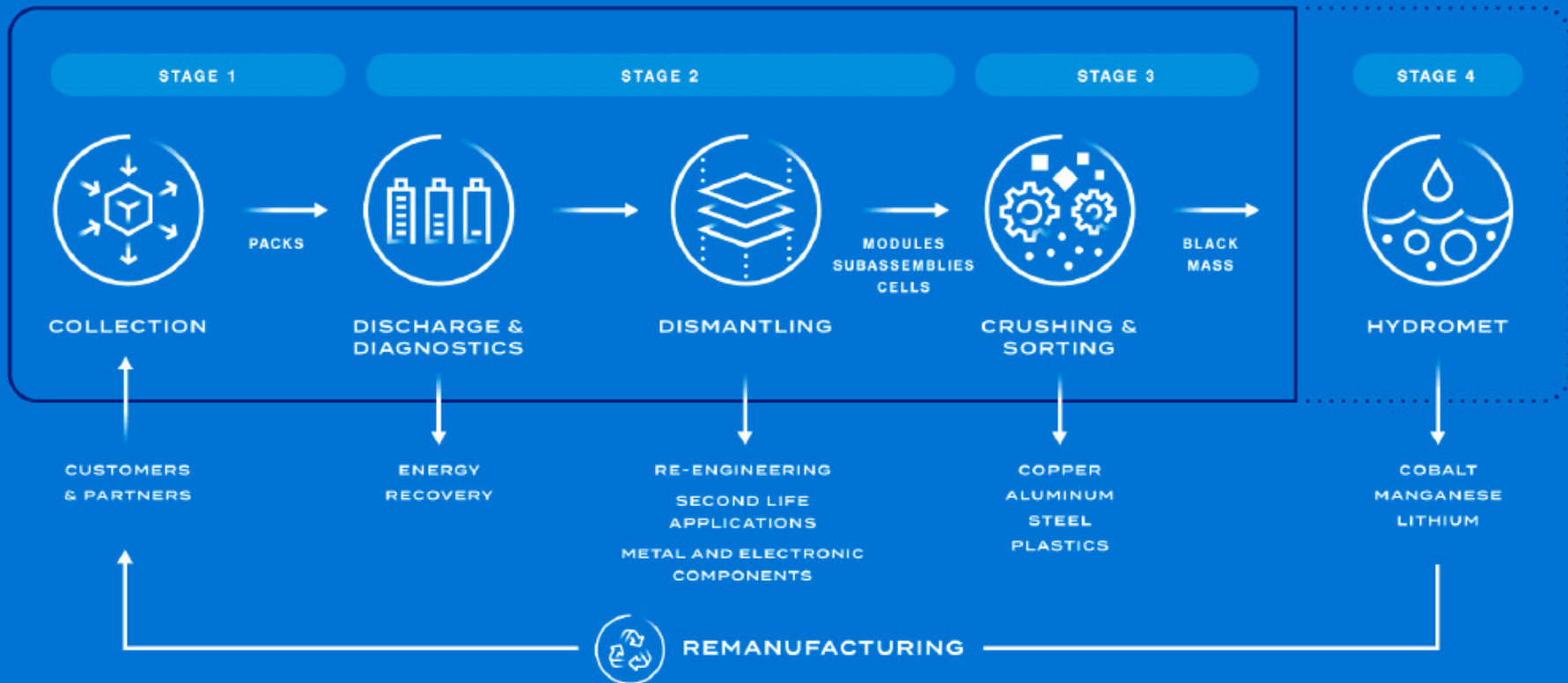
### Driving lithium-ion and battery technologies into the future.

In supporting future energy and material lifecycle needs for emerging battery systems, Ecobat Solutions has been highly active in the development of advanced technologies and processes for recycling and resource recovery for Lithium-ion and other battery chemistries. We are the only European provider of fully integrated Stage 1-3 lithium battery recycling services and management services for Stage 4.



### Onsite Services

### Managed Services





[www.ecobatbattery.com](http://www.ecobatbattery.com)

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