

ecobat  
BATTERY

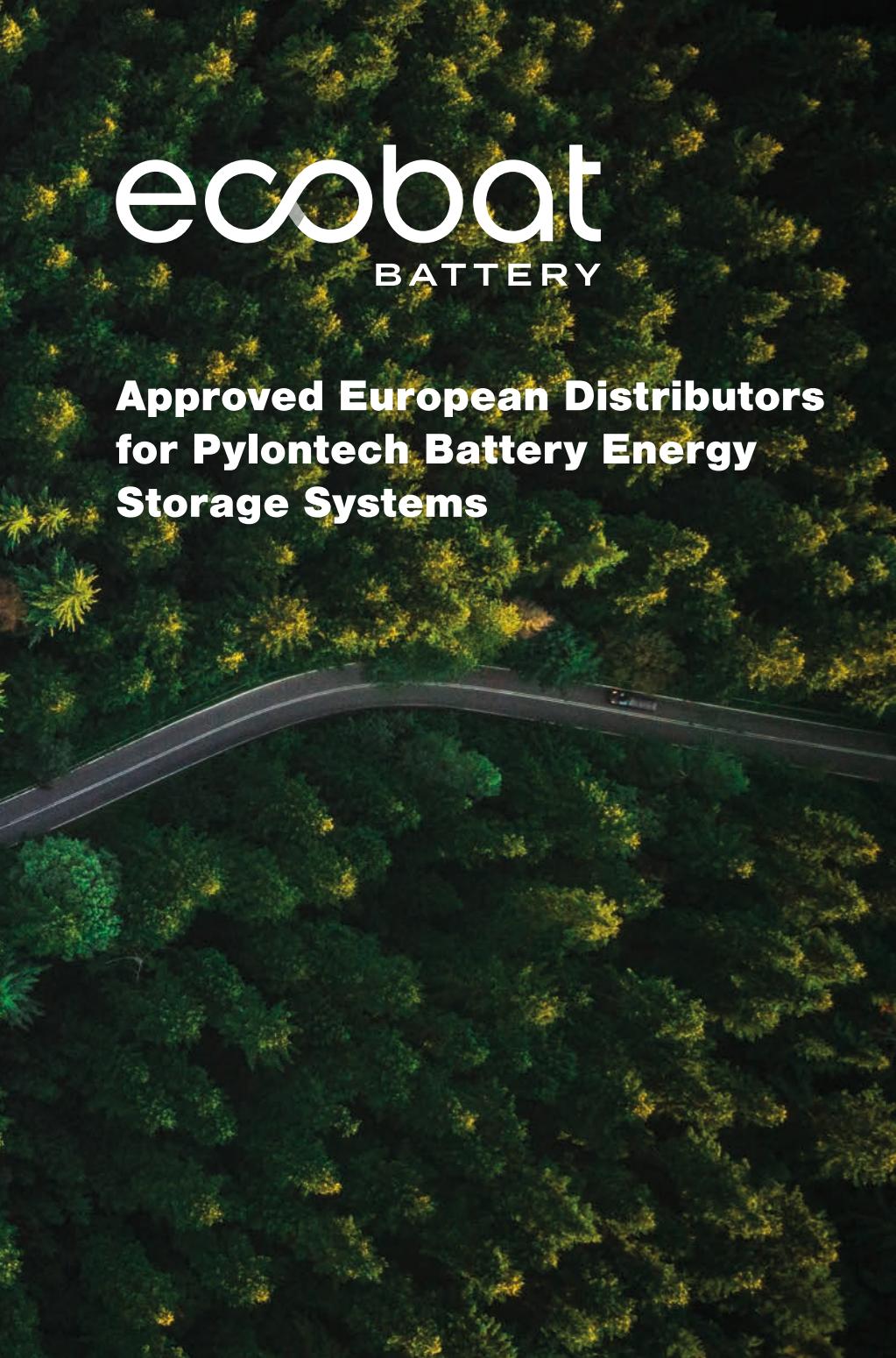


**PYLON**TECH





## 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

**Renewable Energy Optimization**  
Grid-tied solar Energy  
Grid-tied wind Energy

**Energy Shifting**  
Residential ESS  
Hybrid EV charger station  
DG+BESS

**Grid Service**  
Regulation/Shifting  
Frequency Response

**Lead Acid battery replacement**  
12V Lead acid battery  
replacement  
High C rate application

**UPS**  
Data center

**Distributed energy resource**  
Micro-grid application  
V2G



### 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
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)	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
Structure	
Dimension (mm)	325 x 173.5 x 226
Weight(Kg)	13±0.2
IP rating	IP67
Terminal	M8 bolt
Working Environment	
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)
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 °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)	25	37	75
(Max)	89@1min	89@601min	120@15min
(Peak)	200@15sec	200@15sec	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.

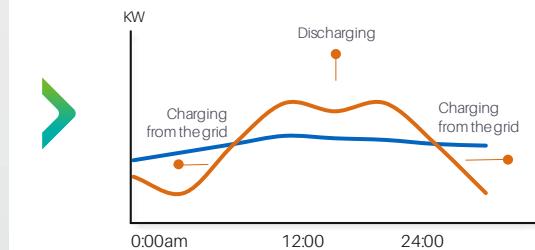
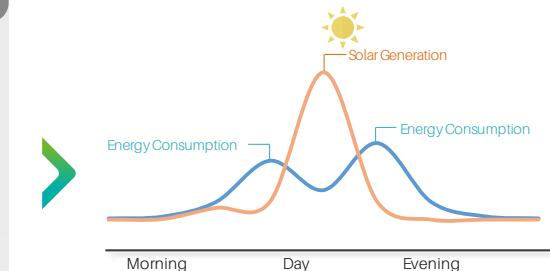
### Benefits from Peak Shaving

**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					

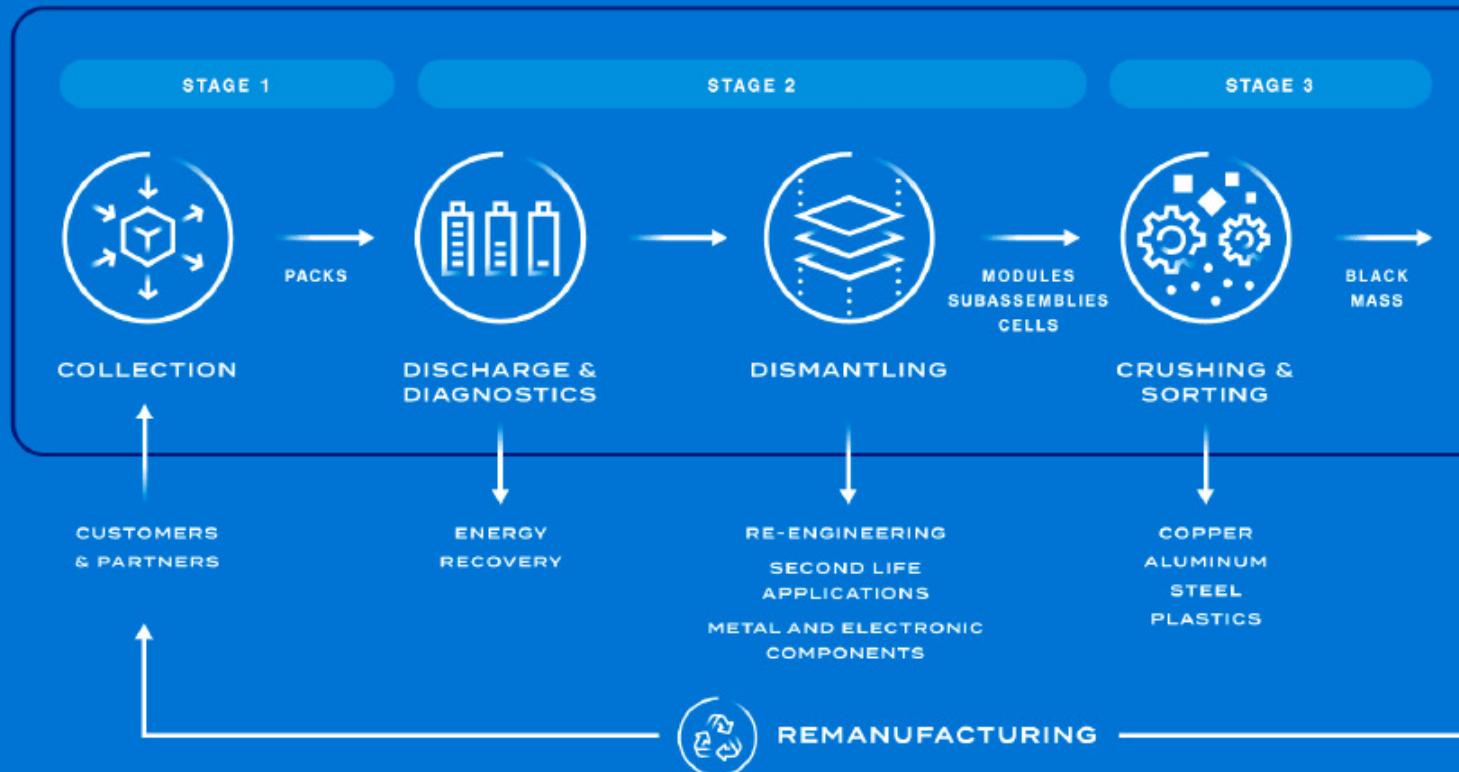


### Driving lithium-ion and battery technologies into the future.

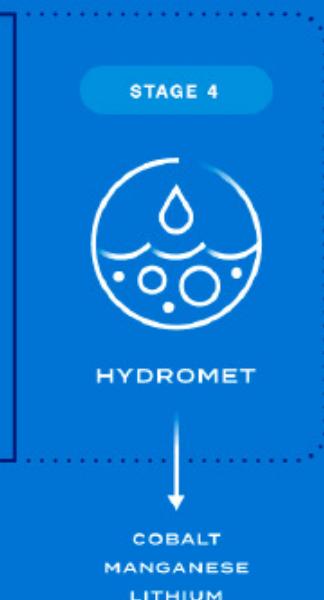
In supporting future energy and material lifecycle needs for emerging battery systems, Ecobat Solutions has been highly active in the development of advanced technologies and processes for recycling and resource recovery for Lithium-ion and other battery chemistries. We are the only European provider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



#### Onsite Services



#### Managed Services





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