

# Residential BESS

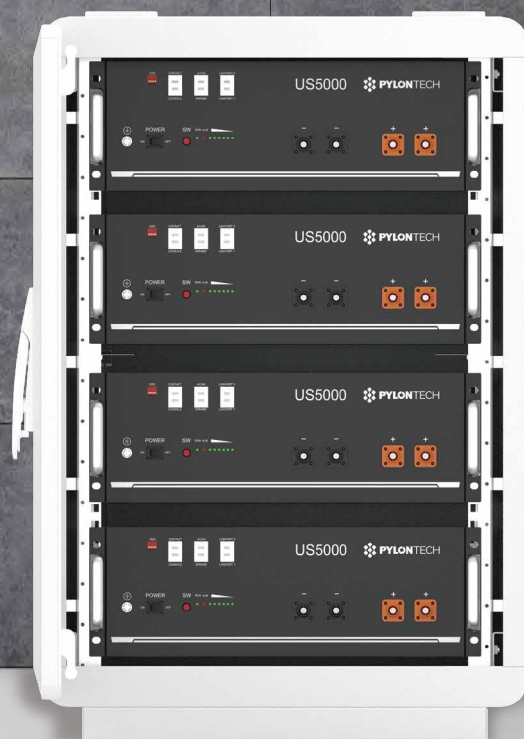


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# Residential BESS US Series

## Powercube X Series

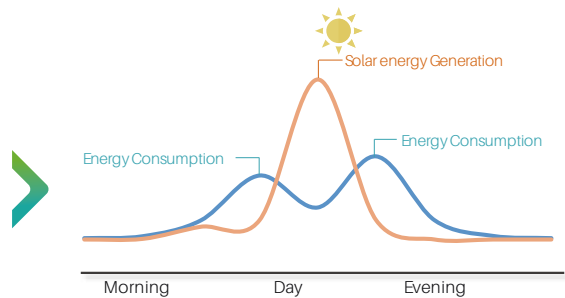
-  **Safety and Reliability**  
Ensured by self-designed and manufactured cell, modules and BMS
-  **Optimal Electricity Cost**  
Long cycle life and superior performance
-  **Compact Size & Easy Installation**  
Module design for quick installation
-  **Easy to Scale Up**  
Multi-groups in parallel to expand the capacity.
-  **Compatibility**  
Compatible with Top inverter brands



# How to save on bill from Residential ESS?

## Self-Consumption Optimization

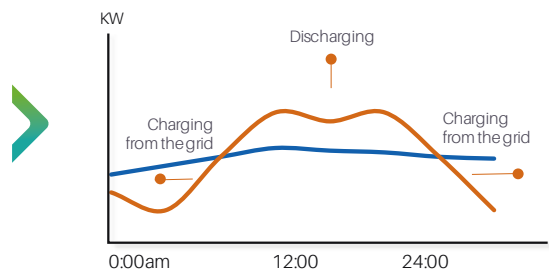
High energy demand in the morning and evening but solar energy generation is most sufficient during the Mid-Day. Battery storage system balances the feeding and demands. Realize your grid independence.



## Benefits from Peak Shaving

### House: Load Shifting

Store energy during off-peak and use energy at peak-time. 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



# SPECIFICATION (48V)



Model	US2000C	US3000C	US5000
<b>Basic Parameters</b>			
Nominal Voltage (Vdc)	48	48	48
Nominal Capacity(kWh)	2.4	3.55	4.8
Usable Capacity(kWh)	2.28	3.37	4.56
Dimension(mm)	442*410*89	442*410*132	442*420*161
Weight(kg)	22.5	32	39.7
(Recommend)	25	37	80*
Charge/Discharge Current(A)	(Max. Continuous) 25	37	100*
(Peak 1)	50~89@60sec	74~89@60sec	101~120@15min
(Peak 2)	90~200@15sec	90~200@15sec	121~200@15sec
Communication Port	RS485,CAN		
Single string quantity(pcs)	16	16	16
Working Temperature/ °C	Charge	0~50	
Working Temperature/ °C	Discharge	-10~50	
Shelf Temperature/ °C	-20~60		
Short current/duration time	<4000A/2ms	<4000A/2ms	<2000A/1ms
IP rating	IP20		
Cooling type	Natural		
Humidity	5% ~ 95%(RH) No Condensation		
Altitude(M)	<4000		
Design life	15+ Years (25 C /77 F)	15+ Years (25 C /77 F)	15+ Years (25 C /77 F)
Cycle Life	>8,000 25 C	>8,000 25 C	> 8,000 25 C
Certification	UL1642/ IEC62619 /IEC63056 /ICE61000-6-2/3 UN38.3	UL1973 /UL1642 /UL9540A/VDE2510-50 /IEC63056/IEC62619 /IEC62040/IEC62477-1 /ICE61000-6-2/UN38.3	UL1973/UL9540A IEC62619/IEC63056 /ICE61000-6-2/3 /UN38.3

# SPECIFICATION (96~864V)



Battery Model	Powercube X1/H1	Powercube X2/H2
Data Parameter		
Battery Module	H48050	H48074
Battery Module Voltage(Vdc)	48	48
Battery Module Capacity(Ah)	50	74
Battery Module Capacity(kWh)	2.4	3.55
Dimension (W*D*H mm)	442*390*100	442*390*132
Weight(kg)	24	32
Configuration (Max. in 1 battery group)	2~18	2~18
Battery System Voltage(V)	864	864
Battery System Capacity(Ah)	50	74
Battery System Capacity(kWh)	43.2	63.9
Depth of Discharge	95%	
Efficiency(@0.5C-rate)	96%	
Communication	Modbus RTU/CAN	
Short circuit rating/Duration	<3000 2ms	
IP rating	IP 20	
Operation Temperature( C )	0~50 C	
Shelf Temperature( C )	-20~60 C	
Humidity	5%~95%	
Design Life	15+ Years (25 C /77 F )	
Cycle Life	> 8,000 25 C	> 8,000 25 C
Multi-Group	Max. 6 systems in parallel	
Certification	IEC62619/VDE2510-50 /CE/CEC	IEC62619/VDE2510-50 /CE/CEC



# Residential BESS

# PELIO



## Smaller Footprint

Higher energy density benefit from latest LFP technology



## Expandable

Modular design  
Maximum 20\*5.12kwh



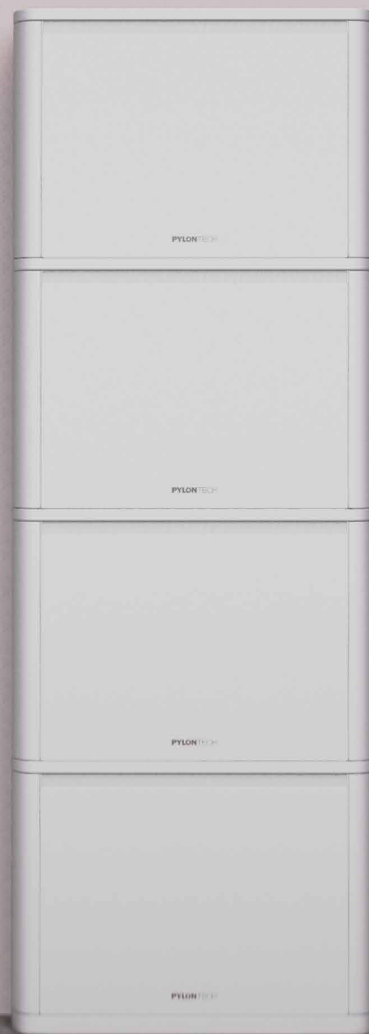
## High Power Efficiency

Continuous power 5.12kw  
Peak power 6.14kw@15min  
Peak power 10.24kw@15sec



## Monitor 24/7

Real-time monitoring of battery charging and discharging, online system updates and maintenance



# SPECIFICATION (Pelio-L-5.12/48V)

Basic Parameters	Pelio-L-5.12
Nominal Voltage (V)	51.2
Nominal Capacity (kWh)	5.12
Usable Capacity (kWh)	4.864
Dimension (W*D*H mm)	578*165*395
Weight (Kg)	45
Discharge Voltage (V)	44.8 ~ 56.8
Charge Voltage (V)	56.0 ~ 56.8
Recommended Charge/Discharge Current (A)	80
Max. Charge/Discharge Current (A)	100~120@15min
Peak Charge/Discharge Current (A)	120~200@15sec
Communication Port	RS485, CAN
Operation&Connection	WiFi*(2.4G), USB 2.0
Depth of discharge (%)	95
Configuration (max. in 1 battery group)	20pcs
Working Temperature	0 C ~50 C Charge -10 C ~50 C Discharge
Shelf Temperature	0 C ~40 C (6 months) -20 C ~45 C (3 months)
Short current/duration time	<4000A/2ms
Cooling type	Natural
Protective class	I
IP rating	IP65
Humidity	5% ~ 95%(RH) No Condensation
Altitude(m)	<4000
Design life	15+ Years (25 C /77 F )
Cycle Life	>8,000 25 C
Certification	IEC62619, IEC63056, IEC62040, IEC62477-1, UL1973, U1642,UL9540A, VDE2510-50, IEC61000-6-2, IEC61000-6-3, UN38.3

# Residential BESS

-Force L Series

-Force H series

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## Safety and Reliability

Ensured by own designed and manufactured cell, modules and BMS



## Optimal Electricity Cost

Long cycle life and superior performance



## Strong Scalability

Maximum capacity of 215.04 kWh with 6 groups in parallel



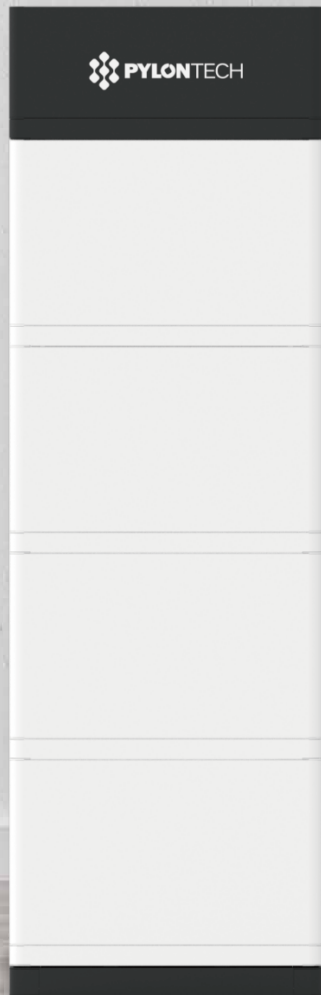
## Flexible Mounting

Plug&Play, no additional wiring connection



## Compatibility

Compatible with Top inverter brands





# SPECIFICATION (Force-L1/48V)



Basic Parameters						
Battery Module	FL48074					
Battery System Capacity(kWh)	7.1	10.65	14.21	17.76	21.31	24.86
Voltage Range(Vdc)	43.5~54					
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)	86.5	123	159.5	196	232.5	269
Depth of Discharge	95%					
(Recommend)	30	45	60	75	90	100
Charge/Discharge Current(A)						
(Max)	75	100	100	100	100	100
(Peak @ 15s)	105	105	105	105	105	105
Multi-group	Max. 6 systems in parrallel					
Communication Port	RS485, CAN					
IP rating	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 / 77°F)					
Cycle Life	> 8,000, 25 °C					
Certification	VDE2510-50/IEC62619/IEC62477/CE/UN38.3					

# SPECIFICATION (Force-L2/48V)



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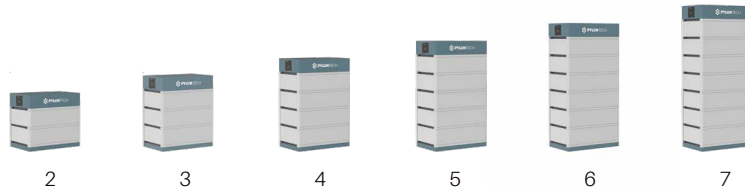
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Basic Parameters			
Battery Module	FL4874M		
Battery System Capacity(kWh)	7.1	10.65	14.21
Voltage Range(Vdc)	43.5~54		
Dimension(W*D*H mm)	450*296*822	450*296*1118	450*296*1414
Weight(kg)	82	117.5	153
Depth of Discharge	95%		
(Recommend)	30	45	60
Charge/Discharge Current(A) (Max)	75	100	100
(Peak @15s)	105	105	105
Multi-group	Max. 6 systems in parrallel		
Communication Port	RS485/CAN		
IP rating	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 / 77°F)		
Cycle Life	>8,000, 25 °C		
Certification	VDE2510-50/IEC62619/IEC62477-1/CEC/UN38.3		

# SPECIFICATION (Force H1/ 96~336 V)



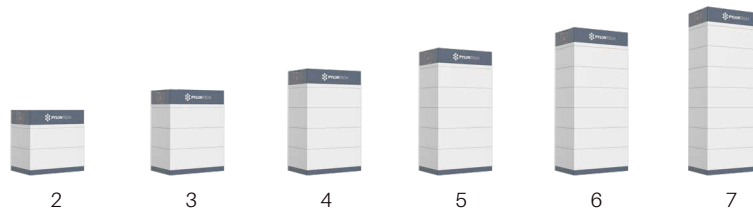
Basic Parameters						
Battery Module	FH48074					
Battery Module Voltage(Vdc)	48					
Battery Module Capacity(Ah)	74					
Battery Module Qty. (Optional)	2	3	4	5	6	7
Battery System Voltage (V)	96	144	192	240	288	336
Battery System Capacity(Ah)	74					
Battery System Capacity(kWh)	7.1	10.65	14.21	17.76	21.31	24.86
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)	86	122	158	194	230	266
Depth of Discharge	95%					
Charge/ Discharge Current(A)	(Recommend )					37
	(Max.)					40
Multi-group	Max. 6 systems in parallel					
Communication	CANBUS/Modbus RTU					
IP rating	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	>8,000, 25 °C					
Certification	UL 1973/VDE2510-50/IEC62619/IEC62477/ IEC62040-1/CE/UN38.3					

## SPECIFICATION (Force H2/192~384 V)



Basic Parameters				
Battery Module	FH9637M			
Battery Module Voltage(Vdc)	96			
Battery Module Capacity(Ah)	37			
Battery Module Qty. (Optional)	2	3	4	5
Battery System Voltage (V)	192	288	384	480
Battery System Capacity(Ah)	37			
Battery System Capacity(kWh)	7.1	10.65	14.21	17.75
Dimension (W*D*H mm)	450*296*822	450*296*1118	450*296*1414	450*296*1710
Weight(kg)	82	117.5	152	188.5
Depth of Discharge	95%			
Charge/ Discharge Current(A)	(Recommend )	18.5		
	(Max.)	40		
Multi-group	Max. 6 systems in parallel			
Communication	CANBUS/Modbus RTU			
IP rating	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 /77 °F )			
Cycle Life	>8,000, 25 °C			
Certification	VDE-AR-E 2510-50/ IEC62619/IEC63056/IEC62040-1/CEC/CE			

# SPECIFICATION (Force H3/204.8~716.8 V)



Basic Parameters						
Battery Module	FH10050					
Battery Module Voltage(Vdc)	102.4					
Battery Module Capacity(Ah)	50					
Battery Module Qty. (Optional)	2	3	4	5	6	7
Battery System Voltage (V)	204.8	307.2	409.6	512	614.4	716.8
Battery System Capacity(Ah)	50					
Battery System Capacity(kWh)	10.2	15.4	20.5	25.6	30.7	35.8
Dimension (W*D*H mm)	540*350*530	540*350*700	540*350*870	540*350*1040	540*350*1210	540*350*1380
Weight(kg)	92	131	170	209	248	287
Depth of Discharge	95%					
Charge/ Discharge (Recommend )	50					
Current(A) (Max.)	52					
Multi-group	Max. 6 systems in parallel					
Communication	CANBUS/Modbus RTU					
IP rating	IP55					
Working Temperature/ C	-10~50					
Shelf Temperature/ C	-20~60					
Humidity	5%~95%(w/o condensing)					
Altitude	<4000					
Design Life	15+ Years (25 C /77 F)					
Cycle Life	>8,000, 25 C					
Certification	UL9540A/UL 1973/IEC62619/IEC63056/IEC62040-1/VDE-AR-E 2510-50/IEC62477-1/UN38.3					





A Dedicated BESS (Battery Energy Storage System) Provider

Pylon Technologies Co., Ltd.  
No. 71-72, Lane 887, Zu Chongzhi Road,  
Zhangjiang Hi-Tech Park Pudong, Shanghai 201203, China

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



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