

# UPS+S<sup>3</sup> Lithium-ion Battery All-in-one Solution



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## Product Introduction

The all-in-one S<sup>3</sup> lithium-ion battery solution is integrated the UPS, power distribution, battery into one cabinet. It is mainly used in commercial applications, such as IT computer rooms, regional office buildings, commercial security systems, and is committed to providing customers the long back-up time with the small footprint product.

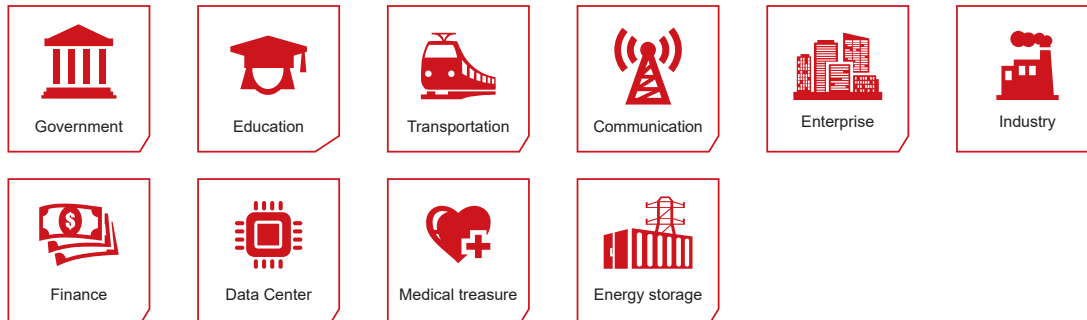
- All in one design, simple and compact, no additional battery cabinet and distribution box, small footprint.
- Touch screen monitoring, covering UPS+S<sup>3</sup>, convenient for users to quickly query information.
- 6-40K rack UPS are available to give you the most reliable backup power.
- Built-in lithium battery module to provide long-term backup power and the hot-swappable design for easy maintenance.



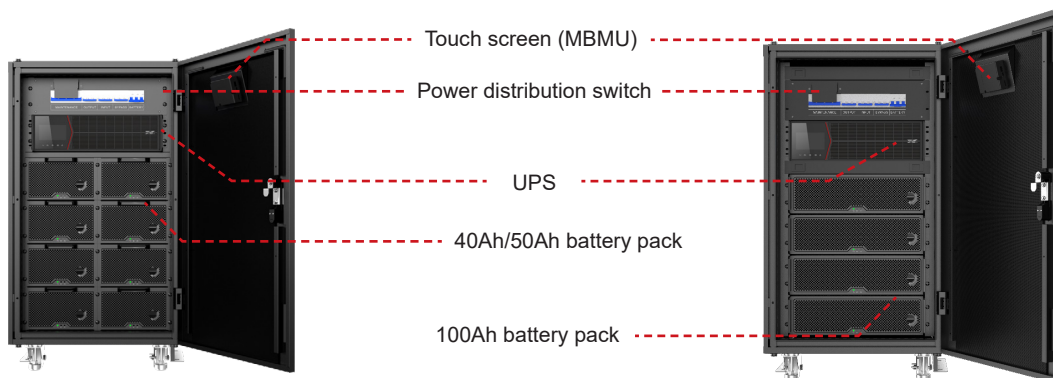
UPS+S<sup>3</sup> Lithium-ion Battery  
All-in-one Solution

## Application

Government, education, transportation, communication, finance, data center, medical treasure, enterprise, industry, etc.



## Product Configuration



40Ah/50Ah lithium-ion battery system cabinet

100Ah lithium-ion battery system cabinet

**UPS+S<sup>3</sup> Lithium-ion Battery All-in- one Solution**

## Product Features

### Compact

Integrated the battery, UPS and power distribution switches into one cabinet, suitable for the long back time application with the small footprint, convenient for maintenance

- **Battery packs in parallel design**

- Modular parallel design, flexible for expansion
- Combine with the DC/DC module, support the mixed use with the old and new batteries at the module level
- Failure module exit automatically, will not affect the system. Other modules can work normally. Improve the reliability



Phase I old battery  
SOH=88%  
Phase II old battery  
SOH=91%  
Phase III new battery  
SOH=95%

Mixed use with the old and new batteries

### Safe

- **DC/DC isolated solution**

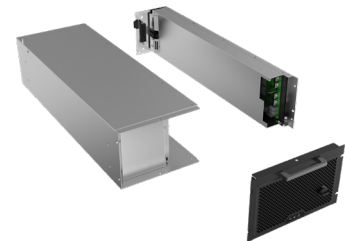
- Electrical isolation, isolated the mains with the battery. Guarantee the safety.
- Reduces safety risks due to liquid leakage from battery cells

- **Fire-fighting protection**

- Even under the battery failure (under extreme condition), can ensure the firefighting protection

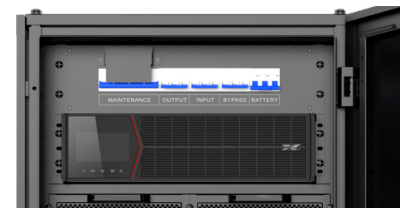
- **Full breaker design**

- Full protection with input, output, bypass, and maintenance bypass breaker, battery breaker, improve the reliability



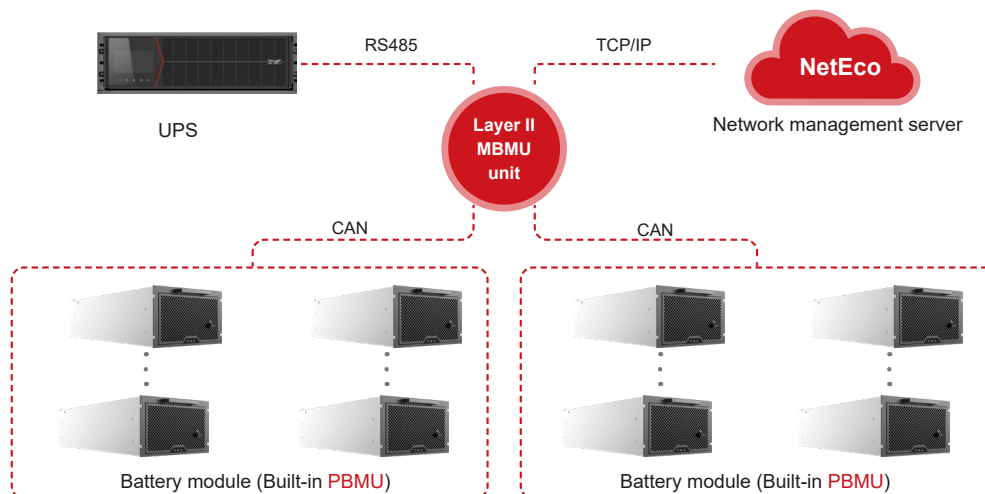
### Convenient

- **Centralized monitoring** the batteries and the UPS, all the information can be visualized on one touch screen.
- **Modular design**, plug and play, Minute-level maintenance, reduce the OPEX cost
- **Tilt design touch screen**, friendly for the users, convenient for operation



## Featured Two-layer BMS Architecture

The adopted two-layer BMS architecture (PBMU/MBMU) ensures the reliability of lithium-ion battery system from cell, module and system layers.



## Battery Configuration Table

### 1. 40Ah battery module for short time power backup

Battery module (mins) UPS capacity (kW)	1	2	3	4	5	6	7	8
6	17	34	51	68	85	102	119	136
10	10	20	30	40	50	60	70	80
20	/	10	15	30	25	30	35	40
30	/	/	10	20	16	20	23	26
40	/	/	/	10	12	15	17	20

### 2. 50Ah battery module for short time power backup

Battery module (mins) UPS capacity (kW)	1	2	3	4	5	6	7	8
6	23	46	69	92	115	138	161	184
10	15	30	45	60	75	90	105	120
20	/	15	22	30	37	45	52	60
30	/	/	15	20	25	30	35	40
40	/	/	/	15	18	22	26	30

### 3. 100Ah battery module for long time power backup

Battery module (mins) UPS capacity (kW)	1	2	3	4
6	/	95	143	191
10	/	57	86	114
20	/	/	/	58

- The above configuration is for reference only, subject to actual measurement

## Technical Specification

MODEL	S3C040-1106 S3C050-1106 S3C100-1106	S3C040-1106 S3C050-1106 S3C100-1110	S3C040-3310 S3C050-3310 S3C100-3310	S3C040-3320 S3C050-3320 S3C100-3320	S3C040-3330 S3C050-3330	S3C040-3340 S3C050-3340
Capacity(kVA)	6	10	10	20	30	40
INPUT						
Voltage (Vac)	L-N: 80-275 (176-275 at full load)		L-L: 138~485 (305~485 at full load)			
Frequency (Hz)	40-70					
Power Factor	≥0.99					
THDi	≤3% (resistive full load), ≤5% (non-linear full load)					
Phase	1:1		1:1/3:1/3:3		3:1/3:3	
BYPASS						
Voltage (Vac)	±15%/±20% (default ±20% )		±10%/±15%/±20% (default ±20% )			
Frequency (Hz)	±5%/±10% (default ±10%)					
Overload	130%: long term, 200%:10min, above 200% 10s					
OUTPUT						
Voltage (Vac)	L-N: 208/220/230/240±1%		L-L: 380/400/415±1%			
Frequency (Hz)	50/60±0.5Hz		50/60±0.1 (battery mode)			
Power Factor	1.0					
THDv	≤1% (resistive full load), ≤3% (non-linear load)		≤2% (resistive full load), 4% (nonlinear load)			
AC/AC Efficiency (Max.)	94%	94.5%	96%			
Overload	105%: long term; 130% 30s; above 130% 500ms		105%: long term; 110%: 60min; 130% load: 10 min; 155%: 1 min; above 155%: 200ms			
Transfer Time (ms)	0 (Mains mode-Battery mode), ≤1 (Mains mode-Bypass mode)					
Crest Factor	0					
BATTERY						
Battery Type	Lithium-ion batteries					
Voltage (Vdc)	240/480		±240			
Internal Battery	(1~8)*40Ah/51.2V/2.05kWh/10kW or (1~8)*50Ah/57.6V/2.88kWh/10kW or (1~4)*100Ah/57.6V/5.76kWh/5kW					
GENERAL						
Communication	RS485, EPO, RS485+dry contact card Optional: SNMP card					
Display	4.3" touch screen					
Noise (dB)	<65					
Working Temperature (°C)	-5~40					
Altitude(m)	2000					
Relative Humidity	0 ~ 95%, no condensation					
Protection Grade	IP20					
Agency/Certification/Conformance	UN38.3, EN 62040-1, EN 62040-2					
Dimension (W×D×H)(mm)	UPS	438×500×87 (2U)		438×500×130 (3U)		438×680×130 (3U)
	Cabinet	600×1000×1110				
Weight (kg)	UPS	10.6	12.2	20		34
	Cabinet¹	120				

● Specification is subject to change without prior notice.  
1. Without built-in UPS and batteries.



**Reliable • Flexible • Responsible**

#### **Kehua Tech**

Add: No. 457, Malong Road, Torch High-Tech Industrial Zone, Xiamen Fujian  
361006 China

Tel: +86-592-5160516

Fax: +86-592-5162166

Email: [Intertrade@kehua.com](mailto:Intertrade@kehua.com)

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

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