



High Voltage UPS
LFP Battery System
Sun Pulse Series

VS Lead Acid Batt

Reduce above 50%

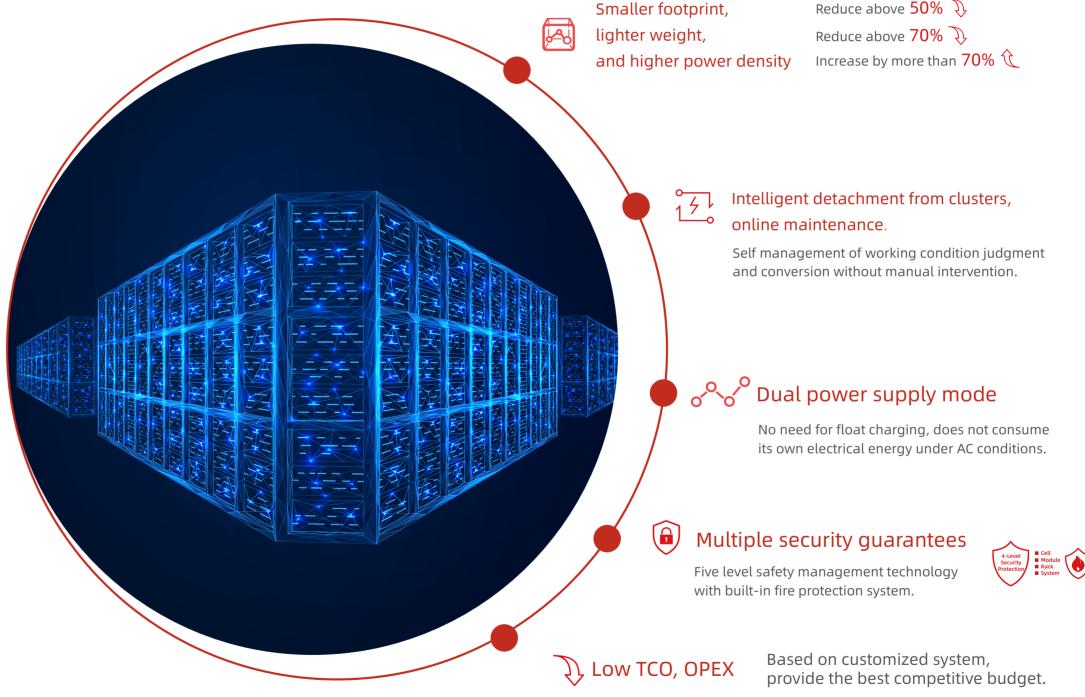
SHUIFP512100D

High Voltage UPS Lithium-ion

■ Data Center

Battery System

- UPS IDC data center
- Financial institutions
- Rail system
- Bank-up power in no electric area
- Distributed data centers in buildings



Overview

The system adopts lithium iron phosphate cells, which can be applied to UPS, communication and energy storage systems and other large-scale power backup storage fields. With medium and high multiplier cells, it is the perfect solution for emergency power backup of 15 minutes and above, and can also provide customized solutions according to user needs.



System Parameters

SHUIFP512100D (512V100Ah)

Rated voltage(V)	512	Discharge cut-off voltage(V)	432
Rated capacity(Ah)	100	Max charge voltage(V)	584.0
Voltage range(V)	432.0~584.0	Advise back-up time	≥15min
Cell	3.2V50Ah	Cycles(25 °C,0.5C/1C,100%DOD)	>2500
PACK	16S 2P	Battery pack,PDU configuration	1Master+10Slave
Parellel & series	160S 2P	Pack dimention(W*D*H,mm)	440*820*133
Max discharge current(A)	550	Cabinet dimention(W*D*H,mm)	600*1000*2000
Rated energy (kWh)	51.2	System clusters(clusters)	1
Nominal power(kW)	51.2	Cabinet Count(units)	1
Output power(@2.7V/Cell,5.5C)(kW)	220	System Size(W*D*H,mm)	600*1000*2000
Max charge current(A)	50	System weight(kg)	Approx 797.0

■ Work Conditions & Communication

Working temp.(Discharge)	-20°C~50°C, recommended 5°C~40°C
Working temp.(Charge)	0℃~45℃, recommended 15℃~30℃
Working humidity	<95%R.H (non-condensing)
Altitude	Over 2500m
Communication Interface	CAN2.0/RS485/Dry contact/Modbus IP
Firefighting Req.	Perfluorohexanone or S-type aerosol(optional)
Protection Level	IP20

■ Certification

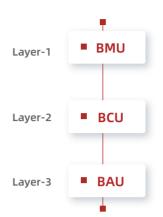






BMS Function

Three-layer BMS system ensures the reliability of lithium batteries layer by layer.



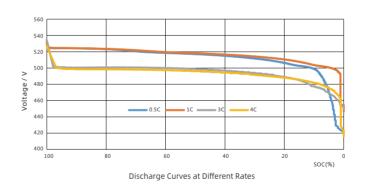
Each pack has a BMU . The BMU detects the temperature and voltage of each electrochemical cell in the pack, and upload the fault information in real time.

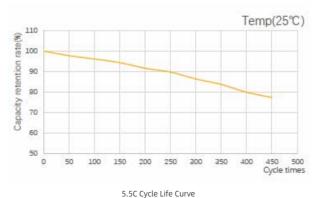
Each battery cabinet has an intelligent battery management module, which manages the BMU unit of each pack to implement reliable charging and discharging, and prevents overcharge and overdischarge. At the same time, it will implement the bias between battery string is less than 2%.

The system is available between multiple cabinet, it communicates with the UPS or third-party NMS and provides man-machine interface and implements refined management of all batteries. (Soft).

Performance Data								
	Backup Time(min)	10	15	30	45	60		
Value	Constant Power(kw)	228.16	186.08	98.4	65.7	50.25		
	Constant Current(A)	490	400	200	133.3	100		

System Performance Curve





45 50 5.5C Discharge Temperature Rise Curve

Temp(25°C) 80 SOC(%) 100

1C/5.5C Charge/Discharge Curve

Products specifications described herein are subject to change without prior notification.

Reliable whenever needed



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