

Energy Storage Systems

AMPHENOL RADSOK® TECHNOLOGY

Surlok Plus series, brought to you by



RADSOK® high amperage contact technology utilises high tensile strength properties of a stamped and formed, high conductivity alloy grid to produce low insertion forces while maintaining a large conductive surface area. The R4 version of the RADSOK represents the culmination of three years ' research and development in laser welding copper based alloys.

SURLOK Plus®

NEW ENERGY POWER CONNECTOR

The Best Choice

SURLOK Plus®

Using industry standard crimp, screw, and busbar termination options eliminates the need to purchase special torque tools. SURLOK Plus® is an environmentally sealed version of our original SurLok® but available in smaller sizes, and features a quick lock and press-to-release design. Incorporating the latest R4 RADSOK® technology, SURLOK Plus® is a compact, quick mating, and robust product line. The RADSOK® high amperage contact technology utilises high tensile strength properties of a stamped and formed, high conductivity alloy grid to produce low insertion forces while maintaining a large conductive surface area.



SURLOK Plus®



Operation Voltage

1.0 version, UL1977, **1000VDC**,

withstanding voltage **5000VAC**

1.5 , 2.0 , 2.5gen, UL4128, **1500VDC**,

withstanding voltage **6800VAC**

3.0gen, UL 4128, **2000VDC**,

withstanding voltage **8400VAC**



Waterproof

SURLOK Plus®

Waterproof and non waterproof

Mate for **IP67**

Part of SLP meet **IP6K9K**



Shell Type

SURLOK Plus®

Receptacle: panel & non-panel

Plug: right angle and straight



Current Range

3.6mm, 5.7mm, 8.0mm, 10.3mm, 14mm

1500VDC product cover

from **50A to 500A** application

600A for special design



EMI Shielding

8.0mm and 14mm provide EMI shielding option



RADSOK

RADSOK R4 technology, provide more power in limit space application

360° Rotation

1.0-2.0gen version 360° rotation



Customised Solution

Flex busbar, busbar, copper-aluminum busbar



Product Applications



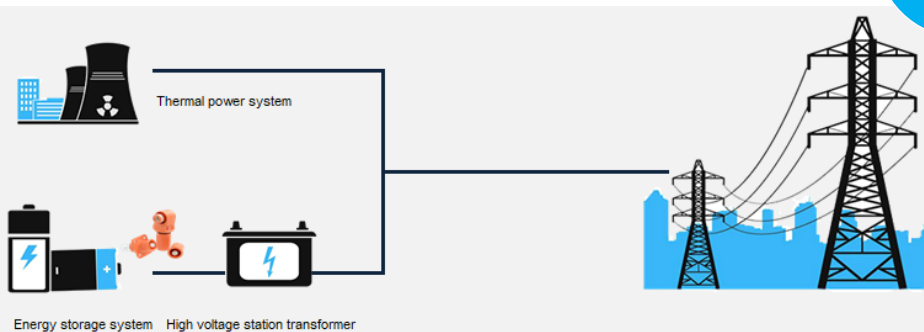
- The main business model for end user energy storage is peak valley arbitrage
- Smooth load, like EV charging station, stadium or other commercial emergency power supply etc.
- New energy storage systems such as wind power, solar power etc.

Power Grid Enterprise Application

Joint Frequency Modulation for Energy Storage and Thermal Power

AGC (automatic generation control) technology is adopted in the combined frequency regulation of thermal power energy storage, which is used as auxiliary service of electric power due to its advantages of quick response and intelligent control

Lithium iron phosphate and lithium ternary batteries are the two main routes in the combined frequency regulation market of thermal power energy storage



- Auxiliary services of power market: peak load regulation, frequency regulation and voltage regulation
- Alleviating the power gap

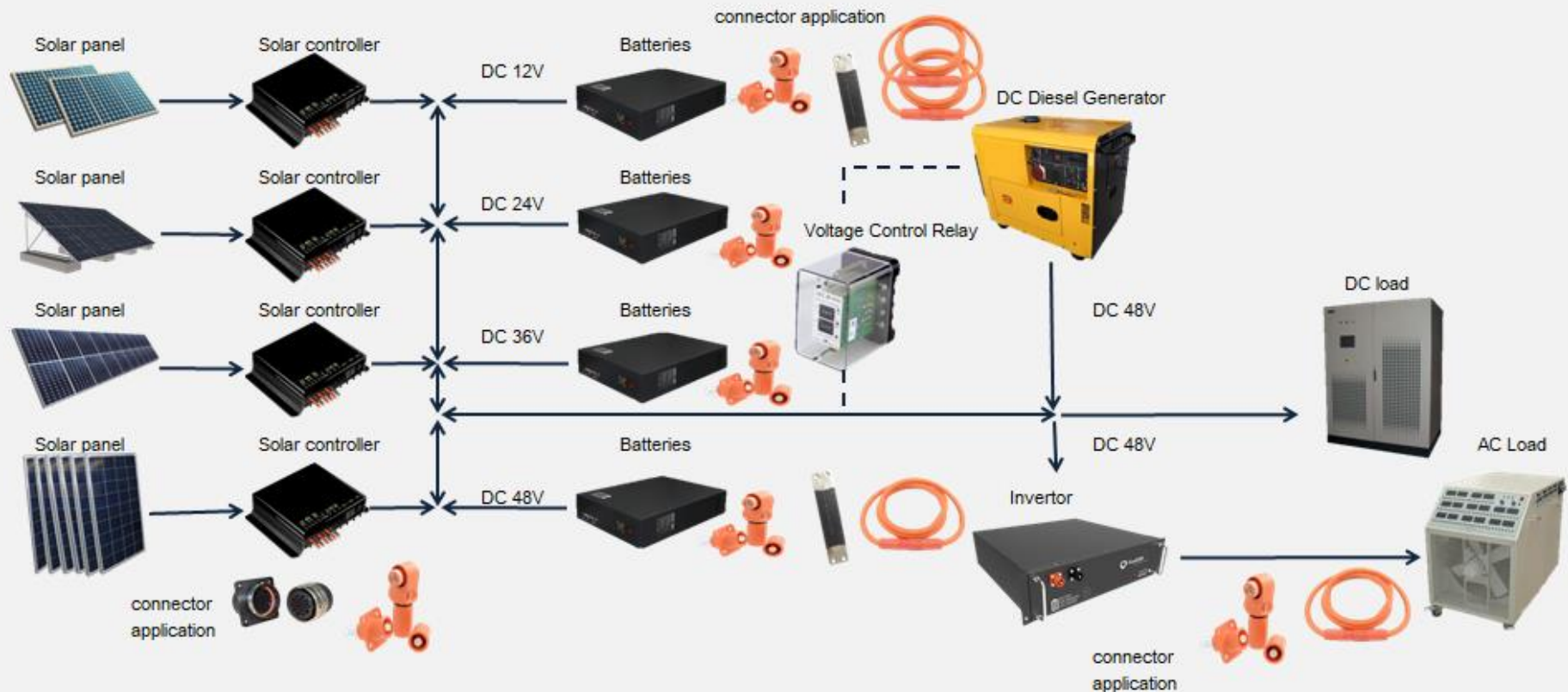
Scale grid connection

Composed of energy storage battery, battery management system (BMS), energy storage converter (PCS), monitoring system, step-up transformer and SVG, to improve the reactive power and voltage regulation capacity of energy storage power station.

Lithium iron phosphate battery is the main method.

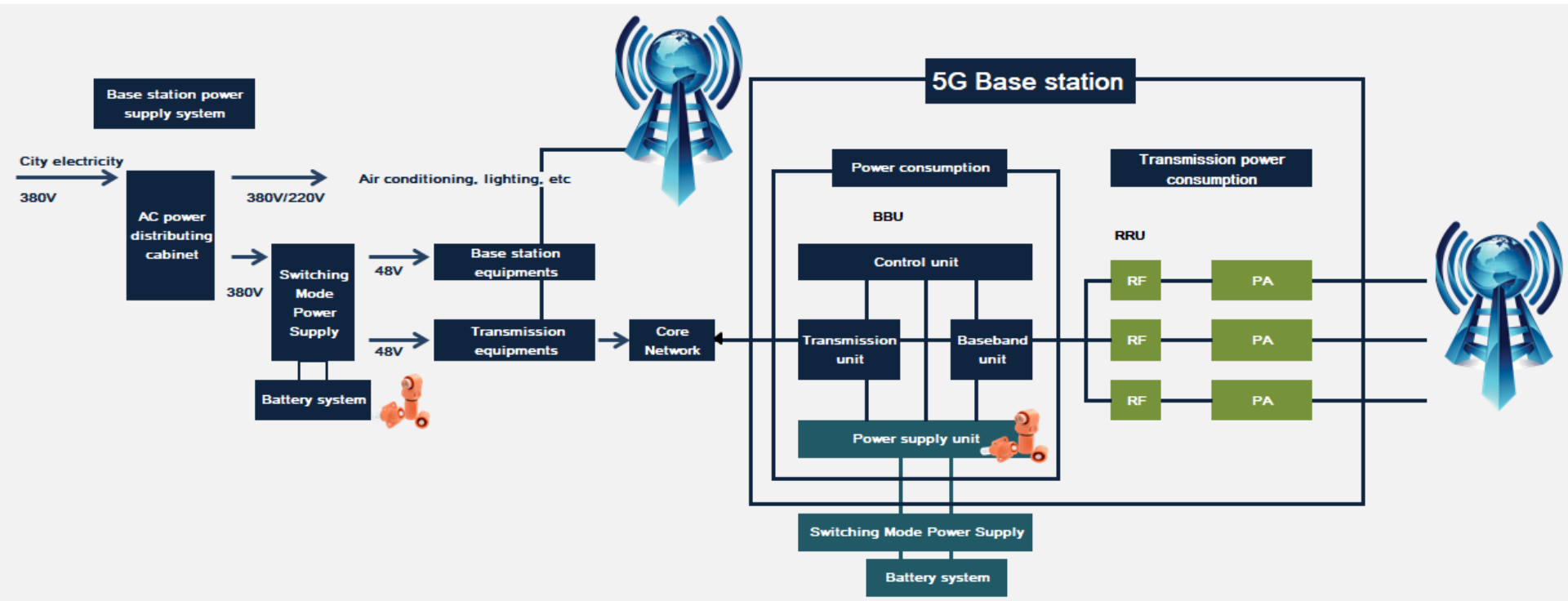


Power Generation Application



End User Application Example

5G Base Station



Product Range by Amps

 <p>2.0gen 1500 VDC</p>	 <p>1.0gen 1000 VDC</p> <p>1.5 gen Copper-Al jumper</p> <p>2.0gen 1500 VDC</p> <p>2.5gen 1000 VDC</p>	 <p>1.0gen EMI 1000 VDC</p> <p>1.0gen RA&inline 1000 VDC</p> <p>2.0 and 2.5gen 1500 VDC</p>	 <p>1.0gen 1000 VDC</p> <p>2.0gen 1500 VDC</p> <p>2.5gen 1500 VDC</p>	 <p>2.0gen jumper 1500 VDC</p> <p>2.0gen 1500 VDC</p>	 <p>1500 VDC</p>
50-70A	70-120A	120-250A	200-360A	350-400A	400-500A
<p>Rated Current (Amps)</p>					

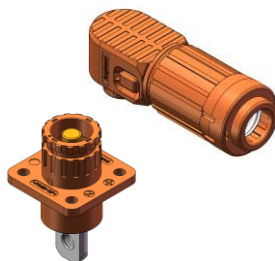
Product Roadmap

Busbar Type Surlok Plus



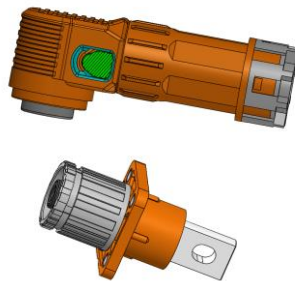
Size: 8.0mm, 12.0 mm
Application: ESS
Voltage: 1500V DC
Current: 250A / 360A
Waterproof: No
Start from: 2023. Q3
Status: NPI

Low Cost Surlok Plus



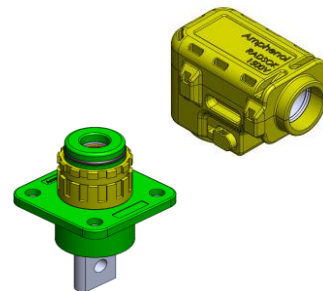
Size: 8.0mm, 10.3mm
Application: ESS
Voltage: 1500V DC
Current: 250A, 360A
CPA: Yes
Start from: 2024. Q3
Status: NPI

2000VDC Surlok Plus



Size: 14mm
Application: ESS
Voltage: 2000V DC
Current: 420A
Start from: 2024. Q3
Status: NPI

Welding Surlok Plus



Size: 8.0mm
Application: ESS
Voltage: 1500V DC
Current: 200A
CPA: Yes
Start from: 2025. Q1
Status: NPI

2.0gen Straight Surlok Plus



Size: 5.7mm & 8.0mm
Application: ESS
Voltage: 1500V DC
Current: 120A / 250A
Start from: 2025. Q3
Status: NPI

2023

2024

2025

2026

Surlok Plus Customised Examples

Inelco Hunter can customise the requisite parts specifically to suit your project. Contact us for details



Copper-Al



Thur-hole



2 wheel & 3 wheel



Inline EMI 8.0mm