



Application Note
Battery Energy Storage Systems

Telergon has an extensive experience in **green energy applications**, especially thanks to our leadership in the **photovoltaic sector**, in which we offer our **diverse and versatile product range**.

Due to our experience and R+D commitment we have been able to evolve and adapt our wide range of products to market trends.

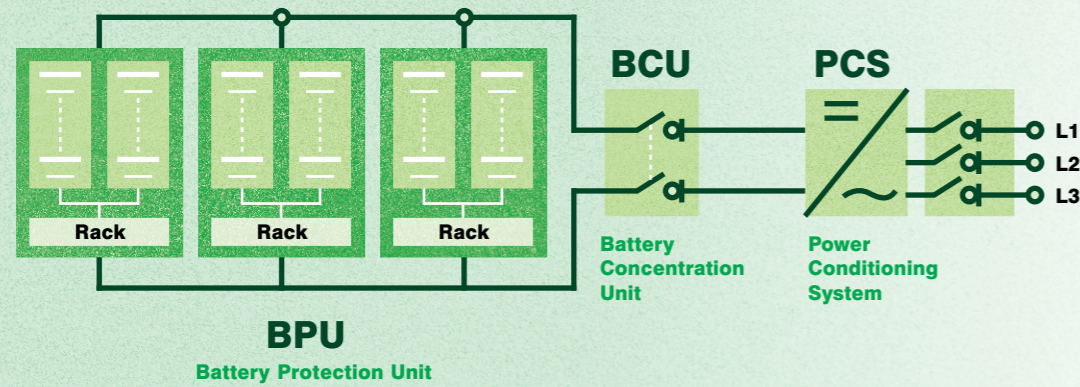
Currently, energy storage is growing and we have adapted our solutions to the needs of this sector, mainly for OEM's of batteries, system integrators and PCS / inverters manufacturers.

1 BPU

Battery Protection Unit

Each module or battery rack has a **Battery Protection Unit (BPU)** that must have installed a **switch up to 400 A 1000 Vdc / 1500 Vdc**, ready to break and isolate.

- Suitable for different type of installations:
- > Rack installed in containers
 - > Centralized electrical board where the different modules are connected.



▶ DC ON-OFF LOAD SWITCH-DISCONNECTORS

125 - 500 A | 1000 - 1500Vdc



Series S6 DC
1P-2P | 125A-630A | 1000Vdc

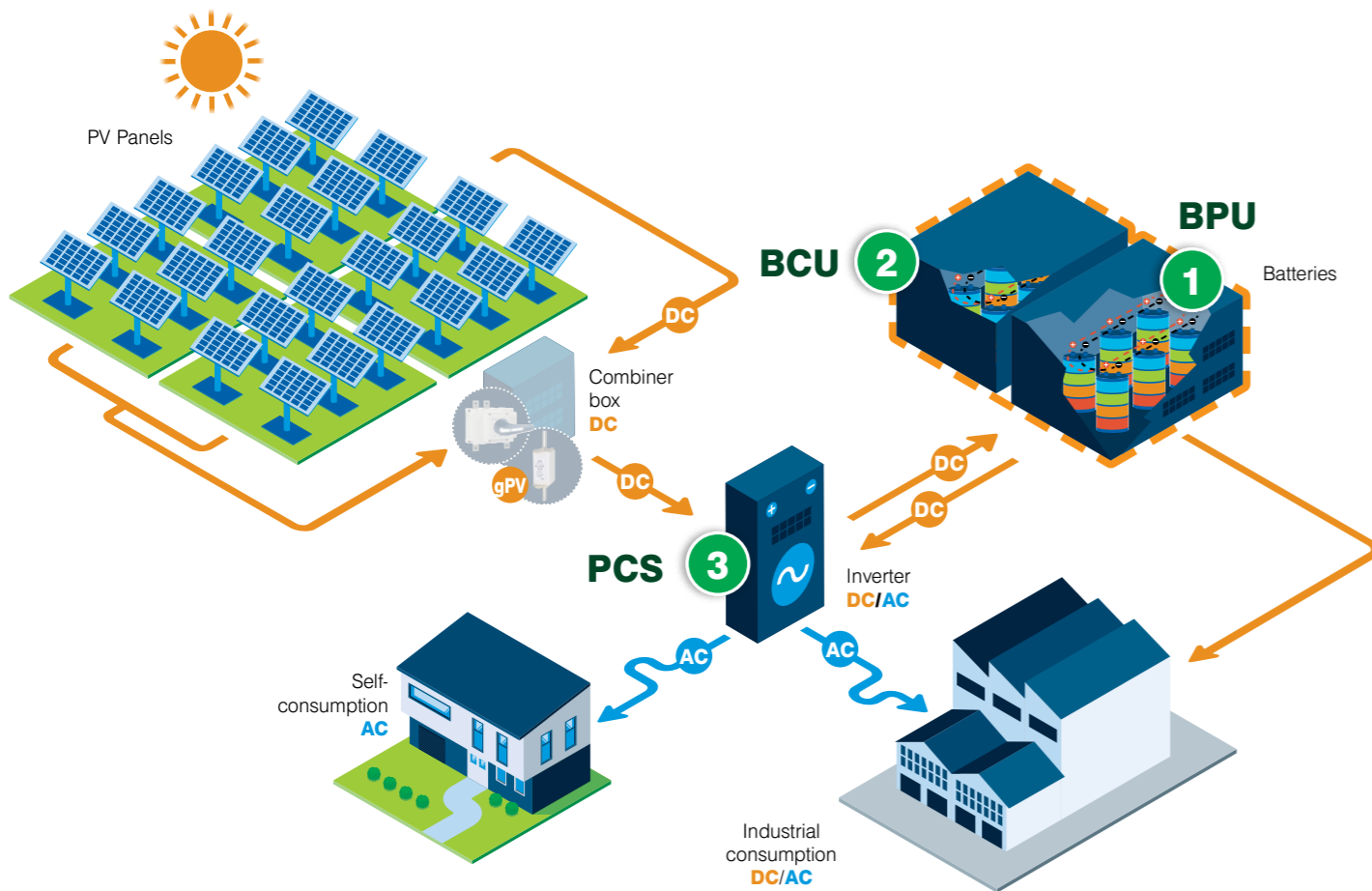
Wide range of currents
High reliability
Ready to motorise
Bridging links are not required, avoiding potential hot spots and simplifying the installation in cost and time

Series S7 DC NEW
2P | 125A - 500 A | 1500Vdc

Maximised electrical performance
High safety level
Suitable for extreme environments
Compact design
Longer life
Easy to install and maintain
Bridging links are not required

Isolation only S6
1P-2P | 160 A - 800 A | 1500Vdc

Easy to install
Customised solutions
Motorised option for remote or automatic operation
Multi-circuit switching (from 1 up to 8 circuits) can be isolated with only one handle



2 BCU

Battery Concentration Unit

The **Battery Concentration Unit (BCU)** is equipped with a **main switch disconnecter from 1000 A to 5000 A**. For the maintenance of the container, it is recommended to install an **isolation only disconnecter**, that allows to isolate the container from the current for a safe and convenient maintenance.



3 PCS

Power Conditioning System

These **bidirectional inverters** are able to **charge energy** into batteries from a DC (for example, a photovoltaic plant) or AC generation source, **and discharge it**, when needed, for residential and industrial use.

Generally, they need to install a **powerful main switch disconnecter DC (up to 1800 A)** with **manual or motorised operation**, depending on the needs of the installation.

AC switch disconnectors may also be required, depending on the application, **up to 800 Vac**.

▶ **DC ON | OFF LOAD DISCONNECTORS**
UP TO 3150 A | 1000 - 1500 Vdc



Series **S5 & S5N DC**

4P | Up to 3150 A | 1000Vdc

4P+4P (S5N)

Back-to-back with operating mechanism in front, arrangement to increase the number of available contacts

Manual or motorised

DC-21B

Isolation only

S5 / S6

1P-2P | 800 A - 3150 A | 1500Vdc

Compact and flexible solution

Optimised dimensions

Motorised option



MAIN BENEFITS OF TELERGON SOLUTIONS

High conditional short-circuit current
---> **Up to 120 kA rms***

- > Quick and easy installation
- > High connection capacity
- > Optimized phase to phase distance
- > Safer and more reliable breaking



* Consult the specific data for each series and size

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