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# Battery Energy Storage Systems

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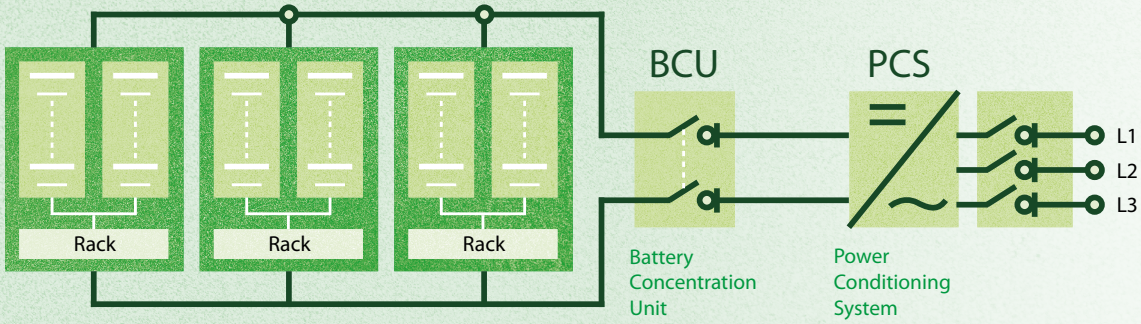
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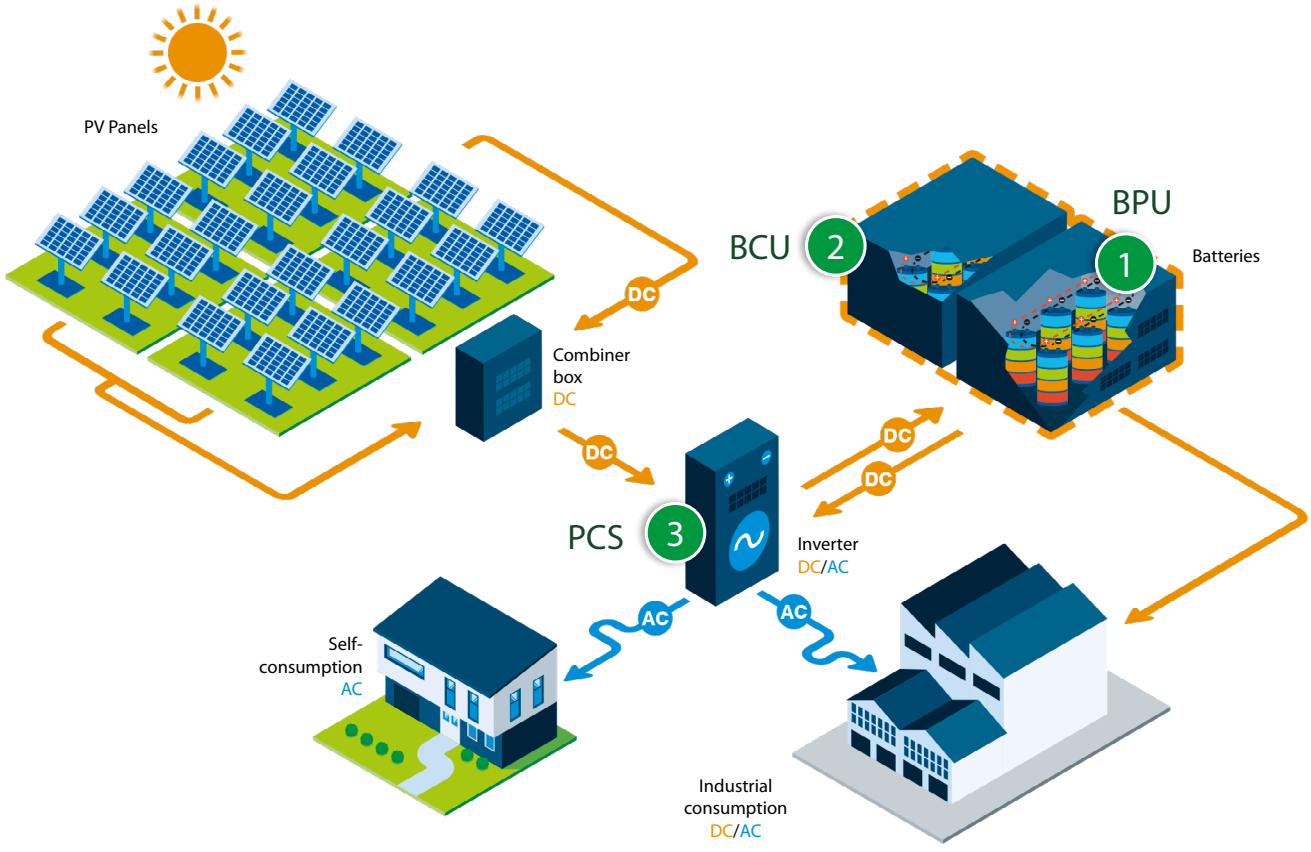


Telergon has an extensive experience in **green energy applications**, especially thanks to our leadership in the **photovoltaic sector**, in which we offer our **diverse and versatile product range**.

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.

# 2 BCU

## Battery Concentration Unit

The **Battery Concentration Unit (BCU)** is equipped with a **main switch disconnector from 1000 A to 5000 A**. For the maintenance of the container, it is recommended to install an **isolation only disconnector**, 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 disconnector 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**.





## HOW TO PROTECT A BESS INSTALLATION

Selecting the right switchgear solutions for a BESS installation is essential to ensure the system operates safely, efficiently, and reliably. It also helps future-proof the installation, enabling scalability and adaptability to evolving energy demands.

The right switchgear solutions must have:

- Quick disconnection to prevent damage or hazards.
- Motorized operation available to use them remotely
- Safety quality standards to minimize risks to the staff and equipment.
- Compatibility with the specific requirements of the BESS, such as its voltage range, current levels, and inverter characteristics.
- High-conditional short-circuit current and arc-resistant features to minimize risks to the staff and equipment.

## 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

# 1 BPU

## DC ON-OFF LOAD SWITCH-DISCONNECTORS
125 - 500 A | 1000 - 1500 Vdc



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

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
2P | 125A - 500 A | 1500Vdc

Maximised electrical performance
High safety level
Suitable for extreme environments
Compact design
Longer life



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

Easy installation
Motorised option
Multi-circuit switching (from 1 up to 8 circuits) can be isolated with only one handle

## Residential or commercial

NEW



Series
### F1 DC
2P-4P | 32 A | 1500Vdc

Different types of mountings.
Different connection schemes.
Materials for an IP66 protection.

NEW

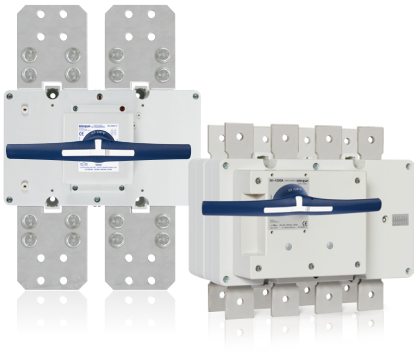


Series
### F7 DC
2P-10P | 13A up to 55 A | 1500Vdc

Modular and compact design.
Easy installation and maintenance
DC-PV1 and DC-PV2

# 2 BCU

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

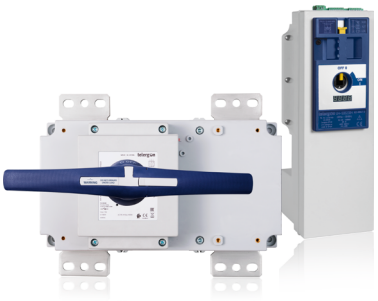


Series
### S5 & S5N DC
4P | Up to 3150 A | 1000 Vdc

4P+4P (S5N)

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

Manual or motorised



Isolation only
### S5 / S6
1P - 2P | 800 A - 3150 A | 1500 Vdc

Compact and flexible solution

Optimised dimensions

Motorised option

**DO NOT OPERATE UNDER LOAD**



Series
### M3
2P, 3P, 3P+N, 3P+DN | 32A up to 250 A

BS, Class J, NFC and NH fuses

Modular and compact design

TEST position on the handle

# 3 PCS

## AC SWITCH-DISCONNECTORS
FOR 800 Vac



Series
### S5
3P | 1600 A

High performance

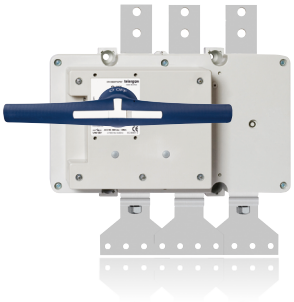


Series
### S6
3P | 250 A - 630 A

Decentralized installations

Motorized operation option

* Consult values for 1000Vac.



Series
### S5N
6P | 3200 A

Common outputs

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