

Maximize your energy savings with our innovative 50 kW solution featuring 2 to 4 hours of storage

An entirely european product with a european warranty, our BESS is designed to optimize the energy efficiency of your system. Equipped with sophisticated energy management system, our product ensures exceptional battery life and unprecedented energy performance. Invest in the future of energy with our innovative solution. The ST 50 kW energy storage system is the ideal solution to meet the most demanding energy needs of the commercial and industrial sectors. With the ST 50 kW system, companies can reduce energy costs, increase energy autonomy, and contribute to the transition towards a more sustainable energy market.

Incentiviced with "Transizione 5.0".



## Applications

### Industrial Applications

Support for critical production processes, internal grid stabilization, and energy backup in case of outages.

### Commercial Applications

Optimization of self-consumption from photovoltaic systems, reduction of energy costs, and improvement of building energy efficiency.

### Agricultural and Agrivoltaic Sector

Maximize self-consumption of energy produced from renewable sources, efficiently managing loads such as irrigation systems, optimizing water and energy consumption. It also helps stabilize the electrical grid, preventing voltage fluctuations also in off grid applications.

### Peak Shaving

Peak shaving is a strategy to reduce energy consumption peaks. The goal is to levelize the energy demand, reducing the need to get power from the electricity grid during peak times. Reducing the contracted power also results in significant savings on the fixed component of the electricity bill.

### Self-consumption of Produced Energy

In the case of photovoltaic systems, BESS allows excess energy produced during the day to be stored for use at night or when production is lower than consumption, maximizing self-consumption and reducing dependency on the grid.

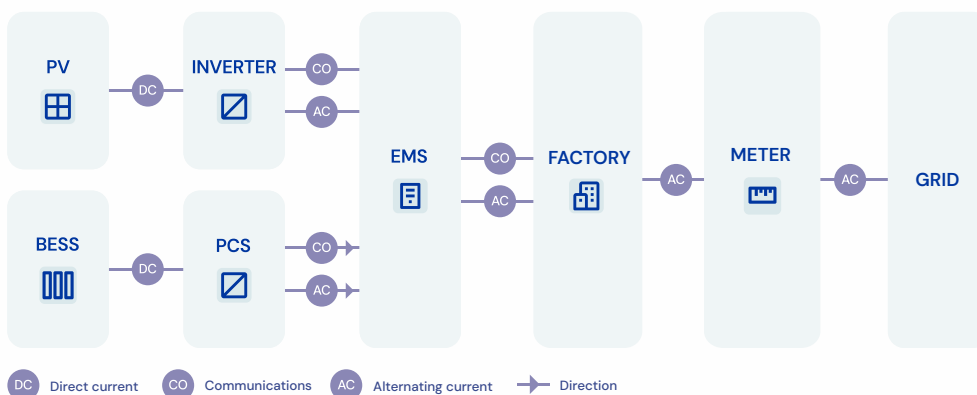
### Load Optimization

BESS enables the optimization of electrical loads by shifting energy consumption to periods when energy is cheaper or available from renewable sources, thereby increasing the profitability of your system.

### Grid Stabilization

BESS can be used to stabilize the electrical grid by absorbing or supplying energy based on demand fluctuations, helping to reduce the risk of blackouts.

## How it works



Characteristics	PCS 50 kVA	ST 100 kWh	ST 150 kWh	ST 200 kWh
Technology	Trasformerless	LFP	LFP	LFP
Configuration	3P, PE/TN-C	9*1P32S	15*2P16S	17*2P16S
<b>DC side</b>				
Max DC voltage	1000 V	1000 V	864 V	979,2 V
Nominal DC voltage	720 V	921 V	768 V	870,4 V
Min DC voltage	620 V	720 V	648 V	734,4 V
Max DC current	155 A	105 A	210 A	210 A
Nominal AC voltage	400 V	400 V	400 V	400 V
Max AC current	74 A	74 A	74 A	74 A
<b>Efficiency</b>				
Max efficiency	98,6%	99%	99%	99%
European efficiency		98,5%	98,5%	98,5%
<b>Protection</b>				
DC input protection (Fuse)		400 A		
Low Break Switch		250 A		
Surge protection		T1+T2		
Visual monitoring		Yes		
Overheat protection		BMS controller		
<b>Dati generali</b>				
Dimensions (WxHxD mm)	673x321x626	988x663x2213	988x678x2400	1442x674x1861
Sound emission (dBA)		MAX 55		
Weight (kg)	69	1060	1400	1625
Operating temperature (°C)	Between -25 and 60		Charge between 0 and 55 Discharge between -20 and 55	
Allowable relative humidity range (%)		From 0 to 90		
Cooling method		Forced air cooling		
Derating operative altitude (m)	3000		4000	
Display		PDMU + External display + Remote monitoring		
Communication		CAN BUS / MOD BUS		
Compliance		CE / UN38.3 - CEI 0-21*		
<b>Warranty</b>				
Cycles		5000**		
Years		5**		
<b>Compliance and regulations</b>				
Electromagnetic Compatibility (EMC) 2014/30/EU		UNI-EN 62919:2022	EN 61000-3-11	
Directive RoHS 2011/65/EU		IEC 62620:2015	ETSI EN 300 328 V.2.1.1 EN 61000-6-2	
Low Voltage Directive 2014/35/EU		EN 61000-6-3:2021	EN 61000-6-4 EN 61000-3-12	
Product Safety Device 2001/95/EC		UN 38.3	IEC 60068-2-1/-2-2/-2-30/-2-78/ -2-14/-2-6/-2-27/-2-75	
Regulation EU 2023/1542		IEC 62116/ IEC 61727/ IEC 62477-1/ IEC 61439-1/ IEC 61439-2		
Parallel batteries up to 16 Racks.				
* In progress.				
** This product is subject to specific warranty conditions. Please refer to the terms and conditions for detailed information on the applicable warranty.				