



### Salt battery storage system for commercial applications

from 45 to 90 kWh

The **salipro**<sup>®</sup> is an AC-coupled salt battery storage system that automatically switches to off-grid operation in less than 20 milliseconds and continues to operate autonomously.

With a **salipro**<sup>®</sup> storage system, there is far more to gain than energy self-sufficiency, self-consumption optimisation and electricity cost reduction.

#### The **salipro**<sup>®</sup> will help you ...

- ... to store your energy safely, securely and innovatively.
- ... to make your contribution to the environment and climate change.
- ... to invest your money in a long-lasting resource-saving system.
- ... to use your electricity in a 100% sustainable and environmentally friendly way.
- ... to give your grandchildren a healthy future.

<b>Requirements</b>		
Installed photovoltaic system		from 40 kWp
<b>Number of batteries</b>	<b>Storage capacity</b>	<b>Inverter capacity</b>
up to 5 batteries	up to 45 kWh	3 x 10 kVA = 30 kVA
up to 10 batteries	up to 90 kWh	3 x 10 kVA = 30 kVA
This list is only indicative and may vary depending on project requirements. This will be worked out in the preceding engineering.		
<b>System characteristics</b>		
Type of system	Complete system	
AC phases	3-phase system (asymmetrical operation)	
Requirements installation site	dry, indoor and outdoor	
Fire and personal protection requirements	usual personal protection, no fire protection measures necessary	
Extension of battery capacity	at any time, old + new batteries can be combined	
AC installation effort	approx. 1 day (depending on local conditions)	
<b>Battery storage</b>		
Battery type	Salt battery (molten salt or ZEBRA cell)	
Chemical name	NaNiCl <sub>2</sub> (sodium nickel chloride)	
Expected life (years/deep cycles/shallow cycles)	15 years / > 4500 / > 8500	
Nominal storage size per battery (9 kWh each)	9.4 kWh	
Usable storage per battery (9 kWh each)	approx. 8 kWh	
Charging power per battery (9 kWh each)	≤ 40 A (≤ 2 kW)	
Continuous power discharged per battery	≤ 150 A (6.5 kVA) battery limited	
Maximum C rate (charge/discharge rate)	0.25 C / 0.5 C	
Nominal battery voltage	48 V	
Battery efficiency (standard cycle)	90 %	
<b>Inverter</b>		
Nominal power (Victron, adapted to salt battery)	3 x 10 kVA / 400 V	
Overload capacity (max 5 sec.) max. discharge power	2 x nominal power	
Galvanic isolation (DC from AC)	yes	
Inverter safety in PV systems	DIN EN 62109 certified	
Energy management	Victron ESS adapted to the salt battery	

**Further functions**

Self-consumption optimisation	integrated and configurable
Breaking demand peaks (peak shaving)	integrated and configurable
Automatic stand-by operation	with unloaded inverters
Visualisation, data analysis, energy statistics	Web platform plus app for iOS + Android
Battery monitoring	Remote monitoring of all batteries in real time

**Emergency power supply**

Mains independence	asymmetrical 3-phase operation
Recharging by PV in off-grid operation	DC→DC: Victron MPPT
Separate emergency circuit	≤ 30 kVA
Emergency power switchover	automatic (in under 20 milliseconds)

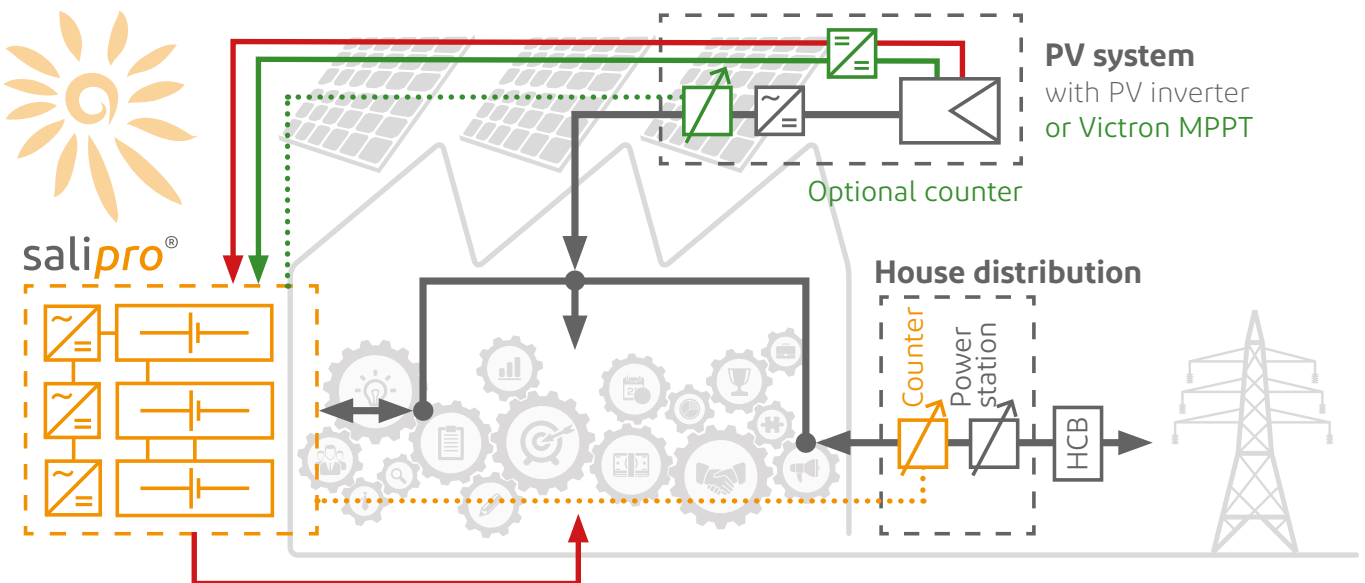
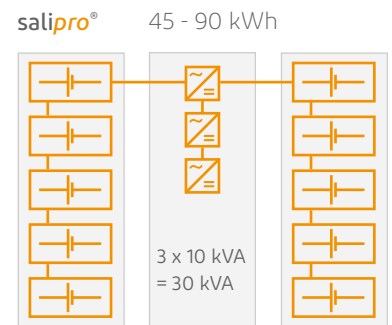
**Intelligent control**

- Potential-free contact for switching consumers on and off (charging station, heat pump, etc.)
- Time control for recharging the battery from the mains (calibration 100 % SOC)
- Lifetime-optimised operation of the battery (power limits)

**Extension options**

If the storage demand increases, additional batteries can be added at any time (even years later) without any problems.

The storage capacity then increases by 9 kWh per added battery.



■ Included in the scope of delivery of a salipro® | 
 ■ Off-grid operation | 
 ■ Optional | 
 ■ On-site installations  
 This graphic does not replace the detailed circuit diagram or the connection examples.

# Advantages of the salt battery

The salt batteries of the innovenergy® storage solutions are made of harmless materials: 32 % common salt, 22 % nickel, 22 % iron, 20 % ceramic.

The recycling of the salt battery has been standardised for 15 years. The metals are melted down and returned to the metal industry. The battery is manufactured 100% in Switzerland according to Swiss environmental and labour standards.

The salt battery is absolutely safe - the rooms do not need any fire protection or fire warning devices as the battery is neither flammable nor can it explode. It can also be operated in very cold and very warm rooms (-20° to +60° C) without ventilation or air conditioning. The outside temperature does not affect the storage capacity or the service life.

The battery survives a total discharge without damage. The salt battery has a service life of at least 15 years (10-year guarantee) and is maintenance-free.

The salt battery is extremely robust and is used by the thousands in the telecommunications industry. In industry, it is considered a cheap and safe electricity storage technology in the long term. With innovenergy®, this technology is now also available for domestic use and for businesses.

## Recycling

The 100% recycling is carried out by the manufacturer itself. There, the complete battery is returned to its raw material cycle. The transport of the battery to be discarded back to the manufacturer in Stabio/CH is to be borne by the customer. Despite complete recycling by the manufacturer, INOBAT in Switzerland charges an advance recycling or disposal fee per battery.

## Subsidies

KFW subsidy in Germany is available with a 10-year current value guarantee.

## Warranty

Provided that the installation and operating conditions are complied with, the salt battery is covered directly by the manufacturer with a time-value guarantee of 10 years. The battery inverters are covered by a 5-year warranty. Everything else is covered by a standard 2-year warranty. The warranty is an device warranty. Travel costs and working hours will be charged separately in the event of replacement or faults, unless you have subscribed to a service contract for the relevant year.

## Our partners will be happy to advise you!

For competent advice and an individual offer, please contact one of our sales partners in your area:

[www.innov.energy/en/sales-partner](http://www.innov.energy/en/sales-partner)



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