



### Salt battery storage system for commercial applications

45 or 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.

|   | 45   | 90                               |
|---|--|----------------------------------|
| <b>Requirements</b>                                 |  |                                  |
| Installed photovoltaic system                       | from 40 kWp  | from 75 kWp                      |
| <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)                    |                                  |
| Dimensions (WxHxD)                                  | 220 x 210 x 80 cm  | 300 x 210 x 80 cm                |
| Total weight  | 1180 kg  | 1880 kg                          |
| <b>Battery storage</b>                              |  |                                  |
| Battery type  | Salt battery (molten salt or ZEBRA cell)                         |                                  |
| Chemical name                                       | NaNiCl <sub>2</sub> (sodium nickel chloride)                     |                                  |
| Expected life at 80 % DoD                           | 15 years / > 8500 shallow cycles                                 |                                  |
| Nominal storage size                                | 47 kWh   | 94 kWh                           |
| Usable storage                                      | approx. 40 kWh   | approx. 80 kWh                   |
| Charging power                                      | ≤ 200 A (≤ 10 kW)  | ≤ 400 A (≤ 20 kW)                |
| Continuous power discharged (in off-grid operation) | ≤ 400 A (500 A)  | ≤ 800 A (500 A inverter 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) |

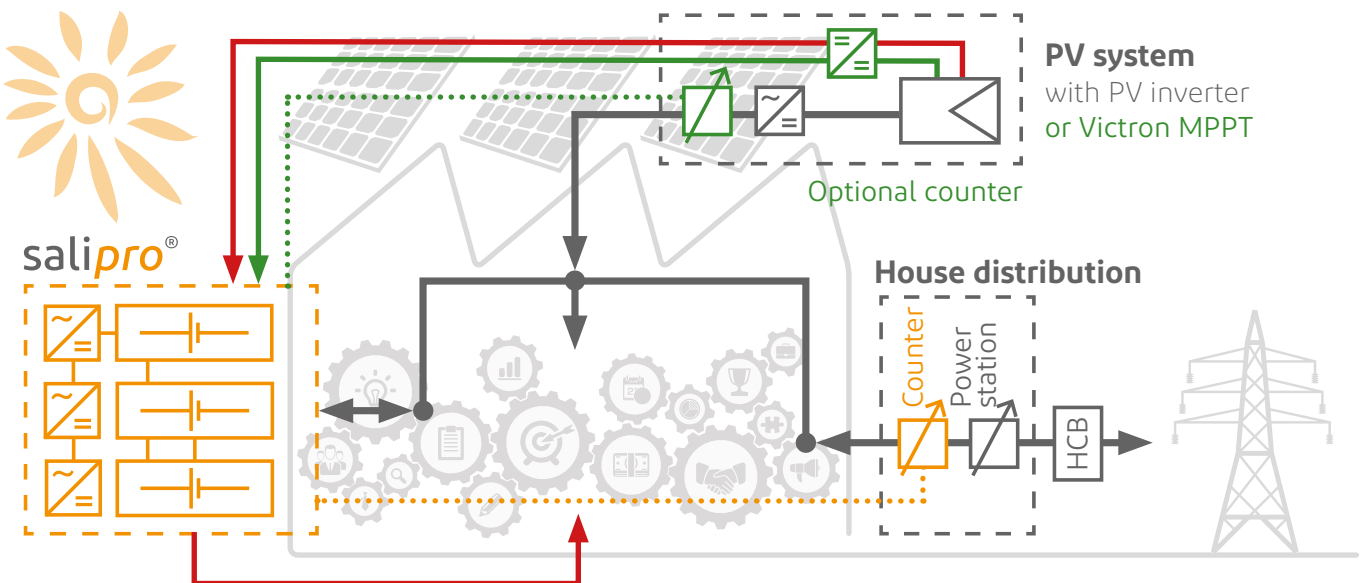
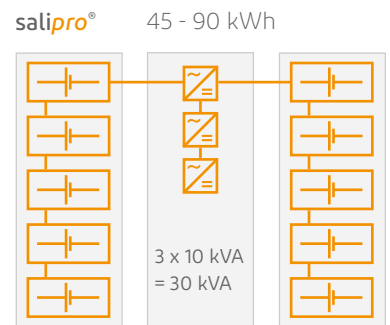
**Intelligent control**

- 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 from 45 kWh by 9 kWh per added battery up to 90 kWh.



■ 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

100 % of the discarded salt batteries are returned to the raw material cycle. In Switzerland, this recycling is ensured by INOBAT. Different recycling regulations apply in each country and advance disposal fees are charged accordingly. Please ask your sales partners in the respective country.

## 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)



## innovenergy AG

Gemeindemattenstr. 20  
CH-3860 Meiringen  
T +41 33 552 10 10  
[info@innov.energy](mailto:info@innov.energy)