salimax®

Technical Data

Large salt battery storage system for commerce and industry
from 44 kWh to 2 MWh

The **sali*max*®** is a DC-coupled salt battery storage system for large photovoltaic systems and corresponding storage needs. The **sali*max*®** can also be installed as an emergency power-capable, off-grid-capable system. The **sali*max*®** can be equipped with two battery sizes, which can be scaled and also mixed as desired.

With a **sali*max*®** storage system, there is far more to gain than energy self-sufficiency, self-consumption optimisation and electricity cost reduction.

The sali*max*® 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.

innov® **energy**
Store with salt!

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Requirements		
New PV system with AMPT DC/DC converters	from 100 kWp	
Characteristics		
Type of system	expandable complete system	
Requirements Installation site	dry, indoor and outdoor	
Fire and personnel protection requirements	usual personnel protection, no fire protection measures necessary	
Extension of battery capacity	at any time, old + new batteries can be combined	
Battery storage		
Battery type	Salt battery (molten salt)	
Chemical description	$NaNiCl_2$ (sodium nickel chloride)	
Storage capacity	22 kWh	41 kWh
DC/DC converter power	10 kW	10 kW
Maximum storage capacity (Container solution)	1.4 MWh	2 MWh
Nominal storage size at 100 % DoD	22.5 kWh	41 kWh
Daily usable storage at 85 % DoD	19 kWh	35 kWh
Maximum C rate (charge/discharge rate)	0.25 C / 0.5 C	0.25 C / 0.25 C
Battery efficiency (standard cycle)	90 %	90 %
Expected life (years/deep cycles/shallow cycles)	15 years / > 4500 / > 8500 (at 80 % DoD)	
Number of batteries per rack	4 (88 kWh)	3 (123 kWh)
Dimensions storage battery (WxHxD)	540 x 390 x 970 mm	960 x 550 x 1200 mm
Battery weight	255 kg	460 kg
DC circuit breaker	yes	yes
Energy management		
Controller	innovenergy®	
Switchover to off-grid operation	automatic switchover with interruption possible	
Self-consumption optimisation	integrated and configurable	
Visualisation, data analysis, energy statistics	Local PC access, web platform, mobile app	
Battery monitoring	Remote monitoring of all batteries in real time	

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Bidirectional inverter smaller systems	Grid feed-in and grid draw)
DC/AC inverter	bi-directional
Manufacturer	Trumpf-Hüttinger (DE)
Rated output power/voltage/frequency	25 kVA per module / 3-phase, 400 VAC / 50 Hz up to 16 modules = 400 kVA
Maximum charge/discharge efficiency	97 %
Galvanic isolation (DC from AC)	yes
Bidirectional inverter large systems	Grid feed-in and grid draw
DC/AC inverter	bi-directional
Manufacturer	Indrivetec AG (CH)
Rated output power/voltage/frequency	320 kVA, 500 kVA, 750 kVA, 1 MVA / 3-phase, 400 VAC / 50 Hz
Maximum charge/discharge efficiency	97 %
Galvanic isolation (DC from AC)	yes

Extensions

Up to 64 salt batteries (à 22 kWh) or up to 48 salt batteries (à 41 kWh) can be connected in parallel in 16 racks each. Both types of salt batteries can also be combined. An extension is possible at any time, even years later.
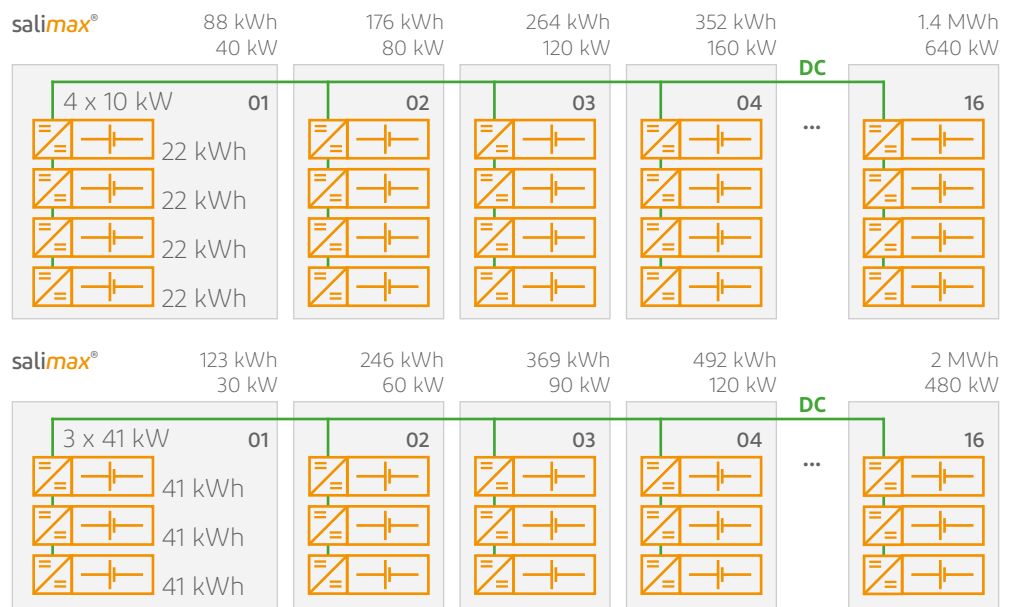
Advantages of the salt battery

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.

Norms

EN 55022 Continuous disturbance voltage | EN 55014 -1 Discontinuous disturbance voltage | EN 55011 Radiated disturbance | EN 61000-4-2 Electrostatic discharge | EN 61000-4-3 Radiated electromagnetic field | EN 61000-4-4 Electrical Fast Transients | EN 61000-4-5 Surge | EN 61000-4-6 Injected currents | GR1089 | FCC Class A | IEC 60529 IP Protection Degree

We will be happy to advise you!
For a non-binding consultation, please contact us.

innov energy ®
Store with salt!

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