WätaS Ice water storage

Latent energy storage for maximum efficiency and security of supply



The WätaS ice water storage system utilises the high heat of crystallisation of water to store environmental energy. Inside the 1,000-litre IBC are eight stainless-steel coils through which brine flows. As heat is extracted, the stored water freezes in a controlled manner around the coils, thereby providing a compact energy source for heat pump applications.

Sustainable
Use of renewable energy

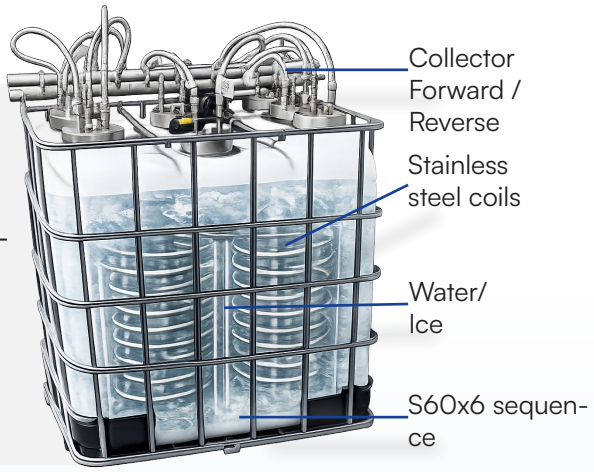
Efficient
High energy density

Self-sufficient
up to 8 hours Self-sufficiency

Renewable
simple recallable

Usable energy of
70—85 kWh!
At a starting temperature of 10 °C.

The ice water storage tank is the perfect complement to the WätaS house concept. It serves as a renewable heat source for brine-water heat pumps and, once depleted, can be recharged at any time via the WätaS recooler or other renewable energy sources.



Technical Specifi-

Speicherbehälter	IBC 1000 l
Maximum water capacity	900 l
Free volume for ice expansion	min. 100 l (≈11 %)
Number of coils	8 piece
Flow/return connection	1½“
Max. flow rate	4 m³/h
Medium in the spirals	Brine/glycol-water mixture

Storage capacity (with 900 litres of water)

Latent heat of freezing	~ 83,5 kWh
Sensitive energy (10°C to 0°C)	~ 10,5 kWh
Theoretically usable energy	~ 94 kWh
Practical value	~ 70-85 kWh

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