

Product information

Advanced NiMH battery technology paired with Ferroamp system



BENEFITS IN BRIEF

- Ev charge support
- Relieve stress on the grid
- Increase your share of renewable energy
- Safer than "safe"¹
- Long service life
- Maintenance free
- Designed and constructed in Sweden

System solution by
ferroamp

Award winning energy storage solution gets the Nilar EC treatment

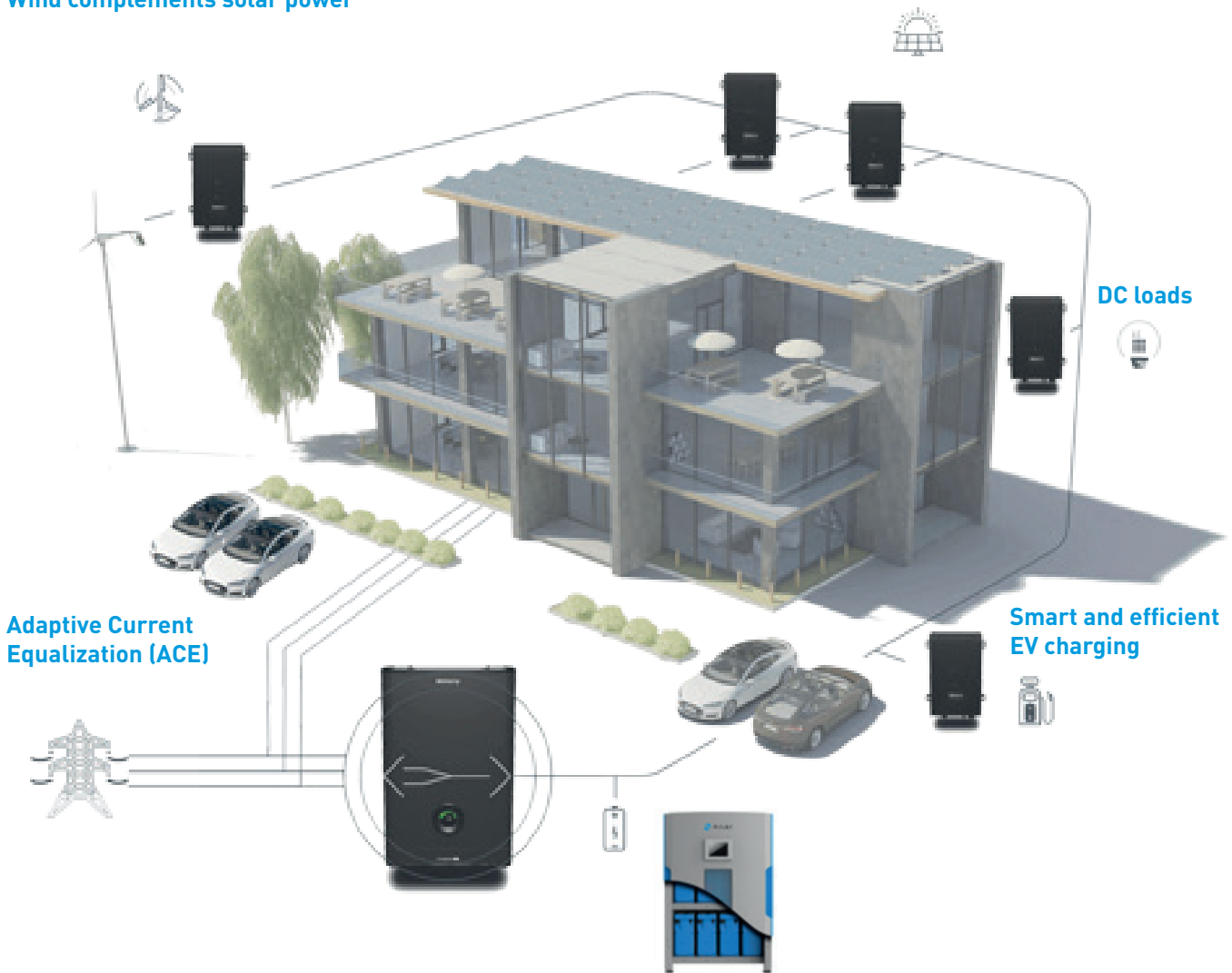
With the pairing of the award winning Ferroamp system and the Nilar EC (Energy Compact) battery, solar power storage solutions are now more powerful than ever. Add to this the safer than safe¹ Nilar EC Nickel Metal Hydrid batteries with low environmental footprint, and you have an energy storage solution that any owner will be proud of. All of Nilar products are manufactured from cell to system at our state-of-the-art production plant in Gävle, northern Sweden. This gives us full transparency of the complete manufacturing process.

1) Nilar provides battery systems that are safer than many so called "safe" solutions available on the market. The Nilar battery system contains water based, non-flammable electrolyte. It does not generate short circuit failure even under low temperature charging. The electrodes cannot ignite spontaneously and will not cause heat propagation between modules. That's why we argue that we are safer than "safe".

Energy and Power capacity management using solar panels, energy storage and a DC nanogrid

Wind complements solar power

PV production without limits



A bridge between two worlds

The EnergyHub converts energy in both directions with one single inverter. With only one inverter needed for both solar power and charging, the EnergyHub topology minimizes conversion losses. The conversion capacity can be built to match any system requirement with wall mount units for smaller systems and 19" inch rack modules for large systems up to MW capacity.

DC nanogrid - smarter to build and own

The EnergyHub uses DC grid technology to integrate energy production from the sun and wind with energy storage and EV charging. The result is lower installation costs, but even more important, it makes future modifications easier when new technology, load patterns and grid policies change during the expected lifetime of the PV system.

Scalable and integrated energy storage

The solution allows the user to store energy in the battery energy storage directly from the sun. By cutting through the re-route via AC and minimizing conversion losses, the EnergyHub storage topology allows for dynamic sizing of energy and power capacity. . Cut the re-route via AC and minimize conversion losses. The EnergyHub storage topology allows for dynamic sizing of energy and power capacity. Additionally, batteries of different ages and sizes can be combined in the same system.

EnergyHub Cloud

The EnergyHub Cloud tool enables greater understanding of the own consumption, energy production and system performance. By providing high resolution data in real time, the EnergyHub Cloud provides full control to the owner of the plant. Built-in analysis tools provides better decision support for energy and power efficiency measures.

Ferroamp system solution

DC-system

Energy Storage Optimizer (ESO)

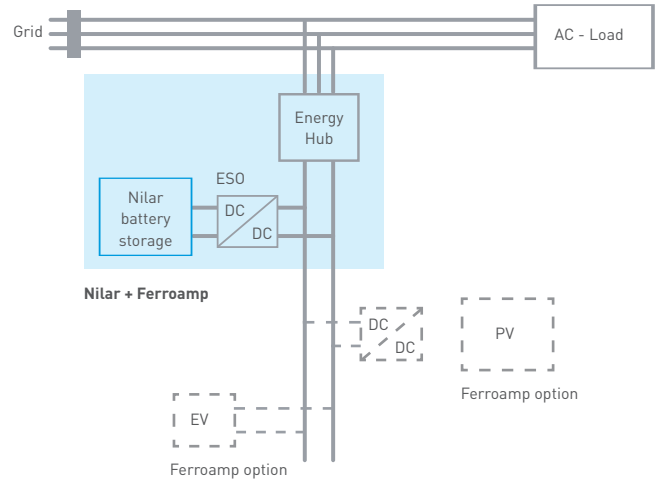
The Energy Storage Optimizer brings a new flexible way of integrating batteries into energy systems. Each unit comprises of a bidirectional charger/discharger and safety functions. This way, an installation can be built with any number of battery strings. The optimizer is designed for interfacing to the DC nanogrid architecture that enables seamless integration and scalability on the DC side for optimum flexibility and minimal losses.

EnergyHub bi-directional inverter

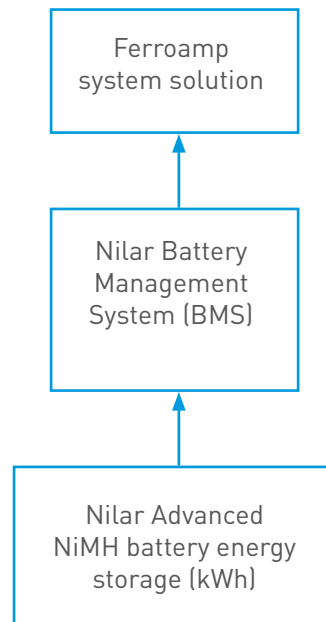
The Energy hub system brings a long-term proof way of integrating solar panels, storage, small scale turbines and DC loads. With one single inverter, new DC devices can be added when required. The bi-directional inverter acts as a bridge between the utility AC grid and the local DC nanogrid within the building where solar cells, batteries and loads are connected.

Energy Management System (EMS)

Entities to monitor, measure and control the system.



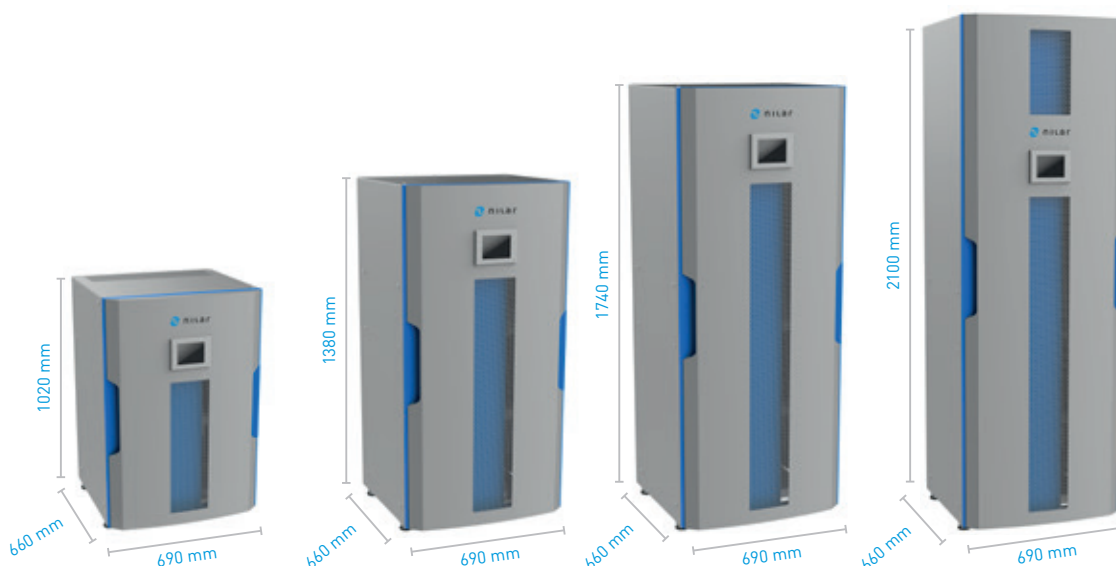
Nilar and Ferroamp solution configuration scheme



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Product range specifications

Product	EC-11.5kWh Ferroamp	EC-17.2kWh Ferroamp	EC-23kWh Ferroamp	EC-28.8kWh Ferroamp
Article number	24-0033	24-0034	24-0035	24-0036
Energy	11.5 kWh	17.2 kWh	23 kWh	28.8 kWh
Batteries	8	12	16	20
ESO units	2	3	4	5
Max charge/discharge power	11.5 kWh	17.2 kWh	23 kWh	28.8 kWh
Max C-rate charge/discharge	1C	1C	1C	1C
Cycles	2000	2000	2000	2000
DC Voltage (from ESO)	720V	720V	720V	720V