

SIEMENS



BATTERY STORAGE SYSTEM SIESTORAGE NEO

**Boost and enhance your
grid connection allowing
high power charging**

[siemens.com/siestorage](https://www.siemens.com/siestorage)

Expanding network capacity, but how?

The integration of charging solutions into an existing infrastructure can quickly exhaust the available grid capacity. Expanding the grid capacity, however, is time-consuming and costly, and makes the development of charging infrastructure challenging. Although self-generated energy in the form of wind, solar, biomass or hydro power helps to increase the available electricity of the grid, it is often unpredictable. Therefore, balancing generation and consumption is key. Energy needs to be stored using technology that is automated dispatching it when needed. These batteries installed on the power distribution level support the network's resilience by analyzing the balance and either storing power or dispatching it when needed.





SIESTORAGE NEO, a modular and scalable battery storage system designed for your needs.

With **SIESTORAGE NEO!**

Allowing high power charging on weak grid connection, storing self-generated energy, balancing peak loads, smart and efficient load management, and power factor correction – these are only some of the key features of SIESTORAGE NEO.

The base configuration of the battery storage system provides 184 kW of power, with a capacity of 164 kWh. This can be extended up to 368 kW of power and a capacity of 656 kWh at any point in time, with various options for project specific customization. SIESTORAGE NEO distinguishes itself with its compact and space-saving design, containing all components in one housing. Its proven industry components – made in Germany – make it robust against outer influences and thus a reliable system for any location. Its modularity and scalability allow for different storage power, capacity and further set-up options, all specifically tailored to your needs. With our cost-efficient energy storage solution, you can optimize your CAPEX and OPEX by avoiding expensive extension of the grid connection and costly power peaks.

SIESTORAGE NEO functionalities

Time of use

helps to shift energy use away from peak times.

Reactive power control

guarantees a more stable and efficient operation in distribution networks and helps to meet the grid connection quality criteria.

Load following

controls output digitally, responding to load changes faster than mechanical systems.

Ramp rate control

limits the fluctuation rate in PV output power.

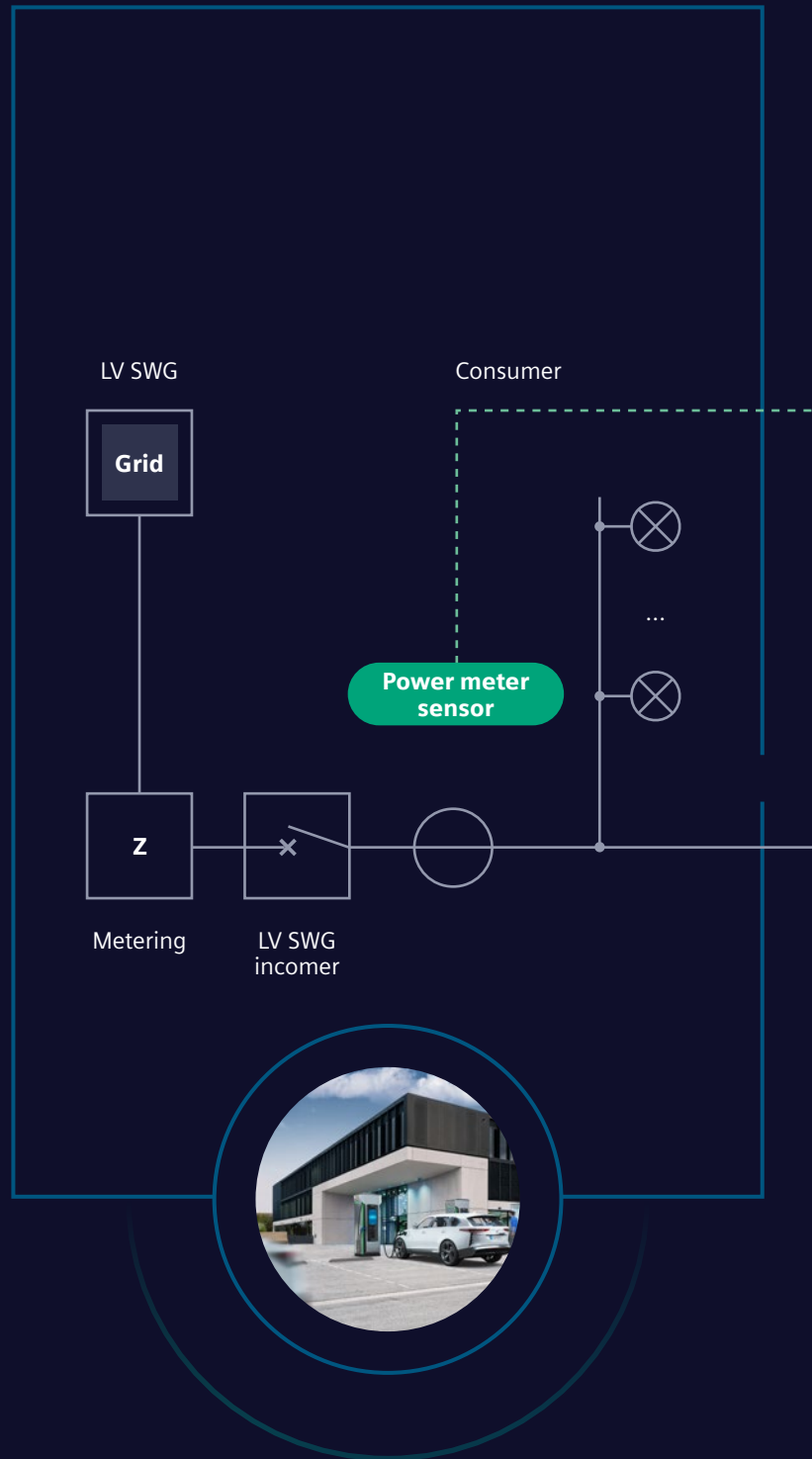
Renewable time shift

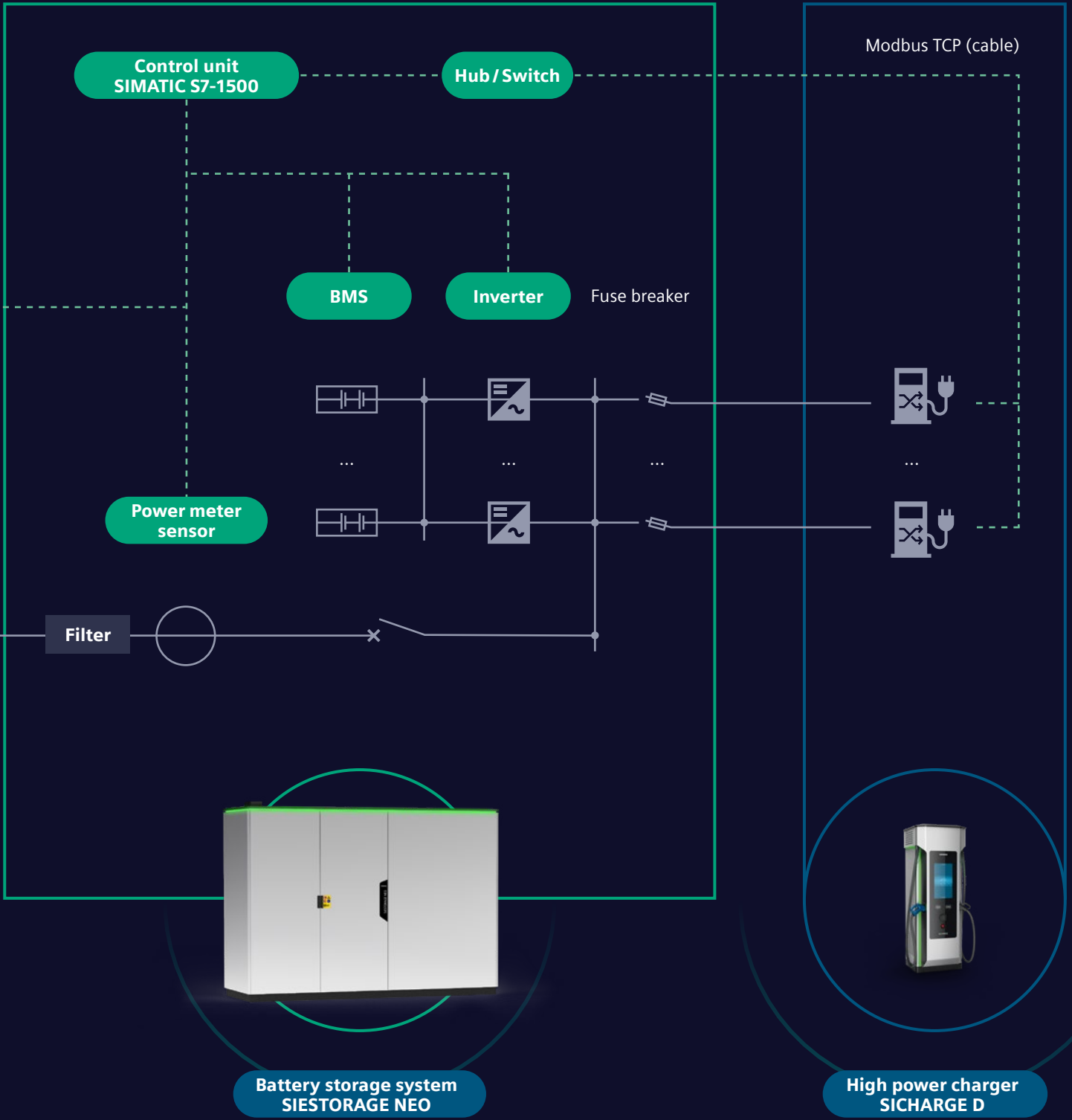
uses inexpensive electric energy which is available when prices or system marginal costs are low.

Demand charge reduction

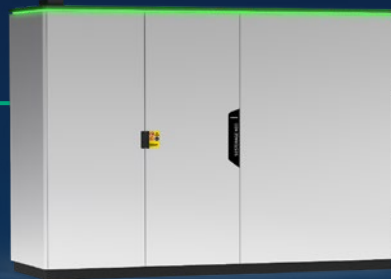
Avoiding peak loads helps to decrease demand charges

Hardware concept





Configure your storage just as required



Base scope

- 2 inverters each 92 kW = 184 kW (rated power)
- 1x 164 kWh battery (DC capacity)
- Fire detection in battery compartment
- 1x feeder 150 A for SICHARGE D
- Integrated control unit S7-1500
- Power measurement
 - Incoming in cabinet
 - For client's site (loose item)
- Functional test before delivery

Hardware Options

Additional batteries

Additional inverters

Additional charger feeders

Load management CCC+

HMI

SMS module

Remote access

PV integration

Lighting





















Notification light

Fire detection+

Fire fighting

Inverters and battery options

To provide you with the right battery storage solution, power and capacity can be combined just as you need it.

	164 kWh 	328 kWh  	492 kWh   	656 kWh    
 92 kW	✓	✓	✓	✓
  184 kW	✓	✓	✓	✓
   276 kW		✓	✓	✓
    368 kW			✓	✓

System basis of SIESTORAGE NEO

TECHNICAL DATA

Rated power	184 kW
Grid data	400 V 3P+N+PE
Battery capacity	164 kWh
Frequency	50/60 Hz
Inverter	Kaco blue planet GS 92.0 TL3 -S
Battery	LFP
Control	SIMATIC S7-1500
Communication	Modbus TCP
Dimension	(HxWxD) 2566x3500x1200 mm (urban design)
Weight	1800 kg (without battery) / 3600 kg (with battery)
EMC class	B
Installation height	Max. 2000 m
Temperature range	-20°C – 40°C
Inverter efficiency	Max. 98.8%
Compliance	EN 61000-6-2:2005+AC:2005; EN 62920:2017; EN 55011:2016+A1:2017 group 1, class A EN 61000-3-11:2000, EN 61000-3-12:2011, VDE-AR-N 4105:2018, VDE-AR-N 4110:2018; CE declaration
IP class	IP 54
Fire protection class	DIN 4102-2: F0
Noise	≤63 dB (A)

Urban Design

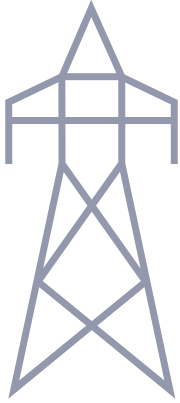
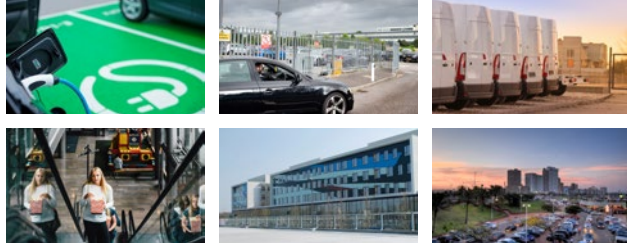


The Urban Design model is particularly suited for installation of the SIESTORAGE NEO in public spaces. Its set-up helps protect the battery storage system from vandalism, allows easy cleaning by the city and provides sufficient surface for branding.

Industrial Design

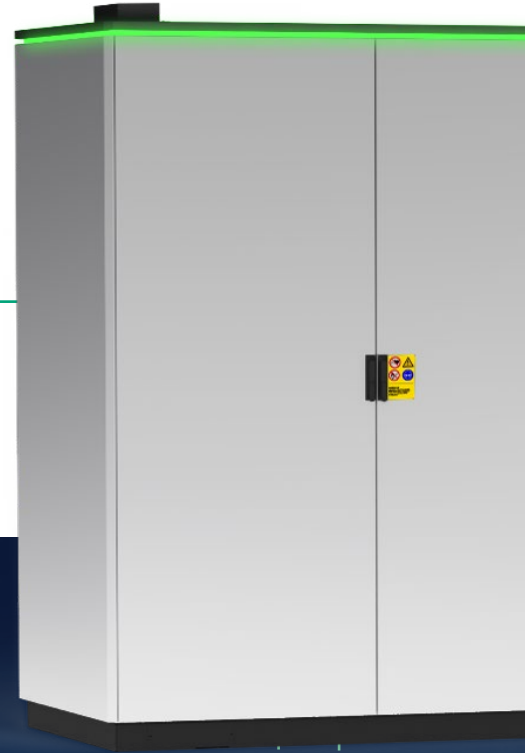


The Industrial Design version can be used for all other applications.



AC 400 V~3

Boost your grid connection allowing high power charging



Building mgt. system

Modbus TCP



Email & SMS

Ethernet / GSM / 5G

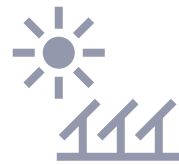


Remote access

Ethernet / GSM / 5G with Sinema RC

Connect more chargers:

Your complete eco system
for EV charging



AC 400 V~3



max. 5x

Up to five qualified high
power charging stations

The right option for your application

Petrol station, depot, parking lot or medium-sized company – SIESTORAGE NEO offers the right solution for every use case.



Petrol stations

- 70% in city areas and 30% in small towns /villages
- Average petrol station grid connection is 50 kW

At least 60% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.



Car parks

- Car parks grid connection is <100 kW

At least 90% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.



Car dealer/rental car

- 80% in city areas and 20% in small towns /villages
- Average car dealer grid connection is 100 -250 kW

At least 40% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.



Small shopping centers

- 30% in city areas and 70% in small towns /villages
- Average small shopping center grid connection is 100 -250 kW

At least 50% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.



Mid-size companies

- Mid-size company grid connection is 100 -500 kW
- ~50% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.



Rest areas /restaurants/ fast food

- 40% separate structures with 70% in city areas and 30% in small towns /roads
- Average restaurant grid connection is 30 -50 kW

At least 50% must have a grid upgrade / fit with a small storage concept to offer a sounding charging service.

A turnkey solution for your needs

With a battery storage system from Siemens, you can rely on a future-proof solution tailored to your needs. From the upfront analysis and simulations of your existing infrastructure and the development of the right solution for you, to the installation and integration of the system, we take care of all necessary steps. We accompany the entire lifecycle of SIESTORAGE NEO, starting with initial testing and commissioning and continuing with service support over time.



For further information, visit our website:
[siemens.com/siestorage](https://www.siemens.com/siestorage)

Smart Infrastructure combines the real and digital worlds across energy systems, buildings and industries, enhancing the way people live and work and significantly improving efficiency and sustainability.

We work together with customers and partners to create an ecosystem that both intuitively responds to the needs of people and helps customers achieve their business goals.

It helps our customers to thrive, communities to progress and supports sustainable development to protect our planet for the next generation.

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