

# VARTA Energy Storage Systems

130 Years of Battery Expertise in Your Energy Storage System.



**The perfect combination of long-term  
experience and modern technology.**

# WHERE GOOD ENERGY IS AT HOME.

Owning your own home means independence for many people. Energy storage systems from VARTA Storage support this independence and the energy revolution.

## ► WHAT ARE YOU WAITING FOR?

### BECOME YOUR OWN ENERGY SUPPLIER NOW

You can talk a lot about the energy revolution. Or you can participate in your own home: with renewable energy from solar, wind energy or combined heat and power. But at the moment it's like this: even the best solar systems and wind turbines only produce energy depending on the weather conditions. The rest of the time it depends on the traditional power supply. With our VARTA energy storage systems you can use your self-produced energy anytime – because by changing from consumer to energy supplier you're able to raise your self-consumption up to 80 %. This brings you energy-autonomy and can protect you from price increases in electricity tariffs.

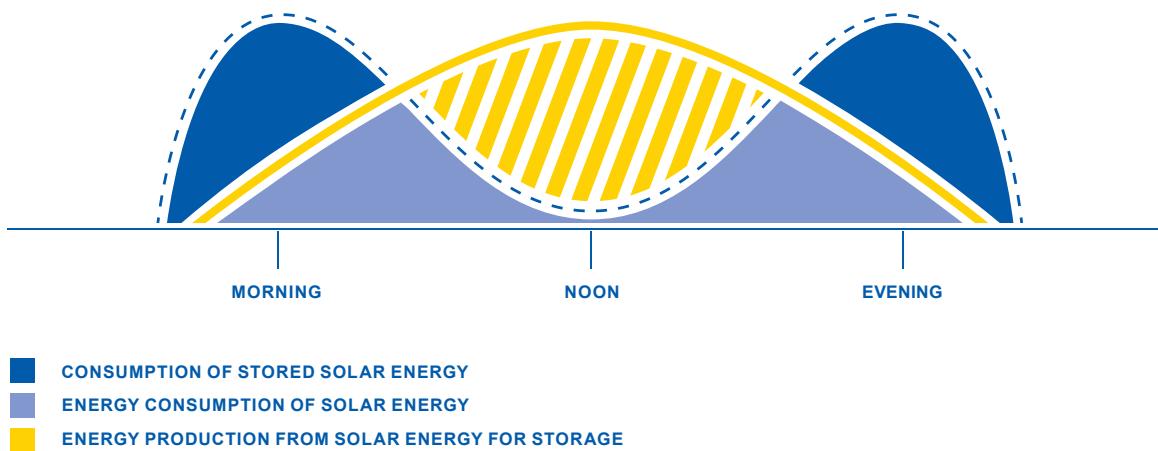
## ► VARTA ENERGY STORAGE SYSTEMS:

### TRUE FRIENDS OF THE HOME

Whether for the apartment, house, agriculture or industry – with our energy storage systems you will always find a suitable solution.

## ► BENEFIT FROM 130 YEARS OF EXPERIENCE

The VARTA brand stands for 130 years of experience and innovative energy storage solutions. With our brand you can choose to leave dissatisfaction behind. Forever.

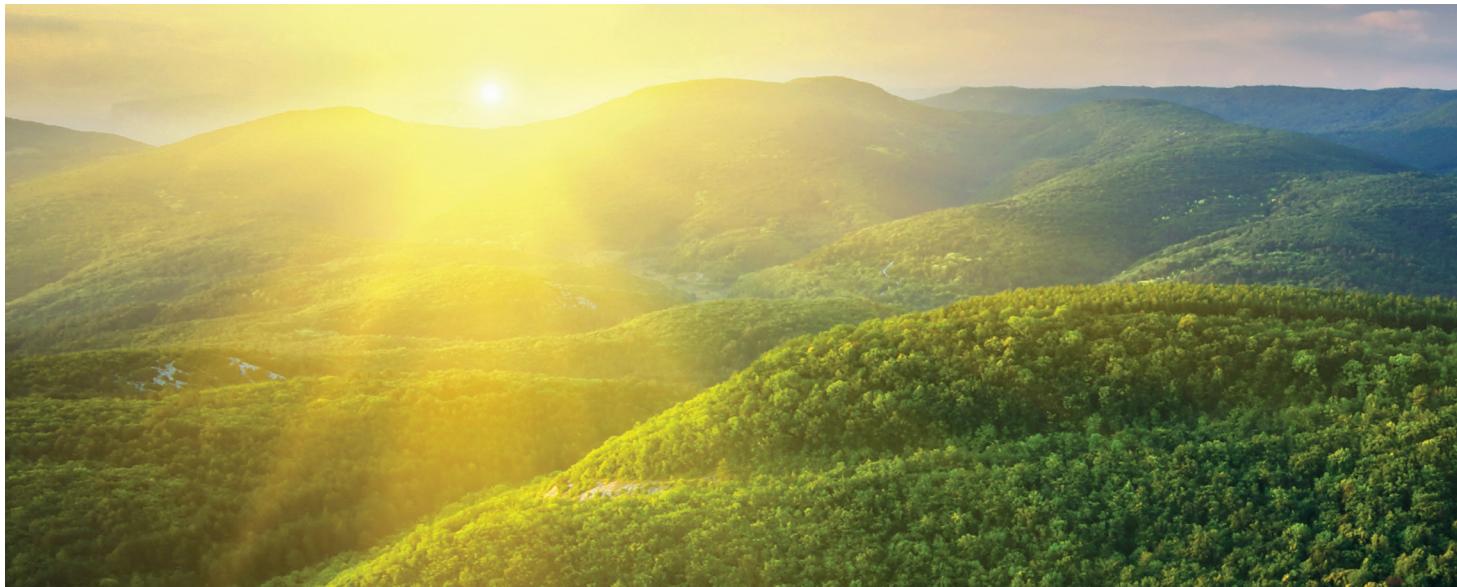


### 24 hours of solar energy

Through the intelligent storage of solar energy during the day, consumption requirements before and after work can be covered with self-produced energy.

# GOOD REASONS FOR OUR ENERGYSTORAGESYSTEMS.

You want to know why our energy storage systems are so good?  
Here's an overview.



## ► GUARANTEE

At VARTA Storage quality and reliability is assured. VARTA Storage provides a seven-year maintenance guarantee on storage systems and ten years on the battery modules within the manufacturer guarantee ([www.varta-storage.com/service/downloads](http://www.varta-storage.com/service/downloads)).

## ► SAFETY

When it comes to safety there are no compromises: starting with constant material tests, onto production and delivery, and ending with integrated safety electronics and autonomous cut-off devices for a safe operation. Our systems provide a fail-safe functionality even in case of disturbance. Our energy storage systems are not only safe and reliable, they also set standards with their smart concepts of special cellular-chemistry energy and battery management systems.

## ► MADE IN GERMANY

Our innovative energy storage systems fulfill the highest quality standards.

## ► CONNECTIVITY

Now energy management is easy: the VARTA Storage online platform gives an overview of all current data. Moreover, our intelligent energy storage systems can communicate with almost all home and energy technology components and systems.

## ► FLEXIBILITY

Our energy storage systems are expandable at any time even after the installation – everyone can find an optimal system for their needs from our product portfolio.

## ► DISPOSAL

Of course VARTA Storage takes care of the collection and professional disposal of the old modules.

# AT A GLANCE: FOUR OF THE BEST.

The demand on energy storage systems may vary depending on the type of building and requirements, however the desire for reliability and safety applies for all technical solutions.



## PULSE / PULSE NEO 3 AND 6

Our starter all-in-one system delivers a compact and handy solution – and with its space-saving wall attachment it fits ideally in your home. Available in capacities of 3.3 kWh and 6.5 kWh. Small, but full of energy.



## ELEMENT 6, 9 AND 12

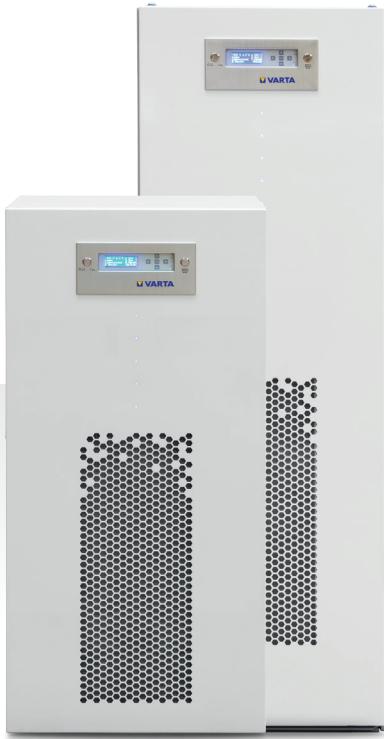
Our all-in-one system including inverter and practical Plug & Play technology can be fast and easily installed in all homes allowing for maximum independence. Available in three different capacities, it is the ideal energy storage system for all those who want to be independent.

### PULSE / PULSE NEO 3/6

Battery capacity nominal	3.3 / 6.5 kWh
Max. AC charge power	1.8 / 2.5 kW
Electrochemistry	Lithium nickel manganese cobalt oxide
Size (w x h x d) in mm	600 x 690 x 186
Weight	45 / 65 kg

### ELEMENT 6/9/12

Battery capacity nominal	6.5 / 9.8 / 13.0 kWh
Max. AC charge power	2.2 / 3.4 / 4.0 kW
Electrochemistry	Lithium nickel manganese cobalt oxide
Size (w x h x d) in mm	600 x 1,176 x 500
Weight	115 / 145 / 165 kg



## ONE L AND ONE XL

one L and one XL provide the right future-proofing for every challenge – perfect for those who expect more, even in their energy supply. An all-in-one system which is worth its price: as a solid investment for the future and as a sign of independence.

### ONE L / XL

Battery capacity nominal	From 2.8 to 6.9 kWh / from 3.7 to 13.8 kWh, module-expandable
Max. AC charge power (depending on number of battery modules)	2.8 / 4.0 kW
Electrochemistry	Lithium-iron phosphate
Size (w x h x d) in mm	600 x 1,320 x 400 / 600 x 1,850 x 400
Weight (empty)	90 / 110 kg

## Storage solutions for industrial requirements.



## FLEX STORAGE P AND E

The modular structure of the flex storage systems allows an individual adjustment of the performance, capacity and functionality depending on different requirements. Flex storage systems are optimised for different applications in commercial areas - from private consumption optimisation to peak shaving and emergency power capacity.

### FLEX STORAGE P / E

Usable system capacity	From 52 to 260 kWh / from 75 to 750 kWh
Nominal system performance*	36 / 80 / 120 kW
Electrochemistry	Lithium-iron phosphate / Lithium nickel manganese cobalt oxide
Size (w x h x d) in mm	Depending on the configuration
Weight	Depending on the configuration

\* Cos φ=1.

## PULSE / PULSE NEO

# A STEP INTO THE FUTURE.

With the VARTA pulse / pulse neo everyone in their own home can become their own energy provider. And all at an attractive entry price, without sacrificing premium VARTA quality.

It's perfect for all those who want to bundle the highest energy-density, space-saving solution in an apartment or small family house. Available in two classes (3.3 kWh and 6.5 kWh), this model not only delivers through its safety and reliability, it can also be easily attached to the wall. Through Plug & Play, our wall-mounted energy storage is instantly operational. Another plus is the low standby consumption and the fast response rate.

VARTA pulse is now available as 'neo' edition. VARTA pulse neo is ready for all future requirements thanks to its operating system VS-XMS that offers flexibility to implement further software features. Besides the direct interaction with multiple devices a cascade of various product types without additional hardware is possible.



### VARTA pulse / pulse neo

Small, but strong: our starter model for those who are looking for independence.

### ► Technical data and facts

#### GENERAL DATA

Electrochemistry	Lithium nickel manganese cobalt oxide
Mains connection	230 V AC, 1-phase, 50 Hz
System warranty	7 years maintenance warranty *
Warranty on the batteries	10 years or 4,000 cycles **
Control concept and monitoring	PC, tablet, smartphone

#### SYSTEM DATA

#### PULSE / PULSE NEO 3

#### PULSE / PULSE NEO 6

Battery capacity nominal	3.3 kWh	6.5 kWh
Max. AC power charge / discharge	1.8 / 1.6 kW	2.5 / 2.3 kW
Size (w x h x d) in mm	600 x 690 x 186	600 x 690 x 186
Weight	45 kg	65 kg

\* According to terms of manufacturer's warranties (available at: [www.varta-storage.com/service/downloads](http://www.varta-storage.com/service/downloads)).  
 \*\* Expected residual capacity: 80%.



► FOR A SIMPLE START



► THE STATEMENT OF INDEPENDENCE

# A DECLARATION OF INDEPENDENCE – FOR FAMILIES.

Anyone who has fulfilled the dream of owning their own home would like to have a secure and considered solution for their energy supply. At a price that pays off. The VARTA element is just right – as a compact complete solution.

The VARTA element is in its element in all detached houses. This complete system, with inverter, is easy to install and offers top quality at an attractive price. Available in three performance classes (6.5 kWh / 9.8 kWh / 13.0 kWh, whereby the VARTA 6 model can also be retrofitted), this energy storage system is durable and safe. So it fits everywhere in the household.

## ► LITHIUM-ION

The VARTA element features high-quality lithium-ion cells, which can be charged and discharged quickly without memory effect: ideal for high self-consumption needs and long-term economy.



## VARTA element

The ideal energy storage system for families who enjoy to be well-catered for.

## ► Technical data and facts

### GENERAL DATA

Electrochemistry	Lithium nickel manganese cobalt oxide
Mains connection	400 V AC, 3-phase, 50 Hz
System warranty	7 years maintenance warranty *
Warranty on the batteries	10 years or 4,000 cycles **
Control concept and monitoring	PC, tablet, smartphone

### SYSTEM DATA

#### ELEMENT 6

#### ELEMENT 9

#### ELEMENT 12

Battery capacity nominal	6.5 kWh	9.8 kWh	13.0 kWh
Max. AC power charge / discharge	2.2 / 1.8 kW	3.4 / 3.0 kW	4.0 / 3.7 kW
Size (w x h x d) in mm	600 x 1,176 x 500	600 x 1,176 x 500	600 x 1,176 x 500
Weight	115 kg	145 kg	165 kg

\* According to terms of manufacturer's warranties (available at: [www.varta-storage.com/service/downloads](http://www.varta-storage.com/service/downloads)).

\*\* Expected residual capacity: 80 %.

## ONE L AND ONE XL

# FOR THOSE WHO THINK AND GROW.

Our energy storage systems one L and one XL are the perfect solutions for those who have the highest technical requirements and want to be flexible for the future.

one L and one XL impress with their modular design, which allows them to adapt to your needs and requirements at any time. Even if they are already installed, you decide each new configuration and upgrade. You benefit from our powerful and reliable battery technology which brings together our accumulated experience and expertise.

### ► MODULAR SYSTEM

Built according to a modular design, the battery modules of one L and one XL can be flexibly added to any time. The internal consumption can be increased according to your individual needs. one L is expandable with an output capacity from 2.8 kWh up to 6.9 kWh – just right to increase your own consumption in demanding households. one XL can be upgraded from 3.7 kWh

to 13.8 kWh. This energy storage system is the clever solution for large households and apartment buildings. one XL is also the right choice to support large-scale equipment like electric and plug-in-hybrid cars.

### ► EMERGENCY POWER CAPABILITY

one L and one XL offer emergency power operation in case of a power failure – reliably and safely.

### ► LITHIUM-IRON-PHOSPHATE

The high quality lithium-ion batteries can be charged and discharged quickly. For greater energy safety the latest cell technology is used.

## ► Technical data and facts

### GENERAL DATA

Electrochemistry	Lithium-iron-phosphate
Mains connection	400 V AC, 3-phase, 50 Hz
System warranty	7 years maintenance warranty *
Warranty on the batteries	Unlimited cycles within 10 years **
Control concept and monitoring	PC, tablet, smartphone
Country licences	Switzerland, Austria (limited) ***

### SYSTEM DATA

#### ONE L

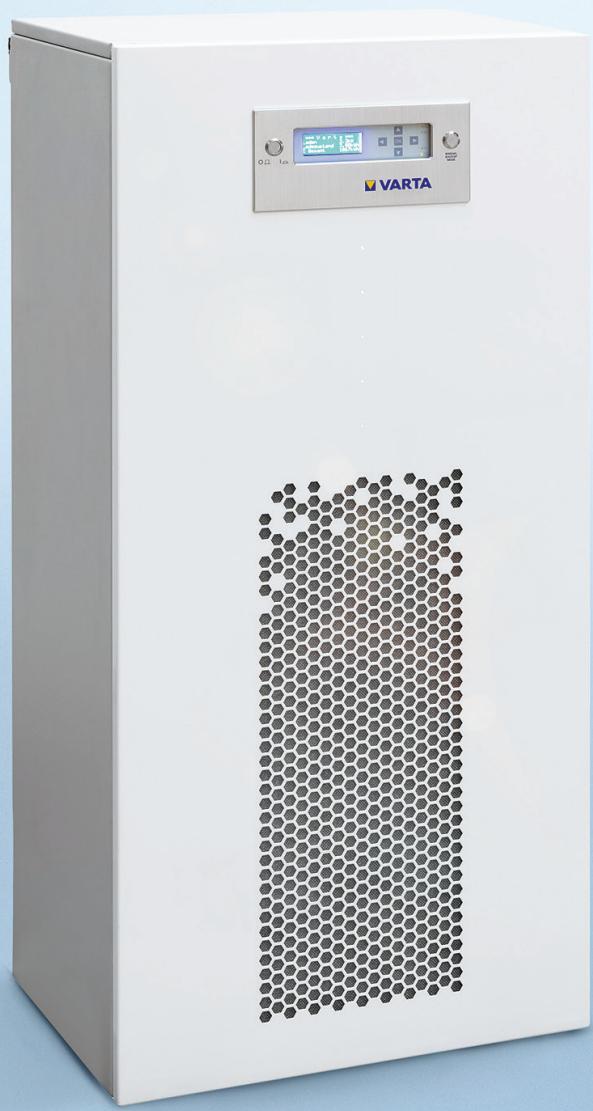
#### ONE XL

Battery capacity nominal	Modular expandable from 2.8 kWh up to 6.9 kWh	Modular expandable from 3.7 kWh up to 13.8 kWh
Max. AC power charge / discharge (depending on number of modules)	2.8 / 2.0 kW (2.1 kW in emergency power)	4.0 / 4.0 kW (4.0 kW in emergency power)
Size (w x h x d) in mm	600 x 1,320 x 400	600 x 1,850 x 400
Weight (empty)	90 kg	110 kg

\* According to the manufacturer's warranty (available at [www.varta-storage.com/service/downloads](http://www.varta-storage.com/service/downloads)).

\*\* Expected residual capacity: 80 %.

\*\*\* Since April 2019 new installations are no longer permitted in Germany. Retrofits are still feasible.



► FOR HIGH DEMANDS



► CUSTOMISED

# ENERGY FOR YOUR INDUSTRY.

Large but still flexible – this is more and more important for industrial energy storage systems. Here, flex storage systems offer the right solution for all those who need a modular system.

Depending on the application – whether for storage projects in industry or agriculture - the system can be customised to different needs. With flex storage systems the self-consumption ratio of self-produced energy can be increased significantly. This raises the independence and reduces electricity costs.

#### ► MODULAR SYSTEM

The number of storage units for flex storage systems P and E are flexibly expandable. As a result customised solutions can be realised. With an output capacity of 52 kWh flex storage P can be expanded up to 260 kWh. Flex storage E with 75 kWh can be expanded up to 750 kWh.

#### ► ISLANDING POSSIBILITY

In case of blackout the flex storage system will create its own grid, in order to provide energy to your business. Configured with islanding the flex storage system can be charged through generating plants.

#### ► PEAK SHAVING

With flex storage systems self-produced electricity is used to cut peak loads. In doing so, peak prices can be reduced permanently.

## ► Technical data and facts

### GENERAL DATA

Mains connection	400 V AC, 3-phase, 50 Hz
Country licenses	Germany, Austria, Switzerland
Ambient conditions	+5 °C to +30 °C
Applications	Self-consumption optimisation, peak shaving, islanding *, external setpoint *

### SYSTEM DATA

### FLEX STORAGE P

### FLEX STORAGE E

Usable system capacity	From 52 to 260 kWh (780 kWh ***)	From 75 to 750 kWh (> 1 MWh ***)
Nominal system performance **	36 kW to 120 kW (600 kW ***)	36 kW to 120 kW (600 kW ***)
Electrochemistry	Lithium iron phosphate	Lithium nickel manganese cobalt oxide

\* Optional.

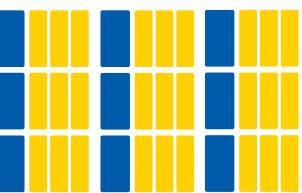
\*\* Cos φ=1.

\*\*\* Cascaded on the AC side.

## VARTA FLEX STORAGE P AND FLEX STORAGE E

# CUSTOMISED FOR INDUSTRIAL APPLICATIONS.

The ready to use system concept of the VARTA flex storage allows you to choose performance and capacity separately.

SAMPLE CONFIGURATION	CELL	kW	kWh	W x H x D in cm	CONFIGURATION
VARTA flex storage P 36/52	LFP	36	52	180 x 200 x 60	
VARTA flex storage E 36/75	NMC	36	75	115 x 200 x 67	
VARTA flex storage P 36/104	LFP	36	104	300 x 200 x 60	
VARTA flex storage P 120/104	LFP	120	104	340 x 200 x 60	
VARTA flex storage E 120/225	NMC	120	225	265 x 200 x 67	
VARTA flex storage E 120/300	NMC	120	300	320 x 200 x 67	
VARTA flex storage E 360/675	NMC	360	675	795 x 200 x 67	
VARTA flex storage E 1,000/2,000	NMC	1,080	2,000	2,385 x 200 x 67	

 Power Unit  Storage Unit

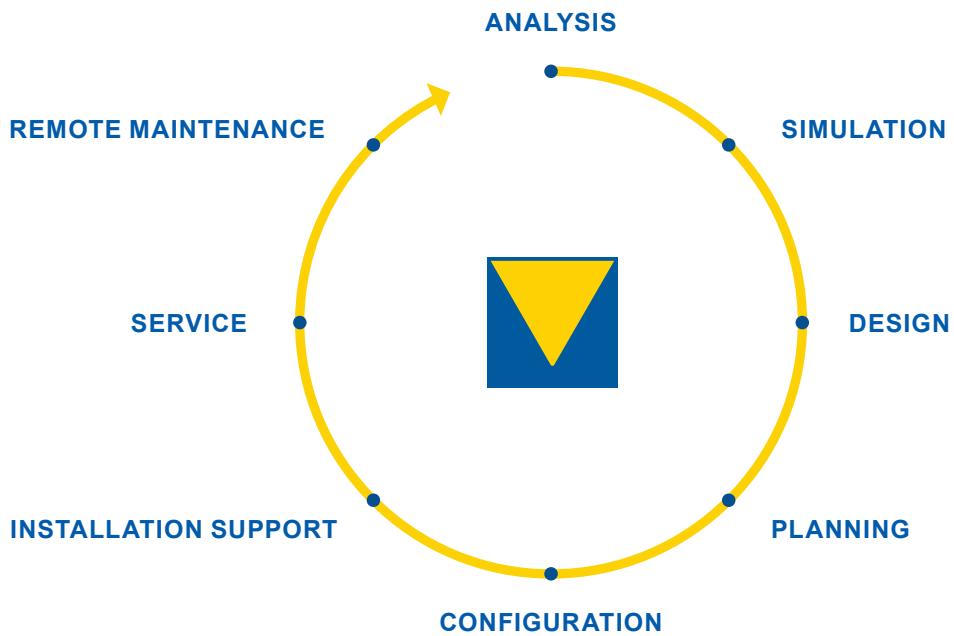
### ► THE BEST CONNECTION

The range of service of the AC-coupled VARTA flex storage systems ranges from 36 kW to 600 kW, but systems in the megawatt range are also possible.

Depending on the customer requirement the energy storage systems are specifically configured with modern power cells or energy cells.

# OUR SERVICE FOR MORE ENERGY.

Know-how from a single source: from planning, configuration, installation to service and remote maintenance.



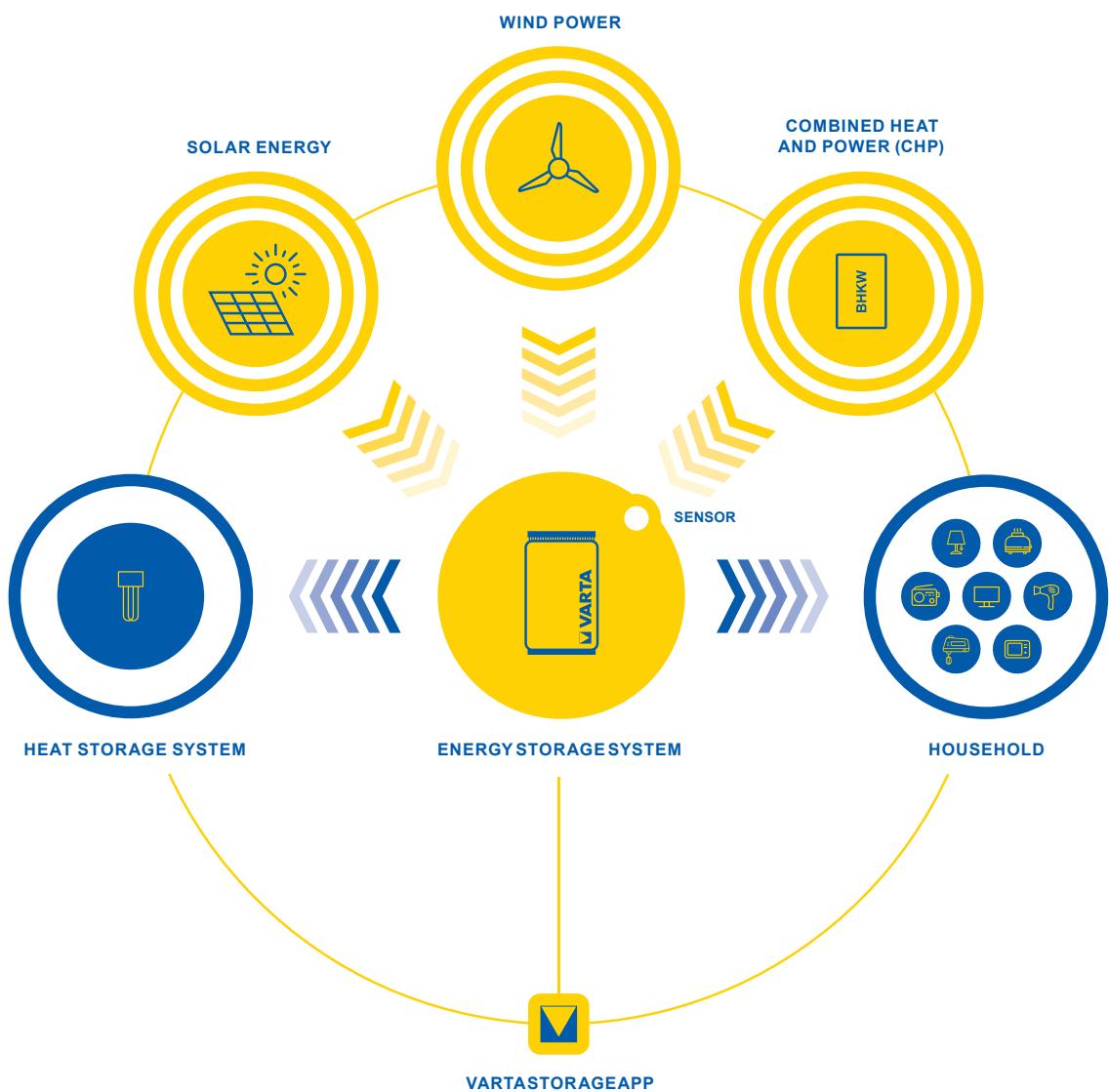
## EVERYTHING REVOLVES AROUND YOUR SUCCESS.

Our specialists ensure that each energy storage system meets the high performance and safety standards of VARTA Storage as well as specific customer requirements.

## VARTA CONNECT

# SMART NETWORKING INTO THE FUTURE.

Easy, flexible and compatible with a range of home automation systems. VARTA energy storage systems can be integrated and linked to various configurations, smart homes, energy systems and management tools.





## VARTA STORAGE APP

# ONE CLICK CONTROL.

Our VARTA Storage App informs you about what happens at home without being there – enables you to control your energy storage system everytime everywhere.



### VARTA Storage Ap.

The app for managing your energy storage system can be downloaded for free in the App Store and Google Store.

#### ► CLARITY

Round the clock, round the world – mobile monitoring of your energy storage system with your smartphone. Visualised and as a graphic you can see your performance data, your self-sufficiency and privat consumption rate. On a daily basis, monthly, annually or throughout the entire term. The weather data at home can also be requested.

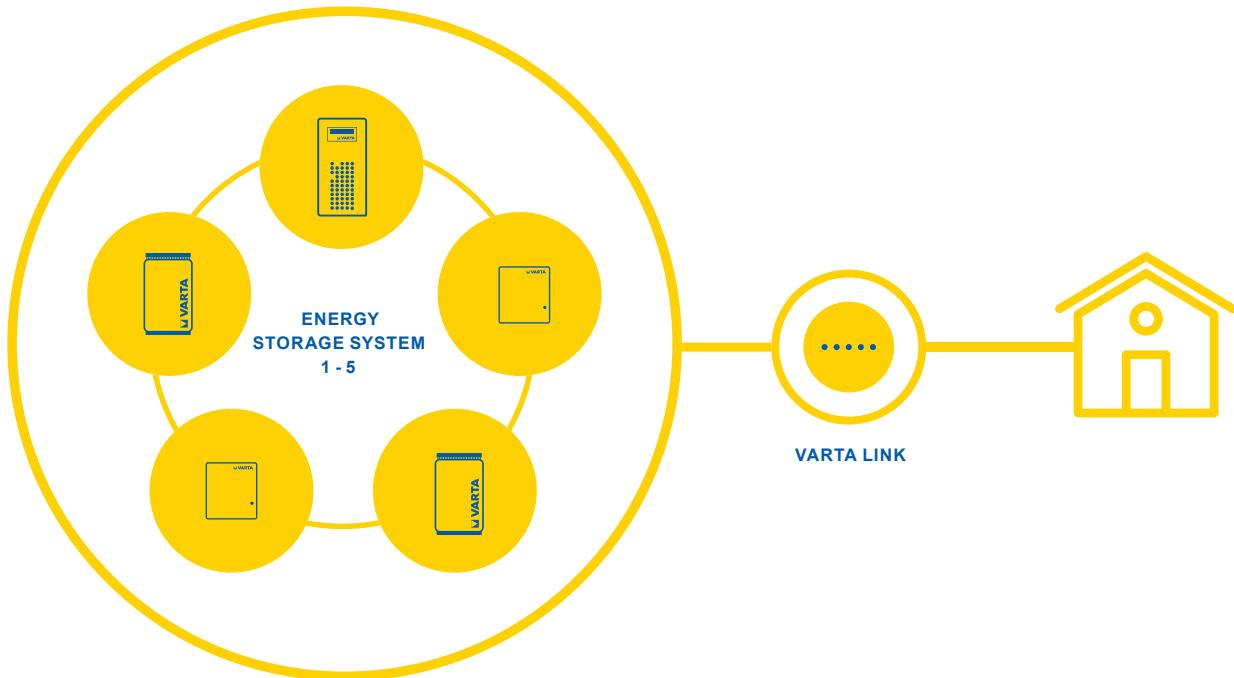
#### ► SELF-SUFFICIENCY LEVEL AND PRIVATE CONSUMPTION RATE

At a glance your self-sufficiency level and private consumption rate build up graphically.

## CASCADING

# THE IDEAL COOPERATION.

The more, the merrier. Through the connection of multiple VARTA energy storage systems, coupled with smart energy management, your storage capacity can be increased significantly.



### ► THE BEST CONNECTION

Your energy storage system is a component of the building automation and can be connected with all sorts of different configurations: so it can be regulated intelligently whether energy is stored or discharged.

But there are still more great opportunities: by cascading up to five VARTA energy storage systems, you can increase the total gross capacity of the energy storage system to up to 69 kWh. With our industrial storage systems even up to more than 1 MWh. Simple for you to adapt to growing requirements.

# YOUR PARTNER FOR MORE ENERGY.

Confidence in powerful and extremely reliable battery technology – developed and produced in Germany.



## ► WE HAVE THE EXPERIENCE

The VARTA brand reflects 130 years of battery expertise: innovative, safe and reliable energy solutions have always been our speciality. Today, we are committed to this quality standard for all VARTA energy storage systems that you have at home or in your industry.

## ► WE PROVIDE THE TECHNOLOGY

Why do we give a guarantee of 10 years for our battery cells? Because we know that we can rely on them. For our VARTA Storage energy storage systems, we only use high-quality lithium-ion cells. So we can guarantee high efficiency and a long lifetime – without a performance-decreasing memory effect.

## ► WE CARE ABOUT SAFETY

As far as the energy supply in your house or industry is concerned, you shouldn't have to compromise. You should decide for an intelligent solution: our multi-stage concept, from the special cell chemistry up to the sophisticated energy and battery management system, sets standards.

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