



High Performance Battery Systems



neoQube

AKASOL -
Charging the future

AKASOL

BRINGS OUT THE SUN AT NIGHT.

STORE SMART, SAFE, SWIFT

- 7.000 CYCLES
- 90% DoD
- 10 YEARS WARRANTY

Hessian State Award
for intelligent energy 2012
Category energy storage



reddot award 2015
winner



WE EXTEND YOUR VACATION

Highly efficient and durable energy storages from AKASOL reduce your energy bill significantly. That means more money for you vacation.

AKASOL AND THE BALANCE WILL BE RIGHT

80 %
saved with AKASOL

only **20 %**
residual amount for grid power

WITH AKASOL YOU CAN USE SOLAR ENERGY EVEN AT NIGHT

Where does the solar power of your personal revolution come from at night?
AKASOL finally delivers convincing answers with its advanced storage technology.

The solar power generated during the day is available to you around the clock with an AKASOL solar energy storage system. Washing machine, dishwasher, vacuum cleaner, flat iron, TV: Your solar energy storage system from AKASOL provides enough energy even when the sun is not shining.

BENEFIT FROM YOUR OWN ENERGY TURNAROUND

With a solar energy storage system from AKASOL, you will always have solar energy available, even if the sun is not shining. Your storage system will collect the solar energy from your PV system and provide you with energy.

Therefore, a solar storage of AKASOL will delight you more than once: The environment is happy because the air pollution is reduced and less radioactive waste needs to be buried; you are happy with your independence from utility companies while energy price rise; your bank account is happy with the low electricity bill.

Thus, households can achieve up to 70 % PV self-consumption; during summer months, you don't even need any power from the grid at all

YOU CANNOT PASS ON RESPONSIBILITY

We cannot hand over the responsibility for our environment and a future worth living in to the government and large corporations. Each and every individual contributes with their own behaviour.

Solar power that is generated on your own roof for your own household provides a vital contribution to environmental protection.

WHAT AKASOL OFFERS YOU

1

FULLY CHARGED IN 1 HOUR

AKASOL storages are ideal for every household. They are fully charged on days with only one hour of sunshine. This way, you can profit from a charged battery at night even more often.

AKASOL. That means a full battery - without long charging times as in many other storage systems.



2

SAFETY THROUGH QUALITY ACCORDING TO GERMAN STANDARDS



AKASOL energy storages are not only found in households, but also in many vehicles. Therefore, all of our storage systems are tested according to automotive standards - the strictest safety and quality requirements in the world. This allows you to save your solar power with an ease of mind.

To prevent deep discharge or wrong operation, we have integrated particularly smart controls into our storage system. Better safe than sorry.

3

EFFICIENT ENERGY SUPPLY THROUGH HIGHEST PERFORMANCE



Washing machine, dishwasher, stove: Many large consumers are used together in a household. That is why you will value a battery made by AKASOL. It won't give in even if you need a lot of power at once. Don't just compare capacities, number of cycles and lifetime - also look at the maximum discharge performance. Otherwise, you may still be dependent on your energy provider.

4

HIGH SERVICE LIFE AT HIGH POWER



AKASOL storages have a service life of up to 20 years or 7,000 cycles. They offer a full continuous load of up to 12 kW, without memory effect at partial cycles.

Again, taking a broader view pays off. The service life information of most other manufacturers refers to very low energy discharges.

AKASOL makes power consumption really fun because there is always enough energy.

5

SPACE SAVING THANKS TO A SMART DESIGN

AKASOL energy storages have a particularly puristic design. They are not designed for technology museums, but to store as much energy as possible within the smallest possible space. Our **neeo**Qube is the only storage system with 11 kWh that can be mounted to the wall. It's almost too stylish for a technology room.



reddot award 2015
winner



6

MADE IN GERMANY: EXCELLENT SERVICE INCLUDED

With an energy storage from AKASOL you do not only purchase great German engineering, but also excellent German service. Our service starts with our warranty conditions and continues with our competent service team.

No matter what region you live in, AKASOL always has an authorized service partner near you.

AKASOL service is available with the service hotline +49 6151 800500 802 and service mail: service@akasol.de



WHAT MAKES AKASOL ENERGY STORAGES SO UNIQUE?

We have always considered the „standards“ of safety, performance and longevity to determine high performance. AKASOL solutions are marked by an extraordinary combination of very high energy and performance density with an extremely compact design, modular setup and maximum flexibility.

Thanks to this technology, AKASOL is considered to be the trendsetter on the way to economically reliable E-mobility and an efficient, environmentally friendly energy supply around the world.

- **ENVIRONMENTALLY FRIENDLY LITHIUM-ION BATTERY TECHNOLOGY**
- **UP TO 20 YEARS SERVICE LIFE**
- **HIGH CYCLE LIFE AT HIGH CURRENTS**
- **UNRESTRICTED PARTIAL CYCLING – NO MEMORY EFFECT**
- **FAST CHARGING: FULLY CHARGED IN 1 HOUR**
- **TECHNOLOGY TESTED ACCORDING TO INTERNATIONAL AUTOMOTIVE STANDARDS**

neoSystem



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neoQube





■ **EFFICIENT AND SILENT OPERATION
DUE TO PASSIVE COOLING**

■ **VENTILATION, WINTER MODE OR
MAINTENANCE CHARGING ARE NOT REQUIRED**

■ **INTEGRATED BATTERY PROTECTION FUSES**

■ **INTEGRATED BATTERY MANAGEMENT**

- Deep discharge protection
 - Voltage- and temperature monitoring
 - Charge balancing between the cells
 - Determination of the charging and ageing states (SOC and SOH)
-

■ **DEVELOPED ACCORDING TO DIN/IEC
STANDARDS**

■ **RED DOT AWARD FOR NEEQUBE**

■ **INCREASED CAPACITY POSSIBLE DUE
TO PARALLEL CONNECTION**

■ **GENERATION 3.0 IS EQUIPPED WITH
AN EVEN MORE EFFICIENT BMS**

THE PERFECT SOLUTION FOR PRIVATE HOMES & COMMERCIAL BUILDINGS

Smart energy storages with high savings potentials

WHICH BATTERY IS RIGHT FOR YOU?

Just use the following rule of thumb: 1 kWh useful storage capacity per 1,000 kWh annual consumption. The right output of your PV system to the storage can also be very easily assessed: We recommend at least 1 kWp photovoltaic output per kWh of useful storage capacity. If you have more PV output, you will be able to fully charge the battery even more often.

neoQube

THE HIGHLY EFFICIENT ENERGY STORAGE SOLUTION FOR YOUR HOME

Annual electricity consumption without PV plant:
up to 5,000 kWh.

Recommended installed PV power: 5.0 kWp or more.

neoQube is the most compact 5.5 kWh battery on the market. With its 5 kW power output it is perfect for residential and small commercial buildings. Very low space requirements thanks to wall mounting.

One is not enough? Simply add another!

If one **neoQube** is insufficient for your energy requirements, simply add a second neoQube with AKASOL's easy to install extension kit. Doubling your storage capacity has never been easier.

AKASOL energy storages generation 3

With AKASOL you opt for the latest storage technology. The third generation is equipped with an even more efficient battery management system to get the most out of your battery. Cycle life has been increased to 7,000 cycles and thanks to Plug & Play the installation is as simple as never before.



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neoRack

PRACTICAL INSERTION INTO 19 INCH CABINETS

The **neoRack** version can be installed in existing **neoSystems**. With a capacity of 5.5 kWh and an output of 5 kW, it corresponds to the **neoQube** product technically.



neoSystem

THE STORAGE SYSTEM THAT GROWS WITH ITS TASKS

Recommended storage size with an annual electricity consumption of:

- Up to 5.000 kWh: **neoSystem type 1**
- 5.000 to 10.000 kWh: **neoSystem type 2**
- 10.000 to 15.000 kWh: **neoSystem type 3**
- 15.000 to 20.000 kWh: **neoSystem type 4**
- 20.000 to 25.000 kWh: **neoSystem type 5**

neoSystem offers a scalable solution for operators of medium and larger plants. **neoSystem** consists of an intelligent control cabinet and up to five **neoRacks**.

One is not enough?

The capacity of the **neoSystem** can easily be extended. With the handy **neoFuse** up to five **neoSystems** can be connected in parallel.

AKASOL energy storages generation 3

The **neoSystem** is equipped with the same highly efficient battery management system as the **neoQube**.





AKASOL – A SUCCESS STORY

More than 20 years of experience with high performance battery systems Made in Germany.

To become the world champion – that was the goal of young engineers from the Technical University of Darmstadt when they founded AKASOL e.V. (Academic Solar Technology Group) in 1989. Innovative thinking led to the construction of solar powered race cars. Victory was the reward. They did not only win one but several championships with their self-built solar cars.

Experiments led to mature product ideas that met a strong demand. In 2008 the team leaders of AKASOL e.V. and engineering specialist Schulz-Group founded the AKASOL Engineering GmbH.

ONE OF THE MOST STATE-OF-THE-ART TEST ENVIRONMENTS IN EUROPE

In mid-2009, AKASOL moved into its new domicile at the headquarter in Darmstadt. Since 2010, the developers here have been able to profit from one of the most advance test environments in Europe for analysis and testing in the area of battery technology. The test centre comprises six test and technology rooms in which cells, modules and entire systems are examined comprehensively – and where answers to the technical questions of the future are already being found.

Today, still based in Darmstadt, AKASOL GmbH is one of the world's leading developers and manufacturers of mobile and stationary high-performance battery systems. Application areas of AKASOL's award-winning storage solutions are the wind energy, hydropower and solar industry as well as the commercial vehicel and automotive industry and ship building industry.





MADE IN GERMANY

That is something you can rely on.



AKASOL
CHARGING THE FUTURE

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