



TS HV 30-80 E LITHIUM STORAGE SYSTEM

The new benchmark for commercial storage systems

TESVOLT
Free to go green.



UNCOMPROMISINGLY POWERFUL

TS HV 30-80 E storage systems are optimised for continuous use in industrial and commercial applications. With 1C maximum power rating, they can store energy very quickly, and release it again just as quickly. The different variants, with the option of connecting up to four systems per inverter, enable an extremely wide range of applications along with high-performance operation.



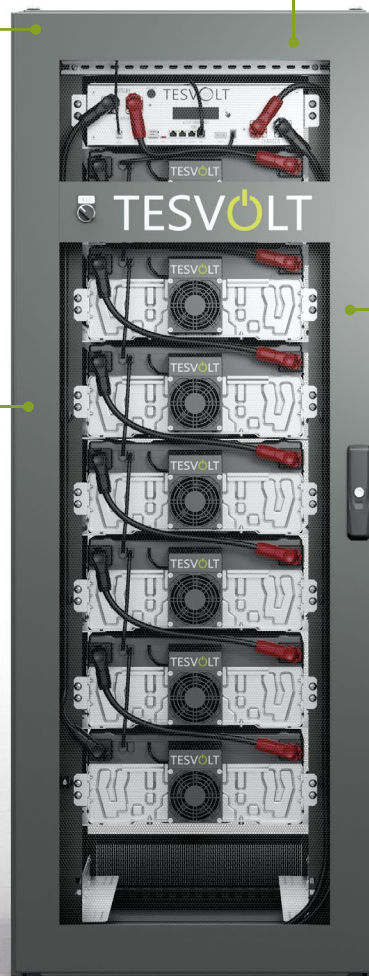
MAXIMUM EFFICIENCY

The TS HV 30-80 E is an extremely efficient battery storage system with low costs per kilowatt hour of stored energy. This is due to the guaranteed 100% depth of discharge as well as the comparatively low investment costs with increased energy density and reduced space requirements at the same time. With a 10-year system guarantee available for the first time in addition to the 10-year performance guarantee, long-term efficiency is also ensured.



MAXIMUM SAFETY

The TS HV 30-80 E is certified by TÜV Rheinland and is therefore not only one of the most powerful storage systems on the market, but also one of the safest. We achieve this at cell level by using extremely long-lasting, prismatic battery cells from Samsung SDI. At system level we embed a two-pin contactor and monitor the voltage of each individual cell. The whole system is subject to constant plausibility monitoring. If the normalised range is exceeded, the contactors open and the system switches to a safe state. Overall, this means maximum protection for installers, users and investors against damage of any kind.





APPLICATIONS¹

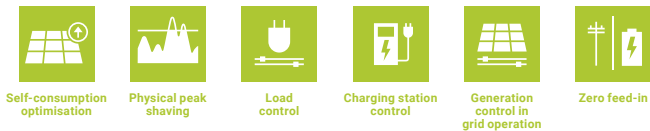
YOUR CHOICE OF ENERGY MANAGEMENT

Use either the TESVOLT or the SMA energy management system depending on your requirements

TESVOLT EMS²

With a wide range of customisation options, you can implement the most complex application requirements. For this you need the right configurable hardware: the TESVOLT Energy Manager. Combining it with the extensive monitoring and control options of the myTESWORLD portal or the app opens up numerous possibilities for the demanding user. Use the TESVOLT EMS to partition your storage system and apply a multi-use function to combine almost any applications, configuring the storage system and EMS for optimal efficiency of the entire generator system. And on top of all that – the TS HV 30-80 E storage system lets you integrate generators and consumers from any manufacturer.

Basic functions



Pro functions: fee-based use



- 1 The applications shown apply for Germany. Please contact your area manager to find out which applications are available in the country of installation.
- 2 There are additional costs for integration of the TESVOLT EMS. Please determine the type and scope using our configurator in the Partner Portal.
- 3 For more than one charging station.

SMA EMS

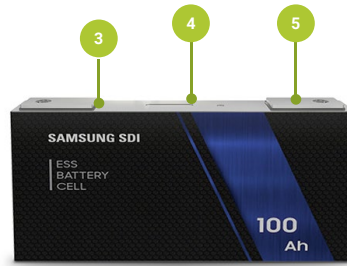
The ennexOS energy management system from SMA, which is already integrated in the SMA SUNNY TRI-POWER STORAGE X inverter, is particularly suitable for optimal efficiency in the context of standard applications such as self-consumption optimisation or peak shaving. Proven, reliable and well-established, it has been used in the context of SMA photovoltaic inverters for many years.



THE NEW BENCHMARK FOR COMMERCIAL STORAGE SYSTEMS

Our battery storage systems can be optimally adapted to suit every application.

Using your storage system for standard applications like self-consumption optimisation and peak shaving, controlling your charging stations, or using different applications in parallel with the multi-use function – the TS HV 30-80 E is the battery storage system for every usage. With back-up operation pending, in the future the system will also be able to provide reliable power in the case of grid outages. Its advanced, cost-optimised design ensures unbeatable cost efficiency without compromising on quality and performance. It is extremely robust and well suited to even the toughest of tasks. High-quality battery cells from the automotive industry and innovative technologies such as the DynamiX Battery Optimizer make our TS HV 30-80 E storage system one of the most durable and high-performance products on the market.



BATTERY MODULE

Maximum energy density

Each battery module has its own DynamiX Battery Optimizer (DBO), allowing the fan to be actively operated by the balancing current.

SAMSUNG SDI CELL

Maximum safety

Prismatic cells from Samsung SDI are extremely safe. For example, the nail safety device ensures that, even when penetrated with a metal nail, the cell will not catch fire.

SMA SUNNY TRIPower STORAGE X

Optimised for use with the new three-phase SMA battery inverter

For small or large power requirements, for commercial or agricultural, tourism or trade purposes, the different variants adapt perfectly to the needs of the specific user.

With back-up operation* pending, the SMA SUNNY TRIPower STORAGE X offers a future-proof investment and will be able to supply power immediately in the event of a grid outage.

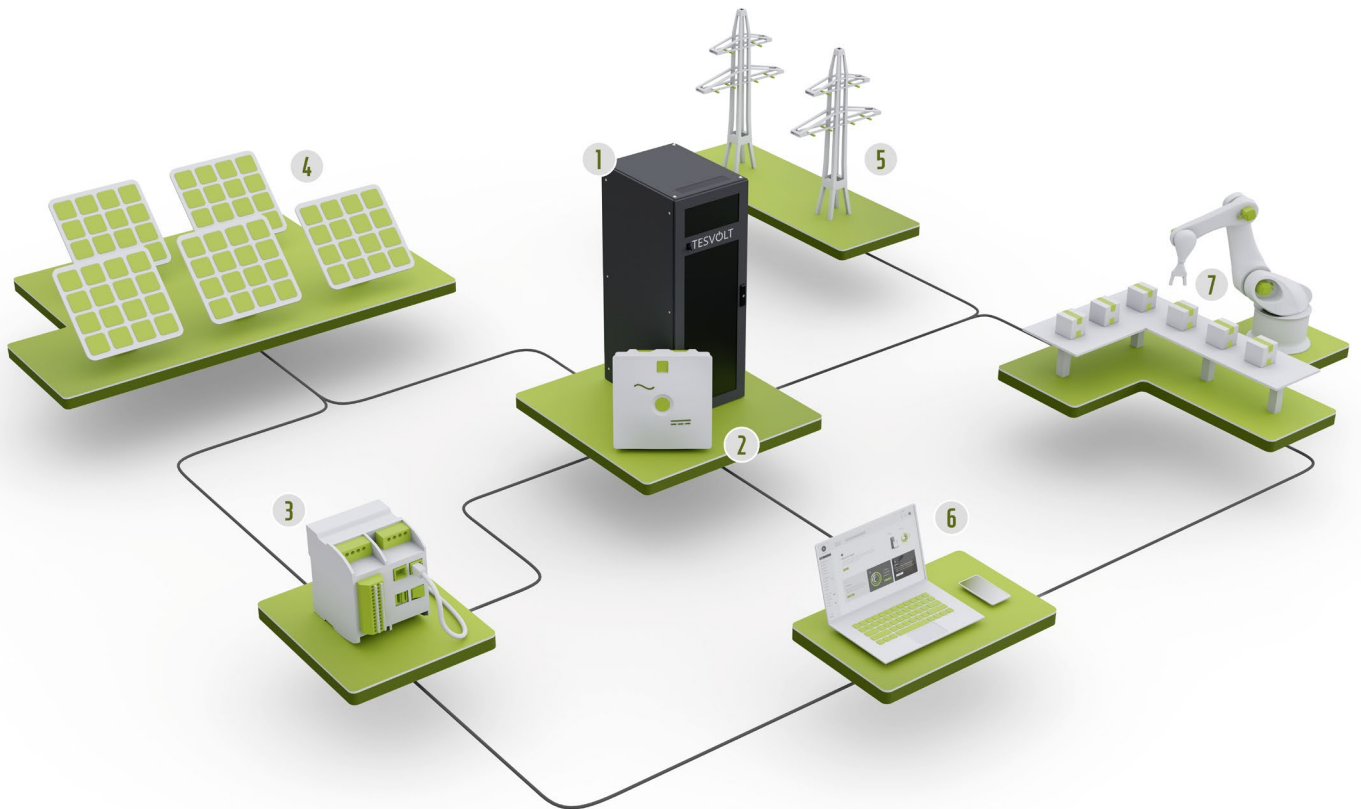
Thanks to the use of innovative materials in its semiconductor technology and a completely new system architecture, the SMA SUNNY TRIPower STORAGE X achieves maximum efficiency, very fast reaction and control times, and a broad usable DC voltage range.

- 1 Active Power Unit
- 2 Battery module
- 3 Overcharge safety device
- 4 Vent

- 5 Fuse
- 6 DynamiX Battery Optimizer
- 7 Fan



* The back-up power function is not yet available but can be used at a later date by means of a software update and additional hardware.



TS HV 30-80 E SYSTEM STRUCTURE

1. Battery storage system

In the system design, the battery storage system is a key component for storing surplus electrical energy, enabling load compensation, ensuring security of supply and contributing to cost reduction and the integration of renewable energy.

2. Inverter

The combination of battery storage system and inverter ensures efficient power supply through a flexible conversion of direct and alternating current coupled with direct response to grid fluctuations.

3. Energy management system (EMS)

The EMS optimises energy flow and controls the charging and discharging of the battery storage system and all consumers and energy sources to enable a wide range of applications.

4. Energy resources

The wide range of energy sources in the system design, such as photovoltaics or wind power, generate the required electricity, which the battery storage system stores without environmental impact.

5. Utility grid

The grid acts as an additional back-up resource in the system for periods when renewable energy is insufficient. In combination with a battery storage system, it actively relieves the strain on the public utility grid and provides a reliable supply of electricity, particularly at peak load times.

6. Portal

The portal allows users to monitor energy flows, track the system status and analyse energy consumers to efficiently and transparently manage the energy balance and to ensure customised energy supply.

7. Consumers

Efficient energy supply enables tailoring to the energy needs of consumers, resulting in the sustainable and cost-effective use of renewable energy.

FREE TO GO GREEN

Tesvolt AG is an innovation and market leader for commercial and industrial energy storage system solutions in Germany and Europe. TESVOLT products enable companies to end their energy dependency and play a part in the energy transition. The agile company produces intelligent lithium storage systems with power ratings from 30 kilowatt hours through to multiple megawatt hours – with top quality and TÜV-certified safety.

Tesvolt manufactures its commercial storage system solutions in series production at its own carbon-neutral gigafactory in Lutherstadt Wittenberg and delivers them worldwide.

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This product brochure is strictly informational and is not legally binding. The exact specifications and/or product features (particularly in case of further development of the product) may differ somewhat from the information provided here. Subject to errors and changes. Please read the safety and installation instructions carefully and completely before using the product. In case of purchase, the currently valid guarantee policies and the general terms and conditions of delivery and business of TESVOLT AG apply.

Registration in the manufacturer's myTESWORLD portal (<https://mytesworld.tesvolt.com>) is required to use the energy management system (EMS) TESVOLT Energy Manager. Registration in **Sunny Portal powered by ennexOS** from the manufacturer SMA is required to use the energy management system (EMS) Data Manager M.