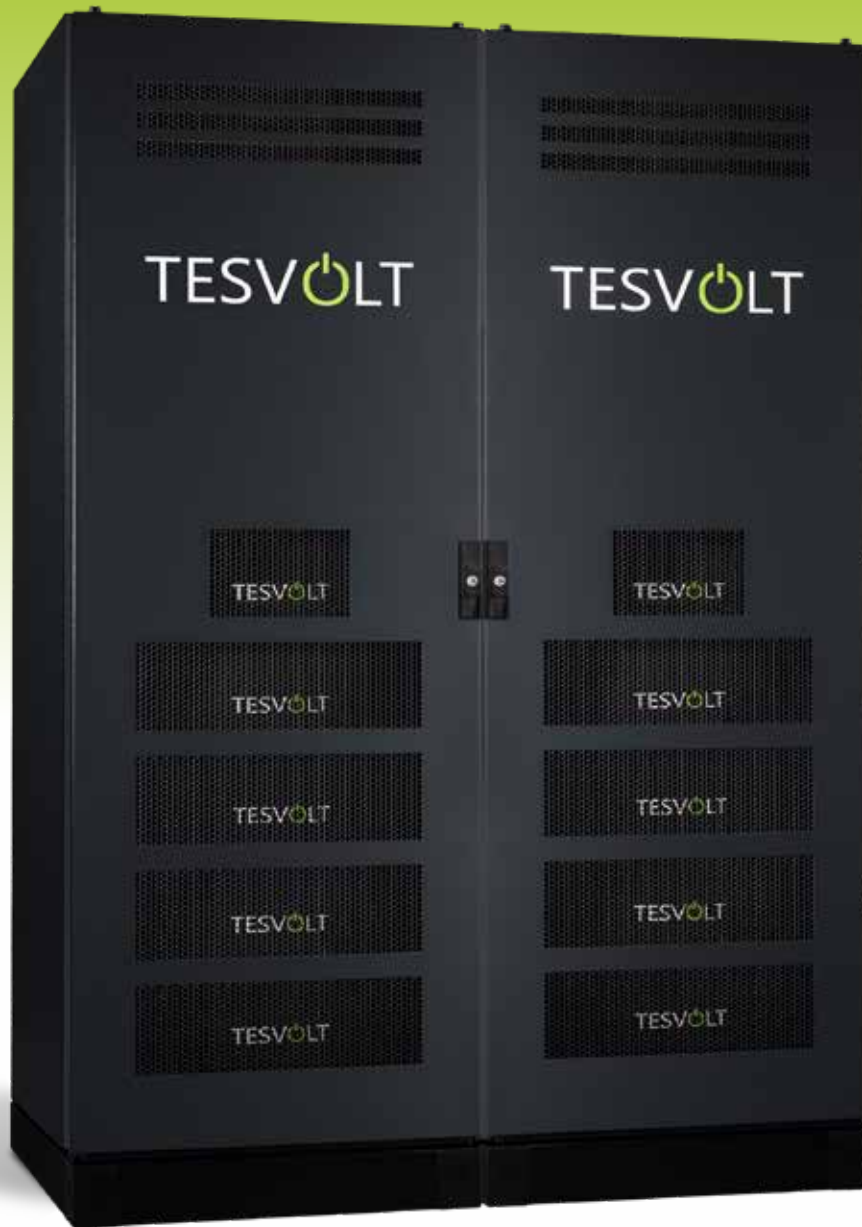


LITHIUM STORAGE SYSTEM TS HV 70

The commercial and industrial all-rounder



Designed for 30 years • 1C charging speed • The safest cell technology

HIGH-VOLTAGE SYSTEM

TESVOLT
THE ENERGY STORAGE EXPERTS

WE HAVE A "THEN" FOR ANY "WHEN".

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

Whether to increase self consumption or to cut peak loads, on- or off-grid to optimise diesel hybrid systems, whether in the desert or the Arctic circle – with the *TS HV 70* system, TESVOLT offers a technical storage solution for any application. Its advanced, cost-optimised design makes for unbeatable efficiency – without sacrificing quality or performance.

It is extremely robust and is therefore well-suited to the hardest tasks. Thanks to high-quality battery cells from the automobile industry and innovative technologies, such as the *Active Battery Optimizer*, our *TS HV 70* storage system is one of the most efficient and durable products on the market.

APPLICATIONS

- **Diesel hybrid optimisation** – diesel hybrid systems can be optimised for consumption with this system
- **Peak load shifting** – cut your peaks in consumption and save money by reducing the size of the mains connection
- **Increase self consumption** – use more of the power you have generated
- **Ancillary services** – manage frequency, effective and reactive power, and balance grid fluctuations

Maximum safety

Prismatic battery cells are incredibly durable, safe and powerful, particularly in comparison to round cells. TESVOLT uses cells from Samsung SDI and offers a 10-year performance warranty on the entire storage system.

Long lifespan

The lifespan of a battery has a huge impact on its economic efficiency. Our storage system features outstanding performance: all components are designed to last 8,000 cycles and offer a 30-year lifespan.

High performance without compromise

TS HV 70 storage systems can store energy very quickly, and release it again just as quickly. With a continuous power rating of 1C – and even 4C for short periods – the storage system is optimised for professional use in commercial applications, agriculture and industry.

Samsung SDI cell



- 1 Active Power Unit
- 2 Battery module
- 3 Overcharge safety device
- 4 Vent
- 5 Fuse
- 6 Active Battery Optimizer

Prismatic cells from Samsung SDI are extremely safe. For example, the *NSD (Nail Safety Device)* ensures that even when penetrated with a metal nail, the cell will not catch fire.

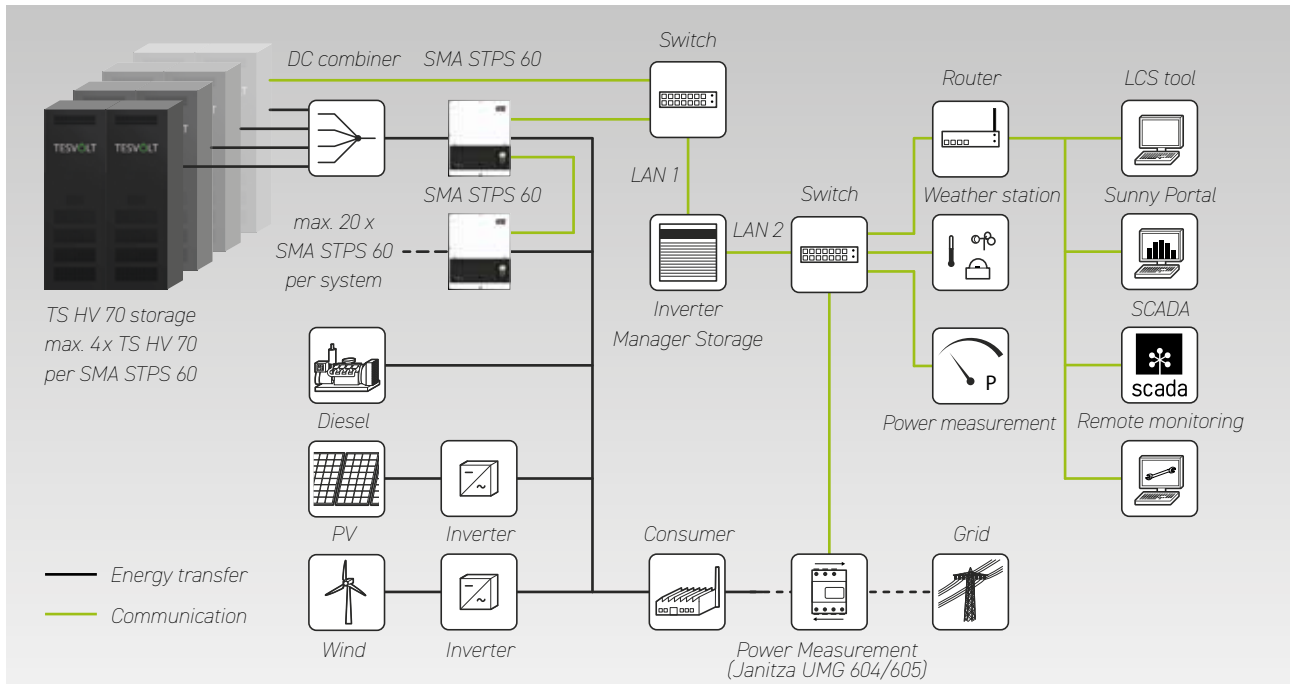


Battery module



Every battery module has its own *Active Battery Optimizer (ABO)* which can be separated from the module in a few easy steps, for example, for servicing.

SYSTEM STRUCTURE



SYSTEM CONFIGURATIONS

This table displays the possible output depending on the energy and the number of SMA STPS 60 battery inverters:

2,680 kWh										●
2,412 kWh									●	●
2,144 kWh								●	●	●
1,876 kWh							●	●	●	●
1,608 kWh						●	●	●	●	●
1,340 kWh					●	●	●	●	●	●
1,072 kWh				●	●	●	●	●	●	●
804 kWh			●	●	●	●	●	●	●	●
737 kWh			●	●	●	●	●	●	●	●
670 kWh			●	●	●	●	●	●	●	●
603 kWh			●	●	●	●	●	●	●	●
536 kWh		●	●	●	●	●	●	●	●	●
469 kWh		●	●	●	●	●	●	●	●	●
402 kWh		●	●	●	●	●	●	●	●	●
335 kWh		●	●	●	●	●	●	●	●	●
268 kWh	●	●	●	●	●	●	●	●	●	●
201 kWh	●	●	●	●	●	●	●	●	●	●
134 kWh	●	●	●	●	●	●	●	●	●	●
67 kWh	●	●	●	●	●	●	●	●	●	●
Energy ↑ System	60 kW	120 kW	180 kW	240 kW	300 kW	360 kW	420 kW	480 kW	540 kW	600 kW
SMA → STPS 60	1 x	2 x	3 x	4 x	5 x	6 x	7 x	8 x	9 x	10 x

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SMA SUNNY TRIPOWER STORAGE 60

TESVOLT TS HV 70 storage systems are optimised for use with 3-phase SMA Sunny Tripower Storage 60 battery inverters, and as a system it is perfectly adapted for use in commercial applications and the industry. It can be used to realise storage solutions up to the megawatt range. Thanks to the energy management systems integrated in the battery inverter, and

the high C-rate of the TS HV 70 storage system, a wide range of ancillary services can be provided. At the same time, the system opens up new economic perspectives – investment costs are considerably lower than for conventional storage systems and TESVOLT TS HV 70 storage systems are among the most durable products on the market.

Technical specifications SMA STPS 60

nominal charging power (AC)	60 kVA
nominal discharge power (AC)	75 kVA
DC voltage range	575 to 1,000 V
Dimensions (W x H x D)	570 x 740 x 300 mm
Max. efficiency	98.8%
Internal consumption	< 3 W
Operating temperature	-25 to 60°C
Weight	75 kg
Protection class	IP 65
Communication	Modbus TCP/IP
Topology	transformerless
Warranty	5 years



SMA Sunny Tripower Storage 60 with SMA Inverter Manager Storage

Technical specifications TESVOLT TS HV 70

Energy (14 16 battery modules)	67 kWh 76 kWh
C rate	1C (4C max. 20 sec.)
Cells	Lithium NMC prismatic (Samsung SDI)
Max. charging, discharging current	100 A
Cell balancing	Active Battery Optimizer
Cycles @ 100% DoD 70% EoL 23°C +/-5°C 1C/1C	6,000
Cycles @ 100% DoD 70% EoL 23°C +/-5°C 0.5C/0.5C	8,000
Efficiency (battery)	up to 98%
Operating voltage	627 to 930 V
Operating temperature	-10 to 50°C
Humidity	0 to 85% (non-condensing)
Weight (14 16 battery modules, 2 racks)	824 kg 898 kg
Weight per battery modul	36 kg
Weight per rack	120 kg
Dimensions (H x W x D)	1,900 x 1,200 x 600 mm
Certificates/norms Cells:	IEC 62619, UL 1642, UN 38.3
Product:	CE, UL 1973, UN 38.3, IEC 62619, IEC 61000-6-1/2/3/4, BattG 2006/66/EG
Warranty	10-year performance warranty, 5-year product warranty
Recycling	free take-back scheme from TESVOLT
Protection class	IP 20

Your certified TESVOLT partner

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