

# 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 *TESVOLT TS HV 70 storage system*, TESVOLT offers a technical storage solution for any application. Its advanced, cost-optimised design makes for unbeatable efficiency – without sacrificing quality or performance.

## APPLICATIONS

- **Diesel hybrid optimisation** – diesel hybrid systems can be optimised for consumption with this system
- **Time of Use** – Use of the storage system is dependent on the electricity cost (charge when low, discharge when high)
- **Peakshaving** – cap your consumption peaks and save money thanks to lower output use
- **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 Samsung SDI cells and offers a performance guarantee of 10 years on the battery modules.

## 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 or offer a 30-year lifespan.

## High performance without compromise

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

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 *TESVOLT TS HV 70 storage system* is one of the most efficient and durable products on the market.



## 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.



## 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. A wide range of very different grid system services can be provided thanks to the energy

management system integrated in the Inverter Manager and the high C-rate of the TESVOLT TS HV 70 storage systems. At the same time, the system opens up new economic perspectives – investment costs are considerably lower than for conventional storage systems. 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 1000 V
Dimensions (H x W x D)	740 x 570 x 306 mm
Max. efficiency	98.8%
Selfconsumption (standby)	< 3W
Operating temperature	-25 to 60°C
Weight	77 kg
Protection class	IP 65   NEMA 3R
Communication	Modbus TCP/IP
Topology	transformerless
Warranty	5 years



SMA Sunny Tripower Storage 60 with SMA Inverter Manager

### Technical specifications TESVOLT TS HV 70

Energy (14   16 battery modules)	67 kWh   76 kWh
C-rate	1C
Cells	Lithium NMC prismatic (Samsung SDI)
Max. charging, discharging current	94 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%
Selfconsumption (standby)	5 Watt (without battery inverter)
Operating voltage	666 to 930V DC
Operating temperature	-10 to 50°C
Humidity	0 to 85% (non-condensing)
Altitude of installation site	<2000 m above sea level
Weight (14   16 battery modules, 2 racks)	742 kg   823 kg
Weight per battery modul   Weight per rack	36 kg   120 kg
Dimensions (H x W x D)	1900x1200x600 mm
Certificates/norms Cells	IEC 62619, UL 1642, UN 38.3
Product	CE, UN 38.3, IEC 62619, IEC 61000-6-1/2/3/4, BattG 2006/66/EG
Warranty	10-year performance guarantee, 5-year system guarantee
Recycling	TESVOLT offers free return of batteries from Germany
Protection class	IP 20

Your certified TESVOLT partner

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