



# TS-I HV 80

The commercial and industrial all-rounder

**TESVOLT**  
THE ENERGY STORAGE EXPERTS



## FLEXIBILITY NOW AND IN THE FUTURE

Not only do our TS-I HV 80 storage systems offer easy modular configuration as they are purchased – you can also add further IPUs to increase output or another TS-I HV 80 battery cabinet at any time.



## 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

The TS-I HV 80 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 and industrial applications, and for ancillary services.

# A POWERHOUSE

# FOR ALL PURPOSES

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

The TESVOLT TS-I HV 80 is the first battery storage system with an integrated inverter and TESVOLT energy management system. Whether to increase self consumption, to cut peak loads, or for on-/off-grid use, the TESVOLT TS-I HV 80 is not only the perfect energy storage solution for every application but also provides sustainable local grid quality due to active filter technology. It is extremely robust and 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-I HV 80 storage system is one of the most efficient and durable products on the market.

**TESVOLT PCS BATTERY INVERTER AND TESVOLT ENERGY MANAGEMENT "TESVOLT ENERGY MANAGER"**

TESVOLT TS-I HV 80 storage systems are fitted with an integrated 3-phase battery inverter (TESVOLT PCS). The TESVOLT PCS is available with up to four inverter modules (IPUs), can be upgraded at a later date and can be operated in parallel with up to five other cascaded TESVOLT PCS systems. In combination with the innovative TESVOLT energy management system (TESVOLT Energy Manager), TESVOLT TS-I HV 80 systems adapt perfectly to

the requirements of trade and industry. TESVOLT Energy Manager offers not just the most diverse, combinable range of applications, it also enables comprehensive monitoring thorough the myTESWORLD portal, intelligent consumer control and improved quality of power supply. This flexibility increases the sustainability of your TESVOLT battery storage system and, thanks to multi-use application, its profitability as well.

## BASIC FUNCTIONS – USE THE PORTAL FOR FREE\*

	Applications	Availability	Project-based only (incurs additional project costs)
Self-consumption optimisation	Use more energy from renewable sources and minimise feed-in	Q1/2021	
Off-grid	Create your own power grid independently of energy suppliers, for example by combining a photovoltaic installation and TESVOLT storage solution	Q1/2021	X
Physical peak shaving	Shave consumption peaks and cut demand rate costs	Q1/2021	
Back-up power	The storage system immediately takes over the power supply in the event of a power outage	Q1/2021	
Grid system services	Remote control of active and reactive power	Q1/2021	
Zero feed-in	Fulfils the normative guidelines (Germany) stipulating that no power can be fed into the utility grid	Q1/2021	
Generation control	Generators such as CHPs can be actively switched on or off and regulated for greater independence from energy suppliers	Q3/2021	
Load control	Actively switch consumers on or off depending on generation and consumption	Q3/2021	
PV-diesel hybrid optimisation	TESVOLT solutions offer the option of making the utility grid available while counterbalancing production and consumption peaks. This keeps diesel generators operating as efficiently as possible to minimise diesel costs	Q3/2021	

## PRO FUNCTIONS – USE FUNCTIONS FOR A FEE\*

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## BATTERY MODULE

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



## SAMSUNG SDI CELLS

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

## TESVOLT PCS BENEFITS

- **Black-start capable:** The battery inverter can be operated off-grid or supply back-up power in the event of power outage.
- **Active filter:** Stabilise your voltage and frequency while reducing load imbalance, reactive power and harmonics in your local utility grid.
- **Modular principle:** The TESVOLT PCS consists of up to four IPU inverter modules (of 85 kW each, can be upgraded at any time).
- **Control speed:** Response time to power requirements in the network in milliseconds.
- **Maximum power density:** Potential for up to 340 kW with a footprint of just 0.54 m<sup>2</sup>.

## TESVOLT ENERGY MANAGER BENEFITS

- **Universal applications:** Off-grid, back-up power, peak shaving, self-consumption optimisation, multi-use, power quality, time of use, forecast-based battery charging, load control, generation control, ancillary services (e.g. PBP)
- **Multi-use applications:** Combine various applications such as self-consumption optimisation, peak shaving, time of use, back-up power, etc.
- **myTESWORLD:** Manage and control the function and savings of your battery storage system/inverter at any time.
- **Permanently flexible:** Add new functions whenever you want.

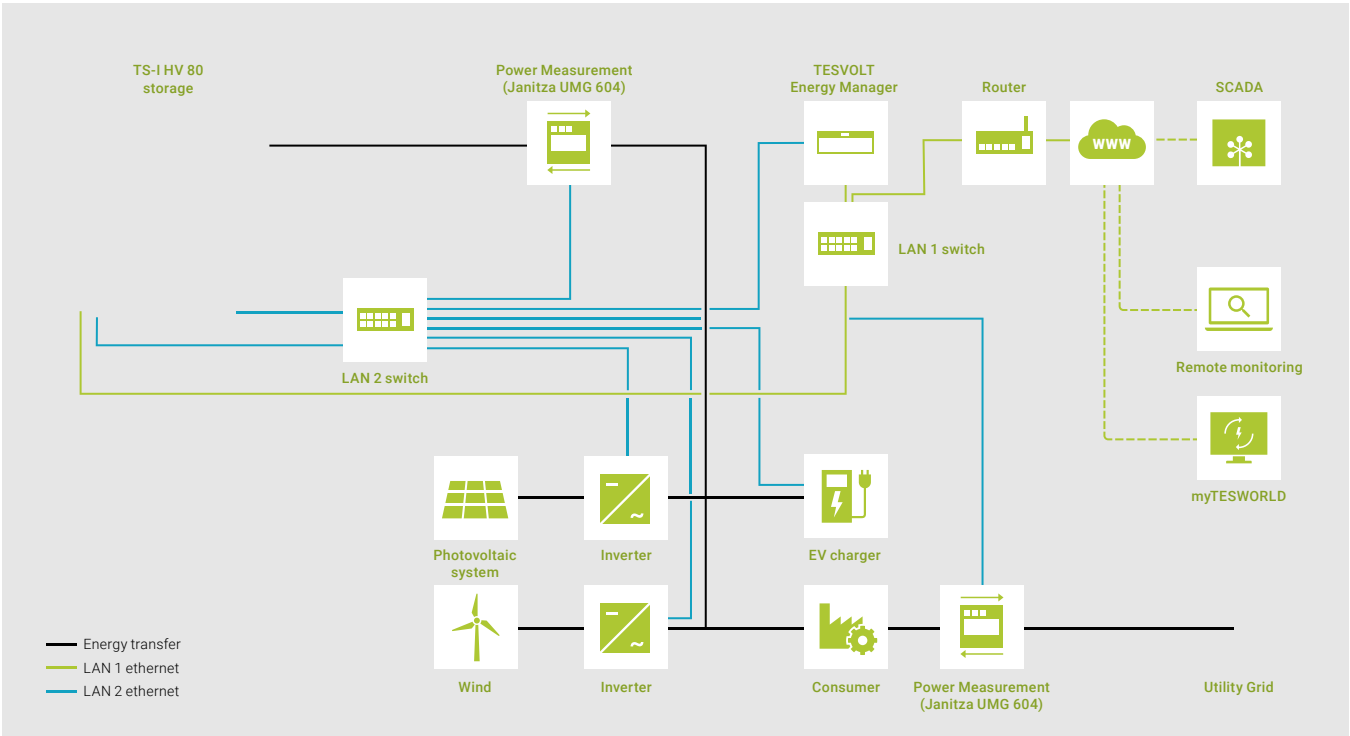
- 1 Active Power Unit
- 2 Battery module
- 3 Overcharge safety device

- 4 Vent
- 5 Fuse
- 6 Active Battery Optimizer

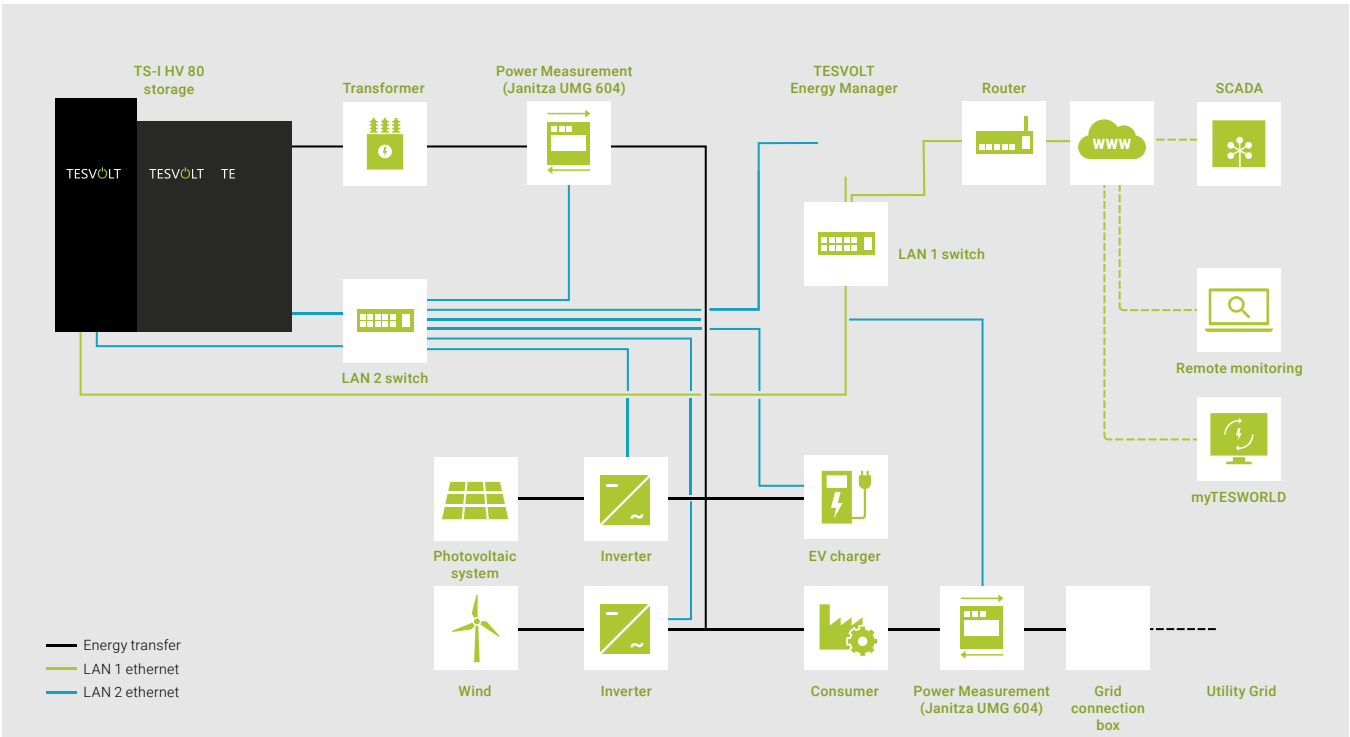


TESVOLT PCS with four inverter modules (IPUs)

SYSTEM STRUCTURE ON-GRID



SYSTEM STRUCTURE BACK-UP/ OFF-GRID



## TECHNICAL SPECIFICATIONS TESVOLT PCS