

# TECHNICAL DATA SHEET

## TPS HV 80 E

TESVOLT  
Free to go green.

### TECHNICAL DATA ENERGY STORAGE

Energy content	80 kWh (per battery string)	
Nominal voltage	810 V	
Minimum operating voltage	704 V	
Maximum operating voltage	913 V	
maximum charging/discharging current	100 A	
Maximum C-Rate	1C	
Cell	Lithium NMC prismatic (Samsung SDI)	
Cell balancing	DynamiX Battery Optimizer	
Cycles expected @ 100% DoD   70% SoH   23°C +/-5°C 1C/1C	6,000	
Cycles expected @ 100% DoD   70% SoH   23°C +/-5°C 0.5C/0.5C	8,000	
Efficiency (battery)	up to 98 %	
Self-consumption (standby)	5 W (without battery inverter)	
Cooling concept	passive via fins and active via fans	
Altitude of installation site	< 2,000 m above sea level.	
Operating temperature	0 °C to 50 °C	
Ambient temperature	0 °C to 50 °C	
Humidity	0 to 80 % (non-condensing)	
Weight battery module	56 kg	
Weight battery management system (APU)	13 kg	
Certificates/standards	Cell	IEC 62619, UL 1642, UN 38.3
	Product	CE, UN 38.3, IEC 62619, IEC 62620, IEC 61010, IEC 61508, IEC 61000-6-2/4/7, 2006/66/EG (Battery Directive)
Guarantee	10-year performance guarantee, 10-year system guarantee	
Recycling	TESVOLT offers a free take-back scheme for batteries from Germany	
Protection class	IP 20	
Degree of protection battery module	II	
Battery specification as per IEC 62620:2015	INP46/175/127/[1P22S]M/-20+60/90	

### TECHNICAL DATA FOR BATTERY INVERTER SMA STPS 50

Nominal power (AC)	50 kVA
AC voltage range	200 to 980 V
Dimensions (H x W x D)	873, x 770 x 443,8 mm
max. efficiency	97 %
Self-consumption (standby)	< 3 W
Operating temperature	- 25 to 60 °C
Weight	104 kg
Protection class	IP 65   NEMA 4X
Communication	Modbus (SMA, Sunspec), SMA Speedwire, Webconnect
Topologie	transformerless
Garantie	5 years

## TECHNISCHE DATEN CONTAINER

Corrosion protection (paint)	C3	
Ambient temperature (air conditioning)	-10 °C to 40 °C	
Altitude of installation site	< 2,000 m above sea level	
Sizes [ft]	10	20
Dimensions (as delivered) H x W x D [mm]	2,896 x 2,439 x 3,786	2,896 x 2,439 x 7,013
Dimensions (after installation) H x W x D [mm]	2,896 x 3,450 x 3,786	2,896 x 3,450 x 7,013
Number of storage systems	8	16
Max. energy content [kWh]	640	1,280
included in standard scope of delivery	Rack system, AC subdistribution, air conditioning, fire alarm system according to DIN 14675, rupture disk	
Special equipment (optional)	CSC certification, available in other RAL colors, extended operating temperature range, corrosion protection up to C4	

## SYSTEM CONFIGURATION

Number of systems	Energy [kWh]																	
16	1280				20 ft					20 ft								20 ft
15	1200				20 ft													20 ft
14	1120							20 ft								20 ft		
13	1040														20 ft			
12	960			20 ft	20 ft			20 ft							20 ft			
11	880											20 ft						
10	800					20 ft				20 ft								
9	720			20 ft						20 ft								
8	640	10 ft		10 ft					10 ft									
7	560								10 ft									
6	480	10 ft	10 ft				10 ft											
5	400					10 ft												
4	320	10 ft	10 ft		10 ft													
3	240	10 ft		10 ft														
2	160	10 ft	10 ft															
1	80	10 ft																
Output [kW]		50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	
Number of SMA STPS 50		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

Available configurations Container size

### TESVOLT AG

Am Heideberg 31 | 06886 Lutherstadt Wittenberg  
 Deutschland | Germany  
 Phone +49 (0) 3491 8797 100  
 info@tesvolt.com | [www.tesvolt.com](http://www.tesvolt.com)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 823677.