

TECHNICAL DATA SHEET

TS HV 70 E

TECHNICAL DATA FOR BATTERY STORAGE SYSTEM

Type designation	TS HV 70/9-20	
Energy content	72 kWh (at 100% DoD)	
Nominal voltage	729 V \approx	
Min. operating voltage	634 V \approx	
Max. operating voltage	822 V \approx	
Nominal charging/discharging current	100 A \approx	
Max. C-rate	1C	
Cell	Lithium NMC prismatic (Samsung SDI)	
Cell balancing	DynamiX Battery Optimizer	
Cycles expected @ 100% DoD 70% EoL 23°C +/-5°C 1C/1C	6000	
Cycles expected @ 100% DoD 70% EoL 23°C +/-5°C 0.5C/0.5C	8000	
Efficiency (battery)	Up to 98%	
Self-consumption (standby)	5 W (without battery inverter)	
Operating temperature	0°C to 50°C	
Ambient temperature	0°C to 50°C	
Humidity	0 to 80% (non-condensing)	
Cooling concept	Passive via fins and active via fans	
Altitude of installation site	< 2,000 m above sea level	
Weight	Total	656 kg
	Cabinet	131 kg
	Battery module	56 kg
	Battery management system (APU)	13 kg
Dimensions (H x W x D)		2008 x 608 x 990 mm
	Tilt height	2155 mm (front/back)/2090 mm (lateral)
Certificates/standards	Cell	IEC 62619, UL 1642, UN 38.3
	Product	CE, UN 38.3, IEC 62619, IEC 62620, IEC 61010-1, IEC 61508, IEC 61000-6-2/4/7, 2006/66/EC (Battery Directive)
Guarantee	10-year performance guarantee, 5-year system guarantee	
Recycling	TESVOLT offers a free take-back scheme for batteries from Germany	
Protection class	IP 20	
Battery specification as per DIN EN 62620:2015	INP46/175/127/[1P22S]M/-20+60/90	

TECHNICAL DATA FOR BATTERY INVERTER

Manufacturer	SMA
Type designation	STPS 60
Nominal power (AC)	60 kVA
Max. discharging power in connection with TS HV 70 E (AC)	72 kVA
DC voltage range	575 V \approx to 1000 V \approx
Dimensions (H x W x D)	740 x 570 x 306 mm
Max. efficiency	98.8%
Self-consumption (standby)	< 3 W
Operating temperature	-25 to 60°C
Weight	77 kg
Protection class	IP 65 NEMA 3R
Communication	Modbus TCP/IP
Topology	Transformer-free
Guarantee	5 years
Certificates	See data sheet STPS 60 (SMA)

SYSTEM CONFIGURATION

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

Number of TS HV 70 E	Energy system											
40	2880,0 kWh											
32	2304,0 kWh											
28	2016,0 kWh											
24	1728,0 kWh											
20	1440,0 kWh											
16	1152,0 kWh											
12	864,0 kWh											
10	720,0 kWh											
9	648,0 kWh											
8	576,0 kWh											
7	504,0 kWh											
6	432,0 kWh											
5	360,0 kWh											
4	288,0 kWh											
3	216,0 kWh											
2	144,0 kWh											
1	72,0 kWh											
Number of SMA STPS 60		60 kW	120 kW	180 kW	240 kW	300 kW	360 kW	420 kW	480 kW	540 kW	600 kW	
		1	2	3	4	5	6	7	8	9	10*	

* max. 14 SMA STPS 60 per Inverter Manager

possible configurations

