

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, 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 charging power (AC)	60 kVA
Nominal discharging power (AC)	75 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	75 kW	120 kW	150 kW	180 kW	225 kW	240 kW	300 kW	300 kW	375 kW	360 kW	450 kW	420 kW	525 kW	480 kW	600 kW	540 kW	675 kW	600 kW	750 kW
		1		2		3		4		5		6		7		8		9		10*	

* max. 14 SMA STPS 60 per Inverter Manager

Max. charging power

Max. discharging power



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 1010177