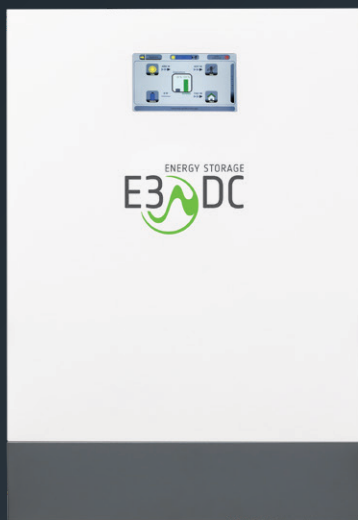


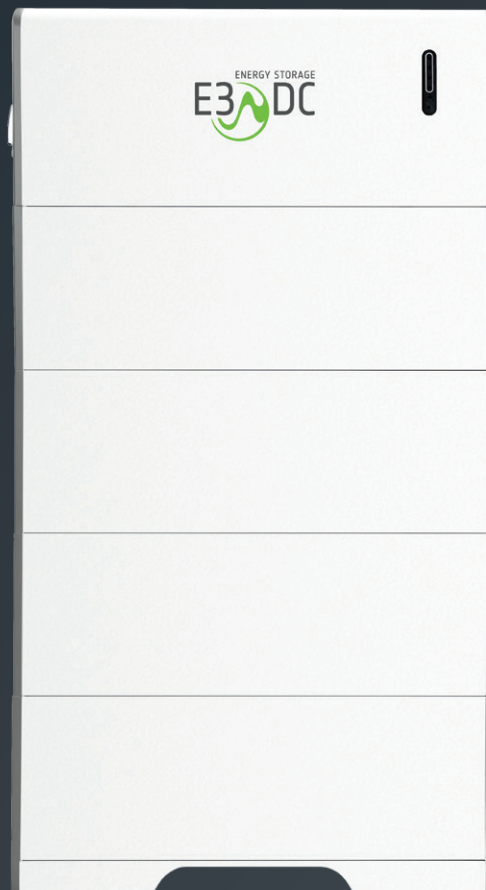
Technical Data

Home power stations of the SE series

Standalone hybrid



HYBRID POWER INVERTER SE
(ALSO AVAILABLE WITHOUT A BATTERY SYSTEM)



S10 SE BATTERY SET, STACKABLE WITH 2 TO 4 MODULES

Technical Data

S10 SE Generation

Input

Max. recommended DC rated power (Wp PV)	12500
Start input voltage (V)	180
Min. MPP voltage (V)	85
Max. MPP voltage (V)	850
Max. DC input voltage (V)	1000
Max. DC current per MPP tracker (A) ¹⁾	13
Max. PV short-circuit current (A)	15.6
Independent MPP trackers (PV)	2
Input connection technology	3 Sunclix pairs (2 x PV and 1 x battery)
Compatibility with module optimisers	Yes
AC storage system – max. input power (W)	All E3/DC home power stations are hybrid storage systems ^{2) 3)}

Output

Max. AC rated power (230 V, 50 Hz) (VA)	8,000 ³⁾
AC rated voltage L / N / PE (V)	3 x 230
AC rated frequencies (Hz)	50
Max. output current (per phase) (A)	11.6
Feed-in phases / connection phases	3 / 3
Technology	Transformerless
Cos (phi)	-0.9 ... +0.9

General data

Max. system efficiency incl. battery (%)	> 92
EU efficiency of PV power inverter (%)	> 97
AC short-circuit-proof / earth-fault monit.	Yes / yes
Approvals	Acc. to VDE-AR-N 4105, VDE V 0124-100, TOR Erzeuger, OVE Guideline R25, CE, UN38.3, NA/EEA-NE7_CH
Permissible ambient temperature (°C) ³⁾	0 to +35 (system) / -20 to +55 (battery system)
Recommended ambient temperature (°C)	+10 to +20 (system) / +15 to +30 (battery system)
Max. relative humidity (%)	85
Max. operating altitude (mamsl)	2000
Protection class	IP20 (system) / IP65 (battery system)
Data interface	Ethernet / CAN ⁴⁾
System dimensions W x H x D (mm)	535 x 710 x 251
Battery system dimensions W x H x D (mm)	723 x 850/1,110/1,350 (2/3/4 modules) x 180
Display	7" TFT display
Energy management	Integrated

Operating modes

DC operation	Yes
AC storage system	Yes
Hybrid (DC + AC)	Yes

Technical Data

S10 SE Storage

S10 SE	6	10	13
Usable battery capacity (kWh) ⁵⁾	5.25	8.25	11.2
Number of stacked modules ⁷⁾	2	3	4
Max. number of stacked modules (through expansion up to 5 years after installation) ⁷⁾		5	
Max. number of battery towers connected in parallel (through expansion up to 5 years after installation) ⁷⁾		2	
Rated power, charging / discharge (kW) ³⁾	3	4.5	4.5
Spatially separable battery system (cable length up to 30 m)		Yes ⁶⁾	
Battery technology	Lithium-ions (cell chemistry = lithium iron phosphate, LFP) certified in accordance with VDE-AR-E 2510-50		
Battery system weight (kg)	87	121	156
E3/DC temperature regulation		Yes	
Battery extension or battery retrofitting Up to 5 years after installation	Usable system capacity with retrofit is defined by the state of the cell chemistry in the whole system		
Battery capacity warranty ⁸⁾	10 years on 80 % of the usable battery capacity		

Ready for future

System and options	6	10	13
Feed-in	Freely selectable between 0 % (non-EEG operation) and 100 %		
Retrofittable backup power ⁹⁾	3ph backup power supply in accordance with VDE2510-2 via RJ45 communication (Grid Switch SE)		
Overvoltage protection	To be set externally by an installation technician		
Communication interface	ModBUS(TCP), RSCP		
Conformity with §14a Energy Industry Act (EnWG)	EEBus integrated		
Home automation	Loxone, myGEKKO, KNX		
Weight of hybrid power inverter (kg)	29.5		

The retrofittable backup power box (Grid Switch SE) is protected with a 40 A circuit breaker (tripping characteristic B, see S10 SE installation instructions). The output and the temporal availability of the backup power option can be limited due to software updates, power inverter grid conditions and external framework conditions (i.e. home load, generation, hardware defect, temperature, battery calibration). Battery calibration / discharge is carried out weekly, usually at night, with own current as per the requirements of the battery manufacturer.

¹⁾ Software-based limitation to 13 A – module configurations > 13 A can be used.

²⁾ The AC charging capacity corresponds to a maximum of the rated power / peak power of the battery system.

³⁾ The actual power is dependent on the state of the system and the temperature. It can be lower depending on the given PV output and the prevailing weather and grid conditions.

⁴⁾ The power of the 24-V supply in the CAN is limited to 400 mA. If (e.g. for several power meters) a higher output is required, a separate power supply needs to be connected.

⁵⁾ The warranty refers to 80 % of this usable capacity. The specified usable capacity corresponds to the energy volume that can be discharged for consumption. This value already takes into account an additional capacity reserve at system level in order to ensure full availability even in adverse weather conditions. The usable capacity is measured in a defined, realistic reference cycle on the battery system. The usable capacity can deviate from the specified value in real operation.

⁶⁾ To be specified on ordering; additional charge for longer cable.

⁷⁾ Depending on availability / battery technology; not guaranteed. Different specifications possible due to battery retrofit.

⁸⁾ Within the warranty period on adherence to the warranty conditions.

⁹⁾ The Grid Switch SE can be installed at a maximum distance of 20 m. The external backup power box (Grid Switch SE) is required at an extra cost to use the backup power.

The hybrid power inverter SE can be operated as a standalone power inverter with the included power meter or as an additional power inverter for an S10 home power station in energy farming. The farming power meter is additionally required for this. The information referring to the hybrid power inverter in this technical data sheet then applies exclusively in this case. The subsequent addition of a battery system is possible.

The service life of the batteries is dependent on the installation and operating conditions. The terms and conditions of HagerEnergy GmbH apply. Internet connection required for remote maintenance and checking the yield.

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