

Technical Data

Home power stations of the X series All In One



INFINITY

Battery retrofitting
for 5 years



A member of Hager Group

Technical Data

S10 X Generation

Input

Max. recommended DC power (W)	18000
Min. MPP voltage (V)	250
Max. MPP voltage (V)	850
Max. DC input voltage (V)	1000
Max. DC current per MPP tracker (A)	27
Max. PV short-circuit current per MPP tracker (A)	31
Independent MPP trackers	2
Input connection technology	4 x MC4 connectors
Compatibility with module optimisers	Yes
AC storage system – max. input power (W)	All E3/DC home power stations are hybrid storage systems ¹⁾²⁾

Output

Max. AC rated power (230 V, 50 Hz) (W)	12,000 (depending on PV size)
Max. apparent output power (VA)	13500
AC rated voltage L / N / PE (V)	3 x 230
AC rated frequencies (Hz)	50
Max. output current (per phase) (A)	20
Feed-in phases / connection phases	3 / 3
Technology	Transformerless
Cos (phi)	-0.9 ... +0.9

General data

Max. system efficiency incl. battery (%)	> 90
EU efficiency of PV power inverter (%)	> 95
AC short-circuit-proof / earth-fault monit.	Yes / yes
Approvals	VDE-AR-N 4105:2018-11, VDE V 0124-100:2020-06, TOR Erzeuger, OVE Guideline R25:2020-03-01, CE, UN38.3, OVE E 8101:2019-01-01
Permissible / recommended ambient temperature (°C)	+5 to +35 / +15 to +25
Max. relative humidity (%)	85
Max. operating altitude (mamsl)	2000
Protection class / cooling	IP20 / fan according to output
Data interface	RS232 / USB / Ethernet / CAN
Dimensions W x H x D (mm)	
S10 X	610 (incl. battery cabinet 1,135) x 1,410 x 440
COMPACT design variant for S10 X ¹⁰⁾	590 x 1,200 (incl. battery cabinet 1,710) x 500
Display	7" TFT display
Energy management	Integrated

Operating modes

DC operation	Yes
AC storage system	Yes
Emergency current supply (rechargeable using solar energy)	Yes ³⁾ (3ph backup power primarily for light and comfort)
Hybrid (DC+AC)	Yes

¹⁾ The AC charging capacity corresponds to a maximum of the rated power / peak power of the battery system.

²⁾ The actual power is dependent on the state of the system and the temperature, and can be lower depending on the PV and weather / grid conditions.

³⁾ Additional motor switch required for the backup power function subject to a surcharge. Consumers with non-sinusoidal and excessively high power must be shut off if necessary.

⁴⁾ The warranty refers to 80 % of this usable capacity. The specified usable capacity corresponds to the energy volume that can be discharged for con-

sumption. 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.

⁵⁾ To be specified on ordering; additional charge for additional cables and doors.

⁶⁾ Depending on availability / battery technology; not guaranteed. Different specifications possible due to battery retrofit.

⁷⁾ Within the warranty period on adherence to the warranty conditions.

Technical Data

S10 X Storage

S10 X	10	14	18	21
COMPACT design variant for S10 X¹⁰⁾	10	14	-	-
Usable battery capacity (kWh)⁴⁾	8.25	11.2	17.4	20.6
Rated power, charging / discharge (kW) ²⁾	4.5	6	9	11
Number of modules	3	4	6	7
Max. number of modules per battery cabinet (through expansion up to 5 years after installation) ⁶⁾	4 ¹¹⁾	4 ¹¹⁾	7	7
Max. number of battery cabinets connected in parallel (through expansion up to 5 years after installation) ⁶⁾	-	-	4	4
Expansion with Power Kit retrofit ⁶⁾	Possible	Possible	-	-
Spatially separable battery system (cable length 10 m)			Yes ⁵⁾	
Battery technology	Lithium-ions (cell chemistry = lithium iron phosphate, LFP) certified in accordance with VDE-AR-E 2510-50			
Weight of batteries (kg)	Max. 11 per kWh			
E3/DC temperature regulation	Yes			
Battery extension or battery retrofitting Up to 5 years after installation ⁶⁾	Usable system capacity with retrofit is defined by the state of the cell chemistry in the whole system			
INFINITY retrofitting up to 5 y. after inst. (chargeable conversion of the system necessary) to kWh (usable) ⁶⁾	Typ. up to 11.2 additionally	Typ. up to 11.2 additionally	Typ. up to 20.6 additionally	Typ. up to 20.6 additionally
Battery capacity warranty ⁷⁾	10 years on 80 % of the usable battery capacity			

Ready for future

System and options	10	14	18	21
Feed-in	Freely selectable between 0 % (non-EEG operation) and 100 %			
Vehicle2Home interface (use of electric car as storage system)	System is compatible with future products ⁸⁾ System is prepared			
Optional overvoltage protection with monitoring	System is prepared			
Ext. interfaces	ModBUS(TCP), KNX, CAN-I/O, xComfort			
Backup power type ³⁾	3ph backup power (home) for light and comfort consumption			
Backup power reserve (adjustable)	Yes, via battery management ⁹⁾			
Max. rated power of battery in backup power up to (kW) ²⁾ / rechargeable using solar energy (check starting currents / loads)	4.5	6	9	11
Backup power operation of motors, pumps and heat pumps	Conditionally possible and to be checked with the manufacturer of the inverters / motors as regards starting current and typical, desired power			
SG Ready (for heat pumps, etc.)	SG Ready board (incl.), ModBUS(TCP) (incl.), xComfort actuators (optional)			
Conformity with §14a Energy Industry Act (EnWG)	EEBus integrated			
Home automation	KNX, myGEKKO, Loxone, xComfort			
Max. system weight without batteries (kg)				
S10 X / COMPACT design variant for S10 X	155 / 130			

The output and the temporal availability of the backup power function 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 also carried out weekly, usually at night, with own current as per the requirements of the battery manufacturer. Further important information concerning backup power operation can be found in the "Backup power" flyer at e3dc.com/en/infocentre/#Downloads.

⁸⁾ V2H option is not a legal entitlement of the customer. It is specifically dependent on future vehicles, interfaces / grid guidelines and regulations.

⁹⁾ Exact maintenance of the backup power reserve necessitates regular, usually weekly, calibration of the battery state of charge. During calibration, the storage system is completely discharged exclusively via home consumption. If home consumption is not sufficient, the process is cancelled and repeated at a later point in time. If necessary, the immediate restoration of the backup power

reserve is also carried out with mains electricity.

¹⁰⁾ Identical to the S10 X in terms of design within the meaning of the normative approvals.

¹¹⁾ The specifications may differ if the Power Kit battery is retrofitted. 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.

ENERGY STORAGE E3 DC

HagerEnergy GmbH
Ursula-Flick-Strasse 8
D-49076 Osnabrück

P +49 541 760 268 0

     e3dc.com

Your E3/DC partner



+ Wallbox
+ Inverter
+ HEMS

