

xStorage Home Technical sheet



# Technical specifications

## xStorage Home single phase system combinations overview

Battery Capacity (nominal)	AC Inverter Power (nominal)			Recommended PV power range	Full system weight (appr.)	Full system dimensions (appr.) H x W x D
4.2 kWh	3.6 kW	4.6 kW	6 kW	from 3 kWp to 7 kWp	120 kg	1230 mm x 890 mm x 220 mm
6 kWh						
10.08 kWh						

Hybrid inverter	POWER RANGE		
	3.6 kW XSTH1P036P060V11	4.6 kW XSTH1P046P060V11	6 kW XSTH1P060P060V11

PV INPUT (DC)	
Recommended PV power range	from 3 kWp to 7 kWp for each MPPT Tracker
Max. DC voltage	550 V
Nominal DC operating voltage	100 V to 550 V
Max. input current per MPPT	20 A
Initial feeding voltage	150 V
Isc PV	35 A
Max inverter backfeed current to the array	0
Number of MPPT Trackers	2
DC insulation resistance	VDE0126 and VDE0126-1-1/A1: $R_{iso} > 1.5 \text{ M}\Omega$ , Others: $R_{iso} > 500 \text{ k}\Omega$

BATTERY INPUT/OUTPUT (DC)	
Cell chemistry	LMO (Lithium Manganese Oxide) and NMC (Lithium Nickel Manganese Cobalt)
Max Charge/Discharge DC current	70 A
DC battery voltage range	74.4 V to 100.8 V
Battery nominal voltage rating	90 V
Max Charge/Discharge DC Power	3830 W

LOAD/GRID OUTPUT (AC)	
Nominal Output Power	3600 VA
Max. Critical Load Power	100 % of nominal output power
Nominal AC Grid Voltage	230 V (Grid-Tie), 230 V $\pm$ 3 % (Off-Grid)
Nominal frequency	AC Synchronized operation 50 Hz / 60 Hz $\pm$ 1 Hz
Nominal AC output current	15.6 A
Max. AC current	17.4 A <sup>1</sup>
AC wiring systems	Single phase/N/PE, TN, TT, IT (additional fuse or CB required)
Total Harmonic Distortion (THDi)	< 3 %
Power Factor	0.99 (Grid-Tie), 0.9 (ind) - 0.9 (cap) (Grid Tie-PF regulation, Off-Grid)
Metering capability	Power metering of critical loads and PV production
Min. Transfer Time (on-grid to off-grid)	< 20 ms

EFFICIENCY	
MPPT efficiency	> 99 %
Max. efficiency (battery to AC)	> 90 %
PV to grid max. efficiency	97 %

INTERFACE	
Communication	LAN, RS-485 (dedicated to meters), USB Host (with USB WIFI dongle) USB: Type B dedicated to firmware upgrade CAN BUS: Only for battery pack - inverter internal communications
Communications protocols	HTTP, REST API
LED indicators	<b>Green (ON):</b> Normal status; <b>Red (ON):</b> Fault status. Inverter is unable to connect to the grid; <b>Green (Blinking):</b> Communication activity
Display	LCM display: Character 16 words, 2 lines, 3 Function keys

STANDARDS	
EMC/EMI standard	Class A IEC 61000-3-2; IEC 61000-3-3 (XSTH1P036P060V11); IEC 61000-3-12; IEC 61000-3-11 (XSTH1P046P060V11 and XSTH1P060P060V11)
Standards	EN 62109 (part 1:2010, part 2:2011); DIN V VDE V0126-1:2013

PHYSICAL PROPERTIES	
Dimensions	515 mm x 730 mm x 182 mm (H x W x D)
Weight	40 kg

1. For UK installations, as per G98 certification of the product, Maximum AC current is below 16 A via the product firmware.

Battery pack	BATTERY TYPE		
	SECOND LIFE	NEW	
	XSTH1U12EV2	XSTH2N12EV2	XSTH4N6EV2
Nominal capacity	4.2 kWh	6 kWh	10.08 kWh
Cell chemistry	LMO (Lithium Manganese Oxide)		NMC (Lithium Nickel Manganese Cobalt)
DC battery voltage range	74.4 V to 99.6 V		74.4 V to 100.8 V
Battery nominal voltage rating	90 V		
Overcharge protection	DC breaker + contactor		
Depth of Discharge (DoD)	90 %		
Standards	EN 62619:2017; UN 34.81; UN 38.3; CE		
EMC/EMI standard	Class B (EN 61000-6-3:2007; EN 61000-6-1:2007)		
Physical properties			
Dimensions	442 mm x 781 mm x 175 mm (H x W x D)		
Weight	68 kg		

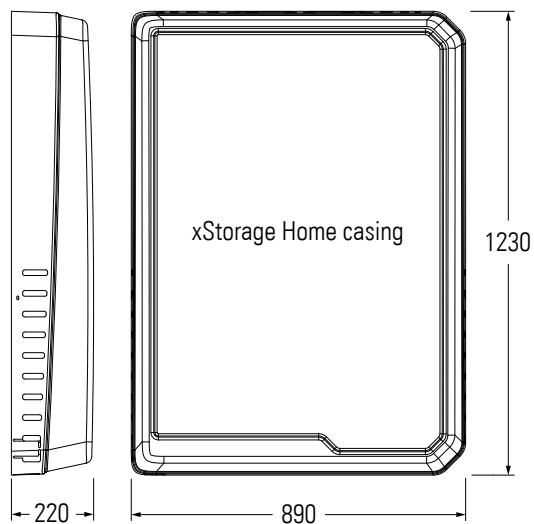
General system specifications	XSTORAGE HOME SYSTEM		
	Applicable for all system combinations		
SAFETY			
Degree of protection	IP20 <sup>2</sup>		
Hazard substance restriction	Lead free, compliance with RoHS GP2		
Standards	CE - LVD: 2014/35/EU; EMC/CD: 2014/30/EU (EN 61000-6-3:2007+A1:2011; EN 61000-6-2:2005); RoHS: 2011/65/EU (EN 50581:2012); EN 62109 (part 1: 2010, part 2: 2011)		
Protective Class	I		
OPERATING CONDITIONS			
Storage temperature range	from -10 °C to 40 °C		
Operating temperature	0 °C to 30 °C		
Humidity	5 % to 95 % Relative Humidity (Non condensing)		
Acoustic noise	35 dB (indoor application)		
Altitude	Elevation: max 2000 meters		
Cooling	Natural airflow		
OTHERS			
Solar DC Switch	Integrated		
Topology	Transformerless		
Grid integration	AC coupled		
Grid certificates	DE (VDE-AR-N 4105 : 2018.11; DIN VDE V 0124-100:2012-07); UK (G98, G99, G83/1-1 and G59/1/NI for Northern Ireland); FR (UTE C15-712-1, Enedis/ERDF-NOI-RES_13E-V6:2016.07, SEI REF04_V7 for non interconnected area); IT (CEI 0-21); BE (C10-11); SP (RD 1699:2011); EU (EN 50438:2013)		
Common use cases	Grid tie: self-consumption; Off-grid: backup		
OV category	OVC II (PV and Battery), OVC III (AC grid/load)		
Degree of pollution	2		

2. Indoor, with all power cables connected

Guarantee	3.6 kW	4.6 kW	6 kW
4.2 kWh	5 years <sup>3</sup>		
6 kWh	10 years <sup>3</sup>		
10 kWh			

3. full cycle per day i.e. one Charge/Discharge

# xStorage Home casing dimensions



**Eaton**  
EMEA Headquarters  
Route de la Longeraie 7  
1110 Morges, Switzerland  
Eaton.com/xstorage

© 2019 Eaton  
All Rights Reserved  
Publication No. TD700001EN / CSSC-1784  
February 2019

Eaton is a registered trademark.  
All other trademarks are property  
of their respective owners.