

**Save these instructions.** These safety guidelines contain essential information that must be followed during installation of the xStorage Home system according to the procedure outlined in the xStorage Home installation manual. Instructions must be carefully read and understood before operating the equipment and be saved for future reference. The xStorage Home system is a product for residential application only and installation must be done in a dry, indoor environment within 0 °C to 30 °C, free of conductive contaminant. **NOTE : The xStorage Home system can only be installed by Eaton certified personnel i.e. an Eaton certified installer who needs to fully understand and apply provided safety instructions in order to avoid electrical hazard shock, potential death and sever product damage.**

These safety guidelines apply to the following xStorage Home systems and product life usage phases:

xStorage Home systems			
Charging power	Battery capacity	Product description	Part number
3.6 kW	4.2 kWh	XST 1Ph 3.6 kW 4.2 kWh Gen1 Blue	XSTH1P0361UBUEV1
4.6 kW	4.2 kWh	XST 1Ph 4.6 kW 4.2 kWh Gen1 Blue	XSTH1P0461UBUEV1
6.0 kW	4.2 kWh	XST 1Ph 6.0 kW 4.2 kWh Gen1 Blue	XSTH1P0601UBUEV1
3.6 kW	6.0 kWh	XST 1Ph 3.6 kW 6 kWh Gen2 Blue	XSTH1P0362NBUEV1
4.6 kW	6.0 kWh	XST 1Ph 4.6 kW 6 kWh Gen2 Blue	XSTH1P0462NBUEV1
6.0 kW	6.0 kWh	XST 1Ph 6.0 kW 6 kWh Gen2 Blue	XSTH1P0602NBUEV1
3.6 kW	10.08 kWh	XST 1Ph 3.6 kW 10.08 kWh Gen4 Blue	XSTH1P0364NBUEV1
4.6 kW	10.08 kWh	XST 1Ph 4.6 kW 10.08 kWh Gen4 Blue	XSTH1P0464NBUEV1
6.0 kW	10.08 kWh	XST 1Ph 6.0 kW 10.08 kWh Gen4 Blue	XSTH1P0604NBUEV1

Use phase	User	Action
Logistics	Forwarder	Loading, storing, delivery
Installation	Eaton certified installer	Unpacking, mounting, installation, commissioning
Operating phase	Residential user	Nominal operation via UI, malfunction notification, misuse
Service and maintenance	Eaton certified service provider	Standard check-up, replacement of the battery pack, hybrid inverter or electrical units, software upgrade
Deinstallation	Eaton certified installer	Dismantling the installed xStorage Home system
Product disposal	Eaton certified installer	Recycling the xStorage Home system



### WARNING LOGISTICS

- Do not lift any of the packed or unpacked units on your own without help or using an adequate machine lifter. There is a sever risk of self-injury.
- Do not pack pallets with product on top of each other. 1 pallet contains: 3 rows of products i.e. 3 packs on top of each other distributed in 2 side to side columns. If the stocked number of packages exceeds the defined number there is a double risk of damaging the products and risking packages falling directly to the floor and on the handler of the units leading to potential death and product irreversible damage.
- When loading, lifting, storing and delivering products avoid uncontrolled product movements. These could harm both the product and the handler of the units.
- The battery pack and hybrid inverter must be transported in their original packaging, in an upright orientation (terminals at the top). Compliant, non-flammable material must be used to protect the battery pack from impact damage. Never lift the battery pack or the hybrid inverter by the terminals.
- During the delivery, products must be carefully packed to prevent any product damage during the transport in case of excessive vehicle movements which should be avoided.



### CAUTION LOGISTICS

- Both packed hybrid inverter and battery pack units are considerably heavy: wear safety shoes and preferentially use a vacuum lifter for handling operations.
- All handling operations such as loading, lifting, moving packed units through the warehouse, delivery and unloading will require AT LEAST two persons working together.
- Always store packages in a dry and humidity controlled environment (where the storage temperature range is from -10 °C up to 40 °C) and far away from running liquids.
- Never let a foreign body penetrate inside any of the packaging, i.e. neither inside the packaging of the battery pack nor inside the packaging of the hybrid inverter.
- In case of dropping any of the packaging report this immediately to the responsible personnel who then have to carry out a product quality control check and make sure that any fall or impact did not cause any damage to the product.
- Do not leave packed products outside. Excessive weather might cause severe product damage.



### DANGER INSTALLATION



- The product installation i.e. mounting, connection instructions and operation described in the manual must be followed at all times in the given order.
- The xStorage Home system must be installed in a temperature and humidity controlled, indoor environment that is free of conductive contaminants according to the recommendations provided in this manual. Never install the xStorage Home system in an airtight room, in the presence of flammable gases, or in an environment exceeding the specifications such as outdoors. The system is not intended for outdoor use. Excessive amount of dust in the operating environment of the xStorage Home system may cause damage or lead to malfunction.
- Allowed ambient temperature range is [0 °C, 30 °C] and must not exceed 30 °C (86 °F) especially for 10 consecutive days. Do not install and operate the xStorage Home system near water or excessive humidity (95 % maximum).
- Prior to stating any installation or service work, all AC and DC power sources must be disconnected. Ensure as well system grounding/PE continuity.
- Do not open or mutilate battery pack or hybrid inverter.
- If accidentally dropping the battery pack or hybrid inverter, immediately move back to the 5m safe distance and prepare foam fire extinguishers in case the battery packs cells ignite from the impact. Then inform your Eaton technical support representative. In case of fire, inform immediately the fire brigade, keep the safe distance from the hazard scene due to the potential risk of being exposed to toxic fumes and inhaling smoke. Inform all people in the near proximity not to enter the hazard area.
- In case of spillage incidents i.e. battery pack leakage, move away at least 5 meters from the leak point and inform your Eaton technical support representative and fire brigade. Keep away from the hazard area. Disposal of the battery needs to be handled by Eaton certified personnel.
- In the event of electrolyte contamination i.e. the exposure to uncovered battery material such as electrolyte, powder etc.; skin, eyes should be immediately flushed with plenty of clean water and contaminated clothing immediately removed. The user should request medical assistance.

If you disregard any of the listed danger points you are risking sever product damage, electrical shock hazard and potentially death.



### WARNING INSTALLATION

- Prior to energizing the installed xStorage Home system, elements determine if the hybrid inverter and/ or the battery pack are inadvertently grounded. If inadvertently grounded, remove source from the ground. Contact with any part of a grounded battery pack or hybrid inverter can result in electrical shock. The likelihood of a shock can be reduced if all grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).
- To meet with warranty and safety requirements, keep the distance between the xStorage Home casing and surrounding sides at a minimum of 15 cm.
- Prior to energizing the installed xStorage Home system make sure to connect, physically, all elements as it is instructed in the manual and to close the hybrid inverter with the xStorage Home casing in order to prevent potential contact with the operating system once energized.
- If the xStorage Home system application includes connection to the PV solar system and/or grid make sure to deenergized PV connecting and/or grid terminals prior to any work. Note that the xStorage Home system can be powered by PV solar system, grid or by its own energy source (batteries) so deenergizing each connecting terminal is essential. Never let a foreign body penetrate inside the xStorage Home unit.
- Never block the natural air flow around the system, do not place anything on the top or near sides of the xStorage Home system after installation.
- Never expose the system to direct sunlight or a source of heat.
- If the xStorage Home system must be stored prior to installation, storage must be in a dry place away from any sun and rain exposure.
- When installing the hybrid inverter note that within this device AC and DC sources are terminated. To prevent risk of electrical shock during installation please ensure that all AC and DC terminals are disconnected from power source.
- Make sure to secure the Ground line to the Grid's Ground, and to double check the Line and Neutral are not confused with Ground.
- The hybrid inverter is designed to feed AC power directly only to the public utility power grid. Do not connect the AC output feed of the hybrid inverter to any private AC equipment. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- Do not attempt to alter any battery pack wiring or connectors especially to the hybrid inverter. Attempting to alter wiring can cause injury.



## CAUTION INSTALLATION

- The packed units (battery pack and hybrid inverter) are both heavy: wear safety shoes and preferentially use a vacuum lifter for handling operations.
- All handling operations will require at least two people (unpacking, lifting, installation i.e. mounting on the indoor wall).
- Carefully unpack both units (battery pack and hybrid inverter) and **especially pay attention to the sharp edges on the housing and cooling fins while** avoiding any excessive movements which might lead to product damage and severe self-injury.
- When unpacking, all accessories listed in the manual must be identified. Otherwise installation must be aborted due to missing components. Do not try to replace any on your own.
- Handling precautions must be taken i.e. wear rubber gloves, boots and use adequate installation tools.
- Do not lay tools, metal parts or anything else on top of the unpacked or mounted battery pack and hybrid inverter. Allocate a minimum wall area of 1530 mm x 1190 mm that is clear of all electrical wiring, pipework or other obstructions either on or buried within the wall.
- Suitable eye protection should be worn when working with or around Lithium-ion batteries.



## DANGER OPERATING PHASE

- Once installed and energized xStorage Home system contains components that carry **HIGH HAZARDOUS CURRENTS AND VOLTAGES**. As a residential user **DO NOT REMOVE ITS COVER** and **DO NOT OPEN IT** at any time. All repairs and service should be performed **ONLY by AN EATON AUTHORIZED SERVICE PERSON**. There are **NO USER SERVICEABLE PARTS** inside the xStorage Home system.
- Do not try to remove any screws from the xStorage Home system at any time. Failure to recognize this can cause the electrical hazards which can prove fatal both for the residential user and the system.
- Never block the natural air flow around the installed system, do not place anything on the top or near sides of the system after installation. Allow for minimum 15cm distance between the xStorage Home system and surrounding objects. Otherwise, system might overheat resulting in product being dysfunctional and electric hazard causing potential fire and electrolyte contamination event.
- Although designed to meet the requirements of international safety standards, the hybrid inverter and the battery pack may become hot while in operating mode. Do not touch the heat sink or peripheral surfaces of the hybrid inverter during or shortly after its operation.



## WARNING OPERATING PHASE

- Any type of the xStorage Home system control should be performed only through the official xStorage Home system UI application in the way instructed by the Eaton certified installer ensuring that the system is in the nominal operation mode. Any failure to do so will lead to the product misuse, its damage, malfunction and potential person injury.
- Note that a deep cycle charge and discharge may damage the battery cells inside the battery pack and can be dangerous if not performed correctly. The battery must be cycled in accordance with the manufacturer's instructions. If the battery has been over-discharged it must be returned to the distributor for disposal. The battery must not be charged and discharged outside of the voltage levels detailed in this manual. If the battery pack is misused (typically over/ under charged), harmful gases may be released.
- Before charging battery from the grid check with your Eaton certified installer that this option is available. Otherwise you are risking product damage, personal hazard and legal product misuse.



## WARNING SERVICE AND MAINTENANCE

- To prevent risk of electrical shock during service and maintenance and prior to removing the casing of the xStorage Home system please ensure that all AC and DC terminals are disconnected from power sources. The xStorage Home system can be powered by PV solar system, the grid or by its own energy sources (batteries), and AC/DC sources are terminated within the hybrid inverter while DC sources are terminated within the battery pack. Therefore the output terminals may still be energized even when the xStorage Home system is disconnected from an AC or a DC source. After disconnecting all sources of supply, wait for five minutes before removing the cover.
- Make sure to secure the Ground line to the Grid's Ground, and to double check that the Line and Neutral are not confused with Ground.
- When replacing the battery pack be aware that **HIGH VOLTAGES, CORROSIVE, TOXIC and EXPLOSIVE** substances are present in it. Because of the battery string the output terminal may carry high voltage even when the AC supply is not connected to the xStorage Home system. Thus do not touch battery pack terminals before making absolutely sure they are deenergized. Apply the shutdown instructions carefully.
- When replacing the hybrid inverter note that within this device AC and DC sources are terminated. To prevent risk of electrical shock during its service and maintenance please ensure that all AC and DC terminals are disconnected from power source and deenergized.
- Make sure to secure the Ground line to the Grid's Ground, and to double check that the Line and Neutral are not confused with Ground.
- When servicing/replacing any other electric units listed in the xStorage Home accessory list make sure they are as well disconnected from any AC/DC source and deenergized.
- The hybrid inverter is connected to more than one source of supply i.e. grid and PV solar system. **Make sure to disconnect all of the power sources prior to servicing and maintenance**, especially the DC switch between the hybrid inverter and the PV panel which when exposed to the sun light starts to supply high DC voltage. Avoid touching any live parts. Prior to reconnecting the hybrid inverter to the utility ensure that earthing connection is provided for the hybrid inverter in order to prevent potential high leakage current.



## WARNING DEINSTALLATION

- Prior to starting the dismantling process, fully discharge the battery pack to prevent any potential electrical shocks.
- To further prevent risk of electrical shock during the deinstallation phase and prior to the xStorage Home system casing removal please ensure that all AC/DC terminals are disconnected from all power sources (PV and grid).
- Note that the xStorage Home system can be powered by PV solar system, the grid or by its own energy sources (batteries), and AC/DC sources are terminated within the hybrid inverter while DC sources are terminated within the battery pack. Thus, the output terminals may still be energized even when the xStorage Home system is disconnected from all power sources. Allow five minutes to pass before moving forward with deinstallation.
- When demounting the battery pack from the wall take every precaution to prevent product fall and avoid any potential electrical and chemical hazard as battery pack might contain residual HIGH VOLTAGES and CORROSIVE, TOXIC, EXPLOSIVE substances.
- Do not touch the hybrid inverter/ battery pack terminals before making absolutely sure they are deenergized.



## CAUTION DEINSTALLATION

- Note that both the xStorage Home hybrid inverter and battery pack are considered to be heavy objects. Thus, wear safety shoes and make sure that all handling operations during the deinstallation such as dismounting, repacking units, moving them from the original installation zone to the transportation vehicle, loading, unloading at the waste disposal centre etc. involve **AT LEAST** two persons working together. **Pay attention specifically to the sharp edges on the housing and cooling fins while dismantling the product.**
- Suitable eye protection should be worn when working with or around Lithium-ion batteries.



## CAUTION PRODUCT DISPOSAL

- The product is made up of recyclable materials. Dismantling and destruction must take place in compliance with all local regulations concerning waste. At the end of its service life, the product must be transported to a processing centre for electrical and electronic waste.
- Dispose of the battery pack according to local disposal requirements. Do not dispose any of the xStorage Home system elements in a fire. When exposed to flame the battery pack may explode.
- The product contains Lithium-ion battery cells that must be processed according to applicable local regulations concerning this type of batteries. The battery pack may be removed to comply with regulations and in view of correct disposal.
- Do not open or mutilate any of the xStorage Home system elements prior to its disposal. Released electrolyte from the battery pack is harmful to the skin and eyes. It may be toxic.
- Do not discard the xStorage Home system or any of its elements in the domestic waste. This product contains sealed, Lithium-ion battery cells and must be disposed of properly. For more information, contact your local recycling/ reuse or hazardous waste centre.
- Do not discard waste electrical or electronic equipment (WEEE) in the domestic waste. For proper disposal, contact your local recycling/reuse or hazardous waste centre.