



7.2kWh and 9.6kWh Moixa Optimised Battery Systems: User Manual

Moixa Optimised Battery: “MOIASSY6072: Moixa Optimised Battery System of 7.2kWh” and “MOIASSY6096: 9Moixa Optimised Battery System of 9.6kWh” User Manual

Welcome to your Moixa[®] Optimised Battery System This is your User Manual

Moixa develops smart, clean technology to support a future powered by renewable energy. With the Moixa Optimised Battery System you can take control of your electricity usage, power your devices from more renewable energy and save money on your energy bills.

With a Moixa Optimised Battery System, you can bring smart-charging to your energy devices to:

- lower your energy bills by charging during off-peak periods with a time-of-use tariff
- optimise device charging behaviour to best utilise solar energy
- visualise your energy use on the Moixa Dashboard and app

Contact

Your installer will tell you who is providing your customer support. If Moixa is providing your customer support, you should contact us by email to

support@moixa.com or by calling **+44 (0)20 7734 1511 (option 2)**

We are available between 9am and 6pm on weekdays (excluding UK Bank Holidays).

You can also write to us at:

Moixa Technology, 29 – 31 Saffron Hill, London EC1N 8FH

If Moixa is not providing your customer support, please refer to the contact information provided by your installer.

Support information is also available on the Dashboard and App.

Updates to this User Manual and your User Agreement

The most up to date version of this User Manual is available on our website:

www.moixa.com/support/.

For more details of your contract with Moixa, please see your User Agreement which includes a description of your statutory rights, Installation Requirements and Warranty (where Moixa is your installer), Equipment Warranty, Moving House, Monitoring Energy generation and consumption, Upgrades and Updates to software and general terms and conditions for use.

Please read this User Manual alongside your User Agreement. The most up to date version of your User Agreement is also available on our website: www.moixa.com/support/.

If significant updates are made to this User Manual or User Agreement, you will receive an email notification from Moixa.

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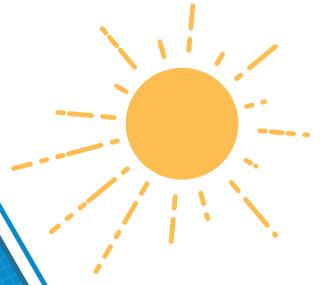
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Moving home?

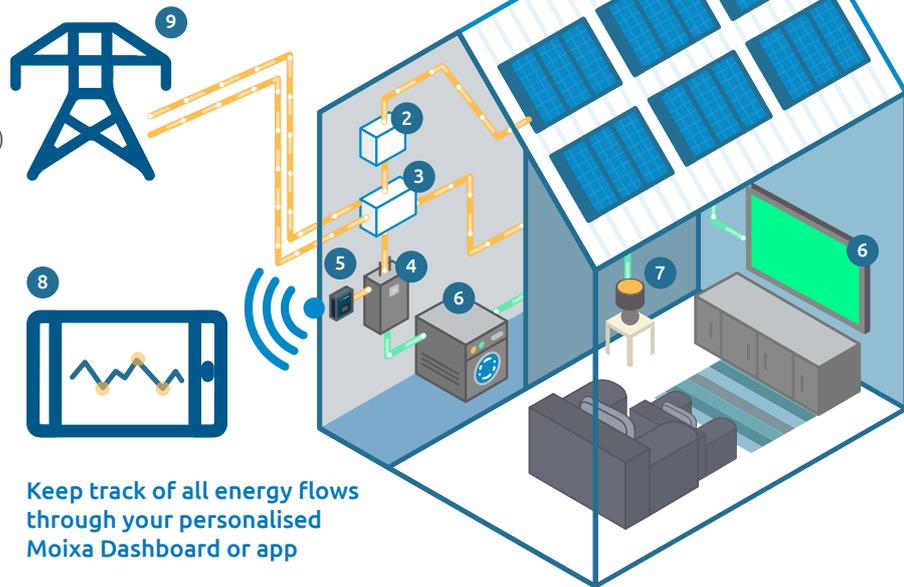
If you are moving out of the premises in which the Moixa Optimised Battery System is installed, notify your Customer Support. It is possible to relocate your Moixa Optimised Battery System, although you will need to pay for the deinstallation and reinstallation, and this will need to be done by a Moixa Accredited Installer in order for your warranty to remain valid. Please see your User Agreement for more details. If you are leaving your system, please tell the new occupier to also notify Customer Support, so that the benefit of the Manufacturer's Warranty can be transferred to them.

How the Moixa Optimised Battery System fits into your home

The Moixa Hub is installed in your home and integrated with a Victron Multiplus II inverter and either three or four Pylontech US2000 Plus battery modules to make up your Moixa Optimised Battery System. The Moixa Hub acts as a gateway to Moixa's Gridshare Platform and, once fully installed, will allow you to view the performance of your Moixa Optimised Battery System through the Moixa Dashboard and App.



- 1 Solar PV
- 2 Victron inverter
- 3 Consumer Unit (fuse box)
- 4 Pylontech batteries
- 5 Moixa Hub
- 6 Appliances
- 7 LED lighting and electronics
- 8 Moixa Dashboard or app
- 9 The Grid

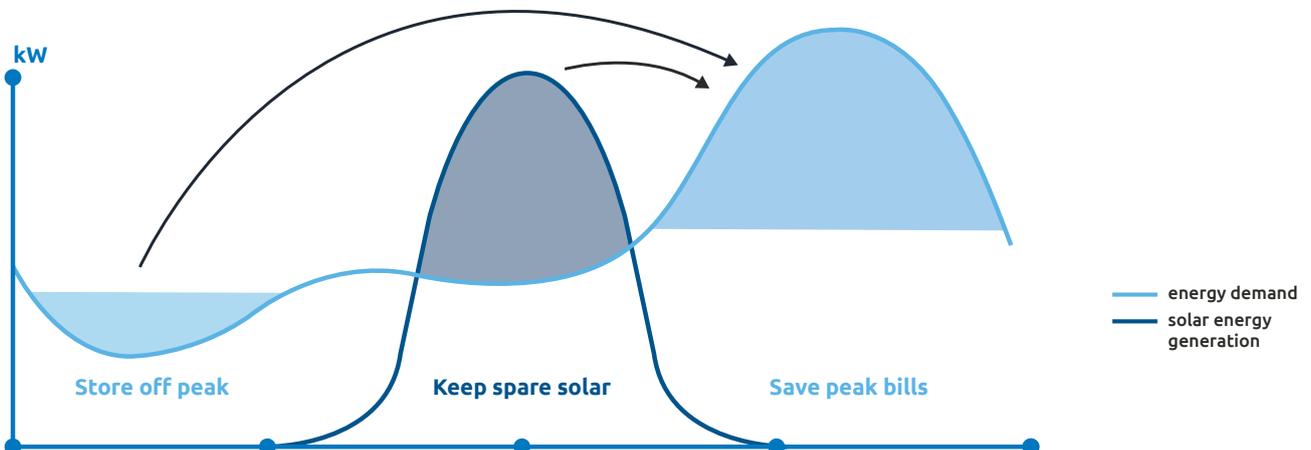


Keep track of all energy flows through your personalised Moixa Dashboard or app

Storing solar & off-peak energy

When your solar panels generate more energy than your home needs, the Moixa Smart Battery stores it for use later. If you have a special 'time-of-use' tariff, then your Moixa Smart Battery can deliver further savings by storing low-cost energy, so you can buy less energy at high-price peak periods. Let our team know if you are on a special tariff so we can ensure your Moixa Smart Battery is best optimised for you.

Storing free solar energy and cheap off-peak energy



1.0 Information in this User Manual

In this document you will find guidance on the use of the Moixa Optimised Battery System. For user manuals for other Moixa products, please go to www.moixa.com/support/

This document focuses on the Moixa Hub element of your Moixa Optimised Battery System, although it provides general guidance and information for all the component elements, where documentation from the original manufacturer exists, ensure that you refer to this information as well, and note that if there is any discrepancy, the original manufacturer's information takes priority with respect to that component.

This document is not intended to replace or supersede any guidance from Victron, Pylontech, or any other manufacturers. Where guidance for installation and use of these items exists, this shall be followed by the customer.

Please read the following instructions carefully as failure to observe the precautions may result in serious personal injury, property damage and will invalidate your manufacturer's warranty.

2.0 Safety

Installing the Moixa Optimised Battery System will require modifications to the distribution board or consumer unit (fuse box) of your property, in order to allow monitoring of the energy characteristics of your home. Carrying out any electrical work in a home or workplace can be dangerous, and only certified electricians may carry out the installation of the Moixa Optimised Battery System, which must be in accordance with the national safety regulations BS7671 or the equivalent applicable regulations in the country of installation.

Please read the following instructions carefully as failure to observe the precautions may result in damage or could invalidate your Installation and Manufacturer's warranties.

To ensure your product is safely and correctly installed, your installer must follow the guidance laid out in the Installer Manual.

- ✓ If any part of the Moixa Optimised Battery System becomes damaged, wet or if you notice any unusual noises or smells, disconnect the Moixa Hub by switching off at the plug socket and then unplugging the Moixa Hub and isolating the Pylontech battery modules and Victron inverter by turning your isolator switch to OFF. Contact your Customer Support Team as soon as possible.
- ✓ In the event of a fire near the Moixa Optimised Battery System, perform the following measures:
 - **If any part of the Moixa Optimised Battery System is on fire, do not try to extinguish it yourself.** Evacuate the property, call the fire brigade and inform them that you have a Pylontech Battery on fire which contains Lithium Ion components. The fire brigade will need to extinguish the fire using specialist equipment. The customer should provide the MSDS <http://en.pylontech.com.cn/download.aspx?id=184> When safe to do so, call Customer Support at the earliest opportunity.

- If it is safe to do so, turn the isolator switch to OFF, extinguish the fire near the Moixa Optimised Battery System and contact Customer Support.
- If it is not safe to turn the isolator switch off, switch it off at the consumer unit (fuse box), then extinguish the fire near the unit and contact Customer Support.
- ✓ If your Pylontech Battery modules start to leak and someone is exposed to the liquid, they should seek immediate medical assistance. The MSDS (material safety data sheet) lists down the immediate actions to be taken if someone comes in contact because seeking medical assistance could take time. You must also turn the isolator switch to OFF (p. 7) and contact Customer Support.
- ✓ Do not attempt to disassemble, repair or change the location of the Moixa Hub or any part of the Moixa Optimised Battery System. This can only be carried out by a Moixa Accredited Installer. Attempts to do so yourself (or anyone else) will invalidate your Moixa Installation and Manufacturers' Warranties.
- ✓ The Moixa Optimised Battery System must not be exposed to extreme temperatures, such as direct heat, flame or cold.
- ✓ Keep children and animals away from the Moixa Optimised Battery System.
- ✓ For proper ventilation, 100mm of free space is required to the left, right, top and front sides of the Victron inverter supplied as part of your Moixa Optimised Battery System. Covering it could cause it to overheat or stop working.
- ✓ After your Moixa Optimised Battery System has been installed you must inform Customer Support of any significant electrical work that you are planning, such as any changes to your consumer unit (fuse box), as this may impact your Moixa Optimised Battery System's performance.
- ✓ Keep the cabinet keys away from children and in a safe accessible location (to be able to open immediately - when required).
- ✗ Do not attempt to tamper with, disconnect, disassemble, repair or move the Moixa Optimised Battery System. This can only be carried out by a Moixa Accredited Installer, organised by Moixa.
- ✗ Do not expose any part of the Moixa Optimised Battery System to an open flame or sources of heat and do not keep flammable objects or liquids nearby.
- ✗ Do not expose any part of the Moixa Optimised Battery System to temperatures in excess of 35° C or under 18° C.
- ✗ Do not pierce any part of the Moixa Optimised Battery System, place objects on top of it or subject it to strong impacts.

Please note: Once the Moixa Hub and your connected device(s) have been fully installed, Customer Support must be notified of any significant electrical work that you are planning to conduct in your home. This includes any changes to your consumer unit, as this may impact the performance of the Moixa Hub and connected device(s).

3.0 Maintenance and Troubleshooting

If you change your electricity provider or tariff, notify Moixa, or your customer support, by email (see contact section 7.0). It is important Moixa has your up to date tariff information to fully optimise your system.

Unless there is an emergency, or situation as described in the Battery Safety Instructions, you must not attempt to shut down your Moixa Optimised Battery System unless instructed to do so by Customer Support. If a non-emergency fault does occur with your Moixa Optimised Battery System, please contact Customer Support and they will be happy to assist.

3.1 Shutting down

Turn the isolator switch that connects the Moixa Optimised Battery System to the mains in the house from the ON to the OFF position. If your Moixa Optimised Battery System was installed with a red and yellow isolator switch like the one shown on the right, this will involve turning the red switch anti-clockwise from ON to OFF. Once the switch is off, you should expect the screen to go black.



3.2 Restarting

Before restarting, please leave the isolator switch in the OFF position for 30 seconds. Then turn the isolator switch back to ON. Once the Moixa Optimised Battery System has restarted the Moixa Hub screen should turn on.

3.3 Product Performance and Maintenance

Your Moixa Optimised Battery System should not require your attention or onsite maintenance to function correctly. However, if you are concerned that your Moixa Optimised Battery System is not performing as expected, we recommend checking your Moixa Dashboard or App. Here you should be able to see the amount of energy stored in the battery increasing and decreasing throughout the day with your solar generation and household consumption. If you are unsure whether your Moixa Optimised Battery System is performing as expected, please contact Customer Support.

The Moixa team will also look out for any Moixa Optimised Battery Systems that are not working as expected, and if any issues are detected we will try and resolve these remotely. If the issue cannot be resolved remotely, the Customer Support team will reach out to you and arrange for one of our Moixa Accredited Installers to visit your premises and resolve the issue.

To further guarantee uninterrupted operation and optimal performance of the Moixa Optimised Battery System, we recommend that:

- Your household electrical system is inspected periodically to ensure it is compliant with all required standards. The scheduled inspection due date for the Moixa Optimised Battery System installation should be mentioned by the installer on the EIC form. The customer should schedule the inspection with their installer or electrician.

- You check for accumulated dust and other contaminants on the surface of the Moixa Optimised Battery System and, if required, use a soft and lint-free cloth to remove these. Please avoid using solvents or water for cleaning.

For any other queries or if you aren't sure if the Moixa Optimised Battery System is working as expected, please contact Customer Support.

Battery health: In order to prolong the lifetime of your Moixa Optimised Battery System and comply with the manufacturer's requirements, the system must be charged to full at least once per month. Usually this need is met through normal operation. However if your PV system doesn't generate enough power and/or you don't charge it overnight from E7/smart tariff, your Moixa Optimised Battery System has programmed to launch the "self-maintenance mode", during which it will set itself to charge up to full. That might result in charging from the grid. (for Ireland) and AS/NZS 3000:2018, Electrical installations (for Australia).

3.4 Troubleshooting

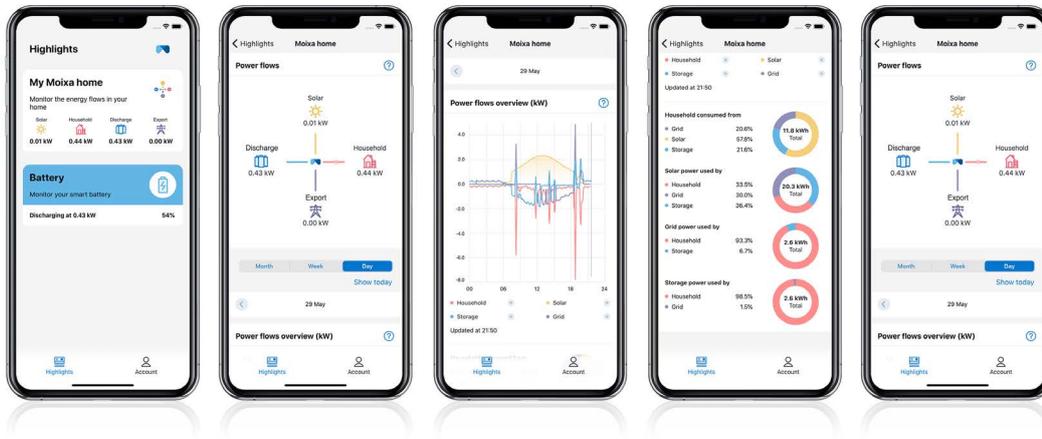
Connectivity: If your Moixa Hub is experiencing connectivity issues, you may see gaps in your data on your Moixa Dashboard or App.

If you suspect that you have a connectivity issue, we recommend that you first check your internet router or modem to ensure you have a stable internet connection. If your system is installed with a Power Line Communication (PLC) device, confirm that this is still operating correctly. The two LEDs above the Ethernet port on the Moixa Hub will be illuminated if communication is occurring between the Moixa Hub and your local network.

For further guidance, contact Customer Support.

Power: If the Moixa Hub screen is not lit up, check that power is being provided via the supplied wall adaptor. If power is being supplied and the screen is still not on, contact Customer Support.

4.0 Moixa Dashboard and app



4.1 Overview

Your Moixa Dashboard and App allows you to view your home’s energy data through your personal online account. Your energy graphs and information will help you understand how much energy your home uses, how much solar energy you generate and how your Moixa Optimised Battery System is helping you to save money.

4.2 Account Setup

During your Moixa Optimised Battery System installation, an account will be created for you to access the Moixa Dashboard and app. This account will be assigned to the email address that you provide to your Installer on the day. You should receive an email from hello@moixa.com which will explain the next steps to get signed up. If you have not heard from Moixa after 3 working days, check your junk email account for an email from hello@moixa.com or reach out to your support team.

4.3 Log in to your Moixa Dashboard or app

You can log in to your Moixa Dashboard by going to mygridshare.com and our Moixa App is available on both Apple & Android devices. Search for: Moixa GridShare.

4.4 Firewalls

Your Moixa Optimised Battery System must be connected to the internet for you to receive full functionality, and you must not interfere with this connection. Below are the minimum recommendations that are required for correct operation of the Moixa Hub:

- TCP Port: 8833 MQTTS -> AWS (any IP)
- TCP Port: 22 -> SSH Jano (any IP)
- TCP Port: 443 -> HTTPS (any)
- UDP Port: 53 -> any IP

The above are subject to change without notice, and we recommend allowing the following in order to avoid disruption:

- Inbound rules: any IP - disabled, any port - disabled
- Outbound rules: any IP - allowed, any port – allowed

5.0 Technical Information

Available in 7.2kWh & 9.6kWh



Dimensions

Moixa Hub: H: 15 x W: 15 x D: 5 cm

Victron MultiPlus-II 48/3000/35-32

Inverter/Charger: H: 50 x W: 28 x D: 15 cm

2.4kWh 48V Pylontech US2000 Plus:

H: 9 x W: 44 x D: 41 cm (each module)

The batteries must be housed in a cabinet which is: H: 54cm x W: 60 x D: 56

The inverter requires 10cm of free space to the left, right, top and front sides for ventilation.



Weight

Moixa Hub: 750g

Pylontech Battery Module: 26kg (each module)

Victron Inverter: 18kg



Power

Pylontech Battery Module: 240VAC. Input nominal 2kW AC (max charge), output nominal 2.4kW.



Battery Module

7.2kWh or 9.6kWh (3 or 4 x 2.4kWh 48V Pylontech US2000 Plus battery modules) LiFePO4 chemistry. Total usable capacity of 90%.



Communications

As standard with Ethernet, Power Line Communication (PLC), or Wi-fi.



Compliance

Moixa Hub: Compliant with LVD, RED, EMC, RoHS, REACH and WEEE directives.

CE marked. WEEE marked (♻️) product which must not be disposed of with household waste. As per the waste batteries and accumulators act, customers can ship the battery packs to the battery pack distributor in the UK (which placed the batteries for the first time in the UK market). One example is Midsummer in Cambridge.

Please refer to the Victron and Pylontech websites for inverter and battery compliance information.



Warranty

Moixa Hub: 10 year manufacturer's warranty

Battery System Installation: 2 year warranty

Pylontech battery: 10-year manufacturer's warranty

Victron Inverter: 10 year manufacturer's warranty



Intellectual Property Rights

Patented and patents pending including (GB2476213, US201000076615, GB1221819.4)



6.0 Contact

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support@moixa.com or by calling **+44 (0)20 7734 1511 (option 2)**

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