



# QuiPower Core

EMS HW 02

## Installation Manual







**Thank you for choosing QuiPower!**

The energy transformation is here and with QuiPower in your property, you have made an active choice to help drive it forward!

Your panels can capture it. Your car can run on it. Now your home can store and control it. With QuiPower Storage, the missing link in clean home energy is finally solved. So that the energy is enough for the future!

To easily follow and control your energy, download the QuiPower App.

We at Enequi are here to answer your questions and thoughts - so do not hesitate to contact us!

**Contact details**

Email: [support@enequi.com](mailto:support@enequi.com)

Phone: +46 (0)10 – 122 17 00

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**⚠ NOTE!**

All information in this document has been compiled and checked with the greatest possible care. Nevertheless, this publication may contain technical or other inaccuracies or typographical errors. The information contained herein is subject to periodic changes; such changes will be incorporated into new editions of the publication.

Enequi may make improvements and/or changes in the services described in this publication at any time. Enequi assumes no liability for the use of outdated documents. Installers and users are therefore advised to check the current version at [www.enequi.com](http://www.enequi.com) or by scanning the provided QR code.



# 1. Safety Instructions

## 1.1. Safety Symbols



Read these instructions carefully before use.



**CAUTION!** Personal injury or property damage may occur.



**WARNING!** Read the information to avoid damage to the equipment.



**ELECTRICAL HAZARD!**

Death or severe personal injury may occur.



**ELECTRIC SHOCK RISK!**

Don't open the device!  
Dangerous voltage may still be present inside the unit, even when switched off.



Protective grounding.  
Grounding points and grounding screws are part of the protective grounding of the QuiPower Core.



For indoor use only.



Approved in accordance with applicable directives.



The product contains electrical components. Dispose of it as hazardous waste.

## 1.2. General Safety Instructions

**⚠ WARNING!**

- Only qualified personnel may install and connect the QuiPower Core.
- Read this manual before beginning the installation and connection of the QuiPower Core.
- Always wear **PPE** (**P**ersonal **P**rotective **E**quipment) during installation and maintenance. At a minimum, this includes:

Safety glasses



Safety shoes with steel toecaps



- To avoid personal injury or property damage, it's important that you carefully read, understand and follow the entire contents of this manual, including all safety instructions and warnings.
- Don't install, operate or maintain this product unless you're trained and qualified.
- This manual doesn't cover every installation and situation.

## 2. Technical Data

	AC	DC
Supply voltage [V]	100 .... 240 -15% ..+10%	
Frequency [Hz]	50 .... 60 ±10%	
Fuse rated current [A]	C10	
Outputs [V]	250	24
2 changeover contacts <sup>1</sup>	1000 VA	100 W
2 open drain	-	Max. 500 mA <i>Unprotected</i> <sup>1</sup>
Max. Power consumption [W]	60	
OVC	III	
Communication interface	RS485 / CAN / Modbus TCP / Ethernet / USB <sup>2</sup>	
Heat dissipation	Natural cooling	
Humidity	<95 RH (non-condensing)	
Dimensions [W*H*D, mm]	300 x 330 x 120	
Installation mode	Wall-mounted	
Weight [kg]	6	
Degrees of Protection [IP]	44 <sup>3</sup> / 20 <sup>4</sup>	
Impact Protection Rating [IK]	5	
Operating Temperature Range [°C]	-5 .... +30	
Storage/Transport temperature [°C]	-25 .... +50	
Altitude [m]	<2000 (No derating)	
IEC / EN	61439-1 / 3	

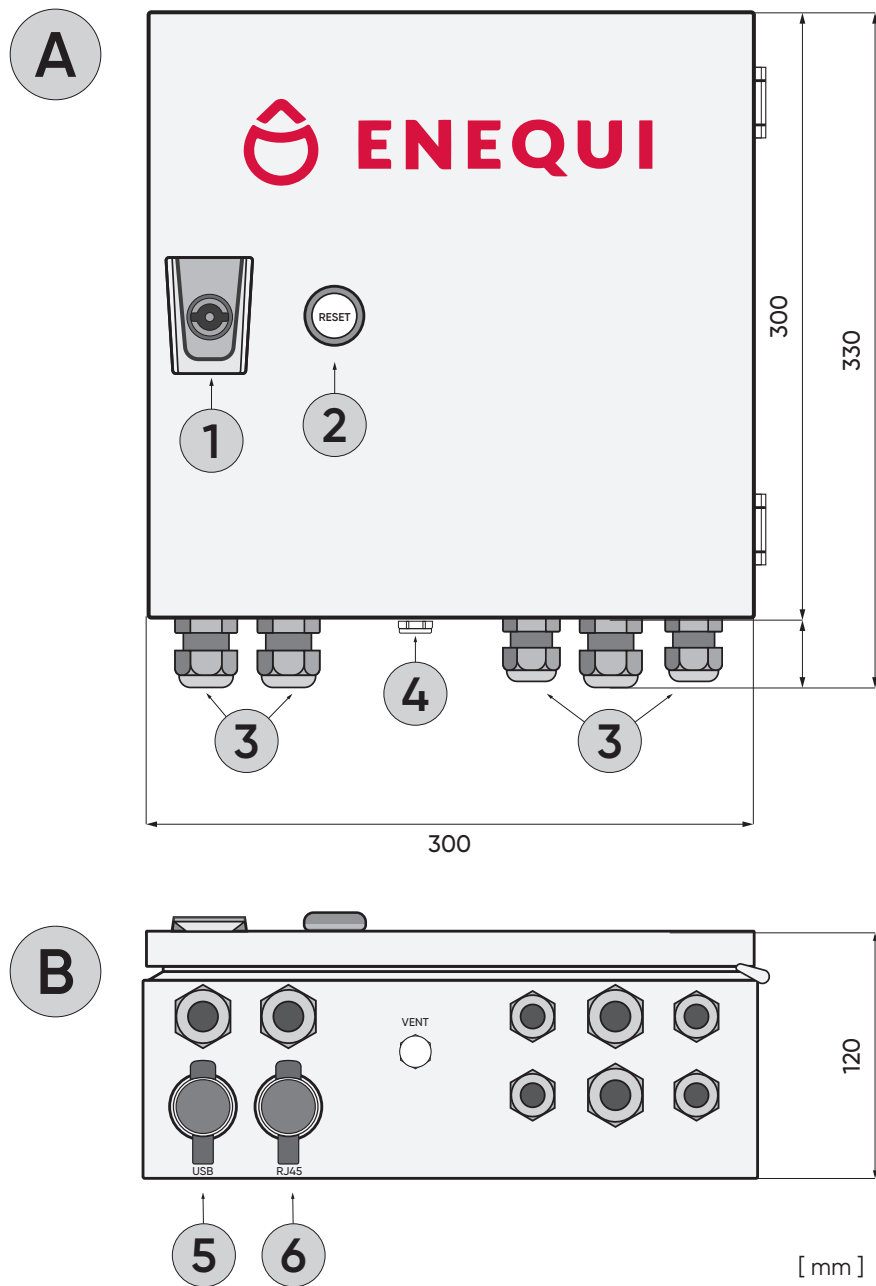
<sup>1</sup> No short circuit protection.

<sup>2</sup> For future use.

<sup>3</sup> IP44 rating is achieved by closed covers, including USB and RJ45 terminal covers.

<sup>4</sup> IP rating reduces to 20 when a plug is connected to the USB or RJ45 port.

### 3. Description



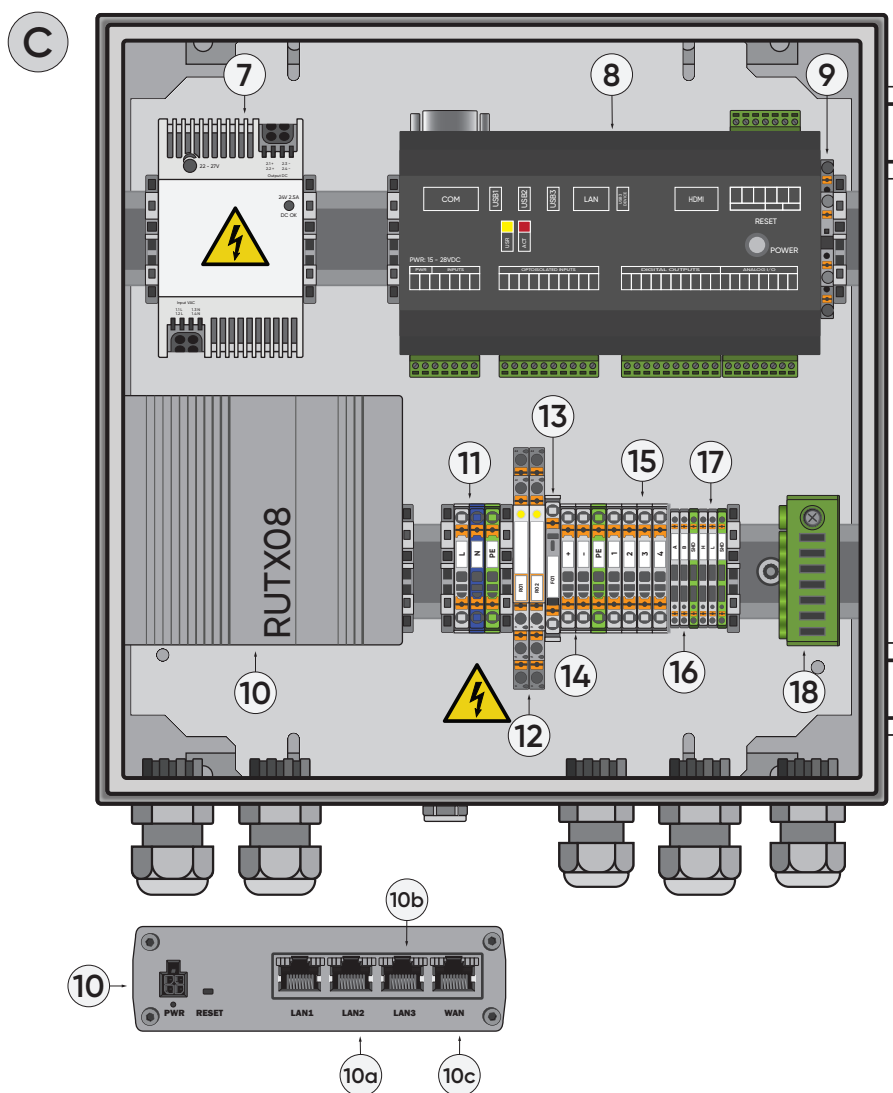
#### A. Front / Door

1. Cam lock
2. Led indicator / Push button

#### B. Bottom

3. Inputs
  - 4 x M16, prepared with cable glands.
  - 4 x M20, prepared with cable glands.
4. Ventilation hole.
5. USB (reserved for QPN Bridge)
6. RJ45





### C. Inside

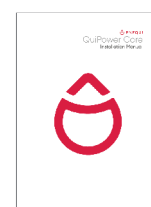
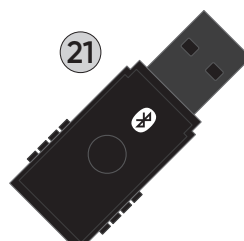
7. PS01, Step 3 230/24VDC.
8. D01, Pigeon RB300.
9. R1, resistor.
10. D02, RUTX08.
  - 10a. Access point web interface.
  - 10b. CC1 (optional).
  - 10c. WAN, internet.
11. X01, control voltage 230 VAC.
12. R01 och R02, SG Ready.
13. F01, fuse 2A T2.
14. X02, output 24V (future use).
15. X03, terminal (future use).
16. X04, RS485.
17. X05, CAN (future use).
18. X06, PE terminal.

### D. This product comes with







19. Service Key
20. QuiPower Core Manual

### E. Optional accessories

21. QuiPower Node Bridge



### 3.1. LED Indicator

Led color	Status
 <p>LED glows constant blue.</p>	System active.
 <p>LED flashes blue.</p>	The system is active and operates with batteries.
 <p>LED flashes purple.</p>	The system is not connected to Enequi Cloud.
 <p>LED flashes purple and red.</p>	The system has alarms and is not connected to the Enequi cloud, this requires user intervention.
 <p>LED glows constant red.</p>	The system has alarms that are automatically reset.
 <p>LED flashes red.</p>	The system has alarms that require user intervention.

### 3.2. Push Button

When the LED indicator flashes red, the user must identify the system fault and reset the alarm.

- Reset the system alarm by pressing the push button < 2 seconds.

#### **NOTE!**

- If a system alarm persists, contact the Enequi Support for further assistance.

## 4. QuiPower System Devices

### NOTE!

Download and read the manuals for all devices before installing and connecting the QuiPower system setup.



- Plan the QuiPower System installation according to the system drawing.
- Only task-competent personnel trained by Enequi can install and connect QuiPower System.
- Connect all electrical connections according to the system drawing that fits the setup.
- Follow the instructions from Enequi for settings and programming.
- Always follow safety instructions and recommendations for each device.

All documentation, such as manuals and drawings, can be found on Enequi's website (Manuals and Documents). Follow the link below or use the QR code to access documentation.

Below is a list of the devices included in the QuiPower System. Read each manual and follow the instructions and recommendations:

1. QuiPower Core
2. QuiPower Storage
  - GTX or BTS
3. QuiPower Inverter
4. Energy Meter
  - *Installation of the energy meter must be according to the inverter manual. The energy meter comes pre-programmed from the factory. No changes are needed.*
5. Car Charger (Optional)

Please click on or scan the QR code below:



Or visit <https://www.enequi.com>

## 5. Installation

### ⚠ CAUTION!

First read the safety instructions in this manual. Throughout this manual, it's assumed that the reader is familiar with installations and knows the rules and regulations for electrical equipment and its connection to the mains AC.

The installer must know the general safety rules for working with electrical equipment.



- Install the QuiPower Core according to the electrical drawing.
- Don't put the QuiPower Core into operation until the entire system complies with the application-specific national regulations and safety rules.
- The ambient conditions specified in the product documentation must be observed.
- Ensure that there is always sufficient free space, at least 300 mm, around the product for ventilation.
- Only persons who're trained and qualified for the use and operation of the QuiPower Core may work on the device.


### 5.1. Unpacking

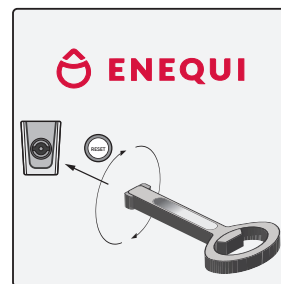
- It's recommended that the packaging not be removed until the QuiPower Core is at the installation site.
- Carefully inspect the shipping package before installation and make sure it's no external damage. Don't use damaged or suspected damaged equipment. Report any damage to the dealer immediately. In the event of a return, please pack the QuiPower Core in its original packaging.
- Carefully unpack the product and check if all accessories from the description list are included.
- The manual should be read carefully and kept.

If you are in doubt, please contact the distributor before installing the product.

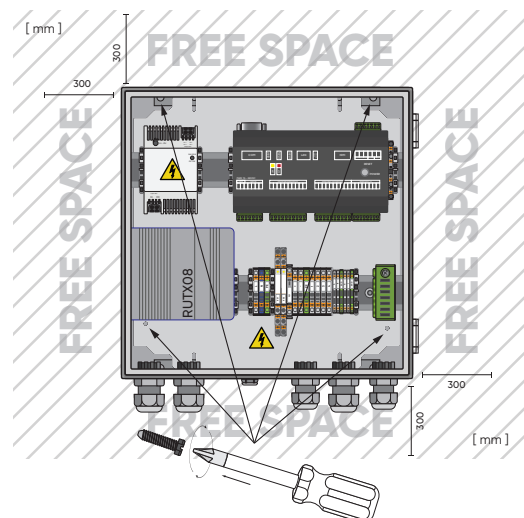
### 5.2. Mounting

#### ⚠ CAUTION!

- QuiPower Core is for indoor use only. 
- There must be at least 300 mm of free space around the QuiPower Core.
- Mount QuiPower Core in a location where the ambient temperature is between  $-5^{\circ}\text{C}$  and  $30^{\circ}\text{C}$ . If the temperature is outside this range, Enequi cannot guarantee the lifetime of the QuiPower Core and the warranty won't cover the entire lifespan.
- Don't install the QuiPower Core on flammable building materials or near explosive materials.
  - Open the front cover by unlocking the cam lock and using the service key provided.



- Attach the QuiPower Core with screws and dowels suitable for the wall material.



#### ⚠ CAUTION!

Ensure that there is always sufficient free space, at least 300 mm, around the QuiPower Core for ventilation.

### 5.3. Connection

#### ⚠️ **ELECTRIC SHOCK RISK!**

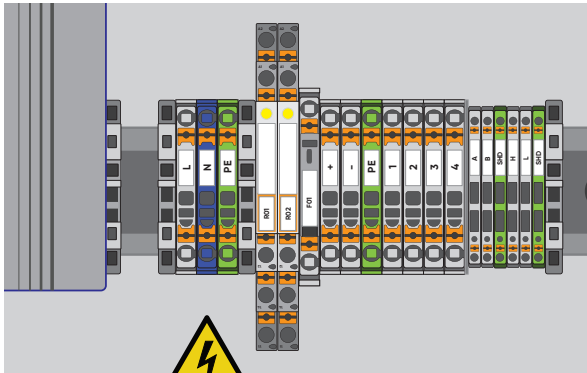
- Turn off the main supply and ensure there's no voltage before installing.

#### ⚠️ **CAUTION!**

- Ensure all phases are within the limits and the connection to neutral and protective earth are correct.
- Perform a continuity check to verify the connection PE.
- Install according to the electrical drawing.

#### ⚠️ **NOTE!**

- The maximum cable length for all connections is <30 meters, excluding the main supply cable and optional cable from terminal X03.
- Don't use cables whose losses exceed 1%.
- Use only cables with the correct dimensions according to the electrical drawing.
- All cables must be routed through the cable glands on the underside of the QuiPower Core.



#### 5.3.1. Main Supply (X01)

#### ⚠️ **ELECTRIC SHOCK RISK!**

- Turn off the main power supply and ensure there's no voltage before installation.

#### ⚠️ **NOTE!**

- Check all connections and re-tighten them if necessary.
  - Connect the intended main supply cable to terminal X01.

#### ⚠️ **CAUTION!**

- **DON'T TURN ON THE MAIN POWER SUPPLY!**

#### 5.3.2. Optional – SG Ready (R01 and R02)

The SG-Ready relays (R01 and R02) can control devices with Smart Grid Ready functionality. For other functions, please see the QuiPower Interface User Manual.

#### ⚠️ **CAUTION!**

- The minimum switching current is 10 mA (12 V).
- Relays cannot be a safety stop for critical functions.
- In case of a fault, it must be possible to manually operate (bypass the connection) the connected SG Ready device.
  - Connect a SG Ready device to relays R01 and R02 according to the electrical drawing.

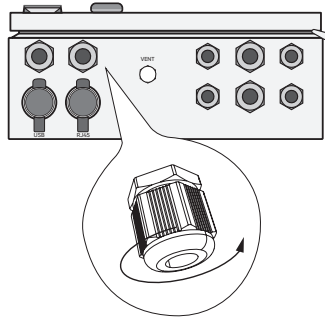
#### 5.3.3. RS485 (X04)

The RS485 port is for communication with the QuiPower inverter. Read the separate manual of the inverter for further installation instructions.

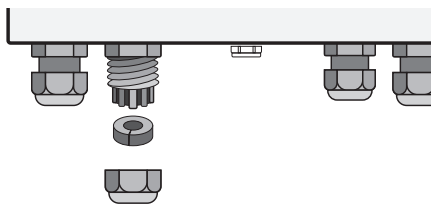
- Connect the designated RS485 cable to terminal X04.
- Set inverter communication address to 11.
- Verify that the baud rate is 9600.

### 5.3.4. Network Connection

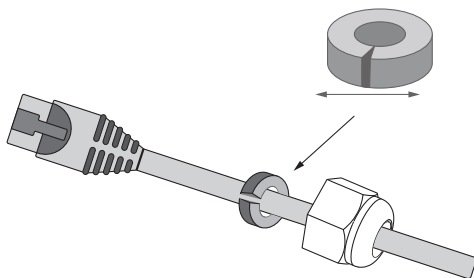
1. Unscrew the M20 cable gland nut closest to the RJ45 input.



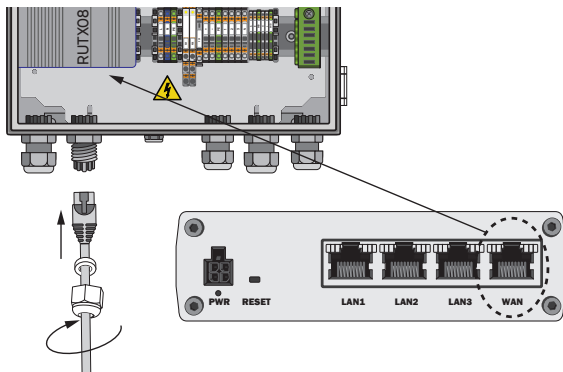
2. Remove the cable gland seal.



3. Insert the cable gland nut and seal through the network cable. The seal can be opened.



4. Open the front cover and pull the network cable in through the cable gland hole and up towards the router.



5. Plug the network cable into the WAN port of the router (the input to the most right).
6. Push back the seal and tighten the cable gland nut.
7. Close the front cover.

### 5.3.5. USB - QuiPower Node Bridge

The QuiPower Node (**QPN**) Bridge is an accessory that enables the QuiPower Core to communicate with QuiPower nodes via Bluetooth.

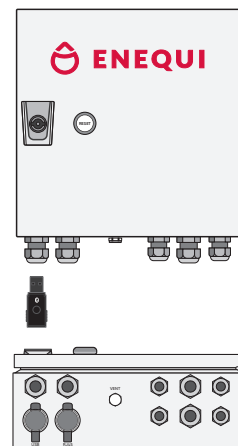
Provisioning, configuration and function assignment of the Nodes is managed from the QuiPower mobile app.

#### ⚠ WARNING!

- The QuiPower Node Bridge should only be connected or disconnected when the QuiPower Core has been switched off.

Connect **QPN** Bridge to QuiPower Core:

1. Turn off the main power to the QuiPower Core.
2. Plug the QPN Bridge into the USB input located at the bottom of the QuiPower Core.
3. Turn on the main power and wait for the QuiPower Core to start.
4. Activate the Bridge function via the QuiPower app.



### 5.3.6. Connections for Future Use

Enequi reserves the 24VDC output (X02), Open drain (X03), and CAN (X05) connections for future use.

## 6. Commissioning

### ⚠ CAUTION!

- Check that all phases are within limits and that the connection to neutral and protective earth is correct.
- Perform a continuity check to verify the connection PE.

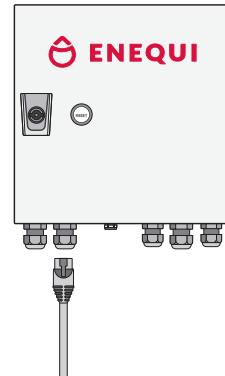
### ⚠ NOTE!

- Make sure all connections are correct according to the electrical drawing and re-tighten them if necessary.
- Turn on the main power supply.

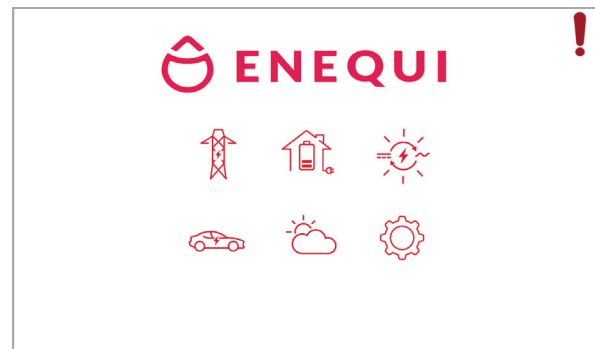
### 6.1. Remote Commissioning

- Remote commissioning may be required to complete the installation. Please contact Enequi support on telephone number +46 (0)10 – 122 17 00.
- For more contact information, please visit [www.enequi.com](http://www.enequi.com)

### 6.2. Connect to QuiPower Interface



1. Connect a network cable to the RJ45 port and the other end to a computer.
2. Click on the link below or copy the URL into any web browser:  
<http://192.168.148.201:8080/webvisu.htm>
3. The connection to the QuiPower Interface is successful when the browser displays the home screen.



### 6.3. QuiPower Interface

Due to impending changes, Enequi has decided to leave the QuiPower Web Interface section out of this manual. Download the complete interface manual through the link below.



Please click or scan the QR code below:

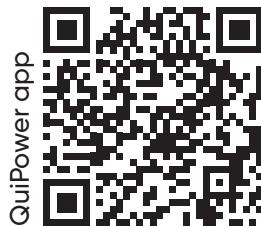


## 7. QuiPower App

The QuiPower app lets you control energy use in your home on your smartphone. Available for iOS and Android or any web browser.



Please click or scan the QR code below:



Or visit <https://portal.enequi.com/login>.

## 7.1. QuiPower app Manual

For safe operation, please download and read the QuiPower app manual.

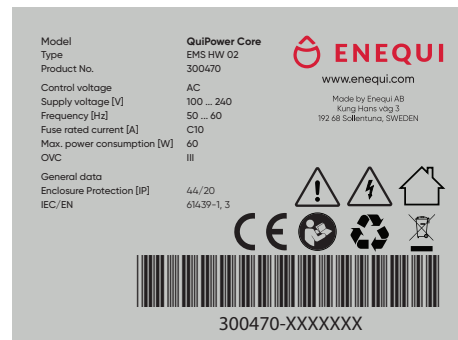
Please click or scan the QR code below:



## 7.2. Serial Number

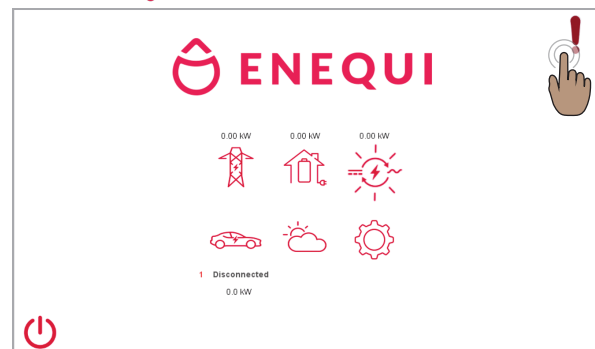
The Equipment label and the QuiPower Interface menu have a unique serial number for adding the QuiPower System to the QuiPower app.

On the equipment label, the unique serial number is below the barcode. e.g., 300470-XXXXXXX.

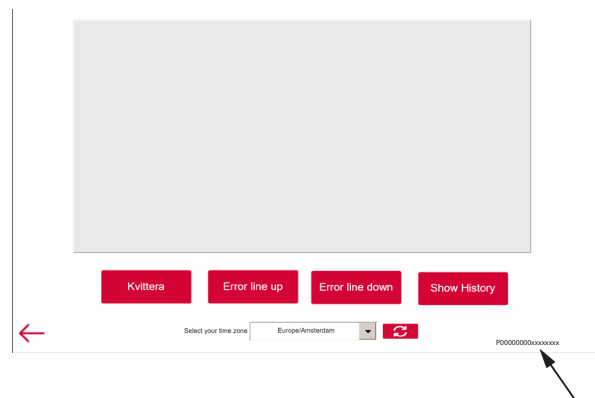


In the QuiPower interface, go to the "Fault" screen:

- Tap  to access the Fault screen.



- The unique serial number can be found at the bottom of the screen.





## 8. Maintenance

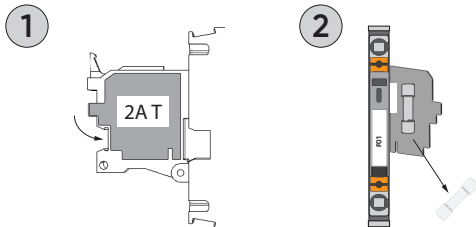
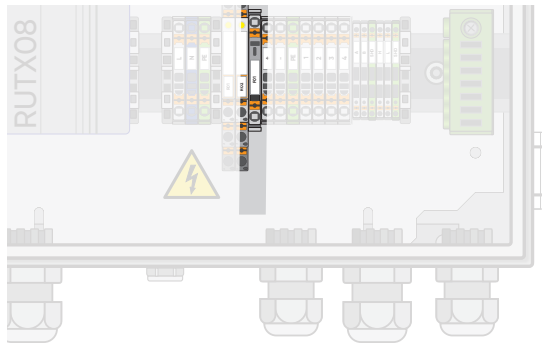
### **⚠ CAUTION!**

- QuiPower Core should only be repaired or modified by qualified personnel. To ensure the safety of the user and the environment, use only original spare parts available from your supplier.

### 8.1. Replacing the Fuse F01

#### **⚠ ELECTRIC SHOCK RISK!**

- Switch off the main power supply and ensure no voltage is present before performing any maintenance work.



The fuse in terminal F01 is of type 2A T.

1. Use the service key provided to open the front cover by unlocking the cam lock.
2. Open the fuse holder slot by pressing the slot to the right.
3. Remove the old fuse.
4. Insert a new fuse, type 2A T.
5. Press the slot firmly shut again.
6. Close and lock the front cover.

### 8.2. Inspection and Monitoring

For functional and safety reasons, the customer is responsible for performing periodic inspections of the QuiPower Core operating environment.

- Visually inspect the QuiPower Core for external signs of damage.
- Visually inspect all cable connections.
- Check for general appearance and cleanliness. Clean the QuiPower Core with a dry cloth if necessary.

If any damage has occurred please contact Enequi support for consultation at +46 (0)10 – 122 17 00.

For more contact information, please visit [www.enequi.com](http://www.enequi.com).





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# Schematics

## 9.1. System and Electrical Drawings

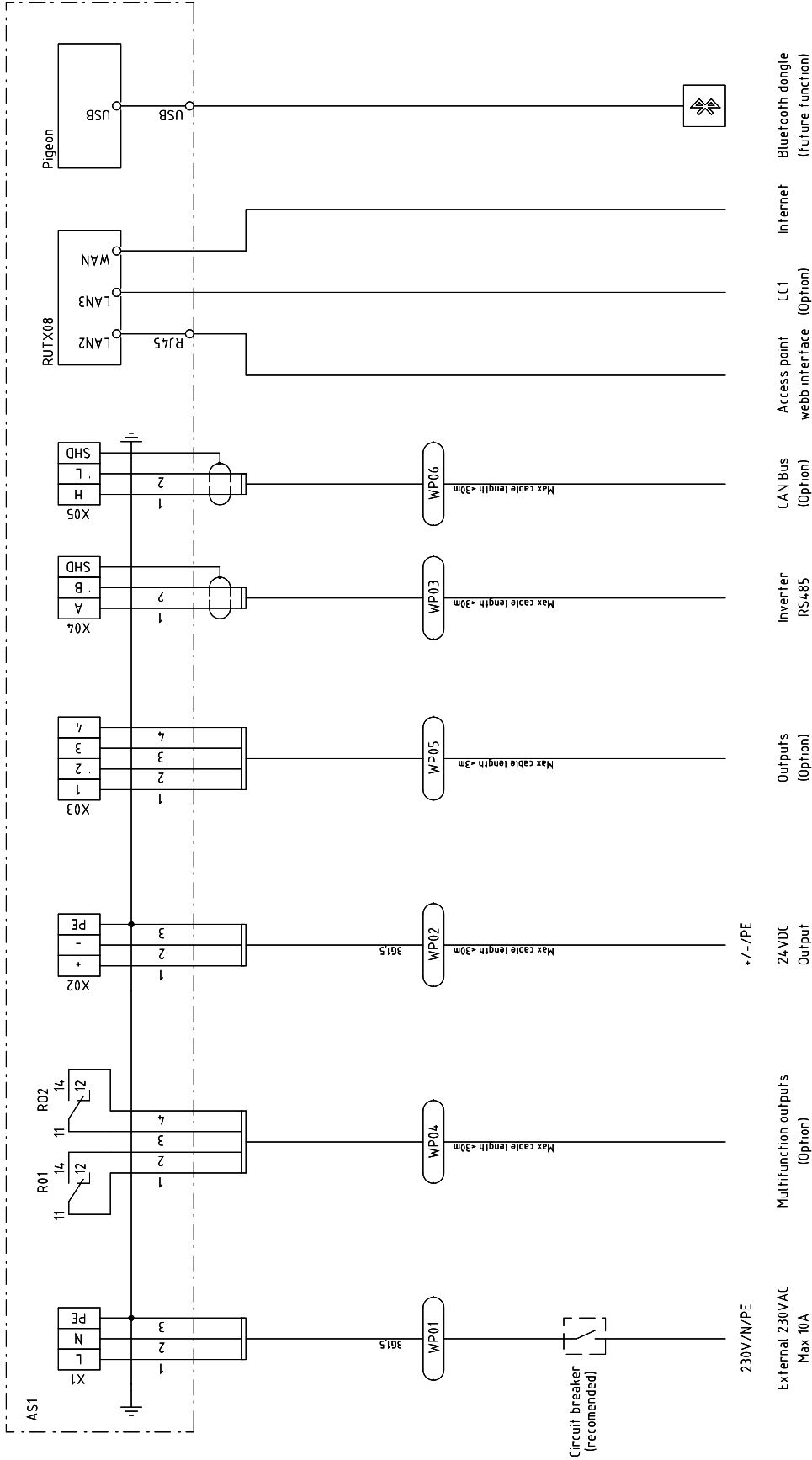
All documentation, such as manuals and drawings, can be found on Enequi's website (Manuals and Documents). Follow the link below or use the QR code to access documentation.

Choose the right drawing depending on the system configuration and remember to always download the latest version of the drawing.

Please click on or scan the QR code below:



Or visit <https://www.enequi.com>



Enequi 300470		CONSTR. BY	FILE NAME	DRAWING NUMBER
QuiPower Core HW 02		J.J.		3-820230E
External connections		DATE	REV.	CONT.
		2023-02-22	R2	-
				SHEET
				06

## 10. Exclusion of Liability

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Enequi shall not be liable for any direct, indirect or consequential damages, costs or losses including, without limitation, economic loss of any kind, loss of or damage to property, personal injury, damage or injury caused by or resulting from misuse or improper installation, integration or operation of the product.

Enequi disclaims any liability for direct or indirect damages resulting from the following:

- Improper installation or operation.
- Modifications, alterations or attempted repairs.
- Improper use or operation.
- Unsuitable ambient temperature.
- Failure to comply with applicable safety standards or regulations.
- Flooding, lightning, over voltage, storm, fire (forces of nature).

Enequi reserves the right to make changes that improve the function of the QuiPower Core.

## 11. Disposal

### **NOTE!**

- Improper disposal of the product by the user may result in administrative penalties in accordance with current legislation.
- The product's packaging must be disposed of by the installer or at a special waste station.
- Dispose of the product in accordance with the legislation of the country in which it is installed.



Do not dispose of the product with normal household waste. The product contains electrical components. Dispose of it as hazardous waste.



Original QuiPower Core HW02 Installation Manual. v2401

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