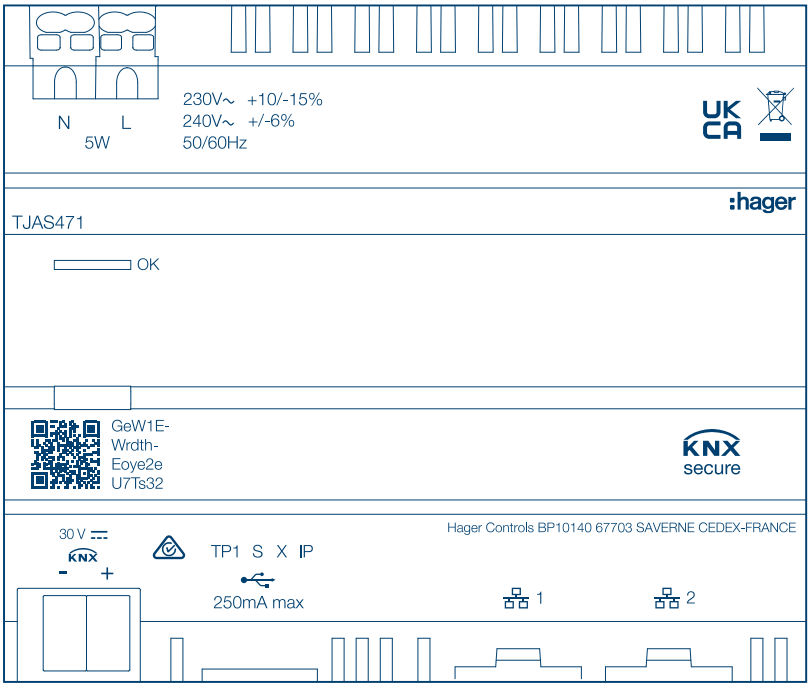
Installation manual

KNX building management system

domovea



domovea basic

TJAS671

domovea plus

TJAS471

matter KNX KNX secure quickconnect CE UK CA

:hager

EN

1 INTRODUCTION 5

1.1 Purpose of the document 5
1.2 General information on the KNX installations 5

2 GENERAL DESCRIPTION 6

2.1 Introduction to the system 6
2.2 Function 6
2.2.1 Product features 7
2.3 Operation 9
2.3.1 RGB status LED 9
2.3.2 Update the software 11
2.4 Introduction to the domovea server 13
2.4.1 Technical data 13
2.4.2 Description of the device 13
2.5 Using the Hager Pilot application 15
2.5.1 Installing the Hager Pilot application 15
2.5.2 Launching the Hager Pilot application 15
2.5.3 Accessing the configurator without using hager Pilot 16
2.5.4 Logging onto the server 16
2.6 Using domovea application 17
2.6.1 Installing the domovea Client application 17
2.6.2 Launch the domovea application 17
2.6.3 Log in using the domovea application 17
2.6.4 How to change the password 18
2.7 Using the KNXnet-IP Secure interface integrated into domovea 20
2.7.1 Configuration of the KNXnet/IP interface in ETS 20
2.7.2 Connection to a local area 23
2.7.3 Connection to a remote network 23

3 FIRST USE 30

3.1 New project 30
3.2 From a backup file 30
3.3 Using relearning 31

4 MY PROJECT 32

5 RELATED FUNCTIONS IN THE MENUS.....33

5.1 Account configuration..... 33
5.2 Parameters.....33
5.2.1 Configuration..... 33
5.2.2 Users.....37
5.2.3 Data management.....44
5.2.4 About..... 46

6 MY DOMOVEA INSTALLATION.....47

6.1 Dashboard..... 47
6.2 Installation..... 47
6.2.1 Devices.....47
6.2.2 Groups..... 48
6.3 Automations.....48
6.3.1 Sequences.....49
6.3.2 Home status..... 49
6.3.3 Create a domogram in the application.....50
6.4 MEASUREMENTS..... 53
6.4.1 Measurements..... 53
6.4.2 Subscriptions..... 53
6.5 Pairing the domovea to a Matter wizard.....53
6.5.1 Pairing.....54
6.5.2 Initializing Matter parameters.....60
6.5.3 Share pairing systems with other smarthome wizards..... 61
6.6 Managing user rights..... 61
6.7 Configuration..... 62

7 LIST AND DETAILS OF THE DEVICES..... 63

7.1 KNX devices.....63
7.1.1 Comfort.....63
7.1.2 Access security..... 64
7.1.3 Sensors.....65
7.1.4 Energy.....65
7.1.5 Generic..... 66
7.1.6 Network..... 66
7.2 Cameras..... 66
7.3 IOT devices..... 66
7.3.1 Philips Hue..... 66
7.3.2 Sonos..... 67
7.3.3 Netatmo..... 67
7.4 Additional connectivity control point.....67
7.4.1 Alexa..... 68
7.4.2 Google Home.....68
7.4.3 IFTTT.....68
7.5 HEMS..... 68
7.5.1 Hager flow.....69

8 Appendix..... 74

8.1 Installation of thermostat WAK5010xx KNX..... 74
8.1.1 Topology and compatibilities..... 74
8.1.2 Operating modes.....75
8.1.3 Programming with easyTool..... 75
8.1.4 Display in the domovea application.....77
8.2 Installation of non-Hager products..... 83
8.2.1 Installing the Airzone Aidoo KNX gateway.....83
8.2.2 Installation of Theben Cheops KNX valve..... 96

1 INTRODUCTION

1.1 Purpose of the document

The purpose of this document is to get to know the configuration interface of the domovea server. This document defines the steps to be followed to achieve this configuration. To do so, the following conditions are usually required:

- the equipment installation must be completed,

> **Information**
>
> For more information, please consult the operating and assembly instructions available on the website at - https://hgr.io/r/TJAS471 .

- the server must be connected to the Internet via a router with the DHCP server function activated,
- the installer must be equipped with a mobile device (smartphone, tablet, PC) connected to the same network as the server,
- the installer must have a company account on the myHager portal.

> We strongly recommend the installer has their own DHCP router (Wifi + 4G/5G) to perform the configuration and tests on the system locally (via Wifi) or over the Internet (via 4G/5G).

1.2 General information on the KNX installations

A KNX installation is an electrical installation in which products communicate between each others via a wired bus or radio to send or receive commands.

A KNX installation comprises different types of products that can be classified:

- As per their connection with the KNX bus:
  - Wired products: they are connected to the KNX bus using a cable that meets KNX specifications.
  - Radio products: they are connected to the bus using a radio connection that meets KNX radio specifications. The radio communication can be:
    - One-way: the products are emitters only.
    - Two-way: the products are both senders and receivers.

- As per their function in the installation
  - Input products: they send commands (push-buttons, switches, motion detectors, etc.). An input product can have several input channels: push-buttons with several switches, etc.
  - Output products: they receive commands and activate the connected applications (lighting, roller shutters, etc.). An output product can have several output channels: lighting output module with 6 channels to run 6 lighting circuits, etc.
  - Systems products: they are necessary for the correct operation of the installation: power supply to the bus, wired bus/radio bus media coupler, etc.

2 GENERAL DESCRIPTION

2.1 Introduction to the system

domovea is the command and display software for KNX and IoT installations. It enables access to all of the home automation functions from the computer terminals (smartphone, tablet, PC, etc.) in the home. In addition to the usual controls, there are new functions for comfort and security: triggering sequences (sequence of programmed or immediate actions), changing the configuration of the house according to events or periods, using images to view the correct execution of past or current commands, with a single click.

2.2 Function

The device forms the interface between the IP network LAN (Local Area Network) and the KNX installation bus. Using the LAN connection and the domovea app, users can access the connected KNX/IoT devices via smartphone, tablet or PC/laptop. It is recommended to use a router with an Internet connection (remote maintenance, remote access and online updates). The device operates as a server and is used as a central unit for controling, messaging and monitring. Configuration and operation is carried out via the Hager Pilot app. The device has integrates easyTool and allows the complete configuration of a KNX installation with easy-compatible devices.

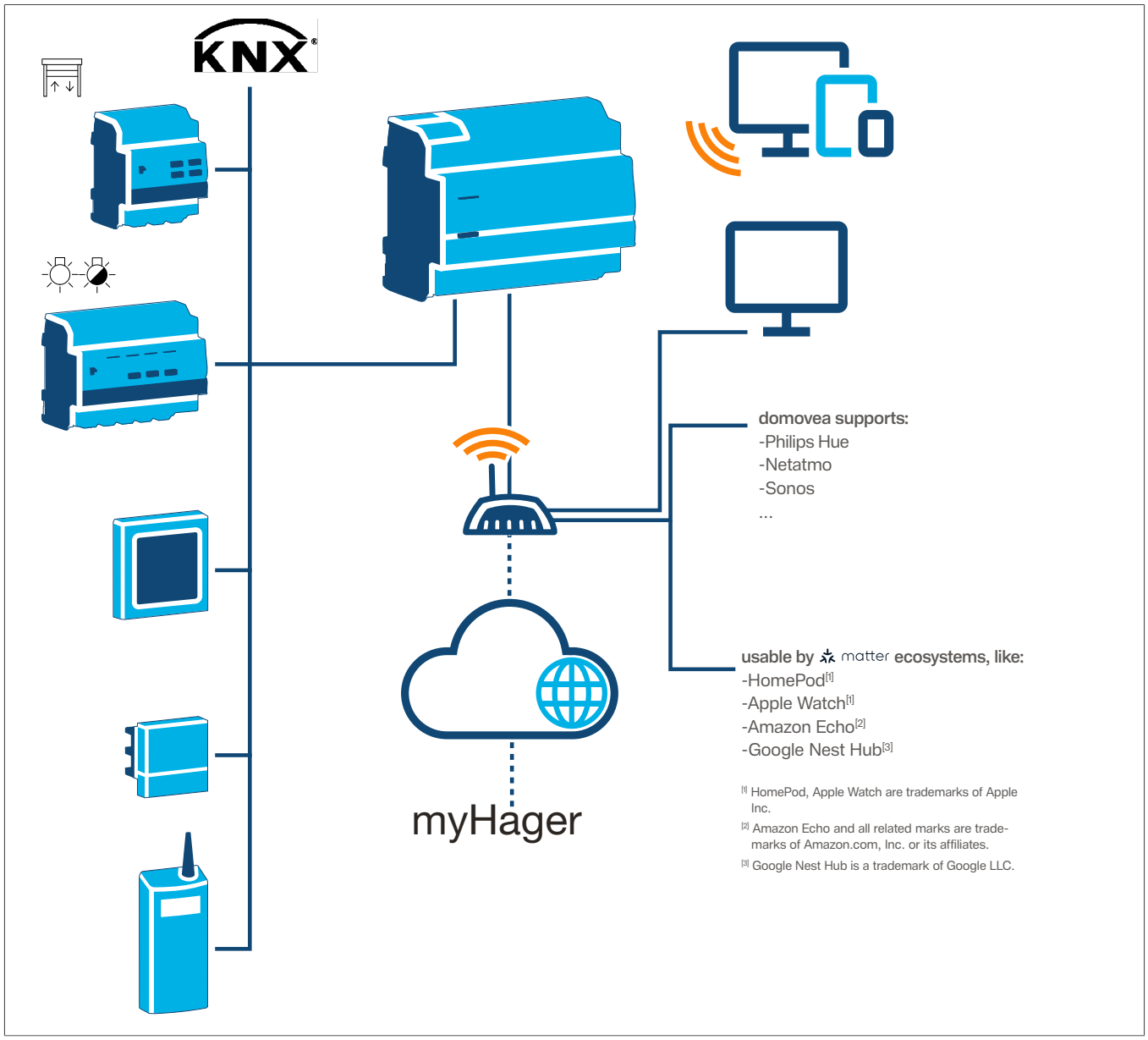


Fig. 1: System overview

- Interfaces between the KNX bus system and the IP environment
- Display and trigger of KNX- and IoT functions via app
- Visualisation of the KNX installation via the domovea app
- Configuration of Easy-compatible KNX devices via Hager Pilot and the integrated easyTool
- Configuration of the visualisation via Hager Pilot and the integrated domovea configurator
- Use as a KNXnet/IP secure interface for configuration via ETS
- Mounting on DIN rail according to IEC 60715

2.2.1 Product features

- KNX easyTool integrated
- USB 2.0 slot
- 2 x RJ45 plug contacts
- Integrated Ethernet switch (two RJ45 connections) for easy connection of several IP devices, e.g. in the distribution box
- Visualisation of the KNX system

- Visualisation server for end devices (iOS and Android)
- Up to 500 KNX and IoT devices
- Supports up to 5 IP cameras for monitoring
- Supports services from Google, Alexa, Philips Hue, SONOS, Netatmo
- Max. 50 domograms (simple sequences via domovea app)
- User rights management
- Customised per user
- Remote access for installers and users
- KNXnet/IP tunnel interface: local access
- Matter bridge to export up to 128 KNX devices (only certain device types and functions are supported) to other Matter controllers (e.g. Apple HomePod).
- Recommendation: Use the Matter bridge integration to easily control your devices across several platforms. Use Alexa Skills or Google Actions to access special functions that are not yet available via the Matter bridge.

Additional domovea plus product features (TJAS471)

- Up to 50 IP cameras can be integrated
- Up to 100 sequences can be set (via Hager Pilot)
- KNXnet/IP tunnel interface: local access and remote access
- Up to 10 virtual thermostats

2.3 Operation

2.3.1 RGB status LED

RGB status LED display

domovea has an RGB status LED display (Fig. 3/2) to signal errors that have occurred or to display ongoing operations in domovea (see Tab. 1).

RGB status LED display (Fig. 3/2)		Cause
Off		Module has no power supply
Flashing green		Device is booting
Permanent green light		Device ready for operation, network OK
Permanent blue light		Offline mode, bus and cloud connection disconnected
Permanent white light		Mode for PC direct connection, DHCP server activated
Flashing yellow		Ready for operation, with network problems
Flashing yellow (double pulses for 15 s)		Device identification when using the Matter bridge (see Handbook/Installation manual – https://hgr.io/r/TJAS471)
Flashing red		Malfunction: Boot/software error

Table 1: RGB status LED display

Operating concept

The programming button (Fig. 3/3) can be used

- to start/end and/or check the KNX programming mode (see Tab. 2)
- to select the operating mode or restart the device (see Tab. 3)

Pressing button (Fig. 3/3)		Cause
Short button press		Switching addressing mode on or off No function if there is no bus voltage

Table 2: to enter the programming mode/check the bus voltage

Long button press > 2 s (Fig. 3/3)	Status LED flashes quickly	Selecting operating mode
Pressing and holding the button (> 2 s) opens the operating mode selection. There are a total of 4 options (3 operating modes and device restart). Briefly pressing the button switches to the next option. Pressing and holidng the button again executes the option that is currently displayed.		
Short button press		Change- to online mode
Short button press		Change to offline mode
Short button press		Change to PC mode
Short button press		Restart device
Long button press > 2 s	Running the currently selected operating mode	
If inactive > 30 s	Exciting the operating mode selection	

Table 3: Selecting operating mode

Online mode

This is the normal operating mode of the device when connected to an external router (ISP box). The interface can be configured as a DHCP client or with a fixed IP address.

- Using a DHCP client (default factory setting), the device waits for an IP address from a DHCP server connected to the network (the router). If no address is assigned after 40 seconds, the device automatically takes the following alternative address: 192.168.0.253 / 255.255.255.0.
- With a fixed IP address, the device immediately adopts the parameters of the server set in the Settings menu via the Hager Pilot app under the tab Configuration – Interface – IP address – Manual selection:
  - IP address of the interface
  - subnet mask
  - default gateway

With a fixed IP address, the module does not automatically adopt the alternative address in the event of IP address conflicts in the network (other equipment is already using the fixed IP address).

PC mode

To be used when a PC is connected directly to the device. This mode activates the DHCP server integrated in the module. The 2 ports are interchangeable and configured with the following parameters:

- IP address of the interface: 192.168.0.253
- subnet mask: 255.255.255.0
- default gateway: 192.168.0.1
- Range of IP addresses that can be assigned by the DHCP server of the TJAS471/TJAS671: 192.168.0.10 to 192.168.0.50

Offline mode

This mode is a fallback mode to configure the interface of the device in DHCP client mode. In this mode, the cloud connection and the KNX bus communication are deactivated. Special maintenance measures are enabled, such as resetting the administrator password.

- If no IP address is assigned by a DHCP server after waiting for 40 seconds, the device automatically adopts the alternative address 192.168.0.253 / 255.255.255.0.

domovea allows convenient remote access by the electrician in order to work in the project without having to be onsite with the customer. With remote access it is possible, for example:

- to check the condition of the installation
- to adjust the software configuration
- to change setting
- to download system logs
- to add or remove users

Remote installer access is disabled after project handover. However, users can re-enable installer access for maintenance work at any time.

2.3.2 Update the software

The device provides a variety of functions. As technology, especially the technology of smartphones/tablets, is developing more and more quickly, it is necessary to carry out firmware updates. The update can either be carried out directly via the Internet or the software can be downloaded from the website and installed using a USB stick.

Recommendation:

Before using the device for the first time, we strongly recommend updating the firmware.

In order to have the latest firmware installed on the device, perform a device update before initial commissioning. To do this, connect the device to the Internet/network via one of the two RJ45 ports.

Further information on the firmware update can be found in the application description.

To perform a firmware update via a USB stick, the following conditions must be met:

- the USB stick must be empty
- the USB stick must have a storage capacity of max. 32 GB (recommended)
- the USB stick must be formatted in FAT32

Further information on the firmware update can be found in the application description.

☑ The latest software download is saved on the USB stick.

- Insert the USB stick into the port at the bottom of the device.
  The status LED flashes green while the update is loaded from the USB stick.
- Remove the USB stick when the status LED lights up continuously in orange.
  The device automatically restarts and the status LED flashes green until the restart is complete.

Update via Hager Pilot

Software update via Hager Pilot is only possible from software version 8.0.x onwards.

Open the Hager Pilot application and check the software version in the Settings menu:

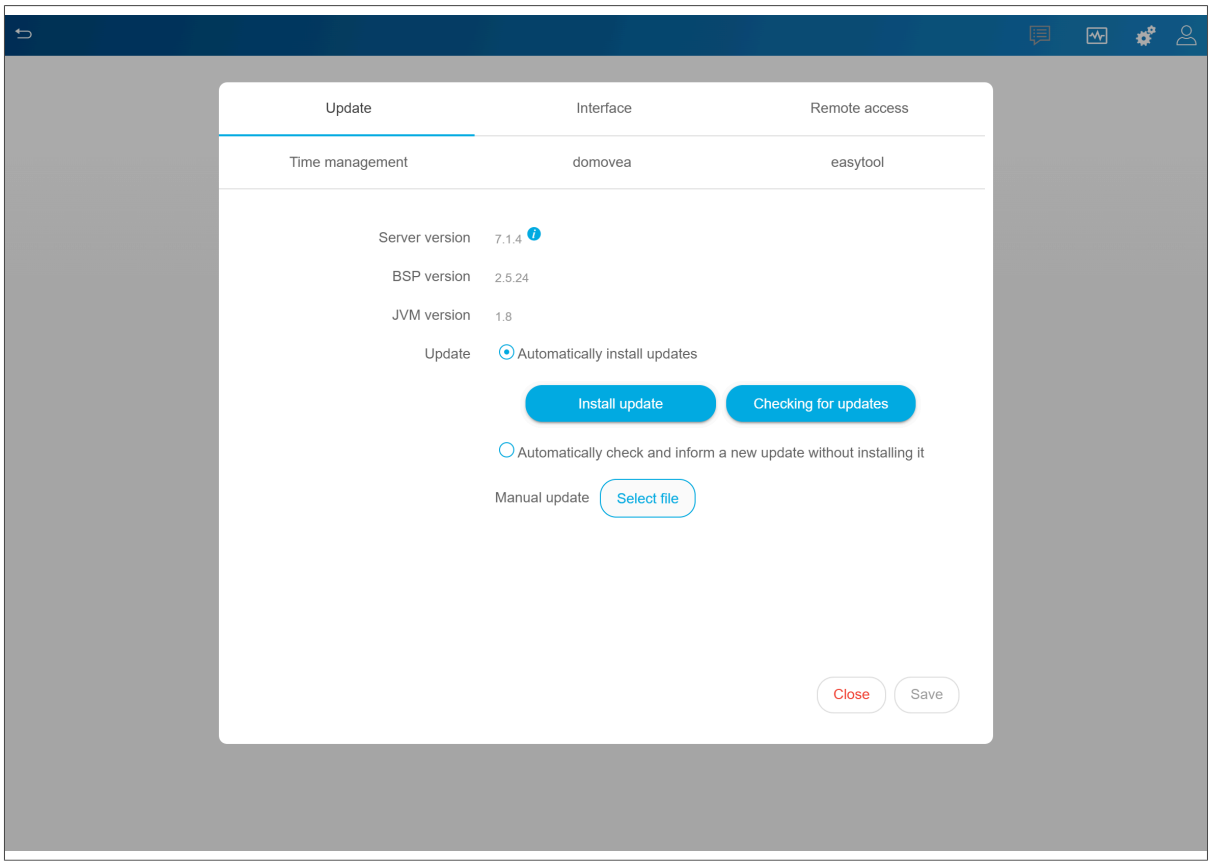


Fig. 2: Software version (as shown)

2.4 Introduction to the domovea server

2.4.1 Technical data

KNX	
Medium	TP1-256
Supply voltage	21 ... 32 V ⎓ SELV
Current consumption	3.3 mA
Power supply	
Supply voltage	230 V~ +10 %/-15% 240 V~ +/- 6%
Frequency	50/60 Hz
Power consumption depending on CPU load 230 V~	Type 2.5 ... 5 W
Surge voltage	4 kV
Overvoltage class	III
KNXnet/IP	Tunnelling, up to 3 device connections
Network interface	2 RJ45 port, 100Base-TX, switched
Compatibility with Matter	Matter bridge according to Matter standard 1.3
USB port	
Number of USB ports	1
Type	USB 2.0
Current consumption	Max. 250 mA
Protection switch	2 A
Environmental data	
Operating height	Max. 2000 m
Contamination level	2
Degree of protection	IP20
Impact resistance	IK04
Operating temperature	-5 °C ... 45 °C
Storage/transport temperature	-20 °C ... 75 °C
Dimensions (W x H x D)	106 x 90 x 67 mm
Dimensions	6 modules, 6 x 17.5 mm
Conductor cross-section	
Bus connection terminal	0.6 ... 0.8 mm
Conductor cross-section, rigid	0.75 ... 2.5 mm^2
Conductor cross-section flexible, without conductor sleeve	0.75 ... 2.5 mm^2

2.4.2 Description of the device

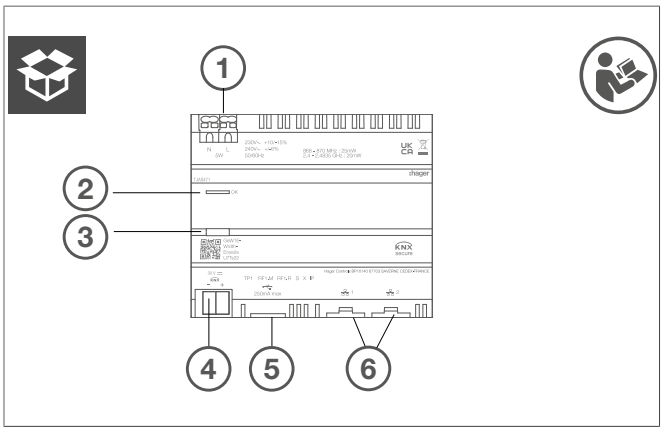


Fig. 3: Design and layout of the device - top view

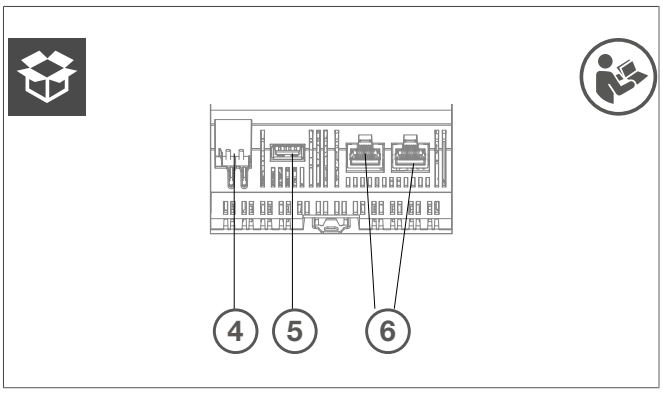


Fig. 4: Design and layout of the device - view from below on KNX, USB and Ethernet interfaces

① Power supply connection (N, L)
② RGB status LED
③ Illuminated programming button

④ KNX bus connection terminal
⑤ USB 2.0 slot
⑥ 2 x RJ45 slot (100Base-TX)

2.5 Using the Hager Pilot application

2.5.1 Installing the Hager Pilot application

On a mobile device:

- Search and download the **hager Pilot** application from the *AppStore* or *Google Play Store*,

- install the **hager Pilot** application; an icon will appear on the screen.

On a Windows PC:

- Search and download the **Hager Pilot** application by visiting the *Microsoft Store®*.

- install the **hager Pilot** application; an icon will appear on the screen.

2.5.2 Launching the Hager Pilot application

Locally connect the mobile or stationary equipment to the network on which the server is connected

- launch the hager Pilot application.
- Sign in with the myHager account
- Select the Automation section
  A selection window of servers is displayed,
- Select server TJAS671-XXXXX or TJAS471-XXXXX

If the server does not appear on the list,

- click on **Add a server**,
- add the server by entering either:
  - The IP address
  - The serial number of the server
  - the UID of the server (or by scanning QR code)

> To add a remote server (not connected to the local network), enter the serial number or the UID of the device.

- Enter the user name and password of your account

Connection to the server is established.

> For more information, please see tutorial 1. Start and configure a Hager domovea installation .

2.5.3 Accessing the configurator without using hager Pilot

In some cases, the configurator must be accessed directly without using the hager Pilot application.

- **Using the web browser**
  This connection mode requires knowing the IP address of the server:
  - Online mode: Assigned by DHCP,
  - PC Mode: Assigning a fixed IP (192.168.0,253). For more details, please refer to chapter (RGB status LED).

> We recommend **Google Chrome** or **Safari** as the default web browser on the device.

- **Using the file browser**
  The server supports the UPnP function. UPnP devices are displayed in Windows under the Network section. Double-clicking on the TJAS671 or TJAS471 icons opens the configuration interface in the web browser.

2.5.4 Logging onto the server

At this stage of installation, you can only log on with the administrator profile, as only this account is active. The administrator access information is as follows:

- User name: **admin**
- Password: **1234**
- Click on **Connect**

For security reasons, the system requires a new administrator password.

The new password must be created according to the following rules:

- contains a minimum of 8 characters,
- contains at least one lowercase letter,
- contains at least one uppercase letter,
- contains at least one special character,
- contains at least one digit.

> This becomes the new password for the administrator account

2.6 Using domovea application

To use mobile devices or a PC with the server, they must have the domovea application

2.6.1 Installing the domovea Client application

The application is designed for operation with:

- Touch pad or smartphone
- Windows PC computer
- MacOS computer

On a mobile device:

- search and download the **domovea** application from the *App Store* or *Google Play Store*,

- install the **domovea** application; an icon will appear on the screen.

> Only the last two major versions for iOS or the last six major versions for Android are officially supported.

On a Windows PC:

- search and download the **domovea** application from the Hager website,
- install the **domovea** application; an icon will appear on the screen.

2.6.2 Launch the domovea application

Locally connect the mobile or stationary equipment to the network on which the server is connected

- launch the **domovea** application; a selection window of servers is displayed,
- Select server TJAS671-XXXXX or TJAS471-XXXXX

You are connected to the server via the **domovea** application.

2.6.3 Log in using the domovea application

At this stage of installation, you can only log on with the administrator profile, as only this account is active. The administrator access information is as follows:

- User name: **admin**
- Password: **Administrator password (entered when logging in to hager pilot)**
- Click on **Connect**

> The admin account is valid with a new password of at least 8 characters until rights are transferred.

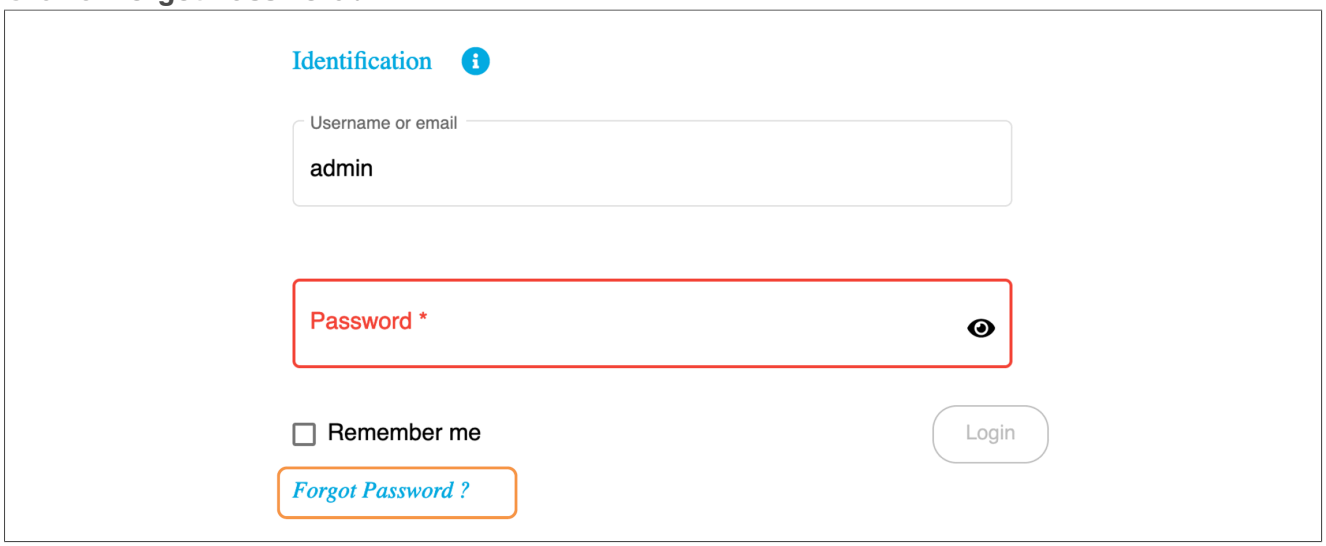
2.6.4 How to change the password

If passwords are lost, it is possible to reconnect to the server **locally only**.

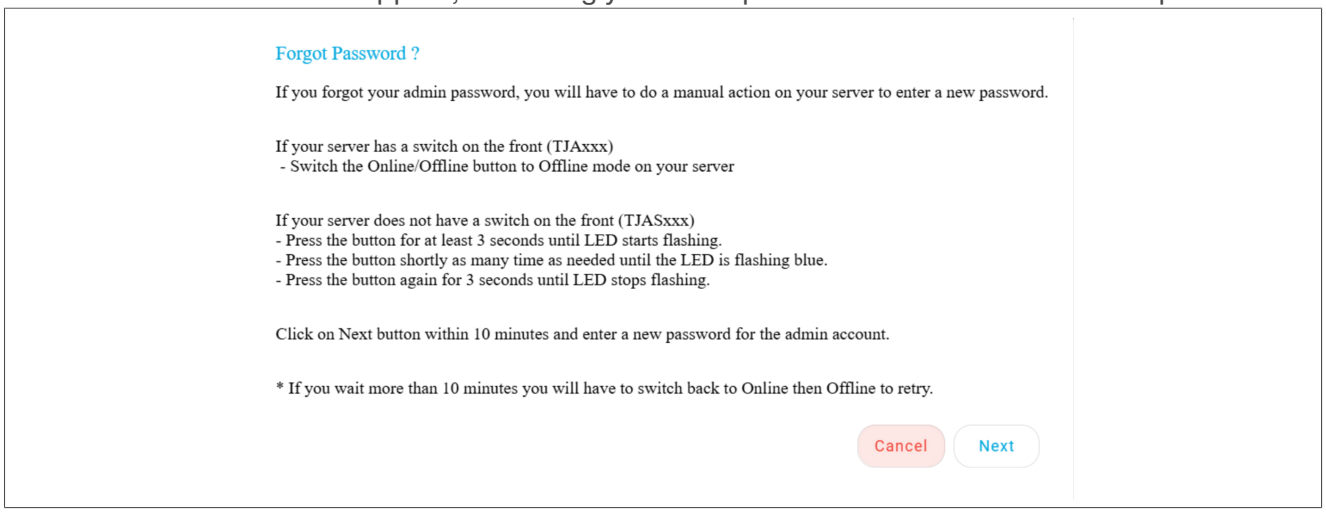
This procedure is only possible via a web browser

- Connect the device supporting your web browser to the same local network as the server.
- Start the web browser and enter the server address (http://server-name/, http://server-name.local/, http://IP-address/ or http://192.168.0.253 if the default static IP address is used)
- Enter the user name **admin** and click on **Next**

- Click on **forgot Password?**



An information window will appear, reminding you of the procedure to follow to reset the password.



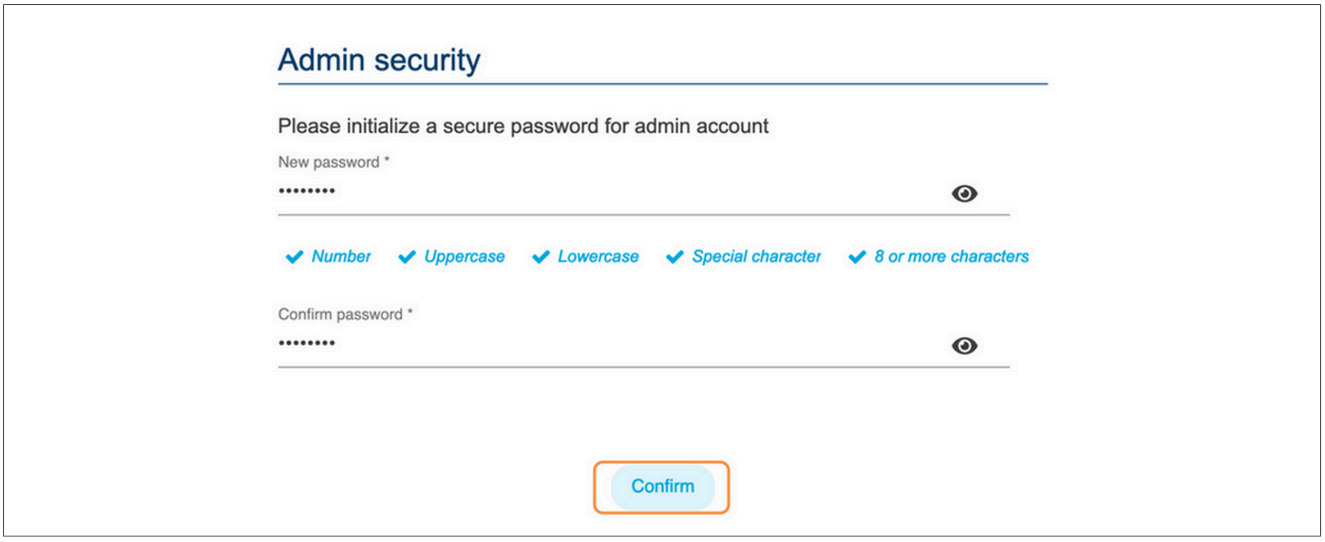
- Switch to **off-line** mode .

- Press and hold the key for more than 2 seconds to select the operating mode. The indicator light flashes green.
- Briefly press the indicator light button until the indicator light flashes blue.
- Hold down the key again to validate the **off-line** mode. The indicator light turns solid blue.

- Click on **Next**

> You have 10 minutes to enter the new password.

- Enter the new password for the administrator account.
  The new password must be created according to the following rules:
  - contains a minimum of 8 characters,
  - contains at least one lowercase letter,
  - contains at least one uppercase letter,
  - contains at least one special character,
  - contains at least one digit.



- Click on **Confirm**

> This password corresponds to the new password for the Admin account on the server.

Access to the settings is now possible.
To restore the server's Internet connection:

- Switch to **on-line** mode.
  - Press and hold the key for more than 2 seconds to select the operating mode. The indicator light flashes blue.
  - Briefly press the indicator light button until the indicator light flashes green.
  - Hold down the key again to validate the **on-line** mode. The indicator light turns solid green.

2.7 Using the KNXnet-IP Secure interface integrated into domovea

2.7.1 Configuration of the KNXnet/IP interface in ETS

Protecting connected buildings from unauthorized access is increasingly important.

To ensure optimal protection, the **KNX Secure** standard has been developed and integrated into **domovea** servers.

KNX Secure: Double protection

KNX Secure relies on two pillars: **KNX IP Secure** and **KNX Data Secure**.

- **KNX IP Secure** extends the IP protocol to protect the network-level installation from unauthorized access.
- **KNX Data Secure** provides sending protection for KNX telegrams.

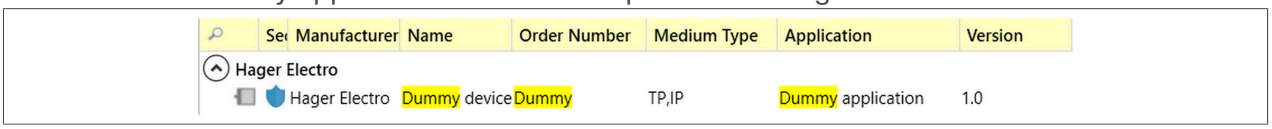
To use a **domovea** server in a **KNX data secure** compliant installation, it is necessary to adapt the communication infrastructure. This is done by integrating a **dummy application** available in the ETS catalog. This application ensures that the data sent by the **domovea** server is accepted by the KNX Secure installation.

Notice

This process is only necessary if the installation is programmed with **KNX Secure** in ETS.

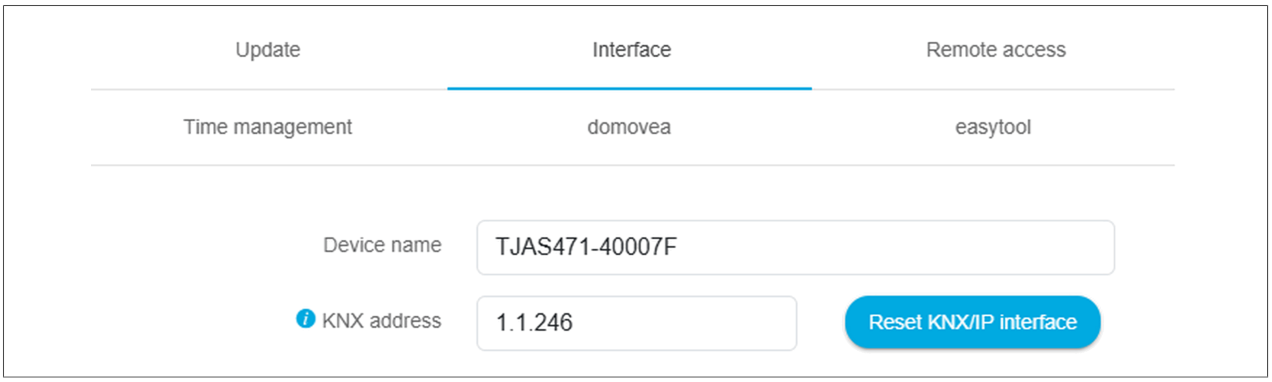
Configuration steps

1. **Download the Dummy Application**
   - Download the dummy application from the ETS product catalog.

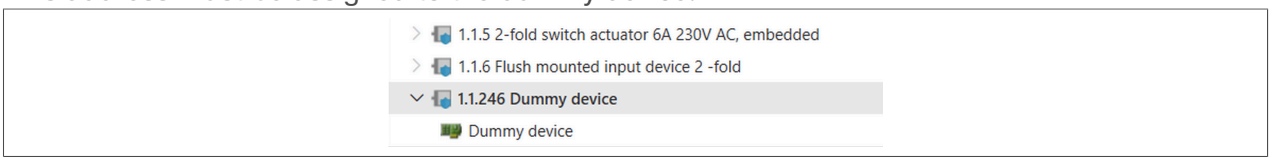


   - Add it to the ETS project.

2. **Generate a common physical address**
   - The physical address of the dummy application should be **the same** as the physical address of the **domovea** server.
   - Check the KNX address of the **domovea** server in **Settings -> Configuration -> Interface -> KNX address**

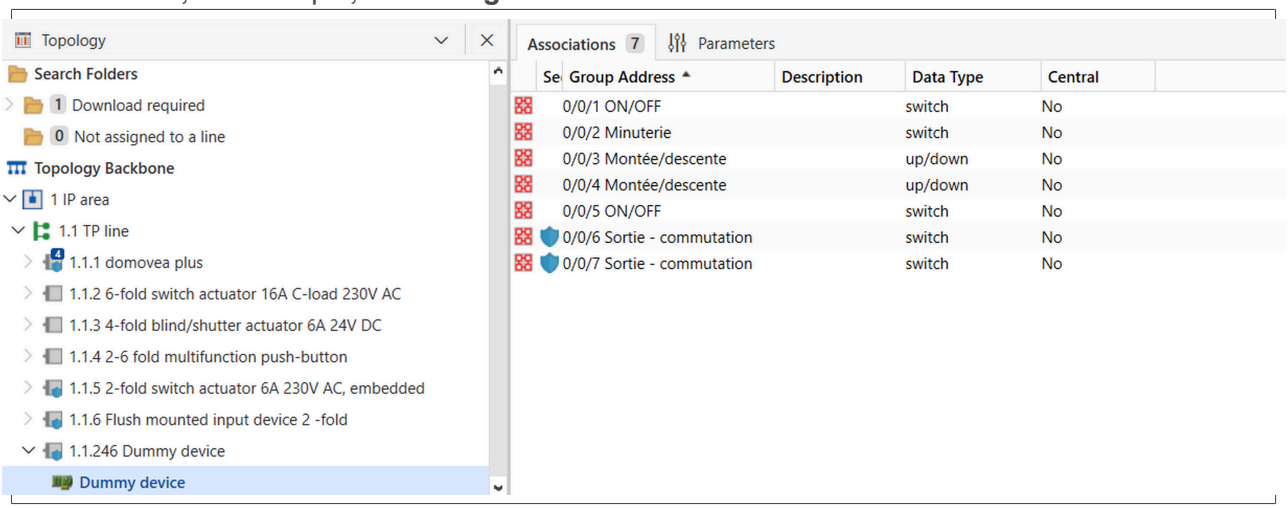


- By default, the **domovea** server has the address **1.1.246** (TJAS471) or **1.1.247** (TJAS671).
- This address must be assigned to the dummy device.



❸ Copy the secured group addresses to the dummy device

- Copy **all secured group addresses** used by the **domovea** Viewer to the dummy application. This includes, for example, **switching commands**.



❹ Import the ETS project into the domovea server

- After configuration in ETS, import the ETS project into the **domovea** server.
- The recommended format for a first boot is **.knxproj**, which includes:
  - Group addresses
  - The structure of the building
  - Information specific to Hager devices

TIP: After the initial import, a **partial (incremental)** import is possible to add new group addresses.

Click on **+** for partial import

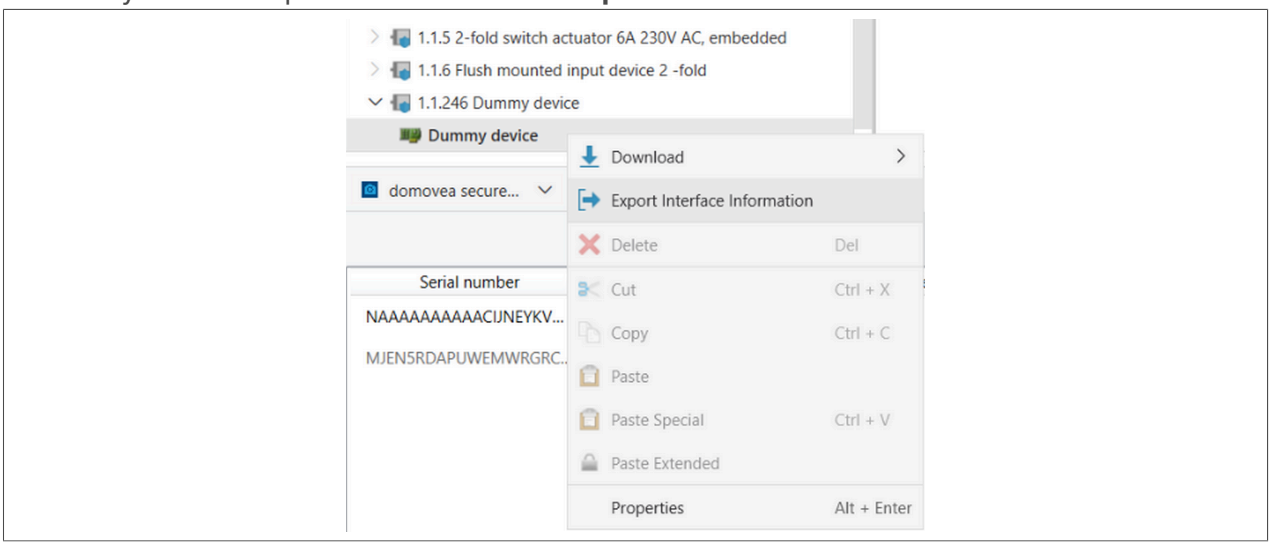
Notice

Alternative: Export OPC data

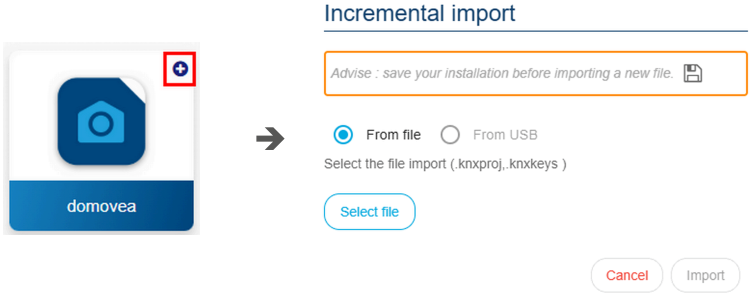
- Another method to export group addresses from ETS is **exporting OPC data**.
  Warning: This method only exports group addresses and requires a backup of the project.

5 Export and import secured group address keys

- In a **KNX Secure** installation, each secure group address has an individual key.
- These keys can be exported from ETS via: **'Export Interface Information' menu**

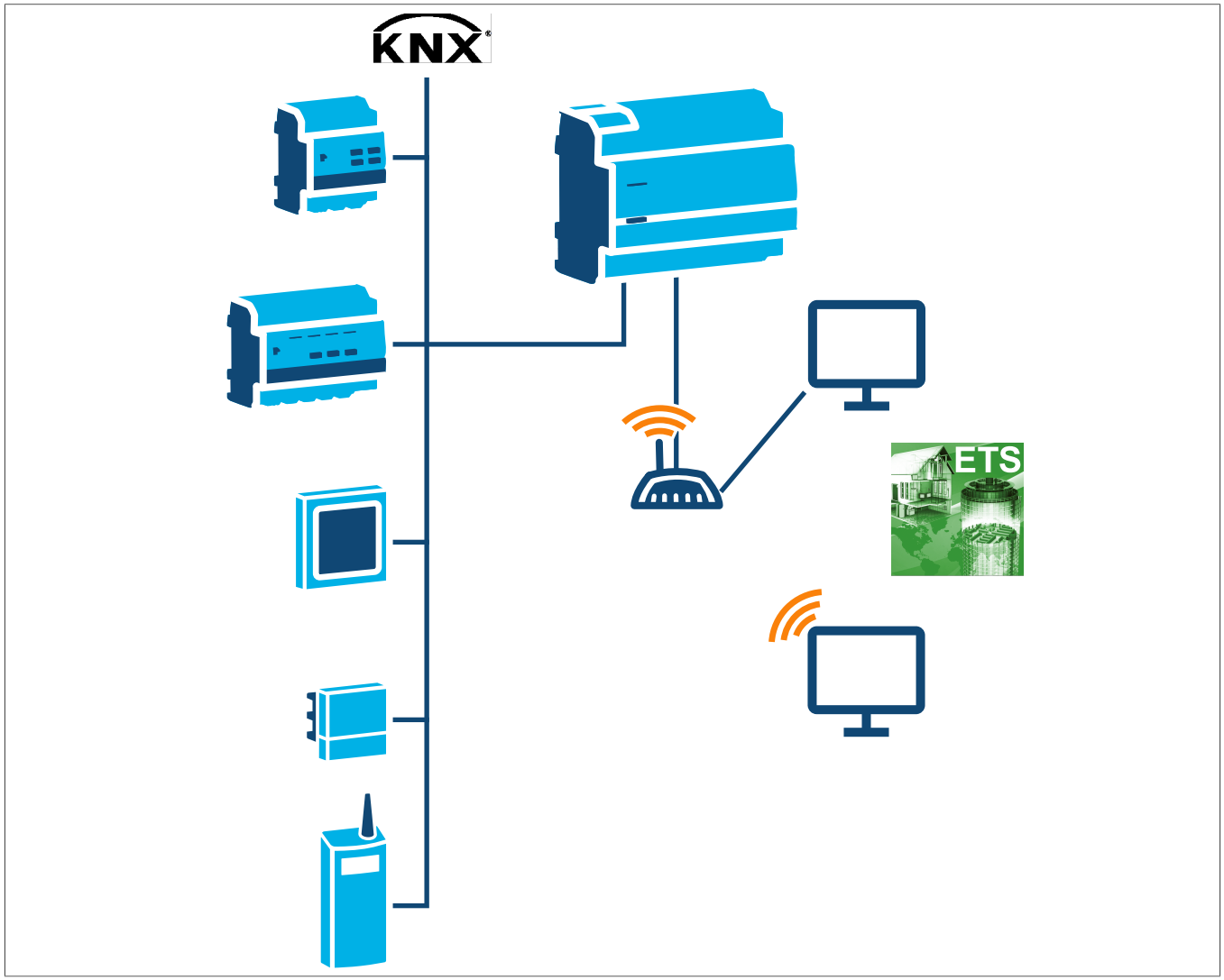


- The generated key must then be imported into the **domovea** server.

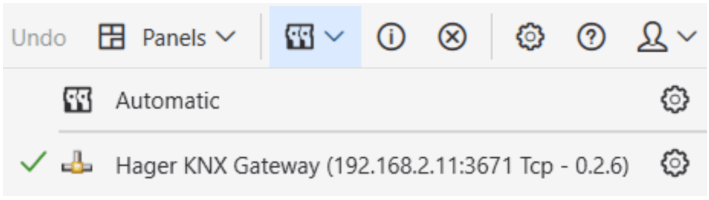


2.7.2 Connection to a local area

Simply connect the domovea server to the LAN and KNX bus to activate the gateway, without needing to configure the device in ETS..



In ETS, the domovea server appears as a communication interface with the KNX bus.

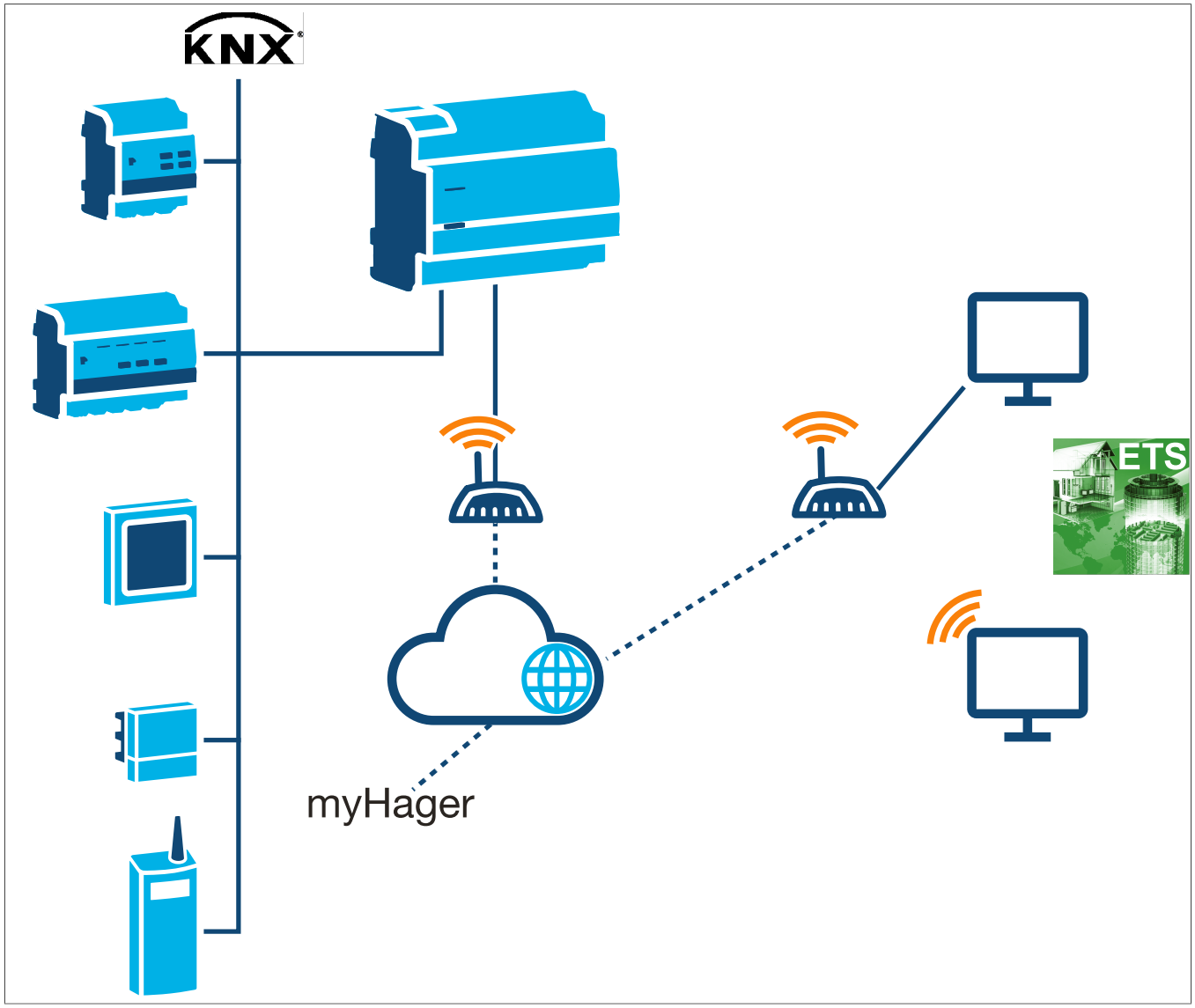


2.7.3 Connection to a remote network

Connecting to a remote network is only possible with a TJAS471 domovea plus server **starting with version 8.0.7**. To edit KNX projects remotely, it is necessary to use ETS version 5.7.4 or higher (ETS6 version is recommended).

Attention

To use this feature, the **domovea** project must already have been transferred to the end customer. Start-up configuration should be completed **on-site** directly on the server



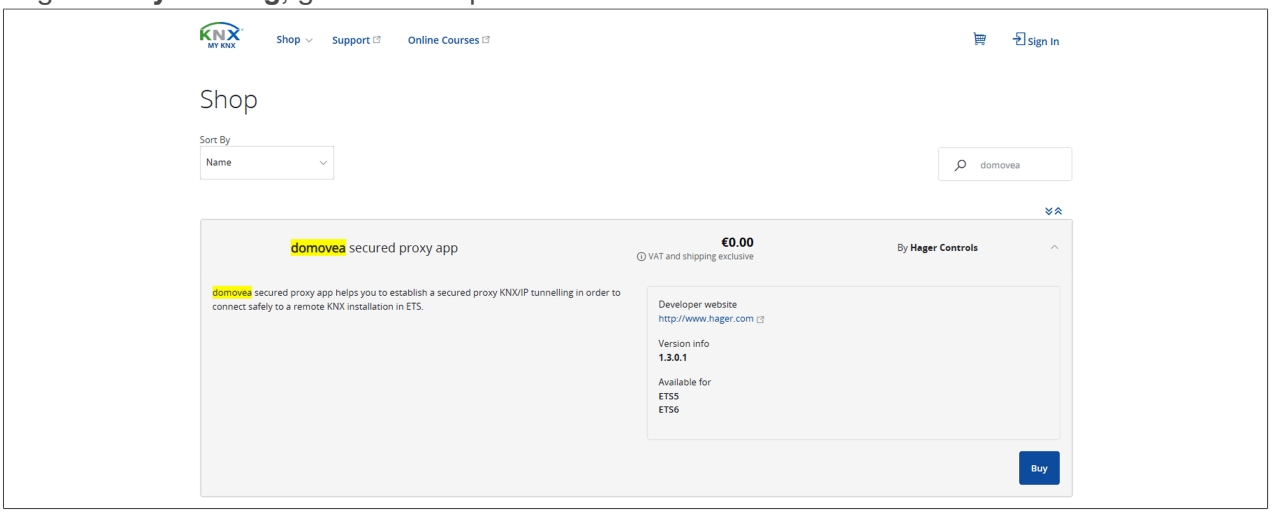
Prerequisites: To establish a remote connection using the KNX / IP interface, the following conditions must be complied with:

- ☑ Have a **domovea expert** server **TJAS471** (software version **8.0.7 or later**)
- ☑ Install ETS version 5.7.4 or later (ETS6 is recommended).
- ☑ The transfer of administrator rights is performed (see (the transfer of administrator rights))
- ☑ Installer access is enabled (see (Create and Manage additional Accounts))
- ☑ Remote access is enabled (see (Remote access))
- ☑ Perform the start-up configuration on site

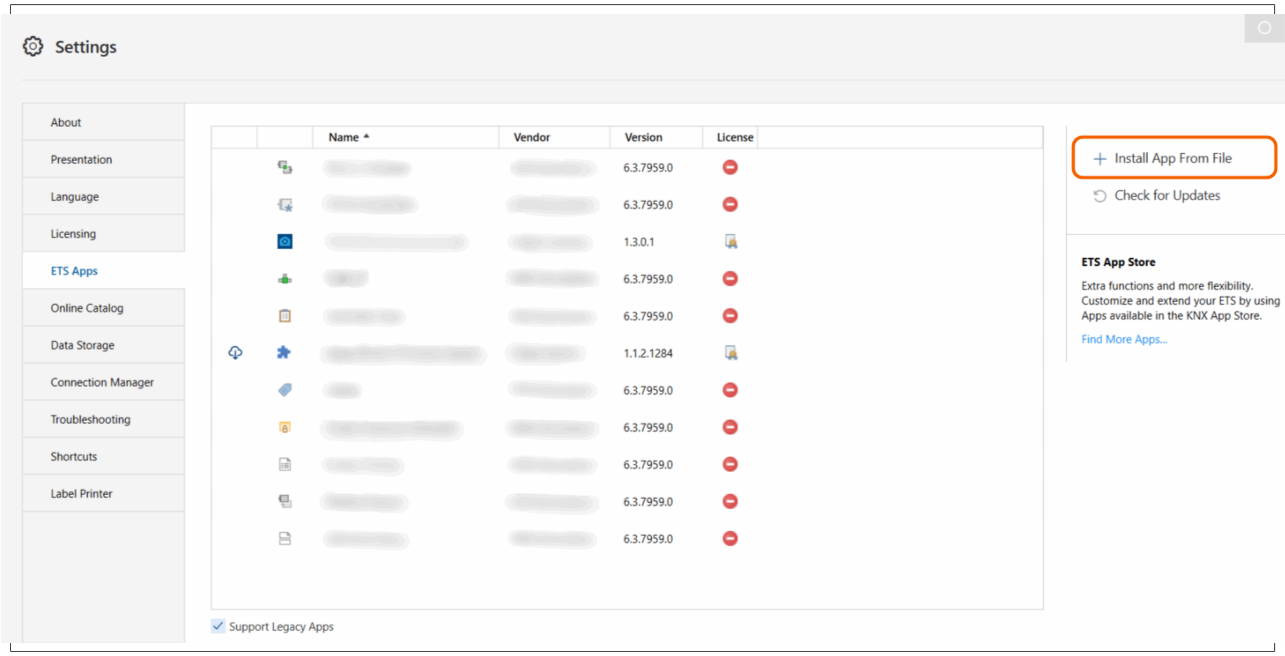
Configuration steps

1. **Download and install the ETS application**

- Log in to **my.knx.org**, go to the shop and search for ‘domovea’.

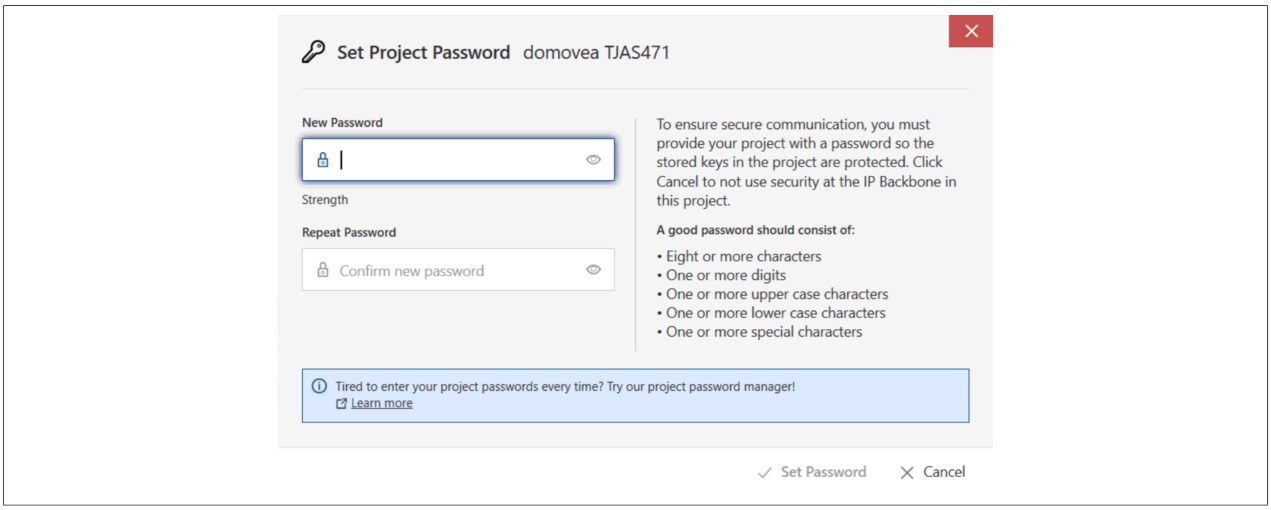


- Add the application **‘domovea secured proxy app’** for free to the cart and complete the free checkout process.
- Bind the license with the **ETS Dongle-ID** (KNX-xxxxxxxxx).
- Download and add the ETS license in the ETS software under the **Apps** tab.

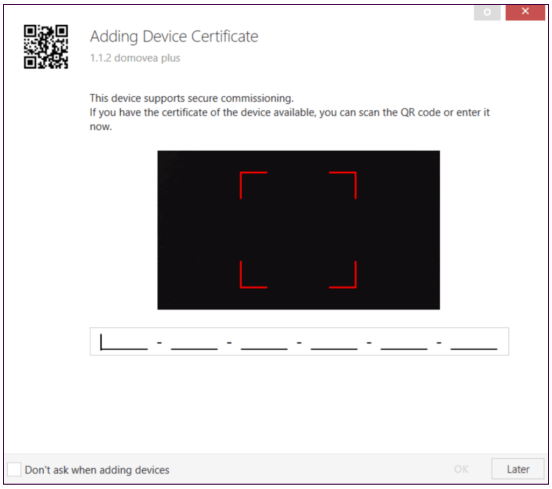


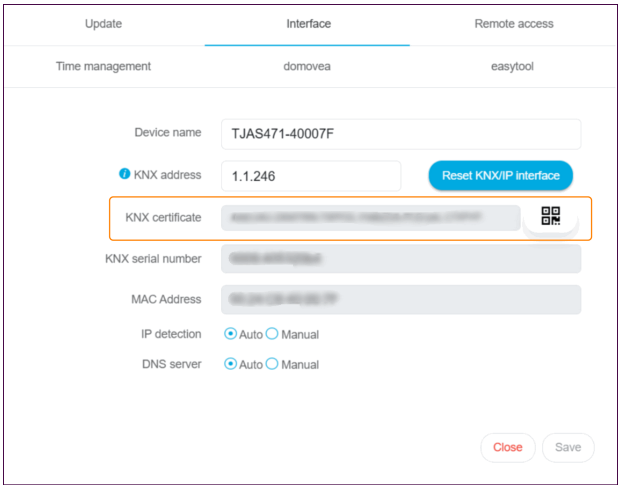
2 Add the domovea application in ETS

- Open or create the KNX project
- Search the KNXPROD - **TJAS471** (domovea plus) program in the ETS online catalog (or download it from the Hager website).
- Insert **TJAS471** (domovea plus) into the project topology
- Assign a password to the project (if not already done) .

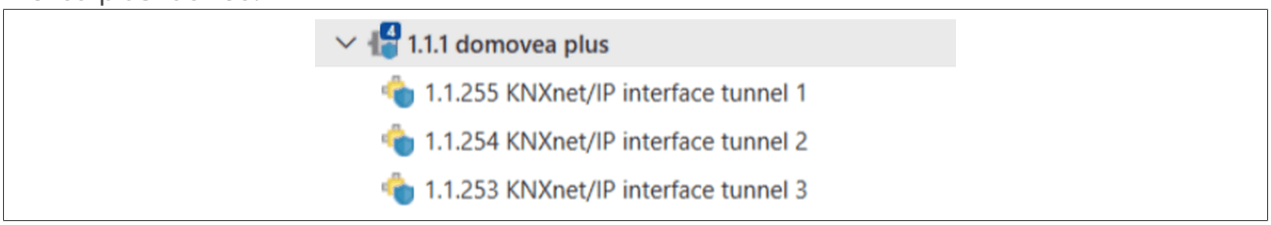


– Configure the secured certificate for the **TJAS471**.



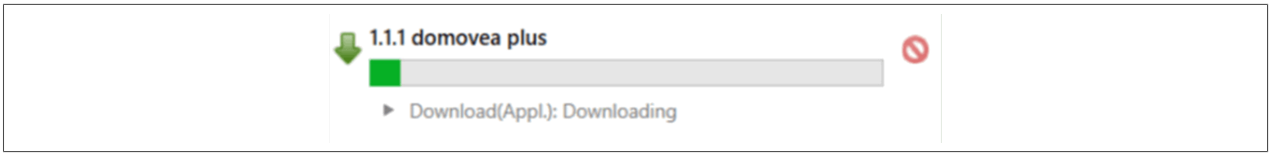


After entering the KNX certificate, three more tunnel addresses appear in ETS under the 'domovea plus' device.



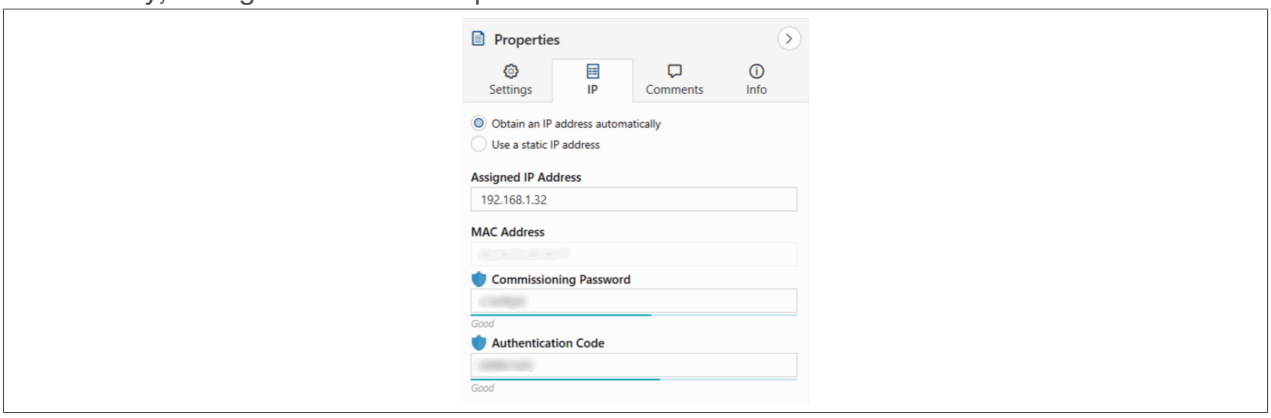
❸ Program the physical address

– In ETS, select the local interface of the **TJAS471** under the 'Bus' tab.
– Program only **the physical address of the domovea plus server** .



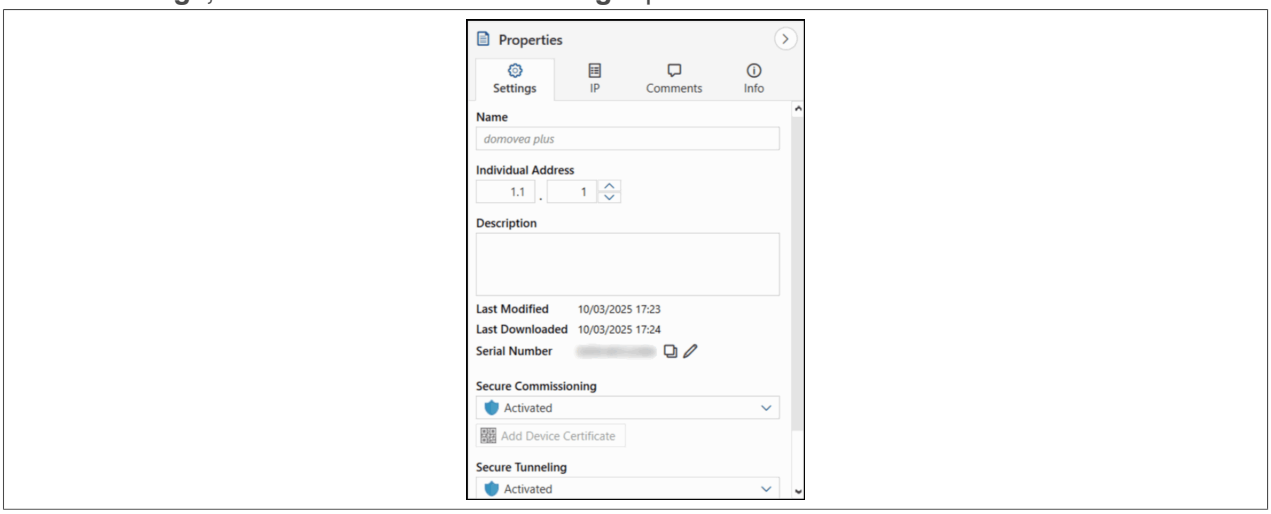
– At this stage,**press the** server **programming button**.

- If necessary, change the installation password and authentication code in the '**IP**' tab.



4 Activate the Secure-Tunneling mode

- Under **Settings**, select the **'Secure-Tunneling'** option.



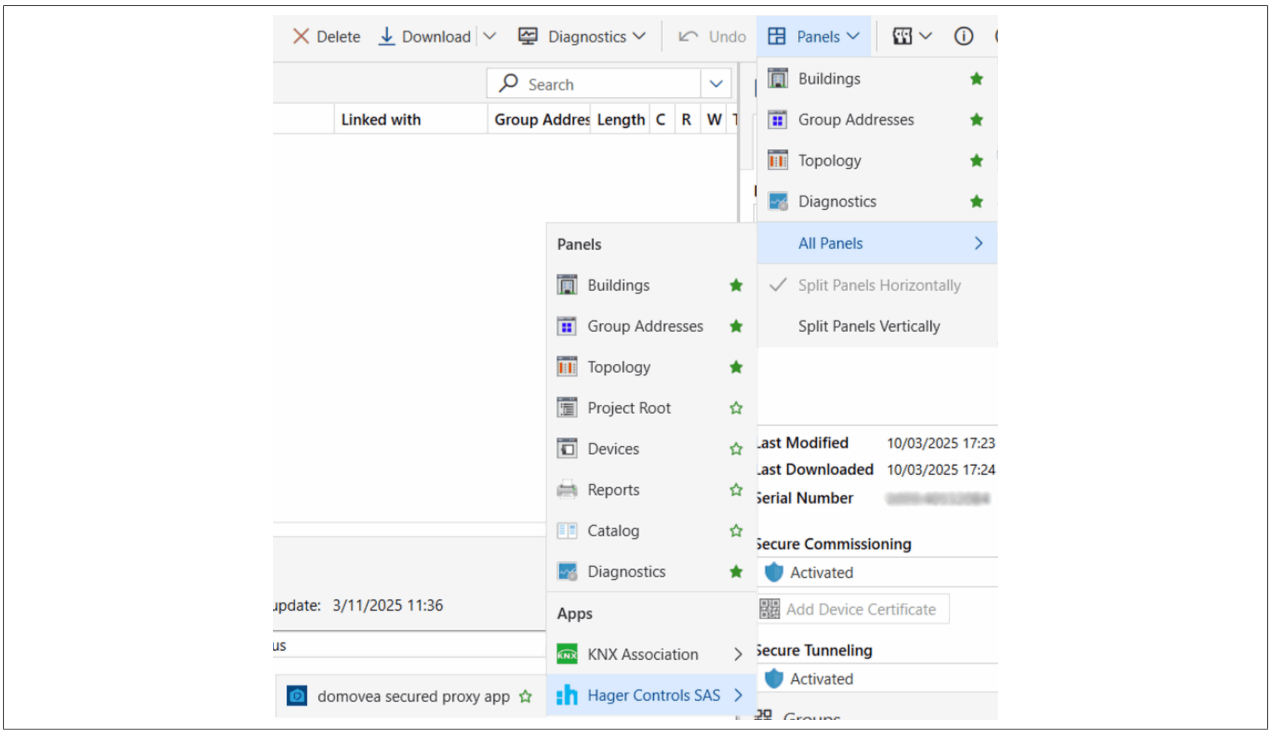
5 Programming the domovea application

- Launch the application: **The server starts the auto-programming with its local interface**.

> **Notice**
>
> The KNX Secure password is sent to the interface.

6 Enable connection in ETS

- Open ETS and go to the **'Panels'** tab to select **'all Panels'**.
- Select **'Hager controls SAS'** and click on **'domovea secured proxy app'**.



– Enter **the myHager login** to get the connection.

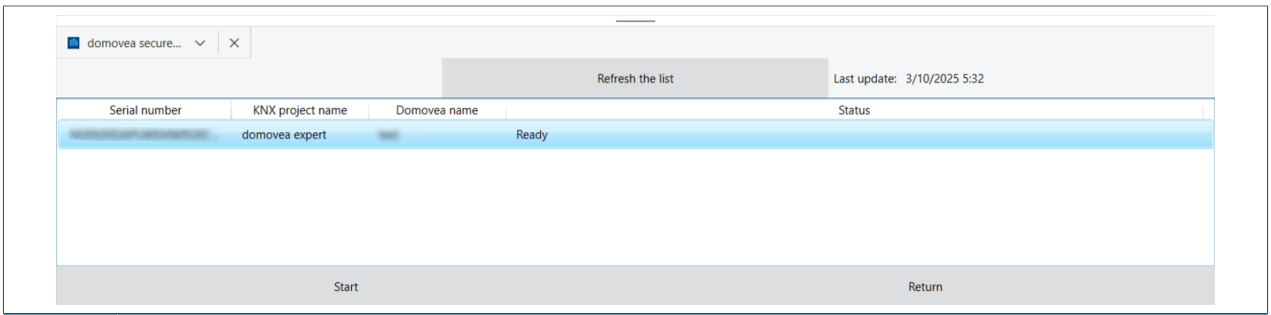
> It is recommended to add the application as a **favorite** (star icon).

7 Establish connection with ETS

A list of servers connected to the **myHager account** appears.

– If your server does not appear, click on **Refresh List**.

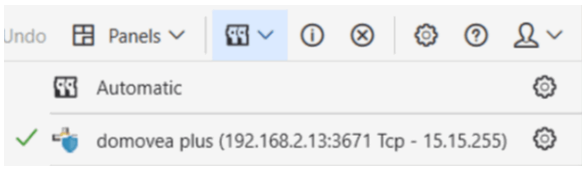
– Select the server and click on **'Start'**.



> The window with **the ETS application should permanently remain open** to keep the connection active!

ETS permanent interface

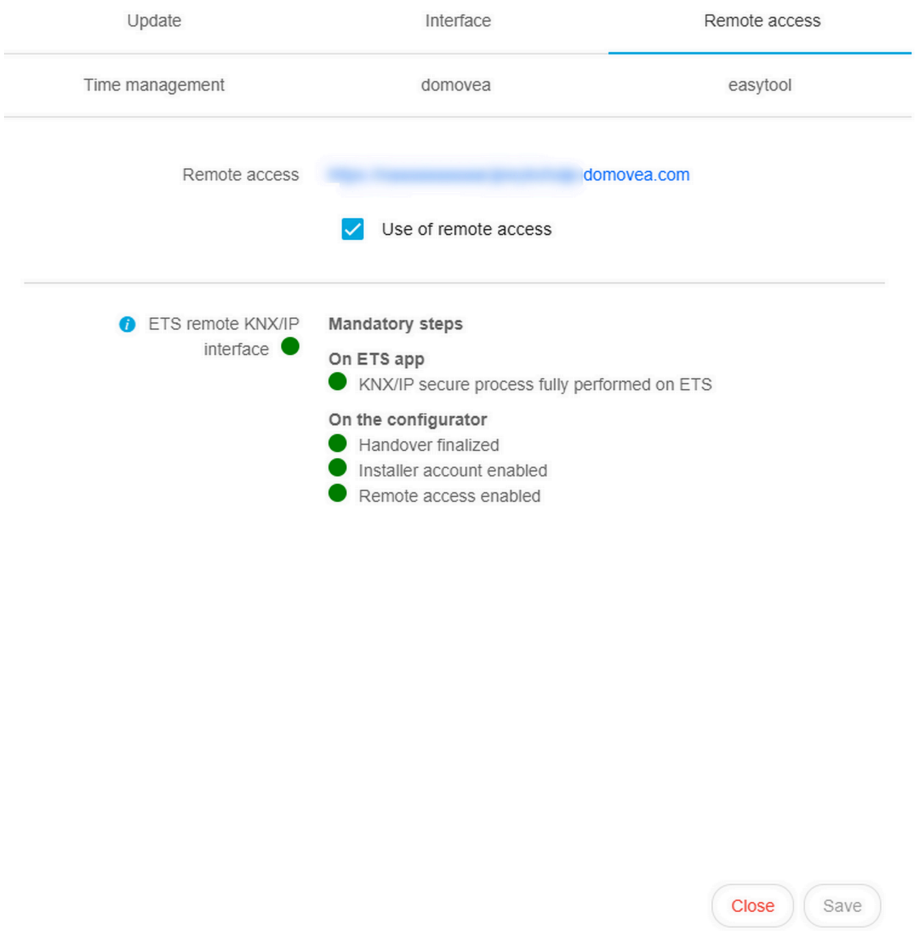
Once the connection is established, ETS creates **a new interface** with the IP address of the server (default:**127.0.0.1**) under the 'Bus' tab.



Remote access remains active **until one of the following events occurs**:

- Restarting the domovea server
- Disabling installer access by the end user

If, for some reason, the connection between ETS and the domovea server does not establish, the connection status should be checked. To do so, go to the **Remote Access** menu. A diagnostics of the connection will inform about the device causing the problem.



3 FIRST USE

After selecting the server and during first use, there are 3 ways of starting the installation:

- by creating a new project,
- by importing a backup file,
- by relearning the installation,

3.1 New project

This enables the creation of a new installation authorising a manual configuration of domovea.

- click on **New project**,
- enter the name of the project

Optionally, it is possible to enter installation information by clicking on Customer Information

Note: Optionally, it is possible to enter installation information by clicking on Customer Information

For more information, please see tutorial 3. Create a new domovea project with Hager Pilot and easyTool.

3.2 From a backup file

This enables the creation of a new installation from a backup file.

There are 5 file formats:

Configuration	File extension	Backup file
Easytool	*.txa	Installation configured with Easytool (TXA100)
TX100	*.txh	Installation configured with the TX100 configuration tool
domovea 1	*.ddb	domovea 1* configuration
domovea 2	*.hbox, *.shbox	domovea 2* configuration - *.hbox is an unencrypted backup file. - *.shbox is an encrypted backup file (available from version 5.3.x).
ETS	*.knxproj	Installation configured with ETS (KNX configuration software)*

* Using the Easytool configuration tool is no longer possible.

- click on **Import**,
- select the backup file.

For more information, please see tutorial 4. Import an hbox project into domovea with Hager Pilot.

3.3 Using relearning

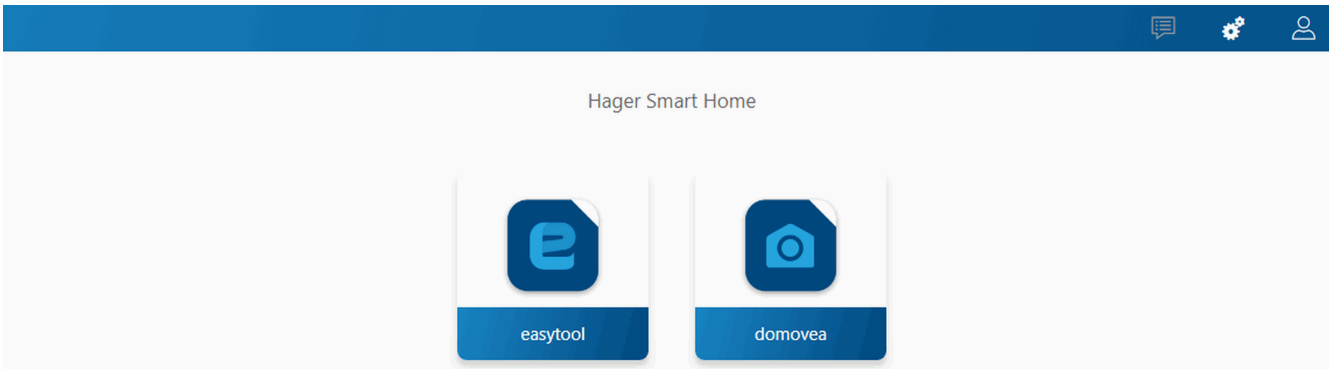
This enables the creation of a new installation when there is no installation backup. This is possible by performing relearning on the installation.

Relearning of the installation is only possible if the products have been configured with easy-Tool.

- click on **Relearn**.

4 MY PROJECT

Project domovea



This section enables the project to be set:

- Using the Easytool configuration tool:
  - click on the **Easytool** symbol

  A KNX product configuration window appears, enabling the installation to be set.

  For more information, refer to the installation manual for the configuration tool TXA100

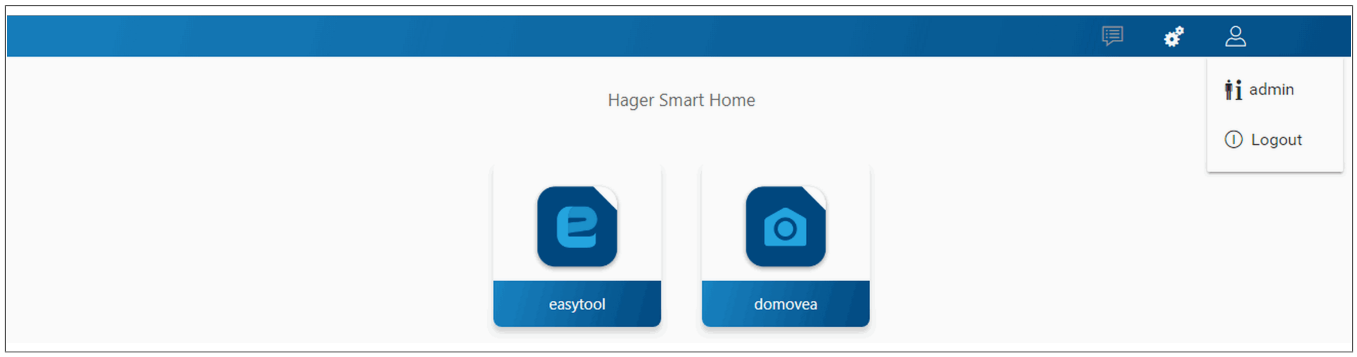
- Using the domovea configurator:
  - click on the **domovea** symbol

  A configuration window appears, enabling the domovea client application to be configured.

5 RELATED FUNCTIONS IN THE MENUS

5.1 Account configuration

This enables the connected user account to be configured. When the connection is established, the general settings are accessible from the drop-down menu on the top right.

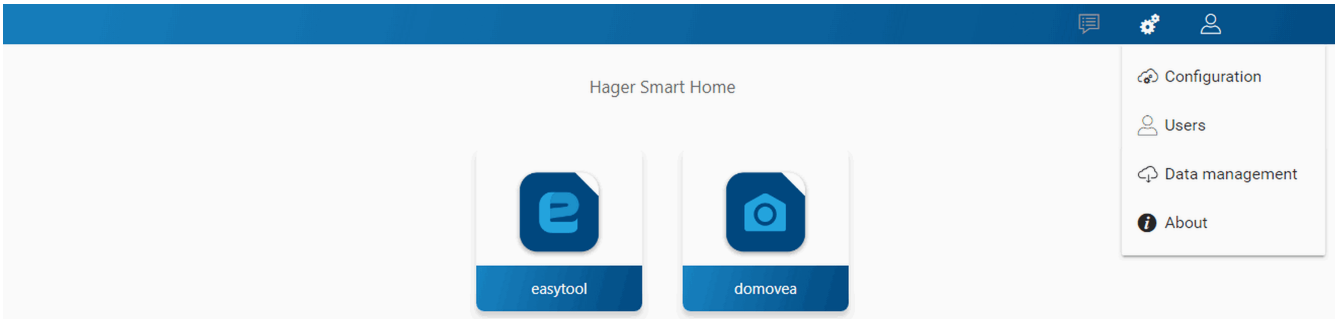


- click on a drop-down menu appears
- click on .

A window appears:

- the **Activation** field activates or deactivates the user profile,
- a **Description** free field enables information about the user to be added,
- a **Change the password** button enables the user password to be changed,
- the **Language** field enables the configurator language to be changed when the user connects to their profile,
- the **Time format** field enables the time format to be changed,
- click on **Save** to confirm the selection.

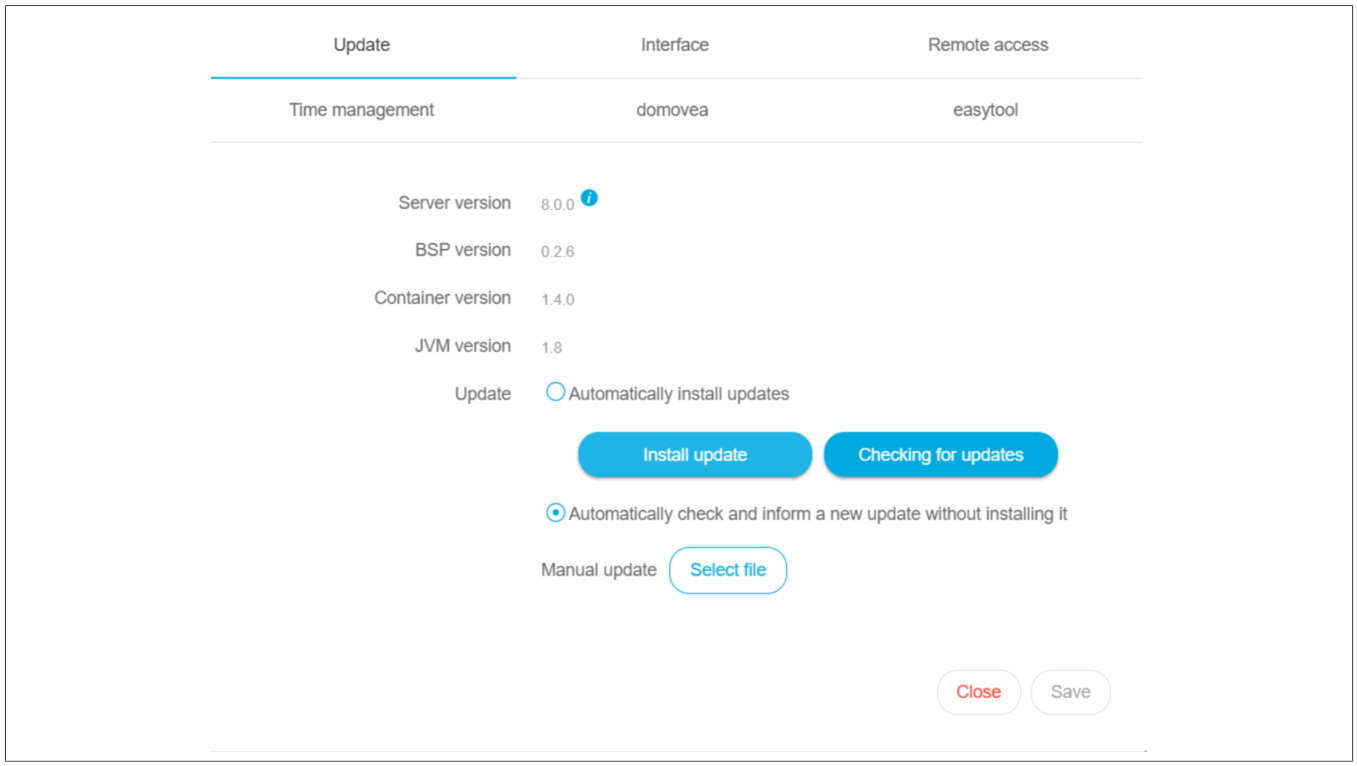
5.2 Parameters



5.2.1 Configuration

This enables the product to be configured. When the connection is established, the general settings are accessible from the drop-down menu on the top right.

- click on , a drop-down menu appears,
- click on **Configuration**.



5.2.1.1 Update

Click on **Update** to view the software versions:

- the server version (application software version),
- the BSP version (motherboard software version),
- the container version (software version
- the JVM version (Java virtual machine software version).

Click on **Update** to select the update mode:

- **Automatically install updates**: the new software version will be installed automatically (default value: active),
  - **Install the update**: the new software version is installed manually,
  - **Check for updates**: check whether a new software version is available,
- **Automatically check and inform a new update without installing it**: The configuration server checks for a new version of the software but does not install it automatically (default value: Not validated),
- **Manual** update: A new version of the server software can be downloaded and installed from a file including the update (*.swu).
- click on **Save** to confirm the selection.

5.2.1.2 Interface

Click on **Interface** to view:

- the **Name of the device**, which can be changed, if necessary,
- The**KNX address** of the configuration server, which can be changed if necessary,
- the **KNX Certificate** from the configuration server, enabling installation in KNX Secure,
- the **KNX Serial number** of the configuration server,
- the **MAC address** of the configuration server,

- the **IP address**: automatic or manual (depending on requirements),
- the **DNS server**: automatic or manual (according to requirements),
- click on **Save** to confirm the selection.

Click on **Reset KNX interface** to reset the KNX connection settings.

If the KNX IP Secure process was carried out before the reset, simply reload the device in ETS to recover the service.

5.2.1.3 Remote access

Remote access enables connection to the configuration server and the client from a device connected to the Internet.

- Remote access

Click on **Remote access** to view:

- the **Remote address** field: the http address link of the configuration server,
- **Remote access activation** (default value: activated): enables the installer to operate the device remotely,
- click on **Save** to confirm the selection.

Remote connection is possible using:

- **hager Pilot or domovea client.**
  - select the TJAS671-XXXXX or TJAS471-XXXXX server.

  If the server does not appear on the list,
  - click on **Add a server**,
  - add the server by entering either:
    - The IP address
    - The serial number of the server
    - the UID of the server (or by scanning QR code)

To add a remote server (not connected to the local network), enter the serial number or the UID of the device.

- **a device connected to the Internet**
  - launch the **WEB** browser,
  - in the address box, enter the pathway for remote access (for example: https://kj4f6s8kvcywvd.domovea.com),
  - the WEB browser launches at the login page. Enter the **User name** and **Password**.

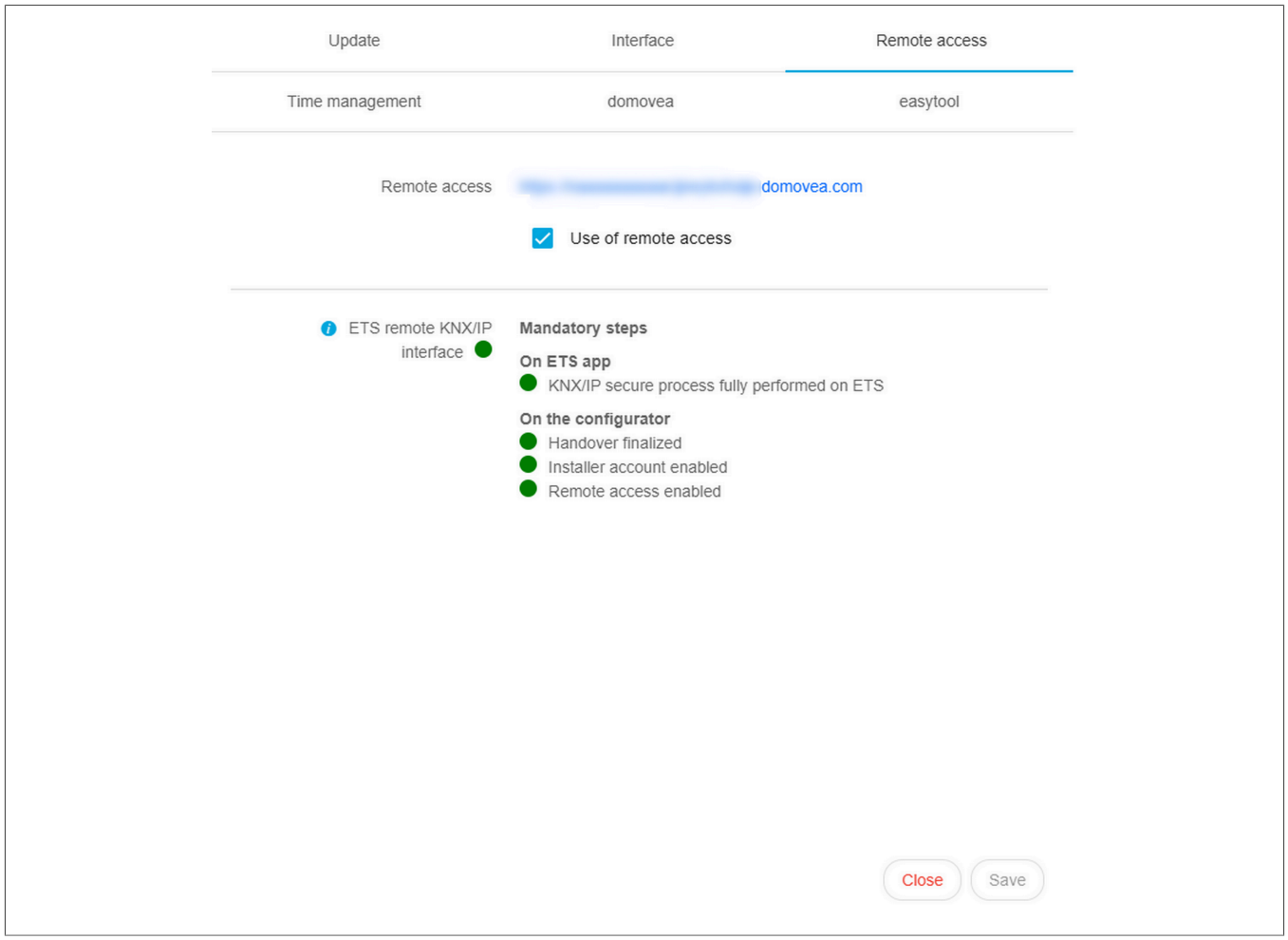
For more information, please see tutorial 5. Enable remote access with easyTool and domovea in Hager Pilot.

- Enable remote access to KNX/IP

(**Only with TJAS471 domovea plus**)

By activating KNX/IP remote access, you can connect to the server via the Internet using the ETS tool.

This feature makes it possible to remotely program devices, monitor groups and other functions. When this function is enabled and fully operational, a green dot is displayed. The corresponding server will be visible on the ETS proxy application and ready to connect.



5.2.1.4 Time management

Click on **Time management** to view:

- the **time zone** selected from the drop-down list, for displaying the date and time at client level.
- The location of the installation (**latitude** and **longitude**), so that domovea can calculate the correct sunrise and sunset times.
- the **Synchronisation with a time server** (click on**Yes** or **No** depending on requirements). By default, the configuration server is synchronised with the online **Time server** (NTP network):

Yes	No
Time server: Enter the name of the time server (default: **pool.ntp.org**)	Date: enter the current date
	Time: enter the current time

- **Periodic sending of the KNX frame** allowing the broadcasting of the date and time on the network (disable by default)
- click on **Save** to confirm the selection.

5.2.1.5 domovea

Click on **domovea** to view:

- the **format of KNX addresses**: Enables selection of the address format of KNX groups (**1 Level - 2 Levels - 3 Levels**).
- the **Currency choice :** Used to configure the currency used.
- click on **Save** to confirm the selection.

5.2.1.6 Easytool

Click on **Easytool** to set the following options:

- click on the **Activate input channel configuration assistance (Rocker function)**: Depending on the function type selected, the system will default to the additional function on the second input.
- click on the **Activate auto-discovery** field: the installation can be automatically scanned to discover a new product.
- click on the **Search frequency** field: defines the duration between 2 automatic scans (default value: 10 min.)
- click on the field **Enable display of automatic links**: this displays the automatic links in the installation for products with this function.
- click on **Save** to confirm the selection.

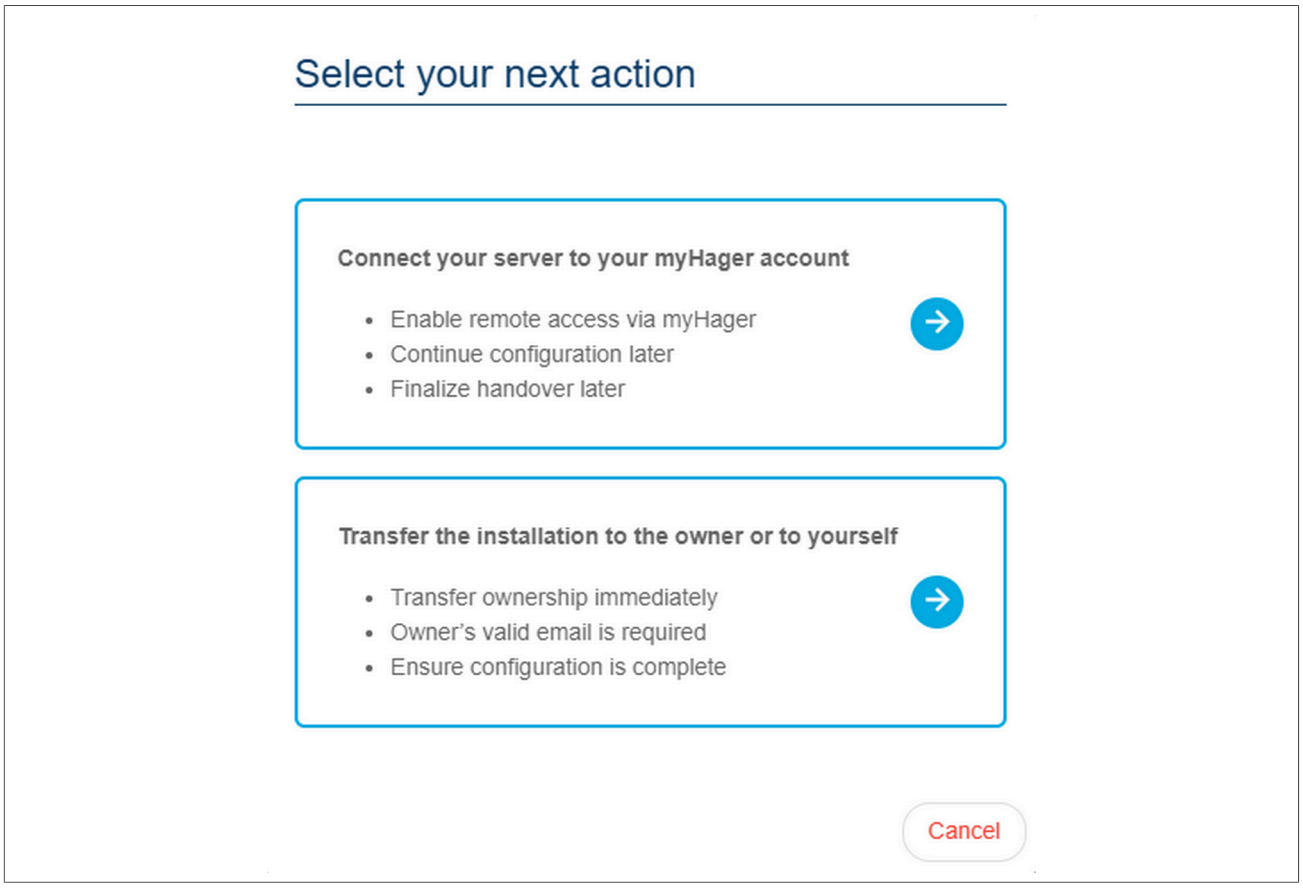
5.2.2 Users

This manages the different administrator and user accounts.

5.2.2.1 Handover process

It is a process that allows you, as an installer, to transfer ownership rights to the end user.

1. click on ⚙, a drop-down menu appears,
2. click on **Users**.
   A window opens, inviting you to transfer the rights:



Once you initiate the handover, you will be asked to **Select your next action**. You can choose from the following:

- **Connection of your server to myHager account**
  This allows you to connect/link your server to existing myHager account or to create a new one. Linking your myHager account allows you to:
  - Enable remote access features
  - Continue configuration at later time
  - Finalize the handover later by inviting end user from user management menu
  - Give you installer rights: Enables you to invite the owner

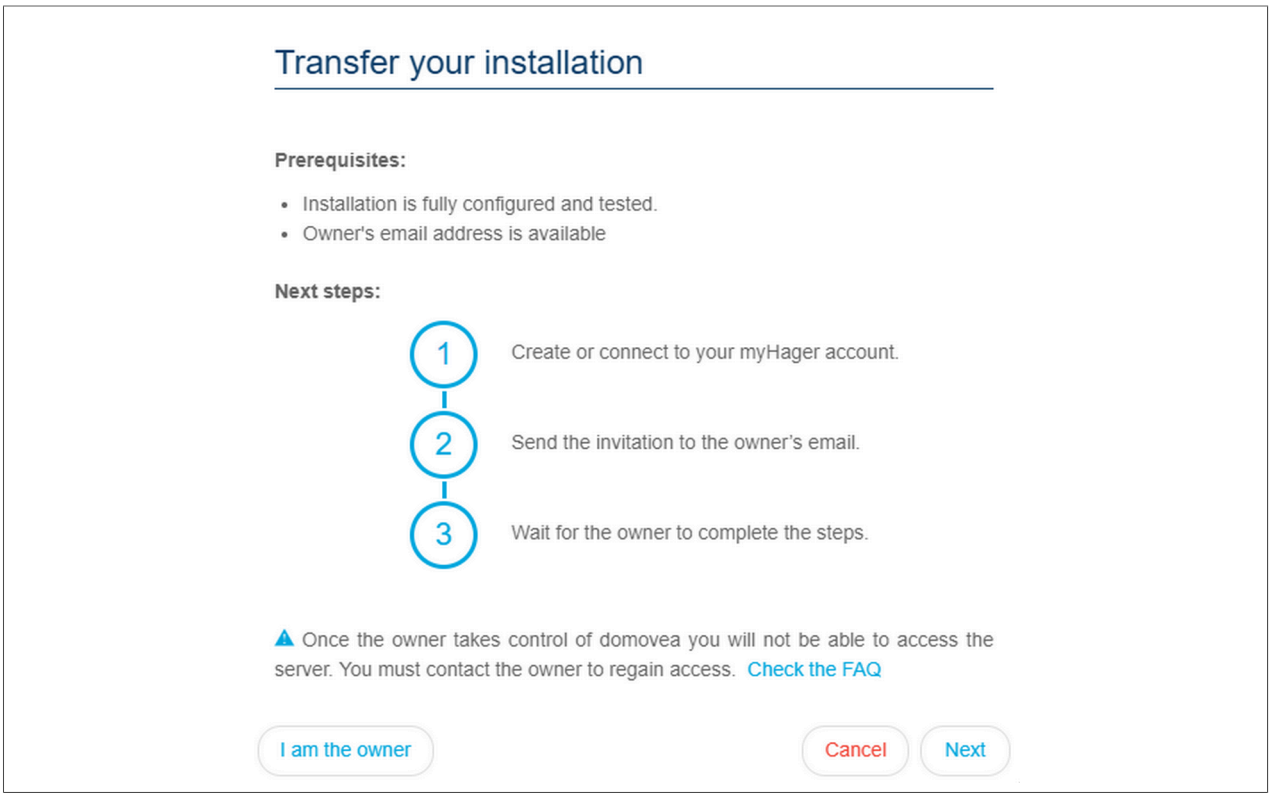
- **Transfer of installation to owner or to yourself**
  This allows you to transfer installation to owner or to yourself

Transfer the installation to the owner:

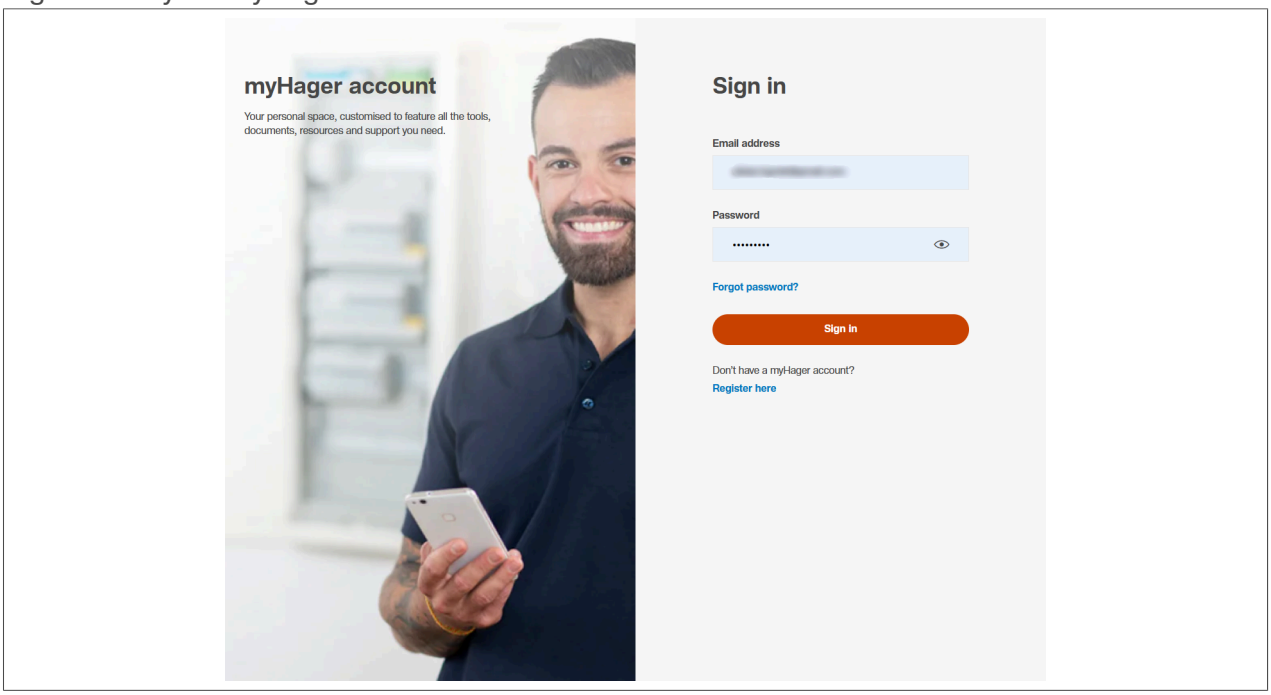
1. To transfer installation to the owner you will need to enter the email address of the owner.

The rights to access the installation are revoked from you (installer) and are transferred to the end user as soon as owner takes control of installation. This means that you cannot access the installation remotely via Hager Pilot by connecting to your myHager account. To access the installation, you need to ask the owner to give you back the rights from the domovea application.

2 Click Next.

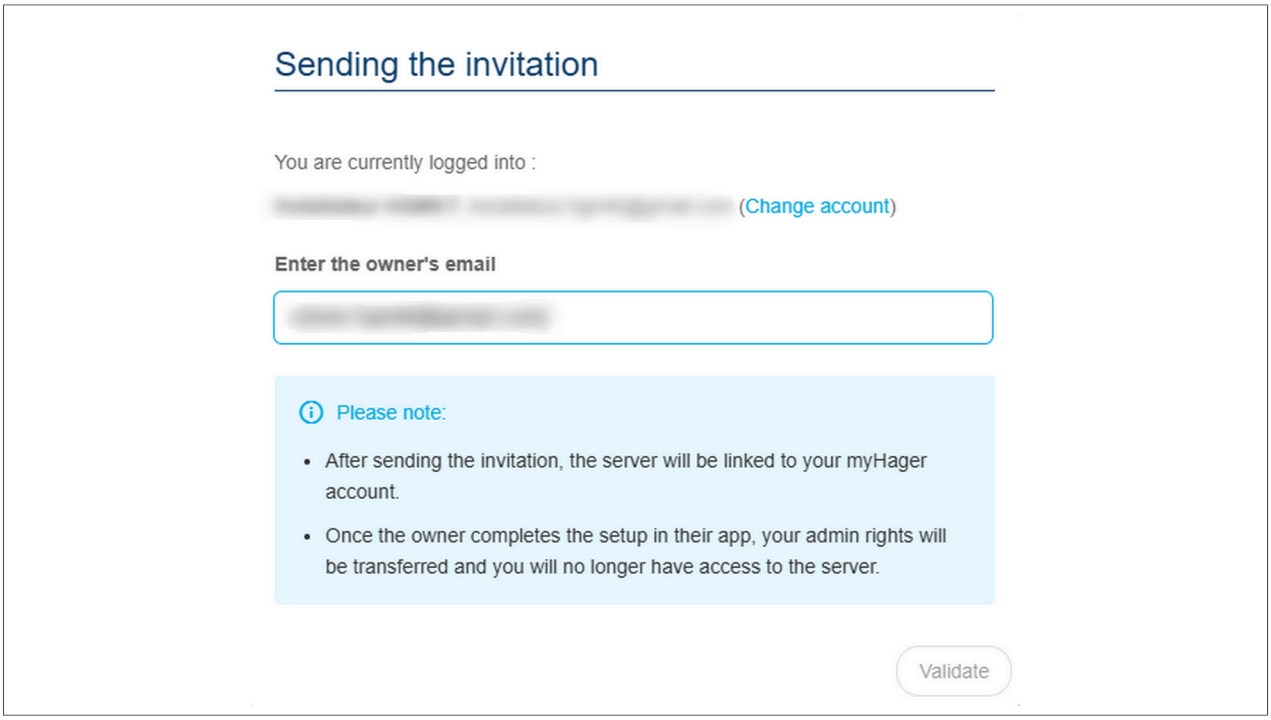


3 Sign in with your myHager account.



If you do not have a Hager Business account, you need to create one now by clicking the **Register here** link

4 Enter the owner's email address



If the authentication does not match your identity, you can change the login by clicking the **Change Account** link

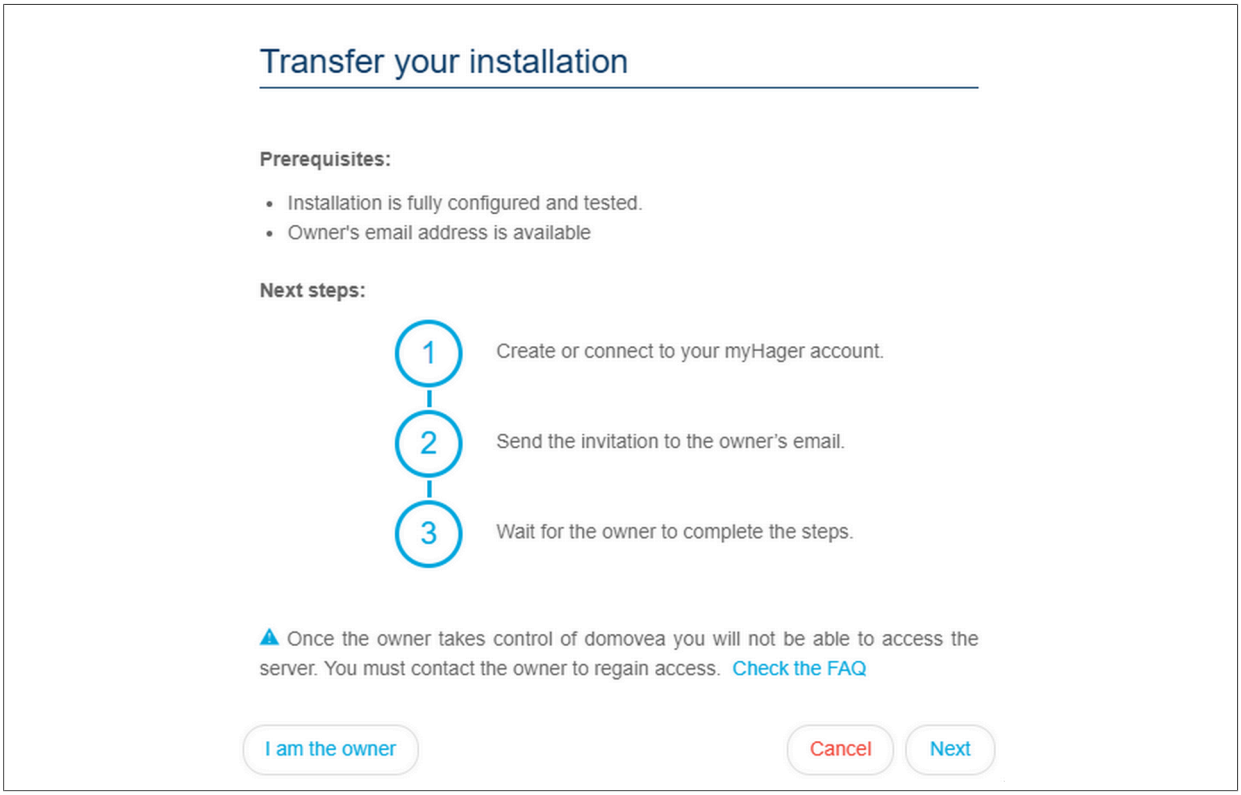
5 Click on Validate

Transfer the installation to yourself . Administrator rights will be transferred to you. This means:

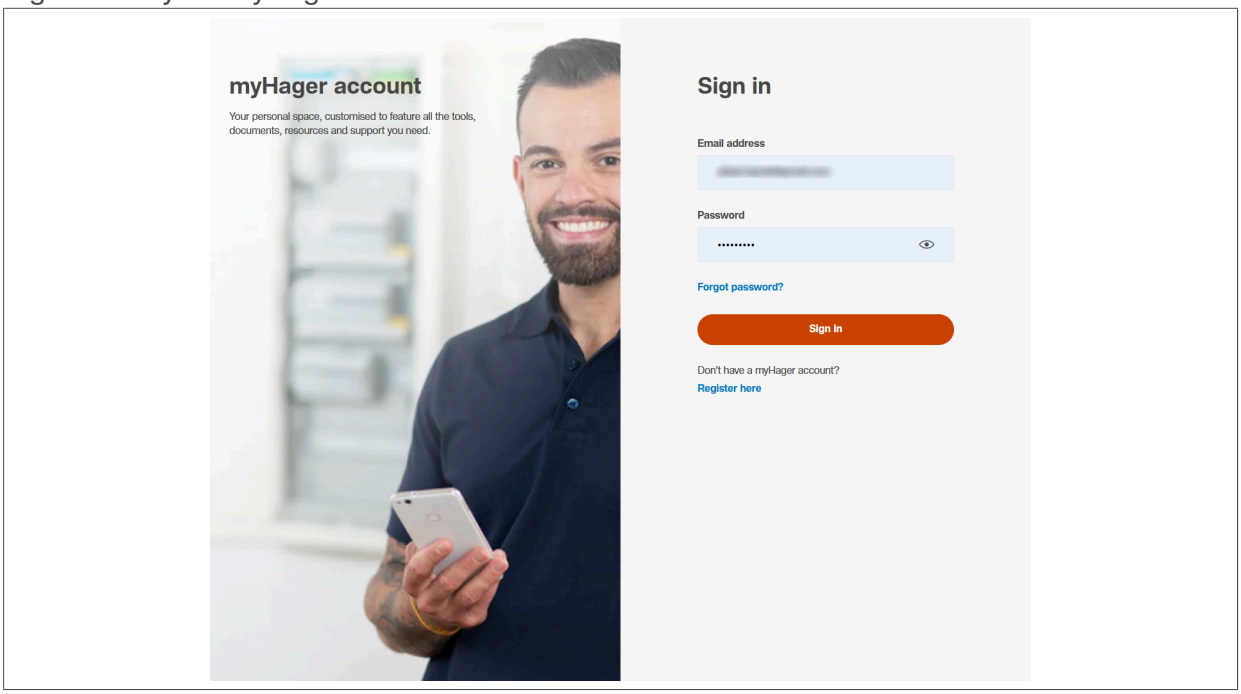
- You can access the server
- You can login to domovea app with the same credentials
- You can add multiple user roles: Installer, referent user, and restricted user

- You will act as an admin and as the owner. This means that the administrator rights will be transferred to you i.e. you can access the server with myHager account with related credentials.

1. Click **I am the owner**

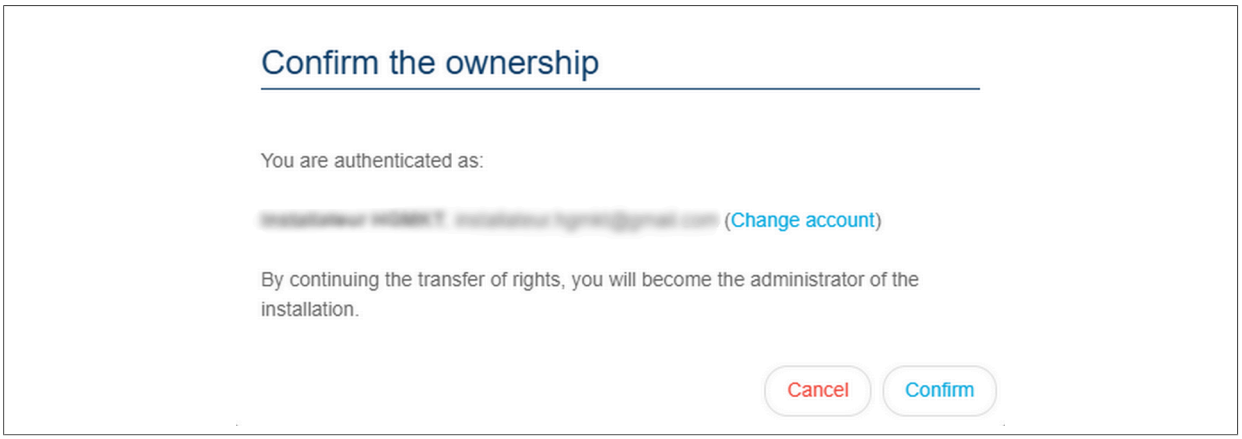


2. Sign in with your myHager account.



If you do not have a Hager Business account, you need to create one now by clicking the **Register here** link

3 Click on Confirm

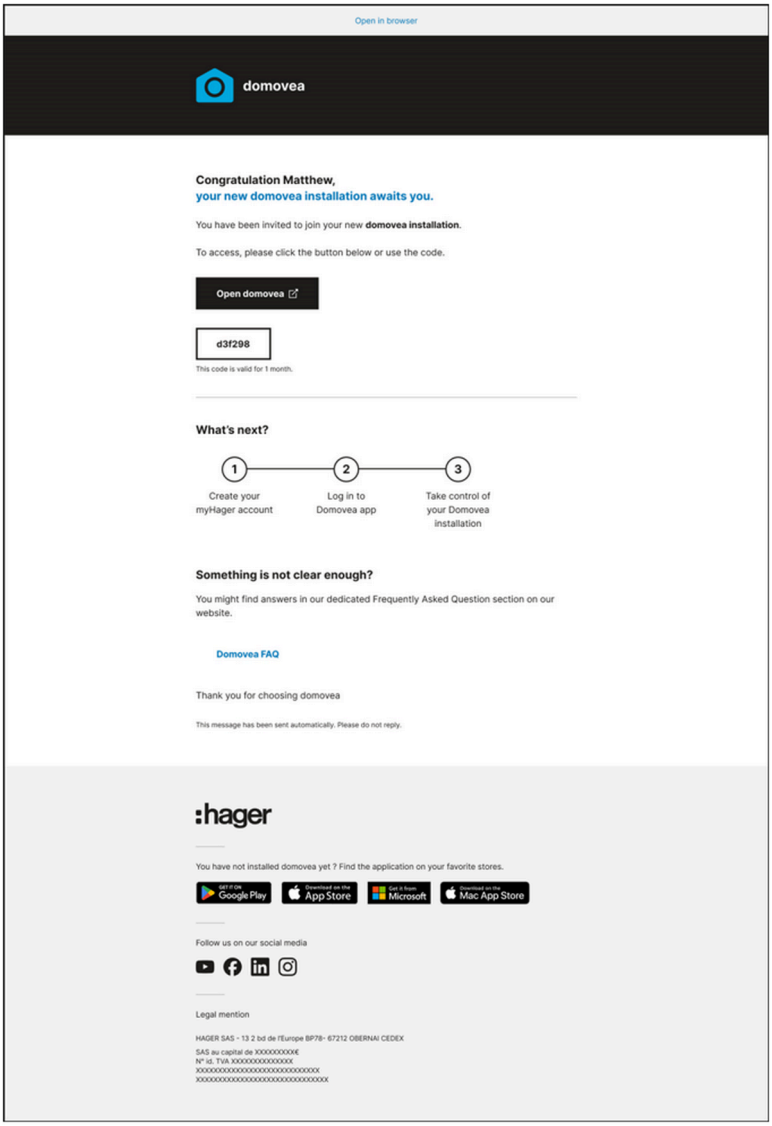


If the authentication does not match your identity, you can change the login by clicking the **Change Account** link

5.2.2.2 End user finalization

The end user must have received an email with the invite code. This code will allow the end user to use the domovea app to manage their smart home.

The invitation email will look something like :



The end user simply must click on **Open domovea** .

- If you do not have domovea app installed, you will be redirected to the app store for download.
- If the domovea app is already installed, you will still be redirected to the app store. Here you can simply open the app.

- the deep link will only work with smartphones and tablets.
- Please check the spam folder for the invitation email

On the domovea app, the user is prompted to log in with a **myHager** account

- Since it is the first time the user will access the installation, chances are high, they need to create myHager account
- Once the account is created, user simply needs to login
- Once the login is complete, user will be shown there is one pending invite
- Clicking on the pending invite will allow the user to access the installation
- You will not need to repeat the process if you logout. The system will automatically detect your installation

5.2.2.3 The creation and management of additional accounts

Once the handover is complete, it is now possible to create and manage additional accounts.

- click on ⚙, a drop-down menu appears,
- click on **Users**.

To create a new account:

- click on **New**,
- enter the email and password of the account,
- select the type of account: Installer – Referent user – Restricted user,
- select the account language,
- click on **Save** to confirm the selection.

For an **installer** type account, a confirmation email is sent to the installer's address containing an activation code. This code must be entered in the **domovea client** application for confirmation.

To modify an existing account:

- select the account to modify,
- click on **Modify,**
- carry out the desired changes,
- click on **Save** to confirm the selection.

For more information, please see tutorial 8. Add a new user in domovea.

5.2.3 Data management

This section is for managing the configuration archives of domovea projects. The configuration archive files are stored in the server memory and can be downloaded by the user as an external backup.

- click on ⚙ a drop-down menu appears
- click on **Data management**

5.2.3.1 System management

Click on **Restart Server** to restart the server remotely.

Click on **Reset installation** to delete your application data and reconfigure your installation (user data, handover status, backups and settings will be retained).

Click on **Reset users** todelete all users and restart the procedure to hand over. Only the configuration will be stored, all personal data will be deleted (images, videos, measurements, current backup point). A log out is performed and reconnection is needed to log in again with the default account (admin).

Click on **Factory reset** to delete all the data. Your server is reset to factory default settings. (An internet connection will be required to update the server version).

The **backup point** corresponds to the last installer backup. This backup is launched as a result of the transfer of rights and cannot be deleted. It restores the system to the point it was at when it was received by the final client.

- click on **Save** to perform a backup,
  The **backup point** enables regular backup of the installation.
- click on **Restore** to restore the backed-up configuration from the server,

- click on **Download** to save the project as a file (*.shbox).

> To protect sensitive data in your installation, a prompt request for a password will appear to encrypt the backup.

Export all Data saves all personal data of your installation. The file is exported in compressed format (*.zip). It includes all the energy consumption and sensor measurements in CSV format, as well as screenshots and recorded videos.

- click on **Export** to carry out a backup

> For more information, please see tutorial 7. Export personal data from Hager Pilot.

5.2.3.2 System diagnostic

This part provides all the log files containing the data about the system operation and the tracking of user activities.

Data includes:

- Email address
- IP address
- User Templates
- Sequence names and run dates.
- Action times
- Technical data

Click on **Download Log Files**

A text file is generated.

5.2.3.3 Resource management

The domovea server has an allocated and restricted space for storing resources by category (measurements, photos, videos, etc.).

The memory capacity allocated to each category is shown below:

Default	If the memory used is less than 80% of the allocated memory.
Warning	If the memory used is less than 80% of the allocated memory. A warning notification is sent to the administrators of the system.
Alarm	If the memory used is between 90% and 95% of the allocated memory. An alarm notification is sent to the administrators of the system.
Critical	If the memory used is more than 95% of the allocated memory. An critical notification is sent to the administrators of the system. In this case, no more photos or videos can be recorded and the measurements are no longer taken into account.

The different categories are :

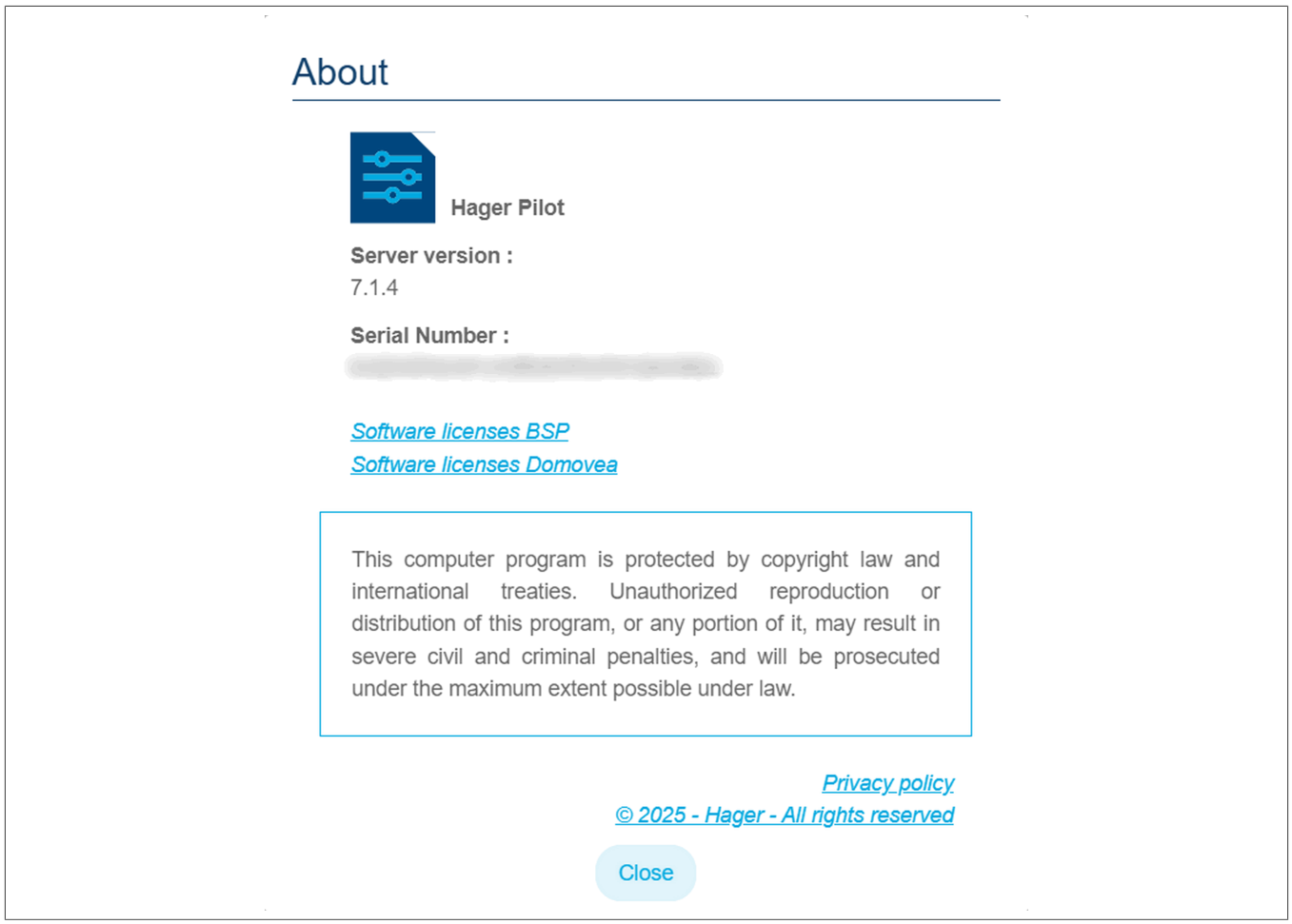
Categories	Subcategories
Database	Domovea measurement database

Categories	Subcategories
Media	Media files (such as camera recordings)
Security	Security database
System	System logs

5.2.4 About

In this menu can be found information on the configuration interface software version, as well as disclaimers.

- click on⚙click on **About** to view the domovea software version,
- click on **Close** to exit.

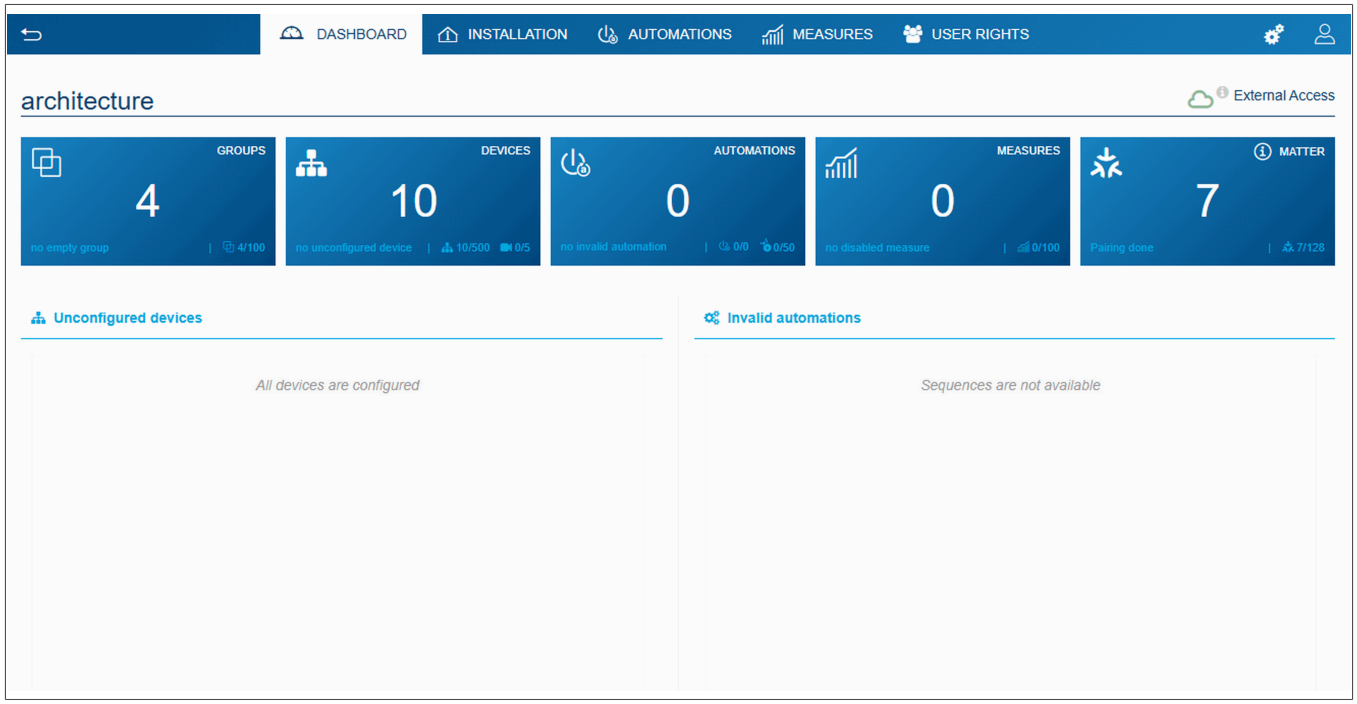


6 MY DOMOVEA INSTALLATION

6.1 Dashboard

The **Dashboard** page can be used when an installation is selected:

- go to **Architecture** to display an overview of the installation elements
  - The number of groups
  - The number of devices
  - The number of valid or invalid automations
  - The number of active or inactive measurements.
  - The number of devices using the matter protocol.
- to display the non-configured devices
- to display the non-configured automations



6.2 Installation

6.2.1 Devices

A device is a piece of equipment connected to a part of a KNX installation that can be controlled or viewed via the client domovea, such as lighting, shutters, heating, etc. (maximum 500 devices per installation)

For products not recognised by the easytool configuration tool, domovea can only collect data from the installation products. Ensure that the KNX products to be added to domovea offer tool formats that are compatible with the tools of the domovea devices

Click on **New device** to create a device:

- in the left column, select the device type (KNX – Camera- IoT),
- in the right column, select the device according to the type selected.

The device is created.
- configure the properties of the device if necessary,
- add the different group addresses for the KNX devices.

For more information, please see tutorial 9. Add and configure a KNX device not discovered by easyTool.

The domovea server has a presence simulation function. It allows you to control appliances (lighting and blinds only) at random, giving you the impression of being at home while you're away.

Each device can be included or excluded from presence simulation.

- click on to add the device to the presence simulation,
- click on to remove the device from the presence simulation,

For more information, please see tutorial 13. Use the presence simulation function in domovea.

6.2.2 Groups

A group is a part of the installation composed of a room, a building floor, an area or part of a set of rooms, floors or areas (e.g. kitchen, living room, outdoor area).

The groups comprise the structure of the project (maximum 100 groups per installation)

Click on **New group** to start creating the areas of your project.
- rename the group directly in the field on the top right.

You can add a description if necessary.

Repeat the operation for each group

Once the groups are created, the devices must be assigned to each corresponding group.

- click on **All devices**,
- select one or more devices from the list,
- click on **Change the Group**) at the top of the device list,
- select the group to which the selected device(s) should be assigned.

For more information, please see tutorial 10. Create groups in domovea with Hager Pilot.

6.3 Automations

(**Only with TJAS471 domovea plus**)

Automations are not available in the configurator with the domovea basic version (TJA670 or TJAS671). They are available in the client application (domogram).

For more information, please see tutorial 11. Configure domograms in the domovea application.

6.3.1 Sequences

Sequences are used to create complex scenarios for executing functions conditioned or not by the status of sensor.

A sequence is characterised by:

- One or more **triggers**,
- One or more **conditions**,
- One or more **actions**.

A **trigger** is a quick and easy way to evaluate an event before testing the condition.

Type of triggers: Time programming - Cyclic - On KNX event - On variable event - On device event - On measurement event - On service event.

A **condition** allows a complex evaluation of different events to be carried out more accurately. It is evaluated only when one of the triggers is valid. Logical operators (AND, NAND, OR, NOR, XOR and XNOR) can also be used for evaluation.

An **action** corresponds to an operation on an output device. This device can correspond to a device in the installation, to a device group, to another sequence or to various other objects (Logic/Boxes/Tools).

The maximum number of permitted sequences is 100.

Click on **new** in the **Sequence** section to create a new sequence.

- rename the sequence directly in the field on the top right.
  You can add a description if necessary.
- click on **Add a trigger** to start configuring the sequence.
- select a trigger and configure the related properties
- click on **OK** to confirm the selection.
- click on **Add a condition** for a more accurate analysis of the sequence.
- select one or more conditions and configure the properties
- click on **Save** to confirm the selection.
- click on **Add an action** to configure the action performed by the trigger.
- select the relevant devices or groups.
- click on **Edit** to set the parameters for the action to be performed
- add other actions if required.

For more information, please see tutorial 12. Configure sequences in domovea expert with Hager Pilot.

6.3.2 Home status

Home Status is the general state of the home. Sequences can be activated or deactivated according to this status.

Four home statuses are set by default and can be changed as required (Home - Absence - Night - Holiday). It is also possible to add up to four additional home statuses. The maximum number allowed is 8.

Click on **new** on the **Home Status** section to create an additional home status to the project.

- Rename the home status directly in the field on the top right.
- Choose an icon for your home status.
  You can add a description if necessary.

- click on **Add a trigger**.
- configure properties
- click on **OK** to confirm the selection.
- click on **Add** in the section **Sequences executed upon activation of the HomeStatus**
- select the desired sequence
- add other sequences if required.

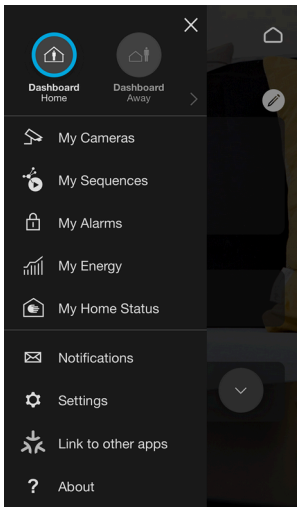
For more information, please see tutorial 14. Configure a Home Status in domovea.

6.3.3 Create a domogram in the application

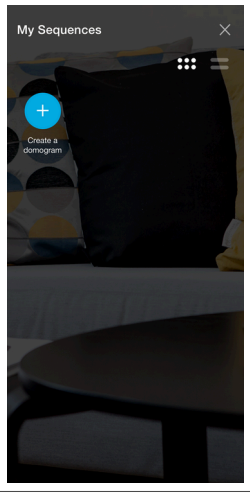
A **domogram** is a scenario or sequence of actions programmed into a home automation system to get some automated functions to control or monitor a building or a house.

It makes it possible, for example, to monitor and control lighting, heating, or security according to defined conditions (schedule, presence detection, environmental sensors, etc.). A domogram facilitates smart equipment management by optimizing comfort, security and energy efficiency.

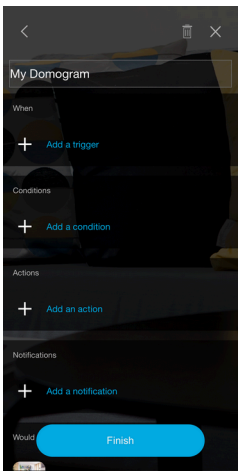
1. Launch the domovea application
2. Click on the menu icon at the top left of the screen
3. Select My sequences



4. Click on (+) to create a new domogram

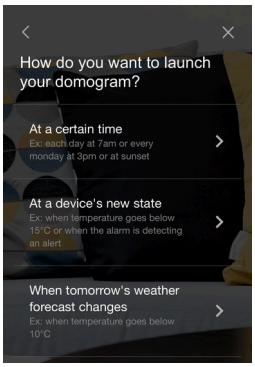


5 In the table, click on **Add an Action** to start the configuration.
A window is displayed to define the conditions used to perform the execution of the domogram.



Getting to understand the domogram

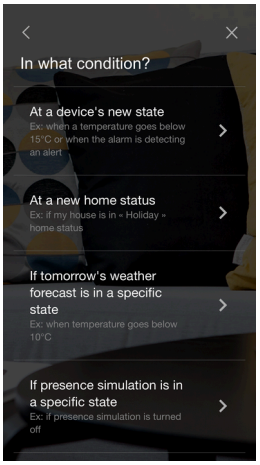
When:



This is intended to define how you want to launch the execution of the domogram. The following options can be selected:

- At a certain time
- At a device's new state
- When tomorrow's weather forecast changes

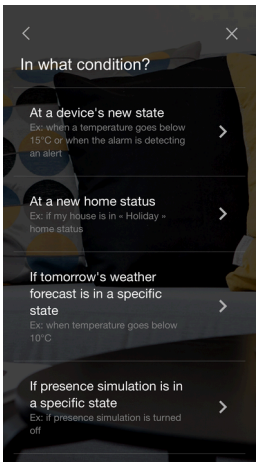
Condition:



It is intended to define the conditions under which you want the domogram to run. The following options can be selected:

- At device's new state
- At a new house status
- Change in weather forecast

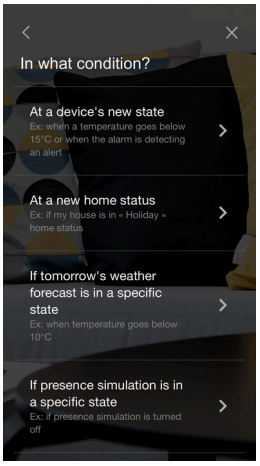
Action:



It is intended to define the action to be taken with the domogram. The following options can be selected:

- Change in the device status
- Add a delay
- Launch another sequence
- Change my home status

Notification:



It is used to notify the successful execution of the domogram. The user can decide to receive a notification:

- By email
- By push notification

It is also possible to define a title and message for the notification.

Example

All shutters close in the event of a heat wave

When:

- Add a trigger event: ‘Change in weather Forecast’.
- If tomorrow’s forecasted temperature exceeds 30°C

Condition:

- Add a condition.
- When the shutters of the living room are partially open

Action:

- Add an action
- Close the living room shutters

Notification:

- A notification is sent to the registered email address

6.4 MEASUREMENTS

6.4.1 Measurements

The domovea energy display function responds to a growing desire to reduce energy needs. After the data is acquired by the different KNX products, it is transmitted to the domovea server via the KNX TP bus.

The domovea server and software archives this data, which will, after processing, be displayed on a viewing device (tablet, smartphone, PC, etc.)

The maximum number of **Measuring** devices permitted is 100.

A **Measuring** device can be added:

- Automatically: Using the configuration tool, the system automatically recognises the product. The different devices are thus created.
- Manually: by adding an Energy device (electricity, gas or water)
  To create a device, please refer to the (devices)

Depending on the type of device, it is possible to assign a subscription.

For more information, please see tutorial 15. Configure a Hager electric meter with easyTool and domovea.

6.4.2 Subscriptions

A subscription defines the cost of power consumptions for a given installation. It is comprised of one or more tariffs, which give the cost according to a given period (day, hour, etc.). The maximum number of permitted subscriptions is 10.

Click on **new** in the **Subscriptions** section to create a new subscription.

- select the type of subscription (electric – water - gas),
- rename the subscription directly in the field on the top right.
  You can add a description if necessary.
- select **consumption** or **production** depending on the value of the subscription,
- click on **Use a subscription model** to select a pre-defined subscription.
  Or
- click on **Add a tariff**to manually define the type of subscription,
- add other tariffs if required.

For more information, please see tutorial 16. Add the price rates of an energy offer to view consumption in domovea.

6.5 Pairing the domovea to a Matter wizard

domovea now operates as a Matter bridge, allowing users to seamlessly integrate and control their existing KNX devices from smart home platforms and home automation assistants such as:

- Amazon Alexa
- Google Home
- Apple Home

Only Matter compatible assistants and devices are supported. Some devices displayed may have limited functionalities.

KNX products connected to the domovea will be easily accessible via the application of the home automation assistant and the domovea application. Configuration can be easily performed via Hager Pilot or the domovea client application.

The domovea server can display up to 128 KNX devices via the home automation assistant application.

Device types supported:

- Lighting
- Shutters/blinds
- Switched sockets
- Thermostats
- Temperature sensor
- Humidity sensor
- Binary inputs

6.5.1 Pairing

In order to display domovea devices to Matter, some configuration on the server is required.

Installation prerequisites:

- The user must have an electrical installation with a TJAS671/ TJAS471 domovea server.
- operating KNX devices,
- a router/switch with DHCP and WIFI access,
- A Google/Apple smartphone or tablet.
- A Matter product set up as a Matter bridge, such as a Google speaker.

Configuration can be performed using two different tools, either the Hager Pilot Configurator and/or the domovea client application.

All data is synchronized regardless of the tool used.

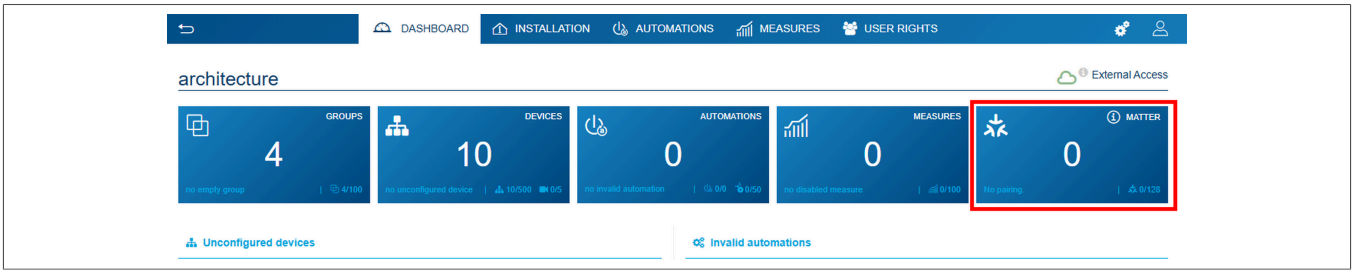
6.5.1.1 Configuration using Hager Pilot

For a first configuration of a smart home automation assistant compatible with Matter, two prerequisites are required:

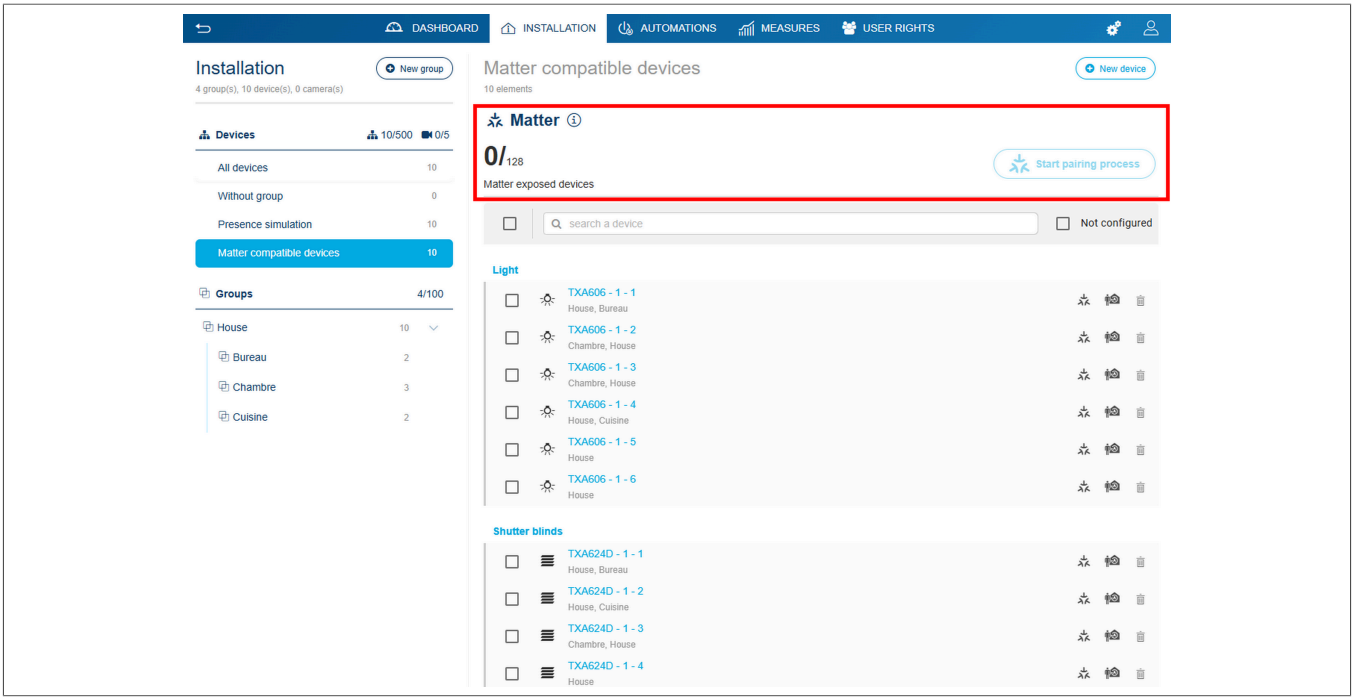
- the activation of domovea devices that are to be displayed in the application of the home automation assistant
- the pairing between the server and the selected home automation assistant.

From the domovea configuration dashboard

- Click on the Matter tab



A page dedicated to the configuration of Matter links appears.



Upon first login, the dashboard indicates that no products in the domovea installation are displayed in the Matter environment.

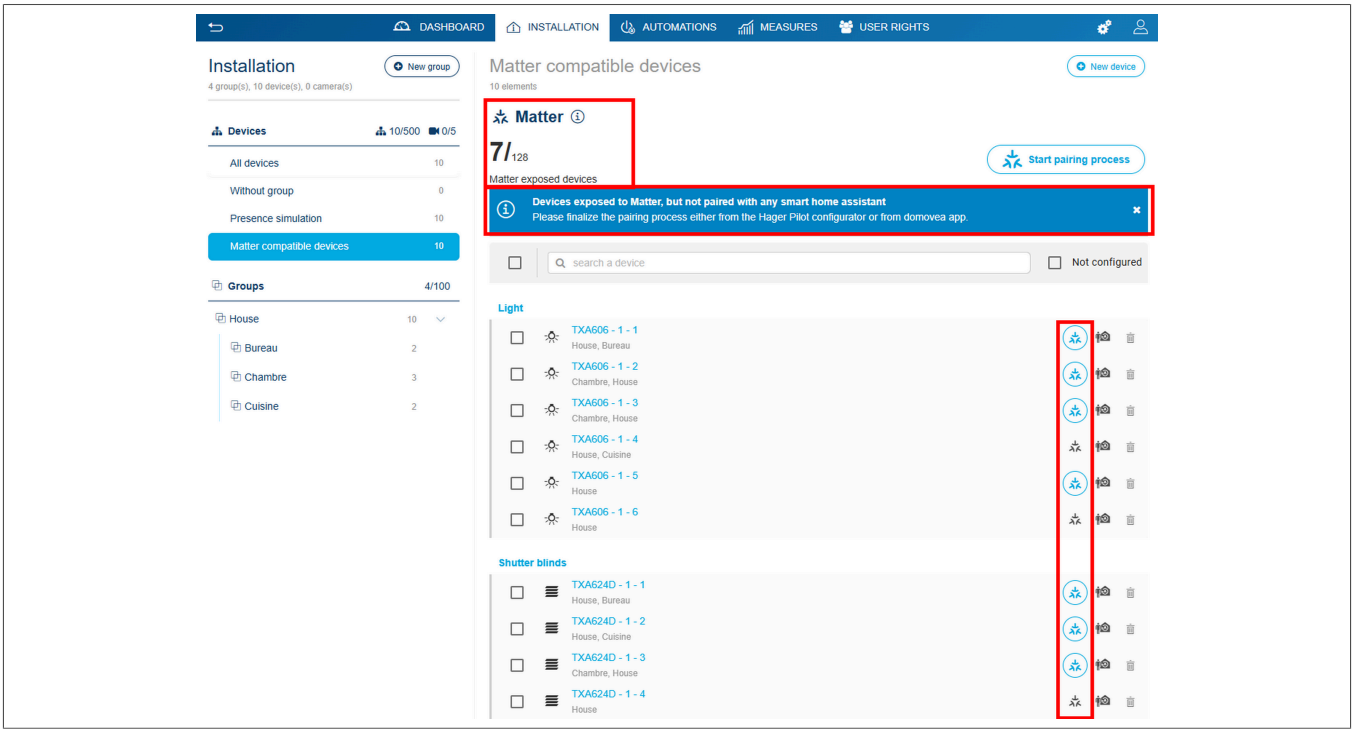
- On the relevant devices to be controlled via Matter, click on to display the device in the application of the Home Automation Assistant

By clicking , the device is added to the list in the application of the home automation assistant.

By clicking , the device is removed from the displayed list in the application of the Home Automation Assistant.

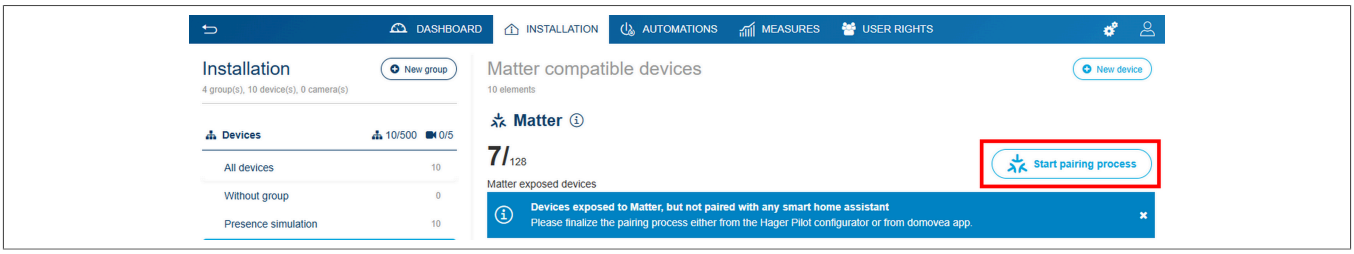
The symbol displayed next to the device indicates that it cannot be added to the list in the application of the home automation assistant. To make it selectable, the device should be assigned to a group (such as Home, Room, Kitchen, etc.).

- Select the various devices to be displayed in the home automation assistant application.

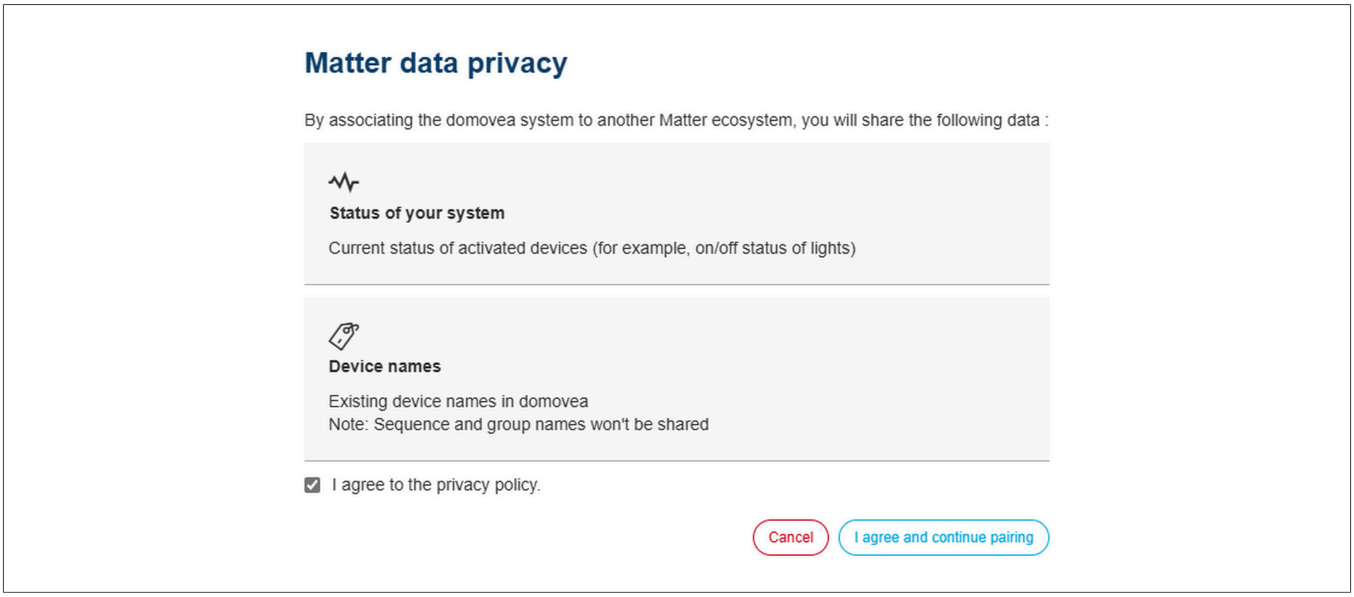


The dashboard progressively indicates the products available in Matter, presently 7 devices over 128.

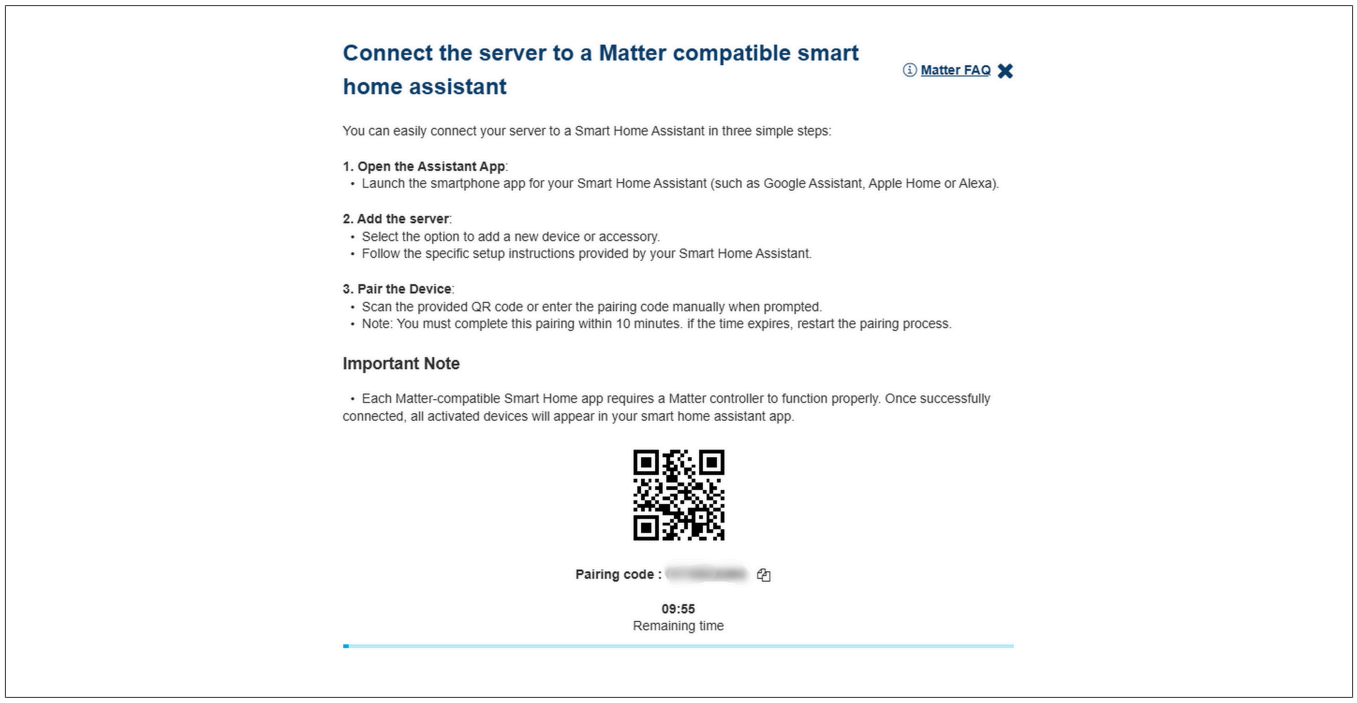
- Then click on **Start pairing process** to start pairing with the Matter bridge of the home automation assistant.



- Tick the box **I accept the privacy policy**
- Click on**I agree and continue pairing** for data privacy acceptance.



The pairing process begins.



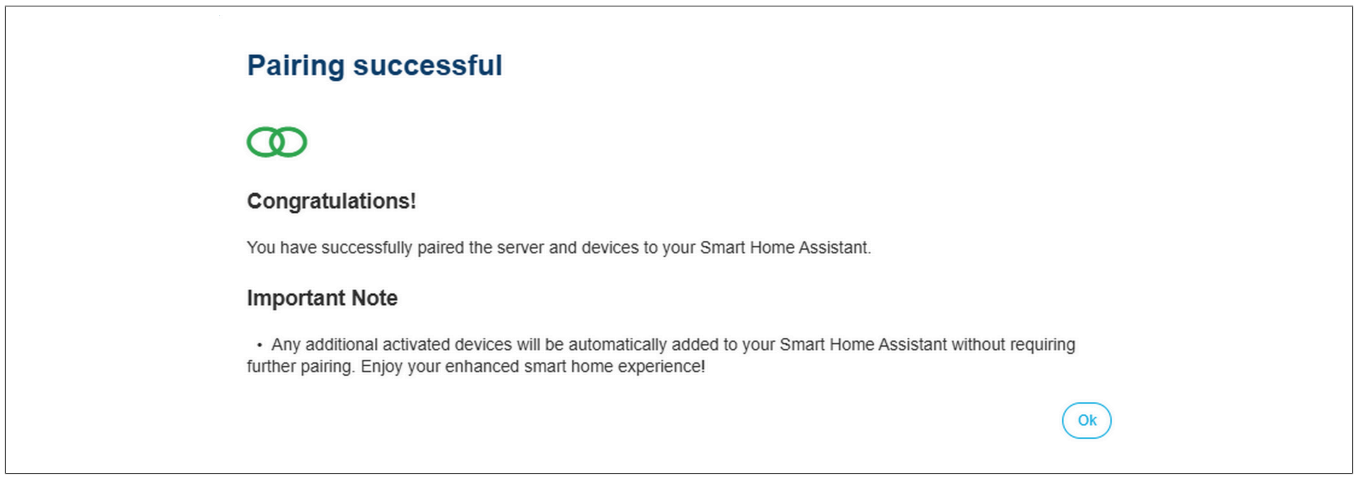
The server can be connected to a home automation assistant in three easy steps:

1. Open the application of the home automation assistant (Google Home, Apple Home, Alexa, etc.).
2. Add the domovea server as a Matter device or accessory and follow the installation steps specific to each application.
3. Scan the QR code or manually enter the pairing code provided by domovea with the connected wizard application.

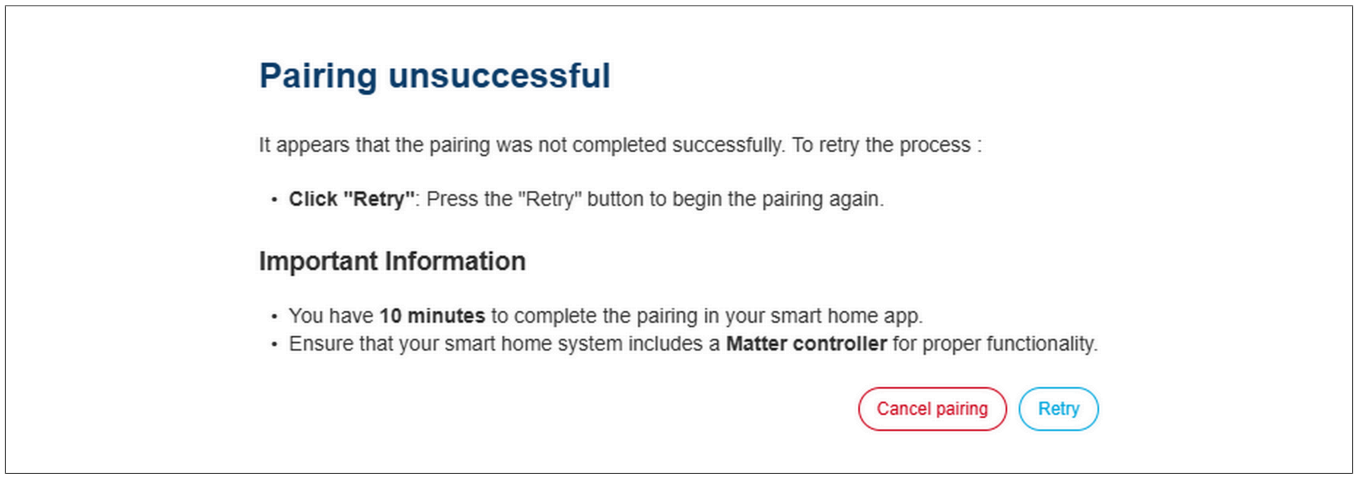
When the pairing with the server is complete, it will be identified and displayed in the application of the home automation assistant. Once the server is detected, KNX devices previously activated in domovea will also appear in the smart assistant application.

You have 10 minutes to complete the pairing. If this time limit is exceeded, the pairing proces should be restarted.

On the configurator side, a notification confirms the successful pairing process.



If the pairing fails, a notification is displayed prompting the user to restart the pairing process, within a 10-minute timer.



Notice

Possible reasons for unsuccessful pairing:

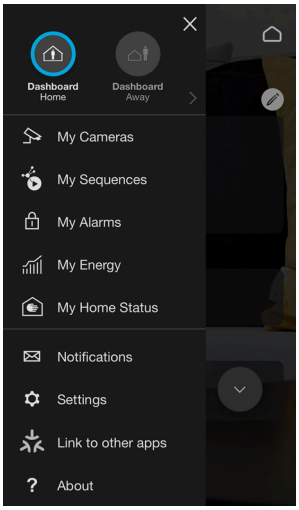
- Check the home infrastructure and the ecosystem to confirm the proper functioning of the Matter hub.
- Make sure pairing has been completed within 10 minutes.

6.5.1.2 Configuration using the domovea application

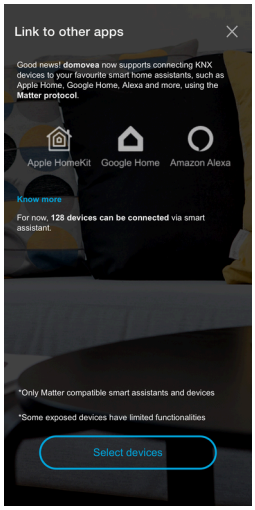
For a first configuration of a smart home automation assistant compatible with Matter, two conditions are needed:

- the activation of domovea devices that are to be displayed in the application of the home automation assistant
- pairing between the server and the selected home automation assistant

From the domovea client application:

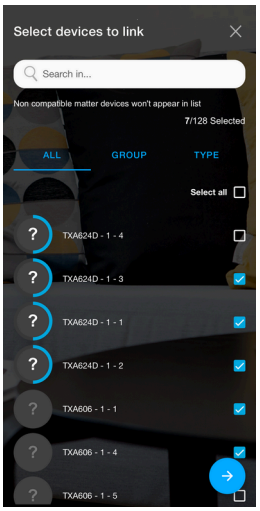


- Click on**Link to other Applications**
  A page dedicated to the configuration of Matter links appears.

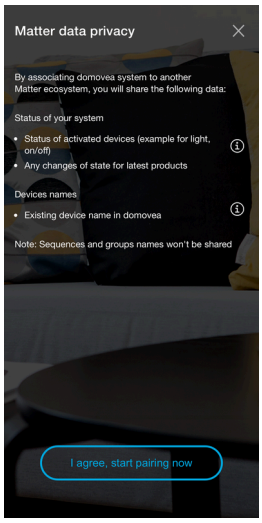


Upon first login, no products in the domovea installation are displayed in the Matter environment

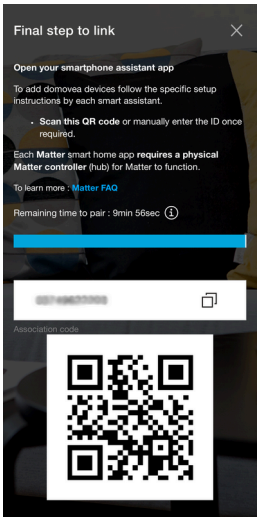
- Click on **Select products**



- On the relevant devices to be controlled using Matter, select the devices listed in the application of the Home Automation Assistant



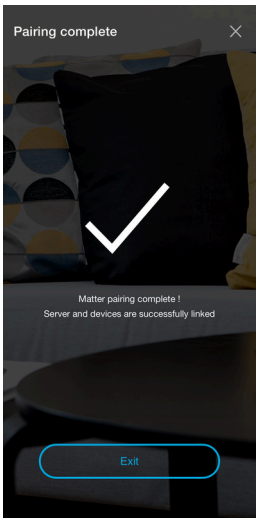
- Click on **I agree, start pairing now** for data privacy acceptance.



The server can be connected to a home automation assistant in three easy steps:

1. Open the home automation assistant application (Google Home, Apple Home, Alexa, etc.).
2. Add the domovea server as a Matter device or accessory and follow the installation steps specific to each application.
3. Scan the QR code or manually enter the pairing code provided by domovea with the connected wizard application.

You have 10 minutes to complete the pairing. If this time limit is exceeded, the pairing proces should be restarted.



When the pairing with the server is complete, it will be identified and displayed in the application of the home automation assistant. Once the server is detected, KNX devices previously activated in domovea will also appear in the smart assistant application.
The domovea application sends a notification to confirm the successful pairing.

If the pairing fails, a notification is displayed prompting the user to restart the pairing process, within a 10-minute timer.

Notice

Possible reasons for unsuccessful pairing:

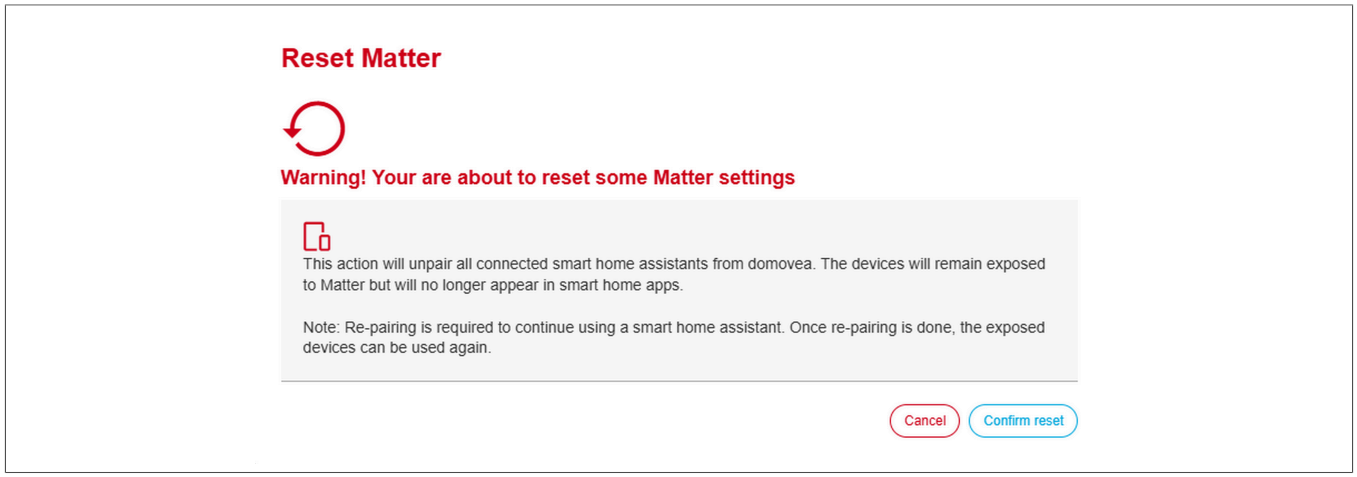
- Check the home infrastructure and the ecosystem to confirm the proper functioning of the Matter hub.
- Make sure pairing has been completed within 10 minutes.

6.5.2 Initializing Matter parameters

This action causes the disconnection of all smart home assistants currently available on the domovea platform. As a result, although the home automation devices are still compatible and accessible via the Matter protocol, they can no longer be controlled or monitored using the smart home management applications. This disconnection can temporarily affect the integration and use of the devices in your connected ecosystem.

From the domovea configuration dashboard:

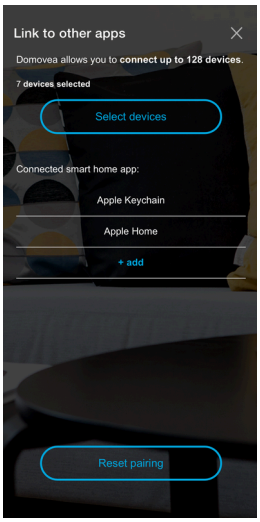
- Click on **coupling Parameters**
- Click **Reset matter**

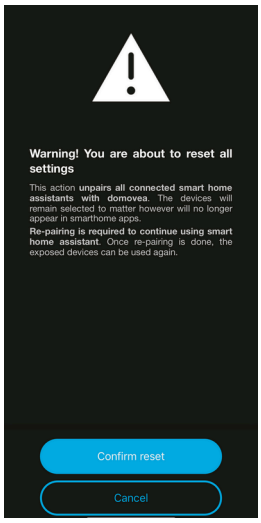


- Click **Confirm Reset**

From the domovea client application:

- Click **Reset Pairing**
- Click **Reset confirmed**





Smart home assistants are now disconnected from domovea.

To restore the use of a smart home assistant with domovea, a complete re-pairing process should be performed. Once successfully re-paired, the home automation devices listed via Matter are accessible and fully operative in your connected configuration.

6.5.3 Share pairing systems with other smarthome wizards

Once a first pairing is performed between domovea and a smart assistant type, new pairing to other smart assistants can be performed on the same server by sharing the ecosystems, only if the sharing function is offered by the smarthome assistant.

Example: If Google is the first application paired with the domovea Matter bridge, it is possible to share this device with another ecosystem (Apple or Amazon for example)

6.6 Managing user rights

This enables you to define the access rights to the installation for different users. This can vary depending on the case, as shown in the examples below. Example 1: In a family residence, the young son must have access to his bedroom but not the other rooms.

Example 2: In a hotel, it is important that the receptionist is able to manage all of the rooms, but a customer in room “X” must not be able to access, or modify the parameters of, room “Y”. He must not even be able to see them.

Click on **user rights**.

- select the user to be managed,
- define the groups, devices and sequences accessible to the user.

To create a user account, please refer to the (Users)

For more information, please see tutorial 17. Manage user rights in domovea.

6.7 Configuration

This part is identical to the one dedicated to the configuration from the project (please refer to the (Configuration) chapter)

7 LIST AND DETAILS OF THE DEVICES

This section lists all of the peripherals that are available to the installation program to create a project.

7.1 KNX devices

7.1.1 Comfort

Devices	Actions	Readable
Light	Switch on Switch off Set the brightness to x% Define the colour Set the white temperature (for example 4000°)	On Off Brightness at x% Colour White temperature
Connected socket	Switch on Switch off	On Off
Weather automation	Activate the façade shade x Activate the shade on all façades Deactivate the façade shade x Deactivate the shade on all façades Activate presence Activate absence	Façade shade x activated Shade activated on all façades Façade shade x deactivated Shade deactivated on all façades Heat protection activated Heat recovery activated Presence Absence
Roller shutters*	Opening clearance Close Slats opened Slats closed Shutter in position x% Slats in position x%	Open Closed Shutter position x% Slat position x% Position '?' **
Thermostat	Heating mode Cooling mode Comfort mode Eco mode Night mode Protection mode Set the heating setpoint temperature to x°C Set the cooling setpoint temperature to x°C	Current temperature x°C Heating mode Cooling mode Comfort mode Eco mode Night mode Protection mode Setpoint temperature x°C
Virtual thermostat (Only with TJAS471 Domovea Expert)	Valve open Valve closed Valve position in %	Comfort mode Eco mode Night mode Protection mode
Overall control of heating	Switch on Switch off	On Off Status of the area x

Devices	Actions	Readable
		HVAC mode area x Current temperature of area x Load-shedding
Hot water	Overtime switch Forcing	Variance activated Forcing activated
KNX scene	Launch scene x	Scene x launched
Forcing	Activate/deactivate forcing	Forcing activated/deactivated
Audio	Switch on Switch off Read Pause Set the volume to x% Mute mode Repeat mode Random mode Next source (or playlist) Previous source (or playlist) Next title Previous title	On Off Current playback Pause Volume at x% Mute mode activated Repeat mode activated Random mode activated Current song Current playlist Current artist
Ventilation	Activate/deactivate the ventilation Set the speed level to x% Set turbo mode	Status indication Speed level is x% Turbo mode activated

* For the position of the shutters/blinds, domovea considers they are 0% open and 100% closed. However, for HomeKit and Home Assistant, it is the opposite situation: 100% means open and 0% means closed.

* The domovea client application displays a question mark if the KNX product:

- does not have the indication function for the flap/store position status.
- does not respond when the server asks for the position of the shutter/store.

7.1.2 Access security

Devices	Actions	Readable
Alarm area	Arm Disarm	Armed Disarmed Intrusion detection
Alarm box	Arm the entire system Disarm the entire system Arm area x Disarm area x	Entire system armed Entire system disarmed Area x armed Area x disarmed Entrance protected Fault Silent alarm

Devices	Actions	Readable
		Intruders Intrusion confirmed Alert Silent alarm Fire alarm Technical alarm
Door striker	Open door	Door open

7.1.3 Sensors

Devices	Actions	Readable
Temperature	N/A	Temperature at x°C
Wind	N/A	Wind at x km/h
Co2	N/A	CO2 at x ppm
Humidity	N/A	Humidity at x%
Brightness	N/A	Brightness at x lux
Binary input for bus system	N/A	On
Rain	N/A	Rain
Smoke alarm	N/A	Smoke alarm Heat alarm Room alarm Detector status Local deactivation Manual test Service life Heartbeat
Weather station	N/A	Brightness at x lux Rain External temperature at x° Internal temperature at x° External humidity at x% Wind speed at x km/h

7.1.4 Energy

Devices	Actions	Readable
Electricity	N/A	Power Energy Tariff
Gases	N/A	Flow rate Counter

Devices	Actions	Readable
Water	N/A	Flow rate Counter

7.1.5 Generic

Devices	Actions	Readable
Generic device ON/OFF	Switch on Switch off	On Off
Command maintained	Switch on Switch off	On Off
Generic pulsed device	Switch on	On
Generic device	Writing of value x on the KNX bus	The value is equal to x

7.1.6 Network

Devices	Actions	Readable
URL	Sending an http request	N/A

7.2 Cameras

This section describes the procedure for creating a link between a network camera and a domovea installation.

Click on **New device** to create a device:

- select **IP Camera** in the **Camera** section,
- click on **Browse cameras** to automatically browse the devices on the network,
- click on the **Add** button,
- change the name of the device if necessary,
- click on **Test** to check the camera image.
  A camera can also be installed manually
- click on **Onvif** if your camera is compatible with this protocol,
  Or
- click **Generic** for all other types,
- change the name of the device if necessary,
- enter the configuration parameters for the connection.

7.3 IOT devices

domovea is also a monitoring tool for all smart connected devices in the home (IoT).

7.3.1 Philips Hue

This enables you to add a **Philips Hue** device to the domovea installation.

Click on **New device** to create a device:

- select **Philips Hue** in the **IoT** section,
- click on **Search Philips Hue**) if your lamp does not appear in the list,
- press the Link button on the Hue bridge so that the lamp is detected,
- click on the **Add** button,
- change the name of the device if necessary,
- complete the KNX group addresses if necessary.

For more information, please see tutorial 19. Control Philips Hue with domovea.

7.3.2 Sonos

This enables you to add a **Sonos** device to the domovea installation.

Click on **New device** to create a device:

- select **Sonos** in the **IoT** section,
- click on **Search Sonos speaker** if your speaker does not appear in the list,
- click on the **Add** button,
- change the name of the device if necessary,
- complete the KNX group addresses if necessary.

For more information, please see tutorial 20. Control a Sonos speaker with domovea.

7.3.3 Netatmo

This enables you to add a **Netatmo** weather station to the domovea installation.

Click on **New device** to create a device:

- select **Netatmo** in the **IoT** section,
- Enter the **user name** and **password** for the netatmo account,
- click on the **Add** button,
- change the name of the device if necessary,
- complete the KNX group addresses if necessary.

For more information, please see tutorial 21. Add a Netatmo weather station with Hager Pi-lot.

7.4 Additional connectivity control point

For external devices to control the installation, access must be authorised for different devices.

- click on **Groups** at the top of the screen from the **Dashboard**.
  All of your devices and groups are listed here.
- select a group to activate external access to the domovea installation,
- click on the locks at the top of the screen to activate external access.
  Repeat this process for each of the relevant groups

Note: to activate external access for each sub-group, you must open the locks of each sub-group and not just open the one in the group above.

For more information, please see tutorial 23. Enable external access to Alexa, Google, IFTTT, etc skills.

7.4.1 Alexa

This section enables you to add the vocal assistant **Amazon Alexa** to the domovea installation.

Connect to the Amazon Alexa website or to the Alexa application:

- select Skills in the menu,
- install the Hager skills **domovea**,
- enter the user name and password for your Alexa account,
- enter the user name and password of your myHager account,
- follow the instructions until installation is completed.

7.4.2 Google Home

This enables you to add the vocal assistant **Google Home** to the domovea installation.

Connect to the Google website or to the Google Home application:

- go to **Settings**,
- select **More settings** from the bottom of the page,
- select **Home control** in the Assistant tab,
- click on **+** and search domovea,
- enter the user name and password of your myHager account,
- follow the instructions until installation is completed.

For more information, please see tutorial 25. Control a domovea installation via the Google Voice Assistant.

7.4.3 IFTTT

This section is intended to register the **IFTTT service** in the installation.

Connect to the IFTTT service website:

- create an account if necessary,
- search domovea in the different applications,
- link your domovea installation to another connected device by following the instructions.

For more information, please see tutorial 26. Create an applet on IFTTT with domovea.

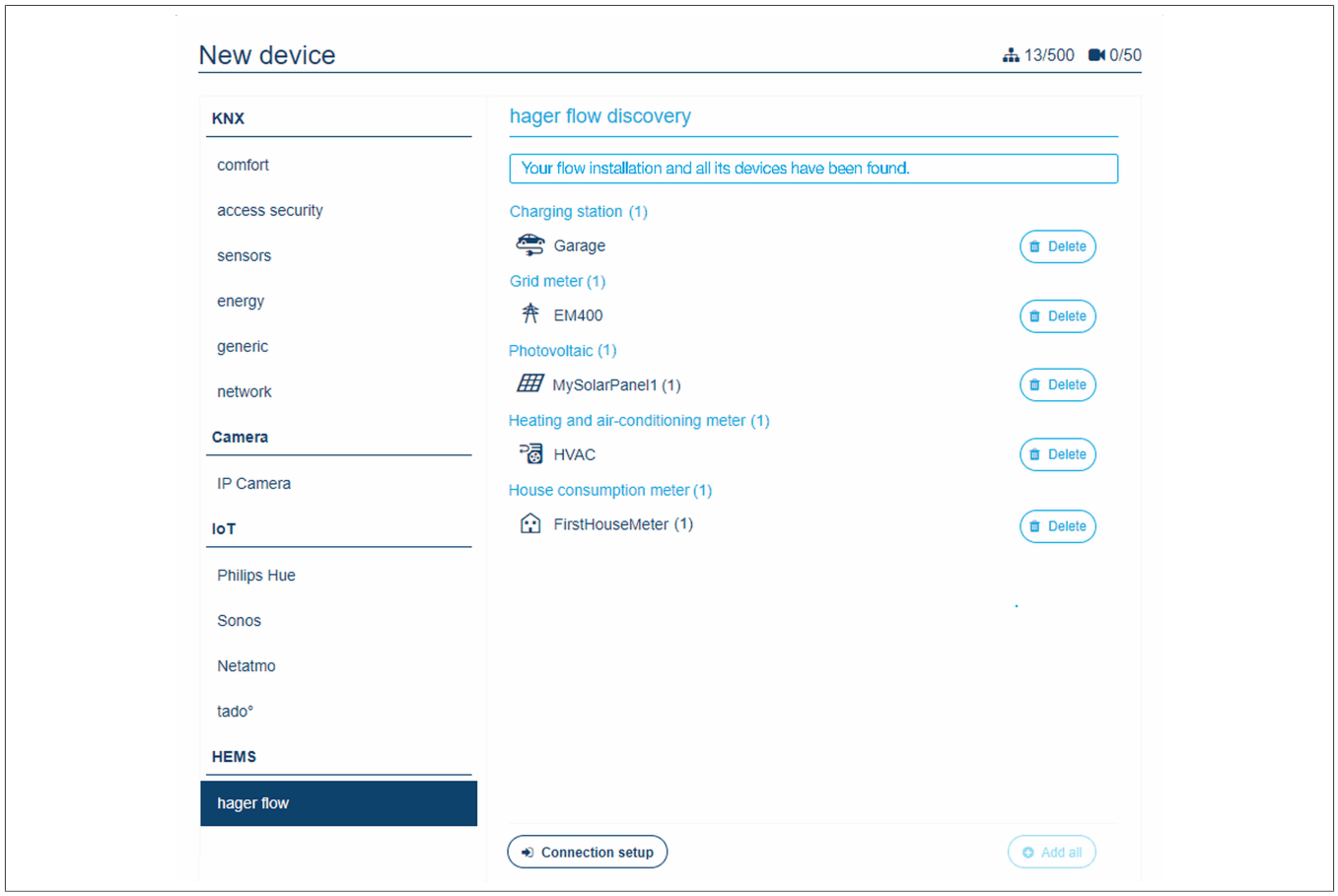
7.5 HEMS

The Home Energy Management System (HEMS) is a combination of hardware and software components that enable the efficient management of a home's energy consumption.

7.5.1 Hager flow

The flow home energy management system manages the flow of electrical energy in a single-family home. The XEM470 energy manager is required as a central control and monitoring unit for flow. It controls additional components such as a battery, one or more electrical recharging stations and additional measuring and control devices, increasing the home's degree of self-sufficiency and enabling an individual plan to be put in place to suit specific needs.

domovea allows you to add flow devices to the installation.

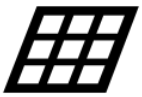


Click on **New device** :

- select **hager flow** in the**HEMS** section,
- select the flow devices to be integrated into the domovea application.

- An installation can include up to 3 charging stations, an energy management controller, a battery and a photovoltaic system. There are no restrictions on consumption meters.
- The charging terminals used must be part of the **witty solar**range.

List of available scenes

Symbols	Type of device	Functions	Value
	Charging station	Connected vehicule	Yes
			No
		Boost available	Yes
			No
		Loading	Yes
			No
		Instantaneous power	Value in Watt
		Fault	Yes
			No
	Energy meter by supplier	Instantaneous power (production)	Value in Watt
		Instantaneous power (used)	Value in Watt
		Fault	Yes
			No
	Photovoltaic	Instantaneous power (production)	Value in Watt
		Fault	Yes
			No
	Heating and air conditioning meter	Instantaneous power	Value in Watt
		Fault	Yes
			No
		SG status ready	Normal
			On hold
			Boost
			Max.
	House consumption meter	Instantaneous power	Value in Watt
		Fault	Yes
			No
	Energy storage	Connection to the electrical network	Yes
			No
		Load status	Value in %
		Instantaneous power (production)	Value in Watt
		Instantaneous power (used)	Value in Watt

Symbols	Type of device	Functions	Value
		Battery status	Charging
			Discharged
			On hold

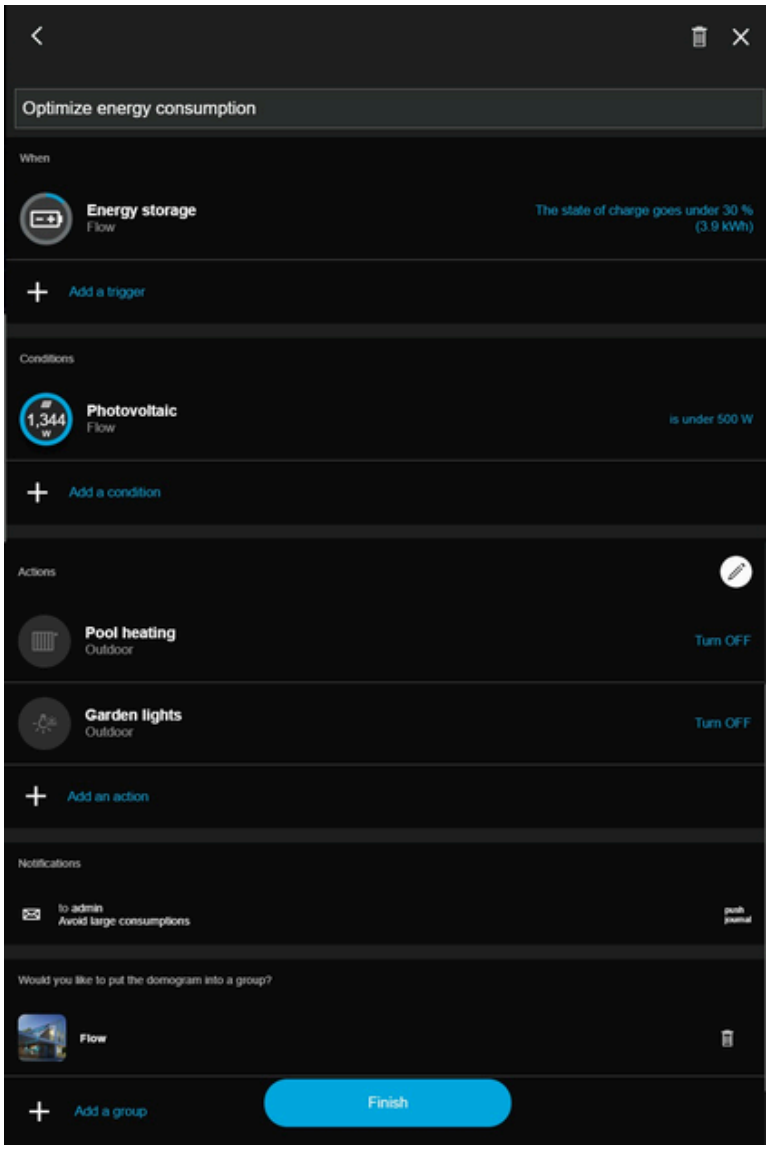
- Example on how to optimise energy consumption

If the battery has a low level of energy available and the photovoltaic system is not producing, the energy consumption should be automatically reduced. This example can be programmed using a **domogram**.

When:
- when the battery level is low.

When:
- The photovoltaic system is not producing enough energy.

and then?
- Send a message to your smartphone: ‘Avoid excessive consumption’.
- Turn off the pool heating.
- At dusk: turn off the garden lights.


Optimize energy consumption
When
Energy storage
Flow
The state of charge goes under 30 %
(3.9 kWh)
Add a trigger
Conditions
1,344
W
Photovoltaic
Flow
is under 500 W
Add a condition
Actions
Pool heating
Outdoor
Turn OFF
Garden lights
Outdoor
Turn OFF
Add an action
Notifications
to admin
Avoid large consumptions
push
journal
Would you like to put the domogram into a group?
Flow
Add a group
Finish

What is SG Ready?

SG-Ready statuses are based on an algorithm used to optimise the energy used by heat pumps. These statuses make it possible to intelligently manage the use of energy according to its price, availability, current production and needs.

The current state of the SG-Ready status can be used with the domovea system to optimise energy consumption, particularly through sequences.

Meaning of SG Ready statuses:

- ON HOLD: limited energy consumption
- NORMAL: Normal operation with low energy consumption
- BOOST: Energy available for operation in comfort mode
- MAX: Maximum energy level available

8 Appendix

8.1 Installation of thermostat WAK5010xx KNX

This chapter details the installation and programming of the WAK5010xx KNX thermostat with domovea:

- Topology and compatibilities
- Operating modes
- Programming

8.1.1 Topology and compatibilities

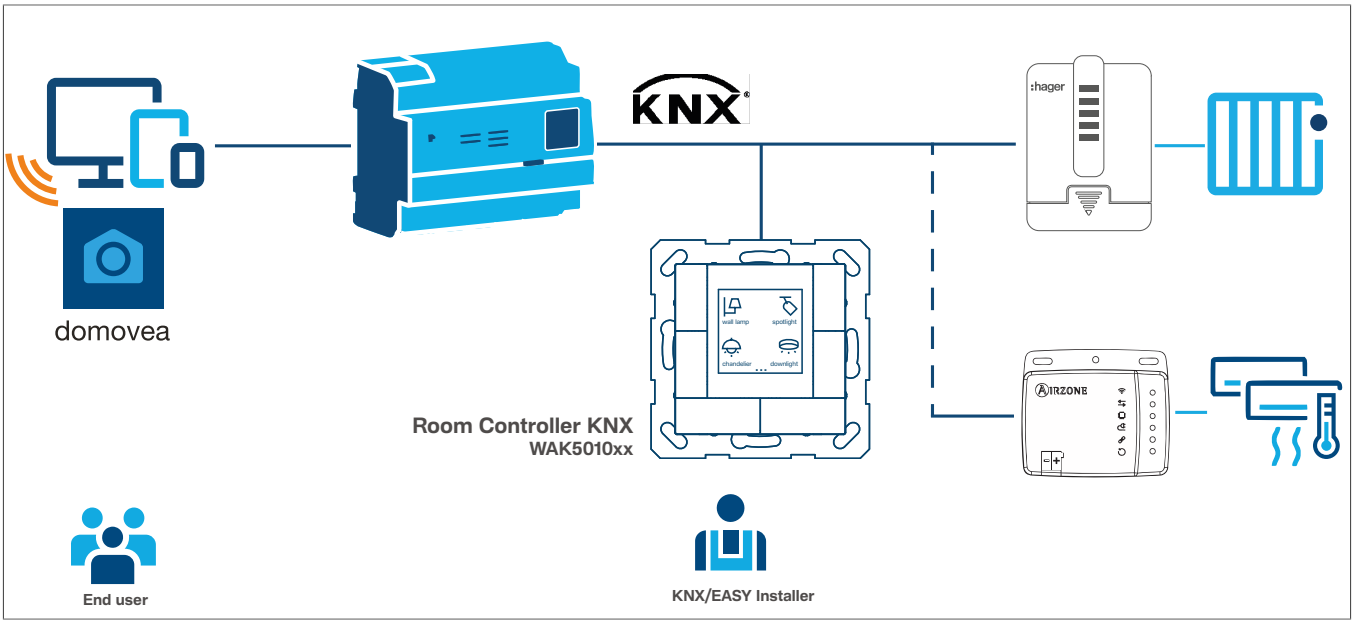
The KNX Secure room controller (WAK5010xx) is compatible with **easyTool** and **domovea** environments a complete heater control.

Depending on the configuration defined by the installer, the room controller can operate in three different modes

- Multifunction thermostat
- Push button actuator control
- Audio controller

This chapter describes the thermostat function of the WAK5010xx and its functional integration into the domovea environment.

> For more information about programming in easyTool or ETS environments, please refer **to the WAK5010xxx Software Application Manuals** .



In thermostat mode, the device can control various systems, such as:

- Underfloor heating
- Electric heating
- Water radiators
- Ventilation
- Fan Coils (FCU)

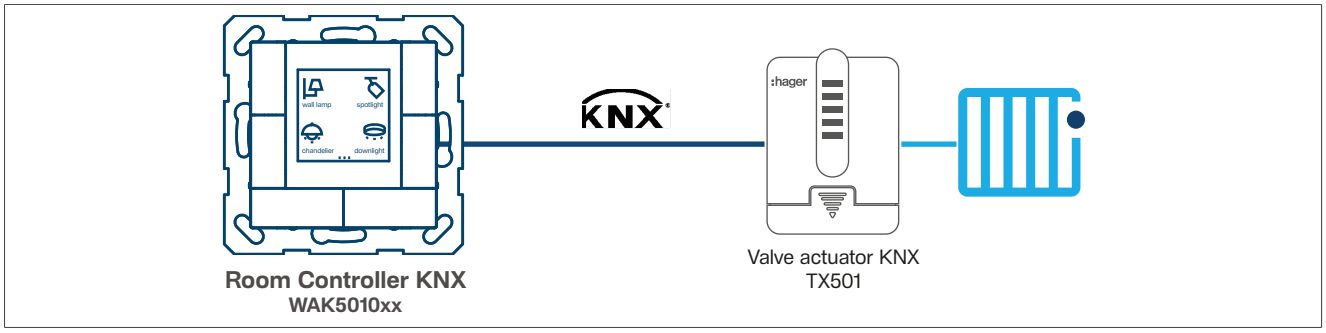
- Variable refrigerant Flow (VRF) systems via Airzone
- Valve actuators

This mode allows the parallel control of multiple equipment, with temperature management and operating modes (heating, cooling, ventilation).

8.1.2 Operating modes

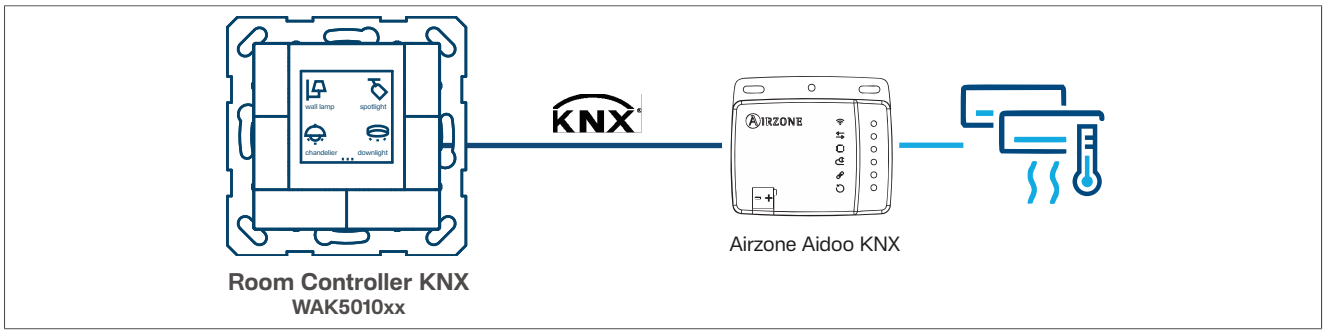
The thermostat has two main modes:

'Thermostat (FCU)' mode



- Internal thermostatic control.
- Direct management of heating, cooling or mixed mode.

Air conditioning Control (VRF) Mode



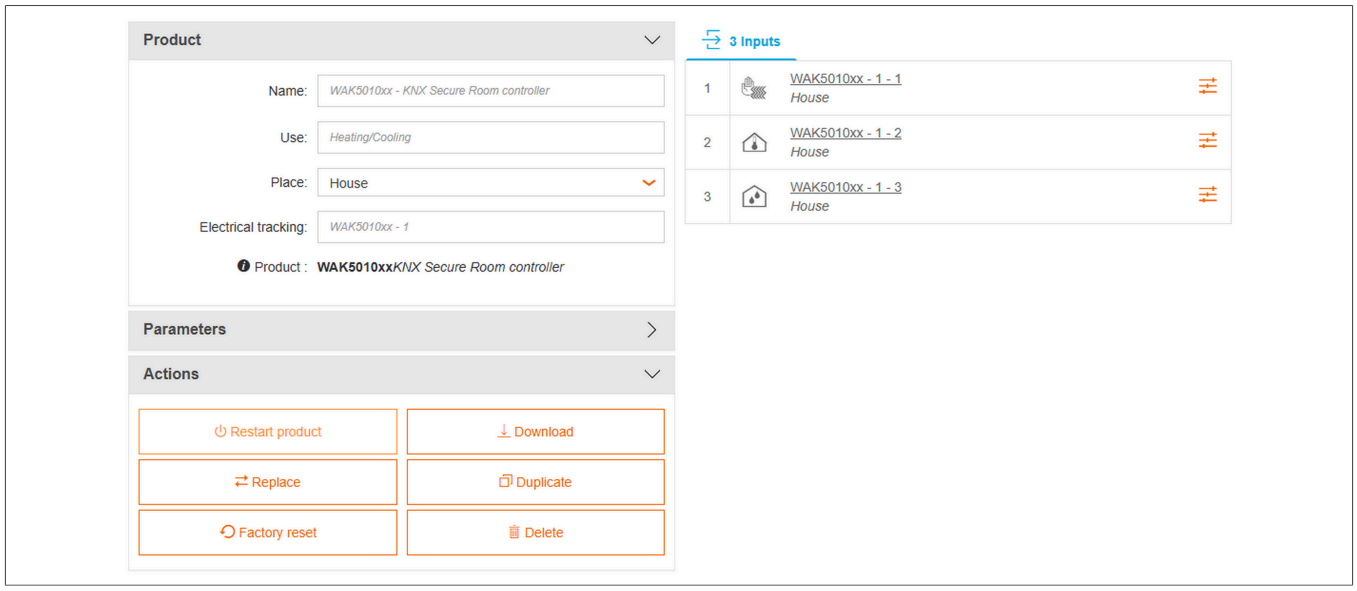
- Designed for piloting an **Airzone** or similar system.
- The thermostat then becomes a **remote** air conditioning **controller**.
- Possibility to use the internal probe or an external probe as a temperature reference.

8.1.3 Programming with easyTool

In the list of devices, choose the corresponding device so that you can start the configuration.

- Select the **KNX Secure Room Controller** device from the list to begin configuration

The following view opens.



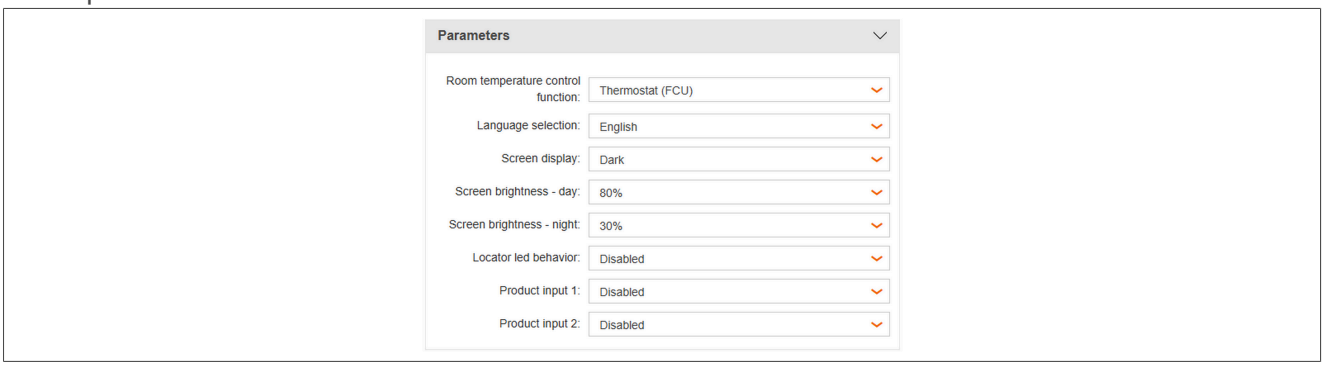
The view is divided into four areas:

Product

- Under **Product** are general information such as the name, application, location where the device is installed and designation.

Parameters

- Under **Settings** appear the configurable and editable parameters and values for the overall operation of the product



	Parameters	Values	Description
①	Room temperature control	**Thermostat (FCU) ***	Sets the operating mode of the ambience controller
		Climate Control (VRF)	
②	Language selection	**English***	Sets the displayed language
		Deutsch	
		Chinese	
③	Display of the screen	**Black ***	Sets the color of the font from screen to display
		White	
④	Screen Brightness – Day	20% - 30% - 40% - 50% - 60% - 70% - **80%*** - 90% - 100%	Sets the brightness of the screen during the day

	Parameters	Values	Description
⑤	Screen brightness – night	20% - **30%*** - 40% - 50% - 60% - 70% - 80% - 90% - 100%	Sets the brightness of the screen during the night
⑥	Marker LED behavior	**Disabled***	Activates the Scout LED during the night
		Enabled only in night mode	
⑦	Product input 1	**Disabled***	Allows you to validate the product input 1 when an external temperature probe is connected.
		Soil temperature	
⑧	Product input 2	**Disabled***	Enables product input 2 when a window detector is connected.
		Window contact	

Inputs/Outputs

- Under **Inputs/Outputs** are listed the available inputs/outputs of the unit:
  - 1 input for heating control
  - 1 input for internal temperature sensor
  - 1 input for internal humidity sensor

If 'Product input 1': "Soil temperature"

- 1 input for additional external temperature sensor

If 'Product input 2': "Window contact"

- 1 input for additional window opening contact

Actions

- Under **Actions** can be configured general settings of the device:
  - Restart the device.
  - Download the device with the settings
  - Replace the appliance with a new one.
  - Duplicate the configuration to an identical device.
  - Return to factory default settings.
  - Delete the device.

For more information about programming in easyTool or ETS environments, please refer **to the WAK5010xxx Software Application Manuals** .

8.1.4 Display in the domovea application

Depending on the setting in easyTool, the thermostat appears in the domovea app in two different ways.

Thermostat (FCU)

The app displays a room controller, similar to ATC thermostats.

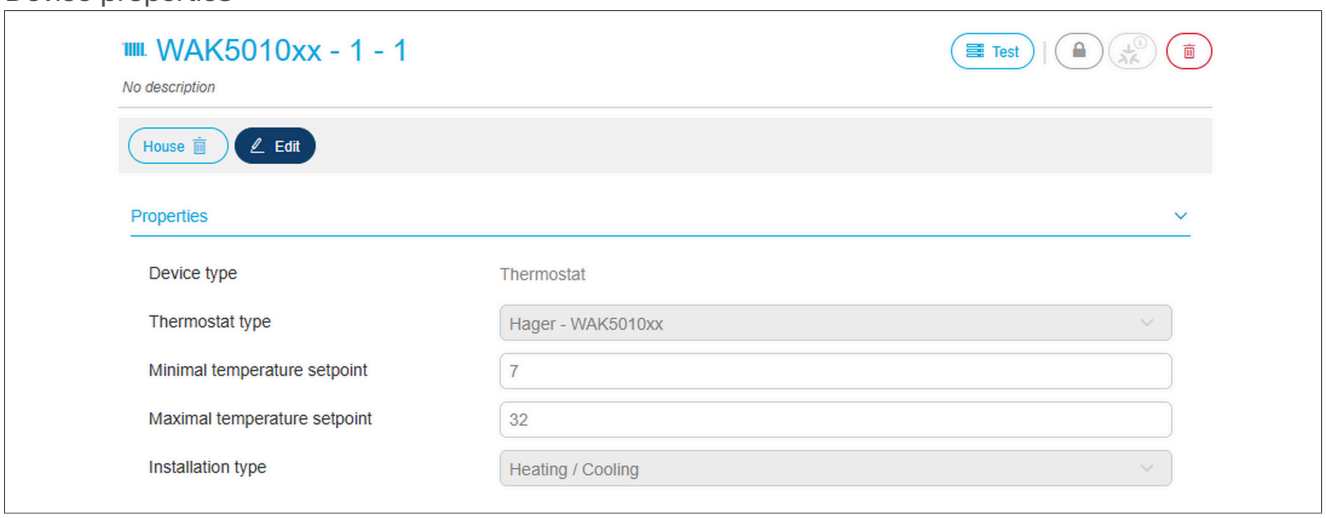
Available functions

- Set point adjustment
- Mode selection (comfort, eco, hors-freeze…)
- Histograms: Hour / day / week / month / year

- Mobile widgets
- Group commands
- Sensor monitoring (optional)
- Heating + cooling management (optional)

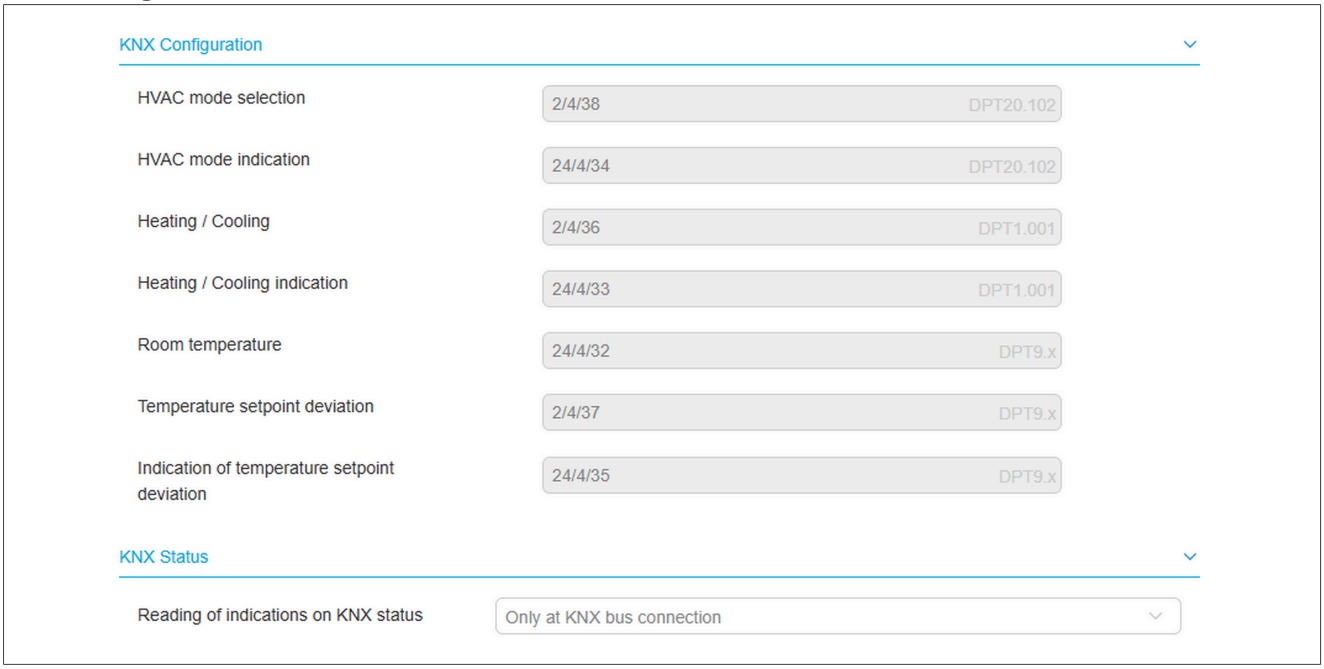
Special features of the WAK5010 room controller:
- Cannot change the setpoint of an inactive mode
- The value changed in the ring always corresponds to the current mode
- The protection setpoint cannot be changed by the user

The device is automatically created in domovea. It appears in the device list with the following items:
- Device properties



The only parameters that can be modified are:
- The minimum set point temperature (7 to 40 °C)
- The maximum set temperature (7 to 40 °C)

- KNX Configuration

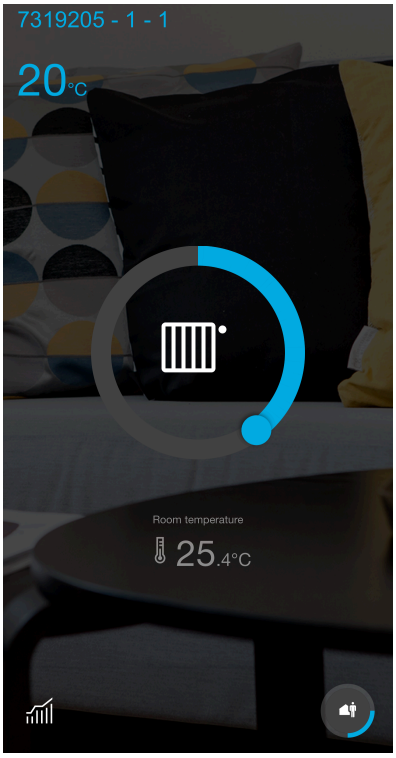


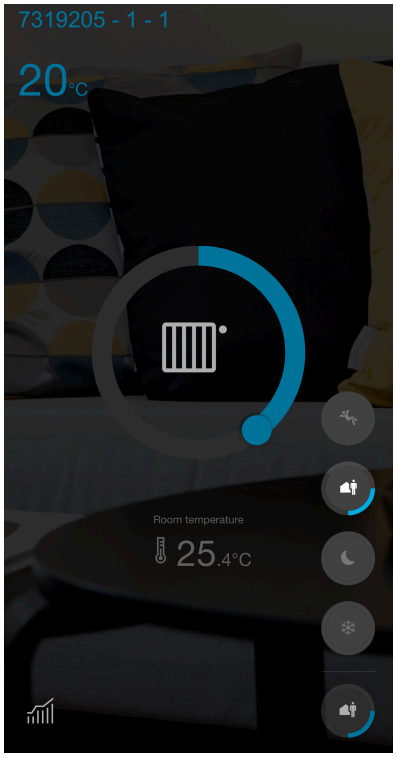
The device in domovea has the following functions:

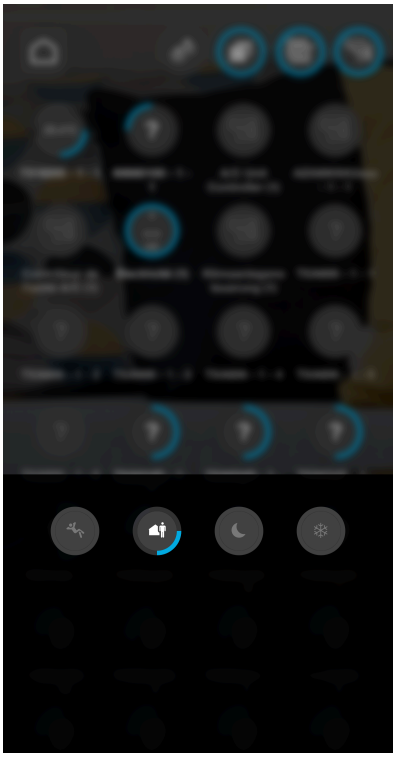
- Setting the heating mode
  - Comfort mode
  - Standby mode
  - Eco mode
  - Protection mode
- Heating mode display
- Operating mode selection (heating/air conditioning)
- Operating mode display (heating/air conditioning)
- With ambient temperature display
- Setpoint adjustment
- Display of the setpoint

These functions are not configurable. The value is transmitted directly via the group address.

General menu	Quick menu







The only parameters that can be modified are:

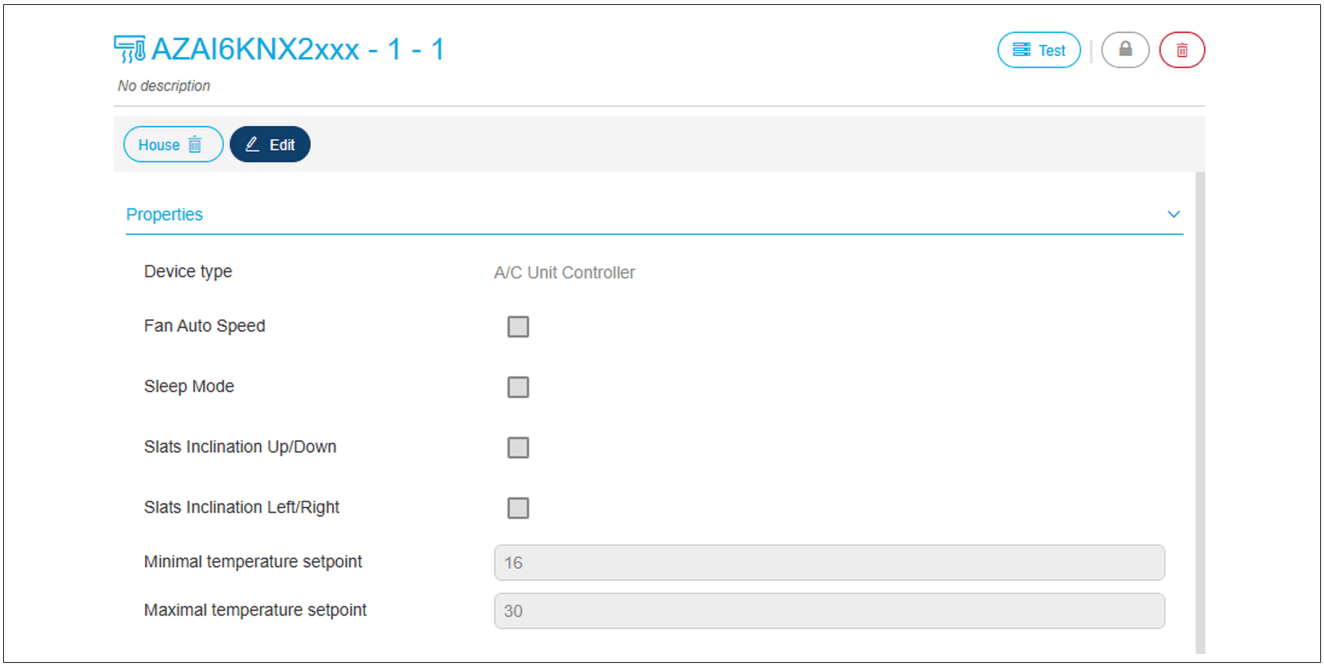
- The minimum set point temperature (7 to 40 °C)
- The maximum set temperature (7 to 40 °C)

Climate Control (VRF)

The application displays the device of an Airzone Gateway and the WAK5010xx room controller does not appear.

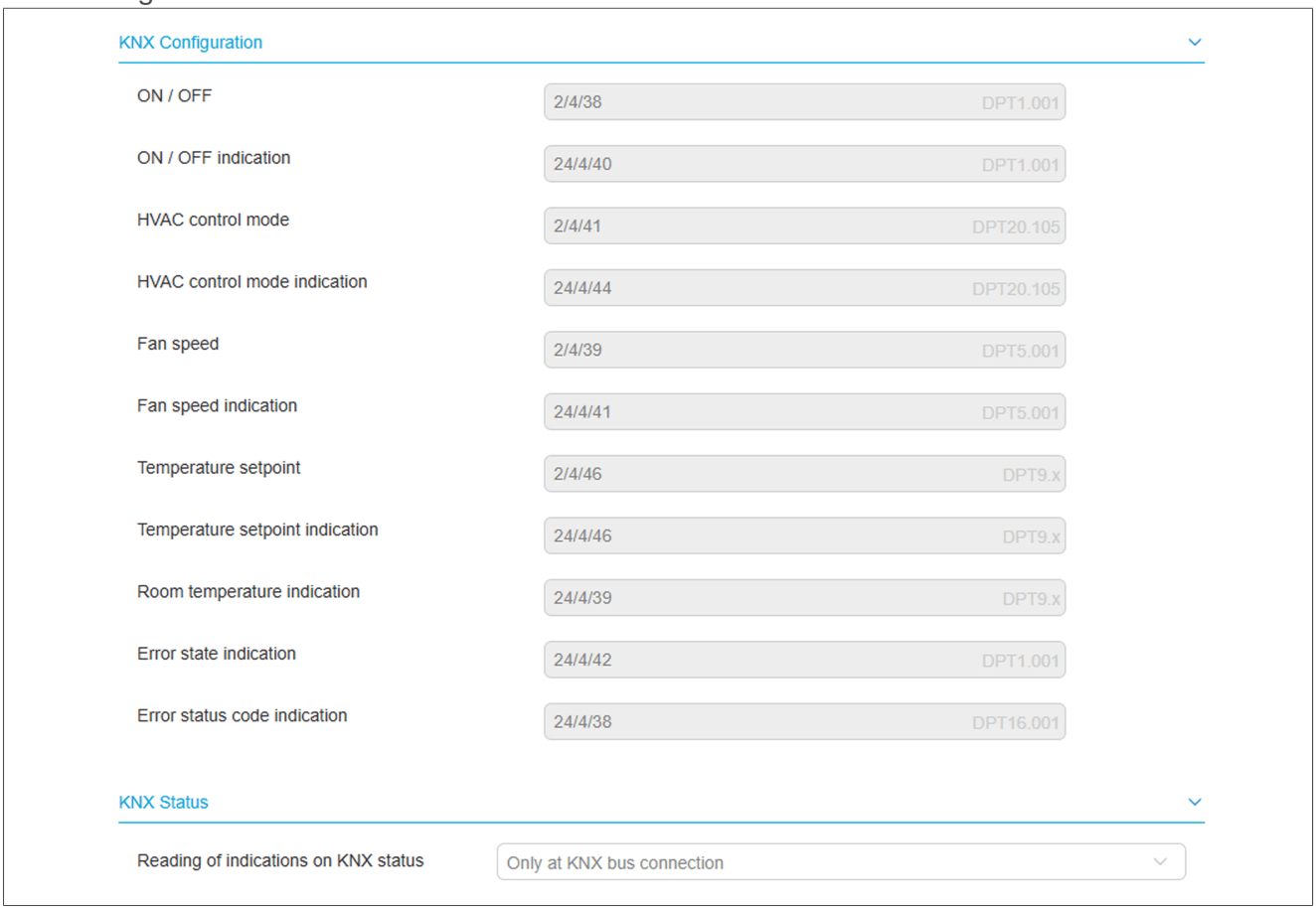
The device is automatically created in domovea. It appears in the device list with the following items:

- Device properties



No parameters can be changed from the domovea interface. All settings and configurations must be done exclusively in easyTool.

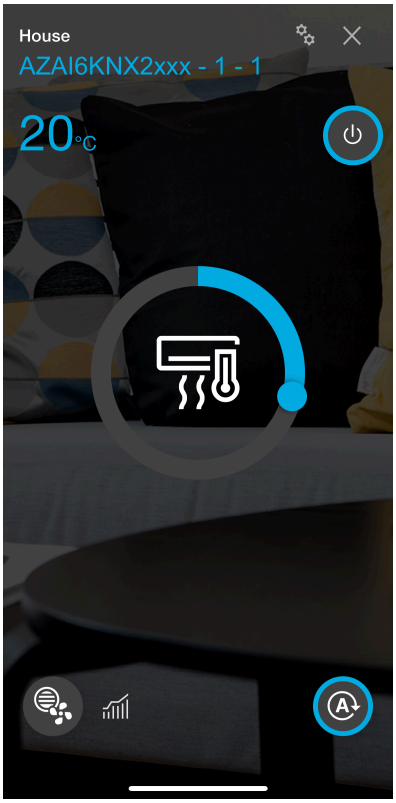
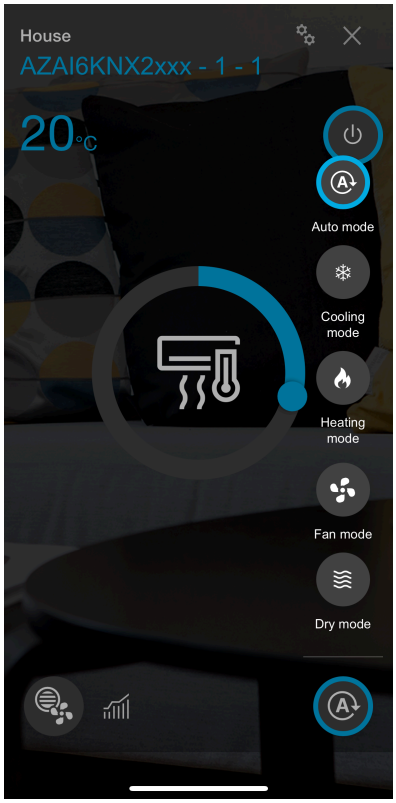
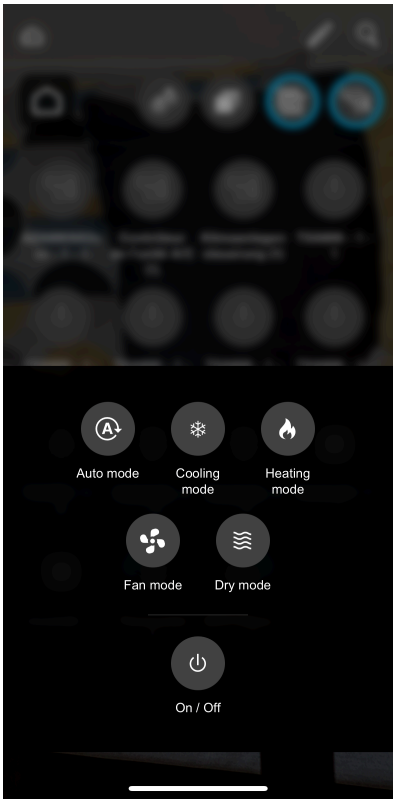
- KNX Configuration



The device in domovea has the following functions:

- **On/off the unit**
- **With ambient temperature display**
- **Setpoint adjustment**
- **HVAC control mode**
  - Automatic mode
  - Cooling mode
  - Heating mode
  - Ventilation mode
  - Dehumidification mode

These functions are not configurable. The value is transmitted directly via the group address.

General menu		Quick menu
		

Additional functions, such as ventilation adjustment or flap position management, are also available. For details, please refer to the chapter “Installing the Airzone Aidoo KNX Gateway”.

8.2 Installation of non-Hager products

8.2.1 Installing the Airzone Aidoo KNX gateway

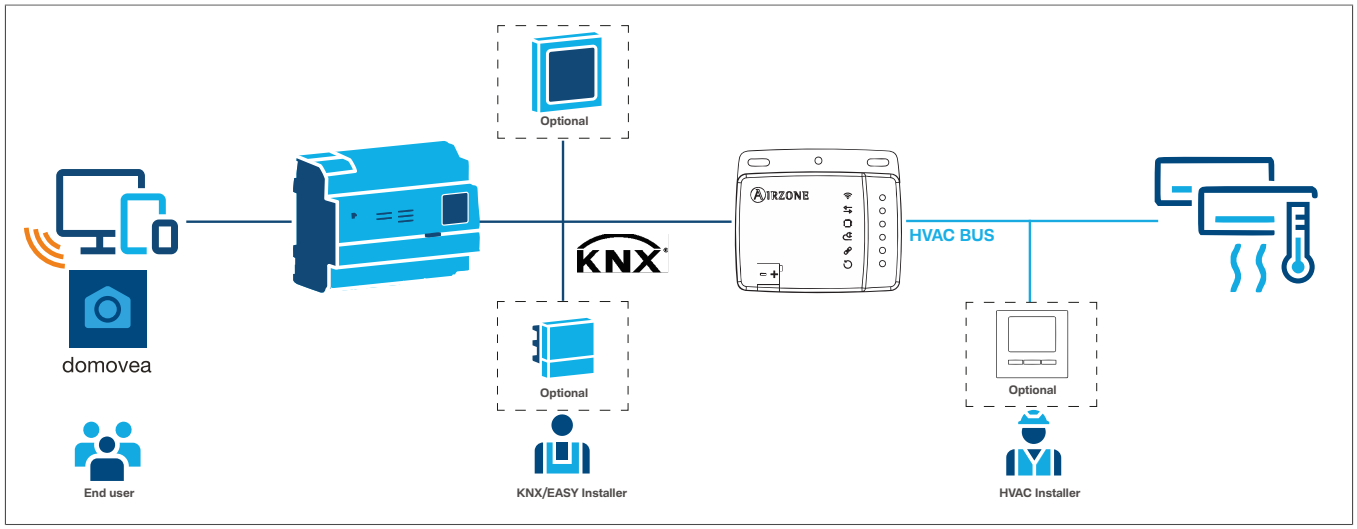
This chapter details the installation and programming of the Airzone Aidoo KNX gateway with domovea:

- Topology and compatibilities
- User functions
- Programming with easyTool
- Programming with ETS

8.2.1.1 Topology and compatibilities

The Airzone Aidoo KNX gateway is an integration gateway that enables bi-directional communication between Inverter/VRF air conditioning units and the KNX bus, thanks to protocols validated in collaboration with HVAC manufacturers.

It only supports Inverter/VRF air conditioners and is suitable for **single-zone** control only , which means that a gateway must be installed in each zone to ensure control.



The Airzone Aidoo KNX gateway compatible with the HVAC unit can be found directly online.

- Air-water systems are not supported.
- **Airzone Aidoo KNX gateway V1** are not compatible.

8.2.1.2 User functions

With domovea, the user has most of the functions accessible via the standard IR remote control.

Main functions:

- On/off the unit
- Room temperature display
- Setpoint adjustments
- Display and settings of the different modes available:
  - Auto mode
  - Cooling mode
  - Heating mode

- Fan mode
- Dry mode

- Fan speed adjustment
- Power consumption display (if the physical device is compatible)
- Integration of functions in sequences and domograms.

Advanced Options (if enabled in Configurator):

- Vane position (up/down, left/right, automatic mode)
- Sleep mode.

The end user has the same level of control as the infrared (IR) remote control for most operating functions. However, some advanced configuration settings or installation settings are only accessible via the IR remote control and cannot be changed from the domovea interface.

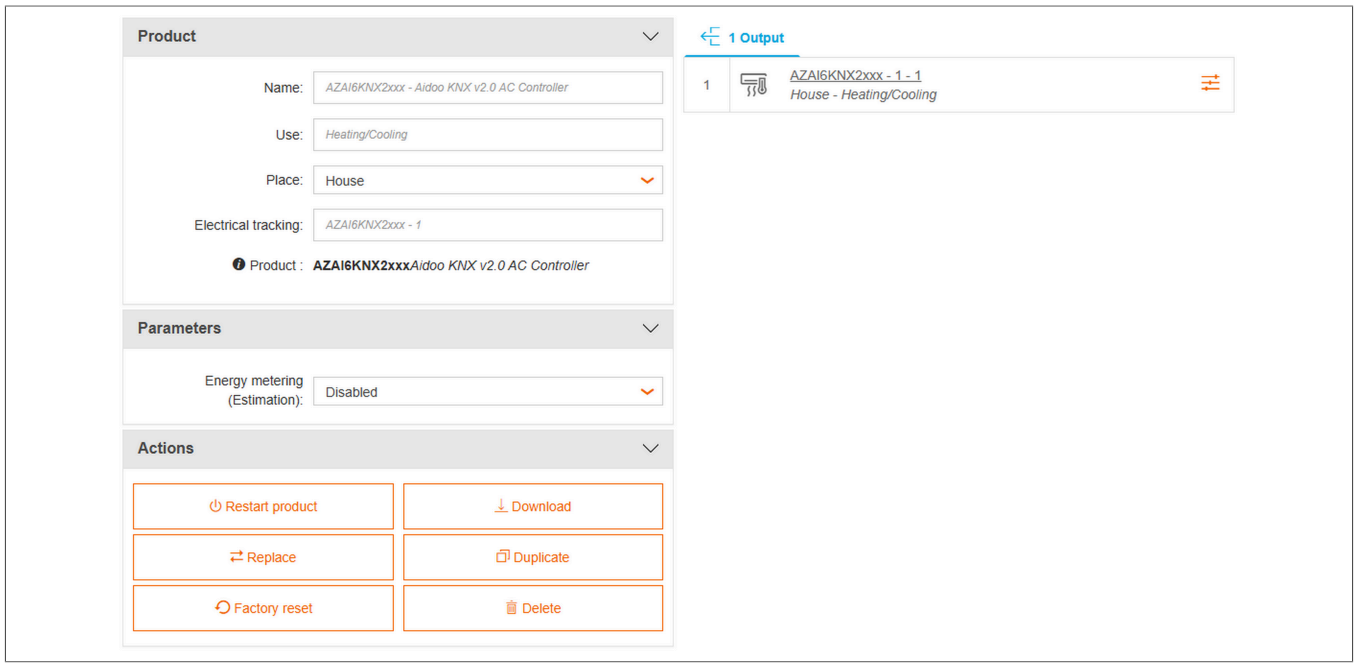
Integration of Airzone Aidoo KNX gateway with IoT controllers (such as Alexa, Google Home or IFTTT) is not supported. These devices are not compatible with the matter protocol.

8.2.1.3 Programming with easyTool

In the list of devices, choose the corresponding device so that you can start the configuration.

- Select the Aidoo Heating/Air conditioning Controller unit from the list to start the configuration

The following view opens.



The view is divided into four areas:

Product

- Under **Product** are general information such as the name, application, location where the device is installed and designation.

Parameters

- Under **Parameters**, depending on the inputs or outputs selected, the configurable and modifiable parameters and values appear

Inputs/Outputs

- Under **Inputs/Outputs** are listed the available inputs/outputs of the unit:
  - 3 inputs for measuring power consumption
  - 1 output for heating/cooling control

Actions

- Under **Actions** can be configured general settings of the device:
  - Restart product.
  - Download the device with the settings
  - Replace the device with a new one.
  - Duplicate the configuration to an identical device.
  - Return to factory default settings.
  - Delete the device.

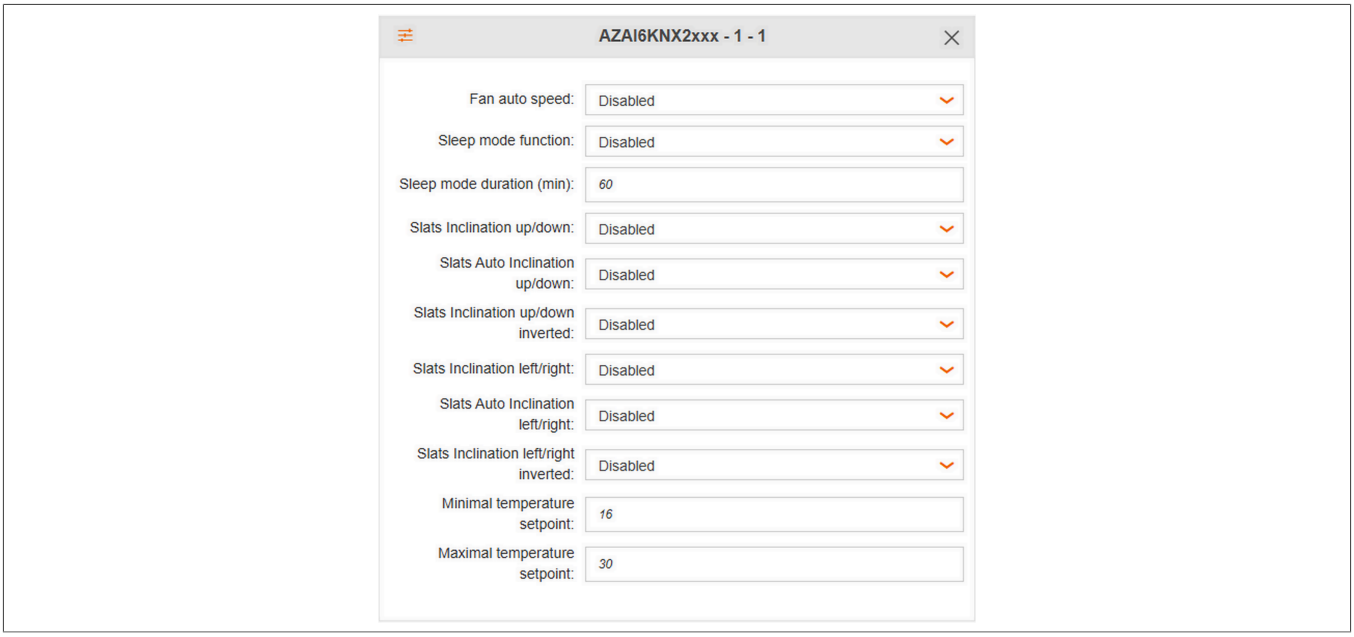
8.2.1.3.1 Overview Inputs/Outputs

Outputs section

1 output		
	AZAI6KNX2xxx - 1 - 1 *Home- Heating/cooling*	

- Click ⇄ to access the settings

The following view opens.



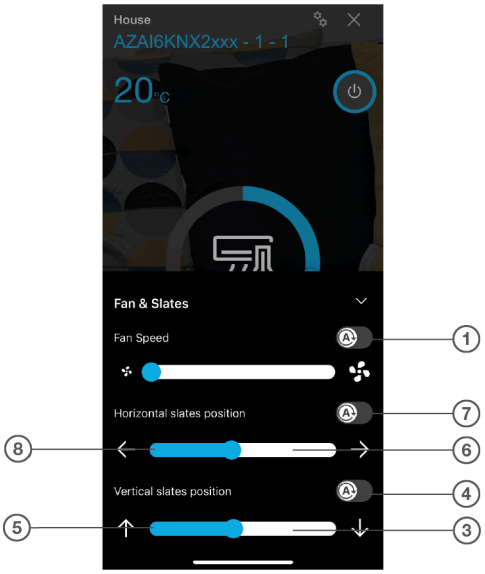
This area is used to configure the operating options.

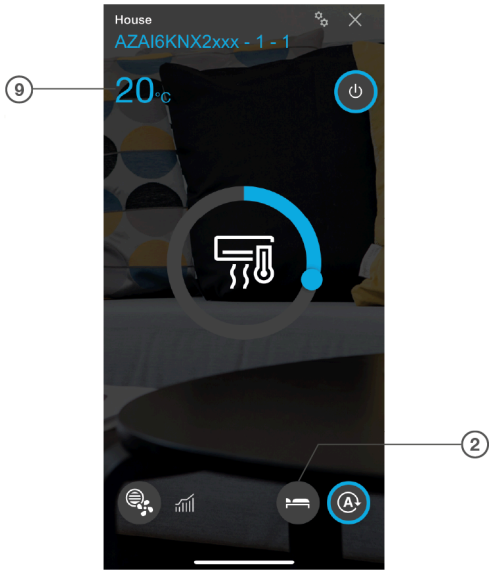
The main parameters are:

	Parameters	Values	Description
①	Fan auto speed	Enabled	Activates automatic speed control.
		Disabled*	

	Parameters	Values	Description
②	Sleep mode function	**Enabled***	Reduces speed and adjusts temperature for standby operation
		Disabled	
	Sleep mode duration (min)	0 ...**60***...5940	Sets the time in minutes
③	Slats inclination up/down	**Enabled***	Allows manual adjustment of the shutters in horizontal
		Disabled	
④	Slats auto inclination up/down	**Enabled***	Automatic adjustment of the panes in horizontal
		Disabled	
⑤	Slats inclination up/down inverted	**Enabled***	Reverse the direction of movement of the shutters horizontally
		Disabled	
⑥	Slats inclination left/right	**Enabled***	Allows manual adjustment of the shutters vertically
		Disabled	
⑦	Slats auto inclination left/right	**Enabled***	Automatic adjustment of the shutters vertically
		Disabled	
⑧	Slats inclination left/right inverted	**Enabled***	Reverse the direction of movement of the flaps vertically
		Disabled	
⑨	Minimal temperature setpoint	0 ...**16***...35	Low limit of the setpoint.
	Maximal temperature setpoint	0 ...**30***...35	High limit of the setpoint.

Below, the views in the domovea application with the mapping between commands and parameters.

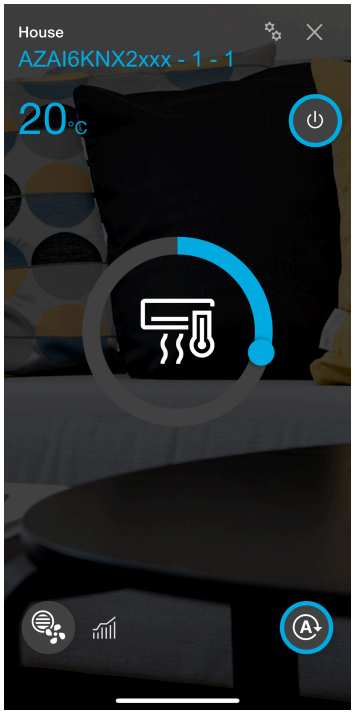
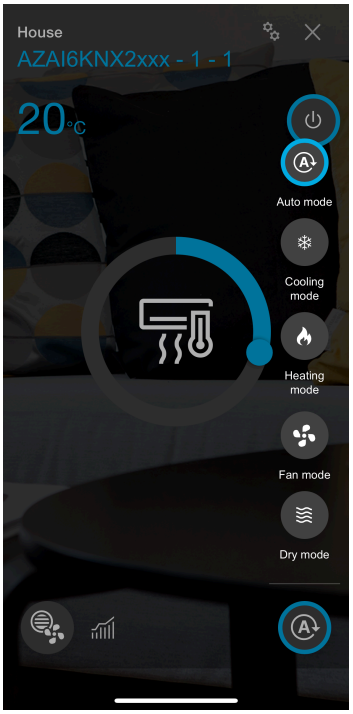
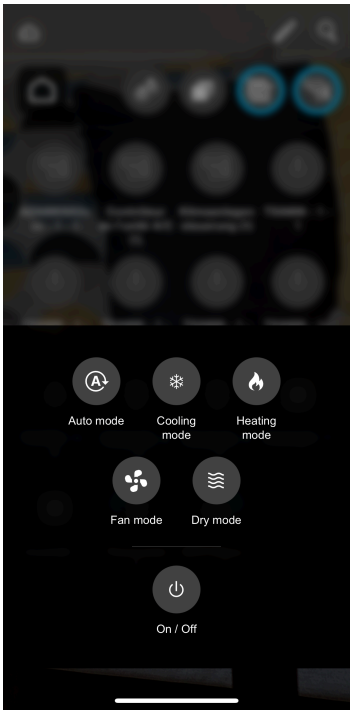




The device in domovea also has additional features:

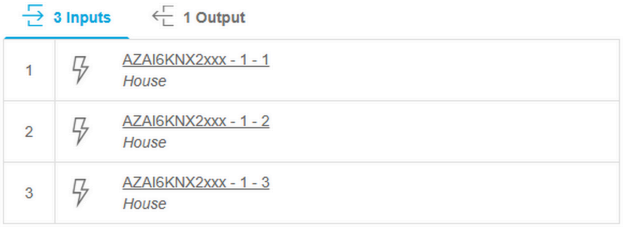
- **On/off the unit**
- **Room temperature display**
- **Setpoint adjustment**
- **HVAC control mode**
  - Auto mode
  - Cooling mode
  - Heating mode
  - Fan mode
  - Dry mode

These functions are not configurable. The value is transmitted directly via the group address.

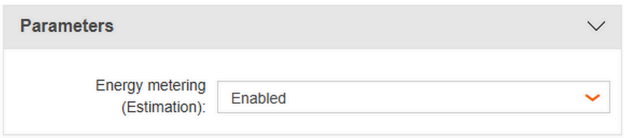
General menu		Quick menu
		

Inputs section

The device also has three inputs for measuring power consumption.



In order to display the 3 consumption measurement inputs, the **Energy metering (estimation)** parameter must be activated



The three inputs are divided as follows:

- Total energy consumption
- Total energy consumption for cooling
- Total energy consumption for heating

3 inputs		
	AZAI6KNX2xxx - 1 - 1 *House*	Total energy consumption
	AZAI6KNX2xxx - 1 - 2 *House*	Total energy consumption for cooling
	AZAI6KNX2xxx - 1 - 3 *House*	Total energy consumption for heating

In the **domovea** application, all three entries are displayed in the **Energy** section. Each entry has a dedicated view, allowing you to view consumption trends and detailed history.

8.2.1.3.2 Selecting functions in easyTool

The device can also be controlled by a switch module.

The available features are:

- **Heating/cooling toggle**: Toggles between heating and cooling
- **HVAC toggle switch**: Switch the air conditioning unit on or off
- **High and low setpoint**: Adjust the temperature setpoint
- **Scene**: Activate or store a scene

Heating/cooling toggle

This function allows you to switch between heating and cooling at each key press.

If the **heating** function is activated, pressing a key activates the **cooling** function and deactivates the **heating** function .

Inputs		Outputs
WST316 - 1 - 1 House		AZAI6KNX2xxx - 1 - 1 House - heating/cooling

When using this function, the heating/cooling system must be designed for heating and cooling mode.

HVAC Toggle switch

This function turns the heating or cooling system off or on each time the button is pressed.

Inputs		Outputs
WST316 - 1 - 1 House		AZAI6KNX2xxx - 1 - 1 House - heating/cooling

When using this function, the heating/cooling system must be designed for heating and cooling mode.

Setpoint up

This function increases the setpoint value each time the key is pressed.

Inputs		Outputs
WST316 - 1 - 1 House		AZAI6KNX2xxx - 1 - 1 House - heating/cooling

Setpoint down

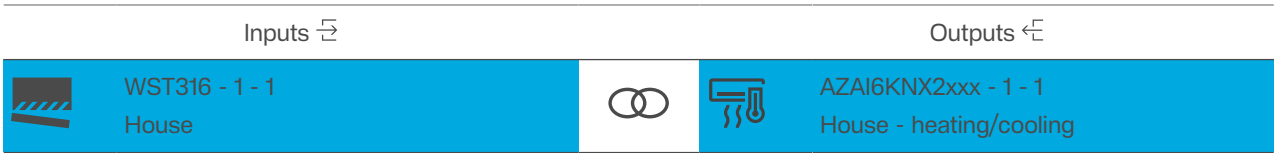
This function decreases the setpoint value each time the key is pressed.

Inputs		Outputs
WST316 - 1 - 1 House		AZAI6KNX2xxx - 1 - 1 House - heating/cooling

Scene

The **Scene** function can be used as a stage auxiliary station and is used to call up or record configured light scenes that are recorded in other KNX devices. The **heater cooling** control can also be integrat-

ed into this function. The device can call up and record up to 8 scenes. A short press of the key allows the device to send a value between 0 and 7 (the value 0 corresponds to scene 1 and the value 7 corresponds to scene 8) to the bus. The scene is called up by releasing the key.



Once the Scene function is selected, an additional menu field opens for entering the scene number. A scene number between 1 and 8 can be entered.

The relevant parameter values can be changed with the corresponding control stations and stored by a long press of the key.

Record Scene by long Press is enabled by default.

8.2.1.4 Programming with ETS

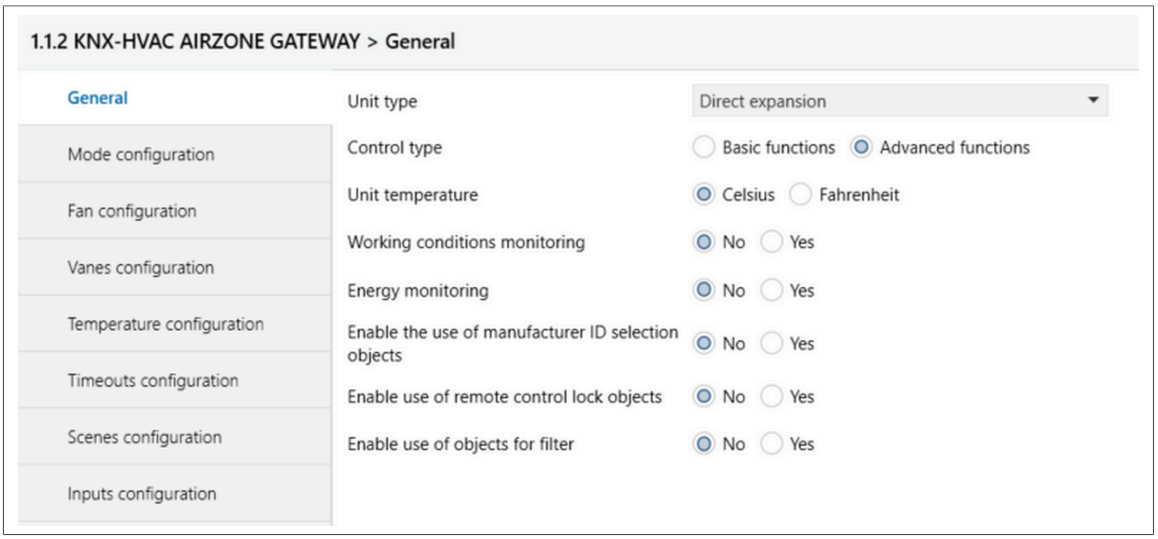
It is possible to configure the Airzone interface directly from the **ETS** tool and then import the configuration into **domovea**

To do this, do the following:

1. Create a KNX project: Open the ETS tool and create a new KNX project.
2. Add Airzone interface: In the list of devices, include the Airzone interface in your project.
3. Configure the necessary parameters: Set the required group addresses and settings for the Airzone system.

To ensure optimal integration with domovea, configure the Airzone interface settings as follows:

- **Unit Type**: Select **Direct Expansion**
- **Control Type** —Select **Advanced functions**

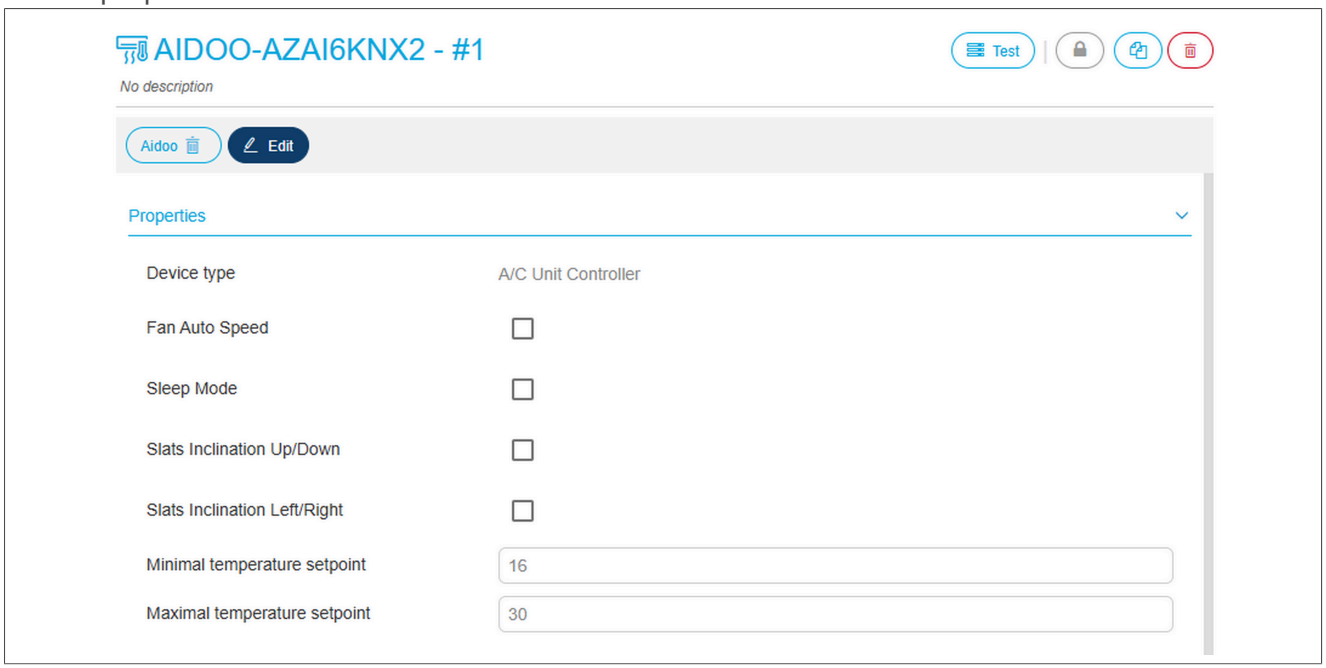


This setting displays the **Mode Configuration** and **Timeouts Configuration** tabs to select the options required for the command.

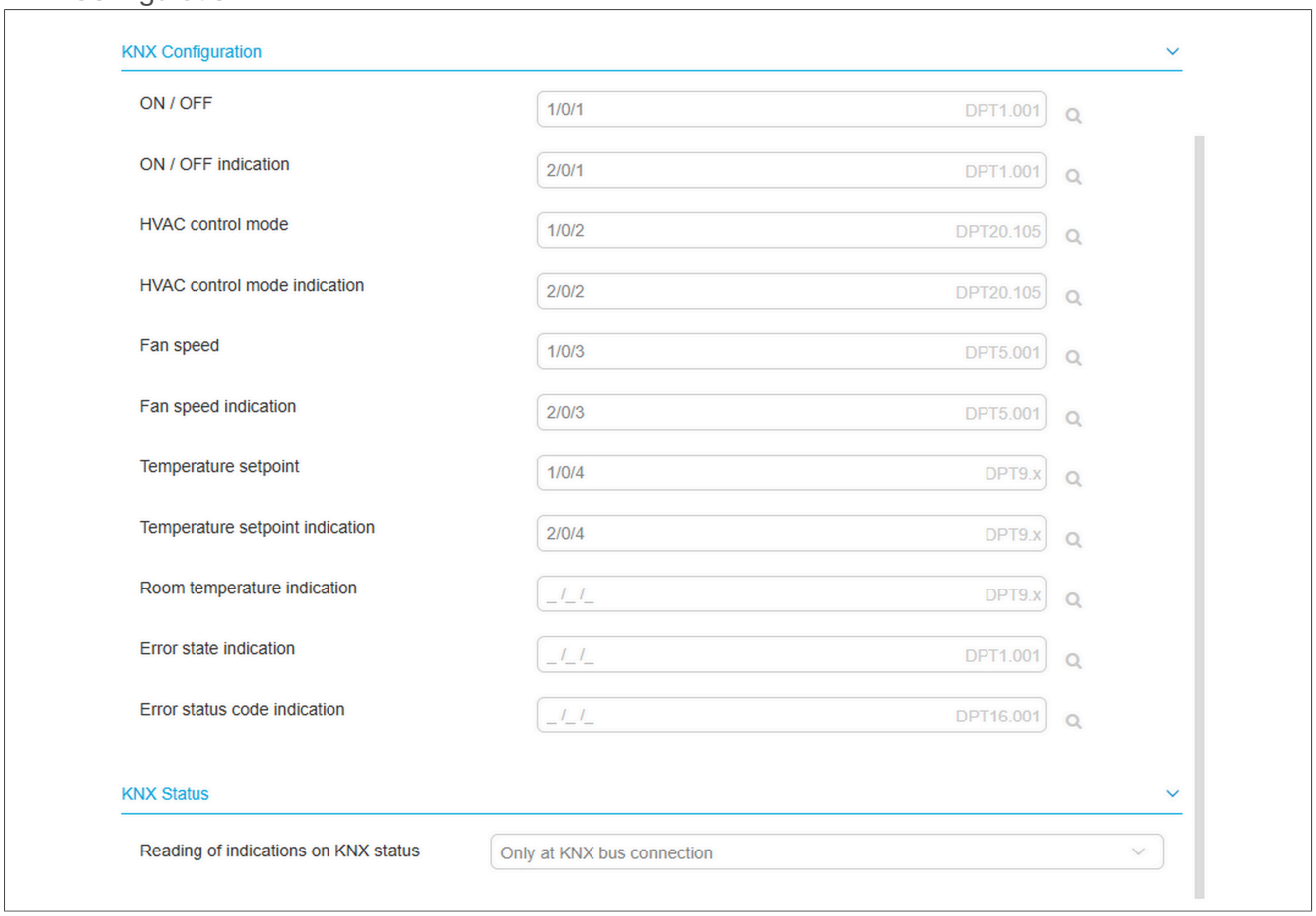
4. Export ETS Project: Once the configuration is complete, export your ETS project in domovea compatible format (KNXPROD or OPC).
5. Import into domovea: Import the ETS file into the domovea project.

After importing, the device is automatically created in domovea. It appears in the device list with the following items:

- Device properties



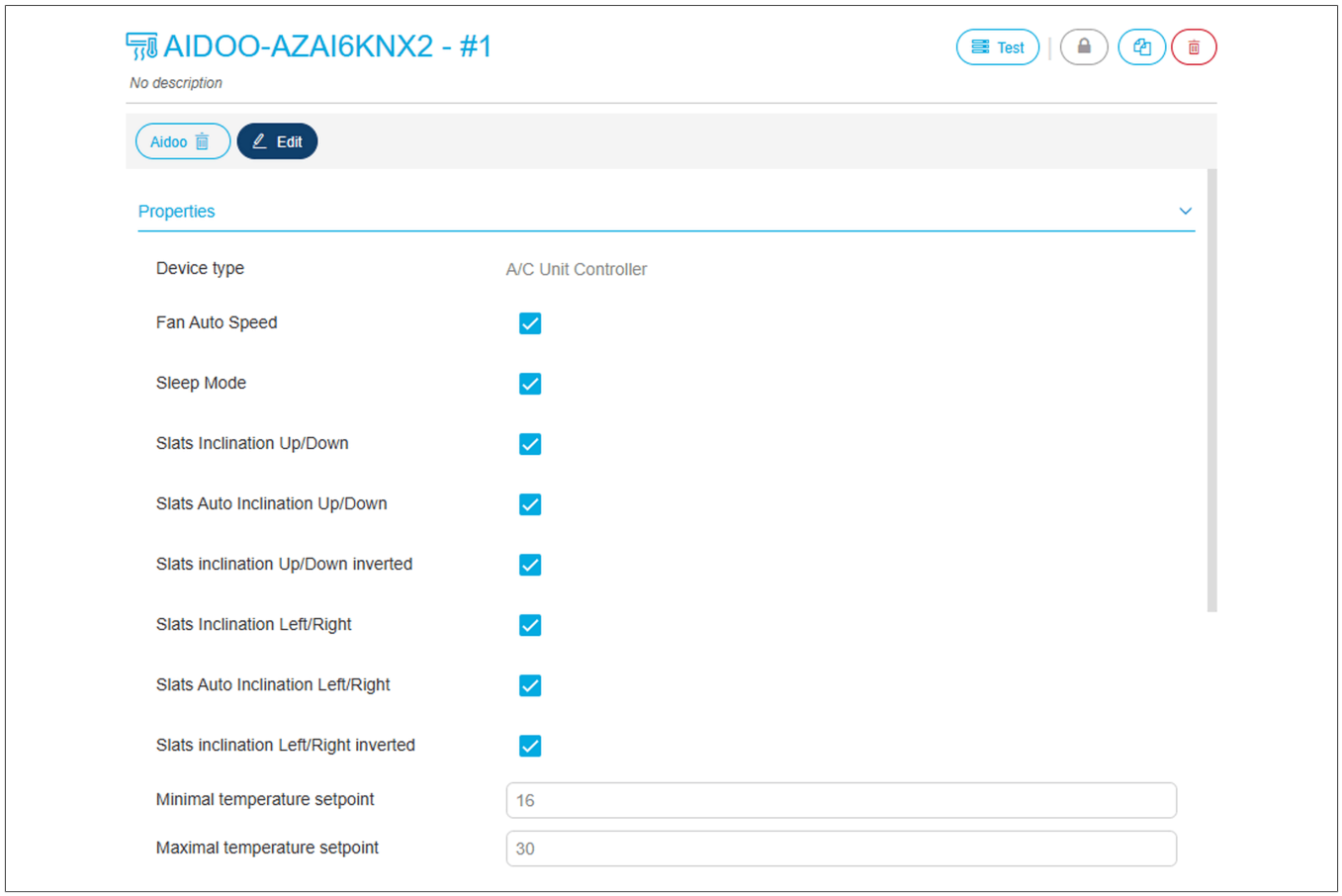
- KNX Configuration



Display in the domovea application

Depending on the type of parameterization, several control options can be displayed in the interface. These options allow you to tailor the control of the device to your needs.

Below are the available parameters:

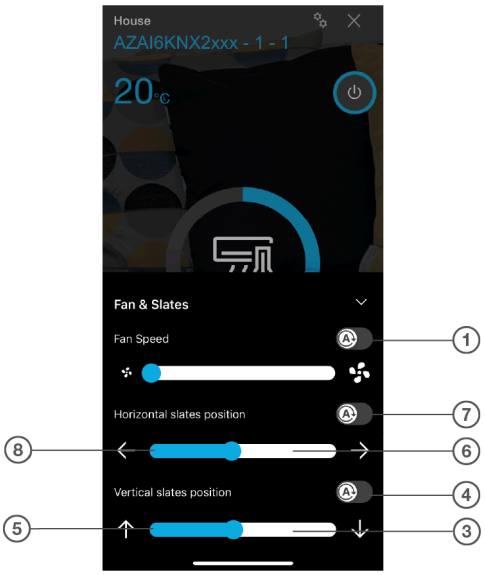


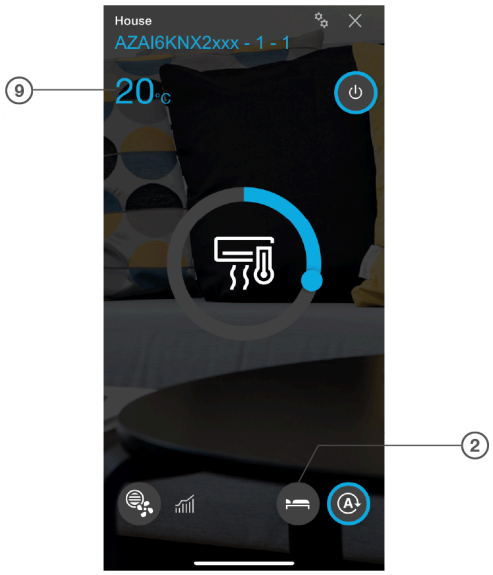
The main parameters are:

	Parameters	Values	Description
①	Fan auto Speed	Enabled	Activates automatic speed control.
		Disabled*	
②	Sleep mode	**Enabled***	Reduces speed and adjusts temperature for standby operation
		Disabled	
③	Slats inclination Up/Down	**Enabled***	Allows manual adjustment of the shutters in horizontal
		Disabled	
④	Slats Auto inclination Up/Down	**Enabled***	Automatic adjustment of the panes in horizontal
		Disabled	
⑤	Slats inclination Up/Down inverted	**Enabled***	Reverse the direction of movement of the shutters horizontally
		Disabled	
⑥	Slats inclination Left/Right	**Enabled***	Allows manual adjustment of the shutters vertically
		Disabled	
⑦	Slats Auto inclination Left/Right	**Enabled***	Automatic adjustment of the shutters vertically
		Disabled	

	Parameters	Values	Description
⑧	Slats inclination Left/Right inverted	**Enabled***	Reverse the direction of movement of the flaps vertically
		Disabled	
⑨	Minimal temperature setpoint	0 ...**16***...35	Low limit of the setpoint.
	Maximal temperature setpoint	0 ...**30***...35	High limit of the setpoint.

Below, the views in the domovea application with the mapping between commands and parameters.

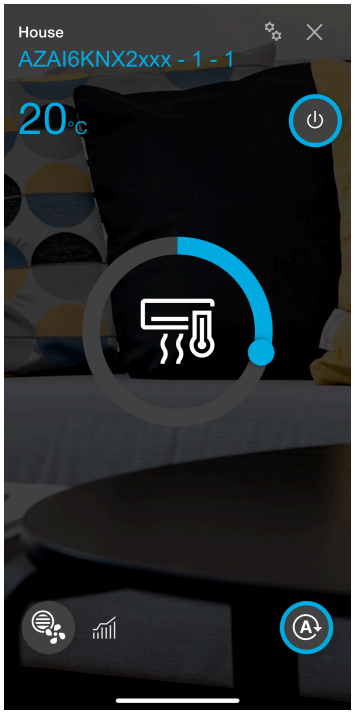
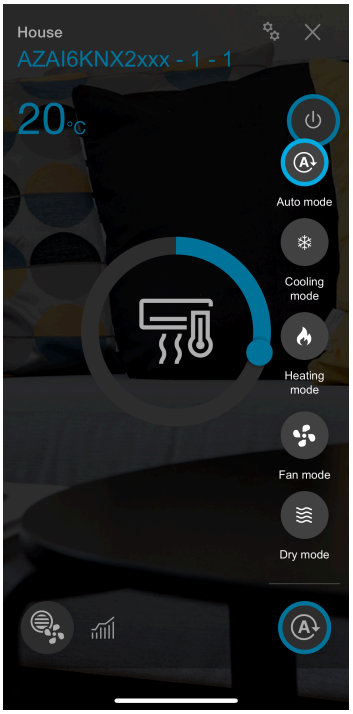
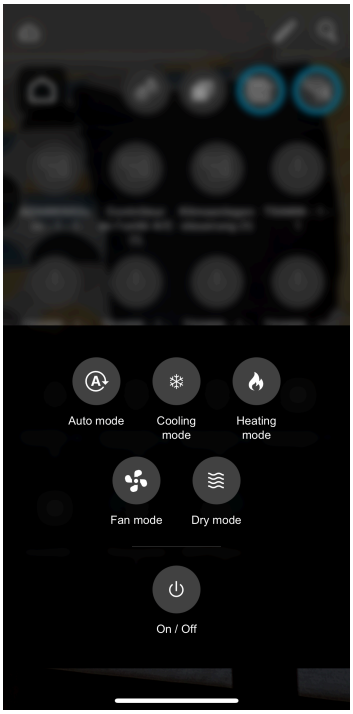




The device in domovea also has additional features:

- **On/off the unit**
- **Room temperature display**
- **Setpoint adjustment**
- **HVAC control mode**
  - Auto mode
  - Cooling mode
  - Heating mode
  - Fan mode
  - Dry mode

These functions are not configurable. The value is transmitted directly via the group address.

General menu		Quick menu
		

8.2.2 Installation of Theben Cheops KNX valve

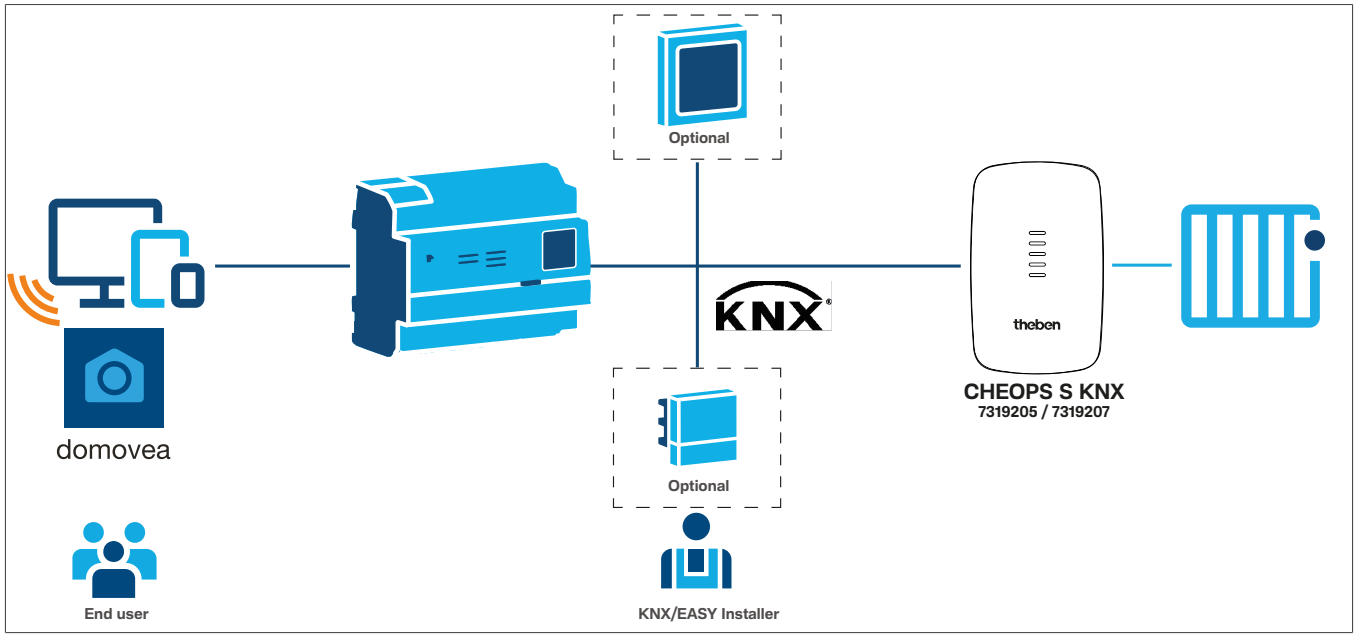
This chapter details the installation and programming of the Theben Cheops KNX valve with domovea:

- Topology and compatibilities
- Operating modes
- Programming with easyTool
- Programming with ETS

8.2.2.1 Topology and compatibilities

The THEBEN Cheops S KNX electromotive valve (7319205 and 7319207) is compatible with **easyTool** and **domovea** environments a complete heating control.

Depending on the configuration defined by the installer, the valve can operate in stand-alone, master or slave mode.



The Cheops S KNX valve is a KNX electromotive actuator for controlling heating systems such as radiators.

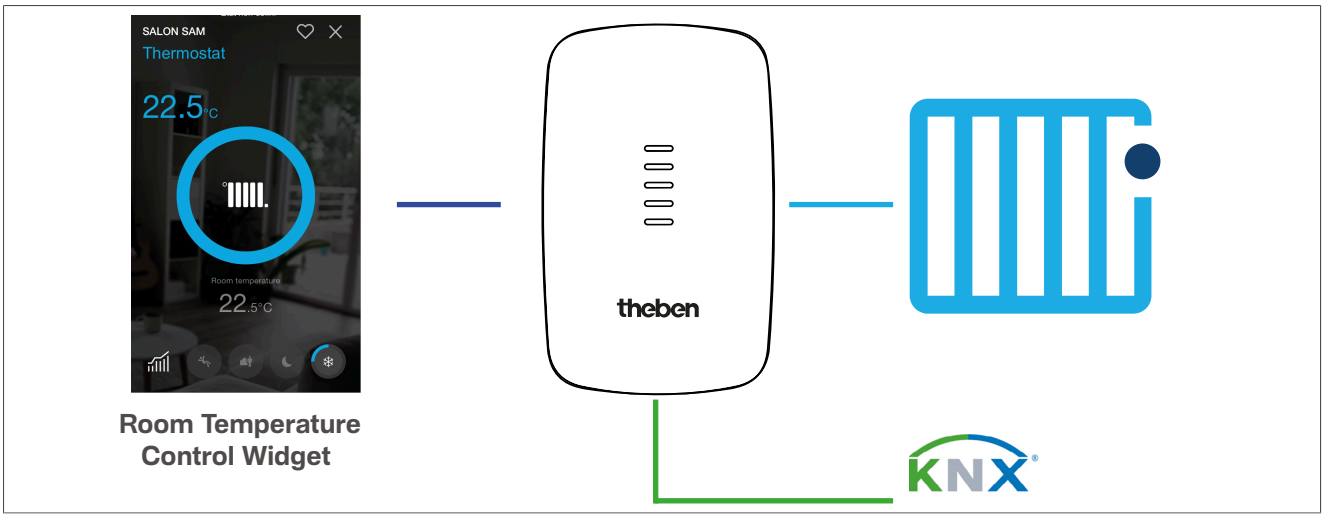
It is characterized by:

- High actuating force (220 N)
- A stroke of 8 mm
- An automatic adaptation of the valve
- A built-in temperature sensor
- A built-in RTC controller that can be activated/deactivated
- Extended compatibility via adapters (M30x1.5, Danfoss RA/VA)
- Two binary inputs (window contact, presence, pusher, external probe NTC 100 kΩ)
- Compatibility with KNX Data Secure (ETS configuration)

8.2.2.2 Operating modes

The valve can be configured in three main modes, depending on the KNX architecture

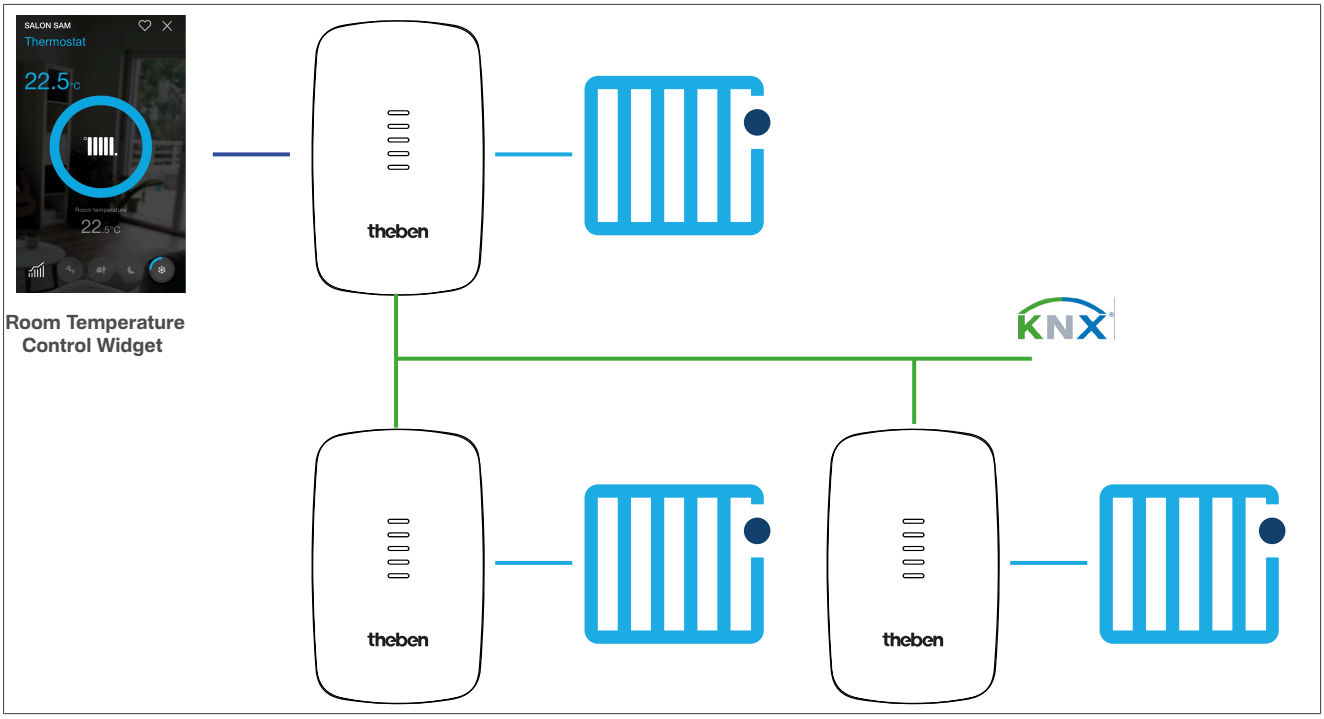
Stand-alone mode



Room Temperature Control Widget

- The valve operates autonomously.
- The internal thermostat is activated, and provides temperature measurement and regulation.

Master Mode

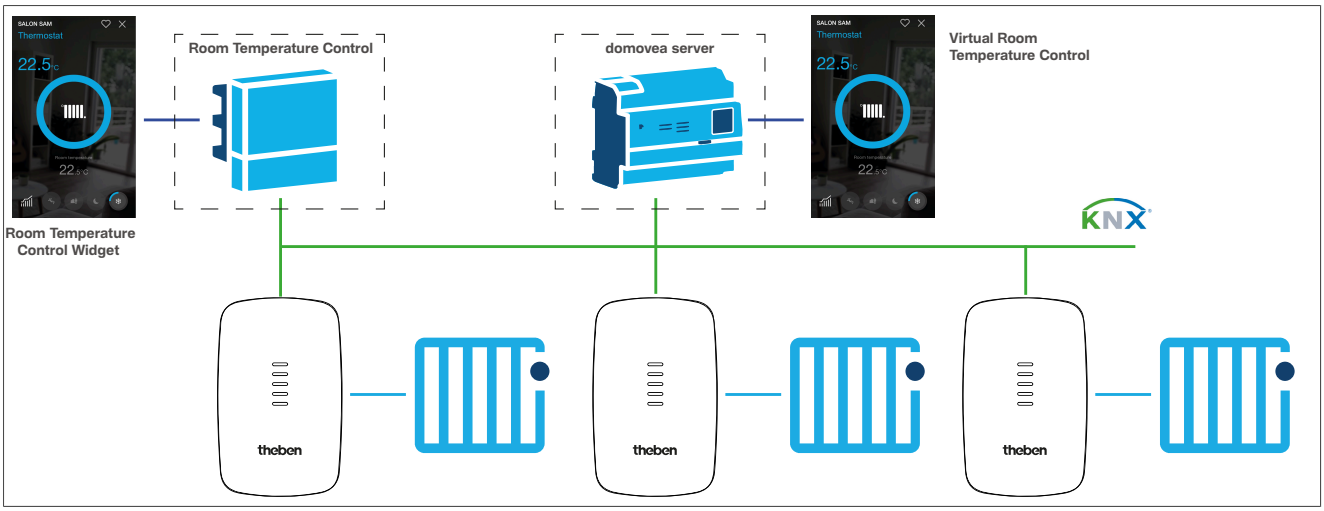


Room Temperature Control Widget

The valve acts as the main controller.

- It controls one or more other valves configured in slave mode.
- The internal thermostat is activated.
- The temperature and commands come from the master.

Slave mode



The valve functions as an actuator only.

- The internal thermostat is disabled (only as actuator).
- The control comes from an external thermostat or from another master (external KNX thermostat - virtual domovea thermostat - compatible room thermostat) .

Depending on the mode selected, several settings are possible:

- Temperature source selection
- Extended comfort function
- Internal thermostat on/off
- Installation mode: Standalone, master, slave

The THEBEN valve can support several types of inputs:

- Window Contact
- External temperature sensor

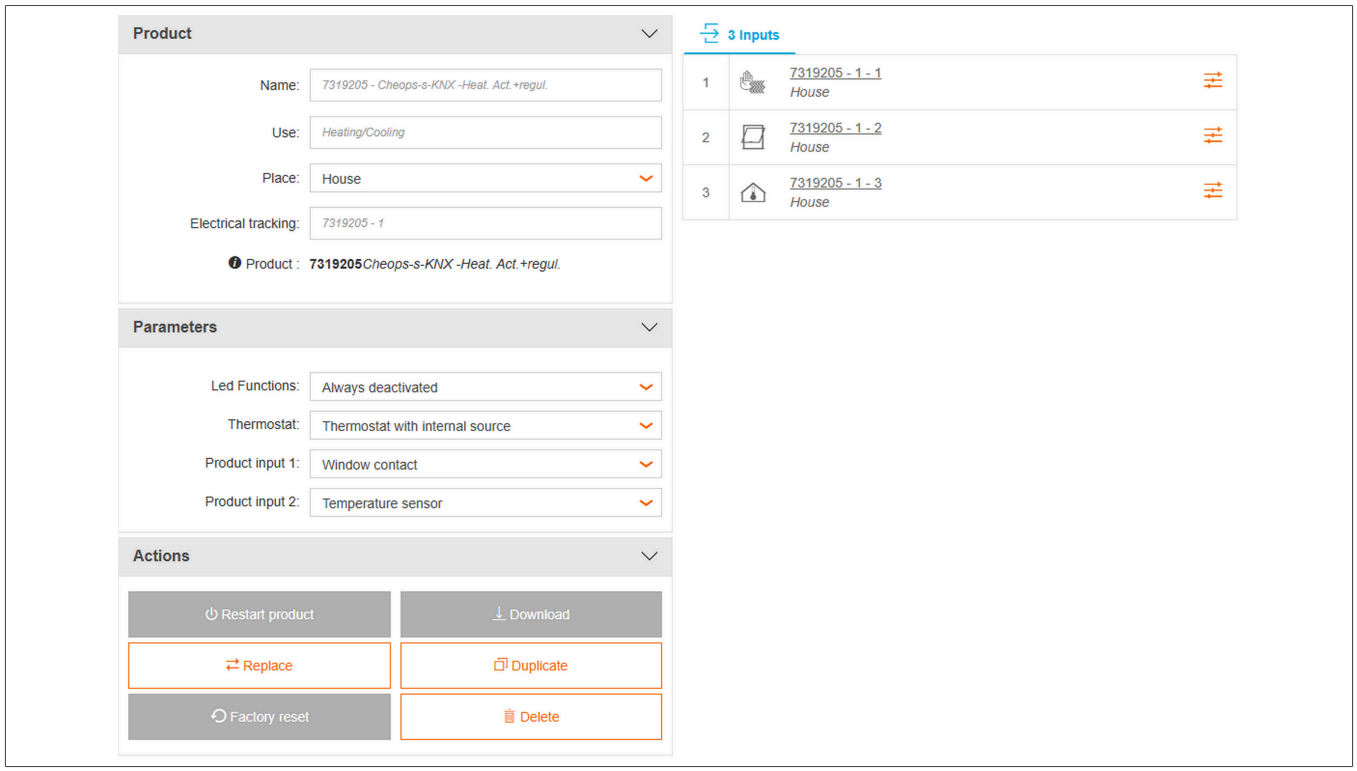
- Integration of THEBEN Cheops S KNX electromotive valves with IoT controllers (such as Alexa, Google Home or IFTTT) is not supported.
- Compatibility with the matter protocol is limited to exposing the two binary inputs of the device (the window contact and the temperature probe). The thermostat function is not supported and is therefore not available via matter

8.2.2.3 Programming with easyTool

In the list of devices, choose the corresponding device so that you can start the configuration.

- Select **Cheops-s-KNX -heat. On+regul**. in the list to begin configuration

The following view opens.



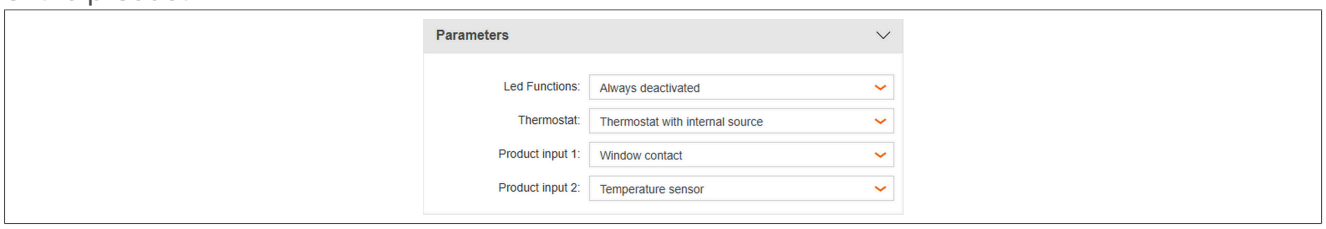
The view is divided into four areas:

Product

- Under **Product** are general information such as the name, application, location where the device is installed and designation.

Parameters

- Under **Settings** appear the configurable and editable parameters and values for the overall operation of the product



	Parameters	Values	Description
①	LED function	**Always disabled ***	Activates the LED voters on the front panel of the product
		Position display	
②	Thermostat	**Enabled (Standalone/Master)***	Sets the thermostat operating mode
		Disabled (slave)	
③	Product input 1	**Window Contact ***	Allows the use of the product input 1 for window contact detection
④	Product input 2	**Temperature sensor***	Allows the product input 2 to be used as an external temperature probe

Inputs/Outputs

- Under **Inputs/Outputs** are listed the available inputs/outputs of the unit:
  Stand-alone or Master Mode
  - 1 input for heating control
  - 1 input for window opening contact
  - 1 input for external temperature sensor

  Slave mode
  - 1 input for window opening contact
  - 1 input for external temperature sensor
  - 1 output for heater control

Actions

- Under **Actions** can be configured general settings of the device:
  - Restart the device.
  - Download the device with the settings
  - Replace the appliance with a new one.
  - Duplicate the configuration to an identical device.
  - Return to factory default settings.
  - Delete the device.

8.2.2.3.1 Overview Inputs/Outputs

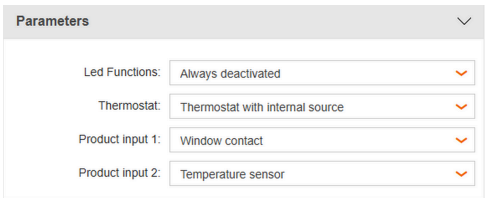
Inputs section

3 inputs			
	7319205 - 1 - 1 *House*	Temperature control control	
	7319205 - 1 - 2 *House*	Input 1 for window contact detection	
	7319205 - 1 - 3 *House*	Input 2 for external temperature sensor	

Temperature control control

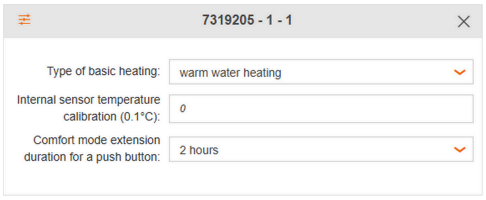
	7319205 - 1 - 1 *House*	Temperature control control	

In order to make the heating control appear at the inputs, the **activated** parameter **(Stand-alone/Master)** must be selected at the thermostat setting.



- Click to access the settings

The following view opens.



This area is used to configure the operating options.

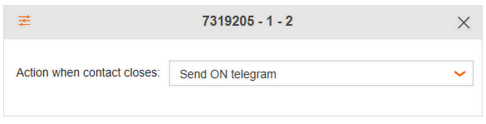
	Parameters	Values	Description
①	Basic heating type	**Hot water heating ***	Defines the type of installation used to adapt the control behavior.
		Heating hot water floor	
②	Source of the measured temperature	**Internal sensor value ***	Sets the origin of the temperature value used for regulation (internal sensor or external KNX source).
		Value from an external KNX source	
		The average between the internal sensor value and the external value	
③	Internal sensor temperature calibration (0.1°C)	-5 ...**0***...5	Corrects the measurement of the internal sensor to adjust the displayed temperature to the reality of the room.
④	Comfort mode operation time for a push button	30 minutes 1 hours 1 hour 30min. 2 hours 2 hours 30 min. 3 hours 3 hours 30 min.	Sets the length of time comfort mode remains active when triggered by a push button.

Input 1 for window contact detection

	7319205 - 1 - 2 *House*	Input 1 for window contact detection	

– Click to access the settings

The following view opens.



This area is used to configure the operating options.

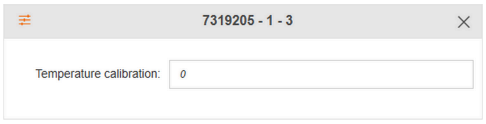
	Parameters	Values	Description
①	Action when the contact is closed	**Send a telegram ON ***	Sets the telegram sent on the KNX bus when the contact closes.
		Send a telegram off	

Input 2 for external temperature sensor

	7319205 - 1 - 3 *House*	Input 2 for external temperature sensor	

– Click to access the settings

The following view opens.

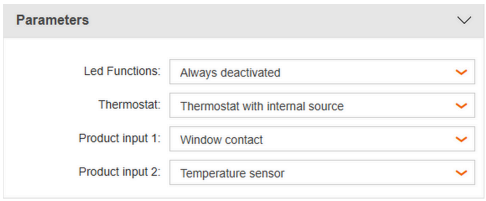


This area is used to configure the operating options.

	Parameters	Values	Description
①	Temperature calibration	-5 ...**0***...5	Adjusts the temperature measurement to compensate for a difference between the detected value and the actual room temperature.

Outputs section

In order to make the heating control appear at the outputs, the **Disabled (slave)** parameter must be selected at the thermostat setting.



1 output

	7319205 - 1 - 1 *Home- Heating/cooling*

8.2.2.3.2 Selecting functions in easyTool

8.2.2.3.2.1Heating actuator for bus system

The thermostat allows the regulation of the ambient temperature for heating systems.

- Heating control in % (0-100%)

Inputs		Outputs
7319205 - 1 - 1 House		7319205 - 2 - 1 House - heating/cooling

The input drives the heats output by a % value

Heating mode

It is also possible to send a heating command to the thermostat using an input contact. To do this, it is necessary to link between two inputs.

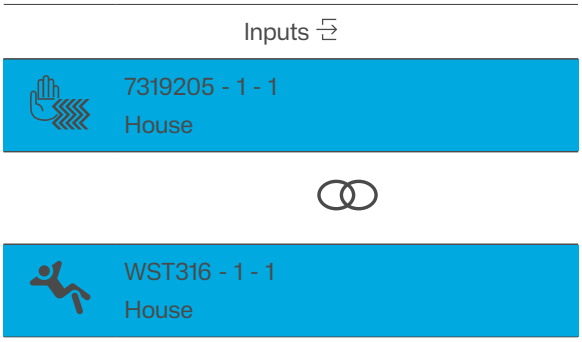
Below are the functions available for controlling the input

Heating/cooling		Heating/cooling	
	Comfort mode*		Comfort/Eco mode
	Eco mode*		Comfort/Standby mode
	Standby mode*		Timed comfort
	Protection mode*		Window
	Switch mode		

* These functions can also be triggered via KNX push buttons connected to the system.

Below is an example of a link used for heating control.

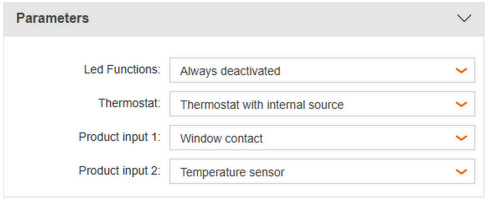
- **Comfort mode**: Activates comfort mode for heating. The appliance sets the ambient temperature to a preset value on the thermostat (presence).



Closing the contact of the input causes the comfort mode to be activated.

The effect of the command is overridden by any other mode enable command.

In order to make the heating control appear at the inputs, the **activated** parameter **(Stand-alone/Master)** must be selected at the thermostat setting.



The operating modes are designed for heating. The temperature setpoints for comfort mode can be set. All other setpoints are fixed in the software for both modes.

To facilitate setting the setpoints, the temperatures for the reduced and economy modes are calculated automatically based on the comfort setpoint.

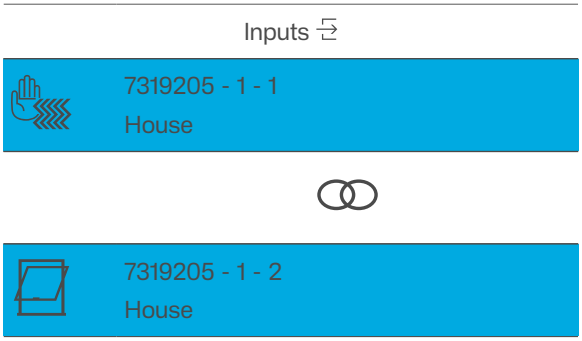
MODE	Heating setpoints	Example
Comfort	Configurable (+21°C, +/- 5°C)	+ 20 °C
Economy	Comfort temperature - 1°C.	+ 19 °C
Reducing	Comfort temperature - 3°C.	+ 17 °C
Protection	+ 7 °C	+ 7 °C

The temperature value for the **protection** setpoint is preset and fixed (+7°C).

Rebate contact

The device has an input to indicate the opening or closing of a window. This status is transmitted to the thermostat, which uses it to determine the heating mode to be applied.

- **Rebate contact**: The opening and/or closing status of a window is transmitted to the thermostat.



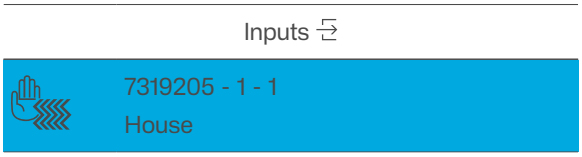
The **Action on contact closure** parameter defines the type of telegram sent on the KNX bus when the contact closes.

- Send a telegram ON
- Send a telegram off

External temperature sensor

The device has an input to connect an external temperature sensor to measure the ambient temperature of the room. This value is transmitted to the thermostat, which uses it to determine the appropriate heating mode.

- **External temperature sensor**: The temperature measurement is transmitted to the thermostat.



7319205 - 1 - 3
House

The **Temperature Calibration** parameter is used to adjust the temperature measurement to compensate for a difference between the detected value and the actual room temperature.

The link with a temperature measurement is not automatic. It is essential for the valve thermostat to operate correctly that it has **ambient temperature** information . This information can come either from the local inlet of the valve or from another device with a temperature measurement (push button, weather station, etc.).

8.2.2.3.2.2Slave valve control
In slave mode, the unit can be controlled by other thermostats or switch modules.

Heating actuator for bus system

The thermostat allows the regulation of the ambient temperature for heating systems.

The heater control is operated in % (0-100%).

Inputs		Outputs
WHT750xxx - 1 - 2 House		7319205 - 1 - 1 House - heating/cooling

Valve control

The device can also be controlled by an input module (switch or push button).

Below are the functions available for controlling the valve in slave mode:

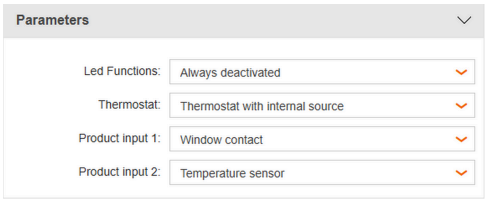
Heating/cooling		Heating/cooling		Heating/cooling	
stop	Heating/cooling off		HVAC rocker switch		High setpoint
	Low setpoint				

Below is an example of a link used for valve control.

- **HVAC rocker switch:** This function turns the heating or cooling system off or on each time the button is pressed.

Inputs		Outputs
TXA304 - 1 - 1 House		7319205 - 1 - 1 House - heating/cooling

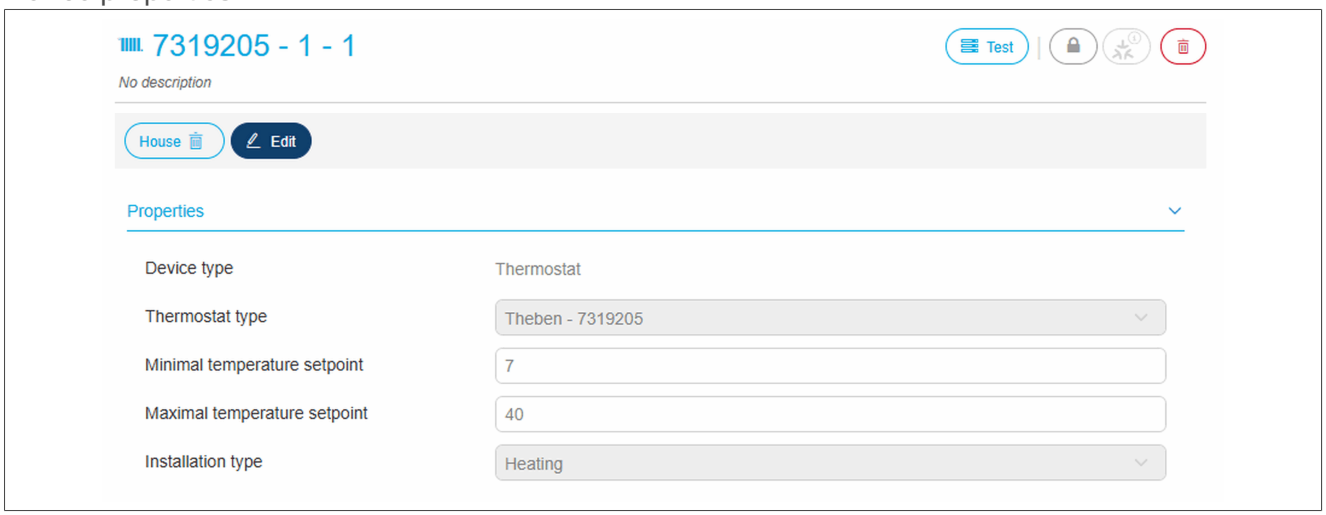
In order to make the heating control appear at the outputs, the **Disabled (slave)** parameter must be selected at the thermostat setting.



8.2.2.3.3 Display in the domovea application

The device is automatically created in domovea. It appears in the device list with the following items:

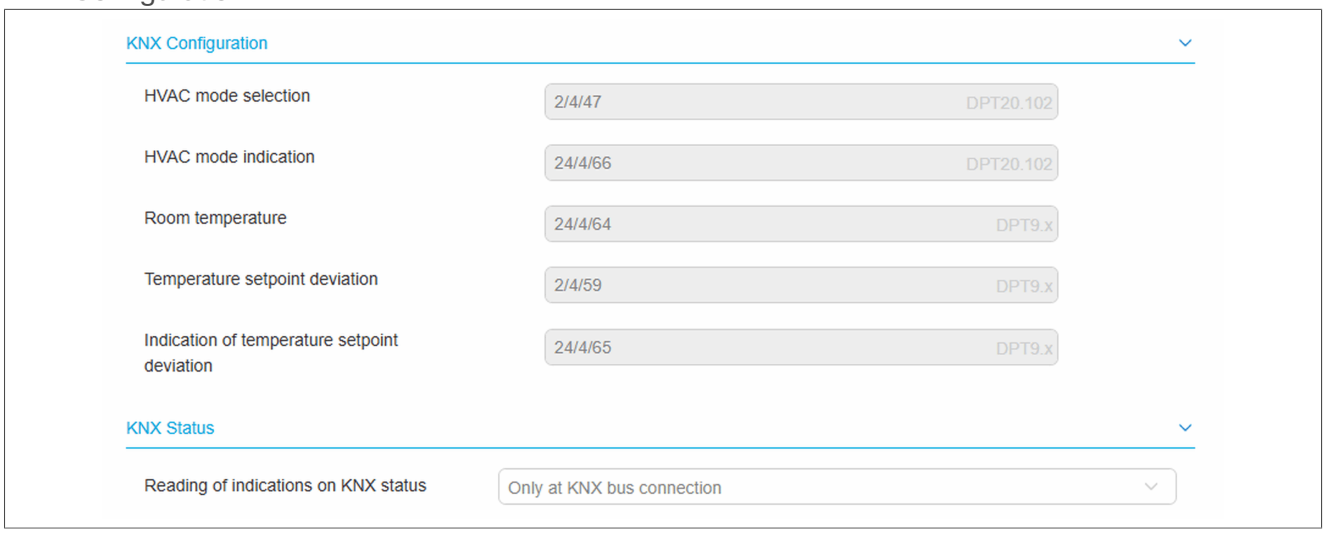
- Device properties



The only parameters that can be modified are:

- The minimum set point temperature (7 to 40 °C)
- The maximum set temperature (7 to 40 °C)

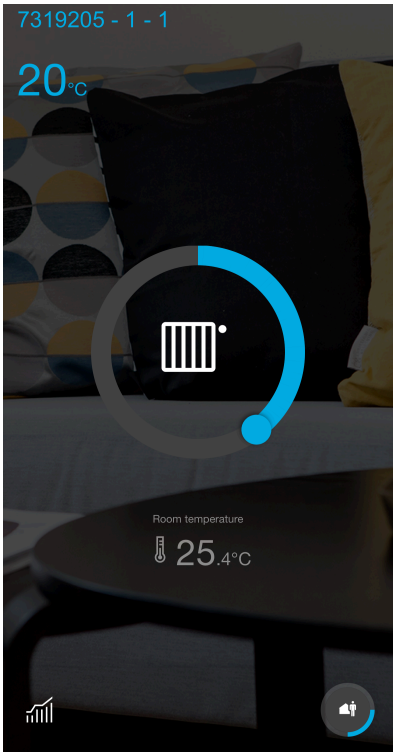
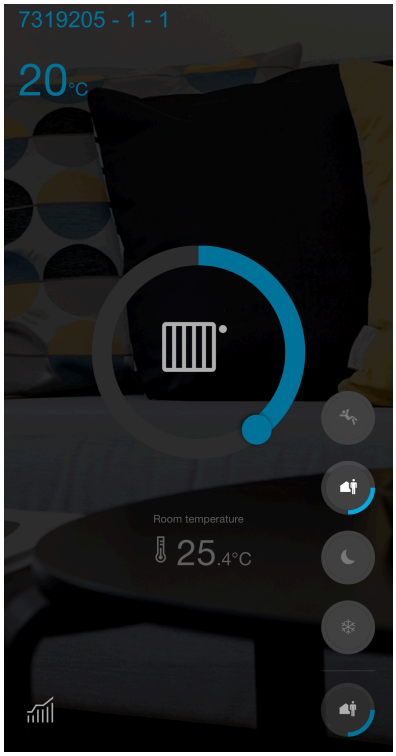
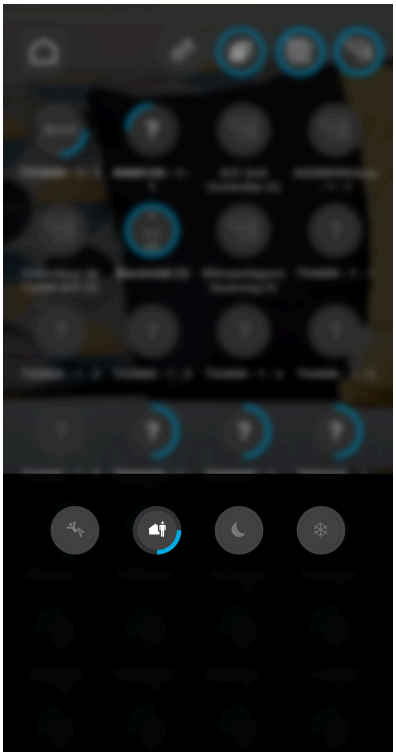
- KNX Configuration



The device in domovea has the following functions:

- Setting the heating mode
  - Comfort mode
  - Standby mode
  - Eco mode
  - Protection mode
- Heating mode display
- With ambient temperature display
- Setpoint adjustment
- Display of the setpoint

These functions are not configurable. The value is transmitted directly via the group address.

General menu		Quick menu
		

The only parameters that can be modified are:

- The minimum set point temperature (7 to 40 °C)
- The maximum set temperature (7 to 40 °C)

Exposing inputs I1 and I2 via matter protocol

The device supports the exposure of its external inputs I1 and I2 when integrated into a matter compatible home automation system. This exposure allows the system to retrieve and exploit the states of these inputs in the form of standardized sensors.

- Input I1 is exposed in matter as a **temperature sensor** . In this mode, the value from the probe connected to I1 is published as an environmental temperature measurement.

- Input I2 is exposed in matter as a **window contact** (opening sensor). The logical status of this input (open/closed) is transmitted to the system, allowing operation of the heating control (e.g. automatic closing of the valve when a window is opened)

8.2.2.4 Programming with ETS

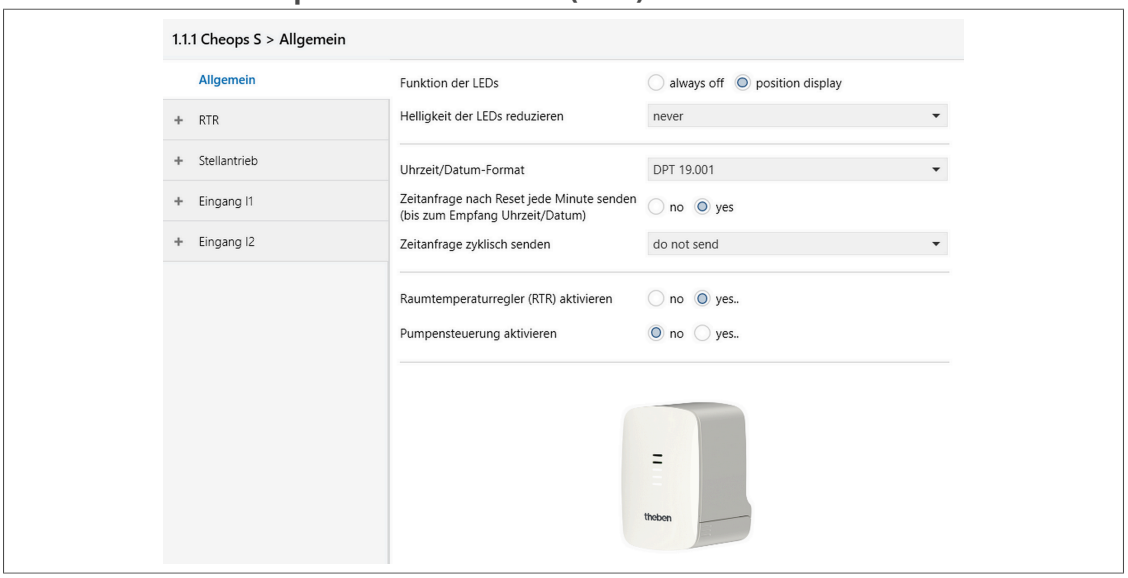
The Theben Cheops S KNX valve can be parameterized directly from the **ETS** tool and the configuration can be imported into **domovea**

To do this, do the following:

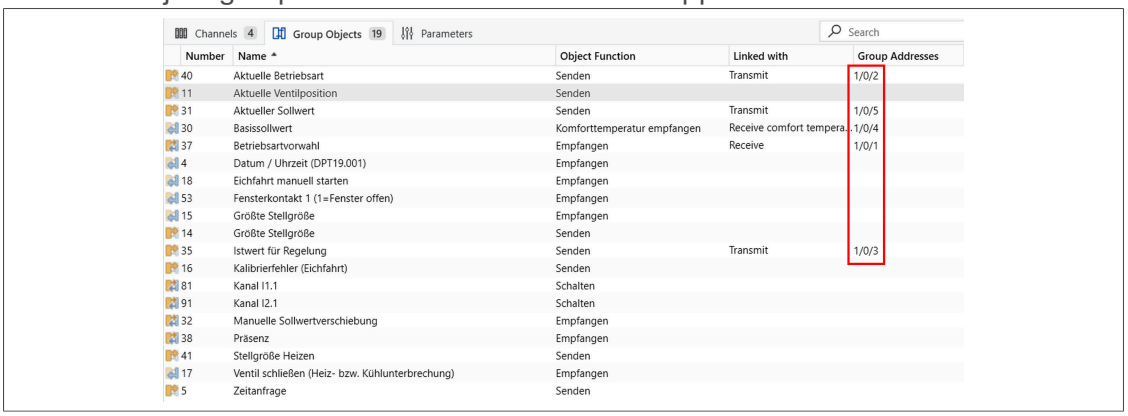
1. Create a KNX project: Open the ETS tool and create a new KNX project.
2. Add Theben Cheops S KNX valve: In the list of devices, include the Theben Cheops S KNX valve in your project.
3. Configure the necessary parameters: Set the required group addresses and parameters for the Theben Cheops S KNX valve.

To ensure optimal integration with domovea, configure the Theben Cheops S KNX valve parameters as follows:

- **Enable Ambient Temperature Controller (RTR)**: Select **Yes**



- Enter the object group addresses for the domovea application

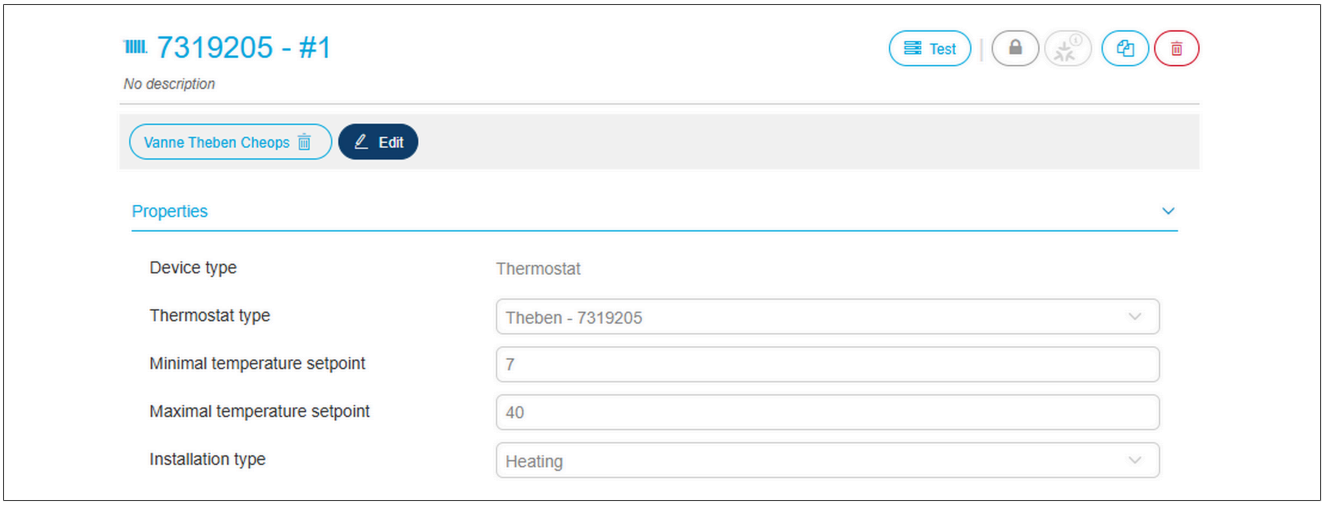


Number	Name	Object Function	Linked with	Group Addresses
40	Aktuelle Betriebsart	Senden	Transmit	1/0/2
11	Aktuelle Ventilposition	Senden		
31	Aktueller Sollwert	Senden	Transmit	1/0/5
30	Basissollwert	Komforttemperatur empfangen	Receive comfort tempera...	1/0/4
37	Betriebsartvorwahl	Empfangen	Receive	1/0/1
4	Datum / Uhrzeit (DPT19.001)	Empfangen		
18	Eichfahrt manuell starten	Empfangen		
53	Fensterkontakt 1 (1=Fenster offen)	Empfangen		
15	Größte Stellgröße	Empfangen		
14	Größte Stellgröße	Senden		
35	Istwert für Regelung	Senden	Transmit	1/0/3
16	Kalibrierfehler (Eichfahrt)	Senden		
81	Kanal I1.1	Schalten		
91	Kanal I2.1	Schalten		
32	Manuelle Sollwertverschiebung	Empfangen		
38	Präsenz	Empfangen		
41	Stellgröße Heizen	Senden		
17	Ventil schließen (Heiz- bzw. Kühlunterbrechung)	Empfangen		
5	Zeitanfrage	Senden		

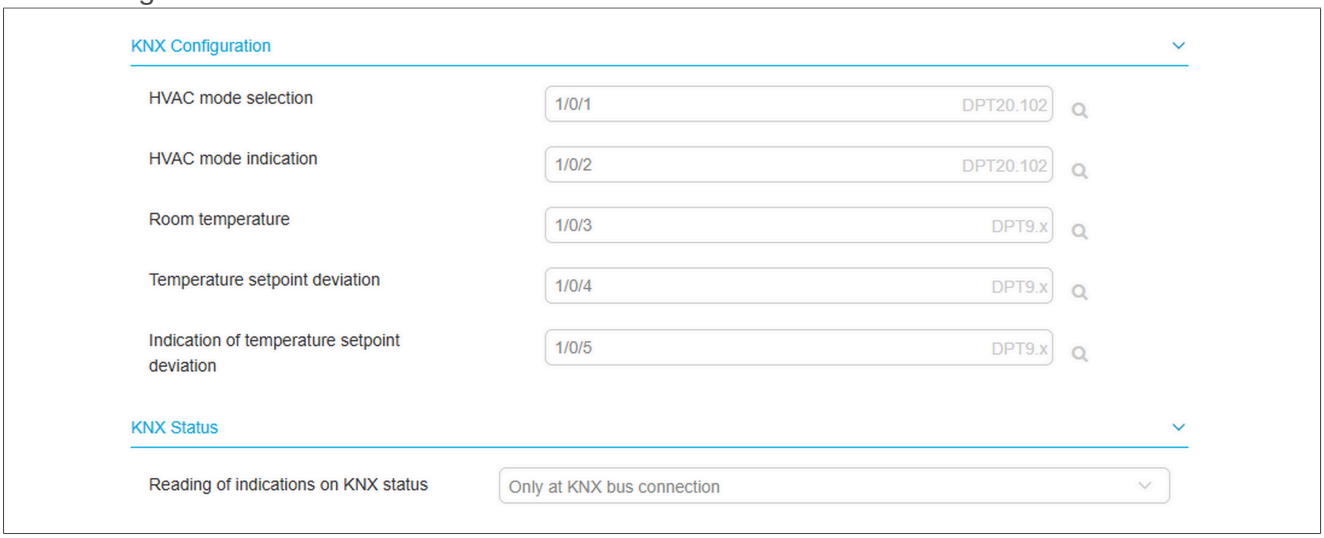
4. Export ETS Project: Once the configuration is complete, export your ETS project in domovea compatible format (KNXPROD or OPC).
5. Import into domovea: Import the ETS file into the domovea project.

After importing, the device is automatically created in domovea. It appears in the device list with the following items:

- Device properties



– KNX Configuration



Display in the domovea application

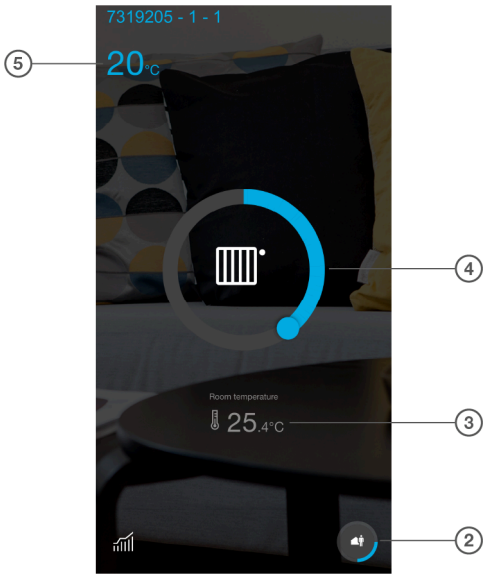
Depending on the type of parameterization, several control options can be displayed in the interface. These options allow you to tailor the control of the device to your needs.

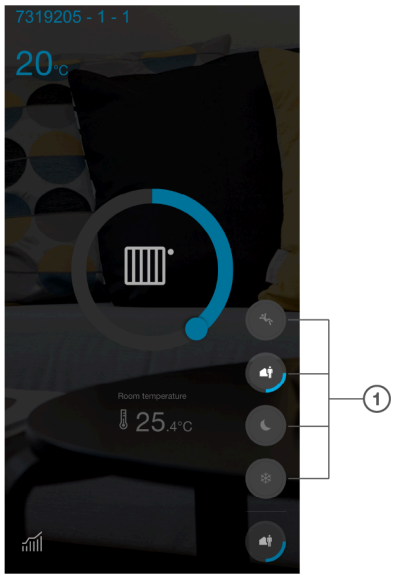
Below are the available parameters:

The main parameters are:

Objects valve Cheops KNX		Objects in domovea			
N.	Name		Description	Type	Length
38	Preselection of the operating mode	①	HVAC mode selection	DPT20.102	1 byte
7	Current operating mode	②	HVAC current mode	DPT20.102	1 byte
35	Effective value for regulation	③	Ambient temperature	DPT9.x	2 bytes
33	Base setpoint	④	Setpoint temperature override	DPT9.x	2 bytes
31	Current setpoint value	⑤	Setpoint temperature override indication	DPT9.x	2 bytes

Below, the views in the domovea application with the mapping between commands and parameters.


7319205 - 1 - 1
20°C
Room temperature
25.4°C
5
4
3
2


7319205 - 1 - 1
20°C
Room temperature
25.4°C
1

Hager Controls
BP10140

67703 Saverne Cedex
France

+33 (0) 3 88 02 87 00

info@hager.com
hager.com

2026-04

6LE090306C