Operation

Clee

Contents

1 Foreword

1.1 About this manual

This manual contains all the required information for operating and controlling. The chapter sequence corresponds to the recommended workflow. For further queries please contact your sales partner or KWB Customer Service.

KWB Energiesysteme GmbH including its country representatives and authorised competence partners are hereinafter referred to as KWB.

Our objective is to constantly improve our products and manuals –
we would therefore appreciate your feedback! You can find all contact data on the KWB home page www.kwb.net. If you find any errors or mistakes, please let us know at: doku@kwb.net

Original manual – Subject to change. No responsibility accepted for errors and omissions!

1.2 Explanation of the formatting

Work steps   We use different symbols for the preconditions, the actual work steps and the result:

➥ Precondition

⇨ Work step

↳ Result

Page texts   The keywords to the left of the text column assist you in immediately recognising what the content of the text section is.

Cross references   A reference to another section of this document recognizable by the arrow and the page number in brackets. Example: About this manual [▶ 4]

1.3 Legal matters

NOTE
Warranty
➥ The manufacturer's KWB warranty specifies proper installation and commissioning of the system as a prerequisite. Defects and damage due to improper installation, commissioning and operation are excluded from the warranty!
⟳ The manufacturer's instructions must be complied with to ensure proper system function. Knowledge of the manuals is a prerequisite.
⟳ Only original parts or parts that have been expressly approved by the manufacturer must be used.
⟳ If something is not clear, please look it up in this manual or contact the KWB Customer Service.

Intellectual Property

© 2024 KWB Energiesysteme GmbH

All catalogues, brochures, illustrations, drawings, manuals and control and regulation programs etc. are protected under intellectual property law and will always remain the intellectual property of KWB. Any use, reproduction, distribution, publication, processing and/or other transfer to third parties requires KWB's prior written consent.

When operating the contractual goods, the installation, operating and other technical instructions and information from KWB must be strictly observed and complied with.

Liability / Warranty

Any change and / or modification of the contractual goods or in the operation of the contractual goods not expressly authorised by KWB in writing or their operation in conjunction with other devices or accessories the compatibility of which has not been expressly confirmed by KWB, any inappropriate operation/use (e.g. the use of fuels and/or water not in accordance with standards which do not correspond to VDI 2035 or ÖNORM H 5195-1; inappropriate and / or excessive use)

leads to the exclusion of the warranty. Any liability or warranty for compatibility of the contractual goods with other products, systems, plants or parts, as well as the suitability thereof for a specific use shall be excluded unless expressly permitted in writing.

1.4 Implementation advice

1.4.1 Notes on standards

Installation and commissioning of the system must be carried out in accordance with fire protection and building code regulations. If not otherwise regulated on a national level, the following standards and regulations apply in their most recent version:

General standards for heating systems	
EU guidelines	
2014/35/EU	Directive for electrical equipment designed for use within certain voltage limits (Low Voltage Directive)
2014/30/EU	Electromagnetic Compatibility Directive (EMC)

1.5 Safety

1.5.1 Gradation of the hazard statements

In this documentation, we will use warnings with the following hazard levels to indicate direct dangers and important safety regulations:

⚠ **DANGER**

Serious hazard

We use this representation to indicate and describe **serious hazards**. **If this warning is ignored, serious or fatal injuries result!**

⚠ **WARNING**

Medium hazard

We use this representation to indicate and describe hazards. If this warning is **ignored**, **serious or fatal injuries** may result.

⚠ **CAUTION**

Incipient hazard

We use this symbol to indicate and describe **incipient hazards**. If the stated risks are **ignored**, **injuries, property damage and environmental damage** may result.

NOTE

General information

We use this representation to indicate and describe **important information**.

1.5.2 Comply with the safety instructions

NOTE

Comply with the safety instructions

Your system has been tested for safety and satisfies the applicable standards, guidelines and regulations.

Failure to comply with the safety instructions or improper use poses the risk of material damage. In addition, you risk your health or your life!

1.5.3 Please read and follow the manual

NOTE
Thoroughly read and follow the instructions before installation, commissioning, maintenance or use. Compliance with the instructions and proper installation, commissioning and use is a prerequisite for a warranty provided by KWB. ➲ If anything is unclear, refer to the instructions or contact KWB Partner/Customer Service. ➲ Keep instructions for future reference! ↻ All instructions can be found on the KWB homepage (www.kwb.net) or in KWB PartnerNet (https://partner.kwb.net). ↻ The instructions for the intelligent "Clee" energy management system can be found at https://www.clee-energy.net.

1.5.4 Electrical safety instructions

Electrical connection

To prevent any risk of injury or electric shock, make sure that the power supply is disconnected before removing the cover.

The connection must comply with the applicable installation standards and regulations of the country where the Clee is installed.

Connection to protective earthing is mandatory. If the electrical supply line is damaged, it must be replaced by the manufacturer, its Customer Service department or similarly qualified persons.

⚠ DANGER
Electrical voltage! Risk due to incorrect type of earth connection. Use suitable protective equipment, tools and measuring devices. Check the type of voltage supply network (TN system, IT system, TT system) and ensure the relevant connection conditions (protective earthing, etc.). The socket must be protected by the customer with a residual current device (30 mA tripping current). The 5 safety rules in accordance to EN 50110 must be applied. ➲ Disconnect. ➲ Secure against restart. ➲ Ensure that there is no voltage. ➲ Ground and short circuit. ➲ Cover neighbouring live parts or make them inaccessible.

⚠ DANGER
Electrical voltage! Risk due to incorrect mains voltage and frequency. ➲ Required voltage supply network: TN-S 230 VAC / 50 Hz ➲ Required frequency: 50 Hz

⚠ DANGER
Life-threatening danger due to electric voltage! Hazard due to unaffected short-circuit current at the feed-in connections. Risk of electric shock due to indirect contact. Life-threatening danger due to electric voltage of 230 V in the event of a short circuit in the low-voltage line. Danger due to missing or incorrect SCP (short-circuit protection device). ➲ Fuse protection of the feed line: LS type B 10A – 2-pole (L/N), residual current device (RCD) ➲ Input current fuse protection: LS type B 10A – 1-pole (L)

Installation & maintenance instructions

NOTE
Danger due to improper installation!

The device may only be installed indoors. The measures for proper transportation, handling, setup and operation must be observed.

- ⮑ Ambient temperature between 5-40 °C
- ⮑ Humidity between 5-85%
- ⮑ Permitted degree of contamination: 3 or less
- ⮑ Electromagnetic interference: Environment "B" (household environment)
- ⮑ All connecting conductors must be made of copper.
- ⮑ Ambient conditions during storage: -25-40 °C; humidity 5-95°C

⚠ WARNING
Life-threatening danger due to electrical current 230 V / 50 Hz

- ⮑ Improper installation or repair can lead to a life-threatening electric shock.
- ⮑ Electrical installation may only be carried out by expert staff with the required qualification.
- ⮑ PRIOR to installation and repair:
- ↳ Disconnect power plug from the mains!
- ↳ Secure against restart!

1.5.5 Pictograms used

The following command, prohibition and warning signs are used in the documentation and/or on the device.

According to the Machinery Directive, signs attached directly at the hazardous area of the system warn of direct dangers or signal safety-relevant behaviours. These stickers must not be removed or covered up.

Command signs (safety colour blue)			
	General command sign		Only certified technicians
	Earth before use		Follow the instructions

Warning signs (safety colour yellow)			
	General warning sign		Warning of electrical voltage

1.5.5.1 Additional icons/pictograms

	Ensure proper disposal		The labelled product must not be disposed of with household waste

2 Overview

The Clee Box

1.	Earthing terminals & terminal blocks	4.	Mains connection
2.	Power supply unit 24 VDC (max. 15W)	5.	Strain relief
3.	Computing unit	6.	Screws
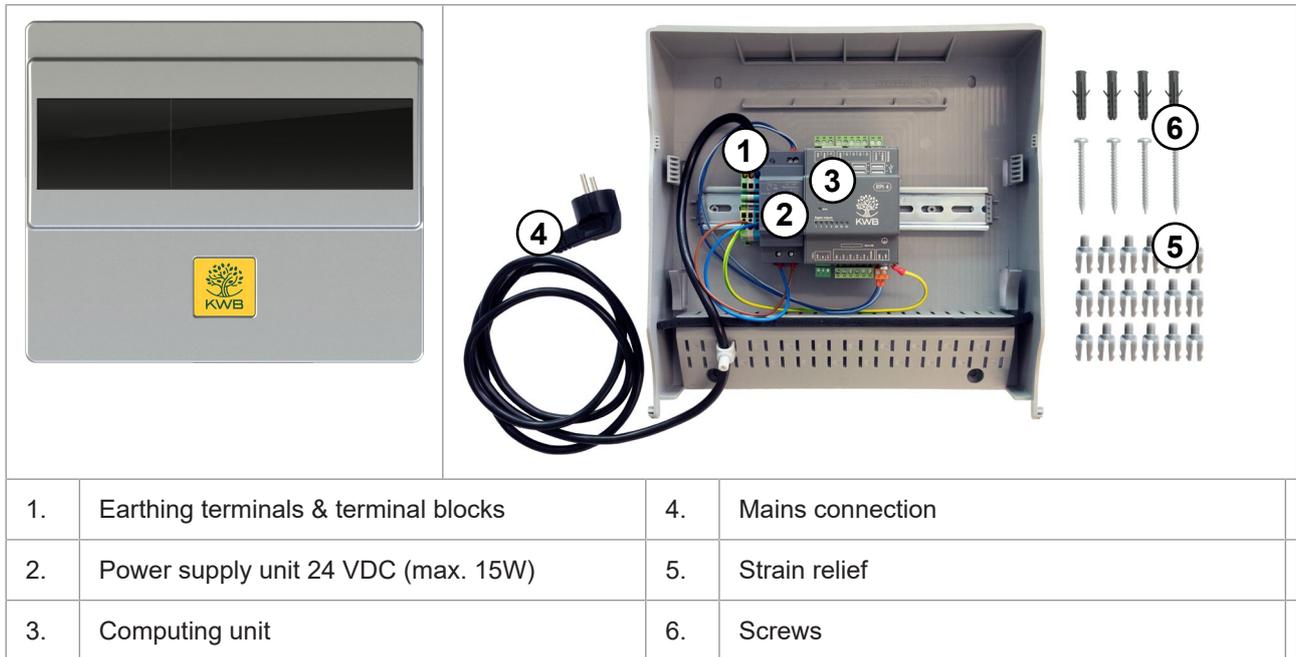
2.1 Scope of delivery

Check the scope of delivery after receipt. Observe information on the packaging!

⇨ Clee Box (art. no: 13-2000629)

Required but not included in the scope of delivery:

⇨ 1 pc. CAT5 cable or higher with RJ45 socket for connecting the Clee Box to the network

⇨ Protective contact socket for the 230 V voltage supply of the Clee Box

2.2 Storage and installation

Danger due to improper storage and installation.

⇨ Earth before use.

⇨ The device may only be installed indoors. The measures for proper transportation, handling, setup and operation must be observed.

⇨ Ambient temperature between 5-40 °C

⇨ Humidity between 5-85%

⇨ Electromagnetic interference: Environment "B" (household environment)

⇨ Ambient conditions during storage: -25-40 °C; humidity 5-95°C

⇨ Avoid direct sunlight.

⚠ **DANGER**

Electrical voltage!

The product may only be used and operated by expert staff who are able to ensure compliance with the necessary safety measures. All required adjustment and maintenance work on open or energised devices may only be carried out by professional technicians who are aware of the dangers. Repairs to the product may only be performed by the manufacturer or qualified service staff.

2.3 Requirements

The speed of the Clee internet connection is essential for a smooth operation. These requirements are met by a modern internet connection and good reception quality.

⇨ ADSL, VDSL2, HSDPA, LTE with at least 200 kbit/s upload speed

⇨ Stable and interruption-free connection

We cannot guarantee smooth operation with a slow internet connection (e.g. ISDN) or mobile internet access with bad reception (e.g. 2G EDGE).

Network requirements

All components to be integrated (Comfort 4 control system, photovoltaics, external solar control systems, heat quantity meter, etc.) must be accessible in the same network.

DHCP or static IP address

As an alternative to automatic address assignment (DHCP), there is the option of assigning a fixed (static) IP address, subnet mask, gateway and DNS address to the control system.

2.4 Mode of operation

The **Clee** is an energy management system that optimises all relevant energy flows between generators, consumers and accumulators in the building.

The **Clee** makes its calculations based on the relevant user habits and taking the weather data, demand forecasts and return potentials from heat energy, process water, thermal solar energy and photovoltaics into consideration.

The **Clee** then creates timetables for all controllable generators and consumers, configuring the best possible operation of the KWB boiler in conjunction with the photovoltaics and the thermal solar energy system.

The objective is to achieve prioritised energy source usage with usage-dependent buffer charging to maximise comfort levels in the building and simultaneously reduce operating costs.

This gives users a clear overview of the state all of all connected components in a web application so they can select the settings.

The **Clee** maintains a continuous network connection to the KWB Comfort 4 control system and additional energy components (e.g. PV inverter) during active operation so that all necessary data can be accessed and specifications can be transferred to the energy components. More details can be found in the Activation of the Clee in the KWB Comfort 4 control system [▶ 9] chapter

During operation of the Clee with an active network connection, some settings of the KWB Comfort 4 become ineffective, see the Activation of the Clee in the KWB Comfort 4 control system [▶ 9] section.

All of the settings on the KWB Comfort 4 control system can still be selected; however, they only work when the connection is interrupted or the Clee is deactivated. These settings are used if the network connection fails.

2.5 Activation of the Clee in the KWB Comfort 4 control system

The Clee must be activated on the heating system control unit (Comfort 4). These can also be deactivated there.
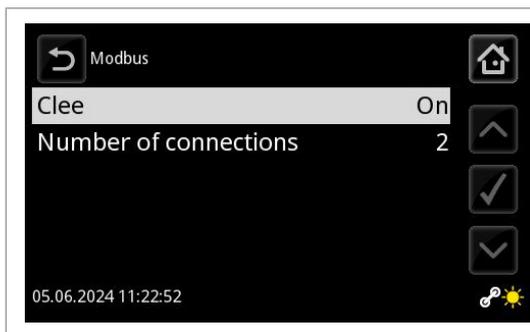
⇨ KWB Comfort 4 minimum software version: **V23.10.1**

⇨ On the control unit, open the >> Add-ons >> Modbus >> Clee menu.

⇨ Activate or deactivate the Clee with the Clee field:

⇨ ON **Clee** is active

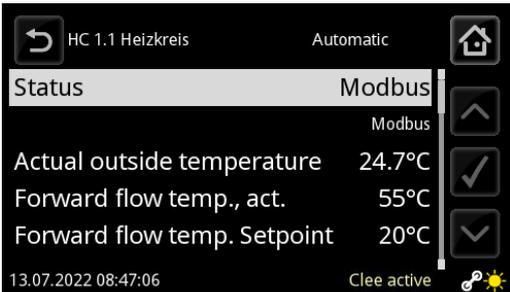⇨ OFF **Clee** is deactivated

Icons and states

If the Clee is activated on the Comfort 4, a sun is displayed in the bottom right corner.

41°C 6.7°C 11:11 — Open menu, Operational state, On/Off, Select program, Change heating times, Heat DHW 1x — 05.06.2024 11:11:19	The **yellow sun** indicates an active Modbus connection to the Clee. In this state, the Clee is active and makes specifications for operation of the energy components (e.g. boiler or heating circuits).
41°C 6.7°C 11:11 — Open menu, Operational state, On/Off, Select program, Change heating times, Heat DHW 1x — 05.06.2024 11:11:19	**If the sun turns grey,** the Modbus connection to the Clee has been disconnected, but the Clee is still activated on the Comfort 4. In this state, the Clee cannot make any specifications for operation of the energy components. That is why all settings are taken over by the Comfort 4 control system in this state.
41°C 6.9°C 11:24 — Open menu, Operational state, On/Off, Select program, Change heating times, Heat DHW 1x — 05.06.2024 11:24:14	If the **Modbus icon** is displayed instead of the sun (yellow or grey), the Clee function is deactivated on the Comfort 4.
Modbus icon	**Modbus icon**

Heating circuit control

If Clee is activated and there is an active Modbus connection to the Comfort 4, all of the heating circuit settings on the Comfort 4 control system, such as the setpoint temperatures, heating times or different operating modes (party mode, automatic, frost protection, reduction and comfort mode, holiday mode, etc.) are not effective, but are instead specified by the Clee. These settings must be made in the Clee web application (see the Clee application – registration and login [▶ 11] section). Exception are the screed program and the external temperature switch-off. These are maintained with a higher level of priority.

All heating circuit settings can still be selected on the Comfort 4, but these are only effective outside Clee operation (connection interruption or deactivation of the Clee) and are therefore defined for redundancy mode.

HC 1.1 Heizkreis Automatic — Status Modbus — Modbus — Actual outside temperature 24.7°C — Forward flow temp., act. 55°C — Forward flow temp. Setpoint 20°C — 13.07.2022 08:47:06 Clee active	The "Clee active" information text at the bottom of the screen in the respective heating circuit menu indicates that the heating circuit settings from the "Clee" are applied.

3 Clee application – registration and login

The Clee Portal is a web application. A web application (abbreviated as WebApp), unlike a conventional application, is loaded from a web server and run in the internet browser, which is why no installation is required.

That means WebApps work on all operating systems and devices. Another advantage is that they are always up to date. Conventional applications can only be updated by downloading a new version or an update. Changes to a web application, on the other hand, are made directly in the software so that all users automatically have access to the latest version.

3.1 Registration

You need a KWB account to access the Clee application. You can access all KWB online services, such as Comfort Online, with the same KWB account (this is a so-called "single sign-on" account, or SSO account for short). All services access the user data entered in the SSO account.

That means that if you have already created a KWB account, no additional registration is required. If you do not yet have a KWB SSO account, please follow the steps below.

Start your desired internet browser on your PC, tablet or smartphone.

Call up the web address (URL) of the KWB platform at: https://myaccount.kwb.net

If you already have an active Comfort Online account, the same user data can be used for the Clee.

However, for security reasons, you have to assign a new password when using it for the first time. To do so, click on the "Forgot your password?" link and carry out the required steps.

To set up a new SSO account, please click on the "Sign up now" link.

You will then be asked to enter a valid e-mail address as your user name. This e-mail address is verified by clicking on the "Send verification code" button after entering the e-mail address.

You will receive a message at the e-mail address you provided with a 6-digit verification code.

You will receive a valid confirmation code at the e-mail address you provided. Enter the confirmation code into the field and click on "Verify code".

Sign up

Please provide the following details

Given Name*

Given Name

Surname*

Surname

Phone Number*

+43 ▾ | 0664 123456

Phone Number

Street and House Number*

Street and House Number

Postal Code*

Postal Code

City*

City

Country*

Country ⌄

Preferred Language*

Preferred Language ⌄

General Terms and Conditions*

Show General Terms and Conditions
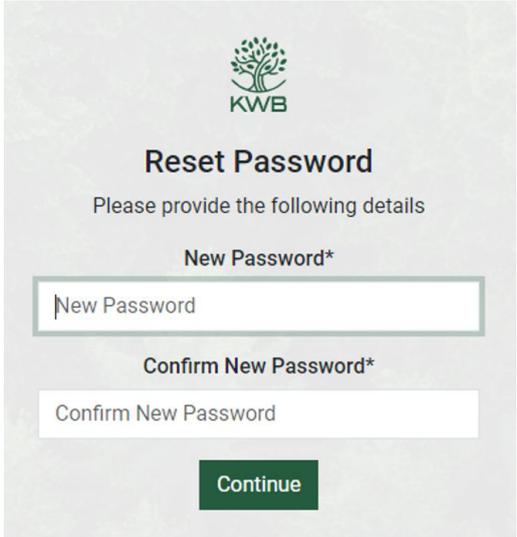
☐ I accept the General Terms and Conditions

Continue

As soon as the confirmation code has been verified, you will be asked to fill in all the remaining fields on the login page. These are all mandatory fields that have to be filled in correctly. Make sure that you give a **correct mobile phone number**. This phone number is needed for use of Comfort Online.

3.2 Resetting password

⇨ In the login window, click on the "Forgot your password?" link.
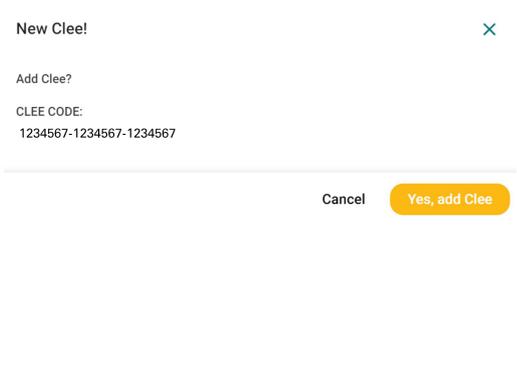
	A new window will appear and you will be asked to enter your e-mail address, meaning the e-mail address of your user login (the SSO account). ⇨ Then press the "Send verification code" button.
	You will receive a message at the e-mail address you provided with a 6-digit verification code.
	⇨ Enter the "Verification code" and press the "Verify code" button.
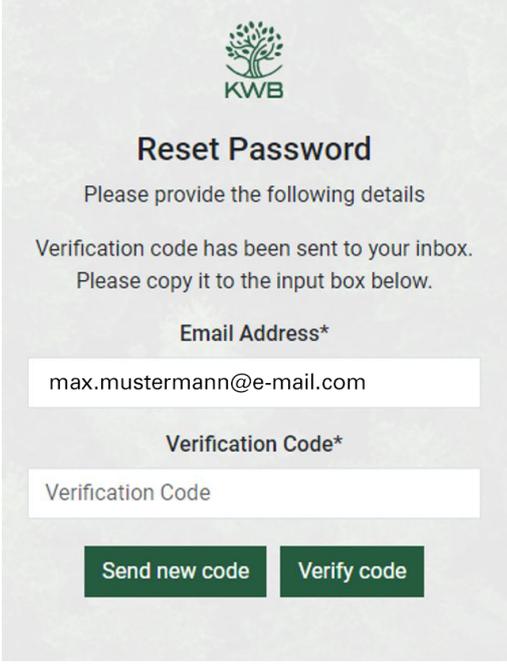
The "Verification code" is evaluated and a new window appears.

⇨ The password can now be changed and saved. Then log in with this new password.

3.3 Linking the Clee Box to the user account

You have to link your Clee Box to your SSO account so you can operate and monitor your energy system with the Clee WebApp.

To do so, scan your customer-specific QR code (you get this during or after commissioning of the Clee) and open the link.

If you are logged in with your SSO account, you will receive a message that a new Clee Box has been detected. If you would now like to link this Clee Box, confirm with "Yes, add Clee".

You can link your SSO account to any number of Clee Boxes. All you need to do is take the steps listed above on the respective Clee Box.
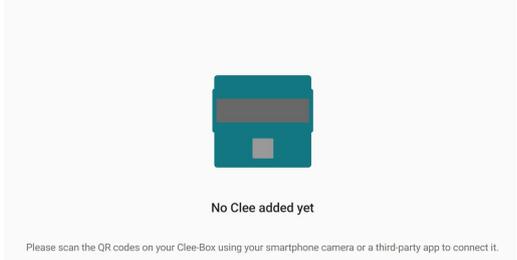
If a Clee Box has not yet been linked to the user account, the "No Clee added yet" error message indicates this.

3.4 Installation

Depending on the operating system and internet browser (e.g. Google Chrome listed below), the Clee application can be downloaded directly through a download icon in the status bar of the respective internet browser or with the "Install Clee" item.

As with Comfort Online, you also have the option of linking the WebApp to your desktop with your internet browser. The WebApp can also be linked to a mobile phone.

4 Operation of Clee application

The Clee WebApp can be accessed at app.clee-energy.net. All important components and their current state can be seen in the WebApp. The user interface of the WebApp has a dynamic structure, meaning the individual display blocks and the arrangement change to fit to the size of the control unit. Clicking on the arrow icon of the window takes you to a more detailed view.
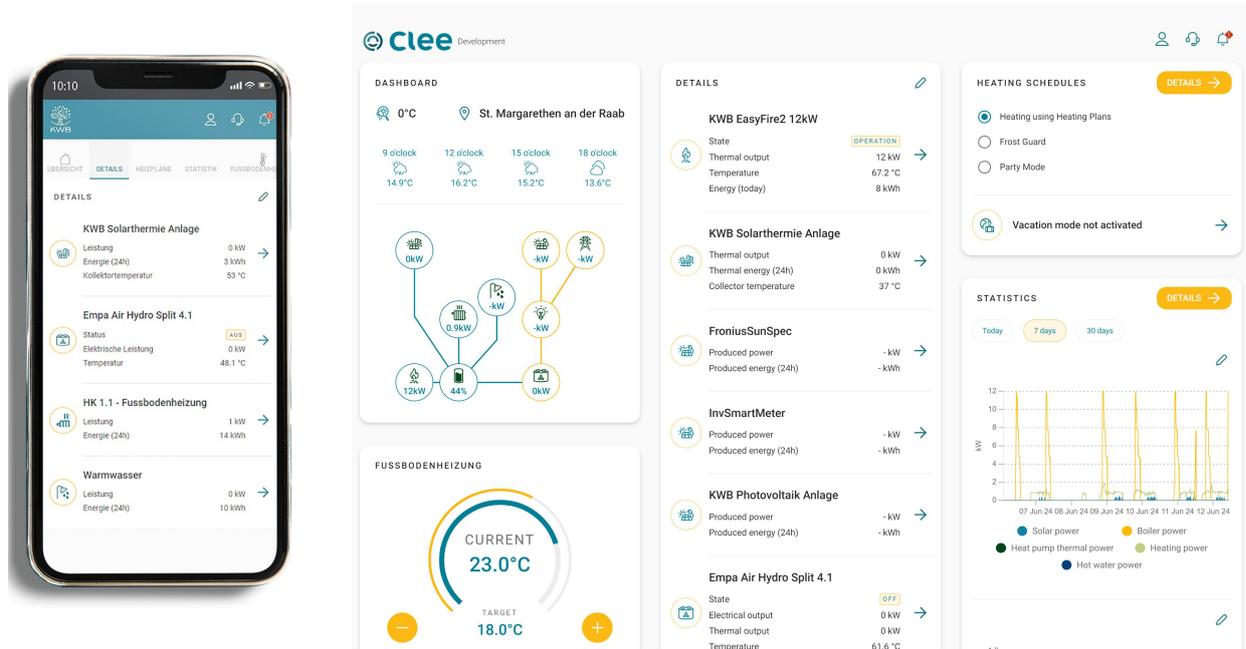
4.1 Personalisation of the user interface

Clicking on the pencil icon in the top right corner of each window makes it possible to customise the user interface according to your personal preferences.

This makes it easy to **display** or **hide** parameters and change their arrangement or positioning to fit your needs.

4.2 Overview

The overview shows all energy components integrated in the Clee and their current state.

DASHBOARD

0°C   St. Margarethen an der Raab

9 o'clock	12 o'clock	15 o'clock	18 o'clock
14.9°C	16.2°C	15.2°C	13.6°C

0kW   -kW   -kW

-kW

1.2kW   -kW

9.6kW   46%   0kW

The selected location for the weather forecast and the current external temperature are displayed at the top.

The energy flows are also visualised in this graphical representation. The screenshot shows that the photovoltaic system is currently producing 7 kW of electricity and feeding 7.04 kW into the grid.

The KWB heating boiler and the thermal solar energy system are currently out of service.

4.3 Details

DETAILS

KWB EasyFire2 12kW

State	OPERATION
Thermal output	7.9 kW
Temperature	66.3 °C
Energy (today)	10 kWh

KWB Solarthermie Anlage

Thermal output	0 kW
Thermal energy (24h)	0 kWh
Collector temperature	38 °C

FroniusSunSpec

Produced power	- kW
Produced energy (24h)	- kWh

InvSmartMeter

Produced power	- kW
Produced energy (24h)	- kWh

The detailed view shows the most important variables of all energy components integrated in the Clee. These can all be configured using the pencil icon.
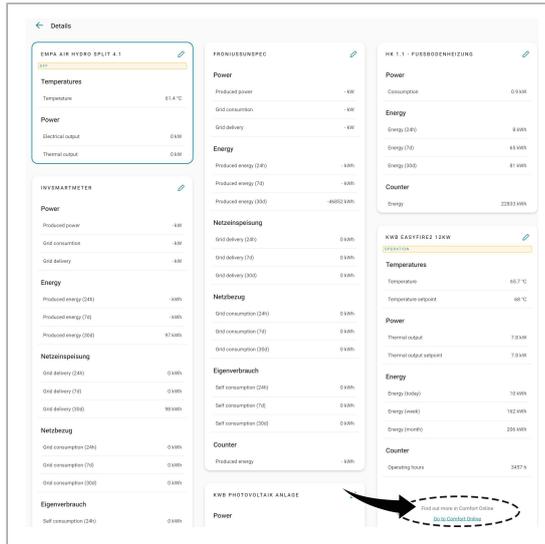
The detailed view displays all the parameters read out for the individual components.

A direct link to the KWB Comfort Online Portal can be found under the values of the KWB boiler.

Find out more in Comfort Online

Go to Comfort Online
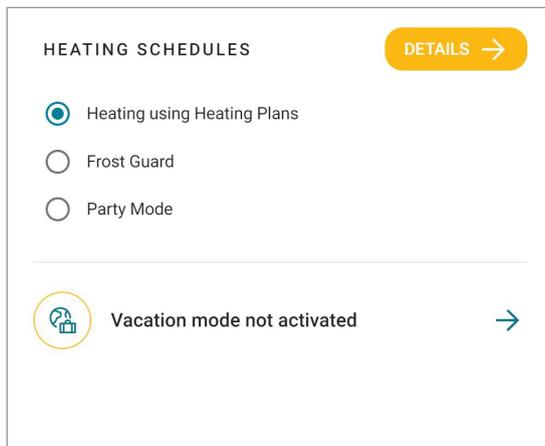
4.4 Heating times

All setting options for the heating circuits are displayed here.

Attention!   As long as the Clee is active and connected to the Comfort 4 control system, all heating circuit settings can **only** be changed with the **Clee**.

All heating times, room setpoints and holiday settings must be set using the **Clee** application. That means parametrisation on the Comfort 4 boiler control unit and the respective settings on the room control unit are not taken into account during Clee operation.

Quick selection for the heating times

This figure gives an overview of the selected heating times. Heating profiles can be created and changed under "Details". The profile changed here one time is not applied for the next week.

A quick selection can be made in the heating times area. The selection contains:

- Heating after heating times
- Frost protection
- Party mode

Holiday mode can also be activated in the overview.

Adding heating times

The weekly overview is displayed under Details in the Weekly schedule tab.

The temperature and heating profiles are displayed in the Heating times tab. These can be edited using the pencil icon.

Weekly schedule

Monday

Heizkörper

Normal ▾

Fußbodenheizung

Party Mode ▾

Tuesday

Heizkörper

Normal ▾

Fußbodenheizung

Heizprofil 2 ▾

Heating plans

Frost Guard

| 0:00 | 6:00 | 12:00 | 18:00 | 24:00 |

🟩 Set back   8°

Comfort temperature valid: 00:00 - 24:00

Absenken ✎

| 0:00 | 6:00 | 12:00 | 18:00 | 24:00 |

🟨 Comfort   19°

🟩 Set back   18°

Comfort temperature valid: 00:00 - 24:00

Creating heating profile

Party Mode ✎

| 0:00 | 6:00 | 12:00 | 18:00 | 24:00 |

🟨 Comfort   23°

Comfort temperature valid: 00:00 - 24:00

➕

A new heating profile (heating times, reduction & comfort temperature) can be created using the plus button at the bottom of the tab.

Holiday mode

Vacation ✅ Vacation period ┌ From - To* ┐ │ 13.6.2024 − 17.7.2024 📅 │ └────────────┘ **Vacation heating** Heizkörper ┌────────────┐ │ Frost Guard ▾ │ └────────────┘ Fußbodenheizung ┌────────────┐ │ Frost Guard ▾ │ └────────────┘	Holiday mode offers a quick and simple way of lowering the heating circuits to the desired temperature for any desired period of time, regardless of all other settings. Once the time has elapsed, the Clee returns the heating circuits to the standard heating profiles.

Living areas

The different living areas can be selected by clicking on the Details icon in the Heating times tab.

Fußbodenheizung ⋮ Fussbodenheizung ≡ **Heizkörper** ⋮ Radiatoren Heizung ≡ Maximum amount of living areas reached ⊕	In the "Heating times" > "Weekly schedule" menu at the bottom, the two living areas can be selected and displayed under "Change living areas".

4.5 Room setpoint value

It is possible to manually overwrite the setpoint for the room temperature for the selected heating circuit temporarily.

FUSSBODENHEIZUNG

CURRENT
23.0°C

TARGET
19.0°C

Deviation from heating plan
0°C

RADIATOREN HEIZUNG

TARGET
22.0°C

Deviation from heating plan
0°C

The room setpoint temperature can be changed in the "Radiant floor heating" or "Radiator heating" overview. It can be raised with the plus icon and lowered with the minus icon.

If the room temperature is measured by a sensor connected to the Comfort 4 control system, this ACTUAL value is displayed here.

4.6 Statistics

STATISTICS

DETAILS →

Today | 7 days | 30 days

12
10
8
6
kW
4
2
0

07 Jun 24 08 Jun 24 09 Jun 24 10 Jun 24 11 Jun 24 12 Jun 24

● Solar power   ● Boiler power
● Heat pump thermal power   ● Heating power
● Hot water power

Historical trend line

The individual energy components can be displayed and hidden by clicking on them. This can be seen in the graph by the hidden "Boiler output" and "Heat pump thermal output" energy components.

The statistics area is used to analyse and evaluate the system. You get an overview of the system output [kW] of all integrated generators and consumers for the selected period (today, week or month).

Details

A detailed view (thermal energy distribution, electrical energy distribution, etc.) can be called up with the "Details" icon in the Statistics tab.
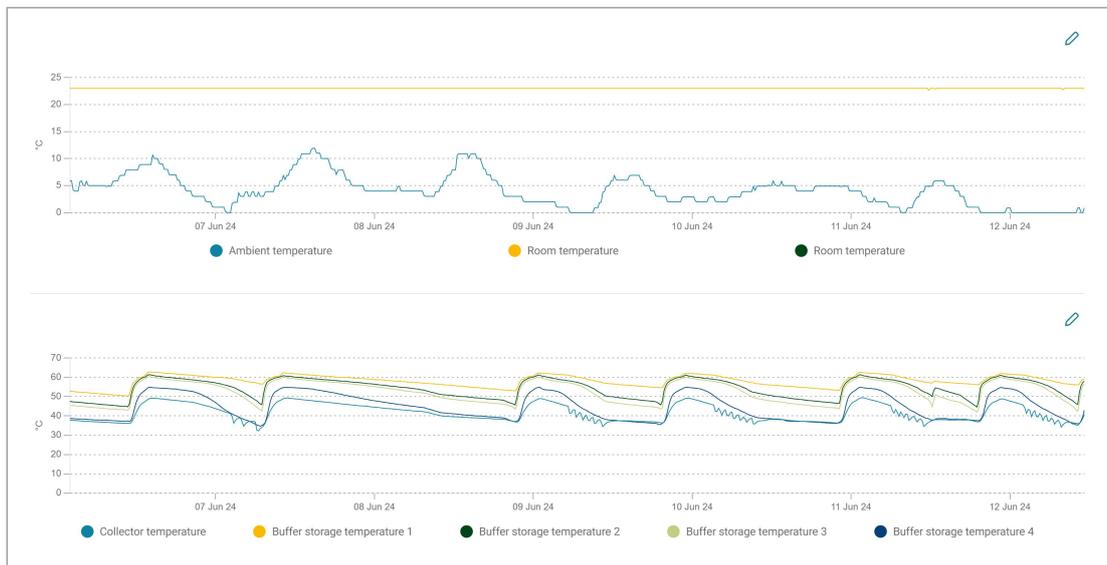
Energy distribution

Three possible time ranges (today; week; month) can also be selected. The days can also be varied using the two arrows.

If you move the cursor over a desired generator/consumer, it can be crossed out or hidden with a click.

It is also possible to export the data as an Excel CSV file with the "Export data" download icon.
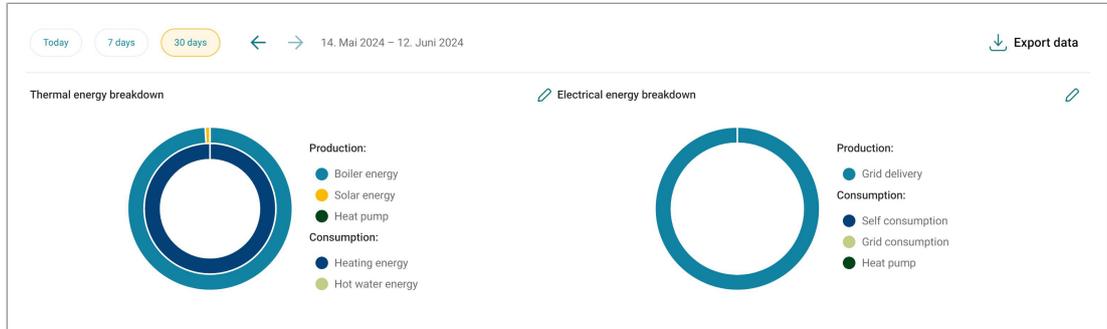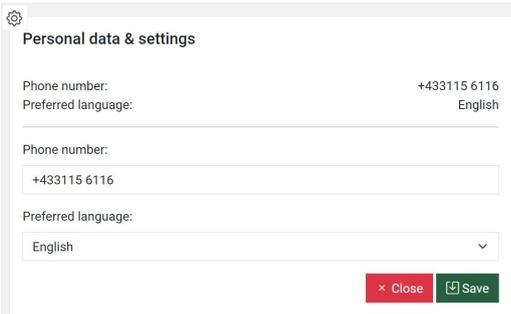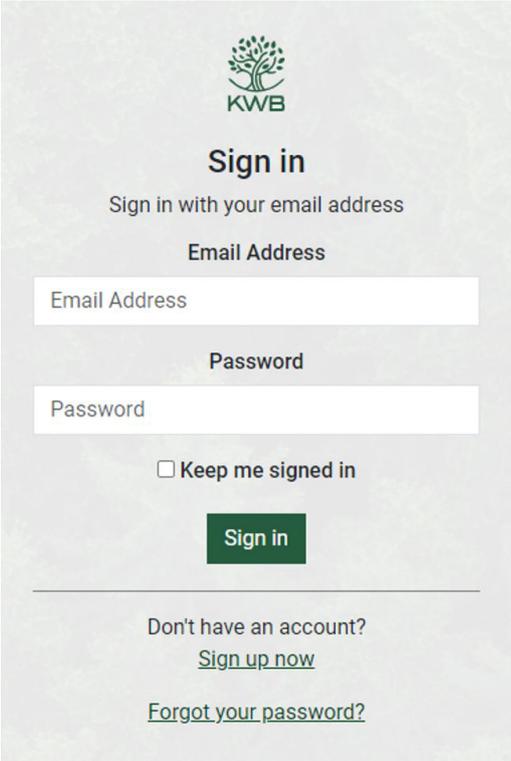

The historical trend line shows the output over time for the various energy components.

5 System settings

5.1 Profile settings

|	
Clee **Clee Code** 95b18e6a- xxxxxxxxxxxxxx Delete	The unique ID Clee Code is displayed under the "Profile" "Clee integration" icon. The link to your own account can be removed by "Delete" the code.
Personal data & settings Phone number: +433115 6116 Preferred language: English Phone number: +433115 6116 Preferred language: English ⌄ × Close Save	**Languages** With the "Profile" icon in the "Personal data & settings" tab, you can change the language of the user interface as well as the telephone number. German and English are currently available for selection.
KWB **Sign in** Sign in with your email address **Email Address** Email Address **Password** Password ☐ Keep me signed in Sign in Don't have an account? Sign up now Forgot your password?	**Logout** Clicking on "Log out" logs you out of the system and redirects you to the login page.
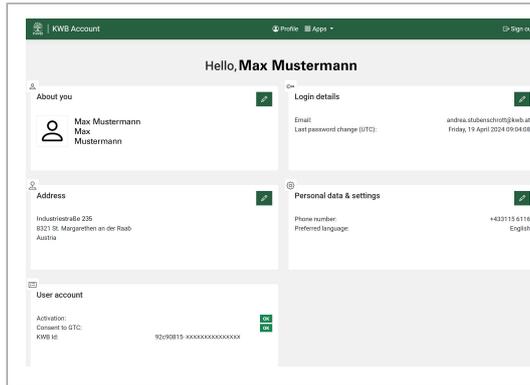
User profile

In the "User profile/Languages" tab, the different profiles (Change password, Change e-mail address, Change mobile phone number) can·be entered and changed.
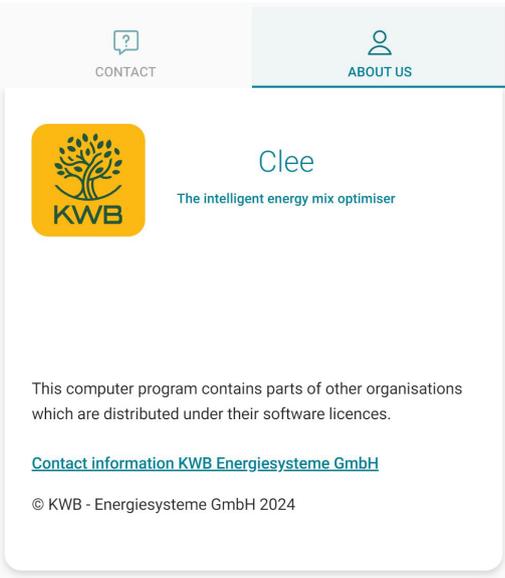
5.2 Contact & About us

Contact
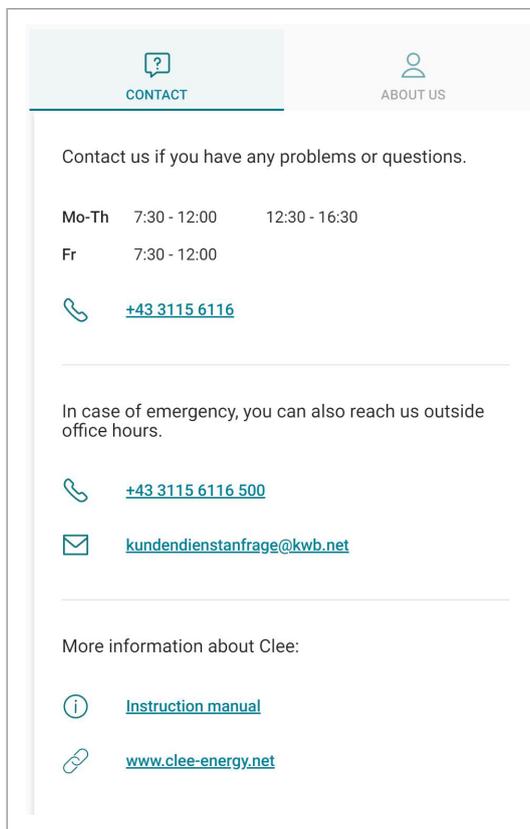
You can find the general telephone number (+43 3115 6116) and the current office hours in the "Contact" tab. If you have any general questions, you can reach us at this number.
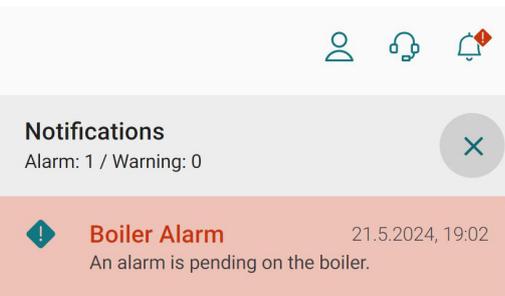
For emergencies or technical questions, please contact our Customer Service department directly. The link for calling us is listed below.

About us

The current software version of the Clee system is displayed in the "About us" tab.

5.3 Notifications / Alarms

All pending notifications can be found under the bell icon in the top right corner.

If new unread information is pending, the red call sign icon indicates this, see graphic.

Alarms

Alarms affect operation of the system and must be acknowledged. Alarms remain active until the problem has been fixed and the alarm has been read by the user. A large number of alarms can be fixed remotely with Comfort Online. However, for legal reasons, safety-relevant alarm messages must be acknowledged directly on the boiler control unit to avoid possible risks. All pending alarms are immediately visible to the customer thanks to the red colour.

Frequent alarms

- Boiler buzzer alarm

The buzzer alarm acts for all alarms on the Comfort 4 boiler control unit and indicates possible system problems.

- Optimisation problem

If this message appears on the user interface, the system is back to normal boiler operation. This means that the special optimisation function of the Clee is currently having problems calculating optimal timetables for the system.

- Warnings

Warnings indicate possible risks or anomalies, but do not impair system operation.

- Information

This simply provides the customer with information.

6 Troubleshooting

You can find a complete list of the alarm messages for your boiler and the possible reactions to them in the Notifications / Alarms [▶ 25] section.

Network – internet problems

Checking physical connection
⇨ Make sure that all cables are firmly connected.
⇨ Check the power supply: Router, modem and other devices must be properly supplied with power.

Restarting router and modem
⇨ Switch off router and modem.
⇨ Wait about 10-15 seconds, then switch the router & modem back on.
⇨ Allow the devices to start up completely before testing the connection again.

Checking WLAN connection
⇨ Make sure that the WLAN is set up correctly.
⇨ Check if the WLAN signal is strong enough.

Checking IP conflicts
⇨ Make sure that no two devices in the network are using the same IP address.
⇨ Configure the router so that it assigns the IP addresses automatically (DHCP).

Checking firewall settings
⇨ Check that the firewall settings are not blocking network access.
⇨ Allow the required ports for the services used.

Fixing DNS problems
⇨ Use alternative DNS servers (e.g. Google DNS or OpenDNS).
⇨ Flush the DNS cache on the computer.

Updating network drives
⇨ Make sure that the network drivers are up to date.
⇨ Update the drivers using the system control or the Device manager menu.

Performing ping test
⇨ Use the "ping" command in the command prompt to check server accessibility.
⇨ Example: ping www.google.com.

Monitoring network protocols
⇨ Use network analysis tools such as Wireshark to monitor data traffic and identify potential problems.

Checking proxy settings
⇨ Make sure that proxy settings are configured correctly or deactivate them temporarily.

Checking VPN connection
⇨ Temporarily disable VPN connections to check if this is causing the problem.

Contacting ISP
⇨ If all other steps fail, there may be a problem with the Internet Service Provider [ISP].
⇨ Contact your internet service provider for support.

7 Appendix

Please also see

7.1 Disposal of electric equipment

⇨ Comply with local waste disposal regulations! Ensure environmentally sound disposal pursuant to AWG (Austria) or country-specific regulations.

⇨ Recyclable materials can be taken separately and in clean condition to the specified recycling points.

We recommend separating its components for recycling purposes in order to handle resources in a more sustainable manner!

Plastic materials

The control unit housings, cable bushings and seals are made of plastic or rubber.

Circuit boards

⇨ Responsible disposal is required!
Comply with all local waste disposal regulations!

⚠ **CAUTION**

Hazardous waste – dispose of properly!

The metals on and in the circuit boards do NOT belong in the household waste.

↪ All circuit boards used by KWB comply with the "Directive 2002/95/EC for the restriction of certain hazardous substances in electrical and electronics equipment".

⟳ Take the circuit boards to a proper disposal facility – this helps protect the environment!

⟳ Dispose of the circuit boards at collection points for electronic waste only.

Battery

⚠ **CAUTION**

Environmental contamination by batteries

↪ There is a lithium battery inside the boiler control unit.

⟳ Dispose of the battery separately. When doing so, you must comply with all local regulations!

Electric and electronic devices must not be disposed of with the household waste! As a user, you are obligated to separately collect electric and electronic devices and drop them off at a licensed collection and return centre, e.g. at a municipal collection point. Old batteries or old rechargeable batteries that are not permanently installed must be removed beforehand and disposed of.

The following characters below the dustbin symbol stand for:

- Pb: Battery contains lead
- Cd: Battery contains cadmium
- Hg: Battery contains mercury

Old batteries must not be disposed of in the household waste: EU Directive 2006/66/EC obligates consumers to dispose of batteries/rechargeable batteries at a collection point (more information can be found at http://www.epbaeurope.net/). Returning batteries to communal collection points is free of charge for private households.

EU/EC - Declaration of Conformity

**Description of the
electrical equipment:**   **Clee**

Relevant guidelines:

2014/30/EU	Electromagnetic Compatibility Directive
	EMC Directive [L 096/79]
2014/35/EU	Low Voltage Directive, Annex IV [L 96/357]
2011/65/EU	Directive on the restriction of the use of certain hazardous
	substances in electrical and electronic equipment
	RoHS Directive [L 174/88]

Standards applied:

EN 61439-1:2011	Low-voltage switchgear and control gear assemblies
	Part 1: General definition
EN 61439-2:2011	Low-voltage switchgear and control gear assemblies
	Part 2: Energy-switchgear combinations

We hereby declare that the electrical equipment listed complies with the essential health and safety requirements of the EU directives. The manufacturer bears sole responsibility for issuing this declaration of conformity.

KWB Energiesysteme GmbH	St. Margarethen an der Raab 19.04.2024	
Authorised representative for the compilation of technical documents	Place, date	Helmut Matschnig, Managing Director

7.3 Technical data

Clee-Box	Unit	Type Clee
Weight	kg	2
Ambient temperature	°C	5-40
Ambient humidity	%	5-85
Dimensions (W x D x H)	mm	310 x 140 x 305
Energy		
Input voltage	VAC	230 VAC (TN-S or isolating trans-formers in unearthed IT networks)
Input frequency range	Hz	50/60 Hz
Fuse protection of the feed line		LS type B 10A – 2-pole (L/N), residual current device (RCD)
Electromagnetic interference	Environ-ment	Environment "B", household environ-ment

Keyword index

Notes

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