Instructions for Use

BRUNNER Heating Center BHZ 3.0

©2025





BHZ 3.0

Contents

1	Intr	Introduction						
	1.1	1 Purpose of this manual						
	1.2	Target audience						
	1.3	Validity of these instructions						
	1.4	Keeping of documents						
	1.5	Symbols and text style rules						
		1.5.1	Specified symbols	7				
		1.5.2	Text style rules	7				
	1.6	For your safety						
		1.6.1	Dangers and safety precautions	8				
		1.6.2	Warnings	9				
		1.6.3	Regulations	9				
		1.6.4	Obligations of our Natural Power Partners	10				
		1.6.5	Conformity	11				
		1.6.6	Conformity with drinking water hygiene BHZ 3.0	11				
2	Pro	duct d	escription	12				
	2.1	Intende	ed use	13				
	2.2	Identification plates1						
	2.3	Overvi	ew of components and connections on the BHZ 3.0 Heating Center	15				
3	Оре	eration	basics	18				
	3.1	1 Licenses						
	3.2	Data protection declaration of Ulrich Brunner GmbH1						
	3.3	Touch Display19						
	3.4	Overview of softkeys						
	3.5	Solar s	Solar system					
		3.5.1	Solar system display	25				
		3.5.2	Solar system Home view	25				
	3.6	Photov	voltaic connection	27				
		3.6.1	PV connection displays	27				
		3.6.2	PV connection in Home view	28				
	3.7	Bioma	ss heat generators	32				
		3.7.1	Natural Power boiler (HT) as heat generator	32				
			3.7.1.1 Display with Brunner Logwood Boiler	32				
			3.7.1.2 Display with Brunner Pellet Boiler					
			3.7.1.3 Display with third-party biomass boiler	34				
			3.7.1.4 Brunner wood boiler Home view	35				
		3.7.2	Heat generator Tiled stove / Fireplace (OT)					
			3.7.2.1 Tiled stove / Fireplace display					
			3.7.2.2 Brunner Pellet module display	38				
			3.7.2.3 Tiled stove / Fireplace Home view	38				
	3.8	Additional heating systems						
		3.8.1	Additional heating display	40				
		3.8.2	Additional heating Home view					

3.9	Heating						
	3.9.1	Heating circuits display					
	3.9.2	Heating Home view	43				
3.10	Hot wat	ter station	45				
	3.10.1	Plate heat exchanger display	45				
	3.10.2	Hot water storage tank (boiler) display	46				
	3.10.3	Hot water Home view	46				
		3.10.3.1 with plate heat exchanger (fresh water module)					
		3.10.3.2 with hot water storage tank (boiler)	47				
3.11	Trunk li	ne	48				
	3.11.1	Trunk line under Home					
3.12	Heat pu	Jmp	49				
	3.12.1	Displayed items in the Heating Home view	49				
	3.12.2 BHZ 3.0 with BWP						
	3.12.3	Heat pump under Home					
3.13	Individu	al settings	54				
	3.13.1	Display customization	54				
	3.13.2	Select or create heating programs	59				
	3.13.3	Hot water program settings	61				
	3.13.4	Absence periods	62				
	3.13.5	Circulation programs	63				
	3.13.6	Disinfection	63				
	3.13.7	Screed drying	64				
	3.13.8	Selection of lowering mode	64				
	3.13.9	Heating circuit frost protection	65				
	3.13.10	Summer/Winter switching	66				
	3.13.11	Permanent	66				
	3.13.12	Defining periods					
	3.13.13	Communication of the system	68				
3.14	Remote	access via myBRUNNER	69				
	3.14.1	Preconditions and instructions	69				
	3.14.2	Connect keypads to the Internet	70				
	3.14.3	Set up myBRUNNER	71				
		3.14.3.1 Registration	71				
		3.14.3.2 Logging in	81				
		3.14.3.3 Enabling for Service access	83				
		3.14.3.4 Brunner App	85				
		3.14.3.5 Synchronisation with network					
	3.14.4	Set up WLAN					
		3.14.4.1 Set up WLAN - during commissioning	86				
		3.14.4.2 Activate WLAN	87				
Clea	ning, n	naintenance, troubleshooting	89				
4.1	Spare p	part BHZ 3.0	89				
4.2	Acknowledge error messages90						
4.3	Cleaning and maintenance						
4.4	Notes o	on the update	90				

4

		4.4.1	Software from PC on the USB-Stick	
		4.4.2	Transfer the software from the USB stick to the control panel	
		4.4.3	What to do if the update does not start? - Display	93
5	Technical and commercial data			95
	5.1	Declara	ation of Conformity	95
	5.2 Dimension drawings			
	5.3 Technical Data			105

1 Introduction

1.1 Purpose of this manual

This document contains information about the BRUNNER Heating Center 3.0. Among others, you will find here information about:

- Safety and risks
- Assembly, installation and commissioning
- Product description and principles of operation
- Operating instructions and control description
- Cleaning and maintenance
- Fault finding and troubleshooting
- Decommissioning and disposal
- Technical and commercial data

1.2 Target audience

This document contains also information for the User of the heating system.

1.3 Validity of these instructions

This technical documentation is valid for the BRUNNER Heating Center (BHZ) 3.0 starting from October 2014.

Ulrich Brunner GmbH reserves the right to introduce technical changes, as far as they serve for technical progress, or if they are required by technical safety provisions.

1.4 Keeping of documents

IMPORTANT

READ CAREFULLY BEFORE USE

KEEP FOR FUTURE REFERENCE

The User is responsible for keeping of the BRUNNER Heating Center 3.0 documentation, as well as all other important documents.

1.5 Symbols and text style rules

1.5.1 Specified symbols

In this documentation, a distinction is made between:

Operating personnel as the **User of the system**, i.e. the end user, which has received instructions from the Contractor and does not necessarily have additional qualifications.

Operating personnel as the **Contractor**, i.e. the qualified professionals, which are entitled to perform the indicated specialist works.

In this document, the following symbols are used:

DANGER



A danger of high risk persists, which leads to severe injury or death, if this endangering situation is not avoided.

WARNING

A danger of medium risk persists, which can lead to severe injury or death, if this endangering situation is not avoided.

CAUTION

A danger of low risk persists, which can lead to minor or moderate injury, if this endangering situation is not avoided.



ATTENTION

There is a certain risk, which can lead to a malfunction or damage of the related system and all devices connected with it, if the indicated notifications are not followed.



NOTE

Additional helpful information

1.5.2 Text style rules

In this document, the following text style rules are in use:

Handling or operating instructions with several steps

Descriptions of operations or actions with several steps, when these steps must be performed in chronological sequence.

- 1. First working step;
- 2. Second working step;
- 3. Third step.
- \rightarrow Final result

Appearance of on-screen display text in this manual

For descriptions of settings performed on the BRUNNER Touch Display, the displayed text is shown as bold letters.

1.6 For your safety

1.6.1 Dangers and safety precautions

Assembly, installation and maintenance works may be performed only by a qualified Contractor.

• Only such activities should be performed, which are described in this manual.



Electrical shock

Electrical installation works may be performed only by a qualified Contractor.

- Electrical connections are under mains voltage. This can lead to electric shock.
- Please observe all valid regulations.



Risk of injury caused by hot water

High water temperatures can lead to scalding. Small kids or elderly people can be in danger even at lower temperatures.

The highest temperature setting of the connected hot water storage tank must not exceed 65°C.



Avoiding equipment damages and the resulting risks

Sprays, solvents or chlorine-based cleaning agents, paints, adhesives etc. can lead to equipment damage under some circumstances.

Never try to modify for some reason any part or equipment of the heating system, if these modifications could impair the operational safety.

The fresh water module can be used only in such situation, if there are no galvanized pipelines within the home piping system, because the heat exchanger is soldered with copper.



Risk of freezing

When the BHZ 3.0 is not in use for a longer period (e.g. during holidays) in a room without heating, there is a risk that the water will freeze in pipelines. Freezing water can damage the pipelines and cause consequential damages.

- Please instruct the user about the frost protection mode of the heating system.
- The BHZ 3.0 must be installed in rooms with a temperature range between 0 °C and 40 °C.



DANGER

This device can be used by kids above 8 years and persons with limited physical or mental ability, or lacking experience and knowledge, only if they are supervised or have received instructions on safe operation of the device and they are able to understand the resulting dangers. Kids may not play with this device. Cleaning and usermaintenance cannot be performed by kids without supervision.

1.6.2 Warnings

Warnings in this document are emphasized by pictographs and signal words.

The pictograph and the signal word indicate the type, the source or causes of a certain action. The necessary measures or calls for action are indicated.

The result or purpose is shown as well. These warnings refer to possible misuse of the system, which seems likely based on our experience. The residual risks are indicated too.

The residual risks remain:

- despite the means for integration of safety during construction,
- despite the safety precautions,
- despite the additional protective measures.

For certain points, there are also given some recommendations and instructions on the application of protective measures, including personal protective equipment. Special safety instructions and recommendations are applied for transport, handling and storage. Instructions for safe setup and maintenance include separate protective measures too.

Structure of warnings

The warnings that precede each assembly step, are shown as follows:



Hazard for humans Type, source and causes of danger

Measures Calls for action

→ Result or safe use



Hazard for the system Type, source and causes of danger

Measures Calls for action

→ Result or safe use

1.6.3 Regulations

Among others, the following regulations and guidelines must be observed during installation, commissioning and maintenance of the BHZ:

Legal requirements:

- the legal regulations for accident prevention
- the legal regulations for environment protection
- the provisions of the industry associations
- the "Energy Saving in Buildings" law (Energieeinsparungsgesetz-EnEG)
- the Energy Saving Act (Energieeinsparverordnung-EnEV)
- the Master Fireplace Act (MFeuVo) of the respective Federal Countries (FeuVo)
- the Country Building Code and the list of technical building regulations
- the governmental, regional building codes and boiler room equipment listings.

Standards and Guidelines:

- the relevant safety conditions included in DIN, EN, DVGW, TRI and VDE standards
- EN 12828 Heating systems in buildings Hot-water heating systems (2002)
- EN 12831 Heating systems in buildings. Method for calculation of the design heat load
- EN 14597 Temperature control devices and temperature limiters for heat generating systems
- DIN 4753 Water heating systems for drinking and process water
- DIN 4109 Sound insulation in buildings, supplementary sheets and permissions
- DIN 1988 Technical rules for drinking water installations (TRWI)
- DIN EN ISO 4126 or TRD 721 Safety devices for protection against excessive pressure Safety valves
- DIN VDE 0100 Part 540 2007-06 DIN VDE 0100-540 Setting up low voltage installations
- DIN VDE 0100 Part 701 2008-10 DIN VDE 0100-710 Low voltage installations
- DVGW worksheets W551 and W552 Technical measures to reduce the growth of Legionellae
- VDI 2035 Prevention of damage in hot-water heating systems (limestone formation, corrosion) (2009)
- VDI 4708 Heating equipment (pressure maintenance, venting, degassing) (2012).

1.6.4 Obligations of our Natural Power Partners

To ensure the proper functioning of the BHZ 3.0, observe the following guidelines:

- Perform works only if you have the necessary expertise.
- Perform only such activities, which are indicated or described in this manual.
- Please ask an expert for instructions on the operation and maintenance of the system and potential hazards that may arise during operation.

BRUNNER

1.6.5 Conformity



Hereby we declare as the manufacturer that this product - BRUNNER Heating Center 3.0 (BHZ 3.0) - complies with the basic guidelines for sale in the EU.

1.6.6 Conformity with drinking water hygiene BHZ 3.0

The company Watts Industries Deutschland GmbH, Godramsteiner Hauptstraße 167, 76829 Landau as supplier of all water-bearing components of the BRUNNER central heating system BHZ 3.0

makes the following declaration to

Ulrich Brunner GmbH, Zellhuber Ring 17-18, 84307 Eggenfelden:

WATTS	Watts Industri	es Deutschland Gmbl
	Gookamsteiner Hauptstraße 167 76 7: +49 6341 9656 0 F: +49 6341 9656 560	829 Landau Deutschlan WIDEi@wattswater.com
Konformitätserklärung für Umweltbundesamtes ("Be Trinkwasser"(Metall-Bewer	Watts Produkte im Hinblick auf die sogenannte Positivliste wertungsgrundlage für metallene Werkstoffe im Kontakt mit tungsgrundlage])	des
Sehr geehrte Damen und H	erren,	
hiermit bestätigen wir, dass Anforderungen der allgeme konstruiert, ausgelegt und j	s die von der Watts Industries Deutschland GmbH vertrieben ein anerkannten Regeln der Technik entsprechen und dass na gefertigt wird.	en Produkte den ch diesen Regeln
Alle zurzeit zutreffenden No hierbei berücksichtigt.	ormen und Richtlinien für den deutschen und europäischen N	Aarkt werden
Dies bezieht sich selbstvers Verwendung von Werkstoff	tändlich auch auf die Anforderungen der Trinkwasserhygiene fen gemäß§ 17 Trinkwasserverordnung für trinkwasserberüh	hinsichtlich der rte Produkte.
Die von Watts Industries De Umweltbundesamtes "Bew	eutschland GmbH verwendeten Werkstoffe entsprechen der vertungsgrundlage für metallene Werkstoffe im Kontakt mit T	Liste des rinkwasser"
(Metall-Bewertungsgrundla GmbH bereits seit Jahren in Werkstoffen einsetzt, ist ke sogenannte "Positivliste" er	age, in der jeweils gültigen Fassung). Da die Watts Industries Deutschland nur Bauteile in Kontakt mit Trinkwasser aus die ine weitere Umstellung bei den Watts-Produkten im Hinblick rforderlich.	Deutschland esen gelisteten auf diese
Mit freundlichen Grüßen		
Watts Industries Deutschlar	nd GmbH	
René Effelshere		
Managing Director DACH		
tive Water Solutions	Sitz Landau, Registergericht Landau HRB 30826 Geschäftstümer: Bané Effekterg. Olivier Giverdon	Watts.co

2 Product description

The BRUNNER Heating Center (BHZ) 3.0 consists always of a Hydraulic Box and a dedicated System Storage. Together they form a functional unit.

The **Hydraulic Box** is capable of handling power ranges from 15 up to 50 kW. The external dimensions of the Hydraulic Box are identical for all variants.

The System Storage tank is available with capacities of 750, 1000, 1500 and 2000 liters.

The basic combination of the BHZ 3.0 includes a Hydraulic Box (shown right) and a System Storage; both are connected with each other. The necessary expansion tanks for the heating and solar circuits are not shown in the picture. They must be provided on-site. The connections for the System Storage are present on the side of the Hydraulic Box.

The connection ports can be on the left, as well as on the right side of the Hydraulic Box, depending on the local conditions on site.



All connections for the heating circuits, boiler supply and return lines, solar and hot water circuits are installed at the top of the Hydraulic Box. When additional heating is used, the supply and return lines are connected to the lateral headers 1 and 8. The components inside the Hydraulic Box are completely pre-assembled. Optionally, the Touch Display can be also installed in the living area for more comfortable control of the heating system. Up to 5 displays can be connected in total.



When the Hydraulic Box is connected to a storage tank which is provided by other manufacturers than Ulrich Brunner GmbH, it can lead to unwanted heat flows. The heating system will not work properly at some circumstances.

In this case, Ulrich Brunner GmbH cannot be held responsible for faulty operation.

The functional warranty of the BHZ 3.0 is valid only for the combination of a Hydraulic Box provided by Ulrich Brunner GmbH with the appropriate and dedicated System Storage.

2.1 Intended use

The BHZ 3.0 is designed and built according to generally accepted engineering standards.

The Hydraulic Box controls the coordination of all connected heat generating devices and all heat consumers.

The BRUNNER System Storage is optimized for use as buffer tank with renewable energy sources. The purpose of the System Storage is the collection, storage and supply (on demand) of all energy streams.

The following connections on the BHZ 3.0 are possible:

- as heat generating devices: e.g. a logwood boiler, a pellet boiler, a wood chips boiler, a solar heating system with/without system separation, oil or gas boiler, a heat pump.

- as heat consumers: e.g. one or two heating circuits, additional (up to 6) heating circuits are possible with external extension boards (EWPs). Heat consumers can include floor heating systems, radiators, wall heating systems or a swimming pool. Domestic hot water heating is possible either by installing a fresh water module, or by using a hot water storage tank.

- additional buffer tank as extension of the System Storage capacity.

Connecting of incompatible buffer tanks or other equipment may result in deviations of the intended application and all their unintended and undesirable consequences. Always seek advice from an expert craftsman; remember that all works should be carried out by authorized companies. All warranty claims are void, if the above requirements are not held.

Nevertheless, in case of incorrect or improper use, dangers to life and limb of operating personnel or third parties may arise. Such cases of incorrect or improper use can also lead to equipment damage and other property damage.

2.2 Identification plates



Illustration 1: BHZ 3.0 identification plate

The following information can be found on the Hydraulic Box identification plate:

- 1. Name of the manufacturer
- 2. CE Certification, Marking according to Elektro-laws
- 3. Designation of equipment
- 4. Year built
- 5. Type
- 6. Address and contact data of the manufacturer

BRUNNER



The rating plates can be found inside the housing of the hydraulic box. One plate is attached to the side panel, the second is on the cover of the electric box.

The identification plate is found on the System Storage upper part, under the insulating trim. This identification plate is valid for the System Storage, as well as the Standard Storage Tank from BRUNNER.



BRUNNER®	Ulrich Brunner GmbH Zellhuber Ring 17-18 D-84307 Eggenfelden Tel.: 08721 / 771-0 Fax: 08721 / 771-10 http://www.brunner.de info@brunner.de				
Тур:	Pufferspeicher 750L				
Fabrikationsnummer:					
Zul. Betriebsüberdruck:	3 bar				
Max. Betriebstemperatur:	95°C				
Behälterdurchmesser ohne Isolierung:	790 mm				
Nicht für Trinkwasser					
YEEK					

The following information can be found on the System Storage identification plate:

1. Name of the manufacturer

2. Address and contact data of the manufacturer

3. Type: Application range of the device and volume specifications

4. Manufacturing number

5. Approved operating pressure in bar6. Maximum operating temperature in degrees Celsius

7. Vessel diameter without insulation in mm

8. Note

Illustration 2: Position of the identification plate

2.3 Overview of components and connections on the BHZ 3.0 Heating Center



Illustration 5: setup example: Hydraulic Box with System Storage 1500 Liter

1	Supply, additional heating, solar, solid fuel boiler	19	Heating circuit 2, supply
2	Supply, hot water,	20	Supply for additional heating connection
3	Supply, heating circuit 3+4	21	Supply for the 3rd & 4th heating circuit con- nection
4	Supply, solar, mid of tank,	22	Return for the 3rd & 4th heating circuit con- nection
5	Return, hot water	23	Return for additional heating connection
6	Return, heating circuit	24	Heating Center controller board
7	Return, solar heating system	25	Bottom tank sensor (S5)
8	Return, connection for additional heating/sol- id fuel boiler	26	System Storage insulation
9	Cold water	27	Connection for additional tank (Standard Storage Tank type)
10	Circulation	28	Connection for additional tank (Standard Storage Tank type)
11	Hot water	29	Connection for additional tank (Standard Storage Tank type)
12	Heat pump (or. Solar heating system)	30	Connection for additional tank (Standard Storage Tank type)
13	Heat pump (or. Solar heating system)	31	Laminar loading cylinder
14	Solid fuel/biomass boiler or tiled stove	32	Baffle for separation of storage tank areas for drinking water and heating
15	Solid fuel/biomass boiler or tiled stove	33	Vent pipe
16	Heating circuit 1, return	34	Upper tank sensor (S3)
17	Heating circuit 1, supply	35	Mid of tank sensor (S4)
18	Heating circuit 2, return	36	Mid of tank sensor (S4.1)

For detailed views and descriptions: refer to chapter "Hydraulic Box" and "System Storage" - **Hint**: The numbering of parts in detailed drawings is the same as above.

3 Operation basics

The images shown in the installation and operating instructions (including display views) do not claim to be an exact representation of the displays on your system. These depend on the installed system components, their measurement functions, control variants and set parameters. In some cases, these system parts are not part of the standard versions, but are provided as optional accessories.

3.1 Licenses

For the visualization of our user interface we use an open source operating system, which is subject to different license models.



You can see the licenses used in the software under the menu: "Settings" \to "Display" \to "Licenses/Contact"

Written Offer (open source software)

Our product contains software and sourcecode whose rightholders license it under the terms of the GNU General Public License, version 2 (GPLv2), version 3 (GPLv3), the GNU Lesser General Public License, version 2.1 (LGPLv2.1), version 3 (LGPLv3) and other open source software licenses.

If you send us a request for oversending the licensed source code of the software, please use the following address:

Ulrich Brunner GmbH Zellhuber Ring 17-18 84307 Eggenfelden info@brunner.de

Upon request, we will send you a CD-ROM with the provided source codes. You have to pay the costs for material, packaging and delivery.

The offer is valid for at least three years from the date of delivery of the product on which the software is installed, and as long as we can offer spare parts and customer service for this product, or from the time of downloading the software from our homepage.

Please include the type of product for which you want to receive the source code in your request.

3.2 Data protection declaration of Ulrich Brunner GmbH

Notes on protecting your personal data

Ulrich Brunner GmbH always endeavors to save and process only the personal data that are necessary and indispensable or that are required to be stored and processed by law.

We strictly adhere to the requirements of the General Data Protection Regulation (GDPR) and the Federal Data Protection Act (BDSG and BDSG new).

We do not pass on personal data to third parties; unless we are required to do so by law or by court order.

Persons under the age of 18 should only transfer personal data to us with the consent of their legal guardians. If there is reason for a complaint, it can be addressed to the responsible state authority.

The required contact details can be found on the website: https://www.lda.bayern.de. If other sources of information or services (websites, apps, etc.) from Ulrich Brunner GmbH are used, the data protection declarations listed also apply.

Purpose of data processing

We only collect, store and process personal data for the express or implicitly agreed purpose. These are e.g. Address data for processing an information request, or for making offers, invoicing etc. or bank data for processing payment transactions. Without an independent declaration of consent, this data is not e.g. used to send as newsletter or similar purpose.

Saving and deleting

We only store personal data for as long as is necessary to fulfill the agreed purpose or as required by law. If the agreed purpose is fulfilled or there is no longer a legal basis for storage, this data will be deleted as far as possible. If deletion is not technically possible, the data will be marked in such a way that further processing is impossible.

Deletion requests, requests for information, requests for changes or revocation of a declaration of consent can be directed at any time to the data protection officer of Ulrich Brunner GmbH.

Responsible for data processing

Ulrich Brunner GmbH Zellhuber Ring 17-18 D-84307Eggenfelden E-Mail: info@brunner.de Tel.: 08721/771-0 You can contact the data protection officer under: datenschutzbeauftragter@brunner.de.

3.3 Touch Display

The BHZ 3.0 is equipped with a touch-sensitive display to make operation simple and easy to understand. The touch-sensitive display is a combination of input and output device, which enables direct control of regulatory functions by touching the screen itself, or certain parts of the displayed screen.

The controls are activated directly by tapping or touching. You can do it with your finger, or using a special stylus.

BRUNNER





Illustration 6: Display operation by tapping or touching

Illustration 7: Display operation with sliding bars

To indicate the selected option, the corresponding softkey will turn orange for a short time when pressed (touched), and then it will become dark again.

Available softkeys are represented by: symbols (e.g. Home, Sensors, Menu, etc.), sliding bars, check boxes, text or number fields, or key pads.

3.4 Overview of softkeys

General view of display screen

Depending on installed components, there are small differences in actual view of display screen.

In example 1: a BHZ 3.0 with logwood boiler as main energy source and additional heating system with solar heating and gas boiler. Energy receivers are represented by 4 heating circuits (for heating) (connected with EWP-HK) and a hot water station.



When all connected systems cannot be shown in a single Home view (as in our example, which includes the 3rd and 4th heating circuits), the view can be expanded. Just click the right arrow (11):



In example 2: a BHZ 3.0, which has a BRUNNER heat pump green as an energy supplier. The energy consumer is 1 heating circuit and the hot water station. In addition, the cooling function of the heat pump is active.





Home view

Start page, starting point for all applicationsgraphic overview of system



Home

Solar system additional heating = heat generator 2)

= softkey for the existing solar heating system

- several parameters of the solar heating system can be shown by tapping this soft-key.

BRUNNER-Logwood boiler

the main heating device = Biomass boiler (HT) or Fireplace (OT)

3 Logwood Pellets Tile stov

store or Logwood boiler by customer BRUNNER Pellet boilerl or pellet boiler by customer

Tiled stove Kitchen stove

BRUNNER

Additional heating







- Gas boiler
- Oil boiler
- Heat pump
- Electric heating
- Wood boiler
- Pellet boiler etc. from other suppliers.



Heating

6

Gas boile

BRUNNER-Heat Pump



Heating

= softkey for Settings of the existing heating circuits



Hot water

= softkey for drinking water heating menu



Settings

- = softkey for Settings of different parameters
- = softkey for system configuration
- accessible only with PIN code (two different codes for the User and the Contractor);

Info

- = a Help function
- additional help messages are displayed for the active view;

- if there are recent error messages available, the softkey **Info** is highlighted in orange.



Heating circuits

Info

9 - for each heating circuit there is a separate display field/softkey. Meaning of displays: see chapter "Heating circuits display".

Piping sections

10 The color of the pipelines changes according to the status of the corresponding pump or additional heating. When the pump or additional heating is not active, the pipelines turn gray. When the pump or additional heating is active, the pipelines turn red.

Arrow for expanded view of the installed system, if it is not completely visible in Home view.Hot water = plate heat exchanger

- red color = drinking water heating is active + energy retrieved from the buffer tank (kW)
- 12 gray color = currently no drinking water heating
 - in the upper part of the field: Circulation only when it is active.
 - in the lower part of the field displays permanently Hot water





© 2025 Brunner GmbH

Solar system 3.5

3.5.1 Solar system display

75 °C	If another collector field is present (Sensor shown only.
Solar	when Pump 1 is active, but no energy is s play is shown
2,2 kW	Solar energy is supplied and the relevant of The last two displays change in certain int ter (30 seconds) - between temperature an
Error Solar	Error indicator: errors are indicated, when ning, but no volume flow is present.

when Pump 1 of the Solar system is not active, the collector temperature S 7 is shown. r 7 and Sensor 17), then the hottest sensor is

upplied yet, then the collector temperature dis-



value is shown.

ervals - according to the Display mode paramend power measurement values.

there is a sensor fault, or when the pump is run-

3.5.2 Solar system Home view

By clicking the Solar system symbol or the corresponding symbol on the upper menu bar, you can get access to the following information about the Solar system:



Illustration 8: Solar: Page 1

Illustration 9: Solar: Page 2

Short name	Unit	Explanations
S7 Collector	°C	Collector temperature
S6 Solar input	°C	Temperature sensor for solar input
Solar power	kW	Solar heating power
T1 Volume flow	L/min	Volume flow of solar heating



Output

By tapping the softkey **Output** you can get information about the solar heating output in relation to time in which it was supplied:

Today	= the output of the solar heating in kWh in relation to clock time (h)
Yesterday	= the output of the solar heating in kWh in relation to clock time (h)
Last 5 days	= the output of the solar heating in kWh in relation to the last 5 days
Last 4 weeks	= the output of the solar heating in kWh in relation to the last 4 weeks
Last 6 months	= the output of the solar heating in kWh in relation to the last 6 months
2014	= the output of the solar heating in kWh in relation to this year
2013	= the output of the solar heating in kWh in relation to the previous year
2012	= the output of the solar heating in kWh in relation to the given year

Regulation



Short name	Unit	Explanations		
Regulation	Selec- tion box	Temperature opti- mized (Summer mode)	The solar heating starts at a temperature difference between collector and buffer top. The pump adjusts the flow to a constant deltaT between collector and buffer top. Optimal choice for Summer mode, to supply hot water from solar energy.	
		Output optimized (Winter mode)	The solar heating starts at a temperature difference between collector and buffer bottom. The pump ad- justs the flow to a constant deltaT between collector and buffer bottom. Optimal choice for Winter mode, to supply the heating circuits with solar energy.	
		Automatic	Automatic switching between Temperature optimized (Summer mode) and Output optimized (Winter mode), depending on whether the heating circuits are in oper- ation.	
A04 V. load Solar A04 V. load Solar and the loading takes place in		= A04 Valve for Solar loa on relation of collector te peratures, the loading ta tures, the loading takes	ading - Top/Middle; feeding from solar system, depending emperature to buffer temperature. At high collector tem- akes place in buffer top area. At low collector tempera- place in buffer mid area.	
A 01 P. Solar Prim.	%	= A01 Solar primary circ	uit pump; variable speed pump with PWM control	
S8 Solar return °C = 5		= S8 Solar return sensor for heat metering		
A 02 P. Solar Sec. = A02 Solar secondary circuit pump; va		circuit pump; variable speed pump with PWM control		
S16 Coll. extern °C S		S16 is a second outdoor/collector sensor for the solar system.		

3.6 Photovoltaic connection

3.6.1 PV connection displays

The displays for the PV connection in the Home view have the following meanings:





3.6.2 PV connection in Home view

By clicking the PV connection symbol or the corresponding symbol on the upper menu bar, you can get access to the following information about the PV connection:

BRUNNER

Power el. heating	
Activation Offer 12 Elec. Heater 9,0 kW 6 1 Flec. Heater 9,0 kW 7 Flec. Heater 9	
Activation mode Full load	
Periods Heat outputs	

Illustration 10: PV: page 1

Illustration 11: PV: page 2*

*see also: chapter "The connection of a power storage"

Short name	Unit	Explan	Explanations		
Activation	Select the	operatior	n mode for the electric heater:		
	Need		The client can switch the heating on at demand (as additional heating only). The electric heater is supplied with energy from the public grid		
Offer			The additional heating function is based on the energy supplied by the photo- voltaic system. The electric heater is supplied only with energy produced by the PV system.		
	Off		The electric heater (Need and Offer) is turned off.		
Elec. Heater	kW	the ene	rgy which is transferred to the buffer tank		

Short name	Unit	Explan	anations					
	Heat storage in the boiler for:							
			Heating acc. to Need	Heating acc. to Offer				
	Off		Electric heater off, A3 pump is off	Electric heater off, A3 pump is off				
	Frost protection		Electric heater on: S11≤ Frost prot. from AND S4 <tmin< td=""><td>Electric heater on: S11 ≤ Frost prot. from AND S4<tmin buffer<="" td=""></tmin></td></tmin<>	Electric heater on: S11 ≤ Frost prot. from AND S4 <tmin buffer<="" td=""></tmin>				
			Electric heater off: S11≥ Frost prot. from + dT Frost prot. OR S4 > Tmin Buffer + dT S4	Electric heater off: S11≥ Frost prot. from + dT Frost prot. OR S4 > Tmin Buffer + dT PV				
			Pump A3 on: S3 ≥ Tmin Buffer + dT S4 AND Electric heater on	Pump A3 on: S3 ≥ Tmin Buffer + dT PV AND Electric heater on				
			Pump A3 off : S3 ≤ (Tmin Buffer + dT- pump-start) OR Electric heater off	Pump A3 off: S3 ≤ (Tmin Buffer + dT-PV- dT-pump-start) OR Electric heater off				
	Hot water		Electric heater on: S3< set temperature	Electric heater on: at electric energy ex- cess AND S3 ≤ T-set-HW-PV				
			Electric heater off: S3 ≥ set temperature + dT S3	Electric heater off: at no electric energy excess OR S3 ≥ T-set-HW-PV + dT PV				
			Summer:					
Activation			On , when: S3 < Set temperature	Electric heater on: at electric energy ex-				
mode	Heating/HW		Off , when: S3 \geq Set temperature + dTS3	set-HW-PV				
			Winter:	Electric heater off: at no electric ener- gy excess OR S4 ≥ T-set-HT-PV + dT PV AND S3 ≥ T-set-HW-PV + dT PV Pump A3 on: S3 ≥ T-set-HW-PV AND S4 < T-set-HT-PV AND Electric heater on				
			On , when S3 < Set temperature OR S4 < T set HCn + dT set-act for more than dt-					
			set-act Pump A3 on: S3 ≥ Set temp. + dTS3					
			AND Electric heater on	Pump A3 off: S3 ≤ T-set-HW-PV + dT-				
			Pump A3 off: S3 ≤ Set temp. + dTS3 - dT-pump-start OR Electric heater off	pump-start OR Electric heater off				
	Full load			Electric heater on: at electric energy ex- cess AND S4 ≤ T-set-full-load OR S3 ≤ T- set-full-load				
			-	Electric heater off : With no excess elec- tricity OR S4 \geq T-set-full-load + dT PV AND S3 \geq T-set-full-load + dT PV Pump A3 on: S3 \geq T-set-full-load AND Electric heater on				
				Pump A3 off : S3 ≤ T-set-full-load - dT- pump-start, OR Electric heater off				
Program	as set in Periods for the operational status of the system: for switching the electric heater On or Off (Need or Offer) (see also: "Heating program settings/ Creating a new program")							

BRUNNER



By tapping the softkey **Heat outputs** you can get informationabout the heating output generated from excessive PVsystem power in relation to time in which it was supplied.

The energy is registered only when it was transferred tothe electric heater, independent of the **Offer** or **Need** setting.If there is a change between these two settings, theheat outputs are shown as added.



Today	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, in relation to time (h)
Yesterday	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, within the last 24 hours (h)
Last 5 days	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, within the last 5 days
Last 4 weeks	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, within the last 4 weeks
Last 6 months	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, within the last 6 months
2014	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, in the current year
2013	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of- fer) or/and consumed by the energy consumers (Need) in kWh units, in the previous year

2012	= the output energy of the photovoltaic system, which was transferred to the buffer tank (Of-
2012	fer) or/and consumed by the energy consumers (Need) in kWh units, in the indicated year

3.7 Biomass heat generators



NOTE As main heat generators for the BHZ 3.0 can be applied alternatively a solid fuel boiler (logwood or pellet boiler) or tiled stoves / fireplaces.

Both options are described in this manual. Please refer to data, which correspond to your heating system.

3.7.1 Natural Power boiler (HT) as heat generator



NOTE

A distinction is made here **between BRUNNER boilers (existing boiler control board) and other boilers provided on site.**

In the case of BRUNNER boilers, data exchange is performed via CAN bus, which includes also feedback information on combustion status.

Depending on the boiler variant (logwood, pellets, wood chips), a corresponding description of the configured heat generator is displayed on the screens. The connected boiler type is defined during configuration of the Heating Center.

3.7.1.1 Display with Brunner Logwood Boiler

The display of heat generator as a Natural Power boiler (a logwood boiler) in Home view has the following meanings:



Off corresponds to the operational status of the Natural Power boiler, as well as *PowerOn*, *StandBy*

and Relay test, Manual cleaning, Rust protection, Lambda calibration and Frost protection too.



Ready corresponds (as above) to the operational status of the Natural Power boiler, as well as *PowerOn*, *StandBy* and *Relay test*, *Manual cleaning*, *Rust protection*, *Lambda calibration* and *Frost protection* too.

However, the EWP Basic (Basic extension board) is switched on too.



this is an indicator of the current boiler power, The boiler remains in the operational status *Light-up*, *Combustion* or *Glow keeping*.



Active

Active or the power indication corresponds to the operational status of the Natural Power boiler, as well as *Light-up, Combustion,* or *Glow keeping*, but there is no power measurement value.



Trouble corresponds to the operational status of the Natural Power boiler, such as *Alarm* or *Not connected*

3.7.1.2 Display with Brunner Pellet Boiler



- corresponds to the following operational status of the pellet boiler: *PowerOn, StandBy* and Relay test, Ash removal, Pellet feeding, Manual cleaning, Lambda calibration, Rust protection.



- corresponds to the following operational status of the pellet boiler: *PowerOn, StandBy* and Relay test, Ash removal, Pellet feeding, Manual cleaning, Lambda calibration, Rust protection.

At the same time, the EWP Basic is switched on.



- corresponds to the following operational status of the pellet boiler: *Light-up, Combustion, Burn-out* or *Frost protection..*



- corresponds to the following operational status of the pellet boiler: *Light-up, Combustion, Burn-out* or *Frost protection.* At the same time, the EWP Basic is set to ON. However, no power is delivered.



- corresponds to the following operational status of the pellet boiler: *Not connected* or *Alarm.*

3.7.1.3 Display with third-party biomass boiler

The display of a third-party heat generator (in this example, a logwood boiler), provided by other manufacturers than BRUNNER, has the following meanings in Home view:

Off	The heat generator is set to Off. It is not ready for operation.
Ready	<i>Ready</i> corresponds to the operating mode setting On , but there is no demand for heat;
53 °C Logwood	this is the indication of the current boiler power, if there is any.
Active	The heat generator is Ready for operation (On), but it does not supply heat yet (boiler pow- er=0).
Error	This error message indicates a malfunction: e.g. when no heat is supplied, if a sensor is faulty, or emergency mode is active.

3.7.1.4 Brunner wood boiler Home view

By clicking the softkey for Biomass heat generator (e.g. Brunner Logwood Boiler or Pellet Boiler = a boiler control board is present), you can retrieve or set the following data:

Home	Solar Logwood GAS	ating Water Settings Info	Home	Solar Logwood	GAS Heating	Hater Settings	t i Info
	Boiler On			Pump	Off		
gwood	Boiler 53 °C	Start for Part load Program Day	gwood	Return	64 °C		
III Lo	Output 0,0 kW	Periods	Lo				
		08:45 hour (Friday, 24. July 2015) 🛛 🕀			08:	45 hour (Friday, 24. July 2015)	

Illustration 13: Menu Page 1 Logwood boiler

Illustration 14: Menu Page 2 Logwood boiler

Text	Unit	Explanations			
Boiler	Select	to change the operating status from On to Off immediately.			
Status		Indication of the active operating mode: Choose between: <i>Off, Ready, Ignition, Active, Combustion</i>			
Boiler	°C	Boiler temperature			
Power	kWh	indicates the current power supplied by boiler			
Resid.heat	On/Off	Choice of residual heat usage: On or Off			
Start for (only with Brunner	The BRUNNER Logwood Boiler is started, when the buffer tank temperature falls below a cer- tain value. The "Start at" status depends on this.				
Logwood Boller)	Start at:		Condition:		
	Frost protection		S11 (outdoor temperature) ≤ "Frost protection from" and S4 (Buffer mid sensor) < "Tmin Buffer"		
	Hot water		S3 (Buffer top temperature) < "Set temperature"		
	Heating		S4 (Buffer mid temperature) < "T Set HC": activated when the supply temperature on S4 falls below a calculated value;		
	Part load		Summer mode: S3 (Buffer top temperature) < "Set temperature" Winter mode: S3 (Buffer top temperature) < "Set temperature" or: S4 < highest calculated HC supply temp.		



Text	Unit	Unit Explanations			
Activated for (only with Brunner	the combustion process in a pellet boiler starts and ends, when buffer tank temperature is be- yond defined thresholds (i.e. lower or higher than set).				
Pellet Boiler)	Selection for automatic reheating:				
	Full load		Summer mode: On: S3 (Buffer top temperature) < "Set temperature"		
	Part load		Summer mode: On: S3 (Buffer top temperature) < "Set temperature" Off: S4 (Buffer mid temperatur) ≥ "Set temperature"+ "dT S4" Winter mode: On: S3 (Buffer top temperature) < "Set temperature" or S4 (Puffertemperatur mitte) < largest calculated HC supply temp. Off: S4 (Buffer mid temperatur) ≥ "Set temperature" + "dT S4" and S4 (Buffer mid temperatur) ≥ largest calculated HC supply temp. + dT S4"		
	Frost protection		 On: S11 (outdoor temperature) ≤ "Frost protection from" and S4 (Buffer mid temperature) < "Tmin Buffer" Off: S11 (outdoor temperature) ≥ "Frost protection from" + "dT Frost protection" or S4 > "Tmin Buffer" + "dTS4" 		
	Hot water Heating		On: S3 (Buffer top temperature) < "Set temperature" Off: S3 (Buffer top temperature) ≥ "Set temperature" + "dT S3"		
			 On: S4 (Buffer mid temperature) < "T Set HC" Off: S4 (Buffer mid temperature) ≥ "highest calculated HC supply temp." + "dTS4" 		
Program		Selection of a pre-defined program for automatic reheating; within these periods the selected variant for automatic reheating is active:			
		alway	ys active	= the automatic reheating is permanently active	
		Day		= the automatic reheating runs according to "Day" pro- gram	
		Night	t	= the automatic reheating runs according to "Night" program	
		New	1	individually defined programs	
	New		2	individually defined programs	
		New 3		individually defined programs	
Output	Softkey				
Periods	Softkey				
<i>Menu - Page 2</i> : Importand parameter - Wood boiler.					
Output

- = presentation of energy output in kWh within the given periods:
- today;
- yesterday;
- last 5 days;
- last 4 weeks;
- last 6 months:
- this year;
- previous year;
- the year before;



Periods

- overview of periods in which a logwood or pellet boiler is in Ready mode and can be activated automatically. The periods of readiness are shown in the form of an hourly schedule.

The orange highlighted squares mark the periods of readiness.

In the selection window **Program** you can open other factory-defined or individually created programs.

By tapping the overview / hourly schedule, you can open the Settings page for a particular day:

By selecting the periods 0-6, 6-12, 12-18 and 18-24 you can mark the whole row in orange or gray color. The single squares can be marked orange or gray by touching too.

Factory-defined programs cannot be overwritten.

If you wish to change the program name, a keypad is displayed automatically after tapping the **Program** softkey on the Settings page in lower left corner.

New programs can be always overwritten or renamed.

Refer to chapter "Individual settings" / "Defining periods"



Illustration 15: Hourly schedule



Illustration 16: Settings page for Programs

3.7.2 Heat generator Tiled stove / Fireplace (OT)

3.7.2.1 Tiled stove / Fireplace display



Tile stove

The tiled stove is in operation and the current temperature and power are displayed alternately.

this indication is displayed in case of error

3.7.2.2 Brunner Pellet module display

Heating operation is possible only in combination EOS (electronic stove control) with Pellet module. It is not supported for a combination with tiled stove, kitchen stove or fireplace boiler (automatic start of heating operation is not possible).

Status messages for Pellet module are shown in Additional heating window, when no Additional heating 1 is present. The status of tiled stove is always shown in the Tiled stove field.

3.7.2.3 Tiled stove / Fireplace Home view

By clicking the tiled stove symbol on the upper menu bar in the Heating Home view, or by clicking the "Tiled stove" symbol in Home view, you can access the following screens:

Home	Solar	Tile stove	4 Strom	Heating	Water	Settings	I Info
G	S12/S	T34 Boiler	87,2 °	°C Re	eturn	60	9,3 °C
le stov	Outpu	ıt	21,2 k	w			
Ţ		Outpu	ıt				
-	_	_	_	14:04 hc	our (Wednesday,	8. March 2017)	

Text	Unit	Explanations
Boiler	°C	Boiler temperature
Power	kW	Tiled stove heating power
Output	kWh	Softkey - the energy output of the tiled stove in given time intervals is shown
Pump		Status of the boiler pump: Off or On status
Return	°C	Temperature of return line

3.8 Additional heating systems

3.8.1 Additional heating display

The following example refers to an Oil boiler as 1st additional heating. The same or similar display content applies also for a Gas boiler or Electric heating, and a second installed additional heating.



3.8.2 Additional heating Home view

Depending on the installed and configured additional heating systems, you can access the operational data of the relevant systems (Ex. with 2 Additional heating).

Home	Solar Logwood Gas boiler	ating Water Settings Info	Home	Solar Tile stove	OIL Heatin	ng Hater Settings Info	
	Gas Off	Emission test Off		Electric	Off	Emission test Off]
Jas	Status Off	Activated for Full load	ectric	Status	Off	Activated for Full load Program always active) ר
	Output 0,0 kW		El				
	Output	Periods	•			Periods 13:18 hour (Monday, 27, July 2015)	

Illustration 17: 1. Additional heating Gas

Illustration 18: 2. Additional heating Electric

Additional heating

Short description	Unit	Explanatio	ons
GAS	Selection	On /Off	
Status		the current	operational status of Gas heating
Power	kW	the current	power output of the Gas heating
Emission test	Select	Off / On	
	Full load		Summer mode: On: S3 (Buffer top temperature) < "Set temperature" Off: S5 (Buffer bottom temperature) ≥ "Set temperature" + "dT S5" Winter mode: On: S3 (Buffer top temperature) < "Set temperature" or S4 (Buffer mid temperature) < highest calculated HC supply temp. Off: S5 (Buffer bottom temperature) ≥ "Set temperature" + "dT S5" and S4 (Buffer mid temperature) ≥ highest calculated HC supply temp. + "dT S4"
Activated for	Part load		Summer mode: On: S3 (Buffer top temperature) < "Set temperature" Off: S4 (Buffer mid temperature) ≥ "Set temperature" + "dT S4" Winter mode: On: S3 (Buffer mid temperature) < "Set temperature" or S4 (Buffer mid temperature) < highest calculated HC supply temp. Off: S4 (Buffer mid temperature) ≥ "Set temperature" + "dT S4" and S4 (Buffer mid temperature) ≥ highest calculated HC supply temp. + "dT S4"
	Frost protection		On: S11 (outdoor temperature) ≤ "Frost protection from" and S4 (Buffer mid temperature) < "Tmin Buffer" Off: S11 (outdoor temperature) ≥ "Frost protection from" + "dT Frost protection" or S4 > "Tmin Buffer" + "dTS4"
	Hot water		On: S3 (Buffer top temperature) < "Set temperature" Off: S3 (Buffer top temperature) ≥ "Set temperature" + "dT S3"
Heating			On: S4 (Buffer mid temperature) < "T Set HC" Off: S4 (Buffer mid temperature) ≥ "highest calculated HC supply temp." + "dTS4"
Program		as set in P for operation	eriods, the program for the existing additional GAS heating to be ready on in automatic reheating mode.
Output	kWh	By tapping put for a gi months; - t	the softkey Output you can access information about the energy out- ven period:- Today; - Yesterday; - last 5 days; last 4 weeks; - last 6 his year; - previous year; - 2 years ago (the year is shown)
Periods	Plan	Possible se (see chapt	etting of periods, when the additional heating <i>Gas</i> should be activated er "Defining periods")

3.9 Heating

3.9.1 Heating circuits display

For every connected heating circuit the same following items are displayed:

Text displayed in the upper part of the field: the active program

Family 6,1 kW Heizkreis 1

Family or Single or Seniors

= factory-defined programs, where the operating times of the heating circuits are set.

The operating times are shown in form of hourly schedule. Orange fields = the heating circuits are active with the calculated supply temperatures, depending on outdoor temperature; Gray fields = the temperature lowering mode is active.

Details: see chapter "Heating programs setting or modification".



New 1 or New 2 or New 3

Up to three "new" heating programs can be selected. After selecting a "new" heating program, the user can design its time frame individually and give the program a name. In the orange fields, the heating circuits are active with the calculated supply temperatures, depending on outdoor temperature. In the gray fields, the temperature lowering mode is active.



Heat abduction

If the temperature on S5 (buffer bottom) sensor exceeds **Heat_ab** and the heat abduction for the given heating system is set to **Yes** - it is attempted to lower the buffer tank temperature through the heating circuits. This avoids overheating of the buffer tank, and therefore, overheating of the heat generator (e.g. wood boiler, solar heating system).

Absence With the A



Permanent

With the Absence program it is possible to keep the selected heating circuit in frost protection mode for a defined period of absence (number of days), e.g. during holidays (this means, heating circuit 1 or 2 **Off**, and only **Frost protection** activated, if necessary).

The Absence mode is activated immediately and will be deactivated automatically after a defined time; then it will turn into automatic heating mode. The Absence program can be interrupted or canceled, or activated again and continued. Absence program activation is shown on display. The days of absence are displayed/counted down. (see also chapter "Absence period")

Period in which the heating stays in operation. After this period the selected heating program will be switched on again

Text displayed in the *middle*:



= Depending on parameter **Display mode** (factory setting 30 sec.) (can be found in menu **Heating circuit** / (2nd page) **Display mode**) the display changes automatically between temperature and power values.

Family Off

Radiators

The heating circuit was switched off by the User.

The heating circuit is activated only, if the value of **Frost protection from** is higher than actual outdoor temperature. The parameter **Frost protection from** (factory setting 4°C) can be found in Settings/ Heating circuit / **Frost protection from** (second page).

The program Frost protection is active.



The program **Frost protection** was activated automatically, to protect the heating system against freezing.



The Summer mode is active.

The outdoor temperature exceeded the **Summer from** parameter value.

The parameter **Summer from** (factory setting 17°C) can be found under **Heating circuit** / on the first page.





If the buffer temperature defined by the parameter **T buffer H away** is exceeded and the heating circuit is configured for heat abduction, Heat abduction is shown for the corresponding heating circuit, when activated

 = the screed drying program is active;
 used only with floor heating connected to the corresponding heating circuit; (see chapter "Screed/ Wall drying")

Text displayed in the lower part of the field:

Radiator, Floor, Heating circuit 1, 2, 3 etc.

Selection of heating system. The user can choose among different heating systems for each heating circuit. See also "Heating Settings"

3.9.2 Heating Home view

By clicking the Heating softkey or the Heating symbol on the upper menu bar, and selecting the heating circuit, you can reach the following levels of settings (example for Heating circuit 1, other heating circuits have the same options):

Short name	Unit	Explanations	De- fault
Page 1			
Heating circuit 1		Softkey for switching On or Off - for the particular heating circuits;	ON
Heat output	kW	Power measurement display	

Lowering mode		After selecting the Lo will run in the corresp gram)	wering modes oonding lowerin	described below, the heating circuits g mode (gray fields in heating pro-	Off
		Off	= no Lowerin	g mode is desired	
		Standard	The supply to mode (gray f circuit pumps ering (5 K)	emperature is lowered in Night ields in heating program). Heating s are still running. Parameter: Low-	
		Cooldown protec- tion	Until the outo threshold val heating circu threshold val pump switch ature is lowe Standard is	loor temperature reaches the ue T_outdoor - the pump of the it remains switched off. If the ue T_outdoor is not reached, the es on again and the supply temper- red. It means, the lowering mode activated.	
			In lowering n gram) the he al.	node (gray fields in heating pro- ating circuit is deactivated in gener-	
		Frost protection	The heating value of para tory setting 4 cuit goes into	circuit pumps are deactivated. If the meter Frost protection from (fac- K) is not reached, the heating cir- p frost protection mode.	
Summer from	°C	Possible selection of Heating operation into max): 1-40. If the outdoor temper - the relevant heating circuit you can select	outdoor tempe o Summer moo ature exceeds o circuit pumps an individual v	rature threshold for a change from de. Range of sliding bar setting (min- the threshold value Summer from are deactivated. For every heating value for Summer/Winter switching.	17
Program		Selection of heating p the given programs. [–] gle, Seniors) and thre New3). Tap to select:	program accord There are 3 fac ee customizable	ling to stored operation times for tory-defined programs (Family, Sin- e heating programs (New1, New2,	Family
		Family		New 1	
		Single		New 2	
		Seniors		New 3	
		Details: Chapter "Hea	ating programs	setting or modification"	
Warmer/Colder	°C	Additional possibility setting with sliding ba	to raise or redu ar: available rar	uce the defined supply temperature; nge (min-max): (-10) to 10;	0
Absence	Days	Number of days for absence period; setting with sliding bar (min-max/step): 0-42/1. Only Frost protection is not affected. The Absence mode is activated mediately and will be deactivated automatically after a defined time; then it w turn into automatic heating mode. The corresponding heating circuit is shown as Off in Home view. The remain days of absence period are shown on the Absence softkey (countdown displa- Details: Chapter "Absence period"			o): ted im- it will naining isplay).

Permanent	Hrs	The number of hours for permanent op Range of sliding bar setting (min/max): permanent operation is shown in menu (countdown display). After this period th be switched on again.	eration of the heating circuit. 0-48. The remaining time of of the relevant heating circuit he selected heating program will	17
Consumption	kWh	Presentation of consumption values (k) time intervals:	Wh) for the selected heating circuit	in given
		Today	this year (example - 2014)	
		Yesterday	previous year (example - 2013)	
		Last 5 days	2 years ago (example - 2012)	
		Last 4 weeks		
		Last 6 months		
Heating programs		By selecting a program you can retrieve "Individual settings" / "Heating program	e or create other programs (refer to s setting or modification")	o chapter
Page 2:				
Heating circuit		The type of heating circuit, which is def Radiator, Convector, Wall heating, Floo	ined in the heating system; select f or heating, Constant, Heat abductio	from: on, No;
HC1 pump		The status of the corresponding heating 1): Off or On	g pump (here for heating circuit	On
Display mode	sec.	Time for changing between power and ing circuit display field; setting with slidi	temperature display in the heat- ng bar (min-max/step): 1-60/1;	30

3.10 Hot water station

The hot water station consists alternatively: of a plate heat exchanger, i.e. a fresh water module, or a hot water storage tank (boiler). The display in Home view and the available parameters depend on this alternative.

3.10.1 Plate heat exchanger display



3.10.2 Hot water storage tank (boiler) display



In the *upper part* of the graphic, the stored program for hot water storage tank (boiler) loading is shown. During absence, the status "Off" is shown.

In the *middle* of display appears the current temperature in hot water tank; at the same time, the color will change according to current temperature values.

In the *lower part*, the boiler capacity in liters is shown.

3.10.3 Hot water Home view

3.10.3.1 with plate heat exchanger (fresh water module)

After clicking the graphic symbol of hot water storage (boiler) or the "Water" softkey from the upper menu bar, the following data and/or softkeys become visible:

Short name	Unit	Explanation	De- fault
HW pump		Hot water pump	0
Power	kW	Power of domestic water supply	
Consumption	Softkey - s	ee below	
Circulation programs	Softkey - Details in chapter "Circulation programs"		

Consumption

In combination with a fresh water module it is possible to show the consumption values for hot water use.

Energy consumption for hot water supply in kWh.



Circulation programs

See details in chapter "Circulation programs".

3.10.3.2 with hot water storage tank (boiler)

After clicking the domestic **water** symbol or the hot water storage symbol, the following display appears:



Short name	Unit	Explanations	Settings range Min-Max	De- fault
Water pump		Off = hot water tank loading is deactivated On = hot water tank loading is activated		
Absence	Days	Sliding bar setting for number of absence days (chapter "Absence	ce period")	
HW storage Set	°C	Temperature setting of hot water storage tank;	10-80/10	55
Prog. water		Allows for setting or modification of circulation programs (see ch grams")	apter "Circulati	on pro-
Hot water		Off = Hot water program is not active On = Hot water program is active		
1x boiler assign	Select	Select between: Off /On = the hot water tank will be brought to r at once	naximum temp	erature
Circulation		On / Off = Status of circulation On or Off.		
Circ. Prog.	Select	shows the currently selected circulation program		
Hot water pro- grams	Hot water pro- grams Softkey: see chapter "Hot water programs"			
Circulation pro- grams*	culation pro- ms* Softkey: see chapter "Circulation"			
When circulation is configured for activation in certain periods, or by flow pressure or push button, the relevant circula- tion variant is shown. For circulation activated by flow pressure or push button, the softkey Circ.Prog. and the Circu- lation programs are not shown.				

3.11 Trunk line

The trunk line has as target the energy balance between two buffer tanks. The first buffer tank is controlled by a BHZ or EWP basic control and the 2nd buffer tank is connected to the firewood or pellet boiler. The pump control runs over the temperature difference of the two buffer memories.

The symbol of the trunk line is located on the home page of the concerned boiler, in the upper half of the display on the right:



3.11.1 Trunk line under Home

The current status of the trunk line pump is distinguished by its changing colour in the Home view. Red = pump is active; Grey =pump is not active

The symbol of the trunk line pump is a button.



Illustration 19: trunk line pump is not active



Illustration 20: trunk line pump is active

3.12 Heat pump

3.12.1 Displayed items in the Heating Home view



Heat pump:

= Link to Applications (Home view) of the BRUNNER Heat Pump





When the BWP encounters errors, a specific error message is displayed, accompanied by a description of error with error code and the information field turns orange.





The BWP was switched off by the control system

When the heat pump is running, the current output of the Brunner heat pump is also displayed:



СОР

Illustration 21: Efficiency in starting phase



Illustration 23: Efficiency is good



Illustration 22: Efficiency is sufficient



Illustration 24: Efficiency is very good

3.12.2 BHZ 3.0 with BWP



Item	Explanations
1	Home view = Start page, the starting point for all applications = graphical overview of the system
2	Button for direct access to Tiled stove (i.e. water-bearing stove)
3	Button for Home view of the BRUNNER Heat Pump for direct access to different levels of user set- tings
4	Heating button = for different levels of settings for the existing heating circuits
5	Hot water button = button for the domestic hot water heating menu
6	Settings button = for different levels of settings for various parameters = button for system configuration - access only with a valid PIN code (different codes for the user and the service technician);
7	 Info = a help function additional help texts are displayed for the respective active view; if there are current error messages, the Info button is highlighted in orange.
8	Heating circuits button - for each heating circuit there is one such button/display field.
9	Hot water storage button/display field with temperatures
10	myBRUNNER - Status for myBRUNNER (online / offline):grey globe = network available, but offline with myBRUNNER; blue globe = online with myBRUNNER; green globe = with myBRUNNER-Lo-cal-connection
11	Current display of time, day of week, date

ltem	Explanations
12	Storage tank (buffer tank): three current buffer temperatures are displayed as numerical values. In addition, the colours mean: blue=cold; red=hot. At the bottom of the screen: Information about buffer tank capacity and the number of buffer tanks, the actual pressure of heating system is displayed too. When heat output metering is configured, the buffer graphic acts as a button for displaying a pie chart as heat output presentation.
13	BWP = Button for the heat pump application
14	Heating = button for using the heating system (BHZ 3.0)
15	EOS = Electronic Stove Control = link to available EOS application
16	BRUNNER Heat Pump button/display field with current COP (coefficient of performance) values COP COP COP COP
17	Button/display field for the heating source Tiled stove with current temperature value
18	Electric heating element button = Button for information on the current operating status
19	Outdoor temperature display
20	The operating status (burning) of the tiled stove is indicated by the color of the shade stone. The stove is red displayed = tiled stove is burning and the chimney is gray = the stove is not burn- ing.
	The indicated measurement values can be slightly different from actual value.





Buttons a	t the top of the screen:
1	Home view = Start page, the starting point for all applications = graphical overview of the system
2	In the Sensors view, the values of all sensors (measured or calculated values) are displayed in a list. In addition, the corresponding sensor value is presented in a graphic view.
3	Menu = the current values and set values of parameters are shown here. Some operating mode settings can be enabled here (e.g. Silent mode).
4	The Archive view allows for access to archived data from a selected year, month and day.
5	The Status view shows an overview of operating data
6	In the Settings view you can access the system parameters, the basic settings for the heating contrac- tor as well as functions and detailed information for maintenance and service (error analysis). This level is secured by a Setup PIN number, which allows the control system to validate the user permissions. Dif- ferent users have access only to specific settings of the heating control system. The PIN number guaran- tees safety of operation, where each house resident can select his/her own heating program, but cannot change the fundamental settings.
7	By tapping the Info button you can display additional help messages for each active view. In addition, the Info button turns orange, when there are any notes or error messages available.
8	Network + myBRUNNER Status (see also sections on Remote access via myBRUNNER)
9	Current day of week, date
10	Current time
11	Button for direct access to heat pump Home view (current view)
12	Button for direct access to BHZ 3.0 Home view
13	Button for direct access to Home view or settings for the integrated EOS control system
14	Info field = display of current heat pump operating status (ready; active; off, error)
15	Info field for displaying the currently set requirements for the heat pump (Active for hot water or Active for heating purposes)
16	Current display of heating circuit flow temperature
17	Line* for heating flow
18	Line* for heating return
19	Current display of return temperature
20	Cooling circuit flow line
21	Cooling circuit return line
22	Compressor (the display colour indicates the current operating status: red=active; black=inactive)
23	Compressor output power in %

24	Current fan speed (this value can be negative - e.g. to blow out debris)
25	Ean: the displayed colour of fan informs about its current operating status
20	= Stand-by or = in operation = natural defrosting
26	Reduced mode = by selecting this button you can turn the Silent mode on or off
27	The optional Smart-Grid functionality is displayed together with its operating status: = the heat pump power supply was shut down by the electricity provider due to overload = the heat pump power supply was enabled by the electricity provider in his network.
28	Current outdoor temperature display
29	The tiled stove operating status is indicated by the chimney colour. = the chimney is red, i.e. the tiled stove is burning. = the chimney is grey = no fire (the EOS fire- box sensor was triggered)
30	The current COP value is displayed with the exact value (field right); in addition, the displayed colour indi- cates the current heat pump efficiency:
	COP COP Illustration 25: Efficiency in starting phase Illustration 26: Efficiency is sufficient
	СОР СОР СОР
	Illustration 27: Efficiency is good Illustration 28: Efficiency is very good
	* (different display colours of the specific lines indicate the current operating status) red / blue = active (hot / cold); grey = inactive
	The indicated measurement values can be slightly different from actual value.

3.13 Individual settings

3.13.1 Display customization

The touch display of the BRUNNER systems can be customized with various display options.

This chapter describes all the setting options for the display presentation.

Touch the **Settings** button and enter your PIN code.

Follow the path: Settings (PIN code 9999) / Control panel / Settings and the following window will appear:



Illustration 29: Display-> Example: Setting options

Your settings window for setting the time period for the screen saver to appear appears:

Screensaver appears automatically after minutes

1. follow the path in the display:

Settings / Bedienteil / Einstellungen / BS-Schoner nach

2. By pressing on the white highlighted area at **BS-Schoner nach** a new window appears:

Do-ochonel nach a new window appears.

3. set the desired time - in minutes: a) by tapping + or - or

b) by sliding the slider to the right or left

4. press O.K. to confirm;

 \rightarrow The setting is accepted.

This setting activates the screen saver after the desired time.

The brightness dof the display

You can adjust the brightness of the touch display to adapt it to the local conditions.



Illustration 30: Display customization - screen saver

To set the brightness, proceed as follows:

1. Follow the path: Settings / Control panel / Settings / Brightness

2. A new window appears by pressing on the white highlighted area under **Brightness**. 3:

3. set the desired brightness:
a) by tapping + or - or
b) by sliding the slider to the right or left
4. press O.K. to confirm.

 \rightarrow The setting is accepted.



Illustration 31: Display customization - Brightness

You can set **the length of the long signal tone** that sounds in the event of a fault (error message) or information message.

To set the duration of the long tone,

1. Follow the path in the control structure:

Settings / Control panel / Settings / Long tone

2. a new window appears when you press the white area next to **Long tone**:

3. set the desired time - in seconds:

a) by tapping + or -

or

b) by sliding the slider to the right or left;

4. press **O.K.** to confirm.

 \rightarrow The setting is accepted.

You can set **the duration of the short signal tone** that sounds in the event of a fault (error message) or information message.

To set the duration of the short tone,

1. Follow the path in the control structure:

Settings / Control panel / Settings / Short tone

2. a new window appears when you press the white area next to Short tone:

3. set the desired time - in seconds:
a) by tapping + or or
b) by sliding the slider to the right or left

4. press O.K. to confirm.

 \rightarrow The setting is accepted.



Illustration 32: Display customization - Long tone

You can set **the time interval for the repetition of the signal tone** that sounds in the event of a fault (error message) or information message.

To set the duration of the long tone,

1. Follow the path in the control structure:

Settings / Control panel / Settings / t Sound repetition

2. a new window opens by pressing on the white area next to"t Tone repetition":

3. set the desired time - in seconds:

a) by tapping + or -

or b) by sliding the slider to the right or left

4. press **O.K.** to confirm.

 \rightarrow The setting is accepted.

Log out after function

You can set the waiting time after which the touch display should automatically exit the Settings function area if no input is made (Settings log-out).

To set the waiting time, proceed as follows:

1. Follow the path:

Settings / Settings / Control panel / Log out to

2. a dialog window appears with the bar display; by tapping + or - you can navigate through the area

3. tap **O.K.** to confirm the selection.

 \rightarrow The setting is accepted.

Automatic changeover between summer and winter time

For an automatic changeover between summer and winter time, you can set the time zone in which the installation location of the boiler is located.

To set the time zone:

1. Follow the path:

Settings (with PIN code) / Control panel / Settings / Time zone

2. a window for selecting the desired time zone appears

3. select the time zone;

- 4. select **O.K.** to confirm;
- \rightarrow The setting is accepted.



Illustration 33: Display Individualizing time zones



Screensaver

You can change the appearance of the screensaver. You have several options.

To change the screensaver, proceed as follows:

1. Follow the path:

Settings / Control panel / Settings / Screensaver

2. a dialog window appears with the options listed. Touch the desired screen saver.

3. press **O.K.** to confirm;

 \rightarrow The setting is accepted and the desired screen appears.



Examples of screensavers:



Language

You can also change the desired boiler control language after the boiler has been configured. The languages that are not available are displayed darkened.

To change the language setting, proceed as follows:

1. Follow the path:

Settings / Control panel / Settings / Language

2. A dialog window appears with the flags of the respective countries;

- 3. Press the flag of the desired language;
- \rightarrow The language setting is applied

4. if the language setting has been changed, the control panel is automatically restarted;

5. press **O.K.** to confirm the restart of the control panel;

 \rightarrow The control panel is restarted and the language is adopted after the restart.



Illustration 34: Display Customization Language

Design

You can change the appearance of the touch display to adapt it to the local conditions. You can select the background color of the display: white / black.

This process takes approx. 1 minute.

To change the appearance, proceed as follows: 1. Follow the path:

Settings / Control panel / Settings / Design

2. A selection window appears in which you can select the desired setting(white or black) by touching it.

3. Tap O.K. to confirm

4. please wait until the control unit switches off automatically and then switches on again (approx. 1 minute)

 \rightarrow The setting is accepted.



Illustration 36: Black display design

		-4/111			
		Desig	in		
After Design s	etting is chang	ed, the control minute	l panel will re s.	estart. This o	an take a few
	White			Black	
	Cancel			о.к.	

Illustration 35: Display design selection



Illustration 37: White display design

		Dayt	ime 1	Dayt	ime 2	Dayt	ime 3
Program name	Day	On	Off	On	Off	On	Off
Family	Mo-Th	5:30	22:00				
	Fr	5:30	23:00				
	Sa	6:30	23:00				
	Su	7:00	22:00				
Single	Mo-Th	6:00	8:00				
	Fr	6:00	8:00				
	Sa	7:00	23:30				
	Su	8:00	22:30				
Seniors	Mo-Su	5:30	23:00				
New 1							
New 2							
New 3							

3.13.2 Select or create heating programs

		Daytime 1	Daytime 2	Daytime 3						
off	The selected heati	The selected heating circuit is deactivated! Frost protection is active.								

Individual program settings:

For each heating circuit and every hot water program it is possible to enter your desired times and program names.

Define heating program

On the display you can enter your own programs for existing heating circuits.

1. Open the **Heating circuit** menu:

either by clicking the graphic element of the specific heating circuit from the Home view

or by clicking the "Heating" symbol on the upper menu bar, and then the button for the specific heating circuit;

Page 1 for the heating circuit will appear:



Illustration 38: Displayed view on example for heating circuit 1

2. Tap the field Heating programs;

A window with days of week will apear:



Illustration 39: Displayed view on example for heating circuit 1

3. Tap the box for a desired day of week;

4. Another window will appear for the selected day of week. The selected day of week is highlighted in orange in the line above.

By selecting the days of week you can change the days individually. It is not possible to select multiple days of week at once.

By tapping the periods 0-6, 6-12, 12-18 and 18-24 it is possible to highlight the whole line in orange (= heating is active) or grey (= heating not active). By tapping the individual checkboxes you can highlight them in orange or grey.

The factory programs cannot be overwritten.

If you want to change the name of a defined program, tap the **Program** button. A new window with keypad will appear:

Using the displayed keypad, enter a new name for the program.

To confirm and apply the new program, tap on **OK**.

 \rightarrow The new program for heating circuit 1 was saved under a new name.

Image: None Image: None



3.13.3 Hot water program settings

Hot water program

When a hot water storage tank is installed, it is possible to select a program for hot water supply: Please select the following path:

Tap the softkey Water / Hot water programs / and a window will show up:

Home	Solar		Tile	stove		4 Elect			Heat	I ing		Wate			ietti	ngs			i Info			Но	me	4	Ą	-		10	1	Circ	4	 tion	pro	IIII grai	r n		2			-	•			1	
				Hc	t wa	iter				P	rogr	am:			ľ	Fa	mil	y			e			Det	ern	ninati Inc	ion o dividi	f per ual so Fan	iods ettin hily	for c gs ca	ircul in be	ation stor	. Ho ed ir	t wat i proj	er is gram	imn s to ne	the	itely righ	ava t.	ilabl	e.	ī	y		
Monday	1	2 3	4	5 6	7	8	9 1	0 11	12	13	14 1	5 16	17	18	19	20	21	22	23 2	4								Sin	gle							n	ew 2	2					22	23 2	24
Tuesday		1					1	t			1	1					1					T	Jesd					Ser	ior	5						n	ew 3								
Wednesday							1				+	t										We Th	dne hurst					Can	cel							0.1	۲.								
Friday Saturday																						l Sa	frida <u>.</u> aturday	I	1		I									1		Ι	T	I					
Sunday	1	2 3	4	5 6	7	8	9 1	0 11	12	13	14 1	5 16	17	18	19	20	21	22	23 2	4	ł	5	unday		1	2 3	3 4	5	6	7	8 1	9 10	11	12	13 1	4	15 1	6 1	7 18	3 19	20	21	22	23 2	24
										16:4	0 hou	r (Mar	ıday,	27. Ju	ly 20	15)						4													16:41	hou	ır (Mc	ondar	, 27.	July 1	015)		0		

You can select from already defined programs or create your own program (as described in chapter "Heating programs setting or modification")

3.13.4 Absence periods

Absence setting for Heating

Home	Tile stove	Water Sett	ings	l Info
	Büro	On	Program	Family
0	Heat.circuit	Floor heat.	Warmer/Colder	2 °C
Bürc	Lowering	Standard	Absence	0 Days
	HC1 pump	On	Permanent mode	e 0 hrs
₩	Summer from	17 °C	Heating p	rograms
	EC	0S Heating	16:53 hour (Tuesday, 6. No	vember 2018) 🌐 🕨

Illustration 40: Display for absence period setting

Entering of absence period:

If you are not at home for a longer time, i.e. you do not need heating or hot water supply, you can select the settings for this period to save energy.

In this period, the selected heating circuits or hot water storage will be operated in frost protection mode only. You can save some energy and protect your heating system from freezing at the same time.

The absence program can be interrupted or canceled, or activated again and continued.

Holiday program is shown in display. Holidays are indicated and counted down at the same time. After the absence period has passed, the system will return automatically to your program.

1. For this setting, please select the following: softkeys Heating / **Heating circuit 1** (or the corresponding circuit) / **Absence**

2. Tap the field **Absencet**, and enter the number of days, when you are not at home.

 \rightarrow The absence period is stored and it is activated and later deactivated at given times.



Absence setting for Hot water

If you have a storage tank for hot water supply installed, it is possible to set the absence period for this function only.

For this enter the path: in Home view, click on the Boiler softkey or the **Water**-symbol from the upper menu bar / softkey**Absence**. A sliding bar will show up, which is used to select the number of absence days. In consequence, during the absence period, the upper line of the hot water storage field shows the status **Off**. The yet remaining absence period is shown in menu **Water** on the **Absence** softkey (countdown).

3.13.5 Circulation programs



NOTE

The **Circulation programs** button is displayed only, when a hot water storage tank or plate heat exchanger is installed, and the **Periods** circulation type was set. For this, go to: Settings / Configuration / Circulation / Periods.

Follow the path: Home menu Water / Circulation programs button

A window with timetable will appear (as in the case of heating circuit). Through the selection window you can access more factory programs (Family, Single, Seniors), or create new programs (New 1, New 2, New 3).

Creating or changing a program is possible via Settings page, by clicking the appropriate checkbox (orange=active, grey=inactive). To rename the program, click the **Program** button on the left at the bottom of the Settings page; a keypad for entering the individual program name will appear.

3.13.6 Disinfection

NOTE: Disinfection relates to the connected hot water cylinder. This setting is made by the specialist company.

Disinfection setting

To perform automatic actions for the thermal disinfection, please make the following settings::

T Disinfection (Temperature of disinfection.) Day Disinfection Time Disinfection. Duration Disinfection

This is possible in a window, which can be accessed on the following path: Settings / Hot water



3.13.7 Screed drying

If a new floor heating was installed, a drying program can be defined and activated. Please select: Settings / **Heating circuit 1** (or a specified circuit) / **Screed drying** /

Short name	Unit	Explanations	Setting range	De- fault
Drying	%	Start or end of drying program;	0-100	Off
T Start drying	°C	Start temperature for drying program;	10-50	20
T increase dry	°C	Temperature increase during drying program;	1-50	2
t increase dry	Days	Time for temperature increase;	0-10	1
Tmax Drying	°C	Target temperature for drying program;	20-70	40
t Hold drying	Days	Holding time for target temperature in drying program;	0-21	3
T lowering dry	°C	Temperature lowering during drying program;	1-50	2
t lowering dry	Days	Time for temperature decrease	0-10	1
Status	%	Percentage rate of drying	0-100	

When the drying program is started, in the Home view for the relevant heating circuit appears **Screed dry**ing.

3.13.8 Selection of lowering mode

Selection of lowering mode - Reduced mode/Night lowering

For each heating circuit you can choose individual lowering types for reduced mode or night lowering mode:

Cooldown protection Selection of 'T_outdoor' limit for outdoor temperature, where the mode will change between "Disabled" and "Reduced". This is some kind of Winter/Summer mode switching during night! If this limit is exceeded, the heating circuit will be disabled. Below this limit, the flow temperature is reduced to Night mode level.

Standard	Flow temperature is reduced for Night mode operation. Heating circuit pumps are still running. Parameter: Lowering
Frost protec- tion	The heating circuit is generally disabled at night. Heating circuit pumps are deactivated (Pump 3 (A9) or 4 (A12) off).
Off	No temperature lowering in Night mode

When in Home view, tap on the heating circuit graphic or select the softkey **Heating** and then select the softkey of the relevant heating circuit.

Lowering type is used to determine the behavior of heating circuits during defined "inactive" periods. *Stan-dard* lowering type is used to decrease the normal supply temperature of heating circuits during defined "inactive" periods by 'T_lowering' parameter value.

If *Frost protection* is selected, the heating circuit pumps are switched off during "inactive" periods. Just when **Frost protection from** value is exceeded, the pumps are activated again. Heating circuit flow temperature is now controlled without individual heating characteristics. If the temperature exceeds **Frost protection from + dT frost prot.** value, the pumps are switched off

Die Absenkart Auskühlschutz verhält sich eigentlich wie der Frostschutz, mit dem Unterschied, dass hier als Temperaturschwelle 5°C gilt und die Heizkreisvorlauftemperaturen entsprechend der Heizkennlinien geregelt werden.

Parameter	Value (min, max, default)	Description
Lowering mode	Cooldown protection, Frost pro- tection, Standard	Determines the type of flow temperature reduction.
Heating system		Determines the choice of heating curve.
T_lowering	0°C, 100°C, 5°C	FL temperature is reduced by this value during "inac- tive" periods.
T_outdoor	-20°C, 50°C, 5°C	Threshold value to change between "reduced" mode and "disabled" mode.

3.13.9 Heating circuit frost protection

This function is set by the specialist company.

To set the frost protection function, follow the path: Settings (+ PIN entry) / relevant button for heating circuit and / or domestic water / parameter settings for frost protection (... frost ...)

The heating circuit frost protection has priority over all selected settings. As soon as the predefined outdoor temperature threshold in parameter *Frost protection from* (basic setting: 1°C) is reached, the inactive circulation pumps of heating circuits (e.g. HC pump off, because minimal or maximal flow temperatures are exceeded; heating circuit configuration is "OFF") will be automatically activated with a flow temperature value of Tmin Buffer. If the circulation pumps are already active, this function has no effect.

3.13.10 Summer/Winter switching

The user can adapt the settings for switching between the Winter and Summer operation modes. For this, tap the **Heating** button from the upper menu bar or the graphic of a specific heating circuit. Then tap the **Summer from** button. Using the sliding bar, set the desired switching temperature.

If the outdoor temperature exceeds the 'Summer from' switching threshold, the relevant heating circuit pumps (A9 or A12) are deactivated. For every heating circuit you can select an individual value for Summer/ Winter switching. There is also an option: to select permanent Summer or permanent Winter operation mode for heating circuits (Parameter, range: *permanent Summer*, 10, ...40, *permanent Winter*).

If the outdoor temperature is lower than selected by more than 1°C, Winter mode will be switched on again.

3.13.11 Permanent

If you want to switch the heating circuit to permanent operation for a desired time:

1. In Home view, tap on the graphic of a **Heating circuit (= Heizkreis)**;

2. A window with settings for **Permanent (= Dauerbetrieb)** operation will appear. Using the sliding bar, you can set the hours.

In this time the heating will be active.

After these hours will pass, the heating returns to the existing heating program.



3.13.12 Defining periods

To define the availability of heat sources (boiler types and additional heatings), you can use the softkey **Periods**. You can use it to select the time program for automatic reheating.

After clicking the **Periods** softkey you have the possibility to select a factory defined program or to create a program on your own.

Program name	Hours of automatic reheating activity:
always active (= immer aktiv)	active at all times
Day (=Tag)	from 7am to 10pm
Night (=Nacht)	from 0am to 6am and from 11pm to 0am
New 1 (=Neu 1) New 2 (=Neu 2) New 3 (=Neu 3)	These slots are available for your own program settings. The entered programs can be renamed. These programs can be overwritten.

To enter a program, please follow the path for the given heat generator (see relevant chapter).



To create a new individual program



Illustration 41: Periods Pop-up

Illustration 42: Periods setup page



Illustration 43: Hourly schedule

Tap to select the periods. Tap the softkey Program and a pop-up will show up. Tap New 1 (=Neu 1) and the setup page appears. By clicking the days of week, you can view the schedule for the particular day. By clicking the periods 0-6, 6-12, 12-18 and 18-24 you can highlight the whole section, but there is also an option to mark only individual squares.



NOTES

Orange square = active, automatic time; gray square = inactive time.

It is not possible to select more than one day of week at a time.

Factory-defined programs cannot be overwritten. The new entered programs can be overwritten.

To rename a new program, click on the setup page on Program in the lower left corner and a keyboard will show up to enter the desired name for the new program.

3.13.13 Communication of the system

The control can send you the information and messages of the system at the current time by e-mail. Therefore: **Settings** / Pin entry (9999) / System (**Anlage**) and switch by arrow to site 2 (Anlage 2). The E-Mail Notification (**E-Mail Benachrichtigung**) button is located here.



Illustration 45: System/Anlage site 1

Home	Sensoren	Menū	Archiv	0123 Status	1	Settings	1 Info
	in/Aus	E-	Mail Ber	nachrich	itigung		
Kunde		Be	treff		max@m	ustermann.de	
HW		Be	treff		max@m	ustermann.de	
					Test E-M	ail verschicker	1
			Heizung	BWP	10:55 Uhr (Donnerst	ag, 7. September 2	1023) 🌐 🕨





Illustration 46: System/Anlage site 2

If you are the operator (end customer) of the BRUNNER system click on the gray button next to "Kunde".

The highlighted field turns orange. When clicked the Subject button or Max@mustermann. de a keyboard field appears, using where you can enter your email address.



3.14 Remote access via myBRUNNER

3.14.1 Preconditions and instructions



Preconditions for on-line access to your BRUNNER heating

- 1. You have a BRUNNER heating system with Touch Display;
- 2. The Touch Display software update status must be Release 4.0 (from December 2013) or higher;
- 3. A connection between Touch Display and Internet access point (a router) in the building is required. A flat rate (broadband) Internet connection is recommended for reasonable operation.
- 4. PC/Tablet/Smartphone with access to your personal e-mail account.
- 5. PC/Tablet/Smartphone with Internet access via web browser to www.mybrunner.de

Instructions for registration

Each control panel (Touch Display) can be registered once. You can assign only one e-mail address for a control panel. If the user wants to use a different e-mail address, he/she must delete the registration entry and perform the complete registration process once again (for this, use the **Delete registration** button). The same process, as in the case of changing user.

If a user has many Touch Displays for a heating system, every Touch Display can be connected with myBRUNNER. Every control panel can have a different e-mail address assigned.

With mobile devices such as tablets or smartphones, the embedded browser cannot be used with older Android variants; therefore you should load a current browser like Firefox, Opera, Chrome.

If it is not possible to log in, please check:

1. if the control panel is in Setup mode (Login active)? Before you log in, perform Settings logout function. (Softkeys: **Settings / Control panel / Settings logout**).

2. if the system clock of the control panel is set? The setting must be exact as possible. The same applies to days of week, time zones and year (see: User Guide / sect. "Individual settings" / sect. "Display customization")3. if the system or control panel is now running an update sequence? Please wait until finished and try again.

Instructions for enabling Service access

The access to service functions can be enabled exclusively for heating contractors or BRUNNER service technicians. Mutual access for both categories of servicemen is not possible.

3.14.2 Connect keypads to the Internet

Operating principle myBRUNNER:

For remote access to the personal heating system via the internet (myBRUNNER), the BRUNNER touch display must be connected to the internet access of the building. There are different options and a wide range of peripheral devices for this purpose.



Network cable (Touch 2.0 and 3.0)

The easiest and most safe solution. A connection between the touch display and internet access in the building (router) via a network cable (terms: patch cable, Ethernet, LAN).



3.14.3 Set up myBRUNNER

3.14.3.1 Registration

1. Start the first registration



1.1. Go to www.mybrunner.de;1.2 Click the button Register now;



BRUNNER

This window/box appears:



1.3 Enter your contact details (Name, Address); the fields with * are mandatory fields;

1.4 When finished, click next;

		1
BRUNNER	// Adresse / Telefon	// Informieren Sie sich!
Ulrich Brunner GmbH Ofen- und Heiztschnik	Zellhuber Ring 17-18 84307 Eggenfelden	Nutzen Sie unsere Infos über soziale Netzwerke um auf dem Laufenden zu bleiben.
	Telefon: (08/21) 771-0 Hottine: (08/21) 771-550 Fax: (08/21) 771-100 E-Mail: info@brunner.de	f

PLZ* / Stadt*

Land* Deutschland

// Probleme? Bitte füllen Sie alle mit einem * markierten Felder aus.

Log-In

Besuchen Sie uns auch auf www.brunner.de



1.5 Enter a valid e-mail address;



The e-mail address is at the same time your login name!!!

1.6 Optionally - for increased security - you can enter your mobile phone number.

1.7. Click **next** to complete your entries on this page.

l Ru	INNFR					r.v.a	
					Besuchen	Sie uns auch auf www.brunner.de	
TART	REGISTRIEREN	LOG-IN	INFORMIEREN	KONTAKT	FAQ		
egistri egistrieren	i eren Sie sich hier für den	Online-Zugriff au	Ihre Brunner-An	age.			
Adress	e Kontakt Anm	eldung				// Erweiterte Sicherheit	
Die E-Mai	il Adresse ist zuoleich ih	rAnmeldename				Wenn Sie die erweiterte Sicherheit	
Die C	E-Mail		<	(telefonnummer angeben, dann werden alle sicherheitsrelavanten Aktionen wie Kennwortwieder- beschäften, änderungen Ihrer	
Bitte gebe	an Sie eine Mobiltelefonr	nummer ein, wenn S	ie die erweiterte Sic	herheit verwenden v	vollen.	Anlagenparameter etc. über eine	
	Mobiltelefon		(lberprüfen		SMS PIN an Ihr Mobiltelefon abgesichert. Wir empfehlen Ihnen dringend, diesen Mechanismus zu	
	Telefon					wird ausschließlich dafür verwendet)	
	Fax						
						// Probleme?	
						Bitte füllen Sie alle mit einem *	
Zurück					Weiter	manverten Perder esse.	
			// Adresse / Telefon		// Info	// Informieren Sie sich!	
Irich Brunner GmbH			Zellhuber Ring 17-18				
Ifen- und Heiztechnik			07 Eggenfelden				

1.8 Enter a password;





The password must be at least 8 characters long!! Please remember this password, as it is used to access your system.

All fields are mandatory!

BRUNNER				Besucher	Log-In
START REGISTRIEREN	LOG-IN INFO	ORMIEREN	KONTAKT	FAQ	sie uns auch auf www.brunner.c
Registrieren					
tegistrieren Sie sich hier für den O	nline-Zugriff auf Ihre	Brunner-Anlag	ge.		
Adresse Kontakt Anmelo	tung				// Erweiterte Sicherheit
				Wenn Sie die erweiterte Sicherheit	
Bitte wählen Sie ein Kennwort mit m	iin, 8 Zeichen Länge.				benutzen und dafür hier Ihre Mobil- telefonnummer angeben, dann
Kannuart					werden alle sicherheitsrelavanten
Kennwort			_		Aktionen wie Kennwortwieder-
Kennwortbestätigung					Anlagenparameter etc. über eine
					SMS PIN an Ihr Mobiltelefon
Bitte vergeben Sie eine Frage / Antw	ortkombination an die	sie sich erinnern i	können:		dringend, diesen Mechanismus zu
		_	_		benutzen (ihre Mobiltelefonnummer
Sicherheitsfrage Bitte	auswählen				wild addactification dator verwende
Antwort auf			<u> </u>		
Sicherheitsfrage					// Probleme?
					Bitte füllen Sie alle mit einem *
Zurück			Jet	zt registrieren	markierten Felder aus.
BRUNNER	// Adm	esse / Telefo	n	// Info	rmieren Sie sich!
lirich Brunner GmbH					
		ggenfelden			
nsprechpartner: Albert Bohn					
	Hotline:	(08721) 771-550			f)
	Fax	(08/21)7/1-100			

1.9 Select a security question. You can choose between: Your favorite football team? Your favorite travel destination? Your Mother's maiden name? Your favorite movie? Your favorite book? Your favorite pet? Name of your first girlfriend (or boyfriend)? Name of your first pet? Your meaningful year number? Your favorite restaurant?

Please enter a valid answer, which will be used later for confirmation.

1.10 Click the button Register now when finished.


1.11 The details of your registration will be shown:



2. E-mail box - Confirmation of registration



2.1 Open the e-mail from "websystem" and subject line: "Brunner Zentrale Benutzerverwaltung: Registrierungsbestätigung" (Brunner Central User Administration: Confirmation of registration)

2.2 Click on the link;



3. Login





w.brunner.de

Besuchen Sie uns auch auf w

	START REGISTRIEREN LO	G-IN INFORMIEREN KONTAKT F	AQ.
	Log-In Melden Sie sich hier als registrierter Nut	tzer für den Online-Zugriff auf ihre Brunner Anlage	an.
	Ihre Anmeldedaten		// Anmeldeprobleme?
	Bitte geben Sie hier Ihre Anmeldedaten e	sin, um sich bei mybrunner anzumelden.	Bitte klicken Sie auf "Noch keine Registrierung", um sich neu bei
			myBrunner zu registrieren.
3.2. At Login name enter your email	Anmeidename"		Wenn Sie Ihr Kennwort vergessen haben, können Sie mit der Antwort
address	Kennwort*		Erinnerungsfrage ein neues Kennwort erhalten. Bitte klicken Sie
	Angemeldet bleiben? ¹		dazu auf "Kennwort vergessen".
3.3 Enter your password (entered	Anmelde	n Kennwort vergessen Jetzt registrieren	
belorenand and repeat - see 1.0)	Bitte füllen S	ie alle mit einem [*] markierten Felder aus.	
	² Wenn Häsch	ren gesetzt, dann direkter Zugang zur Online-Darstellung	
	BRUNNER	// Adresse / Telefon	// Informieren Sie sich!
	Ulrich Brunner GmbH Ofen- und Heiztechnik	Zellhuber Ring 17-18 84307 Eggenfelden	Nutzen Sie unsere Infos über soziale Netzwerke um auf dem Laufenden zu bleiben.
		Telefon: (08721) 771-0	
		Fax: (08721) 771-100 E-Mail: info@brunner.de	U U
•	BBIILIEB		Hallo, Kabça , u@g çıçak apçız i Abmelden
	BKUNNEK	B	esuchen Sie uns auch auf www.brunner.de
	ÜBERSICHT BEDIENTEIL HINZUFÜG	SEN MEIN PROFIL FAQ	
3.4 The control unit (touch display)	Übersicht Sie können Ihre BRUNNER Heizungsanlag	ge jetzt konfigurieren.	
of the Brunner system must be reg-			
istered. To do this, click the New	÷	Sie haben noch keine BRUNNEF registriert. Bitte lesen Sie zuerst i	R Anlage den notwendigen
Control Neues Bedienteil.		registrieren Sie dieses hier.	edence ao dio
	Neues Eedient	teil	
-			
			MPRESSUM
_			

BRUNNER

NOTE:

If you had previously registered a different control unit, click the Add another control unit button **Weiteres Bedienteil hinzufügen**.

Weiteres Bedienteil hinzufügen

4. Activate the network

4.A. Connected via network cable (Touchdisplay 2.0 and/or Touchdisplay 3.0)

To see if the Internet connection is available on the Touch Display, look at the icon (globe) in the lower right corner of the Touch Display. If the Internet connection is available (network active), the globe color is gray.



Illustration 47: Internet connection available (gray globe)

4.1 Click in the upper menu bar on **Settings**



4.2 Enter the PIN Code 9999

4.3 Click on the control display button **Bedienteil**

4.4 Click on the **myBrunner** button



4.5 Navigate down with the arrow key:



4.B. Connected via WLAN (Touchdisplay 3.0)

To see whether you have an internet connection on the touch display, look at the graphic (globe) at the bottom right of the touch display. If there is an internet connection (network active) the globe is gray.



Illustration 48: Internet connection (gray earth globe)

4.1 Click in the upper menu bar on **Settings**



4.2 Enter the PIN-Code 9999

4.3 Click on the display button **Bedi**enteil

4.4 Click on the display button **my-Brunner**



4.5 Navigate down with the arrow key:

Home Kacl	helofen BWP Wasser Sett	ings linfo
	Einstellungen	Settings logout
teil	Anwendungen	Neustart
lien	Update	Lizenzen/Kontakt
Bed	myBRUNNER	Daten löschen
₩		Service-Backup
4	Heizung BWP	16:06 Uhr (Dienstag, 8. September 2020) 🦾 🕨
Home	Kachelofen BWP Wasser	settings Info
	myBru Für den Fern-Zugriff auf das Diss www.mybrunner.	nner Jlay muss vorab ein Nutzerkonto auf de angelegt werden!
andina	myBrunne	r einrichten
Tvm	Für den Zugriff im Heimnetz muss myBrunnerLocal	eine Netzwerk-Verbindung bestehen.
	FOS Heizung BWP	11-09 Uhr (Dienstag, 8. September 2020)





if the name you are looking for is not available for the WLAN name, click on search **Suche**



00

XH.H.XKX.KX

MyBRUNNER

IP-Adresse

1

Suche

space

e r

d f

y x c

4

W

!?

2 3

esc

q

a s

+

1

WLAN aktiv signal: -76 dBm (instabil)

i

Info

Netzwerk - Details

myBRUNNER löschen

Netzwerk rücksetzen

0 4

0

m

9 0

р

0.K.

i.

k I

n



4.7 Enter WLAN-Password and click O.K.

> i . • $\widehat{}$ MyBRUNNER xx.x.xxx.xx IP-Adresse **mVBRUNNER** WLAN aktiv, Signal: -77 dBm (instabil) Wireless Netzwerk - Details T myBRUNNER löschen Suche

t

g

5 6

z u

h j

V

b

7 8

4.8 Navigate up with the arrow key





```
14
                                                                                         ĭ
                      Kache
                                                                                         Info
Hom
                                       MyBRUNNER
                 Für den Fern-Zugriff auf das Display muss vorab ein Nutzerkonto auf 
www.mybrunner.de angelegt werden!
  myBRUNNER
                                     myBRUNNER einrichten
                Für den Zugriff im Heimnetz muss eine Netzwerk-Verbindung bestehen.
                         myBRUNNERLocal
                                                  ► a
                          Heizung BWP
                                                 11:06 Uhr (Dienstag, 8. September 2020) 🌐 🕨
                   EOS
```

5. Set up mybrunner on Touch Display



5.1 Click:



Ablehnen



5.2 Terms and conditions appear.

5.3 Read the terms and conditions. Please keep the arrow pressed to scroll. When the arrow is pressed, it turns orange.

5.4 Accept the terms and conditions at the end of the text by accepting **Akzep-**tieren. (To do this, scroll the entire text to the end. Only then is the Accept button active).

© 2025 Brunner GmbH

Akzeptieren

6. Establish registration code



6. The following screen will appear automatically to establish the registration code of the Touch Display (control panel). This number is displayed for 2 hours.

You should use this registration code for your control unit to continue the registration on the PC.

Bitte d	lie Anlage auf der jeweiligen Web-Seite mit dem angezeigten Code registrieren.
	Ofentechnik (EOS, BHZ,): www.mybrunner.de Heiztechnik (Naturkraftkessel, HZB,): www.mybrunner.com
	Registrierungscode: 24009
	Restliche Zeit für Registrierung: 9594 Sekunden
	Abbrechan
	Abbrechen

7. Registration of your Brunner system



7.1 The control unit (touch display) of the Brunner system must be registered. To do this, click the New Control Unit button **Neues Bedienteil**.



Weiteres Bedienteil hinzufügen

NOTE:

If you had previously registered a different control unit, click the Add another control unit button here. **Weiteres Bedienteil hinzufügen**.



7.2 Im Feld *Registrierungscode* die Registrierungsnummer vom Touchdisplay eingeben

7.3 In the system name field **Anla**genname, enter your preferred designation for the system.

7.4 Finally click on registration**Reg**-istrieren.

DKUN	INEK			Besuchen Sie uns auch auf www.brunner.de
ÜBERSICHT	BEDIENTEIL HINZUFÜGEN	MEIN PROFIL	FAQ	
Bedienteil	registrieren			
Sie können sich Anlage anforder	hier eine neue Brunner Anlage m können.	e registrieren. Sie be	nötigen dazu ei	nen Registrierungscode, den Sie am Bedienteil Ihrer
Notwendige Ang	aben für die Registrierung			
Eine ausführliche /	Anleitung zur Registrierung finden S	lie hier: 💌		
Registrierung	scode* 0	<		
Anlagen	iname			
	Registrieren			
	Bitte fu re alle mit eine	m * markierten Felder aus.		
	_			

8. Complete registration on Touch Display



8.1 Confirm the message about successful registration with **O.K.**





8.2 Exit settings (with OK)



9. On-line access to the control panel from your PC, tablet or smartphone



On your mobile device (notebook, tablet, smartphone etc.) you will see the system overview:

Now you can control all the functions of your system from your mobile device via mybrunner.de. The Parameter sections under Settings are excluded.





During remote access you will see the following identical screen on the Touch Display:



 \rightarrow The registration process is complete.

3.14.3.2 Logging in

On your PC, tablet or smartphone:



1.1 Open **www.mybrunner.de** in your browser

1.2 Enter your valid login name (= your e-mail address entered during registration)

1.3 Enter your password/**Kennwort** (as entered during registration)

ART	REGISTRIEREN	LOG-IN	INFORMIEREN	KONTAKT	FAQ	
og-In						
den Sie	sich hier als registrie	erter Nutzer für	den Online-Zugriff auf	Ihre Brunner Anla	ge an.	
Ihre /	Anmeldedaten					// Anmeldeprobleme?
						Bitte klicken Sie auf "Noch keine
Bitte ge	ben Sie hier Ihre Anmelo	ledaten ein, um :	sich bei mybrunner anzume	elden.		Registrierung", um sich neu bei mißrunner zu registrieren
	Anmeldename*		<			Wenn Sie Ihr Kennwort vergesse
			-			auf die von Ihnen vorgegebene
	Kennwort		<	1		Erinnerungsfrage ein neues
Ange	meldet bleiben?1					dazu auf "Kennwort vergessen".
, ango						
		Anmelden	Kennwort vergessen	Jetzt registrieren		
		A				
	Bit	te fü <mark>s</mark> en Sie alle m	it einem * markierten Felder au Izt, dann direkter Zunann zur Or	s. nline.Darstellung		



If you have forgotten your password, you can use the **Kennwort vergessen** (forgotten password) button. Here you will be asked to enter your e-mail address and the answer to your selected security question (as displayed above the answer field); Click on **Kennwort anfordern** (request new password) and you will receive an e-mail with a new password, which must be entered on the Login page at mybrunner.de, in the "Kennwort" field.



If you want to change your password again, or change your contact data, or apply extended security settings, please go to **Mein Profil (**My Profile).

	BRUN	INER 🕓		
	ÜBERSICHT	BEDIENTEIL HINZUFÜGEN	MEIN PROFIL	FAQ
	Ihr Profil Sie können dies	es Formular verwenden, um per	sönlichen Angaben	zu änder



The current overview of your system will appear on the screen of your PC, notebook, tablet or smartphone.



On the Touch Display of your BRUNNER system



To see the myBRUNNER status click: **Settings** + PIN-Code (9999) / **Bedienteil**(=control panel)/ **my-BRUNNER**





When the control panel is in remote control mode, the following will be shown on the Touch Display of your system: orange bar with text **Fernzugriff** (*Remote access*).







NOTE

The heating system can be controlled only from one device! You can use alternatively: the Touch Display on the system or the overview on your mobile device.

NOTE:

Setting or modification of parameters under **Settings** is not possible via remote access. Exception from this rule is the enabled access for the heating contractor or BRUNNER technicians.

3.14.3.3 Enabling for Service access

To enable Service access for BRUNNER technicians or a heating contractor, the owner of the system must approve it first. This is done using a fixed Service PIN Code, which is defined in the User account.



БK	UNNEK				Besuchen	Sie uns auch auf www.brunner.c
START	REGISTRIEREN	LOG-IN	INFORMIEREN	KONTAKT	FAQ	
Log-In Melden Si	l e sich hier als registr	ierter Nutzer für	den Online-Zugriff auf	Ihre Brunner Anla	age an.	
Ihre	Anmeldedaten					// Anmeldeprobleme?
Bitte g	eben Sie hier Ihre Anme	ldedaten ein, um :	sich bei mybrunner anzum	elden.		Bitte klicken Sie auf "Noch keine Registrierung", um sich neu bei myBrunner zu registrieren.
	Anmeldename*		<	_		Wenn Sie Ihr Kennwort vergessen
	Kennwort*		<	_		haben, konnen Sie mit der Antwort auf die von Ihnen vorgegebene Erinnerungsfrage ein neues
Ang	emeldet bleiben? ¹ 🛛	3				Kennwort erhalten. Bitte klicken Sie dazu auf "Kennwort vergessen".
	1	Anmelden	Kennwort vergessen	Jetzt registrierer	n	
	B	itte fühen Sie alle m Wenn Häkchen osse	iit einem [°] markierten Felder au tzt. dann direkter Zugang zur O	s. nline-Darstellung		

// Informieren Sie sich!

1. Log in at **www.mybrunner.de** (see Logging in section above)

BRUNNER





2. Click onto Grant access to control panel









3. You can enter the BRUNNER service code or the code of your tradesman. The BRUNNER service code = 293068.

Enter this 6-digit numeric PIN code in the first field (PIN) and in the second field (purpose of release) please write your family name and location of the system.

BRUN	NER			Hallo, max.muster @yahoo.del Abmelden Besuchen Sie uns auch auf www.brunner.de
ÜBERSICHT	BEDIENTEIL HINZUFÜGEN	MEIN PROFIL	FAQ	
Zugriff auf A Sie können sich hie	Anlage freigeben er den externen Zugriff auf Ihre	e Anlage für einen S	Service-Techr	iker freigeben.
Notwendige Angabe	en für die Freigabe			
Der Zugnff auf Ihne An Diese PIN erhalten vom Senice-Techn (6stellig numeris 1000009999) Sie können hier Zweck der Freig eintrag	age ist für den angegebenen Serv ker ch, p9) den een.	ice-Techniker vom 17.	12.2015 bis zun	16.12.2020 möglich.
	Zugriff freigeben			

The system operator can revoke the tradesman or BRUNNER service's access to the system at any time.



When access is granted, the following message is displayed:

When a contractor has access to your system via myBRUNNER link, you'll see the following on the Touch

RRUN	INER			Hallo, max.m	uster @yahoo.de! Abmelden
				Besuchen sie un	s auch auf www.brunner.de
UBERSICHT	BEDIENTEIL HINZUFUG	JEN MEINPROP	IL HAU		
Zugriff au	f Anlage erfolgr	reich freigege	ben		
Sie haben dem Se	ervice-Techniker ' max.muste	er @yahoo.del' (PIN: 478	3520) erfolgreich eine	n Zugriff auf Ihre Anlage in folgend	dem Zeitraum eingeräumt
21.12.2015 bis 20	.12.2016				
Sie können den Zu	ugn# jederzeit über die Liste II	hrer Bedienteile (Funktio	n "Beenden") beende	n	
Cite Normal Cite	Jun je del zek aber die ziele i		in boondon y boondo		
Wester					
© 2015 - MYBRUNNE	R - ANWENDUNG - DESKTOP				MPRESSUM
<u>~</u> .					
				u 7	Case T
Home	Solar Pell	lets Gas	s Heizi	ung Wasser	Settings Info
_				F 111	5
				Familie	Familie
13	°C	Wetter	2 °C	39 °C	41 °C
				Heinkreis 1	Histolynsis D
50				neizkreis 1	. Heizkreis 2
	lar		_	Heizkreis 1	. Heizkreis z
	lar				Heizkreis 2
Bei	reit	57	°C		. Heizkreis 2
Bei	reit	57	°C		. Heizkreis 2
Bei	reit	57	°C °C		
Bei	reit	57	°C		L7,4 kW
Bei	reit	57 49	°C °C		L7,4 kW
Ber	reit	57 49 44	°C		L7,4 kW
Ber Pel	reit	57 49 44	°C		L7,4 kW

Heizung

3.14.3.4 Brunner App

The myBRUNNER App makes it easier to access the heating system with smartphones or tablets.

Operation is very easy and self-explanatory. The orientation on the home screen is vertical. The presentation does not go along - but that is set intentionally.

The user can choose from three buttons

Display:

-"Login" for login and logout,

- a brief introduction to the functionality of the application software and a contact,

- support- interface for all questions and suggestions about the app.

The fourth button is initially gray when you start the software. Only after entering the user name and the password, it is activated and allows access to the heating control. The customer selects the registered operating unit and makes the desired settings. To leave the view, just click on the "back" button on the mobile device or on the "operating control unit " on the top left.



Account settings or registration of control panels can not be done with the app. Account settings or registration of control panels can not be done with the app. Both activities are only possible via a browser via mybrunner.de.

3.14.3.5 Synchronisation with network

Wenn myBRUNNER eingerichtet ist, wird die Uhrzeit mit dem Netzwerk automatisch abgeglichen.

If you do not want to have the time synchronization with the network, deactivation is possible. For this:

1. Click on the time in the lower bar

2. A dialog box appears where you click **Network time- synchronization**;

- 3. the network time synchronization is deactivated;
- 4. You can now enter the desired time;
- 5. then click on Time / Date;

 \rightarrow the time and date are displayed in the lower bar according to your setting or on the clock (digital or analog clock) selected as the screen saver.

The disabled time alignment is displayed with a gray box.



The adjustment of the time or date with the BRUNNER network can be activated at any time.

3.14.4 Set up WLAN

3.14.4.1 Set up WLAN - during commissioning

Commissioning is user-defined. This initial process includes the entire BRUNNER network environment and all control boards of the connected devices.

Automatically starting commissioning

- 1. Initialization
- 2. Set language
- 3. Check BRUNNER network connections
- 4. Set time and date
- 5. Set myBRUNNER
- 6. Specify heat generator
- 7. Specify heat consumer
- 8. Enter craftsman data
- 9. End of commissioning

Set up WLAN

During the work steps for phase 5 of commissioning "Set up myBRUNNER", the following steps are necessary to set up the WLAN:



*if the name you are looking for is not available for the WLAN name, click on search Suche

3.14.4.2 Activate WLAN

- 1. Click in the upper menu bar on Settings
- 2. Enter the PIN-Code 9999
- 3. Click on the display button Bedienteil
- 4. Click on the display button myBRUNNER



- ĭ 10 Info **MYBRUNNER** Für den Fern-Zugriff auf das Display muss vorab ein Nutzerkonto auf www.mybrunner.de angelegt werden! *MVBRUNNER* myBRUNNER einrichten 5. A dialog window/box appears: Für den Zugriff im Heimnetz muss eine Netzwerk-Verbindung bestehen. ► o 21320 myBRUNNERLocal Heizung BWF Ŷ i 11 6. Set up WLAN : Info 6.1. Choose WLAN-Name * **MyBRUNNER** Attention: **MVBRUNNER** IP-Adresse XH.H.XKN.KX - Ein/Aus On/Off must be orange WLAN aktiv signal: -76 dBm (instabil) - Check display indication "WLAN aktiv" Wireless Netzwerk - Details - Earth globe: gray myBRUNNER löschen *if the name you are looking for is not available for the WLAN name, click on search Suche Such Netzwerk rücksetzen
- 6.2. Enter WLAN-pasword

4 Cleaning, maintenance, troubleshooting



CAUTION

Hot water can cause serious burns.

→ If you notice a leak or droplets, do not touch!



CAUTION Risk of electric shock

Parts of the system are under high voltage.

 \rightarrow Before touching please make sure that the power supply is switched off.

ATTENTION: Electric parts cannot have contact with water.



CAUTION

Improper actions or works on the system can lead to personal injury and damage to the system.

→ Working on systems is allowed only for trained service personnel.

The parts of the BHZ 3.0 should be periodically cleaned and checked. Apart from occasional visual inspection there are no special maintenance works necessary. After a long operation, some components of heating system can tend to cause malfunctions. Let your heating expert replace these parts. Recommendation: Use only original replacement parts!

Observe the maintenance instructions of each heat generator and heat consumer installed in your system.

4.1 Spare part BHZ 3.0

The detailed list of spare parts can be found via QR code: https://www.brunner.com/23379



also available on our website:

The spare parts booklet is also available on our website: in the partner area (access data required) under https://www.brunner.de/partner/.

4.2 Acknowledge error messages

To acknowledge an error message or a note, proceed as follows:

- 1. tap the Info button;
- 2. In the lower half of the display press Error Reset = Fehler Reset
- \rightarrow The error message was acknowledged.

If the error still exists, the error message appears again. The info button can also be highlighted in orange.

Error messages can only be acknowledged in the top menu bar of the home view in the Info submenu.

4.3 Cleaning and maintenance

Cleaning of external surfaces

The external surfaces of Hydraulic Box and System Storage tank of the BHZ 3.0 should be cleaned by the User:

Clean or wipe the external panels with a damp cloth.

Do not use any aggressive or corrosive cleaning agents.

Attention! To much humidity can lead to damage of electronic parts.

4.4 Notes on the update

With the Software Update function it is possible to update the control unit.



INFO

During an update, the parameter settings from configuration and the later modified values are not getting lost.



ATTENTION

Only carry out the update when the fireplace is cold (stand by)!

Only carry out the update when the boiler and heat pump are switched off and locked!



Updates must be carried out on every control display on the system!

Check the type of operating display: (sticker "Bediendisplay Touch 2.0" or "Bediendisplay Touch 3.0" on the back). A release is already installed on both control displays. Updating to a newer software version only takes a few minutes.

The update is made available as a zip file (* bin files).

During an update, both the values set during configuration and subsequently are adopted.



NOTE

The entire update process takes a few minutes (but can take up to 20 minutes for a single display with older display versions, so allow sufficient time. Depending on the system situation, the update may take longer)

The update process (total duration 1-20 minutes) should not be interrupted. **DO NOT** touch the touch panel during the entire update process.

If the USB stick is faulty or does not contain the latest updates, the application starts as usual.



NOTE

When updating operating displays 2.0 and operating displays 3.0, the **USB stick** must **be formatted FAT32** .

4.4.1 Software from PC on the USB-Stick

1 From https://mybrunner.de you have access to download the current software package (SOFTWARE UPDATE). To access and download the software package, you must log in with your myBRUNNER access data

OBERSICHT BEDIENTEIL HINZUFÜGEN MEIN PROFI	H. Besuchen S L SOFTWARE-UPDATE FAQ	allo, xexxico@bouxwec.de! Abmelden ie uns auch auf www.brunner.de	
2. A dialog window opens in which you click Save file (=Datei speichern)	Öffnen von BRUNNE Sie möchten folge BRUNNER SC	R_SOFTWARE_[Version]_[Monat]_[Jahr].zip nde Datei öffnen: DFTWARE_[Version]_[Monat]_[Jahr].zip	×
3. Confirm with OK	Vom Typ: W Von: https:// Wie soll Firefox n	inRAR-ZIP-Archiv (xxxMB) 'api_dateiaustausch.brunner.de	
	⊖ <u>Ö</u> ffnen mit	WinRAR archiver (Standard)	~
	Eür Dateien	dieses Typs immer diese Aktion ausführ OK	en Abbrechen
4.The zip file is saved in the down-			
can possibly also be specified.	 Schnellzugriff Desktop Downloads 	Name Heute (1) BRUNNER_SOFTWARE_[Version]_[Monat]_[Jahr]_zip	Typ Gröf WinRAR-ZIP-Archiv 21

	■ 🔄 🚽 Verwalten	USB-Laufwerk (D:)			
	Datel Start Preigeben Ansicht Laufwerktools				
	Schnellzugriff Desktop Downloads *	Name BRUNNER_SOFTWARE_[Ver	^ sion]_[Monat]_[Jahr].zip	Typ WinRAR-ZIP-Archiv	Größe 214.574 КВ
5. Now select the zip file with a right click and click on Hier ent-	■ ● = Extrahier Datei Start Freigeben Ansicht Tools für komprimie ← → ^ ▲ > Dieser PC >	n USB-Laufwerk (D:) rte Ordner			
nacken	1	Name	^	Тур	Größe
packen	✤ Schnellzugriff		n]_[Monat]_[Jahr].zip	WinRAR-ZIP-Arch	hiv 214.574 KB
	Mit Notepad++ bearbeiten Dateien entpacken Hier entpacken				
6. The unpacked files for updating	Verwalt	en USB-Laufwerk (D:)			
the control unit are displayed.	Datei Start Freigeben Ansicht Laufwerk	tools			
the control and are alopiayed.	$\leftarrow \rightarrow \checkmark \uparrow \blacksquare$ > Dieser PC > mein Ordner				
	□ Name		Änderungsdatum	Тур	Größe
	BRUNNER_SOFTWARE_[Version]_[Mona	t]_[Jahr].zip	16.01.2024 09:57	WinRAR-ZIP-Archiv	214.574 KB
	Written_Offer.pdf		19.03.2019 18:06	Adobe Acrobat-D	340 KB
	Anleitung_Softwareupdate_BRUNNER_[/ersion]_[Monat]_[Jahr].pdf	19.09.2023 09:50	Adobe Acrobat-D	129 KB
	Brunner_rel_Anlage_2_o_(version).bin	6 (Version) licenses.txt	19.03.2019 18:05	Textdokument	1.146 KB
	Brunner_rel_Anlage_3_6 [Version].bin		12.09.2023 13:09	BIN-Datei	91.733 KB
	, Brunner_rel_BSH_3_[Version].bin		13.12.2022 17:06	BIN-Datei	43.585 KB
7. Copy the bin file or files to an empty USB stick (>500 MB).	Datei Start Freigeben Ansicht Sc Name Sc I Brunner_rel_Anlage_3_6_[Versii Brunner_rel_SSH_3_[Version],b	Verwalten USB-La Laufwerktools verk (D:)	ufwerk (D:)	Typ G BIN-Datei BIN-Datei BIN-Datei	röBe 85.033 KB 91.733 KB 43.585 KB

INFO: Only the .bin files are transferred to the USB stick. Save the documents enclosed for your information (in PDF or text format) on your PC.

INFO: For operating displays 2.0 and operating displays 3.0, the USB stick must be formatted as FAT32.

8. After right-clicking on the USB stick in File Explorer, click Eject (=Auswerfen). Now you can remove the USB stick from the PC.

-> The USB-Stick is ready for Update

4.4.2 Transfer the software from the USB stick to the control panel

Check again:

- Is the fireplace cold?
- Is the pellet, log boiler, BPH, BSV in"Standby" status and the boiler is locked? (Boiler > Menu > Locked)
- Is BWP in "**Standby**" status and operating mode"**OFF**"= **AUS** ? (BWP > Menu > Operating mode)

The main steps of update process are following:

- 1. remove the display from its holder
- 2. disconnect the power supply to the display (2-pin plug)
- 3. insert the USB stick **correctly** into the control unit (so that it is also recognized as a data carrier.
- 4. restore the power supply (2-pin plug);



5. a current update is recognized and loaded when the control panel is started. The system performs an automatic restart and starts the loading process (display "red wave"; then "loading bars" appear) of the update. The successful installation of the update is indicated by the message "remove USB stick and reboot".

6. remove the USB stick from the control panel

7. control board and control panel (display "red wave") automatically start with a reboot. After the restart, the control unit is updated. After the system update has finished, the update process is automatically completed with the data synchronization.

Restarting the system

- 1. disconnect the complete system from the mains supply for approx. 3 seconds
- 2. restore the mains supply to the complete system, after the restart the system is ready for operation.
- 3. reactivate the boiler and heat pump
- 4. check that the system is functioning correctly.

4.4.3 What to do if the update does not start? - Display

Chek your USB-Stick

Check that the USB stick has been correctly inserted into the display

The zip file must be unpacked after downloading. The software file with the extension Brunner_rel_Anlage_x_x_xxx.bin contained in the package must be on the top level of the data carrier.

You may already have the latest software version installed.



To find out which software version is running on your control panel: To do this, please press the **Info button** on the top right of the screen display.

If it still does not work, please check whether it is a "Display Touch 2.0" resp. 3.0 "acts. If you have an older version, please contact our customer service. Please indicate the item number of the display and the currently installed software version (see picture). The article number can be found on the back of the display printed on the sticker (article no.Exxxxxx).



Illustration 49: z.B. bei einer neueren Software-Version*

*To determine the latest version, if you do not get this information by pressing the **Info button**, proceed as follows:

a) Path: Settings > System (=Anlage) and Version button or:

b) Settings > System (=Anlage) and Version button

5 Technical and commercial data

5.1 Declaration of Conformity

	EG-Konfor	mitätserklärung	В	
Hersteller:	Ulrich Brunner Gm Zellhuber Ring 17 D-84307 Eggenfel	nbH -18 den		
Produkt:	BHZ 3.0 (Brunner	Heizzentrale)		
EU-Richtlinien:				
	2014/30/EU	(EMV-Richtlinie)		
	2014/35/EU	(Niederspannungsrichtlin	iie)	
	2011/65/EU	(RoHS-Richtlinie)		
		(next)		
Angewandte No	ormen:			
	EN 61000-6-1:200	7		
	EN 61000-6-3:200	7/A1:2011		
	EN 61000-3:2:201	4		
	EN 61000-3:3:201	3		
	EN 6100-6-2			
	EN 6100-6-3			
	EN 60730			
Wirerklären	dass das Produkt den (oben genannten Bestimmung	ien entsprich	ł
				-
Eggenfelden, d	en 01.09.2024			
1	1			
1/1 1	2 /			
161 10	VIAAA			

		l
		I
	ala nation of Com	6
De	claration of Con	iformity
The producer:	Ulrich Brunner GmbH Zellhuber Ring 17-18 D-84307 Eggenfelden	
declares that at the time of deliver	y the following device:	
	BHZ 3.0	
meets the requirements:		
	2004/108/EG 2011/65/EU	
This EG- Declaration of Conformity loses its validity if the product is modified or converted without approval.		
Eggenfelden, 14.12.2015		Ulrich Brunner GmbH DrIng Jürgen Vorwerk

5.2 Dimension drawings





Illustration 50: BHZ 3.0 with 750 Liter System Storage



Illustration 51: BHZ 3.0 with 1000 Liter System Storage



Illustration 52: BHZ 3.0 with 1500 Liter System Storage



Illustration 53: BHZ 3.0 with 2000 Liter System Storage

BHZ 3.0 with additional storage tank



Illustration 54: BHZ 3.0 with 750 Liter System Storage and 750 I additional storage tank



Illustration 55: BHZ 3.0 with 1000 Liter System Storage and 1000 I additional storage tank



Illustration 56: BHZ 3.0 with 1500 Liter System Storage and 1500 I additional storage tank



Illustration 57: BHZ 3.0 with 2000 Liter System Storage and 2000 I additional storage tank

5.3 Technical Data

Hydraulic box parameters			
Height x width x depth	mm	1289 x 1083 x 404	
Cladding		Front cover panel made of powdered steel. Foldable and lock- able lid; rear and side panels from steel; gray front, 6 mm thick; detachable rear panel; black, 2 mm thick; side panels attached to frame with screws, black; 2 mm thick;	
Insulation		13 mm insulating material-HT around all duct segments;	
Main board		Protected against temperature and humidity, central connection point for all sensors and electrical components. Bus connection for remote touch-sensitive display;	
Average power consumption Winter/Summer	W	30-90 / 20-40	
Stand-by	w	9	
Max. weight	kg	95	

Height x Width x Depth Touch-sensi- tive display	mm	170 x 170 x 58
Touch-Display colored	mm	5,7" VGA (16 bit)
Connections		CAN bus, Ethernet port, USB
Flush-mount box for remote display: height x width x depth	mm	160 x 160 x 70
Connection cable for remote display	m	10 m, 15 m, max. 50 m
Software updates		Update through USB port; current software on request www.brunner.de

Eco-Design-directive 2010/30/EU		
Temperature regulator class	Ш	
Energy efficiency contribution	2 %	

Storage tank Parameters / Nominal volume	Unit	750 liters	1000 liters	1500 liters	2000 liters
Storage volume Heating	I	560	810	1250	1785
Storage volume Hot water	I	190	190	265	265
Storage tank weight / Insulation weight	kg / kg	102 / 20	129 / 24	219 / 31	268 / 37
Polyester fleece insulation with clamp lock, (WLG 035)	mm	100	100	100	100
Standing loss (directive 2010/30/EU)	w	108	126	153	180
Storage tank insulation class according to DIN EN 13501-1 / DIN 4102-1		E / B2	E / B2	E / B2	E / B2



Illustration 58: Storage tank - dimensions

Dimensions	Unit	750 I	1000 I	1500 I	2000 I
А	mm	260	310	380	320
В	mm	630	745	825	900
С	mm	1030	1250	1350	1490
D	mm	1430	1710	1760	2020
E	mm	1700	2050	2150	2380
F	mm	1785	2135	2235	2465
G	mm	790	790	1000	1100
н	mm	1015	1015	1225	1338
Tilted height	mm	1750	2090	2270	2460

Technical data of installed components - Heat generator:

Water heating tiled stove / fireplace / kitchen stove			
Max. boiler power	30 kW		
Return flow increase	Motorized 3-way mixer (make Belimo), Boiler pump by Wilo (Para 15-130/6-43/ SC-12).		
Natural Power boiler(solid fuel bo	Natural Power boiler(solid fuel boiler)		
Max. boiler power	till 50 kW		
Return flow increase	Motorized 3-way mixer (different pump: 15 kW - Para 25-180/7-50/iPWM1-12; 30 kW - Wilo Stratos Para 30/1-9 PWM1, 180 mm or 50 kW - Wilo Stratos Para 30/1-8 PWM1, 180mm.		
Switching	via 230 VAC switch contact or potential-free relay in combination with BRUNNER- Natural Power boiler.		
Switching	with differential temperature control and minimum temperature limitation, or when temperatures are lower than set for the system in corresponding standby times.		

BRUNNER heating pump 9 green

max. Power	10 kW
Triggering	via internal bus wiring; pump: Para 25-180/9-87/iPWM1-12
Flow control	Control systems integrated with heat demand of heating centre

Solar circuit with system separation (plate heat exchanger)

Collector field size, absorber area	Absorber area up to 25 m ² ; heat transfer fluid with antifreeze;
Control	Primary circuit with variable speed pump (Para ST 15-130/13-75/iPWM2-12, and secondary circuit (Wilo Para 15-130/6-43/iPVVM1-12) with volume flow limiting device
Switching	via temperature sensor in collector field, with differential temperature control and maximum temperature limit.
Regulation	Energy yield optimization through different storage tank feeding levels (zone valve); This regulation can be performed based on temperature, energy yield or automatically optimized.

Heat pump (other manufacturers) (with switching input for heat demand - hot water/heating)

Max. power	till 20 kW
Connection	4 x 1 1/4" on System Storage, 1 1/2" on Hydraulic Box;

Control	via 230 VAC switch contact or potential-free relay, switching output for "Hot water/
	Heating" demand and for switching valve "Tank loading top/middle";

Other heat generators (oil/gas boiler)

Max. boiler power	till 30 kW
Control	via 230 VAC switch contact or potential-free relay;
Switching	when temperatures are below set temperatures for the system in corresponding standby times. Available settings: partial loading, full loading, hot water, heating, frost protection.

Photovoltaic integration (only in connection with domestic water module)

Zone valve	MOD. SF25 E, 230V,50/60 Hz, SW0,04A, Max. Temp. 60 °C, max. operating tem- perature110°C, path AB/A currentless, path AB/B current; Manual operation AB/A/ B
Electric heater	9 kW; mmersion depth: 800mm, therefrom 100mm unheated. Thermal cut-out 135°C, AG 1 1/2 Zoll.
Energy consumption meter	3x230V, 50Hz, 3x35A, Modbus
Electronic power controller	3x230V, permanent running: 3x16A, 50 Hz, automatic circuit breaker: 3x20A

Electrical additional heating module (only in connection with domestic water module)

Zone valve	MOD. SF25 E, 230V,50/60 Hz, SW0,04A, max. temp. 60 °C, max. operating tem- p.110°C, way AB/A no current, way AB/B under current; manual operation way AB/A/B.
Electric immersion heater	9 kW; immersion depth: 800mm, including unheated part 100mm. Safety temper- ature limiter 135°C, ext. thread 1 1/2 inch
Power switch	3x230V, continuous operation: 3x16A, 50 Hz, automatic breaker: 3x20A
Technical data of installed components Heat consumers:

Drinking water heating with domestic water module (plate heat exchanger)

Tapping rate	selectable according to demand: 20 resp. 40 liters per minute at 10°C / 55°C,
Hot water volume	190 I - 265 I of reserved volume in System Storage at average storage tempera- ture of 60°C (primary side)
Control	Demand-coupled drinking water heating. The tank feeding pump (Wilo Yonos PARA 15/6 PWM1, 130 mm for 20 I/min or Para 15-130/8-75/iPWM1-12 at 40 I/ min) is controlled via volume flow meter to ensure lowest return flow temperatures.

Drinking water - heating with hot water storage tank

Control	Integrated feeding pump by Wilo (Para 25-130/6-43/SC-12); temperature sensor connection on;
Loading	Differential temperature control with maximum temperature limit; when hot water temperatures are lower than set temperatures in corresponding standby times. Programs for absence, permanent activation mode and disinfection program.

Circulation

Control	Integrated circulation pump by Wilo (ZRS 15/4-3); 230 VAC triggered via flow pressure signal, push button activation or during standby times.
Control system	The circulation interval ends automatically when set temperatures are reached. The circulation periods are available for individual setting.

Heating circuit 1 / Heating circuit 2 (via extension board to additional 3./4. Heating circuit)

Regulation	Outdoor temperature controlled heating circuits with energy-saving pump by Wilo (Para 25-180/6-43/SC-12). - Operation periods can be set individually. - Reduced mode (Standard, Frost protection, Cooldown protection). - Programs for absence, continuous operation as well as screed drying.

Ulrich Brunner GmbH

Zellhuber Ring 17-18 D-84307 Eggenfelden

Tel.: +49 (0) 8721/771-0

Email: info@brunner.de

Current data: www.brunner.de

BRUNNER products are offered and sold exclusively by qualified dealers and service centres.

Technical and range-related changes as well as errors reserved.

All images may contain additional functions or special equipment that are subject to a surcharge. Reprinting and duplication, including extracts, only with the express permission of the publisher. © Ulrich Brunner GmbH.

® **BRUNNER** is a registered trademark.

Art. No.: 200403