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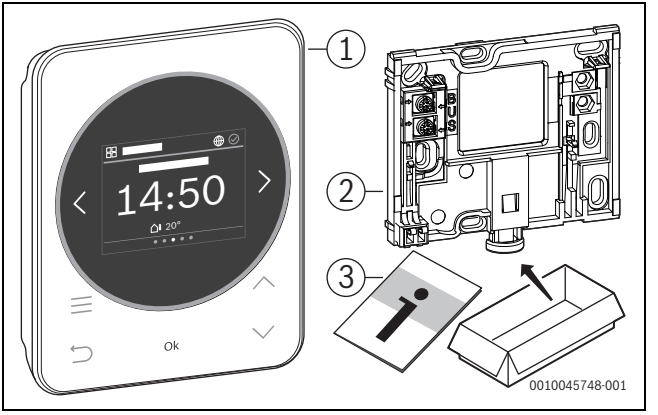
CH 120

en	Quick Start Guide	10
fr	Quick Start Guide	17
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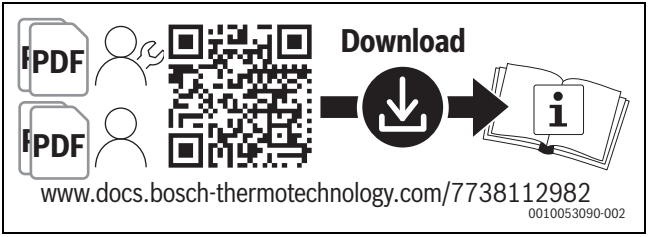


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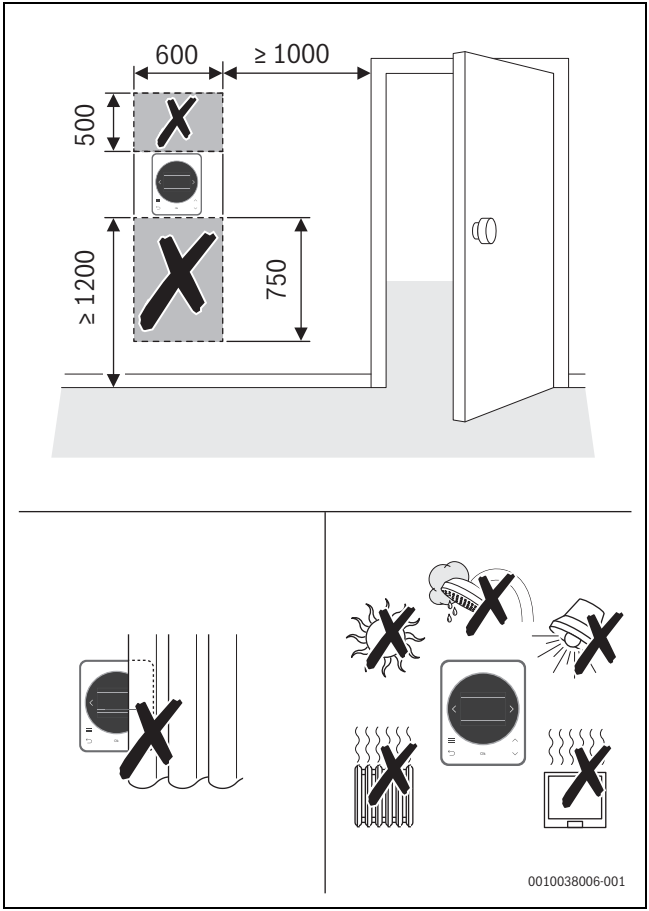
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14:50
20°
Ok
1
2
3
BUS
0010045748-001

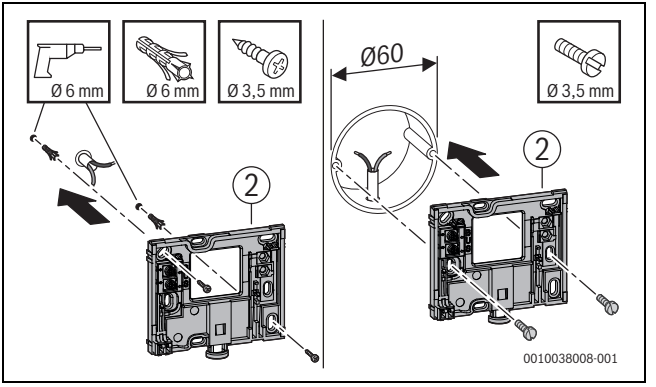
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PDF
PDF
Download
www.docs.bosch-thermotechnology.com/7738112982
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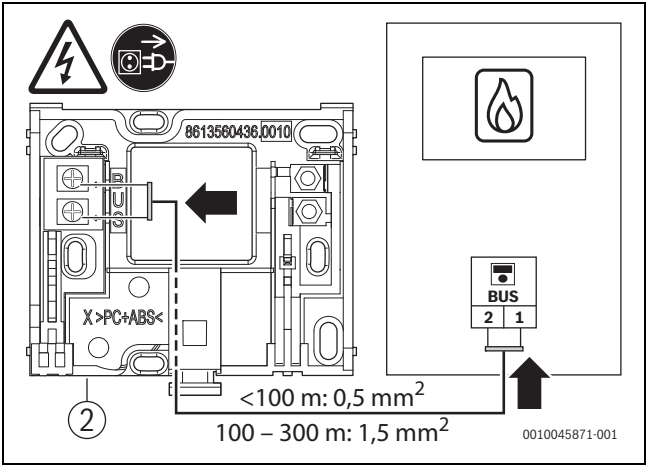
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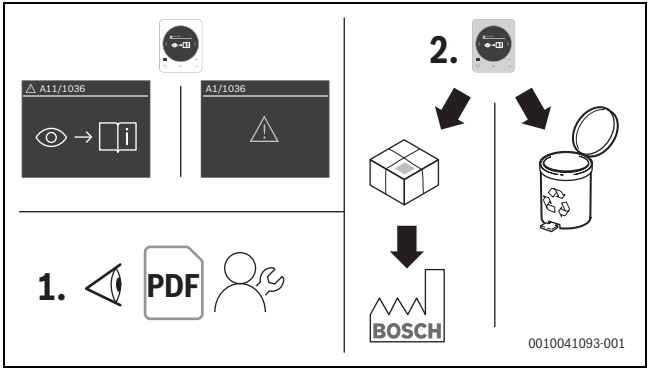
3


Ø 6 mm
Ø 6 mm
Ø 3,5 mm
Ø60
Ø 3,5 mm
2
2
0010038008-001

4


8613560436.0010
X >PC+ABS<
BUS
2 1
2
<100 m: 0,5 mm²
100 – 300 m: 1,5 mm²
0010045871-001

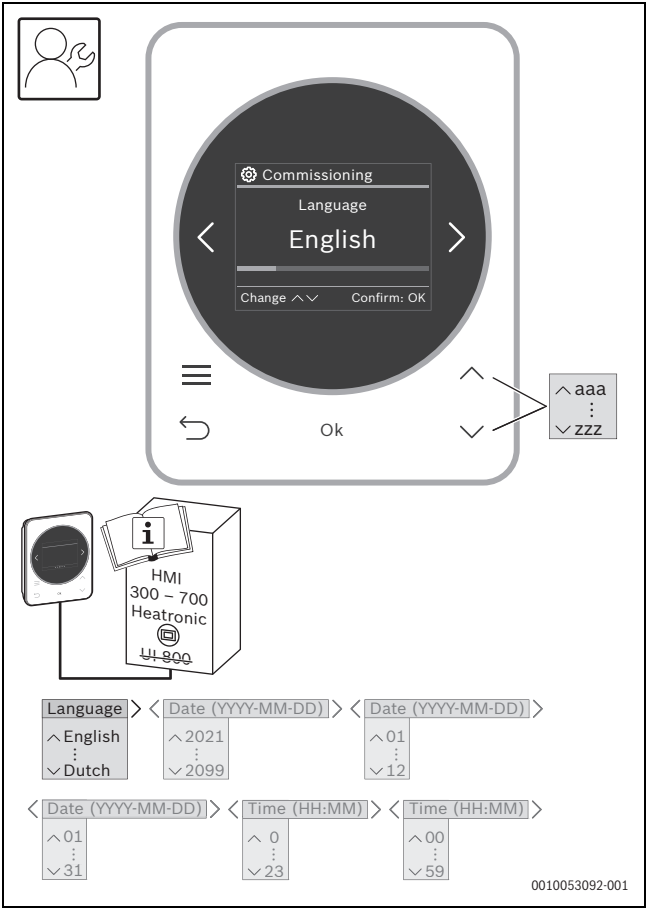
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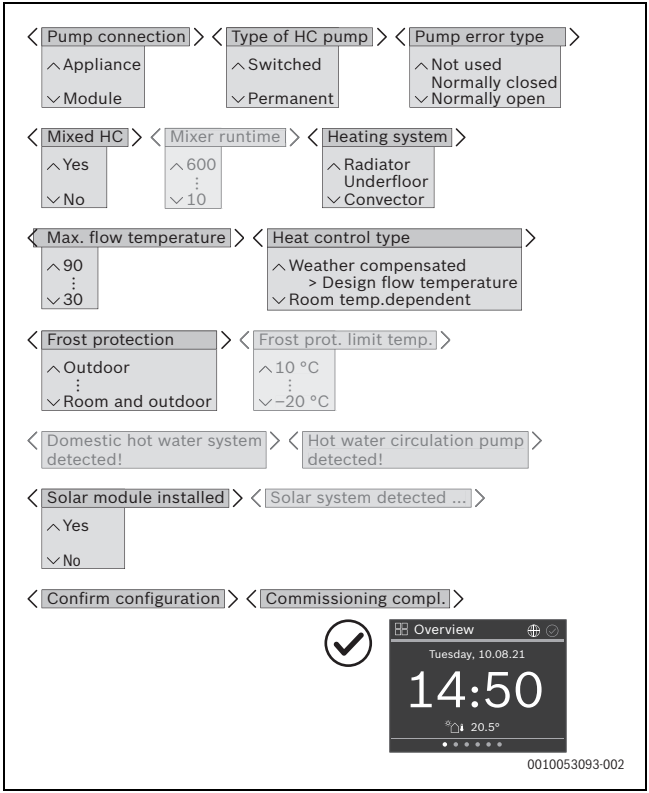
6

	CH 120
P_{max}	0,6 W
IP-class	20
Pollution degree (EN 60664)	2
T_{press} (EN 60695-10-2)	90 °C
T_{amb}	0 – 50 °C
ErP (EU 811/2013; (EU) 2017/1369)	Class V / 3 %, Class II /2 %, Class VI /4 %
Wi-Fi	–
BUS	EMS 2, EMS 1
m	200 g
h, d, w	h = 95 mm, w = 116 mm, d = 21 mm

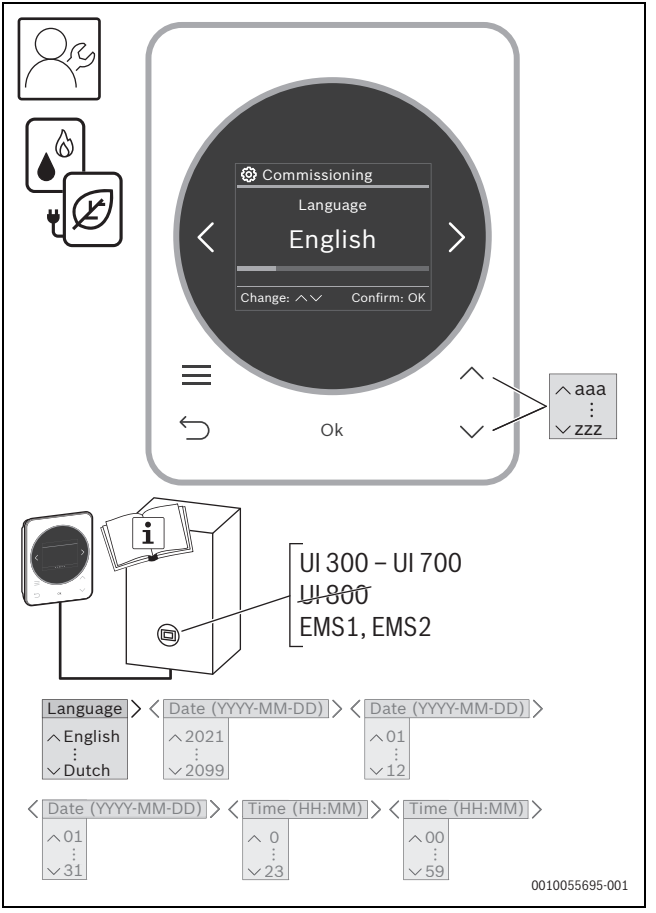
1


Commissioning
Language
English
Change
Confirm: OK
Ok
aaa
zzz
HMI
300 – 700
Heatronic
UI 800
Language
English
Dutch
Date (YYYY-MM-DD)
2021
2099
Date (YYYY-MM-DD)
01
12
Date (YYYY-MM-DD)
01
31
Time (HH:MM)
0
23
Time (HH:MM)
00
59
0010053092-001

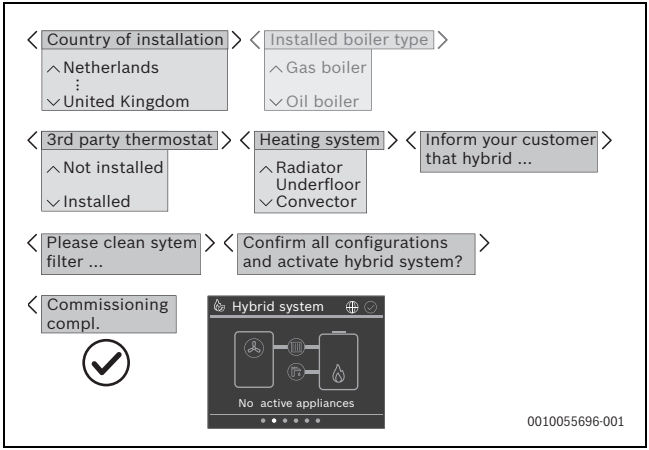
7


Pump connection
Appliance
Module
Type of HC pump
Switched
Permanent
Pump error type
Not used
Normally closed
Normally open
Mixed HC
Yes
No
Mixer runtime
600
10
Heating system
Radiator
Underfloor
Convector
Max. flow temperature
90
30
Heat control type
Weather compensated
> Design flow temperature
Room temp.dependent
Frost protection
Outdoor
Room and outdoor
Frost prot. limit temp.
10 °C
−20 °C
Domestic hot water system detected!
Hot water circulation pump detected!
Solar module installed
Yes
No
Solar system detected ...
Confirm configuration
Commissioning compl.
Overview
Tuesday, 10.08.21
14:50
20.5°
0010053093-002

8


Commissioning
Language
English
Change: ∧∨
Confirm: OK
Ok
∧aaa
⋮
∨zzz
UI 300 – UI 700
~~UI 800~~
EMS1, EMS2
Language
∧English
⋮
∨Dutch
Date (YYYY-MM-DD)
∧2021
⋮
∨2099
Date (YYYY-MM-DD)
∧01
⋮
∨12
Date (YYYY-MM-DD)
∧01
⋮
∨31
Time (HH:MM)
∧ 0
⋮
∨23
Time (HH:MM)
∧00
⋮
∨59
0010055695-001

9


Country of installation
Netherlands
United Kingdom
Installed boiler type
Gas boiler
Oil boiler
3rd party thermostat
Not installed
Installed
Heating system
Radiator
Underfloor
Convector
Inform your customer that hybrid ...
Please clean sytem filter ...
Confirm all configurations and activate hybrid system?
Commissioning compl.
Hybrid system
No active appliances
0010055696-001

10

1 [en] General safety instructions

Notices for the target group

These instructions are intended for experts who are skilled in dealing with water installations, heating and electrical engineering as well as the operator of the heating system and ventilation unit.

- ▶ Comply with all instructions of the system components.
- ▶ Observe the safety instructions and warnings.
- ▶ Follow national and regional regulations, technical regulations and guidelines.

Failure to comply with instructions may result in material damage and personal injury, including danger to life.

Intended use

- ▶ Use the product only to control the heating and ventilation units.

All other use is considered unsuitable. We accept no liability for damage caused through incorrect use.

⚠ Risk of scalding at the DHW draw-off points

- ▶ If DHW temperatures above 60 °C are set or if thermal disinfection is activated, a mixer must be installed. If in doubt, ask your installer.

2 Product description

CH 120 is a user interface for controlling heating systems with conventional heat generators (gas or oil boilers) or with a hybrid system. For hybrid systems, the following components must be present:

- Heat pump
- Boiler
- Hybrid manager HM 210
- Wired control BUS system EMS 1/EMS 2

Heat pump, boiler, hybrid manager HM 210 and CH 120 must be connected via EMS 1/EMS 2.

Maximum one heating circuit can be controlled using a CH 120.

In a hybrid system, CH 120 is not compatible with heat generators with UI 800 or CR 400/CW 400/CW 800.
In a system without hybrid manager HM 210, CH 120 can be used together with heat generators UI 800 and CR 400/CW 400/CW 800.

The detailed installation and operating instructions can be downloaded from the Bosch website.

► Scan the QR code in Fig. 2 on page 2.

If a third-party room thermostat is connected to the heat generator, it must be rewired and connected to the hybrid manager HM 210. The settings made on the CH 120 are not adopted by the third-party thermostat and vice versa.
During commissioning (or after a successful installation in the service menu), you can specify that a third-party thermostat is installed. Several standard settings are then made in the CH 120 and some menus are hidden on the HM 210, as these do not function optimally in conjunction with a third-party thermostat.

3 GB Importer

Bosch Thermotechnology Ltd.
Cotswold Way, Warndon
Worcester WR4 9SW / UK

4 Regulations

In order to ensure installation and operation of the product in accordance with the regulations, please observe all the applicable national and regional regulations as well as all technical rules and guidelines.

You can find a list of the most relevant British and European directives and regulations in the table below.

EU legislation	UK legislation
Electromagnetic Compatibility - Directive 2014/30/EU	Electromagnetic Compatibility Regulations 2016
Low Voltage Directive 2014/35	Electrical Equipment (Safety) Regulations 2016
Radio Equipment - Directive 2014/53/EU	Radio Equipment Regulations 2017
Pressure Equipment - Directive 2014/68/EU	Pressure Equipment (Safety) Regulations 2016
Gas Appliances - Regulation (EU) 2016/426	Regulation 2016/426 on gas appliances as brought into UK law and amended
Machinery Directive 2006/42/EC	Supply of Machinery (Safety) Regulations 2008
Ecodesign Directive 2009/125/EC	The Ecodesign for Energy-Related Products Regulations 2010
Energy Labelling Regulation (EU) 2017/1369	Energy Labelling Regulation (EU) 2017/1369 (as retained in UK law and amended)
Restriction of the Use of certain Hazardous Substances in Eletrical and Electronic Equipment (RoHS) - Directive 2002/95/EC	The Restriction of the Use of Certain Hazardous Substances in Eletrical and Electronic Equipment Regulations 2012
European Directive 2012/19/EC on old electronic and electrical appliances	(UK) Waste Electrical and Electronic Equipment Regulations 2013 (as amended)

Table 2

5 Service menu

To open the service menu:

- ▶ Press the ☰ key for 5 seconds.
  A countdown starts after 2 seconds. The display shows the service menu after 5 seconds.
- ▶ Use the ∨ and ∧ keys to navigate to the desired menu and select this with **OK.**

Menus may not be displayed depending on the system configuration.

5.1 System configuration

5.1.1 Domestic hot water

Displays whether a DHW heating is installed.

5.1.2 Solar module installed

A solar module can be integrated or removed.

5.1.3 Start hybrid system commissioning?

In the event that a hybrid module is installed after the CH 120 has already been installed with a conventional heat generator (gas or oil boiler).

5.1.4 3rd party thermostat

If a third-party thermostat is installed, some menu items are hidden and certain default settings are applied.

5.1.5 Activate m^3 for energy monitor

Enables the activation of the m^3 unit for gas consumption in the **Energy monitoring** menu. The conversion from kWh to m^3 is optimised for the country of installation **Netherlands** and takes into account the specific net calorific values for the Netherlands, 35.17 MJ.

5.1.6 Installed boiler type

Setting whether a gas or oil boiler is connected to CH 120 and hybrid manager HM 210.

5.2 Heating

NOTICE

Danger of damaging or destroying the screed!

Excessive temperatures in underfloor heating systems can destroy the screed.

- If an underfloor heating system is installed, observe the maximum flow temperature recommended by the manufacturer.

Menu items: Pump connection | Mixed HC | Mixer runtime | Type of HC pump | Pump error type | Heating system | Heat control type | Heat control type | Heat curve adaption | Max. flow temperature | Heat control type | Min. outdoor temperature | Design flow temperature | Control Characteristic | Pump economy mode | Room influence | Solar influence | Building / damping | Frost protection | Frost prot. limit temp. | Constant heat below | DHW priority

5.2.1 Threshold temperature for frost (frost protection limit temperature)

NOTICE

Risk of destroying hot water-conducting system components if the threshold temperature for frost is set too low and room temperatures are below 0 °C!

- Only specialists are permitted to adjust the factory setting of the threshold temperature for frost (5 °C).
- Do not set the threshold temperature too low.
  Damage caused by a threshold temperature set too low is not covered by the warranty!
- System frost protection is not possible without outdoor temperature sensor.

The **Room** setting does not offer absolute frost protection, because pipework installed in façades, for instance, can freeze. If an outside temperature sensor is installed, frost protection can be guaranteed for the entire heating system regardless of the control type set:

- In the Frost protection menu, set either **Outdoor** or **Room and outdoor** ( ).

5.3 Hybrid menu

Menu items: Bivalent temperature | Compressor quick start | Manual defrosting | TC3-TH2 temp. diff. heat. | Min. modulation boiler pump | Low-noise operation | Hybrid strategy | Energy prices

5.4 Hot water

WARNING

Risk of scalding from hot water!

If thermal disinfection to prevent legionella is enabled or the maximum cylinder temperature (DHW temp. max. or cylinder max.) is set to over 60 °C:

- ▶ Inform all people concerned and make sure that a mixing device is installed.

In a hybrid system, DHW is only provided by the conventional heat generator (gas/oil boiler).

When the thermal disinfection function is activated, the DHW cylinder is heated to the temperature.

- ▶ Observe operating conditions for the DHW circulation pump, including the water quality and instructions for the heat source stated in DVGW – Worksheet W 511.

Menu items: Circulation | Thermal disinfection

5.5 Solar

Menu items: Max. cylinder temp. | Type of collector | Gross collector area | Climate zone | Min hot water temp. | Modulating pump | Vario-Match-Flow | Tube function | Switch-on diff. solar pump | Switch-off diff. solar pump | Max. collector temp. | Therm.dis./daily heat-up (K) | Therm.dis./daily heat-up (K) | Start solar thermal system | Solar yield reset | Reset Solar module

5.6 Function check

With the help of this menu, pumps and mixer in this system can be tested.

Menu items: Function test

5.6.1 Heating circuit

Menu items: PC1 heat. circuit pump | Mixer

5.6.2 Solar

Menu items: Solar pump | PS6 therm. disinfect. pump

5.6.3 Hybrid system

Menu items: Air purge mode | Air purge mode | Expansion valve | Refrigerant circuit | Inverter cooling fan | Drain pan heater | Hybrid pump set point | PH0 flow rate | Compressor speed | Compressor set point | VR0 receiver valve | VR1 expansion valve | 4-way valve | Drain pan heater

5.7 Information

Menu items: Heat source (conventional) | **Hybrid system** | Heating circuit | Domestic hot water | System components

5.8 Operation status - faults

Menu items: Current system status | Fault history | Reset fault history | Reset alarms

5.9 Service

Menu items: Service reminder | Reminder date | Reset

5.10 Factory reset

Menu items: Factory reset

1 [fr] Consignes générales de sécurité

Consignes pour le groupe cible

Cette notice s'adresse aussi bien aux spécialistes en matière d'installation d'eau, en technique de chauffage, de ventilation et d'électricité, qu'aux utilisateurs des installations de chauffage et de ventilation.

- ▶ Respecter les consignes de toutes les notices des composants de l'installation.
- ▶ Respecter les consignes de sécurité et d'avertissement.
- ▶ Respecter les règlements nationaux et locaux, ainsi que les règles techniques et les directives.

Le non-respect peut entraîner des dommages matériels, des dommages corporels, voire la mort.

Utilisation conforme à l'usage prévu

- ▶ Utiliser ce produit exclusivement pour réguler les unités de chauffage et de ventilation.

Toute autre utilisation n'est pas conforme. Les dégâts qui en résulteraient sont exclus de la garantie.

⚠ Risques de brûlure aux points de puisage de l'eau chaude sanitaire

- ▶ Pour régler des températures ECS supérieures à 60 °C ou enclencher la désinfection thermique, un mitigeur thermostatique doit être installé. En cas de doute, consulter un spécialiste.

2 Description du produit

Le CH 120 est un module de commande utilisé pour la régulation de systèmes de chauffage avec des générateurs de chaleur conventionnels (chaudière gaz ou fioul) ou un système hybride. Pour les systèmes hybrides, les composants suivants doivent être disponibles :

- Pompe à chaleur
- Générateur de chaleur traditionnel (par exemple chaudière gaz à condensation)
- Gestionnaire hybride HM 210
- Système BUS filaire EMS 1/EMS 2

La pompe à chaleur, le générateur de chaleur traditionnel, le gestionnaire hybride HM 210 et CH 120 et doivent être reliés via EMS 1/EMS 2.

Un seul CH 120 peut commander au maximum un circuit de chauffage.

Dans un système hybride, le CH 120 n'est pas compatible avec les générateurs de chaleur avec UI 800 et CR 400/CW 400/CW 800.
Dans un système sans gestionnaire hybride HM 210, le CH 120 peut être utilisé avec des générateurs de chaleur avec UI 800 et CR 400/CW 400/CW 800.

Les notices d'installation et d'utilisation détaillées peuvent être téléchargées sur le site Internet de Bosch :

▶ Scanner le QR code sur la figure 2 à la page 2.

3 Niveau de service

Pour sélectionner le niveau de service :

- ▶ Appuyer sur la touche ☰ pendant au moins 5 secondes.
  Au bout de 2 secondes, un compte à rebours démarre et au bout de 5 secondes, l'écran affiche le niveau de service.
- ▶ Naviguer avec les touches ∨ et ∧ jusqu'au menu souhaité et le sélectionner en cliquant sur **Ok**.

Selon la configuration de l'installation, tous les menus ne sont pas affichés.

3.1 Config. système

3.1.1 Production ECS

L'installation indique si une production d'eau chaude sanitaire est installée.

3.1.2 Module solaire installé

Un module solaire peut être intégré ou non.

3.1.3 Redémarrer la mise en service hybride ?

Si un module hybride est installé après que le CH 120 a déjà été installé avec un générateur de chaleur conventionnel (chaudière gaz ou fioul).

3.1.4 Régulateur externe

En cas d'installation de régulateurs externes, certaines options sont masquées et certains réglages par défaut sont définis.

3.1.5 Activer les m³ pour la surveillance de l'énergie

Permet d'activer l'unité m^3 pour la consommation de gaz dans le menu **Surveill. énergie**. La conversion des kWh en m^3 est optimisée pour le pays d'installation, **Pays-Bas**, et tient compte du pouvoir calorifique inférieur de 35,17 MJ spécifique aux Pays-Bas.

3.1.6 Type de chaudière installé

Réglage permettant de définir si une chaudière gaz ou fioul est raccordée au CH 120 et au gestionnaire hybride HM 210.

3.2 Chauffage

AVIS

Risque d'endommagement ou de destruction de la chape !

Des températures trop élevées dans les chauffages par le sol peuvent détruire la chape.

- ▶ Pour le chauffage par le sol, respecter la température de départ maximale recommandée par le fabricant.

Options : Raccordement pompes | CC mélangé | Tps course vanne mél. | Type pompe circ. chauff. | Type défaut pompe | Système de chauffage | Type régulation chauffage | Type régulation chauffage | Réglage de la courbe de chauffe | Température départ max. | Type régulation chauffage | Température ext. minim. | Température de référence | Caractéristique règl. | Mode économie pompe | Influence ambiante | Influence solaire | Atténuation / type bât. | Protection hors gel | Protec. antigel temp. lim. | Chauffage continu sous | Priorité eau chaude

3.2.1 Température de seuil en cas de gel (température limite de la protection antigel)

AVIS

la destruction des composants hydrauliques de l'installation si la température de seuil pour le gel est trop faible et les températures ambiantes inférieures à 0 °C!

- ▶ Ne faire effectuer le réglage de base de la température de seuil pour le gel (5 °C) que par un spécialiste.
- ▶ Ne pas régler la température de seuil sur une position trop basse. Les dommages résultant d'un réglage de la limite de protection hors gel trop faible ne sont pas couverts par la garantie !
- ▶ Une bonne protection antigel de l'installation ne peut pas être assurée sans sonde de température extérieure.

Le réglage **Pièce** n'offre pas de protection antigel absolue, les conduites posées dans les façades risquant de geler. Si une sonde de température extérieure est installée, il est possible, indépendamment du type de régulation réglé, de garantir la protection antigel de l'ensemble de l'installation de chauffage :

- ▶ Dans le menu Protection hors gel, régler **Extérieur** ou **Pièce et extérieur** ( ).

3.3 Menu hybride

Options : Température de bivalence | Démar. rapide compres. | Dégivrage manuel | Diff. T TC3-TH2 Chauf. | Vitesse min. circul. chauf. | Fct silencieux | Stratégie hybride | Prix de l'énergie

3.4 ECS

AVERTISSEMENT

Risque de brûlures dues à l'eau chaude !

Si la désinfection thermique est activée pour éviter la formation de légionelles ou si la température maximale du ballon (Temp. max ECS ou Ballon max.) est réglée à plus de 60 °C :

- Informer toutes les personnes concernées et s'assurer qu'un dispositif de mélange est installé.

Dans un système hybride, l'eau chaude sanitaire est fournie uniquement par le générateur de chaleur conventionnel (chaudière gaz/fioul).

Si la fonction de désinfection thermique est activée, l'eau chaude sanitaire sera chauffée à la température réglée.

- Respecter les exigences figurant dans la fiche technique DVGW W 511, les conditions de fonctionnement pour la pompe de bouclage, y compris la qualité de l'eau, ainsi que la notice d'utilisation du générateur de chaleur.

Options : Bouclage | Désinfection thermique

3.5 Solaire

Options : Temp. max. ballon | Type du champ de capteur | Surface brute du capteur | Zone climatique | Temp. ECS min. | Pompe modulante | Vario-Match-Flow | Fonction tuyaux | Diff. d'encl. pompe solaire | Diff. d'arrêt pompe solaire | Température max. capt. | Désinf. thermique/mise en temp. journalière (K) | Désinf. thermique/mise en temp. journalière (K) | Démarrer le syst. solaire | Réinit. rendement solaire | Réin. module solaire

3.6 Contrôle du fonctionnement

Ce menu permet de tester les pompes et les vannes de mélange de l'installation.

Options : Test fonction

3.6.1 Circuit de chauffage

Options : Pompe circuit chauff. PC1 | Vanne de mélange

3.6.2 Solaire

Options : Pompe solaire | PS6 th. pompe désinf.

3.6.3 Système hybride

Options : Mode purge | Mode purge | Détendeur | Circuit de réfrigérant | Onduleur ventil. refroidiss. | Chauffage bacs récup. | Valeur de consigne pompe hybride | PH0 Débit | Vit. rotation compresseur | Valeur de consigne compresseur | VR0 Soupape récepteur | VR1 Détendeur | Vanne quatre voies | Chauffage bacs récup.

3.7 Information

Options : Générateur de chaleur (conventionnel) | **Système hybride** | Circuit de chauffage | Production ECS | Composants du système

3.8 État de fonct. - défauts

Options : Défauts actuels | Historique des défauts | Réin. historique défauts | Réinitialiser les défauts

3.9 Service

Options : Rappel de maintenance | Date de rappel | Déverrouil.

3.10 Réinit. réglages base

Options : Réinit. réglages base



1 [it] Avvertenze di sicurezza generali

Informazioni per il gruppo di destinatari

Le presenti istruzioni si rivolgono sia ai tecnici specializzati in installazioni idrauliche e nei settori della termotecnica ed elettrotecnica, sia al gestore dell'impianto di riscaldamento e di ventilazione.

- Attenersi a tutte le indicazioni contenute nelle istruzioni dei componenti dell'impianto.
- Rispettare le avvertenze e gli avvisi di sicurezza.
- Attenersi alle disposizioni nazionali e locali, ai regolamenti tecnici e alle direttive in vigore.

La mancata osservanza delle indicazioni può causare lesioni alle persone e/o danni materiali fino ad arrivare al pericolo di morte.

Utilizzo conforme alle indicazioni

- Utilizzare il prodotto esclusivamente per la regolazione di impianti di riscaldamento e di ventilazione.

L'apparecchio non è progettato per altri usi. Gli eventuali danni che ne derivassero sono esclusi dalla garanzia.

⚠ Pericolo di scottature sui punti di prelievo dell'acqua calda sanitaria

- Se vengono impostate temperature per l'acqua calda sanitaria maggiori di 60 °C o è attivata la disinfezione termica, deve essere installato un miscelatore ACS, a monte delle utenze. In caso di dubbio rivolgersi al tecnico specializzato.

2 Descrizione del prodotto

CH 120 è un'unità di servizio per la termoregolazione di impianti di riscaldamento con generatore di calore convenzionale (caldaia a gas o a gasolio) o con un sistema ibrido. I sistemi ibridi devono disporre dei seguenti componenti:

- Pompa di calore
- Generatore di calore convenzionale (ad es. caldaia a condensazione a gas)
- Hybrid Manager HM 210
- Sistema BUS EMS 1/EMS 2 collegato via cavo

Pompa di calore, generatore di calore convenzionale, Hybrid Manager HM 210 e CH 120 devono essere collegati tramite EMS 1/EMS 2.

Con un'unità di servizio CH 120 è possibile comandare al massimo un circuito di riscaldamento.

In un sistema ibrido, CH 120 non è compatibile con generatori di calore con UI 800 e CR 400/CW 400/CW 800.
In un sistema senza Hybrid Manager HM 210, CH 120 può essere utilizzata con generatori di calore provvisti di UI 800 e CR 400/CW 400/CW 800.

Le istruzioni dettagliate per l'installazione e l'uso sono scaricabili dal sito web Bosch:

▶ Scansionare il codice QR in figura 2 a pagina 2.

3 Menu di servizio

Per richiamare il menu di servizio:

- ▶ tenere premuto il tasto ☰ per almeno 5 secondi.
  Dopo 2 secondi ha inizio il conto alla rovescia; dopo 5 secondi il display mostra il menu di servizio.
- ▶ Con i tasti ∨ e ∧ andare al menu desiderato e selezionarlo con **Ok**.

A seconda della configurazione dell'impianto è possibile che non vengano visualizzati tutti i menu.

3.1 Configurazione di sistema

3.1.1 Produzione di ACS

Indica se è installato un sistema di produzione di acqua calda sanitaria.

3.1.2 Modulo solare installato

È possibile collegare o eliminare un modulo solare.

3.1.3 Avviare di nuovo la messa in funzione del sistema ibrido?

Nel caso si voglia installare un sistema ibrido dopo aver installato CH 120 con un generatore di calore convenzionale (caldaia a gas o a gasolio).

3.1.4 Termoregolatore di terzi

Se risultano installati termoregolatori esterni, alcune voci di menu vengono nascoste e vengono adottate alcune impostazioni di fabbrica.

3.1.5 Attivazione di m^3 per il monitoraggio dell'energia

Permette di attivare l'unità di misura m^3 per il consumo di gas nel menu **Monitor. energia**. La conversione da kWh a m^3 è ottimizzata per il Paese di installazione **Paesi Bassi** e tiene conto del potere calorifico specifico dei Paesi Bassi, pari a 35,17 MJ.

3.1.6 Tipo di caldaia installata

L'impostazione definisce se a CH 120 e all'Hybrid Manager HM 210 è collegata una caldaia a gas o a gasolio.

3.2 Riscaldamento

AVVISO

Pericolo di danneggiamento o rottura del massetto!

Temperature eccessive nell'impianto di riscaldamento a pannelli radianti possono danneggiare irreparabilmente il massetto.

- ▶ Con impianto di riscaldamento a pannelli radianti osservare la temperatura di mandata massima consigliata dal produttore.

Voci di menu: Collegamento pompa | Circuito risc. misc. | Tempo corsa valv. misc. | Tipo circolatore risc. | Tipo guasto pompa | Sistema di risc. | Tipo regolaz. riscald. | Tipo regolaz. riscald. | Impostazione della curva termocaratteristica di riscald. | Temp. di mandata max. | Tipo regolaz. riscald. | Temp. esterna min. | Temp. di progetto | Caratteristica di regol. | Modalità pompa eco | Influenz. tep. ambiente | Influsso solare | Assorbim./tipo di edificio | Protezione antigelo | Temp. protez. antigelo | Riscald. continuo sotto | Precedenza ACS

3.2.1 Temperatura di soglia per il gelo (temperatura limite protezione antigelo)

AVVISO

Pericolo di danneggiare irrimediabilmente componenti dell'impianto adibite per il trasporto di acqua calda in caso di temperatura di soglia per il gelo impostata troppo in basso e temperature ambiente al di sotto di 0 °C!

- ▶ L'impostazione di base della temperatura di soglia per il gelo (5 °C) può essere adattata solo dal tecnico specializzato.
- ▶ Non impostare la temperatura di soglia su un valore troppo basso.
  Si esclude dalla garanzia ogni danno provocato dalla temperatura di soglia per il gelo impostata su valori troppo bassi!
- ▶ Senza sonda della temperatura esterna non è possibile una protezione antigelo sicura dell'impianto.

L'impostazione **Stanza** non offre una protezione antigelo assoluta perché, ad esempio, le tubazioni posate nelle facciate possono gelare. Se è installata una sonda di temperatura esterna, la protezione antigelo può essere garantita per tutto l'impianto indipendentemente dal tipo di impostazione eseguita sul termoregolatore:

- Nel menu Protezione antigelo, impostare **Esterna** o **Amb. & esterna** ( ).

3.3 Menu Ibrido

Voci di menu: Temperatura bivalente | Avvio compressore rapido | Sbrinamento manuale | TC3-TH2 Diff. temp. risc. | Velocità min circolatore | Funzionamento silenzioso | Strategia ibrida | Prezzi energia

3.4 Acqua calda sanit.

AVVERTENZA

Pericolo di ustioni dovuto ad acqua bollente!

Se è abilitata la disinfezione termica per evitare la contaminazione da legionella o se la temperatura massima del bollitore (Temp. max ACS o Bollitore max) è impostata su un valore superiore a 60 °C:

- Informare tutte le persone interessate e assicurarsi che sia installato un miscelatore.

In un sistema ibrido l'acqua calda sanitaria è prodotta soltanto dal generatore di calore convenzionale (caldaia a gas/gasolio).

Se è attiva la funzione per la disinfezione termica, l'accumulatore/bollitore di acqua calda sanitaria viene riscaldato alla temperatura impostata.

- Osservare requisiti prescritti sul DVGW – foglio di lavoro W 511, condizioni di funzionamento della pompa di ricircolo sanitario incl. la qualità dell'acqua e osservare le istruzioni del generatore di calore.

Voci di menu: Ricircolo | Disinfezione termica

3.5 Solare

Voci di menu: Max. temp. accumulatore | Tipo campo collettori | Superficie lorda collettore | Zona climatica | Temp. acqua calda minima | Circolatore modulante | Vario-Match-Flow | Funzione colletore a tubi | Diff. ins. circ.sol. | Diff. disins. circ. sol. | Temperatura max collett. | Disinf. term./risc. giorn. (K) | Disinf. term./risc. giorn. (K) | Avvia sistema solare | Reset rendim. solare | Reset modulo solare

3.6 Prova di funzionamento

Con questo menu è possibile testare i circolatori e le valvole miscelatrici dell'impianto.

Voci di menu: Prova di funz.

3.6.1 Circuito di riscaldamento

Voci di menu: PC1 Circol. circ. risc. | Miscelatore

3.6.2 Solare

Voci di menu: Circolatore solare | PS6 Pompa di disinf. term.

3.6.3 Sistema ibrido

Voci di menu: Funz. in mod.disareazione | Funz. in mod.disareazione | Valvola di espans. | Circuito del refrigerante | Ventil. raffreddam. inverter | Risc. vasca di scar. | Valore nominale circolatore ibrido | PH0 Portata | Velocità compressore | Valore nominale compressore | VR0 Valvola ricevitore | VR1 Valvola di espansione | Valvola a 4 vie | Risc. vasca di scar.

3.7 Informazione

Voci di menu: Generatore di calore (convenzionale) | **Sistema ibrido** | Circuito di riscaldamento | Produzione di ACS | Componenti sistema

3.8 Stato di funz. - Disfunzioni

Voci di menu: Disfunzioni attuali | Storico delle disfunzioni | Ripristina storico disfunz. | Reset disfunzioni

3.9 Servizio

Voci di menu: Promemoria di servizio | Data del promemoria | Riarmo

3.10 Reset impost. fabbrica

Voci di menu: Reset impost. fabbrica

1 [nl] Algemene veiligheidsaanwijzingen

Instructies voor de doelgroep

Deze instructie is bedoeld voor de vakman op het gebied van de waterinstallaties, verwarmings-, ventilatie- en elektrotechniek en voor de gebruiker van de cv- en ventilatie-installatie.

- ▶ Houd de aanwijzingen in alle instructies van de installatiecomponenten aan.
- ▶ Houd de veiligheids- en waarschuwingsinstructies aan.
- ▶ Houd de nationale en regionale voorschriften, technische regels en richtlijnen aan.

Indien deze niet worden aangehouden kan materiële schade en lichamelijk letsel en zelfs levensgevaar ontstaan.

Correct gebruik

- ▶ Gebruik het product uitsluitend voor de regeling van verwarmings- en ventilatie-installaties.

Ieder ander gebruik komt niet overeen met de voorschriften. Daaruit resulterende schade valt niet onder de aansprakelijkheid.

⚠ Verbrandingsgevaar aan de tappunten van het warm water

- ▶ Wanneer warmtapwatertemperaturen boven 60 °C zijn ingesteld of de thermische desinfectie is ingeschakeld, moet een thermostatische mengkraan worden geïnstalleerd. Vraag bij twijfel de installateur.

2 Productbeschrijving

CH 120 is een bedieningsunit voor het regelen van verwarmingssystemen met een conventionele warmte-opwekker (gas- of stookolieketel) of met een hybride systeem. Bij hybride systemen moeten de volgende componenten aanwezig zijn:

- Warmtepomp
- Conventionele warmtebron (bijv. cv-toestel)
- Hybride manager HM 210
- Kabelgebonden BUS-systeem EMS 1/EMS 2

Warmtepomp, conventionele warmtebron, hybride manager HM 210 en CH 120 moeten via EMS 1/EMS 2 zijn verbonden.

Met een CH 120 kan maximaal een cv-groep worden aangestuurd.

In een hybride systeem is CH 120 niet compatibel met warmte-opwekkers met UI 800 en CR 400/CW 400/CW 800.
In een systeem zonder hybride manager HM 210 kan CH 120 samen met warmte-opwekkers met UI 800 en CR 400/CW 400/CW 800 worden gebruikt.

De gedetailleerde installatie- en gebruikersinstructies kunt u downloaden op de website van Bosch:

▶ Scan de QR-code in de afbeelding 2 op pagina 2.

3 Servicemenu

Om het servicemenu op te roepen:

- ▶ Toets ☰ minimaal gedurende 5 seconden indrukken.
  Na 2 seconden start een countdown, na 5 seconden toont het display het servicemenu.
- ▶ Navigeer met de toetsen ∨ en ∧ naar het gewenste menu en selecteer dit met **Ok**.

Afhankelijk van de configuratie van de installatie worden niet alle menu's getoond.

3.1 Systeemconfiguratie

3.1.1 Warmwatervoorziening

Geeft aan, of een warmwatervoorziening is geïnstalleerd.

3.1.2 Zonnemodule geïnst.

Een zonnemodule kan worden opgenomen resp. verwijderd.

3.1.3 Hybride inbedrijfname opnieuw starten?

Als er een hybride module wordt geïnstalleerd nadat de CH 120 al met een conventionele warmte-opwekker (gas- of stookolieketel) is geïnstalleerd.

3.1.4 Externe regelaar

Als er externe regelaars zijn geïnstalleerd worden sommige menupunten verborgen en worden er bepaalde standaardinstelingen uitgevoerd.

3.1.5 Voor energiemonitor m^3 activeren

Hiermee kan de eenheid m^3 voor het gasverbruik in het menu **Energie-monitor.** worden geactiveerd. De omrekening van kWh naar m^3 is geoptimaliseerd voor het installatieland **Nederland** en houd rekening met de voor Nederland specifieke verbrandingswaarde 35,17 MJ.

3.1.6 Geïnstalleerd keteltype

Instelling of een gas- of stookolieketel met CH 120 en hybride manager HM 210 is verbonden.

3.2 Verwarming

OPMERKING

Gevaar voor beschadiging van de afwerkvloer!

Te hoge temperaturen in vloerverwarmingen kunnen de afwerkvloer beschadigen.

- ▶ Houd bij vloerverwarming de door de fabrikant aanbevolen maximale aanvoertemperatuur aan.

Menupunten: Pompen aansluiting | Gemengde cv-groep | Mengmodule bedrijfstijd | Type CV-pomp | Type pompstoring | Verwarmingssysteem | Regeltype centrale verw. | Regeltype centrale verw. | Stooklijninstelling | Max. aanvoertemp. | Regeltype centrale verw. | Min.buitentemp. | Dimensioneringstemp. | Regelkarakteristiek | Pompspaarmodus | Ruimte-invloed | Zonne-invloed | Demping / gebouwsoort | Vorstbeveiliging | Vorstbev. grenstemp. | Cont. verwarmen onder | Warmwatervoorrang

3.2.1 Drempeltemperatuur voor vorst (vorstbeveiliging grenstemperatuur)

OPMERKING

Beschadiging van cv-watertransporterende installatiedelen bij te laag ingestelde drempeltemperatuur voor vorst en kamertemperaturen onder 0 °C!

- ▶ De fabrieksinstelling voor de drempeltemperatuur voor vorst (5 °C) mag alleen door een vakman worden gewijzigd.
- ▶ Stel de drempeltemperatuur niet te laag in.
  Schade door een te laag ingestelde drempeltemperatuur voor vorst is van de garantie uitgesloten!
- ▶ Zonder buitentemperatuursensor is geen veilige vorstbeveiliging van de installatie mogelijk.

De instelling **Ruimte** biedt geen absolute vorstbescherming, omdat bijvoorbeeld in gevels geïnstalleerde leidingen kunnen bevriezen. Is een buitentemperatuursensor geïnstalleerd dan kan onafhankelijk van het ingestelde type regeling de vorstbescherming van de gehele cv-installatie worden gewaarborgd:

▶ In menu Vorstbeveiliging of **Buiten** of **Ruimte en buiten** instellen ().

3.3 Hybride menu

Menupunten: Bivalente temperatuur | Snelle compressorstart | Handmatige ontdooiing | TC3-TH2 temp. vers.verw. | Min. toerent.cv-pomp | Geluidsarm bedrijf | Hybride strategie | Energieprijzen

3.4 Warm water

WAARSCHUWING

Gevaar voor letsel door heet water!

Wanneer de thermische desinfectie ter voorkoming van legionella is vrijgeschakeld of de maximale boilertemperatuur (WW-temp. Max. of Boiler Max.) is ingesteld hoger dan 60 °C:

▶ Informeer alle betrokkenen en waarborg dat een mengmodule is geïnstalleerd.

In een hybride systeem wordt het warme water alleen door de conventionele warmte-opwekker (gas-/stookolieketel) beschikbaar gesteld.

Als de functie voor de thermische desinfectie geactiveerd is, wordt de boiler tot de daarvoor ingestelde temperatuur opgewarmd.

- Eisen uit het DVGW – werkblad W 511, gebruiksvoorwaarden voor de circulatiepomp incl. waterkwaliteit en instructie van de warmtebron volgen.

Menupunten: Circulatie | Thermische desinfectie

3.5 Zonne

Menupunten: Max. boilertemp. | Type collectorveld | Bruto collectoroppervlak | Klimaatzone | Min. warmwatertemp. | Modulerende pomp | Vario-Match-Flow | Leidingfunctie | Inschakelversch. zonnepo. | Uitschakelversch. zon.po. | Max. collectortemp. | Therm.des./dag.opw. (K) | Therm.des./dag.opw. (K) | Zonne-energiesys. start | Reset zonneopbrengst | Reset zonnemodule

3.6 Werkingscontrole

Met behulp van dit menu kunnen pompen en mengers van de installatie worden getest.

Menupunten: Functietest

3.6.1 Verwarmingsgroep

Menupunten: PC1 CV-pomp | Mengmodule

3.6.2 Zonne

Menupunten: Zonneboilerpomp | PS6 therm. desinf. pomp

3.6.3 Hybride systeem

Menupunten: Ontluchtingsbedr. | Ontluchtingsbedr. | Expansieventiel | Koudemiddelcircuit | Inverter koelventilator | Condensafvoer verwarm. | Gewenste waarde hybride pomp | PH0 volumestroom | Compressortoerental | Compressor gewenste waarde | VR0 Receiver-ventiel | VR1 Expansieventiel | 4-wegklep | Condensafvoer verwarm.

3.7 Informatie

Menupunten: Warmtebron (conventioneel) | **Hybride systeem** | Verwarmingsgroep | Warmwatervoorziening | Systeemcomponenten

3.8 Bedrijfsstatus - Storingen

Menupunten: Actuele storingen | Storingshistorie | Storingshist. resetten | Wis storingen

3.9 Service

Menupunten: Onderhoudsherinnering | Datum voor herinnering | Reset

3.10 Fabrieksins.resetten

Menupunten: Fabrieksins.resetten

1 [fl] Algemene veiligheidsvoorschriften

Instructies voor de doelgroep

Deze handleiding is bedoeld voor de vakman op het gebied van de waterinstallaties, centrale verwarming, ventilatie en elektrotechniek en voor de gebruiker van de cv-installatie en ventilatie-installatie.

- ▶ Houd de instructies in alle handleidingen van de installatiecomponenten aan.
- ▶ Neem de veiligheidsinstructies en waarschuwingsaanwijzingen in acht.
- ▶ Neem de nationale en regionale voorschriften, technische regels en richtlijnen in acht.

Indien deze niet worden aangehouden kunnen materiële schade, lichamelijk letsel en zelfs levensgevaar ontstaan.

Gebruik volgens de voorschriften

- ▶ Gebruik het product uitsluitend voor de regeling van verwarmings- en ventilatie-installaties.

Ieder ander gebruik is niet toegestaan. Daaruit resulterende schade valt niet onder de aansprakelijkheid.

⚠ Verbrandingsgevaar aan de tappunten van het warm water

- ▶ Installeer een thermostatische mengkraan wanneer warmwatertemperaturen boven 60 °C zijn ingesteld of de thermische desinfectie is ingeschakeld. Vraag bij twijfel de vakman.

2 Productbeschrijving

CH 120 is een bedieningseenheid voor de regeling van verwarmingssystemen met conventionele warmteproducenten (gas- of stookolieketel) of met een hybride systeem. Bij hybride systemen moeten de volgende componenten aanwezig zijn:

- Warmtepomp
- Conventionele warmteproducent (bijv. gascondensatieketel)
- Hybride manager HM 210
- Bekabeld BUS-systeem EMS 1/EMS 2

Warmtepomp, conventionele warmteproducent, hybride manager HM 210 en CH 120 moeten via EMS 1/EMS 2 verbonden zijn.

Met een CH 120 kan maximaal één cv-circuit worden aangestuurd.

In een hybride systeem is CH 120 niet compatibel met warmteproducenten met UI 800 en CR 400/CW 400/CW 800.
In een systeem zonder hybride manager HM 210 kan CH 120 samen met warmteproducenten met UI 800 en CR 400/CW 400/CW 800 worden gebruikt.

De gedetailleerde installatie- en gebruikersinstructies kunnen op de website van Bosch worden gedownload:

► Scan de QR-code op de afbeelding 2 op pagina 2.

3 Servicemenu

Om het servicemenu op te roepen:

- ▶ Toets ☰ minimaal 5 seconden lang ingedrukt houden.
  Na 2 seconden start een aftelproces, na 5 seconden toont het display het servicemenu.
- ▶ Met de toetsen ∨ en ∧ naar het gewenste menu navigeren en deze met **Ok** selecteren

Afhankelijk van de configuratie van de installatie worden niet alle menu's getoond.

3.1 Systeemconfiguratie

3.1.1 Warmwatervoorziening

Geeft aan, of een warmwaterbereiding is geïnstalleerd.

3.1.2 Zonnemodule geïnst.

Een solarmodule kan worden opgenomen resp. verwijderd.

3.1.3 Hybride inbedrijfname opnieuw starten?

Als er een hybride module geïnstalleerd wordt, nadat de CH 120 al met een conventionele warmteproducent (gas- of stookolieketel) is geïnstalleerd.

3.1.4 Externe regelaar

Bij geïnstalleerde externe regelaars zijn sommige menupunten niet zichtbaar en worden bepaalde standaardinstellingen aangebracht.

3.1.5 Voor energie monitor m^3 activeren

Maakt activering van de eenheid m^3 voor het gasverbruik in menu **Energie-monitor.** mogelijk. De omrekening van kWh in m^3 is geoptimaliseerd voor installatieland **Nederland** en houdt rekening met de voor Nederland specifieke verbrandingswaarde 35,17 MJ.

3.1.6 Geïnstalleerd keteltype

Instelling of er een gas- of stookolieketel met CH 120 en hybride manager HM 210 is verbonden.

3.2 Verwarming

OPMERKING

Gevaar voor beschadiging of defecten aan de chape!

Te hoge temperaturen in vloerverwarmingen kunnen de afwerkvloer onherstelbaar beschadigen.

- ▶ Respecteer bij vloerverwarming de door de fabrikant aanbevolen maximale aanvoertemperatuur.

Menupunten: Pompen aansluiting | Gemengde cv-groep | Mengmodule bedrijfstijd | Type CV-pomp | Type pompstoring | Verwarmingssysteem | Regeltype centrale verw. | Regeltype centrale verw. | Stooklijninstelling | Max. aanvoertemp. | Regeltype centrale verw. | Min.buitentemp. | Dimensioneringstemp. | Regelkarakteristiek | Pompspaarmodus | Ruimte-invloed | Zonne-invloed | Demping / gebouwsoort | Vorstbeveiliging | Vorstbev. grenstemp. | Cont. verwarmen onder | Warmwatervoorrang

3.2.1 Drempeltemperatuur voor vorst (vorstbeveiliging grenstemperatuur)

OPMERKING

Beschadiging van cv-watertransporterende installatiedelen bij te laag ingestelde drempeltemperatuur voor vorst en kamertemperaturen onder 0 °C!

- ▶ De basisinstelling voor de drempeltemperatuur voor vorst (5 °C) mag alleen door een vakman worden aangepast.
- ▶ Stel de drempeltemperatuur niet te laag in.
  Schade door te laag ingestelde drempeltemperatuur voor vorst is van de garantie uitgesloten!
- ▶ Zonder buitentemperatuursensor is geen veilige vorstbeveiliging van de installatie mogelijk.

De instelling **Ruimte** biedt geen absolute vorstbeveiliging, omdat bijvoorbeeld in gevels geïnstalleerde leidingen kunnen bevriezen. Is een buitentemperatuursensor geïnstalleerd dan kan onafhankelijk van het ingestelde type regeling de vorstbeveiliging van de gehele cv-installatie worden gewaarborgd:

- In het menu Vorstbeveiliging ofwel **Buiten** ofwel **Ruimte en buiten** instellen ().

3.3 Hybride menu

Menupunten: Bivalente temperatuur | Snelle compressorstart | Handmatige ontdooiing | TC3-TH2 temp. vers.verw. | Min. toerent.cv-pomp | Geluidsarm bedrijf | Hybride strategie | Energieprijzen

3.4 Warm water

WAARSCHUWING

Verbrandingsgevaar door heet water!

Wanneer de thermische desinfectie ter voorkoming van legionella is ingeschakeld of de maximale boilertemperatuur (WW-temp. Max of boiler max.) op 60 °C is ingesteld:

- Informeer alle betrokkenen en waarborg dat een menginrichting is geïnstalleerd.

In een hybride systeem wordt het warm water alleen door een conventionele warmteproducent (gas-/stookolieketel) ter beschikking gesteld.

Wanneer de functie voor de thermische desinfectie is geactiveerd, wordt de boiler op de daarvoor ingestelde temperatuur opgewarmd.

- Eisen uit het DVGW – werkblad W 511, gebruiksvoorwaarden voor de circulatiepomp incl. waterkwaliteit en instructie van de warmteproducent volgen.

Menupunten: Circulatie | Thermische desinfectie

3.5 Zonne

Menupunten: Max. boilertemp. | Type collectorveld | Bruto collectoroppervlak | Klimaatzone | Min. warmwatertemp. | Modulerende pomp | Vario-Match-Flow | Leidingfunctie | Inschakelversch. zonnepo. | Uitschakelversch. zon.po. | Max. collectortemp. | Therm.des./dag.opw. (K) | Therm.des./dag.opw. (K) | Zonne-energiesys. start | Reset zonneopbrengst | Reset zonnemodule

3.6 Werkingscontrole

Met behulp van dit menu kunnen pompen en mengkranen van de installatie worden getest.

Menupunten: Functietest

3.6.1 Verwarmingsgroep

Menupunten: PC1 CV-pomp | Mengmodule

3.6.2 Zonne

Menupunten: Zonneboilerpomp | PS6 therm. desinf. pomp

3.6.3 Hybride systeem

Menupunten: Ontluchtingsbedr. | Ontluchtingsbedr. | Expansieventiel | Koudemiddelcircuit | Inverter koelventilator | Condensafvoer verwarm. | Gewenste waarde hybride pomp | PH0 volumestroom | Compressortoerental | Compressor gewenste waarde | VR0 Receiver-ventiel | VR1 Expansieventiel | 4-wegklep | Condensafvoer verwarm.

3.7 Informatie

Menupunten: Warmtebron (conventioneel) | **Hybride systeem** | Verwarmingsgroep | Warmwatervoorziening | Systeemcomponenten

3.8 Bedrijfsstatus - Storingen

Menupunten: Actuele storingen | Storingshistorie | Storingshist. resetten | Wis storingen

3.9 Service

Menupunten: Onderhoudsherinnering | Datum voor herinnering | Reset

3.10 Fabrieksins.resetten

Menupunten: Fabrieksins.resetten

en The following text is in English for legal reasons.
fr Le texte suivant est en anglais pour des raisons juridiques.
it Il testo seguente è in inglese per motivi giuridici.
nl-BE De navolgende tekst is om juridische redenen in het Engels.
nl-NL De navolgende tekst is om juridische redenen in het Engels.

Open Source Licensing

4 List of used Open Source Components

This document contains a list of open source software (OSS) components used within the product under the terms of the respective licenses. The source code corresponding to the open source components is also provided along with the product wherever mandated by the respective OSS license.

Name of OSS Compo-nent	Name and Version of License (License text → Chapter)	More Information
STM32 cube generated HAL files	BSD (Three Clause License)	COPYRIGHT© 2017 STMicroelectronics COPYRIGHT© 2016 STMicroelectronics COPYRIGHT© 2015 STMicroelectronics COPYRIGHT© 2014 STMicroelectronics COPYRIGHT© 2013 STMicroelectronics

Name of OSS Compo-nent	Name and Version of License (License text → Chapter)	More Information
mbed TLS (formerly PolarSSL)	Apache License 2.0	Copyright (C) 2006-2015, ARM Limited, All Rights Reserved Copyright (C) 2006-2016, Arm Limited (or its affiliates), All Rights Reserved Copyright (C) 2016 ARM Limited, All Rights Reserved Copyright © 2006-2017, ARM Limited, All Rights Reserved Copyright © 2015-2016, ARM Limited, All Rights Reserved Copyright © 2009-2016, ARM Limited, All Rights Reserved Copyright © 2014-2016, ARM Limited, All Rights Reserved Copyright (C) 2013-2017, ARM Limited, All Rights Reserved Copyright © 2014-2017, ARM Limited, All Rights Reserved Copyright (C) 2017, Arm Limited (or its affiliates), All Rights Reserved Copyright © 2012-2016, ARM Limited, All Rights Reserved Copyright © 2006-2018, ARM Limited, All Rights Reserved Copyright © 2015-2018, ARM Limited, All Rights Reserved

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