

Instantaneous Electric Water Heater

DEN



Online Warranty Registration



Please read these instructions and warranty information carefully before use and keep them handy for future reference.



USER MANUAL



請即進行保用登記！

有關保用條款細則，請看本說明書最後一頁。

Please register your warranty information now!

For Warranty Terms & Conditions,

please refer to the last page of this user manual.

Safety Instructions

Notice:

Please read these instructions carefully before installing or using the appliance!

Keep the instructions handy with the appliance for future use!

- Do not use the appliance until it has been correctly installed and unless it is in perfect working order.
- Do not remove the front cover under any circumstances before switching off the mains electrical supply to the unit.
- Never make technical modifications, either to the appliance itself or the electrical leads and water pipes.
- The appliance must be earthed at all times.
- Pay attention to the fact that water temperatures in excess of approx. 43°C are perceived as hot, especially by children, and may cause a feeling of burning. Please note that the fittings and taps may be very hot when the appliance has been in use for some time.
- The appliance is only suitable for domestic use and similar applications inside closed rooms, and must only be used to heat incoming water from the mains supply.
- The appliance must never be exposed to frost.
- The values stated on the rating plate must be observed.
- In case of malfunction, disconnect the fuses immediately. In case of leaks, cut off the mains water supply instantly. Repairs must only be carried out by the customer service department or an authorised professional.
- This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- If the appliance is factory equipped with a power supply cable, it must be replaced with an original spare cable from the manufacturer in case of damaged by an authorized technician in order to avoid any hazards.
- In accordance with VDE 0700, a circuit breaker with a contact opening gap of at least 3 mm for each pole must be provided on the mains side of the connecting box for appliances with a fixed connection.
- The wall bracket must be secured with the supplied screws and dowels. The appliance must be secured to the wall bracket. The appliance may only be operated if it has been properly mounted on the wall bracket.

Safety Instructions

- The prescribed nominal pressure stated on the rating plate may not be exceeded at any time.
- The required water resistance may not fall below the value stated on the rating plate at any time.
- To observe additionally for pressure less installation:
 - The water outlet behind the devices must not be blocked, and the water flow must not be restricted.
 - The water outlet facilities, such as shower head, jet control and other outlet unit, must be decalcified regularly. Deposits must be removed in regular intervals.
- Only the fittings recommended by the manufacturer may be used.
- If the appliance is exclusively connected to a single shower, only the shower heads recommended by the manufacturer may be used. No other fittings or appliances which decrease the water flow to the shower may be installed.

安全注意事項

注意

在安裝或使用本設備之前，請仔細閱讀這些說明！

請妥善保存本說明書，以備將來使用！

- 除非已正確安裝本設備，且本設備處於正常工作狀態，否則請不要使用本設備。
- 在任何情況下，切勿在關閉設備的主電源之前取下面蓋。
- 切勿對本設備、電線或水管進行技術改造。
- 本設備必須永久接地。
- 當水溫超過43°C時，會被視為高溫，可能會令人體尤其是兒童引起灼痛。請注意，使用本設備一段時間後，配件和水龍頭可能會很熱。
- 本設備僅適合在家居或類似的密閉環境中使用，並且只能用於加熱來自主供水的進水。
- 切勿將本設備暴露在霜凍下。
- 必須遵守銘牌上規定的數值。
- 萬一發生故障，請立即斷開保險絲；萬一發生洩漏，請立即切斷主供水；並只能由客戶服務中心或授權的專業人員進行維修。
- 3歲以上的兒童以及肢體、感官或精神能力較弱或缺乏經驗和知識的人員可以使用本設備，前提是他們必須受到安全使用本設備的監督或指導並了解當中可能發生的危險。兒童不得玩耍本設備，且不得在沒有監督的情況下進行清潔和用戶維護本設備。
- 如果設備出廠時配備了電源線，在損壞的情況下，必須由被授權的技術人員用製造商提供的備用電纜替換，以免發生危險。
- 根據VDE 0700，對於具有固定連接的設備，必須在接線盒的電源側上提供一個斷路器，該斷路器每個極的接觸開口間隙至少為3 mm。
- 使用裝掛配件時，必須使用隨附的螺絲和銷釘進行固定。本設備必須固定在裝掛配件上，僅在將其正確地安裝在裝掛配件後才能進行操作。
- 任何時候都不得超過銘牌上標明的額定壓力。
- 所需的耐水性在任何時候都不得低於銘牌上標明的數值。
- 如選擇無壓力安裝，要注意以下情況：
 - 不得堵塞本設備後面的出水口，並且不得限制水流。
 - 必須定期對花灑頭、射流調節器和其他排水裝置等出水設備進行脫鈣處理，且必須定期清除沉積物。
 - 僅可使用製造商推薦的配件。
 - 如果本設備僅連接到一個花灑頭，則只能使用製造商推薦的花灑頭。不得安裝其他會減少淋浴水流的配件或設備。

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Operation Instructions

1. Description of the Appliance

Note: Carefully read the enclosed safety instructions through in full before the appliance is installed, put into service and used and follow them in the further steps and during use!



The E-convenience instant water heater DEN is a fully electronically controlled instantaneous water heater with graphics-enabled e-paper display and sensor keys for a convenient and efficient water supply to one or more tap outlets.

Its electronic control regulates the power consumption depending on the selected outlet temperature, the respective inlet temperature and the flow rate, thus reaching the set temperature exactly to the degree and keeping it constant in case of water pressure fluctuations. The required outlet temperature can be entered via the sensor keys within a range between 20 °C and 60 °C and can be read off the e-paper display.

The DEN has an intuitive menu guide where different user profiles can be set up and where collected data can be read out

The inlet temperature can be up to 70 °C so that operation in connection with reheating, e.g. in solar systems, is possible.

It is possible to use the instantaneous water heater in combination with an external load shedding relay for electronically controlled instantaneous water heaters (refer to installing instructions).

As soon as you open the hot water tap, the instantaneous water heater switches on automatically. When the tap is closed, the appliance automatically switches off. The water heater is operated at the device itself or with an optional wireless remote control.

2. Environment and Recycling

Your product was manufactured from high-quality, reusable materials and components. Please respect in case of discarding that electrical devices should be disposed of separately from household waste at the end of their service life. Therefore, please take this device to a municipal collection point that return used electronic devices to the recycling system. Disposing it correctly will support environmental protection and will prevent any potential negative effects on human beings and the environment that could arise from inappropriate handling of these devices at the end of their service life. Please contact your local authority for further details of your nearest designated collection point or recycling site.

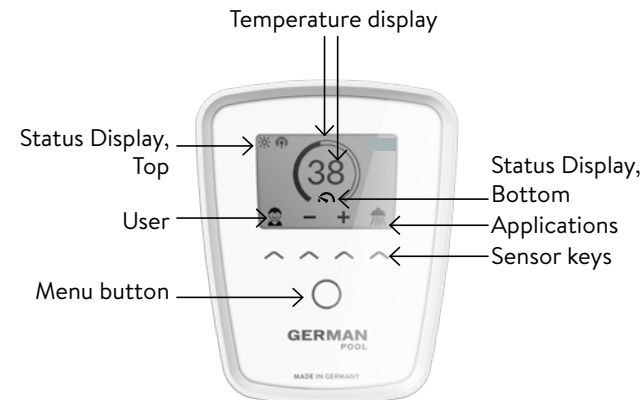
Business customers: If you wish to discard equipment, please contact your dealer or supplier for further information.

3. How To Use

MAIN SCREEN

The e-paper display changes automatically to main screen approx. 60 seconds after activation or operation.

Tap the sensor keys to select user profiles or applications or change the temperature.



Temperature Display

The scale ring fills up as the temperature setting is increased. In addition, the target temperature is displayed in °C in the middle of the display.

Temperature Setting

The desired temperature can be selected via the two middle sensor keys within a range of 20 °C to 60 °C. Tapping once changes the temperature by 1 °C, in the comfort range between 35 and 43 °C by 0.5 °C. If the temperature is set below 20 °C, the symbol appears in the temperature display and the appliance switches off the heating function.

User Selection

Up to four user profiles can be created. Every user has the option to save his desired temperatures for the different applications in his profile. The user profiles can be selected by tapping on the left sensor key and then tap the key under the profile picture (to adapt profile, see Section “User”).

3. How To Use



Applications

Preset applications can be selected here. Simply tap on the right sensor key to open the selection. Tap on the sensor key under an application symbol to activate it.

The temperatures are set at the factory to the following values: hand wash = 35 °C, shower = 38 °C, bath tub = 42 °C, hot water = 48 °C

To change the values, select an application and set the new temperature. Then press and hold the sensor key under your profile picture or the application for two seconds.

Status Display, Top

- Control lock active (PIN)
- The inlet temperature exceeds the target value (appliance does not heat up)
- Optional remote control or Home Server is installed. The appliance can be controlled remotely

Status Display, Bottom

Display area for functions which require confirmation from the user or which are of great significance.

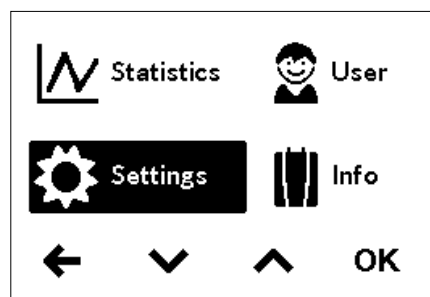
Maintenance: The appliance detected an error. Select “Info” in the Main Menu to get further informations.

Maximum temperature reached: The temperature cannot be increased any further since the set temperature limit has been reached. The temperature limit can be changed in the Main Menu via “Settings”.

Heating activated: As soon as the appliance heats water, this symbol appears.

Power limit: The full output of the instantaneous water heater does not suffice to heat the tapped quantity of water to desired temperature. Reduce the quantity of warm water at the tap.

3. How To Use



MAIN MENU

Press the Menu button to enter the Main Menu. All function menus and saved values of the appliance can be selected from here.

STATISTICS

In Statistics the consumption and usage data are captured by the appliance and displayed in graph format:

- Water consumption
- Power consumption
- Total consumption costs

Select \wedge or \vee to scroll through the different periods. The consumptions are displayed in diagrams over a period from the last drawing of water or the total consumption.

Note: The consumption data are not suitable for billing purposes.

SETTINGS

This menu is used for the basic configuration on the appliance. Select \wedge or \vee to scroll through the different menu items and tap “OK” to change settings directly or go to submenus.

Temperature Unit: Defined as °C.

Language: Select the menu language.

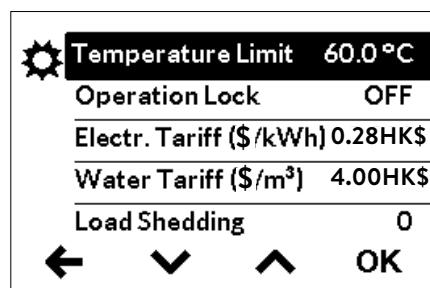
Sound: Activate / deactivate operating sounds.

Note: Alarm signals and instruction sounds can not be disabled.

Currency: Select a currency symbol (HK\$).

Temperature Limit: The temperature limit can be activated/ deactivated in this menu and the maximum warm water temperature can be limited to a desired value within the temperature setting range.

Note: If the instantaneous water heater supplies a shower, then the maximum temperature is limited during the installation of the appliance and can not be changed.



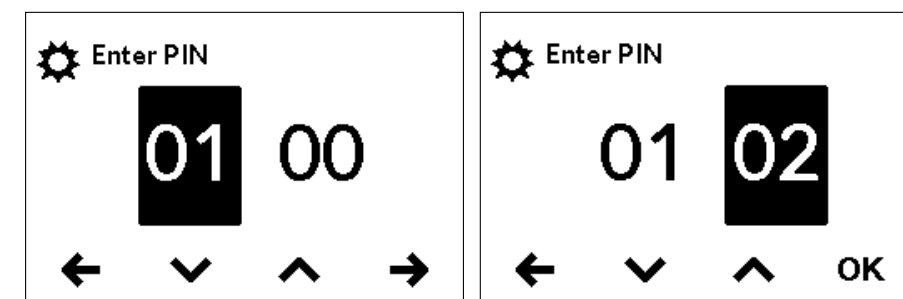
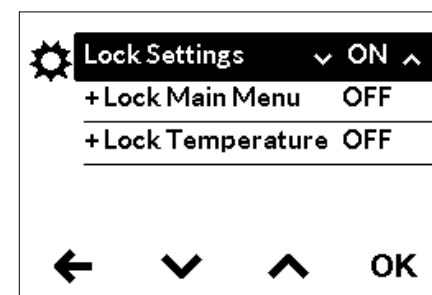
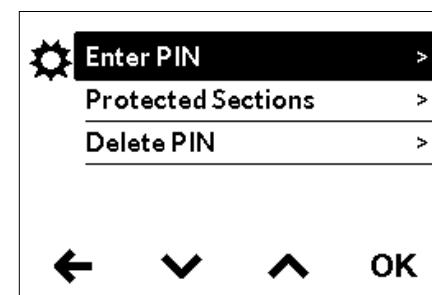
3. How To Use

Operation Lock: Secure your settings with a four-digit PIN.

Note: The operation lock can only be deactivated with the correct PIN under “Protected Sections” or under “Delete PIN”. If you should forget your PIN, please contact Customer Service.

PIN Entry: Use \wedge or \vee to select digits from 00 to 99. To move to the next or previous digit, select \leftarrow or \rightarrow . Once you have selected both digits, confirm by \rightarrow . The PIN must be reentered and confirmed by “OK” as a security measure.

If both entries match, you can access the section “Protected Sections”.



Protected Sections: Select the areas for a PIN lock.

- Lock Settings:** Automatically active as soon as a password has been generated. Users can only access the settings menu with a PIN. Deactivating it deletes the current PIN.
- + Lock Main Menu:** Users can only access the main menu with a PIN
- + Lock Temperature:** The outlet temperature is set to the current value and can only be changed with a PIN. User profiles and applications can also only be changed with a PIN.



Electricity price (currency/kWh): Specify the electricity price of your own electricity supplier.

Water price (currency/m³): Specify the water price of your own water supplier.

3. How To Use

Value	Description
0	Operation without load shedding relay, factory setting
1	Operation with normal load shedding relay
2	Operation with sensitive load shedding relay

Load Shedding: If further three-phase appliances are connected, a load shedding relay designed for electronic instantaneous water heaters (CLAGE no. 82250) can be connected to phase conductor L2. This relay ensures the operation of the water heater by switching off other consumers until the end of heating operation.

Select “OK” to activate the edit mode. To set a value of “0”, “1” or “2” press and hold  or  for two seconds.

Operating mode 1 must be selected first, thus to check the correct operation of the load shedding relay at low appliance output (35 degree celsius setpoint and low water flow rate). Mode 2 must be selected if the load shedding relay flickers.

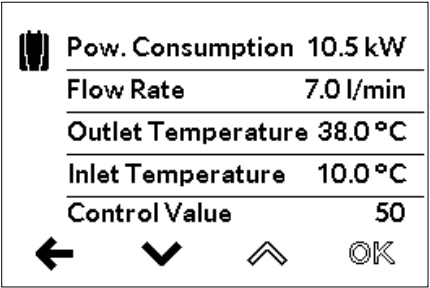
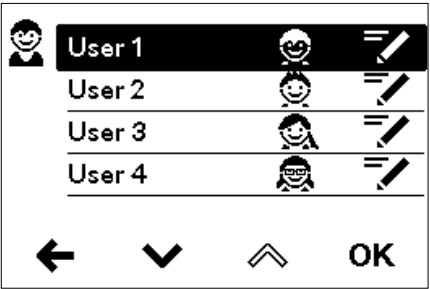
Note: This mode was set during initial operation to “1” or “2” if a load shedding relay is installed. If mode »1« is active, only an increase to mode »2« is possible.

Factory Settings: All factory settings can be recalled. Temperature limit for showering and load shedding are not affected.

Note: All customised user profiles and power and water prices entered, are deleted.

Delete Statistics: Use this function to delete all previously collected statistical data. Deleted statistical data cannot be restored.

3. How To Use



USER

Each of the four user profiles can be provided with their own profile image. This image appears in the main screen.

In the main screen, every user can set up and save his own desired temperatures for the different applications.

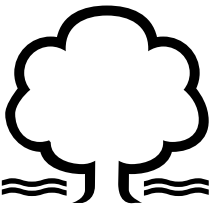
INFO / DEVICE INFORMATION

The current status and appliance data are listed here. Use the sensor keys to scroll through the different information values.

Top-Up Heating

When operating with preheated water (e.g. with solar systems), you must ensure that the inlet temperature does not exceed 70 °C.

If the inlet temperature exceeds the setpoint, the appliance is not providing any output. The symbol ☼ is displayed in the main screen



How To Save Energy

Set the exact temperature you need on the appliance and open the hot water tap. Once you feel that the water is too hot, do not add any cold water and, instead, enter a lower temperature on the appliance. If you were to add cold water, the water already heated would cool down again and valuable energy would be wasted. Moreover, the cold water added in the tap is not covered by the control range of the electronic circuitry, with the result that temperature constancy is no longer guaranteed.

3. How To Use



Venting After Maintenance Work

This instantaneous water heater features an automatic air bubble protection to prevent it from inadvertently running dry. Nevertheless, the appliance must be vented before using it for the first time. Each time the appliance is emptied (e.g. after work on the plumbing system, if there is a risk of frost or following repair work), the appliance must be re-vented before it is used again.

- 1. Disconnect the instantaneous water heater from the mains (e.g. via deactivating the fuses).
- 2. Unscrew the jet regulator on the outlet fitting and open the cold water tap valve to rinse out the water pipe and avoid contaminating the appliance or the jet regulator.
- 3. Open and close the hot water tap until no more air emerges from the pipe and all air has been eliminated from the water heater.
- 4. Only then should you re-connect the power supply again (e.g. via activating the fuses) to the instantaneous water heater and screw the jet regulator back in.
- 5. The appliance activates the heater after approx. 10 seconds of continuous water flow.

Cleaning and Maintenance



- Plastic surfaces and fittings should only be wiped with a damp cloth. Do not use abrasive or chlorine-based cleaning agents or solvents.
- For a good water supply, the outlet fittings (e.g. jet regulators and shower heads) should be unscrewed and cleaned at regular intervals. Every three years, the electrical and plumbing components should be inspected by an authorised professional in order to ensure proper functioning and operational safety at all times.

4. Troubleshooting and Service



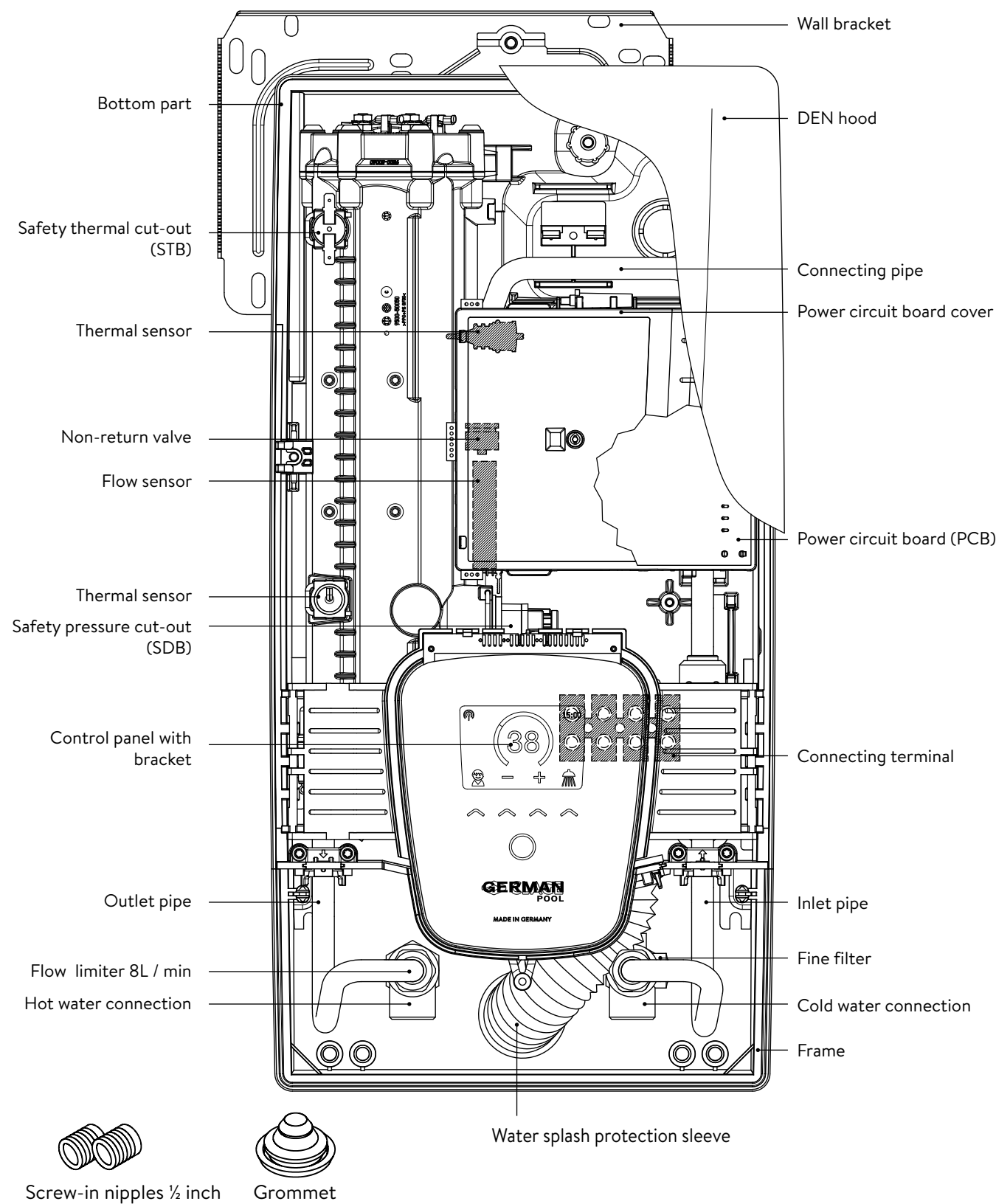
Repairs must only be carried out by authorised professionals. If a fault in your appliance cannot be rectified with the aid of this table, please contact German Pool Customer Service & Repair Centre. Please have the details of the typeplate at hand.

This instantaneous water heater was manufactured conscientiously and checked several times before delivery. Should malfunctions nevertheless occur, it is usually only due to a bagatelle. First attempt to switch the house fuses off and on again in order to reset the electronics. Next, try to remedy the problem with reference to the following table. In doing so, you will avoid unnecessary expense of customer service assistance.



DEN		
Problem	Cause	Solution
Water stays cold, touch display shows power break screen 	Master fuse tripped	Renew or activate fuse
	Safety pressure cut-out tripped	Contact customer service
Water stays cold, display shows error symbol 	The appliance has detected an error.	Switch fuses off and on. If symbol “wrench” is still indicated, contact customer service
Flow rate of hot water too weak	Outlet fitting dirty or calcified	Clean shower head, jet regulator or sieves
	Fine filter dirty or calcified	Let clean fine filter by customer service
Selected temperature is not reached	Power limit reached	Decrease the warm water flow at the tap
	Cold water has been added via the tap	Tap hot water only; set temperature, check outlet temperature
Sensor keys does not respond correctly or only sporadically	Display glass is wet	Dry display by wiping it with a soft cloth

1. Overview

Installation Instruction



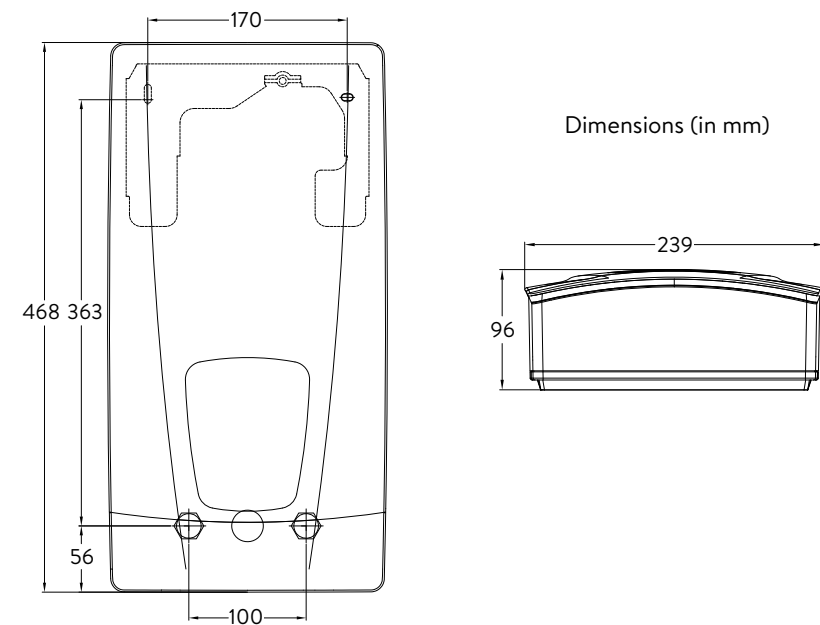
2. Technical Specifications

Model	DEN			
Energy efficiency class	A *)			
Rated capacity / rated current	18 kW..27 kW (26 A..39 A)#			
Chosen capacity / current	18 kW / 26 A	21 kW / 30 A	24 kW / 35 A	27 kW / 39 A
Electrical connection	3~ / PE 380..415 V AC			3~ / PE 400 V AC
Min. required cable size ^{1) ^}	4.0 mm ²	4.0 mm ²	6.0 mm ²	6.0 mm ²
Hot water (l/min) ²⁾				
max. at Δt = 28 K	9.2	10.7	12.3	13.8
max. at Δt = 38 K	6.8	7.9	9.0	10.2
Rated volume	0.4 l			
Rated pressure	1.0 MPa (10 bar)			
Connecting type	pressure-resistant / pressureless			
Heating system	Bare wire heating system IES®			
@ 15 °C:				
Required spec. water resistance	≥ 1100 Ωcm			
Spec. electrical conductivity	≤ 90 mS/m			
Inlet temperature	≤ 70 °C			
Flow rate to switch on – max. flow rate	1.5 l/min – 8.0 ³⁾			
Pressure loss	0.08 bar at 1.5 l/min 1.3 bar at 9.0 l/min ⁴⁾			
Temperature range	20 – 60 °C			
Water connection	G ½ inch			
Weight (when filled with water)	4.2 kg			
VDE class of protection	I			
Type of protection / safety	 IP25 			

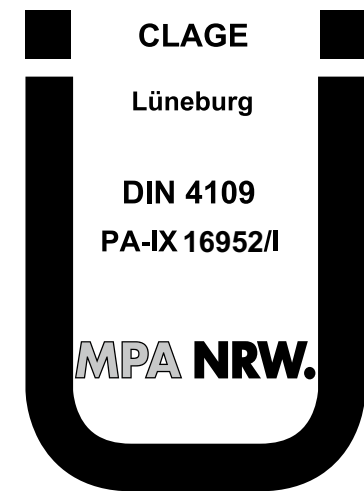
*) The declaration complies with the EU regulation No 812/2013.
Rated currency is provided based on Germany standard, ie. 400V, 18kW/√3/400=26A
^ Actual wiring size based on EMSD Code Of Practice For Electricity (wiring) Regulation's Appendix A6(1)
1) Maximum applicable cable size is 10 mm² in electrical connection from above.
2) Mixed water
3) Flow rate limited to achieve optimum temperature rise.
4) Without flow regulator.

- All information in this manual is for reference only. If there are any errors or omissions, the specifications produced by the factory shall prevail. Specification is subjected to change without prior notice.
- If there is any inconsistency or ambiguity between the English version and the Chinese version of this manual, the English version shall prevail.
- Refer to www.germanpool.com for the most up-to-date version of the Operating Instructions.

3. Dimensions



4. Installation



Based on Germany's guidelines a general test certificate concerning the evidence of applicability of noise behaviour is granted.

The following regulations must be observed:

- e.g. VDE 0100
- EN 806
- Installation must comply with all statutory regulations, as well as those of the local electricity and water supply companies.
- The rating plate and technical specifications
- Only intact and appropriate tools must be used

Installation Site

- Appliance must only be installed in frost-free rooms. Never expose appliance to frost.
- The Appliance must be wall mounted and has to be installed with water connectors downward or alternative transversely with water connections left.
- The appliance complies with protection type IP25 and may therefore be installed in protection zone 1 according to VDE 0100 part 701 (IEC 60364-7).
- In order to avoid thermal losses, the distance between the instantaneous water heater and the tap connection should be as small as possible.
- The appliance must be accessible for maintenance work.
- Plastic pipes may only be used if they conform to DIN 16893, Series 2.
- The specific resistance of the water must be at least 1100 Ω cm at 15 °C. The specific resistance can be asked for with your water distribution company.

4. Installation

Mounting Accessories

For installations under difficult conditions, these mounting accessories are available:

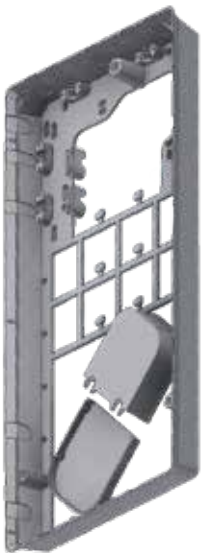
Mounting Frame Kit RDX 3

(Art. no. 36100)

The instant water heater can be installed by means of this mounting kit when the power supply cable is coming out of the wall at any place from behind the unit, or the wall has unusual surface conditions, making it difficult for installing the water heater.

When using the RDX the protection class changes from IP25 to IP24.

RDX 3

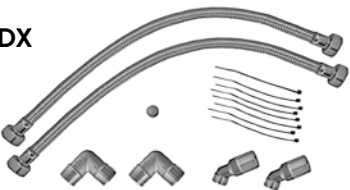


Extension Kit VDX

(Art. no. 34120) – RDX is necessary! –

The instant water heater can be installed by means of this extension kit if the water pipes are coming displaced or exchanged out of the wall or if they are coming edge-wise on the wall to the unit. The power supply could come out of the wall at any place under the unit or the wiring could be installed surface-mounted.

VDX

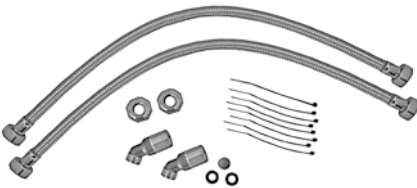


Extension Kit UDX

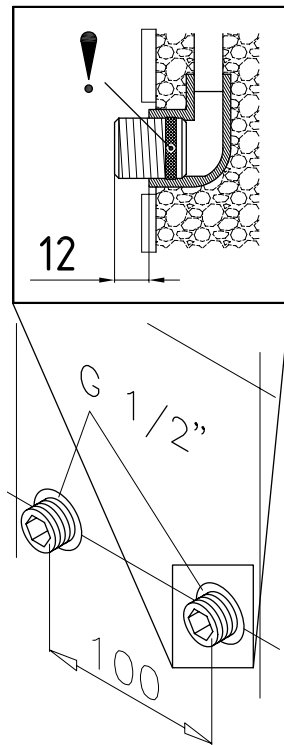
(Art. no. 34110) – RDX is necessary! –

The instant water heater can be installed by means of this extension kit if the water-connections are expiring above the unit. The power supply could come out of the wall at any place under the unit or the wiring could be installed surface-mounted.

UDX



4. Installation

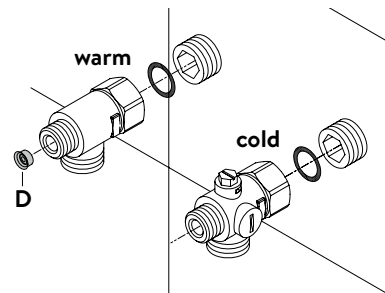
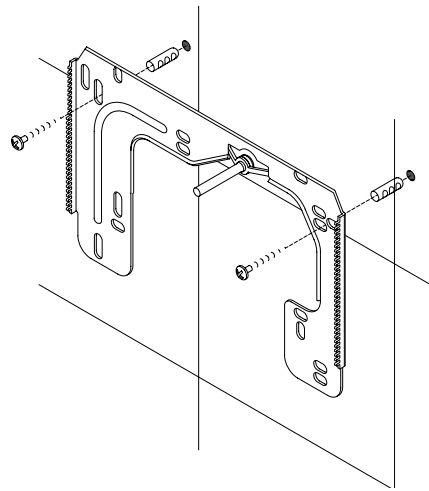


Installing the Wall Bracket

Note: If you install this instantaneous water heater in exchange for a conventional instantaneous water heater, there is generally no need to drill holes for the wall bracket, in this case step 2 would not be necessary.

Thoroughly rinse the water supply pipes before installation to remove soiling from the pipes.

1. Using a 12 mm hexagon socket screw key, screw the screw-in nipples into the wall connections. The seals must be fully screwed into the thread. After tightening, the double nipples must protrude by 12 – 14 mm.
2. Hold the included mounting template on the wall and align it so that the holes in the template fit over the double nipples. Mark the drill holes according to the template and drill them using a 6 mm drill. Insert the included dowels.
3. Pull down the faceplate and unscrew the main hood screw to open the appliance.
4. Loosen the knurled nut to remove the wall bracket and screw the wall bracket to the wall. Offset tiling or uneven surfaces can be compensated by up to 30 mm with the aid of the spacers supplied. The spacers are fitted between the wall and the wall bracket.

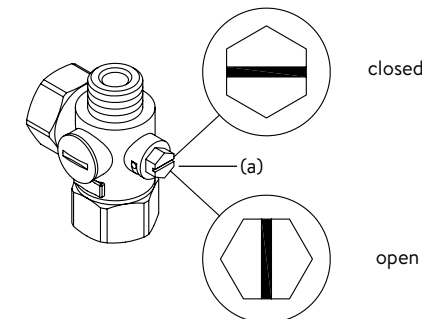
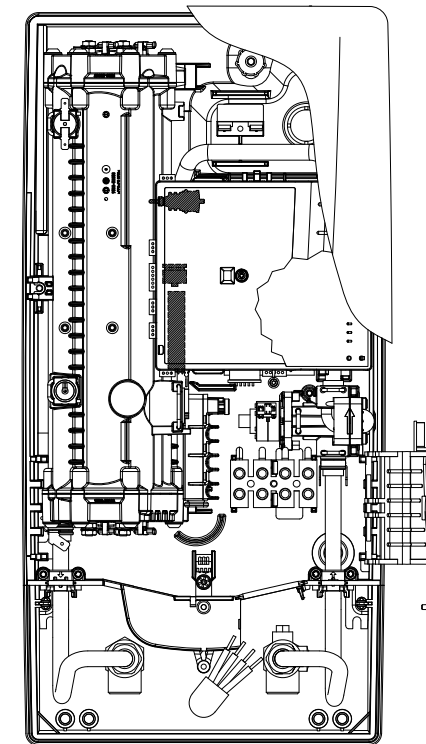


Installing Connection Pieces

Note: Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.

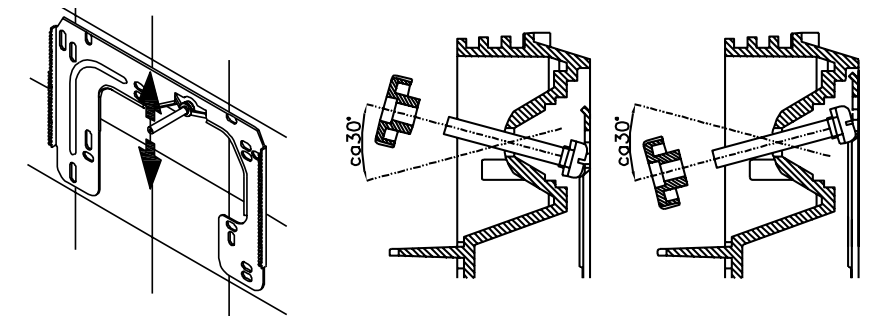
1. As shown in the illustration, screw the cold water connection piece with the union nut and the 1/2 inch seal onto the cold water connection.
2. Screw the hot water connection piece with the union nut and the 1/2 inch seal onto the hot water connection.
3. Put the water flow reducer "D" into the hot water connection piece.

4. Installation



Installing the Appliance

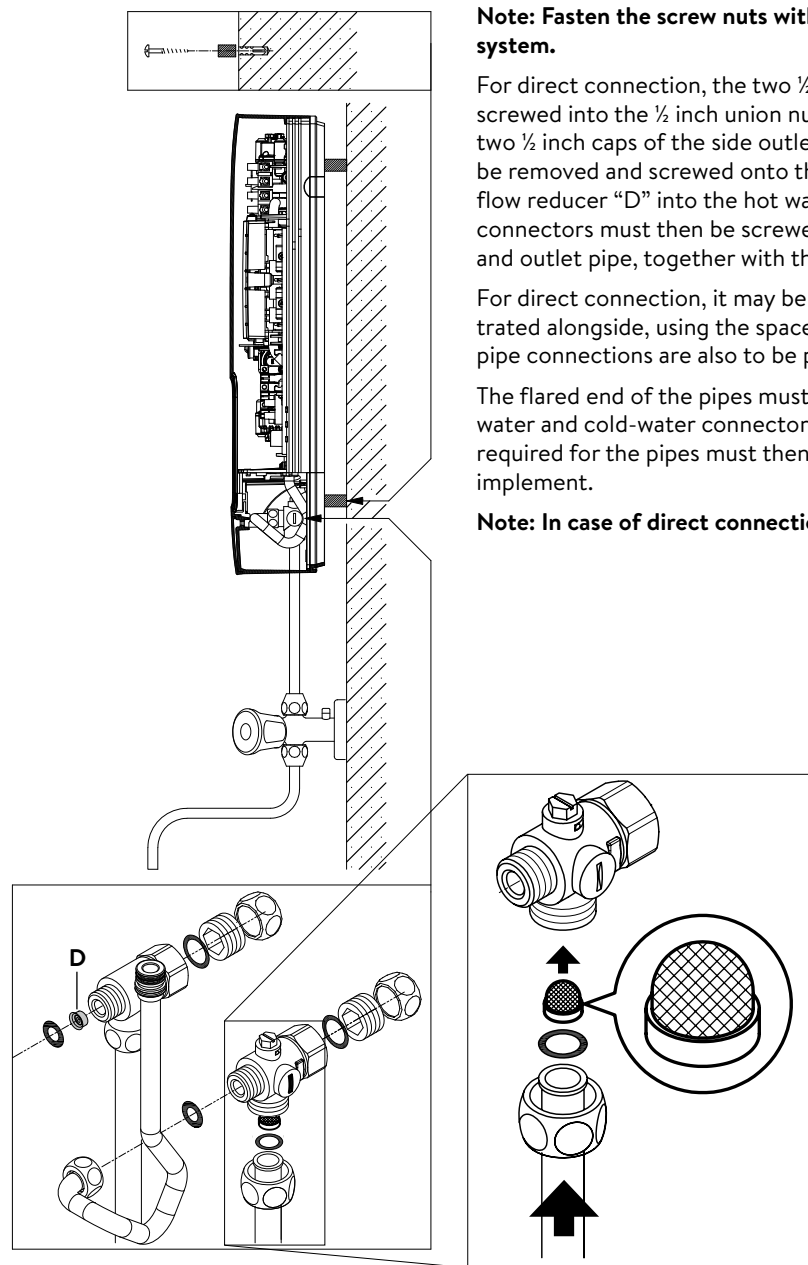
- The electrical power supply cable may be connected in the upper part or is surface mounted. Only in such case, first follow the steps one through three according to the description "Electrical connection from above" in chapter "Electrical connection".
1. Place the appliance on the heater bracket so that the threaded rod of the wall bracket fits in the corresponding hole of the appliance. If necessary, slight corrections are possible by carefully bending the threaded rod of the wall bracket. However, it must be possible to screw on the water connection pipes of the appliance without applying force.
 2. Screw the plastic knurled nut onto the threaded rod of the wall bracket.
 3. Screw the two 3/8 inch union nuts of the appliance's water connection pipes, each with the 3/8 inch seal, onto the fittings.
 4. Open the water supply line to the unit and slowly open (position "open") the shut-off valve (a) in the cold water connection piece. Check all connections for leaks.
 5. Next, open and close the hot water tapping valve several times until no more air emerges from the line and all air has been eliminated from the instantaneous water heater.



Attention: Inspection Panel Opening

If DEN is to be installed in a sealed space (eg. under the ceiling with decorative paneling), must leave a 600x600 mm inspection panel for future maintenance and repair.

5. Direct Connection



Note: Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.

For direct connection, the two ½ inch screw-in nipples and the ½ inch seals must be screwed into the ½ inch union nuts of the hot-water and cold-water connectors. The two ½ inch caps of the side outlets of the hot-water and cold-water connectors must be removed and screwed onto the open end of the screw-in nipples. Put the water flow reducer “D” into the hot water connection piece. The hot-water and cold-water connectors must then be screwed into the 3/8 inch union nut of the appliance inlet and outlet pipe, together with the 3/8 inch seals.

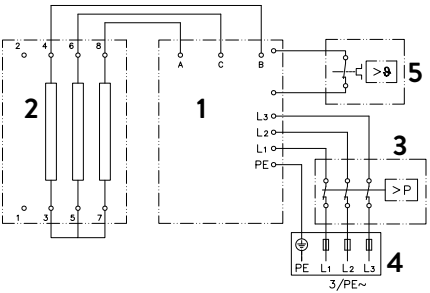
For direct connection, it may be advisable to mount the appliance at a distance as illustrated alongside, using the spacer sleeves supplied. The two fixing holes near the lower pipe connections are also to be professionally fixed with 6 mm dowels and screws.

The flared end of the pipes must be screwed into the ½ inch side outlets of the hot-water and cold-water connectors with ½ inch union nuts and ½ inch seals. The holes required for the pipes must then be opened of the housing with the aid of a blunt implement.

Note: In case of direct connection, put the strainer into the cold water connection!

6. Electrical Connection

Wiring Diagram



1. Electronic circuitry
2. Heating element
3. Safety pressure cut-out
4. Connecting terminal
5. Safety thermal cut-out

Note: Installation work must only be conducted by an authorised professional.

Please observe:

- e.g. VDE 0100
- The installation must comply with current IEC and national local regulations or any particular regulations, specified by the local electricity supply company
- The rating plate and technical specifications
- The appliance must be earthed!

Structural Prerequisites

- The appliance must be installed via a permanent connection. Heater must be earthed!
- The electric wiring should not be injured. After mounting, the wiring must not be direct accessible.
- An all-pole disconnecting device (e.g. via fuses) with a contact opening width of at least 3 mm per pole should be provided at the installation end.
- To protect the appliance, a fuse element with trigger characteristic C must be fitted with a tripping current commensurate with the nominal current of the appliance.

Load Shedding Relay

If further three-phase appliances are connected, a load shedding relay designed for electronic instantaneous water heaters (Art no. 82250) can be connected to phase conductor L2.

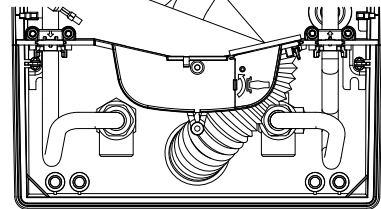
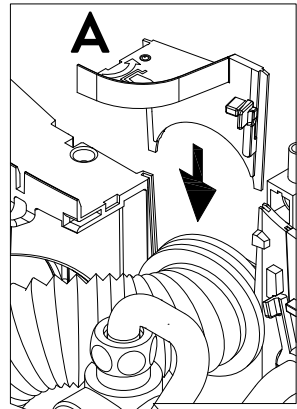
To change the operating mode, after making the electrical connection and the initial operation call up the settings menu. Then select the point “Load shedding”.

Select “OK” to access the edit mode. To set a value of “0”, “1” or “2” press and hold \wedge or \vee for two seconds. By plugging the jumper in accordance with the locking function (see “Initial Operation” section “Locking Function”) the load shedding is activated.

Value	Description
0	Operation without load shedding relay, factory setting
1	Operation with normal load shedding relay
2	Operation with sensitive load shedding relay

Operating mode 1 must be selected first, thus to check the correct operation of the load shedding relay at low appliance output (35 degree celsius setpoint and low water flow rate). Mode “2” must be selected if the load shedding relay flickers.

6. Electrical Connection

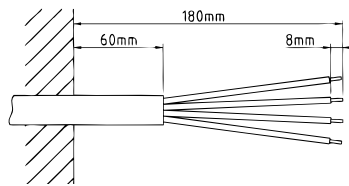


Electrical Connection From Below

Note: If necessary, the connecting terminal can be displaced to the upper part of the appliance. If you want to do so, please follow the instructions in the next chapter.

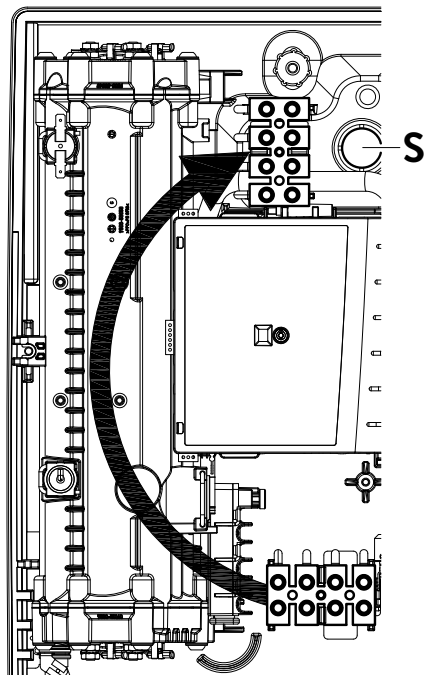
WARNING: Check that the power supply is switched off prior to electrical connection!

1. Dismantle approximately 6cm off the connecting cable above the wall outlet. With the smaller opening ahead, slide the water protection sleeve over the connecting cable so that the sleeve is flush with the wall. This prevents any leaking water from coming into contact with the electrical leads. It must not become damaged! **The protection sleeve must be used!**
2. Open the control panel rightwards.
3. Strip the cables and plug them in the connecting terminals according to the wiring diagram. **The appliance must be earthed.**
4. Pull the protective sleeve over the connecting cables until the sleeve fits perfectly in the recess of the intermediate panel. Adjust the water splash protection sleeve as illustrated and fix it with the sleeve fixing (A)> Reinsert the control panel and lock it on.
5. Place the hood on the appliance and screw in the fastening screw. After that you can slide on the faceplate from the bottom to the top.



Electrical Connection from Above

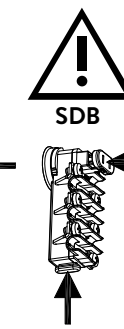
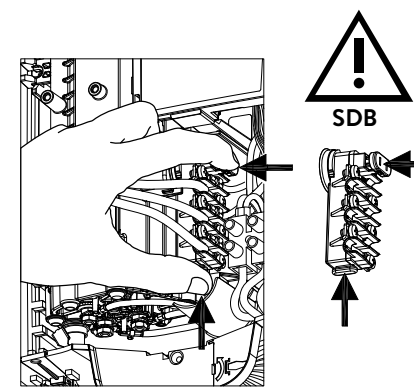
Check that the power supply is switched off prior to electrical connection!



1. Open the prepared breaking point (S) in the upper part of the appliance by pressing with a blunt implement (e.g. screwdriver). For surface-mounted connection cable additional open the breakout at the right side of the bottom part.
2. Slit the grommet of the accessory set to match the cable size. The opening in the grommet should be slightly smaller than the cross-section of the cable in order to ensure optimum protection against water. Fit the grommet into the opening. The protection grommet must be used!
3. Strip the connection cable so that the sheath extends through the grommet into the appliance. Hold the prepared appliance so that you can route the cable into the grommet with the other hand.
4. Place the appliance on the wall bracket so that the threaded rod of the wall bracket fits in the corresponding hole of the appliance.
5. Open the control panel.
6. Unscrew the fastening screw of the connecting terminal. Displace the connecting terminal to the upper foot. Affix the connecting terminal again.
7. Strip the individual wires and plug them in the connecting terminals according to the wiring diagram. The appliance must be earthed.
8. Reinsert the control panel and lock it on.
9. Place the hood on the appliance and screw in the fastening screw. After that you can slide on the faceplate from the bottom up to the stop.

Note: To ensure IP25 protection class, please don't remove the bottom water splash protection sleeve.

7. Initial Operation



Before making the electrical connection, fill the mains and the appliance with water by carefully opening and closing the hot water tap in order to vent completely.

To ensure a maximum flow, remove any existing aerator from the faucet. Flush the warm and cold water pipes each at least for one minute.

After every draining (e.g. after work on the plumbing system or following repairs to the appliance), the heater must be re-vented in this way before starting it up again.

If the water heater cannot be put into operation, the temperature cut-out or the pressure cut-out may have tripped during transport. If necessary, check that the power supply is switched off and reset the cut-out.



GEPRÜFT
APPROVED

Selection of Power Rating

Only by authorised specialist, otherwise lapse of guarantee!

On delivery, the display shows the screen "APPROVED" (see left). If not, the device has already been powered once. In this case, please follow the section "Reinstallation".

When the appliance is connected to the power source for the first time, select the maximum power rating. Only after having set the power rating, the heater provides its standard operation mode.

The maximum allowable power rating at installation site depends on the local situation. It is imperative to observe all data shown in the table "Technical specifications", in particular the required cable size and fuse protection for the electrical connection. Moreover, the electrical installation must comply with the statutory regulations of the respective country and those of the local electricity supply company (Germany: DIN VDE 0100).

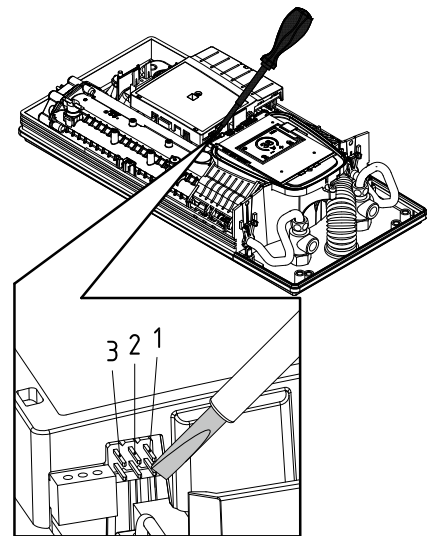


Multiple Power System MPS®:

The rated capacity (max. power consumption) is 27 kW / 400V and can be changed internally to 24 kW, 21 kW or 18 kW.

1. Switch on the power supply to the appliance.
2. When switching on the supply voltage for the first time, the display shows the menu to select the language. Choose your language, after that the selection of power rating appears.
3. Select the maximum allowable power rating depending on the local situation via touch (18, 21, 24 or 27 kW).
4. Press **"OK"** to confirm the setting.
5. Mark the set power rating on the rating plate.
6. After having set the maximum allowable power rating, the heating element will be activated after approx. 10 – 30 sec of continuous water flow.
7. Open the hot water tap. Check the function of the appliance.
8. Explain the user how to use the instantaneous water heater and hand over the operating instructions.
9. Fill in the guarantee registration card and send it to German Pool Customer Service centre or use the online registration on our website (see also page <2>).

7. Initial Operation



Reinstallation

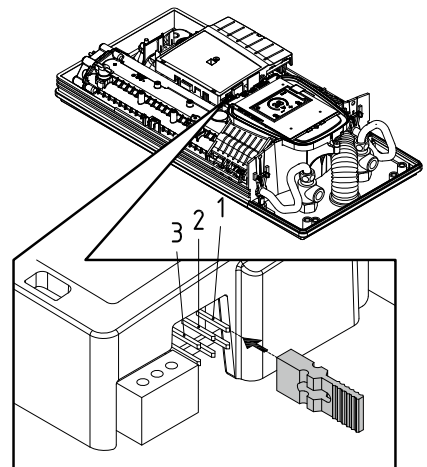
In case the appliance will be commissioned again under different installation conditions than during its initial operation, it may be necessary to adapt the maximum power rating.

A temporary short-circuit of the two pins, e.g. with a screwdriver acc. to EN 60900 (see figure), will reset all heater parameters to works setting and lock the heating. The display shows the menu to select the language. Choose your language, after that the selection of power rating appears. This condition will maintain when activating and deactivating the supply voltage.

Shower Application

The water heater's temperature must be limited to 55°C, if it is connected to a shower. The temperature limit must be set to a value less or equal 55°C in the Settings menu, in consultation with the customer and the lock level must be activated.

When the appliance is operated with preheated water, it must be ensured that this temperature is limited to 55°C as well.



Locking Function

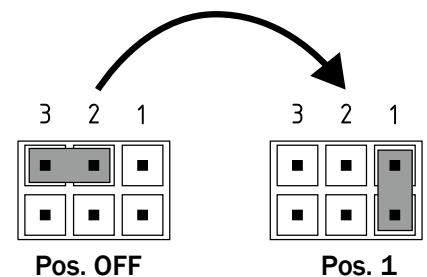
The operating mode of the appliance can be restricted.

Activation of the Locking Function

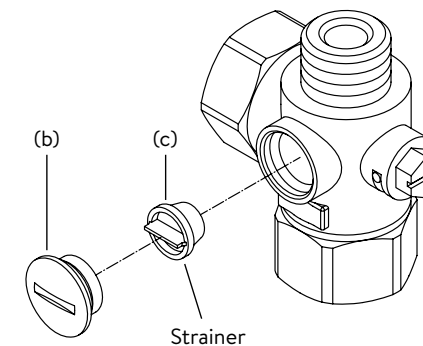
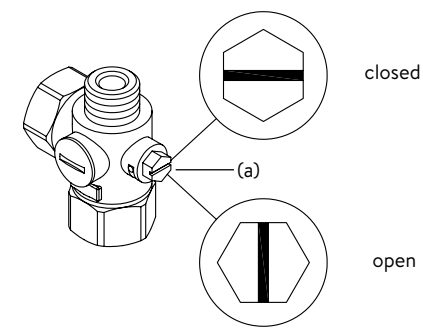
1. Select required parameters via the setting menu (see online user manual chapter "Settings", subpoints "Temperature limit" and / or "Load Shedding").
2. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
3. Take the jumper off the power electronics and change to position "1" (see picture).
4. Put the appliance into operation again.

Deactivation of the Locking Function

1. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
2. Take the jumper off the power electronics and change to position "OFF" (see picture).
3. Put the appliance into operation again.



8. Maintenance Work



Note: Maintenance work must only be conducted by an authorised professional.

Cleaning and Replacing the Filter Strainer

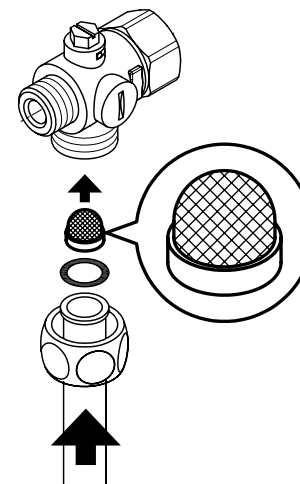
The cold water connection of this instantaneous water heater is equipped with an integrated shut-off valve and a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:

1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
2. To open the appliance, take off the small face plate, loose the screw behind this cover and detach the hood.
3. Close the shut-off valve (a) in the cold water connection piece (position "closed").
4. Unscrew the screw plug (b) from the cold water connection piece and take out the strainer (c).
Note: Residual water can leak
5. The strainer can now be cleaned or replaced.
6. After fitting of the clean strainer tighten the screw plug.
7. Slowly reopen the shut-off valve in the cold water connection piece (position "open"). Check all connections for leaks.
8. Vent the appliance by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
9. Fit the hood of the appliance. Then switch on the power again (e.g. via activating the fuses).

Cleaning and Replacing the Filter Strainer if Direct Connected

The cold water connection of this instantaneous water heater is equipped with a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:

1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
2. Close the shut-off valve in the mains water supply of the instantaneous water heater.
3. To open the appliance, take off the small face plate, loose the screw behind this cover and detach the hood.
4. Unscrew mains water inlet from connection piece and take out the strainer.
Note: Residual water can leak
5. The strainer can now be cleaned or replaced.
6. After refitting the clean strainer reconnect the mains water inlet to the connection piece.
7. Slowly reopen the shut-off valve in the mains water supply. Check all connections for leaks.
8. Vent the appliance by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
9. Fit the hood of the appliance. Then switch on the power again (e.g. via activating the fuses).



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1. 熱水器簡介

操作說明

提示：在安裝、初次啟動和使用本設備前，請仔細閱讀安全說明，並在後續步驟和使用過程中嚴格遵循！



DEN即熱式熱水器是一種全電子控制的熱水器，並配備支援圖形顯示的電子顯示屏和輕觸按鍵，可將熱水供應至一個或多個水龍頭出水位。

其電子控制系統會視乎個別出水位的設定溫度、個別入水位溫度和流量自動調控耗電量，從而精準達到設定的出水溫度，並在水壓波動的情況下保持恆定。出水溫度可透過中央感應鍵設定在20° C至60° C之間，並可從電子顯示屏上讀取。

DEN配備直觀的選單指南，可在其中設置不同的用戶資料，並從中收集各用戶的使用數據。

入水溫度可高達70° C，以便與再加熱設備同時使用，例如太陽能系統。

本即熱式熱水器可與電子式即熱式熱水器專用的外接減載繼電器搭配使用（請參閱安裝指示）。

打開熱水龍頭時，本即熱式熱水器隨即自動啟動。關上水龍頭時，本熱水器即自動關閉。本熱水器可透過設備本身或另購的無線遙控器操作。

2. 環保及循環再造

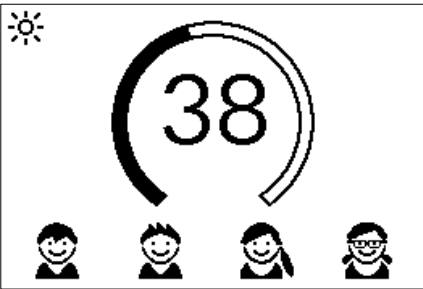
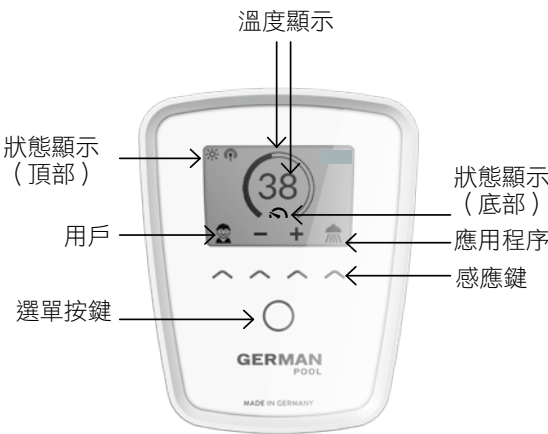
本產品由高質量、可重複使用的材料和組件製成。請注意在使用壽命結束時，如果要丟棄電子設備，應將其與生活垃圾分開處理。因此，請將本設備帶到市政收集點，將用過的電子設備進行回收。正確處理該設備將有助於保護環境，並避免在使用壽命到期時因對這些設備的不當處理而導致對人類和環境造成任何潛在的負面影響。請與您當地的當局聯繫，以獲取離您最近回收站的更多詳細信息。

商業客戶：如果您希望丟棄本設備，請聯繫您的經銷商或供應商以獲取更多信息。

3. 使用指示

主屏幕

啟動或操作後約60秒，電子顯示屏自動切換到主屏幕。
輕觸感應鍵以選擇用戶配置、應用程序或更改溫度。



溫度顯示

隨著溫度設置的提升，彩色刻度環將逐漸加強或轉變，當溫度從低溫升至高溫時，刻度環將從藍色轉變為紅色。另外，目標溫度以° C顯示在顯示屏中間。

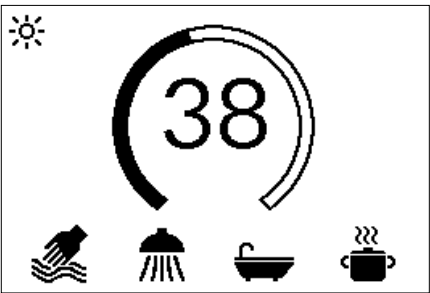
溫度設置

可以通過中間兩個感應鍵在20° C至60° C的範圍內選擇所需的溫度。按一次將溫度改變1° C，在35° C到43° C的舒適區之間按一次將溫度改變0.5° C。如果溫度設置低於20° C，「--」符號將出現在溫度顯示屏中，而熱水器將關閉加熱功能。

用戶配置

最多可以設定四個用戶。每個用戶都可以選擇自己所需的溫度並保存在其用戶資料中。點擊左側的感應鍵，然後點擊用戶圖案下方的鍵來選擇用戶（若要修改用戶資料，請參見「用戶」一節）。

3. 使用指示



應用程序

可在此處選擇預設應用程序。只需點擊右側的感應鍵即可打開選單。點擊應用程序圖案下方的感應鍵以將其啟動。

溫度在出廠時設置為以下數值：洗手=35° C，淋浴= 38° C，浴缸=42° C，熱水=48° C

若要更改溫度數值，請選擇一個應用程序並設置新溫度。然後按住用戶圖案或應用程序圖案下方的感應鍵 2 秒。

狀態顯示（頂部）

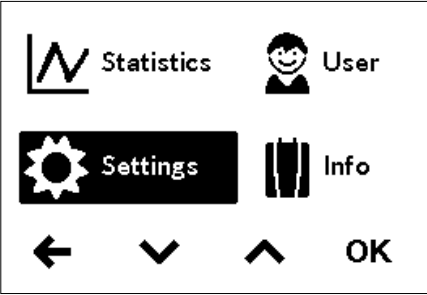
- 🔒 鎖定功能啟用中（PIN）
- ❄️ 入水溫度大於目標溫度（熱水器不加熱）
- 📶 安裝了另購的遙控器或家居伺服器。熱水器可以遙遠控制。

狀態顯示（底部）

需要用戶確認的功能或重要功能的顯示區域。

- 🔧 維護工作：設備檢測到錯誤。在主選單中選擇「信息」以獲取更多信息。
- MAX 達到最高溫度：由於已達到所設定的溫度極限，因此無法進一步提升溫度。可通過主選單中的「設置」更改溫度限制。
- 🔥 加熱進行中：熱水器一旦加熱水，此符號就會出現。
- 🔥 功率極限：熱水器的最高功率輸出不足以加熱現時水量至設定的溫度，請減少水龍頭溫水流量。

3. 使用指示



主選單 (MAIN MENU)

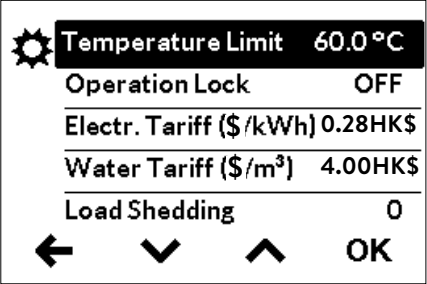
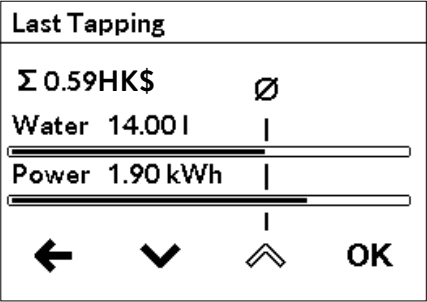
按選單鍵進入主選單。可以在此選擇設備的所有功能選單和保存的數值。

統計 (STATISTICS)

在統計信息中，熱水器所記錄的消耗量和使用量數據將以圖形格式顯示：

- 💧 耗水量
- ⚡ 耗電量
- Σ 總消耗成本

選擇 ^ 或 v 以瀏覽不同的時間段。圖表將顯示整體消耗量或上一次用水起計至當刻的消耗量。



注意：此數據並不適合用於計費。

設定 (SETTINGS)

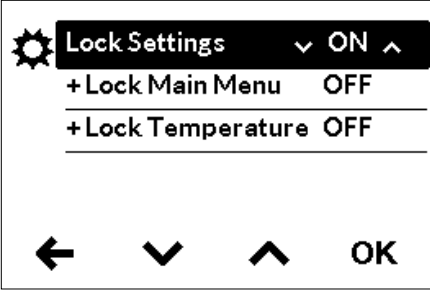
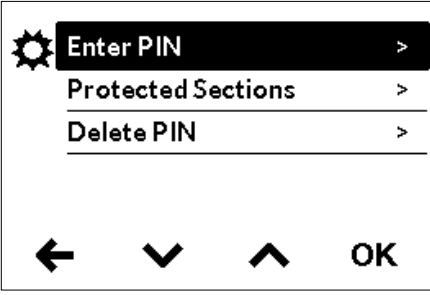
此選單用於設定熱水器的基本配置。選擇 ^ 或 v 以瀏覽不同的選單項目，然後點擊「OK」直接更改設置或進入子選單。

- 溫度單位 (Temperature Unit)：**定義為 °C。
- 語言 (Language)：**選擇選單語言。
- 聲音 (Sound)：**啟用或停用操作聲音。
- 注意：警報信號和提示聲音不能停用。**

- 貨幣 (Currency)：**選擇貨幣符號。
- 溫度限制 (Temperature Limit)：**可以在此選單中啟用或停用溫度限制，最高溫度可以限制在溫度設置範圍內的所需數值。

注意：若將此即熱式熱水器連接到花灑頭，則最高溫度在熱水器安裝過程中已受到限制，無法更改。

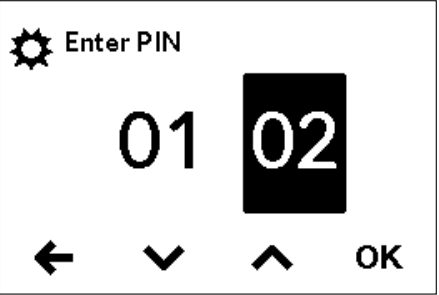
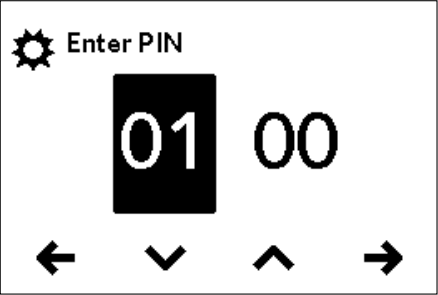
3. 使用指示



操作鎖定：使用四位數的PIN個人密碼保護您的設置。
注意：必須輸入正確的PIN密碼，才能解鎖進入「受保護的部分」或「刪除PIN」功能。如果您忘記了PIN碼，請聯繫客服中心。

PIN碼輸入 (Enter PIN)：使用 ^ 或 v 在00到99之間選擇數字。要移至下一位或前一位數字，請選擇 ← 或 →。選擇4位數字後，按 → 確認。作為安全措施，必須重新輸入PIN並按「OK」進行確認。

如果PIN碼輸入正確，則可以進入「受保護的部分」。



- 受保護的部分 (Protected Sectors)：**選擇要使用PIN進行鎖定的區域。
- 鎖定設置 (Lock Settings)：**儲存密碼後自動啟用。用戶只能使用PIN碼方能進入設置選單。當停用它時會刪除當前PIN碼。
 - +鎖定主選單 (Lock Main Menu)：**用戶必須使用PIN碼方能進入主選單。
 - +鎖定溫度 (Lock Temperature)：**出水溫度設置為當前數值，並且只能使用PIN碼進行更改。用戶個人資料和應用程序必須能使用PIN碼方能進行更改。

- 電費 (貨幣/kWh)：**按電力供應商收費標準輸入電費價格。
- 水費 (貨幣/m³)：**按水務署收費標準輸入水費價格。

3. 使用指示

數值	描述
0	無配用減載繼電器，出廠設置
1	使用正常減載繼電器運行
2	使用高靈敏度的減載繼電器運行

減載繼電模式 (Load Shedding Relay)：如同時接駁其他三相電器，可將減載繼電器接駁至導電器L2。可用特為電子即熱式熱水器設計的減載繼電器接駁至導電器L2。該繼電器通過關閉其他電器直至加熱操作結束，以確保熱水器的加熱操作。

選擇「OK」進入調校模式。設置「0」、「1」或「2」，請按住x或x 2秒鐘。

必需先選擇模式1，檢視低電量操作下的減載繼電器操作正常 (35°C設定及低水流量)。如繼電器閃動，需選擇模式2。

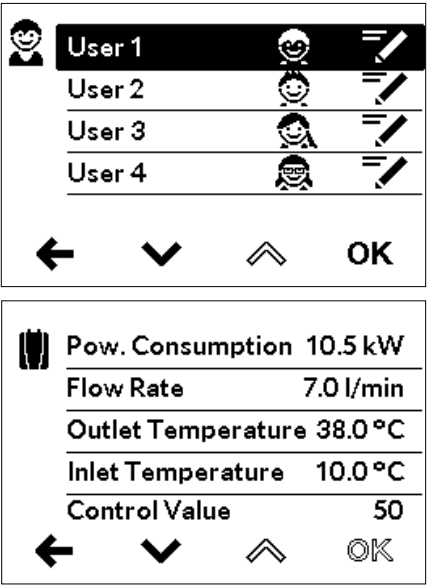
注意：如果安裝了減載繼電器，在初次啟動時會將此模式設置為「1」或「2」。如果已啟動模式「1」，只能更改到模式「2」。

出廠設置 (Factory Settings)：所有出廠設置可以重置，而淋浴溫度限制和減載繼電設模式則不受影響。

注意：所有用戶配置以及所輸入的電費和水費資料將被刪除。

刪除統計信息 (Delete Statistics)：使用此功能刪除之前已收集的所有統計數據。被刪除的統計數據將無法恢復。

3. 使用指示



用戶 (USER)

最多4個用戶可輸入名稱及設定用戶圖像。該圖像會出現在主屏幕中。在主屏幕中，每個用戶都可以為不同的應用程序選擇自己所需的溫度，並保存在其用戶資料中。

設備信息 (INFO)

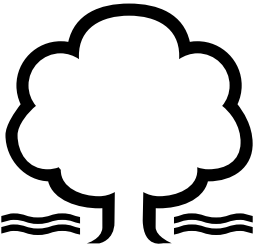
此處列出了當前狀態和設備數據。輕觸感應鍵以瀏覽不同的資料和數值。

補充加熱

當使用預熱水（例如太陽能系統）運行時，必須確保入水溫度不超過70° C。如果入水溫度超過設定溫度，熱水器將不會輸出任何熱水。符號X會顯示在主屏幕中。

如何節省能源

在熱水器上設置所需的溫度，然後打開熱水龍頭。一旦感覺到水太熱，請勿添加任何冷水，而應在熱水器上輸入較低的溫度。如果添加冷水，已經加熱的水將再次冷卻，浪費寶貴的能源。此外，水龍頭中添加的冷水將不受電子電路的控制範圍所覆蓋，可能導致溫度不恆定。



3. 使用指示



保養工作後的排氣程序

熱水器備有自動氣泡保護功能以防止非故意乾燒情況。唯初次啟用前，必須先排氣。但每次熱水器因水喉工程、有結霜可能、或維修而需排出儲水，必需將熱水器內空氣排出，方能再次使用。

- 1. 關掉熱水器電源總掣(例如保險絲)。
- 2. 拆下出水位的射流調節器，開啟冷水龍頭清洗水管，以免污染熱水器及射流調節器。
- 3. 開啟再關閉熱水掣，直至水管內不再排出空氣，及熱水器內空氣已完全排出。
- 4. 然後重新接駁電源(例如保險絲)，裝回射流調節器。
- 5. 約10秒的不停水流將啟動熱水器。

清潔與保養



- 塑料表面及配件只可用濕布擦拭。請勿使用腐蝕性或含氯元素之清潔劑或溶劑。
- 為確保良好供水，應定期擰開並清洗出水口配件（特別水龍頭及花灑噴頭）。每隔三年，電氣和水管組件應由授權專業人士檢查，以確保安全正常運作。

4. 檢查要點



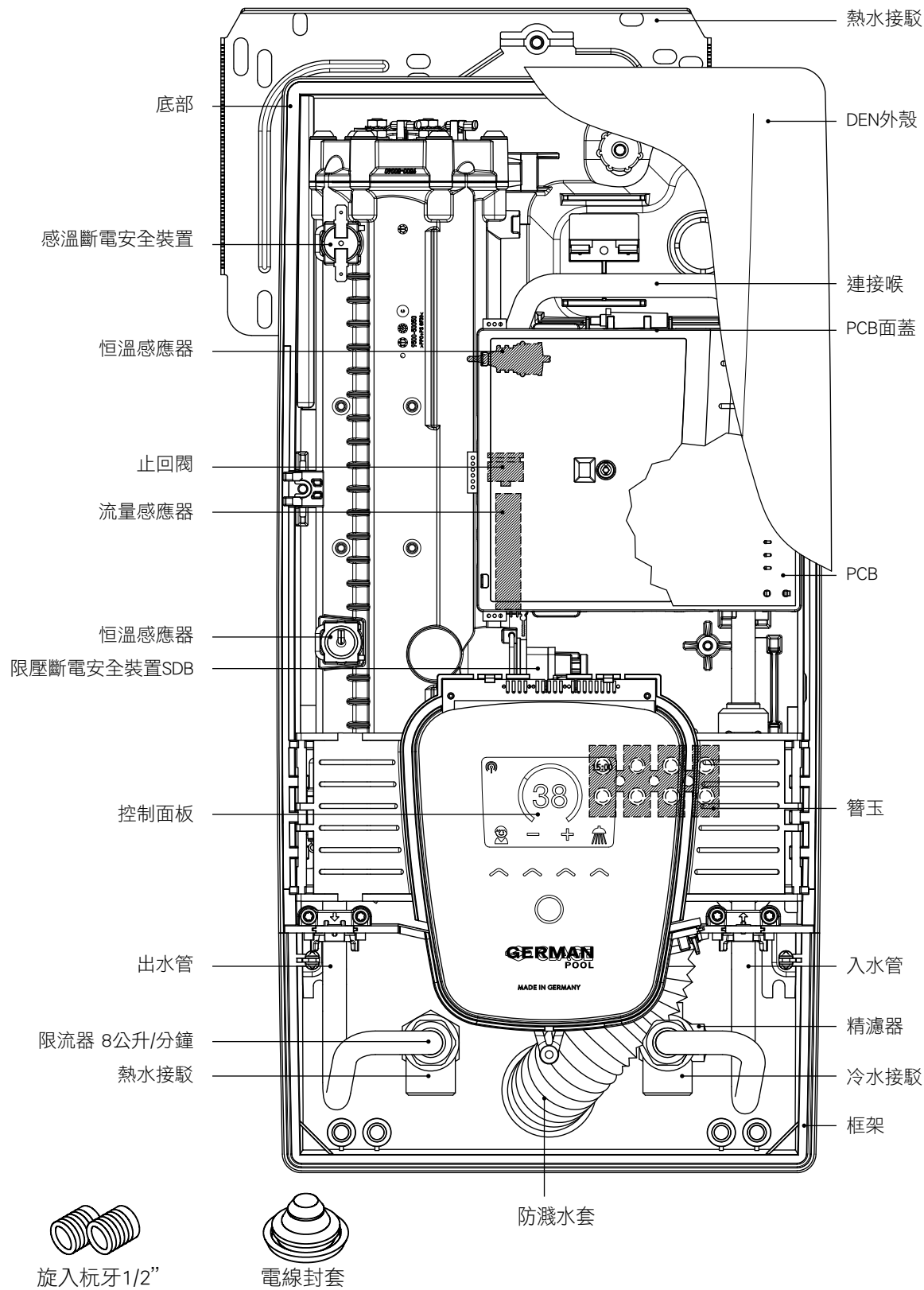
只有經認可的專業人員方可進行維修。若按照以上表格所列方法無法排除熱水器故障，請聯繫德國寶客戶服務及維修中心。請記錄銘牌詳細資訊。

本熱水器出廠前經多次反覆測試，如有故障，一般由小問題引致。首先可嘗試重新開關電源以重設電子設定。其次可參考以下列表措施解決問題，這樣可節省不必要的維修費用。

DSN		
問題	原因	解決方案
出水為冷水，輕觸顯示屏顯示斷電屏幕 	總保險絲跳閘	更換或接通保險絲
	限壓斷電安全裝置跳閘	聯繫客服中心
出水為冷水，顯示屏顯示錯誤符號 	感溫斷電安全裝置跳閘	關保險絲後再打開。如果仍然顯示「扳手」符號，聯繫客服中心
熱水流速過低	出水口配件變髒或鈣化	清潔花灑頭、射流調節器或過濾網
	精濾器變髒或鈣化	請專業人員清潔精濾器
不能達致所選溫度	達到功率極限	減少水龍頭溫水流量
	通過水龍頭添加了冷水	僅使用熱水；設定溫度，檢查出水溫度
感應鍵無法正確回應或僅間歇回應	顯示屏濕了	用軟布擦乾顯示器

1. 概觀圖

安裝說明



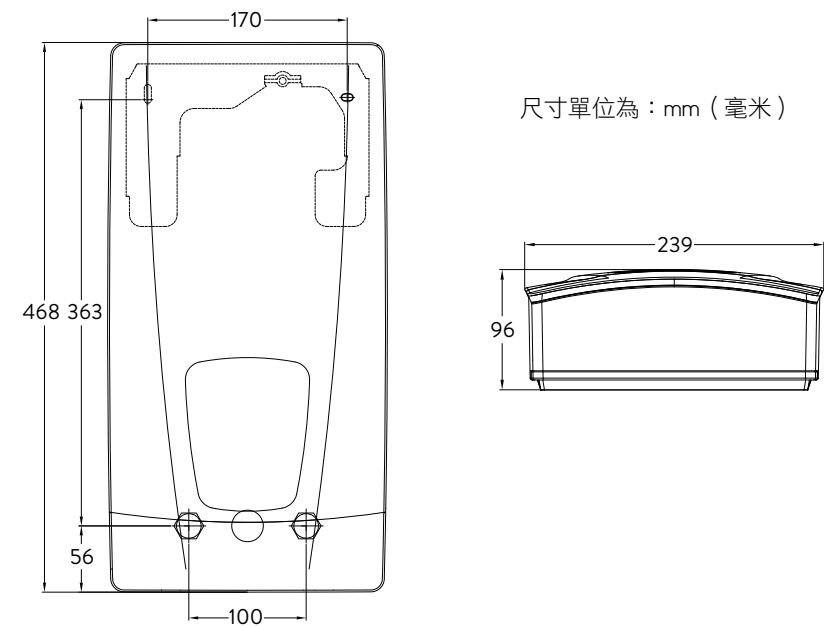
2. 規格

型號	DEN			
歐盟能源效益標	A *)			
額定功率 / 額定電流	18 kW..27 kW (26 A..39 A)#			
選擇功率 / 電流	18 kW / 26 A	21 kW / 30 A	24 kW / 35 A	27 kW / 39 A
電氣連接	3~ / PE 380..415 V AC			3~ / PE 400 V AC
所需最小電線尺寸 1) ^	4.0 mm²	4.0 mm²	6.0 mm²	6.0 mm²
熱水 (公升/分鐘) 2)				
最大值 Δt = 28 K	9.2	10.7	12.3	13.8
最大值 Δt = 38 K	6.8	7.9	9.0	10.2
額定容量	0.4 l			
額定壓力	1.0 MPa (10 bar)			
連接類型	耐壓 / 無壓			
加熱系統	裸線加熱系統 IES®			
@ 水溫為 15°C 時的比電阻導電性	≥ 1100 Ω cm ≤ 90 mS/m			
入水溫度	≤ 70 °C			
啟動流速 - 最高流速	1.5 l/min - 8.0 3)			
壓力損耗	0.08 bar at 1.5 l/min 1.3 bar at 9.0 l/min 4)			
溫度選擇	20 - 60 °C [70 °C]			
水管接頭	G ½ inch			
重量 (裝滿水後)	4.2 kg			
VDE 防護等級	I			
防護 / 安全類型	   IP25 CE			

*) 符合歐盟法規 No. 812/2013 的要求
額定電流以德國標準計算，例如：18 kW / √3 / 400 = 26 A
^ 電線尺寸根據機電工程署的電力（線路）規例工作守則表 A6(1)
1) 從熱水器頂部接駁電源，最大電線尺寸 10 平方毫米
2) 混合熱水
3) 限流目的為達到最佳溫度上升效果
4) 不設限流器

- 所有資料僅供參考，如有錯漏以廠方生產的規格為準。產品規格及設計如有變更，恕不另行通知。
- 中英文版本如有出入，一概以英文版為準。
- 本產品使用說明書以 www.germanpool.com 網上版為最新版本。

3. 尺寸



4. 安裝



根據德國準則，頒發了有關
噪音行為適用性證據的通用
測試證書。

安裝時必需遵照下列守則：

- e.g. VDE 0100
- EN 806
- 當地有關之電線安裝條例、安全標準、電力供應商或水務署之安全條例。
- 銘牌上的產品規格。
- 必須使用完好和適當的工具。

安裝地點

- 必須安裝於全年都不結霜之房間內。切勿讓熱水器暴露於霜雪中。
- 此熱水器只可作掛牆式安裝，出入水接駁喉位向下；如橫向安裝，水管接駁喉必須置放於左邊。
- 根據VDE 0100 part 701 (IEC 60364-7)，熱水器的防護等級為IP25，熱水器必須安裝於保護區1內。
- 為避免失溫，應將熱水器安裝於最接近出水位置。
- 該設備必須安裝於易於維修保養的位置。
- 如選用膠喉，該膠喉必須符合DIN 16893 Series 2規格。
- 來水於15°C時，水電阻最少應為1,100 Ω cm。有關詳情可向水務署查詢。

4. 安裝

裝掛配件

若所選熱水器安裝地點難以安裝，可選配下列裝掛

配件：

裝掛套裝 RDX3

(序號：36100)

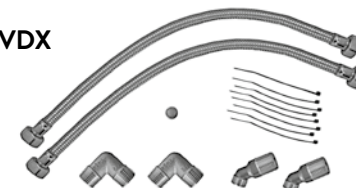
在下列情況，可以用此裝掛套裝來安裝熱水器。當安裝牆壁表面不平均，而電源線出線位又正在這表面之上，令熱水器難以安裝。

使用RDX時，保護等級從IP25更改為IP24。

RDX3



VDX

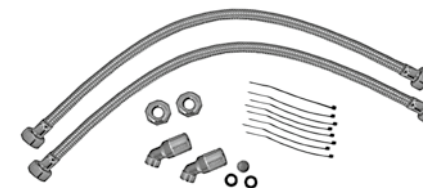


擴展套件 VDX

(序號：34120) - 必須與RDX同時使用

在下列情況，此擴展套件可以用來安裝熱水器。當水管冷熱水位倒置、水管出牆位置需要改動、或熱水器位置貼近牆壁邊緣時使用。電源線可從熱水器的下方出牆或以明線安裝。

UDX

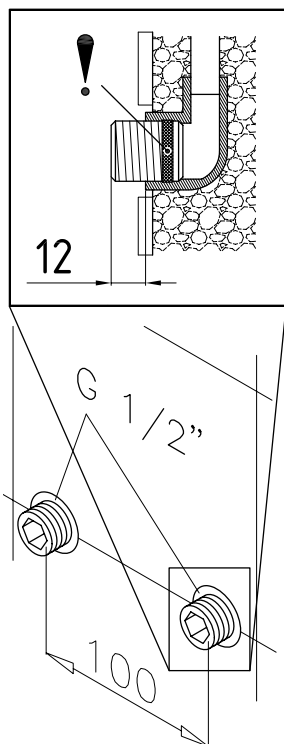


擴展套件 UDX

(序號：34110) - 必須選用RDX

在下列情況，可以用此擴展套件來安裝熱水器。當水管在熱水器之上方連接。電源線從熱水器的下方出牆或以明線安裝。

4. 安裝

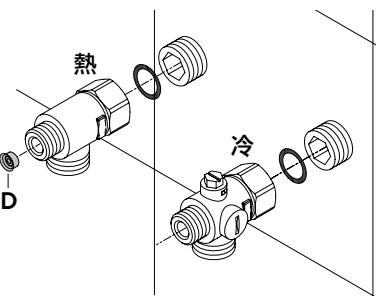
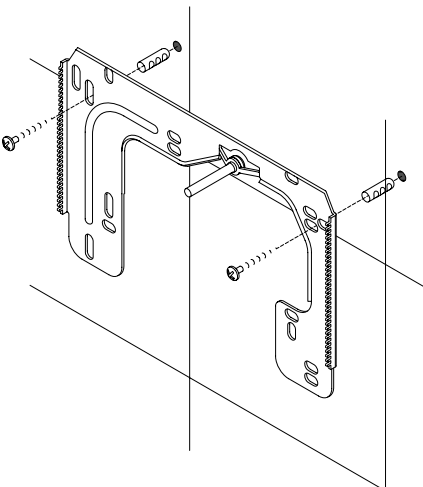


安裝牆上掛碼

注意：如果此即熱式熱水器用以更換傳統形式即熱式熱水器，一般無需於牆上再另外鑽孔安裝。在此情況下，無需理會步驟2。

安裝前先徹底清洗供水喉管，去除管內任何污垢。

1. 用12毫米六角匙將杭牙旋入牆上接駁位置，密封墊必須完全旋入螺齒內。旋妥杭牙後，杭牙應外露12-14毫米。
2. 將附上的模板放在牆上適當位置以配合杭牙位置。根據模板位置記下鑽孔位置，用6毫米鑽咀鑽孔，放入固定銷旋入掛碼。
3. 請拉下面板並擰下主蓋螺絲以打開設備。
4. 鬆開牆上掛碼的滾花螺母，卸下牆上掛碼，然後將掛碼擰在牆上。借助隨附的墊片，最多可補償30毫米的傾斜瓷磚或不平整的表面。將墊片安裝在牆壁和牆上掛碼之間。

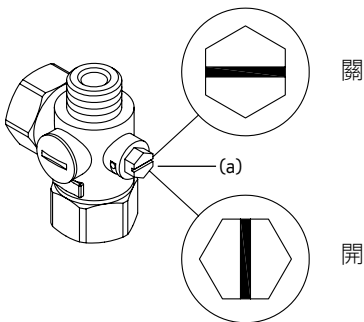
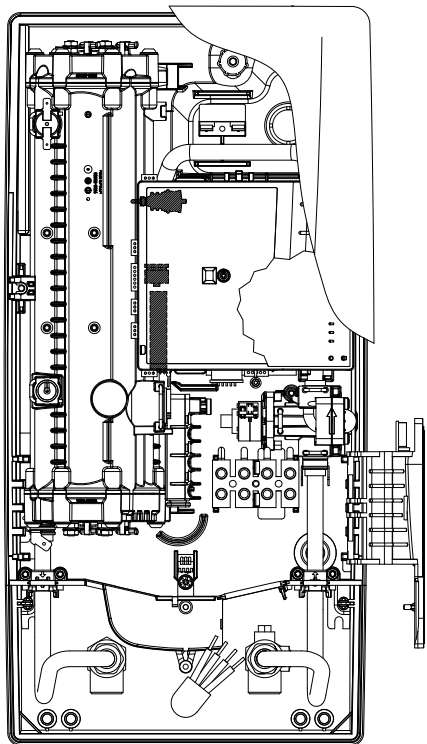


安裝接駁配件

注意：旋緊螺母時應小心避免損壞閥或喉管。

1. 如圖所示將緊固螺母及1/2" 密封圈連接上冷水進水配件。
2. 將緊固螺母1/2" 密封圈連接上熱水出水配件。
3. 將水流限制器 "D" 放入熱水出水配件。O型圈必須可見。

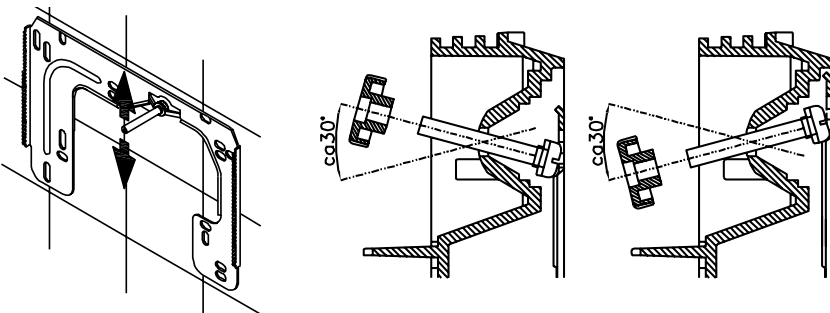
4. 安裝



安裝熱水器

電源電纜可以連接在熱水器上部或以明線安裝。僅在這種情況下，首先按照「電線接駁」章節中的「從機頂接駁電線」部分的指示執行步驟1至3。

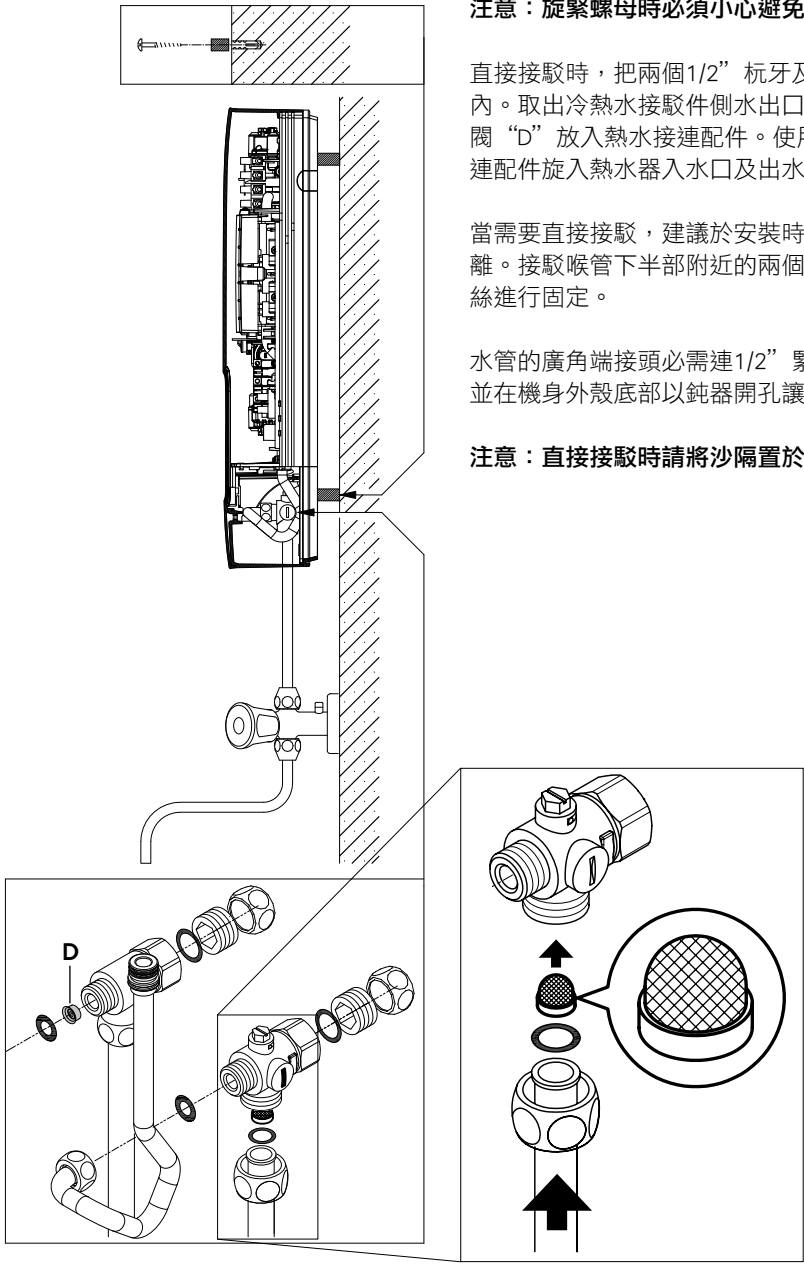
1. 將熱水器掛在掛接背板上，如有需要可小心將略為螺紋棒彎曲。注意，彎曲螺紋棒後旋上進水配件時應無需使用蠻力。
2. 將塑膠滾花螺母旋入牆上掛碼螺紋棒上。
3. 將兩個3/8" 緊固螺母及3/8" 密封圈旋入進水管連接配件內。
4. 打開連接熱水器的冷水供水喉，慢慢旋開冷水連接配件的閘掣(a)（位置：開），查看有否滲漏。
5. 接著連續來回打開及關閉熱水龍頭數次，直至水龍頭再沒有空氣排出，及熱水器內的空氣已完全排出。



注意：預留生口位

如熱水器安裝在隱閉位置（例如石膏板假天花），必須預留600x600毫米生口位以便日後保養和維修之用。

5. 直接接駁



注意：旋緊螺母時必須小心避免損壞閥或喉管。

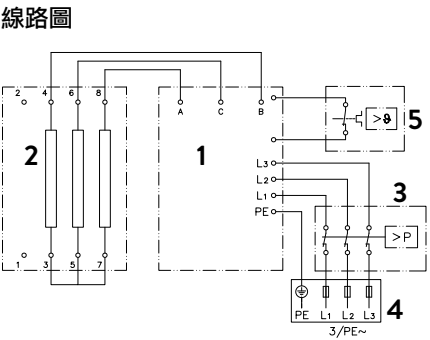
直接接駁時，把兩個1/2” 杭牙及1/2” 密封圈旋入冷熱水接駁件的1/2” 緊固螺母內。取出冷熱水接駁件側水出口的1/2” 密封帽，然後旋入杭牙外露的一端。將減水閥“D” 放入熱水接連配件。使用3/8” 密封圈及3/8” 緊固螺母，將冷水及熱水的接連配件旋入熱水器入水口及出水口。

當需要直接接駁，建議於安裝時，使用跟機的間隔套讓熱水器跟牆壁保持一個合理距離。接駁喉管下半部附近的兩個固定孔，也應由專業技術人員以6毫米的固定銷和螺絲進行固定。

水管的廣角端接頭必需連1/2” 緊固螺母及1/2” 密封圈旋入冷熱喉的1/2” 接連配件。並在機身外殼底部以鈍器開孔讓冷熱水喉穿過。

注意：直接接駁時請將沙隔置於冷水入水接駁位！

6. 電線接駁



- 1. 電子电路板
- 2. 加熱元件
- 3. 限壓斷電安全裝置
- 4. 簪玉
- 5. 感溫斷電安全裝置

注意：必須由獲取認可資格的专业技師負責!

請注意：

- e.g. VDE 0100
- 必須按現行之IEC標準、當地的電線安全標準及法規、及根據任何當地電力供應商之標準或法規安裝。
- 參照銘牌上註明的技術規格。
- 熱水器必須接駁地線！

結構要求

- 熱水器必須穩固永久接駁安裝。熱水器必須接駁地線！
- 電線不應損壞，安裝後電線不應可以直接觸摸得到。
- 電源開關應為全極式開關（經保險絲），兩極之間應保持最少3毫米距離。
- 為保護熱水器，必須安裝符合熱水器標稱電流、並具過載電流功能及開關設定特性為C類的保險絲。

減載繼電器

如會同時接駁其他三相電器，可以將用專為電子即熱式熱水器設計的減載繼電器接駁至導電器L2。

如要更改操作模式，請在進行電線接駁和初次啟動時，開啟設置選單，然後選擇「減載繼電」模式。

選擇”OK” 進入編輯模式。要設置“0”、“1”或“2”的值，請按住^或v兩秒鐘。通過根據鎖定功能插入跳線（請參閱「初步操作」內的「鎖定功能」），可以開啟減載繼電器功能。

數值	描述
0	無配用減載繼電器運行，出廠設置
1	配用正常減載繼電器運行
2	配用高靈敏度的減載繼電器運行

必需先選擇模式1，以檢視低電量操作的減載繼電器操作正常(35°C設定及低水流量)。如繼電器閃動，需選擇模式2。

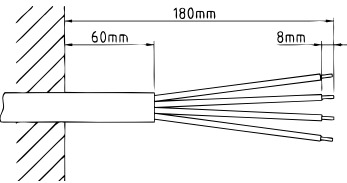
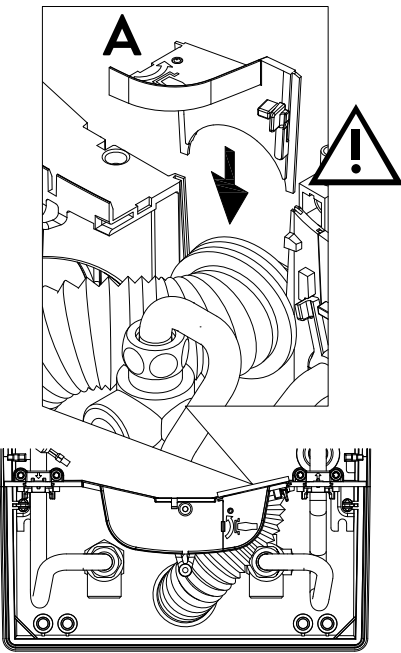
6. 電線接駁

從機底接駁電線

注意：如有需要，可將簪玉移至熱水器上半部，如需這樣做，請參照下一部份指示。

接駁電線前，必須先確定電源已關上！

- 1. 從牆壁插座位拉出約6厘米電線，套入防水套管，使套管與牆身齊平，確保如有漏水也不會沾濕電線，以保護電線完好。必須使用防水套管！
- 2. 打開控制面板。
- 3. 剝去電線外皮並依著電路圖表將其接到簪玉上。此熱水器必須連接地線。
- 4. 將防水套管拉上套著接駁電線，直至防套管完全套入中間層板的凹位。依圖調整防水套管，並以套管固定件(A)進行固定。重新裝上控制面板並將其鎖緊。
- 5. 將外殼裝回熱水器上，然後擰緊螺絲。之後，您可以從下到上滑動面板。

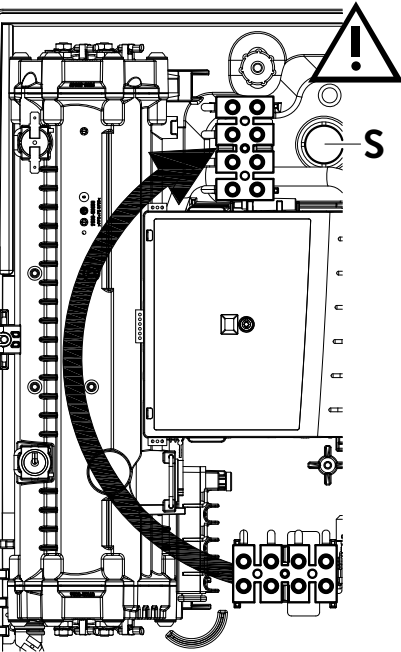


從機頂接駁電線

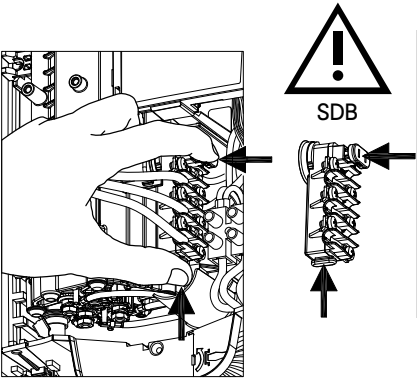
接駁電線前，請必先確定電源已關上。

- 1. 用鈍器（例如螺絲批）按壓打開熱水器膠板的預設孔位 (S)。如果採用明線安裝，則須同時打開熱水器右下方的預設孔位。
- 2. 介開配件套裝的電線固定環至符合電線粗度。介開的面積應略為比電線窄少許，以確保最佳的防水性能。將電線固定環安裝到開口中。必須使用電線保護固定環！
- 3. 剝開電線，讓電線保護套穿過電線固定環延伸到設備中。握住熱水器，以便您可以另一隻手將電線佈線到固定環中。
- 4. 將熱水器掛在背碼上，讓背碼的螺紋柱套入熱水器相應的孔內。
- 5. 打開控制面板。
- 6. 旋鬆電線接駁線插的螺絲，簪玉移往上腳口，再接駁簪玉。
- 7. 剝開電線，按照線路圖接駁至簪玉。此熱水器必須接駁地線。
- 8. 重新裝上控制面板並將其鎖緊。
- 9. 將外殼裝回熱水器上，然後擰緊螺絲。之後，將面板從下滑上裝好。

注意：為確保達到IP25防護等級，請勿移除底部的防濺水保護套。



7. 初次啟動



接駁電源前，先讓水注入喉管及熱水器內，然後慢慢開關熱水水龍頭數次，以將熱水器內的空氣完全排出。

為了確保最大流量，請拆除水龍頭上任何現有的加壓器。分別沖洗熱水和冷水管至少1分鐘。

每次徹底排水之後(例如因為維修或水喉工程後)，必須先以此方法將熱水器內的空氣完全排出，方可再啟動熱水器。

若熱水器無法運行，有機會是運輸過程中感溫斷電安全裝置或限壓斷電安全裝置跳閘。如有必要，請檢查電源是否已關閉並重置安全裝置開關。

功率選擇

必須由註冊專業技師調校，否則保養作廢！

熱水器送抵府上時，顯示屏會顯示「Approved」（見左圖）。如沒此圖示，則表示熱水器曾接通電源。此情況下，請參照「重新安裝說明」安裝。

初次接駁電源時，選擇最大功率。只在設定功率後，熱水器才進入標準操作模式。



多功率調校系統MPS：
額定功率(最高能源耗用量)
為27kW/400V，可內部轉換為
24kW、21kW或18kW。

最大可容許功率需視乎安裝地點情況而定。必須注意技術規格表內所提供的全部資料，特別是電源線的要求及電線接駁的保險絲保護。所有電線接駁安裝必須遵照安裝地點的有關法例（德國：DIN VDE0100）。

- 1. 接通設備的電源。
- 2. 當首次接駁電源，顯示屏顯示語言選單。選擇語言後，可選擇功率等級。
- 3. 按感應鍵選擇安裝當地所容許之最大功率(18、21、24或27kW)。
- 4. 選擇” OK” 確認設置。
- 5. 在銘牌上標記設置的額定功率。
- 6. 在設置最大可容許功率後，加熱元件將在持續水流約10-30秒後啟動。
- 7. 打開熱水龍頭，檢查熱水器功能。
- 8. 將使用說明交給客戶，並向客戶解釋熱水器怎樣操作。
- 9. 初步操作妥當後，請填妥及寄回保用證。

7. 初次啟動

重新安裝說明

當熱水器需要與初次安裝情況下有別的狀態下重新安裝，安裝時可能需要設定為最大功率。

暫時性的兩極短路，例如使用符合EN60900的螺絲批(如圖所示)，會將熱水器的所有參數回復到出廠設定，並鎖定溫度。及顯示屏會顯示語言選單。選擇您的語言，然後會出現功率等級的選擇。即使關掉熱水器電源也能保持這些設定。

淋浴應用

若將此熱水器連接到花灑頭，則熱水溫度必須限制在55° C以內。在與客戶協商後，必須在設置選單中將溫度極限值設置為等於或小於55° C，並且必須啟動鎖定功能。

使用預熱水操作時，亦必須確保將溫度限制在55° C以內。

鎖定功能

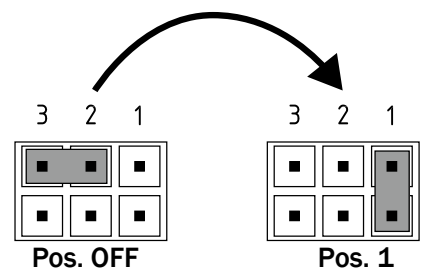
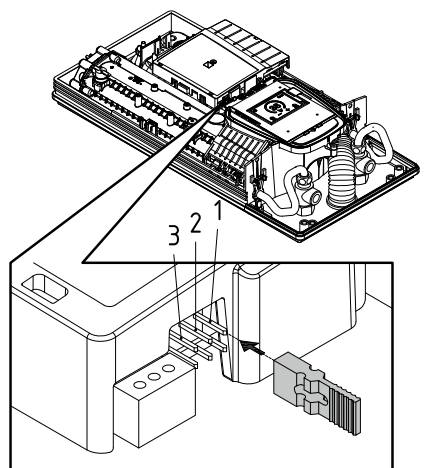
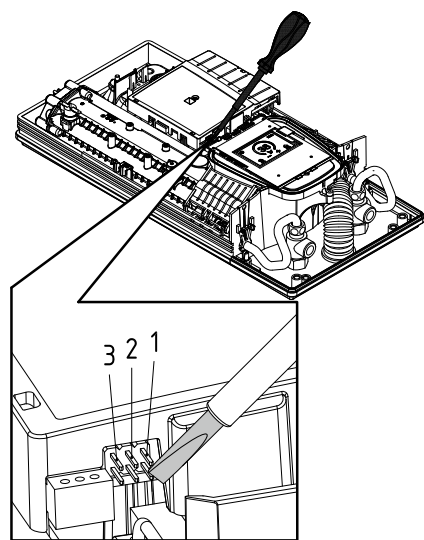
可以限制設備的操作模式。

啟用鎖定功能

1. 通過設置選單選擇所需的參數（請參閱「使用指示」，「溫度限制」和 / 或「減載繼電」）。
2. 斷開熱水器電源（例如關掉保險絲）。
3. 從電子控制板取下配線，並將其轉到位置“1”（參見圖片）。
4. 再次運行熱水器。

停用鎖定功能

1. 斷開熱水器電源（例如關掉保險絲）。
2. 從電子控制板取下配線，並將其轉到位置“OFF”（參見圖片）。
3. 再次運行熱水器。



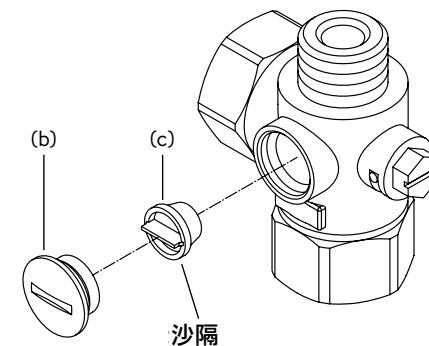
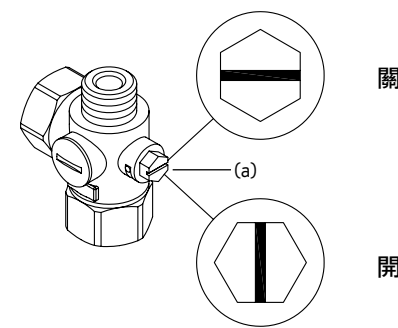
8. 保養

注意：必須由獲取認可資格的专业技師負責！

清洗及更換沙隔

熱水器的冷水入水接駁位配備有綜合式的閘制及沙隔，沙隔藏有污垢會減低熱水出水量，必須定時清理或更換。步驟如下：

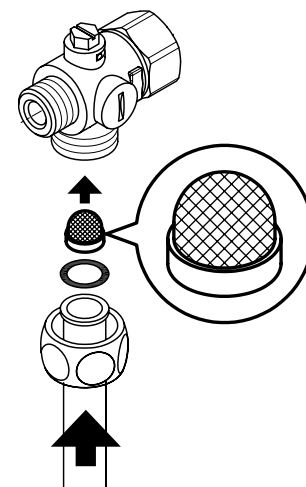
1. 先關掉電源（例如關掉保險絲）以防止電源意外接通。
2. 打開熱水器：先把小蓋掩取下，旋出蓋掩下面的螺絲，然後卸下外殼。
3. 關掉冷水接駁件的閘制(a)（狀態：「關」）。
4. 從冷水喉旋出螺絲塞子(b)，然後取出沙隔(c)。注意：殘留的水可能會漏出。
5. 清洗或更換沙隔。
6. 放回沙隔後，旋緊螺絲塞子。
7. 慢慢打開冷水接駁件的閘制（狀態：「開」）。確保沒有洩漏。
8. 慢慢開關相應的溫水龍頭數次直至熱水器內的空氣完全排出。
9. 將外殼裝回熱水器，然後再接通電源（例如打開保險絲）。



直接接駁時清潔並更換沙隔

熱水器的冷水入水接駁位配備有綜合式的閘制及沙隔，沙隔藏有污垢會減低熱水出水量，必須定時清理或更換。步驟如下：

1. 先關掉電源（例如關掉保險絲）以防止電源意外接通。
2. 關掉向熱水器的主供水閘制。
3. 打開熱水器外殼，先把小蓋掩取下，旋出蓋掩下面的螺絲，然後卸下外殼。
4. 從冷水喉旋出螺絲塞子，然後取出沙隔。注意：殘留的水可能會漏出。
5. 清洗或更換沙隔。
6. 放回沙隔後，重新接駁上主供水組件。
7. 慢慢打開主供水閘制。確保沒有洩漏。
8. 慢慢開關相應的溫水龍頭數次直至熱水器內的空氣完全排出。
9. 將外殼裝回熱水器，然後再接通電源（例如打開保險絲）。



[illegible]

產品規格及設計如有變更，恕不另行通知。中英文版本如有出入，一概以英文版為準。本產品使用說明書以 www.germanpool.com 網上版為最新版本。
Specifications are subject to change without prior notice. If there is any inconsistency or ambiguity between the English version and the Chinese version, the English version shall prevail. Refer to www.germanpool.com for the most up-to-date version of the manual.



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所有資料僅供參考。如有變更，恕不另行通知。
EN-ZHTC 9120-25717 05.21



香港《S MARK》
安全認證
2005



中國輕電器/家電行業
十大影響力品牌
2008



CEO非凡品牌大賞
2007



香港星級品牌
企業獎
2015



香港工商業獎
2008



最具潛質
創建品牌企業獎
2007



香港中小企業
最佳拍檔大獎
2015



香港消費者推崇品牌
2014



香港《O嘢》
優質服務證書
2015



香港名牌十年成就獎
HONG KONG TOP BRAND TEN YEAR
ACHIEVEMENT AWARD
2015

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