




Electric water heaters



...the innovative hot water solution.


Made in Germany

»Instant water heaters
are so efficient today!«



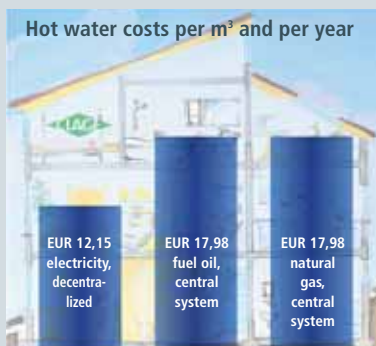
Quality products from a German market leader

CLAGE can look back to a tradition of 50 years – specialized on the research and development, production and world-wide distribution of electrical instantaneous water heaters. Our team of experts constantly aims to develop products of even higher standard – as well as researching further energy improvements for more ecological efficiency. As a result of such exceptional quality standards, CLAGE products have achieved various awards and are today world-wide appreciated for their outstanding performance and attractive design.

As resources become scarcer, energy costs rise and consumer demands grow, we increasingly need new answers and concepts compatible with ecological requirements.

Unlike a central hot water supply, instantaneous water heaters only heat the water when it is actually needed, directly at the tap. This eliminates the loss of heat and energy due to prolonged storage, long pipes and complex circulation. That is also why the cost of hot water from an instantaneous water heater is so much lower. And it saves precious drinking water which would otherwise – from a central system – be flushed down the drain unused. Over a 10 metre length of piping, that saves 3.2 litres every time.

Precise accounting via the electricity meter is another major advantage for home-owners, without additional costs being incurred for auxiliary energy, extra meters and billing.



Instant water heaters cost less!

Compared to centralised systems, a decentralised hot water supply has significant benefits. These benefits derive from the prevention of water loss, the comparatively low investment costs and the potential energy savings that they offer. Increasing environment-consciousness and the diminishing and more expensive supply of fossil fuels are all further arguments for decentralised hot water supply.

Total annual cost of hot water per m³ in a single-family home (investment cost and operation, excluding cold water). Available heat: 1200 kWh/a (3-person household) · Hot water consumption: approx. 30,000 l/a = 30 m³/a (Source: HEA 2007, based on German conditions)

CLAGE GmbH – Pirolweg 1–5 · 21337 Lueneburg · Germany
Fon: +49 (0) 4131 – 89 01-38 · Fax: +49 (0) 4131 – 832 00
E-mail export@clage.de · Internet www.clage.com

Some of the heaters described in this brochure are not available in some countries due to technical restrictions. Please contact your local importer for current details. It is our policy to improve the design and specification of our products and we reserve the right to depart from the details given without prior notice. The energy saving comparisons in this catalogue are based on calculations by CLAGE.

Personal photos pp. 5, 13 and 21 © Photodisc · All other photos: © CLAGE
® Registered trademark; the terms CLAGE and ZIP are registered trademarks.



At a glance



*Mini instant water heaters
for hand-wash basins*

Page 4

*Single-phase instant water heaters
with tubular heating elements*

Page 10

*Three-phase instant water heaters
for the kitchen sink*

Page 12

*High-Tech for comfortable
and economic hot water supply*

Page 14

*Three-phase electronic instant
water heaters for the bathroom*

Page 16

*Three-phase instant water heaters
for bathroom and shower*

Page 18

Storage water heaters

Page 20

Instant boiling water dispensers

Page 22

Technical Data

Page 24

General data for water heating

Page 34

Product recommendation

Page 35



Mini instant water heaters – ideal for



With the mini instant water heater, you do not only save space but also 65% of the energy otherwise consumed by a small boiler.

the hand-wash basin

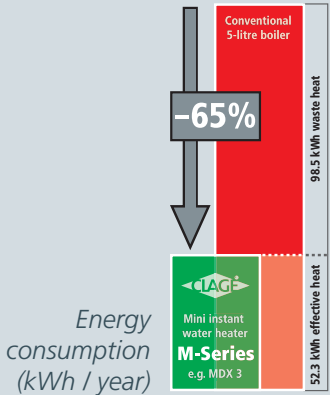


MH 3 · Art. no. 14003

Mini instant water heaters are the most efficient means of supplying hot water to the hand-wash basin.

The water is not preheated but instantly heated as it flows through the unit. Consequently, no standby energy is used and the small instant water heater economises 65 % of the energy of a small boiler.

- Immediately hot water with an economic flow rate
- Hot water is always available – unlimited
- No standby energy consumption
- Saves energy and valuable drinking water, thus reduces your operating costs
- Easy and place-saving installation
- Heater with tap in one set available
- Special jet regulator always included
- Available in different versions (open-outlet, closed outlet, electronic and hydraulic) and in four power ratings from 3.5 kW to 6.5 kW (Technical data p. 24–25)



Large storage tanks spoil the appearance of the wash place and needlessly consume a large amount of energy



The mini instant water heater is optimally designed for wash basin requirements



The concept and attractive design of this exceedingly compact instantaneous water heater have been distinguished with the Ecology Design Award.



Choose the right type!



MH – open-outlet: for special taps

MH open-outlet mini instant water heaters can be installed quickly and easily. Since the unit is not exposed to mains water pressure, it requires a special tap for open-outlet water heaters.

The CLAGE complete systems are ideal (see pages 8–9) and recommended for new installations.



MH 3 · Art. no. 14003

MDH – closed-outlet: for retrofitting existing mixing taps

If you wish to install a conventional tap with the efficient mini instant water heater, the closed-outlet type MDH is the right choice.

The connecting set (T-piece and flexible hose) is included in the european product range and simplifies installation.



MDH 6 · Art. no. 12006

MDX – electronic:

The MDX is equipped with an electronic control system. This system regulates the power consumption to prevent the outlet temperature exceeding the setting. Together with the economically adjusted flow, the unit guarantees maximum economy and functionality even at low water pressures.

The outlet temperature (30 °C – 50 °C, factory setting approx. 38 °C) and the flow rate can be set in the unit.

The MDX is particularly suitable for hand-wash basins where a temperature limit is desired and for installation with pillar taps that do not permit mixing of hot and cold water. Operation with preheated water up to 60 °C is possible.



MDX 7 · Art. no. 13007

Mini instant water heaters complete



Oversink unit M3 / SMB - Art. no. 14103



Undersink unit M3 / SNM - Art. no. 14203

CLAGE taps for open-outlet mini instant water heaters



ENM
Single-lever mixer tap,
ideal for all
wash basins

Art. no. 04240



SNM
Two mixer tap as
standard option

Art. no. 04200



Puris
Touchless tap with electronic
control for hygienic hand
washing.

With battery, Art. no. 04295
For power supply,
Art. no. 04296

with tap



Undersink unit M3 / ENM - Art. no. 14243

Our complete systems are a perfect choice:
Instant water heaters complete with tap in one box.
Easy installation, reliable operation and excellent value for money.



SKM
Two mixer tap with
20 cm swivelling spout
for the kitchen sink

Art. no. 04210



EKA
Kitchen sink tap
with extra-long swivel
spout and pull out
hose

Art. no. 04230



EKM
Kitchen sink tap
with extra long
swivel spout

Art. no. 04220

Instant water heaters with



CRX 9 · Art. no. 24209

CRX 6..9 electronic instant water heaters

- Electronically controlled, equipped with a micro-computer ensuring that the water temperature can be maintained exactly
- Touch keys and LED permit precise temperature selection. The unit only heats up to the extent necessary to reach the preset temperature
- Very economical operation
- Available in three power ratings:
6.6 kW, 7.2 kW and 8.8 kW / 230 V
(Technical data p. 26)

tubular heating element



These single-phase compact instantaneous water heaters offer a comprehensive range of applications. They are ideal for supplying water to single wash basins or sinks in areas where tubular heating elements are required. The CRX 9 with higher power rating can even supply two outlets, such as the shower and wash basin in a small bathroom. The units operate automatically as soon as the tap is turned on. The compact housing is well designed and practical at the same time: plenty of space for electrical connections, concealed water connections and only one front fastening screw for the cover make the unit a pleasure to install.

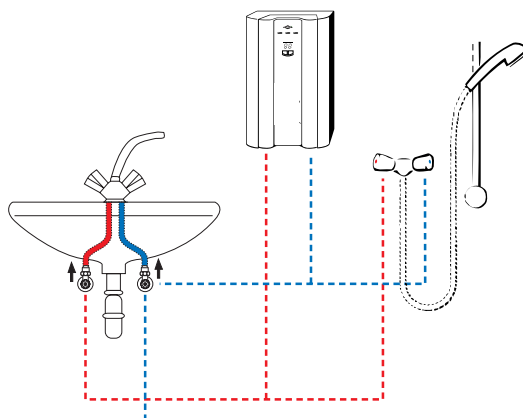


CRH 6 · Art. no. 24106

CRH 6..9 hydraulic instant water heaters

- Hydraulically controlled instant water heater
- The unit automatically switches on when the required minimum flow pressure is exceeded, then using the full heating power
- Water temperature can be influenced via the tap by increasing or decreasing the flow rate
- A thermal sensor prevents from overheat
- Available in two power ratings: 6.6 kW and 8.8 kW / 230 V (Technical data p. 26)

Installation principle for multipoint application



CXH
handset, recommended
for CRX shower application



UCX
Piping kit for undersink installation,
connected directly to the piping of
the sanitary fitting

Compact instant water



heaters for the kitchen sink



These compact instant water heaters are specially designed for the installation below kitchen sinks in countries, where a three-phase power supply is available. With their power they supply instantly sufficient hot water for cleaning dishes. In comparison to usual storage water heaters they never runs dry. Furthermore they avoid standby energy consumption and a lot of space under the sink.



CBH 11
Art. no. 25111

CBH 7..11 hydraulic instant water heaters

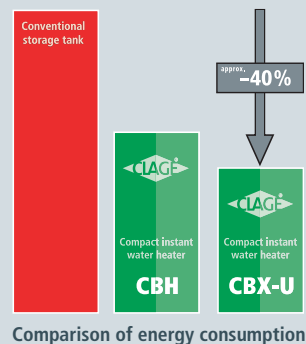
- 3-phase hydraulically controlled instant water heater for undersink installation
- Small compact size for free storage space underneath the kitchen sink
- Easy installation directly to the tap
- Integrated load shedding equipment and second binding post permits connection between the electromechanical cooker and the cooker power connection, provided that the cooker operates on 400 V.
- Available in two power ratings: 6.9 kW and 11 kW / 400 V (Technical data p. 27)



CBX 13-U · Art. no. 25313

CBX 11..13-U electronic instant water heaters

- 3-phase electronically controlled instant water heater for undersink installation
- The electronic maintains constant temperature and economic energy consumption
- Touch-keys and LED display for temperature selection between 35 °C – 55 °C
- Small compact size for free storage space underneath the kitchen sink
- Available in two power ratings: 11 kW and 13.5 kW / 400 V (Technical data p. 27)



High-Tech for comfortable & economic

Electronic instant water heaters for three-phase power supply

Hot running water whenever we need it is a standard feature of modern life – yet we are by no means all equally happy with our hot water supply! Long delays, unpleasant fluctuations in temperature and high energy costs, for instance, can detract considerably from the pleasure of having hot water.

That is where high-tech in its most attractive form comes into play: the new range of electronic instantaneous water heaters stand out through their attractive design and sophisticated technology. Intelligent electronic control, easy operation and an energy-saving mode of operation all contribute to the sheer pleasure of having hot water.

- Immediately and constantly hot water as long as you want at your exact preferred temperature
- The appliance only heats as much water as actually needed
- The water is only heated to your desired temperature – no need to add cold water
- Saves valuable drinking water and minimizes your operating costs
- Suitable for multipoint installation
- Suitable for preheated water, for example in combination with a solar energy system

The series comprises three different model types, from the high-tech DSX model through the deluxe DEX model to the basic DBX unit. Excellent prospects for more convenient hot water in future!



DSX SERVOTRONIC MPS®

DEX ELECTRONIC MPS®

DBX BASITRONIC®



hot water supply



Electronic instant water heaters



International Award:



**Focus Energy
Silber 2006**



for the modern bathroom



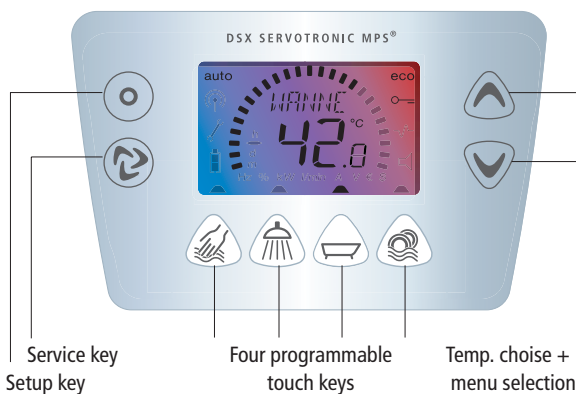
CLAGE provides a complete range of instant water heaters for every degree of desired comfort. The new high-tech model is the DSX SERVOTRONIC MPS®. With this appliance our German engineers have developed the optimum for comfort and efficiency in water heating.

DSX SERVOTRONIC MPS® fully electronically instant water heater

- Precise outlet temperatures between 20°C and 60°C at any time due to TWIN TEMPERATURE Control TTC® and dynamic flow control SERVOTRONIC®
- Easy-to-use multifunction display for setting and storing preferred temperatures, with temperature-dependent backlighting, energy monitor and numerous service messages
- Four temperature selector touch keys with application symbols for maximum ease of use
- Attractive, very slim design
- IES® bare wire heating system for maximum efficiency
- Electronic safety system with temperature and pressure cutoff
- Compatible with solar heating systems
- Easy installation with variable connection possibilities
- Optional remote control module available
- Multiple Power System MPS®: Power rating 27 kW / 400 V can be limited to 24 kW, 21 kW or 18 kW when installing the appliance (Technical data p. 29)



Inspiring: DSX-multifunctional display



Clear text display and coloured illumination

No more incomprehensible codes, but actual status in clear text, additionally coloured background illumination according to the temperature chosen (from blue = cold to red = hot).

Energy monitor

The energy monitor precisely shows how economically this electronic instantaneous water heater works.

Detailed information

For all who like technical details: via touch keys the display shows different operating information e.g. the cold water inlet temperature, the flow rate and the electric power consumption.

Instant water heaters for the bathroom

Alternatively to the high-tech DSX model described on the previous page, three favourable models are available: the DEX and DBX instant water heaters with reduced equipment provide electronic convenience at an attractive price. The hydraulically controlled DB is the conventional standard solution.



DEX · Art.-no. 34227

DEX ELECTRONIC MPS® electronic instant water heaters

- Precise outlet temperatures due to TWIN TEMPERATURE Control TTC® up to the capacity of the appliance
- Control panel with large LCD-display to enter outlet temperatures between 20°C and 60°C
- Two programme buttons for individual set values, activation of temperature limit as well as indication of function and service menu available
- Compatible with solar heating systems
- Easy installation with variable connection possibilities
- Optional remote control module
- Multiple Power System MPS®: Power rating 27 kW / 400 V can be limited to 24 kW, 21 kW or 18 kW when installing the appliance (Technical data p. 29)

DBX BASITRONIC® electronic instant water heaters

- Power is automatically adjusted to the flow rate and the inlet temperature
- Factory pre-set outlet temperature of 50°C, internally adjustable between 30°C and 60°C
- Electronic safety system with temperature and pressure cutoff
- Easy installation with variable connection possibilities
- Four power ratings from 18 kW to 27 kW / 400 V available (Technical data p. 28)



DBX 24 · Art. no. 34124

DB 13..24 hydraulic instant water heaters

- The unit uses automatically the full heating power
- Economy setting for reducing the output power to 66% of the nominal power rating
- Easy and flexible installation system
- Four power ratings from 13 kW to 24 kW / 400 V available (Technical data p. 28)



DB 24 · Art. no. 31124

... and for the shower



If it is not possible to install our high-tech instant water heaters with power ratings from 18 kW to 27 kW, the CBX 13 compact instant water heater may be an alternative for a small shower bath.



CBX 13 • Art. no. 25213

CBX 11..13 electronic instant water heaters

- 3-phase electronically controlled instant water heater
- The electronic maintains constant temperature and economic energy consumption
- Touch-keys and LED display for temperature selection between 35 °C – 55 °C
- Small compact size for easy installation in small bathrooms
- Available in two power ratings: 11 kW and 13.5 kW / 400 V (Technical data p. 27)

M6/BGS mini shower unit for limited power supply installations

- This mini shower unit gives you a hot shower at any time even if you only have a single-phase electricity supply.
- With economical comfort requirements, for example in a summer house, loft or cellar extension, this instant water heater complete with shower set is a practical solution.
- Available in three power ratings: 4.4 kW or 5.7 kW / 230 V and 6.5 kW / 400 V 2-phases (Technical data p. 25)



M6/BGS
Art. no. 14306

Small storage water heaters and large

Storage water heaters are the conventional means of providing hot water. They store the volume of hot water in a tank from which they supply plenty of hot water for a limited time to mix with cold water.

Choose the exact size you need: for example, for single-tap installations, a small storage water heater will be sufficient. The larger wall-mounted storage water heaters are suitable as central units supplying several taps distributed throughout the home.



S5-U • Art. no. 42052

S5 – 5 litres storage water heater

- Small storage water heater with plastic inner tank for a single tap and open outlet installation
- High-quality heat insulation for low standby energy consumption
- Temperature selection range: 35 °C to 85 °C
- Undersink unit: S5-U
- Oversink unit: S5-O
- 2.0 kW / 230 V, plug-in
(Technical data p. 30)

S10 / 15 storage water heaters 10 and 15 l

- Small storage water heaters with copper inner tank for closed or open outlet installation
- S10: variable temperature preselection up to 80 °C
- S15: modern pushbutton control panel
- High-quality heat insulation for low standby energy consumption
- Undersink units: S10/15-U
- Oversink units: S10/15-O
- 2.2 kW / 230 V, plug-in
(Technical data p. 30)



S10-U • Art. no. 42102

For S15 storage heater:

Easy-care touch key for temperature selection with LED and additional button for heating once to 90 °C. If the appliance is rarely used, the contents of the storage heater can be heated up



once to produce roughly 30 litres hot water before the appliance switches to standby mode and continues operation as previously set (e.g. at 40 °C), thus considerably reducing the energy consumption in standby mode.



S15-O

Art. no. 41152

tank water heaters



SX 50..120 wall-mounted tank water heaters 50, 80, 100 and 120 litres

- Electronic wall-mounted tank water heater with titanium protective enamelling
- Universal connector block for single-circuit and economical dual-circuit operation (for cheap overnight electricity rate)
- Electronic temperature control
- Pushbutton control panel with thermal capacity display, quick-heat function and consumption table
- High-grade steel tank with inspection flange and drain nozzle
- Connection facilities: 3/N/PE – 400 V switchable to 1/N/PE – 230 V or 2/N/PE – 400 V
(Technical data p. 31)



The modern operation panel is easy to use and informative:
The temperature can be preset to 40 °C, 60 °C or 85 °C.
The thermal capacity indicator with consumption table clearly shows how much hot water is available for mixing with cold.
Other buttons: On/Off switch and quick-heat button

S30..100 wall mounted water heaters

- Storage water heaters with especially enamelled tanks in capacities of 30, 50, 80 or 100 litres
- Variable temperature setting from 35°C to 75°C
 - 2.0 kW / 230 V
(Technical data p. 31)



Instant boiling water dispensers

These new instant boiling water appliances dispense boiling water at the touch of a tap for making fresh tea, coffee and other hot beverages. They are time-saving and more energy efficient than conventional kettles or urns that often heat up more water than is actually used.



KA 7-E • Art. no. 44307

ZIP Hydroboil® Instant boiling water heater

- Instant boiling water means no more waiting for water to boil
- Ideal for preparing hot drinks in offices, canteen, restaurants, hotels or hospitals
- Cool touch push-button tap for easy dispensing
- Twin chamber system with stainless steel tanks prevents hot and cold water mixing and provides constant boiling water
- Emits no steam, recycles steam internally to pre-heat incoming cold water
- High density insulation
- Available in eight different sizes from 1.5 to 40 litres with a choice of white or stainless steel case.
(Technical data p. 32)



K 5 • Art. no. 41002

K5 electric wall kettle

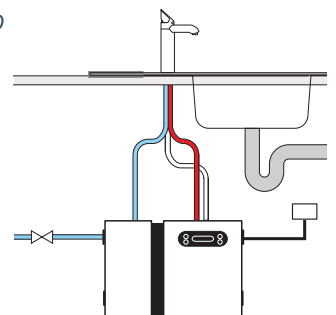
- Manually refilled boiling water heater for providing hot water in quantities ranging from a single cup to 5 litres
- Integrated tap
- Automatic simmer setting
- 2.0 kW / 230 V (plug-in)



BC100/125 · Art. no. 44271 with font KXT2 · Art. no. 44101

ZIP HydroTap® – Boiling and chilled filtered water always on tap


- Under-sink filtered drinking water system with electronic tap. Dispense boiling or chilled water instantly.
- Lever operated for filling cups or pots
- Child-proof safety lock prevents boiling water being dispensed inadvertently
- Pushbutton control panel with LCD display and clock (not available on HT60)
- Leak prevention system
- Energy saving "sleep" mode and programmable timers (not available on HT60)
- Built-in filter system with easy-change filter cartridges
- 4 models with capacity from 60 to 150 cups/hour (Technical data p. 33)



Technical Data



MDX 3–7 kW (closed outlet)
Mini electronic instant water heaters

| Model | | MDX 3 | MDX 4 | MDX 6 | MDX 7 |
|--|--|---|--------------------|--------------------|--------------------|
| Art. no. | | 13003 | 13004 | 13006 | 13007 |
| To supply one outlet | nominal pressure MPa (bar) | • /1 (10) | • /1 (10) | • /1 (10) | • /1 (10) |
| Application | handwash basin | • | • | • | • |
| | kitchen sink | | | | |
| Installation type | undersink (water conn. upwards) | • | • | • | • |
| Dimensions | height x width x depth cm | 13.2 x 18.7 x 8.0 | | | |
| Water system connections | threaded connectors | G 3/8" | G 3/8" | G 3/8" | G 3/8" |
| Max. temperature increase at nominal power and flow | 2.0 l/min | 25 K ¹⁾ | 31 K ¹⁾ | 41 K ¹⁾ | 46 K ¹⁾ |
| | 2.5 l/min | 20 K ¹⁾ | 25 K ¹⁾ | 33 K ¹⁾ | 37 K ¹⁾ |
| | 3.3 l/min | 15 K ¹⁾ | 19 K ¹⁾ | 25 K ¹⁾ | 28 K ¹⁾ |
| | 3.7 l/min | 14 K ¹⁾ | 17 K ¹⁾ | 22 K ¹⁾ | 25 K ¹⁾ |
| Hot water flow rate @ Δt = 25 K ²⁾ | l/min | 2.0 | 2.5 | 3.3 | 3.7 |
| Heater on/off switching flow rate | approx. l/min | 1.2 / 1.0 | 1.5 / 1.3 | 1.5 / 1.3 | 1.5 / 1.3 |
| Equipment | special jet regulator |  | | | |
| electronic control system with temperature and flow sensors internally selectable temperature (factory setting approx. 38 °C) IES® bare wire heating system / Ω cm ³⁾ replaceable heating cartridge power cable and T-piece with pressure hose solar-compatible (inlet temperature < 60 °C) | | • | • | • | • |
| | | 30 – 50 °C | 30 – 50 °C | 30 – 50 °C | 30 – 50 °C |
| | | • / 1300 | • / 1000 | • / 1000 | • / 1300 |
| | | • | • | • | • |
| | | • | • | • | • |
| | | • | • | • | • |
| Electrical data | nominal power kW | 3.5 | 4.4 ⁴⁾ | 5.7 ⁴⁾ | 6.5 ⁴⁾ |
| | voltage V | 1/N/PE~230 | 1/N/PE~230 | 1/N/PE~230 | 2/PE~400 |
| | current rating A | 15 | 19 | 25 | 2 x 16 |
| | required cable size in mm ² | 1.5 | 2.5 | 2.5 | 2.5 |
| VDE Approval / Protection Class | | • /IP24 | • /IP24 | • /IP24 | • /IP24 |

• included resp. yes

1) Temperature increase (Kelvin) + cold water temperature (°C)
= maximum hot water temperature (°C) ≤ 50 °C
2) Temperature increase e.g. from 15 to 40 °C

3) Permissible minimum electrical resistance of the water at 15 °C

4) Regulations vary according to the regional power supply authority.
Only be connected by a qualified electrician.

Don't forget the jet regulator!

Only CLAGE mini instant water heaters are supplied as standard with a matching jet regulator that optimises the water jet to the nominal power rating of the unit.

To ensure optimal operation of the heater, this jet regulator must be inserted in the fitting.

CSM jet regulator

For devices with power rating of less than 5 kW

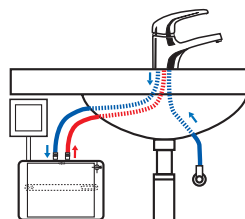
CSP jet regulator

For devices with power rating of more than 5 kW



Open-outlet installation (MH)

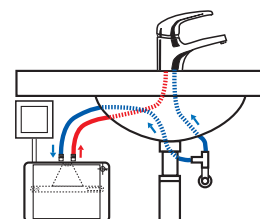
Mini instant water heaters with open outlet design can be mounted very quickly and easily in an open outlet installation and are particularly reliable. They are designed to supply a single tap outlet. To prevent pressurisation of the unit, a special open-outlet tap (see page 8–9) must be used. Our recommendation for all new installations.



Closed-outlet installation (MD)

The MDH and MDX mini instant water heaters can also be installed unvented.

The connection set supplied with the unit (T-piece and flexible hose) simplifies retrofitting to existing closed-outlet taps.













Single-phase

MH 3–7 kW mini hydraulic instant water heaters (open-outlet)

MDH 3–7 kW mini hydraulic instant water heaters (closed-outlet)

| Model | MH 3 | MH 4 | MH 6 | MH 7 | MDH 3 | MDH 4 | MDH 6 | MDH 7 | |
|---|---|---|---|---|---|--|---|---|-------------------|
| Complete systems with single hand mixer tap with two-hand tap with special tap for oversink wall-mounting | M3/ENM | | | | | | | | |
| | M3/SNM | M4/SNM | | | | | | | |
| | M3/SMB | M4/SMB | | M7/SMB | | | | | |
| Art. no. of unit without fitting | 14003 | 14004 | 14006 | 14007 | 12003 | 12004 | 12006 | 12007 | |
| To supply single | open-outlet | • | • | • | • | • | • | • | |
| | closed-outlet | | | | • | • | • | • | |
| Application | hand wash basin | • | • | • | • | • | • | • | |
| | kitchen sink | | | • | • | | • | • | |
| Installation type | undersink unit | • | • | • | • | • | • | • | |
| | oversink unit | MH 3-O | MH 4-O | MH 6-O | MH 7-O | | | | |
| Dimensions height x width x depth cm | 13.2 x 18.7 x 8.0 | | | | 13.2 x 18.7 x 8.0 | | | | |
| Water system connections thread connection | G 3/8" | G 3/8" | G 3/8" | G 3/8" | G 3/8" | G 3/8" | G 3/8" | G 3/8" | |
| Hot water flow rate @ $\Delta t = 25 \text{ K}^2$ l/min | 2.0 | 2.5 | 3.3 | 3.7 | 2.0 | 2.5 | 3.3 | 3.7 | |
| Heater on/off switching flow rate ca. l/min | 1.6 / 1.2 | 1.8 / 1.4 | 2.1 / 1.7 | 2.4 / 2.0 | 1.6 / 1.2 | 1.8 / 1.4 | 2.1 / 1.7 | 2.4 / 2.0 | |
| Equipment special jet regulator |  |  |  |  |  |  |  |  | |
| IES® bare wire heating system / $\Omega \text{ cm}^{-1}$ | • / 800 | • / 800 | • / 800 | • / 800 | • / 800 | • / 800 | • / 800 | • / 800 | |
| replaceable heating cartridge | • | • | • | • | • | • | • | • | |
| power cable | • | • | • | • | • | • | • | • | |
| T-piece with pressure hose | | | | | • | • | • | • | |
| Electrical data | nominal power kW | 3.5 | 4.4 ³⁾ | 5.7 ³⁾ | 6.5 ³⁾ | 3.5 | 4.4 ³⁾ | 5.7 ³⁾ | 6.5 ³⁾ |
| | voltage V | 1/N/PE~230 | 1/N/PE~230 | 1/N/PE~230 | 2/PE~400 | 1/N/PE~230 | 1/N/PE~230 | 1/N/PE~230 | 2/PE~400 |
| | current rating A | 15 | 19 | 25 | 2 x 16 | 15 | 19 | 25 | 2 x 16 |
| | required cable size in mm ² | 1.5 | 2.5 | 2.5 | 2.5 | 1.5 | 2.5 | 2.5 | 2.5 |
| VDE Approval / Protection Class | • /IP24 ⁴⁾ | • /IP24 ⁴⁾ | • /IP24 ⁴⁾ | • /IP24 ⁴⁾ | • /IP24 | • /IP24 | • /IP24 | • /IP24 | |

- included resp. yes
- 1) Permissible minimum electrical resistance of the water at 15 °C
- 2) Temperature increase e.g. from 15 to 40 °C
- 3) Regulations vary according to the regional power supply authority. Only be connected by a qualified electrician.
- 4) As oversink unit: Protection class IP25

Complete systems with open-outlet taps

Undersink units with single tap

M3/ENM
technical data as per MH 3, plug-in



Undersink units with mixer tap

M3/SNM
Techn. data as per MH 3, plug-in
M4/SNM
Techn. data as per MH 4, fixed connection



Oversink units with mixer tap

M3/SMB
Techn. data as per MH 3, 1/2", plug-in
M4/SMB
Techn. data as per MH 4, 1/2", fixed connection
M7/SMB, Technical data as per MH 7, 1/2", fixed connection



Shower units with shower set

M4/BGS
Techn. data as per MH 4, 1/2", fixed connection
M6/BGS, Techn. data as per MH 6, 1/2", fixed connection
M7/BGS, Techn. data as per MH 7, 1/2", fixed connection



Technical Data

Single-phase Compact instant water heaters 6–9 kW with tubular heating elements



| Model | CRH 6 | CRH 9 | CRX 6 | CRX 7 | CRX 9 | |
|--|--|-------------|-------------|-------------|-------------|-------------|
| Art. no. | 24106 | 24109 | 24206 | 24207 | 24209 | |
| To supply outlets | number | one | one | one | one or two | |
| | closed-outlet / pressure MPa (bar) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) |
| Application | hand wash basin | • | • | • | • | |
| | kitchen sink | • | • | • | • | |
| | shower | | •1) | | •1) | •1) |
| Installation type | undersink unit (connect. at top) | with UCX | with UCX | with UCX | with UCX | with UCX |
| | oversink unit (water connections at bottom) | • | • | • | • | • |
| Dimensions | height x width x depth cm | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 |
| Approx. weight (filled with water) | kg | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Water system connections | threaded connectors | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" |
| Hot water flow rate @ $\Delta t = 20 \text{ K}^2)$ | l/min | 4.3 | 6.3 | 4.3 | 5.1 | 6.3 |
| Heater on/off switching flow rate | approx. l/min | 2.9 / 1.9 | 3.5 / 2.5 | 2.0 / 1.8 | 2.0 / 1.8 | 2.0 / 1.8 |
| Specifications | tubular heating element | • | • | • | • | • |
| | electronically controlled | | | • | • | • |
| | temperature preselectable from ... to ... °C | | | 35 – 55 | 35 – 55 | 35 – 55 |
| Electrical data | nominal power kW ³⁾ | 6.6 | 8.8 | 6.6 | 7.2 | 8.8 |
| | voltage 1/PE~ 230V ⁴⁾ | • | • | • | • | • |
| | current rating A | 29 | 38 | 29 | 33 | 38 |
| | required cable size in mm ² | 4 – 6 | 6 | 4 – 6 | 6 | 6 |
| VDE Approval / Protection Class | •/IP25 | •/IP25 | •/IP25 | •/IP25 | •/IP25 | |

• included resp. yes

1) CXH adjustable shower head recommended, Art. no. 00866

2) Temperature increase e.g. from 20 to 40 °C

3) Regulations vary according to the regional power supply authority.

Only be connected by a qualified electrician.

4) see table on page 34 for power conversion



Safety thermal cut-out (STB)

Display panel with temperature selector

Electronic board for power and temperature control

Tubular heating element in copper tank

Plumbing area with 1/2" water connections
for surface- or flush-mounted installation

Three-phase Compact instant water heaters 7–13 kW



| Model | CBH 7 | CBH 11 | CB 11 | CBX 11-U | CBX 13-U | CBX 11 | CBX 13 |
|---|---|-------------|-------------|-------------|-------------|----------------------|----------------------|
| Art. no. | 25107 | 25111 | 25110 | 25311 | 25313 | 25211 | 25213 |
| To supply outlets | number | one | one | one | one | one | one or two |
| | closed-outlet / pressure MPa (bar) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) |
| Application | hand wash basin | • | • | • | • | • | • |
| | kitchen sink | | • | • | • | • | • |
| | shower | | | | | | • ¹⁾ |
| Installation type | undersink unit (water connect. at top) | • | • | • | • | • | • |
| | oversink (water connections at bottom) | | | • | | | |
| Dimensions | height x width x depth cm | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 | 33 x 21 x 9 |
| Approx. weight (filled with water) | kg | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| Water system connections | threaded connectors | G 3/8" | G 3/8" | G 3/8"–1/2" | G 3/8" | G 1/2" ²⁾ | G 1/2" ²⁾ |
| Hot water flow rate @ $\Delta t = 28 K^{\circ}$ | l / min | 3.5 | 5.6 | 5.6 | 5.6 | 6.9 | 6.9 |
| Heater on/off switching flow rate | approx. l / min | 2.6 / 2.2 | 3.7 / 3.0 | 3.8 / 3.0 | 2.0 / 1.8 | 2.0 / 1.8 | 2.0 / 1.8 |
| Equipment | IES [®] bare wire heating system / $\Omega \text{ cm}^{\text{SI}}$ | • / 1100 | • / 1100 | • / 1100 | • / 1100 | • / 1100 | • / 1100 |
| | integrated load shedding equipment | • | • | | | | |
| | electronically controlled | | | | • | • | • |
| | Temperature preselectable from ... to ... °C | | | | 35 – 55 | 35 – 55 | 35 – 55 |
| Electrical data | nominal power kW ⁴⁾ | 6.9 | 11.0 | 11.0 | 11.0 | 13.5 | 13.5 |
| | voltage 3/PE~ 400V | • | • | • | • | • | • |
| | current rating A | 3 x 10 | 3 x 16 | 3 x 16 | 3 x 16 | 3 x 20 | 3 x 20 |
| | required cable size in mm ² | 1.5 | 2.5 | 2.5 | 2.5 | 4.0 | 4.0 |
| VDE Approval / Protection Class | | •/IP24 | •/IP24 | •/IP25 | •/IP24 | •/IP24 | •/IP25 |

• included resp. yes

1) CXH adjustable shower head recommended, Art. no. 00866

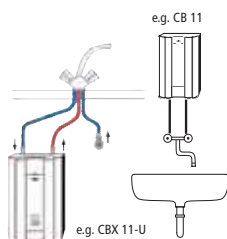
2) Surface and flush mounting

3) Temperature increase e.g. from 12 to 40 °C

4) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician.

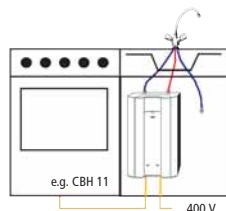
5) Permissible minimum electrical resistance of the water at 15 °C

Installation options



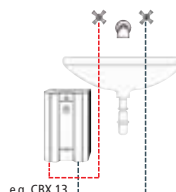
Open-outlet installation

Simple and safe!
Ideal for one outlet (e.g. kitchen sink).
A tap for open outlet is required (see taps, pages 8/9)



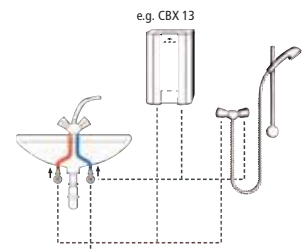
CBH only: Installation with load shedding equipment

Integrated load shedding equipment and second binding post permits connection between the electromechanical cooker and the cooker power connection, provided that the cooker operates at 400 V.



Closed-outlet installation, Flush-mounted

For supplying one outlet with wall-mounted fittings



Closed-outlet installation Flush-mounted

For supplying several tap outlets. However, due to the low power of 7-13 kW, these taps cannot be used simultaneously.

Technical Data

Three-phase Basic instant water heaters 18–27 kW



| Model | | DB 13 | DB 18 | DB 21 | DB 24 | DBX 18 | DBX 21 | DBX 24 | DBX 27 |
|---|--|------------|------------|------------|------------|------------|------------|------------|------------|
| Art. no. | | 31113 | 31118 | 31121 | 31124 | 34118 | 34121 | 34124 | 34127 |
| To supply one or more outlets | | • | • | • | • | • | • | • | • |
| | closed-outlet / pressure MPa (bar) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) | • / 1 (10) |
| Application | hand wash basin | • | • | • | • | • | • | • | • |
| | kitchen sink | • | • | • | • | • | • | • | • |
| | shower | • | • | • | • | • | • | • | • |
| | bath tub | | | • | • | | • | • | • |
| Installation type | wall-mounted unit | • | • | • | • | • | • | • | • |
| Dimensions | height cm | 47 | 47 | 47 | 47 | 46.6 | 46.6 | 46.6 | 46.6 |
| | width cm | 24 | 24 | 24 | 24 | 23.1 | 23.1 | 23.1 | 23.1 |
| | depth cm | 14 | 14 | 14 | 14 | 9.7 | 9.7 | 9.7 | 9.7 |
| Approx. weight (filled with water) | kg | 3.5 | 3.5 | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.7 |
| Water / threaded connec. | surface and flush mounting | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" |
| Hot water flow rate @ $\Delta t = 28 \text{ K}^{(1)}$ | l/min | 6.7 | 9.2 | 10.7 | 12.3 | 9.2 | 10.7 | 12.3 | 13.8 |
| Max. heater switch-on water flow ⁽¹⁾ | approx. l/min | 3.6 – 6.5 | 4.0 – 7.0 | 4.6 – 8.0 | 5.0 – 9.0 | 2.5 – 7.0 | 2.5 – 8.0 | 2.5 – 8.0 | 2.5 – 9.0 |
| Equipment IES [®] bare wire heating system / $\Omega \text{ cm}^3$ | | • / 1300 | • / 1300 | • / 1300 | • / 1300 | • / 1300 | • / 1300 | • / 1300 | • / 1300 |
| | hydraulically controlled | • | • | • | • | | | | |
| | electronically controlled | | | | | • | • | • | • |
| Temperature internally adjustable from ... to ... °C | | | | | | 30 – 60 | 30 – 60 | 30 – 60 | 30 – 60 |
| | partial power switch | • | • | • | • | | | | |
| Electrical data | nominal power kW ⁽²⁾ | 13.2 | 18 | 21 | 24 | 18 | 21 | 24 | 27 |
| | voltage 3/PE ~ 400 V | • | • | • | • | • | • | • | • |
| | current rating A | 3 x 19 | 3 x 26 | 3 x 30 | 3 x 35 | 3 x 26 | 3 x 30 | 3 x 35 | 3 x 39 |
| | required cable size in mm ² | 4.0 | 4.0 | 4.0 | 4.0 / 6.0 | 4.0 | 4.0 | 4.0 / 6.0 | 6.0 |
| VDE Approval / Protection Class | | • / IP25 | • / IP25 | • / IP25 | • / IP25 | • / IP25 | • / IP25 | • / IP25 | • / IP25 |

• included resp. yes
M) Mix-in cold water

1) Temperature increase
e.g. from 12 to 40 °C

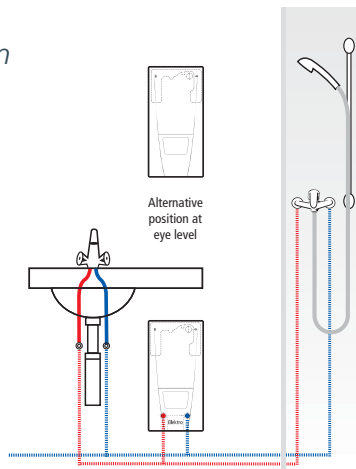
2) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician.

3) Permissible minimum electrical resistance of the water at 15 °C

4) Flow limited in order to obtain optimal temperature increase

Closed-outlet installation

Instant water heaters with power ratings from 18 – 27 kW can supply several tap outlets with hot water. They have to be installed as closed-outlet systems. Where applicable, follow the separate instructions of the tap manufacturer.



Temperature adjustment with the DBX

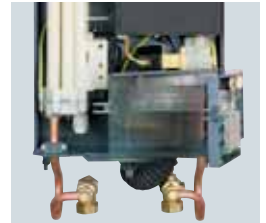


The hot water outlet temperature of the DBX is factory-set to 50 °C. Your qualified service engineer can adjust this setting between approx. 30 °C and 60 °C.

Three-phase High-Tech instant water heaters 18–27 kW



| Model | DEX ELECTRONIC MPS® | DSX SERVOTRONIC MPS® |
|--|--|---|
| Art. no. | 34227 | 34327 |
| To supply one or more outlets closed-outlet / pressure MPa (bar) | • • / 1 (10) | • • / 1 (10) |
| Application | hand wash basin kitchen sink shower bathtub | • • • • |
| Installation type | wall-mounted unit | • |
| Dimensions | height cm width cm depth cm | 46.6 23.1 9.7 |
| Approx. weight (filled with water) | kg | 3.7 |
| Water / threaded connec. | surface and flush mounting | G 1/2" |
| Hot water flow rate @ $\Delta t = 28 \text{ K}^{1) \text{ M)}$ | l / min | 9.2 / 10.7 / 12.3 / 13.8 ⁵⁾ |
| Max. heater switch-on water flow | approx. l / min | 2.5 – 8.0 ⁶⁾ |
| Control panel with LC display (Temperature selection from 20°C to 60°C) | | |
| Touch keys | 2 | 4 |
| Temperature-dependent background lighting | | • |
| Clear-text display for actual status | | • |
| Energy monitor | | • |
| Equipment | IES® bare wire heating system / $\Omega \text{ cm}^2$ fully electronically controlled dynamic flow control Twin Temperature Control TTC® Multiple Power System MPS® compatible with solar power installations ⁷⁾ | • / 1100 • • • • • |
| Electrical data | nominal power kW ⁸⁾ voltage 3/PE~ 400 V current rating A required cable size in mm ² | Optionally 18 / 21 / 24 / 27 • 3 x 26 / 3 x 30 / 3 x 35 / 3 x 39 ⁵⁾ 4.0 / 6.0 ³⁾ |
| VDE Approval / Protection Class | | • / IP25 |



The innovative design with LCD panel on a hinged support eliminates the nuisance of wiring between hood and appliance – and makes both installation and maintenance so much easier!



Plenty of space has also been ensured for connecting the water pipes and electrical connection.



• included resp. yes
M) Mix-in cold water
1) Temperature increase e.g. from 12 to 40 °C

2) Permissible minimum electrical resistance of the water at 15 °C
3) Regulations vary according to the regional power supply authority. Only be connected by a qualified electrician.

4) Inlet temperature $\leq 70 \text{ °C}$
5) Depending on the selected connection power rating

6) Flow limited in order to obtain optimal temperature increase

Innovation: one unit for all installations

MPS The DSX and DEX instant water heaters are both equipped with the unique MPS® Multiple Power System. With this system the maximum power rating can be determined upon installation in accordance with your power supply. Selectable power ratings: 18 kW, 21 kW, 24 kW or 27 kW.

Remote control

The optionally available remote control (Art. no. 34000) allows easy adjustment, even when the DSX und DEX instant water heaters are mounted in bathroom furniture or elsewhere.



Technical Data

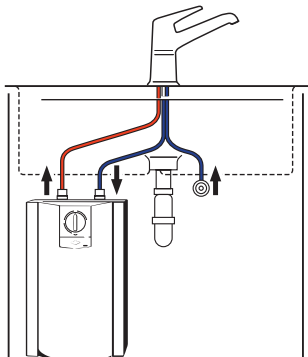
Small electric storage water heaters 5–15 litres



| Model | | S5-O | S5-U | S10-O | S10-U | S15-O | S15-U |
|---------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|
| Art. no. | | 41052 | 42052 | 41102 | 42102 | 41152 | 42152 |
| To supply outlets | number | one | one | one or two | one or two | one, two or three | one, two or three |
| | closed-outlet / pressure MPa (bar) | unpressurised | unpressurised | •/ 0.8 (8) | •/ 0.8 (8) | •/ 0.8 (8) | •/ 0.8 (8) |
| Application | hand wash basin | • | • | | • | | • |
| | kitchen sink | • | • | • | • | • | • |
| | shower | | | | | • | |
| Installation type | undersink unit | | • | | • | | • |
| | oversink unit | • | | • | | • | |
| Dimensions | height cm | 39.0 | 39.0 | 45.2 | 45.2 | 45.2 | 45.2 |
| | width cm | 25.2 | 25.2 | 30.0 | 30.0 | 30.0 | 30.0 |
| | depth cm | 21.5 | 21.5 | 28.5 | 28.5 | 28.5 | 28.5 |
| Approx. weight (filled with water) | kg | 7.2 | 7.2 | 16.5 | 16.5 | 22.5 | 22.5 |
| Water connections | threaded connectors | G 1/2" | G 3/8" | G 1/2" | G 3/8" | G 1/2" | G 3/8" |
| Amount of 40 °C mixing water at 65 °C | approx. l | 10 | 10 | 20 | 20 | 30 | 30 |
| Standby power consumption / 24 h | kWh | 0.27 | 0.27 | 0.30 | 0.34 | 0.43 | 0.49 |
| Heat-up time to approx. 60 °C | min | 8 | 8 | 14 | 14 | 22 | 22 |
| Equipment | inner tank | Polypropylene | Polypropylene | Copper | Copper | Copper | Copper |
| | capacity in litres | 5 | 5 | 10 | 10 | 15 | 15 |
| | function display / temperature display | • / – | • / – | • / – | • / – | • / • | • / • |
| | temperature preselectable from ... to ... °C | approx. 35 – 85 | approx. 35 – 85 | approx. 35 – 85 | approx. 35 – 85 | 40 / 55 / 70 / 90 | 40 / 55 / 70 / 90 |
| | temperature limit selectable to °C | 45 / 55 / 65 | 45 / 55 / 65 | 50 / 65 | 50 / 65 | | |
| Electrical data | nominal power kW | 2.0 | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 |
| | electrical connection | 230 V plug-in | 230 V plug-in | 230 V plug-in | 230 V plug-in | 230 V plug-in | 230 V plug-in |
| VDE Approval / Protection Class | | •/IP24 | •/IP24 | •/IP24 | •/IP24 | •/IP24 | •/IP24 |

• included resp. yes 1) Installation also possible with open-outlet tap.

Open-outlet installation for one single point of use (5-litre storage water heater)



The S5-U and S5-O open-outlet small storage water heaters can be installed very quickly and easily and are particularly reliable. The appliance is only approved for installation in combination with a special fitting for open-outlet storage water heaters.

Examples for open-outlet taps:

SEO
Single-lever
mixer tap
wall-mounted



Art. no. 40115

SNO
Two
mixer tap
wall-mounted



Art. no. 40110

SNT
Two-tap
temperature-
maintaining pillar-
type tap



Art. no. 02100

Large storage water heaters 30–120 litres (wall-mounted)



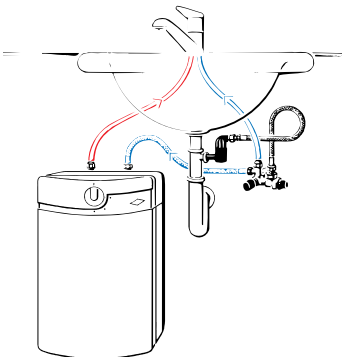
Hot air
hand
dryer

| Model | S 30 | S 50 | S 80 | S 100 | SX 50 | SX 80 | SX 100 | SX 120 | WHT | |
|---|---|-----------------|------------|------------|------------|--|----------------------|----------------------|----------------------|---------------|
| Art. no. | 43800 | 43801 | 43802 | 43807 | 43050 | 43080 | 43100 | 43120 | 70200 | |
| To supply | one or more outlets | • | • | • | • | • | • | • | | |
| | closed-outlet / pressure MPa (bar) | •/ 0.8 (8) | •/ 0.8 (8) | •/ 0.8 (8) | •/ 0.8 (8) | •/ 0.6 (6) | •/ 0.6 (6) | •/ 0.6 (6) | •/ 0.6 (6) | |
| Application | shower | • | • | • | • | • | • | • | | |
| | home supply / bathtub | | | | | | | | | |
| Installation type | undersink unit | | | | | | | | | |
| | wall unit | • | • | • | • | • | • | • | • | |
| Dimensions | height cm | 56.4 | 58.3 | 81.1 | 96.3 | 61.3 | 84.1 | 99.3 | 115.3 | |
| | width cm | 37.7 | 49.3 | 49.3 | 49.3 | 53.0 | 53.0 | 53.0 | 53.0 | |
| | depth cm | 36.5 | 49.9 | 49.9 | 49.9 | 51.6 | 51.6 | 51.6 | 51.6 | |
| Approx. weight (filled with water) | kg | 44 | 70 | 105 | 129 | 71 | 106 | 133 | 162 | |
| Water connections | thread connection | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | |
| Amount of 40 °C mixing water at 65 °C approx. | l | 48 | 80 | 128 | 160 | 85 | 142 | 176 | 217 | |
| Standby power consumption / 24 h | kWh | 0.69 | 0.70 | 1.00 | 1.18 | 0.59 | 0.82 | 0.99 | 1.14 | |
| Heat-up time to approx. 60 °C | min | 50 | 90 | 140 | 180 | 37–220 ²⁾ | 44–264 ²⁾ | 55–330 ²⁾ | 66–198 ²⁾ | |
| Equipment | inner tank | Enamelled steel | | | | Enamelled steel | | | | |
| | capacity in litres | 30 | 50 | 80 | 100 | 50 | 80 | 100 | 120 | |
| | function display / temperature display | • / - | • / • | • / • | • / • | • / • ⁴⁾ | • / • ³⁾ | • / • ³⁾ | • / • ³⁾ | |
| | temperature preselectable up to ... °C | 75 | 75 | 75 | 75 | 40/60/85 | 40/60/85 | 40/60/85 | 40/60/85 | |
| | temperature limit selectable to °C | | | | | 40/60 | 40/60 | 40/60 | 40/60 | |
| Electrical data | nominal power kW | 2.0 | 2.0 | 2.0 | 2.0 | 0.75/4.5 | 1.0/6.0 | 1.0/6.0 | 2.0/6.0 | |
| | electrical connection | 230 V plug-in | | | | 3/N/PE–400 V / 1/N/PE–230 V - 2/N/PE–400 V ⁴⁾ | | | | 230 V plug-in |
| | single-circuit / dual-circuit operation | • / - | • / - | • / - | • / - | • / • | • / • | • / • | • / • | |
| VDE Approval / Protection Class | | CE/IP25 | CE/IP25 | CE/IP25 | CE/IP25 | •/IP24 | •/IP24 | •/IP24 | •/IP24 | |
| | | | | | | | | | •/IP23 | |

• included resp. yes
3) Thermal capacity display

2) At max. – min. power
4) Regulations vary according to the regional power supply authority. Must only be connected by a qualified electrician.

Closed-outlet installation (from 10 litres) / Safety kit required!



Storage water heaters with a capacity of 10 litres or more can be installed either as a vented unit in combination with an open-outlet tap or as an unvented unit in combination with a corresponding relief valve.

Example safety kits:

SG
Oversink
safety
kits



Art. no. 40011

SGM
Oversink
safety kit
with pressure-
reducing valve



Art. no. 40012

SGU
Undersink
safety
kit



Art. no. 40013

Technical Data

Wall kettle

ZIP Hydroboil®

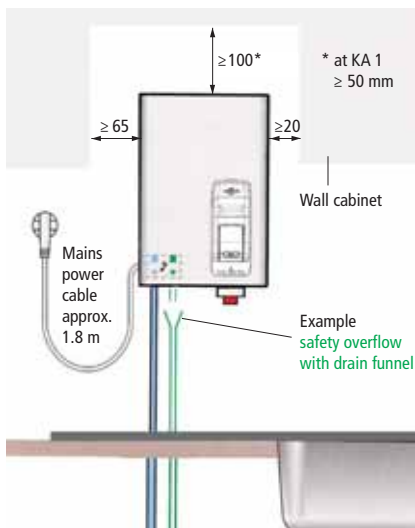
Instant boiling water dispensers



| Model | | K5 | KA 1 | KA 3 | KA 5 | KA 7 | KA 15 | KA 25 | KA 40 |
|--|---|---------------|----------|----------|----------|----------|-----------|-----------|-----------|
| Art. no. | | 41002 | 44001 | 44003 | 44005 | 44007 | 44015 | 44025 | 44040 |
| Application | home | • | • | | | | | | |
| | commercial | • | • | • | • | • | • | • | • |
| Installation type | oversink unit | • | • | • | • | • | • | • | • |
| Dimensions | height cm | 27.0 | 33.5 | 43.1 | 46.5 | 57.8 | 60.0 | 78.0 | 84.0 |
| | width cm | 29.3 | 28.9 | 28.9 | 31.8 | 31.8 | 39.0 | 39.0 | 51.5 |
| | depth cm | 16.9 | 18.0 | 18.0 | 19.8 | 19.8 | 29.9 | 29.9 | 28.4 |
| Content | litres / cups | ≤ 5.0 / 30 | 1.5 / 9 | 3.0 / 20 | 5.0 / 30 | 7.5 / 40 | 15 / 100 | 25 / 150 | 40 / 240 |
| Approx. weight (filled with water) | kg | 7.6 | 10.0 | 12.5 | 16.5 | 20.5 | 34.5 | 47.0 | 71.0 |
| Water connections | threaded connectors | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" | G 1/2" |
| Capacity | cups / hour | | 100 | 100 | 140 | 140 | 140 | 210 | 360 |
| Reheat time | cups / minute | | 1.5 | 1.5 | 2.5 | 2.5 | 2.5 | 3.0 | 6.0 |
| Standby power consumption / 24h | kWh | | 1.0 | 1.0 | 1.1 | 1.2 | 2.8 | 3.1 | 3.3 |
| Equipment | stainless steel inner tank | Polypropylene | Steel | Steel | Steel | Steel | Steel | Steel | Steel |
| | housing with white / stainless steel finish | Polypropylene | • / • | • / • | • / • | • / • | • / • | • / • | • / • |
| | function display | • | • | • | • | • | • | • | • |
| temperature preselectable from ... to ... °C | | 35 – 99 | 99 – 100 | 99 – 100 | 99 – 100 | 99 – 100 | 99 – 100 | 99 – 100 | 99 – 100 |
| Electrical data | nominal power kW | 2.0 | 1.4 | 1.4 | 2.2 | 2.2 | 2.4 | 3.6 | 2 x 3.0 |
| | 1/N/PE~ 230 V (plug-in) | • | • | • | • | • | | | |
| VDE Approval / Protection Class | | TÜV / IP44 | • / IP20 | • / IP20 | • / IP20 | • / IP20 | CE / IP20 | CE / IP20 | CE / IP20 |

• included resp. yes

Installation (dimensions in mm)



Accessories



KAT 1



KAS 2

KAS 1



KAM



Additional tap

KA 1..40 instant boiling water dispenser

Stainless steel base plate KAT 1 (325 x 175 mm) Art. no. 44080

Stainless steel base plate KAT 2 (325 x 175 mm) with wastewater connection Art. no. 44081

Drip funnel KAS 1 for undersink installation Art. no. 44085

Drip funnel KAS 2 for wall installation Art. no. 44086

Set of 2 solenoid components KAM, retrofitted for physical water treatment, reduces natural limescale by approx. 25% Art. no. 44088

KA 15..40 instant boiling water dispenser

Connected for 1 or 2 additional side taps for KA 15 / KA 25 Art. no. 84426

Connected for 1 or 2 additional side taps for KA 40 Art. no. 84427

Additional tap for KA 15..40 Art. no. 84425

Drinking water systems ZIP HydroTap®

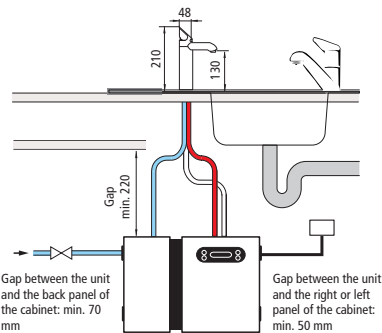


| Model | | HT 60 | B 100F | BC 100/125 | BC 150/175 |
|------------------------------------|---|----------|----------|-------------|-------------|
| Art. no. | | 44601 | 44201 | 44271 | 44281 |
| Application | home | • | • | • | |
| | commercial | | • | • | • |
| Installation type | undersink unit | • | • | • | • |
| | with electronic tap | • | • | • | • |
| Dimensions (Undersink unit) | height cm | 33.4 | 35.3 | 33.7 | 39.5 |
| | width cm | 18.8 | 29.0 | 44.0 | 50.0 |
| | depth cm ¹⁾ | 32.0 | 32.0 | 43.0 | 46.5 |
| Contents | boiling / chilled water litres | 1.5 / – | 2.7 / – | 2.7 / 3.5 | 4.0 / 5.0 |
| Approx. weight (filled with water) | kg | 13 | 15 | 41 | 47 |
| Water connections | threaded connectors | G 1/2" | G 1/2" | G 1/2" | G 1/2" |
| Capacity – boiled water | cups / hour | 60 | 100 | 100 | 150 |
| Capacity – chilled water | glasses / hour | | | 125 | 175 |
| Reheat time | cups / minute | 1.5 | 1.5 | 1.5 | 2.0 |
| Standby power consumption / 24 h | kWh | 0.56 | 0.63 | 0.93 | 1.44 |
| Equipment | stainless steel inner tank | • | • | • | • |
| | activated carbonate filter | | • | • | • |
| | pushbutton control panel with clock | | • | • | • |
| | temperature setting boiling / cooled water °C | 98 | 98 | 98 / 4 – 10 | 98 / 4 – 10 |
| Electrical data | nominal power kW | 1.5 | 1.5 | 1.5 | 2.0 |
| | 1/N/PE~ 230 V (plug-in) | • | • | • | • |
| VDE Approval / Protection Class | | • / IP20 | • / IP20 | • / IP20 | • / IP20 |

• included resp. yes

1) An additional space of min. 6.5 cm is needed for water and power connection.

Installation (dimensions in mm)



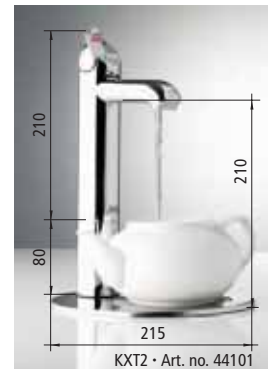
Drinking water filter

The B100F and BC... models are standard-fitted with a lightweight replaceable filter cartridge with activated carbonate block, which filters out pollutants with particle sizes of less than 5 microns. This improves the taste of the water and reduces scale deposits.



Flexible installation with the KXT2 stainless steel tap front

The optional stainless steel base plate with waste water connection enables the electronic dispenser tap to be installed in any position away from the sink.



Pushbutton control panel

The control panel enables the user to activate energy-saving mode and anti-scald protection and to set the timer control.



General data for water heating

Guidelines for usage of hot water

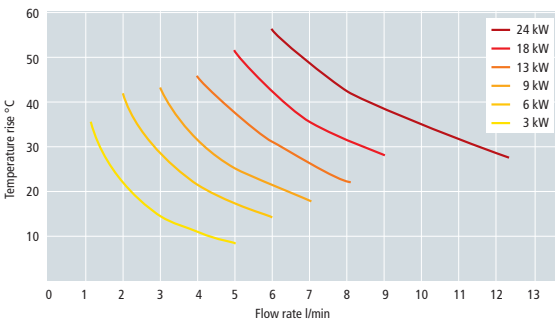
| | required temperature | required flow | required volume per usage |
|--------------|----------------------|---------------|---------------------------|
| Handwashing | 35°C - 38°C | 2* - 4 l/min | 0.5 - 1 l |
| Kitchen sink | 45°C - 55°C | 3* - 5 l/min | 3 - 8 l |
| Shower | 37°C - 40°C | 4* - 8 l/min | 15 - 30 l |
| Cleaning | 45°C - 55°C | 4 - 6 l/min | 5 - 10 l |
| Bath | 37°C - 40°C | 8 - 10 l/min | 100 - 150 l |

* jet regulators or special shower heads recommended for satisfactory flow results

Instantaneous performance calculations

| | |
|---|---|
| Temp. rise °C = $\frac{\text{kW rating} \times 14.3}{\text{litres per minute flow}}$ | Temp. rise °F = $\frac{\text{kW rating} \times 5.7}{\text{gallons per minute flow}}$ |
| Litres/min. flow = $\frac{\text{kW rating} \times 14.3}{\text{temperature rise } ^\circ\text{C}}$ | Gal./min. = $\frac{\text{kW rating} \times 5.7}{\text{temperature rise } ^\circ\text{F}}$ |

Instantaneous performance chart



Power conversion table

| 220 V | 230 V | 240 V | 380 V | 400 V | 415 V |
|--------|--------|--------|---------|---------|---------|
| 3.2 kW | 3.5 kW | 3.8 kW | 12.2 kW | 13.5 kW | 14.5 kW |
| 4.0 kW | 4.4 kW | 4.8 kW | 16.2 kW | 18.0 kW | 19.4 kW |
| 5.2 kW | 5.7 kW | 6.2 kW | 19.0 kW | 21.0 kW | 22.6 kW |
| 6.0 kW | 6.6 kW | 7.2 kW | 21.6 kW | 24.0 kW | 25.8 kW |
| 8.0 kW | 8.8 kW | 9.6 kW | 24.4 kW | 27.0 kW | 29.0 kW |

Site requirements

Observe the statutory regulations of the respective country, as well as those of the local electricity and water supply companies. The installation site must be free from frost at all times. In order to avoid thermal losses the distance between the heater and the water draw-off point should be as small as possible (< 2m). Best performance is guaranteed at a flow pressure of ≥ 2 bar / 30 psi, avoiding static pressures exceeding 6 bar / 90 psi. Material of water pipes: cold water: steel or copper, hot water: copper. Instant water heaters must be permanently connected to the electricity supply via a double pole isolating switch with a minimum contact gap of 3mm in both poles. The switch must be readily accessible but out of reach of a person using a fixed bath or shower, except for the cord of a pull cord operated switch. The wiring must be connected to the switch without the use of a plug or socket outlet. The supply cable selected for installation must conform to the relevant table in the current I.E.C. regulations. Electrical water heaters must be connected to the protective earth conductor! In the interest of electrical safety a 30mA ELCB (Earth Leakage Circuit Breaker) should be installed in all instant water heater circuits. An isolation valve must be fitted in a convenient position in the supply pipe to allow the water heater to be serviced.

Useful formulae

Time and rating calculations (excluding heat losses)

$$\text{Time in minutes to heat water} = \frac{\text{Litres} \times \text{Temperature rise } ^\circ\text{C}}{\text{kW rating} \times 14.3} = \frac{\text{Gallons} \times \text{Temperature rise } ^\circ\text{F}}{\text{kW rating} \times 5.7}$$

$$\text{kW rating required to heat water} = \frac{\text{Litres} \times \text{Temperature rise } ^\circ\text{C}}{\text{Time in minutes} \times 14.3} = \frac{\text{Gallons} \times \text{Temperature rise } ^\circ\text{F}}{\text{Time in minutes} \times 5.7}$$

Mean temperature of mixed water

$$\begin{aligned} \text{Mean temperature} &= \frac{(\text{Litres hot} \times \text{Temp. hot}) + (\text{Litres cold} \times \text{Temp. cold})}{\text{Total (hot and cold) Litres}} \\ &= \frac{(\text{Gal. hot} \times \text{Temp. hot}) + (\text{Gal. cold} \times \text{Temp. cold})}{\text{Total (hot and cold) Gal.}} \end{aligned}$$

Physical constants

$$\text{Temperature: } ^\circ\text{C} = (^\circ\text{F} - 32) \times 5/9 \quad ^\circ\text{F} = (^\circ\text{C} \times 9/5) + 32$$

$$\begin{aligned} \text{Volume: } 1 \text{ Gal. (GB)} &= 4.54 \text{ L} \quad 1 \text{ L} = 0.22 \text{ Gal. (GB)} \\ 1 \text{ Gal. (US)} &= 3.78 \text{ L} \quad 1 \text{ L} = 0.27 \text{ Gal. (US)} \end{aligned}$$

$$\begin{aligned} \text{Pressure: } 1 \text{ bar} &= 0.1 \text{ MPa} = 14.5 \text{ psi} = 100 \text{ kN/m}^2 \\ 1 \text{ ft head of water} &= 0.434 \text{ psi} \\ 1 \text{ m head of water} &= 9.8 \text{ kN/m}^2 \end{aligned}$$

Integrated Electrical Security



The Integrated Electrical Security system is an innovative heating system incorporated into numerous instantaneous water heaters from CLAGE which heat the water particularly quickly and efficiently. However, the system's bare wires require a certain conductance in the water so that they can be used. See technical data of the relevant model.

Product recommendation



Decentralised hot water supply:

What does that mean?

In a "decentralised" or "distributed" hot water supply system, the water is heated directly at the point of use.

Heat loss through long pipes is therefore prevented. Each tap has its own individual water heater, which is specifically matched to the relevant needs. In this way, hot water comfort is ensured at all times with low energy consumption.



Our recommended units:

| | Standard | Comfort | Best |
|--|---|--|---|
| 1 Wash basin ca. 2–4 l/min 38°C  | M3/SMB – M3/ENM  | MDH 6  | MDX 6  <i>electronic</i> |
| 2 Kitchen ca. 3–5 l/min 50°C  | MDH 6  | CBH 11  | CBX 13-U  <i>electronic</i> |
| 3 Shower ca. 4–8 l/min 40°C  | M6/BGS  | CRX 9  <i>electronic</i> | CBX 13  <i>electronic</i> |
| 4 Bathroom (sink, shower, bathtub) ca. 8–10 l/min 40°C  | DBX 24  <i>electronic</i> | DEX  <i>electronic</i> | DSX  <i>electronic</i> |

CLAGE GmbH
P.O. Box 1680
21306 Lueneburg
GERMANY

Fon +49 (0) 4131-89 01-38
Fax +49 (0) 4131-83 200
E-mail export@clage.de
Internet www.clage.com



...the innovative hot water solution.

Subject to change without notice. Errors and omissions excepted. GP-BA 9100 93605 11.06 5

