



**Electronically controlled  
instantaneous water heaters**



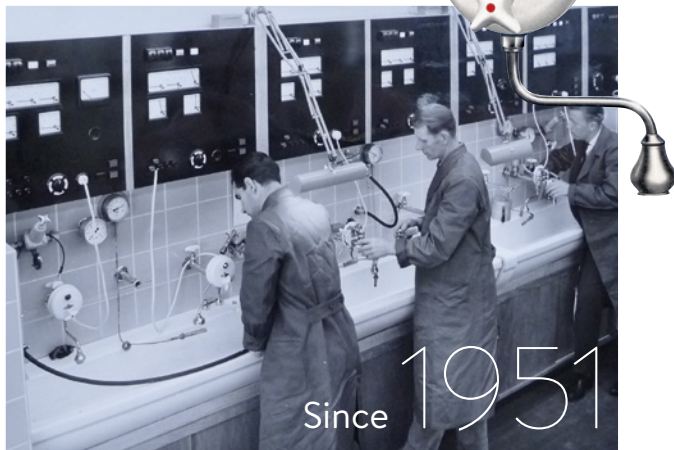
**Made in Germany**

**Simply efficient.**

# More than 70 years of technology experience



Made in Germany



## Made in Germany

In 1951, Claus-Holmer Gerdes started selling mini instant water heaters. Today, we are a third-generation, owner-managed mid-size industrial company in the northern German Hanseatic city of Lüneburg.

Around 290 employees work in the areas of R&D, production, sales and customer service. All of them pursue the goal of first-class quality in compliance with the ISO 9001:2015 quality standard.



## Strong international presence with leading distributors

We are thought leaders in the field of decentralized hot water supply. As the specialist of instantaneous water heaters, we offer a large product range with many individual solutions. As market leader in the mini instant water heater sector, we are committed to the constant search for new solutions and innovation.

That's why we were named "Innovation Ambassador" by the Chamber of Commerce and Industry.

In 2023, CLAGE was once again awarded as one of the top 100 most innovative companies of Germany's small and medium-sized enterprises!



**CLAGE – Corporate movie**

# Decentral is ideal

## The benefits



### Smart

Real-time power control  
based on temperature and flow rate



### Hot water at the temperature you want

Temperature can be set on the unit



### Instantly the right temperature

On demand, right away



### Saves water

No more adding cold water



### Short water lines

for water and energy conservation



### Fosters energy-saving behavior

Energy monitoring and "eco"  
real-time feedback



### Saves operating costs

by avoiding stored water heat losses



### Protects the environment

because less water and energy are used

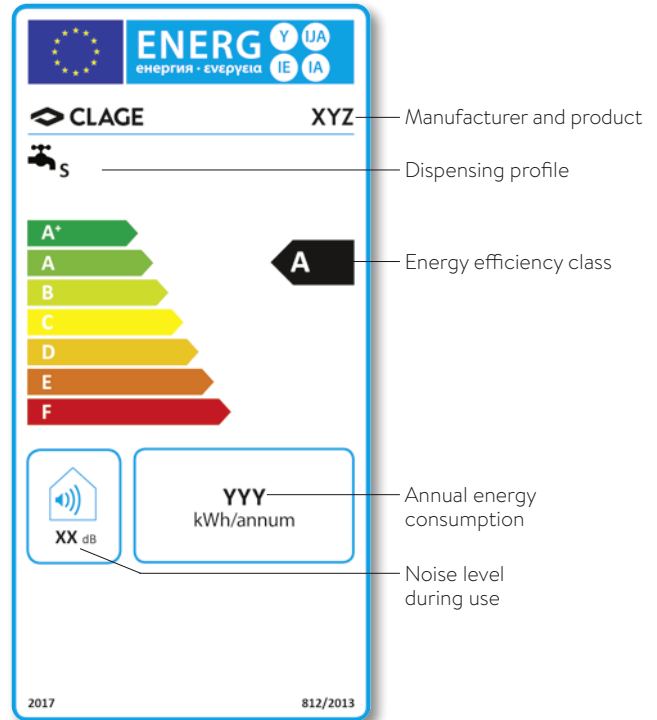


### Saves space

No space needed for tanks

# Energy efficiency label

## At a glance



The new energy labels for hot water units confirm that decentralised hot water supply with electronically controlled instant water heaters is one of the most energy-efficient technologies.



## E-mini instant water heaters – energy savers at the washbasin

An E-mini instant water heater is the most efficient hot water supply solution at the washbasin. The water is not preheated but is heated directly at the sink as it flows through the unit. This consistently avoids water line and heat losses.



Spot



### Lowers operating costs

Energy savings at the washbasin



### Saves space

Can hide away under any basin: 19 × 14 × 9 cm



### Instantly the right temperature

On demand, right away







### More hygiene

due to short water lines



### Scan for 3D experience!

### Hot water requirement:

			
	10 s	2l/min	35 °C



## E-mini instant water heater MCX

Smart energy efficiency.



Smart Control  
-ready  
(optional)



Bluetooth  
remote control  
(optional)



Solar-ready,  
suitable for  
reheating



- > **Electronically controlled instant water heater** with compact design for energy-efficient hot water supply of a basin or a kitchen sink
- > **The heating output is electronically controlled.** This provides an ideal hot water temperature without the need to mix cold water at the tap
- > **Touch button controls** with colour LEDs to set the outlet temperature to 35 °C, 38 °C or max. 45 °C
- > Connection kit (T-piece and flexible pressure hose) for an angle valve is included
- > Works with unvented and vented taps
- > **Use of the CLAGE “Smart Control” app is possible by retrofitting a Bluetooth adapter**

Type:	MCX3	MCX4	MCX6	MCX7
Energy efficiency class (scale: A+ to F):	A			
Part number:	1500-15003	1500-15004	1500-15006	1500-15007
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>			
Water connections (thread connections):	G 3/8"			
Hot water output at $\Delta t = 25\text{K}$ <sup>2)</sup> [l/min]:	2.0	2.5	3.3	3.7
Switch-on flow rate / max. flow rate <sup>3)</sup> [l/min]:	1.2 / 2.0	1.5 / 2.5	1.5 / 3.3	1.5 / 3.7
Nominal power rating <sup>4)</sup> [kW]:	3.5	4.4	5.7	6.5
Voltage [1~ 220 – 240 V AC]:	with plug <sup>5)</sup>   perm. connection			
Voltage [2~ 400 V AC]:	perm. con.			
Nominal current <sup>4)</sup> [A]:	15	19	25	16
Required cable diameter [mm <sup>2</sup> ]:	1.5	2.5	4.0	2.5
Protection class:	IP 25			
Specific water resistance at 15 °C [ $\Omega\text{cm}$ ] $\geq$ :	1100	800	800	1100

1) Also approved for pressureless operation 2) Temperature increase for example from 15 °C to 40 °C  
3) Limited flow amount for optimal temperature increase by water flow adjustment 4) Related to rated voltage 230 V 5) MCX3 with plug, also available as type MCX3 (E) (part number 1500-15013) with power supply cable for permanent connection

## E-mini instant water heater set MCX Blue

The system solution for washbasins.



Smart Control  
-ready  
(optional)



Bluetooth  
remote control  
(optional)



- > **Electronically controlled instant water heater with innovative single-lever mixing tap** for energy-efficient hand-washing
- > **Touch button controls** with colour LEDs to set the outlet temperature to 35 °C, 38 °C or max. 45 °C
- > Intuitive operation with perfect water temperature at the **middle position** of the control lever
- > **Saves water** because of intelligent flow technology and very short water supply lines
- > **Meets the highest requirements for drinking water hygiene** by separating water lines from the tap body as well as nickel- and lead-free materials
- > Very fast and simple system installation
- > Low pressure tap with **EASY FIX mounting system** and pull-up drain stopper and three flexible connection hoses 3/8 inch

Type:	MCX Blue
Energy efficiency class (scale: A+ to F):	A
Part number:	1500-15133
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>
Water connections (thread connections):	G 3/8"
Hot water output at $\Delta t = 25\text{K}$ <sup>2)</sup> [l/min]:	2.0
Switch-on flow rate / max. flow rate <sup>3)</sup> [l/min]:	1.2 / 2.0
Nominal power rating <sup>4)</sup> [kW]:	3.5
Voltage [1~ 220 – 240 V AC]:	with plug
Nominal current <sup>4)</sup> [A]:	15
Required cable diameter [mm <sup>2</sup> ]:	1.5
Protection class:	IP 25
Specific water resistance at 15 °C [ $\Omega\text{cm}$ ] $\geq$ :	1100

1) Also approved for pressureless operation 2) Temperature increase for example from 15 °C to 40 °C  
3) Limited flow amount for optimal temperature increase by water flow adjustment 4) Related to rated voltage 230 V 5) With plug, also available as type MCX (E) Blue (part number 1500-151332) with power supply cable for permanent connection

## E-mini instant water heater set MBX Lumino

Efficient hygiene  
with sensor tap.



**Hot setting**  
Red  
LED ring

**Medium setting**  
White  
LED ring

**Cold setting**  
Blue  
LED ring

- > **Electronically controlled instant water heater with sensor tap** for hygienic and efficient hand-washing
- > **The water temperature can be continuously adjusted with a lever at the tap**
- > **The temperature is controlled electronically** by the instant water heater **without having to add cold water**
- > A **colour LED ring** visualises the chosen temperature from red = warm to blue = cold
- > **One-pipe-system:** The tap has only one water supply pipe. This ensures complete flushing of all water paths with every use.
- > **Optional hygiene flush** (automatic flush every 12, 24 or 48 hours)
- > The integrated electronic controls of the instant water heater ensure ideal temperatures and **economical energy use**

Type:	MBX 3 Lumino	MBX 7 Lumino
Energy efficiency class (scale: A <sup>+</sup> to F):	A	<b>A</b>
Part number:	1500-15113	1500-15117
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>	
Water connections (thread connections):	G 3/4"	
Hot water output at $\Delta t = 25\text{ K}$ <sup>2)</sup> [l/min]:	2.0	3.7
Switch-on flow rate / max. flow rate <sup>3)</sup> [l/min]:	1.2 / 2.0	1.5 / 3.7
Nominal power rating <sup>4)</sup> [kW]:	3.5	6.5
Voltage [1~ 220 – 240 V AC]:	with plug <sup>5)</sup>	
Voltage [2~ 400 V AC]:		perm. connection
Voltage sensor tap [1~ 220 – 240 V AC]:	with power supply	
Nominal current <sup>4)</sup> [A]:	15	16
Required cable diameter [mm <sup>2</sup> ):	1.5	2.5
Protection class:	IP 25	
Specific water resistance at 15 °C [ $\Omega\text{cm}$ ] $\geq$ :	1100	

1) Also approved for pressureless operation 2) Temperature increase for example from 15 °C to 40 °C  
3) Limited flow amount for optimal temperature increase by water flow adjustment 4) Related to rated voltage 230 V or 400 V 5) MBX 3 Lumino with plug, also available as type MBX 3 (E) Lumino (part number 1500-15113z) with power supply cable for permanent connection

## E-mini instant water heater MBH

Efficient, attractive  
and economical.



- > **Hydraulically controlled instant water heater** (undersink model) with compact design for the energy-efficient hot water supply for a sink
- > **The full heating capacity turns on automatically** as soon as water flows through the unit
- > Connection kit (T-piece and flexible pressure hose) for an angle valve is included
- > Works with unvented and vented taps

Type:	MBH 3	MBH 4	MBH 6	MBH 7
Energy efficiency class (scale: A <sup>+</sup> to F):	A			<b>A</b>
Part number:	1500-16003	1500-16004	1500-16006	1500-16007
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>			
Water connections (thread connections):	G 3/4"			
Hot water output at $\Delta t = 25\text{ K}$ <sup>2)</sup> [l/min]:	2.0	2.5	3.3	3.7
Switch-on flow rate / max. flow rate <sup>3)</sup> [l/min]:	1.3 / 2.0	1.8 / 2.5	2.2 / 3.3	2.4 / 3.7
Nominal power rating [kW]:	3.5	4.4	5.7	6.5
Voltage [1~ 230 V AC]:	with plug <sup>4)</sup>   perm. connection			
Voltage [2~ 400 V AC]:				
				perm. con.
Nominal current [A]:	15	19	25	16
Required cable diameter [mm <sup>2</sup> ):	1.5	2.5	4.0	2.5
Protection class:	IP 25			
Specific water resistance at 15 °C [ $\Omega\text{cm}$ ] $\geq$ :	1100			

1) Also approved for pressureless operation 2) Temperature increase for example from 15 °C to 40 °C  
3) Limited flow amount for optimal temperature increase by water flow adjustment 4) MBH 3 with plug, also available as type MBH 3 (E) (part number 1500-16003z) with power supply cable for permanent connection.

## E-mini instant water heater sets with matching tap



### M / END

Undersink model with single-lever mixer tap, with EASY FIX mounting system and pull-up drain stopper and three flexible  $\frac{3}{8}$  inch connection hoses.

**M 3 / END:** Part no. 1500-17243  
**M 3 (E) / END:** Part no. 1500-172432



### M / SNM

Undersink model with two-handle mixer tap, with swivel spout and eyelet chain and three flexible  $\frac{3}{8}$  inch connection hoses.

**M 3 / SNM:** Part no. 1500-17203  
**M 3 (E) / SNM:** Part no. 1500-172032



### M / SMB

Oversink model with two-handle mixer tap and 16 cm swivel spout for installation on  $\frac{1}{2}$  inch wall connection.

**M 3 / SMB:** Part no. 1500-17103  
**M 3 (E) / SMB:** Part no. 1500-171032  
**M 4 / SMB:** Part no. 1500-17104  
**M 7 / SMB:** Part no. 1500-17107

### Accessories

The special mixer taps are also available individually as a useful accessory:

**EWT:** Part no. 1100-04420  
**END:** Part no. 1100-04410  
**SNM:** Part no. 1100-04200  
**SMB / LS:** Part no. 1100-04100



### MBX Shower

Smart eco shower system with wall rail and single-lever shower tap for installation on  $\frac{1}{2}$  inch wall connection.

**MBX 4 Shower:** Part no. 1500-15314  
**MBX 6 Shower:** Part no. 1500-15316  
**MBX 7 Shower:** Part no. 1500-15317



### WHT

Hand dryer for washroom facilities with Touchless on / off function

**WHT:** Part no. 7000-70300



## Aerators for any tap

Perfectly shape the water stream



Aerator insert for tap adapter  
M22/24 at the tap

**CSP 3** (< 2l/min): Part no. 0010-00421  
**CSP 6** (< 3.5l/min): Part no. 0010-00461



Aerator with chrome tap adapter  
M24a (suitable for taps with  
female threads at the outlet)

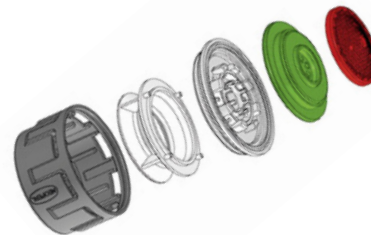
**CSP 3a** (< 2l/min): Part no. 0010-0043  
**CSP 6a** (< 3.5l/min): Part no. 0010-0047



Aerator insert for tap adapter  
M22/24i at the tap

**CSP 3i** (< 2l/min): Part no. 0010-0042  
**CSP 6i** (< 3.5l/min): Part no. 0010-0046







Using the correct aerator at the tap is particularly important for electric instant water heaters. The new special CSP aerators mix air into the water and thus create a uniform water stream that does not splatter but softly cascades down. The aerated water stream supports the energy- and water-saving operation of the mini instant water heater. The aerators are manufactured with high-precision plastics technology and are available as inserts or complete with a fitting tap adapter.



### Heater models

MCX3	MBH6	MCX6	C-series
MCX4	MBH7	MCX7	
MBH3			
MBH4			

### Aerator Guide

						
<b>CSP 3</b>	✓				✓	
<b>CSP 6</b>			✓	✓	✓	✓



## E-compact instant water heater – always efficient

An E-compact instant water heater is the smart solution for energy-efficient hot water supply at several outlets. The unit heats the water only when it is needed – directly at the tap.

The compact unit allows for space-saving installation under the sink, with wireless remote control for convenient temperature adjustment. This avoids water line and heat losses.



Spot



### Fosters energy-saving behavior

Energy monitoring and "eco" real-time feedback



### Instantly the right temperature

On demand, right away



### Adjustable ideal temperature

No addition of cold water








### Saves space

Fits under any sink: 29 × 18 × 10 cm



### Scan for 3D experience!

### Hot water requirement:

			
	<b>2 min</b>	<b>5 l/min</b>	<b>48 °C</b>
	<b>5 min</b>	<b>5 l/min</b>	<b>38 °C</b>



## E-compact instant water heater CEX

Compact power,  
versatile use.



- > **Electronically controlled instant water heater** with compact design for **shower or oversink installation**
- > **Sensor-key operation with LED indicator** for precise temperature setting between 20 °C and 60 °C (CEX)/ 20 °C and 55 °C (CEX 9)
- > Two programming buttons for individual preset temperatures, activatable temperature limit and operating displays
- > **Adding cold water is no longer necessary**

### Our recommendation:



Set with hand shower

**CEX 9 Plus:** Part no. 2400-26470



Utility room set with single lever mixer

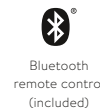
**CEX/CSO:** Part no. 2400-26470

Type:	CEX 9	CEX
With MPS (adjustable)	6.6 or 8.8 kW	11 or 13.5 kW
Energy efficiency class (scale: A+ to F):	A	<b>A</b>
Part number:	2400-26439	2400-26433
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>	
Water connections (thread connections):	G ½"	
Hot water output at Δt = 33 K <sup>2)3)</sup> [l/min]:	2.9   3.8	4.8   5.8 <sup>4)</sup>
Switch-on flow rate / max. flow rate <sup>5)</sup> [l/min]:	2 / 5	
Nominal power rating <sup>6)</sup> [kW]:	6.6   8.8	11.0   13.5
Voltage [1~ 220–240 V AC]:	perm. connection	
Voltage [3~ 380–415 V AC]:	perm. connection	
Nominal current <sup>3)6)</sup> [A]:	29   38	16   20
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	4   6	1.5   2.5
Protection class:	IP 25	
Specific water resistance at 15 °C [Ωcm] ≥:	1100	1000
Maximum inlet temperature:	60 °C	

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 45 °C  
3) Depending on the selected power rating 4) Mixed water 5) Limited flow amount for optimal temperature increase 6) Related to rated voltage 230 V or 400 V

## E-compact instant water heater CFX-U

Efficiency and convenience  
in one sweep.



- > **Electronically controlled undersink instant water heater** with compact design and Bluetooth remote control
- > Temperature setting from 20 °C to 60 °C via sensor keys and **e-paper display** on the remote control
- > **Adding cold water is no longer necessary**
- > Easy installation under the kitchen sink facilitated by **small dimensions** and external ¾ inch water connectors for unvented or vented installation, connection Kit (T-piece and flexible connecting hose) for an angle valve is included
- > With power cable for 3-phase power supply
- > **Integrated Bluetooth function** for connection with smartphone and tablet

Type:	CFX-U
With MPS (adjustable)	11 or 13.5 kW
Energy efficiency class (scale: A+ to F):	A <b>A</b>
Part number:	2400-26513
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>
Water connections (thread connections):	G ¾"
Hot water output at Δt = 33 K <sup>2)3)</sup> [l/min]:	4.8   5.8 <sup>4)</sup>
Switch-on flow rate / max. flow rate <sup>5)</sup> [l/min]:	2 / 5
Nominal power rating <sup>6)</sup> [kW]:	11.0   13.5
Voltage [3~ 380–415 V AC]:	permanent connection
Nominal current <sup>6)</sup> [A]:	16   20
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	1.5   2.5
Protection class:	IP 24
Specific water resistance at 15 °C [Ωcm] ≥:	1000
Maximum inlet temperature:	60 °C

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 45 °C  
3) Depending on the selected power rating 4) Mixed water 5) Limited flow amount for optimal temperature increase 6) Related to rated voltage 400 V

## E-compact instant water heater CEX-U

Precise hot water convenience.



Fosters energy-saving behavior



Smart Control -ready (optional)



Bluetooth remote control (optional)



solar-ready, suitable for reheating



- > **Electronically controlled instant water heater** with compact design for **undersink installation**
- > **Sensor key control panel with LED display** for temperature input accurate to the degree between 20 °C and 60 °C (CEX-U) / 20 °C and 55 °C (CEX9-U)
- > Two programming buttons for individual preset temperatures, activatable temperature limit and operating displays
- > **Adding cold water is no longer necessary**
- > Easy installation under the kitchen sink facilitated by **small dimensions** and external 3/8 inch (CEX-U) / 1/2 inch (CEX9-U) water connectors for unvented or vented installation, connection Kit (T-piece and flexible connecting hose) for an angle valve is included
- > With power cable for 3-phase power supply

Type:	CEX9-U	CEX-U
With MPS (adjustable)	8.8 or 11.5kW	11 or 13.5 kW
Energy efficiency class (scale: A+ to F):	A	<b>A</b>
Part number:	2400-26449	2400-26413
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>	
Water connections (thread connections):	G 3/8"	G 1/2"
Hot water output at Δt = 33 K <sup>2)3)</sup> [l/min]:	2.9   3.8	4.8   5.8 <sup>4)</sup>
Switch-on flow rate / max. flow rate <sup>5)</sup> [l/min]:	2 / 5	
Nominal power rating <sup>6)</sup> [kW]:	6.6   8.8	11.0   13.5
Voltage [1~ 220 – 240 V AC]:	perm. connection	
Voltage [3~ 380 – 415 V AC]:		perm. connection
Nominal current <sup>3)6)</sup> [A]:	29   38	16   20
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	4   6	1.5   2.5
Protection class:	IP 24	
Specific water resistance at 15 °C [Ωcm] ≥:	1100	1000
Maximum inlet temperature:	60 °C	

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 45 °C  
3) Depending on the selected power rating 4) Mixed water 5) Limited flow amount for optimal temperature increase 6) Related to rated voltage 230 V or 400 V

## E-compact instant water heater CDX-U

Convenient under the kitchen sink.



- > **Electronically controlled undersink instant water heater** with compact design and without user controls, automatic heating adjustment base on flow rate and inlet temperature
- > The maximum outlet temperature is factory-set to 50 °C, **temperature setting as usual by mixing cold water at the tap**
- > Easy installation under the kitchen sink facilitated by **small dimensions** and external 3/8 inch water connectors for unvented or vented installation, connection Kit (T-piece and flexible connecting hose) for an angle valve is included
- > With power cable for 3-phase power supplybox

Type:	CDX7-U	CDX11-U
Energy efficiency class (scale: A+ to F):	A	<b>A</b>
Part number:	2400-26607	2400-26613
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>	
Water connections (thread connections):	G 3/8"	
Hot water output at Δt = 33 K <sup>2)</sup> [l/min]:	3.0	4.8
Switch-on flow rate / max. flow rate <sup>3)</sup> [l/min]:	2 / 4	2 / 5
Nominal power rating <sup>4)</sup> [kW]:	6.9	11.0
Voltage [3~ 380 – 415 V AC]:	permanent connection	
Nominal current <sup>4)</sup> [A]:	10	16
Required cable diameter [mm <sup>2</sup> ]:	1.0	1.5
Protection class:	IP 24	
Specific water resistance at 15 °C [Ωcm] ≥:	1000	
Maximum inlet temperature:	30 °C	

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 45 °C  
3) Limited flow amount for optimal temperature increase 4) Related to rated voltage 400 V

## Recommended accessories for compact electric instantaneous water heaters



### FXS Next

Remote control with high-contrast e-paper display, real glass cover and sensor buttons for convenient temperature setting plus Bluetooth radio adapter in a set for installation in the DEX Next, CEX and MCX instant water heaters.

**FXS Next (C):** Part no. 3200-34024

**FXS Next (D,M):** Part no. 3200-34025



### FX3

FX3 wireless remote control plus Bluetooth wireless adapter in a set for installation in the DEX Next, CEX and MCX instant water heater.

**FX3 (C):** Part no. 3200-34027

**FX3 (D,M):** Part no. 3200-34020



### FXE3

Bluetooth wireless adapter for installation in the instantaneous water heater to connect the electric instantaneous water heater to the smartphone / tablet or the CLAGE remote control.

**FXE3 (C):** Part no. 3200-34026

**FXE3 (D,M):** Part no. 3200-34022



### LAB

If no separate outlet is available for the instant water heater: Load shedding module (electrical installation kit) with pre-installed cables, contactor and load shedding relay, for joint connection of an instant water heater with an output ≤ 13,5kW and an electromechanical cooker at a cooker terminal outlet box.

**LAB:** Part no. 82260



### EKE

Sensor tap for the kitchen sink with activatable hygienic rinse and swivel spout, with two flexible connecting hoses  $\frac{3}{8}$  inch.

**EKE:** Part no. 1100-04235



### EAK

Single-lever tap, open-outlet, with side lever and swivel spout 20 cm, with flexible connecting hoses, with three flexible connecting hoses  $\frac{3}{8}$  inch.

**EAK:** Part no. 1100-04430



### CSO

Single-lever wall-mounted mixer tap, unpressurised, for installation on  $\frac{1}{2}$  inch wall connection with swivel pipe spout.

**CSO:** Part no. 1100-04165



### CXH

Shower head for instant water heaters 4 to 13 kW, chrome, 3 jet modes, limescale prevention insert, power ca. 3 – 6 l /min.

**CXH:** Part no.0300-0086



### CXK

Overhead shower for instant water heaters, chrome, with ball joint and anti-limescale insert,  $\varnothing$  250 mm.

**CXK:** Part no.0300-00880



## E-comfort instant water heater for shower and bath

E-comfort instant water heaters are the perfect hot water solution for shower and bath. The units can be installed on a wall, inside bathroom furniture or concealed behind a panel. E-comfort instant water heaters provide comfortable convenience with low energy and water use.



Spot



reddot award 2019  
winner



### Fosters energy-saving behavior

through energy monitoring and "eco" real-time feedback



### Instantly the right temperature

On demand, right away



### Adjustable ideal temperature

No addition of cold water









### More hygiene

Due to short water lines



### Scan for 3D experience!

### Hot water requirement:

			
	2 min	3 l/min	35 °C
	5 min	8 l/min	38 °C
	12 min	10 l/min	40 °C





## E-comfort instant water heater DSX Touch

For your new  
wellness oasis.



- > **Fully electronically controlled high-tech instant water heater** with **real glass touch display** for convenient and economical hot water supply
- > **Always precise temperatures** between 20 °C and 60 °C due to TWIN TEMPERATURE Control TTC® and SERVOTRONIC® **dynamic flow rate control**
- > Suitable for water-saving taps due to particularly low switch-on water quantity from 1.5 l/min thanks to **innovative water flow technology**
- > Function for **thermal treatment** with 70 °C for more hygiene
- > With **automatic bathtub filling** function according to adjustable amount (in litres) and with separate timer function
- > **Integrated Wi-Fi and Bluetooth function** for connection with voice control, smartphone and tablet

Type:	DSX Touch			
With MPS (adjustable)	18, 21, 24 or 27 kW			
Energy efficiency class (scale: A+ to F):	A			
Part number:	3200-36600			
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>			
Water connections (thread connections):	G ½"			
Hot water output at Δt = 28 K <sup>2)3)4)</sup> [l/min]:	9.2	10.7	12.3	13.8
Switch-on flow rate / max. flow rate [l/min]:	1.5 / automatic <sup>5)</sup>			
Nominal power rating [kW]:	18	21	24	27
Voltage [3~ 400 V AC <sup>6)</sup> ]:	permanent connection			
Nominal current <sup>3)</sup> [A]:	26	30	35	39
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	4	4	6	6
Protection class:	IP 25			
Specific water resistance at 15 °C [Ωcm] ≥:	1100			
Maximum inlet temperature:	70 °C			

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C  
3) Depending on the selected power rating 4) Mixed water 5) Depending on line pressure, selected temperature and inlet temperature 6) Also connectable with 380 V

## E-comfort instant water heater DFX Next

Hidden  
comfort.



- > **Fully electronically controlled high-tech instant water heater** with innovative **Bluetooth remote control** for convenient and economical hot water supply
- > **Always precise temperatures** between 20 °C and 60 °C due to TWIN TEMPERATURE Control TTC® and SERVOTRONIC® **dynamic flow rate control**
- > Suitable for water-saving taps due to particularly low switch-on water quantity from 1.5 l/min thanks to **innovative water flow technology**
- > Function for **thermal treatment** with 70 °C for more hygiene
- > With **automatic bathtub filling** function according to adjustable amount (in litres) and with separate timer function
- > **Integrated Wi-Fi and Bluetooth function** for connection with voice control, smartphone and tablet

Type:	DFX Next			
With MPS (adjustable)	18, 21, 24 or 27 kW			
Energy efficiency class (scale: A+ to F):	A			
Part number:	3200-36500			
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>			
Water connections (thread connections):	G ½"			
Hot water output at Δt = 28 K <sup>2)3)4)</sup> [l/min]:	9.2	10.7	12.3	13.8
Switch-on flow rate / max. flow rate [l/min]:	1.5 / automatic <sup>5)</sup>			
Nominal power rating [kW]:	18	21	24	27
Voltage [3~ 400 V AC <sup>6)</sup> ]:	permanent connection			
Nominal current <sup>3)</sup> [A]:	26	30	35	39
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	4	4	6	6
Protection class:	IP 25			
Specific water resistance at 15 °C [Ωcm] ≥:	1100			
Maximum inlet temperature:	70 °C			

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C  
3) Depending on the selected power rating 4) Mixed water 5) Depending on line pressure, selected temperature and inlet temperature 6) Also connectable with 380 V

## E-comfort instant water heater DEX Next S

Fully electronically controlled  
with Bluetooth remote control.



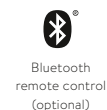
- > **Fully electronically controlled instant water heater with real glass e-paper display** and sensor keys for high operating comfort
- > **Always precise temperatures between 20 °C and 60 °C** due to TWIN TEMPERATURE Control TTC® and SERVOTRONIC® **dynamic flow rate control**
- > Suitable for water-saving taps due to particularly low switch-on water quantity from 1.5 l/min thanks to **innovative water flow technology**
- > Function for **thermal treatment** with 70 °C for more hygiene
- > With **automatic bathtub filling** function according to adjustable amount (in litres) and with separate timer function
- > **Integrated Bluetooth function** for connection with smart-phone and tablet

Type:	DEX Next S			
With MPS (adjustable)	18, 21, 24 or 27 kW			
Energy efficiency class (scale: A+ to F):	A			
Part number:	3200-36450			
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>			
Water connections (thread connections):	G ½"			
Hot water output at Δt = 28 K <sup>2)3)4)</sup> [l/min]:	9.2	10.7	12.3	13.8
Switch-on flow rate / max. flow rate [l/min]:	1.5 / automatic <sup>5)</sup>			
Nominal power rating [kW]:	18	21	24	27
Voltage [3~ 400 V AC <sup>6)</sup> ]:	permanent connection			
Nominal current <sup>3)</sup> [A]:	26	30	35	39
Required cable diameter <sup>3)</sup> [mm <sup>2</sup> ]:	4	4	6	6
Protection class:	IP 25			
Specific water resistance at 15 °C [Ωcm] ≥:	1100			
Maximum inlet temperature:	70 °C			

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C  
3) Depending on the selected power rating 4) Mixed water 5) Depending on line pressure, selected temperature and inlet temperature 6) Also connectable with 380 V

## E-comfort instant water heater DEX Next

Comfortable and  
efficient.



- > **Electronically controlled comfort instantaneous water heater**
- > Temperature setting between 20 °C and 60 °C and **energy monitoring** via the control panel with sensor keys and **e-paper display**
- > TWIN TEMPERATURE Control TTC® for **temperatures accurate to the degree** up to the performance limit
- > Suitable for water-saving taps due to particularly low switch-on water quantity from 1.5 l/min thanks to **innovative water flow technology**
- > The Multiple Power System MPS® determines the maximum power consumption during installation: DEX12 Next\*: 8.8 or 11.5 kW 230 V | DEX Next: 18, 21, 24 or 27 kW 400 V
- > With the optional FXE 3 Bluetooth remote control add-on, which is also available together with the remote control as the FXS Next set, the unit can also be operated via Smart Control.

Type:	DEX12 Next*		DEX Next			
With MPS (adjustable)	8.8 or 11.5 kW		18, 21, 24 or 27 kW			
Energy efficiency class (scale: A+ to F):	A		A			
Part number:	3200-36412		3200-36400			
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>					
Water connections (thread connections):	G ½"					
Hot water output at Δt = 28 K <sup>2)3)4)</sup> [l/min]:	4.5	5.9 <sup>4)</sup>	9.2 <sup>4)</sup>	10.7 <sup>4)</sup>	12.3 <sup>4)</sup>	13.8 <sup>4)</sup>
Switch-on flow rate / max. flow rate [l/min]:	1.5 / 5.0 <sup>5)</sup>		1.5 / 8.0 <sup>5)</sup>			
Nominal power rating [kW]:	8.8	11.5	18	21	24	27
Voltage [1~ 220 - 240 V AC]:	perm. con.					
Voltage [3~ 400 V AC <sup>6)</sup> ]:			perm. connection			
Nominal current <sup>4)</sup> [A]:	38.3	50.0	26	30	35	39
Required cable diameter <sup>4)</sup> [mm <sup>2</sup> ]:	10	10	4	4	6	6
Protection class:	IP 25					
Specific water resistance at 15 °C [Ωcm] ≥:	1300		1100			
Maximum inlet temperature:	70 °C					

\* The DEX12 Next can only be connected with the power connection at the bottom 1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C 3) Depending on the selected power rating 4) Mixed water 5) Limited flow amount for optimal temperature increase 6) Also connectable with 380 V

## E-comfort instant water heater DCX Next

Saving energy in the bathroom is that simple!



- > **Electronically controlled instant water heater** with simple operation
- > One-button operation for fast and easy **five-level temperature selection**: 35 °C, 38 °C, 42 °C, 48 °C and 55 °C
- > TWIN TEMPERATURE Control TTC® for **temperatures accurate to the degree** up to the performance limit
- > Electronic safety system with air bubble detection, temperature and pressure shut-off
- > The Multiple Power System MPS® determines the maximum power consumption during installation  
DCX 13 Next: 11 oder 13,5 kW 400 V  
DCX Next: 18, 21, 24 oder 27 kW 400 V

Type:	DCX13 Next	DCX Next				
With MPS (adjustable)	11 or 13.5 kW	18, 21, 24 or 27 kW				
Energy efficiency class (scale: A+ to F):	A	<b>A</b>				
Part number:	3200-36313	3200-36300				
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>					
Water connections (thread connections):	G ½"					
Hot water output at Δt = 28 K <sup>2) 3) 4)</sup> [l/min]:	5.6	6.9	9.2	10.7	12.3	13.8
Switch-on flow rate / max. flow rate [l/min]:	2.5 / 5.0 <sup>5)</sup>		2.5 / 8.0 <sup>5)</sup>			
Nominal power rating [kW]:	11	13.5	18	21	24	27
Voltage [3~ 400 V AC <sup>6)</sup> ]:	permanent connection					
Nominal current <sup>3)</sup> [A]:	16	20	26	30	35	39
Required cable diameter <sup>4)</sup> [mm <sup>2</sup> ]:	1.5	2.5	4	4	6	6
Protection class:	IP 25					
Specific water resistance at 15 °C [Ωcm] ≥:	1100					
Maximum inlet temperature:	30 °C					

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C  
3) Depending on the selected power rating 4) Mixed water 5) Limited flow amount for optimal temperature increase 6) Also connectable with 380 V

## E-instant water heater DBX Next

The cost-effective alternative.



- > **Electronically controlled basic instant water heater without user controls**
- > Automatic adjustment of output to flow rate and inlet temperature, outlet temperature factory-set to 50 °C (can be adjusted internally by a specialist)
- > Electronic safety system with temperature and pressure shut-off

Type:	DBX18 Next	DBX21 Next	DBX24 Next
Energy efficiency class (scale: A+ to F):	A	<b>A</b>	
Part number:	3200-36118	3200-36121	3200-36124
Maximum operating pressure [MPa (bar)]:	1 (10) <sup>1)</sup>		
Water connections (thread connections):	G ½"		
Hot water output at Δt = 28 K <sup>2) 3)</sup> [l/min]:	9.2	10.7	12.3
Switch-on flow rate / max. flow rate [l/min]:	1.5 / 7.0 <sup>4)</sup>	1.5 / 8.0 <sup>4)</sup>	1.5 / 8.0 <sup>4)</sup>
Nominal power rating [kW]:	18	21	24
Voltage [3~ 400 V AC <sup>5)</sup> ]:	permanent connection		
Nominal current [A]:	26	30	35
Required cable diameter [mm <sup>2</sup> ]:	4	4	6
Protection class:	IP 25		
Specific water resistance at 15 °C [Ωcm] ≥:	1100		
Maximum inlet temperature:	30 °C		

1) Also approved for pressureless operation 2) Temperature increase for example from 12 °C to 40 °C  
3) Mixed water 4) Limited flow amount for optimal temperature increase 5) Also connectable with 380 V

## References

### Office buildings



As the highest tower on the Danube Canal the **AUSTRO TOWER** offers 28,000 m<sup>2</sup> office space with state-of-the-art equipment. The tower was built with energy-efficient construction methods including **82 MCX3** E-mini instant water heaters, **29 CSO** single-lever wall-mounted mixer, **29 DBX18 Next** E-comfort instant water heaters and **11 Zip G4 BCS 160/175** Water systems.



The building complex "**die Welle**" (The Wave) in Frankfurt, Germany, has 80,000 square meters of rentable space. As part of a modernisation targeting the LEED Gold Certification for sustainable buildings, all **450** small storage tanks at the wash hand basin were replaced with efficient **MBX Lumino** E-mini instant water heaters from CLAGE.

## References

### Public buildings



The **Elbphilharmonie** in Hamburg was officially opened in January 2017. At this magnificent concert hall's hand basins, **148 MCX4** E-mini instant water heaters provide energy-efficient hot water in the numerous bathrooms – and for more than 2,000 concert visitors per event.



**THE CIRCLE** is the new quarter at Zurich Airport and is directly connected to the airport terminals. **292 MCX4**, **2 MCX6** and **6 MCX7** E-mini instant water heaters, **2 CFX-U** E-compact instant water heaters and **12 DCX13 Next** E-comfort instant water heater form CLAGE makes an important contribution to the modern building concept.

## References

### Residential buildings



In the centre of Gothenburg, directly on the canal, holiday studios "**Waterfront Cabins**" have been in a modern and stylish design. For the bathrooms in the flats, a total of **1,250 DLX 21 Next** E-comfort instant water heaters were installed in the wall cabinets and provide instant hot water at the washbasin, in the kitchen and bathroom at all times.



At 253 metres high, **HighCliff Tower in Hong Kong** is one of the highest and most luxurious residential buildings around. **426 DSX** E-comfort instant water heaters, **71 DCX** E-comfort instant water heaters and **80 Home Servers** with Smart Controls provide convenient hot water throughout the building.

## References

### Hospitals and headquarters



**The Ommelander Hospital** Groningen went into operation on 30 June 2018. It contains **50 MCX 3** E-mini instant water heaters at the washbasins, **350 CEX** E-compact instant water heaters in the patients' rooms, **20 CEX-U** in the kitchenettes and **4 DSX** E-comfort instant water heaters in the treatment rooms.



**Puma SE Headquarter** is a listed sporting goods supplier and one of the world's largest sporting goods manufacturers. In the buildings are **65 MBX 7 Lumino** E-mini instant water heaters, **11 CEX-U** E-compact instant water heaters with the fitting **EAK**, **14 CEX** E-compact instant water heaters with the fitting **SSO** and **5 DSX Touch** E-comfort instant water heaters.

# General data and useful calculations for water heating

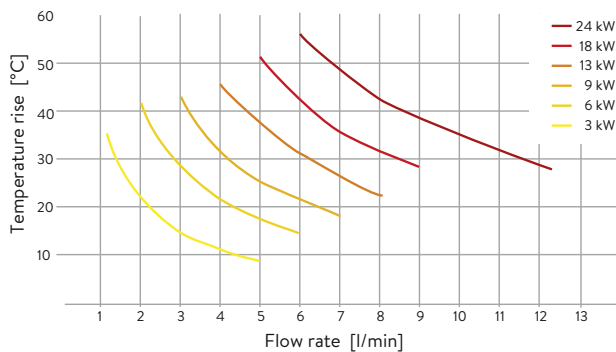


## CLAGE – Calculator

### Power conversion table

1– 220 – 240 V AC (single phase)			3~ 400 V AC (three phase)		
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	
10.5 kW	11.5 kW	12.5 kW			

### Instantaneous performance chart



### Instantaneous performance calculations

$$\text{Temperature rise [}^{\circ}\text{C]} = \frac{\text{Nominal power rating [kW]} \times 14.3}{\text{Flow per minute [litres]}}$$

$$\text{Flow per minute [litres]} = \frac{\text{Nominal power rating [kW]} \times 14.3}{\text{Temperature rise [}^{\circ}\text{C]}}$$

### Mean temperature of mixed water

$$\text{Mean temperature [}^{\circ}\text{C]} = \frac{(\text{Hot water [litres]} \times \text{Hot water temperature [}^{\circ}\text{C]}) + (\text{Cold water [litres]} \times \text{Cold water temperature [}^{\circ}\text{C]})}{\text{Hot water [litres]} + \text{Cold water [litres]}}$$

### General site requirements

- > Electric instantaneous water heaters may only be installed **by a plumber and /or electrician.**
- > The installation must comply with current **IEC and national local regulations** or any particular regulations, specified by the local electricity supply company.
- > Material of water pipes must be **stainless steel or copper.** Plastic pipes may only be used if they conform to the relevant standard.
- > Best performance is guaranteed at a **flow pressure between 2 and 4 bar** (30 – 60 psi), avoiding the maximum pressure stated on the appliance rating plate.
- > Electrical water heaters **must be connected to the protective earth conductor!**
- > 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 must be fitted** with a tripping current commensurate with the nominal current of the appliance.
- > For maintenance work, **a shut-off valve** should be installed in the supply line. The appliance must be accessible for maintenance work.

### No problem with the E-installation!

- > When using heat pumps, e-cars, etc., 3 × 63 A are common in single-family houses (apartment buildings ≥ 3 × 80 A) and are also completely sufficient for E-instant water heaters.

### Guidance on sizing of electrical building connection:

- > Primarily: constantly running electrical consumers (elevators, room heating, ventilation, air conditioning, lighting etc.)
- > Decentral electric instant water heating: Low simultaneity
- > Electronic power control based on consumption (delta T, l/min)
- > Short usage times: e.g. 30 sec hand washing, 3–5 min shower)
- > For example: Simultaneity at 10 housing units 25%, at 50 units only 7.3%, at 100 units only 4.4%



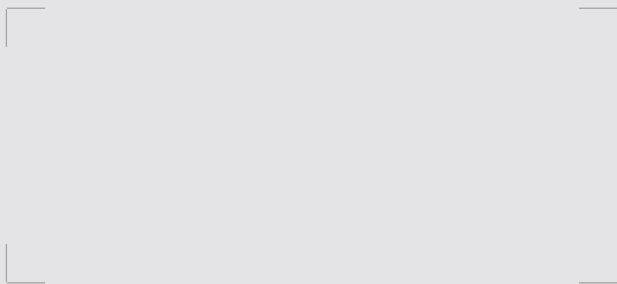
**Made in Germany**

**Energy efficiency class A:** Electronically controlled instantaneous water heaters for washbasins, the kitchen, shower and bathroom.



(Scale: A+ to F)

Dealer stamp



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