



Electronic instant water heaters

New perspectives

for economical hot water





Electronic instantaneous water heater



More pleasure

when bathing and showering

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 electronic instantaneous water heaters from CLAGE 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.

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





DSX SERVOTRONIC MPS®



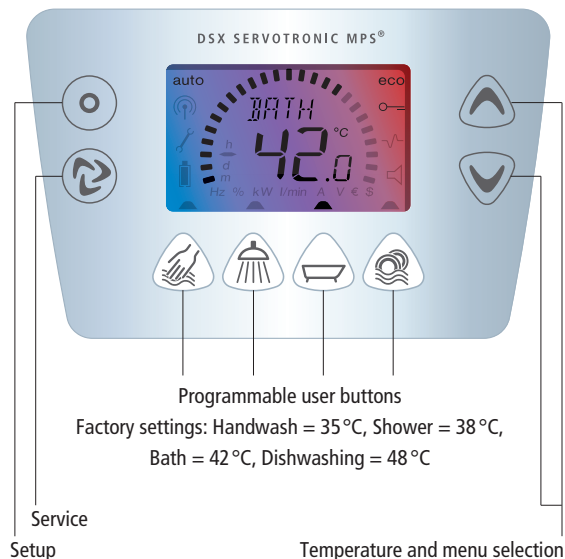
High-tech

for more convenient hot water

The new top-end model in electronic instantaneous water heaters combines sophisticated technology with aesthetic design. And it is so easy to operate: Four buttons define the perfect hot water temperature for daily purposes. A push of the button is all that is necessary to have water at exactly the right temperature for washing hands, showering, running a bath or washing the dishes. Naturally the preferred temperature can also be set directly between 20 °C and 60 °C.

The SERVOTRONIC® with dynamic flow control ensures that water is delivered at precisely the right constant temperature, with maximum cost-efficiency.

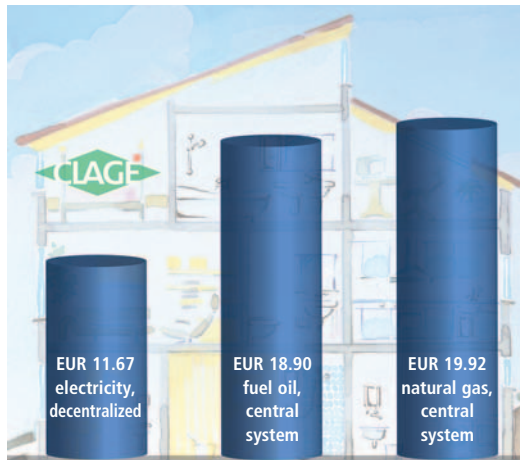
The selected temperature is indicated by the backlit temperature-dependent colour display: red = hot, blue = cold. The energy monitor shows just how economically the appliance is working – and the text display presents various status and service messages whenever required. In this way, the temperature of the cold water, the flow rate and power consumption can be read off directly from the display.





Economical

Instant water heaters are so efficient today



Total annual cost of hot water per m² 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, based on German conditions)

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, the new electronic 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.



DEX ELECTRONIC MPS®



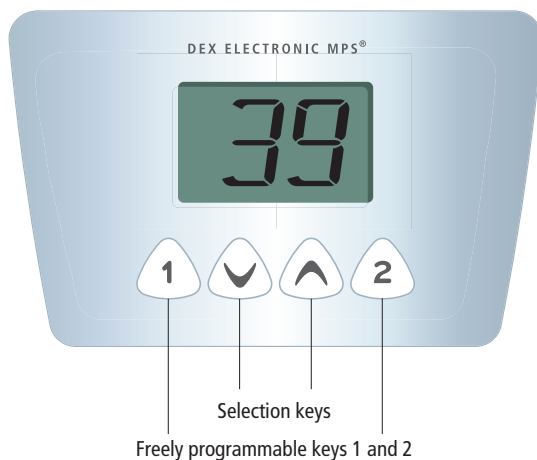
Convenience

for economical hot water

The DEX ELECTRONIC MPS® has everything that a good electronic instantaneous water heater needs.

Temperature is selected via two buttons which have been preset for 35°C and 48°C by the manufacturer but which can be set individually.

The preferred temperature can also be selected directly between 20°C and 60°C. The actual temperature is clearly shown on the large LC display.



Power output is automatically controlled electronically as a function of inflow temperature and flow rate up to the maximum limit so that the set delivery temperature is achieved precisely and also remains constant thanks to TWIN TEMPERATURE Control TTC®.

Like the DSX, the DEX features the unique Multiple Power System MPS® – much to the plumber's and electrician's delight, for the maximum power is only determined when the appliance is actually installed. This ensures that the right appliance is always available.



Cost-effective

The electronic basic model



The energy-saving electronic system in the new instantaneous water heaters cuts energy and water consumption by 20% in comparison with conventional hydraulic instantaneous water heaters.

If equipment features are of secondary importance, then the DBX is a cost-effective electronic alternative. The basic model in the new series of instantaneous water heaters does not have any controls at all.

Despite this, under the appliance hood there is an energy-saving electronic system which controls power output automatically as a function of the flow rate and inflow temperature. The delivery temperature is set to 50 °C by the manufacturer, but can also be set to a different value by the plumber inside the appliance.

Compared with a conventional hydraulic instantaneous water heater, the DBX cuts the cost of energy and water by up to 20%. Potential savings are distinctly higher with the DEX and DSX models due to their additional equipment features and precise temperature control.

Changing over to the new technology is worthwhile, for the initial investment is quickly recovered. Flexible installation guarantees that appliances can be replaced without difficulty.



Top technology inside



Reliable

Convincing technical features:

- 1 Housing**

Slim, attractive design, blends harmoniously with every bathroom setting. Easily installed with wall bracket and a retaining screw under the front panel.
- 2 Connection area, top**

Permits straightforward electrical connection in the upper part too.
- 3 Temperature sensor**

Highly sensitive ceramic sensors deliver instantaneous information for the electronic control, dual measuring technology TWIN TEMPERATURE Control TTC® (not for DBX) ensures precise temperatures at all times.
- 4 Flow sensor**

Precise, low-maintenance measuring turbine without after-running, therefore ensuring precise control response and protection against dry running.
- 5 Heating element**

IES® bare-wire heating system with stainless steel heating coils for optimum flow.
- 6 Electronics**

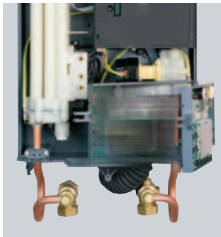
State-of-the-art electronic control and safety system.
- 7 Flow control valve**

Dynamic flow control (DSX only), reduces the flow rate when the maximum power is reached.
- 8 Multifunction display**

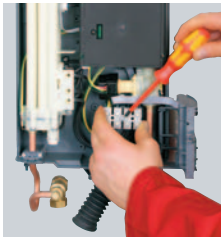
Perfect convenience for operation with four user buttons, menu and setup keys, as well as two temperature and menu selection keys, text display and temperature-dependent backlighting, energy monitor for indication of consumption and extensive status and service messages (DSX only).
- 9 Connection area**

Generously dimensioned connection area with detachable bottom part of housing, spacer sleeves to compensate for uneven wall surfaces.

Installation



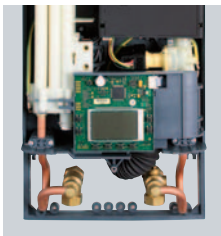
Maximum attention has been devoted to every single detail from the very beginning. Generously dimensioned clearances ensure easy access to all installation elements so that the new electronic instantaneous water heaters can be installed and taken into service without difficulty.



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. An installation frame for problematical cases is additionally available as an accessory part.

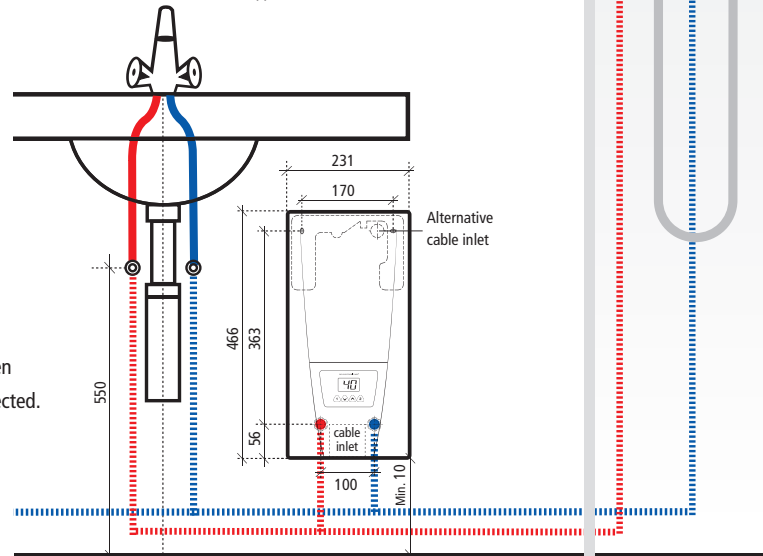


The bottom part of the housing's imply clicks into place again when the water supply has been connected.

Installation example (all values in mm)



Min. distance between floor and bottom edge of appliance: 10
(installation at eye level: approx. 1250 is recommended)



Data



Model	DBX 18	DBX 21	DBX 24	DBX 27	DEX ELECTRONIC MPS®	DSX SERVOTRONIC MPS®	
Article No.	34118	34121	34124	34127	34227	34327	
To supply one or more outlets	•	•	•	•	•	•	
Pressurized / permissible operating pressure MPa (bar)	• / 1 (10)	• / 1 (10)	• / 1 (10)	• / 1 (10)	• / 1 (10)	• / 1 (10)	
Application	Washbasin	•	•	•	•	•	
	Kitchen sink	•	•	•	•	•	
	Shower	•	•	•	•	•	
	Bath tube		•	•	•	•	
Siting	Wall-mounted	•	•	•	•	•	
Dimensions	Height x Width x Depth cm	46.6 x 23.1 x 9.7				46.6 x 23.1 x 9.7	46.6 x 23.1 x 9.7
Approx. weight filled with water	kg	3.7	3.7	3.7	3.7	4.2	
Water / screw connections, surface or recessed		G 1/2"	G 1/2"	G 1/2"	G 1/2"	G 1/2"	
Hot water output at $\Delta t = 28 \text{ K}^{(2) \text{ M}}$	l / min	9.2	10.7	12.3	13.8	9.2 / 10.7 / 12.3 / 13.8 ¹⁾	9.2 / 10.7 / 12.3 / 13.8 ¹⁾
Switch-on – max. flow rate	approx. l / min	2.5 – 7.0 ⁵⁾	2.5 – 8.0 ⁵⁾	2.5 – 8.0 ⁵⁾	2.5 – 9.0 ⁵⁾	2.5 – 8.0 ⁵⁾	2.5 – automatic
Features	IES® bare-wire heating system / $\Omega \text{ cm}^{(4)}$	• / 1300	• / 1300	• / 1300	• / 1300	• / 1100	• / 1100
	Control	electronically controlled				electronically controlled	fully electronically controlled
	Temperature display					LCD	backlit colour LCD
	Outlet temperature °C	50 °C ⁶⁾				20 – 60 °C	20 – 60 °C
	Programmable keys					2	4
	Dynamic flow control						•
	Twin Temperature Control TTC®					•	•
	Multiple Power System MPS®					•	•
	For use with solar systems (inflow temperature $\leq 70 \text{ °C}$)					•	•
	Optional remote control					•	•
Electrical data	Nominal power rating kW at 380V (400V) ³⁾	16.2 (18.0)	19.0 (21.0)	21.6 (24.0)	24.4 (27.0)	Optionally 16 (18), 19 (21), 21 (24), 24 (27)	
	Voltage 3/PE~380V (3/PE~400V), nominal current A	3 x 26	3 x 30	3 x 35	3 x 39	3 x 26, 3 x 30, 3 x 35, 3 x 39 ¹⁾	
	min. required cable size in mm ²	4.0	4.0	4.0 / 6.0 ⁷⁾	6.0	4.0 / 6.0	
VDE approval / protection class		•/IP25	•/IP25	•/IP25	•/IP25	•/IP25	

- Present or yes M) Mixed water
- 1) Depending on set power of MPS®
- 2) Temperature rise, e.g. from 12 to 40 °C

- 3) Regulations differ in some supply regions. Must be connected by an qualified electrician!
- 4) Required minimum specific water resistance at 15 °C

- 5) Limited flow in order to achieve optimum temperature increase
- 6) Presetting can be adjusted by plumber between 30°C and 60°C
- 7) 4 mm² can be reused when replacing a 21 kW / 380 V appliance



...the innovative hot water solution.

CLAGE – leading technology for individual water heating on demand

In addition to the new three-phase electronic instantaneous water heaters, CLAGE also supplies single-phase instantaneous water heaters with attractive design, superior quality and highly economical operation for every application.



Made in Germany



Small instantaneous water heater
MDX 6 for washbasins



Compact instantaneous water heater
CRX 9 for showers



Compact instantaneous water heater
CBX 11-U for kitchen sinks

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