

EDR, Comfort, Delta

The new standards in hot water comfort

With the EDR, Comfort and Delta line Inventum produces three different types of water heaters that provide solutions to specific hot water needs, each in their own way. With the Inventum EDR water heaters, you have a water heater tailored to any situation. The Comfort is intended for users who want to have sufficient capacity available at any time, even during occasional peaks in hot water needs. The Delta water heaters are designed for horizontal installation and can be mounted easily in small or unusual spaces.

Inventum EDR water heaters

Instant hot water from the tap at a constant temperature and high flow rate, without pressure or temperature differences when hot water is turned on elsewhere in the house: these are the requirements. The Inventum electrical water heaters are hot water appliances that fully meet these comfort needs. The Inventum water heaters are characterized by reliability, quality and user-friendliness. All Inventum EDR water heaters are equipped with a copper inner tank that guarantees a long lifespan. The wide product range offers a choice for any desired use.

An EDR water heater for any situation

Inventum produces electric water heaters with capacities ranging from 30 to 150 litres, with various power levels and various designs. So, for any need there is a suitable Inventum water heater. All Inventum EDR water heaters are manufactured with an externally adjustable thermostat (with the exception of the 3-phase models of the high-power range) with which you can adjust the temperature from 65 °C to 88 °C.

Inventum EDR "night rate" water heaters: at work while everyone sleeps

These water heaters are meant for heating at night when electricity is cheaper. Most energy companies calculate this low electricity rate during certain hours ("Economy 7"). (ask your energy company for details).

The water heater uses a relatively low-power heating element. It is normally set to come on automatically when the night rate goes into effect. Of course, the water heater can also be set to different times. The EDR serie is available in capacities of 30, 50, 80, 120 and 150 litres. It is important to choose the capacity that corresponds with your daily use.

Things to consider include size of the family and the amount of hot water used (see 'How to calculate the Inventum water heater capacity you need').

Inventum EDR 2-span water heaters bring extra power into your home

These water heaters have the same characteristics as the night rate electricity water heaters with the extra feature of accelerated heating of the contents for up to 2 hours per day. This may be desirable if, for example, more people than normal take consecutive showers one morning. This extra heating feature (through an extra element) is activated by an externally adjustable 2-hour clock. This feature can be used any time during a day.

Inventum EDR high power water heaters: power where it is needed

These water heaters are especially designed for high water use situations, such as restaurant kitchens or sports centres, etc. The content of these water heaters is heated fast, both during the day and at night.

COMFORT

The comfort series gives you that little something extra.

An amount of 200 litres of water at a comfortable shower temperature (40 °C) can be drawn from an electric water heater of 80 litres. For most families this is more than adequate. But it may happen that more water is needed from time to time, such as when you have guests. When that happens, the water supply suddenly seems inadequate. The Inventum comfort water heater makes sure that there is enough water for that one extra shower, automatically. As with the standard water heaters, the comfort water heater can also make use of the cheaper night rate. Should the extra water use make the water heater temperature drop (shower 45 °C, kitchen 55 °C) then the comfort water heater will automatically increase the water temperature back up to the preset temperature. This means you always have enough hot water, 24 hours a day! The comfort water heater is available with a capacity of 50, 80, 120 or 180 litres.

How does the comfort water heater work?

The comfort water heater is equipped with two heating elements, one 1200 W element and one of 1750 W. During night rate hours, the water heater uses one element to heat the water to 88 °C. As soon as the hot water use is higher than normal, the second thermostat will automatically



switch on the extra element. With a total power use of no less than 2950 W the water heater is quickly heated back up to 45 °C or 55 °C. This comfort option can also be switched off so that the water heater can function as a normal economical night rate electricity water heater.

DELTA

Delta series can go anywhere

The Inventum Delta water heaters are unique because of their horizontal installation. The Delta can be used as a floor, wall or ceiling appliance. Consider, for example, the dead space in the attic under the slant in the roof or the roof summit. The horizontal (ceiling) setup is also excellent for smaller bathrooms. The Delta water heaters are available with a capacity of 80, 120 and 150 litres.

GENERAL INFORMATION EDR, COMFORT, DELTA

Energy-efficient

All Inventum water heaters comply with the highest energy use standards. For example, the water heaters are insulated with the highest quality CFC-free PU-insulation, so that the no-load loss (heat loss when the water heater is not in use) is minimized.

Installation

The Inventum electric water heaters can be installed in your old water heater's space using a universal mounting bracket (comes standard with the water heater) or anywhere else in your home. The choice of installation is flexible, because an electric water heater does not have an exhaust gas outlet or pilot flame. This saves you a lot of money on installation! Because the Inventum water heaters meet the IPX 5 safety standard (splash resistant) the water heaters are absolutely safe and can even be placed right above a bathtub or near a shower. If there is no suitable wall, you can purchase a special ceiling clamp or water heater seat for installation on the floor.

Have your technician or energy company advise you.

Guarantee and service

The Inventum inner tanks have an unconditional 5-year guarantee. And all other parts are guaranteed for two years.



How to calculate the Inventum water heater capacity you need:

Use	Water-temperature	Litres required	Litres at 85 °C required
Bathtub	40 °C	150-180	60-72
Shower	40 °C	35-45	14-18
Washing hands	40 °C	5	2
Washing hair	40 °C	6-15	2,5-6

Kitchen use

Family of 2	55 °C	20	12
Family of 3	55 °C	24	14
Family of 4	55 °C	28	17

Inventum advises:

With use of litres of water at 85 °C a day

< 50 litres	50-100 litres	100-150 litres	150-200 litres
A or B	B or C	D or E	E
F	G	H	I or J
K	L	M	N or O
P	Q	R	S

Night rate water heaters High-power water heaters

A = EDR 30	D = EDR 120	F = EDR 30	I = EDR 120
B = EDR 50	E = EDR 150	G = EDR 50	J = EDR 150
C = EDR 80		H = EDR 80	

2-span water heaters Comfort water heaters

K = EDR 31	N = EDR 121	P = EDR 53	S = EDR 153
L = EDR 51	O = EDR 151	Q = EDR 83	
M = EDR 81		R = EDR 123	

The tables above are based on average estimates and therefore are merely indications. Your technician will be happy to provide you with an estimate based on your individual situation.

Example:

In this example we assume a family of 4 persons (2 adults and 2 children) with a shower plus a bathtub. Each adult takes a bath twice a week and a shower 4 times a week. The children take a bath once a week and three times a week a shower.

Weekly use of 85 °C water

(System with bathtub and shower)	
Bath 6x	396 liter
Shower 14x	224 liter
Washbasin*	147 liter
Kitchen*	119 liter
Total per week	886 liter
Total per day	127 liter

* this concerns a normal average

For this situation, Inventum recommends a 120 or 150-litre night rate water heater, a 80-litre 2-span water heater or a 120-litre comfort water heater.

Combination with kitchen water heater

If the pipes from the hot water mains to the kitchen are long (which is almost always the case), Inventum always recommends that a kitchen water heater be placed directly at the tap. The 10 and 20-litre Hotfill* kitchen water heaters are the best choice. Because these water heaters are connected to the hot water supply, they are fed with hot water and can give you instant, cost-effective hot water.

* For more information, ask for our kitchen water heater brochure

Summary of all advantages:

Copper inner tank
Maintenance-free
CFC-free PU insulation
Very low no-load losses
Adjustable external thermostat (65-88 °C)
(with the exception of the 3-phase high power water heaters)
Thermal protection ('fail safe')
Simple and flexible installation
Long-term guarantee

IPX5 protection (the water heater can be placed right above the bathtub or near a shower)

KEMA and CEBEC approved

Extra advantages Comfort series:

Comfort option (can be deactivated)

Comfort thermostat adjustable at 45 °C (shower) or 55 °C (shower + kitchen)

Night rate thermostat set for 88 °C

Extra advantages Delta series:

Available in horizontal design, so suitable for installation on floor, wall or ceiling

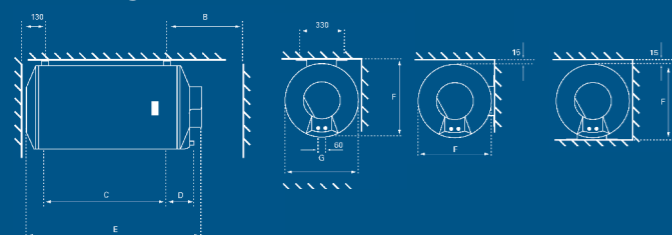
Since 1908, Inventum BV is specialised in developing and producing a variety of heat- and water heating systems. The high-quality materials used, make Inventum's products of matchless quality and virtually failure-proof. Inventum holds a strong market position in the Netherlands, but has also important export activities to countries all over the world. Inventum holds the quality guarantee certification NEN-ISO 9001. Its products live up to the highest national and international quality requirements and are approved by KEMA, CEBEC, VDE, and others. The development of solar water heater systems, heat pumps and heat pump water heaters are outstanding examples of the innovative power of Inventum. Governmental bodies are also setting increasingly high statutory and other requirements on the energy performance of equipment. Inventum understands and lives up to its responsibilities in this area. **INVENTUM: safe and reliable!**



Technical data EDR, Comfort and Delta water heaters

Type	Capacity	Loading	No-load loss	Voltage	Heating time to 60 °C	Max. operating pressure	Thermostat
	liter	Watt	Watt	Volt	uren:min	Bar	°C
EDR 30 Night rate	30	650	31	230	2:41	8	65-88
EDR 30	30	2000	32	230	0:52	8	65-88
EDR 31	30	650/1650	32	230	2:41/1:03	8	65-88
EDR 50 Night rate	50	650	38	230	4:28	8	65-88
EDR 50	50	2000	38	230	1:27	8	65-88
EDR 50	50	2400	38	230	1:12	8	65-88
EDR 50	50	2950	38	230	0:59	8	65-88
EDR 51	50	650/2400	38	230	4:28/1:12	8	65-88
EDR 80 Night rate	80	1000	42	230	4:39	8	65-88
EDR 80	80	2400	43	230	1:56	8	65-88
EDR 80	80	2950	43	230	1:34	8	65-88
ED 80	80	3000	43	230/380	1:33	8	88
ED 80	80	6000	43	230/380	0:46	8	88
EDR 81	80	1000/2750	43	230	4:39/1:41	8	65-88
EDR 120 Night rate	120	1500	57	230	4:39	8	65-88
EDR 120	120	2400	58	230	2:54	8	65-88
EDR 120	120	2950	58	230	2:22	8	65-88
ED 120	120	3000	58	230/380	2:19	8	88
ED 120	120	6000	58	230/380	1:10	8	88
EDR 121	120	1500/3250	58	230	4:39/2:09	8	65-88
EDR 150 Night rate	150	1750	66	230	4:59	8	65-88
EDR 150	150	2950	67	230	2:57	8	65-88
ED 150	150	3000	67	230/380	2:54	8	88
ED 150	150	6000	67	230/380	1:27	8	88
EDR 151	150	1750/3500	67	230	4:59/2:30	8	65-88
EDR 53 Comfort	50	1200/2950	38	230	0:59	8	88/0-55
EDR 83 Comfort	80	1200/2950	43	230	1:35	8	88/0-55
EDR 123 Comfort	120	1750/2950	58	120	2:22	8	88/0-55
EDR 153 Comfort	150	1750/2950	67	230	2:57	8	88/0-55
Delta 80-2H	80	2000	43	230	2:20	8	32-82
Delta 80-3H	80	3000	43	230	1:33	8	32-82
Delta 120-2H	120	2000	58	2330	2:55	8	32-82
Delta 120-3H	120	3000	58	230	3:30	8	32-82
Delta 150-3H	150	3000	67	230	2:20	8	32-82

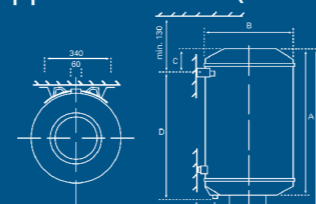
Scale diagram, Delta horizontal series (in mm)



Type	B*	C	D	E	F	G
Delta H80	500/260	555	135	856	498	485
Delta H120	500/260	855	135	1156	498	485
Delta H150	500/260	1045	135	1346	498	485

* advised/minimum

Scale diagram, electrical water heaters with copper inner tank (in mm)



Type	weight	A	B	C	D	E
EDR 30	16 kg	462	430	105	367	532
EDR 50	21 kg	650	430	105	555	720
EDR 80	28 kg	788	485	105	705	858
EDR 120	39 kg	1088	485	105	1005	1158
EDR 150	53 kg	1278	485	105	1195	1348

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Due to constant product innovations, Inventum reserves the right to alter the above-mentioned specifications without prior notice.

Kitchen water heaters

Electrical water heaters

Central Heating water heaters

Heat pump water heaters

Heat pumps

Solar water heaters

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EDR, Comfort, Delta

Electrical water heaters with copper inner tank

The pleasure of hot water comfort

Very reliable

With full copper inner tank

Long-term guarantee

