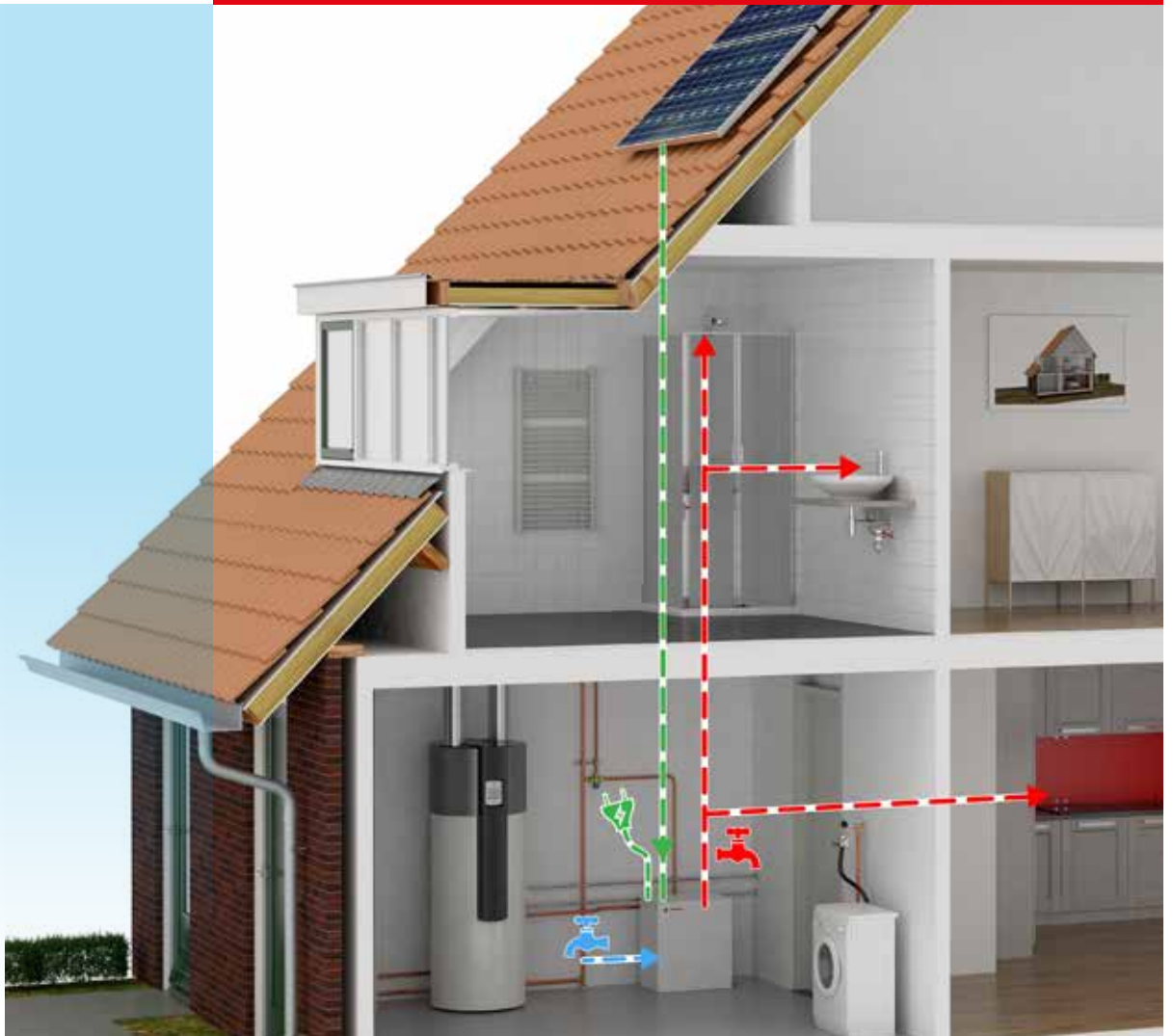


FlexTherm Eco



**Ultra compact, thermal battery
for the storage of heat for
domestic hot water**



- Safe
- Economical and efficient
- Space-saving
- Long service life

Flamco introduces the FlexTherm Eco

Converting electricity into heat as a buffer for the domestic hot water supply

In principle, all homes in the Netherlands must stop using natural gas by 2050. Flamco is introducing a unique solution to help make this energy transition possible. FlexTherm Eco is a thermal charging station. It converts electricity directly into heat and stores it for the provision of hot water. With its compact design and efficient operation, FlexTherm Eco fits in every home and is a very energy efficient appliance (energy label A+ for inactivity losses).

How do you guarantee sufficient domestic hot water in a home without a gas supply?

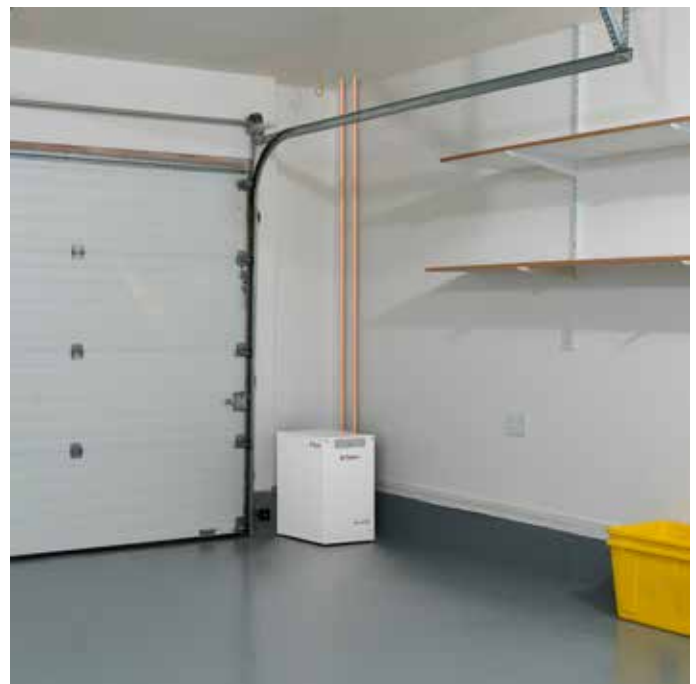
With this question in mind, Flamco is introducing a highly compact and efficient thermal battery. FlexTherm Eco works on the basis of thermal storage in a so-called Phase Change Material (PCM). This material reacts to temperature changes by melting or crystallising, respectively absorbing or giving off energy.

Inventive thermal battery

FlexTherm Eco contains inorganic salt as the PCM. This salt is heated up to 70 °C by an electric coil. At this temperature, the salt is completely liquid. As soon as there is a call for domestic hot water, the salt cools down again. The released thermal energy is given off to the water-filled heat exchangers, which generate domestic hot water.

The FlexTherm Eco 6E supplies 12.5 litres of hot water per minute (CW5), which is sufficient capacity to supply a least 185 litres of hot (shower) water.


The FlexTherm Eco in combination with PV panels can also be used for filling a washing machine or dishwasher with hot water. This results in washing that is 75 to 80% more energy efficient, in an area that accounts for about 11% of a household's total electricity costs.



Lots of benefits

The innovative FlexTherm Eco offers lots of benefits in terms of technology, use and environmental performance. With its compact dimensions, the appliance fits in every home and needs only a third the space of an average water heater. The battery is easy to install (a water point and a 230 V electrical connection are sufficient) and requires little maintenance (no moving parts). The user can charge it up and run it down continuously with no loss of performance.

The appliance works quickly and efficiently thanks to the high heat absorption and release, and has an extremely low heat loss (27 W), thanks to the vacuum insulation panel. The FlexTherm Eco heats up completely in just 2.5 hours. The appliance is also clean and environmentally friendly because it does not combust any gases, contains no toxic materials and is 100% recyclable.

FlexTherm Eco										
Type	Storage capacity [kWh]	Max. working pressure [bar]	Connections		Dimensions			Weight [kg]		Code number
			A-D [mm]	E [mm]	Width [mm]	Length [mm]	Height [mm]			
FlexTherm Eco 3E	3.5	10.0	22 copper	230 V (16 A)	360	570	445	70	1	18200
FlexTherm Eco 6E	7.0	10.0	22 copper	230 V (16 A)	360	570	645	120	1	18201
FlexTherm Eco 9E	10.5	10.0	22 copper	230 V (16 A)	360	570	880	170	1	18202

Type	FlexTherm Eco		
	3E	6E	9E
ErP rating class – Hot water storage (with inactivity loss)	A+	A+	A+
Storage capacity [Tc=75 °C] [kWh]	3.5	7.0	10.5
Volume of water – Low power heat exchanger [B-C] [l]	1.30	2.36	3.46
Volume of water – High power heat exchanger [B-C] [l]	2.24	4.48	6.76
V40, domestic water volume up to at least 40°C [l]	85	185	300
Heat loss per 24 hours [kWh/24h]	0.449	0.649	0.738
Heat loss per hour [W]	18.7	27.0	30.7
Recommended high maximum flow rate at high power [l/min]	6	15	20
Min. pressure at water connection (working pressure) [bar]	1.0	1.5	1.5
Max. working pressure [bar]	10.0	10.0	10.0
Pressure drop across the heat exchangers			
Kv value low power heat exchanger (LPC)	1.623	1.255	1.066
Kv value high power heat exchanger (HPC)	2.871	2.356	1.951
Min. flow temperature during thermal charging [°C]	65	65	65
Max. flow temperature during thermal charging [°C]	80	80	80
Discharge water temp. @ flow rate < recommended max. flow rate [°C]	50 - 55	50 - 55	50 - 55
Max. current strength of controller 230 V, AC, 50 Hz [A]	6	6	6
Max. current strength of heating element 230 V, AC, 50 Hz [A]	16	16	16
Standby consumption [W]	< 1.0	< 1.0	< 1.0
Electrical power of heating element 230 V, AC, 50 Hz [kW]	2.8	2.8	2.8

Multi-purpose

FlexTherm Eco is a unique solution, especially for installers and housing corporations looking for new ways to store energy. This need is growing because more efficient solutions are required for storing sustainably generated energy.

For the time being, FlexTherm Eco is intended for small-scale use, such as in houses and apartments. Thanks to its ultra-compact format and ease of installation, the appliance is also suitable for use in renovation projects.

In addition, the appliance fits seamlessly in the transition to gasless homes due to its thermal operation. Moreover, FlexTherm Eco renders the energy supply CO₂-neutral when used in combination with, for example, PV panels (for electricity) and a heat pump (for room heating).





We supply heating system products to installation companies in more than 70 countries. We do so by making use of a network of subsidiaries and wholesalers who are familiar with the local market and thus always able to provide expert advice.

Do you want know more about the solutions from Flamco?

If you have any questions about the FlexTherm Eco or would like to receive information about other Flamco products, then visit our website or contact one of our representatives.

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