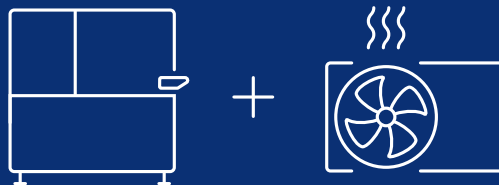




# POWERHEATPUMP

The perfect match: XRGI® CHP and heat pump



# PowerHeatPump

A combined heat and power unit (CHP) produces heat and electricity directly on site in the building - always efficiently, even at low outside temperatures in winter. A heat pump raises the ambient heat to a usable level - this is only particularly efficient at higher ambient temperatures.

The PowerHeatPump combines an XRGI® CHP and a heat pump. The advantages of both technologies can then be used in the best possible way.

## ADVANTAGES FOR THE OPERATOR



### Highly efficient

Regardless of whether a low outside temperature prevails or a high flow temperature is required for Legionella-free hot water preparation: the PowerHeatPump ensures maximum efficiency at every operating point.



### Reliable

The XRGI® CHP produces electricity on site for the heat pump, which is then not dependent on the mains power supply. In some countries, the authorities reserve the right to disconnect the electricity supply for several hours for heat pumps, but not CHPs. With a CHP you will still be guaranteed heat.



### Heating rod operation superfluous

If the heat pump is operated without an XRGI® CHP, heating rod operation is required when ambient temperatures are low.



### Cost saving

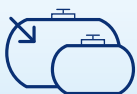
Less energy is required to provide heat with the PowerHeatPump and the costs are reduced. The XRGI® CHP, heat pump and heat storage can also be built with smaller dimensions.

## ENERGY AND CLIMATE POLICY BENEFITS



### Free from distribution losses

With XRGI® on-site electricity production, the heat pump is operated without distribution losses on the public electricity grid.



### Reduction of gas consumption

With the PowerHeatPump, less gas is needed - up to 50 % depending on the design.



### Environmentally friendly

The lower gas consumption during operation with a PowerHeatPump reduces greenhouse gas emissions. So the targeted climate-neutral supply of buildings becomes feasible.

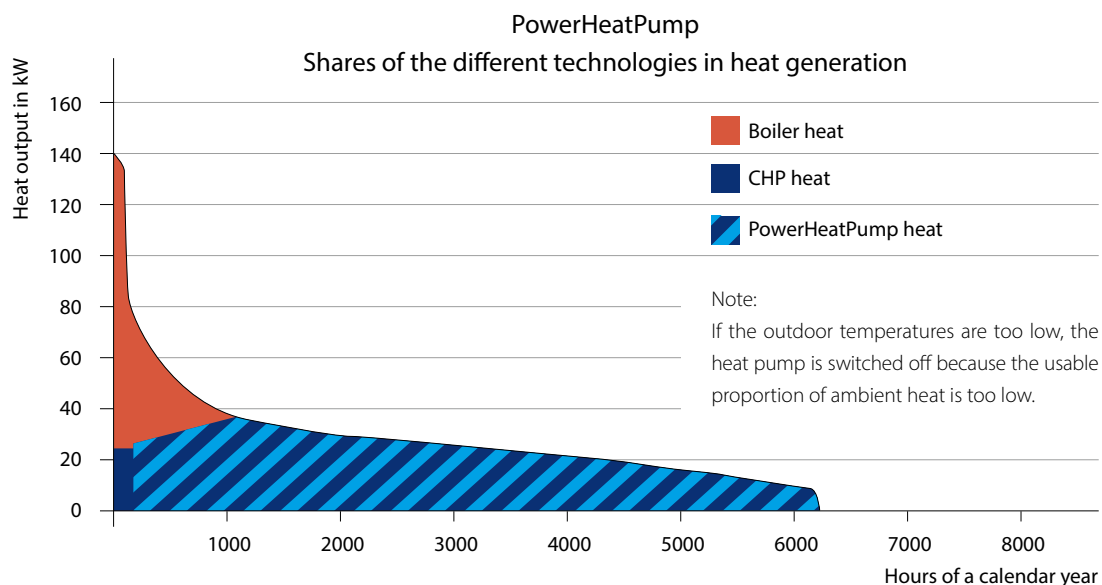
# Simple as standard

The operation of the PowerHeatPump is controlled by the standard XRGI® control, which ensures functionality and ease of operation. Projects already implemented with PowerHeatPumps, which have been successfully in use for years, prove the ease of installation and commissioning as well as their efficient operation.

## EXAMPLE FROM GERMANY: HEAT SUPPLY FOR A BUILDING WITH 30 APARTMENTS

An XRGI® 9 CHP unit and a heat pump with 14 kW nominal heat output were chosen for the PowerHeatPump. On particularly cold days, a condensing boiler replaces the heat pump's lack of heat generation due to its technology.

Compared to operation without the PowerHeatPump, the XRGI® CHP and heat pump can be dimensioned significantly smaller (an XRGI® 9 instead of an XRGI® 15 and a 14 kWth instead of a 43 kWth heat pump).



Compared to the sole operation of a CHP or heat pump, the PowerHeatPump has the following savings potential (Berlin prices, standard consumption, calculation according to Building Energy Act Annex 8 and according to VDI 2067, all as of 01.10.2022):

Gas savings 33% (= 77 MWh/a)  
compared to the heat supply with the  
XRGI® 15 CHP and condensing boiler



Corresponds to an annual consumption of  
5 detached houses with 4 people.

Cost saving 27% (= EUR 6,600/a) and reduction of  
greenhouse gas emissions 52% (= 13.1 t CO<sub>2</sub> eq/a)  
compared to the heat supply with 43 kWth heat  
pump and condensing boiler



Corresponds to the emissions of a  
mid-size diesel car over 73,000 km

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Since EC POWER was founded a quarter of a century ago, we have been closely associated with the industry. As partners on an equal footing, specialist companies throughout Europe provide competent advice, sales and service for our products. For us, this cooperation is more than a business relationship - it is the mainstay of our success.

Thanks to this Europe-wide, specialised EC POWER partner network and our comprehensive factory customer service, a competent contact is available everywhere, at all times and for every concern.

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