Modern living
with Welltherm infrared heating systems

welltherm®

Info:

1 | Infrared heater: Powder-coated metal panel – white with a fine texture
Size: 120 cm x 120 cm • Output: 1,410 W

2 | Infrared heater: Glass – mirror panel heater
Size: 90 cm x 60 cm • Output: 580 W

3 | Wireless thermostat: DE • Programmable

4 | Infrared heater: Powder-coated metal panel – white with a fine texture
Size: 150 cm x 75 cm • Output: 1,210 W

5 | Infrared heater: Glass – picture panels
3 panels, 60 cm x 60 cm • Output: 1,110 W

6 | Infrared heater: Glass – blackboard heater panel
Size: 150 cm x 60 cm • Output: 930 W

7 | Infrared heater: Powder-coated metal panel – white with a fine texture
Size: 150 cm x 75 cm • Output: 1,210 W

A | Photovoltaic (PV) system installed on roof

B | Hot water heat pump fed by the PV system

C | Inverter for converting the direct current output from the PV system into alternating current

D | Power store for storing the power generated by the PV system

E | Meter cabinet – the interface between the energy supplier and the home.

2019
EnEV
KONFORME BERECHNUNG
100%

All of our customised advice concerning new heating systems based on Welltherm infrared heaters complies with the **German Energy Saving Ordinance (EnEV).**

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Cost comparison of common heating systems

The number of different heating systems available for new builds has drastically increased over recent years. These systems range from ever-popular gas condensing technologies to pellet heaters, air-water heat pumps and efficient infrared heating systems. All of these heating systems are potentially suitable for heating a modern house insulated in compliance with the KfW specifications and keeping the interior comfortably warm.

However, the costs involved might be a slightly different matter. Establishing the total cost of a heating system that takes into account not only the purchase price but also the system's operating cost over its entire lifetime is generally beyond most end consumers, mostly due to a lack of concrete figures or empirical values. That is why we have created a cost comparison to allow you to directly compare the costs involved in an infrared heating system with those of other systems.

This comparison is based on the example of a 120-square metre house built to KfW standards. All of the above prices have been established and calculated with great care. However, we nevertheless cannot assume any liability for the accuracy of these prices. The electricity (€ 0.24 per kWh) and gas prices (€ 0.05 per kWh) were established in February 2019. All of the prices shown are non-binding gross prices and are not associated with any legal obligations on our part. The one-off costs for the infrared heating system comprise € 7,072 for the heating panels and € 1,056 for the control system.

Annual costs – p.a.	**Infrared heat**	Gas heating	Air-water heat pump	Pellet heating
Energy requirement (gas/electricity)	3.805 kWh	8.860 kWh	2.254 kWh	2.133 kWh
Operating costs (gas/electricity)	913,20 €	443,00 €	540,96 €	507,00 €
Cost of operating ancillary devices	0,00 €	70,00 €	50,00 €	40,00 €
Maintenance costs	0,00 €	200,00 €	200,00 €	230,00 €
Chimney sweep costs	0,00 €	60,00 €	0,00 €	120,00 €
Repair costs	80,00 €	204,00 €	210,00 €	124,00 €
1) Total operating costs – p.a.	**993,20 €**	**977,00 €**	**1.000,96 €**	**1.021,00 €**
One-off investment costs	8.128,00 €	18.655,00 €	23.232,00 €	29.089,00 €
One-off house connection costs	0,00 €	2.500,00 €	0,00 €	0,00 €
Total one-off costs	8.128,00 €	21.155,00 €	23.232,00 €	29.089,00 €
2) One-off costs spread over 20 years operating life – p.a.	**406,40 €**	**1.057,75 €**	**1.161,60 €**	**1.454,45 €**
Total comprising the operating costs and th one-off costs spread over the operating life (1+2) – p.a.	**1.399,60 €**	**2.034,75 €**	**2.162,56 €**	**2.475,45 €**

Conclusion: The most cost effective way to heat modern buildings, which need a lot less energy to heat than houses built 20 or 30 years ago, is with infrared heat – i.e. with electricity! **The fact that all of the other systems involve higher initial investment costs means that infrared heating is a lot more affordable from day one.** It also means that you won't be spending decades paying off your initial investment and that you can start saving straight away!

In our cost comparison, infrared heat comes out the clear winner even if there is no PV system involved. However, installing a PV system is still worthwhile, because this is the only way to ensure that your heating costs will be largely unaffected by future energy cost increases, which will affect all types of heating systems in the same way.