



DIGEL HEAT Info. sheet for Ecodesign Directive 2009/125/EC

Summarized for you

Since January 1, 2018, electric space heaters with a nominal output of over 250 watts must always be sold alongside certain control components in order to meet the legal requirements.

The EU Ecodesign Directive 2009/125/EC thus creates a Europe-wide legal framework for specifying requirements for the environmentally friendly design of energy-related products. This means that new regulations apply to manufacturers and dealers, in particular with regard to product information and the annual utilization of electrical space heaters.

In this context, infrared heaters were also recorded and regulated. Regulation 2015/1188 defines the permissible framework conditions for the operation of infrared heaters as individual room heating as part of the Ecodesign Directive.

What is the aim of the regulation?

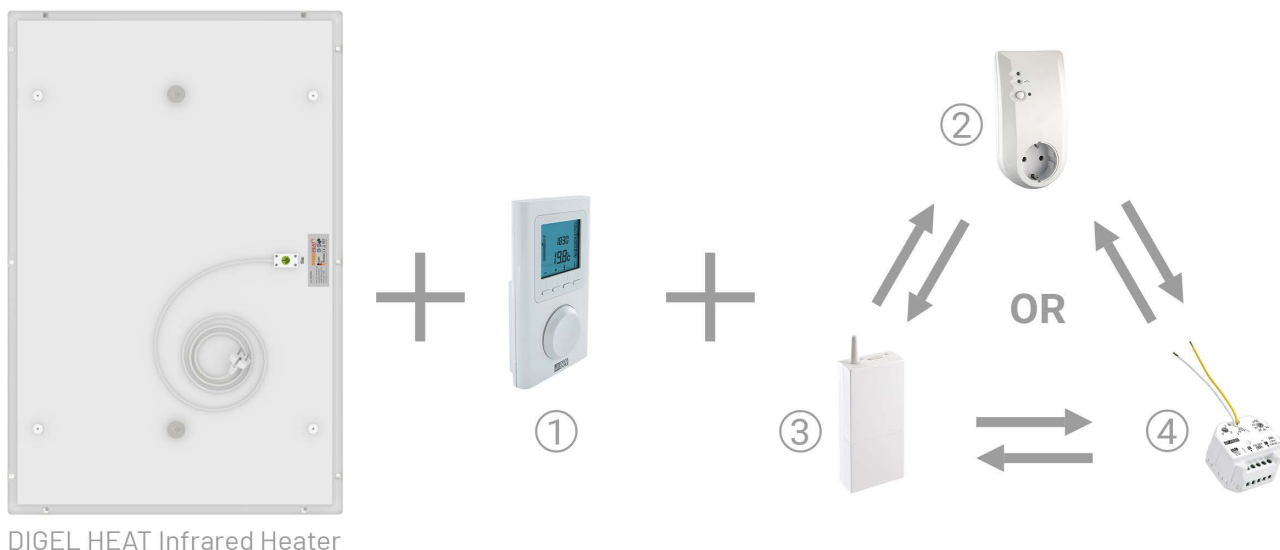
Consumers are to be supported in reducing the energy consumption of electrical space heaters and thus reducing CO₂ emissions. Electric space heaters, including infrared heating, are considered energy consumption-related products that have significant energy savings potential.

The sale of individual infrared heaters has no longer been permitted across the EU since January 1, 2018. Legislators would like to promote the efficient use of infrared heaters and to avoid wasting energy. Digel Stictech GmbH & Co. KG as manufacturer of the DIGEL HEAT infrared heaters sees itself as a pioneer of future-proof heating solutions and welcomes this sensible environmental regulation.

Directive: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0125>

DIGEL HEAT Infrared Heaters and Control Components

To help you make sense of it all, we put together a simple overview for you. Here you can see with which combination of control components you are in compliance with the directive:



DIGEL HEAT Infrared Heater

1. Art. no.: 7729936 – Radio thermostat, programmable with adaptive start control
2. Art. no.: 7729977 – Radio outlet receiver
3. Art. no.: 7729997 – Radio receiver for fixed connection (surface-mounted)
4. Art. no.: 7729974 – Radio receiver for fixed connection (flush-mounted)

Optional: For supplementing and improving annual heating efficiency:

- Art. no.: 6412305 – Radio window opening detector
- Art. no.: 6700106 – Central control TYDOM Home (for control via app)

We are there for you and would be happy to assist you!

Our infrared experts would be happy to advise you in selecting the right control options. You can find detailed information about our products and control components on our website:

www.digel-heat.com.

Basis of Calculation for Stationary Electric Space Heaters

In Brussels, the annual space heating efficiency (η_s) was worked out, which is to be determined for each electric space heater.

According to Annex II, point 1 of the Regulation 2015/1188, the annual heating efficiency of individual stationary electric space heaters with a nominal heat output of more than 250 W must be at least 38% – below 250 W nominal heat output at least 34%.

How is the annual space heating efficiency (η_s) calculated?

The formula is: $\eta_s = 30\% + F(1) + F(2) + F(3) - F(4) - F(5)$

Infrared heaters have a base value of 30%. "F(1)" to "F(5)" are what are known as correction factors, of which only "F(2)" and "F(3)" are relevant for infrared heating.

As can be seen from the tables in the regulation on the "F(2)" correction factor, the following individual values are to be included for individual stationary electric space heating systems (values are mutually exclusive and cannot be added together):

- Mechanical thermostat: + 1%
- Electronic thermostat: + 3%
- Electronic thermostat with daily timer: + 5%
- Electronic thermostat with weekly timer: +7%

The "F(3)" correction factor must be included as follows (values can be added together):

- With remote control option: +1%
- Room temperature control with detection of open windows: + 1%
- With adaptive start control function: + 1%

Important note: Intelligent control is part of infrared heating.

At DIGEL HEAT, intelligent control is always part of it. This is the only way to ensure the efficient use of infrared heaters.

Conclusion and Example Calculation

A maximum value of 39% can therefore be achieved. You can already achieve the required 38% with the control components shown in our overview graphic (infrared heating + radio thermostat + radio receiver).

DIGEL HEAT infrared heating	30%
+ Electronic thermostat with weekly timer	7%
+ With the "adaptive start control" function	1%
= Result:	38%

In order to reach the maximum value of 39%, you also need the radio window opening detector.

DIGEL HEAT infrared heating	30%
+ Electronic thermostat with weekly timer	7%
+ With the "adaptive start control" function	1%
+ Radio window opening detector	1%
= Result:	39%

With DIGEL HEAT infrared heaters, you're relying on quality products made in Germany. Our products are continuously being developed and optimized! In addition, you can always rely on the best service and all of our expertise, as well as our sales network!



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