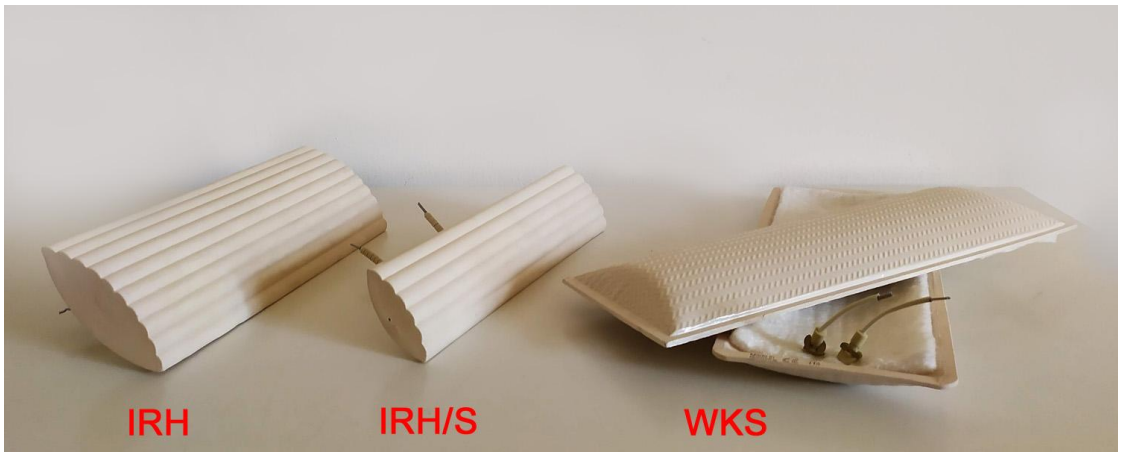
IRRADIATORI CERAMICI
ELSTEIN PER SAUNE



Il costruttore tedesco ELSTEIN creatore degli irradiatori infrarossi ceramici e leader nella qualità dei prodotti ha realizzato modelli appositi per applicazione nelle saune, con dimensioni irradiatore varie fino a 120x327 mm e disponibili in varie potenze. Sono previsti anche irradiatori con termocoppia incorporata per la regolazione della temperatura. Gli irradiatori per saune ELSTEIN non emettono radiazioni luminose e sono stati creati avendo presenti criteri di risparmio energetico ed estetica piacevole.
La tensione di alimentazione standard per tutti i tipi è 230V.

Esempi di applicazioni di irradiatori realizzate da costruttori di saune (il progetto e la costruzione della sauna non sono di ns. fornitura)

Noi non siamo costruttori di saune; possiamo fornire i seguenti componenti:

- gli irradiatori sciolti o con eventuali riflettori, con e senza cablaggio
- materiali speciali per cablaggio in alta temperatura: morsetti in steatite e acciaio inox, sbarrette inox, cavi per alta temperatura (350°C), capicorda inox, ecc
- sistemi di controllo e regolazione

ORIONE DI BISTULFI srl - Via Moscova, 27 - 20121 MILANO
tel: 026596553-4 Fax: 026595968
info@orionesrl.it - www.orionesrl.it

Infrared sauna radiator

WKS

Fig. 1: Elstein WKS infrared cabin radiator
Top: Front of the heater. Bottom: Rear.

Elstein WKS infrared sauna radiators are ceramic IR radiators, which have been developed for the requirements in IR cabins regarding material, geometry, function, design and mounting.

WKS radiators have a considerably extended radiation surface, which is designed flat and plano-convexly. Thus there is a five-times bigger primary radiation surface compared to heating systems with reflector.

Since WKS radiators are hold by a flat metal frame, the assembly of radiation fields is possible in any size on the cabin‘s wall. An insulation layer in the inner part of the heater increases the radiator‘s efficiency and limits the temperature on its back mounting surface.

Compared to cabins, which are equipped with heating foils, there is a much improved ratio between radiation surface and radiator‘s temperature, so that the heating of the user is done mainly by infrared radiation instead of convection.

Elstein WKS infrared sauna radiators are available with a power of 200 W and 250 W.

WKS

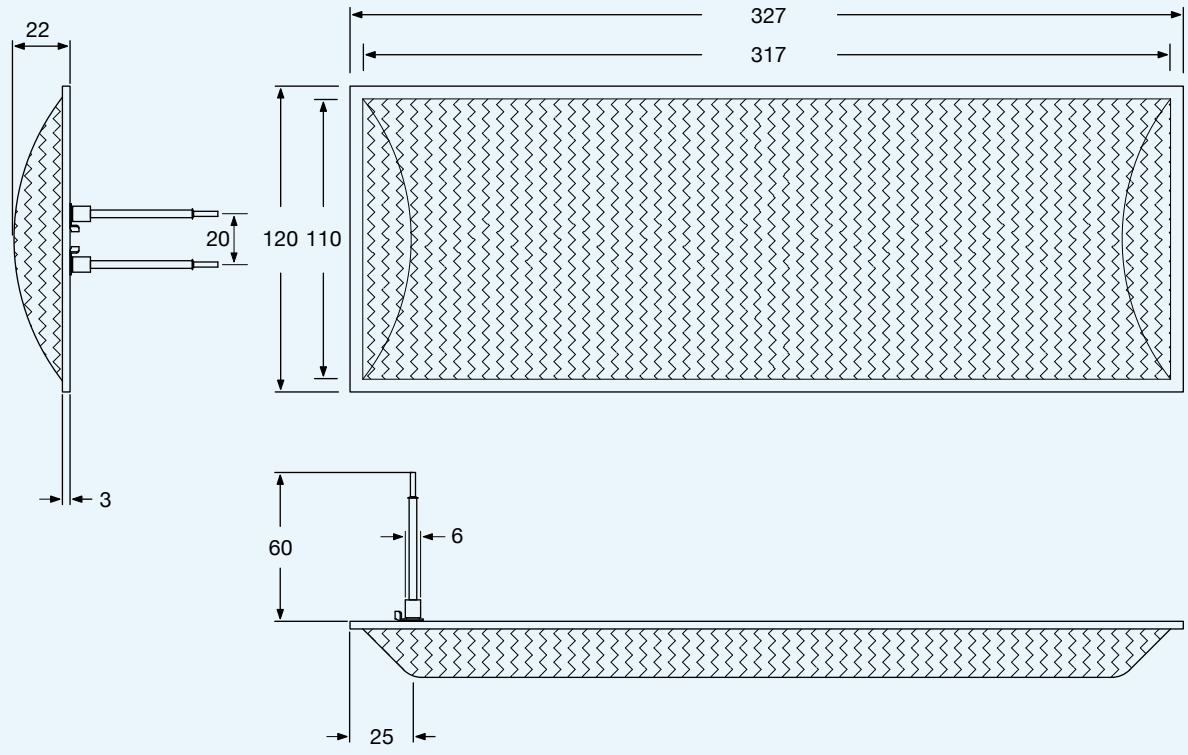


Figure 2: Radiator dimensions in mm

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tel: 02.6596553
info@orionesrl.it - www.orionesrl.it

WKS

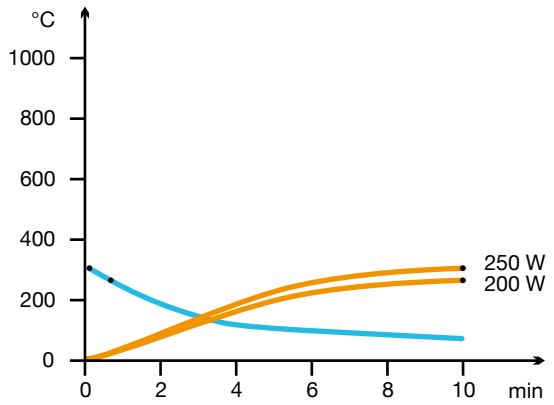

Fig. 3: Radiator temperatures
Heating-up: red curves
Cooling-down: blue curve

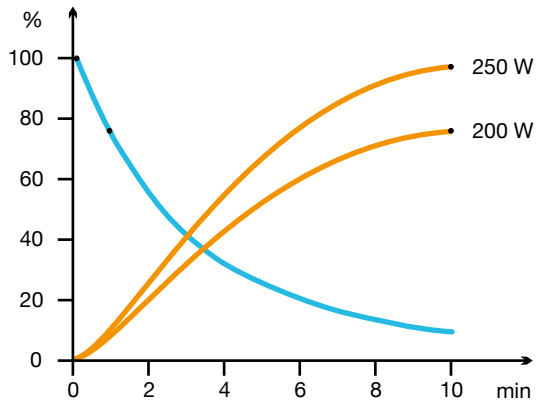

Fig. 4: Radiant powers
Heating-up: red curves
Cooling-down: blue curve

Type, weight, wattage WKS 260 g	200	250	W
Surface rating	5.6	7.0	kW/m²
Typical operating temperature	260	300	°C
Maximum permissible temperature	400	400	°C
Wavelength range	3 - 10		µm

Standard design	**Thermocouple radiators**	**Variants**
Operating voltage 230 V Ceramic full-pour casting White glaze Integrated thermal insulation Heater‘s back open Leads 60 mm Leads with insulating sleeve	Not available. For means of controlling output see below.	Special wattages Special voltages Extended leads Leads with ring terminals

The power can be controlled using proprietary power controllers of dimmers.

The national safety regulations must be complied with for the respective application, for example, the IEC or EN standard 60519-1 „Safety in electrical heating installations“, or the EN 60335 Part 2-53 „Special requirements for sauna heating devices and infrared saunas“.

Our instructions for mounting, operation and safety must be observed.

Infrared sauna radiator

IRH

Fig. 1: Elstein IRH infrared radiator. Picture on top and in the middle: front. Lower picture: back

Elstein IRH infrared radiators are ceramic radiators in biconvex design.

The radiating surface consists of ten small longish radiation surfaces, which are also designed in a convex shape.

Compared to IRH/S the radiating surface was enlarged by almost 60 %, which is more advantageous for the radiation distribution in the room.

Additionally also aesthetical requirements in the wellness sector are fulfilled in a particular way.

The thermally insulating inner space of IRH has a share in improving the radiator‘s efficiency.

When connected to 230 V the Elstein IRH infrared radiators are available in wattages of 200 W and 250 W.

Special wattages and voltages are available on request.

IRH

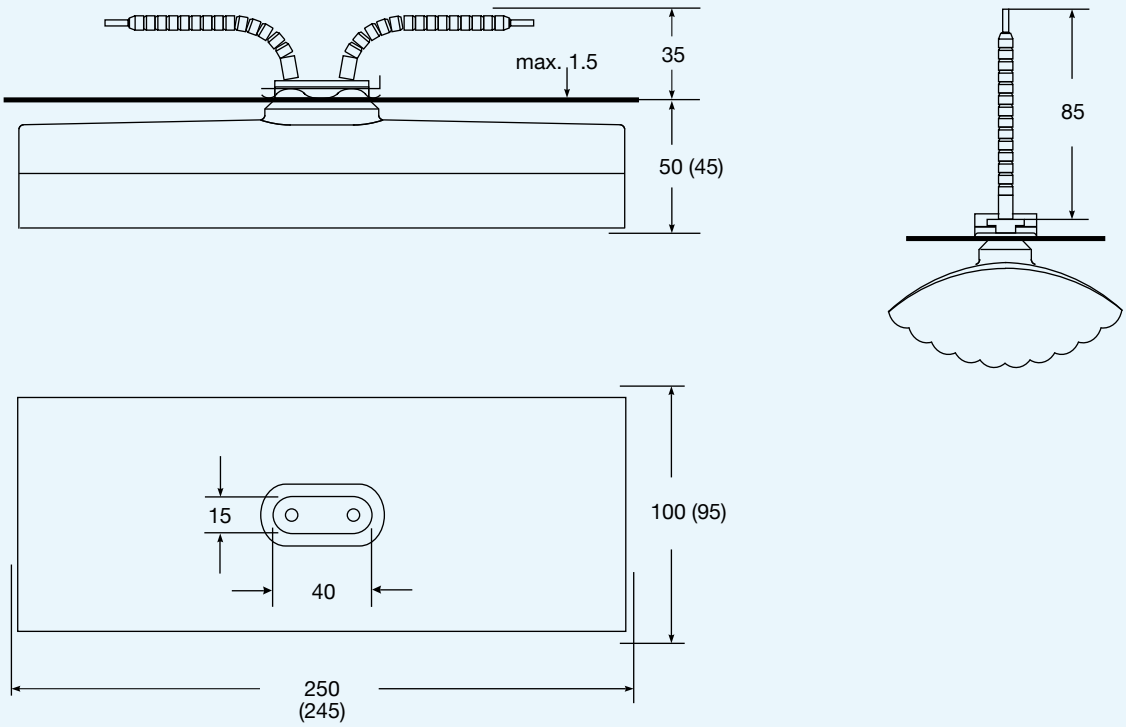

Figure 2: Mounting dimensions and radiator dimensions ( ) in mm

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Via Moscova 27 - 20121 Milano
tel: 02.6596553
info@orionesrl.it - www.orionesrl.it

IRH

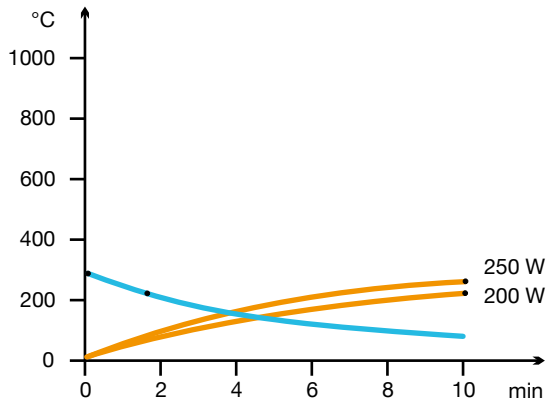

Fig. 3: Radiator temperatures
Heating-up: red curves
Cooling-down: blue curve

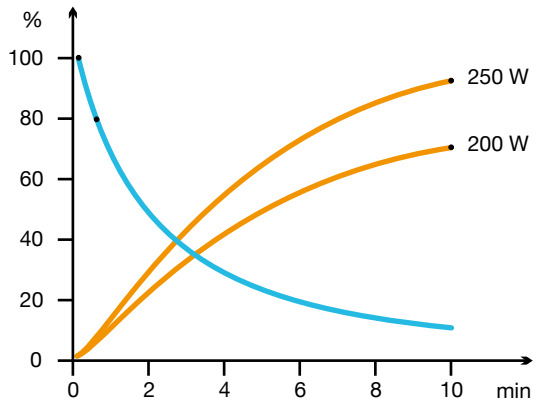

Fig. 4: Radiant powers
Heating-up: red curves
Cooling-down: blue curve

Type, weight, wattage IRH 330 g	200	250	W
Surface rating	8.0	9.6	kW/m²
Typical operating temperature	260	290	°C
Maximum permissible temperature	400	400	°C
Wavelength range	3 - 10		µm

Standard design

Operating voltage 230 V
Ceramic hollow casting
White glaze
Leads 85 mm
Elstein standard socket
Mounting set

Thermocouple radiators

Designation T-IRH
Integrated thermocouple
Type K (NiCr-Ni)
TC leads 100 mm

Variants

Special wattages
Special voltages
Extended leads
Leads with ring terminals

The power can be controlled using proprietary power controllers of dimmers.

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Infrared sauna radiator IRH/S

Fig. 1: Elstein IRH/S infrared radiator. Picture on top and in the middle: front. Lower picture: back

Elstein IRH/S infrared radiators are ceramic radiators. Their radiating surface is arranged in six small longish and convexly designed radiation surfaces. The whole radiation surface of IRH/S is also convexly designed with a white glaze.

Such model is more advantageous for the radiation distribution in the room. Additionally also aesthetical requirements in the wellness sector are fulfilled.

The IRH/S radiator is fixed to the reflector by using the Elstein standard socket. Due to this kind of fixing and also due to the outer dimensions of the radiator a relatively simple retro- or backfitting of existing systems is possible.

The thermally insulating inner space of IRH/S has a share in improving the radiator‘s efficiency.

When connected to 230 V the Elstein IRH/S infrared radiators are available in wattages of 150, 200 and 250 W.

Special wattages and voltages are available on request.

IRH/S

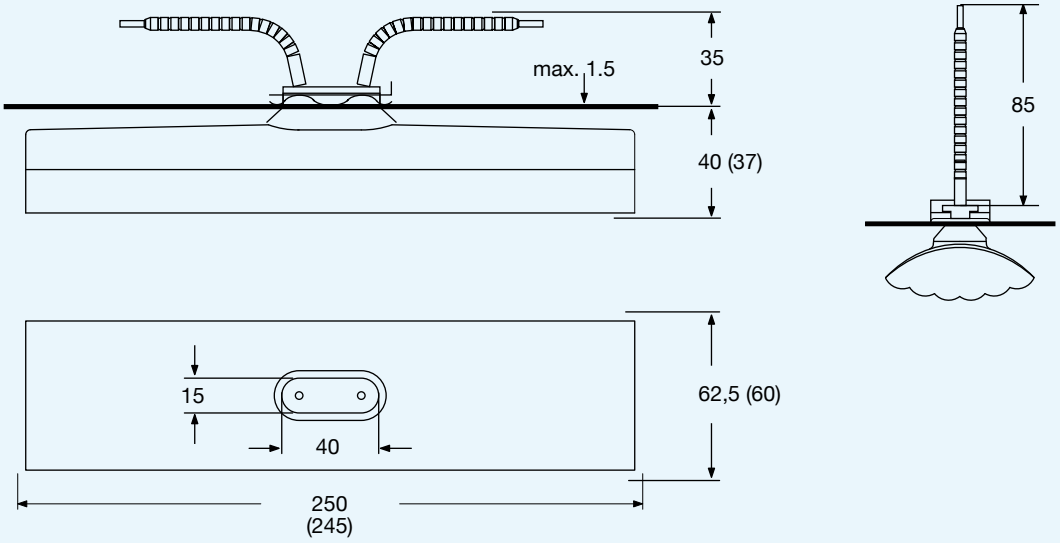

Figure 2: Mounting dimensions and radiator dimensions ( ) in mm

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IRH/S

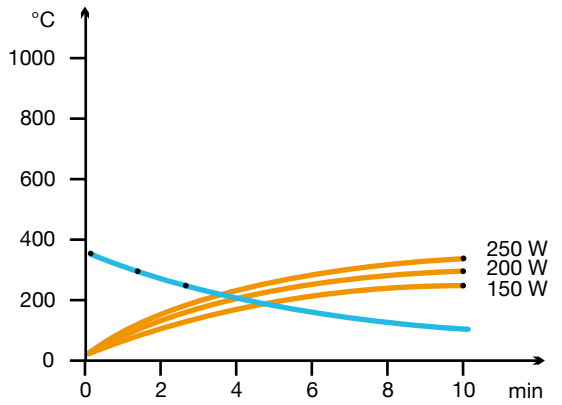

Fig. 3: Radiator temperatures
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Cooling-down: blue curve

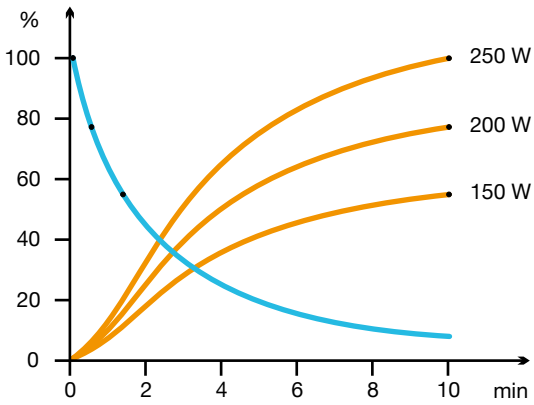


Fig. 4: Radiant powers
Heating-up: red curves
Cooling-down: blue curve

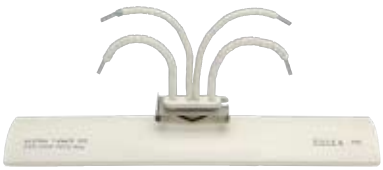
Type, weight, wattage IRH/S 220 g	150	200	250	W
Surface rating	9.6	12.8	16.0	kW/m²
Typical operating temperature	260	300	350	°C
Maximum permissible temperature	400	400	400	°C
Wavelength range	3 - 10			µm

Standard design

Operating voltage 230 V
Ceramic hollow casting
White glaze
Leads 85 mm
Elstein standard socket
Mounting set

Thermocouple radiators

Designation T-IRH/S
Integrated thermocouple
Type K (NiCr-Ni)
TC leads 100 mm



Variants

Special wattages
Special voltages
Extended leads
Leads with ring terminals

The power can be controlled using proprietary power controllers of dimmers.

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