

# PRACTICAL KNOWLEDGE GUIDE



## INFRARED HEATING

EVERYTHING YOU  
NEED TO KNOW!



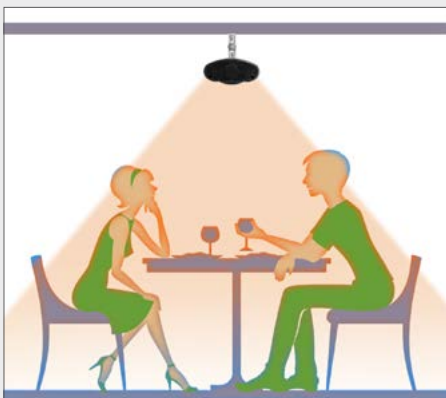


## ENJOYING FEEL-GOOD WARMTH ON THE **TERRACE** OR **BALCONY**.

Infrared radiation heats without preheating, noiselessly, odourlessly, without condensation and without raising dust. Therefore, it is also particularly recommended for allergy sufferers. Infrared radiant heaters are an excellent choice for distributing warmth on the terrace or balcony on cold days.



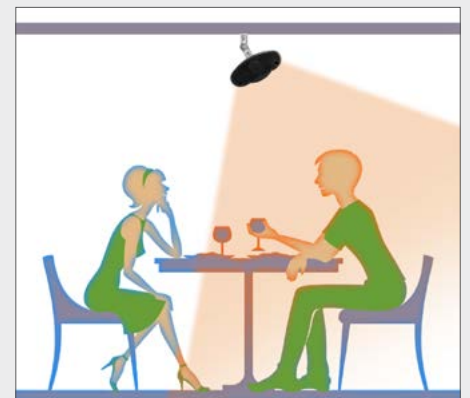
## INSTALLATION TIPS FOR INFRARED RADIANT HEATERS.



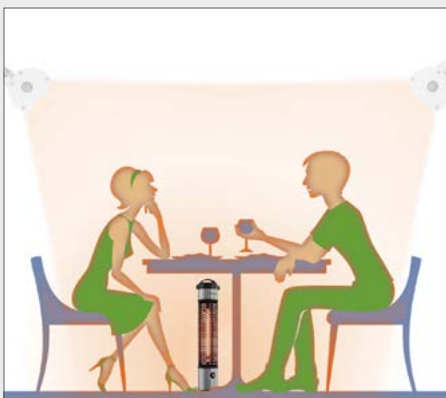
**1.** An infrared radiant ceiling heater warms you from above.



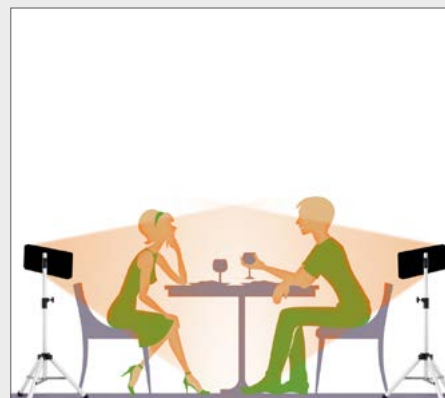
**2.** The higher the radiator hangs, the wider the heat cone. However, the heat energy is correspondingly lower.



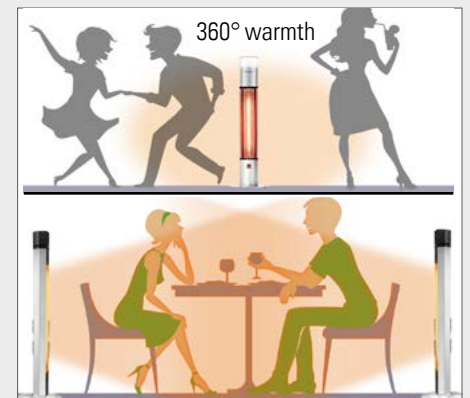
**3.** However, some areas may remain cool because they are not reached by the heat radiation.



**7.** To warm the legs and feet as well, we recommend placing an infrared pedestal radiant heater under the table.



**8.** As an alternative, several infrared radiant heaters positioned on tripods can be used.



**9.** Or you choose one or more terrace pedestal radiant heaters to provide targeted heat above and below the table.

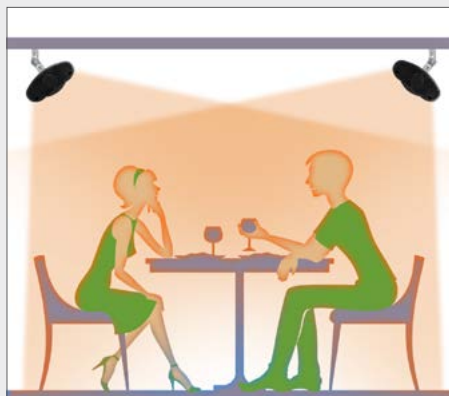
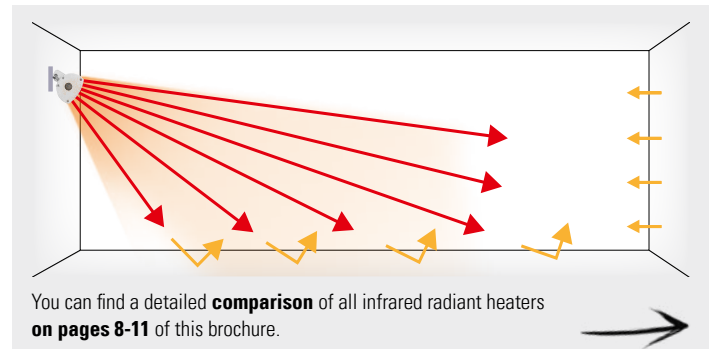
## Ideal for:

- Terrace / balcony
- Catering trade / events
- Holiday home outdoor areas
- Sauna or wellness outdoor areas
- Market stall

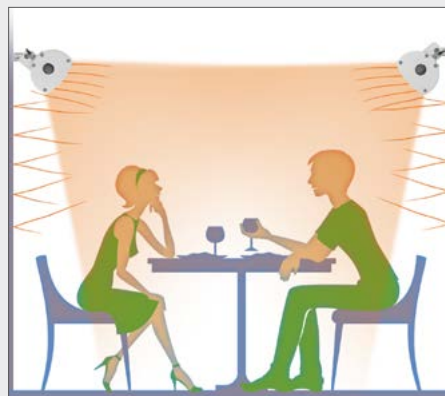


## HOW INFRARED HEATING WORKS

Infrared rays cannot heat up the room air directly but they heat up all objects inside the room, which will then permanently emit the stored thermal energy into the room, similar to a tiled stove. In contrast to conventional convection heating, this indirect heating method thus warms up objects instead of directly warming up the room air.



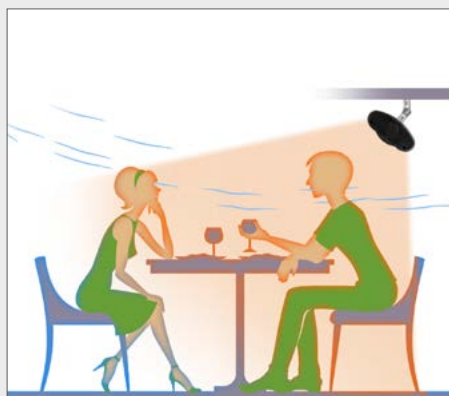
4. With two ceiling heaters, the heat radiation is distributed more evenly to both people.



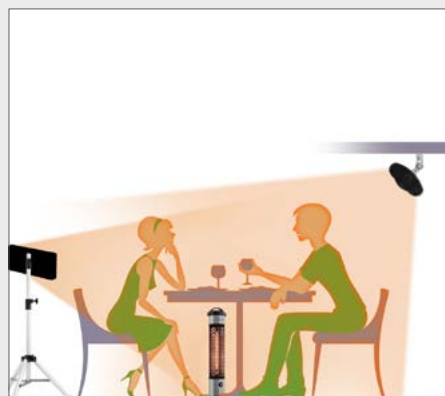
5. If infrared radiant heaters are mounted on a wall, the heat radiation is additionally reflected by the opposite walls.



6. However, it may still remain cool under the table.



10. Tip: At any rate make sure that you are in an area sheltered from the wind so that the cooling air movement does not counteract the warming effect.



11. Combine as needed. Just as your individual situation requires!



**Information video about infrared radiant heaters:** Here, we'll show you a selection of installation variants and assist you in your decision-making process for the desired light emission intensity. 3





## LOW-GLARE – HEAT WITH 80 % LESS LIGHT RADIATION.

Along with the heat radiation, infrared heaters also often emit light radiation. The environment is thus bathed in an orange-reddish light, which is perceived as warm and cosy by many people.

However, if it is important to you that your sophisticated lighting concept on the terrace or balcony is only slightly affected or not affected at all, then infrared heating sources with reduced light radiation or without any light emission are a good choice.



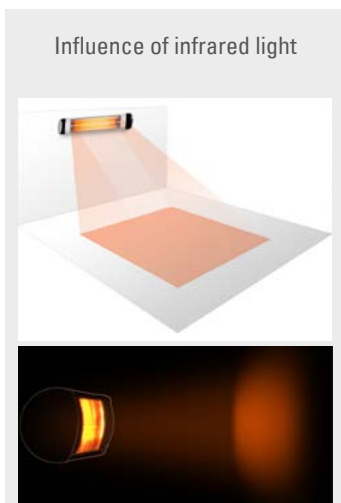
Lighting situation with infrared radiant heater



Reduced brightness due to LOW-GLARE technology



Without any influence of light



Enjoy the soothing warmth in a pleasant candle-light atmosphere with reduced light emission. The weatherproof low-glare radiant heaters can heat outdoor areas for private or commercial purposes with a high level of efficiency and cost-effectiveness. In doing so they hardly influence the existing lighting concept.

Low-glare shortwaves produce a larger portion of infrared light in the invisible range. The infrared radiation is further collimated by an innovative coating procedure that reduces the scattering loss.

Thanks to this technology Trotec radiant heaters achieve a light reduction of up to 80 % whilst lasting up to 6,000 operating hours.



### Important note!

The heating light tube of low-glare radiant heaters looks just as intensely orange as that of models without low-glare technology. However, the light actually emitted and visible is reduced by 80 %.



## Ideal for:

- Romantic candle-light dinners
- Terraces / balconies with their own lighting concept
- Catering trade
- Event locations

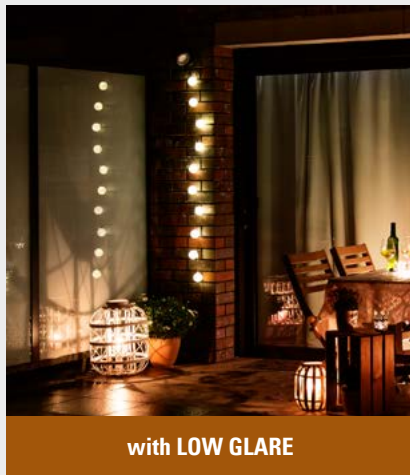


## Low-glare technology for candle-light atmosphere.

With low-glare technology, the orange-reddish light is no longer that bright, but instead, a cosy candle-light atmosphere is created.

## Feel-good warmth with low-glare technology

Find out about the radiant heaters IRS 2000 E, IR 2050 and IR 3050 with Low Glare technology in our product videos.



with LOW GLARE



normal



Product video  
IRS 2000 E



Product video  
IR 2050

Product video  
IR 3050



## IP55 AND IP65 TYPE OF PROTECTION - RAIN-PROOF AND DUST-PROTECTED.

Infrared radiant heaters are available in many different versions for indoor and outdoor use. An important criterion for device selection is whether or not your radiant heater may be exposed to water or plenty of dust at its site of assembly or installation.

If an infrared heating panel is mounted indoors, water or dust protection is not necessary. An infrared radiant heater installed on your terrace should be able to withstand occasional downpours. Heaters used in the workshop, however, should be protected against dust to a certain extent. IP24 and IP34 types of protection are sufficient for covered terraces.

The IP55 and IP65 types of protection promise that dust cannot enter the housing and that the radiant heater is protected against water jets from all sides.

The robust design also permits the installation on open balconies and terraces. Owing to their dust protection these radiant heaters can also be used in rooms or workshops with high dust concentrations.



You can find a detailed **comparison** of all infrared radiant heaters and their **protection classes** on **page 8 to 11**.





## Ideal for:

- Catering trade
- Design-oriented terrace areas
- Event locations
- Unaffected candle-light atmosphere



## IRD INFRARED RADIANT HEATER - THE STYLISH DESIGN SOLUTION **WITHOUT ANY LIGHT EMISSION.**



The high-quality and elegant IRD infrared radiant heaters from Trotec are recommended for architecturally sophisticated outdoor areas. The simple, minimalist aluminium design housing and the black radiation surface of the infrared radiant heaters blend unobtrusively and stylishly into any environment.

The existing ambient lighting and the light colour of the illuminants used are not affected. The skin tones of the people present are not

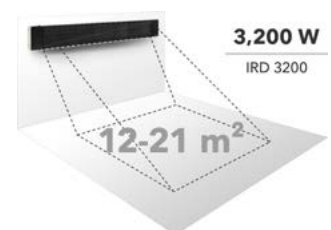
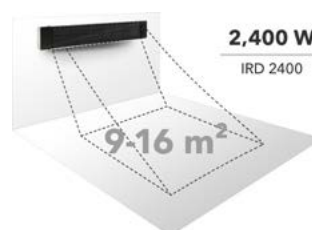
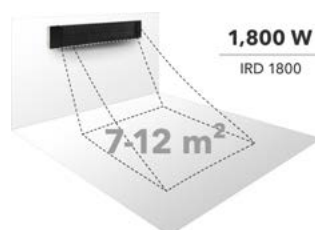
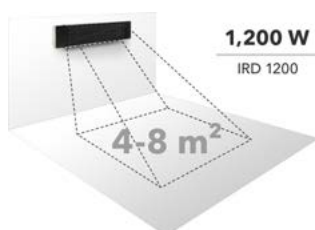
altered and appear completely natural. Such infrared radiant heaters can be mounted to the wall or ceiling and can supply very large areas with heat radiation, especially when several devices are used. Here too, however, you have to pay attention to an appropriate protection against the wind in order to prevent the cooling draught from neutralizing the effect of the heat radiation. A particularly convenient feature is that such infrared radiant heaters are maintenance-free as there are no illuminants to be replaced.



### Advantages of IRD infrared radiant heaters:

- High-quality materials are combined with excellent workmanship to produce such an appealing solution for outdoor areas sheltered from the wind
- No disturbing noises or distracting red light
- Universally applicable (suitable for outdoor installation: on terraces, balconies and roofed outdoor areas)
- Considerable cost reduction due to zero maintenance seeing as no illuminant needs to be replaced
- Protected against water jets from all directions as per IP55 type of protection

### Area heated by IRD infrared radiant heater in outdoor areas sheltered from the wind

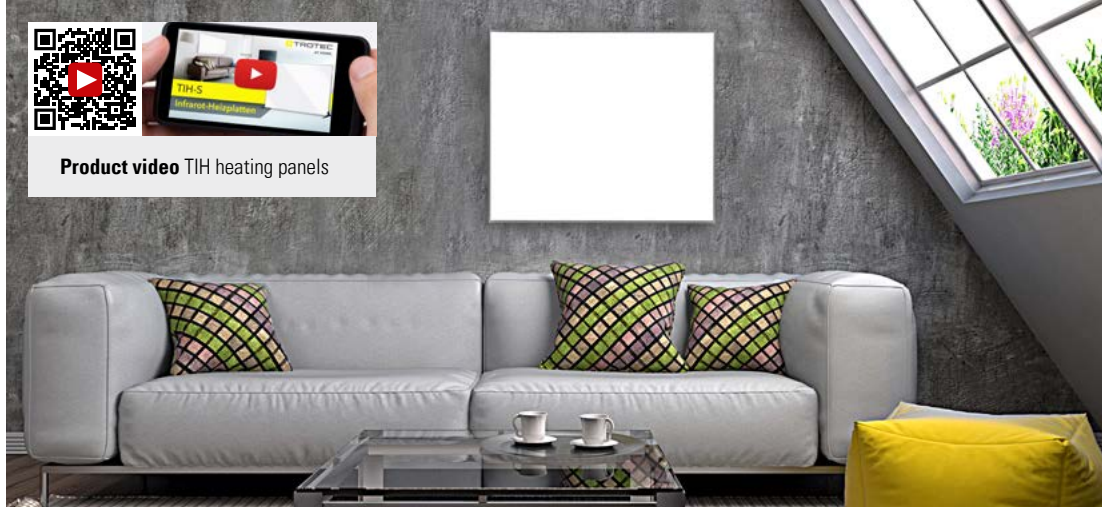


## Ideal for:

- Living rooms
- Work spaces
- Bathrooms
- Attics
- Holiday homes
- Workshops



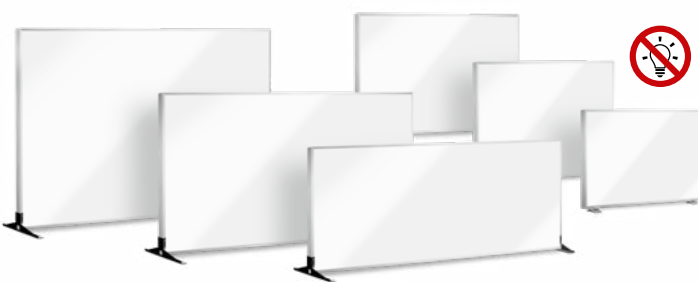
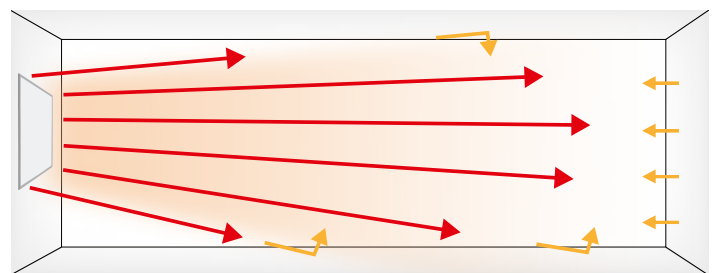
Product video TIH heating panels



## INFRARED HEATING PANELS FOR **INDOOR USE.**

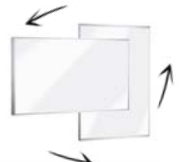
Infrared heating panels for indoor use emit pure heat radiation without emitting light. They can be attached to the wall like a picture, thus representing a space-saving and elegant heating solution for any room in different formats.

They can also be freely positioned on feet. However, since they are not weatherproof, they are only suitable for indoor use or use in safely covered and sheltered areas.



### Advantages of the infrared heating panels:

- Efficient heating procedure with environmentally friendly IR-C radiation
- Clean warmth – no noise, no odour, no condensate, no oxygen consumption, no unpleasant dust circulation
- Maximum efficiency: 100 % of the electrical energy input is converted into heat output
- Integrated suspension device for mounting on a wall or on assembly supports, feet optionally available



### Accessories for infrared heating panels



Feet for TIH 300 S and TIH 400 S



Feet for TIH 500 S and TIH 1100 S



Assembly support for fastening clamps



Socket thermostat BN30




Radio thermostat with timer BN35



# OVERVIEW:

## ALL INFRARED RADIANT HEATERS IN DIRECT COMPARISON

Model	Heating capacity	for areas up to approx.	Mounting	Low Glare	Type of protection	Remote control	Dimensions	
<b>Wall-mounted radiant heaters</b> Infrared radiant heaters of the IR-S series								
	<b>IR 1200 S</b>	<b>1,200 W</b> 2 stages	<b>5 - 8 m<sup>2</sup></b>	Wall	—	IP24	—	Width: <b>53.8 cm</b> Height: <b>13.5 cm</b>
	<b>IR 2000 S</b>	<b>2,000 W</b> 3 stages	<b>8 - 14 m<sup>2</sup></b>	Wall Tripod	—	IP34	—	Width: <b>50 cm</b> Height: <b>37 cm</b>
	<b>IR 2010 S</b>	<b>2,000 W</b> 3 stages	<b>8 - 14 m<sup>2</sup></b>	Wall Tripod	—	IP34		Width: <b>73.5 cm</b> Height: <b>15.5 cm</b>
	<b>IR 2570 S</b>	<b>2,500 W</b> 3 stages	<b>10 - 17 m<sup>2</sup></b>	Wall Tripod	—	IP34		Width: <b>90 cm</b> Height: <b>20 cm</b>
<b>Wall-mounted radiant heaters</b> Infrared radiant heaters of the IR series								
	<b>IR 2001</b>	<b>2,000 W</b> 1 stage	<b>8 - 14 m<sup>2</sup></b>	Wall Ceiling	<b>-80%</b> less light	IP65 <b>rain-proof</b>	—	Width: <b>46 cm</b> Height: <b>19 cm</b>
	<b>IR 2005</b>	<b>2,000 W</b> 4 stages	<b>8 - 14 m<sup>2</sup></b>	Wall Ceiling Tripod	<b>-80%</b> less light	IP55 <b>rain-proof</b>		Width: <b>90 cm</b> Height: <b>17.5 cm</b>
	<b>IR 2050</b>	<b>2,000 W</b> 3 stages	<b>8 - 14 m<sup>2</sup></b>	Wall	<b>-80%</b> less light	IP65 <b>rain-proof</b>		Width: <b>63 cm</b> Height: <b>10.5 cm</b>
	<b>IR 2200</b>	<b>2,200 W</b> 2 stages	<b>9 - 15 m<sup>2</sup></b>	Wall Ceiling	<b>-80%</b> less light	IPX0		Width: <b>103.9 cm</b> Height: <b>7.8 cm</b>
	<b>IR 2400</b>	<b>2,400 W</b> 2 stages	<b>10 - 16 m<sup>2</sup></b>	Wall	—	IP55 <b>rain-proof</b>		Width: <b>71 cm</b> Height: <b>26 cm</b>
	<b>IR 3050</b>	<b>3,000 W</b> 3 stages	<b>12 - 20 m<sup>2</sup></b>	Wall	<b>-80%</b> less light	IP65 <b>rain-proof</b>		Width: <b>96 cm</b> Height: <b>10.5 cm</b>



Model	Heating capacity	for areas up to approx.	Mounting	LED illumination	Type of protection	Remote control	Dimensions
<b>Radiant ceiling heaters</b> Infrared radiant heaters of the IR-SC series and IR-C series							
	<b>IR 1500 SC</b>	<b>1,500 W</b> 3 stages	<b>10 m<sup>2</sup></b>	Ceiling	—	IP34	 <b>Ø 42 cm</b>
	<b>IR 1510 SC</b>	<b>1,500 W</b> 3 stages	<b>10 m<sup>2</sup></b>	Ceiling	—	IP34	 <b>Ø 42.5 cm</b>
	<b>IR 1550 SC</b>	<b>1,500 W</b> 3 stages	<b>10 m<sup>2</sup></b>	Ceiling	<b>LED light</b>	IP24	 <b>Ø 45 cm</b>
	<b>IR 2000 SC</b>	<b>2,000 W</b> 3 stages	<b>15 m<sup>2</sup></b>	Ceiling	—	IP34	 <b>Ø 60.5 cm</b>
	<b>IR 2005 SC</b>	<b>2,000 W</b> 3 stages	<b>15 m<sup>2</sup></b>	Parasol rods Ø 2.5 – 6 cm	—	IP34	— <b>Ø 90 cm</b>
	<b>IR 2010 SC</b>	<b>2,000 W</b> 1 stage	<b>15 m<sup>2</sup></b>	Ceiling	<b>LED light</b>	IP45 <b>rain-proof</b>	 <b>Ø 46 cm</b>
	<b>IR 2000 C</b>	<b>2,000 W</b> 2 stages	<b>15 m<sup>2</sup></b>	Ceiling	<b>LED light</b>	IP55 <b>rain-proof</b>	 <b>Width: 69 cm</b> <b>Height: 11 cm</b>

Model		Heating capacity	Heat distribution	LED illumination	Low Glare	Type of protection	Remote control	Dimensions	
<b>Pedestal radiant heaters Infrared radiant heaters of the IRS-E series</b>									
		<b>IRS 1200 E</b>	<b>1,200 W</b> 1 stage	<b>360°</b> all-round warmth	—	<b>-80%</b> less light	IP55 <b>rain-proof</b>	—	Height: <b>65 cm</b>
		<b>IRS 1500 E</b>	<b>1,500 W</b> 1 stage	<b>360°</b> all-round warmth	<b>LED light</b>	<b>-80%</b> less light	IP55 <b>rain-proof</b>		Height: <b>110 cm</b>
		<b>IRS 2000 E</b>	<b>2,000 W</b> 3 stages	Warmth <b>to one side</b>	—	<b>-80%</b> less light	IP34		Height: <b>100 cm</b>
		<b>IRS 2010 E</b>	<b>2,000 W</b> 2 stages	Warmth <b>to one side</b>	—	<b>-80%</b> less light	IP44		Height: <b>106.5 cm</b>
		<b>IRS 2050 E</b>	<b>2,000 W</b> 9 stages	<b>45°</b> oscillation	—	—	IP25 <b>rain-proof</b>		Height: <b>100 cm</b>
<b>Pedestal radiant heaters Infrared radiant heaters of the IRS series</b>									
		<b>IRS 2005</b>	<b>2,000 W</b> 3 stages	<b>360°</b> all-round warmth	—	—	IP34	—	Height: <b>210 cm</b>
		<b>IRS 2010</b>	<b>2,000 W</b> 2 stages	Warmth <b>to two sides</b>	<b>LED light</b>	—	IP55 <b>rain-proof</b>		Adjustable in height from <b>180 cm</b> to <b>220 cm</b>
		<b>IRS 2020</b>	<b>2,000 W</b> 2 stages	<b>360°</b> all-round warmth	—	—	IP34	—	Adjustable in height from <b>194 cm</b> to <b>209 cm</b>
		<b>IRS 2110</b>	<b>2,100 W</b> 3 stages	<b>360°</b> all-round warmth	<b>LED light</b>	—	IP45 <b>rain-proof</b>		Adjustable in height from <b>190 cm</b> to <b>220 cm</b>
		<b>IRS 2520</b>	<b>2,500 W</b> 2 stages	<b>360°</b> all-round warmth	—	—	IP34	—	Height: <b>188 cm</b>
		<b>IRS 3020</b>	<b>3,000 W</b> 2 stages	<b>360°</b> all-round warmth	—	—	IP34	—	Height: <b>190 cm</b>





**WITHOUT ANY LIGHT EMISSION**

**OVERVIEW: ALL INFRARED RADIANT HEATERS IN DIRECT COMPARISON**

Model	Heating capacity	for areas up to approx.	Mounting	Low Glare	Type of protection	Remote control	Dimensions
<b>Infrared radiant heaters    Infrared radiant heaters of the IRD series</b>							
	<b>IRD 1200</b>	<b>1,200 W</b> 3 stages	<b>4-8 m<sup>2</sup></b>	Wall Ceiling	<b>No</b> light emission	IP55 <b>rain-proof</b>	 Width: <b>93 cm</b> Height: <b>20 cm</b>
	<b>IRD 1800</b>	<b>1,800 W</b> 3 stages	<b>7-12 m<sup>2</sup></b>	Wall Ceiling	<b>No</b> light emission	IP55 <b>rain-proof</b>	 Width: <b>119.5 cm</b> Height: <b>20 cm</b>
	<b>IRD 2400</b>	<b>2,400 W</b> 3 stages	<b>9-16 m<sup>2</sup></b>	Wall Ceiling	<b>No</b> light emission	IP55 <b>rain-proof</b>	 Width: <b>146 cm</b> Height: <b>20 cm</b>
	<b>IRD 3200</b>	<b>3,200 W</b> 3 stages	<b>12-21 m<sup>2</sup></b>	Wall Ceiling	<b>No</b> light emission	IP55 <b>rain-proof</b>	 Width: <b>181.5 cm</b> Height: <b>20 cm</b>
<b>Heating panels    Infrared heating panels of the TIH-S series</b>							
	<b>TIH 300 S</b>	<b>300 W</b> 1 stage	<b>6 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>60.5 cm</b> Height: <b>50.5 cm</b>
	<b>TIH 400 S</b>	<b>450 W</b> 1 stage	<b>9 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>70.5 cm</b> Height: <b>60.5 cm</b>
	<b>TIH 500 S</b>	<b>580 W</b> 1 stage	<b>10 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>90.5 cm</b> Height: <b>60.5 cm</b>
	<b>TIH 700 S</b>	<b>700 W</b> 1 stage	<b>15 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>120.5 cm</b> Height: <b>60.5 cm</b>
	<b>TIH 900 S</b>	<b>900 W</b> 1 stage	<b>18 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>120.5 cm</b> Height: <b>75.5 cm</b>
	<b>TIH 1100 S</b>	<b>1,100 W</b> 1 stage	<b>22 m<sup>2</sup></b>	Wall optionally with feet	<b>No</b> light emission	IP54	 Width: <b>120.5 cm</b> Height: <b>90.5 cm</b>

## Trotec GmbH

Grebbeener Straße 7  
52525 Heinsberg  
Germany

Reception: +49 2452 962-0  
Fax: +49 2452 962-200

info@trotec.com  
www.trotec.com

### **The right infrared radiant heater for every demand**

Whether as a heat source on the terrace, the balcony or in outdoor catering areas - the infrared radiators from Trotec provide pleasant and targeted heat distribution in (roofed) outdoor areas.

The infrared radiant heaters supply comfortable radiant heat without long preheating times. They are odourless and noiseless compared to alternative heating solutions with hot air blower.

With this guidebook, you will find the right infrared radiant heater for your specific application.

