

PRACTICAL KNOWLEDGE GUIDE



INFRARED HEATING

EVERYTHING YOU
NEED TO KNOW!

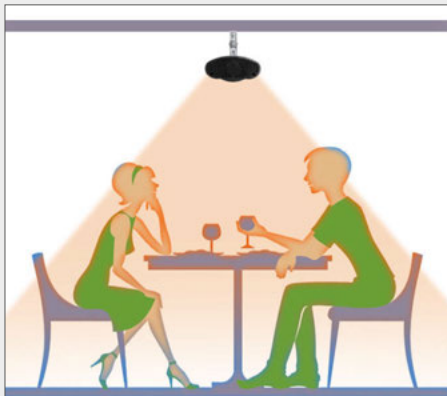


ENJOYING FEEL-GOOD WARMTH ON THE **TERRACE** OR **BALCONY**.

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.



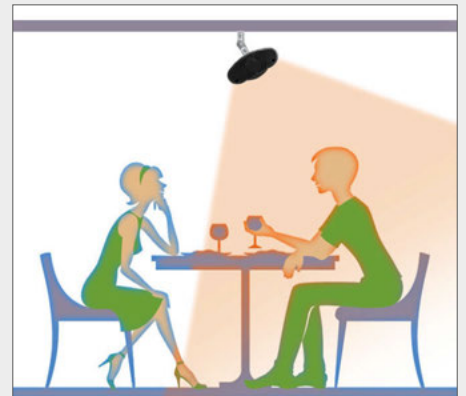
INSTALLATION TIPS FOR INFRARED RADIANT HEATERS.



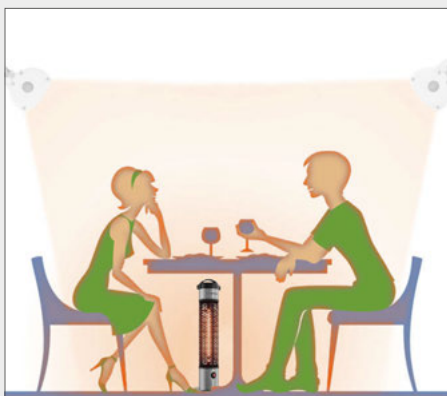
1. An infrared radiant ceiling heater warms you from above.



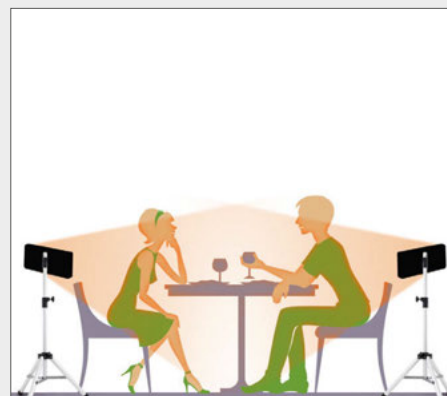
2. The higher the radiator hangs, the wider the heat cone. However, the heat energy is correspondingly lower.



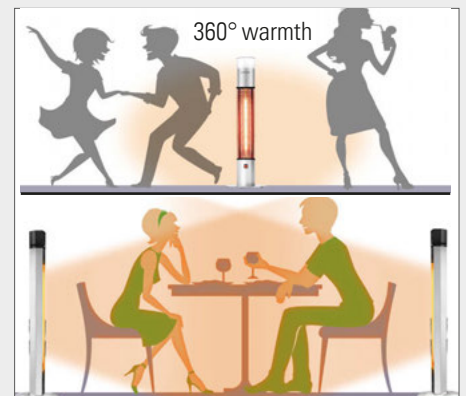
3. However, some areas may remain cool because they are not reached by the heat radiation.



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.

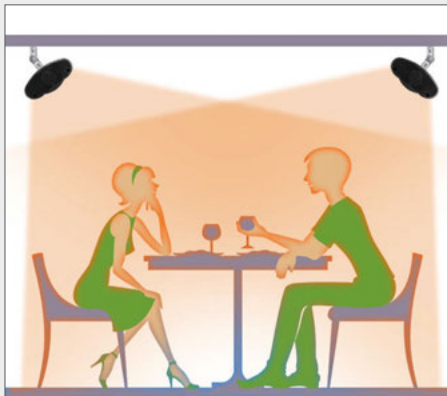
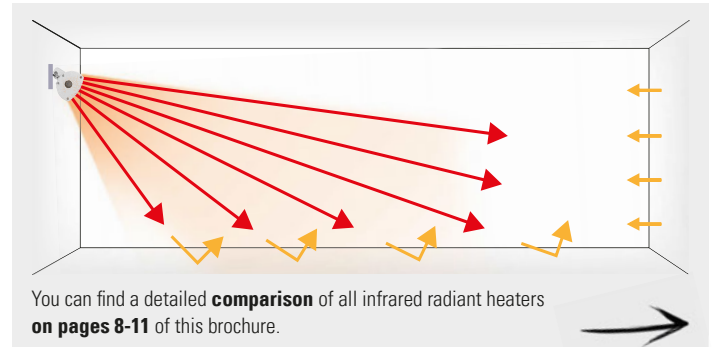
Ideal for:

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

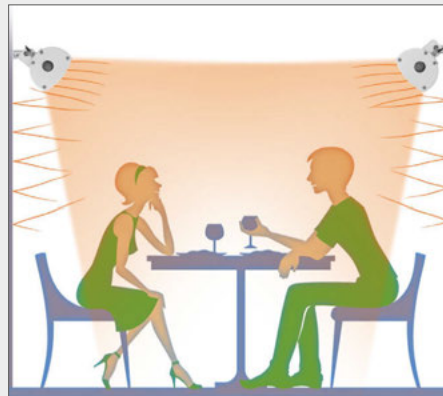


HOW INFRARED HEATING WORKS

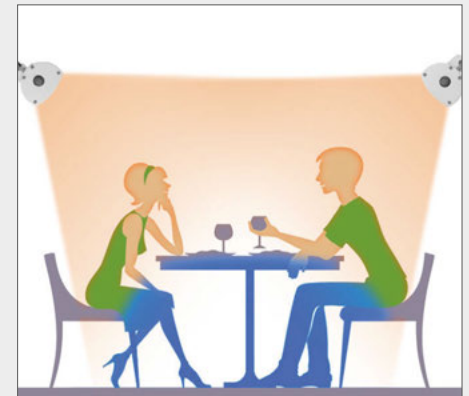
Infrared rays cannot heat up the room air directly but they heat up all objects inside the room, which will then permanently emit the stored thermal energy into the room, similar to a tiled stove. In contrast to conventional convection heating, this indirect heating method thus warms up objects instead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



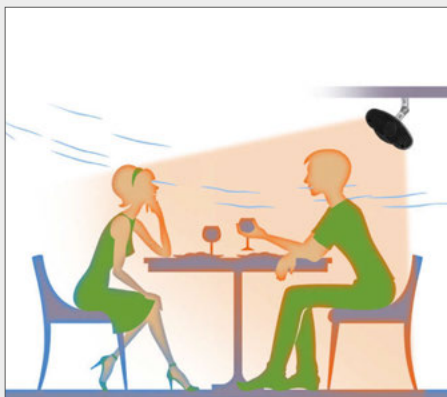
4. With two ceiling heaters, the heat radiation is distributed more evenly to both people.



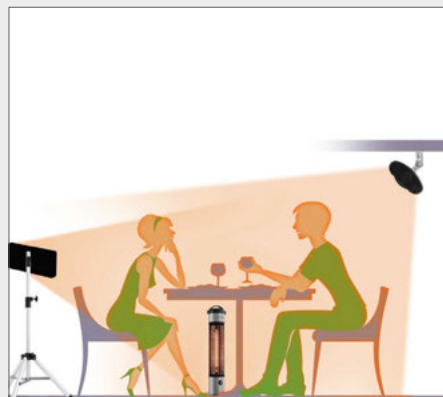
5. If infrared radiant heaters are mounted on a wall, the heat radiation is additionally reflected by the opposite walls.



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.



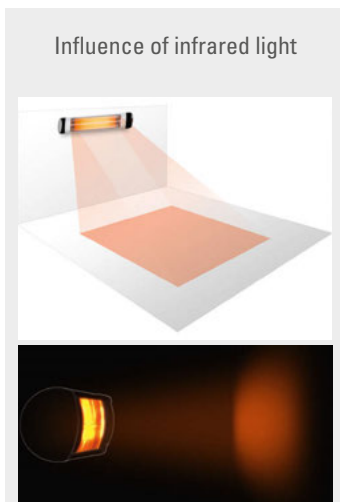
Lighting situation with infrared radiant heater



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



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



Product video IRD infrared radiant heater

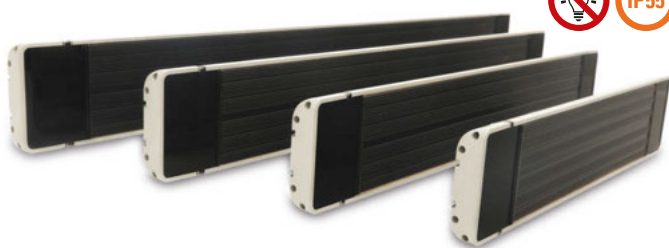
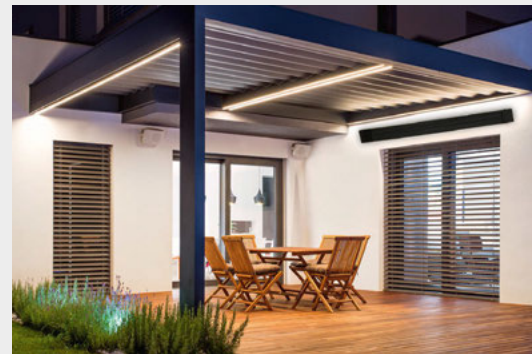
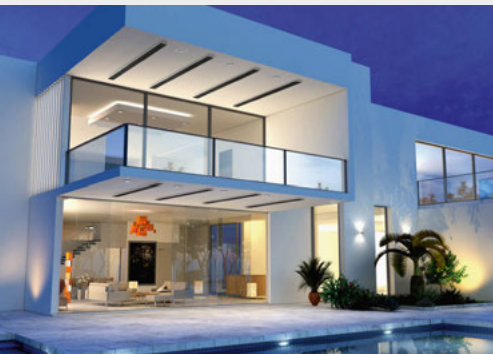
IRD INFRARED RADIANT HEATER – THE STYLISH DESIGN SOLUTION **WITHOUT ANY LIGHT EMISSION.**



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

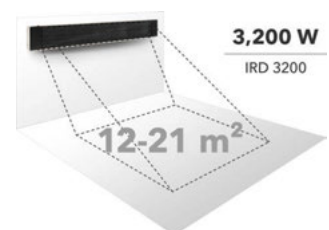
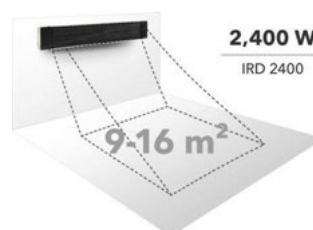
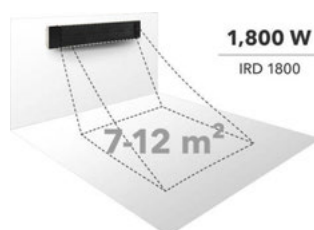
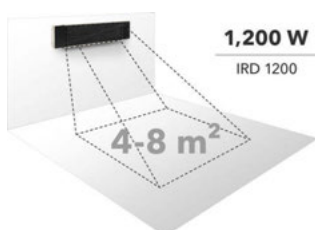
altered and appear completely natural. Such infrared radiant heaters can be mounted to the wall or ceiling and can supply very large areas with heat radiation, especially when several devices are used. Here too, however, you have to pay attention to an appropriate protection against the wind in order 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:

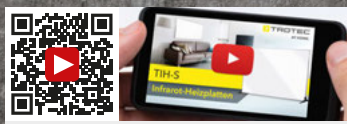
- High-quality materials are combined with excellent workmanship to produce such an appealing solution for outdoor areas sheltered from the wind
- No disturbing noises or distracting red light
- Universally applicable (suitable for outdoor installation: on terraces, balconies and roofed outdoor areas)
- 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

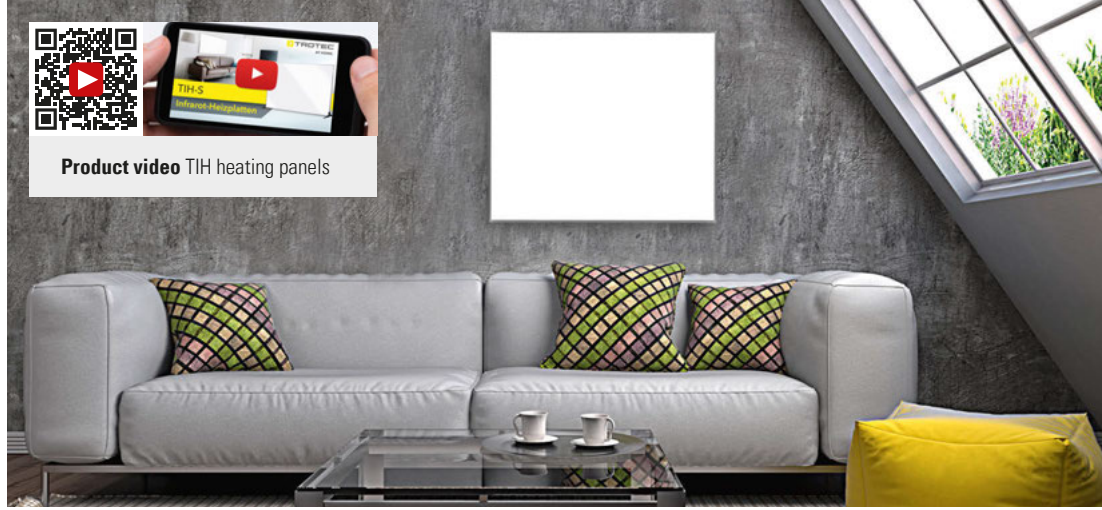


Ideal for:

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



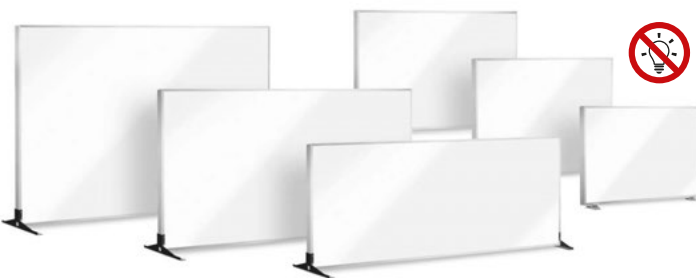
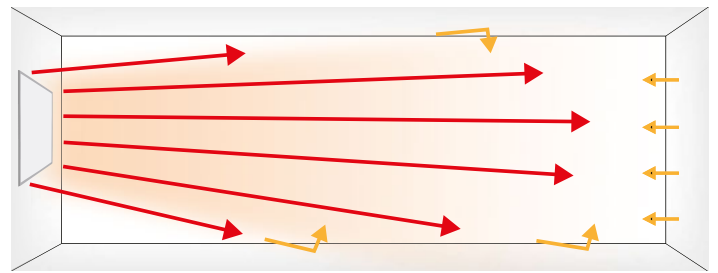
Product video TIH heating panels



INFRARED HEATING PANELS FOR **INDOOR USE.**

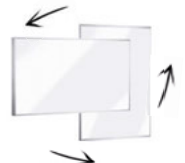
Infrared heating panels for indoor use emit pure heat radiation without emitting light. They can be attached to the wall like a picture, thus representing a space-saving and elegant heating solution for any room in different formats.

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












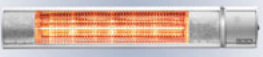


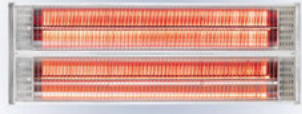



Socket thermostat BN30































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	
Wall-mounted radiant heaters Infrared radiant heaters of the IR-S series								
	IR 1200 S	1,200 W 2 stages	5 - 8 m²	Wall	—	IP24	—	Width: 53.8 cm Height: 13.5 cm
	IR 2000 S	2,000 W 3 stages	8 - 14 m²	Wall Tripod	—	IP34	—	Width: 50 cm Height: 37 cm
	IR 2010 S	2,000 W 3 stages	8 - 14 m²	Wall Tripod	—	IP34		Width: 73.5 cm Height: 15.5 cm
	IR 2570 S	2,500 W 3 stages	10 - 17 m²	Wall Tripod	—	IP34		Width: 90 cm Height: 20 cm
Wall-mounted radiant heaters Infrared radiant heaters of the IR series								
	IR 2001	2,000 W 1 stage	8 - 14 m²	Wall Ceiling	-80% less light	IP65 rain-proof	—	Width: 46 cm Height: 19 cm
	IR 2005	2,000 W 4 stages	8 - 14 m²	Wall Ceiling Tripod	-80% less light	IP55 rain-proof		Width: 90 cm Height: 17.5 cm
	IR 2050	2,000 W 3 stages	8 - 14 m²	Wall	-80% less light	IP65 rain-proof		Width: 63 cm Height: 10.5 cm
	IR 2200	2,200 W 2 stages	9 - 15 m²	Wall Ceiling	-80% less light	IPX0		Width: 103.9 cm Height: 7.8 cm
	IR 2400	2,400 W 2 stages	10 - 16 m²	Wall	—	IP55 rain-proof		Width: 71 cm Height: 26 cm
	IR 3050	3,000 W 3 stages	12 - 20 m²	Wall	-80% less light	IP65 rain-proof		Width: 96 cm Height: 10.5 cm


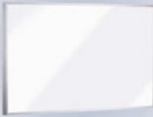

Model	Heating capacity	for areas up to approx.	Mounting	LED illumination	Type of protection	Remote control	Dimensions
Radiant ceiling heaters Infrared radiant heaters of the IR-SC series and IR-C series							
	IR 1500 SC	1,500 W 3 stages	10 m²	Ceiling	—	IP34	 Ø 42 cm
	IR 1510 SC	1,500 W 3 stages	10 m²	Ceiling	—	IP34	 Ø 42.5 cm
	IR 1550 SC	1,500 W 3 stages	10 m²	Ceiling	LED light	IP24	 Ø 45 cm
	IR 2000 SC	2,000 W 3 stages	15 m²	Ceiling	—	IP34	 Ø 60.5 cm
	IR 2005 SC	2,000 W 3 stages	15 m²	Parasol rods Ø 2.5 – 6 cm	—	IP34	— Ø 90 cm
	IR 2010 SC	2,000 W 1 stage	15 m²	Ceiling	LED light	IP45 rain-proof	 Ø 46 cm
	IR 2000 C	2,000 W 2 stages	15 m²	Ceiling	LED light	IP55 rain-proof	 Width: 69 cm Height: 11 cm

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



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
Infrared radiant heaters Infrared radiant heaters of the IRD series							
	IRD 1200	1,200 W 3 stages	4-8 m²	Wall Ceiling	No light emission	IP55 rain-proof	 Width: 93 cm Height: 20 cm
	IRD 1800	1,800 W 3 stages	7-12 m²	Wall Ceiling	No light emission	IP55 rain-proof	 Width: 119.5 cm Height: 20 cm
	IRD 2400	2,400 W 3 stages	9-16 m²	Wall Ceiling	No light emission	IP55 rain-proof	 Width: 146 cm Height: 20 cm
	IRD 3200	3,200 W 3 stages	12-21 m²	Wall Ceiling	No light emission	IP55 rain-proof	 Width: 181.5 cm Height: 20 cm
Heating panels Infrared heating panels of the TIH-S series							
	TIH 300 S	300 W 1 stage	6 m²	Wall optionally with feet	No light emission	IP54	 Width: 60.5 cm Height: 50.5 cm
	TIH 400 S	450 W 1 stage	9 m²	Wall optionally with feet	No light emission	IP54	 Width: 70.5 cm Height: 60.5 cm
	TIH 500 S	580 W 1 stage	10 m²	Wall optionally with feet	No light emission	IP54	 Width: 90.5 cm Height: 60.5 cm
	TIH 700 S	700 W 1 stage	15 m²	Wall optionally with feet	No light emission	IP54	 Width: 120.5 cm Height: 60.5 cm
	TIH 900 S	900 W 1 stage	18 m²	Wall optionally with feet	No light emission	IP54	 Width: 120.5 cm Height: 75.5 cm
	TIH 1100 S	1,100 W 1 stage	22 m²	Wall optionally with feet	No light emission	IP54	 Width: 120.5 cm Height: 90.5 cm

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.



 **TROTEC**
AT WORK.