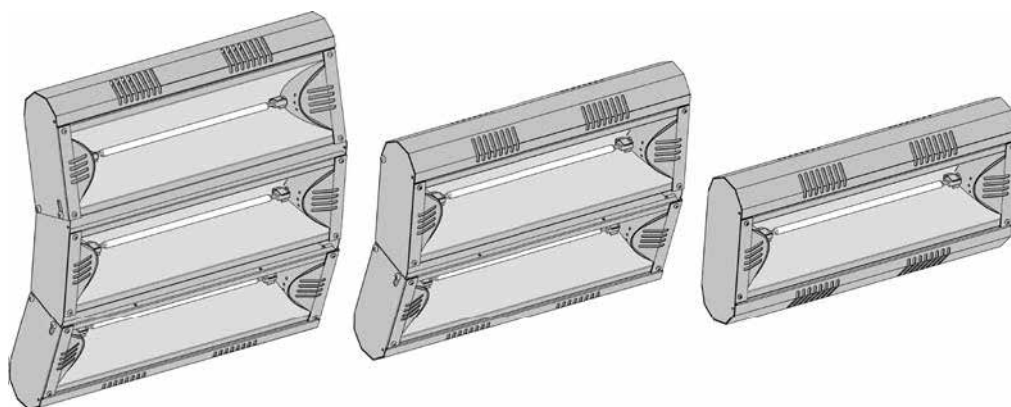


Original instructions  
**Infrared heater IRCF**



SE ....13

GB ....15

NO ....17

DE ....19

FR ....22

RU ....25

SE

EU-kommissionens Ecodesignförfordning (EU) 2015/1188 för rumsvärmare skiljer på användningsområden för olika installationer.

Förfordningen gäller då installationen är avsedd att skapa värmekomfort för människor som vistas i lokalen. Förfordningen gäller inte för installationer som är avsedda för värmebehov av mer teknisk art såsom grundvärme i maskinrum, värmebehov i produktionsprocesser, frostskydd, etc. Förfordningen gäller heller inte installationer i fordon, offshore eller utomhus.

Många av Fricos produkter kan användas både som rumsvärmare (definierade enligt (EU) 2015/1188) och som värmare för tekniska behov. **Vid installationstillfället är det upp till ansvarig installatör att bedöma om Ecodesignförfordningen är applicerbar eller inte.** Regleringslösningar för installationer som inte omfattas av Ecodesignförfordningen redovisas i separat tabell.

GB

Ecodesign Regulation (EU) 2015/1188 concerning local space heaters does not apply to all application areas.

The Regulation applies when an installation is intended to provide thermal comfort for people in the premises. The Regulation does not apply to heating installations of a more technical nature e.g. in engineering/utility rooms, in production processes, frost protection, etc. The Regulation also does not apply to installations in vehicles, offshore or outdoors.

Many of Frico's products can be used as both local space heaters (as defined in (EU) 2015/1188) and for technical heating purposes. **It is up to the installer responsible for the installation to assess whether the Ecodesign Regulation is applicable or not.** Control solutions for installations not covered by the Ecodesign Regulation are listed in a separate table.

NO

Økodesigndirektivet (EU) 2015/1188 som gjelder varmeovner, gjelder ikke alle bruksområder.

Direktivet gjelder når en installasjon har som formål å skape en komfortabel temperatur for personene på stedet. Direktivet gjelder ikke til oppvarmingsinstallasjoner av det mer tekniske slaget, som i produktutviklingsrom, bruksområder, i produksjonsprosesser, frostbeskyttelse etc. Direktivet gjelder heller ikke installasjoner som befinner seg i kjøretøy, offshore eller utendørs.

Mange av Fricos produkter kan brukes både som varmeovner (som definert i 2015/1188) og til formål innen teknisk oppvarming. **Det er opp til installatøren som er ansvarlig for installasjonen å vurdere hvorvidt Økodesigndirektivet er gjeldende eller ikke.** Reguleringsløsninger for installasjoner som ikke dekkes av Økodesigndirektivet står oppført i en separat tabell

DE

Die Ökodesign-Verordnung (EU) 2015/1188 über Einzelraumheizgeräte trifft nicht auf alle Anwendungsgebiete zu.

Die Verordnung findet Anwendung, wenn eine Installation dazu bestimmt ist, innerhalb eines Raumes ein für den Menschen angenehmes Temperaturniveau zu erreichen. Die Verordnung findet keine Anwendung auf Heizungsinstallationen technischer Natur, z. B. in Technik-/Wirtschaftsräumen, bei Produktionsprozessen, für Frostschutz usw. Die Verordnung findet ebenfalls keine Anwendung bei Installationen in Fahrzeugen, Offshoreanlagen und Außenbereichen.

Viele Frico-Produkte können sowohl als Einzelraumheizgerät (gemäß Definition nach (EU) 2015/1188) als auch für technische Heizprozesse eingesetzt werden. **Der Monteur, der für die Installation verantwortlich ist, muss beurteilen, ob die Ökodesign-Verordnung anwendbar ist oder nicht.** Steuerungslösungen für Installationen, die nicht unter die Ökodesign-Verordnung fallen, sind in einer separaten Tabelle aufgelistet.

FR

La réglementation relative à l'écoconception (UE) 2015/1188 concernant les dispositifs de chauffage décentralisés ne s'applique pas à tous les cas.

Elle s'applique lorsqu'une installation est destinée à assurer un confort thermique à des personnes dans les locaux. Elle ne s'applique pas au chauffage d'installations d'une nature plus technique (salles des machines/de service, processus de production, protection contre le gel, etc.). Elle ne s'applique pas non plus aux installations qui se trouvent à bord de véhicules, offshore ou en extérieur.

De nombreux produits Frico peuvent être utilisés comme des dispositifs de chauffage décentralisés (tel que défini dans la réglementation (UE) 2015/1188) et à des fins de chauffage technique. **Il appartient à l'installateur de déterminer si la réglementation relative à l'écoconception s'applique ou non.** Les solutions de contrôle pour les installations qui ne sont pas couvertes par la réglementation relative à l'écoconception sont présentées dans un tableau distinct.

RU

Положения требований Экодизайн (EU) 2015/1188 по приборам локального обогрева не охватывают все возможные области их применения.

Требования Экодизайн применяются, когда установка предназначена для обеспечения теплового комфорта людей в помещениях. Эти Требования не распространяются на установки и системы обогрева более сложного технического характера, например, при обогреве технических, служебных и производственных помещений, при организации защиты от замерзания и т. д. Также требования Экодизайн не применяются в случае установки оборудования в транспортных средствах, сооружениях на море и на открытых площадках.

Многие виды оборудования Frico могут применяться как в качестве приборов локального обогрева (как определено нормативами (EU) 2015/1188) так и в качестве составных частей обогревательных систем общественных и производственных зданий. **Ответственность за определение необходимости применения или не применения требований Экодизайн несет организация, осуществляющая монтаж данного оборудования.** Приборы управления для установок оборудования, не подпадающих под положения требований Экодизайн, перечислены в отдельной таблице.

# IRCF

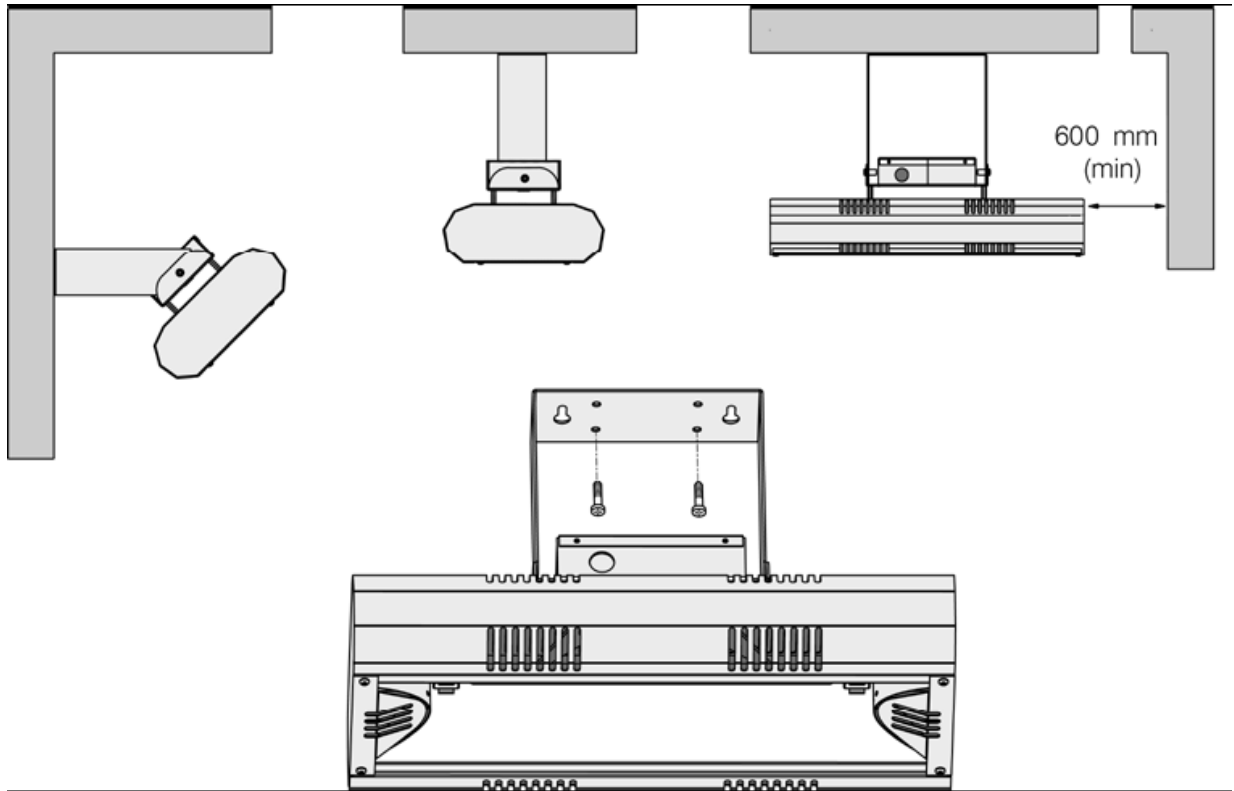


Fig. 1

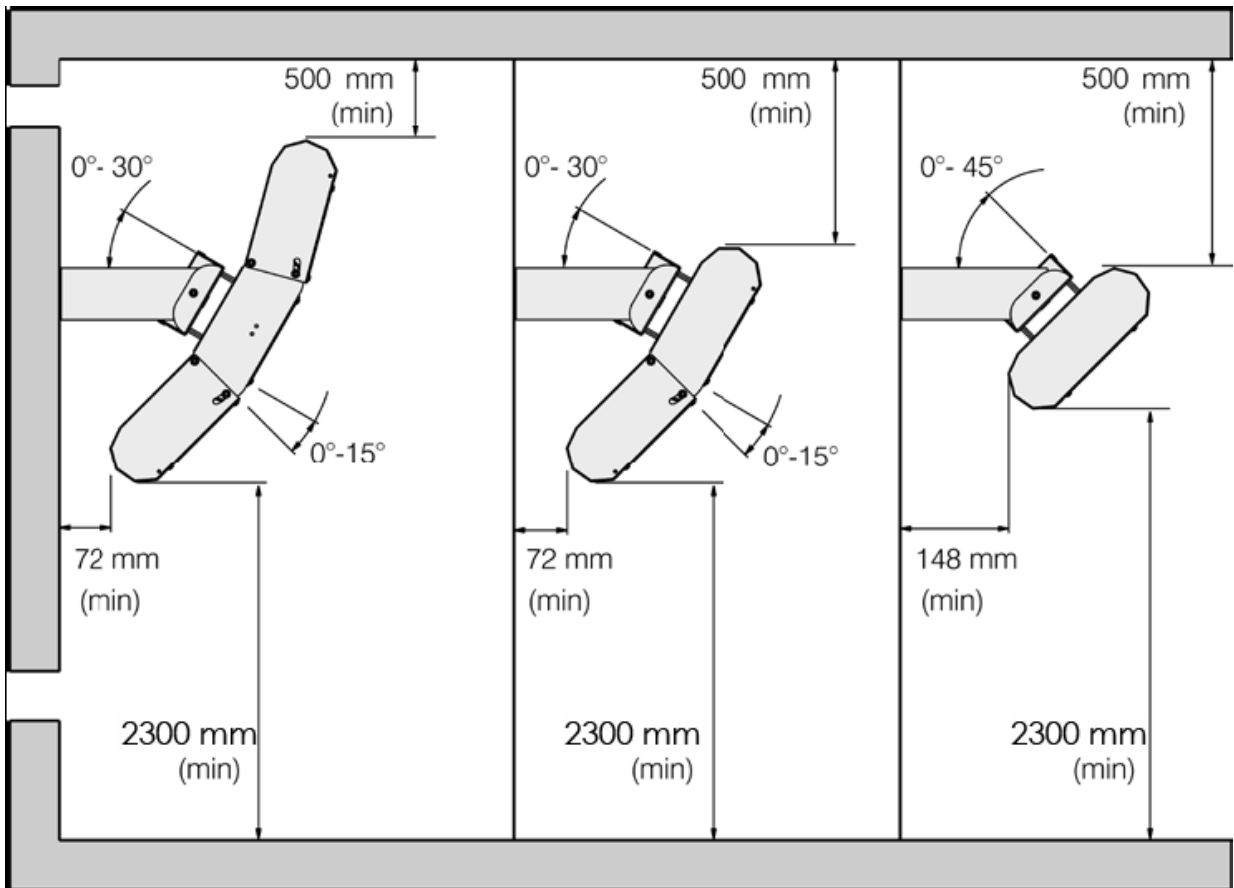


Fig. 2

# IRCF

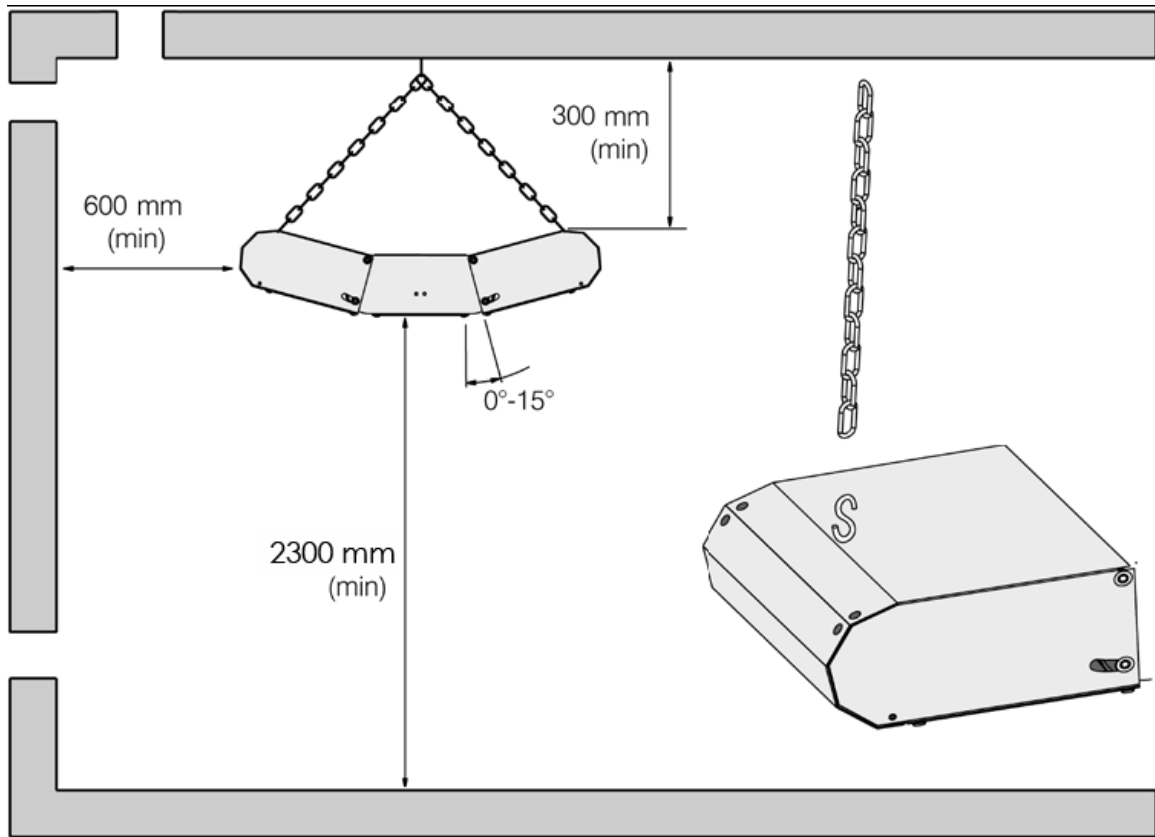
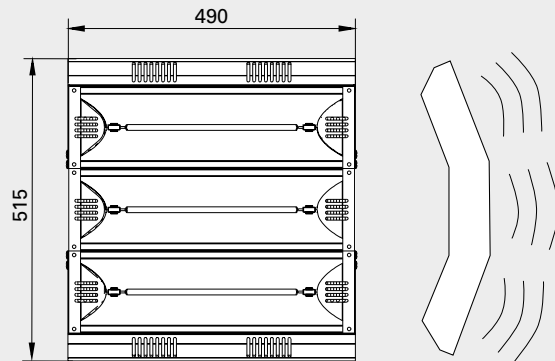
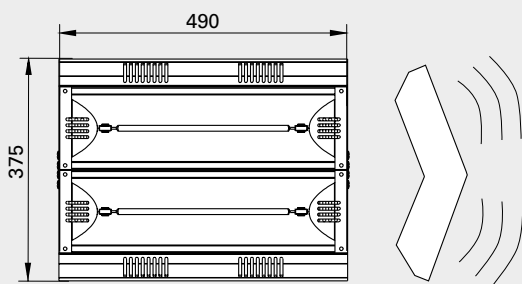
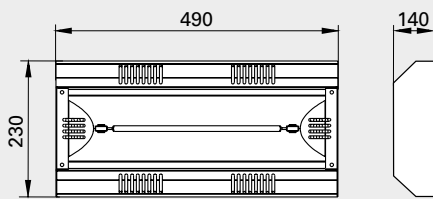


Fig. 3

## Dimensions

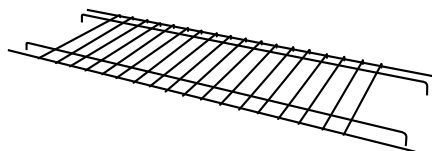


- GB: IRCF can be angled.
- SE: IRCF kan vinklas.
- NO: IRCF kan vinkles.
- DE: IRCF kann angewinkelt werden.
- RU: IRCF можно устанавливать с наклоном.
- FR: L'IRCF est inclinable.

## Accessories

### Type

**IRCG1** Protection grille for IRCF1500.  
IRCF3000 requires 2 pcs,  
IRCF4500 requires 3 pcs.



IRCG1

SE: Skyddsgaller för IRCF1500. För IRCF3000 behövs 2 st, för IRCF4500 behövs 3 stk.

NO: Beskyttelsesgitter IRCF1500. For IRCF3000 kreves 2 stk, for IRCF4500 kreves 3 stk.

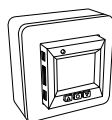
DE: Schutzgitter für IRCF1500. Für IRCF3000 2 Stück, für IRCF4500 3 Stück erforderlich.

FR: Grille de protection pour IRCF1500. IRCF3000 nécessite 2 grilles et IRCF4500 nécessite 3 grilles.

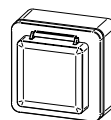
RU: Защитная решетка для IRCF1500. Для IRCF3000 необходимо 2 штуки, для IRCF4500 необходимо 3 штуки

## Controls

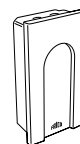
Type	HxWxD [mm]
<b>TAP16R</b>	87x87x53
<b>TEP44</b>	87x87x55
<b>RB3</b>	155x87x43
<b>RB123</b>	155x87x43
<b>RTX54</b>	82x88x25
<b>SKG30</b>	115x85x40
<b>PDK65</b>	102x70x50



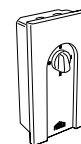
TAP16R



TEP44



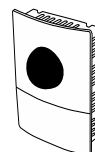
RB3



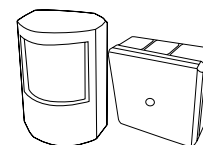
RB123



RTX54



SKG30



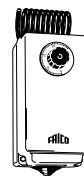
PDK65

## Controls for installations not covered by the Ecodesign Regulation (EU) 2015/1188

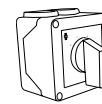
Type	HxWxD [mm]
<b>KRT1900</b>	165x57x60
<b>KRTV19</b>	165x57x60
<b>S123</b>	72x64x46



KRT1900



KRTV19



S123

SE: Regleringar för installationer som inte omfattas av Ecodesign, förordning (EU) 2015/1188

NO: Reguleringsløsninger for installasjoner som ikke dekkes av Økodesigndirektivet (EU) 2015/1188

DE: Steuerungen für Installationen, die nicht unter die Ökodesign-Verordnung (EU) 2015/1188 fallen

FR: Régulations pour les installations non couvertes par la réglementation relative à l'écoconception (UE) 2015/1188

RU: Приборы управления для установок оборудования, не подпадающих под нормы требований Экодизайн (EU) 2015/1188

**Technical specifications**

Type	Heat output (1) [W]	Voltage (2) [V]	Amperage (3) [A]	Dimensions (4) LxHxW [mm]	Number of lamps (5)	Weight (6) [kg]	Min cable area (7) [mm <sup>2</sup> ]
<b>IRCF1500</b>	1500	230V~	7	490x230x140	1	1,7	3x1,5
<b>IRCF3000</b>	3000	230V~	13	490x375x140	2	2,4	3x2,5
<b>IRCF4500</b>	4500	230V~/400V3~	6,5	490x515x140	3	3,0	5x1,5

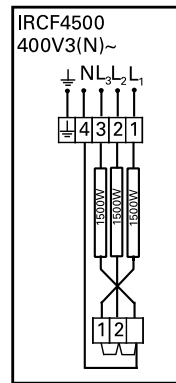
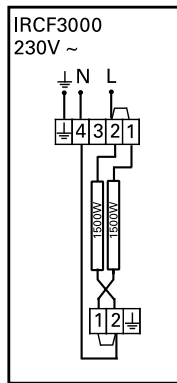
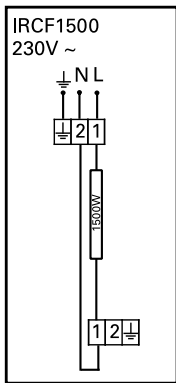
Protection class : IP20

CE compliant.

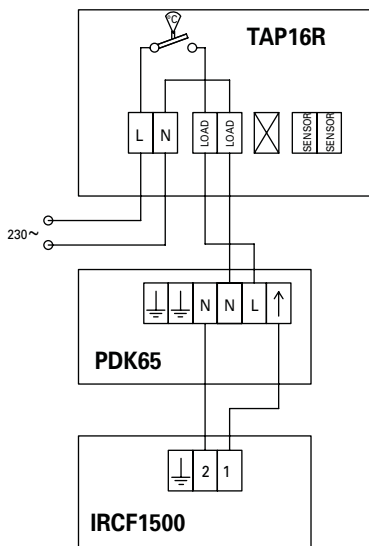
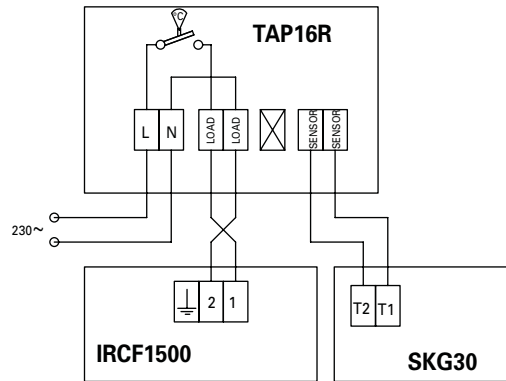
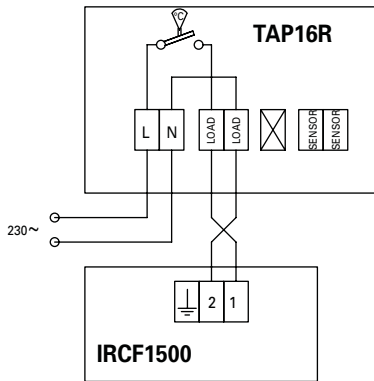
(1)	(4)	(7)
SE: Effekt	SE: Mått	SE: Min kabelarea
GB: Output	GB: Dimensions	GB: Min. cable area
NO: Effekt	NO: Mål	NO: Min. areal
DE: Abgabe	DE: Abmessungen	DE: Min. Kabelfläche
FR: Puissance	FR: Dimensions	FR: Surface mini
RU: Мощность [Вт]	RU: Габариты LxHxW [мм]	RU: Min сечение кабеля [мм <sup>2</sup> ]
(2)	(5)	
SE: Spänning	SE: Antal lampor	
GB: Voltage	GB: Number of lamps	
NO: Spenning	NO: Antall lamper	
DE: Spannung	DE: Anzahl der Lampen	
FR: Tension	FR: Nombre de lampes	
RU: Напряжение [В]	RU: Количество ламп	
(3)	(6)	
SE: Ström	SE: Vikt	
GB: Amperage	GB: Weight	
NO: Strøm	NO: Vekt	
DE: Strom	DE: Gewicht	
FR: Intensité	FR: Poids	
RU: Сила тока	RU: Вес [кг]	

# Wiring diagrams IRCF

## Internal wiring diagrams

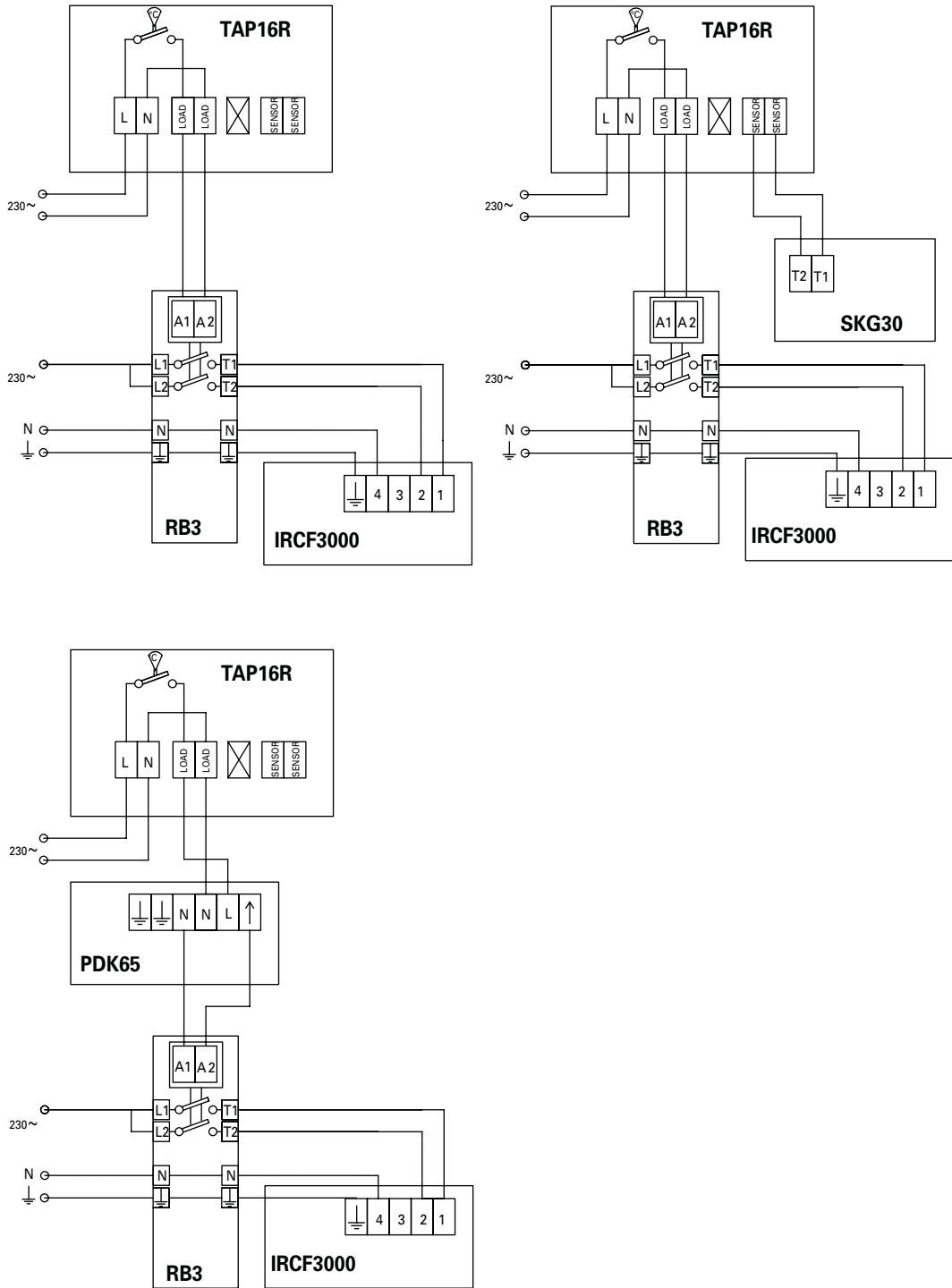


## IRCF1500 230V~

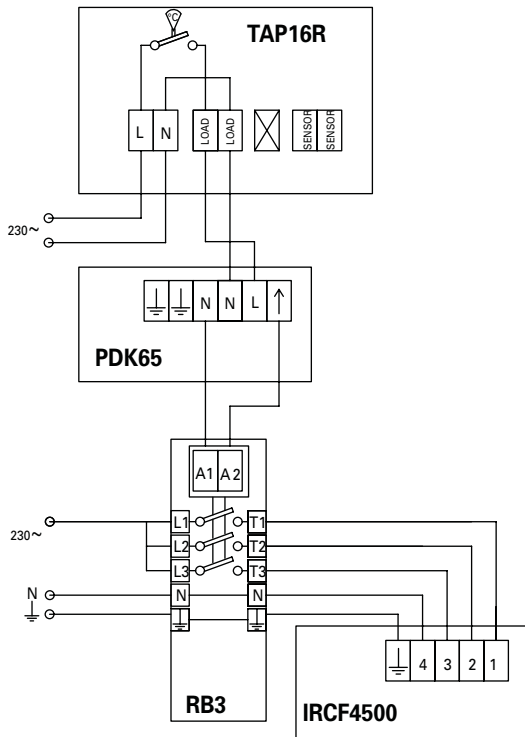
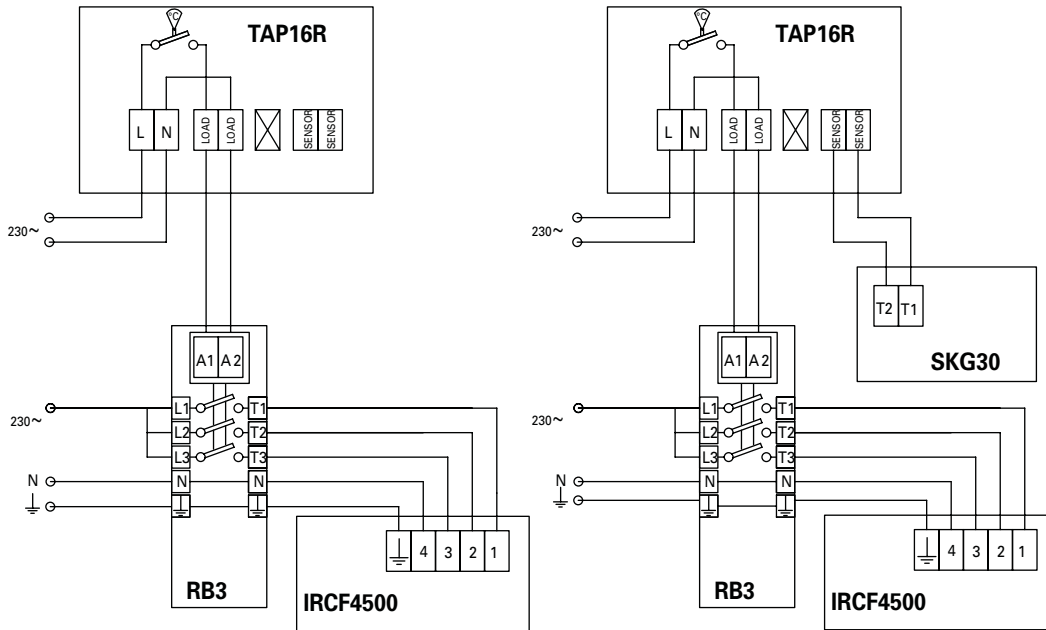




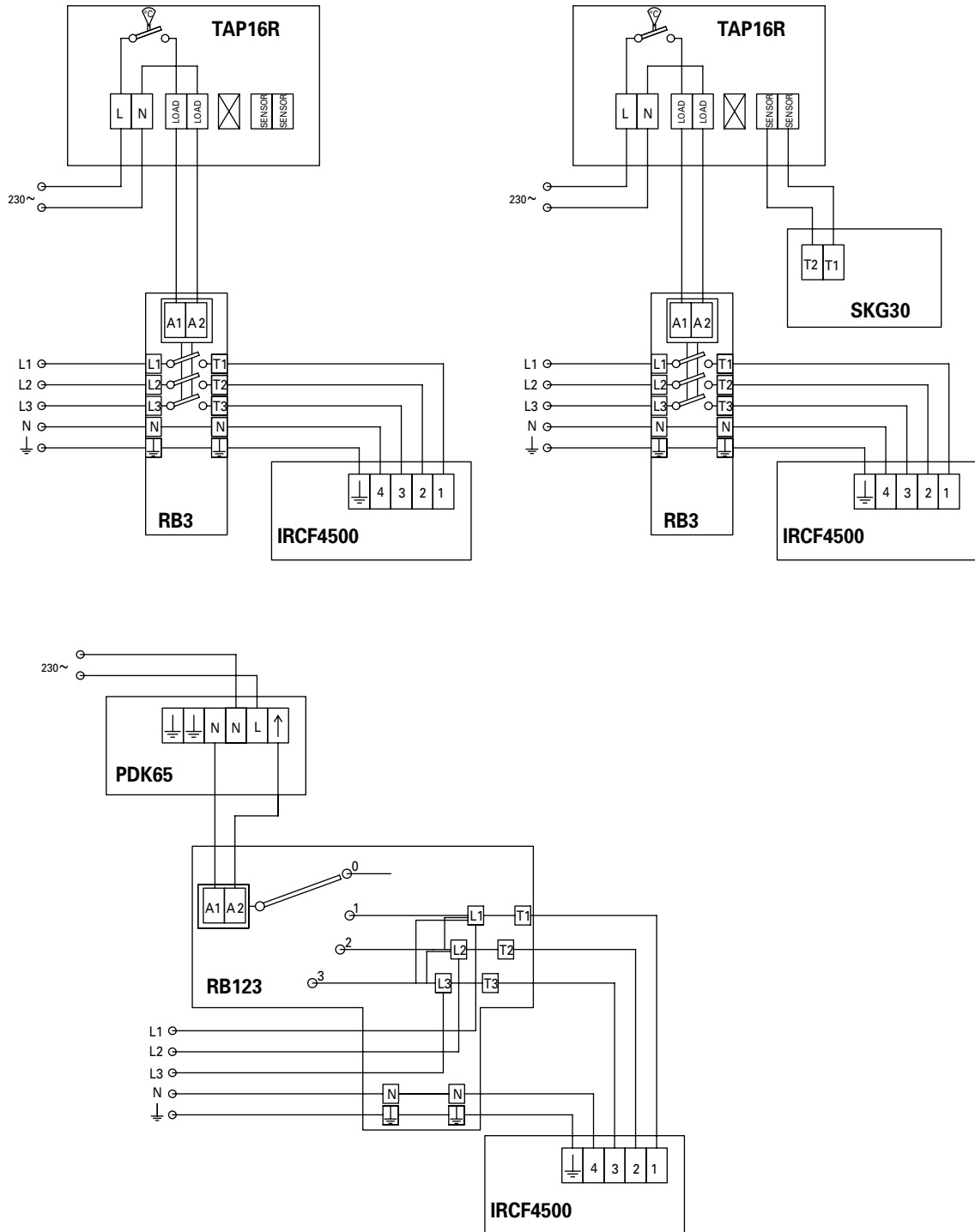
IRCF3000 230V~



IRCF4500 230V~

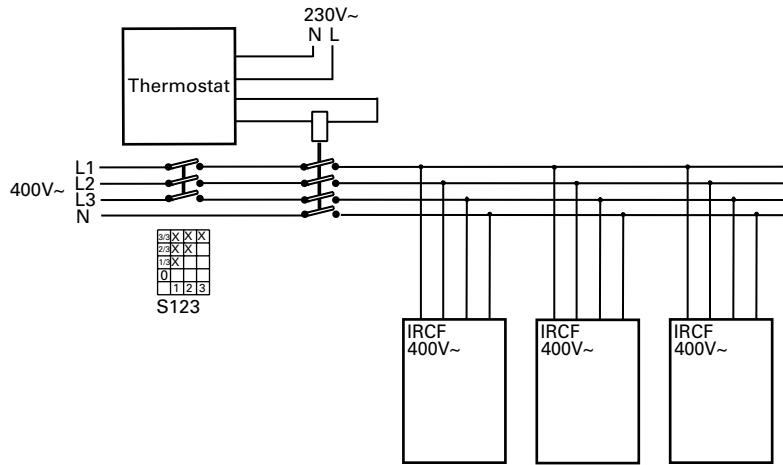


IRCF4500 400V3N~



# IRCF

## Controls for installations not covered by the Ecodesign Regulation (EU) 2015/1188



## Mounting and operating instructions

### General instructions

Read these instructions carefully before installation and use. Keep this manual for future reference. During installation and maintenance and when replacing the lamp the heater should always be disconnected from the power supply.

*The product may only be used as set out in the assembly and operating instructions. The guarantee is only valid if the product is used in the manner intended and in accordance with the instructions.*

### Application area

IRCF is especially designed for spot heating of premises with large air volumes, such as churches, aircraft hangars, industries and warehouses. This infrared heater is tested and approved according to the EMC- and LVD regulations and is CE compliant.

Normally IRCF is used to give comfort for people in the area in front of or under the heater.

With its high efficiency and compact size it is perfect for many difficult applications.

### Mounting

After unpacking make sure that the appliance is complete and shows no signs of visible damage.

Make sure that the voltage is the same as indicated on the rating label.

IRCF must be mounted at least 2,3 m above the floor.

Normally the heater is mounted at 3 – 6 m height, for spotheating the appliance should not be mounted higher than 5 m. The best comfort is experienced when a person is heated from two directions.

Enclosed in the package there is a wall bracket. Make sure that the wall is firm and that proper screws are used.

Make sure that the appliance is directed at the surface that shall be heated, for adjustments see fig. 2.

Fig. 3 shows other mounting alternatives, chains and S-hooks needed for such installations are to be purchased separately.

Following important notes must be followed:

- The heater should always be installed horizontally and only by using the brackets provided.
- Make sure that the power supplying cable does not come in contact with the lamps or is reached by the thermal heat.
- The minimum distances according to page 4 must be kept.
- Do not use the heater directly near a bathtub, a shower or a swimming pool.
- The heater must be installed so that a person standing in a shower can reach neither the switch nor the heater.
- The heater must not be installed in areas where hazardous vapours may be present.

### Electrical installation

The electrical installation should be carried out by a qualified electrician and in conformity with prevailing regulations. When fixed an all-pole switch with at least 3 mm breaking gap should precede the appliance.

If a cable connects the heater it should be of type H05 RN-F or similar.

N.B: The cable glands must be classified as the heater.

### Control

When using this product as a local space heater according to Ecodesign Regulation (EU) 2015/1188, it must be supplemented with one of the following approved controls. Please note that a relaybox RB is also required.

- TAP16R, electronic thermostat that includes:
  - Electronic room temperature control plus week timer
  - Room temperature control with open window detection
- TAP16R and SKG30, black bulb sensor that include:
  - Electronic room temperature control plus week timer
  - Room temperature control with open window detection
  - Black bulb sensor

- RB123, relaybox with 3 step output control and PDK65, presence detector that include:
  - Two or more manual stages, no temperature control
  - Working time limitation
  - Room temperature control with presence detection

The product can be controlled in a different way, e.g. by an overall control system (BMS), but in that case the responsibility lies with the installer to ensure that the control system is programmed to make the installation meet the requirements of Ecodesign Regulation (EU) 2015/1188.

### Start up

When the unit is used for the first time or after a long period of disuse, smoke or odour may result from dust or dirt that has collected on the element. This is completely normal and disappears after a short time.

### Maintenance

During maintenance the heater must be disconnected from the power supply.

The heater contains no moving parts and therefore very little maintenance is required other than to ensure that there is no excessive build-up of dust/dirt on the reflector or lamp as this can cause overheating and premature lamp failure.

To clean the appliance, wipe off with a damp cloth. Wait until the unit is completely dry before connecting it to the power supply. When cleaning the appliance a mild soap solution can be used. (N.B. Dishing- or washing detergents can do damage to the reflectors)

### Replacement of lamp

A qualified person shall replace the lamp and the gaskets.

The lamp is robust and if knocks and shock vibrations are avoided it will run for a long time. The expected lifetime of the lamp is depending on the ambient temperature and where the heater is installed.

### Packaging

Packaging materials are chosen with consideration to environment and are therefore recyclable.

### Handling of product at end of working life

This product may contain substances necessary for functionality of product but potentially dangerous for the environment. The product should not be disposed mixed with general household waste but delivered to a designated collection point for environmental recycling. Please contact local authority for further details of your nearest designated collection point. Recycling of used products saves earth's resources and reduces global footprint.

### Safety

- *For all installations of electrically heated products should a residual current circuit breaker 300 mA for fire protection be used.*
- *The unit may have hot surfaces during operation and when cooling down!*
- *The unit must not be fully or partially covered with clothing, or similar materials, as overheating can result in a fire risk!*
- *The unit must not be placed directly under fixed wall sockets!*
- *A safety distance of not less than 1 m to inflammable substances should always be left in front of the heater.*
- *This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.*



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about your local contact: [www.frico.se](http://www.frico.se)**