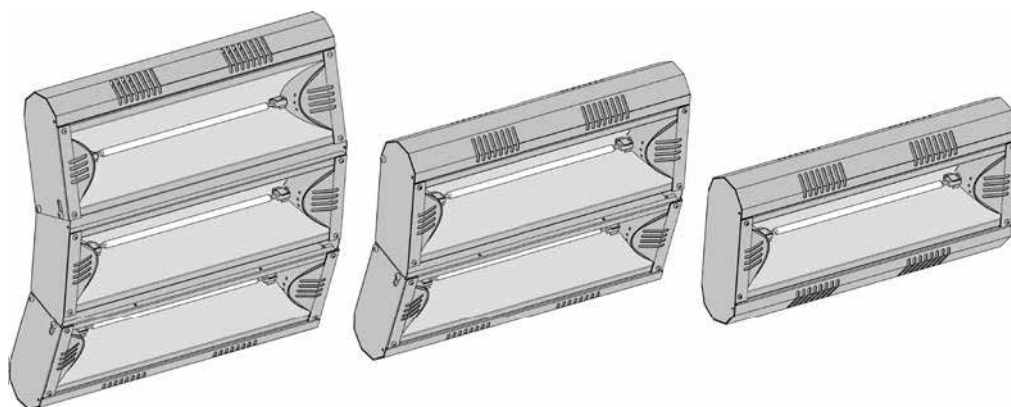


Original instructions
Infrared heater IRCFC



SE 12

EN 14

NO 16

DE 18

FR 21

RU 24

SE

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

Förordningen gäller då installationen är avsedd att skapa värmekomfort för människor som vistas i lokalen. Förordningen gäller inte för installationer som är avsedda för värmebehov av mer teknisk art såsom grundvärme i maskinrum, värmebehov i produktionsprocesser, frostskydd, etc. Förordningen 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 Ecodesignförordningen är applicerbar eller inte.** Regleringslösningar för installationer som inte omfattas av Ecodesignförordningen 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.

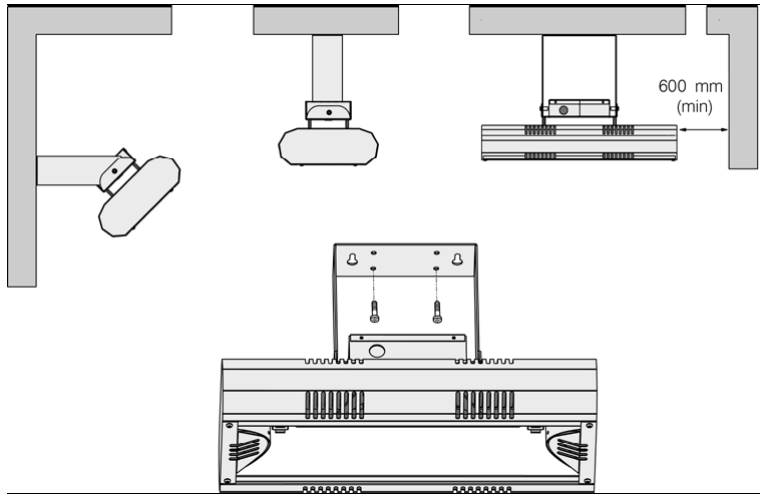


Fig. 1

Fig. 2

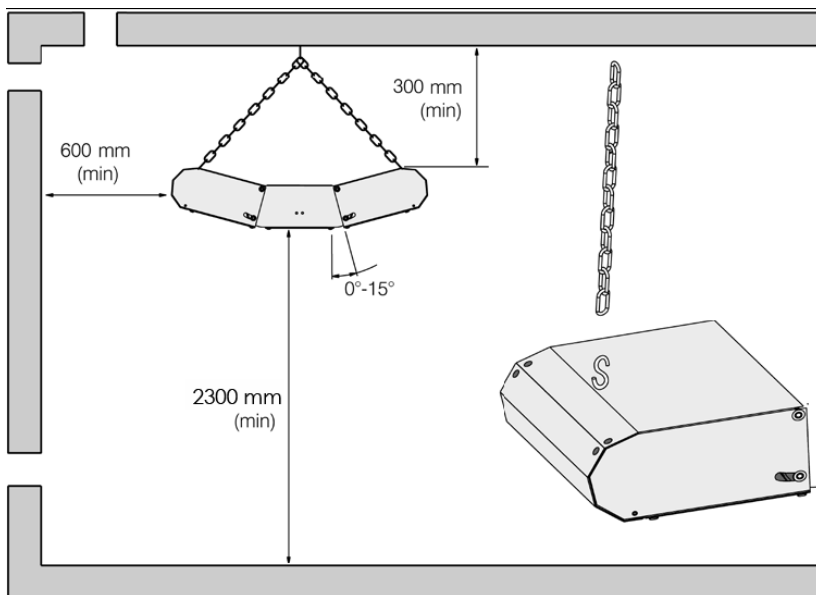
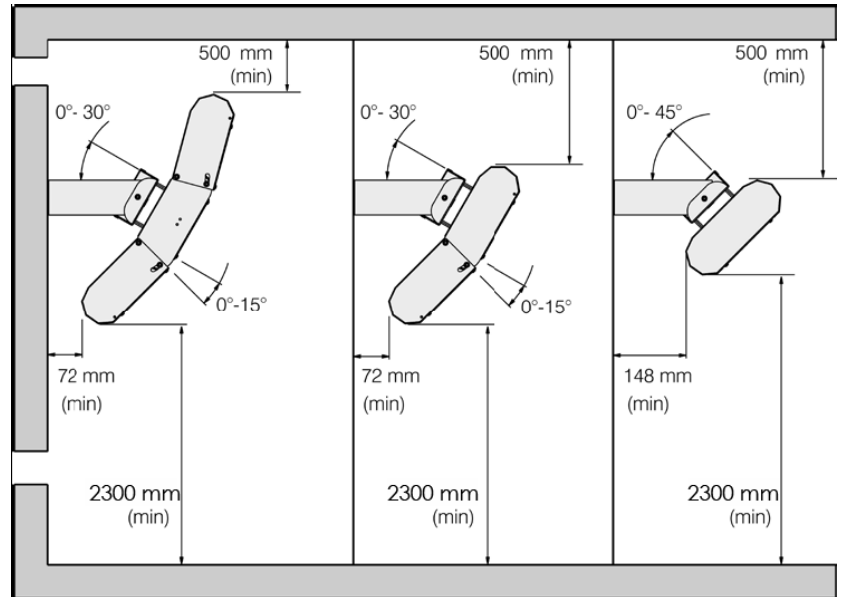
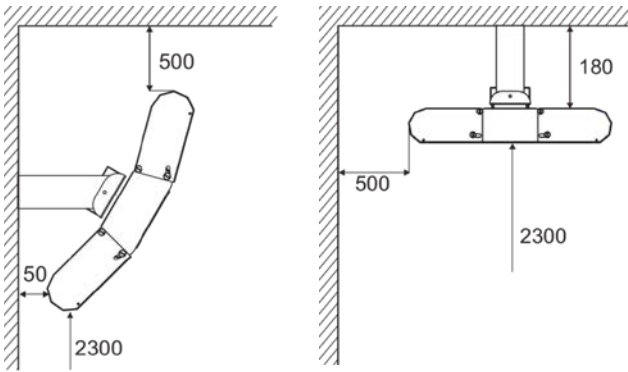
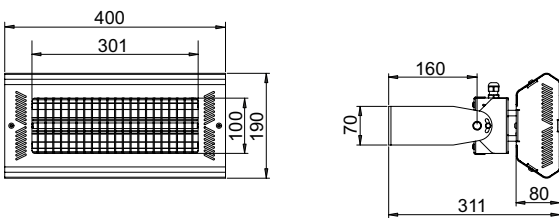


Fig. 3

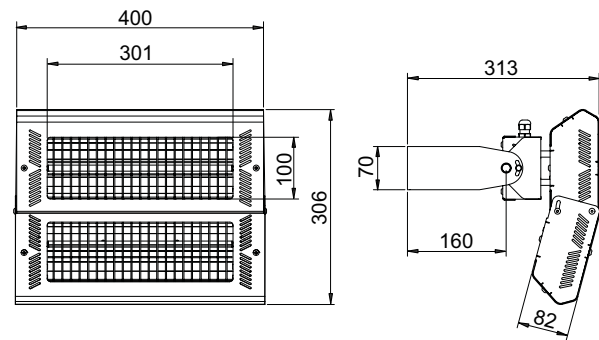


Dimensions

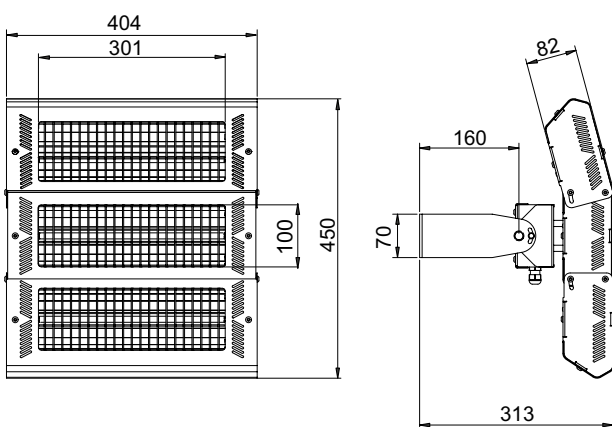
IRCFC15, IRCFC20



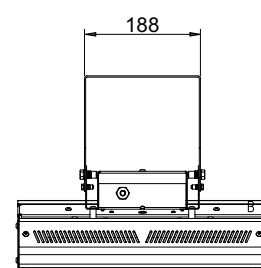
IRCFC30



IRCFC45



IRCFC15/20/30/45



Controls



TAP16R



TEP44



RTX54



RB3



RB123



SKG30



PDK65



PDK65S

Item number	Type	Description	HxWxD [mm]
92790	TAP16R	Electronic thermostat, 16A, IP21	87x87x53
205540	TEP44	Protective enclosure for TAP16R, IP44. Must be supplemented with external sensor	87x87x55
93044	RTX54	External room temperature sensor. Replaces internal sensor. NTC10KΩ, IP54	155x87x43
93012	RB3	Relaybox 400V3N~ (400V3~/V2~, 230V3~/V2~), 16A, IP44	155x87x43
205688	RB123	Relaybox with 3 step output control, 400V3N~, 16A, IP44	155x87x43
205550	SKG30	Black bulb sensor, NTC10KΩ, IP30	115x85x40
211780	PDK65	Presence detector with power supply (up to 5 detectors), 230V~, max 2,3 kW, IP42/IP65	102x70x50
211781	PDK65S	Additional presence detector to PDK65, IP42	102x70x50

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



KRT1900



KRTV19



S123

Item number	Type	Description	HxWxD [mm]
5999	KRT1900	Capillary tube thermostat, IP55	165x57x60
10214	KRTV19	Capillary tube thermostat with knob, IP44	165x57x60
11733	S123	Manual switch for 1-2-3 steps, 20A, IP42	72x64x46



IHBD3



IHMC6-3



IHMC6S-3



IHMC4-1
IHMC6-1



TS2-C



TS4



TS6



BPIR4



BPIR6

Item number	Type	Description	HxWxD [mm]
92867	IHBD3*	Bluetooth dimmer, 3k W, 230 V~, IP65	88x118x48
92870	IHMC6-3*	Controller-Keypad, max. 6kW, 400V~, 3 zones, IP65	170x280x87
92872	IHMC6S-3*	Controller, max. 6kW, 400V~, 3 zones, IP65	170x280x87
157364	IHMC4-1*	Controller, max. 4kW, 230V~, 1 zone, IP65	170x280x87
157365	IHMC6-1*	Controller, max. 6kW, 230V~, 1 zone, IP65	170x280x87
92875	TS2-C*	Timer, max 2kW, 1 zone, 230V, IP20	130x95x55
92876	TS4*	Timer, max 4kW, 1 zone, 230V, IP67	125x100x70
92877	TS6*	Timer, max 6kW, 1 zone, 230V, IP67	130x130x70
92888	BPIR4*	Motion detector 4kW, IP65	100x100x60
92889	BPIR6*	Motion detector 6kW, IP65	130x130x75

*) See separate manuals

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

NO: Reguleringsløsninger for installasjoner som ikke dekkes av Økodesign-direktivet (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

Infrared heater IRCFC white (IP20)

Item number	Type	Heat output [W]	Voltage [V]	Amperage [A]	Dimensions HxWxD [mm]	Number of lamps	Weight [kg]
990836	IRCFC15W20	1500	230V~	6,6	400x190x80	1	1,5
990837	IRCFC30W20	3000 (2x1500)	230V~	13,1	400x306x82	2	3,0
990838	IRCFC45W20	4500 (3x1500)	230V~/400V3N~	19,6/6,5	404x450x82	3	4,0

Infrared heater IRCFC grey (IP20)

Item number	Type	Heat output [W]	Voltage [V]	Amperage [A]	Dimensions HxWxD [mm]	Number of lamps	Weight [kg]
990839	IRCFC15G20	1500	230V~	6,6	400x190x80	1	1,5
990840	IRCFC30G20	3000 (2x1500)	230V~	13,1	400x306x82	2	3,0
990841	IRCFC45G20	4500 (3x1500)	230V~/400V3N~	19,6/6,5	404x450x82	3	4,0

Infrared heater IRCFC black (IP54)

Item number	Type	Heat output [W]	Voltage [V]	Amperage [A]	Dimensions HxWxD [mm]	Number of lamps	Weight [kg]
990842	IRCFC15B54	1500	230V~	6,6	400x190x80	1	1,5
990843	IRCFC20B54	2000	230V~	8,7	400x190x80	1	1,5
990844	IRCFC30B54	3000 (2x1500)	230V~	13,1	400x306x82	2	3,0



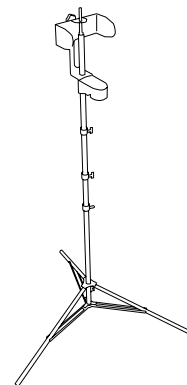
EN: Output	EN: Voltage	EN: Amperage	EN: Dimensions	EN: Number of lamps	EN: Weight
SE: Effekt	SE: Spänning	SE: Ström	SE: Mått	SE: Antal lampor	SE: Vikt
NO: Effekt	NO: Spenning	GB: Amperage	NO: Mål	NO: Antall lamper	NO: Vekt
DE: Abgabe	DE: Spannung	NO: Strøm	DE: Abmessungen	DE: Anzahl der	DE: Gewicht
FR: Puissance	FR: Tension	DE: Strom	FR: Dimensions	DE: Anzahl der	FR: Poids
RU: Мощность [Вт]	RU: Напряжение [В]	FR: Intensité	RU: Габариты	Lampen	RU: Вес [кг]
		RU: Сила тока	LxHxW [мм]	FR: Nombre de	
				lampes	
				RU: Количество	
				ламп	

Accessories

Item number	Type	Description
990845	IRCFCP15	Tripod with presence detector for IRCFC1500W max.

Spare parts

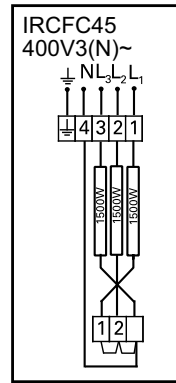
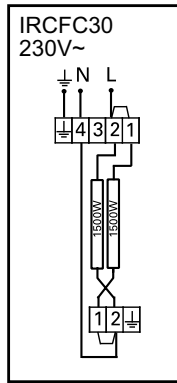
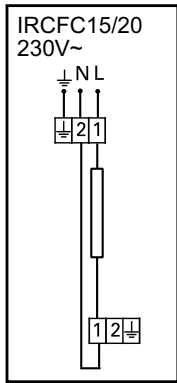
Item number	Type	Description
11919	KLRS1500	Spare lamp 1,5kW IP20
303357	KLRSE15	Spare lamp 1,5kW IP54
303386	KLRSE20	Spare lamp 2,0kW IP54



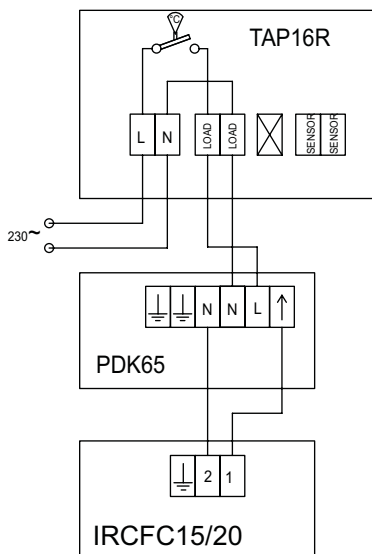
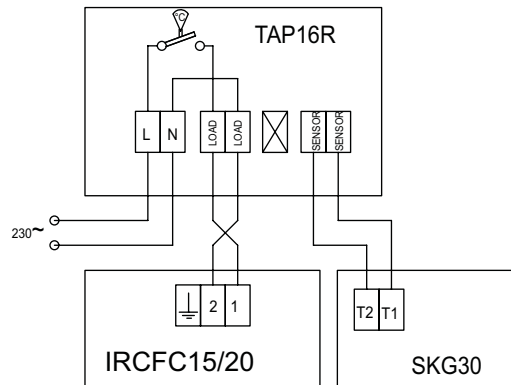
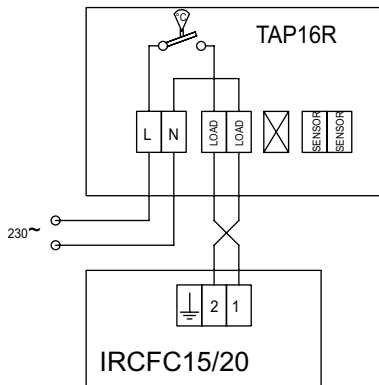
IRCFCP15

Wiring diagrams IRCFC

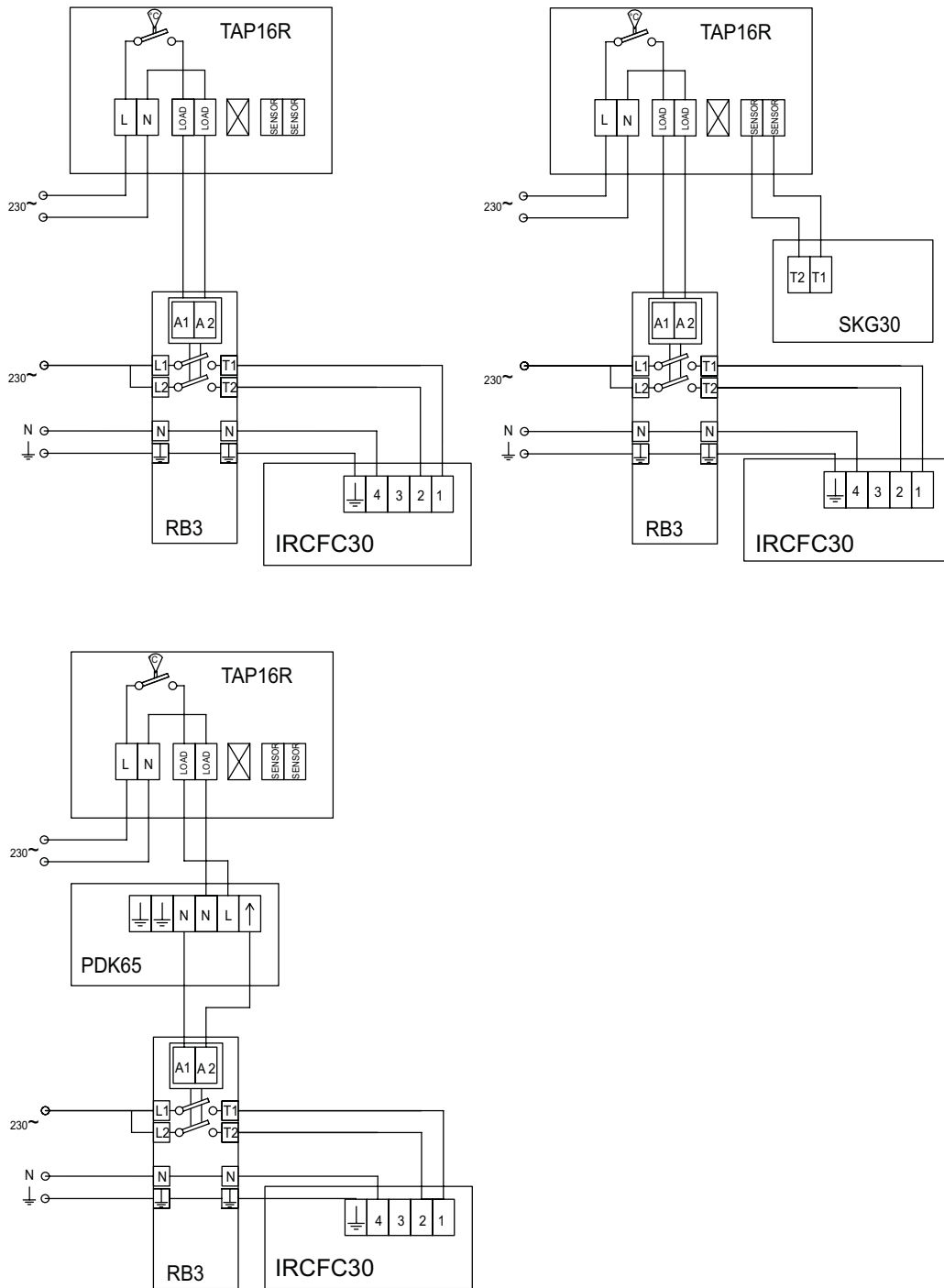
Internal wiring diagrams



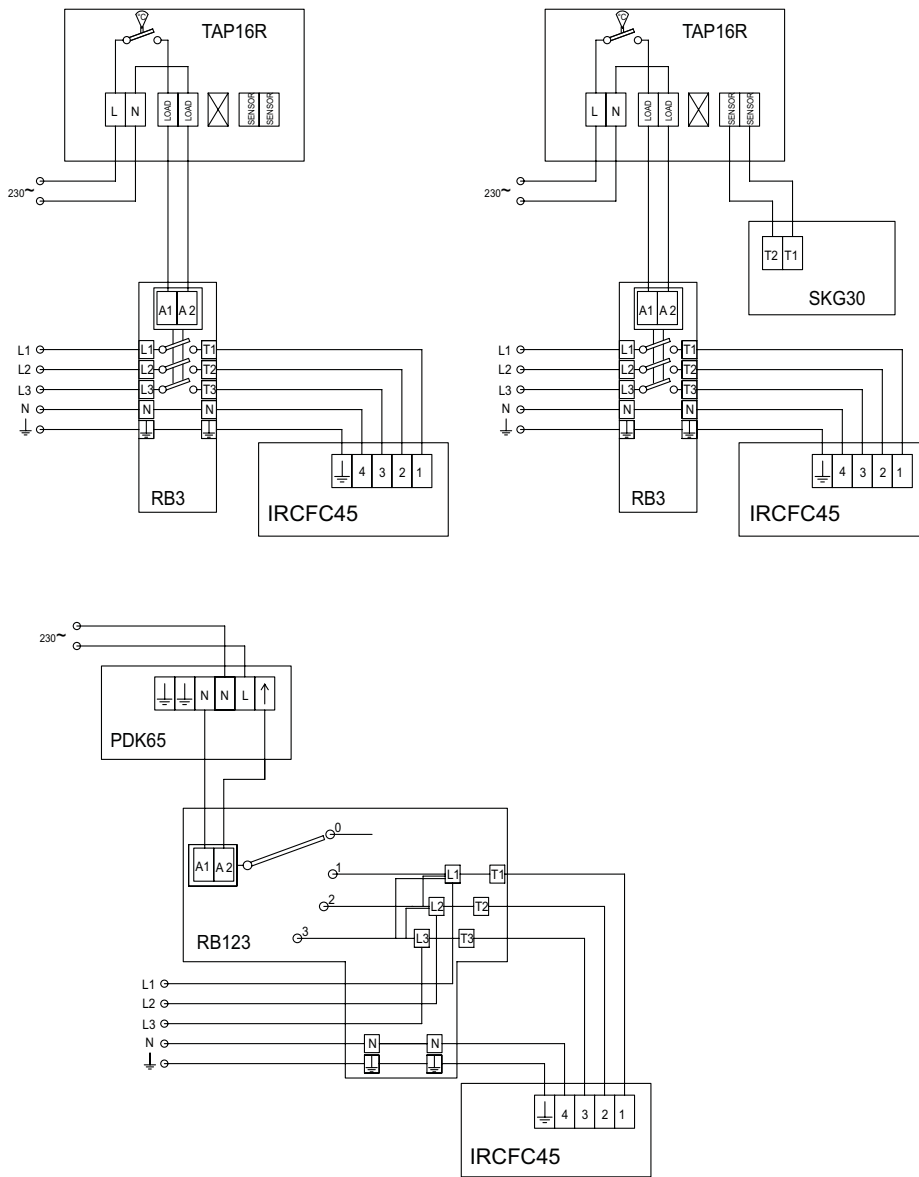
IRCFC15/20 230V~



IRCFC30 230V~

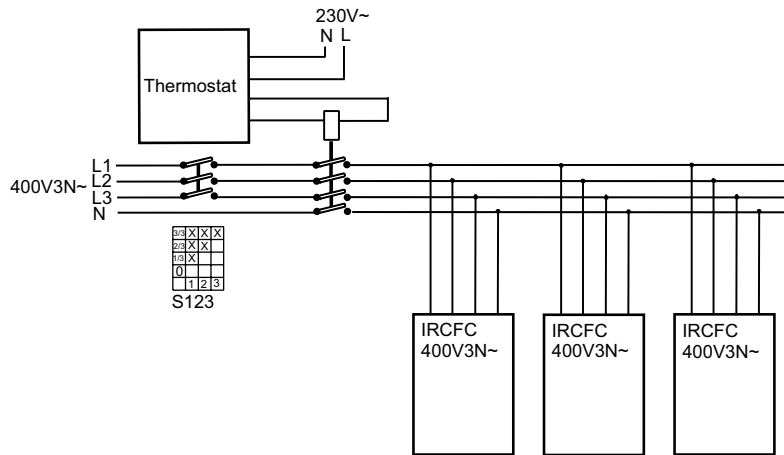


IRCFC45 400V3N~



IRCFC

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

IRCFC 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 IRCFC 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.

IRCFC 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.

IRCFC is installed horizontally on the ceiling or on the wall with the supplied bracket. Make sure that the wall is firm and that proper screws are used. IRCFC can be suspended from chains for example.

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:

- 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 a residual current circuit breaker 300 mA for fire protection should be used.*
- *The unit must not be fully or partially covered as overheating can result in a fire risk!*
- *The unit must not be placed directly under fixed wall sockets!*
- *The unit must not be used if the unit or the cord is damaged. Risk of injury!*
- *The heater is equipped with a protective grille to prevent contact or to prevent large objects from touching the hot lamp. The unit must not be used without this protective grille.*
- *The cable and plug must not be placed inside the hot radiant area.*
- *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.*
- *Children of less than 3 years should be kept away unless continuously supervised.*
- *Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.*
- *Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.*

CAUTION — Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.



Main office

Frico AB
Industrivägen 41
SE-433 61 Sävedalen
Sweden

Tel: +46 31 336 86 00
mailbox@frico.se
www.frico.net

**For latest updated information and information
about your local contact: www.frico.net**