



⚡ 20 – 30 kW Electrical heat

5 models

CE

## Fan heater Panther 20-30

### Powerful fan heater for large premises

#### Application

Panther 20–30 is a range of powerful and quiet fan heaters for stationary use. They are intended for heating, drying and ventilation of large premises, for example, industries. The mixing cabinet (accessory) allows heating and ventilation to be combined, through mixing the return air and outdoor air.

#### Comfort

Frico's fan heaters are extremely quiet and quickly provide comfortable heating. Fan heater Panther is delivered with adjustable wall mounting brackets which makes it possible to direct the airflow where it is required.

#### Operation and economy

Frico's fan heaters have a long life and providing fast and effective heating at a low cost. Simple installation and a minimum of maintenance also reduce costs and the risk of faults.

#### Design

The Panther fan heater has a classic clean design in white enamelled sheet steel.

#### Product specifications

- Supplied with wall bracket that makes it possible to direct the airflow down and to the side.
- Time delay between the output steps.
- Post-running thermostat for efficient cooling.
- External control panel PP20/30 (ordered separately) with master/slave function, for up to six units, and external thermostat, for example, RTI2 gives good and simple control.
- SE305 can be connected to both 440V3~ and 500V3~.
- Wide range of controls and accessories.
- Mixing cabinet, that combines heating and ventilation, is available as an accessory.
- The fan heater Panther is also available in outputs 6-15 kW, see the separate chapter.
- Corrosion proof housing made of hot zinc-plate and powder enameled steel panels.  
Colour: RAL 9016, NCS S 0500-N (white).

## Fan Heater Panther 20-30



The fan heater Panther 20-30 is suitable for heating large industrial premises.



Fan heaters are usually the least expensive option to permanently heat premises. The fan heater Panther is a range of powerful and quiet fan heaters that are ideal for both demanding environments as well as premises where there are demands on a low sound level.

# Fan Heater Panther 20-30

## Technical specifications | Fan Heater Panther 20-30 kW ⚡

Type	Output steps [kW]	Airflow [m³/h]	Sound level*1 [dB(A)]	Δt*2 [°C]	Voltage [V]	Amperage [A]	HxWxD [mm]	Weight [kg]
SE20	0/10/20	1900/2600	52/60	31/23	400V3N~	29.5	576x478x545	27
SE30	0/10/20/30	1900/2600	52/60	47/34	400V3N~	43.9	576x478x545	31
SE305 (convertible)	0/7.5/15/23 0/10/20/30	1900/2600	52/60	36/26 47/34	440V3N~*3 500V3N~	30.8 35.1	576x478x545	32

\*1) Conditions: Distance to the unit 3 metres. Directional factor: 2. Equivalent absorption area: 200 m².

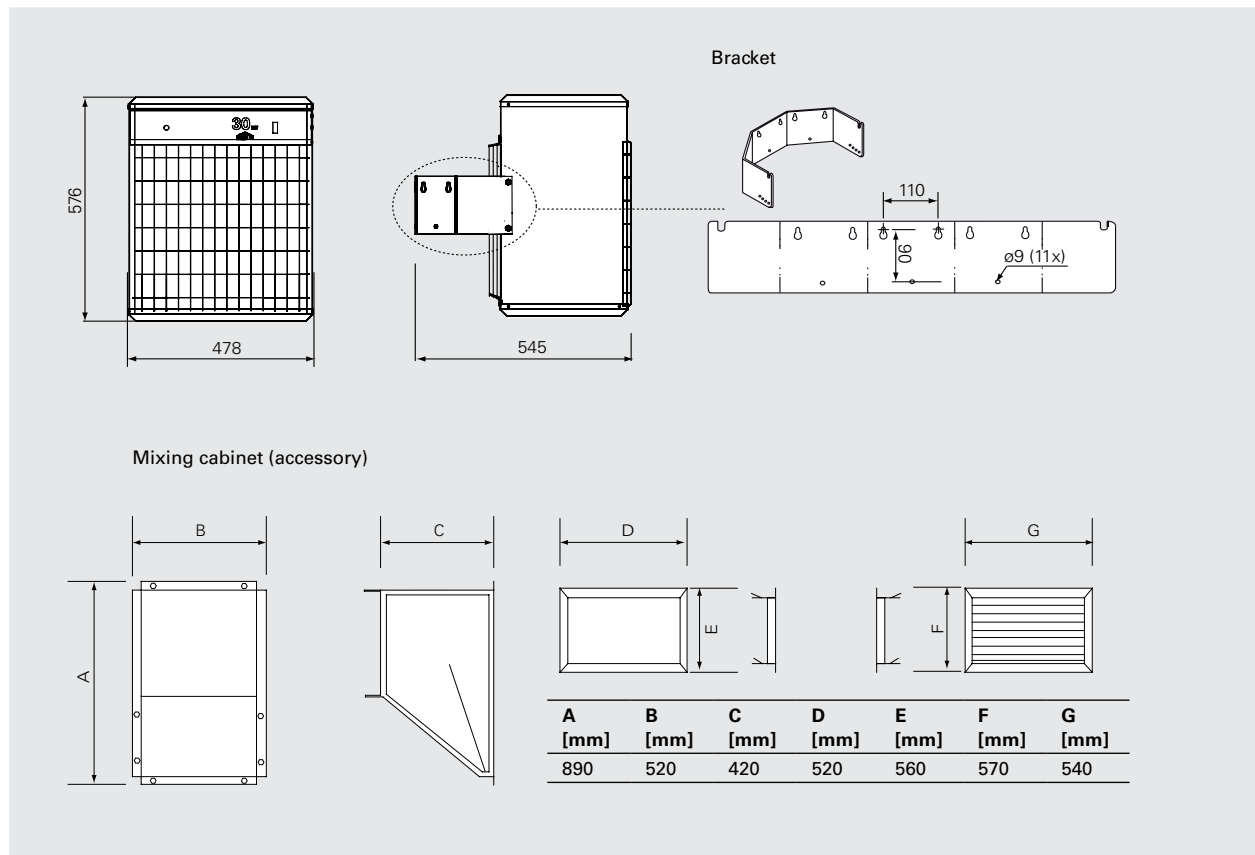
\*2) Δt = temperature rise of passing air at maximum heat output at lowest/highest air flow.

\*3) Can be connected to 440V3~ and 500V3~.

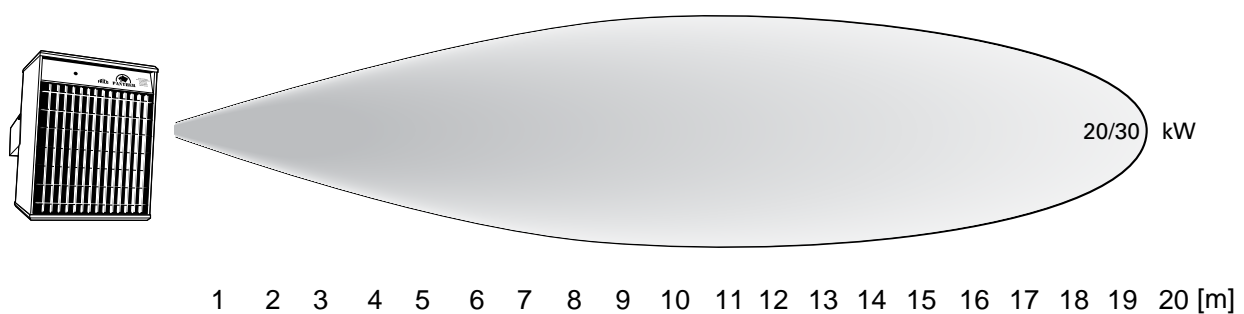
Protection class: IP44.

CE compliant.

## Dimensions



## Air throw



**Mounting and connection**

**Mounting**

The Panther fan heater is mounted on the wall with a wall bracket making it possible to direct the airflow down and to the side. For minimum dimensions with permanent installation, see diagram 1.

**Installation with mixing cabinet**

Mixing cabinet PBS is available as an accessory and consists of an outer wall grille and a walling-in frame. The walling-in frame and outer wall grille are built or screwed to the wall. The mixing cabinet and the unit are then fitted. See diagram 2. The hand controller (PHR01, accessory) consists of a lever, a wall bracket, a control ball and two associated joints. A pull-rod is used between the joints (not included).

**Electrical installation**

The fan heater Panther is intended for permanent installation. Panther must be supplemented with control panel PP20/30 and an external thermostat, for example, RTI2. The knockouts at the rear of the unit are used to connect accessories. SE305 can be connected to both 440V3~ and 500V3~.

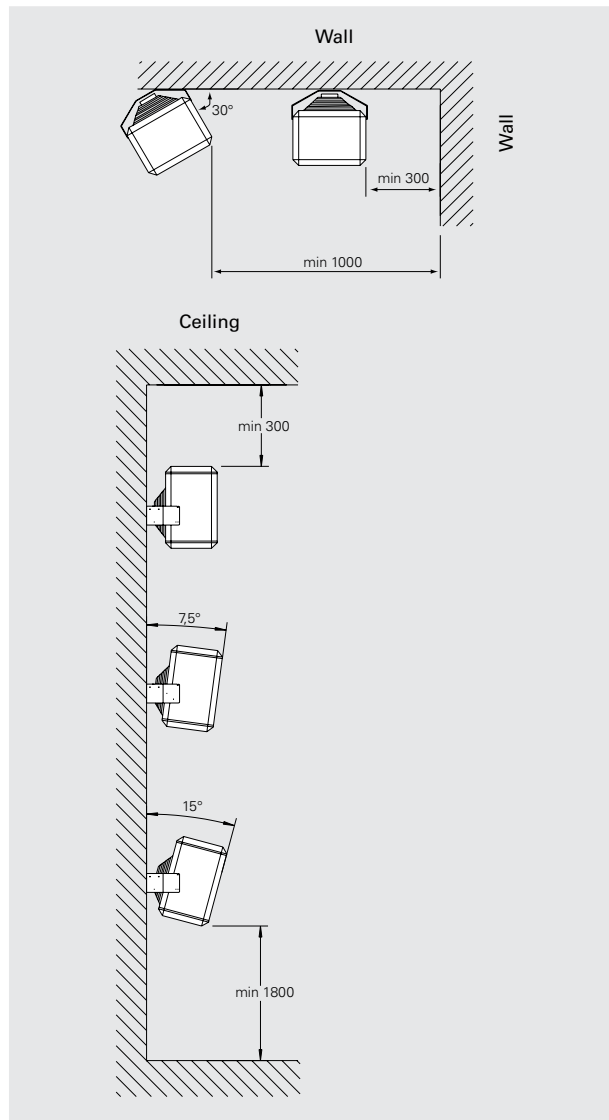


Fig. 1: Minimum distance for fixed installation.

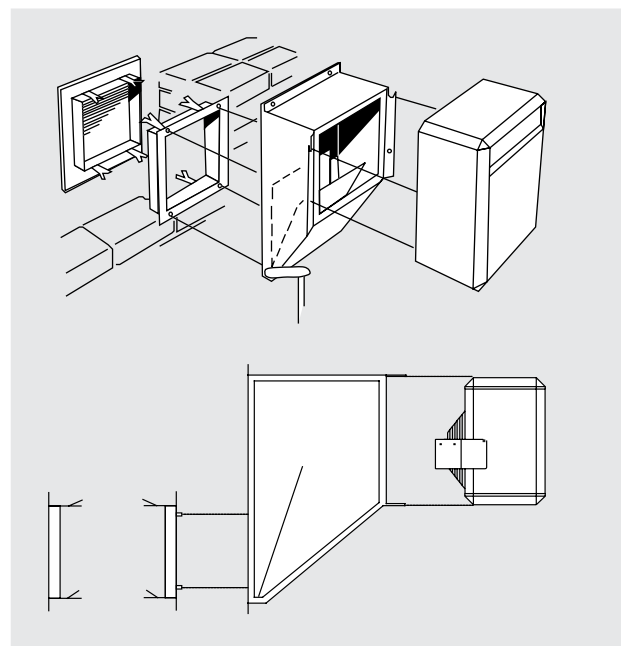


Fig. 2: Cutaway view of Panther with mixing cabinet.

# Fan Heater Panther 20-30

## Control options

### Fan speed and thermostat control

Panther 20–30 kW is controlled using an external thermostat. Selection of the operating mode is done using the external control panel. Delay relays between the output groups prevent simultaneous connection.

- RTI2, electronic 2-step thermostat, IP44
- KRT2800, 2-step capillary tube thermostat, IP55
- PP20/30, control panel, controls up to six units

### Automatic temperature control

The heat can be decreased according to demand, for example at night or weekends. Switches between day and night mode.

- PTA01, automatic temperature control

### Control of mixing cabinet

The mixing cabinet combines heating and ventilation by mixing return air with fresh air in appropriate proportions. Damper control is ordered separately.

- PHR01, control lever, manual damper control
- PSA01, automatic damper- and temperature control
- PSM01, damper motor, is used in combination with PSA01 when several mixing cabinets should be controlled.

## Controls and accessories

### RTI2, electronic 2-step thermostat

Processor controlled 2-step thermostat with concealed dial. Setting range +5 – +35 °C. Connection voltage 230 V (two potential free contacts). Max. breaking current: 16/10 A (230/400 V). IP44.

### KRT2800, 2-step capillary tube thermostat

2-step capillary tube thermostat with concealed dial. Setting range 0 – +40 °C. Max. breaking current: 16/10 A (230/400 V). IP55.

### PP20/30 control box

The desired output and fan speed can be set on the control box. Up to 6 units can be controlled by one control box. Protection class: IP44.

### PTA01, automatic temperature control

PTA01 can be used to lower the heat when necessary (1–10°C), for example at night or weekends. The control consists of an electronic timer and thermostat with an external sensor. The timer alternates between day and night mode. Protection class: IP55.

### PHR01, control lever for mixing cabinet

Used with the mixing cabinet, if you wish to control the damper manually. The pull-rod (not included) for the lever should have a diameter of 8 mm.

### PSA01, automatic damper and temperature regulator

Used on the mixing cabinet. Lowers the temperature and reduces the amount of outdoor air during periods with a low requirement. Consists of timer (weekly timer), thermostat with external sensor, potentiometer and damper motor. Exhaust air fans can possibly be controlled from the automatic system. One damper motor (PSM01) included. IP55.

### PSM01, damper motor

Used in combination with PSA01 when several mixing cabinets should be controlled. (1 damper motor is included in PSA01.) Protection class: IP54.

For further information and options, see the "Controls" section.

### PBS02, mixing cabinet

Saves energy by mixing return air with fresh air in preset proportions. The mixing cabinet is delivered with a wall frame and outer wall grille. Read more under "Mounting and connection".

### PLR30, air director

The air director directs the airflow vertically or laterally. PLR is snapped on the front of the heater. Torsional (turning) angle 0–35°.

### PFF30, exhaust air fan

Can be used with fan heater/mixing cabinet to obtain good ventilation. Airflow approx. 2600 m<sup>3</sup>/h. Protection class: IP54.

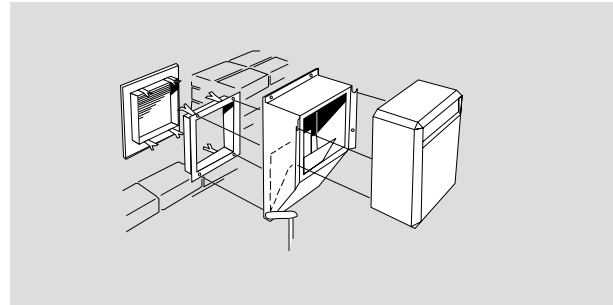
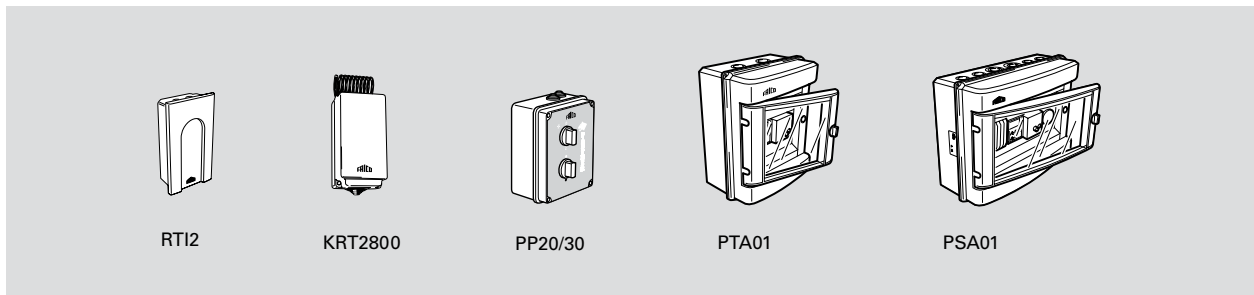


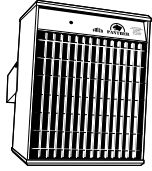
Fig. 3: Mixing cabinet PBS02 with Panther.



Type	Description	HxWxD [mm]
RTI2	Electronic 2-step thermostat	155x87x43
KRT2800	2-step capillary tube thermostat	165x60x57
PP20	Control box for SE20	160x120x96
PP30	Control box for SE30 and SE305	160x120x96
PTA01	Automatic temperature control	185x215x115
PBS02	Mixing cabinet for SE20, SE30 and SE305	890x520x420
PSA01	Automatic damper and temperature control	305x215x115
PHR01	Control lever	
PSM01	Damper motor	180x100x70
PLR30	Air director for SE20, SE30 and SE305	415x445x60
PFF30	Exhaust air fan for SE20, SE30 and SE305	

Wiring diagrams

Speed and thermostat control. Slave connection of the unit.



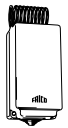
Panther 20 kW



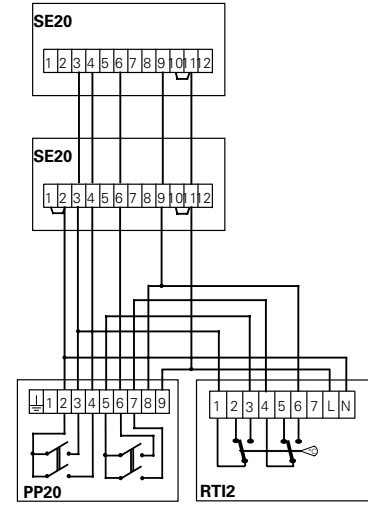
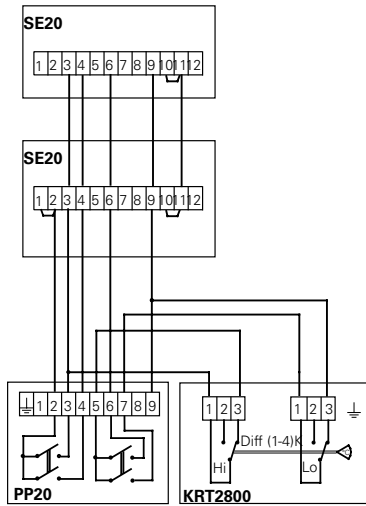
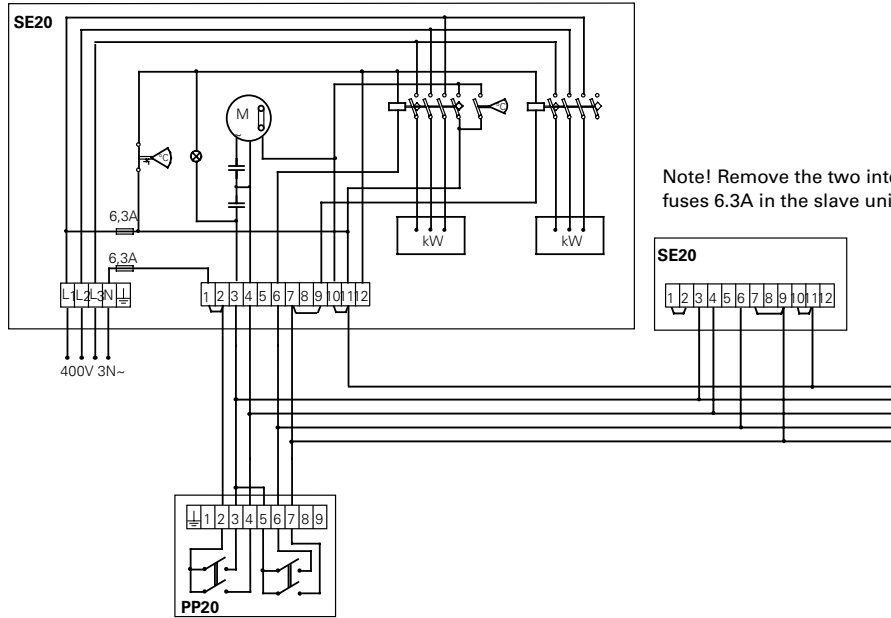
PP20, control box



RT12, electronic 2-step thermostat

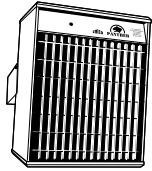


KRT2800, 2-step thermostat



**Wiring diagrams**

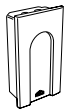
**Speed and thermostat control. Slave connection of the unit.**



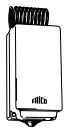
Panther 30 kW



PP30,  
control box



RT12,  
electronic 2-step  
thermostat



KRT2800,  
2-step thermostat

