



Electrical heat 6–30 kW

CE

8 models

Fan heater Panther

WALL MOUNTED FAN HEATER

Panther is a range of silent and efficient fan heaters for fixed installation.

Panther is available in two sizes with different outputs.

Panther 6–15 kW is designed for heating, drying and ventilation of workshops, sport centres, shops, assembly halls and drying rooms etc. Built-in thermostat is included on delivery and output and fan speed can be set on the control panel (accessory). One control panel can control several units. Master/slave function.

Panther 20–30 kW is designed for heating, drying and ventilation of large areas, for example industrial uses. The temperature is regulated by a thermostat (accessory). Time delay relay provides a gradual increase of the output. Equipped with over-run thermostat for efficient cooling. Output and fan speed can be set on the control panel (accessory). One control panel can control several units. Master/slave function.

Panther is delivered with adjustable wall mounting brackets which allow the air flow to be directed.

- Indication lamp
- Corrosion proof casing of hot zinc-plated and powder lacquered steel panels. Colour: RAL 9016
- Adjustable wall mounting brackets allow the air flow to be directed downwards and sideways
- Built-in thermostat with setting range +5 – +35°C (Panther 6–15 kW)
- Manual reset for overheat protection
- Over-run thermostat for efficient cooling (Panther 20–30 kW)



Fan heater Panther is a range of powerful and silent fan heaters suitable for tough environments as well as in areas with a demand for low noise level.



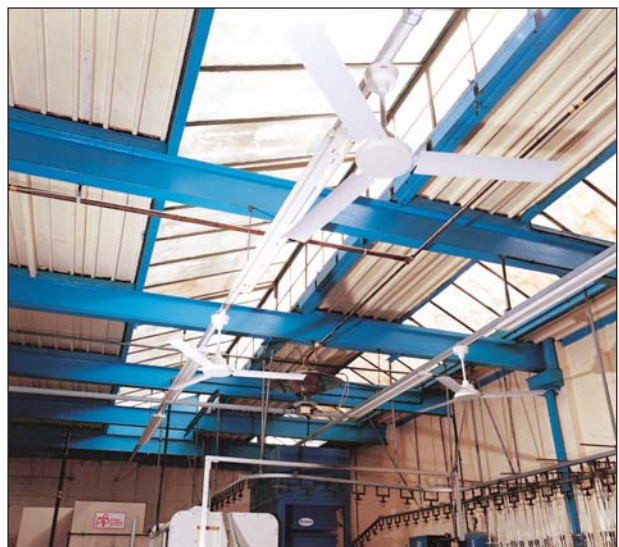
Panther is available with outputs suitable for buildings ranging from small shops to large industrial buildings.



Mixing cabinets combine heating and ventilation. The mixing cabinet saves energy by mixing return air with fresh air in individually preset proportions.



Panther is delivered with adjustable wall mounting brackets which make it possible to direct the air flow for optimal effect and comfort.



It is recommended to supplement fan heater Panther with ceiling fan ICF in buildings with high ceilings. A combination that gives the best comfort and economy!

TECHNICAL SPECIFICATIONS
Fan heater Panther, 6–15 kW

Type	Output stages [kW]	Air flow [m³/h]	Sound level* ¹ [dB(A)]	Δt* ² [°C]	Voltage [V]	Amperage [A]	HxWxD [mm]	Weight [kg]
SE06	0/3/6	900/1300	39/47	20/14	400V3N~	8.7	520x450x510	21
SE09	0/4,5/9	900/1300	39/47	30/21	400V3N~	13	520x450x510	22
SE12	0/6/12	900/1300	39/47	40/28	400V3N~	17.3	520x450x510	22
SE15	0/7.5/15	900/1300	39/47	50/35	400V3N~	21.7	520x450x510	22
SE135 (convertible)	0/5/10	900/1300	39/47	34/23	440V3~	13.4	520x450x510	23
		0/7/13.5		45/31	500V3~	15.6		

*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.

Protection class Panther, 6–15 kW: (IP44), splash-proof design.

Approved by SEMKO and CE compliant.

Fan heater Panther, 20–30 kW

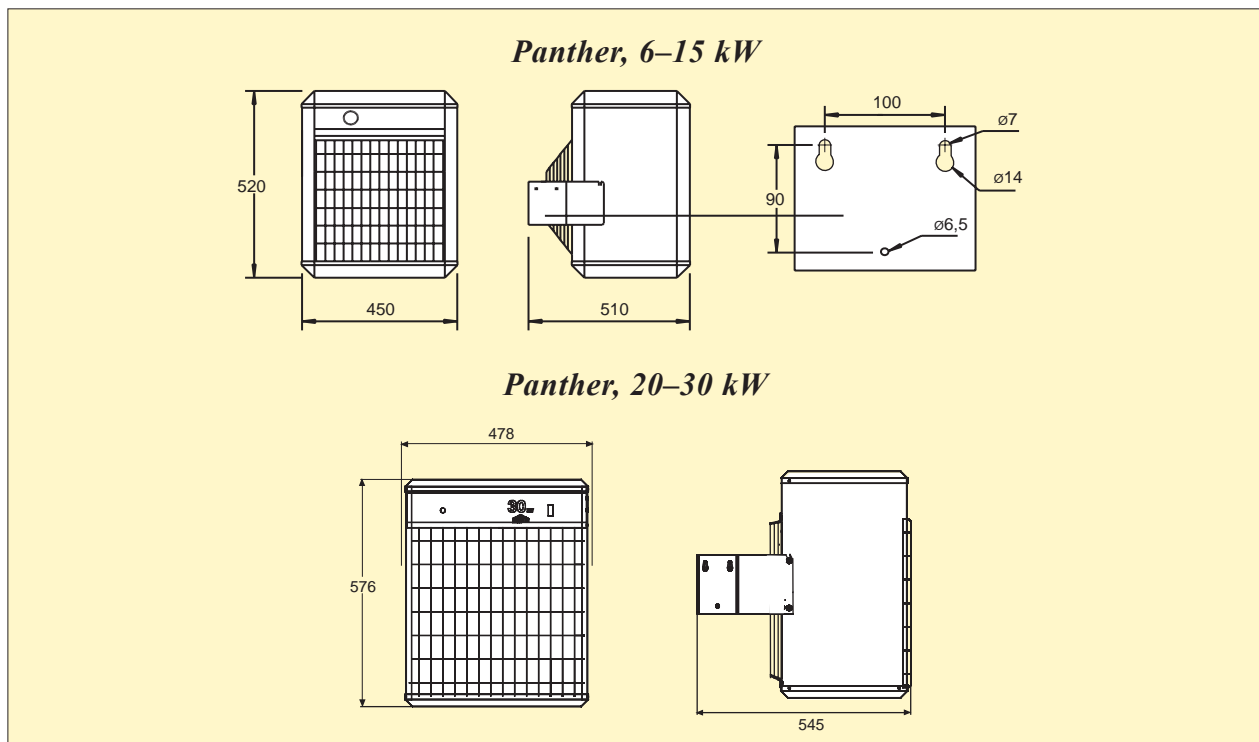
Type	Output stages [kW]	Air flow [m³/h]	Sound level* ¹ [dB(A)]	Δt* ² [°C]	Voltage [V]	Amperage [A]	HxWxD [mm]	Weight [kg]
SE20	0/10/20	1900/2600	52/60	31/23	400V3N~	29.5	576x478x545	27
SE30	0/10/20/30	1900/2600	52/60	47/34	400V3N~	43.9	576x478x545	31
SE305 (convertible)	0/7.5/15/23	1900/2600	52/60	36/26	440V3~	30.8	576x478x545	32
		0/10/20/30		47/34	500V3~	35.1		

*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.

Protection class Panther 20–30 kW: (IP44), splash-proof design.

Approved by SEMKO and CE compliant.

DIMENSIONS


Mixing cabinet, PBS01/02

Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]
PBS01	660	430	365	420	445	445	420
PBS02	890	520	420	520	560	570	540

POSITIONING, MOUNTING AND INSTALLATION

Mounting

Panther is wall mounted with an adjustable wall mounting bracket which allows the air flow to be directed downwards and sideways. Panther must not be mounted on the ceiling. For minimum mounting distance, see Fig. 1.

Mounting with mixing cabinet

PBS01 is suitable for Panther 6–15 kW and PBS02 is suitable for Panther 20–30 kW. The mixing cabinet is available as an accessory and consists of an outer wall grille and an internal wall frame. The internal wall frame and outer wall grille are built into the wall or screwed on to the wall. The hole in the wall should be 370x395 mm (WxH) for PBS01 and 480x510 mm (WxH) for PBS02. The mixing cabinet is assembled on the

screws of the wall frame and locked. The cabinet is also screwed on to the wall. The heater is screwed on to the mixing cabinet. A control lever can be ordered separately and consists of a fixture arm, a mounting bracket, ball and two adherent joints. A rod (not included) with an 8 mm diameter is needed. See Fig. 2.

The mixing cabinet can also be equipped with a separate damper motor or PSA01, automatic damper- and temperature regulator.

Connection

Panther is intended for permanent installation. SE135 and SE305 are convertible between 440V3~ and 500V3~. See wiring diagrams on pages 84-87.

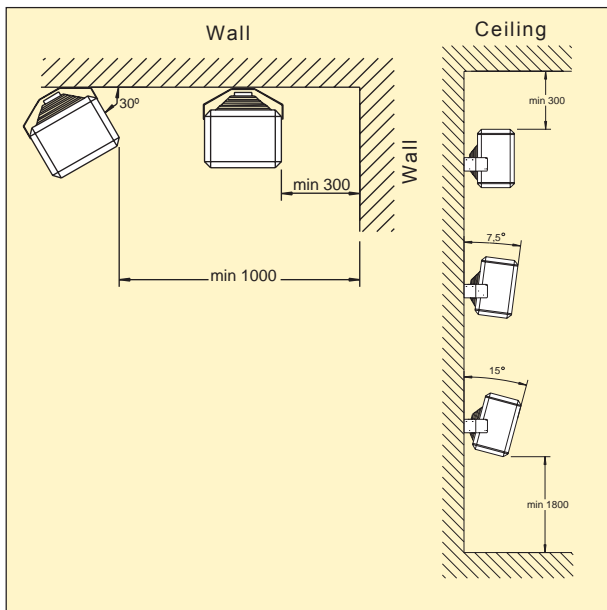


Fig. 1: Minimum distance for permanent installation.

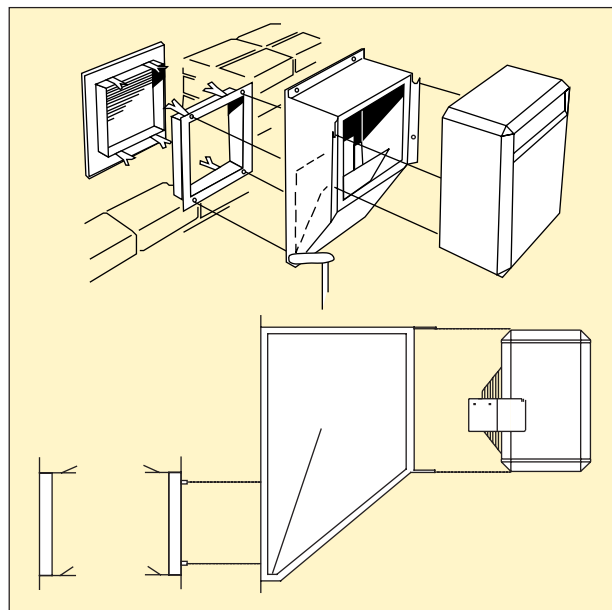


Fig. 2: Cutaway view of Panther with mixing cabinet.

REGULATION ALTERNATIVES

Fan speed and thermostat regulation

Panther 6–15 kW is supplied with built-in thermostat (+5 – +35°C). Required output can be set via the controlpanel, 0-1/2-1/1 as well as fan speed, 0-1-2-3. Up to 6 units can be controlled from the same control panel.

Complete regulation kit:

- PP15, control panel, regulates the output in two stages and the air flow in three stages

Panther 20–30 kW is regulated with an external thermostat, time delay relay provides a gradual increase of the output. Required output can be set via the controlpanel (0-1/2-1/1 for SE20 and 0-1/3-2/3-1/1 for SE30-SE305) as well as fan speed 0-1-2. Up to 6 units can be controlled from the same control panel.

Complete regulation kit:

- KRT2800, 2-stage capillary tube thermostat or RTI2, electronic 2-stage thermostat
- PP20, control panel, regulates the output in two stages and air flow in two stages (SE20) or PP30, control panel, regulates the output in three stages and air flow in two stages (SE30, SE305)

Automatic temperature regulator

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

Complete regulation kit:

- PTA01, automatic temperature regulator

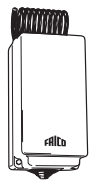
Regulation of mixing cabinet

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

Complete regulation kit:

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

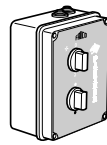
ACCESSORIES



KRT2800



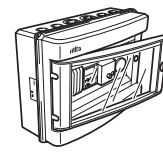
RTI2



PP15/20/30



PTA01



PSA01

KRT2800, 2-stage capillary tube thermostat

Possible to adjust the temperature difference between the stages (1–4°C), setting range of 0 – +40°C. Required connection voltage: 230/400V (two volt free contacts). Protection class: IP55.

RTI2, electronic 2-stage thermostat

Possible to adjust the temperature difference between the stages (1–10°C), setting range of +5 – +35°C. Required connection voltage: 230V (two volt free contacts). Protection class: IP44.

PP15/20/30, control panel

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

PTA01, automatic temperature regulator

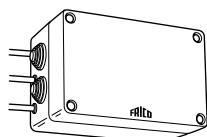
PTA01 can be used to lower the heat when necessary (1–10°C), for example at night or weekends. The regulator consists of an electronic timer and thermostat with an external sensor. The timer alternates between day and night mode. Protection class: IP55.

PBS01/02, mixing cabinet

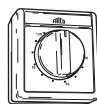
Saves energy by mixing return air with fresh air in preset proportions. The mixing cabinet is delivered with a wall frame and outer wall grille.

PSA01, automatic damper and temp. regulator

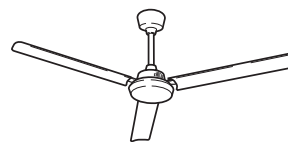
Lowers the temperature and reduces the air intake when the demand is lower. Consists of timer and thermostat with sensor, potentiometer and damper motor. If an exhaust fan is used, it can also be controlled with PSA01. Protection class: IP55.



FEVK01



TIM120/240



ICF440

PHR01, control lever

Manual damper regulation of the mixing cabinet.

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.

PLR 15/30, air director

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

PFF 15/30 exhaust air fan

Can be used with fan heater/mixing cabinet to obtain good ventilation. Air flow approx. 1400 m³/h or 2600 m³/h. Protection class: IP54.

PTRP, drying room kit

Consists of exhaust air fan, thermostat and timer. The exhaust air fan works alternately with for example a fan heater for shortest possible drying time and minimal energy consumption. The complete kit includes fan heater Panther with output 6–12 kW.

FEVK01, load guard

The load guard limits the addition of output so that the current does not exceed the rated value of the main fuse, in that case it disconnects a chosen section. With built-in contactor. Three current transformers 16–35 A are included. Maximum load that can be disconnected is 11 kW (16A). FEV01 and an external contactor which can take larger loads is used when the load is larger than 11 kW. Protection class: IP44.

FEVS02, current transformer

33–145 A, complementary to load guard FEVK01. 3 pieces.

TIM120/240, timer

Mechanical timer for 2 and 4 hours respectively. Enclosed design for external mounting. Disconnects the heater when the preset time has expired. Protection class: IP44.

ICF440, ceiling fan

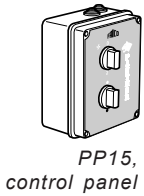
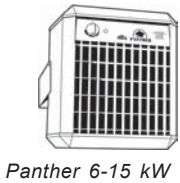
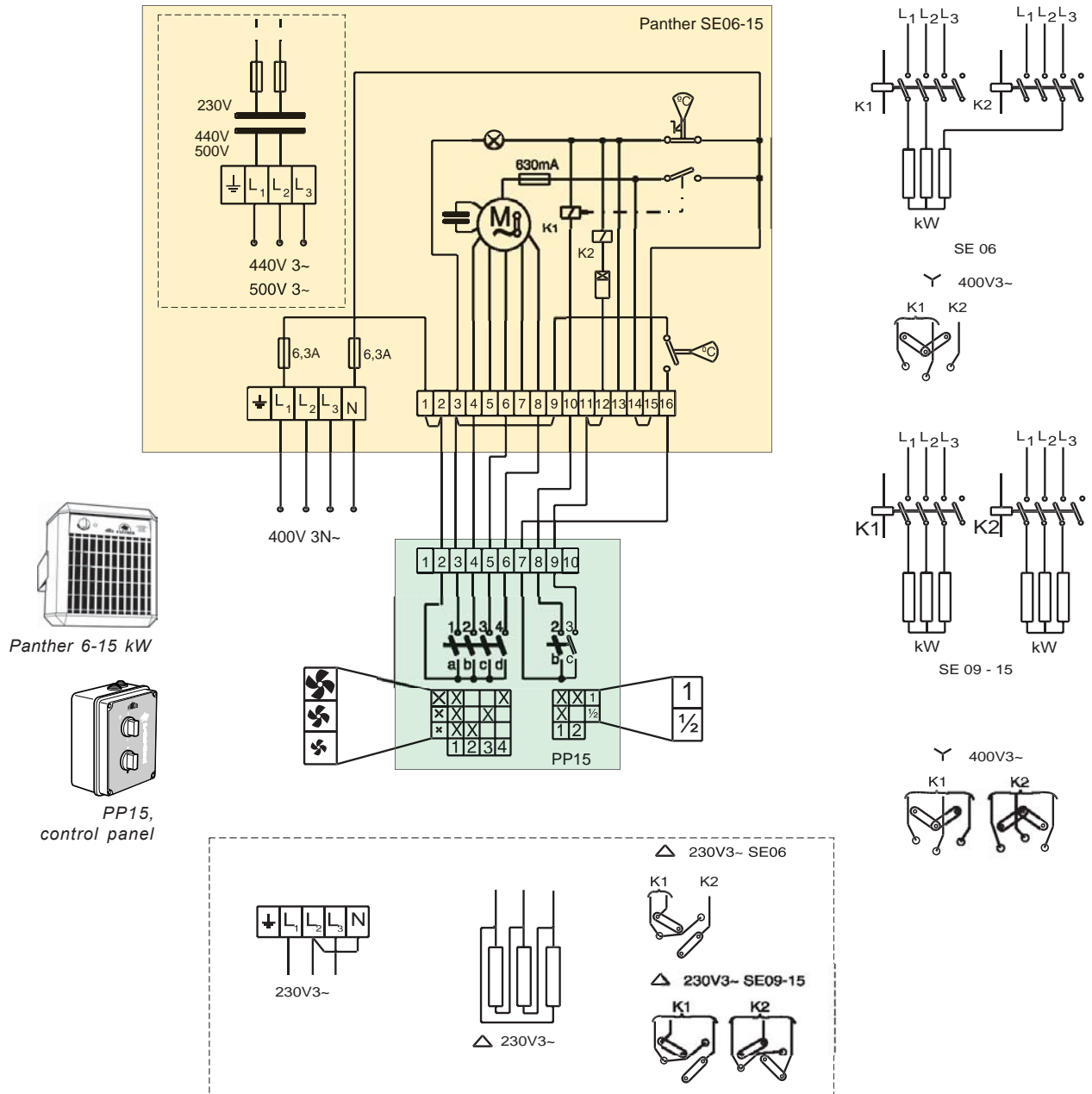
Ceiling fans provide large savings when the ceiling height is above 4.5 metres. Read more on page 114-117. Protection class: IP44.

For further alternatives, see section on Thermostats and regulators.

Type	Description	HxWxD [mm]
KRT2800	2-stage capillary tube thermostat	165x60x57
RTI2	Electronic 2-stage thermostat	155x87x43
PP15	Control panel for SE06 – SE15	160x120x96
PP20	Control panel for SE20	160x120x96
PP30	Control panel for SE30 and SE305	160x120x96
PTA01	Automatic temperature regulator	185x215x115
PBS01	Mixing cabinet for SE06 – SE15	see page 81
PBS02	Mixing cabinet for SE20, SE30 and SE305	see page 81
PSA01	Automatic damper and temperature regulator	305x215x115
PHR01	Control lever	
PSM01	Damper motor	180x100x70
PLR15	Air director for SE06 – SE15	355x355x60
PLR30	Air director for SE20, SE30 and SE305	415x445x60
PFF15	Exhaust air fan for SE06 – SE15	
PFF30	Exhaust air fan for SE20, SE30 and SE305	
PTRP	Drying room kit without fan heater	
PTRP06	Drying room kit with fan heater SE06	
PTRP09	Drying room kit with fan heater SE09	
PTRP12	Drying room kit with fan heater SE12	
FEVK01	Load guard 16-35A	82x195x155
FEVS02	Current transformer 33-145A (3 pieces)	
TIM120	Timer 2 hours	80x75x70
TIM240	Timer 4 hours	80x75x70
ICF440	Ceiling fan	465x1400 (HxØ)

WIRING DIAGRAMS PANTHER 6-15 KW

Manual 3-stage fan speed regulation and output limitation in stages 0-1/2-1/1 via control panel PP15.

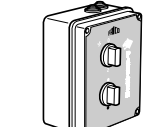
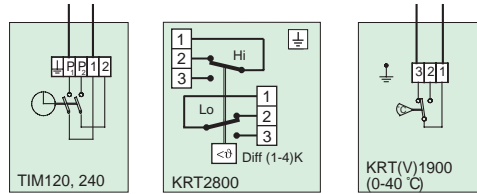


WIRING DIAGRAMS PANTHER 6-15 KW

Wiring of accessories to Panther 6-15.



Panther 6-15 kW



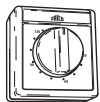
PP15,
control panel



KRT1900,
capillary tube thermostat

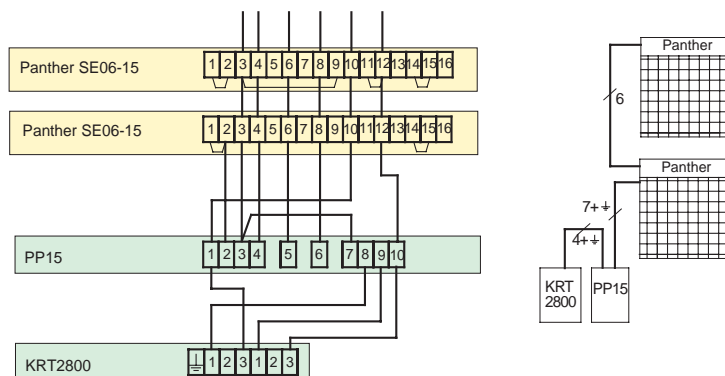
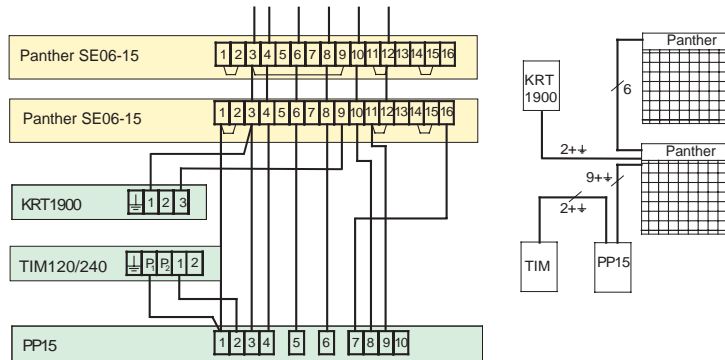
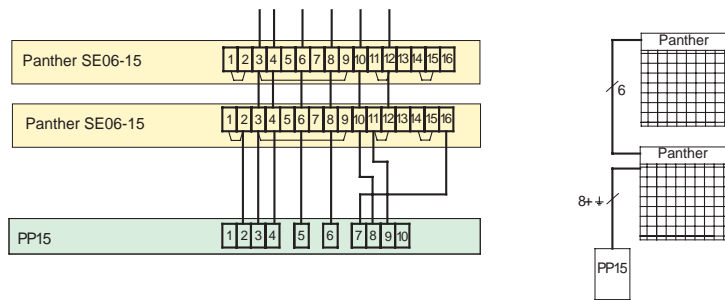
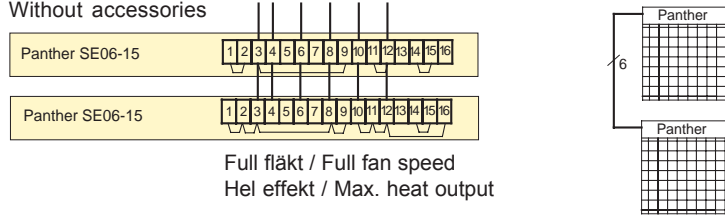


KRT2800
2-stage capillary tube thermostat



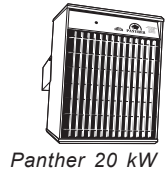
TIM120/240,
timer

Utan tillbehör /
Without accessories

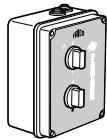


WIRING DIAGRAMS PANTHER 20 KW

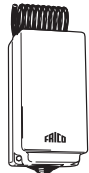
Manual 2-stage fan speed regulation and output limitation in stages 0-1/2-1/1 via control panel PP20 and external thermostat. Slave connection. Timer connection.



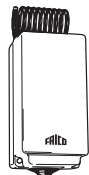
Panther 20 kW



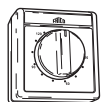
PP20, control panel



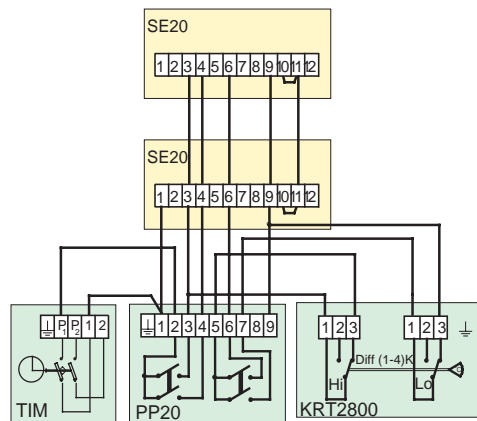
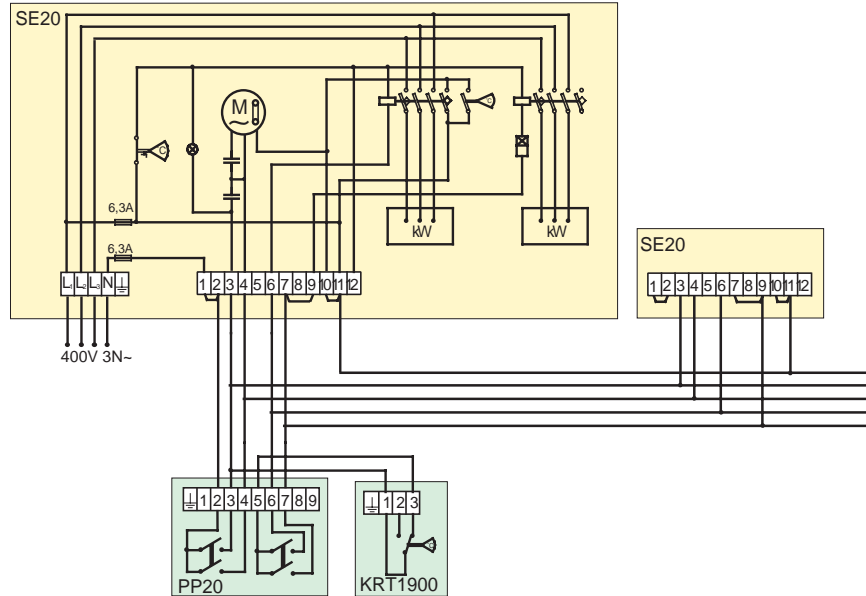
KRT1900, capillary tube thermostat



KRT2800 2-stage capillary tube thermostat

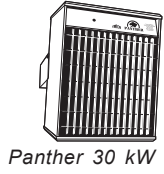


TIM120, timer

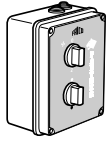


WIRING DIAGRAMS PANTHER 30 KW

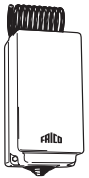
Manual 2-stage fan speed regulation and output limitation in stages 0-1/3-2/3-1/1 via control panel PP30 and external thermostat. Slave connection. Timer connection.



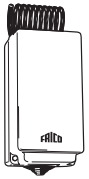
Panther 30 kW



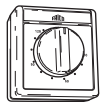
PP30, control panel



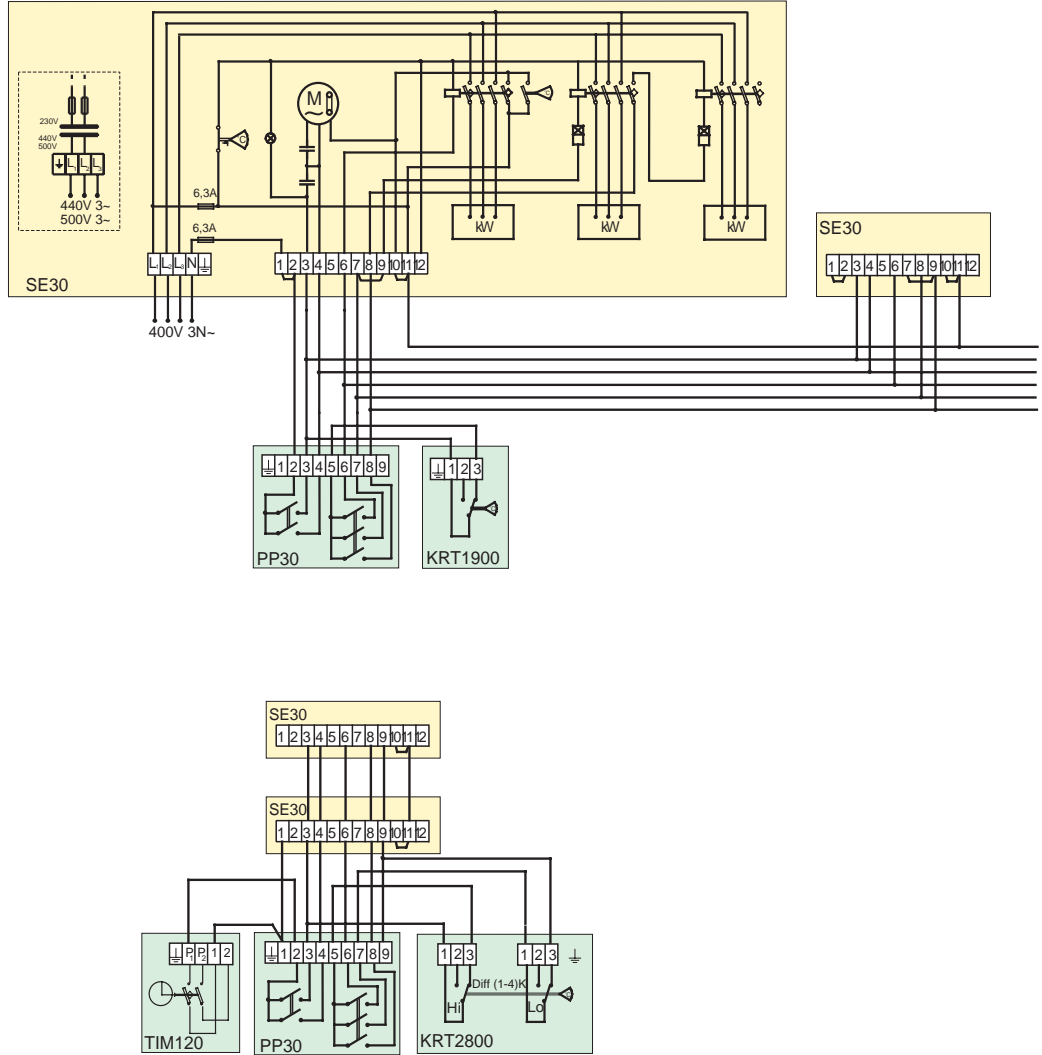
KRT1900, capillary tube thermostat



KRT2800 2-stage capillary tube thermostat



TIM120, timer



Fan heaters