

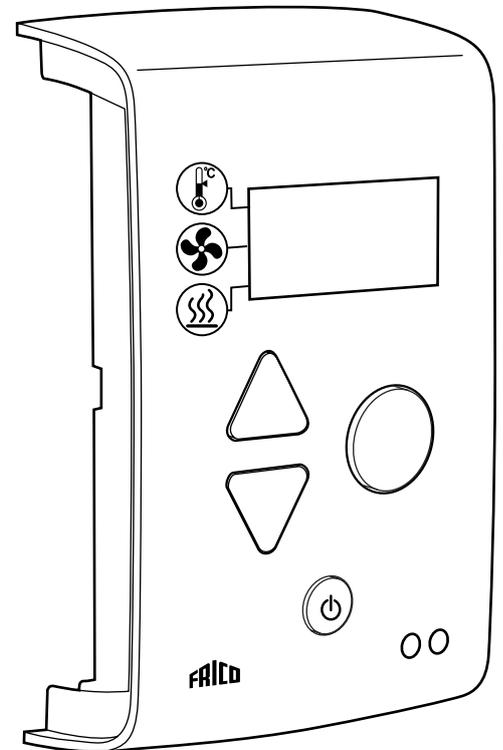
Original instructions

SIRe Basic Fan Heaters

Electric

With quick guide

SIReBX



For wiring diagram, please see last pages.

Quick guide/start up

Check that all constituent parts are present (see section Constituent parts).

Advice about location

Control unit SIReUB1 has an integrated room temperature sensor and is installed so that it is easily accessible to the user.

PC Board base SIReB1X is installed close to the unit. Wiring between the PC Board Base SIReB1X and heating fan must be laid for 230V.

RJ12 (6p/6c) modular cables, which are available in different lengths, are used to connect the PC board and the control unit. Longer cables are available as options. Maximum cable lengths see section Options.

To prevent unauthorised people from accessing the Control unit it can instead be placed in another area and an external room sensor, SIReRTX (option), can be installed in the premises to sense the correct temperature.

Note! Internal sensor SIReIT02 shall be mounted in the fan exhaust in the fan heater unit in intended holder.

Connect the system

In PC board Base SIReB1X the unit is connected further with RJ12 (6p/6c) modular cable if several units are to be connected in parallel.

If an external room temperature sensor SIReRTX is used it is connected using modular cable RJ11 (4p/4c) on SIReB1X.

PC board Base SIReB1X in/at the unit and control unit SIReUB1 is connected with RJ12 (6p/6c) modular cable after the other units are powered up.

Power supply for electric heat must be connected separately (check manual for the fan heater unit).

Wiring diagrams

The wiring diagrams are in a separate section at the end of this manual.

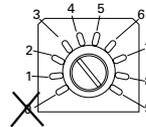
Enter ID/Operation without control unit

The control system can control one or more units in parallel (max 9). Each unit must get a unique ID number (1-9) which is set in the ID selector of the PC board. E.g. Unit 1: ID=1, unit 2: ID=3

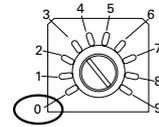
If the external control for some reason has not been installed the unit can still be run temporarily. The ID selector is then set to mode 0 see the image below.

The function is half speed and half heating output

When the ID number must be changed the unit must be disconnected from power.



Each unit should have a unique ID on its SIReB1X card.



To run the unit temporarily without external control select mode 0.

Start up

System supplied with power. Three digits 1.4.0. (software version) is quickly shown in the status window followed by three horizontal lines. After about 30 seconds the prevailing room temperature is then shown in the status window.

After the first start up the following basic settings are made. Use arrow up/down and set the desired room temperature, fan speed step and heating step. To change a setting push the round button (confirm), the setting will start to flash and can be adjusted by using the arrow up/down.

Factory settings gives manual control of fan and heating controlled by thermostat. For more setting alternatives see section Operating modes.

At the first start up alarm and error codes can occur, these can usually be reset without action.

	Fansteps	Heatsteps
SE06-15	4	2
SE20	2	2
SE30	2	3

Choose desired room temperature 5 - +30 °C



Choose fan step 1-5 (alt. 1-3)



Activate heat

0 = No heat

1 = Heat step 1 possible

2 = Heat step 2 possible

(3 = Heat step 3 possible)

Heat steps controlled by thermostat



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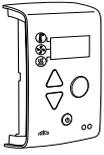
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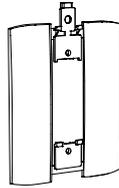
Wiring diagrams, see last pages

Constituent parts

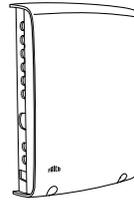
SIReBX



SIReUB1,
control unit Basic



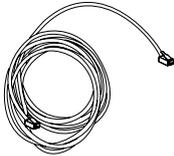
Wall unit
cover



SIReB1X, External
PC board Basic



SIReIT02, internal
temperature sensor
2 m



SIReCC,
modular cables

Dimensions constituent parts

Type	Description	HxWxD [mm]	L [m]
SIReUB1	Control unit	120x70x35	
SIRB1X	PC Board Base		
SIReIT02	Internal sensor		2
SIReCC605	Modular cable RJ12 (6/6)		5

Option



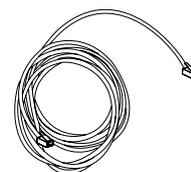
SIReRTX, external room temperature sensor



SIReCJ4, joint piece



SIReCJ6, joint piece



SIReCC, modular cable

Type	RSK-no.	E-no.	Description	HxWxD	L [m]
SIReRTX	673 09 22	87 510 12	External room temperature sensor	70x33x23	
SIReCJ4			Joint piece for two pcs. RJ11 (4/4)		
SIReCJ6			Joint piece for two pcs. RJ12 (6/6)		
SIReCC603	673 09 23	87 510 13	Modular cable RJ12 (6/6)		3
SIReCC605	673 09 24	87 510 14	Modular cable RJ12 (6/6)		5
SIReCC610	673 09 25	87 510 15	Modular cable RJ12 (6/6)		10
SIReCC615	673 09 26	87 510 16	Modular cable RJ12 (6/6)		15
SIReCC403	673 09 27	87 510 17	Modular cable RJ11 (4/4)		3
SIReCC405	673 09 28	87 510 18	Modular cable RJ11 (4/4)		5
SIReCC410	673 09 29	87 510 19	Modular cable RJ11 (4/4)		10
SIReCC415	673 09 30	87 510 20	Modular cable RJ11 (4/4)		15

Max. cable lengths

- Modular cable RJ12 (6p/6c) between SIReUB1 and SIReB1(X): max 50 m.
- Modular cable RJ12 (6p/6c) between two SIReB1(X): max 50 m.
- Modular cable RJ11 (4p/4c) to room sensor SIReRTX: max 20 m.

Total cable length is permitted in the system is a maximum of 300 m.

Operating modes

Operating modes

Factory settings gives manual control of fan and heating controlled by thermostat at chosen step.

	Fansteps	Heatsteps
SE06-15	4	2
SE20	2	2
SE30	2	3

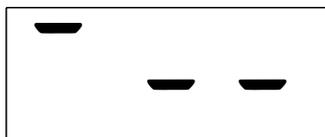
Auto mode

Change parameter P04 from 0 to 1 (see list of parameters on next page) to active auto mode. Thermostat controls both fan and heating

Manual mode

Decrease the temperature setting below 5 °C and the following symbols are shown in the status window = manual mode.

In manual mode both fan- and heating steps are controlled manually.



Fan over run

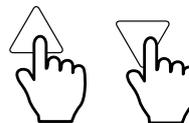
When heat has been activated the fan will continue to run to cool down the unit. The over run time is 180 seconds or shorter if the internal temperature has dropped below +30 °C (only valid for units with internal temperature sensor).

Heat regulation

When the room temperature drops below the set point temperature the first heating step is activated. If temperature continues to drop, another heating step is activated (see description below parameters P.00).

Set values

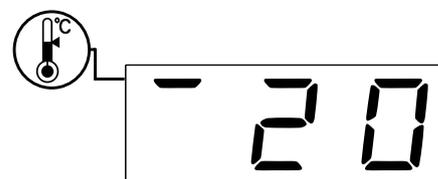
Use arrow up /down to choose desired room temperature, fan speed step and heating step.



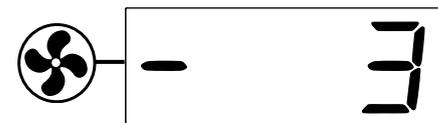
Push the confirm button and the digit(s) starts to flash. The value can now be adjusted using the arrow up /down, and confirm.



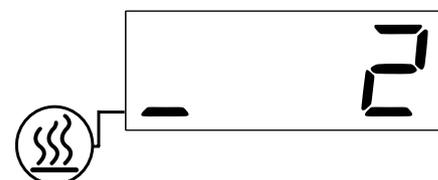
Temperature



Fan speed step



Heating step



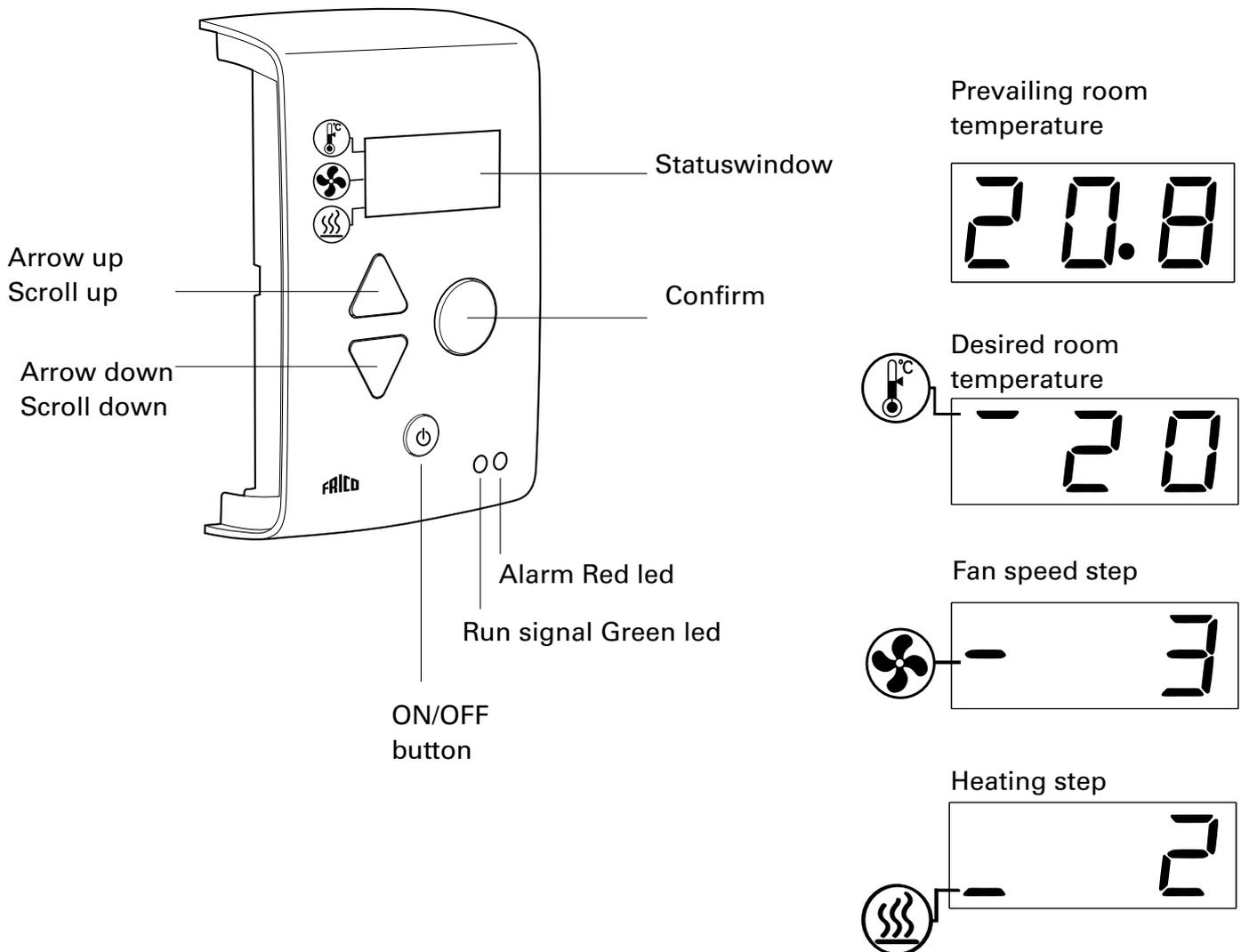
System on/off

Press the ON /OFF button for 2 seconds to switch off the system. The unit's safety functions are still active when the system is switched off, which means that the fan can continue to run for a moment after mode OFF has been selected.



Control unit SIReUB1

Overview



Explanations

Status window

The status window has four main displays: prevailing and desired room temperature, fan and heating setps. Alarm codes and parameter settings can also be shown in the status window.

Arrow up

Scroll up in menu / increase a setting.

Arrow down

Scroll down in menu / decrease a setting.

Confirm

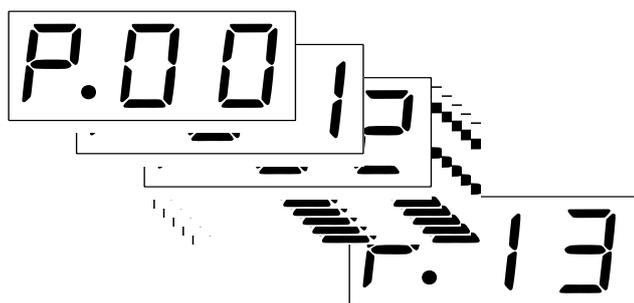
To have access to the Installers menu, choose parameters and confirm an adjusted setting.

After about 20 seconds the control unit goes back to displaying the prevailing temperature.

Installer menu

Parameter menu

Keep Confirm button pressed until P00 is shown in the status window. Use arrow up / down to scroll between the parameters. Press Confirm button once to change a setting in the parameter menu. Flashing values can be adjusted using the arrow up/down and then confirm. Keep the Confirm button pressed to return to the status window. (Returning automatically to the status window after about 50 seconds).



Parameter description

P00 Temperature difference heating steps

Sets the difference between the heating steps. Factory setting of 1,0 and a desired room temperature of 20 °C gives the following operation: Low heating step is connected at +19,5 °C (disconnected at +20,0 °C). If temperature continue to drop below +18,5 °C another heating step is connected (disconnected at +19,0 °C), etc.

P01 Overheating alarm ON/OFF

Possibility to block the alarm (only valid for units with internal temperature sensor).

P02 Over run time

Time when the fan continue to run when the heat has been activated (only valid for units with internal temperature sensor).

P03 Temperature limit for over run

Over run time is cancelled if the internal temperature drops below this set value (only valid for units with internal temperature sensor).

P04 Fan control

Choose manul (0) or auto (1) mode, read more under section Operating mode.

P05 Internal temperature

Prevailing internal temperature. Only the peak value is shown when several units are connected (only valid for units with internal temperature sensor).

P06 - P13 Run time

Run time for fan and heating steps.

List of parameters

Parameter-number	Description	Setting range	Factory setting
P.00	Temperature difference between heating steps	0,5-10	1.0 °C
P.01	Overheting alarma ON/OFF ON=1; OFF=0	1/0	1
P.02	Over run time when heat has been activated	10-300	180 seconds
P.03	Temperature limit for fan over run	10-40	30 °C
P.04	Fan control: Manul rorAuto; 0=Manul, 1 = Auto	0/1	0
P.05	Display of unit internal/outlet temperature	0-100	
P.06	Run time fan step 1	0-99999	
P.07	Run time fan step 2	0-99999	
P.08	Run time fan step 3	0-99999	
P.09	Run time fan step 4	0-99999	
P.10	Run time fan step 5	0-99999	
P.11	Run time heating step 1	0-99999	
P.12	Run time heating step 2	0-99999	
P.13	Run time heating step 1+2	0-99999	

Alarm and error codes

Overheat protection

SE06-15:

The over heating protection is intended to restrict the exhaust temperature to 70 °C. At 70 °C an output step is tripped off. If the temperature continues to rise all output is interrupted at 75 °C. If the temperature continues to rise despite this, for example because of a faulty contactor, the fan will start to spin at 70 °C to keep the temperature down. At the same time there is an over heating alarm, see Table - Alarm. At internal temperatures of +80 °C the fan runs at maximum speed.

If the unit cools the output is engaged again. The alarm remains in the control unit's display. If the unit overheats twice within an hour, the alarm must be reset before the heating can be engaged again, the fan operates until the alarm is reset.

SE20-30:

The over heating protection is intended to restrict the exhaust temperature to 85 °C. At 85 °C an output step is tripped off. If the temperature continues to rise all output is interrupted at 90 °C. If the temperature continues to rise despite this, for example because of a faulty contactor, the fan will start to spin at 85 °C to keep the temperature down. At the same time there is an over heating alarm, see Table - Alarm. At internal temperatures of 95 °C the fan runs at maximum speed.

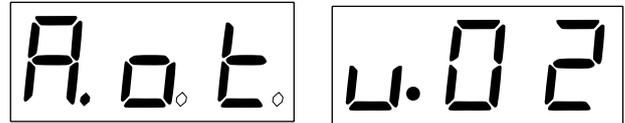
If the unit cools the output is engaged again. The alarm remains in the control unit's display. If the unit overheats twice within an hour, the alarm must be reset before the heating can be engaged again, the fan operates until the alarm is reset.

Note! In event of repeated alarms and over heating alarms, carry out a thorough check and if the fault cause cannot be found contact authorised service personnel or Frico.

Displaying alarm and error codes

In event of alarm or error the alarm/error code and the unit it applies to is shown in the

status window. Alarm error codes see Table - next page. The status window alternate the display of the alarm/error code and faulty unit ID causing the problem.



Reset alarm

Note! Before resetting, check that the fault is rectified and there is nothing to prevent the unit from being recommissioned!

When the fault is rectified, the alarm is reset according to description below.

If "wrong" button is pressed the alarm display disappears but returns in status window after about 20 seconds.

At the first start up alarm and error codes can occur, these can usually be reset without action.

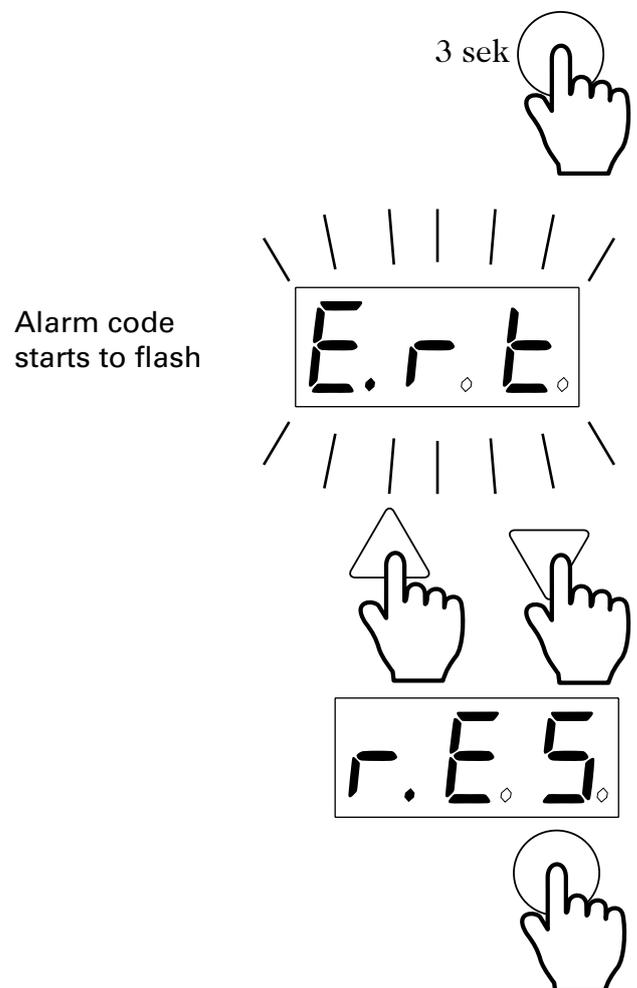


Table - Alarm

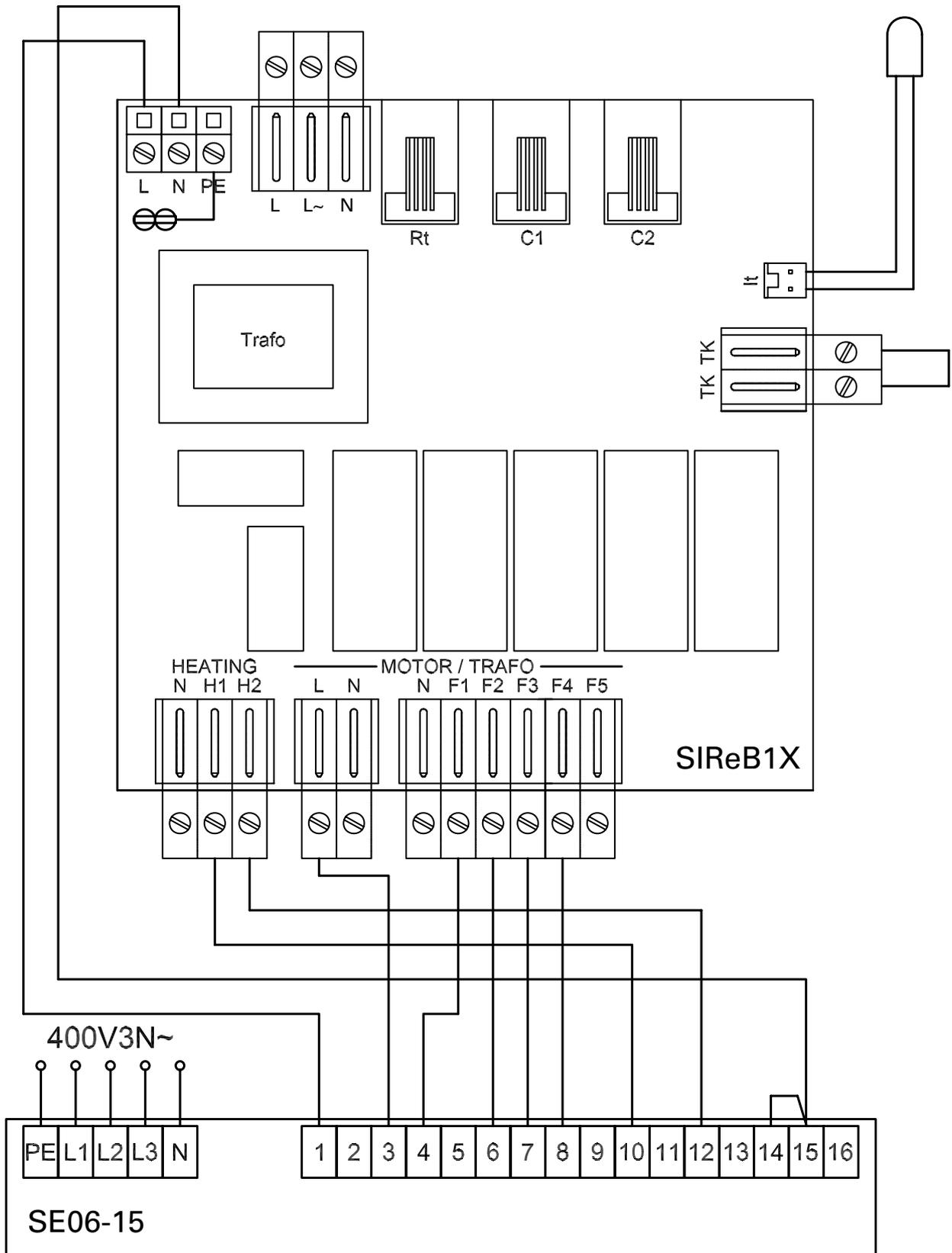
Alarm	Cause	Action
A.FA Motor alarm	Thermal switch has deployed. One or several motors have overheated. (Only units with withdrawn thermal switches.)	Check that nothing is obstructing the unit's air intake and exhaust. When the overheated motor has cooled the thermal switch shuts again and the alarm can be reset. At repeated alarms, check the motors, replace damaged motors.
A.ot Over heating alarm	The temperature in the unit has exceeded the alarm limit for overheating. (Only applies to units with internal unit temperature.)	Check that nothing is obstructing the unit's air intake and exhaust, the function of the internal temperature sensor.

Table - Error codes

Error code	Cause	Action
E.co Communication	SIReB1X has no contact with SIReUB1.	Check connection between the SIReB1X and SIReUB1. Replace any modular cables.
	PC board SIReB1X has no ID = 0	Interrupt the power supply and select different ID numbers for all SIReB1X in the system.
	Two or more SIReB1X have the same ID-number.	Interrupt the power supply and select different ID numbers for all SIReB1X in the system.
	One or more SIReB1X do not have programs.	Contact Frico for support.
E.cF ID Error	Two or more SIReB1X in the system have different programs.	Contact Frico for support.
E.rt Room sensor error	Error in or missing external room sensor SIReRTX connected to SIReB1X.	Always disconnect the power supply when connecting or disconnecting sensors. Check connection of the sensor.
E.lt Internal sensor error	Fault on or missing internal sensor in the unit (applies to units with internal sensor).	Check connection of the sensor. If there is no sensor, contact Frico for support.
E.ru Room sensor error	Fault on internal room sensor in the control unit SIReUB1.	Check connections between SIReUB1 and SIReB1X. Replace any modular cables. Check if an external sensor SIReRTX is working. If the error is not rectified the SIReUB1 must be replaced.

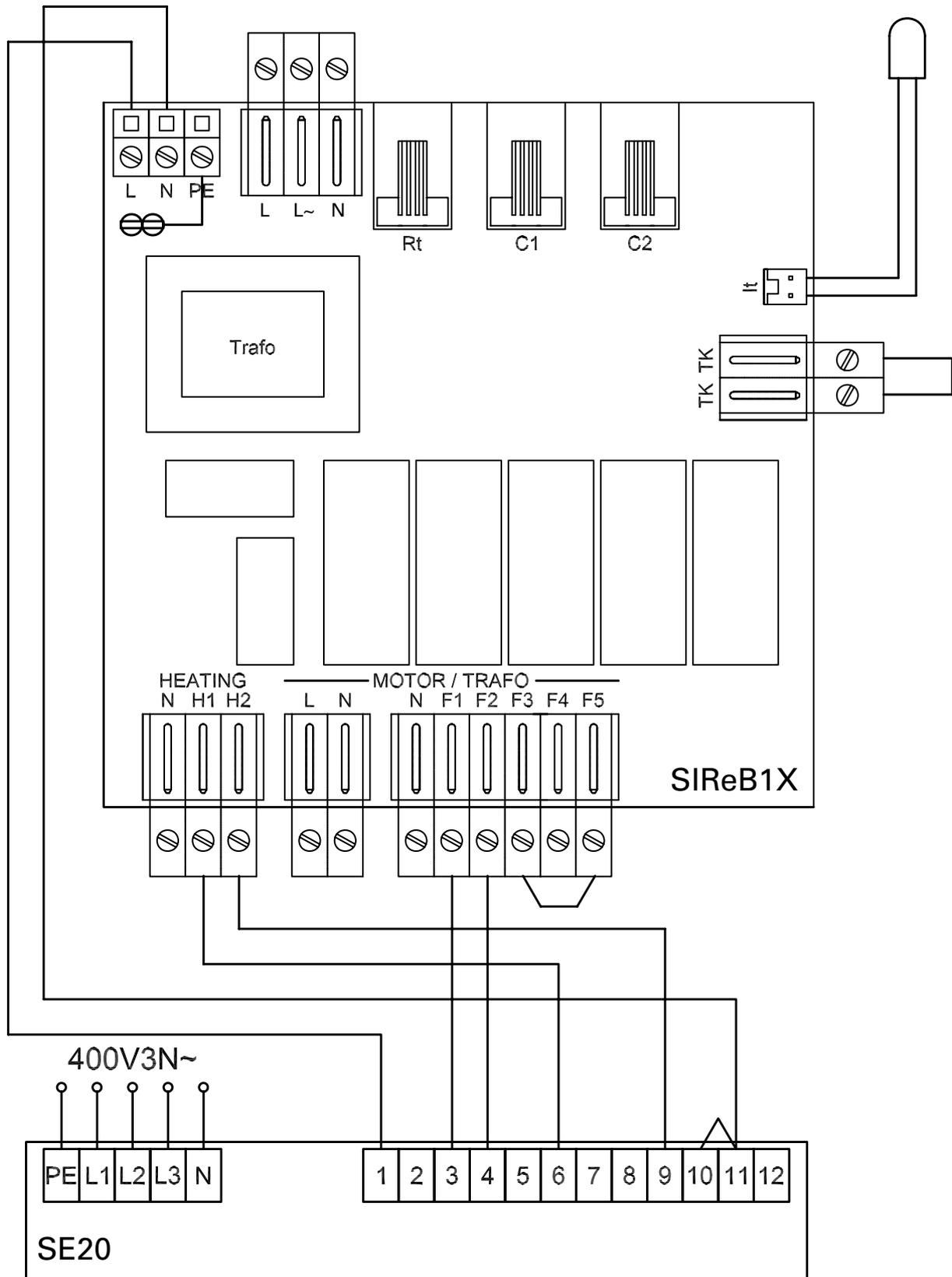
SIRe Basic Fan Heaters Electric

Connections between SIReB1X and Panther SE06, SE09, SE12 and SE15.



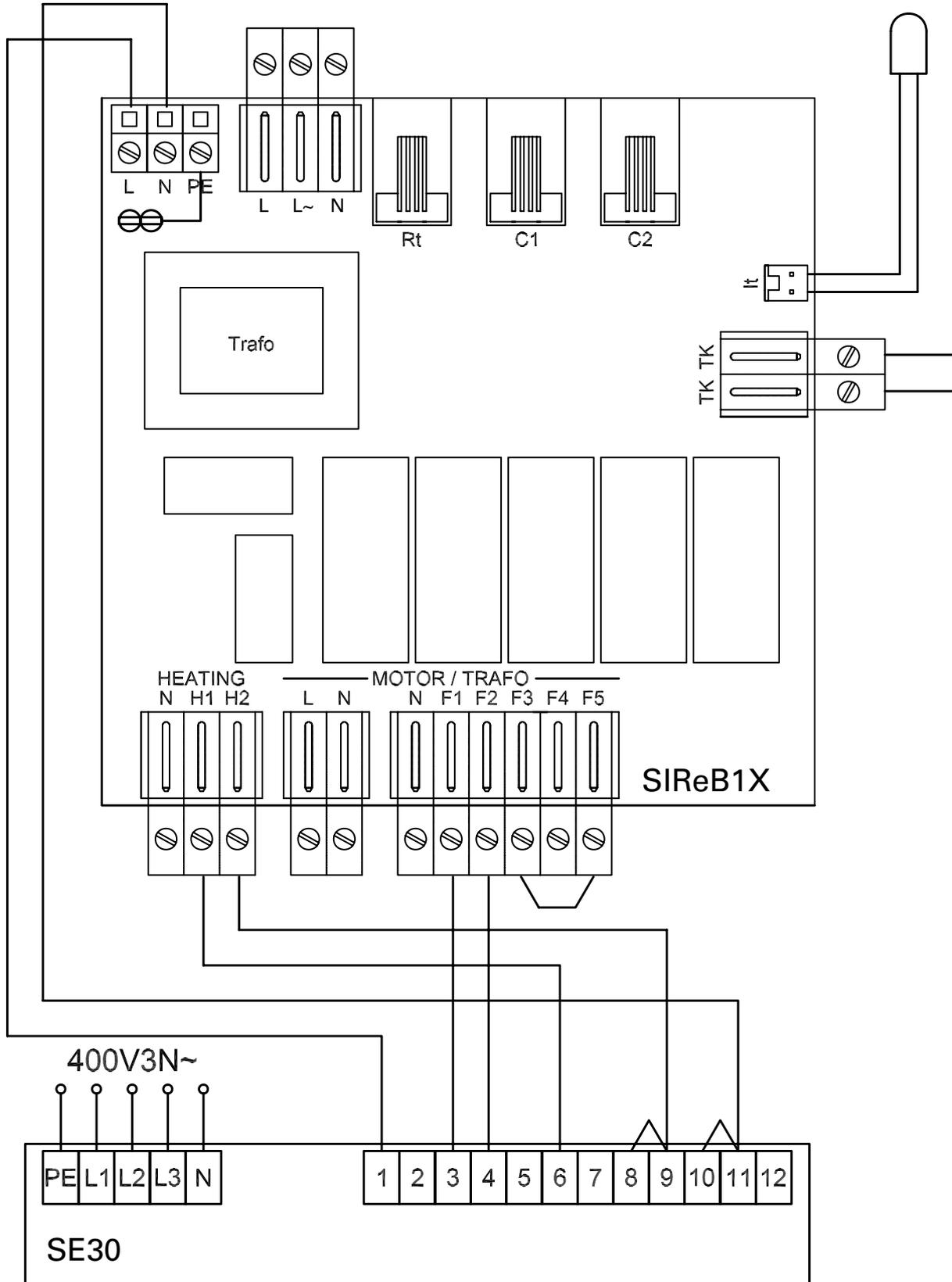
SIRe Basic Fan Heaters Electric

Connections between SIReB1X and Panther SE20



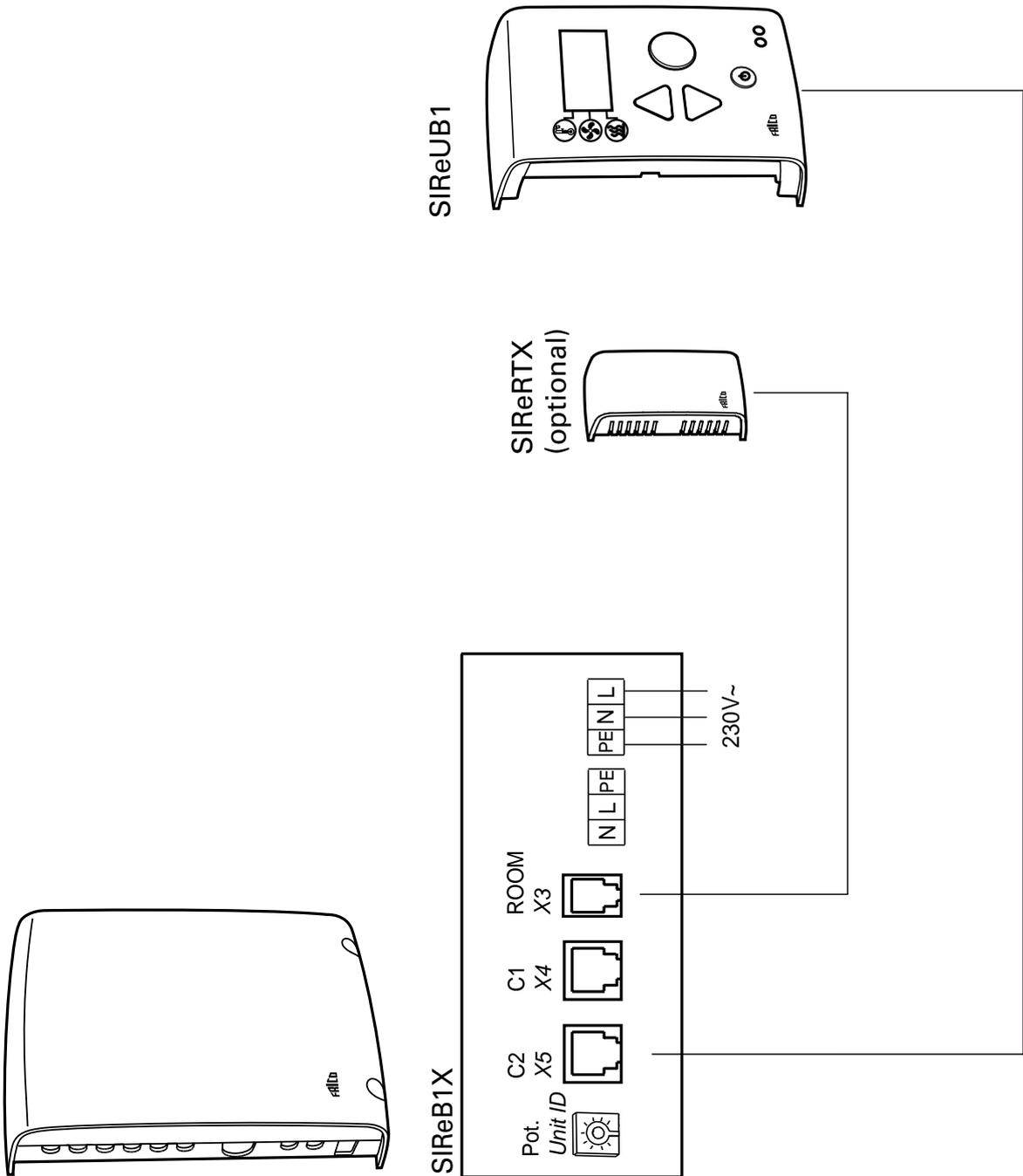
SIRe Basic Fan Heaters Electric

Connections between SIReB1X and Panther SE30



Wiring diagrams

Basic



Wiring diagram

Basic parallel

