

## Installation and User Manual **RING WALL D**

### **ELECTRIC SAUNA HEATER:**

1716-45-04  
1716-60-04  
1716-80-04

### **CONTACTOR BOXES:**

WE-3     400V – 415V 3N~  
WE-4-1   230V – 240V 1N~ / 2~  
WE 4-3   230V 3~

### **CONTROL PANELS:**

1601-12 (RA 12 Digi II)  
1601-13 (RA 13 Digi I)  
1601-16 (RA 16 Easy)  
1601-18 (RA 18 Midi)



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## 1. Quick instructions for use of the sauna heater

### 1.1 Check before taking a sauna bath

1. The sauna room is suitable for taking a sauna bath.
2. The door and the window are closed.
3. The sauna heater is topped with stones that comply with the manufacturer's recommendations, the heating elements are covered with stones, and the stones are piled sparsely.

NOTE: Structural clay tiles are not allowed.

A pleasant, smooth sauna bath temperature is about 70 °C degrees.

Rearrange the sauna stones at least once a year and replace any weathered stones. This enhances air circulation between the stones, which extends the useful life of the heating elements.

If you encounter any problems, please contact the manufacturer's warranty service shop.

For additional information about enjoying a sauna bath, please visit our website at [www.helo.fi](http://www.helo.fi)

### 1.2 Operation of the sauna heater controls

The main switch is located at the side of the contactor case. The two switch positions are marked on the type plate ( 0 I ).

For information on using the contactor case and the control panel, please refer to the specific operating instructions

## 2. Information for users

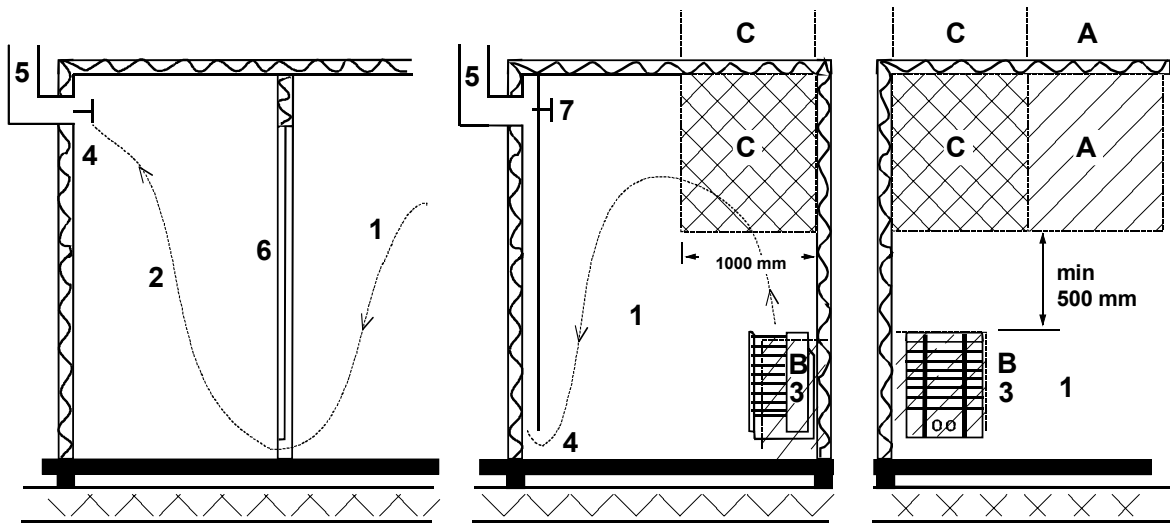
Persons with reduced physical and mental capacity, sensory handicap, or little experience and knowledge about how the device is operated (e.g. children), should only operate the device while supervised or according to instructions given by the persons in charge of their safety.

Make sure that children aren't playing with the sauna heater.

### 2.1 Sauna room

The walls and ceiling of a sauna room should be thermally well insulated. All surfaces that store heat, such as tiled and stone surfaces must be insulated. It is recommended to use wooden panel cladding inside the sauna room. If there are heat storing elements in the sauna room, such as decorative stone, glass etc., note that these elements may extend the pre-heating period even though the sauna room is otherwise well insulated (see page 6, section 3 – Preparing for sauna heater installation).

## 2.2 Recommended sauna room ventilation



**Image 1 Sauna room ventilation**

- |  |                          |                            |
|--|--------------------------|----------------------------|
| 1. Sauna room  | 3. Electric sauna heater | 5. Exhaust flue or channel |
| 2. Washroom  | 4. Exhaust valve         | 6. Door to the sauna room  |
| 7. A ventilation valve can be installed here to be kept closed while the sauna is heated and during bathing. |                          |                            |

Inlet vent can be positioned in the A zone. Make sure the incoming fresh air will not interfere with (i.e. cool down) the sauna heater's thermostat near the ceiling.

The B zone serves as the incoming air zone, if the sauna room isn't fitted with forced ventilation. In this case, the exhaust valve is installed min 1m higher than the inlet valve.

**DO NOT INSTALL INLET VALVE WITHIN ZONE C, IF THE SAUNA HEATER'S CONTROL THERMOSTAT IS LOCATED AT THE SAME ZONE.**

## 2.3 Heating the sauna

Before turning the sauna heater on, make sure the sauna room is suitable for taking a sauna bath. When heated for the first time, the sauna heater may emit some odour. If you detect any odour while the sauna heater warms up, disconnect the sauna heater briefly, and air the room. Then turn the sauna heater back on.

The sauna heater is turned on and the temperature is adjusted from the control panel.

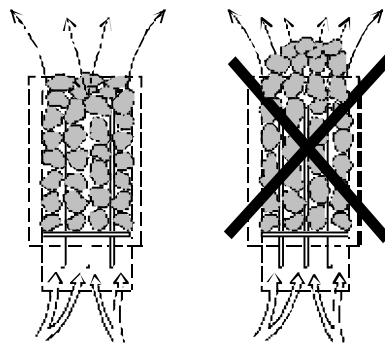
You should turn the sauna heater on roughly an hour before you plan to take a sauna bath, so that the stones have time to heat up properly and the air warms up evenly in the sauna room.

**Do not put any objects on the sauna heater. Do not dry clothes on the sauna heater or anywhere in its vicinity.**

## 2.4 Sauna heater stones

Quality stones meet the following requirements:

- Sauna stones should withstand heat and heat variation caused by vaporisation of the water thrown on the stones.
- Stones should be rinsed before use in order to avoid odour and dust.
- Sauna stones should have an uneven surface to supply a larger surface for the water to evaporate from.
- Sauna stones should be large enough, measuring about 50–80 mm to allow good ventilation between the stones. This extends the useful life of the heating elements.
- Sauna stones should be piled sparsely in order to enhance ventilation between the stones. Do not bend the heating elements together or against the frame.
- Rearrange the stones regularly (at least once a year) and replace small and broken stones with new, larger stones.
- Stones are piled so that they cover the heating elements. Do not, however, pile a large heap of stones on the heating elements. Please refer to the table on **page 7 Table 1** for an adequate amount of stones. Any small stones in the package of stones mustn't be piled on the sauna heater.
- The warranty does not cover defects resulting from poor ventilation caused by small and tightly packed stones.
- Structural clay tiles are not allowed. They may cause damage to the sauna heater that will not be covered by the warranty.



## 2.5 Electric heating toggle

Electric heating toggle applies to homes with an electric heating system.

The contactor box also controls the heating toggle. In other words, home heating turns on once the contactor box cuts power off the sauna heater.

## 2.6 If the sauna heater will not heat up

If the sauna heater will not heat up, please check that:

- the power is on;
- the main fuses of the sauna heater are intact;
- is there any error messages on the control panel. In case of an error message on the control panel, please refer to the control panel instructions

## 3. Preparing for sauna heater installation

THE PERSON INSTALLING THE SAUNA HEATER SHOULD LEAVE THESE INSTRUCTIONS AT THE PREMISES FOR THE FUTURE USER.

Check the following before installing the sauna heater:

- The ratio of the heater's input (kW) and the sauna room's volume (m<sup>3</sup>). Volume/input recommendations are presented in Table 1 on page 7. The minimum and maximum volumes must not be exceeded.
- The sauna room must be min 1900 mm high.
- Uninsulated and masonry stone walls extend the preheating time. Each square metre of plastered ceiling or wall surface adds 1.2 m<sup>3</sup> to the sauna room's volume.
- Check page 7 Table 2 section for a suitable fuse size (A) and the correct diameter of the power supply cable (mm<sup>2</sup>) for the sauna heater in question.
- Conform to the specified safety clearance around the sauna heater. Please refer to Image 2 Sauna heater safety clearances.
- There should be enough room around the sauna heater for maintenance purposes. Also a doorway can be considered as a maintenance area.

### 3.1. Installation

Follow the safety clearance specifications on page 7 when installing the sauna heater. Thin panel is not a suitable mounting base. The mounting base must be reinforced with timber behind the panel. The minimum clearances specified on page 7 table 1 must be followed also in case the sauna room wall materials are in-combustible.

Walls or ceilings must not be clad with fibre-reinforced plaster board or other light-weight cladding, because they may cause a fire hazard.

A single sauna heater is allowed per a sauna room

### 3.2. Safety clearances

Effect	Sauna room		Heaters minimum clearance				Minimum clearance to the panel		Amount of stone
	Volume	Min. Height	From the front surface	From the front surface	To ceiling	To the floor			
kW	m <sup>3</sup>		<b>A</b> mm	<b>D</b> mm	<b>F</b> mm	<b>K</b> mm	<b>B</b> mm	<b>J</b> mm	app. kg
4,5	4 – 6	1900	50	50	1200	120	165	330	37
6,0	5 – 9	1900	70	70	1250	120	185	330	37
8,0	8 – 13	1900	100	100	1250	120	215	330	37

**Table 1 Safety clearances**

### 3.3. Main connection

The sauna heater must be connected to the mains by a qualified electrician and in compliance with current regulations. Sauna heater is connected with a semi-permanent connection. Use H07RN-F (60245 IEC 66) cables or a corresponding type. Other output cables (signal lamp, electric heating toggle) must also adhere to these recommendations. Do not use PVC insulated cable as a connection cable for the sauna heater.

A multipolar (e.g. 7-pole) cable is allowed, if the voltage is the same. In the absence of a separate control current fuse, the diameter of all cables must be the same, i.e. in accordance with the front fuse.

The connecting box on the sauna wall should be located within the minimum safety clearance specified for the sauna heater. The maximum height for the connection box is 500mm from the floor.

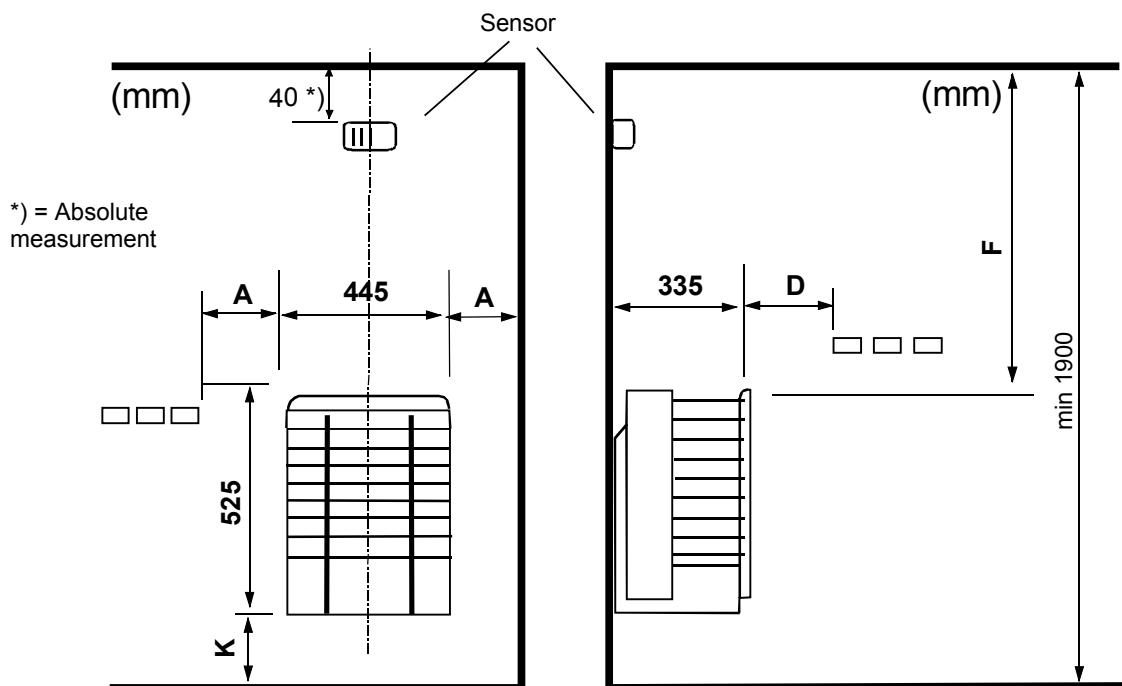
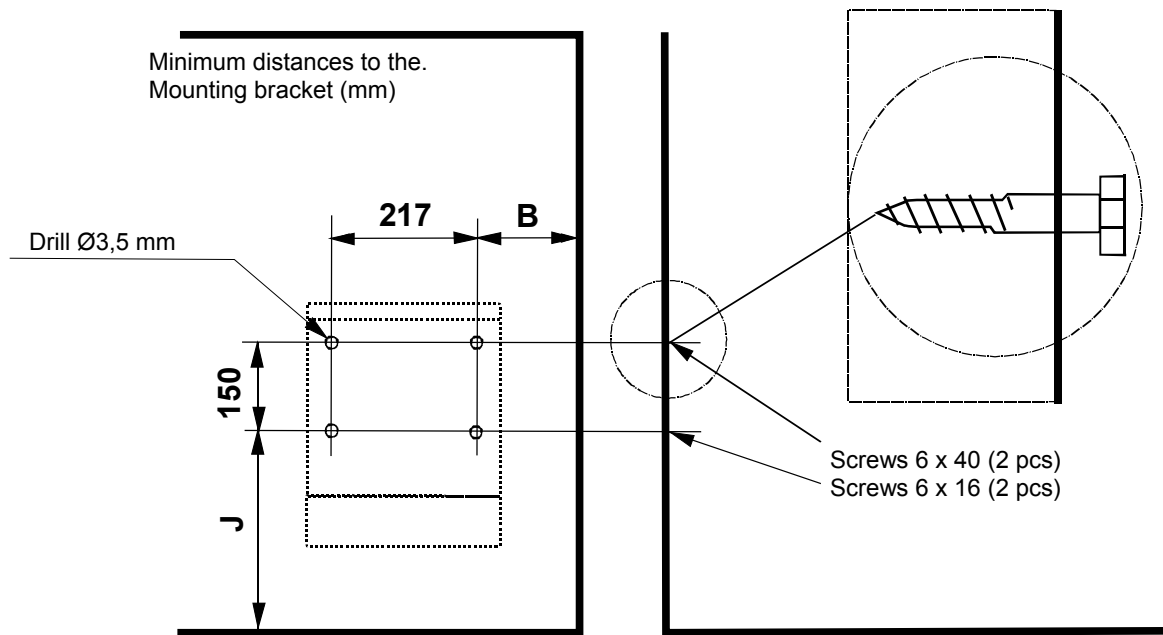
If the connection box is located at 500mm distance from the heater, the maximum height is 1000mm from the floor. (Image 3 on page 10: Location for the connecting box).

**Sauna heater insulation resistance:** The sauna heater heating elements may absorb moisture from air, e.g. during storage. This may cause bleeder currents. The moisture will be gone after a few heating sessions. Do not connect the heater power supply through a ground fault interrupter.

However, always adhere to the effective electrical safety regulation when installing the sauna heater.

Effect	Heater connection cable H07RN-F / 60245 IEC 66 mm <sup>2</sup> 400 – 415V 3N~	Fuse A	Heater connection cable H07RN-F / 60245 IEC 66 mm <sup>2</sup> 230V 3~	Fuse A	Heater connection cable H07RN-F / 60245 IEC 66 mm <sup>2</sup> 230 - 240V 1N~ / 2~	Fuse A
4,5	5 x 1,5	3 x 10	4 x 2,5	3 x 16	3 x 4,0	1 x 20
6,0	5 x 1,5	3 x 10	4 x 2,5	3 x 16	3 x 6,0	1 x 35
8,0	5 x 2,5	3 x 16	4 x 6	3 x 25	3 x 6,0	1 x 35

**Table 2 Connection cable and fuse**

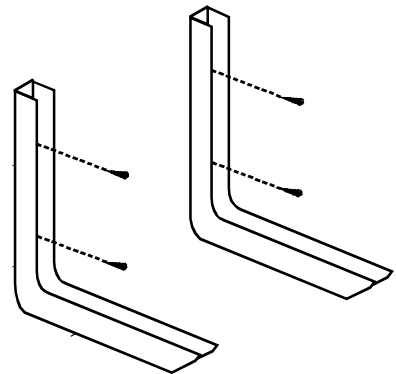


**Image 2 Safety clearances**

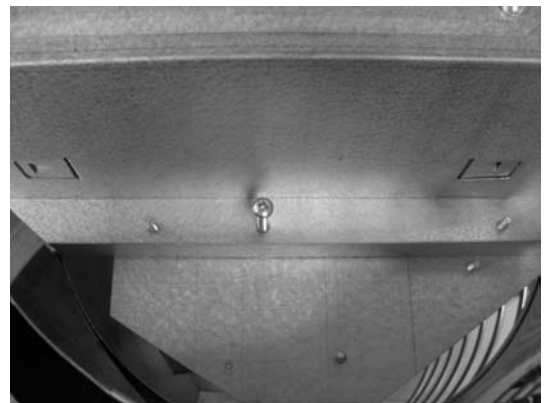


### 3.4. Sauna heaters installation

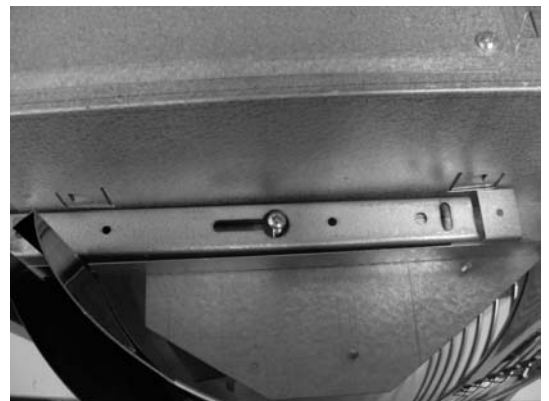
1. Mount the supporting brackets to the wall with the provided screws. Check the safety clearance.



2. Turn the heater upside down and fix the supplied mounting screws 4,2 \* 32 (2pcs) to the mounting support on the heater. Do not tighten the screws all the way down, just so much that they won't fall off.

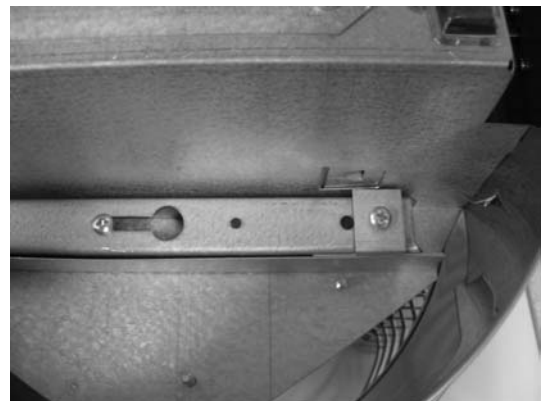


3. Place the heater onto the supporting brackets so that the mounting screws emerge through the holes in the brackets

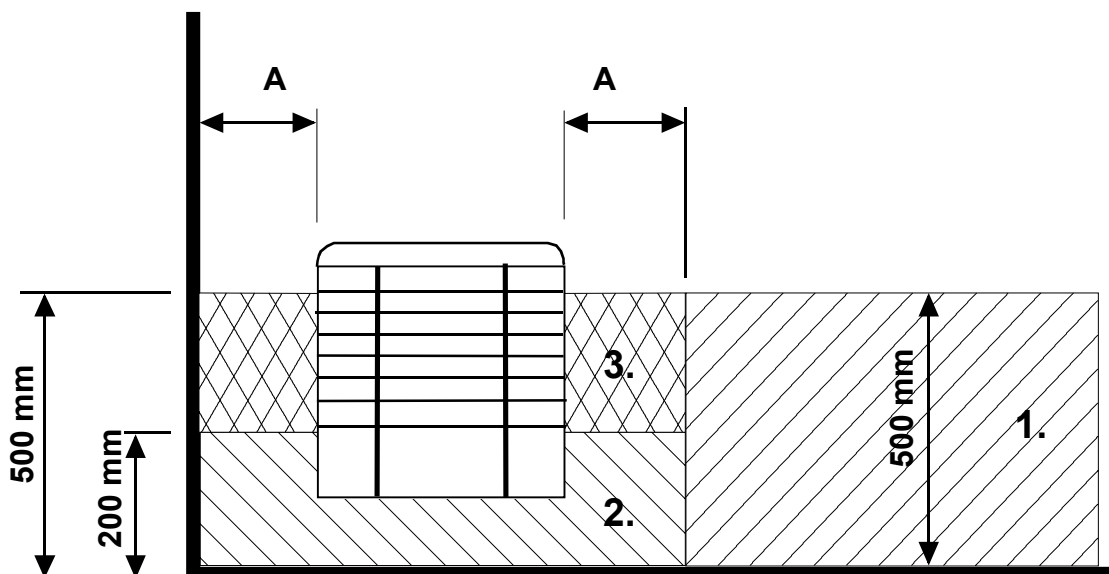


4. Push the heater backwards (towards the wall) as far as it will go.

5. Attach the supplied locking screws (4,2 \* 9,5 2pcs) to the front end of the mounting support. Finally, tighten the mounting screws all the way down.



### 3.5. Location the connection box for connection cable in the sauna room



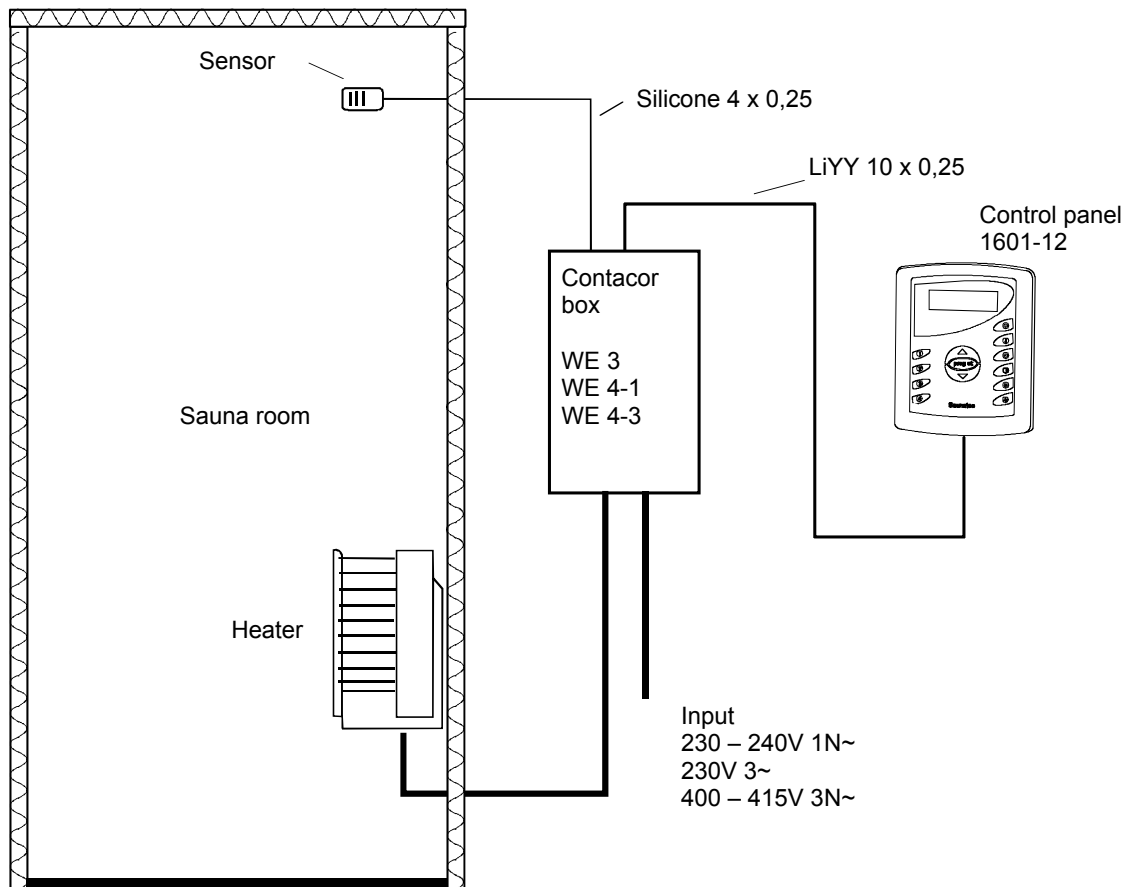
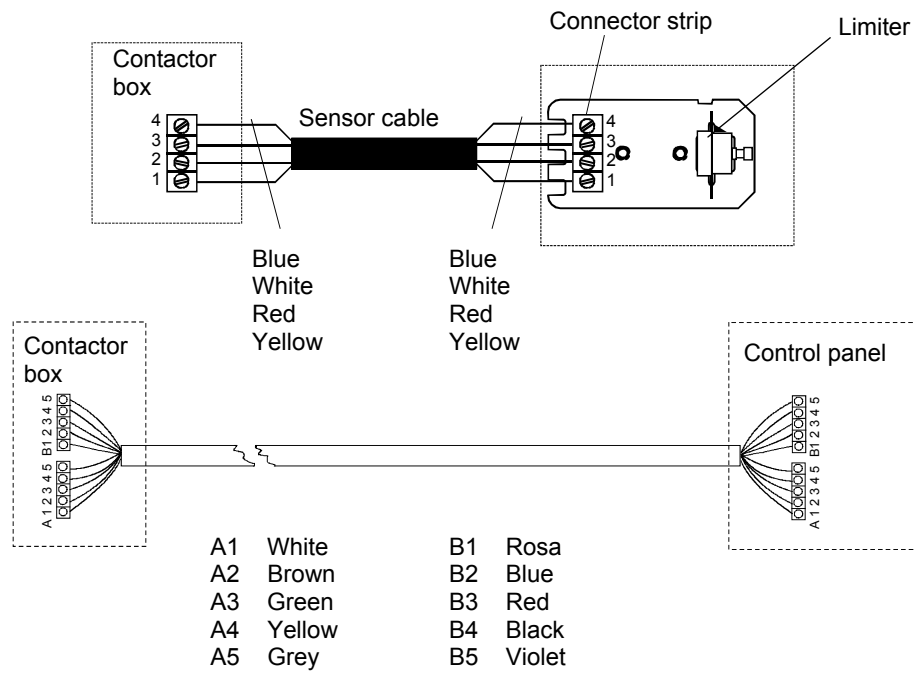
**Image 3 Location for the connection box**

A = Specified minimum safety clearance

1. Recommended location for the connection box
2. Silumin box recommended in this area.
3. This area should be avoided. Always use a silumin box.

In other areas, use a heat-resisting box (T 125 °C) and heat-resisting cables (T 170 °C). The connection box must be clear of obstacles. When installing the connection box to zones 2 or 3, refer to the instructions and regulations of the local energy supplier.

**3.6. Principle picture, when the control centre is Digi II.**



**Image 4 Principle picture**

3.7. Wiring diagram

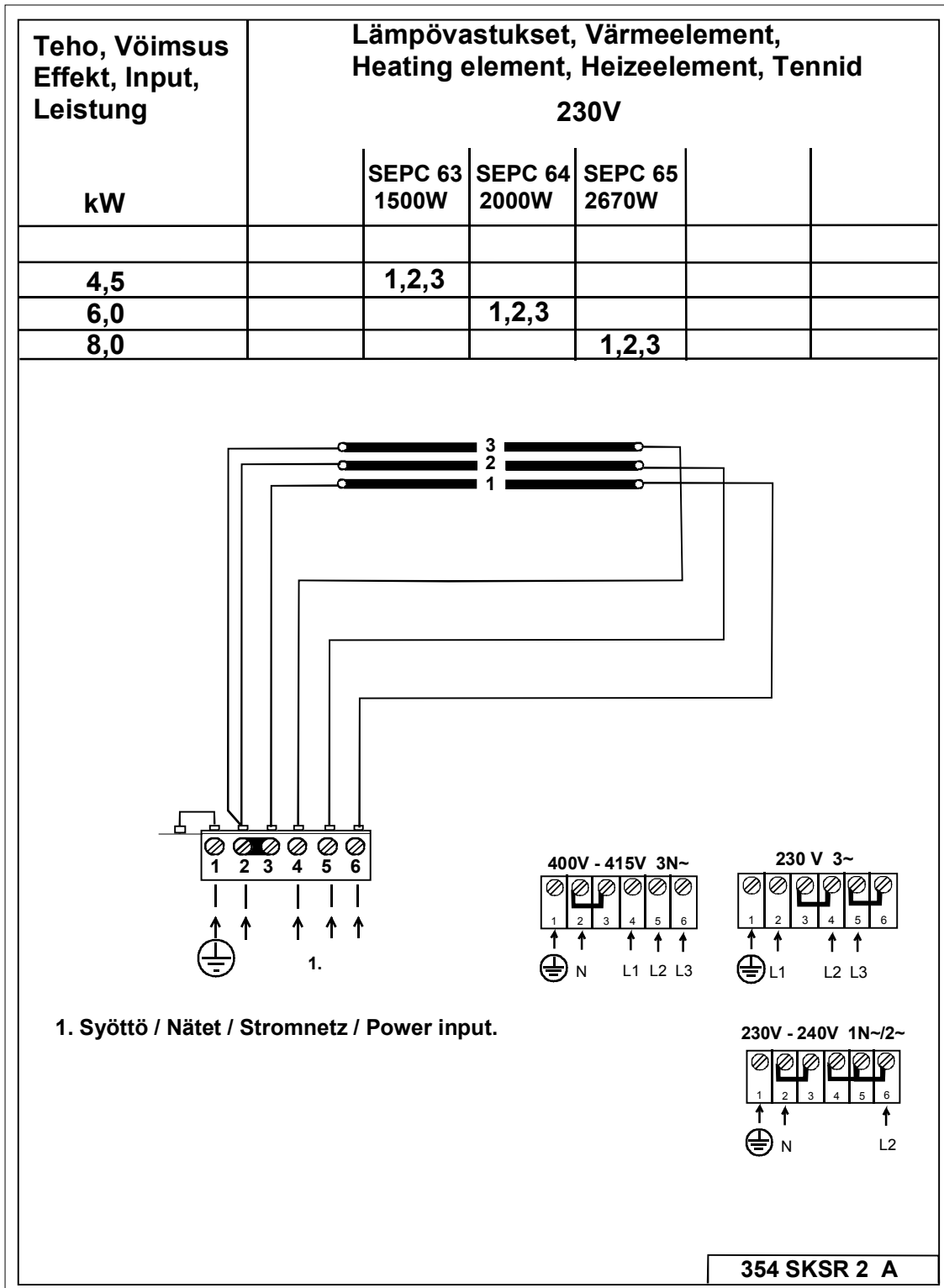


Image 5 Switch diagram for the sauna heater

#### 4. Spare parts for Ring Wall D - electric sauna heater

parts	Product number	product title	SKSR 45 D	SKSR 60 D	SKSR 80 D
1	7812550	Mains connector	1	1	1
2	4316222	Heating element SEPC 63 1500W/230V	3		
2	4316221	Heating element SEPC 64 2000W/230V		3	
2	4316220	Heating element SEPC 65 2670W/230V			3


Table 3 Spare parts for Ring wall D

#### 5. ROHS

**Ympäristönsuojeluun liittyviä ohjeita**

Tämän tuotteen käyttöön päätyttyä sitä ei saa hävittää normaalin talousjätteen mukana, vaan se on toimitettava sähkö- ja elektroniikkalaitteiden kierrätykseen tarkoitettuun keräyspisteeseen.

Symboli tuotteessa, käyttöohjeessa tai pakkauksessa tarkoittaa sitä.




Valmistusaineet ovat kierrätettävissä merkintänsä mukaan. Käytettyjen laitteiden uudelleenkäytöllä, materiaalien hyödyntämisellä tai muulla uudelleenkäytöllä teet arvokkaan teon ympäristömme hyväksi. Tuote palautetaan ilman kiuaskiviä ja verhoukiviä kierrätyskeskukseen.

Tietoa kierrätyspaikoista saat kuntasi palvelupisteestä.

**Anvisningar för miljöskydd**

Denna produkt får inte kastas med vanliga hushållsopor när den inte längre används. Istället ska den levereras till en återvinningsplats för elektriska och elektroniska apparater.

Symbolen på produkten, handboken eller förpackningen refererar till detta.




De olika materialen kan återvinnas enligt märkningen på dem. Genom att återanvända, nyttja materialen eller på annat sätt återanvända utsliten utrustning, bidrar du till att skydda vår miljö. Produkten returneras till återvinningscentralen utan bastusten och eventuell täljstensmantel.

Vänligen kontakta de kommunala myndigheterna för att ta reda på var du hittar närmaste återvinningsplats.

**Instructions for environmental protection**

This product must not be disposed with normal household waste at the end of its life cycle. Instead, it should be delivered to a collecting place for the recycling of electrical and electronic devices.

The symbol on the product, the instruction manual or the package refers to this.




The materials can be recycled according to the markings on them. By reusing, utilising the materials or by otherwise reusing old equipment, you make an important contribution for the protection of our environment. Please note that the product is returned to the recycling centre without any sauna rocks and soapstone cover.

Please contact the municipal administration with enquiries concerning the recycling place.

**Hinweise zum Umweltschutz**

Dieses Produkt darf am Ende seiner Lebensdauer nicht über den normalen Haushaltsabfall entsorgt werden, sondern muss an einem Sammelpunkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden.

Das Symbol auf dem produkt, der Gebrauchsanleitung oder der Verpackung weist darauf hin.



Die Werkstoffe sind gemäß ihrer Kennzeichnung wiederverwertbar. Mit der Wiederverwendung, der stofflichen Verwertung oder anderen Formen der Verwertung von Altgeräten leisten Sie einen wichtigen Beitrag zum Schutze unserer Umwelt. Dieses Produkt soll ohne Steine und Specksteinmantel an dem Sammelpunkt für Recycling zurückgebracht werden.

Bitte erfragen Sie bei der Gemeindeverwaltung die zuständige Entsorgungsstelle.