

# **Panel Heater Range With 7 day LCD timer**

## **Installation & User Instructions**



### **Models**

**1.0kW with 7 day LCD timer**

**1.5kW with 7 day LCD timer**

**2.0Kw with 7 day LCD timer**



**230-240V/1/50Hz**

**READ AND SAVE THESE INSTRUCTIONS**



## TECHNICAL SPECIFICATIONS

Model	478604	477760	477764
Power (W)	1000	1500	2000
Voltage (V)	230-240V ~50Hz		
Dimension (mm)	440 x 455 x 125	440 x 615 x 125	440 x 775 x 125

### I. IMPORTANT SAFETY INSTRUCTIONS

*Prior to installing and operating the heater, read these instructions carefully and retain for future reference.*

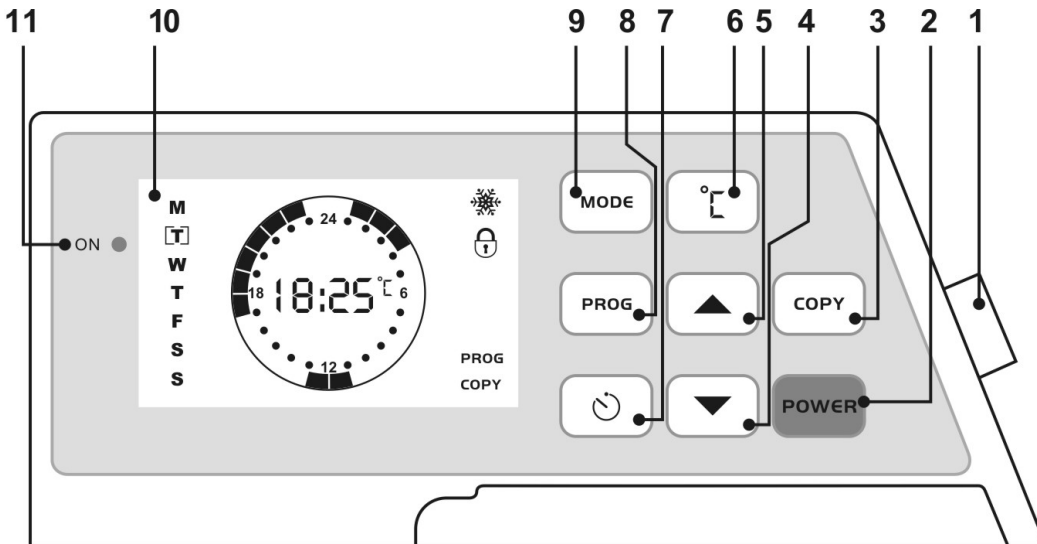
- Avoid installation behind a door.
- Use only the voltage specified on the rating plate of the heater.
- **WARNING:** In order to avoid overheating, do not cover the heater. Do not restrict airflow to the inlet or exhaust grilles in any manner as the appliance may overheat and become a fire risk.
- Do not cover grilles, block entry or exhaust of airflow by placing appliance against any surface. Keep all objects at least 1 metre from the front, sides and rear of the appliance.

**WARNING: FIRE RISK EXISTS IF THE HEATER IS COVERED BY OR POSITIONED CLOSE TO CURTAINS OR OTHER COMBUSTIBLE MATERIALS**

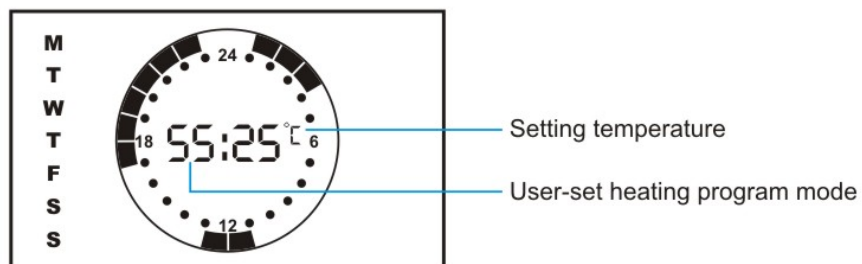
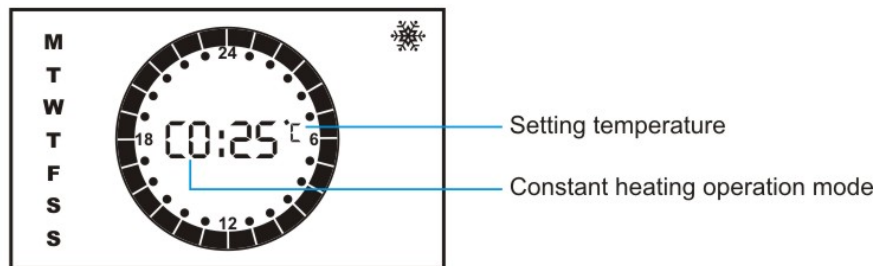
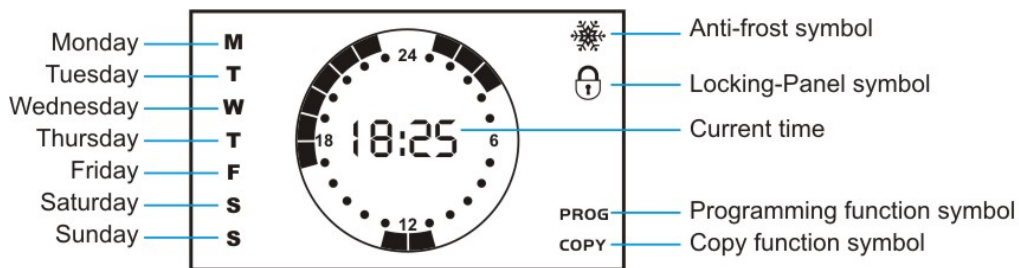
- Do not place appliance close to a radiant heat source.
- Do not operate in areas where Petrol, paint or other flammable liquids are used or stored.
- This appliance heats up when in use. To avoid burns, do not let bare skin touch hot surfaces. Switch off and use handles where provided when moving.
- Do not use the appliance to dry clothes.
- Do not leave the appliance unattended whilst in use.
- Do not insert or allow foreign objects enter any ventilation or exhaust opening, as this may cause an electric shock, fire or damage to the appliance.
- Do not immerse in liquid or allow liquid to run into the interior of the appliance, as this could create an electrical shock hazard.
- Do not use this appliance on a wet surface, or where it can fall or be pushed into water.
- Do not reach for an appliance that has fallen into water. Switch off at supply and unplug immediately.
- Do not operate any appliance with a damaged cord, plug or after the appliance malfunction or has been dropped or damaged in any manner. Return to a qualified electrical person for examination, electrical or mechanical adjustment, service or repair before further use.
- Do not operate appliance with wet hands.
- This appliance is intended for household use only and not for commercial or industrial use.
- Use this appliance only as described in this manual. Any other use not recommended in this manual may cause fire, electric shock or injury.
- A common cause of overheating is deposits of dust or fluff in the appliance. Ensure these deposits are removed regularly by unplugging the appliance and vacuum-cleaning air vents and grilles, where available.

- Do not use this appliance in a window as rain may cause electric shock.
- Do not use abrasive cleaning products on this appliance. Clean with a damp cloth (not wet) rinsed in hot soapy water only. Always remove plug from the mains supply before cleaning.
- Do not connect the appliance to the mains source until it has been installed in its final location and adjusted to the position it will be used in.
- Do not use in the immediate surrounding of a bath, a shower, or a swimming pool.
- Do not operate with the cord coiled up as this could cause a buildup of heat, which could pose a hazard.
- The use of an extension cord with this appliance is not recommended.
- Do not remove the power plug from socket by pulling the cord – grip the plug instead.
- Always unplug appliance when not in use.
- Do not allow cord to come in contact with heated surfaces during operation.
- Do not run cord under carpeting, throw rugs or runners etc. Arrange cord away from areas where it is likely to be tripped over.
- Do not twist, kink or wrap the cord around the appliance, as this may cause the insulation to weaken and split. Always ensure that the cord has been fully removed from any cord storage area before use.
- Do not store appliance in a box or closed space until it has cooled down sufficiently.
- 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.
- 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
- The appliance must not be located immediately below a socket-outlet.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not use this appliance outdoors, or on wet surfaces. Avoid spilling liquid on the appliance.
- In order to avoid a hazard due to inadvertent resetting of the thermal cutout, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.
- For additional protection, the use of a Residual Current Device (RCD) with a tripping current not exceeding 30mA is recommended

## 2. CONTROL PANEL OVERVIEW



- |                                      |                           |
|--------------------------------------|---------------------------|
| 1 - Main Power Switch (ON / OFF)     | 7 - Timer button          |
| 2 - Unit Power button (ON / Standby) | 8 - Programming button    |
| 3 - Copy button                      | 9 - Mode Selection button |
| 4 - Down button                      | 10 - LCD screen           |
| 5 - Up button                        | 11 - Power On Indicator   |
| 6 - Temperature button               |                           |

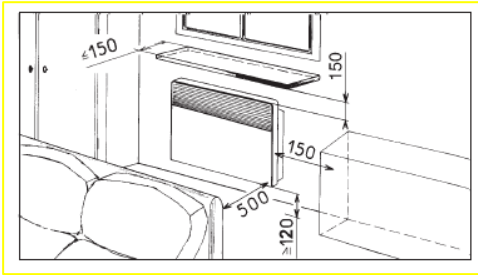


## 3. INSTALLATION INSTRUCTIONS

This heater is designed to be mounted on the wall (screws not included) These units are suitable for heating enclosed indoor rooms such as bedrooms, studies, offices, living areas and bathrooms.

### 3.1 Installation Location

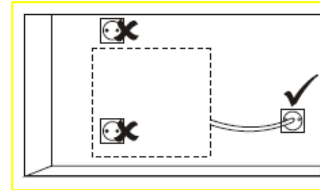
This heater was designed to be installed in a residence.



Ensure the safety zones (mm) in diagram (left hand side) are kept free.

If the wall covering is laid on foam, a spacer the same thickness as the foam must be placed under the panel heater's support. This ensures there is free space behind the panel heater to make sure its control settings are not adversely affected.

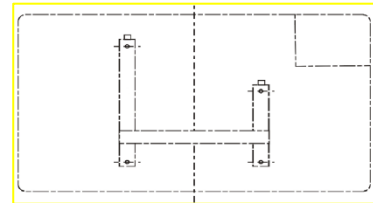
The heater must not be installed immediately below a wall socket. The heater must be connected to a socket outlet or permanent terminal box at least 10cm to one side of the heater.



### 3.2 Mounting the Heater on a Wall

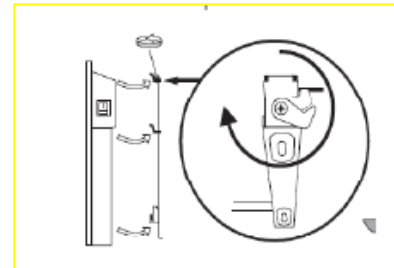
(Mounting bracket included; screws not included)

The wall mounting bracket is oriented centrally (See diagram).

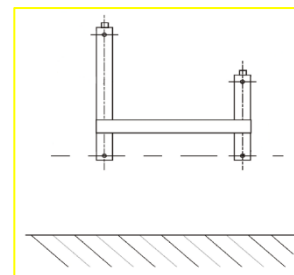


**Step 1:** Loosen the locking plate screw and rotate the locking plate out of the fixing slot (See image at right).

Then remove the mounting bracket from the heater.



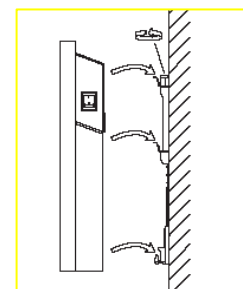
**Step 2:** Use the wall-mounting bracket as a template for marking the fixing holes. Position the mounting bracket in the correct position on the wall and mark the screw-holes through the 4 mounting holes.



**Step 3:** Install the 4 fixing devices in the wall, ensuring they are more than adequate to safely fix the heater to the wall.

**Step 4:** Fix the bracket firmly to the wall using all 4 mounting locations.

**Step 5:** Mount the heater on the bracket so the bracket protrusions fix into the 4 slots on the back of the heater. Rotate the locking plate into the fixing slot and tighten the screw.




**To remove the heater, reverse the above operation.**

## 4. OPERATING INSTRUCTIONS

The control panel features an electronic thermostat and 7-day, 24-hour programmable timer. This timer has a heating operation, frost protection operation and a self-set weekly operation program.

## 4.1 Switching on the Unit

Press the main power switch (1) on the right hand side panel. Press the  button (2) on the control panel. This turns the unit ON, and the LCD screen (10) will illuminate, displaying “[M]” (Monday) and 12:00 as the default day and time setting.

Heating Operation at 21°C is the default operation setting.

Note: The red “ON” indicator light (11) illuminates when the heating element is operating.

**Upon first use, the heater may give off some fumes (this is normal).**




Ensure that the room is ventilated (for example, open a window).

## 4.2 Programming the Current Time

The Current Time must be set in order to use the Self-Set Weekly Operation Program.

### 4.2.1 Setting the Current Time




#### Day Setting

Press timer  button. The “[ ]” brackets will flash around **M** (Monday). Use the up  and down  buttons to move the “[ ]” brackets to the current day.




- M** Monday
- T** Tuesday
- W** Wednesday
- T** Thursday
- F** Friday
- S** Saturday
- S** Sunday


Note: The “[ ]” brackets will flash when used for the first time, or after a lengthy absence of power, and the red “ON” light will glow.

#### Hour Setting

Press timer  button. The hour number will flash. Use the up  and down  buttons to set the current hour.

#### Minute Setting

Press the timer  button. The minute number will flash. Use the up  and down  buttons to set the current minute.

Press the timer  button again to finish setting the time.

The control panel will show the current time and the unit will operate under the default program of “CO” (Constant Heating Operation).

### 4.2.2 Setting the temperature

Press the temperature setting  button. The set temperature, for example 21, will flash.




Use the up  and down  buttons to set the required temperature.


Note: The default temperature is 21 °C.

Press the temperature button  again to complete the temperature setting.

### 4.2.3 Selecting the Constant Heating Operation

The constant heating operation is the default setting of the heater, and this will run when the heater is used for the first time, or after a lengthy absence of power. The temperature setting may be altered as per section 4.2.2.

To select this setting, press the mode button . Use the up  and down  buttons to select the **CO** program. The temperature setting may be altered as per section 4.2.2.

Press the mode button  again to terminate the setting. The mode symbol will stop flashing. The mode is now active and will run in “real time”.

### 4.2.4 Selecting the Constant Frost Protection Operation



To protect against freezing temperatures in cold climate areas you can program the heater for frost protection by reducing the set temperature to 5°C while the heater is in “**CO**” mode.

When the temperature is set to 5°C the  symbol will display on the screen and the heater will operate when the room temperature falls below 5°C.

### 4.2.5 Programming the Self-Set Weekly Operation


This function allows you to program ON/OFF times 24 hours a day, 7 days per week.


Press the mode button . The mode symbol **will flash**.

Use the up  or down  button to select the PROG (program) mode of **SS**.

Press the mode button  again to complete the setting. The mode symbol **SS** will stop flashing.





#### **Day Programming**

Press the program button . The symbol “[ ]” will appear around the current day e.g. **M** (Monday). The time will show (00:00, midnight), and the symbol **PROG** is displayed.

If you want the program to start another weekday, for example Tuesday, press the timer button  consecutively, until the symbol “[ ]” surrounds **T** (Tuesday) on the screen.

#### **Time Programming a Full 24 hour Day**

Note: Around the digital clock display, the black rectangles indicate “ON” times / zones, and the clear spaces are “OFF” zones.

The up button  is used for setting the “ON” zone, and the down button  is used for setting the “OFF” zone. The timer will start at 00:00, and each push of the  or  button will:

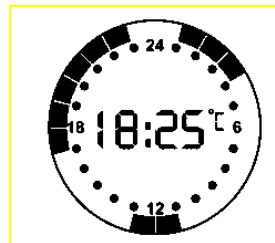
- a) advance the clock by one hour, and
- b) set the desired “ON” or “OFF” timer for that hour.


You must program the full 24 hour ON / OFF period (until the time reaches 00:00) for the timer to function correctly.


Finally, press the program button  to complete the setting for the day.





**For example, if you would like to make the unit work from 1:00 to 4:00, 11:00-13:00, and 17:00 to 23:00:**





**Step 1:** Press the button . The time will change from 00:00 to 1:00, and the zone between 24:00 to 1:00 will be clear (OFF).


**Step 2:** Press the button  three times until the time advances to 4:00, and the zone between 1:00 and 4:00 will be black (ON).


**Step 3:** Press the button  seven times until the time advances to 11:00, and the zone between 4:00 to 11:00 will be clear (OFF).

**Step 4:** Press the button  twice until the time advances to 13:00, and the zone between 11:00 to 13:00 will be black (ON).

**Step 5:** Press the button  four times until the time advances to 17:00, and the zone between 13:00 to 17:00 will be clear (OFF).

**Step 6:** Press the button  six times until the time advances to 23:00, and the zone between 17:00 to 23:00 will be black (ON).

**Step 7:** Press the button  once, the time advances to 00:00, and the zone between 23:00 to 24:00 will be clear (OFF).

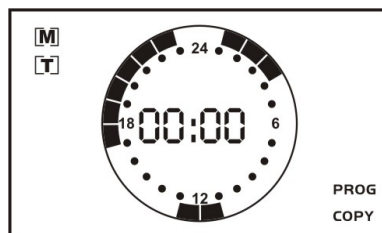
**Step 8:** Press the program button  to complete the setting for the day. The control panel will now show the current day. The program is now active and is running on 'real time'.



Note: You must program the full 24 hour ON / OFF period (until the time reaches 00:00) for the timer to function correctly. If you go past the 00:00 (and move to 01:00) you will need to program the 24 hour program for that day again.


### **Copy the 24-hour program**


If you would like the same 24-hour program to work for another day or days in the week, the program can be copied onto the selected day.

**For example, you have just created a 24 hour program for Monday, and you wish to copy this Monday program to Tuesday:**




**Step 1:** Press the program button  and then press the  button to move the "[ ]" to **M** (Monday).


**Step 2:** Press the copy button . The symbol “**COPY**” will appear on the LCD screen. The “[ ]” around the **M** will flash.

(If you would like to cancel the **COPY** order, please press the button  again, the symbol “**COPY**” will disappear accordingly.)

**Step 3:** Press the timer button  to move the “[ ]” around **T** (Tuesday). The “[ ]” around the **M** will flash, and the “[ ]” around the **T** will not flash.

**Step 4:** Press the copy button  to complete the operation. The “**COPY**” and [**M**] symbol will disappear.

To copy this same Monday program to another day, repeat from Step 3.

Press the Program button  to terminate the “**COPY**” function. The control panel will now show the correct day. The program is now active and is running on ‘real time’.


#### 4.2.6 Adjust the Temperature of a Running Program

The temperature sensed by the thermostat sensor is relative to the position of the heater in the room. If the actual temperature is higher than the setting, compensate for this by adjusting the temperature setting.


For example, if the desired temperature is set at 21°C but the actual room temperature is 18°C, compensate for this by increasing the setting to 24°C. Similarly, reduce the temperature setting if the actual room temperature is higher than the setting.

Press the temperature button . The temperature symbol will flash.

Use the up  or down  button to adjust the comfort temperature.


Finally, press the temperature button  again. The control panel will now show the current day. The program is now active and is running on ‘real time’.

#### 4.2.7 Changing time for Daylight Savings

Press the timer button  twice to make the hour display flash.

In Summer time, press the up  button to advance the timer clock one hour.




In winter time, press the down button  to set the timer clock back one hour.



Terminate the operation by again pressing the timer button  twice so that the current program is displayed on the panel.

#### 4.2.8 Program Back-Up

In the event of a mains power failure or long period when the heater has been turned off, the timer and SS program must be reset by the user. All other pre-set programs and default temperatures will be saved.

#### 4.2.9 Locking the Control Panel

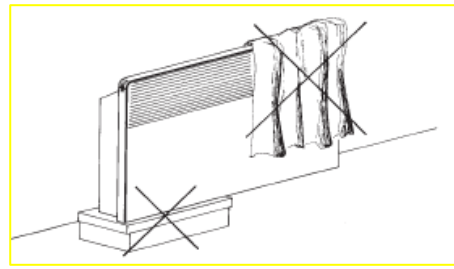
Press the program button  and the timer button  at the same time for around three (3) seconds. A padlock symbol  is displayed on the screen, indicating that all buttons are now locked.

To unlock the control panel, Press the program button  and the timer button  at the same time for around three (3) seconds, and the padlock symbol will disappear.

### 4.3 Safety Notes

The air outlet must not be obstructed. For safety reasons the upper and lower air grilles must never be covered with items such as washing nor obstructed by items in close proximity (see figure to right). Objects should not be leant against the unit nor placed between the unit and the wall.

Never leave combustible materials, such as wood, paper, textiles or flammable items such as wax, petrol, aerosol cans etc. in the vicinity of the warm air outlet. As with all similar heaters, the flow of rising air may cause discoloration of the wall.




### 4.4 Maintenance







Before cleaning the heater, turn it off, unplug from the mains and wait for it to cool down. Do not use abrasive or aggressive cleansers to clean the heater. Use a vacuum cleaner regularly to clean the upper and lower air grilles. Do not immerse any part of the heater in liquid. For more stubborn stains, wipe the outside surfaces of the heater with a lightly dampened cloth. Dry thoroughly with a dry cloth before plugging heater back into mains.

### 4.5 Overheat Protection

This heater is equipped with a safety cut-out that switches the heater off if it overheats. Once the heater has switched off due to overheating, remove the cause of the fault, e.g. dusty air grilles. When the heater has cooled down for several minutes it will restart automatically. If the heater then cuts off again, switch off the heater and contact Customer Service.

### 4.6 Open window Protection

4.6.1 When a window is open, the heater will detect the change in room temperature, if the room temperature decreases  $>6^{\circ}$  C and continues for 30 minutes, the heater will shut off automatically, the customer must press  button (2) again to switch the heater back on.

4.6.2 open window protection function activated & deactivated: when you Press the main power switch (1) on the right hand side panel and before you Press the  button (2) on the control panel, the heater is on standby, the LCD will display  , open window protection function is activated, Press  , the LCD display  , open window protection function is deactivated, Press  , the LCD display  , open window protection function is activated.

## 4.7 Correct Disposal of this product



This marking indicates that this product should not be disposed with other household wastes throughout the EU/UK. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

## 4.8 Technical data

For 478604 1.0kW Panel Heater

Item	Item	Value	Unit	Item	Unit
<b>Heat output</b>				<b>Type of heat input, for electric storage local space heaters only (select one)</b>	
Nominal heat output	$P_{nom}$	1.0	kW	manual heat charge control, with integrated thermostat	[no]
Minimum heat output (indicative)	$P_{min}$	0.9	kW	manual heat charge control with room and/or outdoor temperature feedback	[no]
Maximum continuous heat output	$P_{max,c}$	1.05	kW	electronic heat charge control with room and/or outdoor temperature feedback	[no]
<b>Auxiliary electricity consumption</b>				fan assisted heat output	
				[no]	
At nominal heat output	$e_{lmax}$	0.0005	kW	<b>Type of heat output/room Temperature control (select one)</b>	
At minimum heat output	$e_{lmin}$	0.0004	kW	single stage heat output and no room temperature control	[no]
In standby mode	$e_{lSB}$	0.0007	kW	two or more manual stages, no room temperature control	[no]
				with mechanic thermostat room temperature control	[no]
				with electronic room temperature control	[no]
				electronic room temperature control plus day timer	[no]
				electronic room temperature control plus week timer	[yes]
				<b>Other control options (multiple selections possible)</b>	
				room temperature control, with presence detection	[no]
				room temperature control, with open window detection	[yes]
				with distance control option	[no]
				with adaptive start control	[no]
				with working time limitation	[yes]
				With black bulb sensor	[no]

For 477760 1.5kW Panel Heater

Item	Item	Value	Unit	Item	Unit
<b>Heat output</b>				<b>Type of heat input, for electric storage local space heaters only (select one)</b>	
Nominal heat output	<i>P<sub>nom</sub></i>	1.5	kW	manual heat charge control, with integrated thermostat	[no]
Minimum heat output (indicative)	<i>P<sub>min</sub></i>	1.35	kW	manual heat charge control with room and/or outdoor temperature feedback	[no]
Maximum continuous heat output	<i>P<sub>max,c</sub></i>	1.575	kW	electronic heat charge control with room and/or outdoor temperature feedback	[no]
<b>Auxiliary electricity consumption</b>				fan assisted heat output	
At nominal heat output	<i>e<sub>lmax</sub></i>	0.0005	kW	<b>Type of heat output/room Temperature control (select one)</b>	
At minimum heat output	<i>e<sub>lmin</sub></i>	0.0004	kW	single stage heat output and no room temperature control	[no]
In standby mode	<i>e<sub>lSB</sub></i>	0.0007	kW	two or more manual stages, no room temperature control	[no]
				with mechanic thermostat room temperature control	[no]
				with electronic room temperature control	[no]
				electronic room temperature control plus day timer	[no]
				electronic room temperature control plus week timer	[yes]
				<b>Other control options (multiple selections possible)</b>	
				room temperature control, with presence detection	[no]
				room temperature control, with open window detection	[yes]
				with distance control option	[no]
				with adaptive start control	[no]
				with working time limitation	[yes]
				With black bulb sensor	[no]

For 477764 2.0kW Panel Heater

Item	Item	Value	Unit	Item	Unit
<b>Heat output</b>				<b>Type of heat input, for electric storage local space heaters only (select one)</b>	
Nominal heat output	<i>P<sub>nom</sub></i>	2	kW	manual heat charge control, with integrated thermostat	[no]
Minimum heat output (indicative)	<i>P<sub>min</sub></i>	1.8	kW	manual heat charge control with room and/or outdoor temperature feedback	[no]
Maximum continuous heat output	<i>P<sub>max,c</sub></i>	2.1	kW	electronic heat charge control with room and/or outdoor temperature feedback	[no]
<b>Auxiliary electricity consumption</b>				fan assisted heat output	
At nominal heat output	<i>e<sub>lmax</sub></i>	0.0005	kW	<b>Type of heat output/room Temperature control (select one)</b>	
At minimum heat output	<i>e<sub>lmin</sub></i>	0.0004	kW	single stage heat output and no room temperature control	[no]
In standby mode	<i>e<sub>lSB</sub></i>	0.0007	kW	two or more manual stages, no room temperature control	[no]
				with mechanic thermostat room temperature control	[no]
				with electronic room temperature control	[no]
				electronic room temperature control plus day timer	[no]
				electronic room temperature control plus week timer	[yes]
				<b>Other control options (multiple selections possible)</b>	
				room temperature control, with presence detection	[no]
				room temperature control, with open window detection	[yes]
				with distance control option	[no]
				with adaptive start control	[no]
				with working time limitation	[yes]
				With black bulb sensor	[no]



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