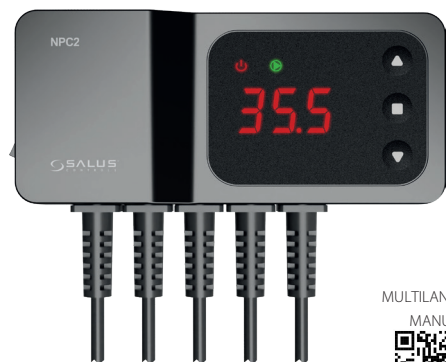


Recirculation pump and ACM pump controller Model: NPC2



MULTILINGUAL

MANUAL



Quick Guide

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Introduction

The NPC2 controller is designed for controlling a heat transfer fluid (HTF) recirculation pump in central heating systems with solid fuel boilers and for controlling a recirculation pump that supplies a domestic hot water (DHW) coil. The HT recirculation pump starts when the measured temperature exceeds the set temperature. The operation of the HT recirculation pump depends on the temperature difference recorded by T1 and T2. It starts operating when the temperature of the heating medium exceeds the temperature in the DHW tank by the hysteresis value set by the user. The DHW tank recirculation pump operates until the temperature in the tank and the temperature of the heating medium are equal or until the temperature in the DHW tank is reached.

Product compliance

This product complies with the following European directives: GPSR 2023/988/EU, EMC 2014/30/EU, LVD 2014/35/EU, RoHS 2017/2102/EU, and SVHC 215. The full text of the EU Declaration of Conformity is available at the following web address: www.saluslegal.com

PN-EN IEC 61000-6-1:2019-03

PN-EN IEC 61000-6-3:2021-08

PN-EN 61000-4-4:2013-05

PN-EN 61000-4-5:2014-10

PN-EN 61000-4-2:2011

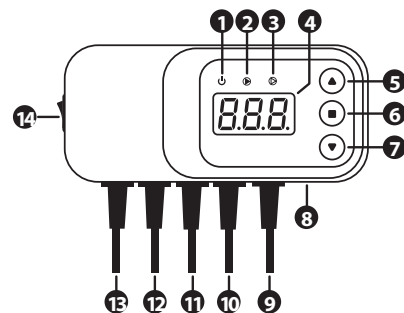
PN-EN IEC 61000-4-11:2020-11

PN-EN IEC 55014-1:2021-08

⚠ Safety information

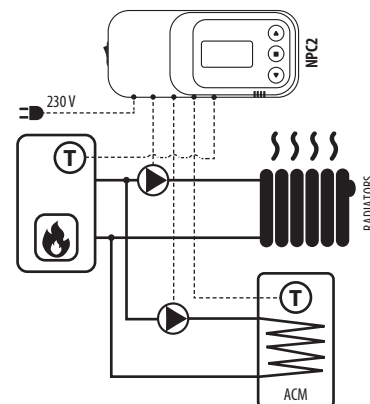
Use in accordance with national and EU regulations. Use the device for its intended purpose, keeping it dry. The product is intended for indoor use only. Installation must be carried out by a qualified person. Before performing any operations involving the power supply (connecting wires, installing the device, etc.), make sure that the power supply is not connected to the controller! Incorrect wiring may damage or impair the product.

Controller description



- | | |
|--|---|
| 1. Power source indicator | 9. T1 - AT recirculation pump sensor |
| 2. AT recirculation pump indicator | 10. T2 - ACM boiler |
| 3. ACM boiler recirculation pump indicator | 11. ACM boiler recirculation pump power cable |
| 4. Display | 12. AT recirculation pump cable |
| 5. Button "+" | 13. Controller power supply cable - 230 V |
| 6. Menu button | 14. Power switch |
| 7. Button "-" | |
| 8. Alarm sound | |

Electrical diagram



Controller operation

The hysteresis and set temperature for both pump types can be changed by pressing the button to access the options menu. The letters "C", "U" and "H" will flash on the display, and at this point the set temperature can be changed using the buttons or . After a few seconds, the controller will return to normal operating mode and display the measured temperature.

C – above this temperature, the AT recirculation pump will switch on

U – above this temperature, the ACM boiler recirculation pump will switch off.

H – The ACM boiler recirculation pump will switch on when the temperature measured by the sensor drops below the "U-H" temperature.

CP function (Priority)

The operating priority can be changed by activating this function. If only the ACM boiler recirculation pump is connected, the controller will only switch on the pump once the temperature has reached the set value. If this function is not active, the pumps operate independently and no other priorities are active for the ACM boiler recirculation pump.

To activate the priority function, hold down the button until the letters "P" and "L" appear on the display. Use the or buttons to select "P", then confirm with the button. Use the or buttons to turn the priority function ON or OFF. Confirm your selection with the button.

L function (Holiday mode)

This function blocks the AT recirculation pump, leaving only the ACM boiler recirculation pump active. The AT recirculation pump will only activate when the boiler temperature reaches 90°C — this is a protective function against overheating.

To activate Holiday mode, hold down the button until the letters "P" and "L" appear on the display. Use the or buttons to select "P", then confirm using button. Use the or buttons to turn the priority function ON or OFF. Confirm your selection with the button.

Manual mode

Hold down the and buttons to turn on the recirculation pump. The pump will run until you turn it off manually by pressing the and buttons again.

To view the boiler temperature, press the button. The boiler temperature will be displayed after a few seconds.

Hysteresis

This is the difference between the temperature at which the controller switches on the recirculation pump and the temperature at which it switches it off. The controller has a fixed hysteresis of 2 °C. For example:

- If parameter "C" is set to 30 °C, the recirculation pump will turn on when the measured temperature exceeds 30 °C and turn off when the measured temperature falls below 28 °C.
- If parameter "U" is set to 50 °C, the ACM boiler recirculation pump will switch off when the measured temperature exceeds 50 °C and will switch on when the measured temperature falls below the value "U-H".

Additional features

The controller also has functions that prevent the pump from jamming. The "anti-stop" function protects against limescale deposits outside the heating season. The pump switches on every 14 days for 15 seconds.

Another protective function is "anti-freeze", which maintains continuous pump operation if the sensor-measured temperature falls below 5 °C.

Alarm function

The controller is equipped with an alarm signal that activates when the temperature detected by the sensor exceeds 90 °C.

Technical specifications

Power supply	230 V / 50Hz ±10%	
Energy consumption	2 W	
Ambient temperature	-10 - 50°C	
Maximum pump current AT / ACM	6 A each	
Temperature display range	0 - 99°C	
Temperature setting range	AT	5 - 80°C
	ACM	20 - 80°C
Temperature measurement range	-10 - 120°C	
Sensor cable length	AT	1,2 m
	ACM	3 m
Hysteresis adjustment range (H)	5 - 30°C	