HLE\_UTY-VRC V3 12/2023



User manual

# Vinoverter set UTY-VRC



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## **OPERATION OF VINOVERTER**

The Vinoverter is a customised solution for specific needs: cooling a low-temperature room between 10-18°C requires a separate approach. In this application, you only need sensible cooling power and as little dehumidification as possible. An oversized heat exchanger is the solution for this. The proposed combinations each consist of an indoor unit that is significantly larger in size than the corresponding outdoor unit. As a result, these combinations can only be used for cooling.

With the Vinoverter set UTY-VRC, consisting of a controller and extension module, you can very easily set the desired temperature and relative humidity and view them in a history graph. The extension module features an alarm contact and the connection of an external heater and humidifier to control the relative humidity in the room.



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## **VIDEO INSTRUCTIONS**

Be sure to check out the user video instruction on the Vinoverter! Website: <u>https://thercon.manual.to/vinoverter-gebruik</u>



## OPERATION



## **Basic functions**

All basic control functions are described below:

## On/Off

Press on  $\bigcirc$  when you want to start or stop the operation.

### Return

Press  $\bigcirc$  if you want to go back to the previous screen.

#### Temperature

Set the desired room temperature:

Press (-) if you want to lower the desired room temperature.

Press (+) if you want to increase the desired room temperature.

#### Fan speed

Here you can adjust the desired fan speed of the indoor unit:



We recommend to set it to automatic fan speed for the most accurate operation.

### **Relative humidity**

Set the desired relative humidity:

Press (-) if you want to lower the desired relative humidity.

Press (+) if you want to increase the desired relative humidity.

If you cannot adjust it, it means the relative humidity setting is off.



#### Temperature

Here you can read the measured room temperature.

### **Temperature indicator**

The colour of the wine bottle logo indicates whether the room temperature is OK or not. Green means the measured room temperature is within  $1^{\circ}$ C of the set temperature. Orange means a deviation between 1 and  $2^{\circ}$ C and red means a deviation of more than  $2^{\circ}$ C.

### Mode

The symbol of the active mode of the installation is displayed here:



### **Relative humidity**

Here you can read the measured relative humidity.

### **Relative humidity indicator**

The colour of the wine bottle logo indicates whether the relative humidity in the room is OK or not. Green means the measured relative humidity is within 10% of the set relative humidity. Orange means a deviation between 10 and 15% and red means a deviation of more than 15%.

### Alarm

If an alarm is active, this symbol will be displayed. Be sure to check which alarm is active in the alarm history.



## **Graph history**

If you go to the graph history, you can see a graph by hour, by day and by week. There are 3 graphs, where you can see the history of measured relative humidity, measured temperature and status graph during the set time. In the first two graphs you can press 2x to view these graphs larger. If you press 2x again, you go back to the standard screen. In the status graph, you can see when the external heating element, humidifier or drying function is activated.



## **Alarm history**

If you go to the alarm history, you will see the last 10 alarms with the most recent at the top. It also shows which alarm is active and when it was.



## Settings

If you go to settings, you can adjust the time and date and view the status. The factory reset and installer settings are for the authorised installer. These settings are described in the installation manual.

U a contraction of the contracti	<u>ک</u>		
<sup>№</sup> 58% 12,4 °C	TIME &DATE SETUP	SYSTEM RESET	INSTALLER SETUP
SET (-) 65% (+) (-) 12,0°C (+)	SYSTEM STATUS		

### Time and date

In this menu, you can adjust the time and date, then confirm.

	ţ	Ś	Śr		Ŀ		Ć
	SYSTEM RESET	INSTALLER SETUP			^	^ 09.	^ 20
			2019	FED	20	00:	30
SYSTEM STATUS			~	~	~	~	~

#### Status menu

In this menu, you can view the system status. In the left image, you can see what command the controller is giving to the indoor unit (mode, temperature and fan speed). In the right-hand image, you can see whether the heating element, humidifier or alarm is controlled by the extension module. You can see this by the "lightning symbol" that then appears for heating, humidification or alarm. In addition, you can also find the software and hardware version.



## **EXTENSION MODULE**



### LEDS

- 1) The green LED lights up when the extension module has power.
- 2) The green LED lights up when there is data communication between the controller and extension module.
- 3) The orange LED lights up if there is no data communication between the controller and extension module
- 4) The orange LED lights up when the heater output is active.
- 5) The orange LED lights up when the humidifier's output is active.
- 6) The red LED lights up when the alarm output is active.

The alarm will be active if the temperature or relative humidity or both deviate too much, depending on what is set (see installation manual). The temperature alarm will be active if the room temperature deviates more than 2°C for one hour (factory setting). The relative humidity alarm will be active if the relative humidity deviates by more than 20% for one hour (factory setting).

## RECOMMENDATIONS

## Wine storage

The Vinoverter is a customised solution for cooling a low-temperature room between 10-18°C. Its main application is for wine storage. Below you can find the ideal conditions for this:

Temperature: 12°C

Relative humidity: 60-75%

Ideally, the airflow from the indoor unit should be set so that it cannot hit the bottles directly.

## **IR** signal

The controller controls the indoor unit by means of an infrared signal. It must therefore be ensured at all times that this signal is never blocked between the controller and the indoor unit.

## Installation and repair

Installation and repair of the Vinoverter should always be done by a recognised installer.



## **EXPLANATION**

## **Components Vinoverter climate system**

Creating the desired climate in your cool storage space is achieved with the Vinoverter by 2 separate techniques:

1. The Vinoverter control accurately registers the room condition at the place where it is mounted. Depending on your settings, it will send the necessary actions/settings to the General Vinoverter climate system by means of an infrared command. Any equipment to heat and/or humidify the room can also be connected and controlled via the Vinoverter extension module (dry contact).

2. The General Vinoverter climate system is responsible for cooling and, within certain limits, also dehumidifying the room.

## **†**

Active range General Vinoverter climate system:



Achieving your desired conditions is tied to the cooling and dehumidification capacity of your air conditioner. Lowering the relative humidity depends on the temperature and cooling capacity of your cooling element. For General climate systems, the lowest dew point will be around +5°C. The minimum achievable relative humidity will therefore be about 70% at 10°C, and about 60% at 12°C, all provided the climate system is correctly dimensioned, installed and maintained.

NOTE				

### AFTER-SALES CONTACT:

www.thercon.be

Commissioning date:

Installer or customer service details