

INTIEL

THE ELECTRONICS ON YOUR SIDE

Controller for Refrigeration Systems **HLC-3**

User's Manual



1. Application

Controller for Refrigeration System HLC-3 is designed to control the operation of refrigeration units, installed in refrigeration systems for cooling of liquid products, etc., by means of switching over the compressor and motor operation of the mixer unit.

2. Technical data

- | | |
|--|-------------------------|
| 1. Power supply: | 220V/50Hz/AC |
| 2. Outputs commutation current: | |
| • of the compressor: | 16A/250V/AC |
| • of the of the mixer unit: | 10A/250V/AC |
| 3. Resistance against strokes and vibrations: | up to 2g |
| 4. Digital display: | two sectional |
| 5. Time period of mixer unit operation and stop: | from 4 up to 40 minutes |

3. Operation

The Controller is encased in a plastic board equipped with a transparent plastic cover. The connection between the Controller and the refrigeration unit is provided by dismountable terminals, located on the Controller main board in accordance with the mentioned scheme below.

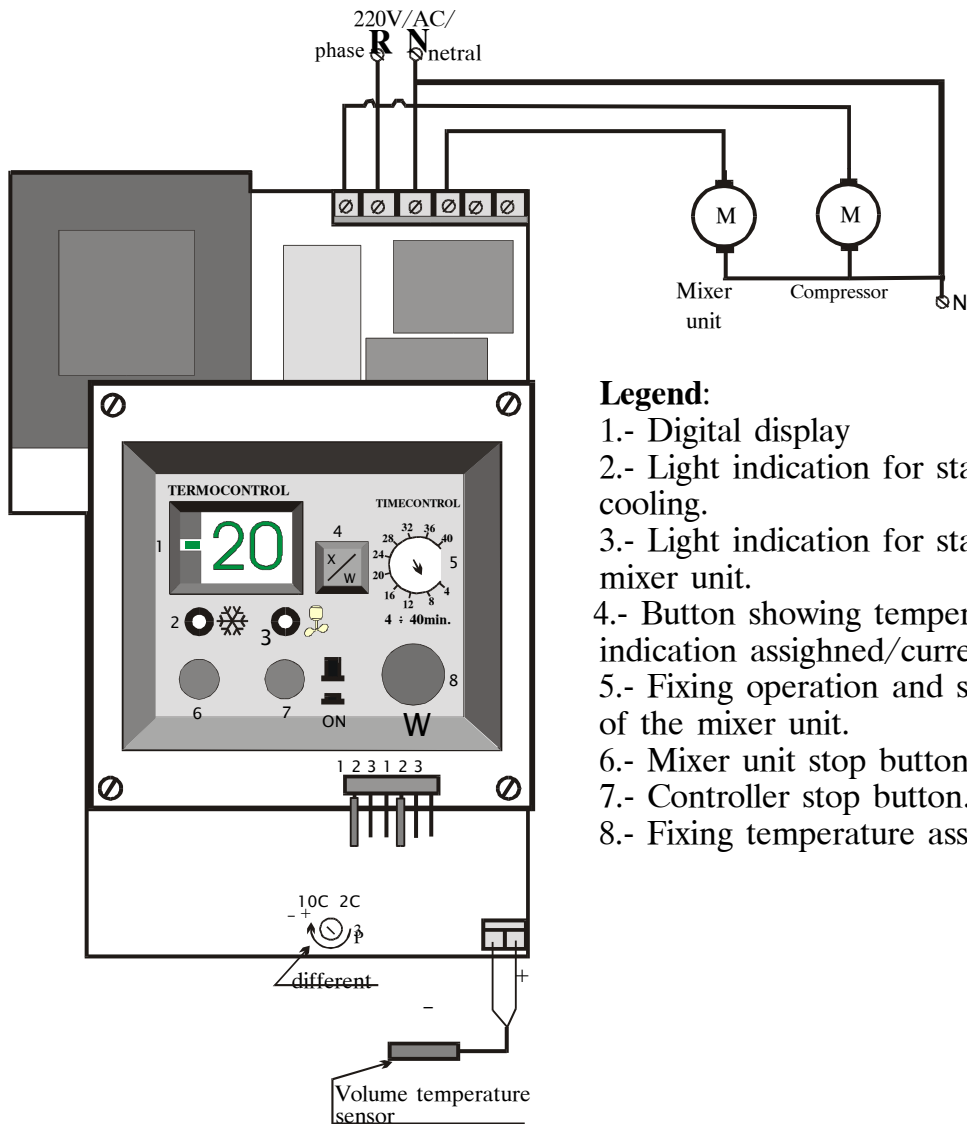
The Controller measures the volume temperature by remote temperature sensor, connected with two-wire cable to the main board. The measured temperature is indicated on two positional digital display with precision of 1 °C, in range of (-40°C) – (+40°C). The thermo regulator, keeping the assigned temperature level in the refrigeration chamber has a fixed different of 2 °C. The different can be adjusted by the trimmer-potential-meter P3 in the range of (2 °C) – (10 °C). The assignation of the desired temperature can be done by a button and a trimmer-potential-meter on the front Controller panel. The button has two positions – “X” and “W”. When the button is in position “X” (released) on the digital display is indicated the current volume temperature. If the button is in position “W” (pressed) – the assigned temperature level in the volume is indicated. The assignation range can be selected by replacing the jumpers located under the front Controller panel. The meaning of the rest indications on the front panels are as follows:

- Green indication – active when the mixer unit is switched on
- Green indication – active when the compressor is switched on

The operation of the mixer unit is provided after pressing both the main Controller button and the mixer unit one in switched on positions. The mixer unit operates in equal time periods, which are fixed by appropriate screw-driver through Timecontrol aperture from 4 up to 40 minutes. The previous mentioned fixed time is valid for the mixer unit operation and stop time.

If the power supply of the operating compressor drops in short time and subsequently it would be restored, the compressor will not be able to start operation immediately, because its inlet and outlet pressures are not equalized. Therefore, the Controller provides the compressor start-up, 5 minutes after the power supply is restored. Thus the compressor start-up is done always at equalized pressures, avoiding its overloading during the start-up. Such a pause of the compressor operation is provided by the thermo regulator, after a short command for stopping that can be happen during adjusting of the assigned temperature level in the operation regime. **Generally, the Controller provides stopping of the compressor operation for not less than 5 minutes.**

3. Wiring



Legend:

- 1.- Digital display
- 2.- Light indication for started cooling.
- 3.- Light indication for started mixer unit.
- 4.- Button showing temperature indication assigned/current temperature.
- 5.- Fixing operation and stop time of the mixer unit.
- 6.- Mixer unit stop button.
- 7.- Controller stop button.
- 8.- Fixing temperature assignation.

4. Warranty

The warranty period is 24 months following the purchase date of the unit or its installation by an authorized Engineering Company, but not exceeding 28 months after the production date. The warranty is extended to the malfunctions that occur during the warranty period and are result of the production reasons or defective used parts.

The warranty does not relate to malfunctions corresponding to not-qualified installation, activities directed to the product body interference, not regular storage or transport.

The repairs during the warranty period can be done after correct filling of the manufacturer warranty card в катерпана

Warranty Card

Manufacturer: INTIEL	
Product type	
Production number	
Production date	
Dealer confirmation	
Purchase date	
Invoice number	
Dealer's name, address and stamp	
Seller's name and signature	
Installation Date	
Date	
Company (address, stamp)	
Installer's name and signature	