Livestock heating

Heat exchanger 1400 TR
Heat exchanger 2800 TR
Power control
Heat exchangers 1400 TR / 2800 TR

Power controls

Complementary to the ventilation, heat exchanger reduces heating costs and improves the atmosphere in poultry and pig farms.

Principle of working

Heat exchangers are basically developed for poultry and pig farms. Heat exchanger’s working principle based on heat transfer is simple:

- Exhaust air (hot and humid) is drawn up by a fan, passes through the heat exchanger before being exhausted out of the building.

- Outside air is drawn in by a second fan, passes through the heat exchanger to be warmed, before being introduced to the building.

Principal advantages

- Complementary to ventilation system. Applicable in poultry farms and pig sectors.
- Affordable, easy to install and use
- Control the humidity inside the building, keeping the litter dry.
- Ability of having an easily removable filter unit provides a very simple system to clean and disinfect.
- Continuous operation through centralized control.
- Basically, heating costs are reduced and the environmental conditions are improved for optimal breeding.

Heat exchangers are the ideal complement of the infrared livestock heating from KROMSCHROEDER broders.

Models and power suitable for each type of farm

Kromschroeder have two different heat exchanger models: 1400 TR and 2800 TR. It allows the correct choose considering capacity and efficiency.

<table>
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<tr>
<th>Technical features</th>
<th>1400 TR</th>
<th>2800 TR</th>
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<tbody>
<tr>
<td>Capacity</td>
<td>230 Vac-1 Amp</td>
<td>230 Vac-2,2 Amp</td>
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<tr>
<td>Dimentions</td>
<td>550mm x 725mm</td>
<td>550mm x 725mm</td>
</tr>
<tr>
<td>Air intake</td>
<td>1200 m³/h</td>
<td>1200-2500 m³/h</td>
</tr>
<tr>
<td>Speed</td>
<td>1400 rpm (maximum capacity)</td>
<td>2800 rpm (maximum capacity)</td>
</tr>
<tr>
<td>Installation height</td>
<td>1100 mm (recommended)</td>
<td>1200 mm (recommended)</td>
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RDC control panel allows a centralized management.
BPX box allows a power modulated control from a centralized management.

**Power control system**

**RDC centralized speed control system**

The RDC centralized control system enables optimal power management, especially at the beginning of the growth cycle. Easy to use and program, allowing homogenization of the atmosphere inside the farm.

**BPX power box: Upgrade units to be controlled**

Should it be necessary to increase the number of heat exchangers needed to be governed by the RDC centralized control, it is possible to connect the BPX control box in order to increase the number of units to be handled.

**a) BPX 10A power box**

- Power supply: 230 Vac, 10 Amp (maximum).
- Maximum heat exchanger units to be controlled for each BPX 10 Amp power box: 6 units of 1400 TR or 3 units of 2800 TR.
- Control signal: 0-10 Vcc from RDC centralized system or any other centralized control system.
- Ability to operate manually (power level selection via keyboard) or automatically.

**b) BPX 20A power box**

- Power supply: 230 Vac, 20 Amp (maximum).
- Maximum heat exchanger units to be controlled for each BPX 20 Amp power box: 12 units of 1400 TR or 6 units of 2800 TR.
- Control signal: 0-10 Vcc from RDC centralized system or any other centralized control system.
- Ability to operate manually (power level selection via keyboard) or automatically.

**Technical features**

- Power supply: 230 Vac, 10 Amp (maximum).
- Optimum operation and programming of fan speeds helps the desired temperature to be reached quickly.
- Programmable run cycle: Running at full capacity for part of the cycle, then reduced to minimum capacity to allow minimum ventilation for saving energy.
- Equipped with a looped-back liquid crystal display, allowing the main variables to be viewed: run cycle, level of ventilation, power, etc.
- Features the ability to connect heat sensors that measure the temperature outside, inside and of the exchanger unit in order to control its efficiency.
- Ability to act as slave (On/Off control) for integration with controllers existing on the market
- Protective casing against water and moisture.
- Touch screen.
- Great versatility to control a varying number of exchangers, allowing installation in both small buildings and large areas.
- Ability to use the programmable cleaning function.
- Maximum heat exchanger units to be controlled for each RDC: 6 units of 1400 TR or 3 units of 2800 TR

**Connection through BPX power box**

The building central control program sets the required run cycle according to set parameters by sending a control signal of 0-10 Vdc to the power box.

Heat exchanger works following schedule time, modifying its velocity according to the power required.
Experts on livestock heating.

Kromschroeder, S.A. has emerged as a leading company in manufacturing and selling of products and system, as well as in rendering services to the different fields of distribution and efficient use of energy.

With a highly qualified team and a wide range of products and innovative systems for the development of energy efficiency, Kromschroeder, S.A. grants full satisfaction to the most demanding needs and expectations of customers.