



# LCC2 TOUCH CLIMATE CONTROL



## The extended one house climate control - with touch display

### Highlights

- The flexible solution with full software program included in the price
- Increase production output and yield and improve growing precision through accurate control
- Ensure higher crop quality
- Prevent waste of energy and resources
- Access from mobile devices
- Quick change between more languages on the user-friendly touch display
- Possible to connect to SuperLink for analysis of data
- Get technical online support via internet

When developing LCC Touch, we attached great importance to achieving a simple user interface without compromising the setting options. We collaborated with nurseries, and this is clearly expressed by the user friendliness of the controller. LCC2 Touch features a touch screen interface ensuring easy and trouble-free handling.

The LCC2 Touch climate control can control all climate functions in one compartment. The LCC2 Touch is based on state-of-the-art technology and an advanced operating system and is therefore easy to update and expand with

more functions and capacity.

The LCC2 Touch communicates via Ethernet with the installed expansion, and this ensures a great degree of flexibility with future updates and service.

The flexible composition of the hardware in the LCC2 Touch makes it possible to choose the sensor which is exactly optimal for a particular production, and it is also possible to use more than one of each sensor in each room. This flexibility provides a high degree of accuracy and safety.

### Energy saving climate control

The LCC2 Touch climate control can divide 24 hours into 6 time zones with optional automatic correction depending on sunset and sunrise. Furthermore, control of the screen can be done depending of the sun radiation, heat loss and the artificial light. In this way the screens are maintaining the heat.

For the LCC4, we have developed a new Energy Balance Model. The model calculates the energy demand based on the K-factor of the greenhouse and the screens, the change of air and the energy added by artificial lighting. The model "recognizes" the greenhouse and the energy demand ensuring a better and more stable regulation also known as "feed forward regulation".

### Common and individual control

With the LCC2 Touch, we continue ventilating control with cascade vent control. This means opening the lee side and the wind side at the same time. The wind side is opened to a small crack while the lee side is opened as much as needed. This cascade control of vents gives an effective ventilation in the greenhouse, even at small vent opening percentages.

### Logic operation by means of line based interface

The LCC2 Touch climate computer is easy to operate with clear menus on a 7" Touch display.

### Optional central control

LCC2 Touch is a network model which communicates with SuperLink via Ethernet.



# SPECIFICATIONS / LCC2 TOUCH CLIMATE CONTROL

## Technical specifications

Supply Voltage	100 - 240 V AC - 50/60 Hz
Power consumption	65 VA
Communication	ETHERNET

## Physical specifications

Temperature, operation	0 - 50° C no direct sun radiation
Humidity	0 - 95 % Rh without condensation
Density	IP65
Dimensions L x W x H	350 x 250 x 130 mm (14 x 10 x 5")
Weight	App. 6.5 kg (14 lb)

### Logic operation via touch display

The LCC2 climate control is easy to operate with clear menus and function keys.

### Weather station

One common weather station for the net of LCCs. A weather station comes with wind direction and wind speed as standard. It can be expanded with a rain and light sensor.

### The use of more LCC2s

The LCC2 climate control can be used in many different installations, and more LCCs can be connected in a network.

## LCC2 Touch essential functions

- Heating valves: 3 (2 + 1 main)
- Vents: 4 (can be used for either a bipartite top ventilation or for top and side ventilation)
- Screens: 2 ( 2 screens or 1 screen + 1 black out)
- CO2 control
- Artificial light: 4 zones
- Time zones: 6 (4 day + 2 night)
- Triple tariff
- Heating steps: 2 - on/off signal for control of e.g. a fan heater
- Vent steps: 2 - on/off signal for control of e.g. a cooling unit
- Horizontal Air Fan (HAF): 2 (1 per sub-zone) - activated by temperature and humidity
- Negative diff.
- Max. humidity control
- Misting valve: 1 controlled by humidity
- Irrigation valves: 1
- Irrigation program for 1 valve and supply pump
- Light step: 1
- Alarm: 1
- Cooling step: 1 - On/off signal
- Ring main control
- Flexible I/O (input / output)

## Expansion software

- Average temperature control

## I/O

- Digital inputs 2
- Digital outputs 18
- Analog inputs 8
- Analog outputs 2

## Distributor:

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