

## LCC Completa - Climate Computer

### *Flexibility and precision*

The new climate computer from DGT-Volmatic LCC Completa controls all climate functions in 1 to 4 greenhouse compartments. The LCC Completa is based on modern technology and standard operating system and is easy to update and expand with more functions and larger capacity when needed. The Completa system has a distributed I/O for present and future installation.

The flexible composition of the hardware in LCC Completa makes it possible to select the type of sensor that is best for individual production and gives the possibility to use more than one of each sensor in each compartment. This flexibility gives a high degree of precision and security.



- 4 Compartment climate computer
- Distributed I/O, flexible for present and future installation/expansion.
- Technology based on industrial PC and Linux and modular hardware/software
- 6 time zones with separate settings of temperature, humidity, light addition and CO<sub>2</sub>
- Advanced control by use of more than one sensor in one compartment

### *Energi saving climate control*

LCC Completa climate computer can divide the 24 hour into 6 time zones depending on sun set and sun rise. This provides the right conditions for an optimal plant growth. Further more the control of the shade can be done dependent of the sun radiation, the heat loss and the artificial light. In this way the shades are maintaining the heat. For the LCC Completa DGT-Volmatic has developed an Energy Balance Model. The model makes its calculations based on the K-factor of the greenhouse and the shades, the change of air and the energy added by the artificial light. The model "knows" the greenhouse and the energy need and ensures a better and more stable regulation with feed forward regulation.

### *Common and individual control*

The LCC Completa can control up to 4 compartments and each compartment can be divided into 2 sub zones depending on the function. All functions can be set with common set points in each compartment, furthermore is it possible to in the sub zones to use local set points independent or dependent of the common set points. This gives a more simple operation of the computer and at the same time the possibility to have individual conditions for different cultures.

### *Cascade vent control*

With LCC Completa DGT-Volmatic are introducing a new type of ventilation. It is now possible to open the lee side and the wind side at the same time, leaving the wind side open with a small crack and the leeside open as much as needed. This cascade control of vent gives effective ventilation in the greenhouse even at small vent opening percentages.

Technical	
<b>Supply Voltage:</b>	LCC Completa: 24V AC +10/-15% 50/60Hz Exp: 230V/115V AC +10/-15% 50/60Hz
<b>Power Usage:</b>	Max. 380VA
<b>EXP relay outputs:</b>	56 pcs 24V AC 2A (of this max 16 – 230V AC 2A)
<b>EXP Alarm output:</b>	2 pcs Potential free contacts max. 42V AC 2A
<b>EXP Digital inputs:</b>	6 pcs Potential free contacts 23V, 10mA
<b>EXP Analogue inputs:</b>	16 pcs 0 – 5V
<b>EXP Analogue output:</b>	2 pcs 0 – 10V, 5mA
<b>Communication:</b>	ARC-net with RS485 interface
<b>Exp Communication:</b>	Exp-net with RS485 interface
Environment	
<b>EMC Immunity:</b>	DS/EN61000-6-1
<b>Emission:</b>	DS/EN61000-6-3
Physical	
<b>Temperature, running:</b>	0-50°C (32-122°F) without direct sun radiation
<b>Humidity:</b>	0-95%Rh with condensation
<b>Proofing:</b>	IP65
<b>Dimensions LxWxH:</b>	LCC Completa: 400 x 300 x 130 mm (16 x 12 x 5") EXP: 400 x 400 x 130 mm (16 x 16 x 5")
<b>Weight:</b>	LCC Completa: App. 9 kg (20 lbs) EXP: App. 12 kg (26 lbs)

## Accessories

• Expansion box EXP356 • Air temperature sensor RFT/RTV • Humidity sensor RTF E10 • Soil temperature sensor • PF10 or 2xPF5 • Solar Cell SC21 • Photo sensor LF2/Q20 • CO<sub>2</sub> sensor • MS900C Weather station

## Easy to operate

LCC Completa climate computer is easy to operate with well-arranged menus shown in a large 5 1/4" display, a key board with 25 keys and a turn control knob.

## Total control

LCC Completa can be connected to one or more central PCs with the SuperLink central control program. LCC Completa can operate in the same network as AMI Completa and DGT-Volmatic's 900 systems and can share data with the other units in the network.

### LCC Completa can control up to:

4 compartments:

Standard in each compartment is:

- Possibility for 2 sub zones
- Heating valves 2
- Vents 2
- Shades 2
- Heat Step 2/4 (2 per sub zone)
- Ventilation Step 2/4 (2 per sub zone)
- HAF (1 per sub zone)
- Time zones 6
- Average Temperature
- Negative diff.
- Max humidity 2 (1 per sub zone)

Control of more than one department requires additional purchase of one or more expansion boxes.

### Options:

- Additional vent 2
- Additional heating valves 2
- Bortytis reduction
- CO<sub>2</sub> control
- Supplementary light - 4 zones
- 3 step on supplementary light
- Tripple tariff
- Misting

## Distributor:

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