

PRODUCT OVERVIEW

climalux

Grow light unit

The CLX V1000 grow light is composed of a dimmable led-lighting unit and a vertical ventilation system, which distributes heat and moisture evenly in a greenhouse. The unit creates a micro-climate around each plant, caused by the vertical air movement in combination with the adjustable light intensity.

- Type: CLX V1000
- Model: V1.5
- Power: 0 – 1,000 W (dimmable)
- Voltage: 390 Vdc (typical)
- PPF (PAR): 3,000 $\mu\text{mol/s}$ at 1,000 W
- Max efficacy: 3.0 $\mu\text{mol/J}$
- Dimensions: 285 x 150 x 95 mm
- Weight: 3.2 kg
- Fan speed: 0 – 4,100 rpm
- Flow rate: 0 – 267 m^3/hr

Spectrum

20%	Blue	400 – 500 nm
38%	Mid	500 – 600 nm
40%	Red	600 – 700 nm
2%	FR (Far Red)	>700 nm

- Light beam angle: 120°
- Protection class: IP67, IK06
- Conformity: CE, RoHS

Key features:

- Interchangeable LED light source for easy maintenance;
- 95% recyclable materials;



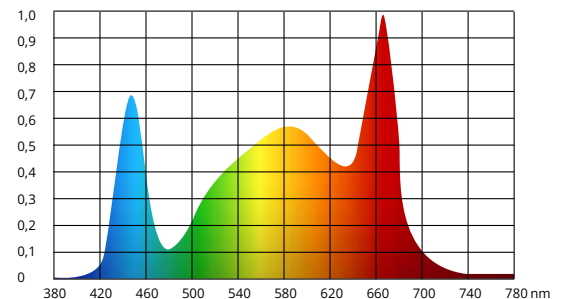
Overall system conformity

- CE
- Low Voltage Directive:
 - LVD 2014/35/EU 10, IEC 60598-1
 - Electromagnetic Compatibility:
- EMC 2014/30/EU
- Harmonized standards:
 - EN 55015 (2013)
 - EN 61000-6-2 (2005) + AC (2005)
 - EN 61000-3-2 (2014)
 - EN 61000-3-3 (2013)
- RoHS 2011/65/EU Directive

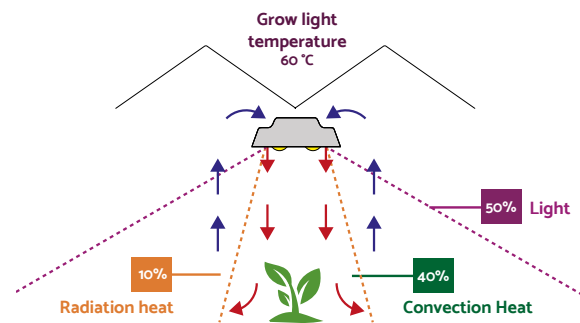
- Better and stronger crop.
- Even quality of cultivation.
- Higher crop yield.
- Less pesticides.
- Less inhibitors.
- Lower CO₂ load.
- Lower production costs.
- No health risk.



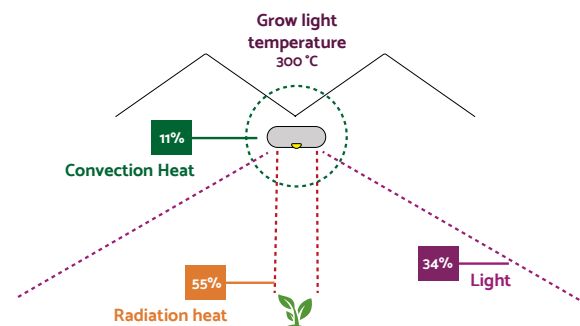
Spectrum



Energy distribution



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CONVENTIONAL



Horticulture Control Unit (HCU)

The HCU is the connection between the horticultural computer and the grow light system. The connected full-led grow lights can be arranged in any desired configuration. Multiple group divisions can be created, each with its own light intensity so that the light intensity in the greenhouse is the same everywhere. The smallest group can hold four grow lights. Depending on project scale and customer requirements there are two series available.

- Series: **CTR**
 - Type: HCU CTR1
 - Input: 230 Vac and (W)LAN or 5G
 - Communications: Modbus-TCP, analog 4-20 mA or Time-based program
 - Operating modes: Automatic, Time-based, Manual, Service
 - Manual control: Dial-operated
 - Dimensions: 880 x 600 x 250 mm
 - Weight: 44 kg
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- Series: **MOD**
 - Type: HCU MOD1
 - Input: 230 Vac and (W)LAN
 - Communications: Modbus-TCP and analog 4-20 mA
 - Operating modes: Automatic, Manual, Service
 - Manual control: Touchscreen
 - Dimensions: 550 x 440 x 220 mm (main unit) Separate 9,7" touchscreen
 - Weight: 17,5 kg (main unit)

Both series are compliant to Horti Lighting Protocol module I and II, for seamless connection to Hoogendoorn, Priva and Ridder climate computers.



CTR SERIES



MOD SERIES

Power Supply Unit (PSU)

The SMC 4000 power supply unit is a 4 kW stepless dimmable led-driver, delivering power to a maximum of four CLX V1000 grow light units. The PSU operates on standalone basis and can be externally controlled via the HCU, providing maximum installation flexibility.

- Type: SMC 4000
- Model: V7.3
- Input:
 - Power range: 0 – 4,000 W (dimmable)
 - Voltage range: 360 – 440 Vac
 - Current: 12 A (max.)
 - Net-frequency: 47 – 63 Hz
 - Power Factor (PF): 0.99 (nom.)
 - THD: 1.0% (nom.)
 - Inrush current: < 3 A
- Output:
 - Power: 4x 1,000 W (max.)
 - Voltage: 390 Vdc (typical)
 - Current: 4x 3 A (max.)
- Efficiency: 97.2% (typical)
- Required connectors:
 - Mains power: Wieland RST20i3 (2W+PE)
 - Communications (optional): Wieland RST08i3 (3W)
- Fuse: 2x 20 A slow
- Dimensions: 600 x 155 x 125 mm
- Weight: 7.8 kg
- Protection class : IP67
- Conformity: CE, RoHS
- Operating conditions:
 - Ambient temperature: 0 – 35°C (at max. power)
0 – 45°C (automatic derating)
 - Relative humidity: 5 – 95% RH



SMC 4000

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