



Grow light units

NEW!

The **CLX-2-3ch** grow light is 3 channel switchable. One main channel and two sub-channels. The total power of the lamp is 750W (just like the CLX-2-1ch), with the main channel accounting for 80-90% of the total power. An example of a color breakdown per channel: 85% Red (Ch1), 5% Blue (Ch2), 10% Far Red (Ch3); The exact color layout per channel can be adjusted to the customer's wishes.

Including boost function, the maximum available power of 750W can be distributed over 1, 2 or 3 channels. When switching off one or both sub-channels, the main channel can be controlled up to a maximum of 750W.

The **CLX-2-1ch** 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.

General specifications

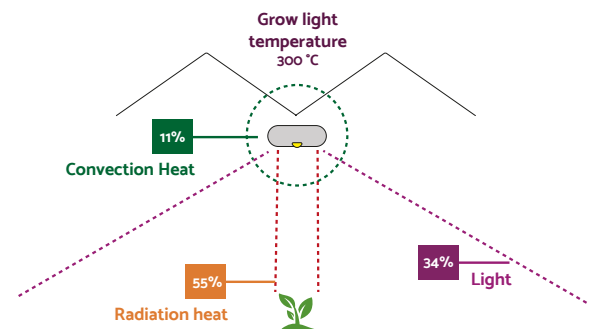
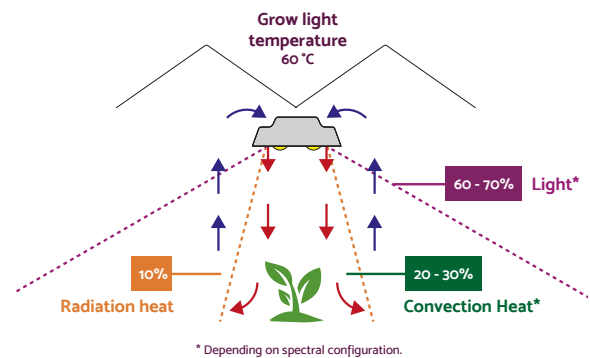
- Power: 0 – 750 W (dimmable)
- Voltage: 390 Vdc (typical)
- Dimensions: 285 x 150 x 95 mm
- Weight: 3.2 kg
- Fan speed: 0 – 4,100 rpm
- Flow rate: 0 – 267 m³/hr
- Protection class: IP67, IK06
- Conformity: CE, RoHS

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

Energy distribution



CONVENTIONAL

CONFIGURATION		SPECTRAL COMPOSITION				EFFICACY ¹		Photon flux ²
		Blue	Mid	Red	Far red	@100% power 750W	@50% power 375W	
Product code	Spectrum	400-500nm	500-600nm	600-700nm	>700nm	μmol/J	μmol/J	μmol/s
STANDARD BEAM (120°)								
CLX-2-1ch-A1S	Broad spectrum + far red	16%	25%	55%	4%	3.1	3.3	2325
CLX-2-1ch-B1S	Low blue white	5%	5%	90%	0%	3.7	4.0	2775
CLX-2-1ch-C1S	Low blue	5%	0%	95%	0%	3.8	4.1	2850
CLX-2-1ch-D1S	Low blue white + far red	5%	5%	85%	5%	3.7	4.0	2775
CLX-2-1ch-E1S	High blue white + far red	30%	15%	45%	10%	3.0	3.3	2250
WIDE BEAM (140°)								
CLX-2-1ch-A1W	Broad spectrum + far red	16%	25%	55%	4%	2.8	3.1	2100
CLX-2-1ch-B1W	Low blue white	5%	5%	89%	1%	3.5	3.8	2625
CLX-2-1ch-C1W	Low blue	5%	0%	94%	1%	3.7	3.9	2775
CLX-2-1ch-D1W	Low blue white + far red	5%	5%	85%	5%	3.5	3.7	2625
CLX-2-1ch-E1W	High blue white + far red	29%	15%	46%	10%	2.9	3.1	2175

Note: 1. PF efficacy between 400-800nm • 2. Photon flux between 400-800nm at 750W



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.

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-2 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



CTR SERIES



MOD SERIES



SMC 4000

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