



**MICRO CLIMA-SERIES™**  
ECONOMIC LUX CHAMBER





# ECONOMIC LUX CHAMBER

**When it comes to in-vivo plant growth, plant tissue culture, in-vitro, seed germination or insect breeding, the ECONOMIC LUX is universally employed.**

Snijders Labs has manufactured and developed climate chambers in The Netherlands since 1988. Our extensive experience is gained from working directly with scientists to help create design solutions for their needs. This program has helped evolve the ECONOMIC LUX.

We control all aspects of manufacture which allows us to react flexibly and quickly to new developments in scientific research. This evolution of design allows for a high degree of uniformity of light, temperature and humidity (optional) across the entire chamber; controlled in day/night cycles by a 'real time' clock.



## FEATURES ECONOMIC LUX CHAMBER

- + A broad temperature range of  $-5^{\circ}\text{C}$  up to  $+50^{\circ}\text{C}$
- + Large capacity of 555 litres confined to a small foot print of  $0,77\text{ m}^2$
- + Growth surface of not less than  $1,8\text{ m}^2$ , thanks to 5 height adjustable shelves
- + Adjustable day and night cycles for temperature and lighting.
- + Solid cabinet with a scratch resistant coated exterior, solid steel frame
- + Stainless steel panels with grids, painted white, to maximise light diffusion
- + Vertical lighting is mounted outside the chamber and on two sides
- + Cable entry port
- + On heavy duty castors of which 2 with brakes: easy to move.
- + Potential (voltage) free contact
- + Accurate with reproducible results

## HOW TO CONTROL?

The controller is easy to program and the digital readout is easily read. Illumination and temperature is controlled by a 24 hour clock in a day/night cycle. If a degree of humidity control is required without active control the base can be flooded. Accurate additive humidity control is optional. If an alarm is detected the potential free contact, optical and acoustic alarm will be activated.

## ILLUMINATION

The LED tubes are mounted vertically behind double thermal glass, switched in 4 levels and adjustable by means of a timer. Both sides of the cabinet have 7 LED tubes; 14 in total. This design also allows for periodic maintenance to be executed quickly and easily.

Fig. 1 Air circulation

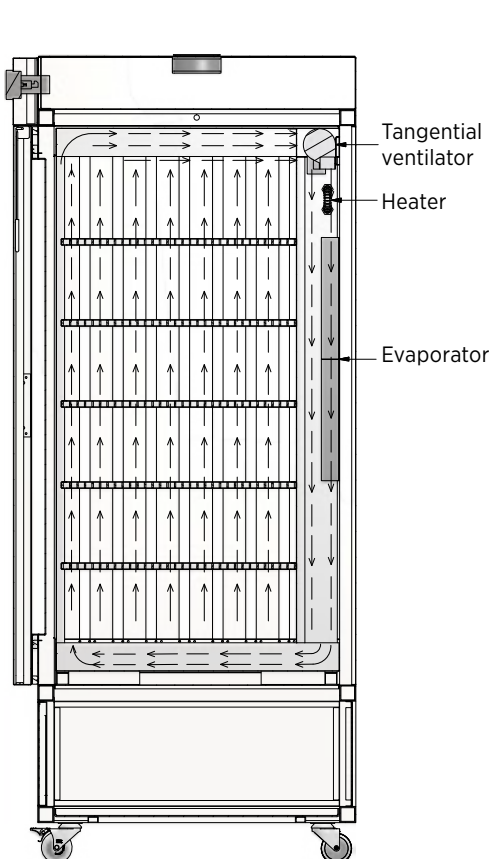


Fig. 4 Front view

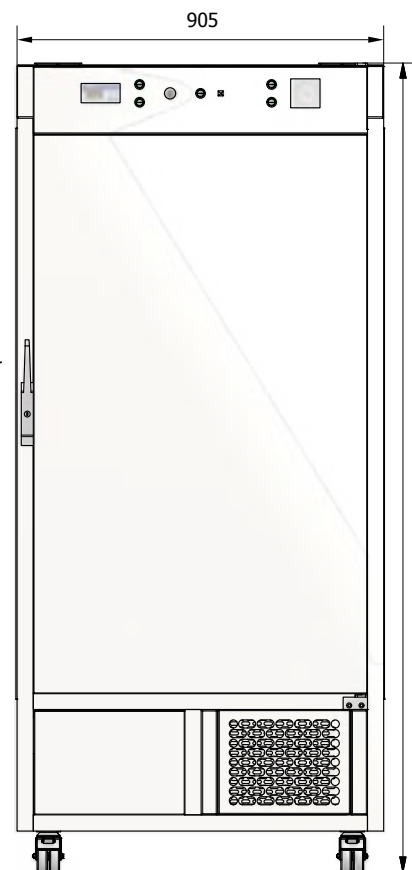
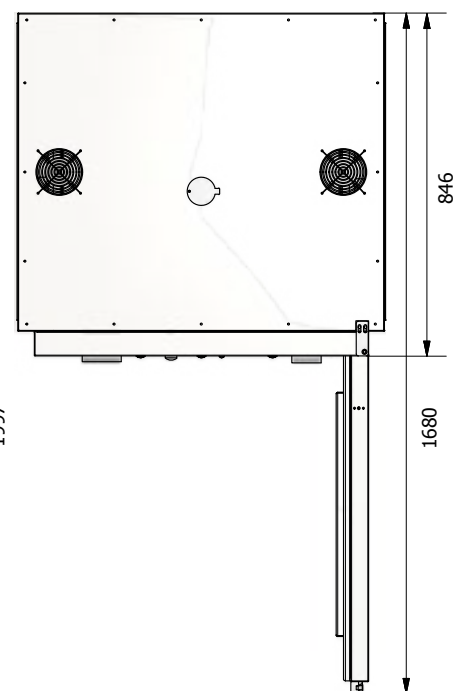


Fig. 4 Top view





## SUSTAINABLE

The ECONOMIC LUX is built in a ISO9001 accredited factory and meets all the latest European environmental and safety requirements, e.g. CE marking, RoHS compliant, a HCFC and CFC free cooling system with economic and silent Danfoss/ Secop compressors, type Optyma.

The chamber is:

- + highly energy efficient
- + very quiet due to silent Optyma compressors.

## OPTIONAL

- + Additive humidity control by ultrasonic humidification.
- + Webbased multi-step controller.
- + Various software options.

- + Dim function controller/manual.
- + Other LED light sources available (e.g. UVa&b).
- + Adjustable safety thermostat for minimum temperature.
- + Extended temperature range.
- + Dimmable lighting.
- + Extra cable entry port.
- + Splash watertight power point.
- + Transparent polycarbonate inner doors.
- + Viewing window in door.
- + Door hinged left or right.
- + Single glass with 81% UV-permeability.
- + Stainless Steel evaporator system (when using aggressive substances).
- + Stainless steel platforms, runners.
- + Other options on request.



# ECONOMIC LUX CHAMBER

## TECHNICAL INFORMATION

PHYSICAL	ECL02-VL	ECL02-VLD
Total volume		555 liter
Working volume		432 liter
External dimensions (w x d x h)		935 x 863 x 1997 mm
Internal dimensions (w x d x h)		690 x 600 x 1340 mm
Growth area per shelf		0,36 m <sup>2</sup>
Shelves		5 standard/20 max.
Airflow		Vertical (max. 0,2 m/sec)

SPECIFICATIONS	ECL02-VL	ECL02-VLD
Temperature range (lights off)		-5°C till +50°C
Temperature range (lights on)		0°C till +50°C
Temperature fluctuation		± 0,3°C
Variation (one shelf, light on)		± 1,0°C
Humidity level		80-85% RH (lights on) approx. 90% RH (lights off) depending on temp.
Light intensity	0 - 400 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 0 - 32.000 lux	0 - 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 0 - 16.000 lux

FACILITIES	ECL02-VL	ECL02-VLD
Temperature controller		electronically PID, Jumo
Temperature sensor		PT 100 $\Omega$
Illumination	14x non-dimmable LED-tubes with daylight spectrum	14x dimmable LED-tubes with daylight spectrum

GENERAL	
Power supply	220-240V, 11A, 1ph, 50Hz
Weight	310 kg

\*Specifications subject to change

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There you'll find all the latest information about:

- + ULT freezers (-86°C) with datasheets of any type, racking systems, boxes and other accessories
- + a variety of climate cabinets for plants, seed germination, fungi, snails and insects research with temperature-, light- and humidity control
- + (cooled) incubators and incubator walls, designed for general microbiological research of among others food, water and medical laboratories.



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