



Plant Growth Chamber Type S



Product Datasheet

The size S climate chamber was specially developed for applications that require stable and consistent environmental conditions and has a volume of approx. 300 liters.

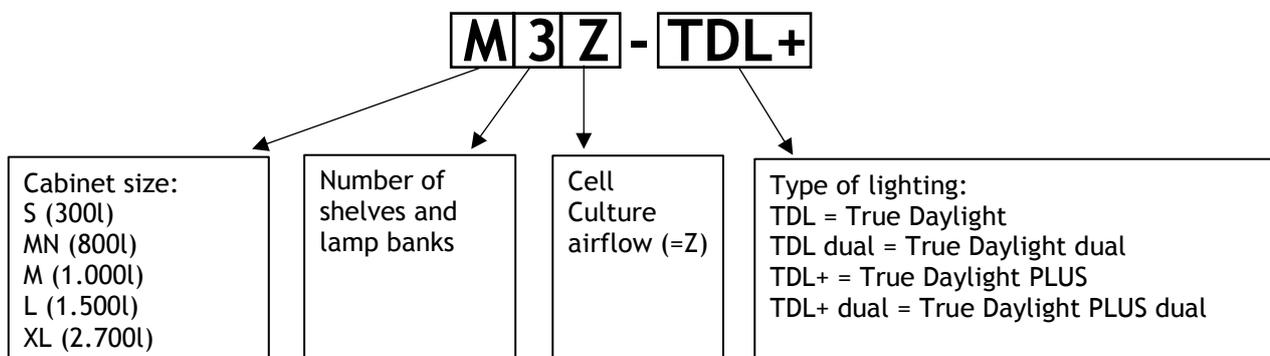
Overview of sizes



Nomenclature of the poly klima cabinets

The first letter reflects the model-type. The number after the model letter stands for the number of shelves and lighting levels. Another letter indicates a possible special equipment of the climate chamber (e.g. a "Z" after the number stands for cell culture equipment resulting in a vertical air flow). The last abbreviation provides information about the type of lighting.

A cabinet with the designation M3Z-TDL+ is an M model with a volume of approx. 1,000 liters, 3 levels, 3 lamp banks and cell culture airflow. TDL+ stands for poly klima True Daylight PLUS LED-lighting in this chamber.



Product Highlights



- **Made in Germany**
- **Lowest energy consumption**
- **Extensive standard equipment:**
 - Lamp banks separate dimmable and switchable
 - Dehumidification
 - 12“ Industry-standard touchpanel.
 - Network connection for remote control and remote diagnosis
 - Lighting levels and shelves can be adjusted in vertical position without the help of tools
 - Shelves on pull-out-rails
 - Power socket inside
 - Elaborated design - modular design for every installation situation
- **Service and maintenance friendly**
- **Min. 15 years availability of spare parts through the use of industrial components**

Technical Data

Outer Dimension: 740 x 730 x 1.400 mm (W x D x H)

Weight: from 170 kg

Volume: around 300 l

Inner Dimension Variations:

Type	Number of lamp banks	Number of shelves	Grow area total	Growing height
S1	1	1	0,3 m ²	600 mm
S2	2	2	0,6 m ²	270 mm

Air conditioning: very energy-efficient refrigeration system, air or water-cooled.

Temperature: +7°C until +40°C (maximum temperature variance of 0.5°C) Extended temperature ranges optionally available.

Dehumidification: as a standard for rel. humidity values from ambient to 45% r.h.

Intuitive operation: 12“ Industry-standard touch-panel directly at the cabinet or via the standard network connection e.g. from your office.

LED-Lighting solutions

- poly klima True Daylight White-LED
- poly klima True Daylight Dual White LED (2 channel white-LED)
- poly klima True Daylight PLUS White-LED
- poly klima True Daylight Dual PLUS White-LED (2 channel white-LED)
- Multichannel LED-solutions with individually selectable color channels

Light intensities: up to 1.500 $\mu\text{mol}/\text{m}^2/\text{s}^{-1}$ per lamp bank.

Dimming: Each lamp bank and each light channel is dimmable from 100% to 1 %

Electrical connection: 230VAC/1/50, fused with a 16A time-lag fuse (C or K characteristic), average energy consumption of approx. 0,5-0,9 kW/h

Design

Optimal Light Distribution - the growing compartment is coated with white, reflective and UV-resistant plastic. The LEDs have a radiation angle of 120° , which results in best possible light homogeneity on the shelves.

Clever & Energy efficient - The unique modular design allows installation at any site and still offers the best insulating properties.

Practical - The vertical position of the lamp banks and shelves can be changed easily and without tools. The shelves sit on rails and can be pulled out completely.

Corrosion protection - All metal parts are from aluminum, stainless steel or from galvanized, plastic coated metal.

Mobile - The chamber stands on braked heavy-duty rollers and can be moved without any problems.



Options

Ultrasonic-Humidification for relative humidity levels up to 85% r.H.

Reservoir-Humidification for Entomology applications

Entomology-Package: special evaporator filter and coating for working with insects.

Extended Temperature Range from 0°C up to 50°C .

Cable Port, resealable opening in the side wall for cables or hoses.

PAR-Sensor for measurement (open loop) or control (closed loop) of the light intensity.

Gas Application of the inner compartment with CO_2 or O_2 etc.

This is an excerpt of the available options. Our cabinets can be adapted to almost any experimental requirement.

We are looking forward to your challenge!