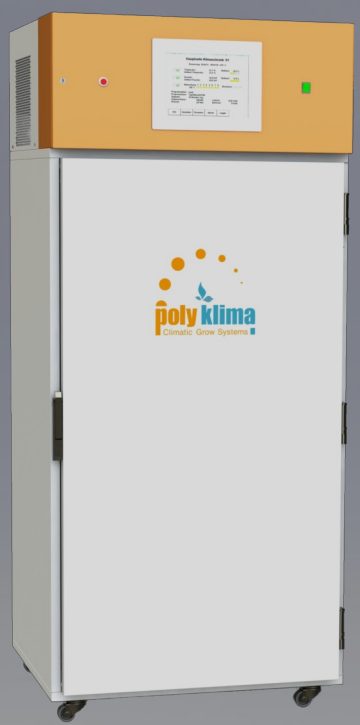
Product Datasheet

poly klima
Climatic Grow Systems



Plant Growth Chamber
Type MN

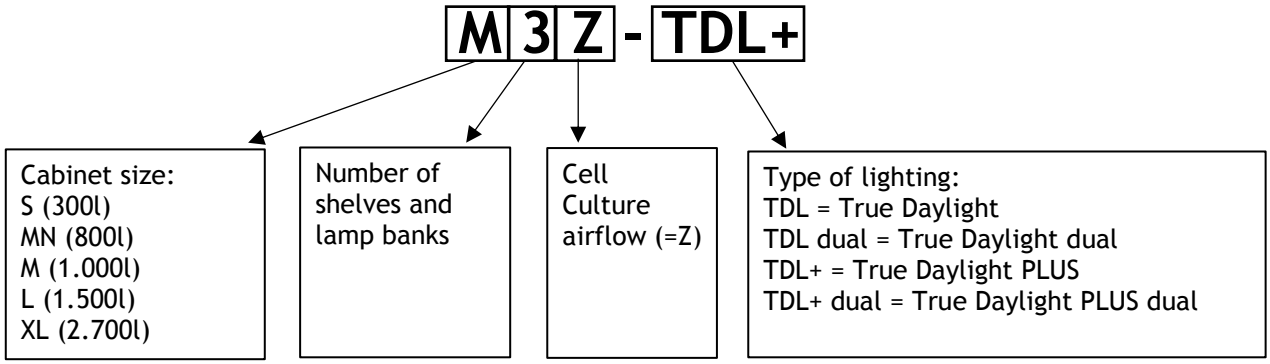
The size MN climate chamber was specially developed for applications that require stable and consistent environmental conditions even in the low temperature field and has a volume of approx. 800 liters.

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**
- **-10°C until 40°C**
- **Extensive standard equipment:**
  - Lamp banks dimmable and switchable separately
  - Dehumidification
  - Double evaporator architecture
  - 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
  - Switchable airflow – horizontal – vertical
  - Stainless steel inner compartment
- **Service and maintenance friendly**
- **Min. 15 years availability of spare parts through the use of industrial components**

Technical Data

Outer Dimension: 900 x 930 x 2.100 mm (W x D x H)

Weight: from 280 kg

Volume: around 800 l

Inner Dimension Variations:

Type	Number of lamp banks	Number of shelves	Growing area total	Growing height
MN1	1	1	0,5 m²	990 mm
MN2	2	2	1,0 m²	380 mm
MN3	3	3	1,5 m²	250 mm

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

Temperature: -10°C until +40°C (maximum temperature variance of 0.5°C)

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 µmol/m² 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. 1,2 - 1,6 kW/h

Design

Optimal Light Distribution –The LEDs have a radiation angle of 120°, which – in conjunction with the thorough module-placement - results in best possible light homogeneity on the shelves in conjunction with the.

Energy efficient – The walls, the floor and the lid, as well as the door of the cabinet are PUR-foamed and without thermal bridges

Practical – The vertical position of the lamp banks and shelves can be changed easily and without tools. The shelves can also be fully extended via pull-out rails for equipping and examining the samples.

Corrosion protection – Inner compartment from stainless steel, other 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 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!