

Plant Growth Chamber ME7-2



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Product Overview/Applications

The ME7-2 offers two independently controlled growth areas in a single chamber making this model ideally suited for applications where smaller experiments need to be conducted in different environments, all in a small footprint. Despite its economical footprint, the ME7-2 offers 23.5"(605mm) of growth height in each compartment and 8.2 ft² (0.76m²) of total growth area. Please consult Meditech for your specific requirements.

Lighting

The standard lighting system on the ME7-2 provides a broad based light spectrum for plant growth using a combination of T8 fluorescent and halogen incandescent lamps. Excess lamp heat in the canopy is controlled with the refrigeration system. Standard lamp control provides two light levels per lamp type.

Airflow

Air flow for the ME7-2 is distributed uniformly upward using Meditech's innovative Uni-floor air distribution plenum. The maximum air flow is 50 ft/min (15.2m/min) which promotes uniformity as well as proper gas exchange at the plant's leaf surface. The unit includes fresh air intake and exhaust ports which are adjustable to allow up to 10 ft³/min (0.28m³/min.) of air exchange.

Refrigeration

Cooling on the ME7-2 model is provided by a self contained air-cooled condensing unit with hot gas bypass for continuous compressor operation. This results in extended compressor life as well as tight temperature control. A proportional valve is employed instead which provides quieter operation and increased system operating life as compared to solenoid valves. Pressure transducers are included for monitoring the condition of the refrigeration system. Alternative refrigeration methods are available depending on site-specific and/or user defined requirements. Consult the factory for heat rejection calculations and other options for cooling.

Experiment Protection

User programmable "set and forget alarms" track the chamber's operation according to the set point. This allows for exceptionally accurate monitoring, without the need for adjustment every time the set point changes. Backup "high/ low" alarms are provided for extra protection. Visual and audible notification is provided when any alarm is triggered. Contacts for connection to the building system are also included.

Key Product Attributes

- Two independently controlled growth areas
- Impressive growth height and growth area in a small footprint
- Standard lighting provides a broad based light spectrum at medium intensity
- Product certifications/markings: CE



Performance Data

Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
+4°C to +40°C Lights Off	17ft ³	8.2ft ²	23½"	72" x 29.5" x 78.5"	400 µmoles/m ² /s	120-1Ø-60Hz	1030lb.
+10°C to +45°C Lights On	480L	0.76m ²	605mm	1830mm x 750mm x 2000mm	@ 25°C	220-1Ø-50Hz	467 kg

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1. standard refrigeration system is self contained air cooled. water cooled refrigeration (1/2"Ø (13mmØ) connection) is optional.
2. require a minimum of 2" (51mm) from rear of chamber to back wall.
3. castor option adds 2" (51mm) to overall height of chamber.
4. depth dimension is chamber size only. dimension does not include door latch or piping on back wall.
5. length and width dimensions ±1/4 (6mm). height dimension ±1" (25mm). do not scale drawing.

