



TECNAL EQUIPAMENTOS CIENTÍFICOS			
0 1703001	AJUSTADO 38.5	LEITURA 27.53	DataLogger 2
16:33	°C (5-60)	°C (5-60)	registros

# GERMINATION CHAMBER WITH PHOTOPERIODE AND LEDS

TE-409

Used to test the influence of environmental effects (light and temperature) on plant germination.

## Technical Characteristics

### TE-409

- Power supply: - 220VAC, optional 127VAC;
- Temperature sensor: - PT100 3-wire;
- - Working range: +10 to 60 °C with the led off and +10 to 40°C with the led on;
- Panel controller: - 4.3 inch touch screen;
- - Resolution: 0.1 / Control  $\pm 1.0^{\circ}\text{C}$  (controller characteristics);
- - Uniformity : at 37°C:  $\pm 1.0^{\circ}\text{C}$ ;
- Memory: - Permanent memory of the configuration state to restore the working state if there is a power failure, as well as recovering programmable and calibration parameters;
- - Interior lighting: on the door through LEDs;
- Photoperiod System: On/off selection with possibility of daily monitoring via Panel selection as below:;
- Module 1: Day: start at 6:15 am and end at 6:15 pm Evening: Start at 18:15 and finish at 6:15;
- Module 2 Night: start at 9:00 pm and end at 3:00 am Sun: start at 3:00 and end at 09:00 Night: start at 9:00 am and end at 3:00 pm Day: start at 3:00 pm and end at 9:00 pm;
- Term System: Selection of two temperatures for day and night with the possibility of daily monitoring via selection on the Panel as below: ;
- Module 1 Day: start at 6:15 am and end at 6:15 pm Evening: Start at 18:15 and finish at 6:15;
- Module 2 Night: start at 9:00 pm and end at 3:00 am Sun: start at 3:00 and end at 09:00 Night: start at 9:00 am and end at 3:00 pm Day: start at 3:00 pm and end at 9:00 pm;
- - Forced air circulation: without control (uninterrupted) ~ 130 L / per second;
- - Cooling capacity: 420 BTU/H at 5°C using 1/8HP hermetic compressor, with CFC-free R-134-A gas;
- - Cabinet and external door: in SAE 1020 steel and electrostatic painting;
- - Inner chamber: in polished 430 stainless steel;
- - In front of tempered glass door for internal visualization in process;
- Resistance: Door preheat resistance for system below ambient temperature (Against external
- - Compressor: 275 W;
- - Resistance: 400 W;
- - Controller: 15W;
- - Circulation: 27W;
- \* \* \* FOLLOWS: - 3 stainless steel shelves - 1 CD-ROM containing Instruction Manual, Warranty term;



## Benefits and Advantages

- Presence of overheating thermostat with audible alarm and automatic shutdown for safety
- Micro-processed digital temperature controller with PID system with ramps and soaks
- It has PT-100 temperature sensor, which is the most accurate, increasing sensitivity
- Touch screen display for easy viewing and adjustment, providing agility
- Display with visualization of activated icons (heating, compressor, door alarm, communication, thermoperiod and photoperiod) and option for the controller to be placed in stand-by mode
- Good homogeneity
- It has photoperiod with on/off selection with the possibility of daily monitoring via panel selection
- Internal lighting by LED lamps, which provides less internal heating compared to fluorescent lamps
- Presence of a tempered glass front door for internal viewing without causing temperature changes
- You can work with a thermoperiod system with up to two temperatures, or a single set point
- Date and time adjustment
- Caster system for easy movement
- Serial communication (Free software) for one machine and option to work with more machines via RS 485
- Audible security alarm against open door
- High and low temperature audible alarms for set point control
- Presence of a latch to close the door, ensuring safety
- Permanent memory of the configuration state to restore the working state if there is a power failure, in addition to recovering programmable and calibration parameters
- It has a diagnostic screen, which facilitates the maintenance process

- Rigid Quality Control, in which checks and tests guarantee the perfect functioning of the equipment, providing safety and client satisfaction
- Client service, to answer questions and provide explanations about the equipment and methodologies
- Possibility of adaptations according to the clients needs, makes the equipment already of line a special equipment.