



Cooled incubators, Series 3



Series 3 models

LMS Series 3 cooled incubators are temperature controlled cabinets with fan assisted air circulation via a pre-mixing chamber. The units have a white enamelled sheet steel exterior, stainless steel lined interior with polyurethane foam insulation, and feature a door lock and magnetic door gasket. The corrosion resistant inner chamber is easy to clean, disinfection procedures are detailed in the user manual. Controls are recessed in the control panel, to avoid accidental alteration. Full PID heating control, indicator for temperature overheat alarm. They are ideal for studying growth patterns of plants and insects, BOD tests, seed germination, tissue culture, enzyme testing and fruit fly culture.

- Units feature automatic defrost
- Easy to use controls with digital display of actual temperature (and set point for programmable models)
- Safety features include variable over-temperature alarm, safety cutout preset at 70 °C and refrigeration

isolation switch

- Hermetically sealed refrigeration system, and suppressed RF and TV electronics
- Full PID heating control to ensure stable internal temperature

Series 3 programmable NP models

The programmable option for LMS Series 3 cooled incubators is designed to offer the highest functionality and enables the user to set up and run complex processes relying on accurate temperature control. The programmer function is able to control applications needing set point changes over time, e.g. ramp changes where a gradual rate of change can be set or step changes which are instantaneous. These can be separated by soak periods during which the process is held at a constant value. Each individual time interval of the program, or segment, together with its associated moving set point value, can be stored as a unique program. Via use of "event outputs" control of interior illumination and/or alarm function is also available. At the end of a sequence, a program can be arranged to repeat (or loop), either a specified number of cycles, or continuously. For safety reasons, three modes of recovery from power failure are available. These either automatically restart the program from the beginning, continue it from where it stopped or hold it, waiting for a user restart. Finally, chart recorder, data logging and configuration software for Windows is available as optional extras. This software is designed to operate to program all functions of the controller and to data log the recorded process signals, including chart recorder for on screen viewing of trends, virtual instrument display, on screen alarm displays and remote set point adjustment.

Ordering information: Supplied with white plastic coated wire shelves and self evaporating condensate drip tray. An extensive range of accessories and factory fitted options such as, units with automatic defrost, interior programmable fluorescent/UV lighting, inner perspex door, manual high/low temperature alarms (audible and visible) with safety cutout, built in chart recorder, temperature programmers, temperature controllers with RS485 interface and access ports are available on request. Optional conformance certificate and on site UKAS accreditation of laboratory equipment are available on request, please enquire for further details. Please note; if your application involves *Drosophila*, a modification for aggressive environments is recommended. Please contact your local VWR office before placing your order.

Model	100	200	300	400
Temperature range (°C)	-10...+50			
Temperature fluctuation (time) (°C)	±0,1 at 37 °C			
Temperature variation (spatial) (°C)	±0,5 at 37 °C			
Capacity (l)	90	227	290	450
Convection type	Forced convection			
Shelves supplied (max.)	2/5	3/20	3/25	
Internal WxDxH (mm)	540x440x490*	550x450x920*	550x450x1170*	550x700x1170*
External WxDxH (mm)	610x600x810	680x570x1470	680x570x1780	680x860x1780
Weight (kg)	45	115	120	130

Type	Pk	Cat. No.
100W standard model	1	390-0081
100WA with dual temperature cycling	1	390-0209
100WNP programmable model	1	390-0082
200W standard model	1	390-0085
200WA with dual temperature cycling	1	390-0535
200WNP programmable model	1	390-0086
300W standard model	1	390-0089
300WA with dual temperature cycling	1	390-0211
300WNP programmable model	1	390-0090
400W standard model	1	390-0096
400WA with dual temperature cycling	1	390-0214
400WNP programmable model	1	390-0097

* Internal dimensions shown above are maximum dimensions, internal usable space will be less due to space occupied by refrigeration system. Please note that with the maximum number of shelves fitted in a cabinet, there is only a 20 mm gap between each shelf.

"A" denotes dual temperature cycling models, "NP" denotes programmable models. The only difference is the programmable controller, all other specifications are the same for all types of models.