Cooled incubator, Peltier-technology

Model IPP 800

Standard equipment

Ventilation and Control

- forced ventilation by Peltier fan
- adaptive, fuzzy-supported microprocessor PIDcontroller, for stepless control of Peltier-heating-/ cooling system - without refrigerant
- autodiagnostic system with fault indication
- 2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
- digital 7-day-programme-timer with real time clock, precise minute setting, for one set value or start of ramp operation
- integrated timer for tempering profiles of up to 40 ramps, each segment adjustable from 1 min. up to 999 hours
- multifunctional programming via menu on 8-digit alphanumeric digital display (language to be chosen via set-up):
  tempering profiles of up to 40 ramps
  time- and set-point dependent operation
- digital display (LED) of all set parameters, such as temperature, weekdays, time, programme status and set-up values
- resolution of display for set value and actual value 0,1 °C
- long-term logging (ring store) of all relevant data, GLP-conforming as data logger - 1024 kB
- programme stored on power failure
- parallel printer interface (incl. real-time clock with date function) for printing logging files, suitable all PCL3-compatible ink-jet printers (USB available via converter, see accessories)
- USB interface including MEMMERT Software "Celsius" for programming and documentation
- chip card control incl. one MEMoryCard XL with 32 kB (up to 40 ramps)
- incl. works calibration certificate for +10 °C and +37 °C

Multiple Overtemperature Protection

- with audible and visual alarm

- independently working, digitally adjustable electronic microprocessor overtemperature controller TWW protection class 3.3 maximum value for overtemperature, minimum value for undertemperature
- additional integral over- and undertemperature protection "ASF" (Auto-Safety-Function) automatically following the set value at a preset tolerance range; audible alarm is activated in case of over- or undertemperature, heating function is switched off in case of overtemperature - cooling function is switched off in case of undertemperature
- resolution of display and setting accuracy: 0,1 °C

Textured Stainless Steel Casing

- w x h x d: 1190 x 1620 x 825 mm
- fully insulated stainless steel doors with double locking and 4-point adjustment
- inner glass doors
- rear zinc-plated steel
- mounted on lockable castors

Interior - Heating Concept

- w x h x d: 1040 x 1200 x 600 mm, 749 l
- fully insulated, easy-to-clean interior, made of stainless steel, reinforced by deep drawn ribbing
- energy-saving Peltier heating-/cooling system (heat pump principle) integrated in the rear
- 2 perforated stainless steel shelves

Temperature Range

- from +5 °C up to +70 °C
- temperature variation in time: < +/-0,1 °C
- temperature uniformity in chamber at 10 °C and 37 °C: < +/- 0.4 °C

Voltage / Power Rating

- 230 V (+/- 10%), 50/60 Hz
- ca. 1050 W (during heating and cooling)

Packing Data

- net weight approx. 218 kg
- gross weight carton approx. 278 kg
- dimensions approx.:
  carton w x h x d: 132 x 184 x 100 cm
- the appliances must be transported upright

Customs Tariff Number

- 8419 8998

Country of Origin

- Federal Republic of Germany

WEEE-Reg.-No.

- DE 66812464

Accessories

Perforated stainless steel shelf	E0(x)
RS232 interface instead of USB	W6
Interface Ethernet instead of USB inclusive software "Celsius Ethernet-Edition"	W4
Parallel/USB converter cable with integrated power supply unit to connect PCL3-compatible HP printers with USB interface to MEMMERT units.	W1
Documentation package consisting of parallel USB converter cable including PLC3-compatible HP colour inkjet printer with USB interface (HP Deskjet 6980 or successor) for direct connection of printer to Memmert unit	W2
IQ check list with works test data for oven as support for validation by customer	Q1
OQ check list including one free-selectable temperature distribution survey to DIN 12880: 2007-05 (size 200/300: 9 measuring points, size 400-800: 27 measuring points) with works test data for oven as support for validation by customer	Q2
Software conforming to FDA "Celsius FDA-Edition" for up to 16 units	Q3
Oven-linked authorisation card (User-ID-Card) - prevents undesired manipulation by unauthorised third parties	V1
Computer interface RS485 (for networking a maximum of 16 ovens) instead of interface USB	V2
Temperature profile write/read unit for programming via PC, for writing to and reading from the chip card, up to 40 ramps	V3
Additional chip card, blank, formatted (32 kB MEMoryCard XL for a maximum of 40 ramps)	V4
Connection cable for computer interface RS232 according to DIN 12 900-1	V6