memmer†
Experts in Thermostatics

Cooled incubator, Peltier-technology

Model IPP 200

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: 550 x 600 x 490 mm (+38 mm for handle)
- fully insulated stainless steel door with double locking and 4-point adjustment
- inner glass door
- rear zinc-plated steel

Interior - Heating Concept

- w x h x d: 400 x 320 x 250 mm, 32 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
- 1 perforated stainless steel shelf

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. 125 W (during heating and cooling)

Packing Data

- net weight approx. 33 kg
- gross weight carton approx. 40 kg
- dimensions approx.:
  carton w x h x d: 67 x 70 x 60 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