Cooled incubator, compressor-type

Model ICP 400

Standard equipment

Ventilation and Control

- additional air circulation in the interior adjustable in 10% steps through controller

- no drying-out of the load caused by the cooling device due to separation of thermal jacket from interior (e.g. biological samples)

- adaptive, fuzzy-supported, multifunctional, digital microprocessor PID-controller

- energy-saving use of CFC-free cooling/heating system (refrigerant R134a)

- highly efficient automatic defrosting system

- 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
  speed of mechanical internal air circulation in 10% steps from 10% to 100%

- digital display (LED) of all set parameters, such as temperature, weekdays, time, fan speed, ramp segments 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 all PCL3-compatible ink-jet printers for GLP-conforming documentation

- serial interface RS 232 including MEMMERT Software „Celsius 2007" 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 is switched off in case of overtemperature, cooling system is switched off in case of undertemperature

- resolution of display and setting accuracy: 0,1 °C

- mechanical temperature limiter TB protection class 1 switching the heating off at approx. 10 °C above max. oven temperature

Textured Stainless Steel Casing

- w x h x d: 558 x 967 x 486 mm

- 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 400 x 330 mm, 53 l
- easy-to-clean interior, made of stainless steel, reinforced by deep drawn ribbing
- air jacket heating system for gentle allaround thermostating
- 2 perforated stainless steel shelves, non-tipping

Temperature Range

- from 0 °C up to +60 °C (optimum performance of cooling aggregate at an ambient temperature of +16 °C up to +32 °C)

Voltage / Power Rating

- 230 V (+/- 10%), 50 Hz
- ca. 500 W (during heating)

Temperature Distribution

- better than +/-0,3 °C (at 10-37 °C)

Temperature Variation

- better than +/-0,1 °C (with time)

Packing Data

- net weight approx. 68 kg
- gross weight carton approx. 77 kg
- gross weight wooden case approx. 89 kg
- dimensions approx.:
  carton w x h x d: 68 x 106 x 60 cm
  wooden case w x h x d: 71 x 106 x 60 cm
- the appliances must be transported upright

Customs Tariff Number

- 8419 3990

Country of Origin

- Federal Republic of Germany

WEEE-Reg.-No.

- DE 66812464

Accessories

• Perforated stainless steel shelf, non-tipping	E0(x)
• 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 for 9 measuring points with works test data for oven as support for validation by customer	Q2
• Software conforming to FDA "Celsius 2007 FDA-Edition"	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 RS232	V2
• Temperature profile write/read unit for 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