

# Constant Climate Chamber Model HPP110



## Standard equipment

#### **Ventilation and Control**

- forced ventilation by Peltier fan
- adaptive multifunctional digital PIDmicroprocessor controller with 2 highdefinition TFT-colour displays
- integral fault diagnostics for temperature and humidity control
- 2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
- digital timer adjustable from 1 minute to 99 days, 23 hours
- parameters adjustable on ControlCOCKPIT: temperature (Celsius or Fahrenheit), relative humidity, programme time, time zones, summertime/wintertime
- SetpointWAIT function the process time does not start until the set temperature is reached
- Distributed heating and cooling performance thanks to individual control of the Peltier elements in the upper and lower row
- Setting of languages on ControlCOCKPIT: German/English/Spanish/French
- resolution of display for setpoint and actual temperature values 0.1 ℃
- calibration facility directly at ControlCOCKPIT for three freely selectable temperature values, 2-point calibration for humidity: 20 and 90% rh
- humidity supply with distilled water from external tank by self-priming pump
- programme stored in case of power failure
- incl. works calibration certificate for +10 °C and +37 °C, 60% rh at +30 °C

#### Humidifying and dehumidifying system

 active humidifying and de-humidifying adjustable from 10-90% rh with digital display of relative humidity - resolution of display 0.5%, setting accuracy 1%

- humidity supply with distilled water from external tank by self-priming pump
- humidification by hot steam generator
- dehumidification by cold trap using the Peltier technology

#### **Multiple Overtemperature Protection**

- · with audible and visual alarm
- over- and undertemperature monitor TWW, protection class 3.3 or adjustable temperature limiter TWB, protection class 2, selectable on display
- additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint value at a preset tolerance range; alarm in case of overor undertemperature, heating function is switched off in case of overtemperature, cooling function in case of undertemperature

#### **Textured Stainless Steel Casing**

- w x h x d: 745 x 867 x 674 mm
- fully insulated stainless steel door with 2-point locking (compression door lock)
- inner glass door
- rear zinc-plated steel

#### **Interior - Heating Concept**

- w x h x d: 560 x 480 x 400 mm, 108 l
- energy-saving Peltier heating-/cooling system integrated in the rear (heat pump principle)
- 2 stainless steel grids
- Max. loading of chamber: 150 kg

#### **Temperature Range**

- without light: from 0 °C to +70 °C
- with light: from +15 °C to +40 °C

### **Voltage / Power Rating**

- 230 V (+/- 10%), 50/60 Hz / approx. 650 W
- 115 V (+/- 10%), 50/60 Hz / approx. 650 W

## **Packing Data**

- net weight approx. 80 kg
- gross weight carton approx. 94 kg
- dimensions approx.: carton w x h x d: 85 x 114 x 79 cm
- the appliances must be transported upright

#### **Customs Tariff Number**

• 8419 8998

## **Country of Origin**

Federal Republic of Germany

## WEEE-Reg.-No.

• DE 66812464