

## Temperature Test Chamber

### Model TTC 256



### Standard equipment

#### Ventilation and Control

- high-performance air fan in working chamber
- depending on operation status automatic adaption of fan speed resp. manual adjustment from 10 to 100%
- adaptive, fuzzy-supported, multifunctional, digital microprocessor PID-controller
- autodiagnostic system with fault indication on temperature control
- 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
- integrated timer for tempering profiles of up to 40 ramps, each segment adjustable from 1 min. up to 999 hours
- digital display (LED) of all set parameters, such as temperature, weekdays, time and set-up values - language to be chosen in setup
- digital display of set values (resolution: 0,1 °C below 99,9 °C, 0,5 °C above 100 °C) and actual values (resolution: 0,1 °C) of temperature (LED)
- 2 x 10 l tanks as condensate collector, on telescopic slide
- 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 -20 °C and +160 °C

#### Heating Concept

- high-performance ring heaters with optimised air circulation
- door heating to avoid condensate

#### Cooling Concept

- twin compressor
- speed adjustable condenser fan
- chlorine-free refrigerant R404A

#### Multiple Overtemperature Protection

- with audible and visual alarm in case of over-/undertemperature and open door
- independently working, digitally adjustable electronic overtemperature controller TWW, protection class 3.3
- additional integral over- and undertemperature protection "ASF" (Auto-Safety-Function) automatically following the set value at a preset tolerance range
- 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: 898 x 1730 x 1100 mm
- fully insulated stainless steel door with double locking and 4-point adjustment, heated
- rear zinc-plated steel
- on castors

#### Interior

- w x h x d: 640 x 670 x 597 mm, 256 l
- easy-to-clean interior, made of stainless steel, material no. 1.4301 (ASTM 304), hermetically welded
- 1 stainless steel grid
- 3-layer-high-tech-insulation

- lateral entry port, right, 80 mm diam. with silicone plug
- Halogen interior lighting 2 x 25 W, switchable

#### Temperature Range

- from -42 °C up to +190 °C
- temperature uniformity in chamber: +/- 0.5 up to 2 K

#### Voltage / Power Rating

- 400 V, 3 phases N, 50 Hz
- ca. 7.000 W

#### Packing Data

- net weight approx. 340 kg
- gross weight carton approx. 420 kg
- dimensions approx.:  
w x h x d: 103 x 126 x 194 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

- Additional stainless steel grid E3(x)
- Full-sight glass door (5-layer insulating glazing), heated B0

- External control and logging package consisting of mini-Notebook and Software "Celsius", pre-configured, and lateral swinging arm W9
- Chip card, pre-programmed for common test standards V7
- IQ check list with works test data for oven as support for validation by customer Q1
- OQ check list with works test data for one freely selectable temperature value incl. temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 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 with USB interface 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
- Start-up of CTC and TTC chambers and brief training (only D, A, CH) through Memmert service. Service not subject to any discount K9