# Environmental test chambers

TTC256

The environment test duo for temperature test and climate test simulates the perfect atmosphere according to standards and reduces the time needed for certain processes through rapid temperature changes.

On this page, you can find all the essential technical data on the Memmert environmental chamber CTC/TTC for climate testing and temperature testing. Our customer relations team will be pleased to help if you want further information.
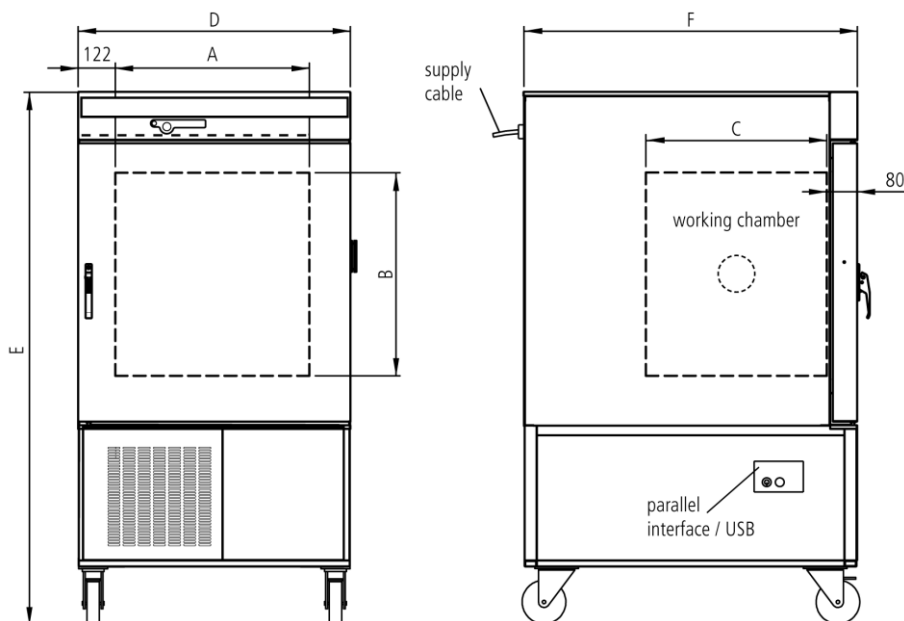
Control of standard components

Controller	digital display of all set parameters, such as temperature, weekdays, time, fan speed, air flap position, program status and set-up values - language to be chosen via set-up
Controller	adaptive, fuzzy-supported multifunctional digital microprocessor PID-controller
Temperature	2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
Timer	digital 7-day program timer with real time clock, precise minute setting
Timer	integrated timer for tempering profiles of up to 40 ramps each, each segment adjustable from 1 min. to 999 hrs.
Humidity	2 x 10 l tanks as condensate collector

Temperature

	resolution of display for set point values 0.1°C up to 99.9°C, 0.5°C from 100°C and for actual values 0.1°C (LED)
	from -42°C up to +190°C
temperature distribution (spatial)	+/- 0.5 up to 2K

Control technology

Calibration	three freely selectable temperature values

Ventilation

Fan	high-performance air fan in working chamber
Fan	depending on operation status automatic adaption of fan speed resp. manual adjustment from 10 to 100 %

Communication

Documentation	integrated ring memory as data logger for GLP-conforming long-term documentation of all relevant parameters - 1024 kB
Documentation	program stored in case of power failure
Documentation	parallel printer interface (incl. real time clock with date function) for all PCL3-compatible ink jet printers for GLP-conforming documentation
Interface	USB-interface incl. Memmert software "Celsius" for programming and documentation
Programming	chip-card control incl. 1 MEMoryCard XL with 32 kB storage capacity (max. 40 ramps)

Safety

Autodiagnostic system	integral fault diagnostics for temperature control
Alarm	with audible and visual alarm in case of over-/under temperature and open door
Alarm	audible and visual
Temperature control	over- and undertemperature monitor TWW, protection class 3.3 or adjustable temperature limiter TWB, protection class 2, adjustable at controller
AutoSAFETY	additionally integrated over- and undertemperature protection "ASF", automatically following the set point value at a preset tolerance range, alarm in case of over- or undertemperature, heating is switched off in case of overtemperature, compressor in case of undertemperature
Temperature control	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature

Heating concept

high-performance ring heaters with optimized air circulation
door heating to avoid condensation
twin compressor
speed adjustable condenser fan
chlorine-free refrigerant R404A

Standard equipment

Door	fully insulated stainless steel door with double-locking and 4-point adjustment, heated
Housing	rear zinc-plated steel
Installation	on lockable castors
Interior	easy-to-clean stainless steel interior, material 1.4301 (ASTM 304), hermetically welded
Internals	1 stainless steel grid

Stainless steel interior

$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 25.2″ x 26.4″ x 23.5″
Volume 256 l

Textured stainless steel casing

$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 35.4″ x 68.1″ x 43.3″

Electrical data

230 V (+/- 10%), 50/60 Hz / approx. 32 amps

Packing/shipping data

the appliances must be transported upright

Customs tariff number	8419 8998
Country of origin	Federal Republic of Germany
WEEE-Reg.-No.	DE 66812464
	Dimensions approx. incl. carton B x H x T: 40.2" x 75.2" x 51.6"
	Net weight approx. 743 lbs
	Gross weight carton approx. 1021 lbs

Standard units are safety-approved and bear the test marks

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