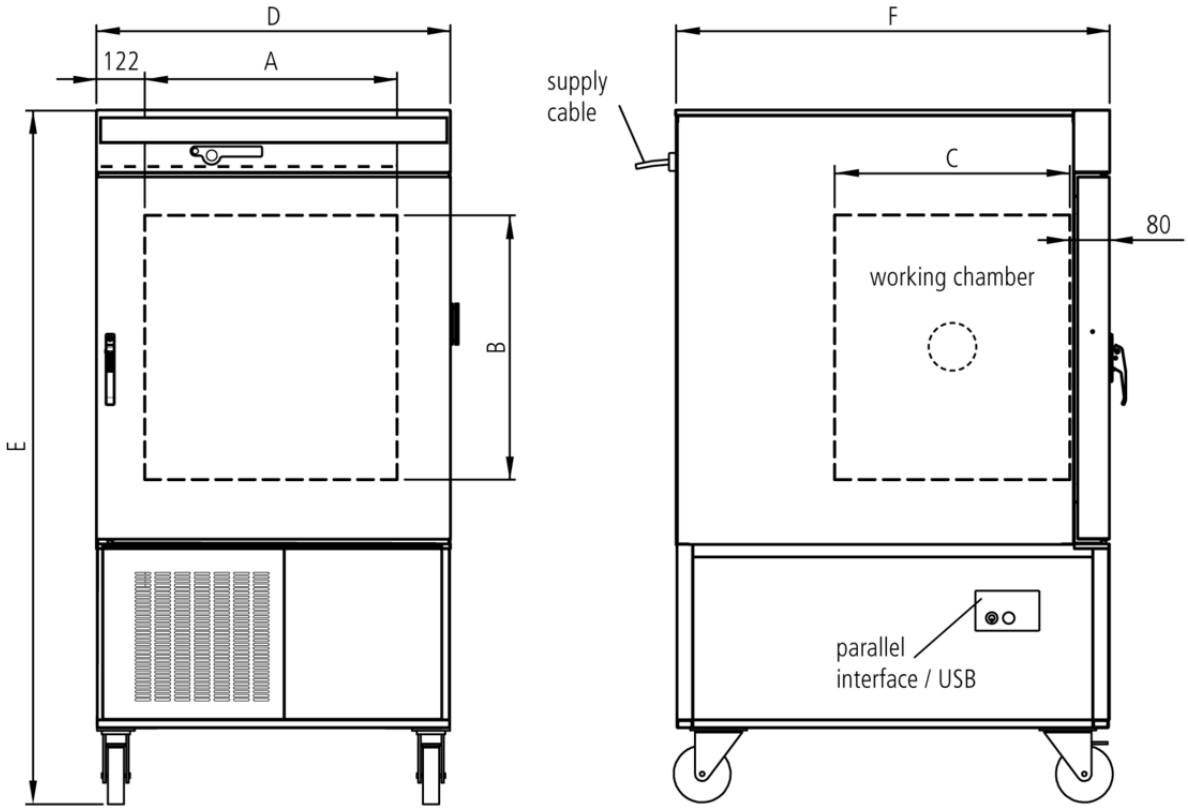
Environmental test chambers

TTC256

Memmert environmental test chambers guarantee the perfect atmosphere for climate and temperature tests

On this page, you can find all the essential technical data on the Memmert environmental chamber TTC for climate testing and temperature testing. Our customer relations team will be pleased to help if you want further information. If you should require a customised special solution, please contact our technical specialists at sales@memmert.com.



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Temperature

Temperature range	from -42°C up to +190°C
Setting accuracy temperature	up to 99.9 °C: 0.1 / from 100 °C: 0.5
Temperature distribution (spatial)	+/- 0.5 up to 2K
Temperature sensor	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error
Display	resolution of display for setpoint values 0.1°C up to 99.9°C, 0.5°C from 100°C and for actual values 0.1°C (LED)

Control technology

Calibration	three freely selectable temperature values
Controller	Electronic microprocessor temperature controller with auto-diagnostic system
Set-up Display	digital display of all set parameters, such as temperature, weekdays, time, humidity, fan speed, programme status and set-up values - language to be chosen via set-up
Timer	integrated timer for tempering profiles of up to 40 ramps each, each segment adjustable from 1 min. to 999 hrs.

Ventilation

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

Communication

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

Safety

Temperature control	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature
Temperature control	over- and undertemperature monitor TWW, protection class 3.3
AutoSAFETY	additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint 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
Autodiagnostic system	integral fault diagnostics for temperature control
Alarm	with visual and acoustic alarm in case of over-/under temperature and open door

Heating concept

Ring heater	high-performance ring heaters with optimised air circulation
Door	door heating to avoid condensation
Cooling	twin compressor; refrigerant R449A

Standard equipment

Works calibration certificate	standard values -20 °C and +160 °C
Entry port	Entry port right, 80 mm, with stopper
Internals	1 stainless steel grid(s), electropolished
Door	fully insulated stainless steel door with double-locking and 4-point adjustment, heated
Interior	easy-to-clean stainless steel interior, materil 1.4301 (ASTM 304), hermetically welded

Stainless steel interior

Volume	256 l
Dimensions	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 640 x 670 x 597 mm
Max. number of internals	6
Max. loading per internal	25 kg

Textured stainless steel casing

Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 898 x 1730 x 1100 mm (d +50mm door handle)
Installation	on lockable castors
Housing	rear zinc-plated steel

Electrical data

Electrical load	3 x 400 V, 3ph. w/o N 16A, 50 Hz / approx. 7000 W

Ambient conditions

Set Up	The distance between the test chamber and the walls/ceiling must be at least 25 cm.
Ambient temperature	16 ºC to 28 ºC
Humidity rh	max. 70 %, non-condensing
Altitude of installation	max. 2,000 m above sea level
Pollution degree	2

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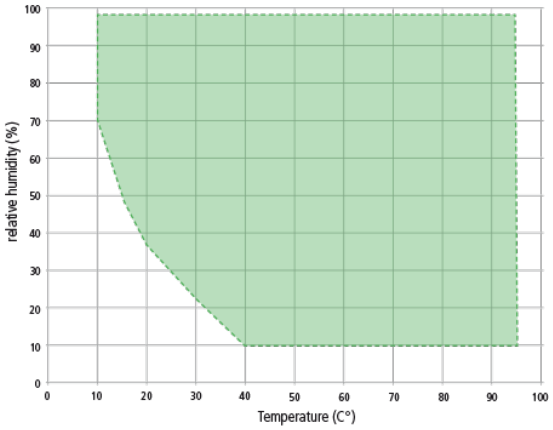
Packing/shipping data

Transport information	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	w x h x d: 1020 x 1910 x 1310 mm
Net weight	approx. 337 kg
Gross weight carton	approx. 463 kg

Temperature-humidity working range CTC

Not all climate chambers are the same. The humidity content of the chamber load, the ambient conditions and the respective temperature-humidity working range are decisive factors in the selection of the right appliance. In the adjacent diagram, you can see the possible temperature/humidity combinations for our climatic test chamber CTC. Within the respective temperature-humidity range, condensation-free permanent operation is possible. To which extent condensation may occur in the threshold range depends on the humidity content of the chamber load and the ambient conditions.



Temperature-humidity working range CTC

Standard units are safety-approved and bear the test marks