

LabEvent T/500/50/3 (CO2)

Compact temperature test chamber

With a test chamber volume of 580 liters and an optimized footprint of only 1.4 m², the LabEvent T/500/50/3 offers maximum performance in the smallest of spaces. Equipped with our quiet CO_2 cooling technology, the system impresses with its high efficiency and environmental friendliness. Thanks to the low noise level of 49 dB(A), the test chamber can be operated directly at the workplace without any problems. Plug-&-play operation via a 230 V socket and the air-cooled design allow for quick and uncomplicated commissioning.

Our highlights:

¬ Innovative CO_2 cooling technology for sustainable testing processes

¬ Low noise level < 50 dB(A) – ideal for use right in the workspace

¬ Available with Hazard Level for safety-critical applications

¬ Full flexibility thanks to interfaces such as SimServ, OPC-UA, SECS/GEM and various BUS systems

¬ Available as ESD and EMC versions

Applications:

The LabEvent T/500/50/3 is the ideal solution when the highest test requirements meet limited space in the lab, especially for smaller test specimens and for low to medium testing requirements. Be it for function tests, electrical assemblies, circuit boards or lithium-ion batteries, with the LabEvent T/500/50/3 you can reliably conduct storage and aging tests. Limited temperature cycling tests can also be carried out. For safety-critical applications, the chamber is also available with Hazard Level and offers full flexibility through numerous interfaces and mechanical adjustments.

Technical Data.

LabEvent T/500/50/3 (CO2)	
GENERAL DATA	
Temperature Change rate, heating (air-cooled) [K/min]	4.5
Temperature Change rate, cooling (air-cooled) [K/min]	3.5
TEMPERATURE TEST PERFORMANCE DATA	
Temperature range [°C]	-50 ... 130
Temperature homogeneity, spatially [K]	0.5 ... 1.5
Temperature deviation in time [K]	0.2 ... 0.5
Max. Heat Compensation at 20 °C (air-cooled) [W]	2500
CONSUMPTION AND CONNECTION DATA	
Electrical Connection	CEE-Connector, 16 A
Connection cable length	3,5m cable
Power Rating [kW]	4.8
Current Rating [A]	12
Refrigerant	R744
Condenser (air-cooled/ water-cooled)	air-cooled
TEST SPACE	
Testspace volume [l]	580
Test Space Dimensions (H x W x D) [mm]	1250 x 710 x 655
Material test space housing	Stainless steel, 1.4301, surface III D glossy
Test Space Door Dimensions (H x W (mm)	1 x 1
EXTERNAL HOUSING	
External Dimensions (HxWxD) [mm]	2130 x 1025 x 1400
Material external housing	Galvanised sheet steel
Access port right	1 piece, approx. ø 80 mm stainless steel incl. closed silicone plug + slotted foam silicone plug

Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com

DIMENSIONS & WEIGHT	
Total Weight [kg]	475
Total load [kg]	160
OPERATING AND AMBIENT CONDITIONS	
Sound Pressure Level [dB(A)]	49
INTERNAL FITTINGS	
Total load per insert basket [kg]	20
Total load of the insert baskets [kg]	100

Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com

Selection of relevant options

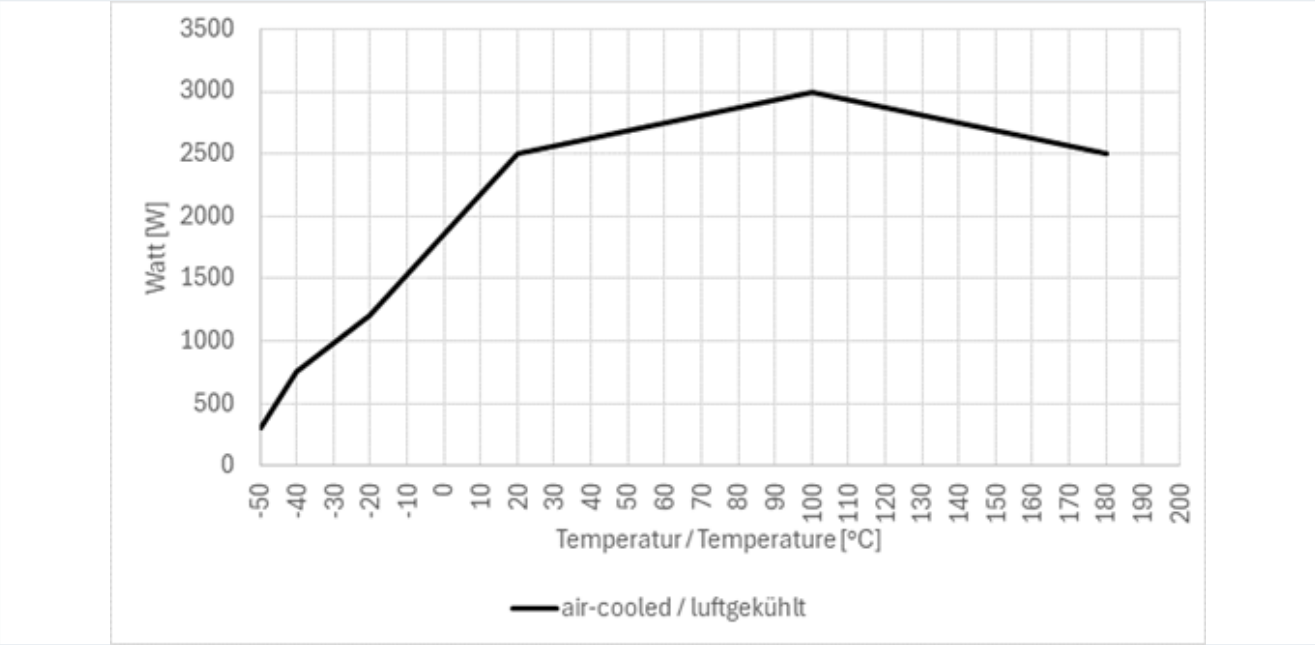
Label	Description
Access port, nominal width 50 mm	Access port Ø 50 mm incl. 1 closed silicone plug and 1 slotted silicone foam plug.
Access port, nominal width 80 mm	Access port Ø 80 mm incl. 1 closed silicone plug and 1 slotted silicone foam plug.
Access port, nominal width 125 mm	Access port Ø 125 mm incl. 1 closed silicone plug and 1 slotted silicone foam plug.
Access port in the ceiling, nominal width 50 mm	The access port (D1) Ø 50 mm is located in the ceiling according to the installation plan, incl. 1 closed silicone plug.
Access port in the ceiling, nominal width 80 mm	The access port (D1) Ø 80 mm is located in the ceiling according to the installation plan, incl. 1 closed silicone plug.
Access port in the ceiling, nominal width 125 mm	The access port (D1) Ø 125 mm is located in the ceiling according to the installation plan, incl. 1 closed silicone plug.
Foam silicone plug, nominal width 80 mm, 1 x slotted	Suitable for an access port with a nominal diameter of 80 mm. The silicone foam plug Ø 87 x 40 mm is provided with a slot. Cables and measuring leads can be inserted into this slot.
Foam silicone plug, nominal width 125 mm, 1 x slotted	Suitable for an access port with a nominal diameter of 125 mm. The silicone foam plug Ø 132 x 40 mm is provided with a slot. Cables and measuring leads can be inserted into this slot.
Foam silicone plug, nominal width 50 mm, 1 x slotted	Suitable for an access port with a nominal diameter of 50 mm. The silicone foam plug Ø 56 x 40 mm is provided with a slot. Cables and measuring leads can be inserted into this slot.
Drawer on telescopic rail	The pull-out drawer on telescopic rails can be positioned at different heights in the adjustment rails mounted on the sides.
Shelf, distributes load max. 100 kg	Reinforced stainless steel shelf for accommodating a customer-supplied test rig with test specimens. The maximum load capacity is 100 kg per square metre. The shelf can be fitted and removed at any time.
Shelf	Stainless steel shelves can be placed on the supplied support rails for holding test specimens. Maximum load per shelf: 20 kg uniformly distributed load.
Increased temperature change rate	Fitting an additional heater increases the rate of temperature change in heating mode to 6 K/min.
Mobile version	Six steering castors are mounted. The standard cabinet height is increased by 50 mm.
Door with window	Multi-insulated, heated viewing window in the door. *(Format: 520 mm x 418 mm)*
Door hinged on the right	The test space door will be hinged on the right hand side of the test cabinet. Door lock and operating panel will be positioned on the left hand side.
Test chamber activation via digital input for ≥ 3 K	Multi-insulated, heated viewing window in the door. *(Format: 520 mm x 418 mm)*
Extension for climate operation mode	Modifications to the unit make it possible to carry out climate test runs. Control is provided by a capacitive measurement system.

GN2/Compressed air connection	For operation with a customer-provided compressed air dryer or for the supply of an inert gas. The function can be activated/deactivated via the control panel or the S!MPATI® software. The installation room must be well ventilated during operation with GN2; otherwise, there is a risk of suffocation.
Compressed air dryer for dew points to -30 °C uncontrolled	Dehumidification unit for dew points down to -30 °C (uncontrolled operation) to prevent condensation on the test specimens during temperature tests. The unit is switched on or off via a digital switching channel. The unit is self-regenerating.
Temperature measurement on test specimen	Movable temperature sensor Pt 100 with flexible cable for temperature measurement at any point in the test room or on the test object. The measured value is displayed in °C on the control panel and can be called up via the interfaces or the free analogue outputs of the measured value card.
Temperature measurement on the test specimen	Many norms, such as the new version of IEC 60068-2-14 Nb, require close observation and recording of the temperature of the test specimen during the test phases. Our test chamber can be equipped with additional temperature sensors, the values from which are displayed and recorded on the display (via USB or with S!MPATI®). One of the sensors can also be used as a control sensor if required.
Temperature measurement on test specimen (max. 1 sensor) switchable as control sensor	The changeover is via a digital switch channel. The measured value is displayed on the control unit and can be called up via the interfaces. The sensor is inserted into the test space via the standard port.
Temperature measurement on the test specimen using the NiCrNi sheath thermocouple	Movable temperature sensor as Ni-Cr-Ni thermocouple with flexible cable for temperature measurement anywhere in the test space or on the test specimen. The flexible cable length is approx. 5m and the sensor is 3m in length.
Temperature measurement on the test specimen via NiCrNi thermocouple wire	Movable temperature sensor as Ni-Cr-Ni thermocouple wire, welded measuring tips, with a flexible cable for temperature measurement anywhere in the test space or on the test specimen. The flexible cable length is approx. 5 m.
Temperature measurement at the test specimen by means of thermocouple Ni-Cr-Ni, switchable as control sensor	The switchover is via digital switch channel. The measured value is displayed on the control unit and can be called up via the interfaces.
Temperature measurement on the test specimen via transmitter using a NiCrNi thermocouple	Movable temperature sensor as Ni-Cr-Ni thermocouple with flexible cable for temperature measurement anywhere in the test space or on the test specimen.
Analog measured value card	There are 5 outputs 0 to 10 V and 4 inputs for Pt 100 available for the processing and output of analogue measuring signals.
Analogue measured value card: 4 thermocouples, NiCrNi inputs and 5 outputs	5 - 6 outputs 0 to 10 V and 4 inputs for Ni-Cr-Ni thermocouple type K are available for the processing and output of analogue measurement signals.
Water cooling	A water-cooled unit is installed instead of the air-cooled refrigerating assembly. Cooling water control ensures minimum water consumption.

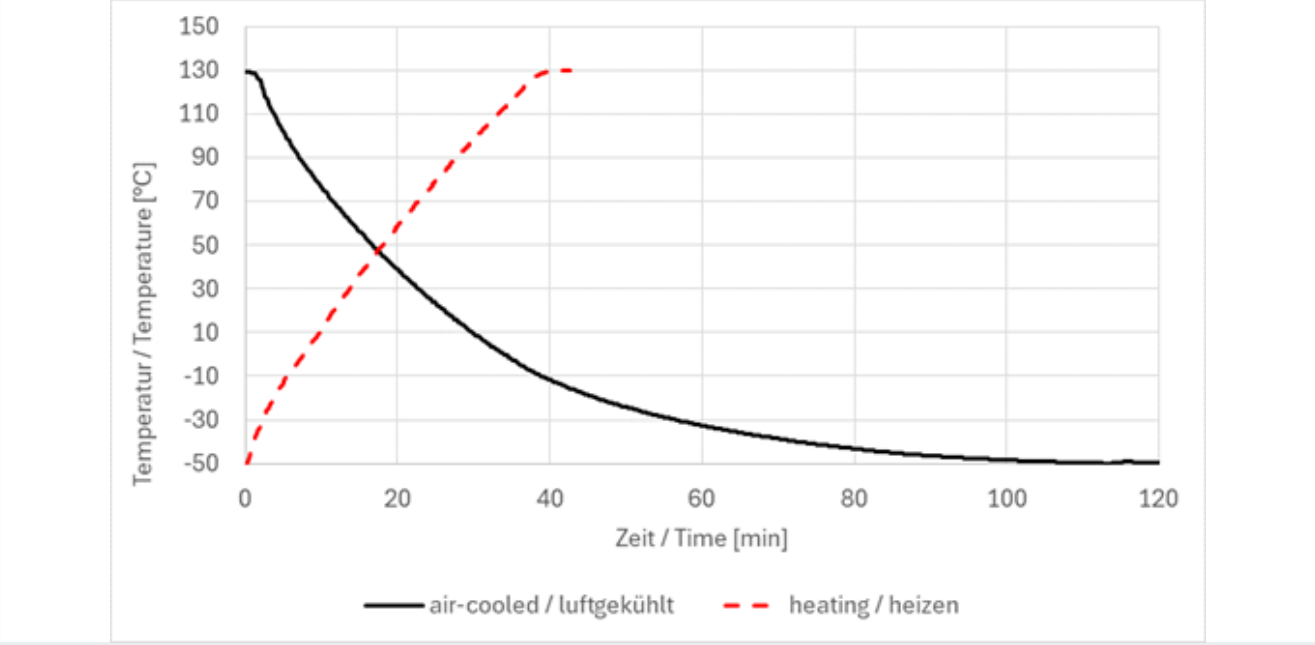
Hose kit for cooling water network 3/4", 2x2.5m, flexible	For connection to a cooling water network, two flexible hoses with a connection of G ¾" and a length of 2.5 m are provided.
Hose kit for cooling water network 3/4", 2x5m, flexible	For connection to a cooling water network, two flexible hoses with a connection of G ¾" and a length of 5 m are provided.
Insulation of water inlet at a water flow of <+12 °C	Cooling water hoses in the test chamber are additionally insulated.
Special voltage on request	Special voltage on request
Adaptation to Bosch regulations for standard and modified standard units	The adaptation includes the use of the main switch as an EMERGENCY STOP button, the attachment of various information signs, the attachment of a protective cover, and 1 program CD with contents: SIMCON/32-BIN / S!MPAC data backup and UTD/UpToDate3.exe.

Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com

Further relevant information

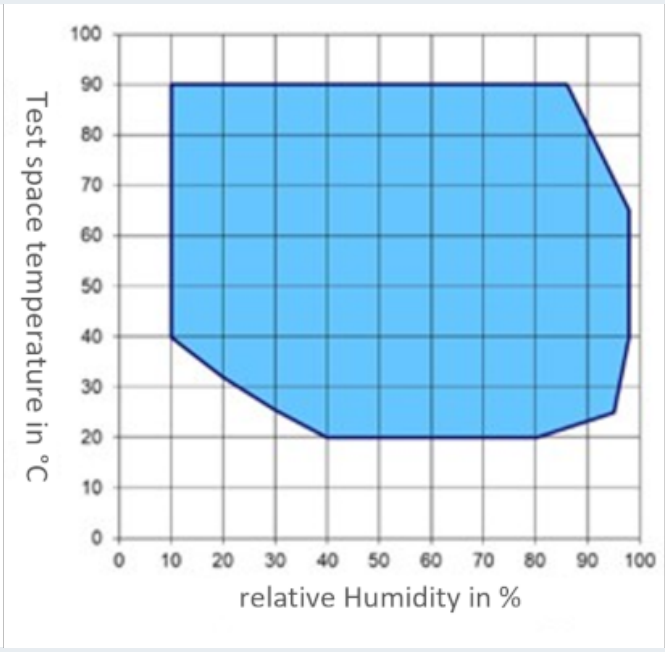


Heat compensation curve LabEvent T500/50/3



Cooling and heating curve LabEvent T/500/50/3

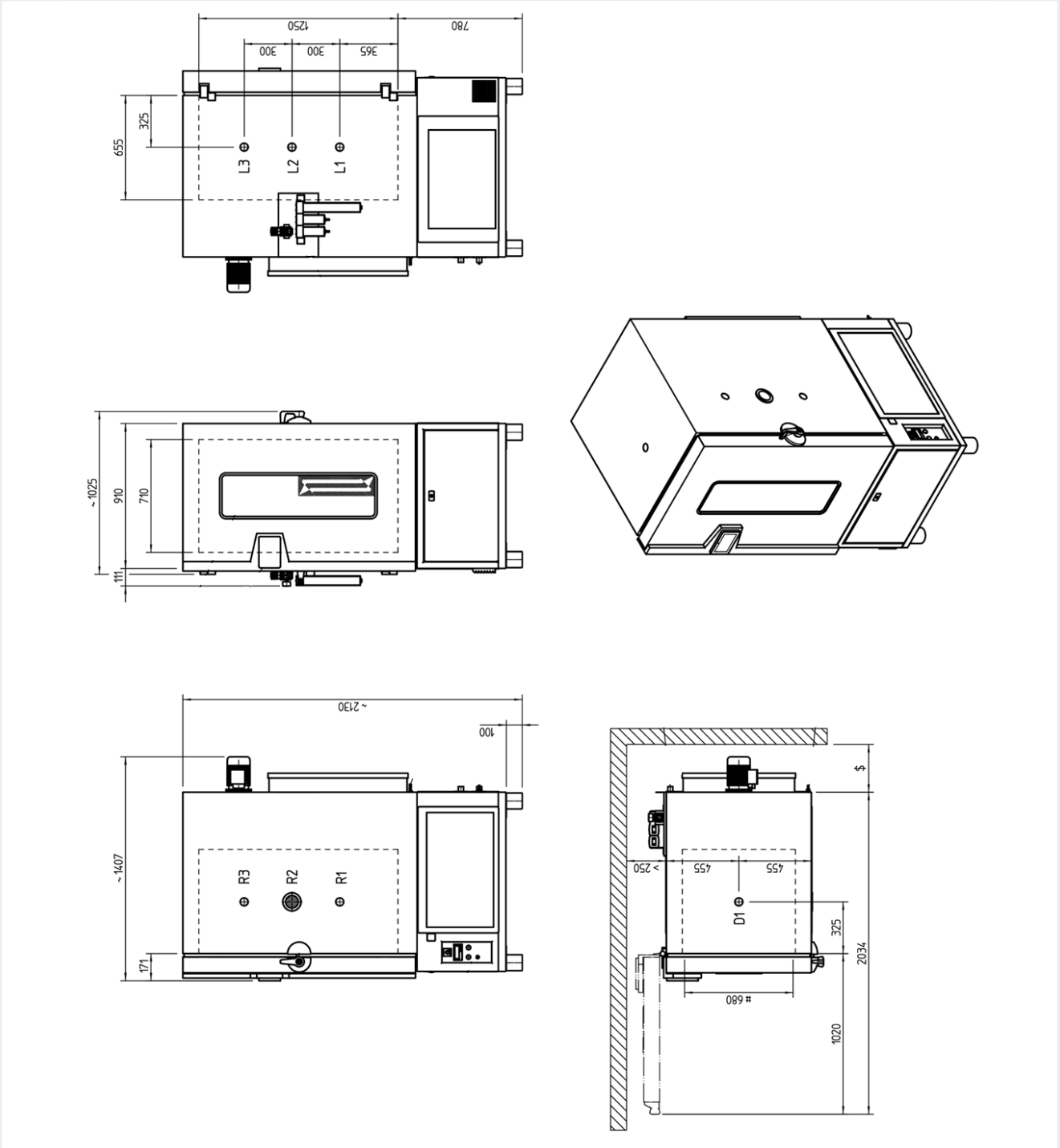
Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com



Optional climate range extension LabEvent T/500/50/3

Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com

Further relevant information



Installation drawing LabEvent T/500/50/3

Weiss Technik GmbH
info@weiss-technik.com
weiss-technik.com