

Data sheet

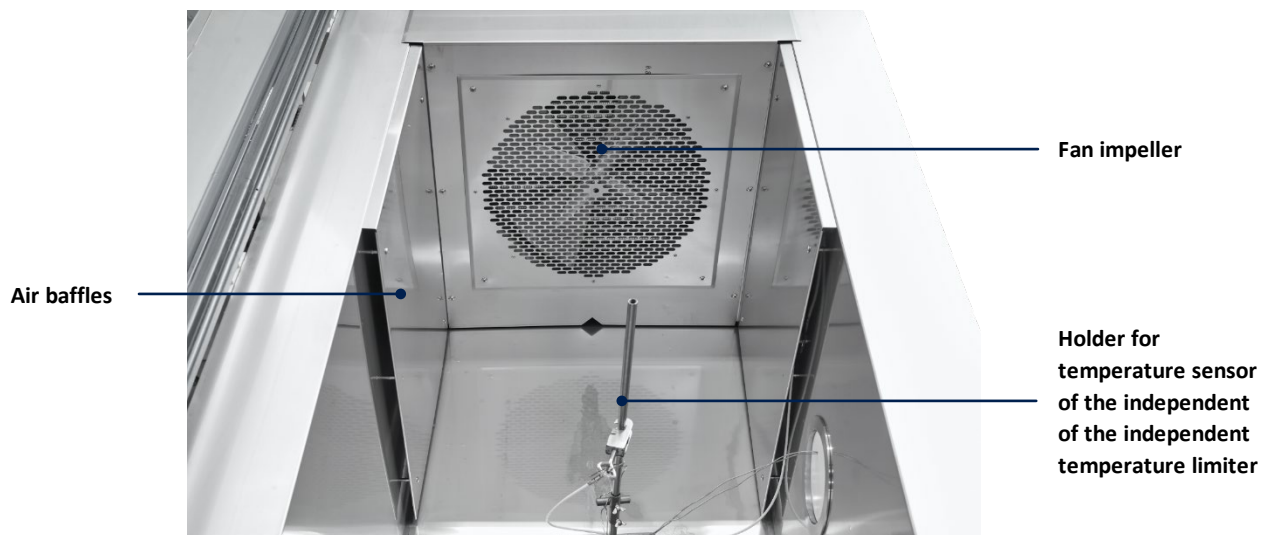
Temperature test chamber TempEvent WLM



STRUCTURE | TempEvent WLM

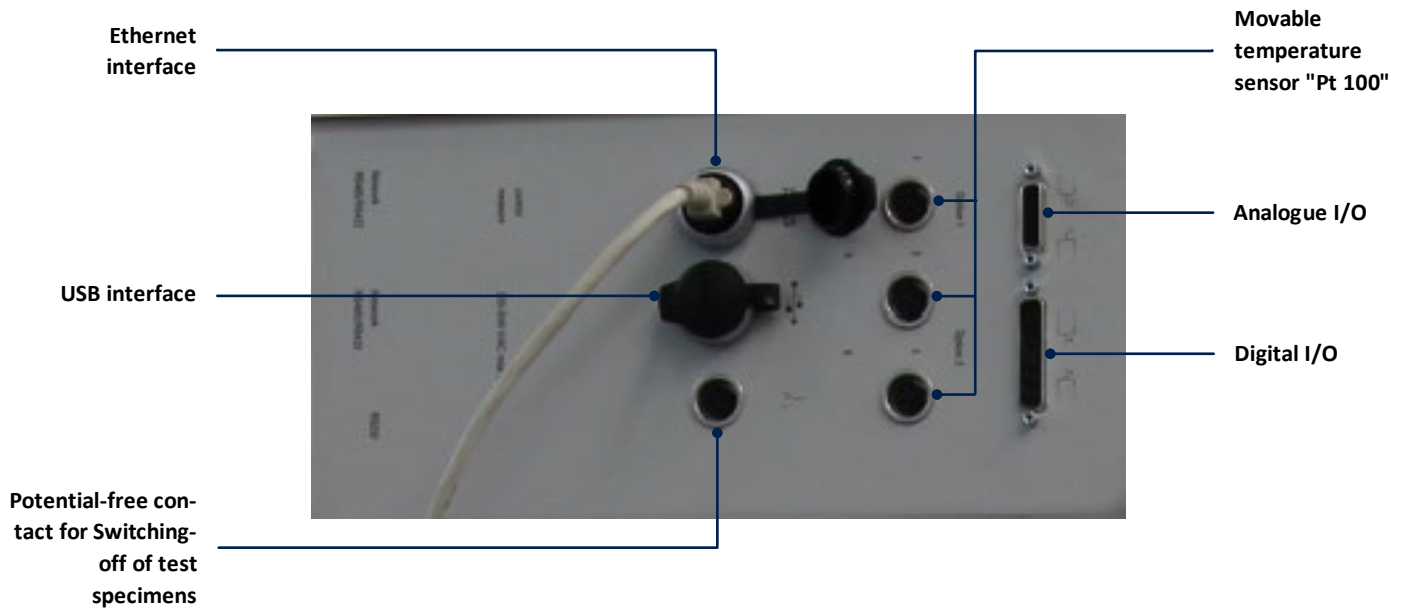


Front/ side view

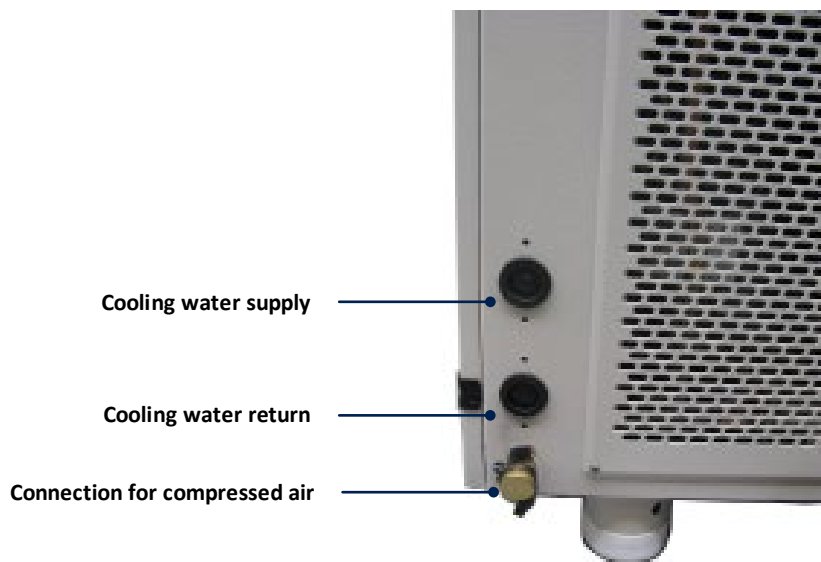


Test space view

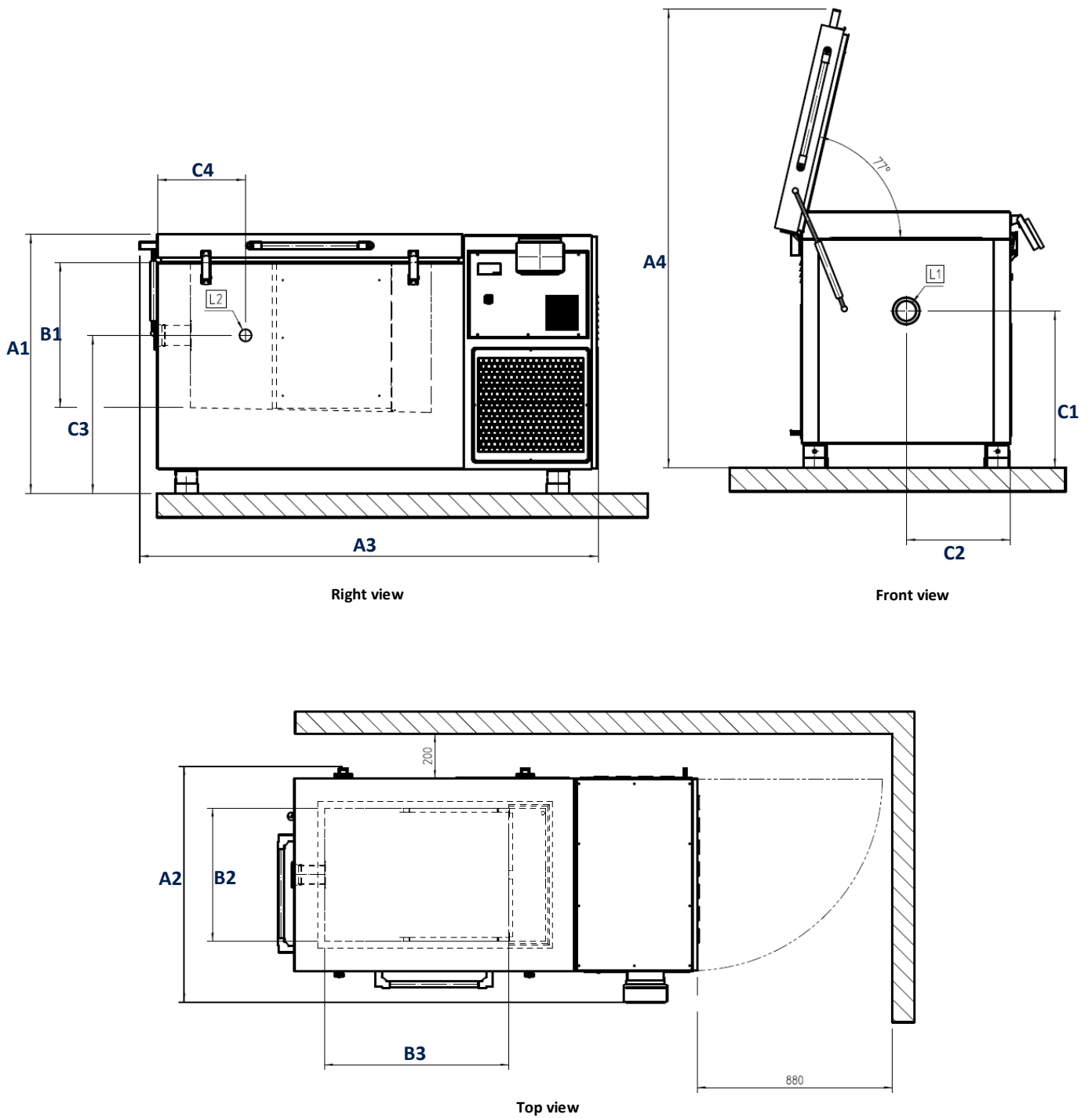
STRUCTURE | Master switch panel



STRUCTURE | Supply and return



INSTALLATION DRAWINGS | TempEvent WLM



		A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	
		Test chamber					Test space				Access ports				
		Dimensions in mm													
TempEvent WLM 300	40	1900	1100	990	549,5	870	830	600	560	80	653	435	653	365	
	70														
TempEvent WLM 450	40	2402	1100	990	549,5	870	1330	600	560	80	653	435	653	365	
	70														

TECHNICAL DATA | TempEvent WLM

		WLM 300/40	WLM 300/70	WLM 450/40	WLM 450/70
DIMENSIONS, LOAD, WEIGHT					
External dimensions ¹	Height	mm	1100		
	Width	mm	1900	2400	
	Depth	mm	900		
Test chamber dimensions	Height	mm	600		
	Width	mm	830	1330	
	Depth	mm	560		
Test space volume	l	279	447		
Belastung des Prüfraumbodens ²	kg	250	400		
Belastung des Prüfraumbodens ³	kg	50	50		
Rear wall distance ⁴	mm	200			
Wall distance lateral ⁴	mm	880			
Weight	kg	380	430	450	500
PERFORMANCE DATA					
Maximum temperature	°C	+80			
Minimum temperature ⁵	°C	-40	-65	-40	-65
Temperature change rate ⁶ , Cooling	K/min	2,0			
Temperature change rate ⁶ , Heating	K/min	2,0			
Temperature deviation, in time ⁷	K	±0.3 bis ±1.0			
Heat compensation, max. ⁸	W	1000	1500	1000	1500
Factory calibration ⁹	°C	-25 / +80	-40 / +80	-25 / +80	-40 / +80
CONSUMPTION AND CONNECTION DATA					
Voltage rating ¹⁰	-	3/N/PE AC 400 V ± 10% 50 Hz			
Power rating, max. ¹¹	kW	3,0	4,0	3,0	4,0
Current rating ¹²	A	9,0	12,0	9,0	12,0
Fuse protection ¹³	A gG	16			
Plug	-	CEE 16A			
Connection cable	m	3,5			
Sound pressure level ¹⁴	dB(A)	68,0			
Heat dissipation to the installation room max. ¹⁵	kW	7,0	10,0	7,0	10,0

¹Overall dimensions in set-up state. Deviating installation dimensions, components can be dismantled for installation (service).

² max. load as distributed load.

³ max. load as point load.

⁴ for service

⁵ Temperatures > +5 °C can be run in continuous operation, temperatures < +5 °C can be run intermittently.

⁶ according to IEC 60068-3-5

⁷ in the centre of effective space in steady state.

⁸ at -20 °C for temperature tests.

⁹ the factory calibration of the temperature and humidity values is carried out in the centre of the test space.

¹⁰ the system can also be operated on 3/N/PE AC 380 V ± 10 % 50 Hz. This reduces the heating rate by 10%

¹¹ the specified nominal power rating describes the maximum power consumption when the unit is operating at full capacity.

¹² Neutral conductor loaded.

¹³ on-site.






¹⁴ measured at a distance of 1 m in front of the unit and at a height of 1.6 m for free-field measurement according to EN ISO 11201:2010.

¹⁵ for air-cooled version.

All stated performance data refer to +25 °C ambient temperature, 400 V/50 Hz nominal voltage, without additional equipment.

Subject to technical modifications!

GRUNDAUSSTATTUNG

EXTERIOR			
	Casing	Material Paint	Galvanised sheet steel Powder coating colour: RAL 9002, grey-white
	Test space hood		lockable, rear stop, with weight compensation via gas spring, self-locking in open position, large opening angle for loading from above.
	Installation		Stationary, adjustable feet
	Chiller unit		low-noise chiller with gradual power adjustment thanks to SIMPAC [®]
	Cooling		Air cooling (<i>optional water cooling</i>)
	Refrigerant		R449A (main cooling) R469A (deep cooling)
	Condensate drain		back pressure-free, G ¾", external thread 12 mm hose connection
INTERIOR			
	Test space¹	Material	Stainless steel 1.4301; steam-tight welded
	Access ports		1 piece; made of stainless steel; inner dimension ² : Ø 80 mm
	Silicone plug		1 piece per stainless steel lead-through left (Ø 80 mm)
COMMUNICATION			
	Interfaces	Ethernet interface 100/1000 megabit USB interface ³	
	Switched outputs	4 potential-free outputs for actuating on-site equipment Max. load 24 V-DC; 0.5 A.	
	Switched inputs	4 digital inputs for feedback from on-site equipment. Max. load 24 V-DC; approx. 30 mA	
REGULATION & CONTROL			
	SIMPAC [®]	Digital measuring and control system with I/O unit and WEBS Season [®] control software, can be remotely controlled via integration into a network. Operating/programming and monitoring unit with web panel 25.4 cm, 10"	
	Temperature measuring sensor	Temperature control sensors in the hot and cold chamber Platinum temperature measuring sensor Pt 100	
SAFETY EQUIPMENT			
	Test specimen protection t_{min}/t_{max}	Independent temperature limiter t_{min}/t_{max} for hot and cold chamber <ul style="list-style-type: none"> • thermal safety class 2 according to EN 60519-2, 2006 • Individually adjustable fixed values • with temperature sensor in the test space • Shutdown of the test chamber and error message if the temperature is too high or too low 	
	Switching-off of test specimens	Potential-free contact specifically for heat-emitting test objects; connected to a socket, max. load 24 V; 0.5	

¹ Due to the use of annealed silicone parts, the test space is low in emissions. If the test space is to be emission-free, this will require technical clarification, which can be offered on request.

² Production-related tolerances of up to ±3 mm are possible.

³ USB stick is not included in the scope of delivery. Before recording data, make sure that the USB storage medium is working.

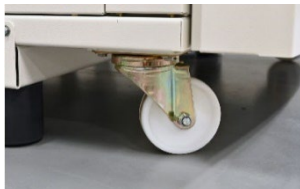
Subject to technical modifications!

OPTIONEN

INSTALLATION

Mobile version

Mobile base with swivel castors and lockable fixed castors. The unit height increases by approx. 180 mm.



Window in the hood with interior illumination

Window in the chamber hood multi-insulated with test space illumination Light switch in the web panel.

Note: Visible surface (355 mm x 355 mm)

ACCESS PORTS

Access ports

Stainless steel access port complete with sealing plug. The access port can be located in the left-hand panel (L1) or in the front panel (L2).

Access ports:

- Ø 50 mm
- Ø 80 mm
- Ø 125 mm

TEST SPECIMEN SUPPORTS

Insertion shelf, reinforced

Modification to the test space tank and housing. The mass of the test specimen is transferred from the test space to the frame of the unit via special stiffeners.

max. load:

- 400 kg (300 l chamber)
- 640 kg (450 l chamber)

TEST SPACE INSTALLATIONS

Extended temperature range

The TempEvent WLM chamber can be extended by several temperature ranges.

- down to -70 °C with R23 (air cooling)
- down to -80 °C with R23 (water cooling)
- up to +180 °C

Note: To ensure that refrigerant, gaskets, oil and filter dryers are replaced annually, we strongly recommend concluding a maintenance contract with our service department.

DEHUMIDIFICATION

Compressed air dryer unregulated for dew points down to -30 °C

To avoid condensation on the test material and ice formation on the evaporator, dried compressed air is fed into the test space. The compressed air dryer is operated without control, the air humidity is not controlled. Switching on and off is done via a digital switching channel. The unit is self-regenerating.

A higher sound pressure level of approx. 5 dB(A) is to be expected when the dryer is in operation.

Note: Not possible in combination with Option GN2/Compressed air connection.



GN₂/ Compressed air connection

For operation with a customer-supplied compressed air dryer or for feeding an inert gas into the test space..



SENSORS

Temperature measurement on the test specimen

Movable temperature sensor Pt 100 with flexible cable for temperature measurement at any point in the test space or on the test specimen.



SPECIAL VOLTAGE

Special voltage on request

Various special voltages are available.



CONTROL

Analog measuring card 4 PT100 inputs and 5 outputs (set-points and actual values)

For processing and output of analog measuring signals, 5 outputs 0 to 10 V and 4 inputs for Pt 100 are available. The measuring value card enables the output of 5 analog signals to a recorder as well as the connection of 4 free measuring sensors.



Automatic fan switch-off

The fan switch-off is activated / deactivated via a contact switch. When the lid is opened, the fan is automatically switched off, i.e. the fan is not in operation when the lid is open.

SAFETY EQUIPMENT

Fault message to potential-free switching contact

A dry contact is actuated if a fault occurs in the test chamber.

COOLING

Electronic cooling water flow regulator

Use of an electronically controlled valve allows adaptation to different supply temperature and pressure differences within certain limits.

Water cooling

A water-cooled unit is installed instead of the air-cooled refrigeration unit. A cooling water regulator ensures minimum water consumption. Down to -40 °C and -70 °C possible.

Insulation of the water supply pipe for water supply temperature $< +12\text{ °C}$

Pipes carrying cooling water in the test chamber are also insulated to prevent condensation.



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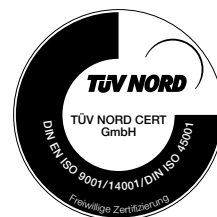
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