

PRODUCT SPECIFICATION

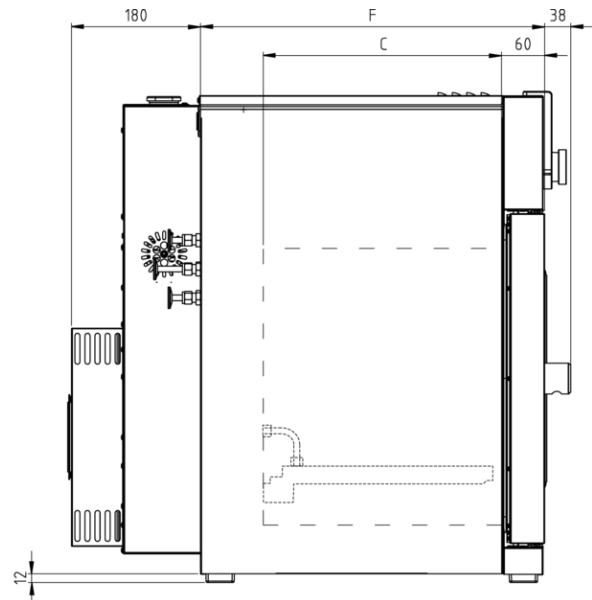
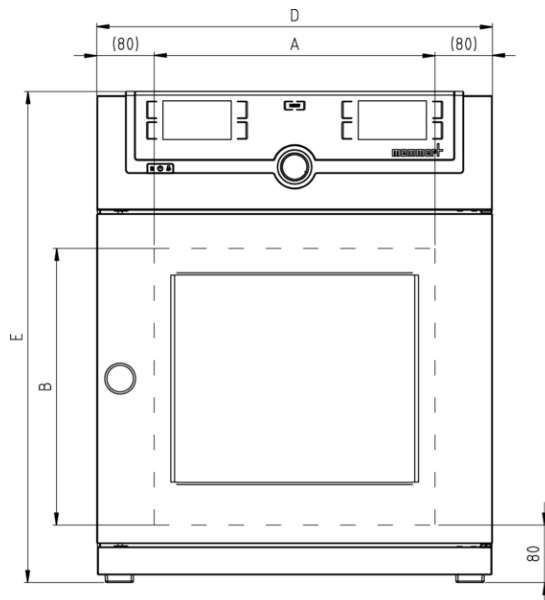
Vacuum ovens

VO49cool

Whether sensitive samples in pharmaceutical research or demanding material tests in industry, the VOcool series combines maximum efficiency with unsurpassed safety.



With the VOcool vacuum ovens of the m360 Select series, Memmert sets new standards in the gentle drying of temperature-sensitive materials. Thanks to innovative Peltier technology, the VOcool enables precise vacuum drying at low temperatures and is therefore ideal for industrial applications.



Temperature

Working temperature range	°C	+5 to +90
Setting temperature range	°C	+5 to +90
Setting accuracy up to 99.9 °C	°C	0.1
Temperature sensor	temperature measured through 4-wire Pt100 sensor individually for each thermoshelf	

Pressure

Setting range	5 to 1100	
Einstellgenauigkeit	bar	0,1
Maximum leakage rate	bar/h	0.01
Permitted final vacuum	mbar	0.01
Pressure control	Digital electronic pressure control for a speed-controlled vacuum pump. Tubing for vacuum, air and inert gas are made of material 1.4571 (ASTM 316 Ti). Programmable, digitally controlled inlet for air.	
Pump control	speed control, optimised rinsing procedures for the pump membranes as well as signal output for pump ON/OFF	
Connection	Vacuum connection with small flange DN16, and gas inlet with fresh air supply	

Control engineering

ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays	
Adjustable parameters	<ul style="list-style-type: none"> - temperature (Celsius or Fahrenheit) - Pressure (vacuum) - programme time - time zones - summertime/wintertime 	
Language setting	German, English, Spanish, French, Polish, Czech, Hungarian, Italian, Chinese	
Timer	Digital backwards timer with target time, adjustable from 1 min to 99 days	
SetpointWAIT	Process time only starts when the set temperature is reached	
Calibrate	Three freely selectable temperature values and three freely selectable pressure values	

Communication

Logging	programme stored in case of power failure	
Programming	AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port	

Safety

Temperature monitoring	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 10°C above nominal temperature
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 function is switched off in case of overtemperature, cooling function in case of undertemperature
Autodiagnostic system	for fault analysis
Alarm	visual and acoustic

Heating concept

Heating concept	Connection for a thermoshelf in the rear panel
Cooling system	The cooling system is compactly integrated into the anodized aluminum thermal plate (material no. 3.3547) and ensures reliable and efficient cooling via the built-in Peltier unit.

Standard equipment

Works calibration certificate	+ 10 °C / 20 mbar
Door	full-sight glass door, inside spring-loaded, 15mm thick glazed panel in safety glass, outside with anti-splitter screen
Number of slide-in units	1
Type standard insert	cooling plate made of anodized aluminum with integrated cooling circuit and large-area heating, including on-site sensors (Pt100, 4-wire measurement), MLC (Multi-Level-Controlling), and calibration certificate (only with new orders).

Stainless steel interior

Volume	l	49
Width	mm	385
Height	mm	385
Depth	mm	330
Max. number of grids/shelves	number	1
Max. loading of chamber	kg	60
Max. loading of grids/shelves	kg	20

Textured stainless steel casing

Width	mm	550
Height	mm	687
Depth	mm	480
Installation	4 adjustable appliance feet	

Electrical data

Electrical load	230 V	W	600
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Ambient conditions

Ambient temperature	+5 °C to +40 °C		
Air humidity	max. 80 % non-condensing		
Altitude of installation	2000 m over NN		
Overvoltage category	II		
Pollution degree	2		
Distance to neighbouring appliances / wall clearances	top	mm	200
	back	mm	150
	Lateral	mm	80

Packing/shipping data

Transportinformation	The appliances must be transported upright		
Customs tariff number	8419 8998		
Country of origin	DE		
WEEE reg. no.	DE 66812464		
Packaging	Width	mm	660
	Height	mm	870
	Depth	mm	590
Weight	net	kg	95
	gross	kg	116