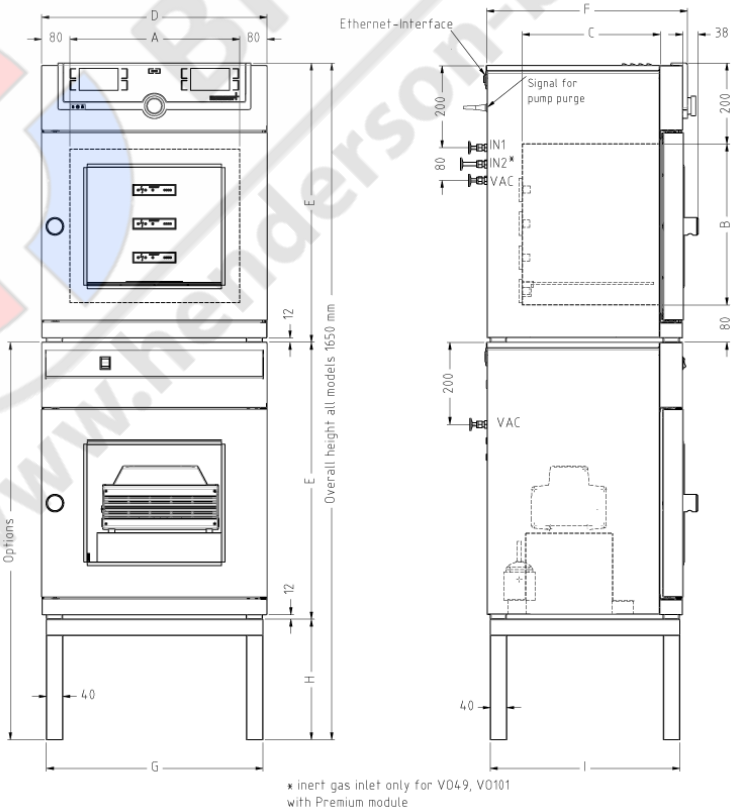
VO49

Digital pressure control ensures rapid and gentle vacuum drying. Its speed-controlled vacuum pump (accessory) saves around 70% energy.

The direct contact between the load and the heatable and removable thermoshelves in the chamber of the Memmert vacuum oven VO ensures rapid and uniform temperature control of food, cosmetics, watches, books, PCBs or injection moulds, without the loss of heat.
On this page, you can find all the essential technical data on our vacuum drying oven. 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

Setting accuracy temperature	up to 99.9 °C: 0.1 / from 100 °C: 0.5
Setting temperature range	+20 to +200 °C
Temperature sensor	temperature measured through 4-wire Pt100 sensor individually for each thermoshelf
Working temperature range	min. 5°C above ambient up to +200°C

Pressure (Vacuum)

Vacuum range	5 to 1100 mbar
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.
Permitted final vacuum	0.01 mbar
Maximum leakage rate	0.01 bar/h
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 technology

adjustable parameters	temperature (Celsius or Fahrenheit), pressure (vacuum), programme time, time zones, summertime/wintertime
Language setting	German, English, Spanish, French, Polish, Czech, Hungarian, Italian
ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.
Timer	Digital backwards counter with target time setting, adjustable from 1 minute to 99 days
Function SetpointWAIT	the process time does not start until the set temperature is reached

Communication

Interface	Ethernet LAN, USB
Documentation	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 control	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 is switched off in case of overtemperature, compressor in case of undertemperature
Autodiagnostic system	integral fault diagnostics for temperature control
Alarm	visual and acoustic

Heating concept

VO direct heating	fuzzy-supported MLC (Multi-Level-Controlling) microprocessor controller adapting its performance to the volume (local temperature sensing) for each thermoshelf
Thermoshelves	2 connections for thermoshelves in the rear (1st and 3rd level)

Standard equipment

Works calibration certificate	for +160°C at 20 mbar pressure for each supplied thermoshelf together with the vacuum oven
Internals	1 thermoshelf of aluminim, material 3.3547 (ASTM B209) with integrated large-area heating

Stainless steel interior

Material	Hermetically welded stainless steel interior of extremely corrosion-resistant stainless steel, material 1.4404
Interior	additional interior mountings of stainless steel, material 1.4404 (removable for cleaning), consisting of mounting at the sides with guide bars for thermoshelves and on top (diffusor) to avoid turbulences when aerating
Volume	49 l
Dimensions	$w_{(A)}$ x $h_{(B)}$ x $d_{(C)}$: 385 x 385 x 330 mm
Max. number of internals	2
Max. loading of chamber	60 kg
Max. loading per internal	20 kg

Textured stainless steel casing

Door	full-sight glass door, inside spring-loaded, 15 mm thick glazed panel in safety glass, outside with anti-splitter screen
Dimensions	$w_{(D)}$ x $h_{(E)}$ x $d_{(F)}$: 550 x 687 x 480 mm (d +38mm door handle)
Housing	rear zinc-plated steel

Electrical data

Voltage	Electrical load (maximally equipped) at 230 V, 50/60 Hz

Ambient conditions

Ambient temperature	+5 °C to +40 °C
Set Up	The distance between the wall and the rear of the chamber must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from the wall must not be less than 8 cm.
Humidity rh	max. 80 %, non-condensing
Overvoltage category	II
Pollution degree	2

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: 670 x 890 x 630 mm
Net weight	approx. 83 kg
Gross weight carton	approx. 104 kg

Standard units are safety-approved and bear the test marks

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