



memmert
Experts in Thermostatics

Incubators

PERFECTLY COORDINATED. PERFECTLY CONTROLLED.



INCUBATOR I

CO₂ INCUBATOR IC₀med

COMPRESSOR-COOLED INCUBATOR ICP

PELTIER-COOLED INCUBATOR IPP

COOLED STORAGE INCUBATOR IPS

100% ATMOSAFE. MADE IN GERMANY.

www.memmert.com | www.atmosafe.net



Stable. Safe. Sensitive.

Memmert incubators for microbiology.
Energy efficient, precise, 100% AtmoSAFE.

Even slight temperature deviations in the working chamber of an incubator may cause a test to fail. For this reason, the heating and control system of Memmert incubators are perfectly adapted to each other. During heating up and cooling down as well as in running operation, all appliances precisely keep the desired parameters within the smallest tolerance limits. Not only at one measuring point, but in the entire working chamber. Each individual Memmert incubator complies with the strict requirements of DIN 12880:2007-05 and is equipped with a maximum of safety functions. Each individual Memmert incubator is 100% AtmoSAFE.



INCUBATOR I

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TECHNICAL DATA

PAGE 6 TO 7

Microbiological tests, colony counts, virology, toxicology

CO₂ INCUBATOR IC_omed

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TECHNICAL DATA

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Medical device class IIa for cultivation of cells or tissue, in-vitro fertilisation, gene expression

COMPRESSOR-COOLED INCUBATOR ICP

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TECHNICAL DATA

PAGE 14 TO 15

Microbiological tests, colony counts, virology, toxicology, cultivation above and below room temperature, alternate stability tests

PELTIER-COOLED INCUBATOR IPP

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TECHNICAL DATA

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Protein crystallography, microbiological tests, colony counts, virology, toxicology, cultivation above and below room temperature, alternate stability tests

COOLED STORAGE INCUBATOR IPS

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TECHNICAL DATA

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Microbiological tests, cultivation above and below room temperature, stability tests

SOFTWARE FOR MODELS

U, UF TS, UNpa, S, I, IC_omed, ICP, IPP, IPS, HPP, ICH PAGE 24

AtmoCONTROL

OPTIONS AND ACCESSORIES

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Available for all products

FEATURES OF MODEL VARIANTS

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SingleDISPLAY and TwinDISPLAY

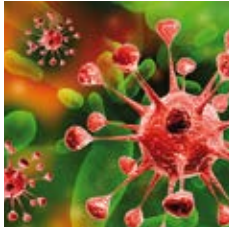


Incubator IN/INm and IF/IFm with SingleDISPLAY
Incubator INplus/INmplus and IFplus/IFmplus
with TwinDISPLAY
Natural convection or forced air circulation
AtmoCONTROL software

Model sizes:
30 / 55 / 75 / 110 / 160 / 260 / 450 / 750
+30 °C to +80 °C

INCUBATOR I Memmert incubators I are at home in the world of research, medicine, pharmaceuticals and food technology. Organic chamber loads require gentle heating. For this reason, the heating and control system are especially optimised for low temperatures of up to +80 °C. To prevent temperature overshoots, temperature is increased within a very narrow control range and kept exactly at the setpoint value. As required, the models with natural convection or with forced air circulation are available.





As little air circulation as possible in the incubator

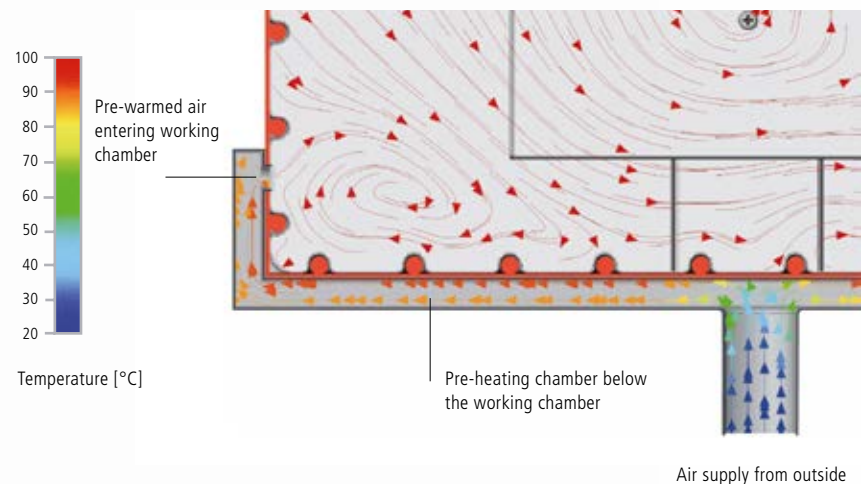
Forced air convection may destroy the protective layer from moist air that is generated during incubation over the samples. This would lead to dehydration of the culture. In a Memmert incubator, the perfect combination of all-round surface heating and temperature control system ensures that incubation generally takes place without forced air circulation. Provided the chamber is fully loaded and forced air circulation is required, it can be precisely adjusted in 10 % steps from 0 to 100 %.

Sterilisation

The chamber of the incubators INplus/IFplus/INmplus and IFmplus, including all installations and sensors, can be sterilised at +160 °C in a 4-hour programme to guarantee optimum hygiene.

Fresh air is preheated

Temperature deviations caused by fresh air can influence sample characteristics or prolong drying. In Memmert incubators, the fresh air is therefore fed through a pre-heating chamber and seamlessly introduced into the working chamber.



Memmert incubator Im is a medical device:

The incubator Im is a Class I medical device in accordance with the EU directive 93/42/EEC. In accordance with the intended use incubators INmplus and IFmplus may be used for warming of rinsing solutions and infusions as well as of contrast agents. Incubators IFm (with extended overtemperature protection – option A6) and IFmplus are used for warming non-sterile cloths and blankets. Incubators INm (with option A6) are intended for heating fango, silicate and APS packs for physical therapy and keeping them warm.

INCUBATORS I

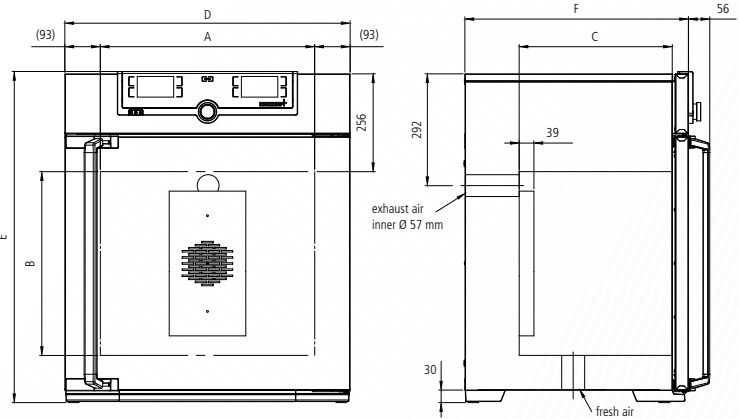
according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

Standard units are safety-approved and bear the test marks:
(EAC not valid for medical devices)



Standard equipment

- Interior:** Stainless steel, material 1.4301 (ASTM 304) with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath
- Internals:** Stainless steel grids, electropolished (size 30 and 55: 1, size 75 to 750: 2)
- Housing:** Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen; inner glass door, outside fully insulated stainless steel door (from size 450 two leaves)
- Fresh air:** Admixture of pre-heated fresh air by electronically adjusted airflap
- Connection:** Mains cable with plug (German type)
- Installation:** 4 feet; size 450 and 750 mounted on lockable castors
- Interfaces:** Ethernet LAN, USB (only TwinDISPLAY)



Model sizes/Description			30	55	75	110	160	260	450	750	
Stainless steel interior	Volume	approx. l	32	53	74	108	161	256	449	749	
	Width	(A) mm	400	400	400	560	560	640	1040	1040	
	Height	(B) mm	320	400	560	480	720	800	720	1200	
	Depth (less 39 mm for fan)	(C) mm	250	330	330	400	400	500	600	600	
	Stainless steel grids, electropolished (standard equipment)	number	1			2					
	Max. number of grids/shelves	number	3	4	6	5	8	9	8	14	
	Max. loading per grid/shelf	kg	20						30		
	Max. loading of chamber	kg	60	80	120	175	210	300			
Textured stainless steel exterior	Width	(D) mm	585	585	585	745	745	824	1224	1224	
	Height (size 450, 750 with castors)	(E) mm	704	784	944	864	1104	1183	1247	1726	
	Depth (without door handle), door handle + 56 mm	(F) mm	434	514	514	584	584	684	784	784	
Further data	Electrical load at 230 V, 50/60 Hz	approx. W	1600	1000	1250	1400	1600	1700	1800	2000	
	Electrical load at 115 V, 50/60 Hz	approx. W	800	900					1500	1800	
	Working-temperature range	°C	min. 5 (IN/INplus/INm/INmplus) 10 (IF/IFplus/IFm/IFmplus) above ambient temperature up to +80								
	Setting temperature range	°C	+20 to +80								
	Setting accuracy	°C	0.1								
Packing data	Net weight	approx. kg	48	57	66	76	96	110	161	217	
	Gross weight (packed in carton)	approx. kg	64	76	85	101	122	161	227	288	
	Width	approx. cm	66	73	73	83	83	93	133	133	
	Height	approx. cm	89	95	113	105	130	138	144	191	
	Depth	approx. cm	65	67	67	80	80	93	105	105	

Order No. Incubators

- I = Incubator
- N = Natural convection
- F = Forced convection
- m = Medical device
- plus = Model with TwinDISPLAY

IN30	IN55	IN75	IN110	IN160	IN260	IN450	IN750
IN30m	IN55m	IN75m	IN110m	IN160m	IN260m	IN450m	IN750m
IN30plus	IN55plus	IN75plus	IN110plus	IN160plus	IN260plus	IN450plus	IN750plus
IN30mplus	IN55mplus	IN75mplus	IN110mplus	IN160mplus	IN260mplus	IN450mplus	IN750mplus
IF30	IF55	IF75	IF110	IF160	IF260	IF450	IF750
IF30m	IF55m	IF75m	IF110m	IF160m	IF260m	IF450m	IF750m
IF30plus	IF55plus	IF75plus	IF110plus	IF160plus	IF260plus	IF450plus	IF750plus
IF30mplus	IF55mplus	IF75mplus	IF110mplus	IF160mplus	IF260mplus	IF450mplus	IF750mplus

Options	30	55	75	110	160	260	450	750
Voltage 115 V, 50/60 Hz						X2		
Extended overtemperature protection by additionally integrated Pt100 sensor for independent temperature monitoring for models IN/IF/INm/IFm					A6			
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids				–			K1	
Interior lighting for observing the load					R0			
Interior socket can only be ordered with limited temperature range up to max. +70 °C, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68 (only with SingleDISPLAY)					R3			
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap and silicone stopper, standard positions						F0 F1 F2 F3		
Entry port, 23 mm clear diameter, can be closed by flap, in special positions (please, state location)						F4 F5 F6		
Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)					D6			
Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)					F7			
Entry port, 57 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)					F8			
Entry port, 100 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)		–				F9		
4 – 20 mA current loop interface (0 to 90 °C \pm 4 to 20 mA) Temperature controller, actual value Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY)						V3 V6		
Fan speed monitoring with switching off the heating and with alarm in case of failure optional only for IFplus/IFmplus						V4		
Works calibration certificate for 3 temperatures: +37 °C, +52 °C, +70 °C Standard works calibration certificate (measuring point chamber centre) at +37 °C						D00126		

Accessories	30	55	75	110	160	260	450	750
Stainless steel grid, electropolished (standard equipment)	E28884	E20164		E20165		E28891	E20182	
Additional reinforced stainless steel grid, electropolished, max. loading 60 kg; from size 450 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber		–		E29767		E29766	B32190	
Perforated stainless steel shelf	B29727	B03916		B00325		B29725	B00328	
Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber				–			B32191	
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	E02070	E02072		E02073		E29726	E02075	
Max. loading per slide-in drip tray (kg)		1,5		3		4	8	
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1)				–			B32763	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	B04356	B04358		B04359		B29722	B04362	
Max. loading per bottom drip tray (kg)		1,5		3		4	8	
Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1)				–			B34055	
Wall bracket for wall mounting	B29755	B29756	B29757	B29758	B29759		–	
Guarantee extension by 1 year			GA1Q5				GA2Q5	

Further options/accessories see pages 24 - 26.

Not all options/accessories are combinable with each other. Please contact us for individual combination requests.



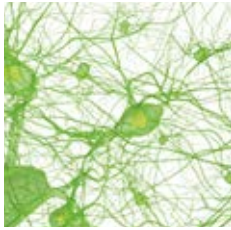
CO₂ Incubator ICOMed with TwinDISPLAY
Software AtmoCONTROL

Model sizes: 50 / 105 / 150 / 240
+18 °C to +50 °C
Humidity 40 to 97 % rh
CO₂ concentration 0 to 20 %
O₂ concentration 1 to 20 %

CO₂ INCUBATOR ICOMed Safety at all times. When it comes to safety and user friendliness, the highly modern CO₂ incubator ICOMed is the perfect solution: Thanks to the battery-buffered ControlCOCKPIT, the operating display, logging and CO₂ control remain fully functional even when there is a power failure. All parameters are logged in accordance with the FDA and, when individually adjusted ranges for CO₂, O₂, temperature and humidity are exceeded, notifications can be sent to a mobile phone in addition to an alarm.

The control technology is so finely tuned that the setpoint temperature is guaranteed to be reached without temperature overshoots. With its rounded corners, the interior is easy to clean and can be sterilised for 60 minutes at 180 °C (including all sensors).

All ICOMed models are classified as medical product class IIa.



Comfort options for every application

These are only a few of the numerous features that don't let anything open to be desired:

- Two gas connections with quick release connectors for automatic switch-over of gas cylinders
- Electropolished working chamber
- Electronic control for active humidification and dehumidification (40 to 97 % rh)
- Control of oxygen concentration by introducing nitrogen, adjustment range from 1 % to 20 % O₂

Unrivalled user friendliness

All parameters can be set easily and intuitively both with the ControlCOCKPIT or the AtmoCONTROL software. The shutter box can be opened, allowing fast access to controls. Maintenance is possible even if the appliances are stacked. The appliance has USB and Ethernet connections as well as a data logger with a ten-year storage capacity. Data can be read and programmes can be transferred by remote access.

Minimising vaporisation and condensation

The active humidity control minimises vaporisation in the interior and ensures short recovery times after the door has been opened. Together with the heating of the interior from all six sides including the heated inner glass door, it prevents the dangerous formation of condensation and offers maximum protection for cell and tissue cultures. The turbulence-free chamber ventilation ensures a constant and uniform atmosphere.

+ CO₂ Incubator ICOfed is a medical device:

Memmert subjected its CO₂ incubator ICOfed to a comprehensive medical device evaluation. Every Memmert CO₂ incubator ICOfed is classified as a Class IIa medical device. The ICOfed is intended for the creation and maintenance of constant environmental conditions for application in the field of in vitro fertilisation (IVF), especially for the incubation of oocytes, spermatozoa and zygotes in special culture dishes for IVF application as well as for gene expression and the biosynthesis of RNA and proteins. The CE label on the appliances includes the mark 0197, denoting TRLP – TÜV Rheinland as the notified body.



CO₂ INCUBATORS ICOMed

with standard sterilisation programme

(Humidity and CO₂ sensor sterilised inside the CO₂ incubator)

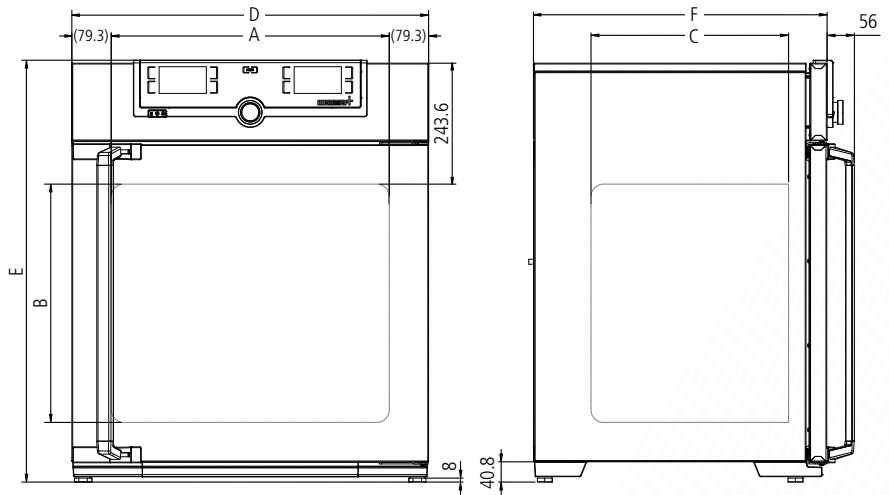
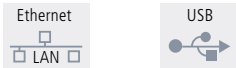
Standard units are safety-approved and bear the test marks:



according to 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn, seamlessly welded
- Internals: Perforated stainless steel shelves size 50: 1, sizes 105 – 240: 2; and 1 stainless steel water dish (all sizes)
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door and heated inner glass door
- Connection: Mains cable with plug (German type)
- Installation: 4 adjustable feet
- Interfaces:



Model sizes/Description			50	105	150	240
Stainless steel interior	Volume	approx. l	56	107	156	241
	Width	(A) mm	400	560	560	600
	Height	(B) mm	425	480	700	810
	Depth (less 35 mm for fan)	(C) mm	330	400	400	500
	Stainless steel shelves, perforated (standard equipment)	number	1	2	2	2
	Max. number of perforated shelves	number	5	6	10	12
	Max. loading per perforated shelf	kg	15			
	Max. loading of chamber	kg	75	90	120	140
Stainless steel exterior	Width	(D) mm	559	719	719	759
	Height (variable through adjustable feet)	(E) mm	791	846	1066	1176
	Depth (without door handle, depth of door handle 56 mm)	(F) mm	521	591	591	691
	Fully insulated stainless steel door		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Additional heated inner glass door		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	1000	1500	2000	2000
	Working-temperature range	°C	5 above ambient temperature up to +50			
	Standard sterilisation programme: 60 minutes at 180 °C (without removing the sensors)	°C	+18 to +50			
	Setting temperature range	°C	0.1			
	Setting accuracy	°C	+/- 0.1			
	Temperature fluctuations with time at 37 °C (to DIN 12880:2007-05)	K	+/- 0.3			
	Humidity limitation thanks to a Peltier element; when water dish is full and inserted, the Peltier element limits the value of relative humidity in the interior to 93 % rh +/- 2.5 %		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Setting range active humidity control (with option K7)	% rh	40 to 97 and rh-Off			
	Setting accuracy humidity	% rh	0.5			
	Digital electronic CO ₂ control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Adjustment range CO ₂	% CO ₂	0 to 20			
	Variation in time CO ₂	% CO ₂	+/- 0.2			
	Setting accuracy CO ₂	% CO ₂	0.1			
	Adjustment range O ₂	% O ₂	1 to 20			
Setting accuracy O ₂	% O ₂	0.1				
Standard accessories	Stainless steel water dish		1	1	1	1
	Works calibration certificate (measuring point chamber centre) at +37 °C, 5 % CO ₂ for standard units			<input type="checkbox"/>		
	Works calibration certificate at 37 °C, 5 % CO ₂ and 90 % rh (requires option K7); standard equipment for units with active humidity control			<input type="checkbox"/>		
	Works calibration certificate at 37 °C, 5 % CO ₂ , 90 % rh and 10 % O ₂ (requires option K7 and option T6); standard equipment for units with O ₂ control			<input type="checkbox"/>		

Model sizes/Description			50	105	150	240
Packing data	Net weight	approx. kg	55	75	90	110
	Gross weight (packed in carton)	approx. kg	74	100	116	145
	Width	approx. cm	73	80	80	84
	Height	approx. cm	95	103	125	136
	Depth	approx. cm	64	80	80	90
Order No. CO₂ Incubators			ICO50med	ICO105med	ICO150med	ICO240med

Options	50	105	150	240
Voltage 115 V, 50/60 Hz			X2	
Battery-buffered ControlCOCKPIT Uninterrupted supply for the entire display unit (ControlCOCKPIT) and therefore complete documentation of all parameters even when there is a power failure. The CO ₂ parameter is continuously regulated			C2	
Two gas connections with quick release connectors for automatic switch-over of gas cylinders			T1	
Electropolished interior			T2	
Active microprocessor control for humidifying and dehumidifying (40 – 97 % rh), incl. digital indication and auto-diagnostic system ensures even more rapid reaching of set humidity and very short recovery times while avoiding condensate formation. Humidity supply with distilled water (from an external tank) by a self-priming pump; integral bacteria block by generating hotsteam, dehumidifying via sterile filter			K7	
Control of oxygen concentration by N ₂ inlet; adjustment range 1 % up to 20 % O ₂ ; setting accuracy 0.1 %. (requires option K7)			T6	
Peltier cooling unit enables a working temperature of 37 °C even at higher ambient temperatures of up to 35 °C			K5	
Capacitive humidity sensor for measuring and displaying the relative humidity			K6	
Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back, centre right; not available for ICO50med with active humidity control (option K7) or humidity display (option K6)			F7	
Inner door with partitioned glass doors	–		K4	
4 – 20 mA current loop interface			V3 V7 V9 V1	
Temperature controller, actual value (0 to +70 °C ± 4 to 20 mA)			V3	
Humidity controller, actual value (0 – 100 % rh ± 4 – 20 mA)			V7	
CO ₂ controller, actual value (0 – 25 % CO ₂ ± 4 – 20 mA)			V9	
O ₂ controller, actual value (0 – 25 % O ₂ ± 4 – 20 mA)			V1	
Works calibration certificate for 5 %, 7 % and 10 % CO ₂ (measured at +37 °C) special works calibration certificates upon request			D00106	
Start-up of ICOmed incubators and brief training (D, A, CH only), through Memmert service			K9	

Accessories	50	105	150	240
Additional perforated stainless steel shelf	E35160		E37418	E35158
Additional water dish	B38737		B38000	
Subframe (622 mm high) adjustable in height (sizes 150/240: should not be used for 2 stacked units)	B33504		B33505	B33506
Subframe (130 mm high); sizes 150/240: should not be used for 2 stacked units	B33507		B33508	B33509
HEPA-filter for chamber (filter class E11) according to EN 1822, packed in sterile condition, incl. fixing unit			B38739	
CO ₂ pressure reducing valve to DIN 8546, incl. gas cylinder monitor			E02087	
N ₂ pressure reducing valve to DIN EN ISO 2503, incl. gas cylinder monitor (requires option T6)			E06162	
CO ₂ connection set, hose with coupling and clamp			B03881	
Central water supply, with filter cartridges for connection to the domestic water supply, only in combination with option K7. Product information on demand			ZWVR6	
Central water supply, without filter cartridges for connection to the domestic water supply (only for demineralised water in accordance with VDE 0510/DIN EN 50272), only in combination with option K7. Product information on demand			ZWVR7	
Guarantee extension by 1 year			GA3Q5	
Celltron benchtop shaker (accessories upon request)	–		E06724	



Compressor-cooled incubator ICP
with TwinDISPLAY
AtmoCONTROL software

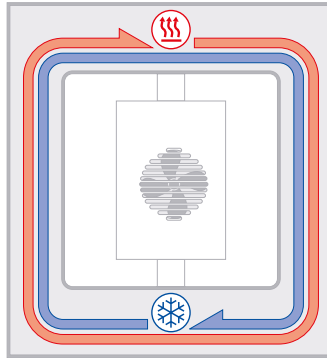
Model size: 55
0 °C to +60 °C
Model sizes: 110 / 260 / 450 / 750
-12 °C to +60 °C

COMPRESSOR-COOLED INCUBATOR ICP Ideal at temperatures around zero and below! If rapid and precise alternation between heating up and cooling down times in ramp operation is required, cooled incubators with compressor cooling prove to be in peak form – yet still work extraordinarily quiet. Due to the finely adjusted control technology, temperatures exactly reach the set point values without energy-intensive bursts of power.



Completely enclosed working chamber

Cooling and heating units are situated outside the working chamber inside the air jacket temperature control system surrounding the entire chamber interior ensuring quick and precise temperature control. The motor-driven forced air circulation, adjustable in 10 % steps via the ControlCOCKPIT ensures optimum temperature distribution.



ICP air jacket temperature control system

Integrated energy saving function

The cooling unit works extremely energy-efficiently, as there is no continuous heating against cooling. An intelligent DEFROST function enables defrosting as required.



COMPRESSOR-COOLED INCUBATORS ICP

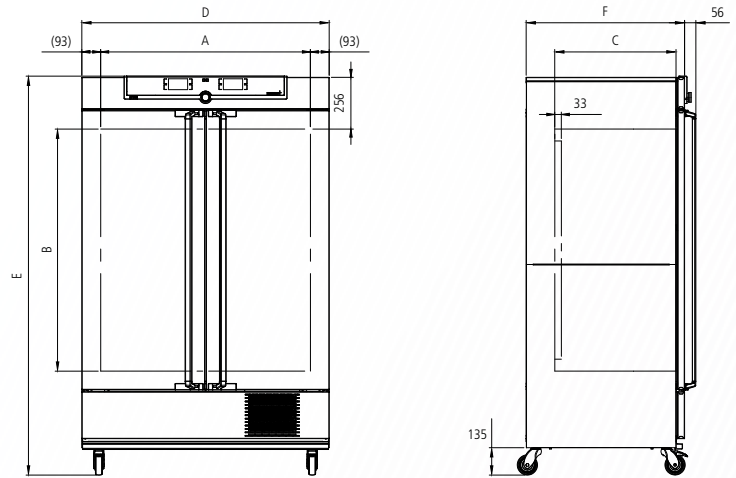
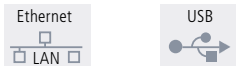
according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

Standard units are safety-approved and bear the test marks:



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304)
- Internals: Stainless steel grids, electropolished
(size 55: 1 grid, sizes 110 to 750: 2 grids)
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door (from size 450 two leaves)
- Connection: Mains cable with plug (German type)
- Installation: mounted on lockable castors
- Interfaces:



Model sizes/Description			55	110	260	450	750
Stainless steel interior	Volume	approx. l	53	108	256	449	749
	Width (A)	mm	400	560	640	1040	1040
	Height (B)	mm	400	480	800	720	1200
	Depth (less 33 mm for fan) (C)	mm	330	400	500	600	600
	Stainless steel grids, electropolished (standard equipment)	number	1	2			
	Max. number of grids/shelves	number	4	5	9	8	14
	Max. loading per grid/shelf	kg		20		30	
	Max. loading of chamber	kg	80	150		200	
Textured stainless steel exterior	Width (D)	mm	585	745	824	1224	1224
	Height (with castors) (E)	mm	1153	1233	1552	1613	1950
	Depth (without door handle), door handle + 56 mm (F)	mm	514	584	684	784	784
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	1200				
	Working-temperature range (not suitable for long-term storing at sub-zero temperatures. During permanent operation, the glass door may ice over)	°C	-12 to +60 (ICP 55 0 to +60)				
	Setting temperature range	°C	-12 to +60 (ICP 55 -5 to +60)				
	Setting accuracy	°C	0.1				
Packing data	Net weight	approx. kg	89	113	157	217	249
	Gross weight (packed in carton)	approx. kg	111	141	214	282	319
	Width	approx. cm	76	88	93	133	133
	Height	approx. cm	133	141	176	170	215
	Depth	approx. cm	68	81	93	105	105
Order No. Compressor-Cooled Incubators			ICP55	ICP110	ICP260	ICP450	ICP750

Options	55	110	260	450	750
Voltage 115 V, 50/60 Hz			X2		
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids		–		K1	
Interior socket, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68			R3		
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap, standard positions			left centre/centre left centre top right centre top	F0 F1	F3
Entry port (silicone), 40 mm clear diameter, for introducing connections, moisture tight, can be closed by silicone stopper, at the back (please, state location)				F7	
4 – 20 mA current loop interface (-20 to +70 °C \pm 4 to 20 mA)			Temperature controller, actual value Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 3 TwinDISPLAY)	V3 V6	
Fan speed monitoring with switching off the heating and with alarm in case of failure				V4	
Works calibration certificate for 3 temperatures: 0 °C, +37 °C, +60 °C Standard works calibration certificate (measuring point chamber centre) at +10 °C and +37 °C				D00130	

Accessories	55	110	260	450	750
Stainless steel grid, electropolished (standard equipment)	E20164	E20165	E28891		E20182
Additional reinforced stainless steel grid, electropolished, max. loading 60 kg; from size 450 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–	E29767	E29766		B32190
Perforated stainless steel shelf	B03916	B00325	B29725		B00328
Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber		–			B32191
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	E02072	E02073	E29726		E02075
Max. loading per slide-in drip tray (kg)	1.5	3	4		8
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1)		–			B32763
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	B04358	B04359	B29722		B04362
Max. loading per bottom drip tray (kg)	1.5	3	4		8
Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1)		–			B34055



Peltier-cooled incubator IPP with SingleDISPLAY
Peltier-cooled incubator IPPplus with TwinDISPLAY
AtmoCONTROL software

Model sizes: 30 / 55 / 110 / 260 / 750
0 °C to +70 °C

PELTIER-COOLED INCUBATOR IPP Heating and cooling seamlessly with one system thanks to Peltier technology. In this respect, cooled incubators IPP not only contribute to climate protection, but it also achieves an additional decrease in operating costs of up 90 % compared to compressor technology. This perfect development from the environmentally friendly and energy-saving heating/cooling technology by Memmert convinces by outstanding control precision and extremely small fluctuations.



Extremely quiet and vibration-free

The fact that no compressor is required saves space and brings peace and quiet to the laboratory. As Peltier-cooled incubators IPP are almost vibration-free, they can also be applied in entomology. If defined humidity is also required, an alternative would be the constant climate chamber HPP, which is also equipped with Peltier technology.



No condensation in the interior chamber

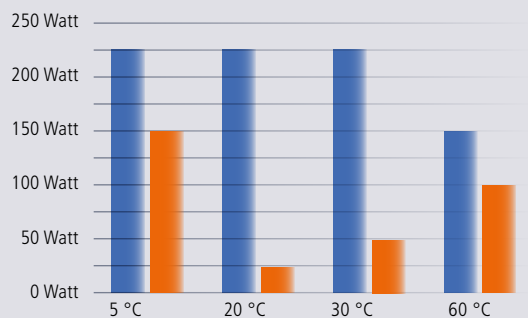
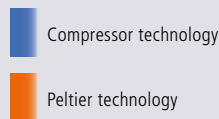
Due to the closed Peltier cooling system, no outside air is exchanged. Physically derived, unavoidable formation of condensation during the cooling process does not take place in the interior chamber but on the outside heat sink. In addition, the in the Peltier elements integrated fans ensure a rapid transport of energy as well as an optimal temperature distribution.

Energy-saving heating/cooling technology combination

In contrast to compressor systems, Peltier technology is particularly economical at temperatures close to the ambient temperature, since energy is only required during heating or cooling. Therefore heating and cooling function are particularly precisely adjusted to each other.

Comparison compressor technology and Peltier technology

Reduction in energy consumption up to 90 %



PELTIER-COOLED INCUBATORS IPP

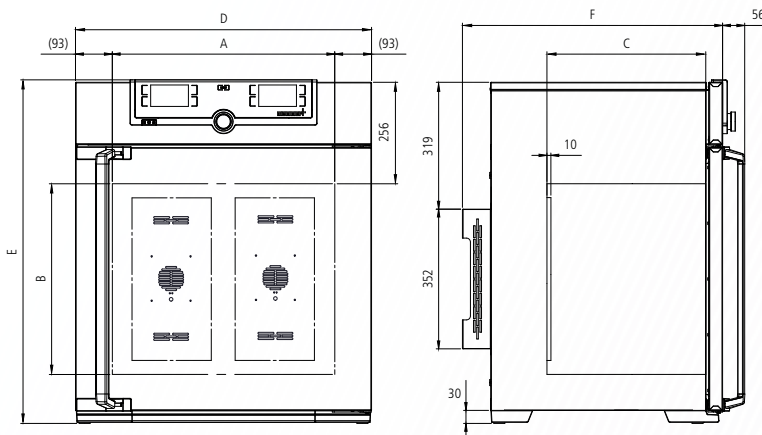
according to DIN 12880:2007-05 , EN 61010-1 (IEC 61010-1), 61010-2-010

Standard units are safety-approved and bear the test marks:



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: Stainless steel grids, electropolished (sizes 30 and 55: 1, sizes 110 to 750: 2)
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen
- Double doors: Outside stainless steel, fully insulated, inside glass (size 750 two-leaves)
- Connection: Mains cable with plug (German type)
- Installation: 4 feet; size 750 mounted on lockable castors
- Interfaces:



Number of Peltier elements in the rear:
 Sizes 30 to 55: 1
 Size 110: 2
 Size 260: 3
 Size 750: 6

Model sizes/Description			30	55	110	260	750
Stainless steel interior	Volume	approx. l	32	53	108	256	749
	Width	(A) mm	400	400	560	640	1040
	Height	(B) mm	320	400	480	800	1200
	Depth (less 10 mm for fan – Peltier)	(C) mm	250	330	400	500	600
	Stainless steel grids, electropolished (standard equipment)	number	1		2		
	Max. number of grids/shelves	number	3	4	5	9	14
	Max. loading per grid/shelf	kg	20				30
	Max. loading of chamber	kg	60	80	150	200	
Textured stainless steel exterior	Width	(D) mm	585	585	745	824	1224
	Height (size 750 with castors)	(E) mm	704	784	864	1183	1726
	Depth (without door handle), door handle + 56 mm	(F) mm	524	604	674	774	874
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	140	275	550	820	1100
	Working-temperature range without light	°C	0 (at least 20 below ambient temperature) to +70				
	Working-temperature range with light	°C	+10 to +40				
	Setting temperature range	°C	0 to +70				
	Setting accuracy	°C	0.1				
Packing data	Net weight	approx. kg	40	52	78	114	230
	Gross weight (packed in carton)	approx. kg	56	71	103	165	301
	Width	approx. cm	66	73	83	93	133
	Height	approx. cm	89	95	105	138	191
	Depth	approx. cm	65	67	80	93	105

Order No. Peltier-Cooled Incubators

IPP = Peltier-Cooled Incubators
 plus = Model with TwinDISPLAY

IPP30	IPP55	IPP110	IPP260	IPP750
IPP30plus	IPP55plus	IPP110plus	IPP260plus	IPP750plus

Options	30	55	110	260	750
Voltage 115 V, 50/60 Hz	X2				
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids	–				K1
Light module cold white 6,500 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY)	–	T7			
Light module cold white 6,500 K + warm white 2,700 K: LED light strips – 10 strips for model 110, 14 for models 260/750 – (5 resp. 7 alternating cold white light strips and 5 resp. 7 warm white light strips) on the side walls of the interior, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY)	–	T8			
Light module warm white 2,700 K: light strips arranged on the side walls of the interior, 10 strips for model 110, 14 for model 260/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY)	–	T9			
Interior socket, ampacity 230 V/2.2 A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68	R3				
Entry port, 23 mm clear diameter, for introducing connections, can be closed by flap, standard positions (F0 and F2 not for model size 260 with light module; F0 – F3 not for model size 110 with light module)	left centre/centre left centre top right centre/centre right centre top	F0 F1 F2 F3			
Entry port, 23 mm clear diameter for introducing connections, can be closed by flap (please, state location)	left right rear	F4 F5 F6			
Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	D6				
Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)	F7				
4 – 20 mA current loop interface (-10 to +80 °C \pm 4 – 20 mA)	Temperature controller, actual value Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY)				V3 V6
Works calibration certificate for 3 temperatures: +5 °C, +37 °C, +60 °C Standard works calibration certificate (measuring point chamber centre) at +10 °C and +37 °C	D00129				

Accessories	30	55	110	260	750
Stainless steel grid, electropolished (standard equipment)	E28884	E20164	E20165	E28891	E20182
Additional reinforced stainless steel grid, electropolished, max. loading 60 kg; size 750 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–	E29767		E29766	B32190
Perforated stainless steel shelf	B29727	B03916	B00325	B29725	B00328
Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–				B32191
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	E02070	E02072	E02073	E29726	E02075
Max. loading per slide-in drip tray (kg)	1.5		3	4	8
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1)	–				B32763
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	B04356	B04358	B04359	B29722	B04362
Max. loading per bottom drip tray (kg)	1.5		3	4	8
Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1)	–				B34055
Guarantee extension by 1 year	GA1Q5			GA2Q5	



Cooled storage incubator IPS
with SingleDISPLAY
AtmoCONTROL software

Model sizes: 260 / 750
+14 °C to +45 °C

COOLED STORAGE INCUBATOR IPS Save energy and reduce the strain on the climate at the same time! If microbiological cultures, BOB5 samples, drinks containers or cosmetics need to be stored over a long period at constant temperatures, cooled storage incubators IPS with energy-efficient Peltier technology are the perfect choice: absolute reliability, precision, durability and eco-friendliness.



Considerable potential for savings in acquisition and operating costs

Temperature changes are not always necessary for long-term storage or incubating. So why design heating, cooling and controlling systems for rapid heating up and cooling down times? The performance of the IPS was tailor-made for permanent operation at constant temperatures close to room temperature. The advantage: Acquisition costs and operating costs are considerably reduced in comparison to conventional cooled incubators with compressor technology, as well as to a large Peltier-cooled incubator.



Ideal for high ambient temperatures

Thanks to Peltier elements integrated for cooling the working chamber, the chamber load won't break into sweat even at high ambient temperatures. Constant and precise incubation at room temperature is guaranteed.



Low in vibration and durable for absolutely safe long-term storage

Like the cooled incubator IPP, the IPS offers all the advantages of Peltier technology to the user. Its interior chamber that is completely insulated from the environment minimises the risk of drying out of the samples. It is practically noise-free and not only reduces stress on the chamber load but also soothes the nerves of employees thanks to its quiet operation.



Glimpse into a Memmert storage incubator:
Peltier elements guarantee perfect climate inside the chamber.



COOLED STORAGE INCUBATORS IPS

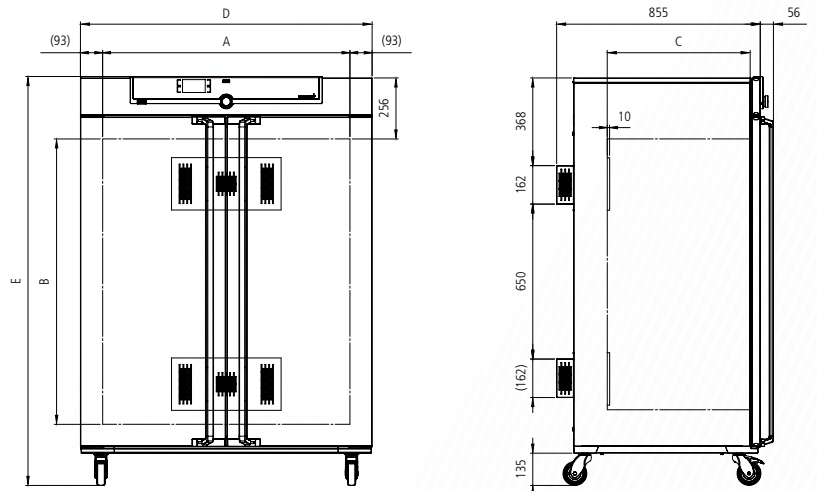
according to DIN 12880:2007-05, EN 61010-1 (IEC 61010-1), 61010-2-010

Standard units are safety-approved and bear the test marks:



Standard equipment

- Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn
- Internals: 2 stainless steel grids, electropolished
- Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY (TFT colour display) with touchscreen
- Double doors: Outside stainless steel, fully insulated, inside glass (size 750 two leaves)
- Connection: Mains cable with plug (German type)
- Installation: 4 feet; size 750 mounted on lockable castors
- Interfaces:



2 Peltier elements in the rear

Model sizes/Description			260	750
Stainless steel interior	Volume	approx. l	256	749
	Width	(A) mm	640	1040
	Height	(B) mm	800	1200
	Depth (less 10 mm for fan – Peltier)	(C) mm	500	600
	Stainless steel grids, electropolished (standard equipment)	number	2	
	Max. number of grids/shelves	number	9	14
	Max. loading per grid/shelf	kg	20	30
	Max. loading of chamber	kg	200	
Textured stainless steel exterior	Width	(D) mm	824	1224
	Height (size 750 with castors)	(E) mm	1183	1726
	Depth (without door handle), door handle + 56 mm	(F) mm	774	874
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	550	
	Working-temperature range/Setting temperature range	°C	+14 to +45	
	Setting accuracy	°C	0.1	
Packing data	Net weight	approx. kg	113	230
	Gross weight (packed in carton)	approx. kg	164	301
	Width	approx. cm	93	133
	Height	approx. cm	138	191
	Depth	approx. cm	93	105
Order No. Cooled storage Incubators			IPS260	IPS750

Options	260	750
Voltage 115 V, 50/60 Hz		X2
Chamber modification for the application of reinforced perforated stainless steel shelves or stainless steel grids (bearing rails mounted in the working chamber) – includes replacement of 2 standard grids by 2 reinforced grids	–	K1
Interior socket, ampacity 230 V/2.2A, can be switched off with the On/Off switch, cannot be switched individually, moisture tight IP68		R3
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap, standard positions	left centre/centre left centre top right centre/centre right centre top	F0 F1 F2 F3
Entry port, 23 mm clear diameter, can be closed by flap, in special positions (please, state location)	left right rear	F4 F5 F6
Entry port, 14 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)		D6
Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please, state location)		F7
4 – 20 mA current loop interface (0 to +70 °C \pm 4 – 20 mA)	Temperature controller, actual value	V3
Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (SingleDISPLAY)		V6
Works calibration certificate for a freely selectable temperature value Standard works calibration certificate (measuring point chamber centre) at +18 °C and +25 °C		D00131

Accessories	260	750
Stainless steel grid, electropolished (standard equipment)	E28891	E20182
Additional reinforced stainless steel grid, electropolished, max. loading 60 kg; size 750 with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	E29766	B32190
Perforated stainless steel shelf	B29725	B00328
Additional reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (only in connection with option K1). Please consider max. loading of chamber	–	B32191
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	E29726	E02075
Max. loading per slide-in drip tray (kg)	4	8
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (can be used only in connection with option K1)	–	B32763
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution) – cannot be used in connection with option K1	B29722	B04362
Max. loading per bottom drip tray (kg)	4	8
Stainless steel bottom drip tray, 15 mm rim (can be used only in connection with option K1)	–	B34055
Guarantee extension by 1 year		GA2Q5

SOFTWARE AtmoCONTROL

AtmoCONTROL – The innovative control and logging software

Parameters such as temperature and humidity as well as the process time can be set directly at the ControlCOCKPIT.

Ramp programming is done via the control and logging software AtmoCONTROL, which features a completely new software design.

Drag, drop & go!

Numerical and graphic programming of complex processes is a thing of the past. Today, programming is done via AtmoCONTROL by means of the mouse or touchpad on your notebook. Even the most complex ramp programmes are created within minutes. Simply drag & drop the graphical symbols for the desired parameters to the input field and change the values according to your wishes with a mouse click.



Programme functions

SingleDISPLAY and TwinDISPLAY

- Reading out, managing and organising the data logger
- Saving the log memory in various formats
- Online monitoring of up to 32 connected appliances
- Optical alarms when the alarm limits individually set at the ControlCOCKPIT are exceeded
- Automatic alarm to one or several e-mail addresses

Additional functions

TwinDISPLAY

- Intuitive programming and archiving of ramps and programme sequences
- Synchronous visualisation of the created programme sequence during programming
- Application-specific repeat functions (loops) can be inserted within a temperature control programme in any place
- Simple creation of repeating weekly programmes
- Programming, managing and transferring programmes via Ethernet interface or USB port

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICP, IPP, IPS, HPP, ICH

ICOmed

Options for models U, UF TS, UNpa, S, I, ICP, IPP, IPS, HPP, ICH	30	55	75	110	160	260	400	450	750	1060	1400	50 / 105 / 150 / 240	
Door with lock (safety lock); for models UF TS per side; standard with SN/SF and SNplus/SFplus 450 and 750 (not for models ICOmed)						B6						–	
Door hinged on the left; for models UF TS per side				B8					–			B8	
Potential-free contact (24 V/2 A) with socket to NAMUR NE 28 for external monitoring (indicates when setpoint is reached); models ICOmed: when set points of temperature and CO ₂ are reached								H5					
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)								H6					
Potential-free contact (24 V/2 A) with socket to NAMUR NE 28, for signal generation, controlled by programme segment, for free-selectable functions to be activated (e.g. activation of audible and visual signals, exhaust motors, fans, stirrers, etc.). Only for units with TwinDISPLAY; max. 2 contacts on 1-phase appliances; max. 4 contacts on 3-phase appliances (not for models ICOmed)							2 contacts 4 contacts			H72	H74		–
Process-dependent door lock (only for units with TwinDISPLAY); for models UF TS see page 11 of oven brochure; not for models ICOmed						D4							–
Door-open-recognition, incl. alarm, shuts down fan and after 30 sec. also heating (only for units with TwinDISPLAY); for models UF TS per side; standard with ICOmed, ICH C, ICH L						V5							–
Flexible Pt100 for positioning in chamber or in load with socket, 4-pin, according to NAMUR NE 28, for external temperature recording (load temperature) max. 3 sensors; not for models ICOmed								H4					–
Flexible Pt100 temperature sensor, positioned flexibly in chamber or load, for local temperature measurement (up to 3 additional sensors are possible). The measured temperature can, if required, be indicated on the display, recorded in the integral data store, and can be documented via the AtmoCONTROL software. Not for models ICOmed								H8					–
MobileALERT, notification by SMS in case of any error or alarm of the device. Requires option H6 "floating contact for alarm"										C3			
MobileALERT for up to 4 alarm notifications; standard: temperature and CO ₂ alarm, additionally humidity alarm (when equipped with option K7) and O ₂ alarm (when equipped with option T6)													C4
Temperature restriction (for UN/UF/UNplus/UFplus/UNm/UFm/UNmplus/UFmplus and models UF TS); Temperatures: +60, +70, +80, +95, +100, +120, +160, +180, +200, +220 or +250 °C (Please, indicate upon ordering)				A8			–		A8				–
Castor frame (2-part), height 140 mm (not for models UF TS, ICP, ICH, ICH L, ICH C, ICOmed)					R9							–	

SPECIAL EQUIPMENT FOR MODELS U, UF TS, UNpa, S, I, ICP, IPP, IPS, HPP, ICH													ICOMed		
Accessories for models U, UF TS, UNpa, S, I, ICP, IPP, IPS, HPP, ICH	30	55	75	110	160	260	400	450	750	1060	1400	50 / 105 / 150 / 240			
USB-Ethernet adapter													E06192		
Ethernet connection cable 5 m for computer interface													E06189		
USB User-ID stick (with User-ID licence): Oven-linked authorisation licence (User-ID-programme) on Memory-stick, prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number (only for units with TwinDISPLAY)													B33170		
USB stick with documentation software AtmoCONTROL and operation manual for products with SingleDISPLAY (the standard equipment of appliances with TwinDISPLAY includes one USB stick with AtmoCONTROL)													B33171		
Set of height adjustable feet (4 pcs) not available for ICP, ICH, ICH L, ICH C – standard on models ICOMed				B29768									–		
Stacking set (4 pcs) for stacking of appliances of same size (not for models 160, 260, 450, 750, 1060, 1400, ICH110, ICH110L, ICH110C, ICP55, ICP110)		B29744											B29744	–	
Stacking set (consisting of stacking corners, one connecting plate for the rear, two wall brackets) for stacking two units ICO150med or ICO240med														B42114 (150) B42115 (240)	
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), straight, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS														B29718	–
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), angled, for exhaust air ducting (if necessary for connection by hose), only models U, I, S not for models UF TS														B29719	–
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots	B29728	B29730	B29732	B29734	B29736	B29738	B42116	B29740	B29742	B42118				–	
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots for models UF TS see page 11 of oven brochure; not for models ICOMed	B29729	B29731	B29733	B29735	B29737	B29739	B42117	B29741	B29743	B42119				–	
Subframe, adjustable in height (size 30 to 75: height 600 mm, size 110 to 450: height 500 mm); not for models ICOMed, UF TS and HPP400	B29745	B29747		B29749		B29751	–	B29753					–		
Subframe, on castors (size 30 to 75: height 660 mm, size 110 to 160: height 560 mm); not for models ICOMed and UF TS	B29746	B29748		B29750									–		
Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter; not for models ICOMed and UF TS	B33657	B33659		B33661		B33664							–		
Software conforming to FDA AtmoCONTROL. Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit (only for units with TwinDISPLAY)														FDAQ1	
Integration of additional units (up to max. 15 units) into an already existent FDA-software licence (only for units with TwinDISPLAY)														FDAQ2	
IQ document with device-specific works test data, OQ/PQ check list as support for validation by customer														D00124	
IQ/OQ document with device-specific works test data for one free-selectable temperature value, incl. temperature distribution survey at Memmert for 9 measuring points (size 30), 27 measuring points (sizes 55 – 1060) to DIN 12880:2007-05, PQ check list as support for validation by customer. Further temperature values and validation at customer site on demand	D00125						D00127							–	
IQ/OQ document with device-specific works test data for one free-selectable temperature and humidity value, incl. temperature distribution survey at Memmert for 27 measuring points (26 measuring points on model HPP1400) to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP and ICH). Validation at customer site on demand			–	D00136		–	D00136		–	D00136		–	D00136		–
IQ/OQ document with device-specific works test data for one free-selectable temperature, humidity and light value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models HPP with light and ICH L). Validation at customer site on demand			–	D00137		–	D00137		–	D00137				–	
IQ/OQ document with device-specific works test data for one free-selectable CO ₂ , humidity and temp. value, incl. temp. distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (models ICH C and ICOMed, on models ICOMed a free-selectable humidity value is only possible with option K7). Validation at customer site on demand			–	D38897		–	D38897		–	D38897		–	D38897		
IQ/OQ document with device-specific works test data for one free-selectable CO ₂ and temperature value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05, PQ check list as support for validation by customer (model ICOMed). Validation at customer site on demand														D38898	
External measuring instrument with sensors for daylight and UV-light. Product information on demand (models HPP, ICH L, IPPplus)					B04713						–	B04713		–	
Ditto with additional measuring head for temperature and humidity measurement. Product information on demand (models HPP, ICH L, IPPplus)					B04714						–	B04714		–	

Not all options/accessories are combinable with each other. Please contact us for individual combination requests.

SPECIAL EQUIPMENT FOR MODELS VO, VOcool, HCP, TTC, CTC

Options for models VO, VOcool, HCP, TTC, CTC	200	400	500	108	153	246	256
Interface Ethernet instead of USB including software				W4			
RS232 interface instead of USB				W6			
Computer interface RS485 (for networking a max. of 16 ovens) instead of RS232				V2			
Door with lock (safety lock, not available for VO, VOcool, TTC/CTC)				B6			
Flexible Pt100 for positioning in chamber or in load with socket, 4-pin, according to NAMUR NE 28, for external temperature recording (load temperature); for VO and VOcool on demand				H4			
Additional Pt100 temperature sensor, positioned flexibly in chamber or load, for local temperature measurement (up to 3 additional sensors are possible). The measured temperature can, if required, be indicated on the multifunction display, recorded in the integral ring store, and can be documented via the "Celsius" software or on an attached printer. (Not available for VO, VOcool, TTC and CTC)				H8			
Potential-free contact (24 V/2 A) with socket, according to NAMUR NE 28 for external monitoring (indicates when setpoint is reached)				H5			
Potential-free contact (24 V/2 A), with socket, according to NAMUR NE 28 for combination error message (e.g. supply failure, sensor fault, fuse)				H6			
Potential-free contact (24 V/2 A), with socket, according to NAMUR NE 28, triple, for signal generation, controlled by programme segment for a total of 3 freely selected functions to be activated (e.g. acoustic and visual signals, exhaust motors, fans, stirrers etc.). Not available for VO, VOcool				H7			
MobileALERT, notification by SMS in case of any error or alarm of the device. Requires option H6 "floating contact for alarm"				C3			

Accessories for models VO, VOcool, HCP, TTC, CTC	200	400	500	108	153	246	256
USB connection cable for computer interface				E03643			
Parallel/USB converter cable with integrated power supply unit to connect HP printers with USB interface to MEMMERT units				E05300			
Documentation package consisting of parallel USB converter cable including PCL3-compatible HP colour inkjet printer with USB interface (HP OfficeJet 6000 or successor) for direct connection of printer to Memmert unit				B04432			
Temperature profile write/read unit for programming via PC, for writing to and reading from the chip card, up to 40 ramps				E05284			
Additional chip card, blank, formatted (32 kB MEMoryCard XL for a maximum of 40 ramps)				E04004			
Oven-linked authorisation card (User-ID-Card) prevents undesired manipulation by unauthorised third parties. When reordering please specify serial number				E04159			
Software conforming to FDA "Celsius FDA Edition". Meets the requirements for the use of electronically stored data sets and electronic signatures as laid down in Regulation 21 CFR Part 11 of the US Food and Drug Administration (FDA). Base licence for the control of one unit				E05019			
Integration per additional unit (up to max.15 units) into an already existent FDA-software licence (E05019)				FDAQ4			
IQ check list with device-specific works test data as support for validation by customer				D00103			
OQ check list with device-specific works test data for one free-selectable temperature value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05 as support for validation by customer. Validation at customer site on demand				D00104			
OQ check list with device-specific works test data for one free-selectable temperature value, incl. temperature distribution survey at Memmert for 5 measuring points to DIN 12880:2007-05 as support for validation by customer valid for one thermoshelf; ditto for further thermoshelves VO on demand (VO and VOcool only). Validation at customer site on demand				D00117			
OQ check list with device-specific works test data for one free-selectable humidity and temperature value, incl. temperature distribution survey at Memmert for 27 measuring points to DIN 12880:2007-05 as support for validation by customer (models HCP and CTC). Validation at customer site on demand				D00104			
External measuring instrument with sensors for daylight and UV-light, with additional measuring head for temperature and humidity. Product information on demand (models HCP)				B04714			

MODEL VARIANTS

SingleDISPLAY ControlCOCKPIT with one TFT display	TwinDISPLAY ControlCOCKPIT with two TFT displays
<p>AVAILABLE APPLIANCES</p> <p>UN/UNm / UF/UFm / IN/INm / IF/IFm / SN / SF / IPP / IPS</p>	<p>AVAILABLE APPLIANCES</p> <p>UNplus/UNmplus / UFplus/UFmplus / UF TS / UNpa INplus/INmplus / IFplus/IFmplus / SNplus / SFplus IComed / IPPplus / ICP / HPP / ICH</p>
<p>One high-resolution TFT colour display with touch-sensitive buttons for selection of functions</p>	<p>Two high-resolution TFT colour displays with touch-sensitive buttons for selection of functions</p>
<p>Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time</p>	<p>Available parameters on the ControlCOCKPIT: Temperature (Celsius or Fahrenheit), fan speed, exhaust air flap position, programme time, relative humidity, illumination, CO₂</p>
<p>One temperature sensor Pt100 DIN class A in a 4-wire circuit</p>	<p>Two Pt100 sensors DIN class A in a 4-wire circuit for mutual monitoring, taking over functions in case of an error</p>
	<p>HeatBALANCE function for application specific adjustment of heat output distribution (balance) between the upper and lower heating groups in an adjustment range between -50 % and +50 % (not valid for models 30, HPP110, IPP110plus, ICP, ICH)</p>
<p>AtmoCONTROL software for reading out, managing and organising the data logger via Ethernet interface (temporary trial version can be downloaded). USB stick with AtmoCONTROL software available as accessory (on demand)</p>	<p>AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port</p>
	<p>ControlCOCKPIT with USB port for uploading programmes, reading out protocol logs, activating the User-ID function</p>
	<p>Displaying of already logged protocol data on the ControlCOCKPIT (max 10,000 values correspond to approx. 1 week)</p>
<p>Ethernet interface on the rear of the appliance for reading out the protocol log and for online logging</p>	<p>Ethernet interface on the rear of the appliance for reading out the protocol log and for uploading programmes and for online logging</p>
<p>Double overtemperature protection: Electronic temperature monitoring with freely adjustable monitoring temperature, for models U, I, S with option A6 TWW/TWB (protection class 3.1 or 2), mechanical temperature limiter TB acc. to DIN 12880</p>	<p>Multiple overtemperature protection: Electronic temperature monitoring TWW/TWB (protection class 3.1 or 2 resp. 3.3 for units with active cooling) and mechanical temperature limiter TB (protection class 1) acc. to DIN 12880, AutoSAFETY automatically adjusts to the set value within a freely adjustable tolerance range. Setting individual MIN / MAX values for over/undertemperature alarm and also for all other parameters such as relative humidity, CO₂</p>
<p>PID microprocessor control with integrated auto-diagnostic system</p>	
<p>Structured stainless steel housing, scratch-resistant, robust and durable; rear of zinc-plated steel</p>	
<p>High-temperature connectors on the rear of the appliance for single-phase power connection according to country specific systems and IEC standards</p>	
<p>Internal data logger with a storage capacity of at least 10 years</p>	
<p>German, English, French, Spanish, Polish, Czech, Hungarian language settings available on the ControlCOCKPIT</p>	
<p>Digital backwards counter with target time setting, adjustable from 1 minute to 99 days</p>	
<p>The SetpointWAIT function guarantees that the process time does not start until the set temperature is reached at all measuring points – optional for temperature values recorded by the freely positionable Pt100 sensors inside the chamber</p>	
<p>Adjustment of three calibration values for temperature and additional appliance specific parameters directly at the ControlCOCKPIT</p>	



memmert
Experts in Thermostatics

HEATING AND DRYING OVENS

UNIVERSAL OVEN U

PASS-THROUGH OVEN UF TS

PARAFFIN OVEN UNpa

STERILISER S

VACUUM OVEN VO

COOLED VACUUM OVEN VOcool

INCUBATORS

INCUBATOR I

CO₂ INCUBATOR IC₀med

COMPRESSOR-COOLED INCUBATOR ICP

PELTIER-COOLED INCUBATOR IPP

COOLED STORAGE INCUBATOR IPS

CLIMATE CHAMBERS

CONSTANT CLIMATE CHAMBER HPP

HUMIDITY CHAMBER HCP

CLIMATE CHAMBER ICH

ENVIRONMENTAL TEST CHAMBER CTC/TTC

WATERBATHS / OILBATHS

WATERBATH W

OILBATH O

YOUR MEMMERT PARTNER

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