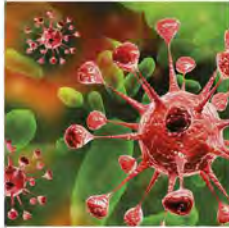




Incubator IN and IF with SingleDISPLAY
Incubator INplus and IFplus
with TwinDISPLAY
Natural convection or forced air circulation
AtmoCONTROL software

Model sizes:
30 / 55 / 75 / 110 / 160 / 260 / 450 / 750
+20 °C to +80 °C

INCUBATOR I Memmert incubators I are at home in the world of research, pharmaceuticals and food technology. 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

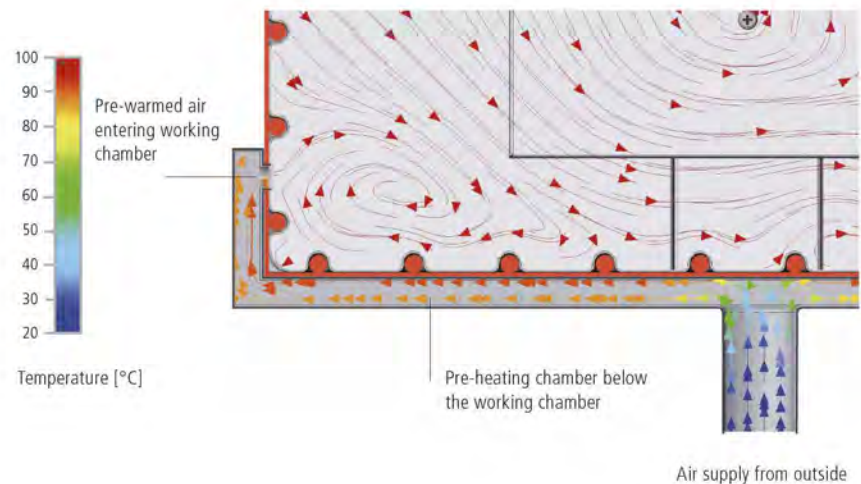
Forced air convection may destroy the protective layer from moist air that is generated during incubation over the samples. This would lead to dehydration of the culture. In a Memmert incubator, the perfect combination of all-round surface heating and temperature control system ensures that incubation 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, 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.



INCUBATORS I

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

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



Interior: Stainless steel, material 1.4301 (ASTM 304) with all-round deep-drawn ribs to integrate the large-area heating with ceramic-metal sheath

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)

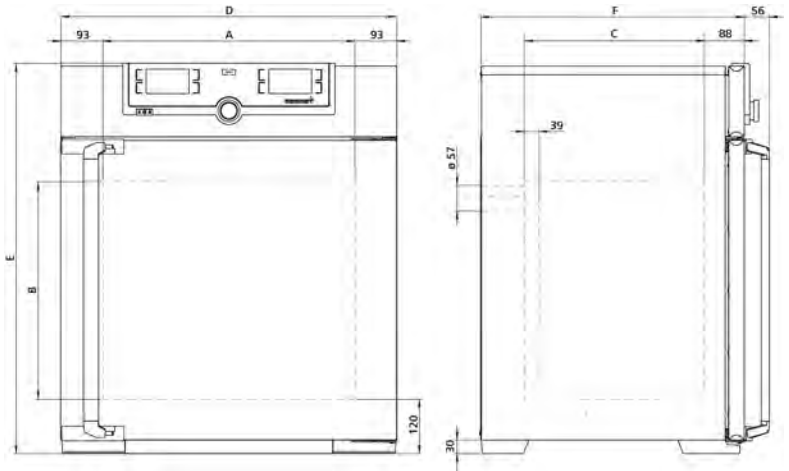
Fresh air: Admixture of pre-heated fresh air by electronically adjustable airflap

Connection: Mains cable with plug (German type)

Installation: 4 feet; sizes 450/750 mounted on lockable castors

Interfaces:  

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		560		640		1040		
	Height	(B) mm	320	400	560	480	720	800	720	1200	
	Depth (less 39 mm for fan)	(C) mm	250	330		400		500		600	
	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			
	Max. loading per slide-in drip tray	kg	1,5			3		4		8	
Max. loading per bottom drip tray	kg	1,5			3		4		8		
Textured stainless steel exterior	Width	(D) mm	585		745		824		1224		
	Height (size 450, 750 with castors)	(E) mm	704	784	944	864	1104	1183	1247	1720	
	Depth (without door handle, depth of handle +56 mm)	(F) mm	434	514		584		684		784	
Standard equipment	Stainless steel grids, electropolished	number	1			2					
	Standard works calibration certificate (measuring point chamber center)	°C	+37								
Temperature	Working temperature range	°C	at least 5 (IN/INplus) 10 (IF/IFplus) above ambient temperature up to +80								
	Setting temperature range	°C	+20 to +80								
	Setting accuracy	°C	0.1								
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	
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. mm	660	730		830		930		1330	
	Height	approx. mm	890	950	1130	1050	1300	1380	1440	1910	
	Depth	approx. mm	650	670		800		930		1050	
Order No. Incubators			IN30	IN55	IN75	IN110	IN160	IN260	IN450	IN750	
I	= Incubator		IN30plus	IN55plus	IN75plus	IN110plus	IN160plus	IN260plus	IN450plus	IN750plus	
N	= Natural convection		IF30	IF55	IF75	IF110	IF160	IF260	IF450	IF750	
F	= Forced convection		IF30plus	IF55plus	IF75plus	IF110plus	IF160plus	IF260plus	IF450plus	IF750plus	
plus	= Model with TwinDISPLAY										

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 with SingleDISPLAY								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 standard grids by reinforced grids				-				K1
Interior lighting for observing the load								R0
Interior socket (can only be ordered with limited temperature range - 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), (option A8 necessary)								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; not possible for IF/IFplus size 30-75)								F8
Entry port, 100 mm clear diameter, can be closed by flap, in special positions in the back wall (please state location; not possible for IF/IFplus size 75)		-						F9
4 - 20 mA current loop interface (0 to +90 °C = 4 - 20 mA)								V3 V6
Temperature controller, actual value of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 1 SingleDISPLAY, max. 3 TwinDISPLAY) - price per sensor								
Fan speed monitoring with switching-off the heating and with alarm in case of failure - only for IFplus								V4
Works calibration certificate for 3 temperatures: +37, +52, +70 °C								D00126
Works calibration certificate for one (freely selectable) temperature value according to customer specification								D00109
Door with lock and key (safety lock)								B6
Door hinged on the left				B8				-
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)								H6
Door-open-recognition (only for units with TwinDISPLAY)								V5
MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)								C3
Temperature restriction; Temperatures: +50, +55, +60, +65, +70 or +75 °C (Please indicate upon ordering)								A8
Fresh-air filter (filtration efficiency 80 %) mounted at the appliance bottom (for IF/IFplus, for sizes 30 – 260 requires castor frame R9 or subframe)								R8
Castor frame (2-part), height 140 mm								R9

Accessories	30	55	75	110	160	260	450	750
Stainless steel grid, electropolished	E28884	E20164		E20165		E28891	E20182	
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	
Reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber				-			B32191	
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	E02070	E02072		E02073		E29726	E02075	
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (may affect the temperature distribution, only in connection with option K1)				-			B32763	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	B04356	B04358		B04359		B29722	B04362	
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, only in connection with option K1)				-			B34055	
Wall bracket for wall mounting	B29755	B29756	B29757	B29758	B29759		-	
Guarantee extension by 1 year			GA1Q5				GA2Q5	
USB-Ethernet adapter						E06192		
Ethernet connection cable 5 m for computer interface						E06189		

Accessories	30	55	75	110	160	260	450	750
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). When reordering please specify serial number	B33172							
Set of height adjustable feet (4 pcs)	B29768						-	
Stacking set (4 pcs) for stacking of appliances of same size	B29744				-			
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), straight, for exhaust air ducting (if necessary for connection by hose)	B29718							
Plug-in tube extension (outer diam. 60.3 mm, inner 57 mm), angled, for exhaust air ducting (if necessary for connection by hose)	B29719							
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots	B29728	B29730	B29732	B29734	B29736	B29738	B29740	B29742
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots	B29729	B29731	B29733	B29735	B29737	B29739	B29741	B29743
Subframe, adjustable in height (size 30 to 75: height 600 mm, size 110 to 450: height 500 mm)	B29745	B29747		B29749		B29751	B29753	-
Subframe, on castors (size 30 to 75: height 660 mm, size 110 to 160: height 560 mm)	B29746	B29748		B29750		-		
Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter	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). Respective IQ/OQ documents available in German and English language (without surcharge)	FDAQ1							
Integration of one additional unit (up to max. 31 units) into an already existent FDA-software licence (only for units with TwinDISPLAY)	FDAQ2							
DAkkS calibration for one free-selectable temperature value according to method C (DKD-R 5-7)	E39696							
DAkkS calibration for further temperature values according to method C (DKD-R 5-7)	E39697							
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. 305 € for further temperature values	D00125	D00127						
On-site IQ/OQ for a freely selectable temperature value, including temperature distribution survey for 9 measuring points (size 30), 27 measuring points (sizes 55 - 750) to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)	DLQ100							
Extension of DLQ100 by an additional freely selectable temperature value (not subject to discount)	DLQ100A							
Individual on-site Performance Qualification (PQ)	DLQ200							
Maintenance UIS - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)	S00311							
Maintenance contract UIS - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)	S00311J							
Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)	S00205							
Calibration of an additional temperature value (not subject to discount)	S00215							

CO₂ INCUBATORS ICO

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

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



Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn, seamlessly welded

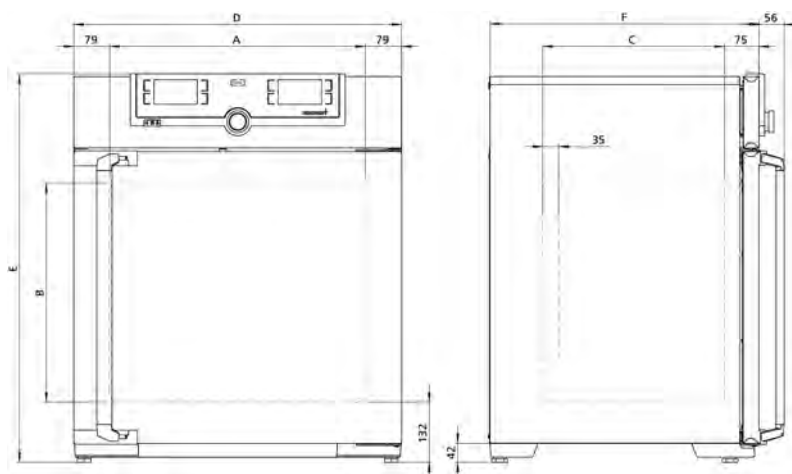
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; fully insulated stainless steel door and heated inner glass door

Automatic sterilisation: Humidity and CO₂ sensor sterilised inside the CO₂ incubator

Connection: Mains cable with plug (German type)

Installation: 4 adjustable feet

Interfaces: Ethernet LAN and USB



Model sizes/Description			50	105	150	240
Stainless steel interior	Volume	approx. l	56	107	156	241
	Width	(A) mm	400	560		600
	Height	(B) mm	425	480	700	810
	Depth (less 35 mm for fan)	(C) mm	330	400		500
	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
Textured stainless steel exterior	Width	(D) mm	559	719		759
	Height (variable through adjustable feet)	(E) mm	795	850	1070	1180
	Depth (without door handle, depth of handle +56 mm)	(F) mm	521	591		691
	Fully insulated heated stainless steel door			●		
	Additional heated inner glass door			●		
Standard equipment	Stainless steel shelves, perforated	number	1	2		
	Stainless steel water dish (not applicable with option K7)	number		1		
	Works calibration certificate (measuring point chamber centre) at +37 °C, 5 % CO ₂ for standard units			●		
	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			●		
	Works calibration certificate at +37 °C, 5 % CO ₂ and 90 % rh (requires option K7); standard equipment for units with active humidity control			●		
	CO ₂ connection set: hose with coupling and clamp			●		
	Standard sterilisation programme (without removing the sensors), humidity and CO ₂ sensor sterilised inside the CO ₂ incubator			60 minutes at 180 °C		
Membrane filter (in order to remove impurities and pollutants, all incoming gases pass through a membrane filter before they reach the chamber)			●			
Temperature	Working temperature range	°C	at least 5 above ambient temperature up to +50			
	Setting temperature range	°C	+18 to +50			
	Setting accuracy	°C	0.1			
	Temperature fluctuations with time at +37 °C	K	+/- 0.1			
	Temperature variation in chamber at +37 °C	K	+/- 0.3			
Humidity	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 %		●			
	Setting range active humidity control (with option K7)	% rh	40 to 97 and rh-Off			
	Setting accuracy	% rh	0.5			
CO ₂ / O ₂	Digital electronic CO ₂ control with dual beam NDIR system, with auto-diagnostic system and acoustic fault indication, barometric pressure compensation		●			
	Setting 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			
	Setting range O ₂	% O ₂	1 to 20			
	Setting accuracy O ₂	% O ₂	0.1			
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	1100	1300	1500	1650



CO₂-cooled incubator ICPeco
with TwinDISPLAY
AtmoCONTROL software

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

COMPRESSOR-COOLED INCUBATOR ICPeco These environmentally-friendly cooled incubators are cooled with climate-friendly CO₂. Thanks to this refrigerant's excellent thermodynamic properties and the finely adjusted control technology, an ICPeco is both powerful and high-precision. Without critical temperature overshoots, it keeps the temperatures exactly at the setpoint.



Refrigerant CO₂ is climate-friendly

A CO₂-cooled incubator ICPEco is in every respect positive for the ecological balance of a laboratory. Legal restrictions for use are completely excluded in the future, as the refrigerant CO₂ (R744), unlike fluorine-based refrigerants, has no greenhouse gas reduction potential. It is a by-product of industrial processes, which is why far less energy is used for its manufacture than for synthetic, fluorinated refrigerants. R744 is neither flammable nor toxic and does not cause ozone depletion in the atmosphere.



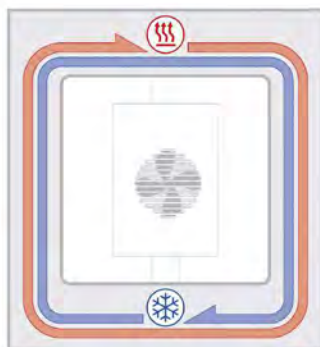
Refrigerant CO₂ ensures better cooling performance

The contribution to process optimisation is also impressive. An ICPEco is extremely powerful. Compared to appliances with R134a as refrigerant, it has faster temperature change rates during cooling-down.



Completely enclosed working chamber

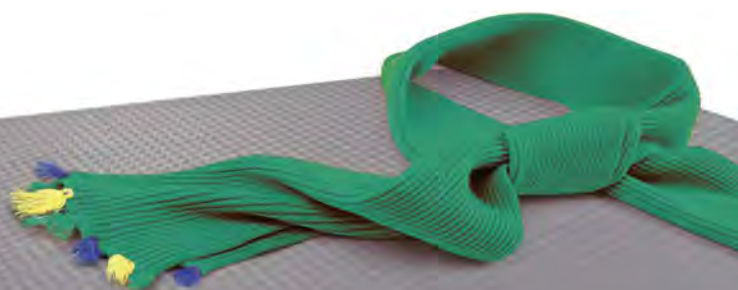
Cooling and heating units are situated outside the working chamber inside the air jacket temperature control system surrounding the entire chamber interior ensuring quick and precise temperature control. The motor-driven forced air circulation, adjustable in 10 % steps via the ControlCOCKPIT ensures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



ICP air jacket temperature control system

Integrated energy saving function

The cooling unit works extremely energy-efficient because the heating is completely switched off in cooling mode. An intelligent DEFROST function enables defrosting as required.



COMPRESSOR-COOLED INCUBATORS ICPeco

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

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

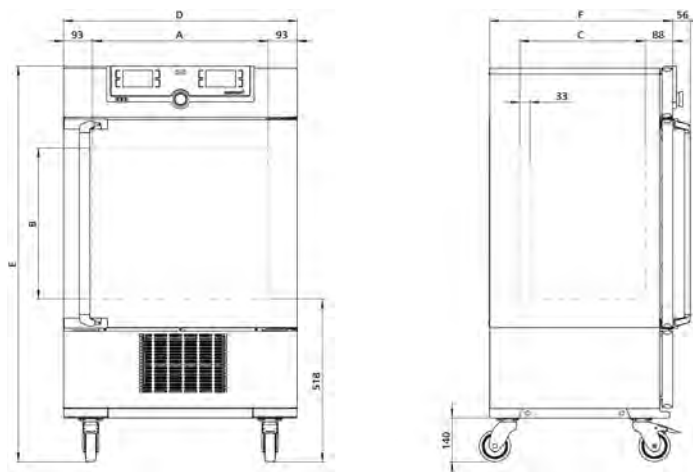


Interior: Stainless steel, material 1.4301 (ASTM 304)
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; inside glass door, outside fully insulated stainless steel door (from size 450 two leaves)

Connection: Mains cable with plug (German type)

Installation: Mounted on lockable castors

Interfaces:



Model sizes/Description			110	260	450	750
Stainless steel interior	Volume	approx. l	108	256	449	749
	Width	(A) mm	560	640	1040	
	Height	(B) mm	480	800	720	1200
	Depth (less 33 mm for fan)	(C) mm	400	500	600	
	Max. number of grids/shelves	number	5	9	8	14
	Max. loading per grid/shelf	kg	20		30	
	Max. loading of chamber	kg	150	200		
	Max. loading per slide-in drip tray	kg	3	4	8	
Max. loading per bottom drip tray	kg	3	4	8		
Textured stainless steel exterior	Width	(D) mm	745	824	1224	
	Height (with castors)	(E) mm	1233	1552	1467	1950
	Depth (without door handle, depth of handle +56 mm)	(F) mm	584	684	784	
Standard equipment	Stainless steel grids, electropolished	number	2			
	Standard works calibration certificate (measuring point chamber center)	°C	+10 and +37			
Temperature	Working temperature range (not suitable for long-term storing at sub-zero temperatures. During permanent operation, the inner glass door may ice over)	°C	-12 to +60			
	Setting temperature range	°C	-12 to +60			
	Setting accuracy	°C	0.1			
Further data	Electrical load at 230 V, 50 Hz	approx. W	1200			
Packing data	Net weight	approx. kg	118	162	222	254
	Gross weight (packed in carton)	approx. kg	146	219	287	324
	Width	approx. mm	880	930	1330	
	Height	approx. mm	1410	1760	1700	2150
	Depth	approx. mm	810	930	1050	

Order No. Compressor-Cooled Incubators

ICP110eco | ICP260eco | ICP450eco | ICP750eco

Options	110	260	450	750
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 standard grids by 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 and silicone stopper, standard positions		left centre/centre left centre/top right centre/top	F0 F1	F3
Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by silicone stopper, at the back (please state location)			F7	
4 - 20 mA current loop interface		Temperature controller, actual value (-20 to +70 °C = 4 - 20 mA)	V3	
		Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 3) - price per sensor (-20 to +70 °C = 4 - 20 mA)	V6	
Fan speed monitoring with switching off the heating and with alarm in case of failure			V4	
Works calibration certificate for 3 temperatures: 0, +37, +60 °C			D00130	
Works calibration certificate for one (freely selectable) temperature value according to customer specification			D00109	
Door with lock and key (safety lock)			B6	
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)			H6	
Door-open-recognition			V5	
MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)			C3	

Accessories	110	260	450	750
Stainless steel grid, electropolished	E20165	E28891		E20182
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	B00325	B29725		B00328
Reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber		-		B32191
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	E02073	E29726		E02075
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (may affect the temperature distribution, only in connection with option K1)		-		B32763
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	B04359	B29722		B04362
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, only in connection with option K1)		-		B34055
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			B33170	
FDA conforming software AtmoCONTROL (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. Respective IQ/OQ documents available in German and English language (without surcharge)			FDAQ1	
Integration of additional units (up to max. 31 units) into an already existent FDA-software licence			FDAQ2	
DAkkS calibration for one free-selectable temperature value according to method C (DKD-R 5-7)			E39696	
DAkkS calibration for further temperature values according to method C (DKD-R 5-7)			E39697	
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 27 measuring points to DIN 12880:2007-05. PQ check list as support for validation by customer. 305 € for further temperature values			D00127	
On-site IQ/OQ for a freely selectable temperature value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)			DLQ100	
Extension of DLQ100 by an additional freely selectable temperature value (not subject to discount)			DLQ100A	
Individual on-site Performance Qualification (PQ)			DLQ200	
Maintenance ICP/ ICPEco - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)			S00315	
Maintenance contract ICP/ ICPEco - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)			S00315J	
Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)			S00205	
Calibration of an additional temperature value (not subject to discount)			S00215	

COMPRESSOR-COOLED INCUBATORS ICP

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

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

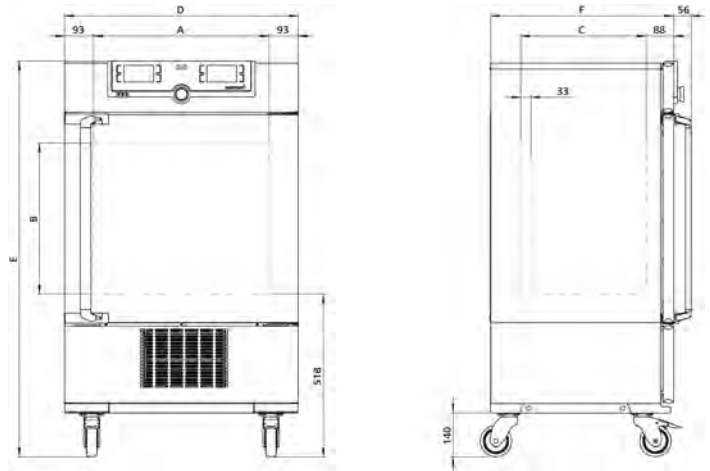
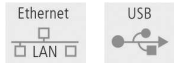


Interior: Stainless steel, material 1.4301 (ASTM 304)
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated TwinDISPLAY (TFT colour display) with touchscreen; inside glass door, outside fully insulated stainless steel door (from size 450 two leaves)

Connection: Mains cable with plug (German type)

Installation: Mounted on lockable castors

Interfaces:



Model sizes/Description			110	260	450	750
Stainless steel interior	Volume	approx. l	108	256	449	749
	Width	(A) mm	560	640	1040	
	Height	(B) mm	480	800	720	1200
	Depth (less 33 mm for fan)	(C) mm	400	500	600	
	Max. number of grids/shelves	number	5	9	8	14
	Max. loading per grid/shelf	kg	20		30	
	Max. loading of chamber	kg	150	200		
	Max. loading per slide-in drip tray	kg	3	4	8	
Max. loading per bottom drip tray	kg	3	4	8		
Textured stainless steel exterior	Width	(D) mm	745	824	1224	
	Height (with castors)	(E) mm	1233	1552	1467	1950
	Depth (without door handle, depth of handle +56 mm)	(F) mm	584	684	784	
Standard equipment	Stainless steel grids, electropolished	number	2			
	Standard works calibration certificate (measuring point chamber center)	°C	+10 and +37			
Temperature	Working temperature range (not suitable for long-term storing at sub-zero temperatures. During permanent operation, the inner glass door may ice over)	°C	-12 to +60			
	Setting temperature range	°C	-12 to +60			
	Setting accuracy	°C	0.1			
Further data	Electrical load at 230/115 V, 50/60 Hz	approx. W	1200			
Packing data	Net weight	approx. kg	113	157	217	249
	Gross weight (packed in carton)	approx. kg	141	214	282	319
	Width	approx. mm	880	930	1330	
	Height	approx. mm	1410	1760	1700	2150
	Depth	approx. mm	810	930	1050	
Order No. Compressor-Cooled Incubators			ICP110	ICP260	ICP450	ICP750

Options	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 standard grids by 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 and silicone stopper, standard positions			F0 F1	F3
Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by silicone stopper, at the back (please state location)			F7	
4 - 20 mA current loop interface		4 - 20 mA current loop interface (-20 to +70 °C = 4 to 20 mA)	V3	
		Temperature of a Pt100 sensor positioned flexibly in chamber for external temperature monitoring (max. 3) - price per sensor (-20 to +70 °C = 4 - 20 mA)	V6	
Fan speed monitoring with switching off the heating and with alarm in case of failure			V4	
Works calibration certificate for 3 temperatures: 0, +37, +60 °C			D00130	
Works calibration certificate for one (freely selectable) temperature value according to customer specification			D00109	
Door with lock and key (safety lock)			B6	
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)			H6	
Door-open-recognition			V5	
MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)			C3	

Accessories	110	260	450	750
Stainless steel grid, electropolished	E20165	E28891		E20182
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	B00325	B29725		B00328
Reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber		-		B32191
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	E02073	E29726		E02075
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (may affect the temperature distribution, only in connection with option K1)		-		B32763
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	B04359	B29722		B04362
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, only in connection with option K1)		-		B34055
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			B33170	
FDA conforming software AtmoCONTROL (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. Respective IQ/OQ documents available in German and English language (without surcharge)			FDAQ1	
Integration of additional units (up to max. 31 units) into an already existent FDA-software licence			FDAQ2	
DAkkS calibration for one free-selectable temperature value according to method C (DKD-R 5-7)			E39696	
DAkkS calibration for further temperature values according to method C (DKD-R 5-7)			E39697	
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 27 measuring points to DIN 12880:2007-05. PQ check list as support for validation by customer. 305 € for further temperature values			D00127	
On-site IQ/OQ for a freely selectable temperature value, including temperature distribution survey for 27 measuring points to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)			DLQ100	
Extension of DLQ100 by an additional freely selectable temperature value (not subject to discount)			DLQ100A	
Individual on-site Performance Qualification (PQ)			DLQ200	
Maintenance ICP/ ICPEco - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)			S00315	
Maintenance contract ICP/ ICPEco - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)			S00315J	
Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)			S00205	
Calibration of an additional temperature value (not subject to discount)			S00215	



Peltier-cooled incubator IPPeco
with SingleDISPLAY
Peltier-cooled incubator IPPecoplus
with TwinDISPLAY
with Advanced Peltier Technology
AtmoCONTROL software

Model sizes:

IPP: 30 / 55

IPPeco: 110 / 260 / 410 / 750 / 1060

0 °C to +70 °C

Model sizes:

IPPeco: 1400 / 2200

+15 °C to +60 °C

PELTIER-COOLED INCUBATOR IPPeco Heating and cooling seamlessly with one system thanks to Peltier technology. In this respect, cooled incubators IPPeco 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.



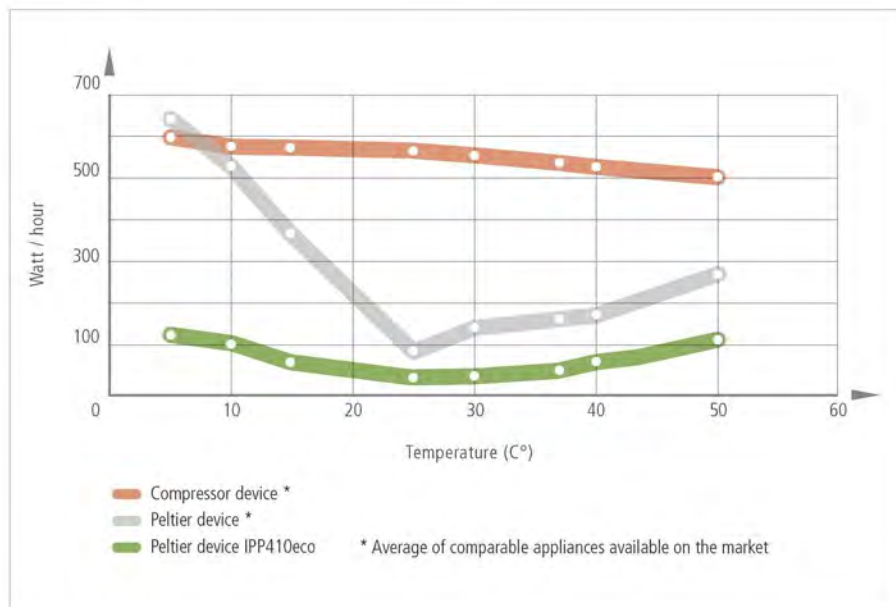
Smooth running

The fact that no compressor is required saves space and brings peace and quiet to the laboratory. As Peltier-cooled incubators IPPeco 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 HPPeco, which is also equipped with the Advanced 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 absolutely homogenous distribution of temperature.

Despite the significantly reduced energy consumption, the IPPeco's performance is impressive. Heating up, cooling down and recovering after opening the door occur fine-tuned and yet at top speed.



PELTIER-COOLED INCUBATORS IPPeco

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

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



Interior: Stainless steel, material 1.4301 (ASTM 304), deep-drawn

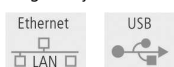
Housing: Textured stainless steel, rear zinc-plated steel, intuitively operated SingleDISPLAY or TwinDISPLAY (TFT colour display) with touchscreen

Double doors: Outside stainless steel, fully insulated, inside glass (size 1400/2200 stainless steel doors with glass sector, fully heated inner glass panes integrated in the full-sight glass door with 2-point locking – compression door lock). Sizes 750, 1060 and 1400 two leaves, size 2200 three leaves

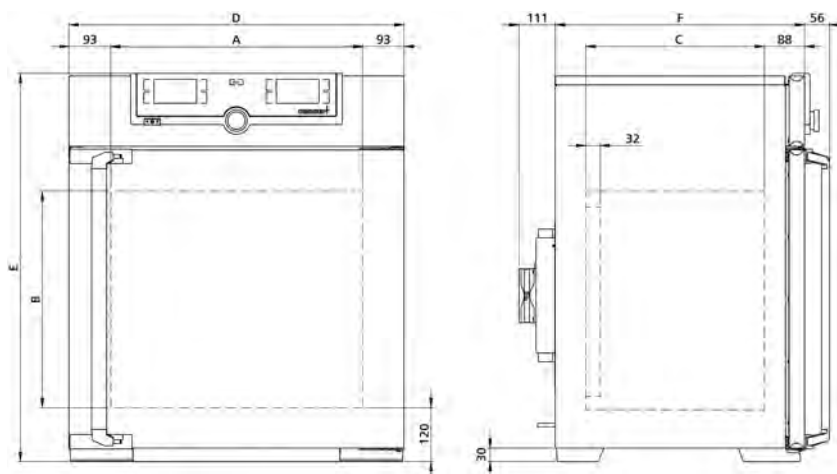
Connection: Mains cable with plug (German type)

Installation: 4 feet; sizes 410, 750 and 1060 mounted on lockable castors, 1400 and 2200 mounted on height-adjustable and lockable castors

Interfaces:



USB: only for TwinDISPLAY



Model sizes/Description			30	55	110	260	410	750	1060	1400	2200
Stainless steel interior	Volume	approx. l	32	53	108	256	384	749	1060	1360	2140
	Width	(A) mm	400		560	640		1040		1250	1972
	Height	(B) mm	320	400	480	800	1200		1450		
	Depth (less 10 mm (sizes 30 and 55), less 32 mm (sizes 110 to 2200) for fan – Peltier)	(C) mm	250	330	400	500		600	850	750	
	Max. number of grids/shelves	number	3	4	5	9	14		28	42	
	Max. loading per grid/shelf	kg	20			30		20		30	
	Max. loading of chamber	kg	60	80	150	200		250	330		
	Max. loading per slide-in drip tray	kg	1,5		3	4		8		-	
Max. loading per bottom drip tray	kg	1,5		3	4		8		-		
Textured stainless steel exterior	Width	(D) mm	585		745	824		1224		1435	2157
	Height (sizes 410, 750, 1060 with castors)	(E) mm	704	784	864	1183	1720		1913		
	Depth (without door handle, depth of handle +56 mm)	(F) mm	434	514	555	655		755	1005	905	
Standard equipment	Stainless steel grids, electropolished	number	1		2		4		6		
	Standard works calibration certificate (measuring point chamber center)	°C	+10 and +37						+25 and +40		
Temperature	Working temperature range without light	°C	0 (at least 20 below ambient temperature) to +70							+15 (at least 10 below ambient temperature) to +60	
	Working temperature range with light	°C	-		+10 to +40				-		
	Setting temperature range	°C	0 to +70							+15 to +60	
	Setting accuracy	°C	0.1								
Further data	Electrical load at 230 V, 50/60 Hz	approx. W	140	275	320	600		1200		1800	
	Electrical load at 115 V, 50/60 Hz	approx. W	140	275	320	600		1200		-	
	Peltier elements in the rear	number	1		2		4		6		
Packing data	Net weight	approx. kg	40	52	78	114	157	230	255	450	493
	Gross weight (packed in carton)	approx. kg	56	71	103	165	210	301	419	639	730
	Width	approx. mm	660	730	830	930		1330	1370	1560	2300
	Height	approx. mm	890	950	1050	1380	1930	1910	1970	2200	
	Depth	approx. mm	650	670	800	930		1050	1300	1190	

Order No. Peltier-Cooled Incubators

IPP = Peltier-Cooled Incubators

plus = Model with TwinDISPLAY

(IPP1400eco/ IPP1400ecoplus and IPP2200eco/ IPP2200ecoplus available from Q2 2021)

IPP30	IPP55	IPP110eco	IPP260eco	IPP410eco	IPP750eco	IPP1060eco	IPP1400eco	IPP2200eco
IPP30plus	IPP55plus	IPP110ecoplus	IPP260ecoplus	IPP410ecoplus	IPP750ecoplus	IPP1060ecoplus	IPP1400ecoplus	IPP2200ecoplus

Options	30	55	110	260	410	750	1060	1400	2200
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 standard grids by reinforced grids (standard with 1060)						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 260/410/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY; not in combination with F6, F7, D8)	-				T7			-	
Light module cold white 6,500 K + warm white 2,700 K: LED light strips - 10 strips for model 110, 14 for model 260/410/750 - (6 resp. 8 alternating cold white light strips and 4 resp. 6 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; not in combination with F6, F7, D8)	-				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 260/410/750, programme-controlled dimming from 0 to 100 % (in 1 % steps), ramp programming in combination with temperature (only with TwinDISPLAY; not in combination with F6, F7, D8)	-				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 at the side, 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	F0			-
					left centre/top	F1			-
					right centre/centre	F2			-
					right centre/top	F3			-
Entry port, 23 mm clear diameter, can be closed by flap (please state location)					left	F4			
					right	F5			
					rear	F6			-
Entry port, 38 mm clear diameter, can be closed by flap, in special positions in the back wall (please state location; not in combination with T7, T8, T9)						F7			-
Entry port (silicone), 40 mm clear diameter, moisture tight, can be closed by silicone stopper, standard position rear (not in combination with T7, T8, T9)							D8		
4 - 20 mA current loop interface (-10 to +80 °C = 4 - 20 mA)							V3		
Temperature controller, actual value									
Works calibration certificate for 3 temperatures: +5, +37, +60 °C						D00129			-
Works calibration certificate for one (freely selectable) temperature value according to customer specification							D00109		
Door with lock and key (safety lock)						One lock			-
						Two locks (one each door)	B6		-
						Three locks (one each door)	-	B62	B63
Door hinged on the left				B8					-
Potential-free contact for combination error message (e.g. supply failure, sensor fault, fuse)						H6			
Process-dependent programmable door lock (only for units with TwinDISPLAY)						One	D4		-
						Two (one each door)	-	D42	-
						Three (one each door)	-	-	D43
Door-open-recognition (only for units with TwinDISPLAY)						One	V5		-
						Two (one each door)	-	V52	-
						Three (one each door)	-	-	V53
MobileALERT, notification by SMS in case of any error or alarm of the device (requires option H6)							C3		
Castor frame (2-part), height 140 mm				R9					-

Accessories	30	55	110	260	410	750	1060	1400	2200
Stainless steel grid, electropolished	E28884	E20164	E20165	E28891	E20182	B41251	B38955		
Reinforced stainless steel grid, electropolished, max. loading 60 kg; size 750 with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber		-	E29767	E29766	B32190	B32550			-
Perforated stainless steel shelf	B29727	B03916	B00325	B29725	B00328				-
Reinforced stainless steel shelf, max. loading 60 kg; with guide bars and fixing screws (requires option K1). Please consider max. loading of chamber					B32191	B32549			-
Stainless steel slide-in drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	E02070	E02072	E02073	E29726	E02075	B32599			-
Stainless steel slide-in drip tray, 15 mm rim, with guide bars and fixing screws (may affect the temperature distribution, only in connection with option K1)					B32763				-
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, not in connection with option K1)	B04356	B04358	B04359	B29722	B04362	B29769			-
Stainless steel bottom drip tray, 15 mm rim (may affect the temperature distribution, only in connection with option K1)					B34055				-

Accessories	30	55	110	260	410	750	1060	1400	2200
Guarantee extension by 1 year	GA1Q5		GA2Q5		GA4Q5				
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). When reordering please specify serial number					B33172				
Set of height adjustable feet (4 pcs)	B29768						-		
Stacking set (4 pcs) for stacking of appliances of same size	B29744						-		
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots	B29728	B29730	B29734	B29738	B42116	B29742	-		
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots	B29729	B29731	B29735	B29739	B42117	B29743	-		
Subframe, adjustable in height (size 30 and 55: height 600 mm, size 110 and 260: height 500 mm)	B29745	B29747	B29749	B29751			-		
Subframe, on castors (size 30 and 55: height 660 mm, size 110: height 560 mm)	B29746	B29748	B29750			-			
Subframe, adjustable in height, height 130 mm, for example for units with fresh air filter	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). Respective IQ/OQ documents available in German and English language (without surcharge)					FDAQ1				
Integration of one additional unit (up to max. 31 units) into an already existent FDA-software licence (only for units with TwinDISPLAY)					FDAQ2				
External measuring instrument with sensors for daylight and UV-light. Product information on demand (models IPPecoplus/ IPPplus)					B04713		-		
External measuring instrument with additional measuring head for temperature and humidity measurement. Product information on demand (models IPPecoplus/ IPPplus)					B04714				
DAkkS calibration for one free-selectable temperature value according to method C (DKD-R 5-7)					E39696				
DAkkS calibration for further temperature values according to method C (DKD-R 5-7)					E39697				
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, 2200) and 26 measuring points (size 1400) according to DIN 12880:2007-05. PQ check list as support for validation by customer. 305 € for further temperature values	D00125					D00127			
On-site IQ/OQ for a freely selectable temperature value, including temperature distribution survey for 9 measuring points (size 30), 27 measuring points (sizes 55 - 1060, 2200) and 26 measuring points (size 1400) to DIN 12880: 2007-05 (excluding travel costs, not subject to discount, GER, AT, FR only)					DLQ100				
Extension of DLQ100 by an additional freely selectable temperature value (not subject to discount)					DLQ100A				
Individual on-site Performance Qualification (PQ)					DLQ200				
Maintenance IPP/ IPPeco - carrying out and documentation according to Memmert maintenance plan (excluding travel costs, not subject to discount, GER, AT, FR only)					S00317				
Maintenance contract IPP/ IPPeco - carrying out and documentation according to Memmert maintenance plan, minimum duration 3 years (excluding travel costs, not subject to discount, GER, AT, FR only)					S00317J				
Calibration of one freely selectable temperature value (excluding travel costs, not subject to discount, GER, AT, FR only)					S00205				
Calibration of an additional temperature value (not subject to discount)					S00215				