CO_2-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 CO_2. 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 CO_2 is climate-friendly

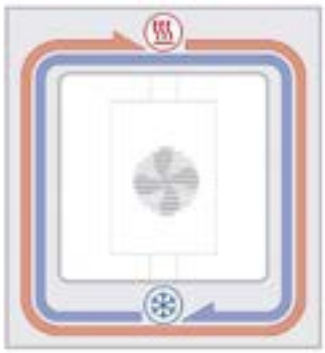
A CO_2-cooled incubator ICPeco is in every respect positive for the ecological balance of a laboratory. Legal restrictions for use are completely excluded in the future, as the refrigerant CO_2 (R744), unlike fluorine-based refrigerants, has no greenhouse gas reduction potential. It is a by-product of 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 CO_2 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

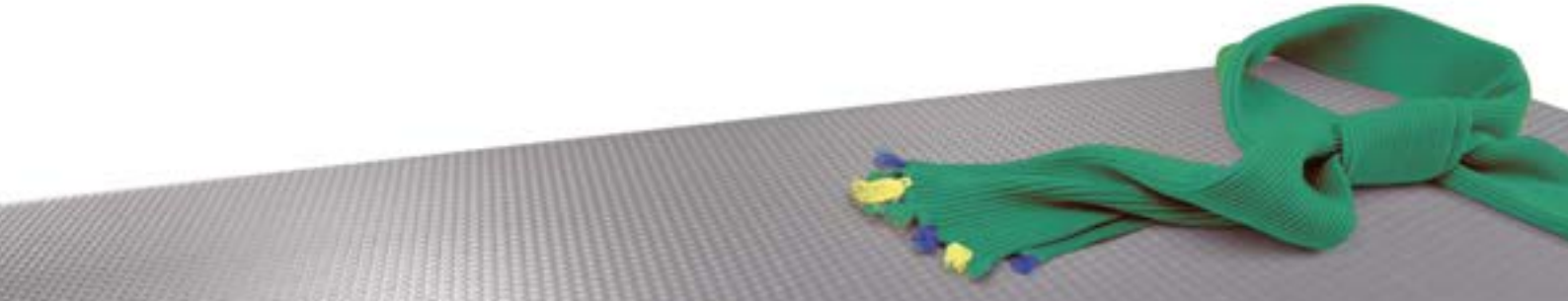
Cooling and heating units are situated outside the working chamber inside the air jacket temperature control system surrounding the entire chamber interior ensuring quick and precise temperature control. The motor-driven forced air circulation, adjustable in 10 % steps via the ControlCOCKPIT ensures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

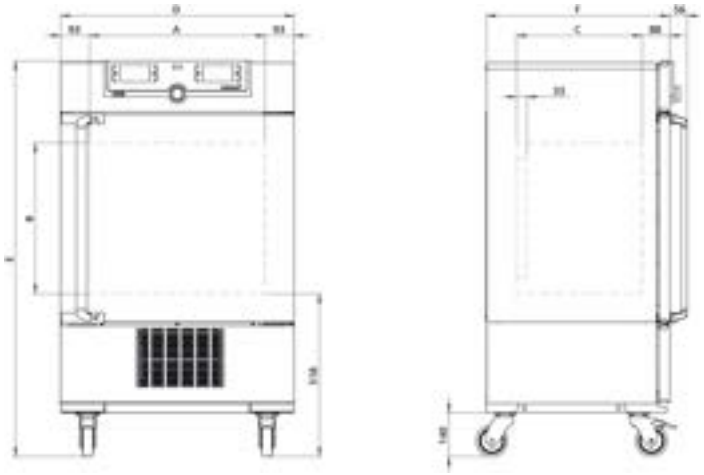
Interior: Stainless steel, material 1.4301 (ASTM 304)

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: Ethernet LAN, USB



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

Prices for options are only valid when ordering new appliances.
Not all options/accessories are combinable with each other. Please contact us for individual combination requests.

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	F0			
	left centre/top	F1			
	right centre/top	-	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			

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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.

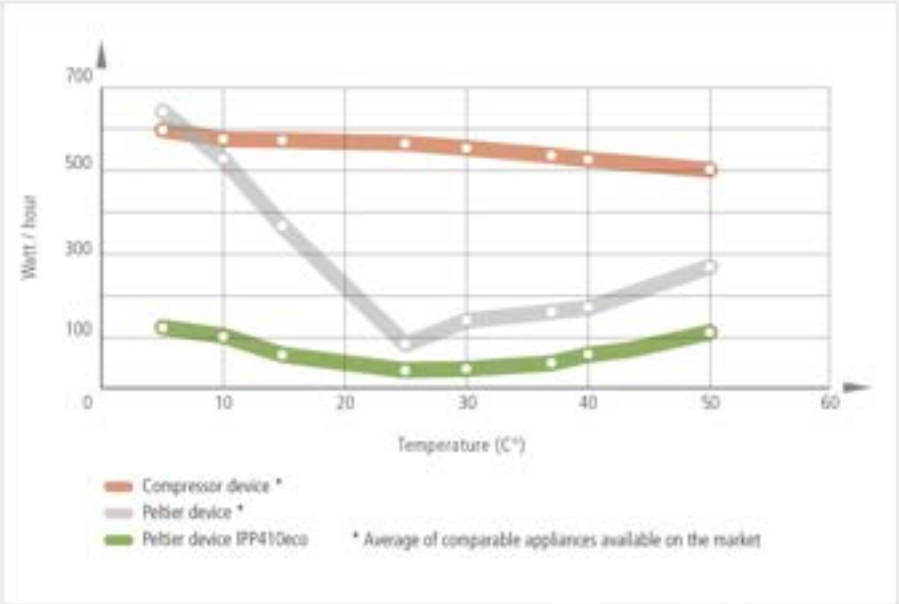
Smooth running

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 perfromance 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: CE EAC

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

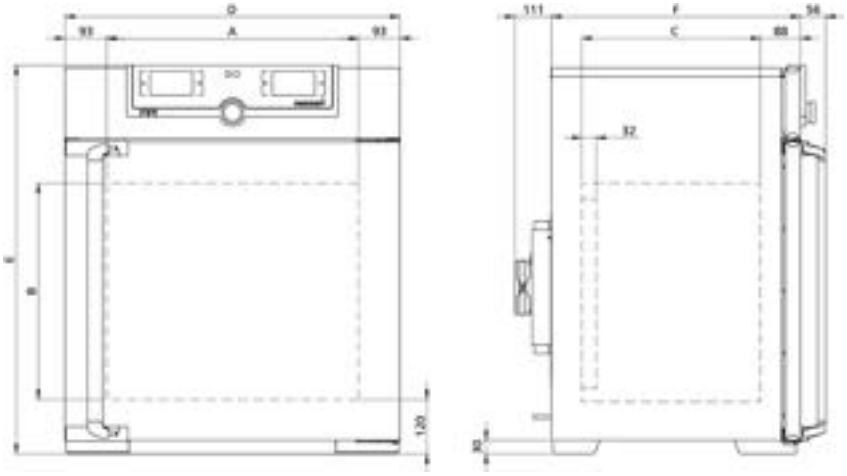
Double doors: Outside stainless steel, fully insulated, inside glass (size 1400/2200 stainless steel doors with glass sector, fully heated inner glass panes integrated in the full-sight glass door with 2-point locking – compression door lock). Sizes 750, 1060 and 1400 two leaves, size 2200 three leaves

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: Ethernet LAN, USB

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			IPP30	IPP55	IPP110eco	IPP260eco	IPP410eco	IPP750eco	IPP1060eco	IPP1400eco	IPP2200eco
IPP = Peltier-Cooled Incubators plus = Model with TwinDISPLAY (IPP1400eco/ IPP1400ecoplus and IPP2200eco/ IPP2200ecoplus available from Q2 2021)			IPP30plus	IPP55plus	IPP110ecoplus	IPP260ecoplus	IPP410ecoplus	IPP750ecoplus	IPP1060ecoplus	IPP1400ecoplus	IPP2200ecoplus

Prices for options are only valid when ordering new appliances.
Not all options/accessories are combinable with each other. Please contact us for individual combination requests.

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) — Temperature controller, actual value	V3								
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	B6							-	
Two locks (one each door)	-							B62	-
Three locks (one each door)	-								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	-		

Prices for options are only valid when ordering new appliances.
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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								

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