

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.





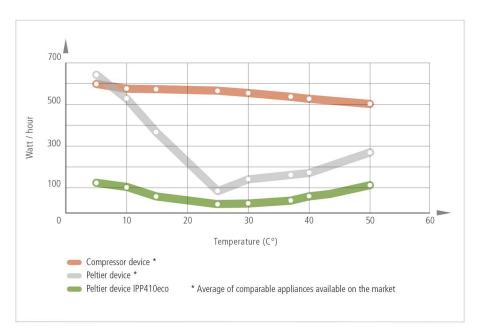
Smooth running

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.



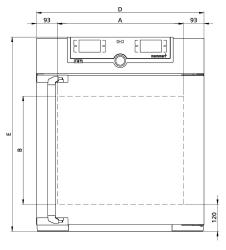


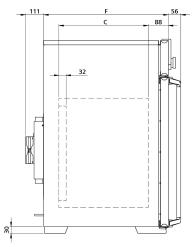
PELTIER-COOLED INCUBATORS IPPeco

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: $\mathsf{C} \in \mathsf{E}\mathsf{F}\mathsf{I}$

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 USB
	USB: only for TwinDISPLAY





Model sizes/Descri	ption			30	55	110	260	410	750	1060	1400	2200
Stainless steel Volume		a	pprox. I	32	53	108	256	384	749	1060	1360	2140
interior	Width	(A)	mm	40	00	560	6	40	10)40	1250	1972
	Height	(B)	mm	320	400	480	800		1200		14	50
	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	n	number	3	4	5	9		14		28	42
	Max. loading per grid/shelf	kg				20			30	20		0
	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	Width	(D)	mm	58	85	745	8	24	12	224	1435	2157
steel exterior	Height (sizes 410, 750, 1060 with castors)	(E)	mm	704	784	864	1183		1720		19	013
	Depth (without door handle, depth of handle +56 mm)	(F)	mm	434	514	555	6	655 755		1005	9	05
Standard equipment	Stainless steel grids, electropolished	n	number		1			2		4	6	
	Standard works calibration certificate (measuring point °C chamber center)					+10 and +3	7	+25 and +40				
Temperature Working temperature range without light					0 (at least 20 below ambient temperature) to +70							
	Working temperature range with light		°C		-			-				
	Setting temperature range		°C		0 to +70							
	Setting accuracy		°C					0.1				
Further data	Electrical load at 230 V, 50/60 Hz	ap	prox. W	140	275	320	6	00		1200		1800
	Electrical load at 115 V, 50/60 Hz		prox. W	140	275	320	600			1200		-
	Peltier elements in the rear	n	umber		1			2		4		6
Packing data	Net weight	an	prox. kg	40	52	78	114	157	230	255	450	493
·	Gross weight (packed in carton)		prox. kg	56	71	103	165	210	301	419	639	730
	Width		prox. mm	660	730	830	9	30	1330	1370	1560	2300
	Height		prox. mm	890	950	1050	1380	1930	1910	1970	22	200
Depth approx. mm			650	670 800 930 1050 1310					1190			
Order No. Peltier-Cooled Incubators			IPP30	IPP55	IPP110eco	IPP260eco	IPP410eco		IPP1060eco	IPP1400eco	IPP2200eco	
IPP = Pe plus = Mo	ltier-Cooled Incubators odel with TwinDISPLAY 100ecoplus and IPP2200eco/ IPP220	0ecopl	us	IPP30plus				IPP410ecoplus				

Options		30	55	110	26	i0 41	10	750	1060	1400	2200
Chamber modification for the applica stainless steel shelves or stainless ste in the working chamber) - includes re reinforced grids (standard with 1060)	el grids (bearing rails mounted placement of standard grids by		- K1					-			
Light module cold white 6,500 K: ligh walls of the interior, 10 strips for mod 260/410/750, programme-controlled % steps), ramp programming in comb with TwinDISPLAY; not in combination	lel 110, 14 for model d dimming from 0 to 100 % (in 1 pination with temperature (only	-		Т7					-		
Light module cold white 6,500 K + w. strips - 10 strips for model 110, 14 for 8 alternating cold white light strips ar strips) on the side walls of the interior dimming from 0 to 100 % (in 1 % step combination with temperature (only w combination with F6, F7, D8)	r model 260/410/750 - (6 resp. nd 4 resp. 6 warm white light r, programme-controlled ps), ramp programming in	-				T8			-		
Light module warm white 2,700 K: lig walls of the interior, 10 strips for mod 260/410/750, programme-controlled % steps), ramp programming in comb with TwinDISPLAY; not in combinatior	el 110, 14 for model I dimming from 0 to 100 % (in 1 Dination with temperature (only	-				Т9				-	
Interior socket, ampacity 230 V/2.2 A On/Off switch, cannot be switched in	, can be switched off with the dividually, moisture tight IP68				R	3				-	
Entry port, 23 mm clear diameter, for introducing connections at the side, can be closed by flap, standard positions (FO and F2 not for model size 260 with light module; FO - 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, can be closed by flap (please state location)	left right rear		F4 F5 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 diar closed by silicone stopper, standard p with T7, T8, T9)			D8								
4 - 20 mA current loop interface (-10 to +80 $^{\circ}$ C = 4 - 20 mA)	Temperature controller, actual value					V	3				
Works calibration certificate for 3 tem					D00	129				-	-
Works calibration certificate for one (f value according to customer specifica			D00109								
Door with lock and key (safety lock)	One lock Two locks (one each door) Three locks (one each door)				B6 -	5 -				B62	- B63
Door hinged on the left				B8					-		
Potential-free contact for combination failure, sensor fault, fuse)	n error message (e.g. supply					Н	6				
Process-dependent programmable door lock (only for units with TwinDISPLAY)	One Two (one each door) Three (one each door)		D4 -						D42	- D43	
Door-open-recognition (only for units with TwinDISPLAY)	One Two (one each door) Three (one each door)		V5 -					V52	- V53		
MobileALERT, notification by SMS in c device (requires option H6)	ase of any error or alarm of the	C3									
Castor frame (2-part), height 140 mm	1			R9					-		
Accessories			30	55	110	260	410	750	1060	1400	2200
Stainless steel grid electropolished		F	28884	E20164	F20165	F288	201	F20182	B41251	020	8955

Accessories	30	55	110	260	410	750	1060	1400	2200																														
Stainless steel grid, electropolished	E28884	E20164	E20165	E28891		E20182	B41251	B38	955																														
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		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		E29766		B32190	B32550 -		
Perforated stainless steel shelf	B29727	B03916	B00325	B29	725	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	E29	726	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	B29	722	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		0,1100			E06192			0,1100	
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)		B29	9768				-		
Stacking set (4 pcs) for stacking of appliances of same size		B29744	Ì				-		
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), with air slots	B29728	B29730	B29734	B29738	B42116	B29	742	-	
Flush-fit unit (stainless steel frame covering gap between oven and wall opening), without air slots	B29729	B29731	B29735	B29739	B42117	B29	0743	-	
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 (size 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				