



--- COOLING INCUBATORS

Cooling incubators

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BINDER offers a versatile range of cooling incubators for precise and homogeneous temperature control. The KB series (0 °C to +70 °C) is ideal for the incubation of microorganisms, while the powerful KB PRO series (-20 °C to +100 °C) covers a wide range of applications. The environmentally friendly KT and KB ECO series use Peltier technology and are climate-neutral. Thanks to innovative APT.line preheating technology, the temperature distribution always remains optimal - even when fully loaded.

ADVANTAGES AT A GLANCE



SAFE AND POWERFUL

Convenient decontamination of the high-quality stainless-steel interior using hot air at 100 °C. KB PRO with a wide temperature range from -20 °C to +100 °C for demanding tests.



UNLIMITED FLEXIBILITY

Wide range of applications thanks to large product portfolio with compressor or Peltier units, as table-top or floor-standing units up to 1600 L. The cooling incubators can be individually adapted to requirements with a wide range of accessories.



MODULARITY THAT GROWS WITH YOU

KB, KB PRO

Modular equipment options, such as light modules, can be retrofitted at any time. Light modules turn the KB PRO cooling incubator into a photostability test chamber or plant growth chamber.



NEW STANDARDS IN ENERGY EFFICIENCY

Exemplary environmental friendliness thanks to maximum energy efficiency and avoidance of climate-damaging refrigerants.

Series KT | with Peltier technology

The KT series combines outstanding performance with impressive energy efficiency and environmental friendliness. The cooled incubators of the KT series are state-of-the-art in application and protect the samples.



Model 115

BENEFITS

- Safe and reproducible incubation conditions even at high environmental conditions
- Hot air disinfection at 100°C
- Energy efficient, environmentally friendly and secure

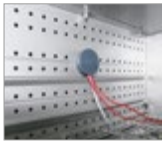



IMPORTANT CHARACTERISTICS

- Temperature range: +4 °C to +100 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Electric cooling with Peltier module
- Controller with time-segment and real-time programming
- Display via LCD monitor
- Input via pushbutton/rotary knob
- Inner door made of tempered safety glass
- 2 stainless steel racks
- Stackable
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Data recording and USB interface

AVAILABLE SIZES

Designation	Interior volume	Kurz-URL
KT 53	52	› go2binder.com/en-KT53
KT 115	102	› go2binder.com/en-KT115
KT 170	163	› go2binder.com/en-KT170

OPTIONAL EQUIPMENT

Access port with sili-cone plug	For introducing external measuring instruments. Large selection of different diameters and positions (left, right, or top)	
Door lock	Lockable door handle prevents unauthorized access.	
Services	You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us. More information is available in the accessories and services chapter.	
BINDER Customized Solutions	Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty.	

► Alle Extras Online go2binder.com/de-Optionen

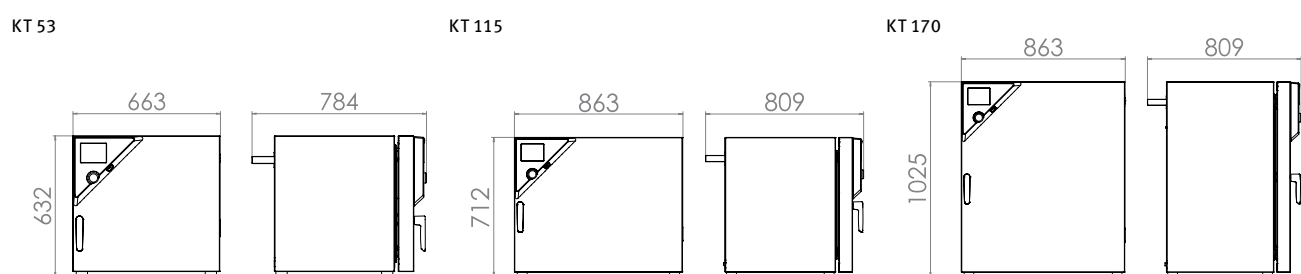
TECHNICAL DATA

Data			
Designation	KT 53	KT 115	KT 170
Option model	Standard	Standard	Standard
Performance Data Temperature			
Temperature range	4...100 °C	4...100 °C	4...100 °C
Temperature uniformity at 37°C	0.3 ± K	0.3 ± K	0.4 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K	0.1 ± K
Max. heat compensation at 40°C	100 W	100 W	100 W
Recovery time after door was opened for 30 s at 37°C	2 min	3 min	3 min
Electrical data			
Nominal power	1,1 kW	0,7 kW	0,8 kW
Unit fuse	10,0 A	10,0 A	10,0 A
Phase (Nominal voltage)	1~	1~	1~
Dimensions and weights			
Interior volume	52 L	102 L	163 L
Net weight of the unit (empty)	63 kg	83 kg	102 kg
Load per rack	15 kg	30 kg	30 kg
Permitted load	40 kg	100 kg	120 kg
Wall clearance back	100 mm	100 mm	100 mm
Wall clearance sidewise	240 mm	240 mm	240 mm
Housing dimensions not incl. fittings and connections			
Width net	660 mm	860 mm	860 mm
Height net	635 mm	715 mm	1,025 mm
Depth net	630 mm	655 mm	655 mm
Internal Dimensions			
Interior width	400 mm	600 mm	600 mm
Interior height	400 mm	455 mm	765 mm
Interior depth	334 mm	355 mm	355 mm
Inner doors	1	1	1
Unit doors	1	1	1
Environment-specific data			
Sound-pressure level			48 dB(A)
Energy consumption at 37°C	75 Wh/h	75 Wh/h	80 Wh/h
Fixtures			
Number of shelves (std./max.)	2/5	2/6	2/10

ORDERING INFORMATION

Interior volume [L]	Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
Model KT 53					
53	100...120 V 1~ 50/60 Hz -10,0 A	NEMA 5-20	Standard	KT053UL-120V	9020-0312
	200...240 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	KT053-230V	9020-0311
Model KT 115					
102	100...120 V 1~ 50/60 Hz -10,0 A	NEMA 5-20	Standard	KT115UL-120V	9020-0314
	200...240 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	KT115-230V	9020-0313
Model KT 170					
163	100...120 V 1~ 50/60 Hz -10,0 A	NEMA 5-20	Standard	KT170UL-120V	9020-0310
	200...240 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	KT170-230V	9020-0289

DIMENSIONS AND WEIGHTS



OPTIONS

Designation	Description	KT 53	KT 115	KT 170	*	Art.-No.
Access port with silicone plug	left					
	10 mm	•	•	•	01	8012-1290
	30 mm	•	•	•	01	8012-1158
	50 mm	•	•	•	01	8012-1165
	right					
	10 mm	•	•	•	01	8012-1289
	30 mm	•	•	•	01	8012-1155
	50 mm	•	•	•	01	8012-1163
	top					
	10 mm	•	•	•	01	8012-1288
	30 mm	•	•	•	01	8012-1152
	50 mm	•	•	•	01	8012-1161
	100 mm	•	•	•	01	8012-1168
Alarm output, zero-voltage	for temperature (± 2 °C), accessible via 6-pin DIN socket (max. 24 V - 2.5 A), with audible signal that can be switched off	•	–	–	–	8012-0982
		–	•	–	–	8012-1001
		–	–	•	–	8012-1002
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	•	•	–	8012-1122

Designation	Description	KT 53	KT 115	KT 170	*	Art.-No.
Calibration certificate, temperature	for temperature, measurement in center of chamber at specified temperature	•	•	•	-	8012-1141
	temperature measurement incl. certificate, 9 measuring points at specified temperature	•	•	•	-	8012-1558
	temperature measurement incl. certificate, 15- 18 measuring points at specified temperature	•	•	•	-	8012-1579
	temperature measurement incl. certificate and 27 measuring points at specified temperature	•	•	•	-	8012-1600
Door lock	lockable door handle	•	•	•	-	8012-1668
Pt 100 temperature sensor	additional flexible Pt 100, interior, for displaying the temperature on the unit display	•	–	–	-	8012-0935
		–	•	–	-	8012-0993
		–	–	•	-	8012-0994
Shelf, reinforced	positioned at bottom level, max. load 45 kg, with additional attachment for operation of shaking device, stirring device or roller bottle system	•	–	–	-	8012-0818
		–	•	•	-	8012-0817

ACCESSORIES

Designation	Description	KT 53	KT 115	KT 170	*	Art.-No.
APT-COM™ 4 BASIC-Edition	for simple logging and documentation requirements with up to 5 networked units.					
	version 4, BASIC edition	•	•	•	-	9053-0039
APT-COM™ 4 GLP-Edition	for working under GLP-compliant conditions. Measured values are documented in a tamper-proof way in line with the requirements of FDA Regulation 21 CFR 11.					
	version 4, GLP edition	•	•	•	-	9053-0042
APT-COM™ 4 PROFESSIONAL-Edition	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.					
	version 4, PROFESSIONAL edition	•	•	•	-	9053-0040
LED light bars	Basic set consisting of 2 pieces, attachment material, control unit for max. 4 light strips, 100-240 V, 50/60 Hz					
	Basic set 300, length 30 cm	•	•	•	-	8012-1107
	Basic set 500, length 50 cm	–	•	•	-	8012-1108
	Expansion set consisting of 2 pieces, attachment material: clips. For expanding the basic set of light bars					
	Expansion set 300, length 30 cm	•	•	•	-	8012-1716
	Expansion set 500, length 50 cm	–	•	•	-	8012-1717
pH-neutral detergent	concentrated, for gentle remove of residual contaminants; 1 kg	•	•	•	-	8012-2250
Qualification documents	IQ/OQ/PQ documents – supporting documents for validation performed by customers, according to customer requirements, PQ section added to qualification folder IQ/OQ; parameters: temperature, CO ₂ , O ₂ – or pressure, depending on unit					
	Digital in PDF format	•	•	•	-	7057-0005
	Hard copy inside folder	•	•	•	-	7007-0005
	IQ/OQ documents – supporting documents for validation performed by customers, consisting of: IQ/OQ checklists incl. calibration guide and comprehensive unit documentation; parameters: temperature, CO ₂ , O ₂ , pressure, depending on unit					
	Digital in PDF format	•	•	•	-	7057-0001
	Hard copy inside folder	•	•	•	-	7007-0001
Rack	stainless steel	•	–	–	-	8012-2047
		–	•	•	-	8012-2049

Designation	Description	KT 53	KT 115	KT 170	*	Art.-No.
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	•	–	–	-	8012-0829
		–	•	•	-	8012-0828
Rack accessories	fasteners (1 set of 4) for additional security of racks	•	•	•	-	8012-2280
Rubber pads	set anti-slip feet	•	•	•	-	8012-2030
Shelf, perforated	Stainless steel	•	–	–	-	8012-2083
		–	•	–	-	8012-2165
Table on castors	stable cart, casters with locking brakes, dimensions: W 1,000 x D 800 x H 780 mm	•	•	•	-	9051-0018

SERVICES

Designation	Description	*	Art.-No.
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	-	DL50-0010
BRONZE 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts	-	DL20-0720
Calibration certificate, temperature	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate	-	DL30-0135
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate	-	DL30-0102
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder	-	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder	-	DL44-0500
GOLD 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, replacement of wear parts, calibration of one test temperature specified by the user in the center of the usable space, including certificate	-	DL20-0945
Maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Calibration of a test temperature specified by the user in center of usable space without certificate	-	DL20-0604
SILVER 3-year maintenance contract	Maintenance service as contractually agreed, visual inspection of mechanical and electrical components, check of control response, 20% discount on spare parts, testing of all key functions, calibration of one test temperature specified by the user in the center of the usable space, without certificate	-	DL20-0845
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate	-	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate	-	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate	-	DL30-0127
Unit commissioning	Connect the unit to the customer-side connections (electricity, water, wastewater, gas), basic functions check, brief operating instructions. (excl.: unpacking, setup, controller instructions, programming, installation work)	-	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming	05	DL10-0500