Model KT 53 | Refrigerated incubators with Peltier technology

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

BENEFITS

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

Model 53

IMPORTANT FEATURES

- Temperature range: 4 °C to 100 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Electric refrigeration 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
- Units up to 115 liters are stackable
- Class 3.1 independent temperature safety device (DIN 12880) with visual and audible temperature alarm
- Computer interface: Ethernet
- Data recording and USB interface

ORDERING INFORMATION

Interior volume		Power supply - unit fuse	Plug*	Version	Model version	Art.-No.
[L]	[L]					
Model KT 53						
53	53	200...240 V 1~ 50/60 Hz -10,0 A	CEE 7/7	Standard	KT053-230V	9020-0311
		100...120 V 1~ 50/60 Hz -10,0 A	NEMA 5-20	Standard	KT053UL-120V	9020-0312

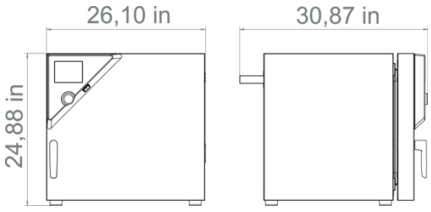
TECHNICAL DATA

Data		
Designation	KT053-230V	KT053UL-120V
Article Number	9020-0311	9020-0312
Option model	Standard	Standard
Performance Data Temperature		
Temperature range	4...100 °C	4...100 °C
Temperature uniformity at 37°C	0.3 ± K	0.3 ± K
Temperature fluctuation at 37°C	0.1 ± K	0.1 ± K
Max. heat compensation at 40°C	100 W	100 W
Recovery time after door was opened for 30 s at 37°C	2 min	2 min
Electrical data		
Rated Voltage	200...240 V	100...120 V
Power frequency	50/60 Hz	50/60 Hz
Nominal power	0,4 kW	0,4 kW
Unit fuse	10,0 A	10,0 A
Phase (Nominal voltage)	1~	1~
Dimensions and weights		
Interior volume	53 L	53 L
Net weight of the unit (empty)	63 kg	63 kg
Load per rack	15 kg	15 kg
Permitted load	40 kg	40 kg
Wall clearance back	100 mm	100 mm
Wall clearance sidewise	240 mm	240 mm
Housing dimensions not incl. fittings and connections		
Width net	660 mm	660 mm
Height net	635 mm	635 mm
Depth net	630 mm	630 mm
Internal Dimensions		
Interior width	400 mm	400 mm
Interior height	400 mm	400 mm

Interior depth	334 mm	334 mm
Inner doors	1	1
Unit doors	1	1
Environment-specific data		
Sound-pressure level	48 dB(A)	48 dB(A)
Energy consumption at 37°C	75 Wh/h	75 Wh/h
Fixtures		
Number of shelves (std./max.)	2/5	2/5

All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

DIMENSIONS Incl. fittings and connections [mm]



OPTIONS

Designation	Description	KT 53	*	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

Designation	Description	KT 53	*	Art.-No.
	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
Calibration certificate, expanded	for temperature; for extending the measurement in center of chamber to include another test temperature	•	-	8012-1122
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
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

ACCESSORIES

Designation	Description	KT 53	*	Art.-No.
APT-COM™ 4	convenient unit and user management built on the BASIC edition. Suitable for networking up to 100 units.			
	version 4, PROFESSIONAL edition	•	–	9053-0040
	for simple logging and documentation requirements with up to 5 networked units.			
	version 4, BASIC edition	•	–	9053-0039
	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
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
	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
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			

Designation	Description	KT 53	*	Art.-No.
	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
Rack, reinforced	stainless steel, with fasteners (1 set of 4)	•	-	8012-0829
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
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.
Calibration services			
Temperature calibration	Calibration of one (1) test temperature specified by the user in center of chamber, including certificate Travel to be quoted separate.	–	DL30-0135
	Extension of calibration of one (1) additional test temperature specified by the user in the center of the usable space, including certificate Travel to be quoted separate.	–	DL30-0102
Temperature measurement, 9 measuring points	Temperature measurement with 9 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required.	–	DL30-0109
Temperature measurement, 18 measuring points	Temperature measurement with 18 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 2 shelves are required.	–	DL30-0118
Temperature measurement, 27 measuring points	Temperature measurement with 27 measuring points with a set value specified by the user, including certificate. Travel to be quoted separate. A total of 3 shelves are required.	–	DL30-0127
Installation services			
Unit installation	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) Travel to be quoted as separate.	–	DL10-0100
Unit instructions	Instruction regarding operating principle and basic functions of the unit, operation of the control electronics including programming. Travel to be quoted as separate Limited to 3 hours.	–	DL10-0500
Maintenance services			

Designation	Description	*	Art.-No.
BRONZE 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate. 10% Discount on Spare Parts and Labor for any additional Services needed Wear + tear parts to be purchased or billed to customer. Travel to be quoted as separate.	–	DL20-0720
GOLD 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate of Temperature. 25% Discount on Spare Parts and Labor for any additional Services needed. One additional courtesy visit per year can be used for service visit or operator. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate.	–	DL20-0945
Preventive maintenance	One-off maintenance service in accordance with maintenance schedule. Visual inspection of mechanical and electrical components, testing of all key functions. Checking a test temperature specified by the user in center of usable space without certificate. Wear + tear parts need to be purchased or billed to customer. Travel to be quoted as separate.	–	DL20-0604
SILVER 3-year maintenance contract	Annual Device Inspection Includes Preventive Maintenance with Calibration Certificate 15% Discount on Spare Parts and Labor for any additional Services needed One additional courtesy visit per year can be used for service visit or operator training. Wear + tear parts to be purchased or billed to customer. Travel to be quoted separate.	–	DL20-0845
Validation services			
Execution of IQ/OQ	Execution of IQ/OQ in accordance with qualification folder. Travel to be quoted separate.	–	DL41-0200
Execution of IQ/OQ/PQ	Execution of IQ/OQ/PQ in accordance with qualification folder. Travel to be quoted separate.	–	DL44-0500
Warranty service			
1-year warranty extension	The warranty is extended by 1 year from the delivery date, wear parts are excluded	–	DL50-0010

NOTES

01 Condensation may occur in the area around the access port. Access ports may be placed in custom locations for an additional charge.

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