

CLIMATIC CHAMBER

(- 40 °C ...+ 180 °C)

KK-68 CHLT

KK-105 CHLT

KK-190 CHLT

KK-340 CHLT

KK-500 CHLT

KK-1000 CHLT

- Temperature and relative humidity controlled test polygon
- Material temperature & Rh resistance and product testing
 - Maintaining superior temperature & Rh stability
 - Sample conditioning prior to other tests
 - Data loggers and sensors calibration
 - World class metrology performance
 - Accelerated ageing
 - Stress tests





Fan for internal air circulation with speed control

Controller with user friendly interface, advance settings options, RS-232, (USB communication ports optionally)

2 level over temp. protection
 1. 5°C over set point heating disabled
 2. 10°C above max .tem mechanical shut off

All exterior in galvanized and powder coated steel.

Extensive heat insulation shield on all chamber sides and doors

Fully stainless steel chamber with 3 side double wall for superior air distribution

Parallel sealed with soft profile silicone seal to ensure perfect tightness

Heated observation window with illumination 370x420mm (as accessory) (On KK-68 CHLT as standard)

Access port with both end plugs Ø50 as standard (Additional access ports optionally)

Easy accessible stainless steel water tank with level switch or option with automatic water feeding

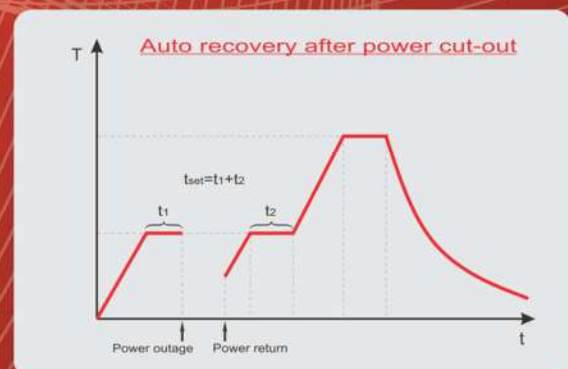
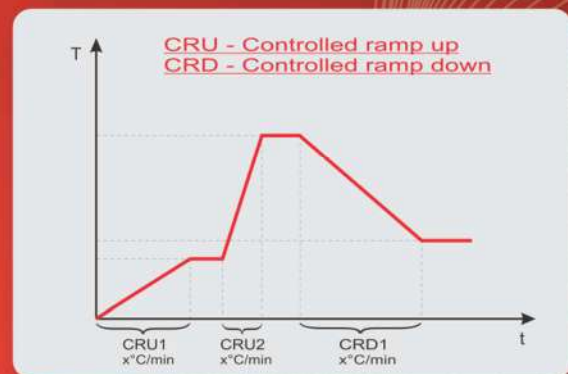
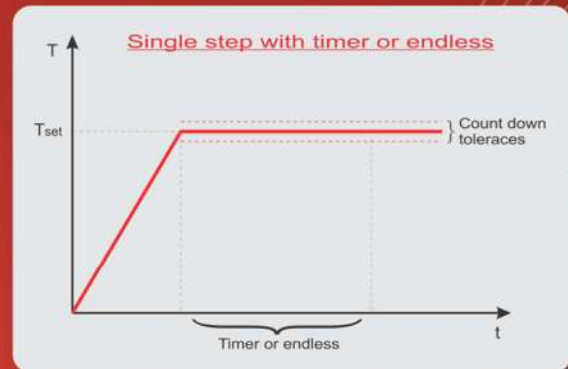
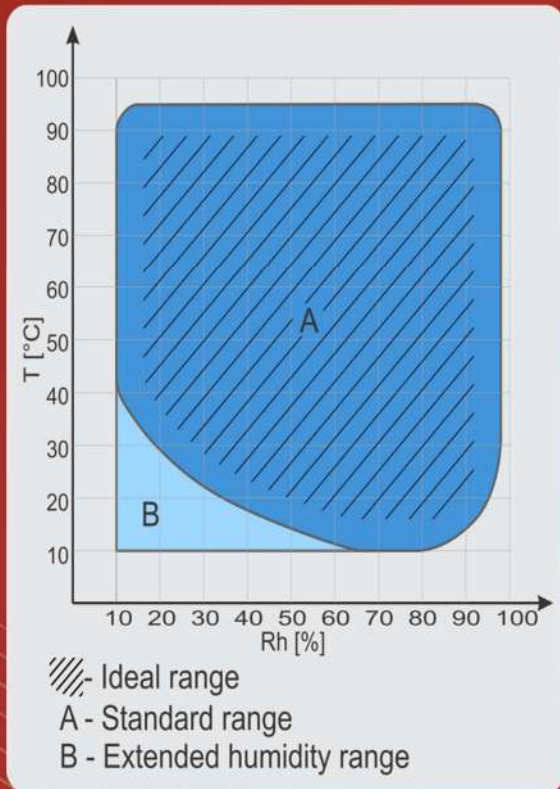
Height adjustable stainless steel wire shelves (1 wire shelf included, extra as accessory, also perforated shelves as accessory)




Heavy duty swivel wheels with brake for simple manipulation




Full 4 side maintenance access to ref. system

Heavy duty closing mechanism

Controller functions:



	KK-68 CHLT	KK-105 CHLT	KK-190 CHLT
			
External dimensions (WxHxD) in mm	650 x 1233 x 796	725 x 1560 x 845	834 x 1675 x 930
Internal dimensions (WxHxD) in mm	410 x 475 x 350	490 x 498 x 430	600 x 610 x 510
Volume (L)	~ 68	~ 105	~ 190
Temperature range (°C)	- 40 ...+ 180	- 40 ...+ 180	- 40 ...+ 180
Heat up rate (°C/min) EN 60068-3-5	4,2	2,8	1,9
Cool down rate (°C/min) EN 60068-3-5	2,0	3,5	2,2
Temperature display resolution (°C)	0.1	0.1	0.1
Temperature set resolution (°C)	0.1	0.1	0.1
Temperature stability (°C)	± 0,3 °C @ - 40°C ± 0,05 °C @ 50 °C 50 % Rh ± 0,05 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180°C	± 0,4 °C @ - 40 °C ± 0,08 °C @ 50 °C 50% Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,3 °C @ 180 °C	± 0,5 °C @ - 40 °C ± 0,08 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180 °C
Temperature uniformity (°C)	± 1,0 °C @ - 40 °C ± 0,3 °C @ 50 °C 50 % Rh ± 0,4 °C @ 90 °C 90 % Rh ± 1, 1,5°C @ 180 °C	± 1,0 °C @ - 40 °C ± 0,3 °C @ 50 °C 50 % Rh ± 0,3 °C @ 90 °C 90 % Rh ± 2,0 °C @ 180 °C	± 1,0 °C @ - 40 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh ± 1,8 °C @ 180 °C
Relative humidity range (%)	10...98	10...98	10...98
Relative humidity display resolution (%)	0.1	0.1	0.1
Relative humidity set resolution (%)	1	1	1
Relative humidity stability (%)	± 0,5 % @ 50 °C 50 % Rh ± 0,5 % @ 90 °C 90 % Rh	± 0,5 % @ 50 °C 50 % Rh ± 0,5 % @ 90 °C 90 % Rh	± 0,5 % @ 50 °C 50 % Rh ± 0,5 % @ 90 °C 90 % Rh
Temperature control	PID	PID	PID
Relative humidity control	Dew point with "Rh capacitive" sensor / dry air purge for extended	Dew point humidity control / dry air purge for extended	Dew point humidity control / dry air purge for extended
Power supply	230V 50/60Hz	230V 50/60Hz	230V 50/60Hz
Wattage (W)	3500	3200	3600
Interface	RS 232 (USB as accessory)	RS 232 (USB as accessory)	RS 232 (USB as accessory)
Shelve	1 (max 6)	1 (max 6)	1 (max 8)
Shelve capacity (kg)	25	35	35
Max capacity (kg)	40	60	80
Observation window	As standard	As accessory	As accessory
Access port (mm)	Ø 50 (left side)	Ø 50 (left side)	Ø 50 (left side)
Noise (dBA) @ 1 m distance	58	58	60
Weight (kg)	195	238	278

	KK-340 CHLT	KK-500 CHLT	KK-1000 CHLT
			
External dimensions (WxHxD) in mm	835 x 1895 x 1115	1035 x 1810 x 1270	1235 x 1930 x 1495
Internal dimensions (WxHxD) in mm	600 x 830 x 685	800 x 800 x 800	1000 x 1000 x 1000
Volume (L)	~ 340	~ 500	~ 1000
Temperature range (°C)	- 40 ...+ 180	- 40 ...+ 180	- 40 ...+ 180
Heat up rate (°C/min) EN 60068-3-5	1,5	3,3	3,0
Cool down rate (°C/min) EN 60068-3-5	2,1	1,8	1,4
Temperature display resolution (°C)	0.1	0.1	0.1
Temperature set resolution (°C)	0.1	0.1	0.1
Temperature stability (°C)	± 0,5 °C @ - 40 °C ± 0,08 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180 °C	± 0,5 °C @ - 40 °C ± 0,06 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180 °C	± 0,5 °C @ - 40 °C ± 0,05 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180 °C
Temperature uniformity (°C)	± 1,0 °C @ -40 °C ± 0,30 °C @ 50 °C 50 % Rh ± 0,40 °C @ 90 °C 90 % Rh ± 1,5 °C @ 180 °C	± 0,7 °C @ - 40 °C ± 0,3 °C @ 50 °C 50 % Rh ± 0,4 °C @ 90 °C 90 % Rh ± 1,5 °C @ 180 °C	± 0,7 °C @ - 40 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh ± 1,5 °C @ 180 °C
Relative humidity range (%)	10...98	10...98	10...98
Relative humidity display resolution (%)	0.1	0.1	0.1
Relative humidity set resolution (%)	1	1	1
Relative humidity stability (%)	± 0,5 % @ 50 °C 50 % Rh ± 0,6 % @ 90 °C 90 % Rh	± 0,5 % @ 50 °C 50 % Rh ± 0,5 % @ 90 °C 90 % Rh	± 0,5 % @ 50 °C 50 % Rh ± 0,5 % @ 90 °C 90 % Rh
Temperature control	PID	PID	PID
Relative humidity control	Dew point humidity control / dry air purge for extended	Dew point humidity control / dry air purge for extended	Dew point humidity control / dry air purge for extended
Power supply	230V 50/60Hz	3x400V 50/60Hz	3x400V 50/60Hz
Wattage (W)	3600	9000	12000
Interface	RS 232 (USB as accessory)	RS 232 (USB as accessory)	RS 232 (USB as accessory)
Shelve	1 (max 8)	1 (max 8)	1 (max 8)
Shelve capacity (kg)	35	50	50
Max capacity (kg)	100	150	200
Observation window	As accessory	As accessory	As accessory
Access port (mm)	Ø 50 (left side)	Ø 50 (left side)	Ø 50 (left side)
Noise (dBA) @ 1 m distance	60	62	65
Weight (kg)	324	435	604

Ordering information and accessories:

Description	Part no.
Climatic chamber KK-68 CHLT	2981
Climatic chamber KK-105 CHLT	937
Climatic chamber KK-190 CHLT	912
Climatic chamber KK-340 CHLT	935
Climatic chamber KK-500 CHLT	988
Climatic chamber KK-1000 CHLT	936
Shelve wire KK-68 CHLT	792
Shelve wire KK-105 CHLT	951
Shelve wire KK-190 CHLT	953
Shelve wire KK-340 CHLT	956
Shelve wire KK-500 CHLT	958
Shelve wire KK-1000 CHLT	960
Shelve perforated KK-68 CHLT	793
Shelve perforated KK-105 CHLT	952
Shelve perforated KK-190 CHLT	954
Shelve perforated KK-340 CHLT	957
Shelve perforated KK-500 CHLT	959
Shelve perforated KK-1000 CHLT	961
Access Port w. Plug Ø 50 mm right (specify position)	608
Access Port w. Plug Ø 90 mm right (specify position)	1731
Observation window with illumination 370x420mm (KK-105 CHLT, KK-190 CHLT, KK-340 CHLT, KK-500 CHLT, KK-1000 CHLT)	252
Automatic water feeding	1744
Extended Rh range via dry air purge	1758
Trolley for KK-68 CHLT	794
USB interface	1466
KK-Tool (Software Monitoring & History)	1663
Password protection	1718
Evaluation report 9 points, 3 climatic values - performed by Kambic	1719
Evaluation report 9 points, 3 climatic values - Accredited	1777

*All performance in controlled stable environment ($T_{\text{ambient}} = + 22 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$)!

*Accessories might affect performance!

