

Kambič

CLIMATIC CHAMBERS

(- 75 °C ...+ 180 °C)

Model:

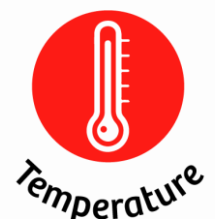
KK-190 CHULT

KK-340 CHULT

KK-500 CHULT

KK-1000 CHULT

- Temperature & 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



Device description:



Fan for internal air circulation with speed control

7" capacitive touch screen controller with user friendly interface, advance settings options, Ethernet and USB communication ports

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

Extensive heat insulation shield on all chamber sides and doors

Main switch

Access port with both end plugs Ø50 mm (On left side)

All exterior in galvanized and powder coated aluminized steel

Door sealed with double soft profile silicone seal to ensure perfect tightness

Heavy duty closing mechanism with key lock

Height Adjustable stainless steel wire shelves (1 pcs included)

Full door heated observation window with LED illumination

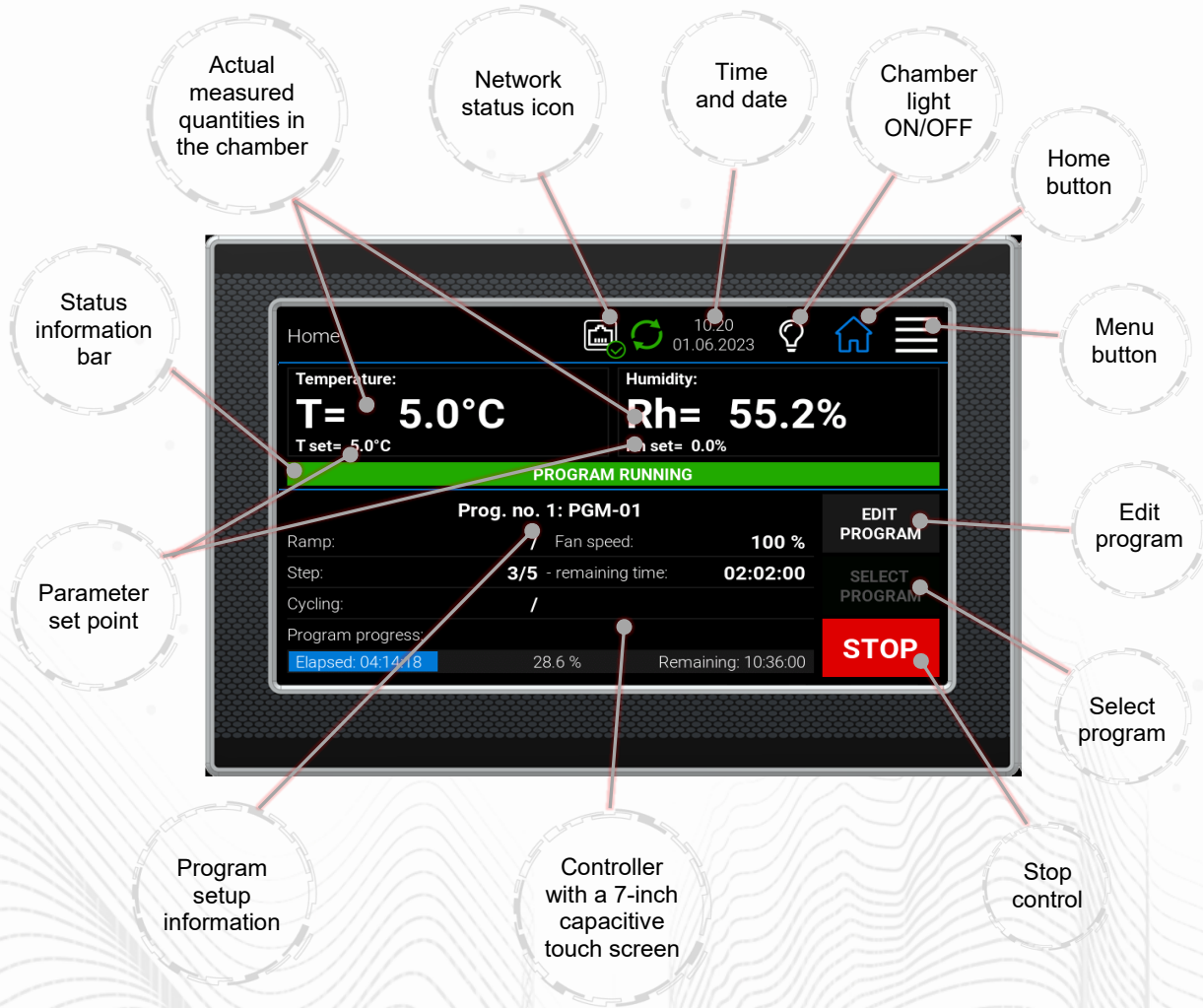
Heavy duty swivel wheels with brake for simple manipulation

Full 4 side maintenance access to ref. system

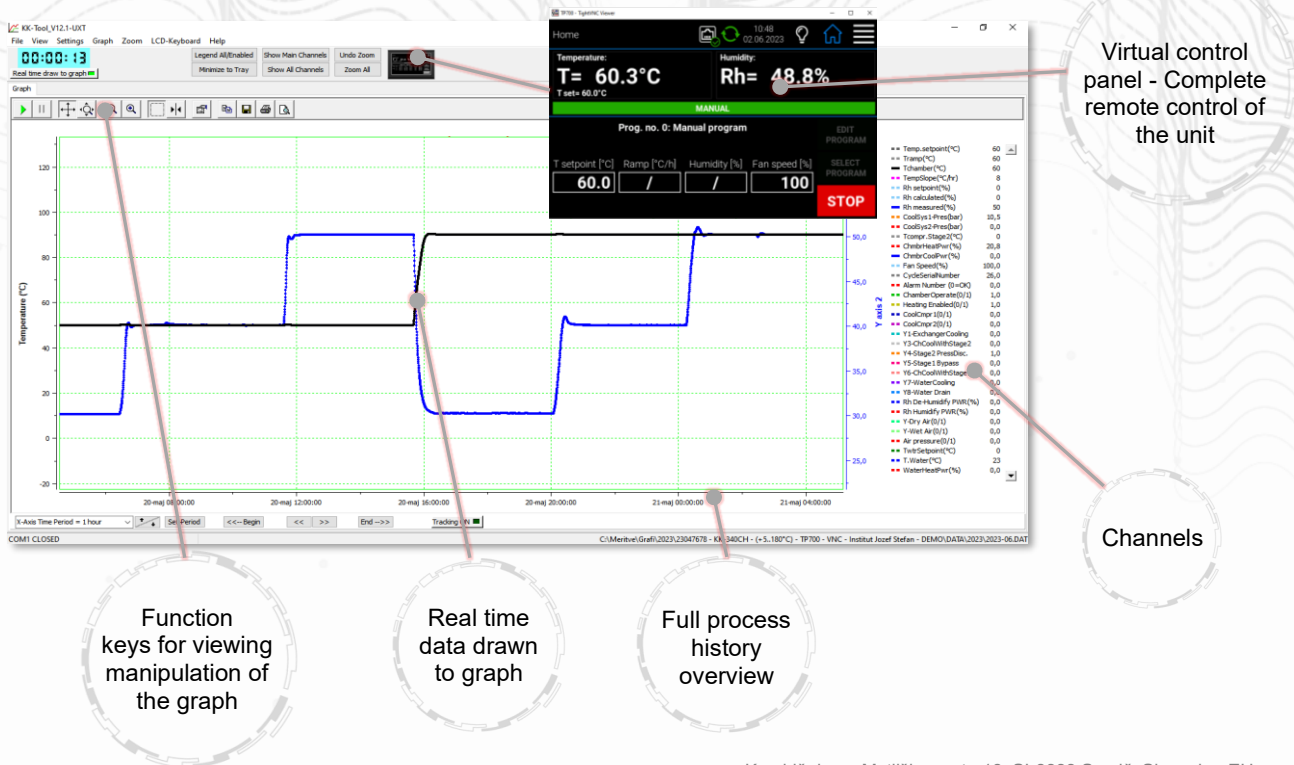
Fully stainless-steel interior chamber

Easily accessible water tank with level switch

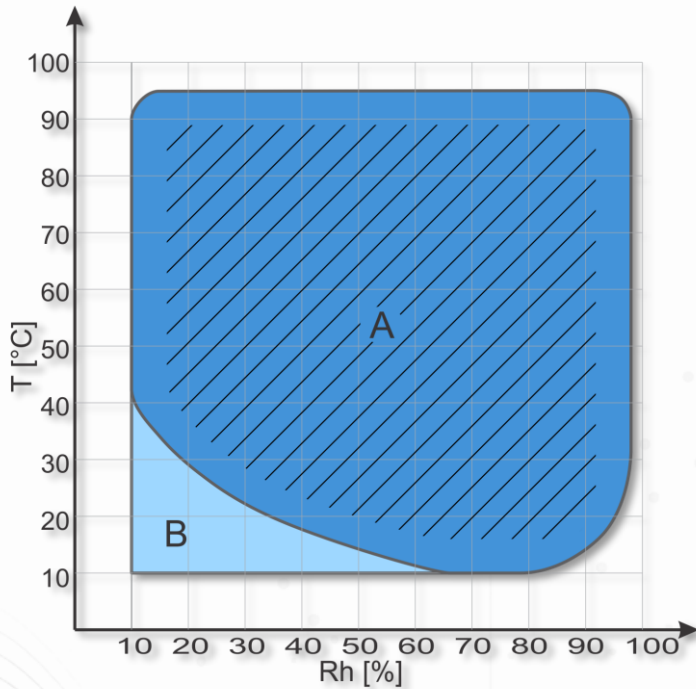
Touch display with advanced controller functions:



KK-Tool software for PC (free – included with every unit):

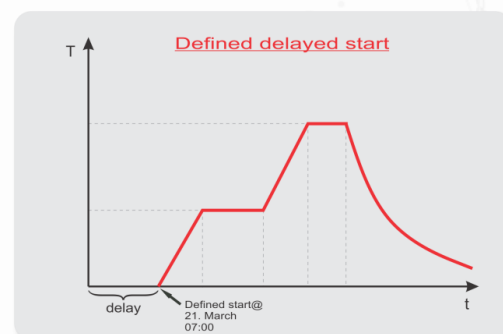
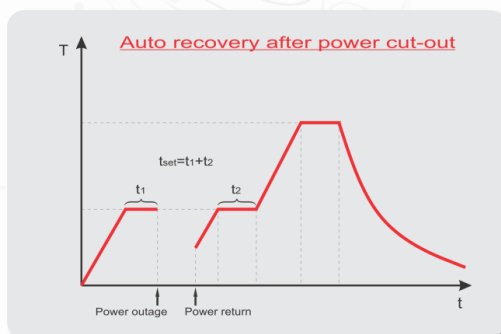
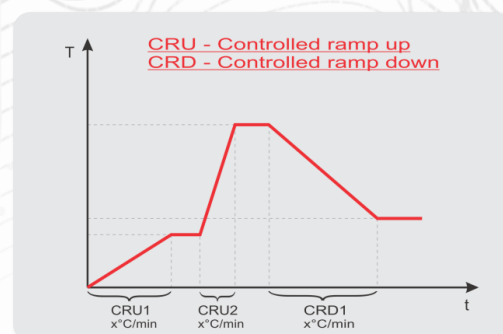
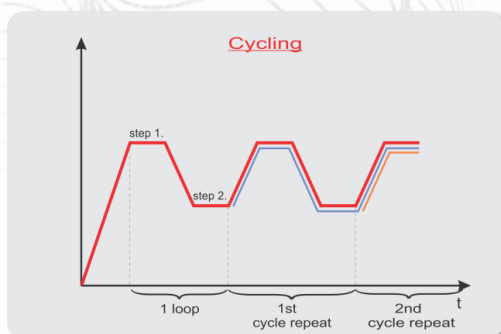
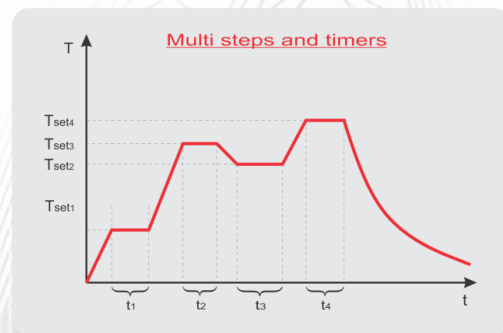
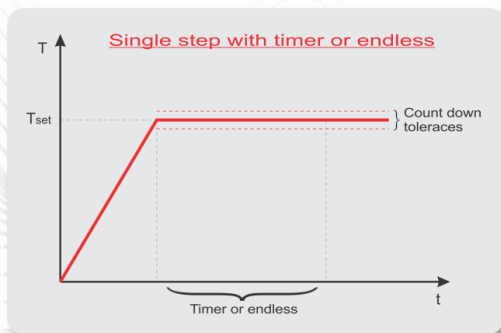




Rh range:



- Ideal range
- A - Standard range
- B - Extended humidity range


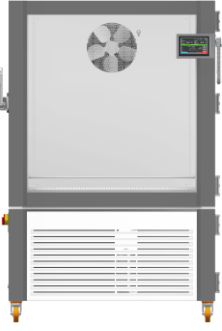
Controller functions:



	KK-190 CHULT	KK-340 CHULT
		
External dimensions (WxHxD) [mm]	835 x 1721 x 1126	875 x 1985 x 1326
Internal dimensions (WxHxD) [mm]	610 x 615 x 510	600 x 835 x 685
Volume [L]	~ 190	~ 340
Temperature range [°C]	- 75 ...+ 180	- 75 ...+ 180
Heat up rate [°C/min] (according to EN 60068-3-5)	2,2	1,5
Cool down rate [°C/min] (according to EN 60068-3-5)	2,2	1,6
Temperature display res [°C]	0.1	0.1
Temperature set res. [°C]	0.1	0.1
Temperature stability [°C]	± 1,0 °C @ - 75 °C ± 0,1 °C @ 50 °C 50% Rh ± 0,1 °C @ 90 °C 90% Rh ± 0,5 °C @ 180 °C	± 1,0 °C @ - 75 °C ± 0,08 °C @ 50 °C 50 % Rh ± 0,08 °C @ 90 °C 90 % Rh ± 0,2 °C @ 180 °C
Temperature uniformity [°C]	± 1,2 °C @ - 75 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh ± 1,7 °C @ 180 °C	± 1,2 °C @ - 75 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh ± 1,7 °C @ 180 °C
Rh range [%]	10...98	10...98
Rh display resolution [%]	0.1	0.1
Rh set resolution [%]	1	1
Rh 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
Temperature control	PID (PT-100)	PID (PT-100)
Relative humidity control	Dew point RH control via Rh capacitive sensor/ dry air purge for extended range	Dew point RH control via Rh capacitive sensor/ dry air purge for extended range
Power supply	3x400V 50/60Hz	3x400V 50/60Hz
Wattage [W]	6500	7500
Interface	USB and Ethernet	USB and Ethernet
Shelve	1 (max 8)	1 (max 8)
Shelve capacity [kg]	35	35
Max capacity [kg]	80	100
Water reservoir capacity [L]	19.6	19.6
Water consumption [L/24h] (operating at +90 °C / 90 %Rh)	~1.5	~1.5
Observation window	As standard	As standard
Access port [mm]	Ø 50 (left side)	Ø 50 (left side)
Noise [dBA] @ 1 m distance	67	67
Weight [kg]	440	480

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

**Accessories might affect performance!*

	KK-500 CHULT	KK-1000 CHULT
		
External dimensions (WxHxD) [mm]	1165 x 1985 x 1640	1235 x 2000 x 1816
Internal dimensions (WxHxD) [mm]	810 x 800 x 800	1010 x 1000 x 1000
Volume [L]	~ 500	~ 1000
Temperature range [°C]	- 75 ...+ 180	- 75 ...+ 180
Heat up rate [°C/min] (according to EN 60068-3-5)	3,3	1,5
Cool down rate [°C/min] (according to EN 60068-3-5)	1,2	1,6
Temperature display res [°C]	0.1	0.1
Temperature set res. [°C]	0.1	0.1
Temperature stability [°C]	± 1,0 °C @ - 75 °C ± 0,1 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,1 °C @ 180 °C	± 1,0 °C @ - 75 °C ± 0,1 °C @ 50 °C 50 % Rh ± 0,1 °C @ 90 °C 90 % Rh ± 0,1 °C @ 180 °C
Temperature uniformity [°C]	± 1,0 °C @ - 75 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh	± 1,0 °C @ - 75 °C ± 0,5 °C @ 50 °C 50 % Rh ± 0,5 °C @ 90 °C 90 % Rh
Rh range [%]	10...98	10...98
Rh display resolution [%]	0.1	0.1
Rh set resolution [%]	1	1
Rh 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
Temperature control	PID (PT-100)	PID (PT-100)
Relative humidity control	Dew point RH control via Rh capacitive sensor/ dry air purge for extended range	Dew point RH control via Rh capacitive sensor/ dry air purge for extended range
Power supply	3x400V 50/60Hz	3x400V 50/60Hz
Wattage [W]	12000	14000
Interface	USB and Ethernet	USB and Ethernet
Shelve	1 (max 8)	1 (max 8)
Shelve capacity [kg]	50	50
Max capacity [kg]	150	200
Water reservoir capacity [L]	35	45
Water consumption [L/24h] (operating at +90 °C / 90 %Rh)	~2.0	~2.0
Observation window	As standard	As standard
Access port [mm]	Ø 50 (left side)	Ø 50 (left side)
Noise [dBA] @ 1 m distance	68	68
Weight [kg]	630	890

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

*Accessories might affect performance!

Ordering information and accessories:

Description	Part no.
Climatic chamber KK-190 CHULT	1071
Climatic chamber KK-340 CHULT	1091
Climatic chamber KK-500 CHULT	1100
Climatic chamber KK-1000 CHULT	3013
Shelve wire KK-190 CHULT	953
Shelve wire KK-340 CHULT	956
Shelve wire KK-500 CHULT	958
Shelve wire KK-1000 CHULT	960
Shelve perforated KK-190 CHULT	954
Shelve perforated KK-340 CHULT	957
Shelve perforated KK-500 CHULT	959
Shelve perforated KK-1000 CHULT	961
Access Port w. Plug Ø 50 mm right (<i>*specify position</i>)	899
Access Port w. Plug Ø 100 mm right (<i>*specify position</i>)	900
Automatic water feeding	1744
Extended Rh range via dry air purge	1758
Evaluation report 9 points, 3 climatic values - performed by Kambič	1719
Evaluation report 9 points, 3 climatic values - Accredited	1777

**Accessories might affect performance!*

