

Climatic Chambers

(- 40 °C ...+ 180 °C)

KK-68 CHLT

KK-190 CHLT

KK-340 CHLT

KK-500 CHLT

KK-1000 CHLT

- 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



Temperature

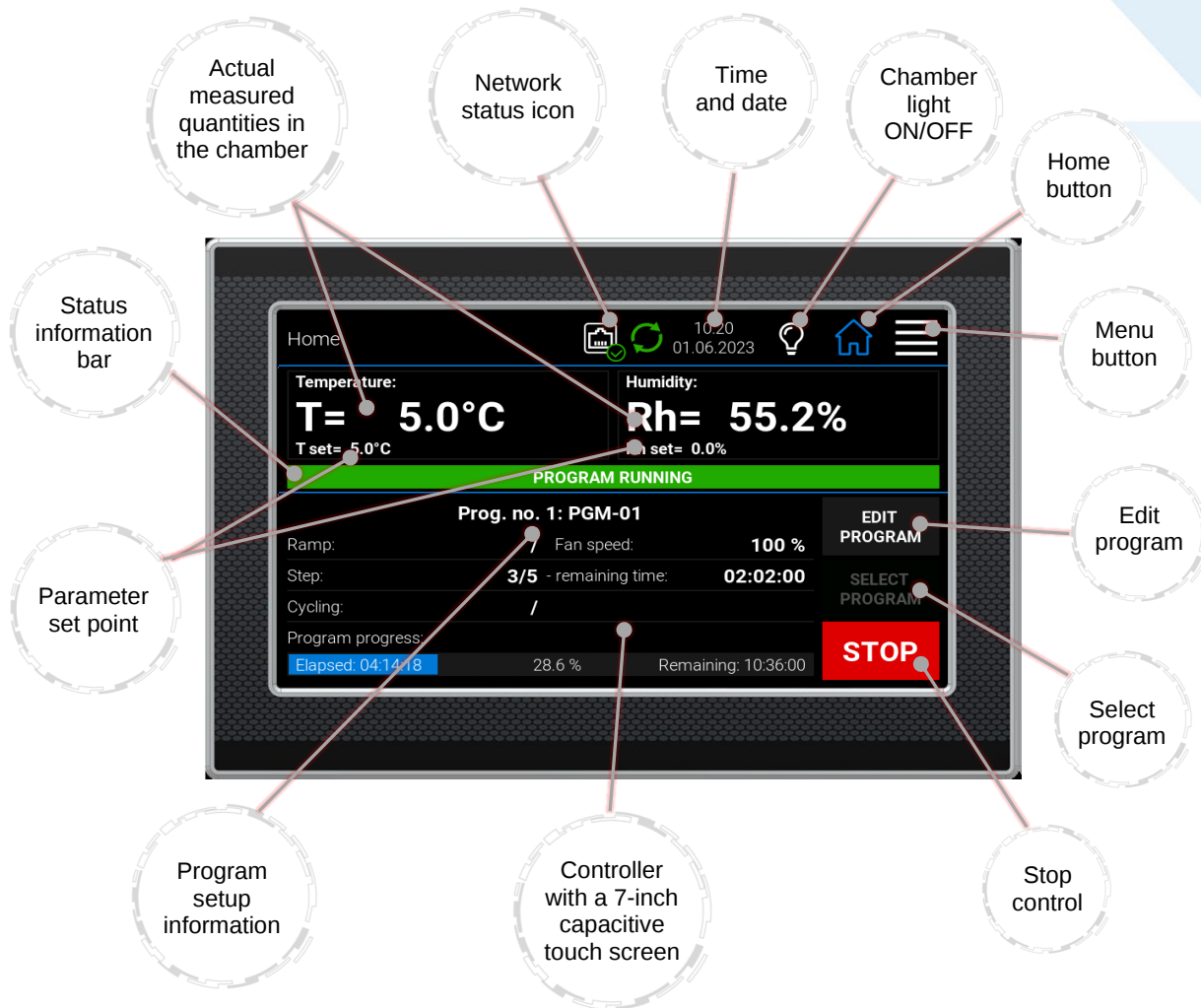


**Relative
Humidity**

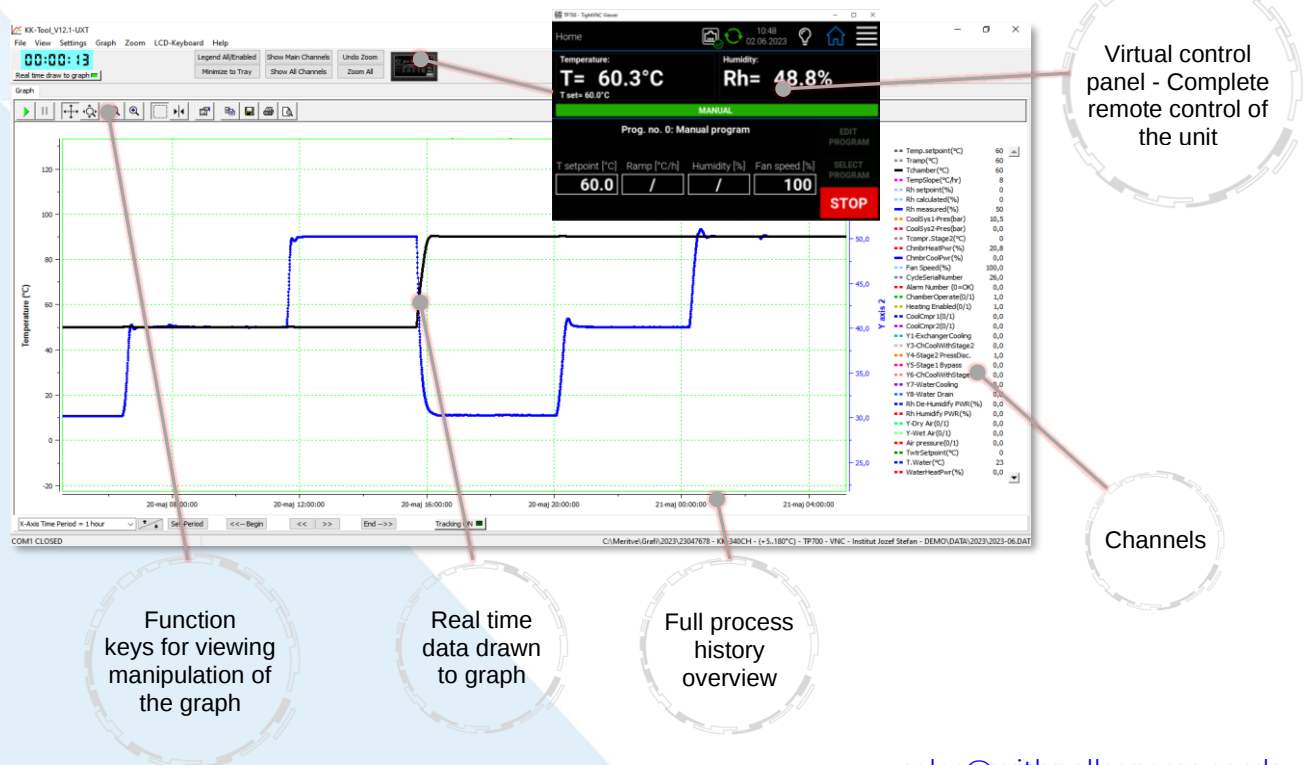
Device description:



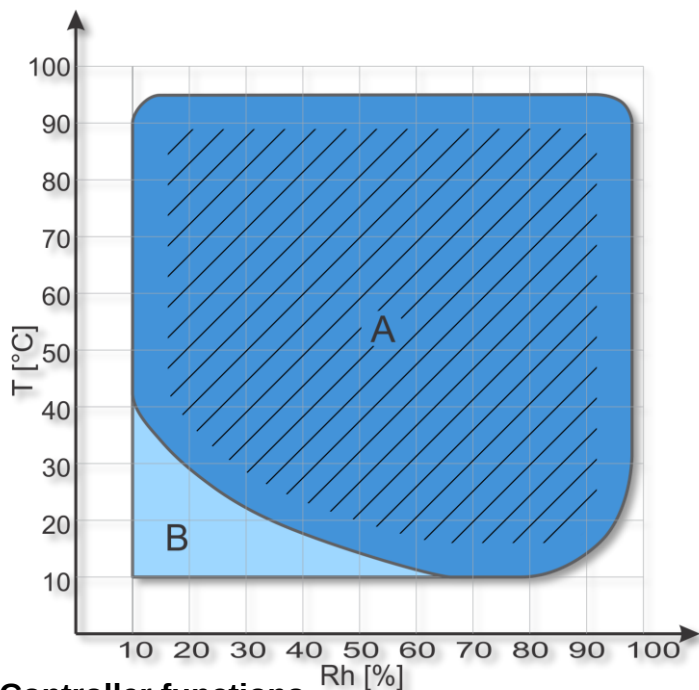
Touch display with advanced controller functions:



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



Rh range:

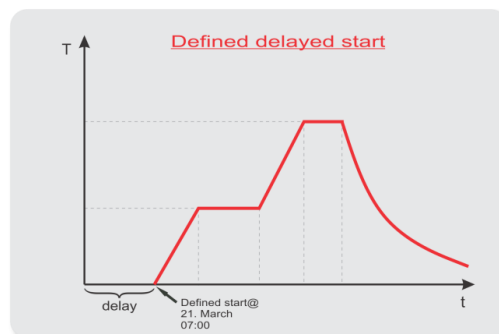
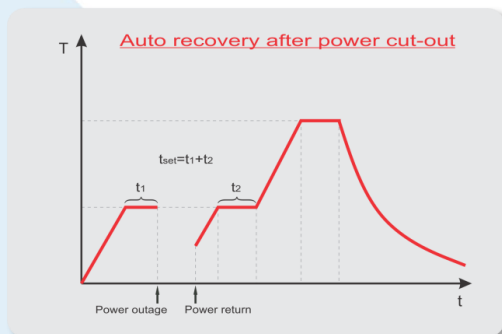
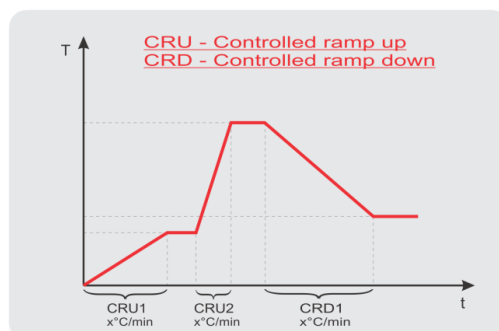
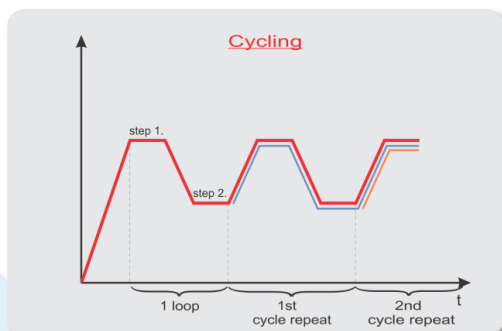
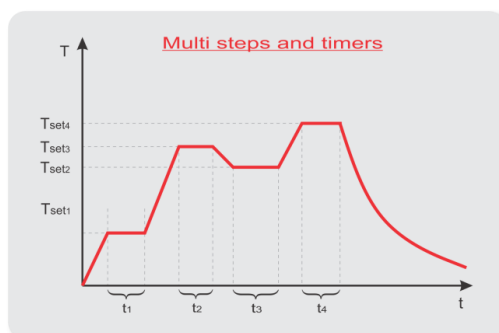
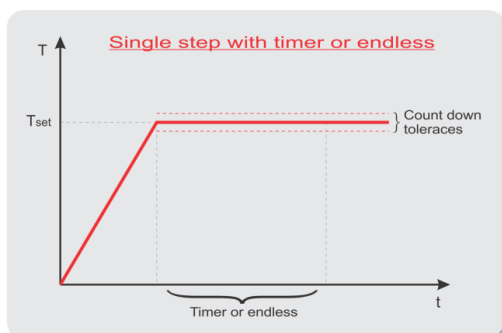


/// - Ideal range

A - Standard range

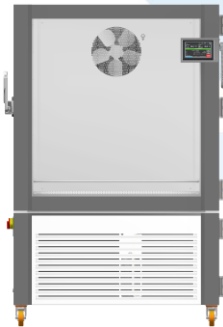
B - Extended humidity range

Controller functions:



	KK-68 CHLT	KK-190 CHLT	KK-340 CHLT
			
External dimensions (WxHxD) [mm]	650 x 1223 x 796	835 x 1661 x 951	835 x 1881 x 1126
Internal dimensions (WxHxD) [mm]	410 x 475 x 350	600 x 615 x 510	600 x 835 x 685
Volume [L]	~ 68	~ 190	~ 340
Temperature range [°C]	- 40 ...+ 180	- 40 ...+ 180	- 40 ...+ 180
Heat up rate [°C/min] (according to EN 60068-3-5)	4,0	2,0	1,5
Cool down rate [°C/min] (according to EN 60068-3-5)	2,5	2,5	2,5
Temperature display res [°C]	0.1	0.1	0.1
Temperature set res. [°C]	0.1	0.1	0.1
Temperature stability [°C]	± 0.2°C @ - 40°C ± 0.05°C @ 50°C 50 % Rh ± 0.05°C @ 90°C 90 % Rh ± 0.1°C @ 180°C	± 0.2°C @ - 40°C ± 0.05°C @ 50°C 50 % Rh ± 0.05°C @ 90°C 90 % Rh ± 0.15°C @ 180°C	± 0.2°C @ - 40°C ± 0.05°C @ 50°C 50%Rh ± 0.05°C @ 90 °C 90%Rh ± 0.15°C @ 180°C
Temperature uniformity [°C]	± 1.0°C @ - 40°C ± 0.3°C @ 50°C 50 % Rh ± 0.3°C @ 90°C 90 % Rh ± 2.5°C @ 180°C	± 0.5°C @ - 40°C ± 0.3°C @ 50°C 50 % Rh ± 0.3°C @ 90°C 90 % Rh ± 1.5°C @ 180°C	± 0.5°C @ -40°C ± 0.3°C @ 50°C 50 % Rh ± 0.3°C @ 90°C 90 % Rh ± 1.5°C @ 180°C
Heat compensation [W]	~ 100 @ - 30 °C ~ 800 @ - 5 °C ~ 1500 @ + 20 °C	~ 350 @ - 30 °C ~ 1500 @ - 5 °C ~ 3000 @ + 20 °C	~ 350 @ - 30 °C ~ 1500 @ - 5 °C ~ 3000 @ + 20 °C
Rh range [%]	10...98	10...98	10...98
Rh display resolution [%]	0.1	0.1	0.1
Rh set resolution [%]	1	1	1
Rh stability [%]	± 0.3 % @ 50 °C 50 % Rh ± 0.3 % @ 90 °C 90 % Rh	± 0.3 % @ 50 °C 50 % Rh ± 0.3 % @ 90 °C 90 % Rh	± 0.3 % @ 50 °C 50 % Rh ± 0.3 % @ 90 °C 90 % Rh
Temperature control	PID (PT-100)	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	Dew point RH control via Rh capacitive sensor/ dry air purge for extended range
Power supply	230V 50/60 Hz	230V 50/60 Hz	230V 50/60 Hz
Wattage [W]	3500	3600	3600
Interface	USB and Ethernet	USB and Ethernet	USB and Ethernet
Shelve	1 (max 6)	1 (max 8)	1 (max 8)
Shelve capacity [kg]	25	35	35
Max capacity [kg]	40	80	100
Water reservoir capacity [L]	8.2	19.6	19.6
Water consumption [L/24h] (operating at +90 °C / 90 %Rh)	~1	~1.5	~1.5
Observation window	As standard	As standard	As standard
Access port [mm]	Ø 50 (left side)	Ø 50 (left side)	Ø 50 (left side)
Noise [dBA] @ 1 m distance	58	60	60
Weight [kg]	195	278	324

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

	KK-500 CHLT	KK-1000 CHLT
		
External dimensions (WxHxD) [mm]	1035 x 1880 x 1381	1235 x 1928 x 1579
Internal dimensions (WxHxD) [mm]	800 x 835 x 800	1000 x 1035 x 1000
Volume [L]	~ 500	~ 1000
Temperature range [°C]	- 40 ... + 180	- 40 ... + 180
Heat up rate [°C/min] (according to EN 60068-3-5)	3.0	3.0
Cool down rate [°C/min] (according to EN 60068-3-5)	2.5	2.5
Temperature display res [°C]	0.1	0.1
Temperature set res. [°C]	0.1	0.1
Temperature stability [°C]	± 0.2°C @ - 40°C ± 0.05°C @ 50°C 50% Rh ± 0.05°C @ 90°C 90% Rh ± 0.2°C @ 180°C	± 0.2°C @ - 40°C ± 0.05°C @ 50°C 50% Rh ± 0.05°C @ 90°C 90% Rh ± 0.2°C @ 180°C
Temperature uniformity [°C]	± 0.5°C @ - 40°C ± 0.3°C @ 50°C 50% Rh ± 0.3°C @ 90°C 90% Rh ± 1.5°C @ 180°C	± 0.5°C @ - 40°C ± 0.3°C @ 50°C 50% Rh ± 0.3°C @ 90°C 90% Rh ± 1.5°C @ 180°C
Heat compensation [W]	~ 500 @ - 30 °C ~ 2500 @ - 5 °C ~ 3000 @ + 20 °C	~ 500 @ - 30 °C ~ 3000 @ - 5 °C ~ 5000 @ + 20 °C
Rh range [%]	10...98	10...98
Rh display resolution [%]	0.1	0.1
Rh set resolution [%]	1	1
Rh stability [%]	± 0.3 % @ 50 °C 50 % Rh ± 0.3 % @ 90 °C 90 % Rh	± 0.3 % @ 50 °C 50 % Rh ± 0.3 % @ 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]	9000	12000
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]	29.3	39.3
Water consumption [L/24h] (operating at +90 °C / 90 %Rh)	~1.5	~2.0
Observation window	As standard	As standard
Access port [mm]	Ø 50 (left side)	Ø 50 (left side)
Noise [dBA] @ 1 m distance	62	62
Weight [kg]	435	604

*Accessories might affect performance!

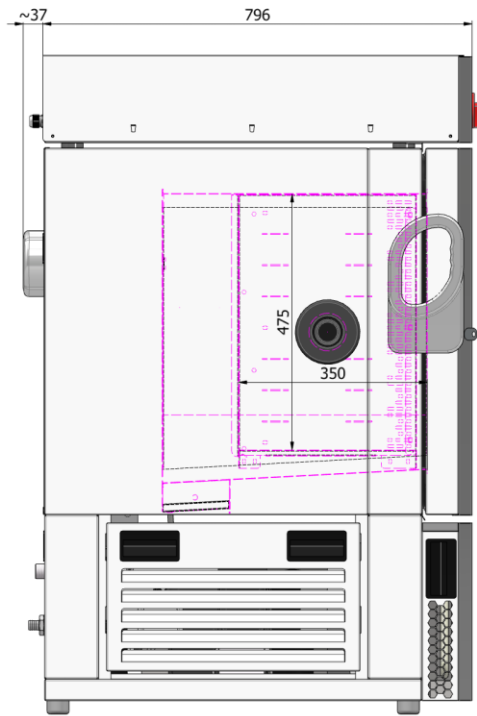
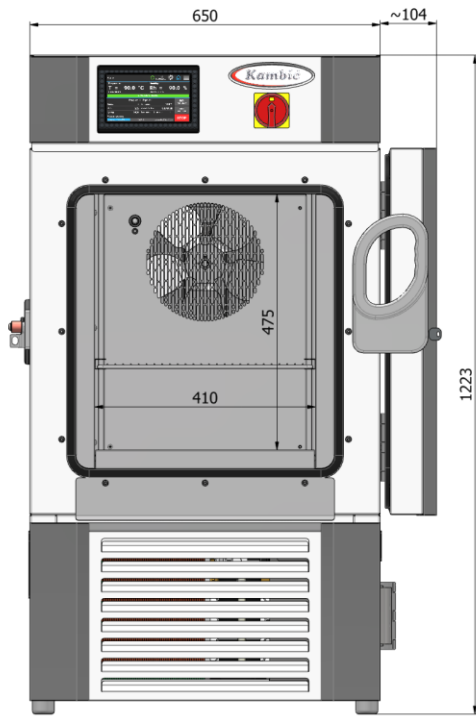
*All performance in controlled environment ($T_{ambient} = 22\text{ °C} \pm 3\text{ °C}$)!

*Accessories might affect performance!

Ordering information and accessories:

Description	Part no.
Climatic chamber KK-68 CHLT	2981
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-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-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)	899
Access Port w. Plug Ø 100 mm right (specify position)	900
Automatic water feeding	1744
Extended Rh range via dry air purge	1758
Trolley for KK-68 CHLT	794
Evaluation report 9 points, 3 climatic values - performed by Kambic	1719
Evaluation report 9 points, 3 climatic values - Accredited	1777

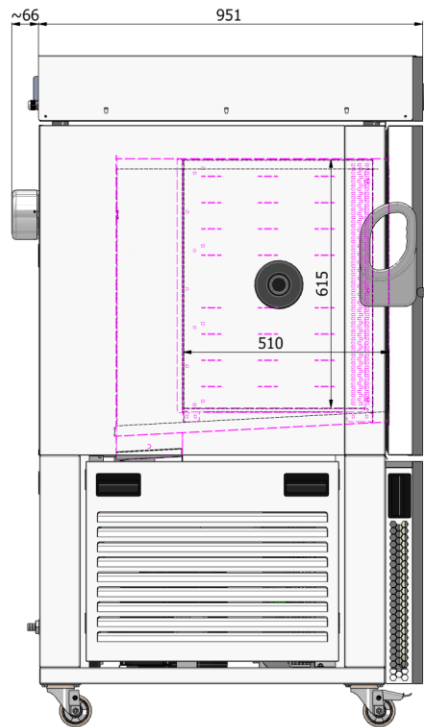
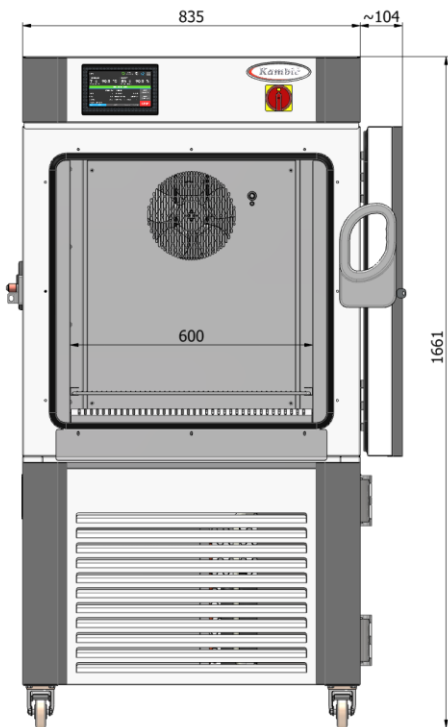
**Accessories might affect performance!*



SHIPPING	
W	1000 mm
H	1520 mm
D	800 mm
WEIGHT	220 kg

* we reserve the right to modifications

DIMENSIONAL DRAWING	PRODUCT	MODEL
	CLIMATIC CHAMBER	KK-68 CH KK-68 CHLT



SHIPPING	
W	1235 mm
H	1890 mm
D	1090 mm
WEIGHT	330 kg

* we reserve the right to modifications

DIMENSIONAL DRAWING	PRODUCT	MODEL
	CLIMATIC CHAMBER	KK-190 CH KK-190 CHLT

