



# TEMPERATURE CHAMBERS

(- 40 °C ...+ 180 °C)

**Model:**

**TK-68 CKLT**

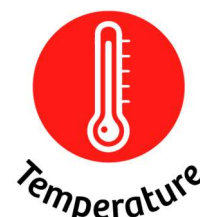
**TK-190 CKLT**

**TK-340 CKLT**

**TK-500 CKLT**

**TK-1000 CKLT**

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

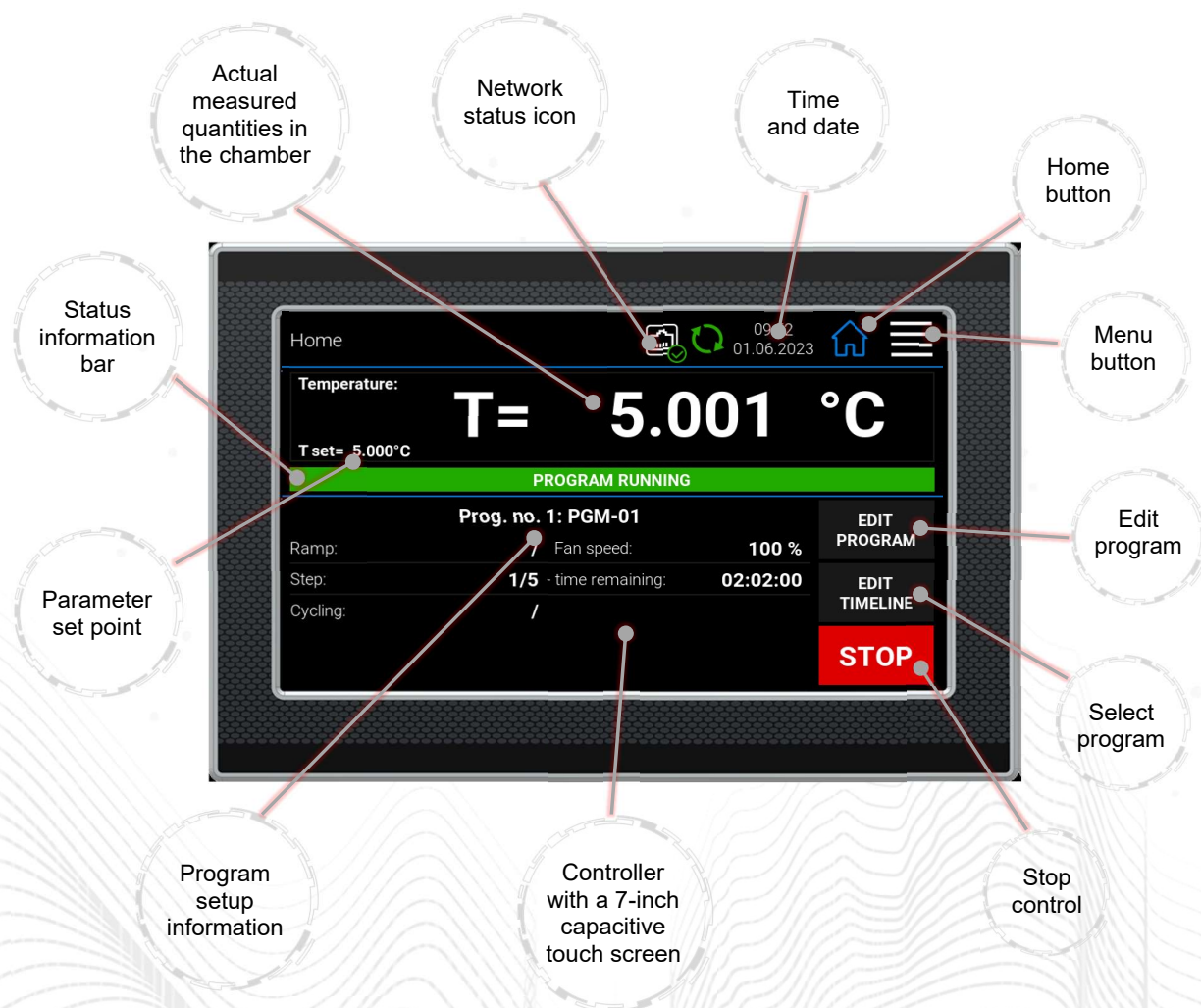


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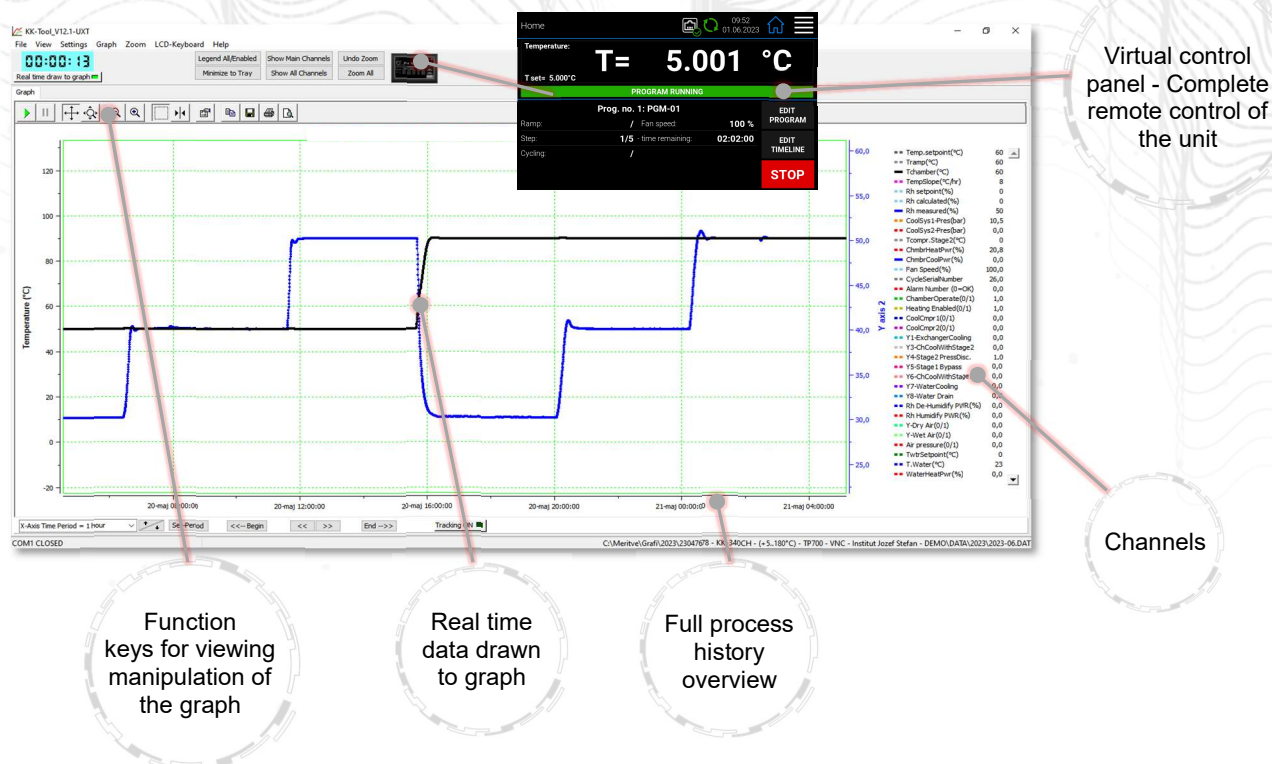
## Device description:



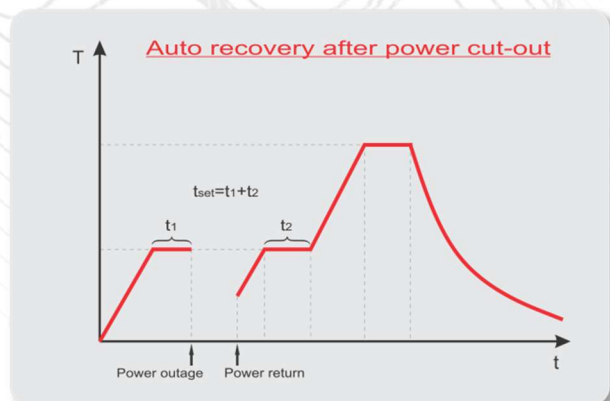
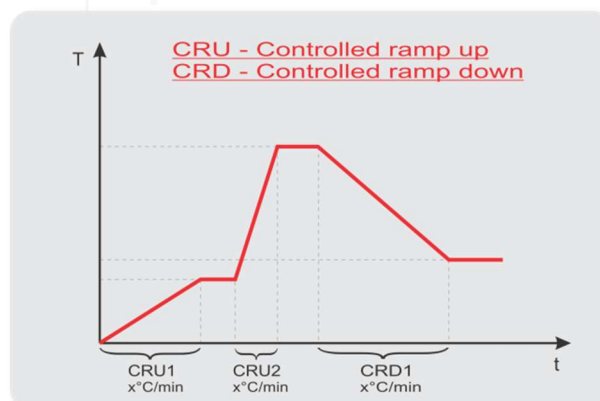
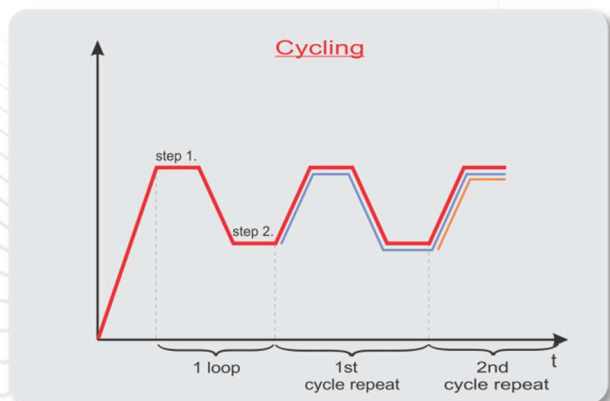
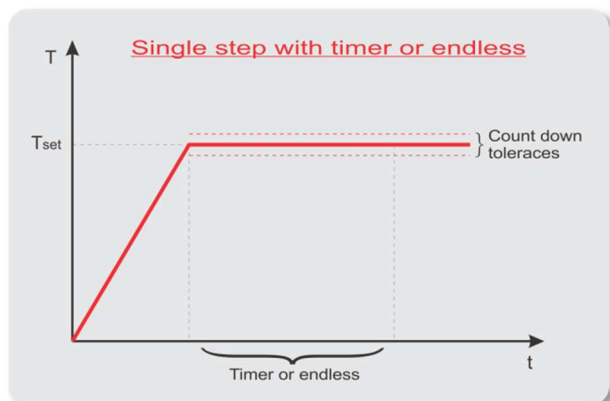
## Touch display with advanced controller functions:

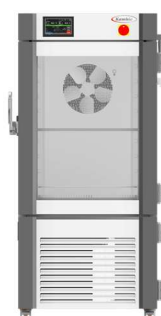


## KK-Tool software for PC (free – included with every unit):



## Controller functions:



|                                                        | TK-68 CKLT                                                                        | TK-190 CKLT                                                                        | TK-340 CKLT                                                                         |
|--------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                        |  |  |  |
| 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]<br>(according to EN 60068-3-5)   | 4.0                                                                               | 2.0                                                                                | 1.5                                                                                 |
| Cool down rate [°C/min]<br>(according to EN 60068-3-5) | 2.5                                                                               | 3.0                                                                                | 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]                             | ± 0.15°C @ - 40°C<br>± 0.05°C @ 50°C<br>± 0.05°C @ 90°C<br>± 0.15°C @ 180°C       | ± 0.15°C @ - 40°C<br>± 0.05°C @ 50°C<br>± 0.05°C @ 90°C<br>± 0.15°C @ 180°C        | ± 0.15°C @ - 40°C<br>± 0.05°C @ 50°C<br>± 0.05°C @ 90°C<br>± 0.15°C @ 180°C         |
| Temperature uniformity [°C]                            | ± 0.8°C @ - 40°C<br>± 0.3°C @ 50°C<br>± 0.3°C @ 90°C<br>± 2.0°C @ 180°C           | ± 0.5°C @ - 40°C<br>± 0.3°C @ 50°C<br>± 0.3°C @ 90°C<br>± 1.5°C @ 180°C            | ± 0.5°C @ - 40°C<br>± 0.3°C @ 50°C<br>± 0.3°C @ 90°C<br>± 1.5°C @ 180°C             |
| Heat compensation [W]                                  | ~ 250 @ - 30 °C<br>~ 750 @ - 10 °C<br>~ 1500 @ + 20 °C                            | ~ 350 @ - 30 °C<br>~ 950 @ - 10 °C<br>~ 3000 @ + 20 °C                             | ~ 350 @ - 30 °C<br>~ 1150 @ - 10 °C<br>~ 3000 @ + 20 °C                             |
| Temperature control                                    | PID (PT-100)                                                                      | PID (PT-100)                                                                       | PID (PT-100)                                                                        |
| Power supply                                           | 230V 50/60 Hz                                                                     | 230V 50/60 Hz                                                                      | 230V 50/60 Hz                                                                       |
| Wattage [W]                                            | 2500                                                                              | 3000                                                                               | 3000                                                                                |
| 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                                                                                 |
| 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]                                            | 190                                                                               | 273                                                                                | 319                                                                                 |

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

*\*Accessories might affect performance!*

|                                                        | TK-500 CKLT                                                                       | TK-1000 CKLT                                                                        |
|--------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                        |  |  |
| 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]<br>(according to EN 60068-3-5)   | 3.5                                                                               | 3.3                                                                                 |
| Cool down rate [°C/min]<br>(according to EN 60068-3-5) | 3.0                                                                               | 2.5                                                                                 |
| Temperature display res [°C]                           | 0.1                                                                               | 0.1                                                                                 |
| Temperature set res. [°C]                              | 0.1                                                                               | 0.1                                                                                 |
| Temperature stability [°C]                             | ± 0.15°C @ - 40°C<br>± 0.05°C @ 50°C<br>± 0.05°C @ 90°C<br>± 0.2°C @ 180°C        | ± 0.15°C @ - 40°C<br>± 0.05°C @ 50°C<br>± 0.05°C @ 90°C<br>± 0.2°C @ 180°C          |
| Temperature uniformity [°C]                            | ± 0.5°C @ - 40°C<br>± 0.3°C @ 50°C<br>± 0.3°C @ 90°C<br>± 1.5°C @ 180°C           | ± 0.5°C @ - 40°C<br>± 0.3°C @ 50°C<br>± 0.3°C @ 90°C<br>± 1.5°C @ 180°C             |
| Heat compensation [W]                                  | ~ 850 @ - 30 °C<br>~ 2050 @ - 10 °C<br>~ 3000 @ + 20 °C                           | ~ 500 @ - 30 °C<br>~ 2000 @ - 10 °C<br>~ 5000 @ + 20 °C                             |
| Temperature control                                    | PID (PT-100)                                                                      | PID (PT-100)                                                                        |
| Power supply                                           | 3x400V 50/60Hz                                                                    | 3x400V 50/60Hz                                                                      |
| Wattage [W]                                            | 7500                                                                              | 8500                                                                                |
| Interface                                              | USB and Ethernet                                                                  | USB and Ethernet                                                                    |
| Shelve                                                 | 1 (max 8)                                                                         | 1 (max 8)                                                                           |
| Shelve capacity [kg]                                   | 50                                                                                | 50                                                                                  |
| Max capacity [kg]                                      | 150                                                                               | 200                                                                                 |
| 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]                                            | 430                                                                               | 599                                                                                 |

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

*\*Accessories might affect performance!*

## **Ordering information and accessories:**

| <b>Description</b>                                               | <b>Part no.</b> |
|------------------------------------------------------------------|-----------------|
| Climatic chamber TK-68 CKLT                                      | 791             |
| Climatic chamber TK-190 CKLT                                     | 1048            |
| Climatic chamber TK-340 CKLT                                     | 1122            |
| Climatic chamber TK-500 CKLT                                     | 3029            |
| Climatic chamber TK-1000 CKLT                                    | 3031            |
| Shelve wire TK-68 CKLT                                           | 792             |
| Shelve wire TK-190 CKLT                                          | 953             |
| Shelve wire TK-340 CKLT                                          | 956             |
| Shelve wire TK-500 CKLT                                          | 958             |
| Shelve wire TK-1000 CKLT                                         | 960             |
| Shelve perforated TK-68 CKLT                                     | 793             |
| Shelve perforated TK-190 CKLT                                    | 954             |
| Shelve perforated TK-340 CKLT                                    | 957             |
| Shelve perforated TK-500 CKLT                                    | 959             |
| Shelve perforated TK-1000 CKLT                                   | 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             |
| Trolley for TK-68 CKLT                                           | 794             |
| Evaluation report 9 points, 3 temperatures - performed by Kambic | 1719            |
| Evaluation report 9 points, 3 temperatures- Accredited           | 2852            |

*\*Accessories might affect performance!*

