



## Data sheet

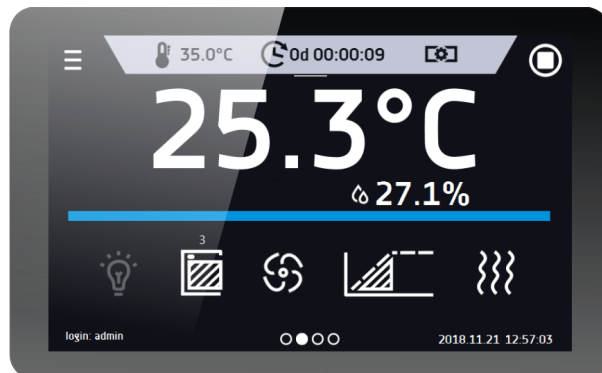
## CHL 3 / ST 2 Smart PRO



The photo above is for reference only, may show additional options not included in standard equipment. The real appearance, particularly color and structure of the material may differ from the ones presented in the photo.

### Advantages of the SMART PRO controller:

- large (7"), clear, full colour touch screen
- LAN, USB ports and WiFi for communication and data transfer
- multi-segment time and temperature programs
- overview of data in tabular and graphic form
- visual and sound alarm
- Admin function for management
- password protected log-in
- internal memory for programs and data storage
- event registry with user notifications
- LabDesk software and user manual for direct download



Smart PRO - preview screen



## TECHNICAL DATA

|                      |                             |
|----------------------|-----------------------------|
| air convection       | forced                      |
| chamber capacity [l] | 200 / 150                   |
| working capacity [l] | 163 / 122                   |
| controller           | microprocessor PID          |
| display              | 7" full colour touch screen |

## TEMPERATURE

|                                         |                        |
|-----------------------------------------|------------------------|
| temperature range [°C]                  | 0...+15 / +3...+70     |
| temperature resolution every ... [°C]   | 0,1                    |
| temperature fluctuation at 37°C [±/°C]* | 0,3                    |
| temperature fluctuation at 4°C [±/°C]*  | 0,4                    |
| temperature variation at 37°C [±/°C]*   | 0,6                    |
| temperature variation at 4°C [±/°C]*    | 0,7                    |
| temperature protection                  | class 3.2 to DIN 12880 |

## CHAMBER

|           |                                      |
|-----------|--------------------------------------|
| door type | solid / glass or double (option) /4/ |
|-----------|--------------------------------------|

### interior

|              |            |
|--------------|------------|
| P Smart PRO  | DIN 1.4301 |
| PS Smart PRO | DIN 1.4301 |

### housing

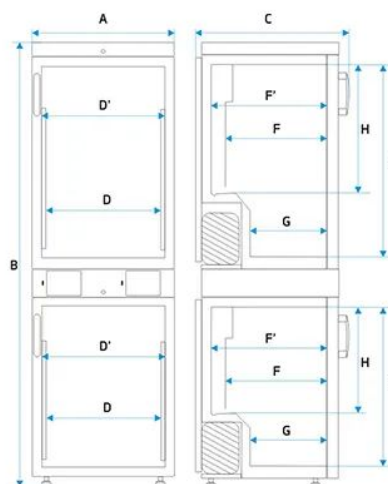
|              |                          |
|--------------|--------------------------|
| P Smart PRO  | powder coated sheet      |
| PS Smart PRO | stainless steel polished |

### overall dims [mm] /1/

|          |      |
|----------|------|
| width A  | 600  |
| height B | 1910 |
| depth C  | 650  |

### internal dims [mm]

|          |           |
|----------|-----------|
| width D  | 480       |
| width D' | 520       |
| height E | 860 / 660 |
| depth F  | 420       |
| depth F' | 480       |
| depth G  | 320       |
| height H | 640 / 440 |



|                             |               |
|-----------------------------|---------------|
| shelves (standard   max)    | 3   4 / 3   4 |
| max shelf workload [kg] /2/ | 10            |
| max unit workload [kg]      | 30 / 30       |
| weight [kg]                 | 114           |



## ELECTRICAL PARAMETERS

|                   |                 |
|-------------------|-----------------|
| voltage**         | 230V 50-60Hz    |
| nominal power [W] | 500             |
| refrigerant       | R1234ze / GWP=1 |
| warranty          | 24 months       |

all the above technical data refer to standard units (without optional accessories)

\* - fluctuation measured in centre of the chamber; in space, variation (K) calculated for chamber as:  $K = \frac{T_{\text{average max.}} - T_{\text{average min.}}}{2}$ ; parameters given for the chamber above the bottom step

\*\* - other power supplies on request

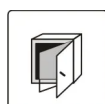
1 - depth doesn't include 50 mm of power cable, the width does not include the 20 mm of rubber plug

2 - on uniformly loaded surface

3 - reinforced shelf

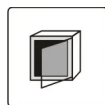
4 - additional internal glass door

## OPTIONS AND ACCESSORIES



Order number: \*/C

Internal glass door



Order number: \*/A

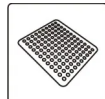
External glass door



**INOX**

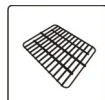
Order number: \*/P INOX

Stainless steel wire shelf INOX



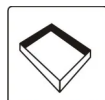
Order number: \*/PP

Perforated shelf



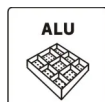
Order number: \*/PW

Reinforced shelf



Order number: KUW GN\*/\*

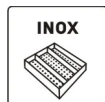
Stainless steel cuvettes



**ALU**

Order number: ST/CHL/SWP ALU

Aluminum drawer with powder coated slides



**INOX**

Order number: ST/CHL/SWP INOX

Stainless steel drawer with powder coated slides



**INOX/INOX**

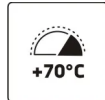
Order number: ST/CHL/SWPN INOX

Stainless steel drawer with stainless steel slides



Order number: \*PLUS

Automatic defrosting function

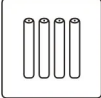
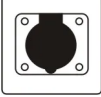

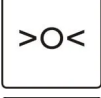



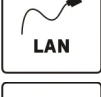
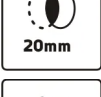
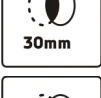
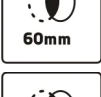
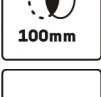

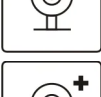
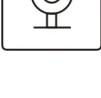


**+70°C**

Order number: ST/70

Extended temperature range to 70°C



|                                                                                     |                                  |                                                              |
|-------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------|
|    | Order number: */FOT              | Photoperiodic system                                         |
|    | Order number: GNZ                | Internal socket                                              |
|    | Order number: LabDesk            | LabDesk software                                             |
|    | Order number: BRT*/L or IQ/OQ/PQ | Calibration and IQ, OQ, PQ qualification                     |
|    | Order number: */3.2              | Over temperature protection 3.2 class according to DIN 12880 |
|    | Order number: BPP 12             | Battery backup for display                                   |
|   | Order number: PORT ALARM         | Dry alarm contact                                            |
|  | Order number: LANK               | LAN cable                                                    |
|  | Order number: OCZ/20             | Non-standard access port 20 mm                               |
|  | Order number: OCZ/30             | Additional access port 30 mm                                 |
|  | Order number: OCZ/60             | Non-standard access port 60 mm                               |
|  | Order number: OCZ/100            | Non-standard access port 100 mm                              |
|  | Order number: KD                 | Access control                                               |
|  | Order number: CCTV               | Camera inside the chamber                                    |
|  | Order number: CCTV CAM           | Additional camera                                            |