# Data sheet

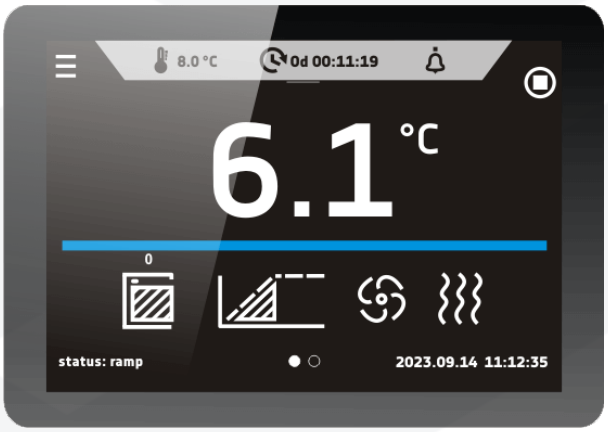
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## CHL 3 / ST 2 Smart



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 controller:**
- 4,3”, clear, full colour touch screen
- LAN, USB ports for data transfer
- multi-segment time and temperature programs
- visual and sound alarm
- internal memory for programs and data storage
- event registry
- user manual for direct download
- Quick change of program parameters
- Alarm Bar
- operating with gloves on




**Smart** - preview screen

Richmond Scientific

## TECHNICAL DATA

| | |
|---|---|
| air convection | forced |
| chamber capacity [l] | 208 / 157 |
| working capacity [l] | 171 / 129 |
| controller | microprocessor PID |
| display | 4,3" full colour touch screen |

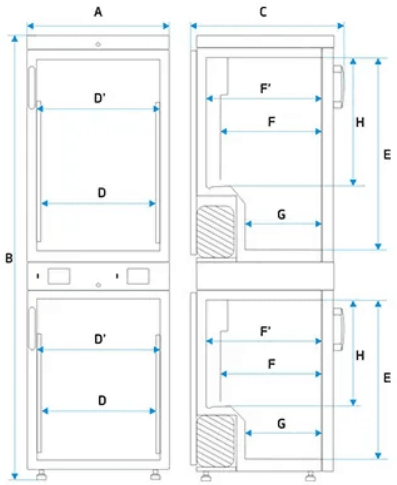
## TEMPERATURE

| | |
|---|---|
| temperature range [°C] | 0...+15 / +3...+40 |
| 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 1.0 to DIN 12880 / class 3.2 (option) |

## CHAMBER

| | |
|---|---|
| door type | solid / glass or double (option) /4/ |
| **interior** | |
| C Smart | stainless steel to DIN 1.4016 |
| CS Smart | stainless steel to DIN 1.4016 |
| P Smart | corrosion-resistant stainless steel to DIN 1.4301 |
| PS Smart | corrosion-resistant stainless steel to DIN 1.4301 |
| **housing** | |
| C Smart | powder coated sheet |
| CS Smart | stainless steel polished |
| P Smart | powder coated sheet |
| PS Smart | stainless steel polished |

| **overall dims [mm] /1/** | |
|---|---|
| width A | 630 |
| height B | 1920 |
| 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 |

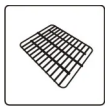
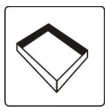


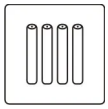
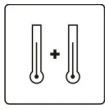
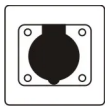
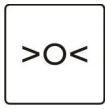
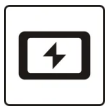
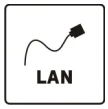

| | |
|---|---|
| shelves (standard \| max) | 3 \| 4 / 3 \| 4 |
| max shelf workload [kg] /2/ | 10 |
| max unit workload [kg] | 30 / 30 |
| weight [kg] | 134 |

| ELECTRICAL PARAMETERS | |
|---|---|
| voltage | 230V 50/60Hz |
| nominal power [W] | 500 |
| refrigerant | R1234ze / GWP=1,37 |
| warranty | 24 months |
| manufacturer | POL-EKO® |

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= +/- (T average max. - T 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 |
|  | Order number: */AS | glass door with SMART WINDOW option |
|   | 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 |
|   | Order number: ST/CHL/SWP ALU | Aluminum drawer with powder coated slides |
|   | Order number: ST/CHL/SWPN INOX | Stainless steel drawer with stainless steel slides |
|  | Order number: *PLUS | Automatic defrosting function |

| | | |
|---|---|---|
|  | Order number: */FOT | Photoperiodic system |
|  | Order number: PT 100 | Additional temperature sensor |
|  | Order number: GNZ | Internal socket |
|  | Order number: BRT/*/L or IQ/OQ/PQ | Calibration and IQ, OQ, PQ qualification |
|  | 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 |