

## Data sheet

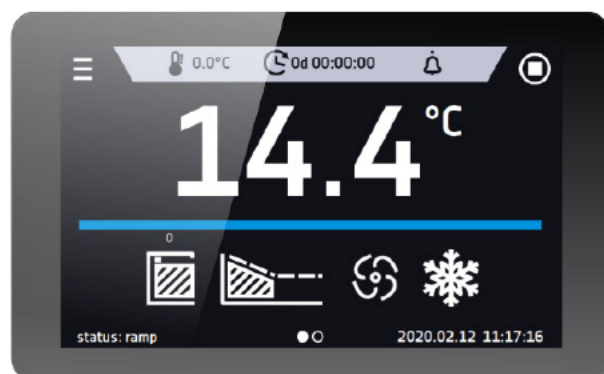
## Laboratory Refrigerator CHL 1/1/1 Smart



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

## TECHNICAL DATA

|                      |                              |
|----------------------|------------------------------|
| air convection       | forced                       |
| chamber capacity [l] | 70 / 70 / 70                 |
| working capacity [l] | 55 / 55 / 55                 |
| controller           | microprocessor PID           |
| display              | 4,3 full colour touch screen |

## TEMPERATURE

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| temperature range [°C]                | 0...+15                                     |
| temperature resolution every ... [°C] | 0,1                                         |
| temperature fluctuation at 4°C [±°C]* | 0,4                                         |
| temperature variation at 4°C [±°C]*   | 0,7                                         |
| over temperature protection           | class 1.0 to DIN 12880 / class 3.2 (option) |

## CHAMBER

|           |                                      |
|-----------|--------------------------------------|
| door type | solid / glass or double (option) /5/ |
|-----------|--------------------------------------|

### interior

|          |                               |
|----------|-------------------------------|
| B Smart  | aluminium                     |
| C Smart  | stainless steel to DIN 1.4016 |
| CS Smart | stainless steel to DIN 1.4016 |
| P Smart  | DIN 1.4301                    |
| PS Smart | DIN 1.4301                    |

### housing

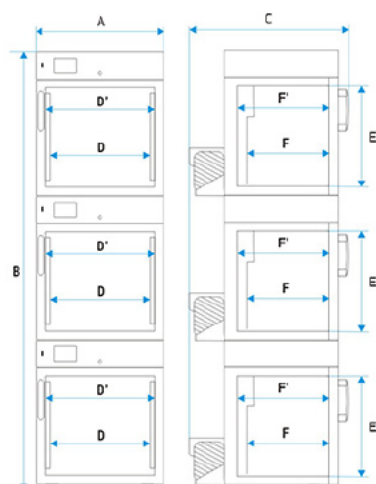
|          |                          |
|----------|--------------------------|
| B Smart  | powder coated sheet      |
| C Smart  | powder coated sheet      |
| CS Smart | stainless steel polished |
| P Smart  | powder coated sheet      |
| PS Smart | stainless steel polished |

### overall dims [mm] /1/

|          |      |
|----------|------|
| width A  | 570  |
| height B | 1920 |
| depth C  | 680  |

### internal dims [mm]

|          |     |
|----------|-----|
| width D  | 430 |
| width D' | 470 |
| height E | 430 |
| depth F  | 300 |
| depth F' | 360 |



|                             |                       |
|-----------------------------|-----------------------|
| shelves (standard   max)    | 2   2 / 2   2 / 2   2 |
| max shelf workload [kg] /2/ | 10                    |
| max unit workload [kg]      | 20 / 20 / 20          |
| weight [kg]                 | 98                    |

## ELECTRICAL PARAMETERS

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| voltage**           | 230V 50-60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| nominal power [W]   | 750                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| refrigerant         | R1234ze / GWP=1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| warranty            | 24 months                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| manufacturer        | POL-EKO-APARATURA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| txt_opis pod tabelą | <p>all the above technical data refer to standard units (without optional accessories)</p> <p>* - fluctuation measured in centre of the chamber; in space, variation (K) calculated for chamber as:<br/> <math>K = \pm (T \text{ average max.} - T \text{ average min.}) / 2</math></p> <p>** - other power supplies on request</p> <p>1 - depth doesn't include 50 mm of power cable<br/>                 2 - on uniformly loaded surface<br/>                 3 - reinforced shelf<br/>                 4 - reinforced version<br/>                 5 - additional internal glass door</p> |

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\*\* - other power supplies on request

1 - depth doesn't include 50 mm of power cable

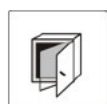
2 - on uniformly loaded surface

3 - reinforced shelf

4 - reinforced version

5 - additional internal glass door

## OPTIONS AND ACCESSORIES



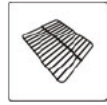
Order number: \*/C

Internal glass door



Order number: \*/A

External glass door



Order number: \*/P

Wire shelf



INOX

Order number: \*/P INOX

Stainless steel wire shelf INOX



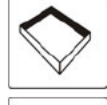
Order number: \*/PP

Perforated shelf



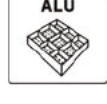
Order number: \*/PW

Reinforced shelf



Order number: KUW GN\*/\*





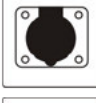

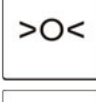
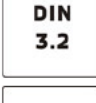



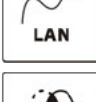
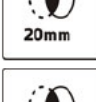
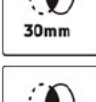
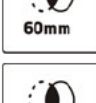
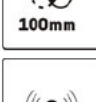

Stainless steel cuvettes



ALU

Order number: ST/CHL/SWP ALU

Aluminum drawer with powder coated slides

|                                                                                     |                                  |                                                              |
|-------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------|
|    | Order number: ST/CHL/SWP INOX    | Stainless steel drawer with powder coated slides             |
|    | Order number: ST/CHL/SWPN INOX   | Stainless steel drawer with stainless steel slides           |
|    | Order number: QLK*               | Wheels                                                       |
|    | Order number: *PLUS              | Automatic defrosting function                                |
|    | 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: USBK               | USB cable                                                    |
|  | 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                                               |