

Laboratory refrigerators

Application

- storing water and sewage samples, piezometer leachate
- storing ASA, GC or HPLC calibration standards
- storing reagents
- chemical storage
- general storage



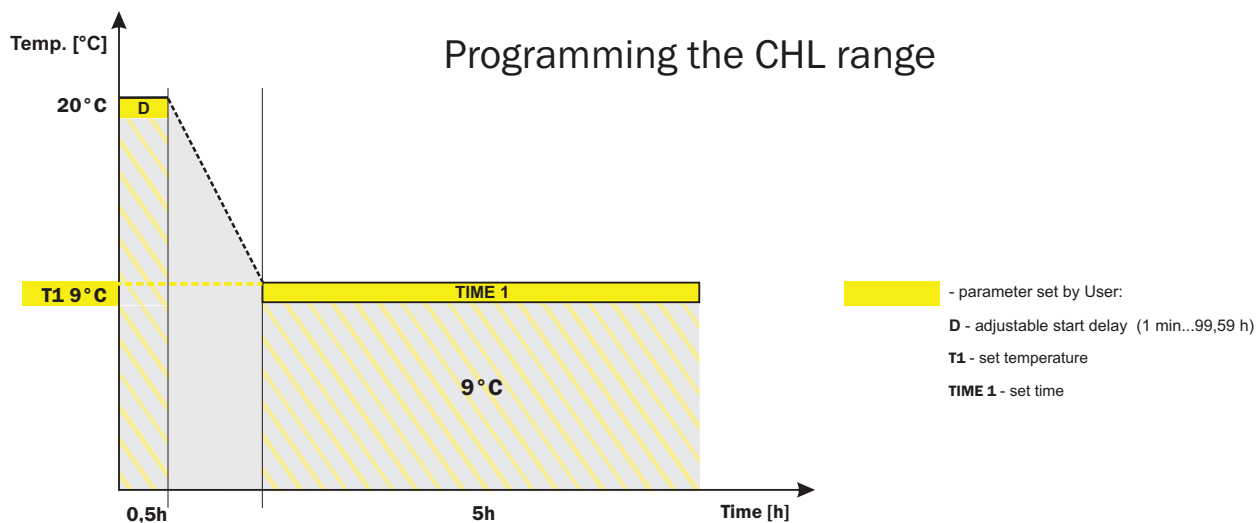
Laboratory refrigerators

Advantages

- single or double chamber versions
- aluminium (**NEW CHL+ RANGE!**) or stainless steel interior (depending on model)
- housing, depending on model: powder coated sheet, stainless steel linen finish (**INOX/G**) or polished (**INOX/S**)
- thermal insulation - polyurethane foam
- solid or glass (**CHL*/A option**) door type
- forced air convection
- heating and cooling systems to hold set temperature regardless of ambient conditions
- wheels with CHL 1200 model
- defrosting function (see page 32)
- two temperature ranges available:
 - 0...+10 °C
 - -10...+10 °C (**CHL*/T option**)
- LCD time and temperature display
- microprocessor temperature and time control
- temperature sensor fail alarm (see page 56)
- power failure control system (see page 56)
- real time clock
- sound alarm (see page 56)
- self-check function (auto control)

Program possibilities

- single segment temperature-time profile
- time program priority
- adjustable start delay feature (from 1 min to 99,59 h)
- adjustable time of holding set temperature (from 1 min to 99,59 h), or continuous operating
- over temperature sound alarm
- overview of set parameters during operating time
- recording min, average and max temperature value for temperature-time segment



All POL-EKO-APARATURA products can be provided with IQ, OQ, PQ qualifications (see page 70)



All POL-EKO-APARATURA products can be supplied with a calibration certificate issued by an accredited Measurement Laboratory. Further information is available on pages 69-70 and our website: www.pol-eko.eu

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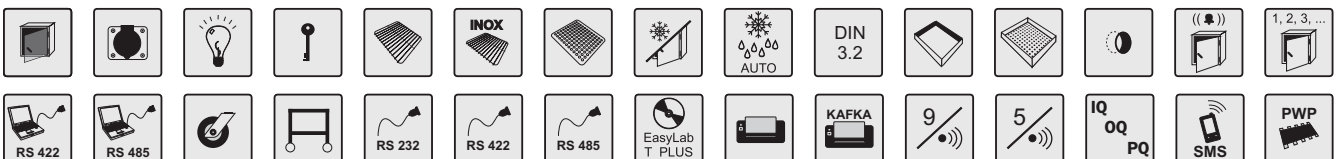
NEW CHL+ RANGE!!!

Models CHL 2...CHL 5 were previously available with plastic interior. These models are available now as new “+” range with aluminum interior and adjustable shelves! Housing remains powder painted. New range of CHL 2+...CHL 5+ gives additionally possibilities of any chambers combination due to the same base structure. Stainless steel interior and housing on request!

Standard equipment

- solid door
- temperature range 0...+10 °C
- RS 232 interface; RS 232 cable must be purchased additionally (RSK)
- wire shelves (with slides set) in case of aluminum interior and stainless steel wire shelves in case stainless steel interior
- manufacturer's test certificate at +4 °C
- operation manual in English and English menu (other languages on request)
- over temperature protection 1.0 class according to DIN 12880

Options and accessories (icon description see page 51)



Laboratory refrigerators **CHL** Single chamber

TB 35 INOX











Available options

CHL*/T - extended temperature range to -10 °C

CHL*/A - external glass door

PLUS - automatic defrosting function during operating

A mini refrigerator TB 35 INOX with an additional battery power supply guarantees continuous operating in case of power failure. Details see page 19.

Parameter		Model	CHL 1+	CHL 2+	CHL 3+	CHL 4+	CHL 5+	CHL 500	CHL 700	CHL 1200
										
air convection			forced							
chamber capacity ¹	[l]		68	150	200	250	300	493	625	1365
	[cu ft]		2,4	5,2	7	8,8	10,5	17,4	22	48,2
door type			solid / glass (option)							
temperature range	[°C]		0...+10					0...+10 / -10...+10 (option)		
	[°F]		+32...+50					32...+50/+14...+50 (option)		
controller			microprocessor with external display							
interior			aluminum (stainless steel on request)					aluminum / stainless steel		
housing			powder coated sheet (stainless steel on request)					powder coated sheet / stainless steel (INOX/G or INOX/S)		powder coated sheet / stainless steel (INOX/S)
overall dims [mm]	width		550	600	600	600	600	620	720	1435
	height		600	850	1050	1250	1450	2010	2010	2010
	depth		650	600	600	600	600	800	865	865
internal dims [mm]	width		470	520	520	520	520	510	600	1310
	height		430	660	860	1060	1260	1510	1510	1510
	depth		300	490	490	490	490	640	690	690
nominal power [W]			160	170	170	330	330	400	400	550
weight [kg]			30	48	52	61	66	117	127	225
temperature accuracy [°C]			every 0,1							
temperature fluctuation ² at +4°C [°C]			±0,5	±0,5	±0,5	±0,5	±0,5	±0,5	±0,5	±0,8
over temperature protection			class 1.0 according to DIN 12880							
voltage 50 / 60 Hz [V]			110-120/220-240							
shelves fitted / max			2/2	3/4	3/4	4/6	4/7	3/11	3/11	2 x 3/11 ³
warranty			24 months							
manufacturer			POL-EKO-APARATURA							

1 - working capacity of chamber can be smaller
 2 - fluctuation measured in centre of the chamber
 3 - two columns with 3 shelves each

Double chamber

Available options for each chamber

CHL*/T - extended temperature range to -10 °C

CHL*/A - external glass door

PLUS - automatic defrosting during operating








There is a possibility to combine different sizes of **ST+** and **CHL+** chambers between models **ST/CHL+ 2-5**. (e.g **ST 2+/CHL 3+**)

Example of configuration

To configure a double chamber laboratory refrigerator, e.g.:

- upper chamber with solid door and temperature range 0...+10 °C
- lower chamber with solid door and temperature range -10...+10 °C, you select:

for CHL 350/350 model: **CHL 350/350**
and **CHL 350/T** option for lower chamber

Model		CHL 1/1+	CHL 1/1/1+	CHL 2/2+	CHL 2/3+	CHL 2/4+	CHL 3/3+	CHL 350/350	
Parameter									
air convection		forced							
upper/lower ¹ chamber capacity	[l]	68/68	68/68/68	150/150	150/200	150/250	200/200	294/294	
	[cu ft]	2,4/2,4	2,4/2,4/2,4	5,2/5,2	5,2/7,0	5,2/8,5	7,0/7,0	10,3/10,3	
door type		solid / glass (option)							
temperature range	[°C]	0...+10/-10...+10 (only for CHL 350/350)							
	[°F]	+32...+50/+14...+50 (only for CHL 350/350)							
controller		microprocessor with external display separate for each chamber							
interior		aluminum (stainless steel on request)							aluminum / stainless steel
housing		powder coated sheet (stainless steel on request)							powder coated sheet / stainless steel (INOX/S)
overall dims [mm]	width	550	550	600	600	600	600	720	
	height	1170	1740	1670	1870	2070	2070	2025	
	depth	600	600	600	600	600	600	860	
internal dims [mm] (each chamber)	width	470	470	520	520	520	520	600	
	height	430	430	660	660/860	860	660/1060	700	
	depth	300	300	490	490	490	490	700	
nominal power [W]		320	480	350	350	350	350	800	
weight [kg]		65	100	100	105	110	115	162	
temperature resolution [°C]		every 0,1							
temperature fluctuation ² at +37 °C [°C]		±0,2	±0,2	±0,3	±0,3	±0,3	±0,3	±0,5	
over temperature protection		class 1.0 according to DIN 12880							
voltage 50/60Hz [V]		110-120/220-240							
shelves fitted / max		2/2	2/2	3/4	3/4	3/4	3/4	2/6	
warranty		24 months							
manufacturer		POL-EKO-APARATURA							

1 - working capacity of chamber can be smaller

2 - fluctuation measured in centre of the chamber