POL-EKO
Perfect Environment

Refrigerators & Freezers

Laboratory refrigerators are equipped with a cooling system and can provide a stable temperature between 0°C ... +15°C

USB port

7.7°C

door lock

temperature sensor

internal LED light

access port (Ø30 mm)

fan

wire shelf

solid door,
glass (option),
double (option)

Laboratory refrigerator CHL 2 P Smart PRO

ilac-MRA

We have been always reaching our goals by designing and implementing innovative technical solutions. Our designers, supported by the R&D unit, combine cutting-edge technology with creativity to deliver state-of-the art equipment. Customized solutions and out-of-the box projects that we willingly carry out are a great an endeavour and inspire us for further development.

STANDARD FEATURES

- temperature range 0...+15°C
- quality control protocol (at +4°C)
- English instruction manual
- temperature protection class 1.0 (Smart) and 3.2 (Smart PRO) to DIN 12880
- open door alarm
- castors in standard for models CHL 1200 and 1450
- LAN and USB ports
- internal LED light
- access port (Ø30 mm) on the left wall
- door lock
- wire shelves in B (basic) models, stainless steel wire shelves (INOX) in C (comfort) and P (premium) models
- solid door
- anchoring kit for CHL 500, 700, 1200, 1450 and double/triple chambers

EXTRA FOR **SMART PRO**

- Wi-Fi
- LAN cable
- LabDesk

AVAILABLE VERSIONS

- Smart
- Smart PRO
- TR tropic (on request) for higher ambient temperatures
- double/triple chamber
- combined with ZLN 85 or ST

SOFTWARE

- LabDesk for data download to a PC via LAN or Wi-Fi (optional for Smart version)

Application

- storage of water and sewage samples, piezometer leachate
- storage of AAS, GC or HPLC calibration standards
- storage of reagents
- storage of medicines and vaccines

Parameter		CHL 1	CHL 2	CHL 3	CHL4	CHL 5	CHL 6	CHL 500	CHL 700	CHL 1200	CHL 1450
air convection		forced →									
chamber capacity [l]		70	150	200	250	300	400	500	625	1365	1540
working capacity [l]		55	122	163	203	243	324	469	611	1355	1525
door type		solid / glass or double[1] (option)									
temperature range [°C]		0...+15									
temperature resolution [°C]		every 0,1									
controller		microprocessor PID, 4,3" (Smart) / 7" (Smart PRO) full colour touch screen									
interior	B (basic)	aluminum									
	C (comfort)	stainless steel to DIN 1.4016									
	C S (comfort/S)	stainless steel to DIN 1.4016									
	P (premium)	acid-proof stainless steel to DIN 1.4301									
	PS (premium/S)	acid-proof stainless steel to DIN 1.4301									
housing	B (basic)	powder coated sheet									
	C (comfort)	powder coated sheet									
	CS (comfort/S)	polished stainless steel									
	P (premium)	powder coated sheet									
	PS (premium/S)	polished stainless steel									
overall dims[2] [mm]	A width	550	600	600	600	600	600	640	730	1460	1440
	B height	660	900	1100	1300	1500	1900	1990	1990	1990	1940
	C depth	680	650	650	650	650	650	880	960	960	1060
internal dimis[3] [mm]	D width	430	480	480	480	480	480	480	540	1270	1270
	D' width	470	520	520	520	520	520	510	600	1340	1340
	E height	430	660	860	1060	1260	1660	1510	1510	1510	1460
	F depth	300	420	420	420	420	420	610	680	680	780
	F' depth	360	480	480	480	480	480	-	-	-	-
	G depth	-	320	320	320	320	320	-	-	-	-
	H height	-	440	640	840	1040	1440	-	-	-	-
	I height	-	-	-	-	-	-	1380	1380	1380	1380
max shelf workload[4] [kg]	-	10	10	10	10	10	10	20	30	30	30
	PW[5] version	on request						100	100	100	100
max unit workload [kg]	-	20	30	40	50	60	60	100	150	300	300
	W[6] version	on request									
nominal power [W]		250	250	250	250	350	350	650	650	650	950
weight[7] [kg]		37	54	61	69	75	90	105	121	185	200
temperature fluctuation* at +4°C [+/- °C]		0,4	0,4	0,4	0,4	0,4	0,6	0,6	0,8	1,0	1,0
temperature variation* at +4°C [+/- °C]		0,7	0,7	0,7	0,8	0,9	0,9	1,0	1,0	1,2	1,2
temperature protection		class 1.0 to DIN 12880 / class 3.2 (option) / class 3.2 in Smart PRO									
power supply**		230V 50-60Hz									
shelves fitted/max		2/2	3/4	3/4	4/6	4/7	4/10	3/11	3/11	2 x 3/11[8]	2 x 3/11[8]
refrigerant		R1234ze / GWP=1						R290 / GWP=3			
warranty		24 months									
manfacturer		POL-EKO									

all the above technical data refer to standard units (without optional accessories)
* - fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as: K= +/- (T avg max - T avg min) / 2
** - other power supplies on request
1 - additional internal glass door
2 - depth doesn't include 50 mm of power cable,
　　the width does not include the 20 mm of rubber plug
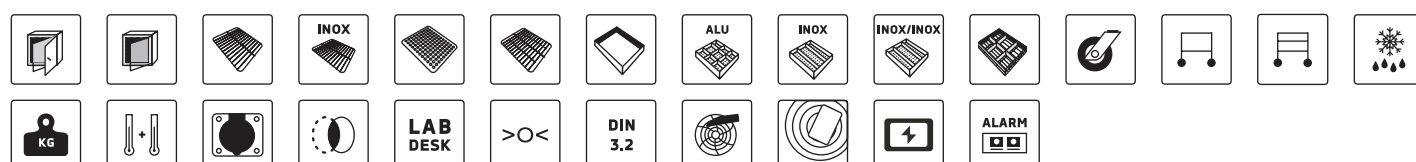3 - dims of units with double door are smaller
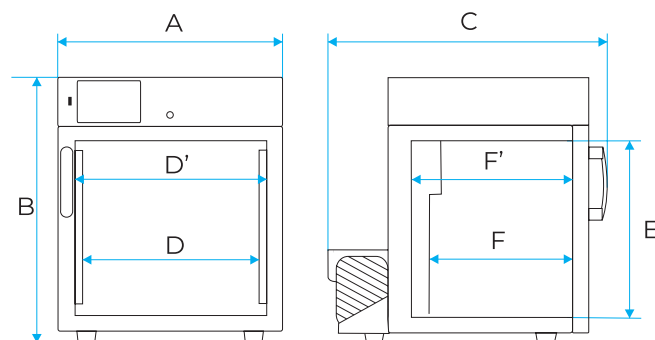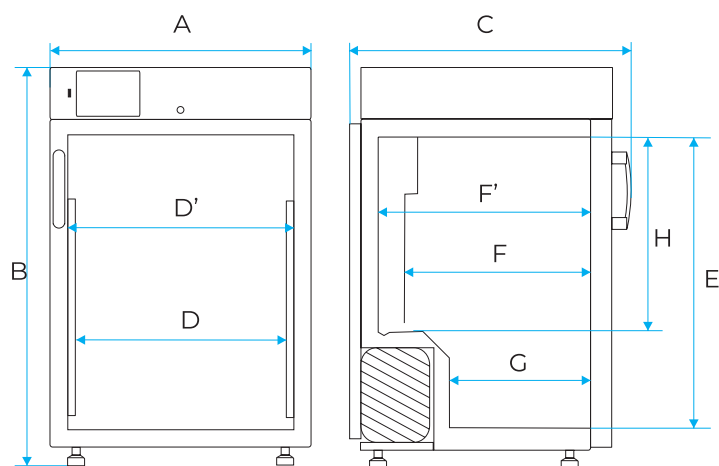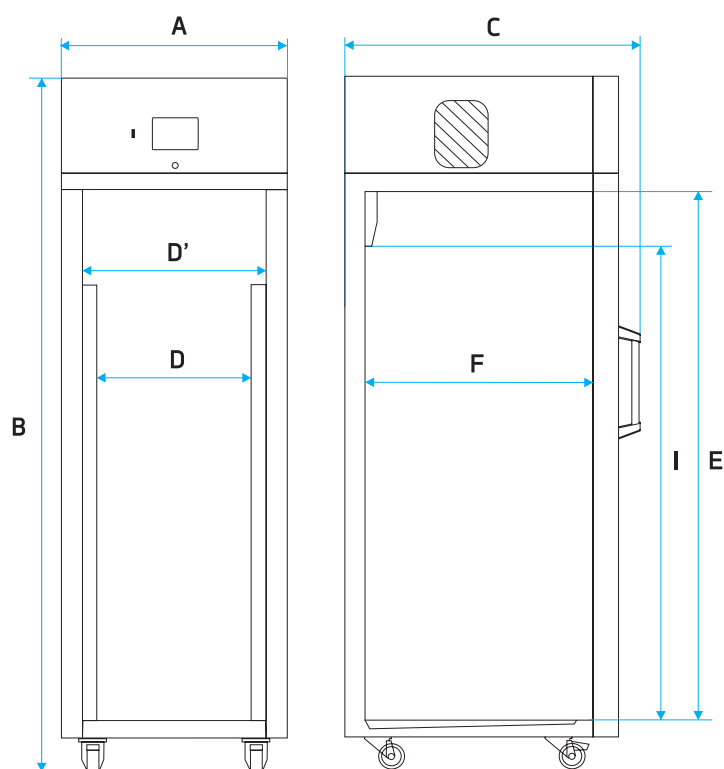
4 - on uniformly loaded surfce
5 - reinforced shelf
6 - reinforced version
7 - for units with solid door, in version B (basic)

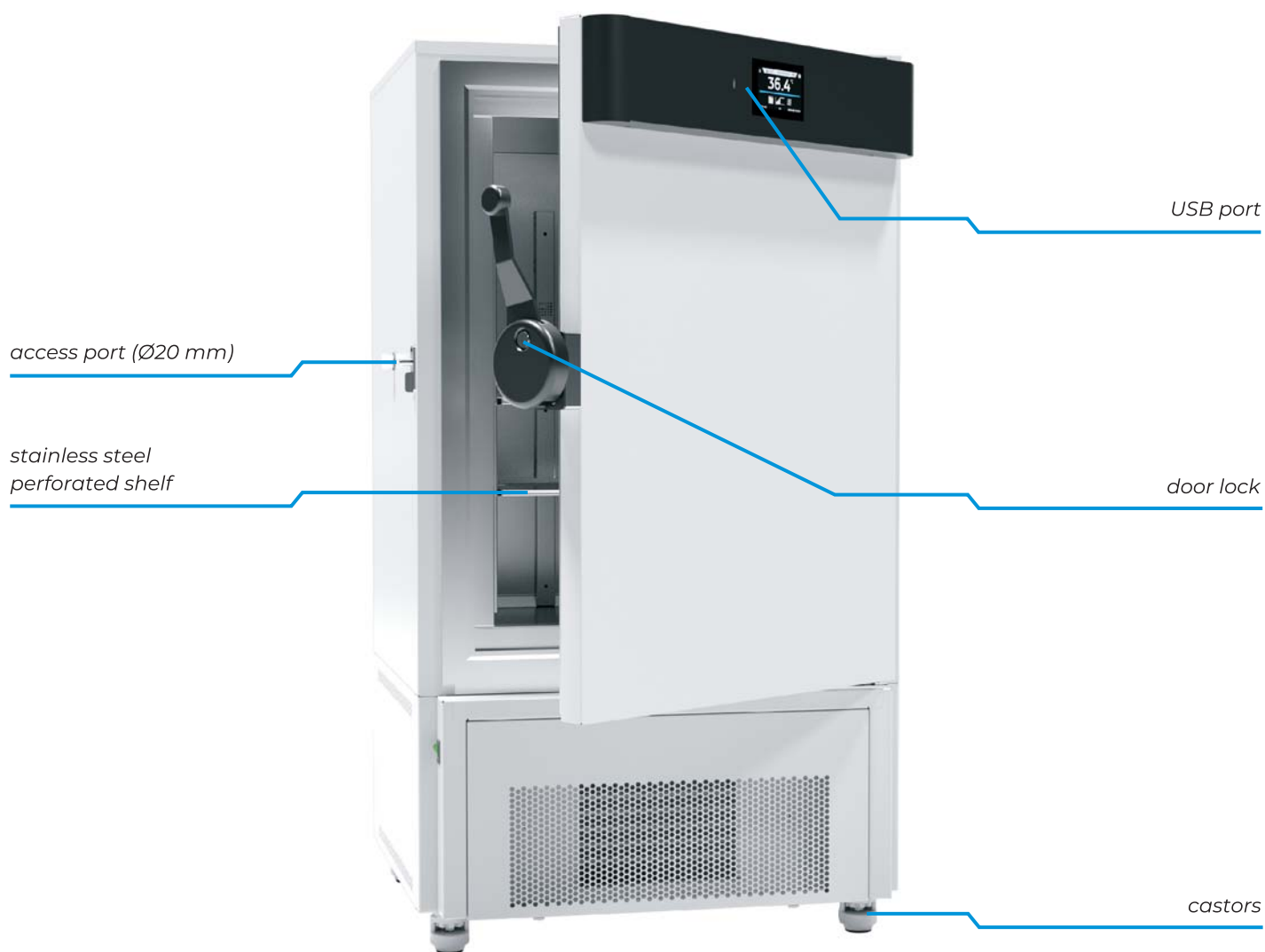8 - two columns with 3 shelves each

Options and accessories (icon description see pages 80-86)

Dimensions CHL 1

Dimensions CHL 2/3/4/5/6

Dimensions CHL 500/700/1200/1450

Laboratory freezers can freeze and store frozen samples

USB port

access port (Ø20 mm)

stainless steel perforated shelf

door lock

castors

Laboratory freezer ZLN-T 200 C Smart

Advanced control systems and electronics are indispensable for achieving success, there's no doubt about it. Nowadays, no one can imagine working in a laboratory without technology. New solutions emerge in the market every day, so staying up to date with them is a big challenge for our team. We implement the latest hi-tech solutions to provide our customers with great product experience.

STANDARD FEATURES

- temperature range -25...0°C for ZLN 85 and -40...0°C for ZL-T 125, 200, 300
- quality control protocol (at -20°C)
- English instruction manual
- open door alarm
- castors in standard (except ZLN 85)
- LAN and USB ports
- access port (Ø20 mm) on the left wall
- door lock
- stainless steel wire shelves (INOX) for ZLN 85
- stainless steel shelves with hole for ZLN-T 125, 200, 300 and perforated for ZLW-T 200, 300
- solid door

EXTRA FOR **SMART PRO**

- Wi-Fi
- LAN cable
- LabDesk

AVAILABLE VERSIONS

- Smart
- Smart PRO
- with natural air convection
- with forced air convection
- reinforced

SOFTWARE

- LabDesk for data download to a PC via LAN or Wi-Fi (optional for Smart version)

Application

- long-term storage of samples and biological material for research
- storage of easily decomposing material (e.g. solid state)
- freeze resistance tests (e.g. of building materials: concrete, wood etc.)
- pre-freezing
- plasma storage

Parameter		ZLN 85	ZLN-T 125	ZLN-T 200	ZLN-T 300	ZLW-T 200	ZLW-T 300
air convection		natural				forced	
chamber capacity [l]		85	130	210	310	210	310
working capacity [l]		73	109	180	262	140	213
door type		solid					
temperature range [°C]		-25...0	-40...0				
temperature resolution [°C]		every 0,1					
controller		microprocessor PID, 4,3" (Smart) / 7" (Smart PRO) full colour touch screen					
interior	C (comfort)	stainless steel to DIN 1.4016					
	CS (comfort/S)	stainless steel to DIN 1.4016					
	P (premium)	acid-proof stainless steel to DIN 1.4301					
	PS (premium/S)	acid-proof stainless steel to DIN 1.4301					
housing	C (comfort)	powder coated sheet					
	CS (comfort/S)	polished stainless steel					
	P (premium)	powder coated sheet					
	PS (premium/S)	polished stainless steel					
overall dims[1] [mm]	A width	620	720	820	820	820	820
	B height	930	1190	1380	1730	1380	1730
	C depth	650	810	810	810	810	810
internal dims [mm]	D width	380	370	450	450	450	450
	D' width	420	420	520	520	520	520
	E height	590	600	770	1120	770	1120
	F depth	400	520	520	520	520	520
	F' depth	440	530	530	530	530	530
	G depth	230	-	-	-	-	-
	H height	380	-	-	-	550	900
max shelf workload[2] [kg]	-	10	10	10	10	10	10
	PW[3] version	-	50	50	50	50	50
max unit workload [kg]	-	30	50	65	80	65	80
	W[4] version	-	100	130	160	160	160
nominal power [W]		200	450	450	450	450	450
weight [kg]		62	105	120	185	120	185
temperature fluctuation* at -20°C [+/- °C]		0,5	0,5	0,5	0,5	1,5	1,5
temperature variation* at -20°C [+/- °C]		2,0	2,0	2,5	2,5	1,8	1,8
temperature protection		class 3.2 to DIN 12880 (option)					
power supply**		230V 50-60Hz					
shelves fitted/max		2/4	2/3	2/4	3/6	2/4	3/6
refrigerant		R455A / GWP=146	R290 / GWP=3				
warranty		24 months					
manufacturer		POL-EKO					

all the above technical data refer to standard units (without optional accessories)
* - fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as: K= +/- (T avg max - T avg min) / 2
** - other power supplies on request
1 - depth doesn't include 50 mm of power cable
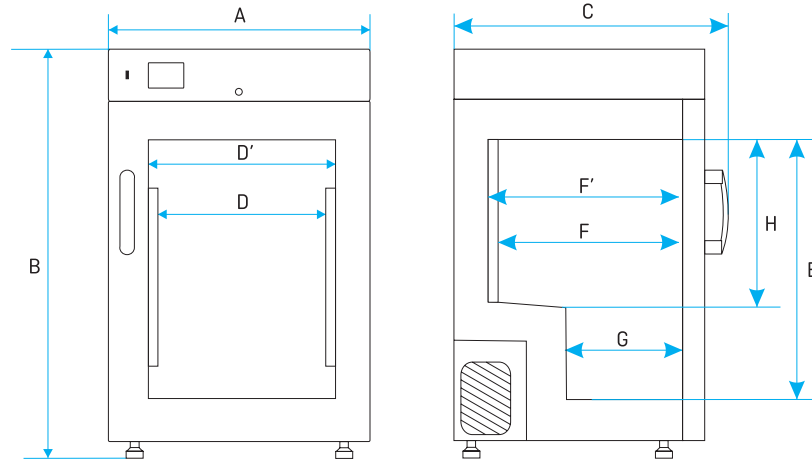2 - on uniformly loaded surface
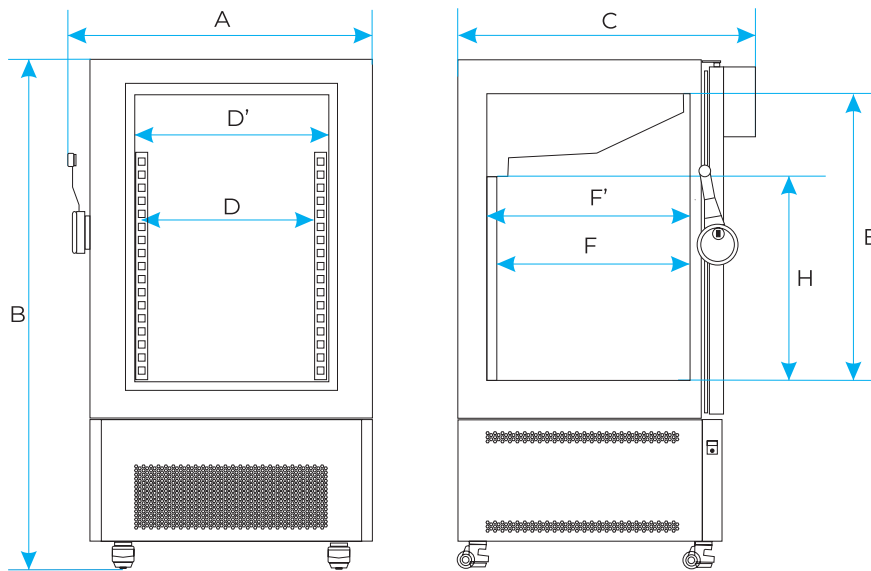3 - reinforced shelf
4 - reinforced version
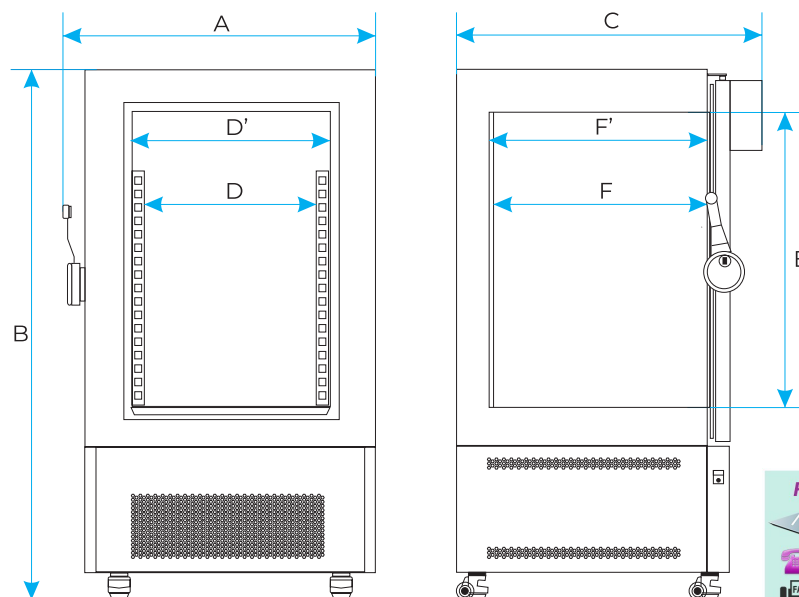
Options and accessories (icon description see pages 80-86)

Dimensions ZLN 85

Dimensions ZLW-T 200/300

Dimensions ZLN-T 125/200/300