

Cooled incubators

Application

- microbiological tests
- plant growing, microorganisms breeding at precisely controlled environment
- BOD determination
- incubation of samples at specified temperature








Cooled incubators are perfect for incubation of samples in a stable environment, regardless of ambient conditions, at temperatures from -10 up to +100°C.

Calibration



All thermostatic equipment manufactured by POL-EKO-APARATURA can be provided with Calibration Certificate issued by accredited Measurement Laboratory. Detailed information on accreditation is available on website: www.pol-eko.eu.

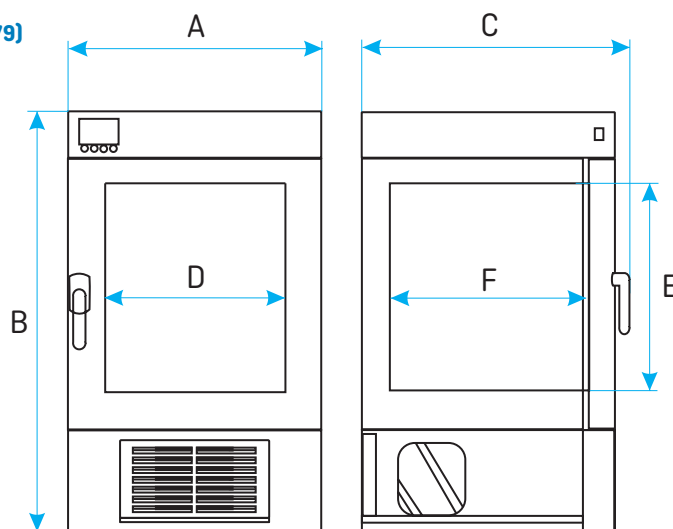
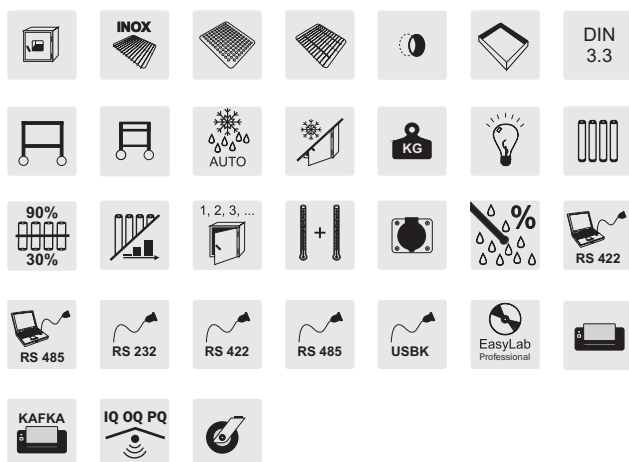
| | | ILW 53 | ILW 115 | ILW 240 | ILW 400 | ILW 750 |
|--------------------------------------|-------------------------|---|---|---|---|---|
| Parameter | |  |  |  |  |  |
| air convection | | forced | | | | |
| chamber capacity ¹ [l] | | 56 | 112 | 245 | 424 | 749 |
| door type | | double/door with viewing window (option) | | | | |
| temperature range [°C] | | -10 (option)/ 0...+70 (+100 for TOP+ version) | | | | |
| temperature resolution [°C] | | every 0,1 | | | | |
| controller | | microprocessor with external LCD graphic display | | | | |
| interior | | acid-proof stainless steel to DIN 1.4301 | | | | |
| housing | - | powder coated sheet | | | | |
| | INOX/G | stainless steel linen finish | | | | |
| overall dims ² [mm] | A width | 610 | 660 | 820 | 1040 | 1260 |
| | B height | 960 | 1100 | 1430 | 1680 | 1910 |
| | C depth | 630 | 720 | 780 | 780 | 880 |
| internal dims [mm] | D width | 400 | 460 | 600 | 800 | 1040 |
| | E height | 390 | 540 | 800 | 1040 | 1200 |
| | F depth | 360 | 450 | 510 | 510 | 600 |
| max shelf workload ³ [kg] | - | 25 | 25 | 25 | 25 | - |
| | PW ³ version | 50 | 50 | 100 | 100 | 100 |
| max unit workload [kg] | - | 40 | 60 | 90 | 120 | 140 |
| | W ⁴ version | 80 | 120 | 300 | 300 | 300 |
| nominal power [W] | | 450 | 450 | 900 | 1300 | 1900 |
| weight ⁵ [kg] | | 69 | 90 | 140 | 185 | 275 |
| over temperature protection | | class 2.0 according to DIN 12880 / class 3.3 (option) / 3.3 in TOP+ | | | | |
| power supply* | | 230 V 50 Hz | | | | |
| shelves fitted | | 2/5 | 2/7 | 3/10 | 3/14 | 5/16 |
| warranty | | 24 months | | | | |
| manufacturer | | POL-EKO-APARATURA | | | | |

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

* also available: 230V 60Hz, 115V 60Hz

- 1 - working capacity of chamber can be smaller
- 2 - depth doesn't include 50 mm of power cable
- 3 - reinforced shelf
- 4 - reinforced version
- 5 - on uniformly loaded surface
- 6 - for units with double door without optional equipment

Options and accessories (icon description see pages 78-79)





Innovative and ecological ILP Peltier-cooled incubators

Advantages of Peltier-cooled incubators



Quiet operation

The noise generated by the unit has been limited significantly to create more comfortable working conditions in the laboratory.



Environmentally friendly

Elimination of compressor and refrigerants ensures environmental protection.



Lighter and smaller

The Peltier-element system has reduced the size and weight of the unit.



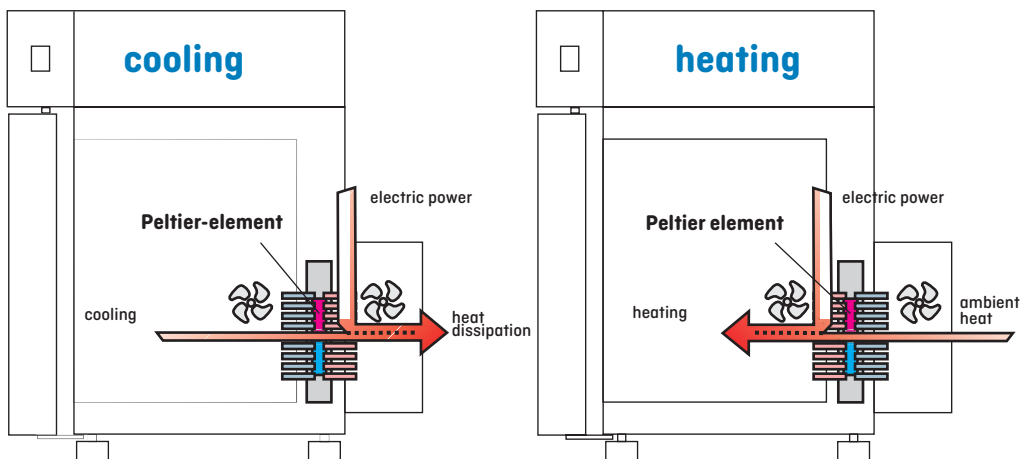
Vibration-free

With the introduction of the Peltier-element system, vibrations previously generated by the compressor have been eliminated.



Perfect performance

The cooling system based on the Peltier-element features excellent temperature stability and uniformity. It also improves the temperature recovery time (e.g. after door opening).



Calibration



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ILP 53

ILP 115



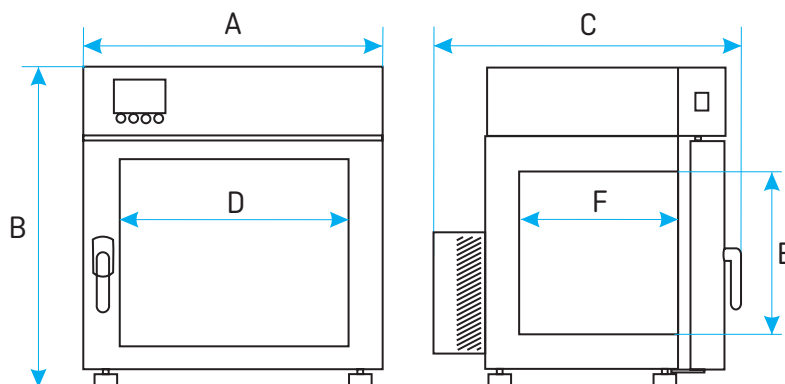
| Parameter | ILP 53 | ILP 115 |
|--------------------------------------|---|------------------------------|
| air convection | forced | |
| chamber capacity [l] | 56 | 112 |
| door type | double / door with viewing window (option) | |
| temperature range [°C] | 0...+70 (max 20°C below ambient temperature) | |
| temperature resolution [°C] | every 0,1 | |
| controller | microprocessor with external LCD graphic display | |
| interior | acid-proof stainless steel to DIN 1.4301 | |
| housing | - | powder coated sheet |
| | INOX/G | stainless steel linen finish |
| overall dims [mm] | A width | 590 |
| | B height | 710 |
| | C depth | 690 |
| internal dims [mm] | D width | 400 |
| | E height | 390 |
| | F depth | 360 |
| max shelf workload ¹ [kg] | 25 | 25 |
| max unit workload [kg] | 50 | 50 |
| nominal power [W] | 500 | 600 |
| weight [kg] | 69 | 90 |
| over temperature protection | class 2.0 to DIN 12880 / class 3.3 (option) / class 3.3 in TOP+ | |
| power supply* | 230 V 50 Hz | |
| shelves fitted/max | 2/5 | 2/7 |
| warranty | 24 months | |
| manufacturer | POL-EKO-APARATURA | |

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

* also available: 230V 60Hz, 115V 60Hz

1 - on uniformly loaded surface

Options and accessories (icon description see pages 78-79)

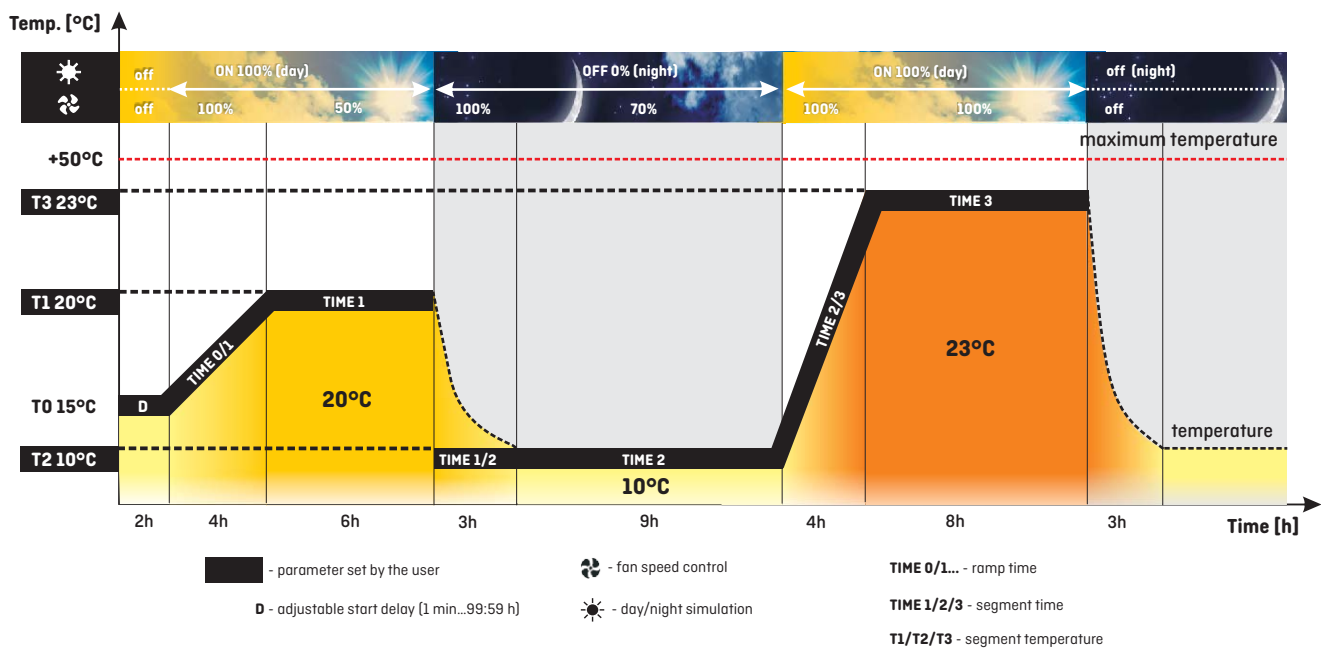


Cooled incubators (ILW) with photoperiodic system

The photoperiodic (FOT) and phytotron (FIT) systems allow day and night simulation. While the FOT option enables turning the light on and off in a program, the FIT option can additionally control the light intensity. The photoperiodic system is designed for cooled incubators in the STD version and the phytotron system for the TOP+ version.

Program possibilities with FOT option

- day and night simulation software to control light (on/off), time and temperature separately for each segment
- temperature range for "night": -10°C up to +60°C (with IL/T option)
- temperature range for "day": +10°C up to +50°C
- lamps installed in the door or ceiling
- fluorescent lamp 840 type (daylight) used as standard
- operating with time priority (see page 80)
- automatic defrosting function included



Photoperiodic system (* /FOT option) for cooled incubators (ILW)**

| | IL/FOT2S | IL/FOT3S | IL/FOT5D | IL/FOT6D | IL/FOT8D | IL/FOT10D |
|---|--------------|----------|----------|--------------------|-------------------------------|-----------|
| available for models | ILW 53 | ILW 115 | ILW 53 | ILW 115 ILW 240 | ILW 240 ILW 400 ILW 750 | ILW 750 |
| temperature range with photoperiod [°C] | +10... +50°C | | | | | |
| number of lamps in door | - | - | 5 | 6 | 8 | 10 |
| number of lamps in ceiling | 2 | 3 | - | - | - | - |
| adjustable illumination intensity | no | | | | | |

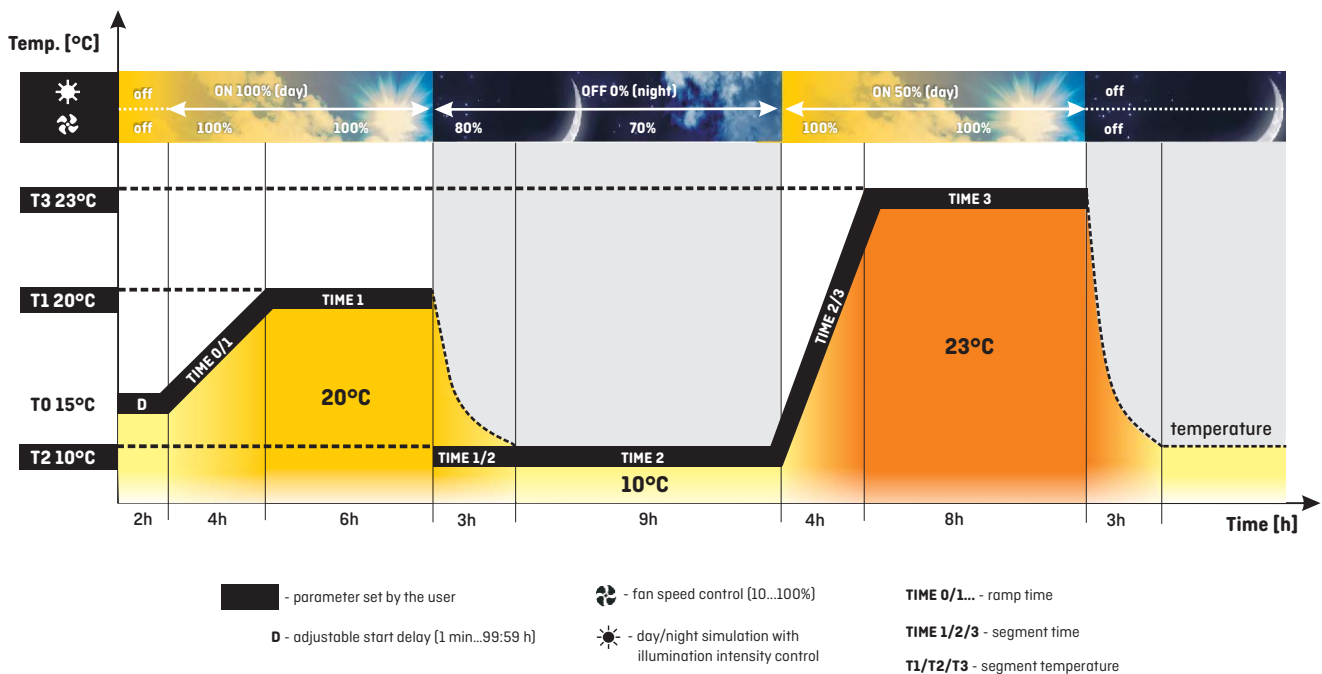
** FOT option is factory preinstalled. There is no possibility to order it separately.

Cooled incubators (ILW) with phytotron system

The TOP+ version of cooled incubators (models ILW 115, 240, 400, 750) can be equipped with the FIT system.

Program possibilities with FIT option

- day and night simulation software to control light intensity [%], time, temperature and fan speed separately for each segment
- temperature range for "night": -10°C up to +60°C (with IL/T option)
- temperature range for "day": +10°C up to +50°C
- lamps installed in over-shelf panels (FIT P) or in the door (FIT D)
- fluorescent lamp 840 type (daylight) used as standard
- operating with temperature or time priority (see page 80)
- automatic defrosting function included



| | ILW 115 | ILW 240 | ILW 400 | ILW 750 |
|-------|---------|---------|---------|---------|
| FIT P | + | + | + | + |
| FIT D | + | + | + | + |

Phytotron system (* /FIT option) for cooled incubators (ILW) in TOP+ version.

| | IL/115/FIT P | IL/240/FIT P | IL/400/FIT P | IL/750/FIT P |
|---|---------------|--------------|--------------|--------------|
| temperature range with phytotron ON [°C] | +10 ... +50°C | | | |
| number of over-shelf panels with illumination std/max | 1/1 | 1/2 | 1/2 | 1/3 |
| adjustable illumination intensity | yes | | | |