



**Best Technology**  
For Your Laboratory

**GROWTH CHAMBER**

# GROWTH CHAMBER

ZFL 240



## Overview | ZFL240

The FG ZFL series growth chambers achieve homogeneous light distribution and ensure consistent temperature conditions with its natural illumination. Minimized response times guarantee that all test and growth parameters remain balanced. The weekly program timer integrated in the controller is a real plus in handling.

This device is used in a variety of industrial, agriculture and research laboratories

## Main features | ZFL240

User- friendly LCD color screen with touch key

Very tight door closure with 2-point door latch

4 CASTERS (2 front casters with brake)

Automatic temperature and humidity monitor

Two stainless steel shelves

Door Heating system

Inner glass door

Real-time clock

Circulation fan

## Special benefits | ZFL240

### HCT (Homogenic chamber technology)

Temperature and humidity stability and reproducibility

Uniform circulation even under full load

Uniformity @ 27 points of chamber

Short recovery time

Triple-walled

### DUAL SAFETY

Class 3.3 independent temperature safety device (DIN12880) (TWW)

Class 3.1 independent temperature safety device (DIN12880) (TWB)

Adjustable safety thermostat with separate sensor

Audible and Visual alarm

### NON-CUT technology

Powerful cooling system for safe operation up 30°C ambient temperature

Dual evaporator

Frost-free

## Special benefits | ZFL240

### Flexible water management with anti-polar technology

Water sensor protection thanks to anti-polar technology

Electric sensor for adjust water surface

Prevent water deposition on sensors

### Unique humidification system

Vapor pressure humidification with fast response time

Solution independent of installation sight

Pump for discharges up to 1 m in height

Short recovery times after door opening

Drift-free, capacitive humidity sensor

Finely adjustable humidity control

External water supply

## Special benefits | ZFL240

### ARM series micro controller

Save temperature, humidity, fan speed and all events up to 5 years

Controller which can store 3 programs of 100 steps

6 points user temperature calibration

Double PT100 temperature sensor

2 points user humidity calibration

PID controller with high accuracy

"7" Color graphic TFT LCD

Capacitive touch key

Lock functions

### DOCUMENTATION

Internal memory for temperature, humidity, fan speed logs up to two years

Ethernet (LAN) interface for connecting to PC, using FG lab software

Documentation in support of GMP/GLP compliance

## Special benefits | ZFL240

### STM (smart temperature monitor)

Alarm for temperature and humidity

Audible and visual alarm

Door open alarm

SMS alarm

### HLD technology (homogeneous light distribution)

Changeable light (Cool white light, warm white light, Flaura)

Variable position and removable illumination cassettes

Homogeneous light over the entire usable space

Dimmable LED light by 10%

## Specifications | ZFL240

### Exterior dimensions

Depth Plus controller, door handle and water source (cm)	95
Depth Plus door handle (cm)	75
Width (cm)	90
Height (incl. feet) (cm)	148
Number of doors	1
Number of glass door	1

### Exterior dimensions

Interior volume (L)	240
Height (cm)	80
Width (cm)	66
Depth (cm)	45.5
Weight (empty)(Kg)	150
Load per rack (Kg)	40
Permitted total load (Kg)	150
Racks (number standard-max.)	2-8
Light intensity (lux)	7500
Number of cassettes	2



## Specifications | ZFL240

### Climatic data

Recovery time after doors were open for 30sec@25°C and 60% humidity(min)*	10
Temperature uniformity with illumination @ 25°C (±K)	±1.5
Temperature uniformity without light cassette @ 25°C (±K)	±0.1
Temperature fluctuation with illumination @ 25°C(±K)	±1
Temperature fluctuation without light cassette @ 25°C (±K)	±0.5
Temperature uniformity with illumination @ 40°C(±K)	±1.5
Temperature uniformity without light cassette @ 40°C (±K)	±1
Temperature fluctuation with illumination @ 40°C(±K)	±1
Temperature fluctuation without light cassette @ 40°C (±K)	±0.5
Humidity fluctuation (%RH)	±5
Temperature range without light cassette (°C)	10-60
Temperature range with illumination and light cassette (°C)	15-40
Humidity range without light cassette (±%RH)	10-80
Humidity range with light cassette (%RH)	30-80

## Specifications | ZFL240

### Installation condition

Wall clearance, rear (cm)	20
Wall clearance, side (cm)	15
Wall clearance, above (cm)	40
Maximum ambient temperature(°C)	26
Minimum ambient temperature(°C)	16
Maximum ambient humidity (%RH)	70

### Electrical data

Power (W)	2750
Frequency (HZ)	50
Voltage (V AC)	220
Current (A)	12.5

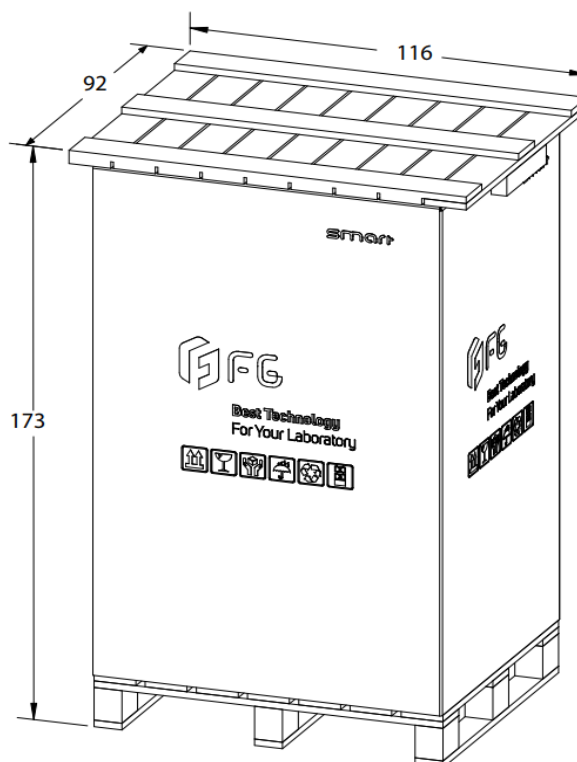
## Specifications | ZFL240

### Packing/ shipping data

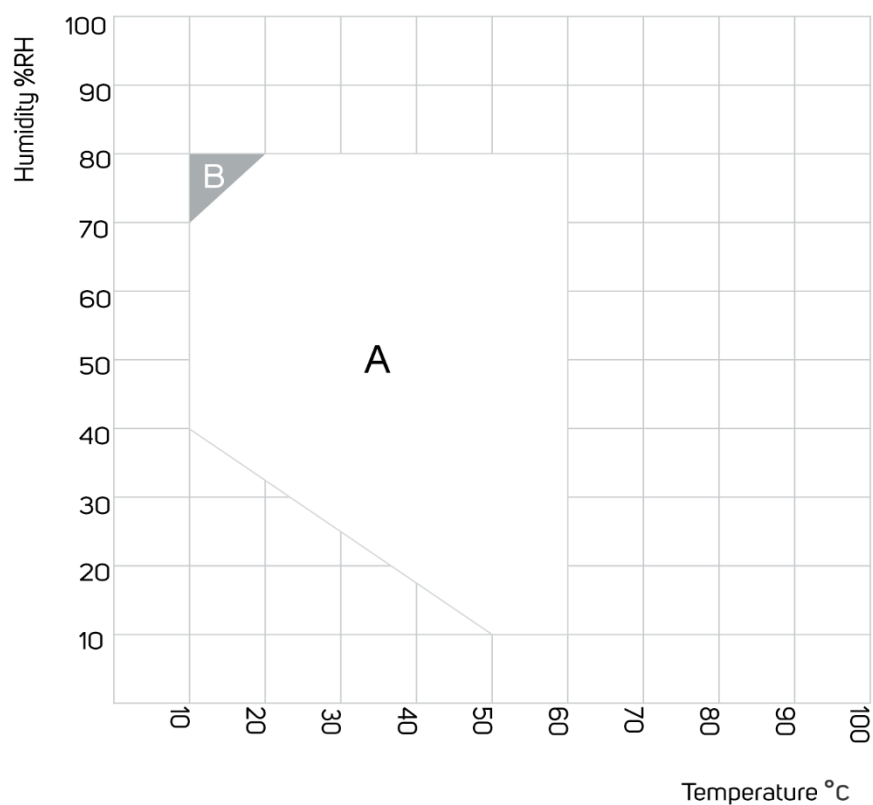
Transport information	Device Must be transported upright
Width incl carton (CM) approx.	116
Height incl carton & pallet underneath (CM) approx.	173
Depth incl carton (CM) approx.	92
Packing Material	Carton & 2 pallet: one underneath and one on top
Gross weight (KG) approx. with packing	210

\* To 98% of set value

- All technical data are specified for units with standard equipment at an ambient temperature of 25 °C and a line voltage fluctuation of  $\pm 10$
- There are some limits for set humidity and temperature, please see the temperature-humidity chart.



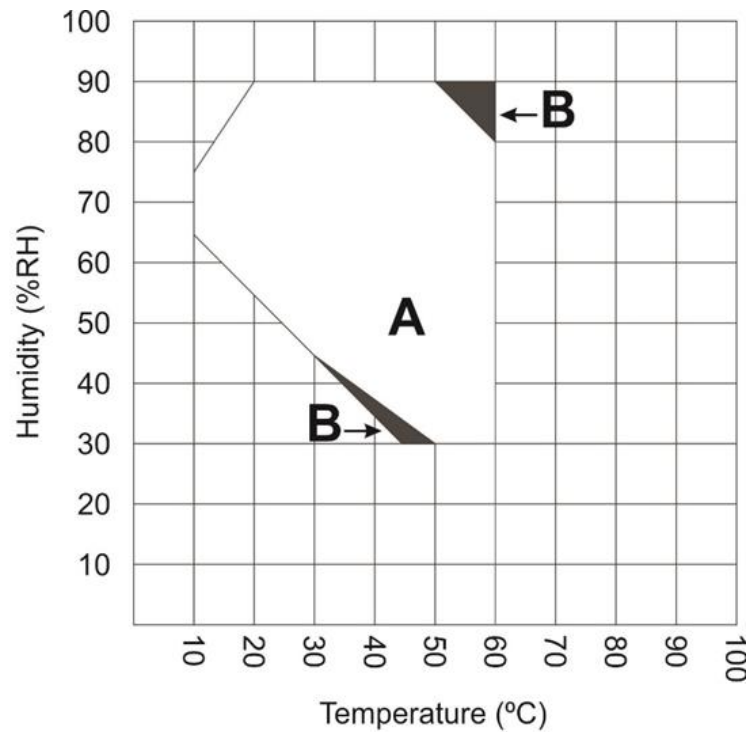
## Specifications | ZFL240



A: Guaranteed condensation-free range  
B: Time-limited operation (max. 24 hours)

Temperature -humidity chart without light cassette

## Specifications | ZFL240



Temperature -humidity chart with light

- A. Condensation free area
  - B. Deviations of technical data may be possible
- Other temperature-humidity values may be possible by order

## Options and accessories | ZFL240

Custom made order is available

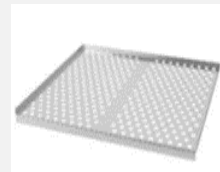


Access port with silicone plug

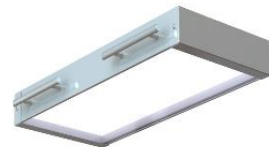
Qualification folder IQ/OQ/PQ



Additional stainless-steel rack



Light cassette



Calibration certificate





Email: [global@fginst.com](mailto:global@fginst.com)

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