



- // **SMALL ANIMAL REARING**
- // **LIVE INSECTS REARING CHAMBERS**
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ACCESSORIES FOR GROWTH
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PRODUCTS AND APPLICATIONS

- Moth growth chambers
- Genomics testing chambers
- Growth and incubation of invertebrates
- Drosophila and insects research incubators
- Small animal rearing
- Small mammals small mammals (mice and rats)
- Visitable plant growth chambers
- Refrigerated incubators
- Breeding and weaning research chambers
- Fish propagation

TYPICAL APPLICATIONS

Controlled animal rearing conditions: temperature and humidity with photoperiods.

Light intensity:

PPFD 2 to 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 to 10.000 Lux

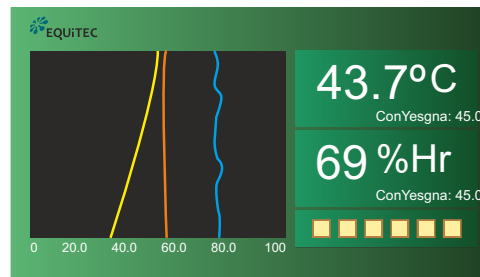
Selection of wavelengths:

Available spectrums: from 240 to 730 nm, depending on the required wavelength.

Airflow:

Airflow speed between 0.2 and 0.5 m/s, to ensure optimal temperature uniformity through growing area, reducing the surface stress of the animals.

CONTROLLERS



4500 SERIES CONTROLLER



NANODAC SERIES CONTROLLER

CULTURE TESTS CHAMBERS AND REFRIGERATED INCUBATORS

- Temperature range from +10° to +60° (from +4°C to -10°C optionally).
- Adjustable humidity range from 20% to 95% R.H.
- Graphical control panel with 4.3" touchscreen (7.0" TFT optionally).
- Electronic data recorder with graphical data representation and USB output for data download.
- Temperature and/or humidity control.
- Probe with 0,1°C precision.
- Control and programming of system parameters through PID microprocessor.
- Height-adjustable lights on the shelves and/or the top and/or the sides.
- Lighting control with 6 levels of intensity, with the possibility to simulate the sunrise/sunset.
- Horizontal or semi-horizontal airflow, to reduce stress on animals.
- Maximum light intensity in PPFD 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$.
- Optional regulation of the airflow speed, to reduce stress on plants.
- Optionally LED or fluorescent lights.
- Humidification system through ultrasounds (electrodes or vaporizers optionally).
- Product protection through safety thermostat for maximum/minimum temperature.
- Possibility of disinfection by means of hydrogen peroxide (in models with optional stainless steel in the interior chamber) or germicidal.
- UVC light evaporator coated with epoxy, very resistant to acids.

INSECTS AND ENTOMOLOGY DPH CHAMBERS
 HORIZONTAL AIRFLOW MODELS
 VERTICAL AIRFLOW MODELS

DPH CHAMBERS
 WITH HORIZONTAL AIRFLOW
 IN EGCHSDPH MODELS AND
 WITH VERTICAL AIRFLOW
 IN EGCVSDPH MODELS

LIGHTING CONTROL
 WITH OR WITHOUT
 HUMIDITY CONTROL

OPTIONALLY
 FROM +4°C TO +60°C
 FROM -10°C TO +60°C

EGCVSDPH
 AND EGCVS/HR MODELS
 FROM +10°C TO +60°C
 HUMIDITY RANGE
 FROM 20% TO 90% RH

FRONT DOOR LIGHTS

LIGHT INTENSITY FROM
 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$
 10 lux PPFD
 TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$
 10.000 lux PPFD**



from +10° to +60°C
 from 20% to 90% HR

Optional
 from -10° to +60°C
 from +4°C to +60°C



EGCHSDPH 855 LED //
 Model with LED lights
 on the front door



EGCVSDPH 355 HR FL //
 Model with lights on the front door



EGCHSDPH 353 HR LED //
 Model with LED lights on the front door

LABORATORY CHAMBERS FOR CLIMATE TESTS AT CONSTANT TEMPERATURE AND HUMIDITY (EGCHSDPH, EGCHSDPH/HR, EGCVSDPH AND EGCVSDPH/HR MODELS)

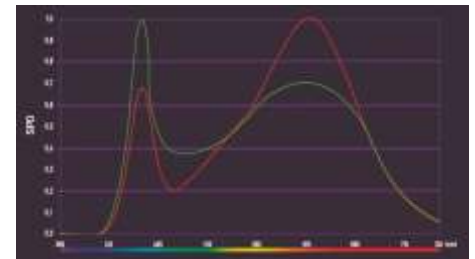
- Incorporate 4100 to 4500 controllers with graphical data representation.
- 4.3" or 7.0" backlit TFT touchscreen (depending on the model), for temperature and/or humidity control. Includes graphical representation of the temperature and/or humidity curve.
- +/-0.1°C on-screen precision.
- +/-1,0°C to 1,5°C homogeneity inside of the chamber at 37°C (depending on the model).
- +/-0,50°C to 1,0°C stability inside of the chamber at 37°C (depending on the model).
- Cooling system controlled by electrovalves.
- Safety thermostat to protect samples against high/low temperatures.
- Microprocessor to control temperature parameters through a Pt100 or capacitive probe (depending on the model), with +/- 0.1°C precision.
- Humidity control: between 20% and 90% RH (+/- 3% RH), in a temperature range between +20°C and +40°C in EGCHSDPH/HR and EGCVSDPH/HR models (depending on the model).
- Other temperature ranges are eligible.
- Capacitive electronic probe (4-20mA) with a +/-0,75% RH precision (optional 0,5% RH).
- Humidity generator by ultrasound, introducing microscopic water drops at room temperature inside of the chamber (electrodes, resistors or spray nozzles optionally).
- Drying system by condensation through refrigerating evaporator.
- Optional venting port.
- CO₂ measuring system (optional).
- Light intensity from 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPF to 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPF, ** (depending on the configuration).
- Measuring system of accumulated radiation intensity with radiation sensor (optional).
- Adjustable airflow speed, to ensure optimal temperature uniformity through the growing area and to reduce surface stress of the animal.



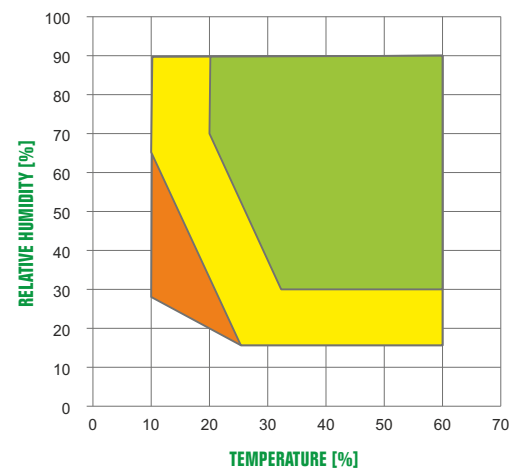
Horizontal airflow

TECHNICAL SPECIFICATIONS

- Internal door with thermal safety glass, with hermetic seal.
- Solid opaque external door, heated to avoid condensations in the internal glass door, self-closing and large handle.
- Microprocessor to control parameters with PID system.
- Audible and visible independent alarms for maximum and minimum temperatures, with backup battery, with more than 48h duration (72h optional).
- System settings protected by numerical password.
- Controller with records and graphical representation of maximum and minimum temperatures
- Optional: external door with heated double glass and large handle.
- Forced air cooling, horizontal or vertical airflow, and evenly distributed, with high homogeneity of the temperature inside of the chamber.
- 50 mm high density polyurethane insulation (CFC and HCFC free).
- CFC and HCFC free, biodegradable cooling gas.
- Hermetic compressor, built over dampers to reduce noise levels.
- Independent cooling and heating systems.
- AISI 304 stainless steel internal finish (AISI 316 optionally).
- Rounded corners for easy cleaning.
- Perforated stainless steel shelves, with adjustable height.
- Heated door frame to ensure an ice-free closure, in models up to -10°C.
- Magnetic seal in the external door to ensure hermetic closure of both the external and internal door.
- Door lock.
- Wall port hole to introduce wires and external instruments.
- Epoxy coated external steel finish.
- Stainless steel legs with adjustable height.
- 4 wheeled base to facilitate movement, with height-adjustable legs.
- Working in areas with temperatures up to +32°C.



High efficiency LED spectrum
* For LED details: see page 51



- OPERATING HUMIDITY RANGE
- RANGE DEPENDING ON CONFIGURATION
- OCCASIONAL RANGE FOR SHORT PERIODS

RANGE	ENTHOMOLOGY CLIMATIC TEST CHAMBERS - HORIZONTAL AIRFLOW. MODELS FRONT DOOR LIGHTS LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFd TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFd**				
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND LED LIGHT	EGCHSDPH 353 HR LED EGCHSDPH 355 HR LED	EGCHSDPH 503 HR LED EGCHSDPH 505 HR LED	EGCHSDPH 703 HR LED EGCHSDPH 705 HR LED	EGCHSDPH 753 HR LED EGCHSDPH 755 HR LED	EGCHSDPH 853 HR LED EGCHSDPH 855 HR LED
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND LED LIGHT	EGCHSDPH 353 LED EGCHSDPH 355 LED	EGCHSDPH 503 LED EGCHSDPH 505 LED	EGCHSDPH 703 LED EGCHSDPH 705 LED	EGCHSDPH 753 LED EGCHSDPH 755 LED	EGCHSDPH 853 LED EGCHSDPH 855 LED
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCHSDPH 353 HR FL EGCHSDPH 355 HR FL	EGCHSDPH 503 HR FL EGCHSDPH 505 HR FL	EGCHSDPH 703 HR FL EGCHSDPH 705 HR FL	EGCHSDPH 753 HR FL EGCHSDPH 755 HR FL	EGCHSDPH 853 HR FL EGCHSDPH 855 HR FL
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCHSDPH 353 FL EGCHSDPH 355 FL	EGCHSDPH 503 FL EGCHSDPH 505 FL	EGCHSDPH 703 FL EGCHSDPH 705 FL	EGCHSDPH 753 FL EGCHSDPH 755 FL	EGCHSDPH 853 FL EGCHSDPH 855 FL
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE/ POSITION	LED* or Fluorescents / Located in the front door				
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)				
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"				
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% RH				
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	296/350	370/490	472/650	624/730	663/830
INTERIOR MEASUREMENTS (mm) W x D x H*	760 x 600 x 650	605 x 600 x 1020	605 x 600 x 1300	605 x 600 x 1600	850 x 600 x 1300
EXTERIOR MEASUREMENTS (mm) W x D x H*	925 x 800 x 1200	850 x 800 x 1730	850 x 800 x 1980	850 x 800 x 1980	1100 x 800 x 1980
CLEAR OF DOOR (mm) W x H**	600 x 600	600 x 850	600 x 1100	600 x 1400	800 x 1100
INSULATOR THICKNESS (mm)	50	50	50	50	50
INTERIOR FINISH	Stainless steel				
EXTERIOR FINISH	Epoxy covered steel				
N° OF INTERNAL GLASS DOORS	1	1	1	1	1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	2	3	4	4	4
SIZE OF THE SHELVES (mm) W x D***	650 x 590	530 x 590	530 x 590	530 x 590	780 x 590
SHELVES MATERIAL	Stainless steel				
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,38/0,76	0,31/0,93	0,31/1,24	0,31/1,24	0,46/1,84
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application				
AMBIENT TEMPERATURE RANGE	from +10°C to 32°C				
ELECTRIC POWER (W)	1200	1800	1850	1950	2000
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60				
WEIGHT (KG)	200	240	280	310	340

RANGE	ENTHOMOLOGY CLIMATIC TEST CHAMBERS - HORIZONTAL AIRFLOW. MODELS FRONT DOOR LIGHTS LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**					
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND LED LIGHT	EGCHSDPH.1103 HR LED EGCHSDPH.1105 HR LED	EGCHSDPH.1503 HR LED EGCHSDPH.1505 HR LED	EGCHSDPH.1853 HR LED EGCHSDPH.1855 HR LED	EGCHSDPH.2203 HR LED EGCHSDPH.2205 HR LED	EGCHSDPH.2803 HR LED EGCHSDPH.2805 HR LED	EGCHSDPH.2903 HR LED EGCHSDPH.2905 HR LED
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND LED LIGHT	EGCHSDPH.1103 LED EGCHSDPH.1105 LED	EGCHSDPH.1503 LED EGCHSDPH.1505 LED	EGCHSDPH.1853 LED EGCHSDPH.1855 LED	EGCHSDPH.2203 LED EGCHSDPH.2205 LED	EGCHSDPH.2803 LED EGCHSDPH.2805 LED	EGCHSDPH.2903 LED EGCHSDPH.2905 LED
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCHSDPH.1103 HR FL EGCHSDPH.1105 HR FL	EGCHSDPH.1503 HR FL EGCHSDPH.1505 HR FL	EGCHSDPH.1853 HR FL EGCHSDPH.1855 HR FL	EGCHSDPH.2203 HR FL EGCHSDPH.2205 HR FL	EGCHSDPH.2803 HR FL EGCHSDPH.2805 HR FL	EGCHSDPH.2903 HR FL EGCHSDPH.2905 HR FL
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCHSDPH.353 FL EGCHSDPH.355 FL	EGCHSDPH.1503 FL EGCHSDPH.1505 FL	EGCHSDPH.1853 FL EGCHSDPH.1855 FL	EGCHSDPH.2203 FL EGCHSDPH.2205 FL	EGCHSDPH.2803 FL EGCHSDPH.2805 FL	EGCHSDPH.2903 FL EGCHSDPH.2905 FL
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE/ POSITION	LED* or Fluorescents / Located in the front door					
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)					
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"					
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% RH					
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	884/1160	1113/1420	1392/1745	1698/2055	2090/2698	2315/2755
INTERIOR MEASUREMENTS (mm) W x D x H*	850 x 800 x 1300	1450 x 600 x 1300	1450 x 600 x 1600	1450 x 900 x 1300	1450 x 900 x 1600	2410 x 600 x 1600
EXTERIOR MEASUREMENTS (mm) W x D x H*	1100 x 1000 x 1980	1700 x 800 x 1980	2050 x 800 x 1980	1700 x 1100 x 1980	2050 x 1100 x 1980	3000 x 800 x 1980
CLEAR OF DOOR (mm) W x H**	800 x 1100	600 x 1100	600 x 1400	600 x 1100	600 x 1400	600 x 1400
INSULATOR THICKNESS (mm)	50	50	50	50	50	50
INTERIOR FINISH	Stainless steel					
EXTERIOR FINISH	Epoxy covered steel					
N° OF INTERNAL GLASS DOORS	1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1 + 1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	4	4	4 + 4	4 + 4	4 + 4	4 + 4 + 4
SIZE OF THE SHELVES (mm) W x D***	780 x 790	530 x 590	530 x 890	530 x 890	530 x 890	530 x 590
SHELVES MATERIAL	Stainless steel					
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,62/2,48	0,31/2,48	0,31/2,48	0,47/3,76	0,47/3,76	0,31/3,72
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application					
AMBIENT TEMPERATURE RANGE	from +10°C to 32°C					
ELECTRIC POWER (W)	2000	2200	2300	2500	2600	2700
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60					
WEIGHT (KG)	360	380	390	420	480	490

RANGE	ENTHOMOLOGY CLIMATIC TEST CHAMBERS - HORIZONTAL AIRFLOW. MODELS FRONT DOOR LIGHTS LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**				
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND LED LIGHT	EGCVSDPH 353 HR LED EGCVSDPH 355 HR LED	EGCVSDPH 503 HR LED EGCVSDPH 505 HR LED	EGCVSDPH 703 HR LED EGCVSDPH 705 HR LED	EGCVSDPH 753 HR LED EGCVSDPH 755 HR LED	EGCVSDPH 853 HR LED EGCVSDPH 855 HR LED
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND LED LIGHT	EGCVSDPH 353 LED EGCVSDPH 355 LED	EGCVSDPH 503 LED EGCVSDPH 505 LED	EGCVSDPH 703 LED EGCVSDPH 705 LED	EGCVSDPH 753 LED EGCVSDPH 755 LED	EGCVSDPH 853 LED EGCVSDPH 855 LED
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCVSDPH 353 HR FL EGCVSDPH 355 HR FL	EGCVSDPH 503 HR FL EGCVSDPH 505 HR FL	EGCVSDPH 703 HR FL EGCVSDPH 705 HR FL	EGCVSDPH 753 HR FL EGCVSDPH 755 HR FL	EGCVSDPH 853 HR FL EGCVSDPH 855 HR FL
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCVSDPH 353 FL EGCVSDPH 355 FL	EGCVSDPH 503 FL EGCVSDPH 505 FL	EGCVSDPH 703 FL EGCVSDPH 705 FL	EGCVSDPH 753 FL EGCVSDPH 755 FL	EGCVSDPH 853 FL EGCVSDPH 855 FL
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE/ POSITION	LED* or Fluorescents / Located in the front door				
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)				
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"				
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% RH				
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	302/350	425/500	527/650	648/740	695/850
INTERIOR MEASUREMENTS (mm) W x D x H*	860 x 540 x 650	750 x 540 x 1050	750 x 540 x 1300	750 x 540 x 1600	990 x 540 x 1300
EXTERIOR MEASUREMENTS (mm) W x D x H*	925 x 800 x 1200	850 x 800 x 1730	850 x 800 x 1980	1200 x 800 x 1980	1100 x 800 x 1980
CLEAR OF DOOR (mm) W x H**	600 x 600	600 x 850	600 x 1100	600 x 1400	800 x 1100
INSULATOR THICKNESS (mm)	50	50	50	50	50
INTERIOR FINISH	Stainless steel				
EXTERIOR FINISH	Epoxy covered steel				
N° OF INTERNAL GLASS DOORS	1	1	1	1	1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	2	3	4	4	4
SIZE OF THE SHELVES (mm) W x D***	650 x 530	530 x 530	530 x 530	530 x 530	780 x 530
SHELVES MATERIAL	Stainless steel				
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,34/0,68	0,28/0,84	0,28/1,12	0,28/1,12	0,41/1,64
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application				
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C				
ELECTRIC POWER (W)	1200	1800	1850	1950	2000
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60				
WEIGHT (KG)	200	240	280	310	340

RANGE	CLIMATIC GROWTH TESTS CHAMBERS - HORIZONTAL AIRFLOW. MODELS FRONT DOOR LIGHTS LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**					
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND LED LIGHT	EGCHDPH 1108 HR LED EGCHSDPH 1105 HR LED	EGCHSDPH 1508 HR LED EGCHSDPH 1505 HR LED	EGCHSDPH 1808 HR LED EGCHSDPH 1805 HR LED	EGCHSDPH 2208 HR LED EGCHSDPH 2205 HR LED	EGCHSDPH 2808 HR LED EGCHSDPH 2805 HR LED	EGCHSDPH 2908 HR LED EGCHSDPH 2905 HR LED
VERTICAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND LED LIGHT	EGCHDPH 1108 HR LED EGCHSDPH 1105 HR LED	EGCHSDPH 1508 HR LED EGCHSDPH 1505 HR LED	EGCHSDPH 1808 HR LED EGCHSDPH 1805 HR LED	EGCHSDPH 2208 HR LED EGCHSDPH 2205 HR LED	EGCHSDPH 2808 HR LED EGCHSDPH 2805 HR LED	EGCHSDPH 2908 HR LED EGCHSDPH 2905 HR LED
HORIZONTAL AIRFLOW MODELS WITH HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCVSDPH 1103 EGCVSDPH 1105	HBCVSDPH 15023 HBCVSDPH 1505	HBCVSDPH 1853 HBCVSDPH 1855	HBCVSDPH 2203 HBCVSDPH 2205	HBCVSDPH 2803 HBCVSDPH 2805	HBCVSDPH 2905 HBCVSDPH 2905 HR FL
HORIZONTAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL AND FLUORESCENT LIGHT	EGCVSDPH 353 EGCVSDPH 355	FEGCVSDPH 1503 FEGCVSDPH 1505	FEGCVSDPH 1853 FEGCVSDPH 1855	FEGCVSDPH 2203 FEGCVSDPH 2205	FEGCVSDPH 2803 FEGCVSDPH 2805	FEGCVSDPH 2903 FEGCVSDPH 2905
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE/ POSITION	LED* or Fluorescents / Located in the front door					
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)					
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"					
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% RH					
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	953/1159	1113/1420	1383/1725	1748/2080	2150/2580	2205/2705
INTERIOR MEASUREMENTS [mm] W x D x H*	990 x 740 x 1300	1600 x 540 x 1300	1600 x 540 x 1600	1600 x 840 x 1300	1600 x 840 x 1600	2550 x 540 x 1600
EXTERIOR MEASUREMENTS [mm] W x D x H*	1100 x 1000 x 1980	1700 x 800 x 1980	2050 x 800 x 1980	1700 x 1100 x 1980	2050 x 1100 x 1980	3000 x 800 x 1980
CLEAR OF DOOR [mm] W x H**	800 x 1100	600 x 1100	600 x 1400	600 x 1100	600 x 1400	600 x 1400
INSULATOR THICKNESS [mm]	50	50	50	50	50	50
INTERIOR FINISH	Stainless steel					
EXTERIOR FINISH	Epoxy covered steel					
N° OF INTERNAL GLASS DOORS	1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1 + 1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	4	4	4 + 4	4 + 4	4 + 4	4 + 4 + 4
SIZE OF THE SHELVES [mm] W x D***	780 x 730	530 x 530	530 x 530	530 x 830	530 x 830	530 x 530
SHELVES MATERIAL	Stainless steel					
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,62/2,48	0,31/2,48	0,31/2,48	0,47/3,76	0,47/3,76	0,31/3,72
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application					
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C					
ELECTRIC POWER [W]	2000	2200	2300	2500	2600	2700
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60					
WEIGHT [KG]	360	380	390	420	480	490

INSECTS AND ENTOMOLOGY DPH CHAMBERS VERTICAL AIRFLOW MODELS

DPH CHAMBERS
WITH VERTICAL AIRFLOW
IN EGCVSDPH MODELS

LIGHT CONTROL WITH OR
WITHOUT HUMIDITY CONTROL

OPTIONALLY
FROM +4°C TO +60°C
FROM -10°C TO +60°C

IN EGCHSDPH/HR AND EGCVSDPH/HR MODELS
FROM +10°C TO +60°C
HUMIDITY RANGE
FROM 20% TO 90% RH

LIGHTS ON FRONTAL AND SIDE DOORS

ILLUMINATION INTENSITY FROM
380 $\mu\text{mol m}^{-2} \text{s}^{-1}$
20,000 lux PPFD
TO 670 $\mu\text{mol m}^{-2} \text{s}^{-1}$
35,000 lux PPFD**

from +10° to +60°C
from 20% to 90% HR

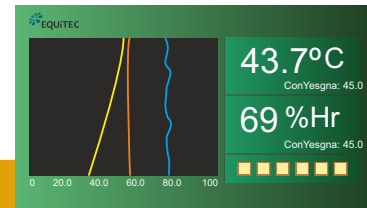
Optional
from -10° to +60°C
from +4°C to +60°C



EGCVSDPH 705 3S LED //
Optional:
LED lights on the door,
rear side and sides

OPTIONAL ACCESSORIES FOR EGCHSDPH, EGCHSDPH/HR, EGCVSDPH AND EGCVSDPH/HR

- Aeration systems.
- Aeration port, for the passing of fresh air; manual or controlled depending on the CO₂ concentration.
- CO₂ measurement system.
- CO₂ introduction system in the chamber with control valves.
- Measuring system of the accumulated radiation intensity.
- Safety thermostat, protects samples from high or low temperatures.
- Humidity generator up to +95% RH.
- Air drying system up to 15% RH at +4°C.
- Independent alarms, audible and visual for maximum and minimum temperatures with backup battery, with more than 48h of duration (72h optional).
- Circular temperature recorder 7 days, powered by backup batteries.
- USB output for system data storage.
- RS 485/232 connexion for remote control.
- PC Software (on demand).
- Potential free exit for remote alarm control.
- Programmable test periods through digital controller.
- Germicidal light tubes or sterilization type UVA, UVB or UVC.
- Internal power sockets in the chamber.
- Telescopic trays, for instrument placement.
- Wall bypass for the introduction of wires and external instruments (schackers, chromatographs, etc).
- External door with heated glass and heated frame in models with humidity control or low temperature.
- Stainless steel exterior.
- AISI 316 stainless steel interior or exterior.
- Optional models focused on ICH stability tests.



Series 4500 controller for models finished in "5"

- 4.3" TFT Touchscreen (7.0" optional) with graphical measurement data representation.
- GSM phone alarm module (optional).
- RS 485 connexion for remote control (optional).
- Ethernet output to monitor data by cable (MODBUS TCP/ICP) or by a wireless module, including specific software for visualization and control of the data (optional).
- Backup battery duration longer than 24 hours (48/72 hours optional)

OPTIONAL ACCESSORIES

See page 25

LED DETAILS

See page 27

// EGCVS 752 HR LED



RANGE	ENTOMOLOGY CLIMATIC TEST CHAMBERS - VERTICAL AIRFLOW MODELS. LIGHTS ON DOORS: FRONT AND SIDES LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**				
VERTICAL AIRFLOW MODELS WITH HUMIDITY CONTROL	EGCVSDPH 352 3S HR LED EGCVSDPH 355 3S HR LED	EGCVSDPH 502 3S HR LED EGCVSDPH 505 3S HR LED	EGCVSDPH 702 3S HR LED EGCVSDPH 705 3S HR LED	EGCVSDPH 752 3S HR LED EGCVSDPH 755 3S HR LED	EGCVSDPH 852 3S HR LED EGCVSDPH 855 3S HR LED
VERTICAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL	EGCVSDPH 352 3S LED EGCVSDPH 355 3S LED	EGCVSDPH 502 3S LED EGCVSDPH 505 3S LED	EGCVSDPH 702 3S LED EGCVSDPH 705 3S LED	EGCVSDPH 752 3S LED EGCVSDPH 755 3S LED	EGCVSDPH 852 3S LED EGCVSDPH 855 3S LED
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE / POSITION	LED* / Located in the doors: front and sides				
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)				
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"				
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR				
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	302/350	425/500	527/650	648/740	695/850
INTERIOR MEASUREMENTS (mm) W x D x H*	860 x 540 x 650	750 x 540 x 1050	750 x 540 x 1300	750 x 540 x 1600	990 x 540 x 1300
EXTERIOR MEASUREMENTS (mm) W x D x H*	925 x 800 x 1200	850 x 800 x 1730	850 x 800 x 1980	1200 x 800 x 1980	1100 x 800 x 1980
CLEAR OF DOOR (mm) W x H**	600 x 600	600 x 850	600 x 1100	600 x 1400	800 x 1100
INSULATOR THICKNESS (mm)	50	50	50	50	50
INTERIOR FINISH	Stainless steel				
EXTERIOR FINISH	Epoxy covered steel				
N° OF INTERNAL GLASS DOORS	1	1	1	1	1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	2	3	4	4	4
SIZE OF THE SHELVES (mm) W x D***	650 x 530	530 x 530	530 x 530	530 x 530	780 x 530
SHELVES MATERIAL	Stainless steel				
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,34/0,68	0,28/0,84	0,28/1,12	0,28/1,12	0,41/1,64
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application				
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C				
ELECTRIC POWER (W)	1200	1800	1850	1950	2000
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60				
WEIGHT (KG)	200	240	280	310	340

RANGE	ENTHOMOLOGY CLIMATIC TEST CHAMBERS - VERTICAL AIRFLOW MODELS. LIGHTS ON DOORS: FRONT AND SIDES LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**					
VERTICAL AIRFLOW MODELS WITH HUMIDITY CONTROL	EGCVSDPH 1102 3S HR LED EGCVSDPH 1105 3S HR LED	EGCVSDPH 1502 3S HR LED EGCVSDPH 1505 3S HR LED	EGCVSDPH 1852 3S HR LED EGCVSDPH 1855 3S HR LED	EGCVSDPH 2202 3S HR LED EGCVSDPH 2205 3S HR LED	EGCVSDPH 2802 3S HR LED EGCVSDPH 2805 3S HR LED	EGCVSDPH 2902 3S HR LED EGCVSDPH 2905 3S HR LED
VERTICAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL	EGCVSDPH 1102 3S LED EGCVSDPH 1105 3S LED	EGCVSDPH 1502 3S LED EGCVSDPH 1505 3S LED	EGCVSDPH 1852 3S LED EGCVSDPH 1855 3S LED	EGCVSDPH 2202 3S LED EGCVSDPH 2205 3S LED	EGCVSDPH 2802 3S LED EGCVSDPH 2805 3S LED	EGCVSDPH 2902 3S LED EGCVSDPH 2905 3S LED
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE / POSITION	LED* / Located in the doors: front and sides					
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)					
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"					
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR					
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	953/1159	1113/1420	1383/1725	1748/2080	2150/2580	2205/2705
INTERIOR MEASUREMENTS [mm] W x D x H*	990 x 740 x 1300	1600 x 540 x 1300	1600 x 540 x 1600	1600 x 840 x 1300	1600 x 840 x 1600	2550 x 540 x 1600
EXTERIOR MEASUREMENTS [mm] W x D x H*	1100 x 1000 x 1980	1700 x 800 x 1980	2050 x 800 x 1980	1700 x 1100 x 1980	2050 x 1100 x 1980	3000 x 800 x 1980
CLEAR OF DOOR [mm] W x H**	800x1100	600 x 1100	600 x 1400	600 x 1100	600 x 1400	600 x 1400
INSULATOR THICKNESS [mm]	50	50	50	50	50	50
INTERIOR FINISH	Stainless steel					
EXTERIOR FINISH	Epoxy covered steel					
N° OF INTERNAL GLASS DOORS	1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1 + 1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	4	4	4 + 4	4 + 4	4 + 4	4 + 4 + 4
SIZE OF THE SHELVES [mm] W x D***	780 x 730	530 x 530	530 x 530	530 x 830	530 x 830	530 x 530
SHELVES MATERIAL	Stainless steel					
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,57/2,28	0,28/2,24	0,28/2,24	0,44/3,52	0,44/3,52	0,28/3,36
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application					
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C					
ELECTRIC POWER [W]	2000	2200	2300	2500	2600	2700
VOLTAGE / FREQUENCY [V/HZ]	230/50 optional 110/60 and 220/60					
WEIGHT [KG]	360	380	390	420	480	490

RANGE	ENTOMOLOGY CLIMATIC TEST CHAMBERS - VERTICAL AIRFLOW MODELS. LIGHTS ON DOORS: FRONT AND SIDES LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**				
VERTICAL AIRFLOW MODELS WITH HUMIDITY CONTROL	EGCVSDPH 352 3S HR LED EGCVSDPH 355 3S HR LED	EGCVSDPH 502 3S HR LED EGCVSDPH 505 3S HR LED	EGCVSDPH 702 3S HR LED EGCVSDPH 705 3S HR LED	EGCVSDPH 752 3S HR LED EGCVSDPH 755 3S HR LED	EGCVSDPH 852 3S HR LED EGCVSDPH 855 3S HR LED
VERTICAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL	EGCVSDPH 352 3S LED EGCVSDPH 355 3S LED	EGCVSDPH 502 3S LED EGCVSDPH 505 3S LED	EGCVSDPH 702 3S LED EGCVSDPH 705 3S LED	EGCVSDPH 752 3S LED EGCVSDPH 755 3S LED	EGCVSDPH 852 3S LED EGCVSDPH 855 3S LED
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE / POSITION	Fluorescents / Located in the doors: front and sides				
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)				
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"				
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR				
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	302/350	425/500	527/650	648/740	695/850
INTERIOR MEASUREMENTS (mm) W x D x H*	860 x 540 x 650	750 x 540 x 1050	750 x 540 x 1300	750 x 540 x 1600	990 x 540 x 1300
EXTERIOR MEASUREMENTS (mm) W x D x H*	925 x 800 x 1200	850 x 800 x 1730	850 x 800 x 1980	1200 x 800 x 1980	1100 x 800 x 1980
CLEAR OF DOOR (mm) W x H**	600 x 600	600 x 850	600 x 1100	600 x 1400	800 x 1100
INSULATOR THICKNESS (mm)	50	50	50	50	50
INTERIOR FINISH	Stainless steel				
EXTERIOR FINISH	Epoxy covered steel				
N° OF INTERNAL GLASS DOORS	1	1	1	1	1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	2	3	4	4	4
SIZE OF THE SHELVES (mm) W x D***	650 x 530	530 x 530	530 x 530	530 x 530	780 x 530
SHELVES MATERIAL	Stainless steel				
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,34/0,68	0,28/0,84	0,28/1,12	0,28/1,12	0,41/1,64
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application				
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C				
ELECTRIC POWER (W)	1200	1800	1850	1950	2000
VOLTAGE / FREQUENCY (V/Hz)	230/50 optional 110/60 and 220/60				
WEIGHT (KG)	200	240	280	310	340

RANGE	ENTHOMOLOGY CLIMATIC TEST CHAMBERS - VERTICAL AIRFLOW MODELS. LIGHTS ON DOORS: FRONT AND SIDES LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPFD TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD**					
VERTICAL AIRFLOW MODELS WITH HUMIDITY CONTROL	EGCVSDPH 1102 3S HR LED EGCVSDPH 1105 3S HR LED	EGCVSDPH 1502 3S HR LED EGCVSDPH 1505 3S HR LED	EGCVSDPH 1852 3S HR LED EGCVSDPH 1855 3S HR LED	EGCVSDPH 2202 3S HR LED EGCVSDPH 2205 3S HR LED	EGCVSDPH 2802 3S HR LED EGCVSDPH 2805 3S HR LED	EGCVSDPH 2902 3S HR LED EGCVSDPH 2905 3S HR LED
VERTICAL AIRFLOW MODELS WITHOUT HUMIDITY CONTROL	EGCVSDPH 1102 3S LED EGCVSDPH 1105 3S LED	EGCVSDPH 1502 3S LED EGCVSDPH 1505 3S LED	EGCVSDPH 1852 3S LED EGCVSDPH 1855 3S LED	EGCVSDPH 2202 3S LED EGCVSDPH 2205 3S LED	EGCVSDPH 2802 3S LED EGCVSDPH 2805 3S LED	EGCVSDPH 2902 3S LED EGCVSDPH 2905 3S LED
PHOTOPERIOD	Yes	Yes	Yes	Yes	Yes	Yes
LIGHT TYPE / POSITION	Fluorescents / Located in the doors: front and sides					
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	from +10°C to +60°C (Optional: -10°C to +4°C up to +60°C)					
CONTROLLER TYPE	NANODAC CONTROLLER in models finished in "3" / 4500 CONTROLLER in models finished in "5"					
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR					
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50	+20/+50
RATED CAPACITY NET/GROSS (liters)	1159/1100	1113/1420	1383/1725	1748/2080	2150/2580	2205/2705
INTERIOR MEASUREMENTS [mm] W x D x H*	990 x 740 x 1300	1600 x 540 x 1300	1600 x 540 x 1600	1600 x 840 x 1300	1600 x 840 x 1600	2550 x 540 x 1600
EXTERIOR MEASUREMENTS [mm] W x D x H*	1100 x 1000 x 1980	1700 x 800 x 1980	2050 x 800 x 1980	1700 x 1100 x 1980	2050 x 1100 x 1980	3000 x 800 x 1980
CLEAR OF DOOR [mm] W x H**	800x1100	600 x 1100	600 x 1400	600 x 1100	600 x 1400	600 x 1400
INSULATOR THICKNESS [mm]	50	50	50	50	50	50
INTERIOR FINISH	Stainless steel					
EXTERIOR FINISH	Epoxy covered steel					
N° OF INTERNAL GLASS DOORS	1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1 + 1
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes
NUMBER OF SHELVES	4	4	4 + 4	4 + 4	4 + 4	4 + 4 + 4
SIZE OF THE SHELVES [mm] W x D***	780 x 730	530 x 530	530 x 530	530 x 830	530 x 830	530 x 530
SHELVES MATERIAL	Stainless steel					
SHELVES SURFACE / CHAMBER'S TOTAL (m ²)	0,57/2,28	0,28/2,24	0,28/2,24	0,44/3,52	0,44/3,52	0,28/3,36
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes
DATALOGGER	Yes	Yes	Yes	Yes	Yes	Yes
USB OUTPUT	Yes	Yes	Yes	Yes	Yes	Yes
SCREEN GRAPHICS	Yes	Yes	Yes	Yes	Yes	Yes
MODBUS TCP / IP FOR ETHERNET LAN	Yes	Yes	Yes	Yes	Yes	Yes
REMOTE ALARM EXIT FREE OF POTENTIAL	Yes	Yes	Yes	Yes	Yes	Yes
BATTERY	Yes	Yes	Yes	Yes	Yes	Yes
TYPE OF COOLING	Using low GWP refrigerant, depending on the application					
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C					
ELECTRIC POWER [W]	2000	2200	2300	2500	2600	2700
VOLTAGE / FREQUENCY [V/HZ]	230/50 optional 110/60 and 220/60					
WEIGHT [KG]	360	380	390	420	480	490

REFRIGERATED INCUBATORS - BASIC LINE
FOR INSECTS AND ENTOMOLOGY TEST
VERTICAL FORCED AIRFLOW MODELS

LABORATORY REFRIGERATED
INCUBATORS WITH LIGHT CONTROL
WITH SPECIAL DESIGN
FOR BASIC APPLICATIONS
WITHOUT HUMIDITY CONTROL

FROM +4°C TO +50°C
WITH HUMIDITY CONTROL
FROM +20°C TO +55°C

ERIS/EGBO MODELS
ERI/EGBO MODELS

LIGHT INTENSITY FROM
 $120 \mu\text{mol m}^{-2} \text{s}^{-1}$
6.000 lux PPFD
TO $220 \mu\text{mol m}^{-2} \text{s}^{-1}$
12.000 lux PPFD**



from +4° to +55°C



ERISDPH/EGBO 180 HR LED //
with 4500 controller



ERISDPH 40455 HR LED //
with LED light in the
frontal door
and 4500 controller

TECHNICAL SPECIFICATIONS

- Vertical airflow cooling system.
- PID Microprocessor, controls all parameter.
- Temperature range from +10°C to +50°C.
- Digital controller with LED screen, indicates temperature and parameters.
- Optionally in ERIS/EGBO models: 4.3" TFT touchscreen with graphic representations of the temperature and/or humidity curve.
- +/-0.1°C on-screen precision.
- +/-1.5°C homogeneity inside of the chamber at 37°C (depending on the model).
- +/-0.85°C stability on the chamber's inside at 37°C (depending on the model).
- Pt 100 or NTC (depending on the model) probe for temperature control.
- Safety lock in door with keys.
- Main switch (on/off) protected with key.
- Hermetic compressor, installed built over dampers to reduce noise levels.
- Using low GWP refrigerant, depending on the application.
- Electrovalve cooling system.
- ABS (thermoformed polypropylene) interior finish in one piece, very resistant.
- Epoxy coated external steel finish.
- Models with blind door (glass door optionally).
- Internal sockets to connect instruments on the chamber's inside (optional).
- Internal illumination with photoperiod: optional, LED or fluorescent lightning.
- Light intensity from 120 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 6.000 lux PPF to 220 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 12.000 lux PPF**.
- Factory open on the right or left (specify when ordering).
- Legs adjustable on height.
- 50 mm isolation on injected polyurethane of high density.
- Using low GWP refrigerant, depending on the application, CFC and HCFC free.
- Working in areas with temperatures up to +32°C.

IN ERISDPH/EGBO/HR MODELS

- Humidity control: working temperature range from 20% up to 80% RH (+/-3% RH), in a temperature range from +20°C to +40°C.
- Electronic humidity probe (4-20 mA), with a +/-3% precision.
- Humidity generator by centrifugation or ultrasound.
- Introduction of microscopic water drops at ambient temperature into the chamber.
- Condensation drying system, cooling vaporize.

OPTIONAL ACCESSORIES

See page 25

LED DETAILS

See page 27



// ERISDPH/EGBO 344 HR FL with 4000 controller



// ERIDPH/EGBO 180 DBO LED with 2000 controller



NANODAC series controller

- 3.5" TFT Touchscreen with graphical measurement data representation.
- GSM phone alarm module (optional).
- RS 485 conexion for remote control (optional).
- Ethernet output to monitor data by cable (MODBUS TCP/ICP) or by a wireless module, including specific software for visualization and control of the data (optional).
- Backup battery duration longer than 24 hours (48/72 hours optional).

RANGE	VERTICAL AIRFLOW REFRIGERATED INCUBATORS / DOB LINE LIGHT INTENSITY FROM 2 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 50 lux PPF TO 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPF **						
ERIS MODELS WITH HUMIDITY CONTROL	ERISDPH/EGBO 65 HR LED	ERISDPH/EGBO 145 HR LED	ERISDPH/EGBO 180 HR LED	ERISDPH/EGBO 300 HR LED	ERISDPH/EGBO 344 HR LED	ERISDPH/EGBO 565 HR LED	ERISDPH/EGBO 735 HR LED
ERIS MODELS WITHOUT HUMIDITY CONTROL	ERISDPH/EGBO 65 LED	ERISDPH/EGBO 145 LED	ERISDPH/EGBO 180 LED	ERISDPH/EGBO 300 LED	ERISDPH/EGBO 344 LED	ERISDPH/EGBO 565 LED	ERISDPH/EGBO 735 LED
ERI MODELS WITH HUMIDITY CONTROL	ERISDPH/EGBO 65 HR LED	ERISDPH/EGBO 145 HR LED	ERISDPH/EGBO 180 HR LED	ERISDPH/EGBO 300 HR LED	ERISDPH/EGBO 344 HR LED	ERISDPH/EGBO 565 HR LED	ERISDPH/EGBO 735 HR LED
ERI MODELS WITHOUT HUMIDITY CONTROL	ERIDPH/EGBO 65 LED	ERIDPH/EGBO 145 LED	ERIDPH/EGBO 180 LED	ERIDPH/EGBO 300 LED	ERIDPH/EGBO 344 LED	ERIDPH/EGBO 565 LED	ERIDPH/EGBO 735 LED
PHOTOPERIOD	Yes						
LIGHT TYPE / POSITION	LED* / Situated in the front door						
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	+4/+55						
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR						
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+40						
ERIS CONTROLLER / ERI CONTROLLER	4500 or NANODAC CONTROLLER in ERIS models / 2000 CONTROLLER in ERI models						
RATED CAPACITY NET/GROSS [liters]	50/65	125/145	155/180	270/340	320/340	565/635	600/735
INTERIOR MEASUREMENTS [mm] W x D x H*	525 x 455 x 650	480 x 410/ 240 x 670	525 x 455 x 650	480 x 500/ 365 x 1358	477 x 470 x 1409	625 x 550 x 1615	1080 x 440 x 1430
EXTERIOR MEASUREMENTS [mm] W x D x H*	351 x 257/ 173 x 590	600 x 600 x 835	600 x 670 x 838	600 x 700 x 1500	600 x 600 x 1860	750 x 765 x 1980	1181 x 620 x 1980
CLEAR OF DOOR [mm] W x H**	351 x 590	480 x 690	480 x 690	500 x 1358	495 x 1409	650 x 1600	1055 x 1430
INSULATOR THICKNESS [mm]	50	50	50	50	50	50	50
INTERIOR FINISH	Epoxy covered steel	Epoxy covered steel	Epoxy covered steel	ABS	ABS	ABS	ARE ¹
EXTERIOR FINISH	Epoxy covered steel						
N° OF SHELVES	1 + 1	2 + 1	2 + 1	4	4	5	4 + 4
INTERNAL DOOR	Optional	Optional	Optional	Optional	Optional	Optional	Optional
SIZE OF THE SHELVES [mm] W x D***	346 x 203/ 346 x 150	346 x 203/ 346 x 150	475 x 385/ 475 x 245	475 x 470	495 x 428	630 x 530	1055 x 413
SHELVES MATERIAL	Steel rod covered with plastic						
SHELVES SURFACE	0,07	0,18	0,18	0,22	0,21	0,33	0,43
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EXTERIOR DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind	Blind
INTERNAL SOCKETS	-	-	-	-	-	-	-
DATALOGGER	In models with NANODAC and 4500 series controller						
USB OUTPUT	In models with NANODAC and 4500 series controller						
SCREEN GRAPHICS	In models with NANODAC and 4500 series controller						
MODBUS TCP / IP FOR ETHERNET LAN	In models with NANODAC and 4500 series controller						
REMOTE ALARM EXIT FREE OF POTENTIAL	Optional	Optional	Optional	Optional	Optional	Optional	Optional
BATTERY	In models with 4100 and 4500 series controller						
TYPE OF COOLING	Using low GWP refrigerant, depending on the application						
AMBIENT TEMPERATURE RANGE	de +10°C a +35°C						
ELECTRIC POWER [W]	600	800	800	900	900	1100	140
VOLTAGE / FREQUENCY [V/HZ]	230/50 optional 110/60 and 220/60						
WEIGHT [Kg]	36	81	90	89	91	120	170

RANGE	VERTICAL AIRFLOW REFRIGERATED INCUBATORS / DOB LINE LIGHT INTENSITY FROM 120 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 6.000 lux PPFD TO 220 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 12.000 lux PPFD **						
ERIS MODELS WITH HUMIDITY CONTROL	ERISDPH/EGBO 65 HR FL	ERISDPH/EGBO 145 HR FL	ERISDPH/EGBO 180 HR FL	ERISDPH/EGBO 300 HR FL	ERISDPH/EGBO 344 HR FL	ERISDPH/EGBO 565 HR FL	ERISDPH/EGBO 735 HR FL
ERIS MODELS WITHOUT HUMIDITY CONTROL	ERISDPH/EGBO 65 FL	ERISDPH/EGBO 145 FL	ERISDPH/EGBO 180 FL	ERISDPH/EGBO 300 FL	ERISDPH/EGBO 344 FL	ERISDPH/EGBO 565 FL	ERISDPH/EGBO 735 FL
ERI MODELS WITH HUMIDITY CONTROL	ERISDPH/EGBO 65 HR FL	ERISDPH/EGBO 145 HR FL	ERISDPH/EGBO 180 HR FL	ERISDPH/EGBO 300 HR FL	ERISDPH/EGBO 344 HR FL	ERISDPH/EGBO 565 HR FL	ERISDPH/EGBO 735 HR FL
ERI MODELS WITHOUT HUMIDITY CONTROL	ERIDPH/EGBO 65 FL	ERIDPH/EGBO 145 FL	ERIDPH/EGBO 180 FL	ERIDPH/EGBO 300 FL	ERIDPH/EGBO 344 FL	ERIDPH/EGBO 565 FL	ERIDPH/EGBO 735 FL
PHOTOPERIOD	Yes						
LIGHT TYPE / POSITION	Fluorescents / Situated in the front door						
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	+4/+55						
MODELS WITH CONTROLLED HUMIDITY	from 20% to 90% HR						
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+40						
ERIS CONTROLLER / ERI CONTROLLER	4500 or NANODAC CONTROLLER in ERIS models / 2000 CONTROLLER in ERI models						
RATED CAPACITY NET/GROSS [liters]	50/65	125/145	155/180	270/340	320/340	565/635	600/735
INTERIOR MEASUREMENTS (mm) W x D x H*	525 x 455 x 650	480 x 410/ 240 x 670	525 x 455 x 650	480 x 500/ 365 x 1358	477 x 470 x 1409	625 x 550 x 1615	1080 x 440 x 1430
EXTERIOR MEASUREMENTS (mm) W x D x H*	351 x 257/ 173 x 590	600 x 600 x 835	600 x 670 x 838	600 x 700 x 1500	600 x 600 x 1860	750 x 765 x 1980	1181 x 620 x 1980
CLEAR OF DOOR (mm) W x H**	351 x 590	480 x 690	480 x 690	500 x 1358	495 x 1409	650 x 1600	1055 x 1430
INSULATOR THICKNESS (mm)	50	50	50	50	50	50	50
INTERIOR FINISH	Epoxy covered steel	Epoxy covered steel	Epoxy covered steel	ABS	ABS	ABS	ARE ¹
EXTERIOR FINISH	Epoxy covered steel						
N° OF SHELVES	1 + 1	2 + 1	2 + 1	4	4	5	4 + 4
INTERNAL DOOR	Optional	Optional	Optional	Optional	Optional	Optional	Optional
SIZE OF THE SHELVES (mm) W x D***	346 x 203/ 346 x 150	346 x 203/ 346 x 150	475 x 385/ 475 x 245	475 x 470	495 x 428	630 x 530	1055 x 413
SHELVES MATERIAL	Steel rod covered with plastic						
SHELVES SURFACE	0,07	0,18	0,18	0,22	0,21	0,33	0,43
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EXTERIOR DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind	Blind
INTERNAL SOCKETS	-	-	-	-	-	-	-
DATALOGGER	In models with NANODAC and 4500 series controller						
USB OUTPUT	In models with NANODAC and 4500 series controller						
SCREEN GRAPHICS	In models with NANODAC and 4500 series controller						
MODBUS TCP / IP FOR ETHERNET LAN	In models with NANODAC and 4500 series controller						
REMOTE ALARM EXIT FREE OF POTENTIAL	Optional	Optional	Optional	Optional	Optional	Optional	Optional
BATTERY	In models with 4100 and 4500 series controller						
TYPE OF COOLING	Using low GWP refrigerant, depending on the application						
AMBIENT TEMPERATURE RANGE	de +10°C a +35°C						
ELECTRIC POWER (W)	600	800	800	900	900	1100	140
VOLTAGE / FREQUENCY (V/Hz)	230/50 optional 110/60 and 220/60						
WEIGHT (Kg)	36	81	90	89	91	120	170

DROSOPHILA AND ENTOMOLOGY CHAMBERS
DPH 4000 LINE AND DPH INOX LINE
VERTICAL FORCED AIRFLOW MODELS

LABORATORY INCUBATORS
REFRIGERATED WITH FORCED AIRFLOW

ERISDPH 4000 AND
ERIDPH 2000 MODELS
ERISDPH INOX AND
ERIDPH INOX MODELS
FROM +10°C TO +55°C

PHOTOPERIOD ADJUSTABLE

POSSIBILITY OF DISINFECTION
BY MEANS OF HYDROGEN PEROXIDE
(IN MODELS WITH OPTIONAL
STAINLESS STEEL IN THE INTERIOR
CHAMBER) OR GERMICIDAL
UVC LIGHT

EVAPORATOR SPECIALLY
COATED WITH EPOXY, VERY
RESISTANT TO ACIDS

LIGHT INTENSITY FROM
 $60 \mu\text{mol m}^{-2} \text{s}^{-1}$
3.000 lux PPFD
TO $180 \mu\text{mol m}^{-2} \text{s}^{-1}$
9.000 lux PPFD**

from +10° to +55°C



// **ERISDPH 40855**
HR LED Model with
stainless steel external
steel finish option



// **ERISDPH 40855 HR FL**
Model with stainless
steel external steel
finish option

TECHNICAL SPECIFICATIONS

- Specially covered for corrosion protection.
- Vertical forced airflow cooling system.
- PID Microprocessor to control parameters.
- Temperature range from +10°C to +55°C.
- Safety thermostat for product protection.
- Audible, visible and independent alarms for maximal and minimal temperatures.
- Backlighted LED screen for temperature and parameters control.
- +/-0.1°C on-screen precision.
- +/-1.0 to 1.5°C homogeneity inside of the chamber at 37°C (depending on the model).
- +/-0.8 to 1.0°C stability inside of the chamber at 37°C (depending on the model).
- Pt 100 probe, for temperature control.
- Optional: internal door.
- Blind external door with opening up to 180°, opening on the right (opening on the left is optional).
- Optional: main switch (on/off) protected with key.
- Touchscreen control panel.
- Internal illumination with photoperiod: optional, LED or fluorescent lightning.
- Light intensity 60 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 3.000 lux PPFd to 180 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 9.000 lux PPFd (according to the configuration).
- Optional: temperatura/time ramps programming, with record of different work cycles.
- Alarm stop switch, it rearms when programmed temperature is reached.
- Possibility of disinfection by means of hydrogen peroxide (in models with optional stainless steel in the interior chamber) or germicidal UVC light.
- Evaporator specially coated with Epoxy, very resistant to acids.
- Wall port hole for wires and probes access, for external/internal instrument connexion.
- Finned heating element, improves the temperature's distribution.
- Independent heating and cooling systems.
- Forced air venting, with vertical airflow, evenly distributed, allowing more homogeneity of the air's temperature inside the chamber.
- Using low GWP refrigerant, depending on the application CFC and HCFC free, biodegradable cooling gas.
- Hermetic compressor, installed on the dampers to reduce noise levels.
- Steel exterior finish covered in epoxy or stainless steel (depending on the model).
- Interior finish: steel covered in epoxy or stainless steel, optional.
- Rounded cornes to facilitate cleaning.
- Magnetic all-round seal allowing a perfect closure of the door.
- High density injected polyurethane isolation, CFC and HCFC free.
- Height-adjustable legs, optional wheels.
- Working in areas with temperatures up to +32°C.

OPTIONAL ACCESSORIES

See page 25

LED DETAILS

See page 27



// ERISDPH 40253 INOX LED
Model NANODAC controller

RANGE	DROSOPHILA AND ENTOMOLOGY CLIMATIC TEST CHAMBERS - DPH INOX LINE LIGHT INTENSITY FROM 60 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 3.000 lux PPFD TO 180 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 9.000 lux PPFD**		
ERIS MODELS WITH HUMIDITY CONTROL	ERISDPH 40070 HR	ERISDPH 40150 HR	ERISDPH 40255 HR
ERIS MODELS WITHOUT HUMIDITY CONTROL	ERISDPH 40070	ERISDPH 40150	ERISDPH 40255
ERI MODELS WITH HUMIDITY CONTROL	ERIDPH 40070 HR	ERIDPH 40150 HR	ERIDPH 40255 HR
ERI MODELS WITHOUT HUMIDITY CONTROL	ERIDPH 40070	ERIDPH 40150	ERIDPH 40255
PHOTOPERIOD / INTERNAL LIGHTNING	Yes / Optional: LED or fluorescents		
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	+10/+55		
MODELS WITH CONTROLLED HUMIDITY	from 20% to 80% HR		
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+40		
ERIS CONTROLLER / ERI CONTROLLER	4500 or NANODAC CONTROLLER in ERIS models / 2000 CONTROLLER in ERI models		
RATED CAPACITY NET/GROSS (liters)	65/70	135/150	223/255
INTERIOR MEASUREMENTS [mm] W x D x H*	366 x 352 x 523	510 x 478 x 555	570 x 523 x 1045
EXTERIOR MEASUREMENTS [mm] W x D x H*	445 x 475 x 810	600 x 600 x 825	670 x 660 x 1530
CLEAR OF DOOR [mm] W x H**	358 x 516	504 x 552	568 x 855
INSULATOR THICKNESS [mm]	40	45	75
INTERIOR FINISH	Stainless steel		
EXTERIOR FINISH	Epoxy covered steel		
INTERNAL DOOR	Optional	Optional	Optional
EXTERNAL DOOR TYPE	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes
N° OF SHELVES	2	2	3
SIZE OF THE SHELVES [mm] W x D***	358 x 516	660 x 800	530 x 650
SHELVES MATERIAL	Stainless steel		
CABLES PORT HOLE	Yes	Yes	Yes
DATALOGGER	In models with NANODAC and 4500 series controller		
USB OUTPUT	In models with NANODAC and 4500 series controller		
SCREEN GRAPHICS	In models with NANODAC and 4500 series controller		
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C		
ELECTRIC POWER [W]	520	520	750
VOLTAGE / FREQUENCY [V/HZ]	230/50 optional 110/60 and 220/60		
WEIGHT [KG]	40	60	118



// ERISDPH 615 HR FL
Model with stainless steel
external steel finish option

RANGE	DROSOPHILA AND ENTOMOLOGY CLIMATIC TEST CHAMBERS - DPH INOX LINE LIGHT INTENSITY FROM 60 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 3.000 lux PPFD TO 180 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 9.000 lux PPFD**			
ERIS MODELS WITH HUMIDITY CONTROL	ERISDPH 40455 HR	ERISDPH 40655 HR	ERISDPH 40805 HR	ERISDPH 41315 HR
ERIS MODELS WITHOUT HUMIDITY CONTROL	ERISDPH 40455	ERISDPH 40655	ERISDPH 40805	ERISDPH 41315
ERI MODELS WITH HUMIDITY CONTROL	ERIDPH 40455 HR	ERIDPH 40655 HR	ERIDPH 40805 HR	ERIDPH 41315 HR
ERI MODELS WITHOUT HUMIDITY CONTROL	ERIDPH 40455	ERIDPH 40655	ERIDPH 40805	ERIDPH 41315
PHOTOPERIOD / INTERNAL LIGHTNING	Yes / Optional: LED or fluorescents			
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	+10/+55			
MODELS WITH CONTROLLED HUMIDITY	from 20% to 80% HR			
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+40			
ERIS CONTROLLER / ERI CONTROLLER	4500 or NANODAC CONTROLLER in ERIS models / 2000 CONTROLLER in ERI models			
RATED CAPACITY NET/GROSS (liters)	438/455	615/655	780/805	1353/1395
INTERIOR MEASUREMENTS (mm) W x D x H*	570 x 523 x 1470	580 x 693 x 1529	606 x 848 x 1512	1277 x 693 x 1529
EXTERIOR MEASUREMENTS (mm) W x D x H*	670 x 660 x 1955	687 x 815 x 2125	757 x 979 x 2121	1384 x 814 x 2123
CLEAR OF DOOR (mm) W x H**	568 x 1280	575 x 1488	605 x 1494	575 x 1488
INSULATOR THICKNESS (mm)	50	55	55	55
INTERIOR FINISH	Stainless steel			
EXTERIOR FINISH	Epoxy covered steel			
INTERNAL DOOR	Optional	Optional	Optional	Optional
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes
N° OF SHELVES	4	4	4	4 + 4
SIZE OF THE SHELVES (mm) W x D***	500 x 445	500 x 518	570 x 790	500 x 518
SHELVES MATERIAL	Stainless steel			
CABLES PORT HOLE	Yes	Yes	Yes	Yes
DATALOGGER	In models with NANODAC and 4500 series controller			
USB OUTPUT	In models with NANODAC and 4500 series controller			
SCREEN GRAPHICS	In models with NANODAC and 4500 series controller			
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C			
ELECTRIC POWER (W)	850	950	1000	1250
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60			
WEIGHT (KG)	141	160	178	278



// ERISDPH 41315 HR
Model with lights on the shelves and 4500 controller

RANGE	DROSOPHILA AND ENTOMOLOGY CLIMATIC TEST CHAMBERS - DPH INOX LINE LIGHT INTENSITY FROM 60 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 3.000 lux PPFD TO 180 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 9.000 lux PPFD**					
ERIS MODELS WITH HUMIDITY CONTROL	ERISDPH 325 HR	ERISDPH 525 HR	ERISDPH 615 HR	ERISDPH 900 HR	ERISDPH 1120 HR	ERISDPH 1240 HR
ERIS MODELS WITHOUT HUMIDITY CONTROL	ERISDPH 325	ERISDPH 525	ERISDPH 615	ERISDPH 900	ERISDPH 1120	ERISDPH 1240
ERI MODELS WITH HUMIDITY CONTROL	ERIDPH 325 HR	ERIDPH 525 HR	ERIDPH 615 HR	ERIDPH 900 HR	ERIDPH 1120 HR	ERIDPH 1240 HR
ERI MODELS WITHOUT HUMIDITY CONTROL	ERIDPH 325	ERIDPH 525	ERIDPH 615	ERIDPH 900	ERIDPH 1120	ERIDPH 1240
PHOTOPERIOD / INTERNAL LIGHTNING	Yes / Optional: LED or fluorescents					
TEMP. (°C) RANGE WITHOUT HUMIDITY CONTROL	+10/+55					
MODELS WITH CONTROLLED HUMIDITY	from 20% to 80% HR					
TEMP. RANGE WITH CONTROLLED HUMIDITY (°C)	+20/+40					
ERIS CONTROLLER / ERI CONTROLLER	4500 or NANODAC CONTROLLER in ERIS models / 2000 CONTROLLER in ERI models					
RATED CAPACITY NET/GROSS (liters)	300/325	515/525	610/615	828/900	1120/1126	41240/1289
INTERIOR MEASUREMENTS (mm) W x D x H*	372 x 558 x 1412	544 x 683 x 1388	544 x 683 x 1529	637 x 851 x 1529	1235 x 683 x 1335	1235 x 683 x 1529
EXTERIOR MEASUREMENTS (mm) W x D x H*	482 x 695 x 2100	687 x 794 x 1989	687 x 794 x 2130	756 x 960 x 2130	1385 x 794 x 1989	1385 x 794 x 2125
CLEAR OF DOOR (mm) W x H**	375 x 1495	580 x 1345	580 x 1304	650 x 1495	580 x 1104	580 x 1304
INSULATOR THICKNESS (mm)	55	74	75	75	55	75
INTERIOR FINISH	Stainless steel					
EXTERIOR FINISH	Stainless steel					
INTERNAL DOOR	Optional	Optional	Optional	Optional	Optional	Optional
EXTERNAL DOOR TYPE	Blind	Blind	Blind	Blind	Blind	Blind
DOOR LOCK	Yes	Yes	Yes	Yes	Yes	Yes
N° OF SHELVES	3	3	3	3	3 + 3	3 + 3
SIZE OF THE SHELVES (mm) W x D***	325 x 530	530 x 650	530 x 650	660 x 800	530 x 650	530 x 650
SHELVES MATERIAL	Stainless steel					
CABLES PORT HOLE	Yes	Yes	Yes	Yes	Yes	Yes
DATALOGGER	In models with NANODAC and 4500 series controller					
USB OUTPUT	In models with NANODAC and 4500 series controller					
SCREEN GRAPHICS	In models with NANODAC and 4500 series controller					
AMBIENT TEMPERATURE RANGE	from +10°C to +32°C					
ELECTRIC POWER (W)	200	200	500	1000	1100	1500
VOLTAGE / FREQUENCY (V/HZ)	230/50 optional 110/60 and 220/60					
WEIGHT (KG)	104	127	148	180	187	246

ACCESSORIES FOR CLIMATIC CHAMBERS AND GROWTH INCUBATORS WITH OR WITHOUT HUMIDITY CONTROL



TELESCOPIC TRAY
FOR AGITATORS, CHROMATOGRAPHS
AND THERMOSTATING OF
LARGE SIZE EQUIPMENT



ADJUSTABLE WHEELS/LEGS
ADJUSTABLE HEIGHT



AISI 304 OR AISI 316
STAINLESS STEEL
EXTERIOR AND INTERIOR



WALL BYPASS



SHELVES, DRAWERS
OR A COMBINATION OF BOTH



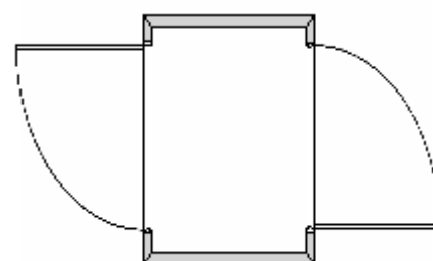
SAFETY THERMOSTAT,
PROTECTS SAMPLES FROM HIGH
OR LOW TEMPERATURES



PRODUCT SIMULATION
PROBE



FLUORESCENT OR LED LIGHTING
ON THE INSIDE, SITUATED
ABOVE THE TRAYS OR AT THE DOOR



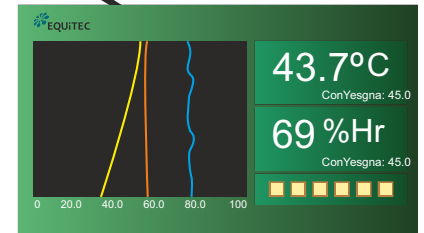
DOUBLE DOOR FRONT - REAR,
IN MODELS FOR CLEAN
ROOMS GATEWAYS



WAKL-IN VISITABLE MODULAR INSECTS AND ENTOMOLOGY CHAMBERS DPH



- Optional temperature from +10°C to +50°C with lights off or on. Other temperatures on demand.
- Programmable temperature day/night.
- Humidity control: work optional range from 20% to 95% RH (+/-3%), in a temperature range from +15°C to +40°C.
- Graphic control panel with 4.3" or 7.0" TFT touchscreen.
- Electronic data recorder with graphical data representation and USB output for data download.
- Temperature and/or humidity control.
- Light intensity control, day/night photoperiod.
- 0.1°C precision probe.
- From +/-0.1°C to +27°C and from +/-0.5°C to +40°C homogeneity in the chamber (depending on the model).
- From +/-0.1°C to +27°C and from +/-0.5°C to +40°C stability in the chamber (depending on the model).
- Microprocessor for parameter control and programming with PID system.
- Humidification system by ultrasound, optionally electrodes or spray nozzles.
- Lights on shelves, on the ceiling or sides are height-adjustable.
- Light control with 6 intensity levels, allows sunrise/sunset simulation or free intensity control from 10 to 100% with LED lights.
- Horizontal or semi-horizontal flow, reduces stress on plants.
- Maximum intensity on trays from 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 10.000 lux PPFD to 2000 $\mu\text{mol m}^{-2} \text{s}^{-1}$ 108.000 lux PPFD**.



4500 SERIES CONTROLLER



OPTIONAL

- Day lights tubes for algae growth.
- Growth tubes for plant growth on trays or ceiling.
- Tubes with different LED diodes configurations; for different types of plants growth and vegetative cycles, depending on the application.
- Lights on the ceiling, sides and rear side of the chamber, with thermal protection glass windows.
- Digital printer for temperature and/or humidity control.
- Remote control alarm exit (4-20 mA).
- RS 485 control connexion interface + communication protocols.
- Additional access ports for wires and tubes.
- Internal sockets.
- Accumulated radiation intensity measurement system.
- GSM phone alarm module.
- UV light tubes for sterilization.
- Data recorder.
- Wi-Fi module with Ethernet connexion + web visualization.
- 72 hours battery, safety backup for power failure situations.
- USB output for stored data download.
- Communication software with PC, on demand.
- CO₂ measurement system through infrared cells or thermal sensor.
- Irrigation systems.
- Cooling output, to allow the passing of fresh air; manual or regulated depending on the CO₂ concentration.
- CO₂ introduction system in the chamber with control valves.

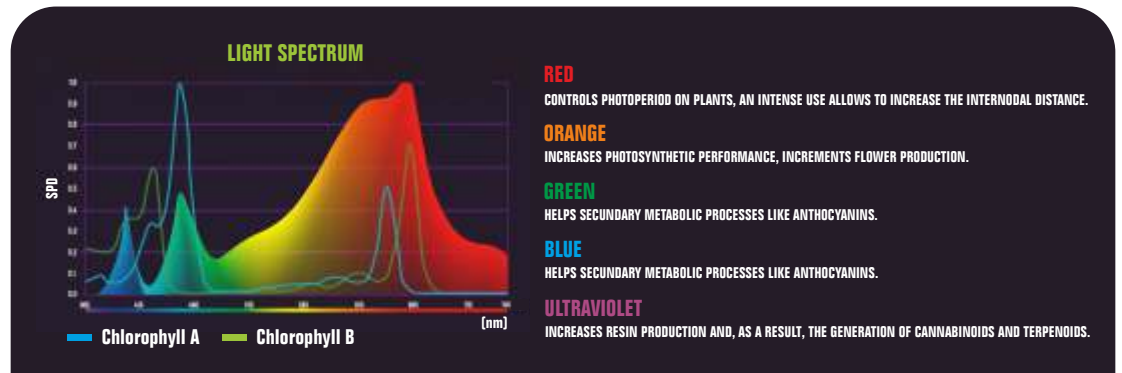


LED LIGHTS APPLICATIONS AND PERFORMANCE FOR INVERTEBRATES CHAMBERS

CUSTOM SPECTRA

We have a wide selection of wavelenghts for photo-biological research, for example UV-A 390 nm, 530 nm greens. Likewise, we have specific spectrum for use in specific applications, for example a better production of secondary metabolites, including rising and better production or an improvement of the specific metabolites. Amber lighting is used where photosensitive processes are being used. This special amber light, or 570nm, is used in applications where photochemically sensitive materials are being used or manufactured to prevent inadvertent exposure to damaging UV and blue light. A perfect application for Amber LED lighting is semiconductor manufacturing.

- **Common applications: growth conditions of controlled plants:** temperature and humidity with photoperiods.
- **Light intensity in common applications:** 2 to 2000 $\mu\text{mol m}^{-2}/\text{s}^{-1}$.
- **Available spectra:** 360 to 730 nm, depending on the required luminaire.



	S 60	M 90	L 120	XL 150
CONSUMPTION	25 W	40 W	50 W	80 W
DIMENSION (MM) (LENGHT/DIAMETER)	595 / Ø 26	895 / Ø 26	1.198 / Ø 26	1.498 / Ø 26
DIMENSION (INCHES) (LENGHT/DIAMETER)	23.4" / Ø 1.02"	35.2" / Ø 1.02"	47.2" / Ø 1.02"	59.0" / Ø 1.02"
CERTIFICATES	Marked CE			
SPECTRUM	Depending on the necessity: adjustable espectrum and intensity			
PPDF INTENSITY	from 2 $\mu\text{mol m}^{-2}/\text{s}$ to 200 $\mu\text{mol m}^{-2}/\text{s}$			
DISTANCE TO THE PLANT	100 to 1.000 mm			
DECAY OF LIGHT INTENSITY	Max. 10% at 35.000h in standard applications 50.000 h			
LIGHT EFFICIENCY (380-820 NM)	Up to 2,2 $\mu\text{mol}/\text{W}$ (depending on the spectrum)			
AMBIENT WORK TEMPERATURE	0/+50°C (32-100° F)			

Available with transparent or diffusive cover, G13 connecting elad, IP20 and IP64 degree of protection with Valoya socket set, according to ROHS, limited 5 years warranty.

LED LIGHT TUBES ON THE FLUORESCENT TUBE RACKS

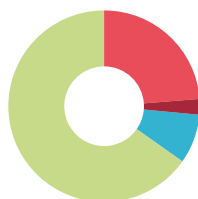
Type T6 or T8 tubes allows series of tubes to be installed in the fluorecent tube racks without any modification (magnetic ballast fixing).

Profitable, very easy to install in terminals with IP64 for particular tests, for example.

GUIDE FOR LED TUBES APPLICATIONS



**WARM WHITE
3500K**



- Red 24,58%
- Far red 2,18%
- Blue 8,52%
- Green 64,72%

**COLD WHITE
5000K**



- Red 20,20%
- Far red 3,13%
- Blue 17,57%
- Green 59,10%

**ULTRAVIOLET A
UV 400 NM**



- UV 100%

Note: It is possible that some products have changed since the printing date of this catalog. The printing date was June 10, 2022. The manufacturer is authorized to make changes in the design, color and shape between the date of the order and the date of printing.

Even so, these changes will not affect the main specifications of the units. If the seller or the owner uses symbols or numbers to name the products, you can not extract rights from them. Photographs and drawings may show accessories and instruments not included in the standard models. Colors can change in relation to photographs by the printing process. The catalog may contain products that can not be sent to certain countries due to national or international legislation. The information shown on laws, legal protocols and legal requirements is valid only in Spain.

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equitec@equi-tec.eu

www.equi-tec.eu

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