



MULTIPURPOSE
CLIMATE CHAMBERS

ERI INOX SERIES

ECOline

INTRODUCTION

The ERI INOX series is a range of multifunctional climatic chambers which, thanks to their overall performance, can be used in numerous fields of application. Initially developed to comply with stability tests according to ICH guidelines, it can also be used in other different applications such as packaging, cosmetics, food, etc.

APPLICATIONS

*Pharmaceuticals.
Cosmetics and beauty.
Feeding.
Cardboard.
Conservation.
R&D.
Others.*



VOLUMES

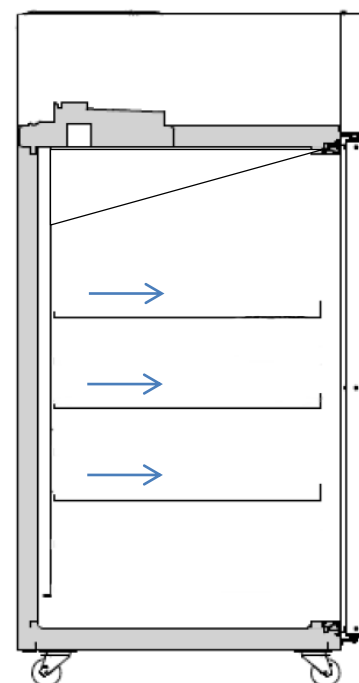
With 5 different volumes, the customer can select the best solution for his application according to the space available in the laboratory.

AIRFLOW

To achieve the most stable conditions, ERI chambers are designed with horizontal airflow in the shelves, with a perforated technical area at the back of the chamber and upflow, so that air circulates freely between the shelves and conditions the samples.

FINISHES

- ✓ Interiors manufactured in AIS304 stainless steel, option of lacquered interior.
- ✓ Exteriors finished in epoxy coated steel with option of stainless steel finish.
- ✓ Rounded interiors for easy cleaning with interior drainage.
- ✓ High density CFC-free high pressure injected polyurethane insulation.
- ✓ Blind door with oversized handle and security lock with keys.
- ✓ Side port for probe access.
- ✓ Wheels, 2 with brakes, or height adjustable feet depending on model.



TEMPERATURE CONTROL

The standard temperature range of the ERI INOX series is between +4°C and +55°C, but the range can be extended to -30°C as an option.

The stability in the chamber +/-0.3°C (at +27°C) or +/-0.5°C (at +40°C), allows reliable and reproducible results for all types of tests.

HUMIDITY CONTROL (Option)

The ERI INOX SERIES can be equipped with relative humidity control, ERI INOX HR.

Humidification is carried out by means of an ultrasonic system that does not provide heat to the medium, generating microscopic droplets inside the chamber. Other humidity generation options are available upon request.

The standard relative humidity range will be from 30 to 90 %RH, with a stability of +/- 3%RH. There is the option to extend the range optionally.



INSTALLATION

ERI INOX chambers are easy to install and maintain. Thanks to their single-phase voltage, they can be installed in any laboratory with the basic services for their installation.

COOLING

Air-cooled system, based on hermetic compressor with R-290 gas with low GWP (value 3) according to European F-GAS guidelines.



CONTROLLER

NANODAC series controller, with graphical display of temperature and/or humidity, intuitive and easy user control.

- ✓ 3.4" backlit TFT graphic display.
- ✓ Microprocessor controller.
- ✓ Intuitive and simple user control.
- ✓ Back-up battery, with automatic recharge, guaranteeing autonomy for 48 or 72 hours (optional), in case of power failure. Graphic indication of battery charge level on the display.
- ✓ Temperature and humidity graph on the display.
- ✓ Resolution / Accuracy: +/-0.1 °C.
- ✓ 3 levels of numerical password protection (user, supervisor, service), with PIN code.
- ✓ Reprogrammable PIN codes for greater security against unauthorized personnel.
- ✓ Visual and acoustic alarm (with automatic reset) for:
- ✓ High or low temperature and/or humidity, with user programmable limits through the menu.
- ✓ Voltage or probe failure.
- ✓ Low battery level.



SAFETY

The ERI INOX SERIES has a thermostat for temperature limit control and sample protection. It also has a visual and audible alarm when the established limits are exceeded.

OPTIONAL ACCESSORIES

Temperature and relative humidity ranges

Extended temperature range

Optional negative temperatures: -5°C / -10°C / -20°C or -30°C .

Extended relative humidity range

Extended drying capacity up to $+10\%$ RH, with additional air dryer.

Constructive

Interiors

Epoxy coated steel or AISI316 stainless steel finishes, depending on application.

Exteriors

AISI304 stainless steel finishes.



Internal glass door

Allows visualization of work processes without altering temperature and/or humidity..



Ports/ Cable pass-through

For the passage of cables and/or probes. With different diameters and plugs.



Door with glass

For visualization of the samples during the test. Double tempered glass. 6 mm thick.



Additional shelf

Made of perforated stainless steel with guides and adjustable in height. Maximum load of 100 kg/m^2 ..

Telescopic reinforced shelf

Made of perforated stainless steel with telescopic guides, optional: fixed, and adjustable in height. Maximum load of 100 kg/m^2 , specially designed for chromatography applications or instrument support.



Height adjustable wheels

For movement and leveling of the chamber.

Internal sockets

For power supply of the tested elements.



Control

Touch screen based control

ERIS models. Based on a microprocessor with 7" color touch screen, with electronic data logging system and graphical representation of the data.

Indication of set and actual points.

It has a USB output for downloading the stored data and its subsequent analysis.



Paper data logger

7-day circular temperature/humidity recorder, with independent battery to work even in case of power failure. Includes 100 graphs (approx. for 1.5 years).

Software

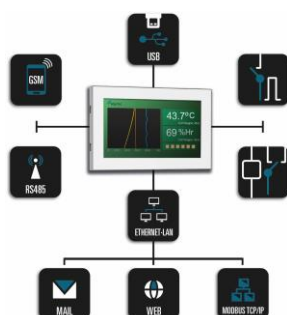
Communication software via external PC for control and recording of tests.

Free potential contact

Potential-free output for remote alarm control (4-20 mA).

Alarms module

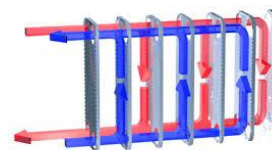
GSM alarm module for retransmission of alarms to external devices via MODBUS.



Water cooling

Water-cooled or glycol water-cooled condensing unit cooling system for the existing condensing unit in the building.

Replaces air-cooled condensing units.



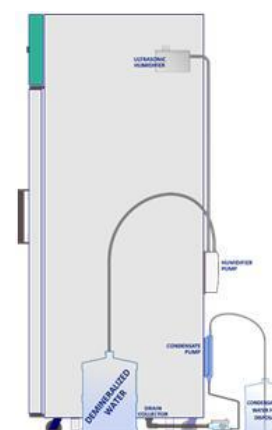
Photostability

Fluorescent tubes with cold white light and UV-near UV for photo-stability tests (OPTION II, from ICH Q1B). Optional LED tubes.

Water feed (for relative humidity control option)

Water tank

Optionally for equipment with humidity control: 20-liter water tank and pump for water supply and evacuation with 3-meter drainage pipe.



Reverse osmosis

Reverse osmosis water treatment system of 3 stages.



Qualification

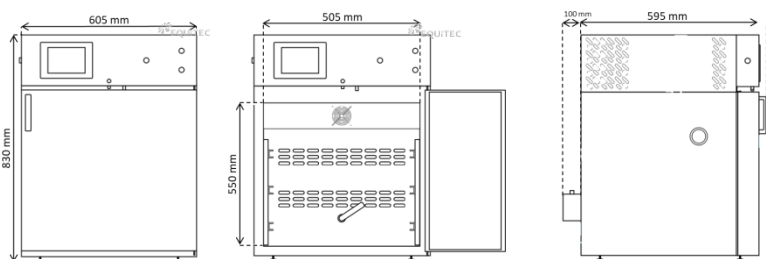
Documentation

Documents for equipment qualification: IQ, OQ, PQ.

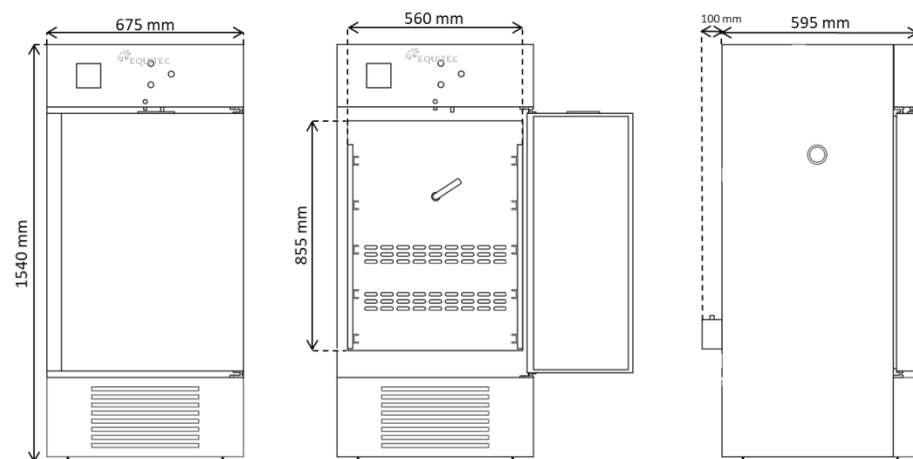
TECHNICAL SPECIFICATIONS

MODEL	ERI 153 INOX HR	ERI 253 INOX HR	ERI 453 INOX HR	ERI 853 INOX HR	ERI 1343 INOX HR
THERMAL AND CLIMATIC RANGE					
Temperature range without humidity control (°C)	from +4 to +55 (Optional: -10/-20/-30°C)				
Temperature stability (°C)	±0,3 at +27°C or ±0,5 at +40°C				
Temperature uniformity (°C)	±1 at +27°C or ±0,5 at +40°C				
Humidity range in models with %RH control	from 30 to 90 (Optional: from 10% RH)				
Humidity stability (%RH)	+/- 3				
Temperature range with controlled humidity (°C)	from +20 to +45				
CONSTRUCTION					
Nominal capacity NET/GROSS (liters)	105 / 150	222 / 250	384 / 455	718 / 855	1160 / 1345
Interior dimensions (mm)					
Width	505	520	570	645	1234
Depth	451	468	504	803	688
Height	617	913	1338	1338	1338
Exterior dimensions (mm)					
Width	605	675	670	797	1385
Depth	695	765	785	1085	916
Height	830	1540	1955	1955	1955
Clear door (mm)	505 x 550	560 x 855	570 x 1388	605 x 1350	534 x 1350
Insulation thickness (mm)	45	55	55	75	75
Interior finish	Stainless steel (AISI304)				
Exterior finish	Epoxy coated steel				
Door type	Blind (optionally tempered glass door or inner glass door)				
Lock	Yes				
Number of shelves	2	3	4	4	4+4
Dimensions of the shelves (mm)	458 x 398	470 x 443	500 x 443	595 x 745	483 x 598
Material of the shelves	Stainless steel (AISI304)				
Surface of the shelves (m2)	0,18	0,21	0,22	0,44	0,29
Ports	Yes, 40 mm ø				
CONTROL					
Controller	4300 series (Option 4500)				
Datalogger	Yes				
USB output	Yes				
Graphics on screen	Yes				
RS485/MODBUS port	Yes				
Free potential contact	Yes				
Battery	Yes, 24 hours (Option: 48 hours)				
Voltage failure alarm	Yes				
OTHER INFORMATION					
Type of refrigerant	R-290A, free of CFC and HCFC, biodegradable				
Ambient temperature range (°C)	from +10 to +28				
Electrical power (W) / Power (A)	1250/13	1400/13	1500/13	1600/14	1800/15
Voltage/Frequency (V/Hz)	230/50 (Optional: 110/60 or 220/60)				
Weight (kg)	105	135	155	215	310

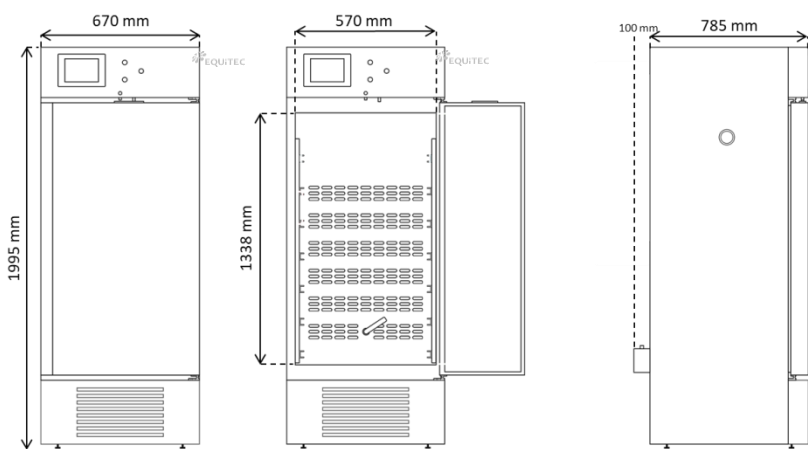
DESIGNS



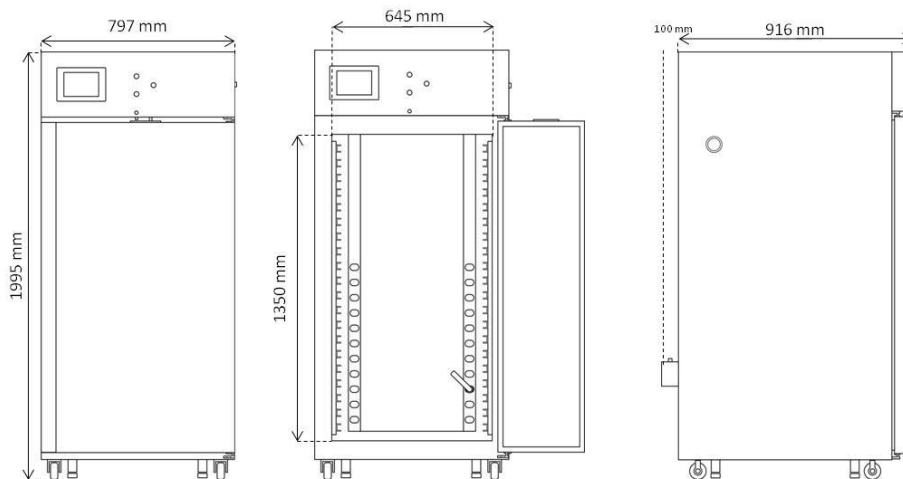
ERI 153 INOX HR



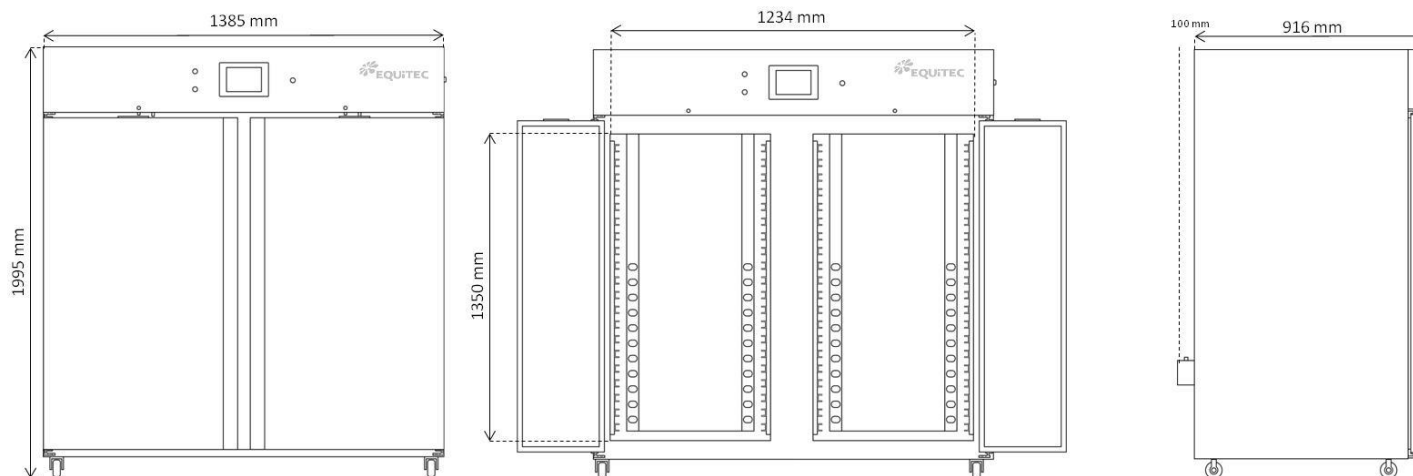
ERI 253 INOX HR



ERI 453 INOX HR



ERI 853 INOX HR



ERI 1343 INOX HR

The Clitec logo is rendered in a bright green color. The word "Clitec" is written in a sans-serif font, with a small globe icon integrated into the letter 'c'.

Clitec

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