



**TOTAL CONTROL AT YOUR FINGER-TIPS!**



**bronson**

**CLIMATE BV**

**INCREMENTUM 1400**

## INCREMENTUM 1400

The Incrementum 1400 cabinet fulfils your general requirements with regards to temperature, humidity and light. This multi-tier reach-in is designed to give you reliable and accurate control for your research.

The Incrementum 1400 can be used for a broad range of research & test applications: Plant Growth, Tissue Culture, Enviromental testing, Stress testing, Seed Germination, Insect-breeding, Product testing, long-term storage & various applications for life sciences.



# ENVIRONMENTAL RESEARCH

The Bronson Incrementum 1400  
Multi tier reach-in

Every researcher looks for reproducibility, stability control and efficiency in his work. The cabinets from Bronson Climate meet all these criteria. The cabinets have been designed and developed based on many years of experience to create very reliable and exceptionally flexible products.

With the Bronson Incrementum 1400, you can create a wide range of climate conditions in one reach-in.

Bronson cabinets go one step further. The Bronson product range is able to deliver the desired climate including temperature, relative humidity and CO<sub>2</sub> at any moment and at any institution. It's all in your hands!

Ultimate Climate Control thanks to our expertise.



# ENVIRONMENTAL RESEARCH



The Bronson Incrementum 1400 is a multi-tier cabinet with a flexible shelving system to maximise the required growth height from 150mm up to  $\pm 1200$ mm.

**Max grow height:**

- 1 layer  $\pm 1200$ mm.
- 2 layers  $\pm 600$ mm.
- 3 layers  $\pm 350$ mm.
- 4 layers  $\pm 200$ mm.



**Benefits of the cabinet:**

- White coating for good reflection
- Shelves are made of stainless steel
- Shelves are adjustable in height
- Shelves are removeable (plug and play)
- Surface is easy to clean
- Removable backwall for cleaning
- No center column 1300mm wide clearance
- Double door design
- Doorlock and door switch



# TECHNICAL SPECIFICATIONS 1400

## GENERAL:

Volume	1247 Litre			
External dimensions (W x D x H mm)	1470 x 825 x 2000			
Internal dimensions (W x D x H mm)	1320 x 680 x 1390			
Exterior & interior	White coated steel			
Shelves	Stainless steel			
Number of doors	2			
Keylock	Yes			
Shelf size (mm)	± 1300x610			
Number of growth layers	1 up to 4			
Growth surface per layer	1 layer =0.80m <sup>2</sup>	2 layers =1.60m <sup>2</sup>	3 layers =2.40m <sup>2</sup>	4 layers =3.20m <sup>2</sup>
Capacity 600x400mm plant trays	Up to 12 (3 per shelf)			
Growth height	Adjustable from 150mm up to ± 1200mm			
Chassis	On four wheels			

TEMPERATURE	LIGHTS ON	LIGHTS OFF
Temperature range	+10°C to +40°C	+5°C to +40°C
Night frost simulation up to 6 hours <sup>(1)</sup>	-	-
Temperature precision controller	0,1°C	0,1°C
Temperature variation	< ± 0,3°C	< ± 0,2°C
Temperature uniformity per shelf	< ± 2,0°C	< ± 0,5°C

HUMIDITY <sup>(1) (2)</sup>	LIGHTS ON	LIGHTS OFF
Humidity range at +5°C to +40°C	50 to 80% RH	50 to 80% RH
Humidity precision controller	1% RH	1% RH
Humidity variation	± 5% RH	± 2% RH
Humidity uniformity per shelf	± 7% RH	± 5% RH

LIGHT INTENSITY LED <sup>(3)</sup>	NUMBER OF SHELVES
Up to 400 µmol/m <sup>2</sup> /s (PPFD) at 150mm	4
Up to 600 µmol/m <sup>2</sup> /s (PPFD) at 150mm	2
Up to 1000 µmol/m <sup>2</sup> /s (PPFD) at 150mm	1
Up to 1500 µmol/m <sup>2</sup> /s (PPFD) at 150mm	-

TECHNICAL DATA	
PLC Controller	Siemens S7-1200 controller
Touchscreen	Siemens SIMATIC Unified 7 inch comfort panel
Temperature sensor	PT1000
Humidity sensor <sup>(1)</sup>	Hygrometric
Airflow	Horizontal; ± 0,3 m/s
Humidifier <sup>(1)</sup>	Ultrasonic
Dryer <sup>(1)</sup>	Dehumidification by cooling coil
CO <sub>2</sub> <sup>(1)</sup>	50-5000 ppm

INSTALLATION REQUIREMENTS	
Location	Clean airconditioned room controlled between the 10°C and 25°C
Water (for optional humidifier)	Demineralized or RO water 1-5 bar
Drain	Drain at floor level near the cabinet
Weight	± 250 Kg. (depending on configuration)
Electrical connection	1 Phase 16A type C 230V 50Hz (0,6 - 3,0 kW depending on configuration)
Connection	Potential alarm contact / internet UTP
Compressed air (for optional air dryer or CO <sub>2</sub> scrubber)	6-12 bar

(1) Optional

(2) Depending on heat load and moisture content inside and outside the cabinet

(3) There are different light intensities available, the maximum light intensity depends on the number of shelves and heatload



[www.bronsonclimate.nl](http://www.bronsonclimate.nl)



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**Bronson Climate Grows**