



**INCREMENTUM 1400** 

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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, Environmental testing, Stress testing, Seed Germination, Insect-breeding, Product testing, long-therm storage & various applications for life sciences.



## **ENVIRONMENTAL RESEARCH**

The Bronson Incrementum 1400 Multi tier reach-in

Every researcher looks for reproducitbility, 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 institusion. 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  $\pm$  1200mm.

#### **Max grow height:**

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



#### **Benifits 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 900 x 2000	
Internal dimensions (W x D x H mm)	1320 x 680 x 1390	
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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(1)	-	-
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(3)	NUMBER OF SHELVES	
Up to 400 μmol/m²/s (PPFD) at 150mm	4	
Up to 600 μmol/m²/s (PPFD) at 150mm	2	
Up to 1000 μmol/m²/s (PPFD) at 150mm	1	
Up to 1500 μmol/m²/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 (1)	Hygrometric	
Airflow	Horizontal; ± 0,3 m/s	
Humidifier <sup>(1)</sup>	Ultrasonic	
Dryer (1)	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>3</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



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**Bronson Climate Grows**