



# Ultra low temperature freezers



**UF V series** 









# Ultra low temperature freezers

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The spotlight is on environmentally-friendly design in the new BINDER ultra low temperature freezer.

This applies particularly to the best energy efficiency in its class and the lack of refrigerants that are harmful to the climate. A multi-layered safety concept allows users to mix and match elements to suit any environment. With practical unit sizes appropriate, sophisticated options and practical accessories, users have everything they need for reliable long-term storage of highly sensitive samples.



# PRODUCT SELECTION ULTRA LOW TEMPERATURE FREEZERS

Features	Series UF V  Page 6
Model	
Model 350	•
Model 500	•
Model 700	•
General data	
Temperature range [°C]	-8640
Cooling technology	Cascades
Refrigerant	R-290 / R-170

 $<sup>\</sup>bullet Standard\ equipment$ 



# **ADVANTAGES AT A GLANCE**



### **EXEMPLARY ENVIRONMENTAL FRIENDLINESS**

Series UF V

Demonstrated by state-of-the-art cooling technology that uses climate-neutral refrigerants, plus minimum energy consumption thanks to large vacuum-based thermal insulation.



### MINIMUM BUILDUP OF ICE

Series UF V

The innovative door gasket concept reduces the tendency for ice to build up on the door frame and, at the same time, makes it easier to remove ice.



### **CONVENIENT DOOR OPERATION**

Series UF V

The door can be opened manually using an ergonomic door latch handle or at the touch of a button using an electromechanical door locking mechanism. Electronic access control is available via the NumPad option.



## **DURABLE QUALITY**

Series UF V

The inner chamber, shelves, and inner doors are made entirely from stainless steel.



# **Series UF V** | with climate-neutral refrigerants

The BINDER ultra low temperature freezer ensures the safe storage of samples at -80 °C. It combines outstanding environmental friendliness with low energy consumption, convenient operation and an individual safety concept.





UVF 500 model

### MAIN FEATURES

- Range of temperature controller: -86 °C to -40 °C
- Lowest energy consumption in its class
- Powerful cascade compressor cooling unit
- Environmentally friendly refrigerants R-290 and R-170
- Efficient thermal insulation with vacuum insulation panels
- Innovative door gasket concept reduces buildup of ice
- Ergonomic door handle
- Rust-proof interior made completely of stainless steel
- Detachable inner doors made of stainless steel
- 3 stainless-steel shelves providing flexible placement

### **AVAILABLE SIZES**

Model	Interior volume [L]	Online data sheets
UF V 350	382	po2binder.com/en-UFV350
UF V 500	477	po2binder.com/en-UFV500
UF V 700	700	po2binder.com/en-UFV700



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# TECHNICAL DATA

Description	UF V 350	UFV 500	UF V 700
Outer dimensions			
Width net [mm]	706	826	1110
Height net [mm]	1966	1966	1966
Depth net [mm]	938	938	938
Internal Dimensions			
Width [mm]	486	606	890
Height [mm]	1300	1300	1300
Depth [mm]	605	605	605
Measures			
Interior volume [L]	382	477	700
Net weight of the unit (empty) [kg]	226	247	288
permitted load [kg]	160	200	200
Performance Data Temperature			
Temperature range [°C]	-9040	-8640	-8640
Temperature variation at -80 °C [± K]	3,5	2.5	2.5
Temperature fluctuation at -80 °C [± K]	3,5	1.5	1.5
Warm-up time during power failure from -80 °C / -122 °F to -60 °C / -76 °F [min]	170	230	250
Electrical data			
Nominal power (version 120 V) [kW]	1,4	1.6	1.6
Nominal power (version 230 V) [kW]	1,6	1.6	1.6
Nominal power (version 240 V) [kW]	1,6	1.6	1.6
Environment-specific data			
Energy consumption at set-point -80 °C and ambient temperature = 21 °C [kWh/d]	7,9	7.9	8.1
Fixtures			
Number of shelves (std./max.)	3/13	3/13	3/13

# ORDERING INFORMATION [Art. No.]

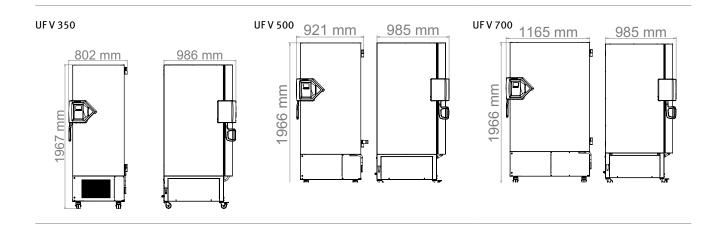
Further details: Go to www.binder-world.com > Search > Enter Article Number

Voltage	Option model	UFV 350	UF V 500	UF V 700
240 V 1~ 60 Hz	Standard	9020-0455	9020-0353	9020-0354
230 V 1~ 50 Hz	Standard	9020-0453	9020-0347	9020-0348
	Water cooling		9020-0349	9020-0350
120 V 1~ 60 Hz	Standard	9020-0454	9020-0351	9020-0352

 $<sup>\</sup>blacktriangleright$  You will find a selction of options, accessories and services suitable for each product on page 9



# DIMENSIONS incl. fittings and connections [mm]





# **EXCERPT FROM OPTIONS AND ACCESSORIES**

Foam-filled compartment doors with gasket	Ideal for applications where doors are opened frequently.  Series UF V
Door access system	Consisting of electromechanical door locking mechanism and electronic access control via NumPad.  Series UF V
Alarm system	Battery-backed system for maintaining temperature display, visual and audible alarm messages, and data communication.  Series UF V
Chamber racks	Large selection of racks made of aluminum or stainless steel, as well as cryoboxes.  Series UF V
Services	You can access our installation, maintenance, calibration, validation, or warranty services by taking out a Maintenance Service Agreement or by simply getting in touch when you need us.  More information is available in the accessories and services chapter.  Series UF V
BINDER INDIVIDUAL	Using a BINDER series production product as a basis, we develop individual solutions as a single unit or in small batches. All products are tested, certified, and supplied with a full functional guarantee and warranty. More information is available in the accessories and services chapter.  Series UF V



Foam-filled compartment doors with gasket



Door access system



Alarm system



Selection of racks and boxes

# **BINDER** products

CO <sub>2</sub> incubators
Incubators
Cooling incubators
Growth chambers
Ultralow temperature freezers
Drying and heating chambers
Safety drying chambers
Vacuum drying chambers
Constant climate chambers
Dynamic climate chambers
Battery test chambers
Walk-in-chambers
Multi Management Software



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