

COMPACT ULT FREEZERS

UNDERCOUNTER & BENCHTOP



TABLE OF CONTENTS

► COMPACT ULT INTEGRALINE	► PAGE
CONTENTS / CERTIFICATES	2
ABOUT ARTIKO	3
INTEGRALINE INTRODUCTION	4
EXPLANATION OF ICONS / PRODUCT SPECS	5
COMPACT ULT INTEGRALINE FEATURES	6-9
PERFORMANCE DATA	10-11
SINGLE COMPRESSOR TECHNOLOGY	12-13
V500 CONTROLLER	14-15
ACCESORIES	16-17
DIMENSION DRAWINGS	18
TECHNICAL DATA	19
PRODUCT OVERVIEW	20



CERTIFICATES

ARTIKO is certified according to ISO 9001:2015 and ISO 13485:2016 ensuring that our products will comply with applicable quality standards at all times.

We offer products that always meet the regulatory requirements of the EU directives concerning CE marking as well as a selected group of products classified as medical devices.





RESEARCHERS WORLDWIDE PROTECTS MILLIONS OF SAMPLES INSIDE ARCTIKO FREEZERS

ARCTIKO never settles for second best. We are distinguished by setting new trends in high-quality customized cooling and freezing solutions — primarily in healthcare and life sciences.

With reliability and durability in focus, the safety of our customers' valuable samples is our main priority. Our development engineers and highly-regarded research constantly improve our products. Together, we strive towards the highest performance and efficiency rate through testing, based on environmentally proved methods and required certifications.

At ARCTIKO, we constantly strive for flexibility, uniformity, high-quality performance technology and continuous innovations. Additionally, it's noteworthy to mention that our high-tech products are all designed, developed and engineered in Denmark.



DESIGNED
DEVELOPED &
ENGINEERED
IN DENMARK



Integraline

ULT DEVELOPED TO TARGET THE MOST CRITICAL USERS

► Our newest line is developed for the most critical users of a wide range of applications. The Integraline includes four upright cabinet models with a capacity from 381L to 815L and the compact space-saving models from 7L to 88L. The compact models all include features like noise reduction technology, vacuum isolated panels, and our trusted and safe single compressor system. The compact Integraline comes in a space-saving design, low noise level and highly reliable freezing made of quality components. This range will add a new dimension to your laboratory. It's a perfect storage solution for your personal laboratory or when a lack of space.

The new Integraline is developed to target the most critical users on the market. The compact Integraline will add a new dimension to your laboratory, as either a benchtop or undercounter solution. Our compact space-saving design, low noise level, and highly reliable freezing make it a perfect storage solution for your laboratory. The line is produced with the original single compressor technology that ensures outstanding cooling performance.

WHEN STORING SENSITIVE SAMPLES

When storing sensitive samples, a stable temperature inside is essential. In line with higher requirements, some customers need to monitor the temperature through external devices. In our Integraline, we have included a premade access port for an easier installation of an external probe or monitoring device. Moreover, the new Integraline can be connected to several optional accessories, to get exactly the unit that fulfills the needs in the laboratory, so that you can focus on your valuable research.

APPLICATION

Ultra-low temperature freezers have a wide application range for both biological and biotech storage. Whether you are in the medical field, life sciences, plastics, food, or electronic components industry, these freezers are perfect for your application's needs. Application in the Integraline includes biological samples such as DNA/RNA, plant samples, insect artifacts, autopsy materials, blood, plasma, bones and tissues, chemicals and antibiotics, tissue, bone marrow, cord blood, specimens, stem cells and sperm.

EXPLANATION OF ICONS



SINGLE COMPRESSOR SYSTEM

The single compressor system consists of one compressor and one cooling cycle. This technology has a unique and simple structure that ensures easy maintenance, less heat dissipation, low energy consumption, and noise reduction. ARCTIKO manufactures an exceptional range, offering the best solution on the ultra-low temperature market with the single compressor system.



FILTERLESS CONSTRUCTION

Filterless construction prevents complications due to dust in the filter. Dust blocks the airflow through the condenser, which reduces the unit's ability to dissipate heat effectively. The air that bypasses the clogged air filter carries dirt into the condenser, which increases the energy used in the compressor and generates additional heat for the ambient environment.



NOISE REDUCTION TECHNOLOGY

As a result of our newly developed noise reduction technology, we are able to reduce the noise level drastically. This technology helps provide a pleasant work environment. The noise reduction is achieved by the implementation of our uniquely designed enclosure of the compressor compartment.



DIRECT COOLING

Direct cooling features evaporator coils to cool each compartment directly for maximum uniformity and minimal recovery time.



VACUUM INSULATED PANELS

ARCTIKO's vacuum insulated panels are made of a high-efficient quality that secures the lowest possible energy consumption. The panels are specially developed to optimize the freezer space and to increase the efficiency and cooling performance.

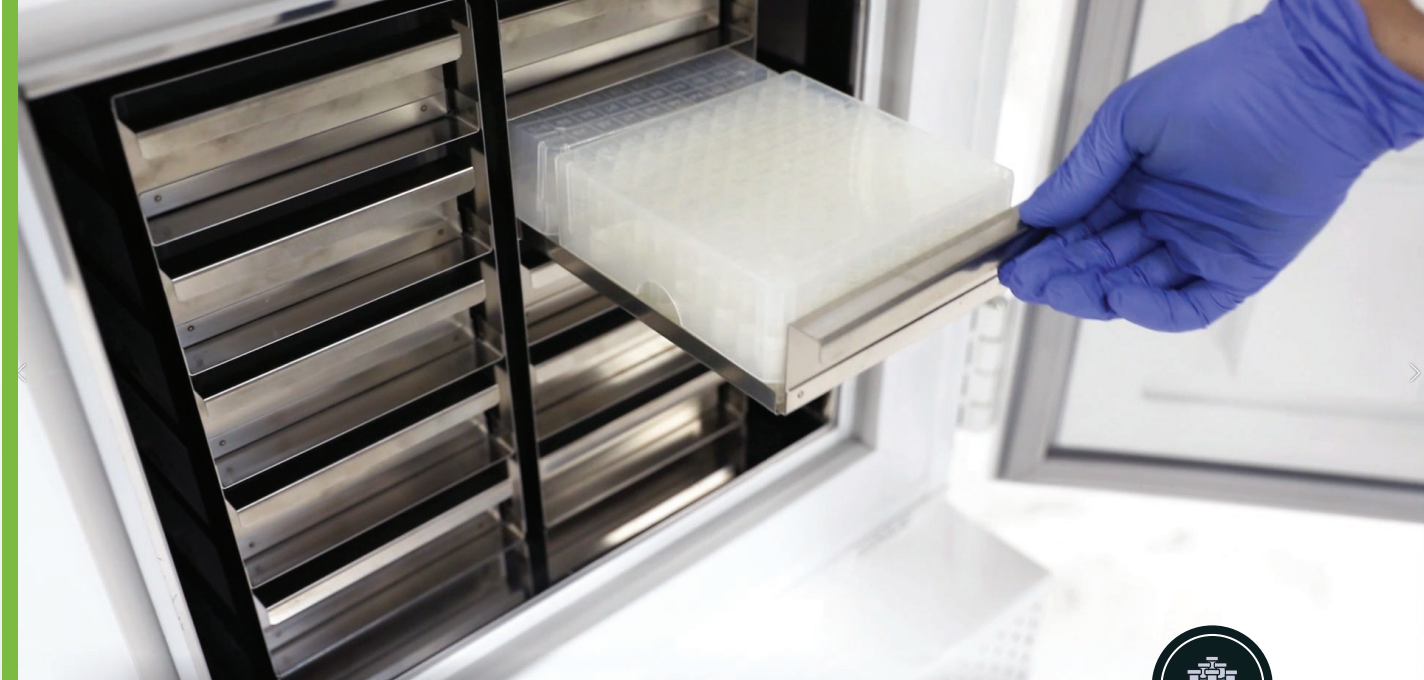


AIRFLOW CONTROL

Airflow control is a special new construction, which enables controlled airflow around the vital components of the cooling system, securing maximum levels of performance and the lowest possible energy consumption.



MODEL	ULUF P10	ULUF P50	ULUF P90
Capacity (L)	7	50	88
Temperature range (°C)	-40/-86	-40/-86	-40/-86
Exterior dimensions WxDxH (mm)	447x709x731	657x778x836	937x778x836
Interior dimensions WxDxH (mm)	147x142x307	357x443x307	637x443x307
Weight (kg)	55	75	97
Noise level (dBA)	45	45	45
Pull down time	90	95	105
Insulation (mm)	120	120	120
Cooling technology	single system / static	single system / static	single system / static
Display type	V500	V500	V500
Total capacity of 50 mm boxes (pcs)	5	30	60
Total capacity of 75 mm boxes (pcs)	4	18	36
Total capacity of 96 mm boxes (pcs)	3	12	24
Total capacity vials (50 mm boxes) (pcs)	500	3.000	6.000
Total capacity vials (75 mm boxes) (pcs)	400	1.800	3.600
Total capacity vials (96 mm boxes) (pcs)	300	1.200	2.400



DON'T WASTE TIME SHIFTING THROUGH UNSORTED SAMPLES

► Store your freezer storage boxes within organized freezer racks. ARCTIKO offers a large variety of stainless steel racks to optimize your freezer space. These racks are made of high-quality, strong and long-lasting stainless steel. The racks will help you organize the samples inside your freezer easily.

Two types of racks can fit in this compact range of freezers. The racks with drawers, sliding the boxes easily in and out of the freezer, or with compartments in order to introduce the box from the side.



ONEGRIP™ HANDLE

► The ARCTIKO OneGrip™ handle is designed and developed for easy and ergonomic use. With soft edges and a 25-degree angle, daily operational routines can be performed, with a smooth and easy one-handed door opening and closing experience.

The construction of the handle and door combination ensures a secure-tightening mechanism for optimal temperature level preservation. The ARCTIKO OneGrip™ door handle also includes an integrated lock for restricted access.

VACUUM INSULATED PANEL

► Our compact space-saving cabinet design offers a reduced footprint due to the use of ARCTIKO's specially developed vacuum insulated panel, which is used to optimize the freezer to increase energy efficiency and cooling performance.

The vacuum insulated panel is made of a high-efficient quality that secures the lowest possible energy consumption.

The VIP panel combined with ARCTIKO's state-of-the-art single compressor technology provides a safe and high-quality ULT freezer.

*The ARCTIKO Compact Integraline models have the vacuum insulated panel placed between the chamber and the compressor compartment.



- 1. Barrier film
- 2. Vacuum insulated panel
- 3. Interior
- 4. Rigid foamed polyurethane

DURABLE AND EASY TO CLEAN

► The interior of the compact Integraline freezers is made of highly durable and robust stainless steel AISI 304 to ensure the best possible quality and to provide high sample safety.

The rounded corners of the interior of the freezers allow easy cleaning and disinfection. The well-designed inner compartment maximizes the storage capacity and allows storing samples safely and within a reduced footprint.



ARCTIKO Integralline

true cooling specialists

Improved energy performance with a mix of polyurethane and the high quality VIP panels

1

High efficient compressor

2

ULUF P50

NATURAL REFRIGERANT

ULUF P10

Advanced V500 Controller

3



► Outstanding cooling performance with the true and original single compressor cooling system. Made with a simple structure that ensures easy maintenance, lower heat dissipation, low energy consumption and noise reduction for a pleasant work.



► Compact space-saving design makes the undercounter ULT's the perfect storage solution for laboratories with limited space.



► Storage capacity of up to 6000 samples.



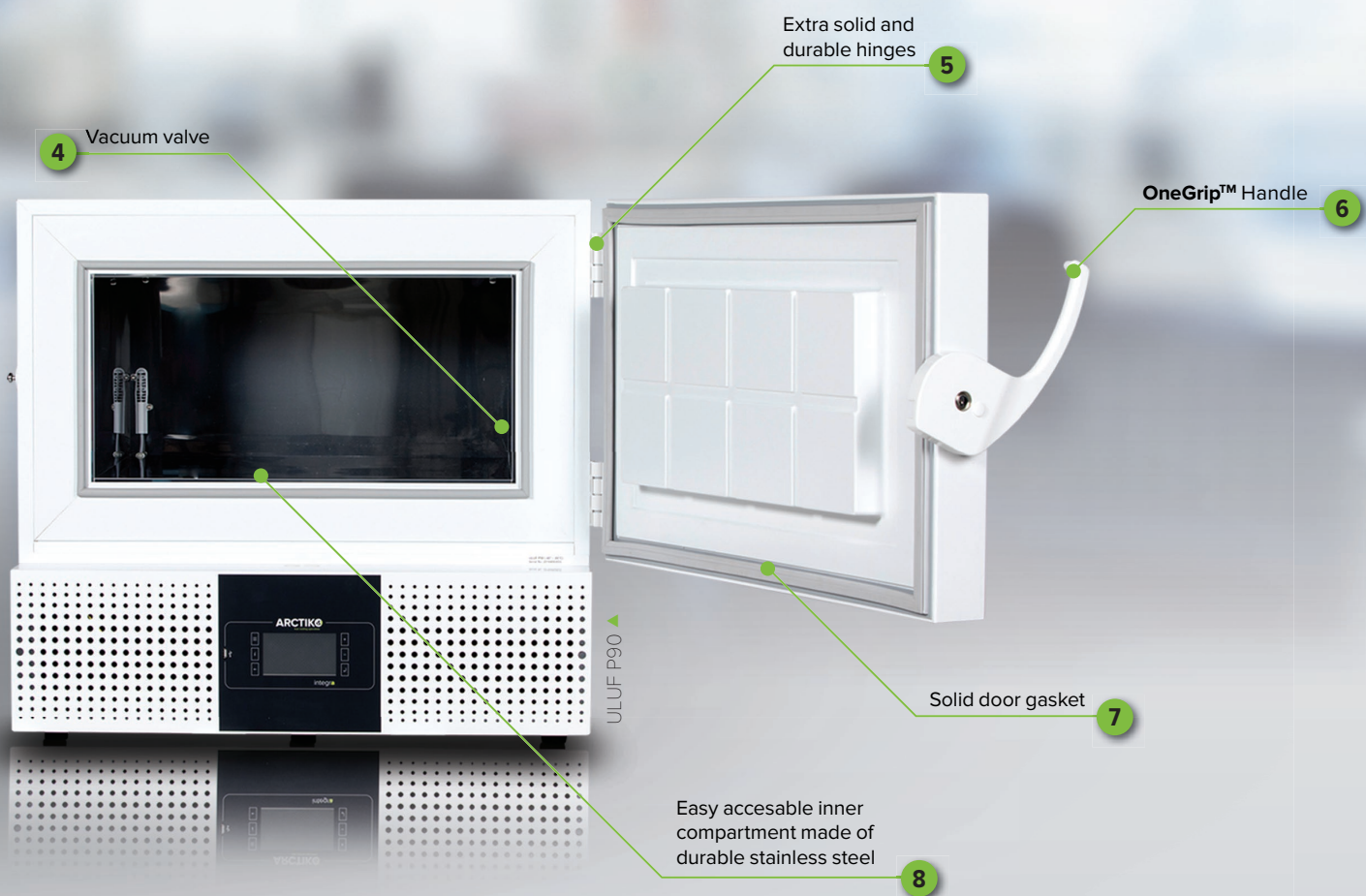
► Direct cooling for optimized temperature stability and uniformity, even with multiple door openings.



► Heated door frame prevents ice from building up around the gasket securing a stable and uniform temperature inside the freezer.

COMPACT AND SPACE-SAVING UNDERCOUNTER MODELS

-40 / -86 °C



► Low energy consumption made possible with ECO mode and ultra-efficient Vacuum Insulated Panels.



► Built-in CO₂ backup controller system for extra security for your valuable samples.



► Filterless construction prevents complications due to dust in the filter.



► Self-diagnostic function to guarantee that your alarm system is always working correctly.

PERFORMANCE DATA

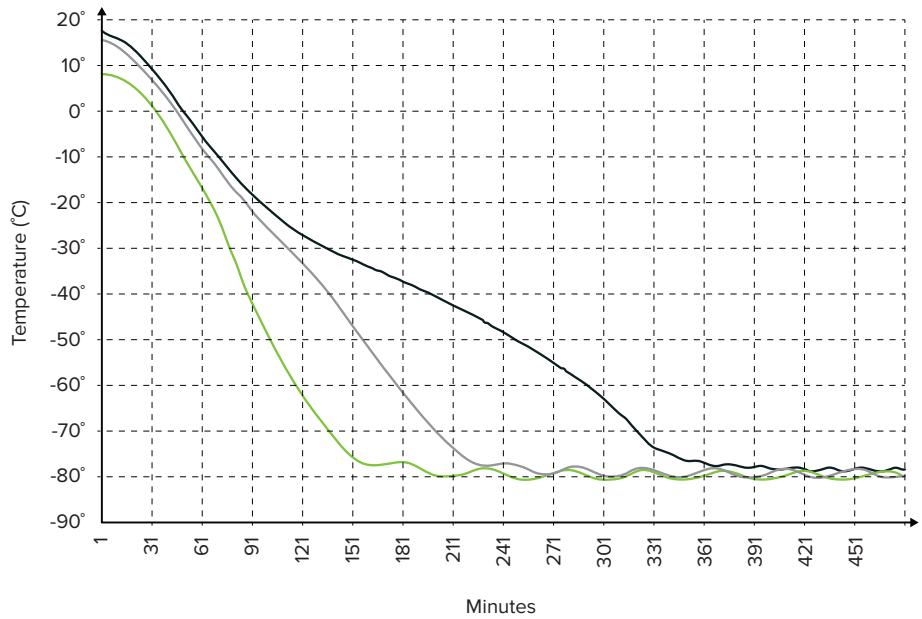
► Securely store valuable and irreplaceable samples with the utmost confidence that they won't be affected because of temperature uniformity.

ARCTIKO freezers are well-known all over the world for having one of the best uniformities compared with other ones on the market.

PULL-DOWN GRAPH

The pull-down time measures the time taken to cool down the freezer from ambient temperatures to -80 °C. ARCTIKO'S powerful and efficient compressor system creates a faster pull-down time extending the sample lifetime.

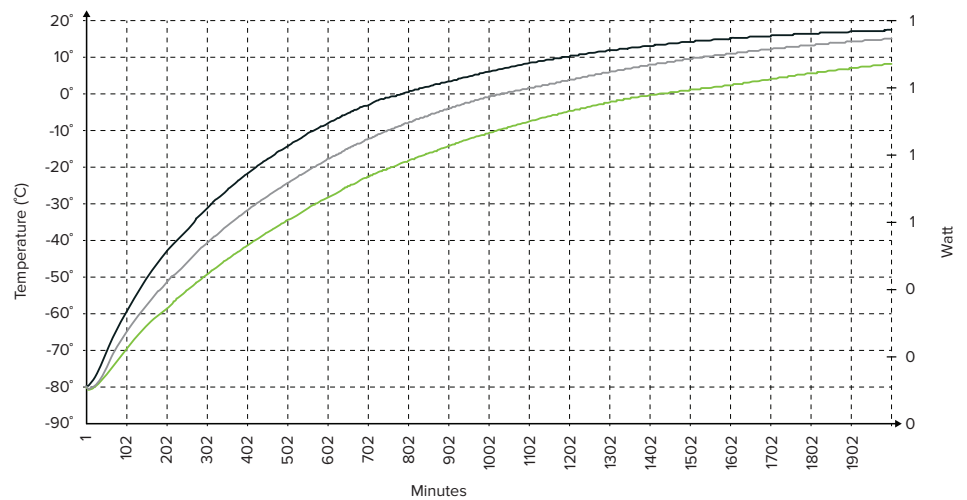
- ULUF P10
- ULUF P50
- ULUF P90



HOLD OVER GRAPH

The pull-up time measures the time taken for the temperature to rise in case of a power failure. In the event of a power cut, the longer the pull-up time, the longer the samples will be safe. ARCTIKO'S phenomenal pull-up time will extend the sample lifetime.

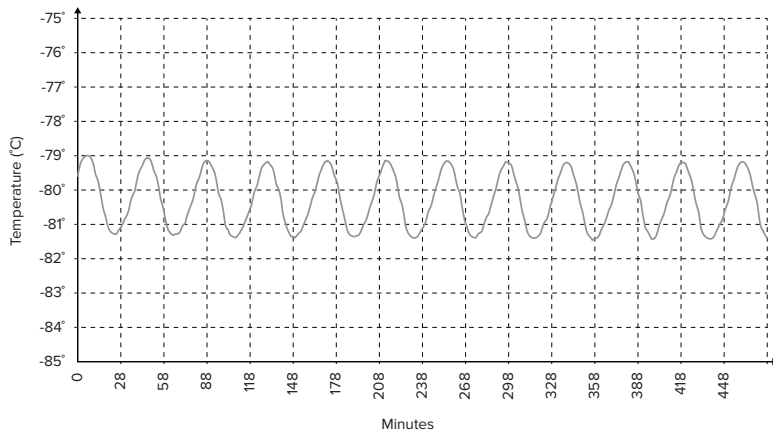
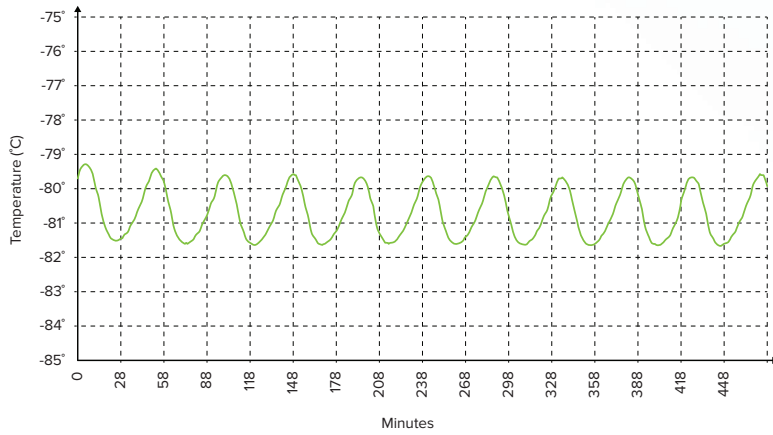
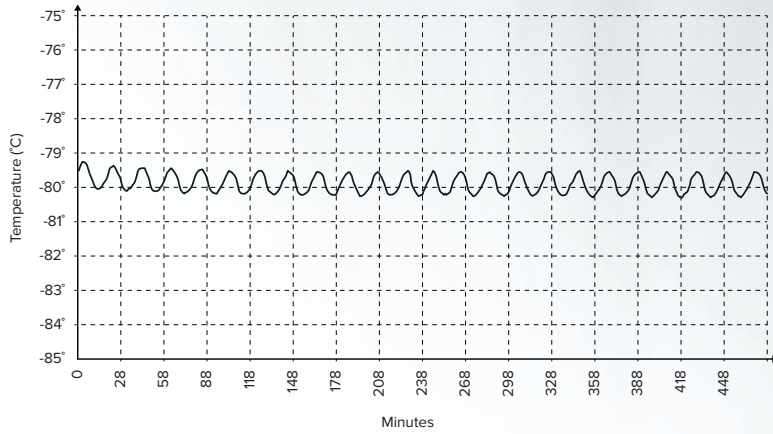
- ULUF P10
- ULUF P50
- ULUF P90



UNIFORMITY

The uniformity represents the temperature fluctuation inside the freezer. Fewer fluctuations within a freezer indicate a stable and even temperature. It's important to note that samples should be stored at uniform temperatures to maintain viability.

- ULUF P10
- ULUF P50
- ULUF P90



3 REASONS

- ▶ Outstanding cooling performance with the true and original single cooling system.
- ▶ Compact space-saving design makes the undercounter ULT's the perfect storage solution for laboratories with limited space.
- ▶ Single Compressor Technology with a simple structure ensures easy maintenance, lower heat dissipation, low energy consumption

WHY ARCTIKO'S SINGLE COMPRESSOR COOLING IS THE BEST SOLUTION



ULUF P90 CROSS SECTION



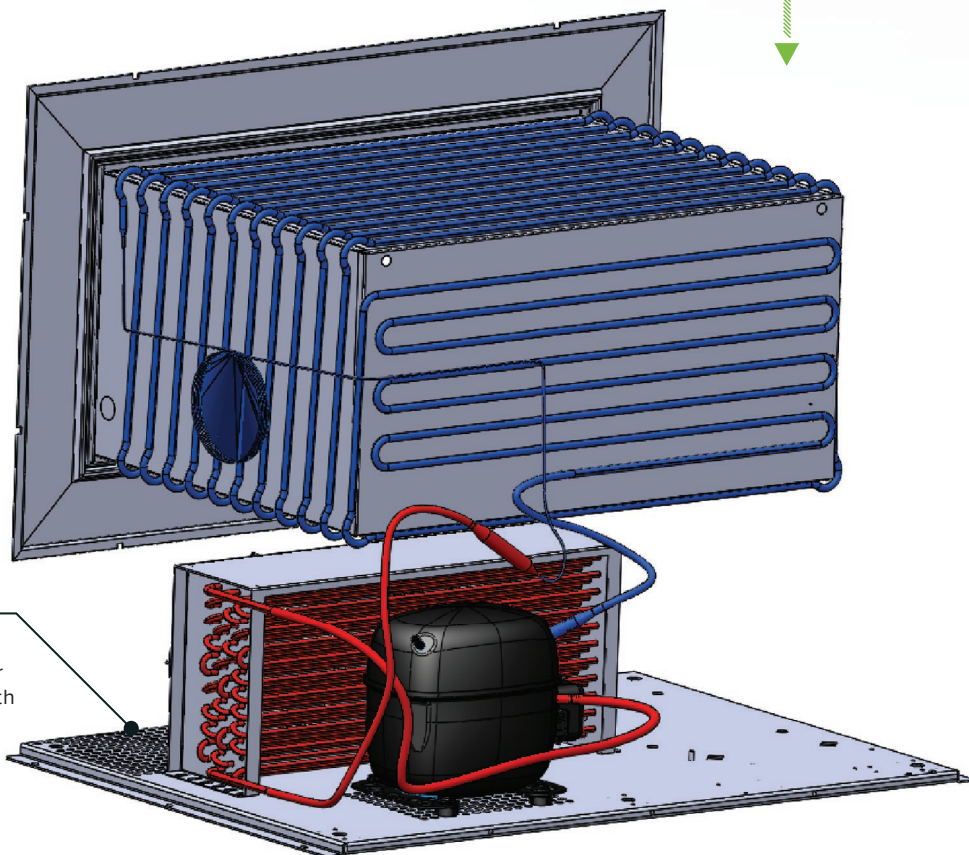
EXCELLENT COOLING PERFORMANCE WITH SINGLE COMPRESSOR SYSTEM

► Storing samples at ultra-low temperatures is always a highly sensitive process because the stored items are most likely of high value. ARCTIKO's single compressor system offers the best solution on the ultra-low temperature market. We strive to design products that are easy to use and equipped with all the necessary features.

With our single compressor cooling system which only uses one compressor and one cooling cycle, ARCTIKO has been able to manufacture a unique range of ultra-low temperature freezers with a reliable and exceptionally stable temperature inside.

Our true and original single-stage technology system has a unique and simple structure which has conclusive impacts on less maintenance, less heat dissipation, low energy consumption, and noise reduction.

ARCTIKO's single compressor system consists of fewer parts and has a simplified structure of the cooling system and electrical circuit, which reduces the failure rate.



Simple and safe
Single compressor
cooling system with
only the essential
parts.

V500 CONTROLLER WITH A USER-FRIENDLY INTERFACE



► With the new ARCTIKO controller, you will get the most user-friendly controller on the market. The new controller comes as a 5" touch screen display.

The controller is upgraded with the newest technologies on the market and has all the features needed for safe storage of your valuable samples.

Energy consumption has a huge impact on the cost of ownership therefore, ARCTIKO's newly developed -86 °C models that can operate in **ECO** mode and **NORMAL** mode.

► **ECO** mode is developed to reduce energy consumption while maintaining optimum uniformity for the stored materials.

Large 5" color resistive touch screen display makes it easy to access all necessary functions and is easy to navigate. It can even be operated with a glove.

- Display is easy to clean - no accidental button presses - easy to navigate



- USB port for easy upload of software & download of logged data
- Extensive integrated logging capabilities with access to detailed log directly on the display
- Multiple languages available in the controller



MAIN FEATURES

- ▶ Self-diagnostic test
- ▶ ECO mode - reducing operating costs
- ▶ Monitoring of power and multiple alarm conditions
- ▶ Integrated memory for 20 years of logged data
- ▶ Battery backup for alarms, logging, and temperature monitoring in case of power failure
- ▶ Auto cycle in case of probe failure
- ▶ Advanced service mode
- ▶ 3 levels of password protection
- ▶ Digital temperature graph



PREPARED FOR:

- Connection of one additional probe
- Electronic lock with access via RFID card
- Built-in CO₂ backup function
- Modbus over RS485
- Connection of GSM alarm module

USER PANEL

STAND-BY SETPOINT LIMITS ACCESS LOG ECOMODE

EVENTS GRAPH DEFROST SETTINGS SERVICE

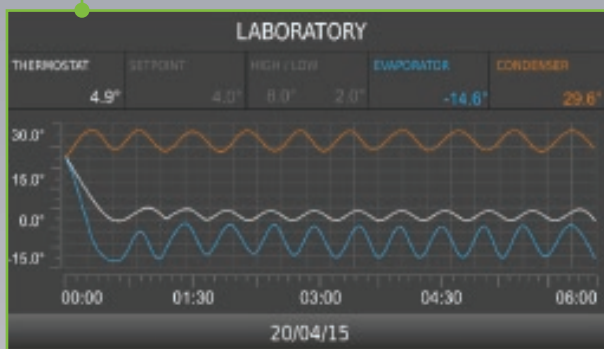
26/10/2018 15:53

ARCTIK

-52.1°C

COOLING

COMPRESSOR	SETPOINT	MAINS	UNIT	STATUS
-12.1°	30.3°	-86.0°	0V	1 2



ALARM FEATURES

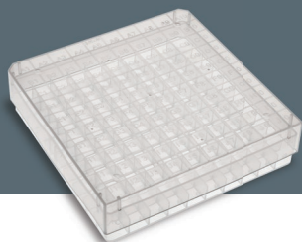
- Visual and acoustic alarm
- Compressor alarm
- Adjustable high/low temperature alarm
- Power failure alarm
- Probe failure alarm
- Open door alarm
- Contact for remote alarm
- Shows all alarms



ACCESSORIES

ITEM NO.

DAI 3160 (32mm)
DAI 3161 (40mm)
DAI 3162 (50mm)
DAI 3163 (80mm)
DAI 3164 (90m)



ARCTIKO BOXES

With ARCTIKO's cryoboxes, you are guaranteed with a high focus on quality and many years of experience in making strong, easy-to-use storage boxes with customers in mind.

ARCTIKO boxes come in two different versions: 9x9 and 10x10 boxes, providing a storage capacity of 81 and 100 samples respectively. With the 10x10 box, the focus is to optimize the sample storage and provide more advantages than the conventional 9x9 boxes.

Benefits of ARCTIKO's 10x10 Cryo Boxes:

- 23% increase in storage capacity compared to conventional boxes
- A click lock in the lid ensures secure handling and that samples will be stored optimally at all times
- Numerical codes for quicker identification
- Standard measurements 130 x 130mm fit most rack systems
- Enables one-handed opening of vials without removing them

ITEM NO.

DAI 3150 (0,5ml)
DAI 3151 (1,0ml)
DAI 3152 (2,0ml)
DAI 3153 (4,0ml)
DAI 3154 (5,0ml)



ARCTIKO SLIM CRYOVIALS

ARCTIKO Cryovials are uniquely designed for safe short-term and long-term storage. Combined with our popular and innovative 10x10 cryoboxes, the capacity will be optimized by more than 23%.

- Slim design with external thread for 10x10 boxes
- External thread limits sample contamination due to tight closing
- Highly resistant and withstanding temperatures of -196 °C / 121 °C
- Star-foot grip for easy and safe removal and fitting of the lid
- Self-standing star-foot with anti-rotating bottom, compatible with various working stations
- Smart and uniquely designed lid allowing easy tightening and removal of the lid with only half a rotation
- Certified RNase-free, DNase-free, Pyrogen-free, and DNA-free
- Sterilized after ISO 11137-2:2013

ITEM NO.

DAI 0941 (SVS04-22 for ULUF P10/P50)
DAI 0942 (SVS08-22 for ULUF P90)



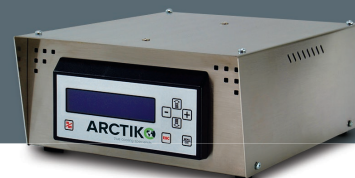
VOLTAGE STABILIZERS

The voltage stabilizer will ensure that your equipment will receive normal, stabilized power. If the voltage rises or drops, the voltage stabilizer will stabilize the output ensuring the voltage remains constant at 230 V (+/- 6 %) or 115 V (+/- 6 %), within the operating range of the unit.

Stabilized power is essential for refrigeration equipment in unsteady power areas to ensure long service operation without damage and to ensure that the contents of the refrigeration unit are kept at the optimal temperature.

ITEM NO.

DAI 0921
(ONLY ULUF P50/P90)



CO₂ BACKUP

A number of ARCTIKO products can be supplemented by a CO₂ backup system for optimized safety. The backup system is supplied with a heavy duty internal battery, injection indicator and digital display with alarm functions.

It injects CO₂ in the event that the temperature inside a freezer rises above a preset temperature value.

ITEM NO.

DAI 0916 (RV-4000)
DAI 0917 (RV-8000)



VOLTAGE CONVERTERS

Voltage converters can be used worldwide to transform 220 V into 110 V and vice versa. The voltage converters are made of highly durable materials and feature power source indicators and a toroidal transformer.

Models are available from 2400 W to 8000 W. Please contact ARCTIKO for more information and help in choosing the correct converter for your product.

ITEM NO.

DAI 0955
(Liberio Te1-P)



DATA LOGGER

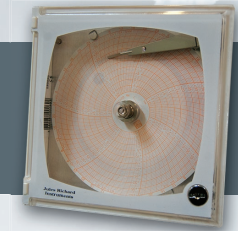
The data logger is a simple and safe electronic device that will record the internal temperature of the equipment over time with an external or internal sensor.

The data logger can automatically collect data on a 24-hour basis in an automatically generated multilevel PDF report. It can easily be adjusted to the desired alarm limits and is available in various models with a range from -200 °C to +200 °C.

It's fully compliant with ISO standard 19005-1 Document Management industry guidelines for the long-term preservation of electronic documents (PDF/A) and FDA 21 CFR Part 11.

ITEM NO.

DAI 0934



TEMPERATURE CHART RECORDER

A chart recorder is a safe solution for documenting temperature conditions over a certain period of time. A replaceable pen continuously documents the temperature on a chart that circulates on either a 7-day or 24-hour basis. The chart recorder can be built in as an option in many ARCTIKO products.

ITEM NO.

DAI 0980 (size M)
DAI 0981 (size L)
DAI 0982 (size XL)



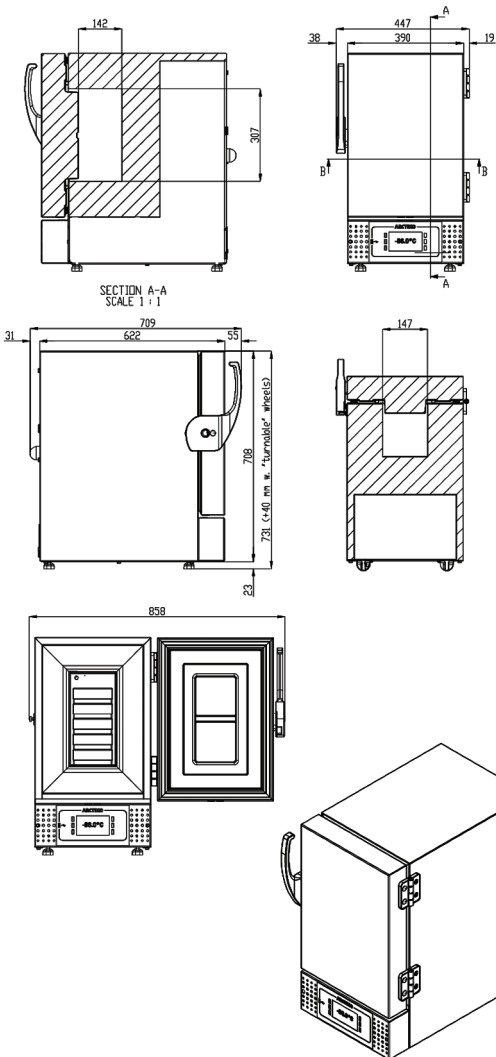
CRYO GLOVES

Our water-resistant cryo-gloves protect your hands and prevent frostbite while you are handling frozen products in ultra-cold environments down to -160 °C.

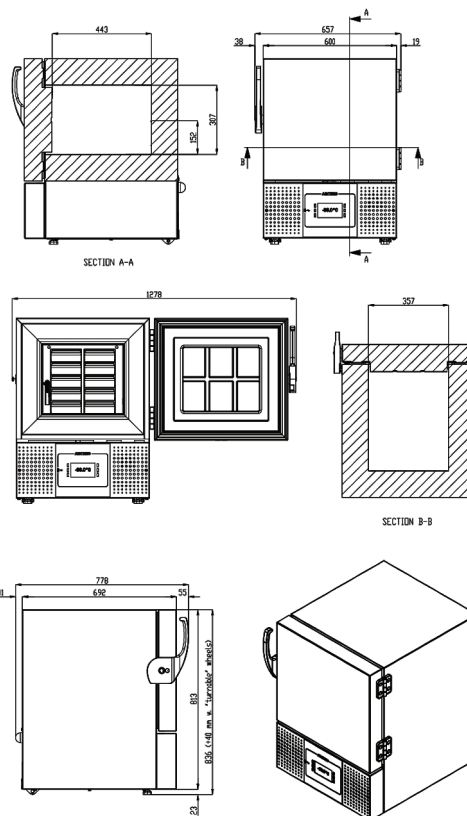
The gloves have multiple layers of insulation from fingertip to mid-forearm; they can also be used in very high temperatures up to +123 °C and are available in different models and sizes.

DIMENSION DRAWING

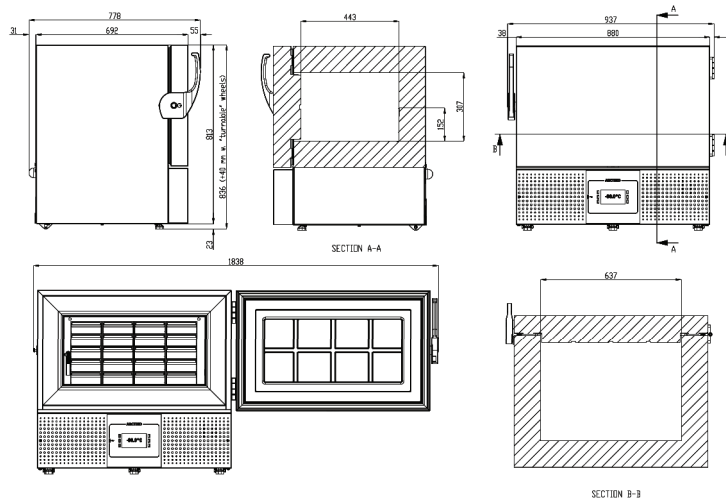
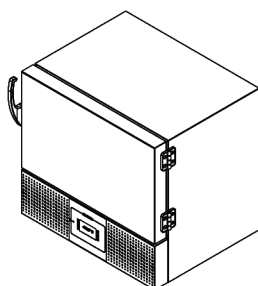
ULUF P10
DAI 1820



ULUF P50
DAI 1825



ULUF P90
DAI 1830

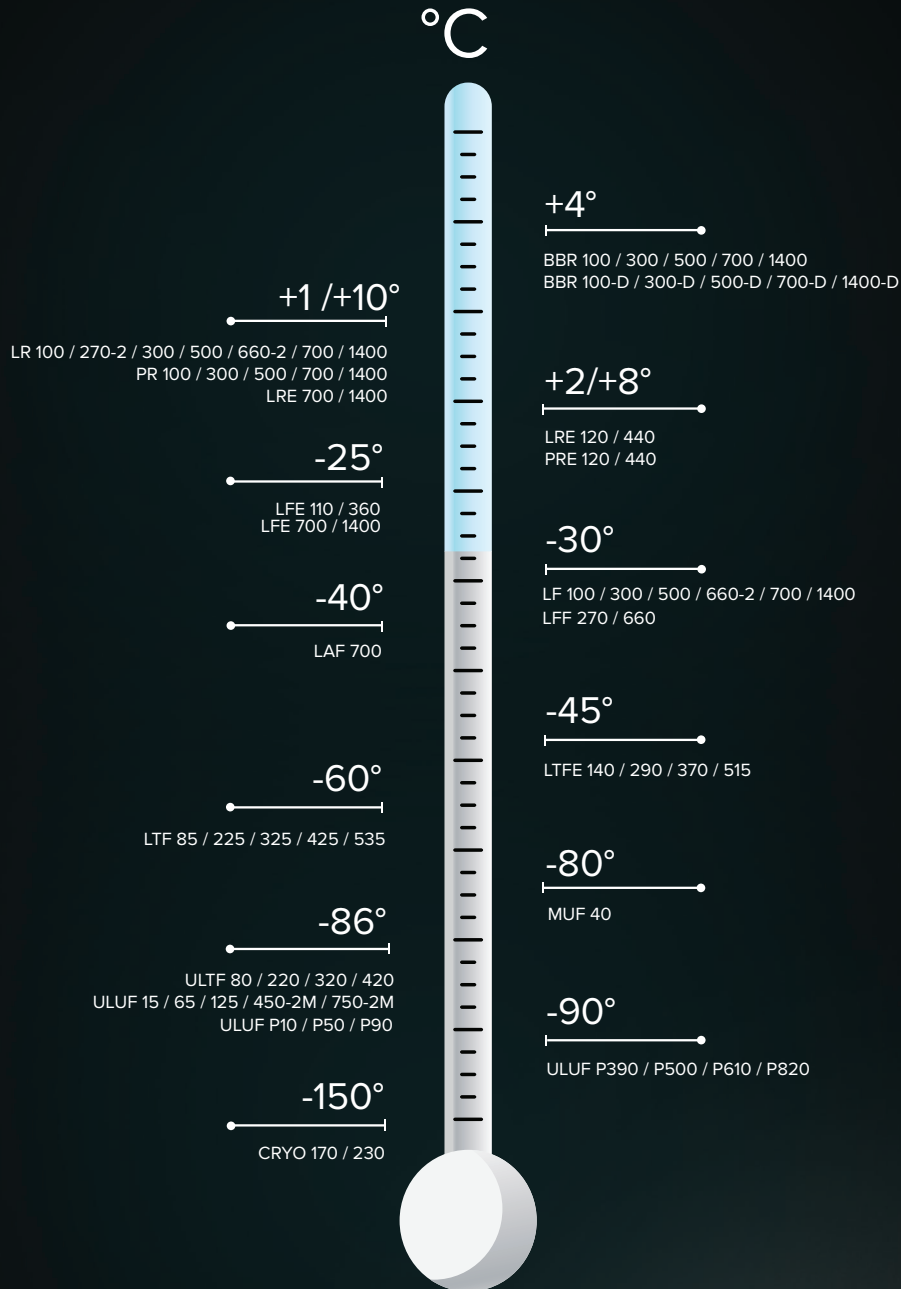


TECHNICAL DATA



MODEL	ULUF P10	ULUF P50	ULUF P90	
Main specifications	Item code	DAI 1820	DAI 1825	DAI 1830
	Temperature range (°C)	-40 / -86	-40 / -86	-40 / -86
	Max. ambient temperature (°C)	25	25	25
	Capacity (L)	7	50	88
	Exterior dimensions WxDxH (mm)	447x709x731	657x778x836	937x778x836
	Interior dimensions WxDxH (mm)	147x142x307	357x443x307	637x443x307
	Weight (KG)	55	75	97
	Insulation (mm)	120	120	120
	Cooling technology	single system / static	single system / static	single system / static
Controller model / probe type	V500 / PT100	V500 / PT100	V500 / PT100	
Power	Power supply (V)	230	230	230
	Frequency (Hz)	50/60	50/60	50/60
	Power consumption (kWh/24h)	4.0	5.6	6.1
	AMP (A)	3.0	3.5	4.0
	Power (Watt)	370	400	440
	Horse power (HP)	3/8	1/2	5/8
Alarm functions	Alarm display as text - not codes	yes	yes	yes
	Visual / acoustic alarm	yes / yes	yes / yes	yes / yes
	Power failure alarm	yes	yes	yes
	Adjustable high / low temperature alarm	yes / yes	yes / yes	yes / yes
	Open door alarm	yes	yes	yes
	Probe failure alarm	yes	yes	yes
	Low battery alarm	yes	yes	yes
	Compressor failure alarm	no	no	no
Battery backup for alarms (approx. hrs.)	72	72	72	
Data logging & external connection	Voltage free contact for remote alarm (e.g. GSM alarm module)	yes	yes	yes
	Electronic data logger	yes	yes	yes
	RS 485 port	optional	optional	optional
	USB port for software update & data download	yes	yes	yes
	Temperature chart recorder	optional (external mounting)	optional (external mounting)	optional (external mounting)
Display features	Display type	5" touch screen	5" touch screen	5" touch screen
	Number of optional reference probes	1	1	1
	Password protection for turning unit on / off	yes	yes	yes
	Temperature graph on display	yes	yes	yes
Other features	Automatic defrost	no	no	no
	Antifreeze function	no	no	no
	Vacuum release port	yes	yes	yes
	Access port for external probe etc. (int. diameter mm)	12	12	12
	Light	no	no	no
	Lock with key	yes	yes	yes
	Castors (total pcs) / castors with brake (pcs)	0 / optional	2 rollers / optional	3 rollers / optional
	Fixed feet (pcs) / levelling feet (pcs)	0 / 4	0 / 2	0 / 2
	Sub lids / inner doors (pcs)	no	no	no
	Reversible door(s)	no	no	no
	Fixed shelves (pcs) / adjustable shelves (pcs)	0 / 0	0 / 0	0 / 0
	Baskets (pcs)	no	no	no
Total capacity of 50 mm boxes 9x9 dividers (pcs)	5	30	60	
Total capacity of 75 mm boxes 9x9 dividers (pcs)	4	18	36	
Total capacity of 96 mm boxes 9x9 dividers (pcs)	3	12	24	
Refrigeration & cabinet	Number of compressors	1	1	1
	Refrigerant	Nature R	Nature R	Nature R
	Interior cabinet material	stainless steel	stainless steel	stainless steel
	Exterior cabinet material	painted steel	painted steel	painted steel
	Colour (exterior cabinet)	white	white	white
	Foam type	polyurethane	polyurethane	polyurethane
	VIP vacuum insulated panels	yes	yes	yes
Shipping	Shipping weight (KG)	82	108	137
	Shipping dimensions WxDxH (cm)	76x54x92	83x75x103	83x103x103
	Shipping volume (m ³)	0,38	0,64	0,88

PRODUCT OVERVIEW



Follow us on:



ARCTIKO A/S | Oddesundvej 39 | 6715 Esbjerg N | Denmark
+45 70 20 03 28 | www.ARCTIKO.com | info@ARCTIKO.com

We reserve the right to change specifications without notice.
Subject to confirmation, availability and errors. Check our website for further technical information.

