

## BIOMEDICAL FREEZERS & REFRIGERATORS



# CERTIFICATES

## ISO 9001

ISO 9001 is the most widely used international standard in the world. It streamlines and documents Arctiko's working processes and ensures that our products always meet the expectations of our partners concerning high quality.



## ISO 13485

ISO 13485 is a standard for the design and manufacture of medical equipment. It is an independent standard certification that is generally harmonized with ISO 9001. The standard has been prepared in accordance with the European Commission with a view to the essential requirements of EU directives for medical devices and CE marking.

For Arctiko, the ISO 13485 is a quality management system, ensuring that our products meet the EU directive 93/42/EEC for medical devices.



## ETL CERTIFICATION

Arctiko's products for the US market are approved according to the following standards:

- UL 471 Issued: 2010/11/24 Ed.: 10 Rev: 2014/11/17 Commercial Refrigerators and Freezers
- CSA C22.2#120 Issued: 2013/03/01 Ed: 4 Refrigeration Equipment



## MEDICAL DEVICES DIRECTIVE

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Arctiko offers selected products which are approved according to the EU directive 93/42/EEC for medical devices and CE marked as Class II equipment.



## CE CERTIFICATION

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Arctiko's product ranges are CE marked stating that our products meet all legal requirements concerning essential health and machinery safety.



## FDA REGISTRATION

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Arctiko International is FDA registered pursuant to Title 21, 807 et seq. of the United States Code of Federal Regulations.





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## BIOMEDICAL STORAGE SOLUTIONS **WITH HIGH RELIABILITY**

Arctiko biomedical freezers and refrigerators store and secure your samples with outstanding cooling reliability and performance. Arctiko has combined the highest quality cooling performance created by forced air cooling with the many features and user-friendliness offered by the Arctiko controller G214. The results meet the more stringent requirements for lower power consumption, more precise cooling uniformity, the need for temperature and alarm surveillance, documentation and validation, making Arctiko's Biomedical range the number one solution for biomedical storage.

The Arctiko Biomedical range provides ideal solutions for the research industry and healthcare sector for storing vaccines, diagnostic samples, reagents and samples such as enzymes for genetic research, culture media and temperature testing of electrical components and precision devices.

In several countries, health ministries instruct pharmaceutical companies/pharmacies to document all pharmaceutical drugs that have been stored under a certain temperature. The advantage of choosing an Arctiko product is a controller with all needed features. In particular, the data logger with memory and on-screen graphs are extremely important features needed by pharmacies.

The Arctiko Biomedical range offers a wide variety of solutions from our 55 liter undercounter models up to 1381 liters of effective capacity. Each freezer/refrigerator is pre-programmed from the factory to provide controller settings and cooling parameters for optimal, user-friendly solutions.

All products in Arctiko's biomedical range have a flexible interior so that we can meet all requirements for storage solutions! You can choose from a variety of shelf and drawer options or devise your own combination.

- Lower power consumption
- Precise and stable cooling
- Temperature and alarm surveillance
- Documentation and validation

# SPARK FREE INTERIOR

## FLAMMABLE LIQUIDS WILL BE STORED SAFELY WITH AN ARCTIKO ATEX APPROVED REFRIGERATOR OR FREEZER

► When handling or storing flammable samples in a standard biomedical refrigerator or freezer, there will be a possible ignition risk. Therefore, we at Arctiko recommend storing your flammable samples in an Arctiko ATEX approved biomedical refrigerator or freezer.

The Arctiko ATEX biomedical refrigerators and freezers are approved according to EN 60079-15 category 3, zone 2, CE EX 11-/3G. This means that the inside of the unit is approved to store flammable, explosive or otherwise volatile substances.

Stored substances should always be kept in airtight containers, this to prevent the vapor or particles of the substances from escaping their container and ignition of non spark free items.



AVAILABLE IN ATEX

### ATEX APPROVAL IS AVAILABLE AS AN OPTION ON:

|                                    |                      |
|------------------------------------|----------------------|
| LF Range (Biomedical Freezers)     | -10/-30°C            |
| LFF Range (Biomedical Combi)       | +1/+10°C / -10/-30°C |
| LFEG Range (Biomedical Combi)      | +1/+10°C / -10/-30°C |
| LR Range (Biomedical Refrigerator) | +1/+10°C             |
| PR Range (Biomedical Refrigerator) | +1/+10°C             |



# BIOMEDICAL FREEZERS

The biomedical range allows you to store and secure your samples with outstanding cooling reliability and performance. Arctiko has combined the high-quality cooling performance created by forced air cooling with the features and user-friendliness offered by the Arctiko G214 controller. The results meet the strictest requirements for lower power consumption, more precise cooling uniformity, temperature and alarm surveillance, documentation and validation, this making the range a perfect solution for biomedical storage.

-10/-30 °C

## BENEFITS

- The flexible interior allows you to mix shelves and drawers to accommodate any storage need you might have.
- Forced air cooling for high-temperature stability and quick temperature recovery after door openings.
- Door lock on all models for optimal security of your samples.
- Stainless steel interior for good hygiene and easy cleaning.
- Automatic defrost for high temperature stability and uniformity ensures the integrity of your samples.
- Available with ATEX approved spark-free interior to keep your flammable liquids stored safely.

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LF 700 / LAF 700



-10 / -30 °C

LF 100



FORCED AIR  
COOLING



AVAILABLE IN  
ATEX



AVAILABLE IN  
STAINLESS STEEL  
EXTERIOR

Unique  
-40°C unit with  
automatic  
defrost\*

| LF 100      | LF 300       | LF 500       | LF 660-2     | LF 700       | LF 1400       | LAF 700*     |
|-------------|--------------|--------------|--------------|--------------|---------------|--------------|
| DAI 0285    | DAI 0225     | DAI 0245     | DAI 0295     | DAI 0255     | DAI 0275      | DAI 0290     |
| 610x659x790 | 520x700x1997 | 620x860x1997 | 720x860x1997 | 720x860x1997 | 1440x860x1997 | 740x870x2017 |
| 94          | 346          | 515          | 288/288      | 618          | 1361          | 618          |
| -10 / -30   | -10 / -30    | -10 / -30    | -10 / -30    | -10 / -30    | -10 / -30     | -10 / -40    |
| 5           | 23           | 23           | 16           | 23           | 46            | 23           |
| 30          | 30           | 30           | 30           | 30           | 30            | 30           |
| G214        | G214         | G214         | G214         | G214         | G214          | G214         |

\*Not available in ATEX / Spark free

-30 °C



| MODEL                              | LF 660-2 / LF 660-2-ST                                            | LF 700 / LF 700-ST              | LAF 700 / LAF 700-ST            | LF 1400 / LF 1400-ST            |
|------------------------------------|-------------------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Main specifications                | Item code                                                         | DAI 0295 / DAI 0296             | DAI 0255 / DAI 0256             | DAI 0290 / DAI 0291             |
|                                    | Temperature range (°C)                                            | -10 / -30                       | -10 / -30                       | -10 / -40                       |
|                                    | Max. ambient temperature (°C)                                     | 25                              | 25                              | 25                              |
|                                    | Capacity (L)                                                      | 288 / 288                       | 618                             | 618                             |
|                                    | Exterior dimensions WxDxH (mm)                                    | 720x860x1997                    | 720x860x1997                    | 740x870x2017                    |
|                                    | Interior dimensions WxDxH (mm)                                    | 2 x (600x685x700)               | 600x685x1505                    | 600x685x1505                    |
|                                    | Weight (KG)                                                       | 163                             | 133                             | 138                             |
|                                    | Insulation (mm)                                                   | 60                              | 60                              | 70                              |
|                                    | Cooling technology                                                | forced air                      | forced air                      | forced air                      |
|                                    | Controller model / probe type                                     | G214 / PT1000                   | G214 / PT1000                   | G214 / PT1000                   |
| Power                              | Power supply (V)                                                  | 230***                          | 230***                          | 230***                          |
|                                    | Frequency (Hz)                                                    | 50/60                           | 50/60                           | 50/60                           |
|                                    | Power consumption (kWh/24h)                                       | 18.3                            | 9.8                             | 14.9                            |
|                                    | AMP (A)                                                           | 5.1                             | 4.0                             | 4.1                             |
|                                    | Power (Watt)                                                      | 830                             | 550                             | 735                             |
|                                    | Horse power (HP)                                                  | 1/2 / 1/2                       | 5/8                             | 1                               |
| 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                              |
| Data logging & external connection | Battery backup for alarms (approx. hrs.)                          | 72                              | 72                              | 72                              |
|                                    | Voltage free contact for remote alarm (e.g. GSM alarm module)     | yes                             | yes                             | yes                             |
|                                    | Electronic data logger                                            | yes                             | yes                             | yes                             |
|                                    | RS 485 port                                                       | yes                             | yes                             | yes                             |
|                                    | USB port for software update & data download                      | yes                             | yes                             | yes                             |
| Display features                   | Temperature chart recorder                                        | optional                        | optional                        | optional                        |
|                                    | Display type                                                      | 4,3" with touch buttons         | 4,3" with touch buttons         | 4,3" with touch buttons         |
|                                    | Number of optional reference probes                               | 2                               | 2                               | 2                               |
|                                    | Password protection for turning unit on / off                     | yes                             | yes                             | yes                             |
| Other features                     | Temperature graph on display                                      | yes                             | yes                             | yes                             |
|                                    | Automatic defrost                                                 | yes                             | yes                             | yes                             |
|                                    | Antifreeze function                                               | no                              | no                              | no                              |
|                                    | Vacuum release port                                               | no                              | no                              | no                              |
|                                    | Access port for external probe etc. (int. diameter mm)            | optional                        | 12                              | 12                              |
|                                    | Light                                                             | no                              | no                              | no                              |
|                                    | Lock with key                                                     | yes                             | yes                             | yes                             |
|                                    | Castors (total pcs) / castors with brake (pcs)                    | 4 / 2                           | 4 / 2                           | 4 / 2                           |
|                                    | Fixed feet (pcs) / levelling feet (pcs)                           | no                              | no                              | no                              |
|                                    | Sub lids / inner doors (pcs)                                      | no                              | no                              | no                              |
|                                    | Reversible door(s)                                                | yes                             | yes                             | yes                             |
|                                    | Fixed shelves (pcs) / adjustable shelves (pcs)                    | 0 / 4                           | 0 / 3                           | 0 / 3                           |
|                                    | Max. no. of shelves (pcs) / recommended max. no. of shelves (pcs) | 16 / 8                          | 23 / 11                         | 23 / 11                         |
|                                    | Max. load per shelf (kg)                                          | 30                              | 30                              | 30                              |
|                                    | Adjustable drawers (pcs)                                          | optional                        | optional                        | optional                        |
|                                    | Max. no. of adjustable drawers (pcs)                              | 6                               | 8                               | 8                               |
|                                    | Max. load per adjustable drawer (kg)                              | 30                              | 30                              | 30                              |
|                                    | Max. no. of blood bags - by standard no. of adj. drawers (pcs)    | no                              | no                              | no                              |
|                                    | Max. no. of blood bags - by max. no. of adj. drawers (pcs)        | no                              | no                              | no                              |
|                                    | Baskets (pcs)                                                     | no                              | no                              | no                              |
|                                    | Max. no. of baskets (pcs)                                         | no                              | no                              | no                              |
|                                    | Max. load per basket (kg)                                         | no                              | no                              | no                              |
|                                    | Total capacity of 50 mm boxes 9x9 dividers (pcs)                  | no                              | no                              | no                              |
|                                    | Total capacity of 75 mm boxes 9x9 dividers (pcs)                  | no                              | no                              | no                              |
|                                    | Total capacity of 96 mm boxes 9x9 dividers (pcs)                  | no                              | no                              | no                              |
| Refrigeration & cabinet            | Number of compressors                                             | 2                               | 1                               | 1                               |
|                                    | Refrigerant                                                       | R290                            | R290                            | R290                            |
|                                    | Interior cabinet material                                         | stainless steel                 | stainless steel                 | stainless steel                 |
|                                    | Exterior cabinet material                                         | painted steel / stainless steel | painted steel / stainless steel | painted steel / stainless steel |
|                                    | Colour (exterior cabinet)                                         | white / stainless steel         | white / stainless steel         | white / stainless steel         |
|                                    | Foam type                                                         | polyurethane                    | polyurethane                    | polyurethane                    |
| Shipping                           | VIP vacuum insulated panels                                       | no                              | no                              | no                              |
|                                    | Shipping weight (KG)                                              | 228                             | 194                             | 208                             |
|                                    | Shipping dimensions WxDxH (cm)                                    | 102x84x220                      | 102x84x220                      | 102x84x220                      |
|                                    | Shipping volume (m³)                                              | 1.88                            | 1.88                            | 1.88                            |

\* 110V/60Hz available as option