



- [1] **TYPE EXAMINATION CERTIFICATE** vers.00
- [2] **Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU**
- [3] Type Examination Certificate number: **DTI 22ATEX0250X**
- [4] Equipment: Refrigerators and freezers
Type BIOBASIC 600 series, (see type key under item 15)
- [5] Manufacturer: Gram Scientific ApS
- [6] Address: Aage Grams Vej 1
DK-6500 Vojens, Denmark
- [7] This equipment and acceptable variation thereto are specified in the schedule to this certificate and in the documents that the certificate refers to.
- [8] Danish Technological Institute certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the ATEX Directive.
- The examinations and test results are recorded in confidential report no. 19.0114-00, order no: J170770
- [9] The essential Health and Safety Requirements are assured by compliance with:
EN 60079-0:2018/AC:2020, EN 60079-11:2012,
EN 60079-15:2019, EN 60079-7:2015+A1:2018
- [10] The sign "X" placed after the certificate number, indicates that the equipment or protective system is subject to special conditions for safety use specified in the schedule to this certificate.
- [11] This certification relates to the design, examination and tests of the specified equipment or protective system. Further requirements of the directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- [12] The marking of the equipment shall include the following:

 II 3G Ex ec nC ic IIB Tx Gc

Danish Technological Institute
Certifications & Inspection

2023-01-31


Jakob Nittegaard
ATEX Manager



[13]

Schedule

[14]

TYPE EXAMINATION CERTIFICATE

DTI 22ATEX0250X vers. 00

[15]

Description of equipment

BIOBASIC 600 is a series of freezers/refrigerators used by hospitals, laboratories, biobanks, research institutes and similar users, which need to store vital biological material in the temperature range from +15 °C to -25 °C. This is e.g. storage of blood, tissue, DNA and other laboratory materials that is desired to be stored under the safest and most stable conditions.

Changes implemented by this version 02 of the certificate:

The Temperature Class for BIOBASIC RR600 LG has been corrected to T5. No further changes are introduced to the product.

This certificate replaces the previously issued version 01.

Type variants covered by this certificate:

The BIOBASIC 600 series can be delivered in several type variants with different kind of options and accessories. The basis version is:

1. "BIOBASIC RR600 G", 230 V / 50 Hz
2. "BIOBASIC RF600 G", 230 V / 50 Hz

Air cooled compressor

RR: Regular Refrigerator

RF: Regular Freezer

Refrigerant info: "G" = R290

Ingress Protection: IP 2X

Temperature Class Tx is specified as below:

	RR600 LG	RF600 LG
BIOBASIC	T5	T1

Specified ambient temperature: +10 °C < T_{amb} < +43 °C

The type number system is specified to the following concept:

BIOBASIC xx600yz ZZ

Where "ZZ" are defined in a sequence (no space in between) of the below listed equipment variants. (e.g., BIOBASIC RF600LG 102036482)

BIOBASIC 600	
Temperature range (xx)	
RR	Regular refrigerator +2/+15 °C
RF	-25/-5 °C
Refrigerant (z)	
G	R290



Exterior (y)	
L	White Lacquered
Equipment (ZZ)	
10	Solid door
11	Glass door
12	Customized door
15	RUKO lock (DK)
20	Right hinged incl. self door closing mechanism
21	Left hinged incl. self door closing mechanism
30	Wheels/castors H=125 mm
31	Castors, 4 360° castors, 2 w/brakes
33	Wheels/castors H=109 mm
34	Wheels/skids (only 200L cabinets)
35	Legs H=100/135 mm
36	Legs H=135/200 mm
37	Legs H=185/250 mm (Not BioCompact)
38	Prepared for mounting on a plinth
41	E-sensor
42	Customized sensor*
82	60 Hz compressor
..V	# of liquid containers incl. Holder
..A	# of aluminium drawers
..P	# of perforated shelves
..T	# of wire shelves in stainless steel
..W	# of wire shelves in white plastic coating
..WW	# of wire shelves in white plastic coating 300mm
..N	# of wire shelves in grey plastic coating
..R	# of stainless steel drawers 30Kg
..S	# of stainless steel drawers 40Kg
..J	# of drawers in stainless steel with transparent front 30 Kg
..K	# of drawers in stainless steel with transparent front 40 Kg

[16] **Report number**
19.0114-01, J170770

[17] **Special conditions for safe use:**

1. The power supply to the freezers/refrigerators are through a plug/socket connection on the electronic control box. The manufacturer delivers the belonging supply cable. The locking mechanism on the plug/socket connection must always be used. The supply cord/plug must only be connected in a non-hazardous area. If the freezers/refrigerators are electrically connected in a zone classified area, the supply cord must be connected in a terminal box complying with national installation requirements e.g. EN 60079-14, typically an Ex "e" terminal box.



2. To secure potential equalization of the unit – the mounted external bonding/ground connector must be used in accordance with national installation requirements e.g. EN 60079-14.
3. The specified ambient temperature for “BIOBASIC” freezers/refrigerators are limited to: $+10\text{ °C} < T_{\text{amb}} < +43\text{ °C}$.
4. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1 (Indoor laboratories / Office environment).
5. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

[18] **Essential Health and Safety Requirements**

Concerning EHSR this schedule only verifies compliance with the Directive 2014/34/EU of 26 February 2014.

The manufacturer’s Declaration of Conformity declares compliance with other relevant directives.

[19] **Drawings and Documents**

Documentation with relevance for the Ex-safety of the product.

Title	Document no.	Date
Risk analysis	RAC_BioBasic_RR-RF_600_rev001.xlsm	11. May 2020
Description of the product	Beskrivelse af BIOBASIC 600 og varianter heraf rev 003	9th January 2023
Description of PE / bonding connections	17-2020_Jording i BIOBASIC 600.docx	3. June 2020
User Manual	BIOBASIC Instructions for use, 765042590	20230109
DoC (Declaration of Conformity)	BIOBASIC_DK_13.12.2022.pdf BIOBASIC_UK_13.12.2022.pdf	13. December 2022
Measurement of surface temperatures	Biobasic- Temperaturmåling_og_temperaturklassificering.docx , 23 feb. 2021	3. december 2020
Codes in regards to ATEX on Sprint 2019 products	2021000303_rev001	March 2021

The documentation and scheduled drawings specified for the BIOBASIC are stored in the manufacturers “CCD homepage” package, downloaded by DTI on the 30th January 2023. This “CCD homepage” contains information related to several other series of freezers and refrigerators. Only the information related to the above-mentioned type variants are listed as “Scheduled Drawings” and covered by this certification.

Additional information

This certificate has an expiry date on 2026-01-31

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Date 2023-01-31


Jakob Nittegaard
ATEX Manager