Overview

Biomedical Refrigeration I Product Range

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Freezers
Refrigerators
Boxes

Technology for life

Dometic
MEDICAL SYSTEMS

GOLD Safety Standard

- Microprocessor-controlled Gold electronic
- Safety door lock with 2 keys
- Key-operated power switch (power ON/OFF) with 2 keys
- Power indicator light
- Digital temperature indicator (display: 0.1 digits)
- Controlled fan cooling system for constant temperature and even temperature distribution across the entire refrigerating chamber. Automatic switch-off when front door opens [1]
- Self-contained alarm system with integrated battery takes over the alarm function and temperature value measurements in case of power failure for at least 48 hours
- Acoustic and visual alarm signal in case of temperature alarm and power failure
- The alarm history on the Gold electronic stores all the relevant values during a temperature alarm, such as: min., max. and average temperature & also the duration of the alarm
- Remote transmission alarm signal (via potential-free contact) in case of temperature alarm (change-over contact)
- Control via self-diagnostic system
- Safety thermostat prevents dropping of the cold storage product's temperature below +2°C [2]
- Door opening alarm (visual / acoustic)
- Designed and tested for climatic class T (ambient temperature range up to +43°C) [3]
- RS485 interface for the visualization of all operating and control functions (hardware and software settings) via standard DMN monitoring software on a peripheral device (computer)
- Interior made from stainless steel [4]
- Internal lighting [5]
- Smooth castors for optimum flexibility of movement [4]
- "GMP Clean Room Classification" for free standing installation in clean rooms of GMP Class A / ISO 5 (ISO EN 14644-1) [6]
- Additional remote transmission alarm signal (via potential-free contact) in case of power failure (change-over contact)
- External water cooling for models BR (except BR 55 G), LR, PR, FR, UF & MBF as option
- DMN - Dometic Monitoring Network as standard

Options for expansion

- Ambient temperature sensor
- DCU - Dometic Communication Unit

[1] Not for models UF 455 G & UF 755 G
[2] For refrigerators
[3] Models BR 55 G, FR 250 G – 750 G, UF 455 G & UF 755 G designed and tested for climate class N (ambient temperature range up to +32°C)
[4] Not for model BR 55 G
[5] For the series BR, LR and PR
[6] Model BR 55 G and model range UF conform to the GMP Clean Room Class B (cleaning cycles according to the operator's hygiene plan must be scheduled and observed)

SILVER Safety Standard

- Microprocessor-controlled operation and control panel
- Safety door lock with 2 keys
- Key-operated power switch (power ON/OFF) with 2 keys
- Power indicator light
- Digital temperature indicator (display: 0.1 digits)
- Controlled fan cooling system for constant temperature and even temperature distribution across the entire refrigerating chamber. Automatic switch-off when front door opens [1]
- Self-contained alarm system with integrated battery takes over the alarm function and temperature value measurements in case of power failure for at least 48 hours
- Acoustic and visual alarm signal in case of temperature alarm and power failure
- The alarm history on the operation and control panel stores all the relevant values during a temperature alarm, such as: min., max. and average temperature & also the duration of the alarm
- Alarm function test: simulation of a temperature rise or drop in order to test the alarm system [2]
- Remote transmission alarm signal (via potential-free contact) in case of temperature alarm (change-over contact)
- Control via self-diagnostic system
- Safety thermostat prevents dropping of the cold storage product's temperature below +2°C [3]
- Door opening alarm (visual / acoustic)
- Designed and tested for climatic class N (ambient temperature range up to +32°C)
- "GMP Clean Room Classification" for free standing installation in clean rooms of GMP Class B / ISO 6 (ISO EN 14644-1) [4]

Options for expansion

- RS485 interface for the visualization of all operating and control functions (hardware and software settings) via optional DMN monitoring software on a peripheral device (computer)
- DMN – Dometic Monitoring Network
- Ambient temperature sensor
- Additional remote transmission alarm signal (via potential-free contact) in case of power failure (change-over contact)
- DCU - Dometic Communication Unit

[1] For refrigerators
[2] For appliances with electronics / operation panel 1
[3] For refrigerators
[4] Cleaning cycles according to the operator's hygiene plan must be scheduled and observed

+4°C | Blood Bank Refrigerators | BR

(according to DIN 58371 & ÖNORM K 2030)

BR 55 G

Gross volume: 55 L
Net volume: 37 L
Storage capacity:* app. 24 at 450 ml each
app. 40 at 350 ml each

BR 250 G

Gross volume: 246 L
Net volume: 167 L
Storage capacity:* app. 120 at 450 ml each
app. 160 at 350 ml each

BR 410 G

Gross volume: 408 L
Net volume: 319 L
Storage capacity:* app. 240 at 450 ml each
app. 320 at 350 ml each

BR 490 G

Gross volume: 489 L
Net volume: 395 L
Storage capacity:* app. 300 at 450 ml each
app. 400 at 350 ml each

BR 750 G

Gross volume: 746 L
Net volume: 620 L
Storage capacity:* app. 450 at 450 ml each
app. 525 at 350 ml each

* Blood bags

+ 5°C | Laboratory / Medicine / Pharmaceutical Refrigerators (solid door) | ML

(according to DIN 58345)

ML 155

Gross volume: 153 L
Net volume: 127 L
Availlable as internal Ex II 3 G EEx nA II T6

ML 295

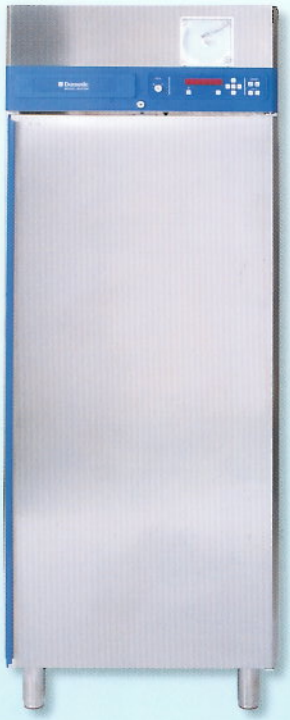
Gross volume: 322 L
Net volume: 274 L
Availlable as internal Ex II 3 G EEx nA II T6

ML 305 C

Gross volume: 357 L
Net volume: 324 L

ML 405

Gross volume: 353 L
Net volume: 340 L



ML 605

Gross volume: 578 L
Net volume: 518 L

ML 1205

Gross volume: 1301 L
Net volume: 1183 L

+ 4°C | Laboratory / Medicine / Pharmaceutical Refrigerators (solid door) | LR

(according to DIN 58345)

LR 250 G

Gross volume: 246 L
Net volume: 167 L

LR 410 G

Gross volume: 408 L
Net volume: 319 L

LR 490 G

Gross volume: 489 L
Net volume: 395 L

Available as internal Ex II 3 G EEx nA II T6

LR 750 G

Gross volume: 746 L
Net volume: 620 L

+ 5°C I Laboratory / Medicine / Pharmaceutical Refrigerators (glass door) I MP

(according to DIN 58345)

MP 155

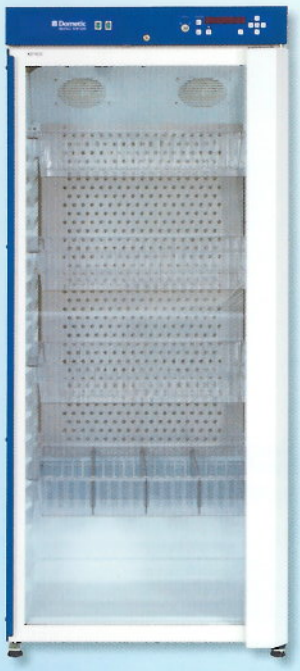
Gross volume: 153 L
Net volume: 127 L

MP 295

Gross volume: 322 L
Net volume: 274 L

MP 305 C

Gross volume: 357 L
Net volume: 324 L



MP 405

Gross volume: 353 L
Net volume: 340 L

MP 605

Gross volume: 578 L
Net volume: 518 L

MP 1205

Gross volume: 1301 L
Net volume: 1183 L

+ 4°C I Laboratory / Medicine / Pharmaceutical Refrigerators (glass door) I PR

(according to DIN 58345)

PR 250 G

Gross volume: 246 L
Net volume: 167 L

PR 410 G

Gross volume: 408 L
Net volume: 319 L

PR 490 G

Gross volume: 489 L
Net volume: 395 L

PR 750 G

Gross volume: 746 L
Net volume: 620 L

-41°C I -35°C I Deep Freezers & Plasma Storage Freezers I FR I MF

(according to DIN 58375)

FR 250 G

Gross volume:	246 L
Net volume:	167 L
Storage capacity:*	app. 120 at 450 ml each app. 160 at 350 ml each

FR 410 G

Gross volume:	408 L
Net volume:	319 L
Storage capacity:*	app. 240 at 450 ml each app. 320 at 350 ml each

FR 490 G

Gross volume:	489 L
Net volume:	395 L
Storage capacity:*	app. 300 at 450 ml each app. 400 at 350 ml each

FR 750 G

Gross volume:	738 L
Net volume:	620 L
Storage capacity:*	app. 450 at 450 ml each app. 525 at 350 ml each

MF 125

Gross volume:	108 L
Net volume:	104 L
Storage capacity:*	app. 90 at 450 ml each app. 136 at 350 ml each

MF 295

Gross volume:	247 L
Net volume:	228 L
Storage capacity:*	app. 220 at 450 ml each app. 290 at 350 ml each

* Plasma bags

-86°C I Ultra Deep Freezers I UF

UF 455 G

Volume brut: 453 L
Volume net: 440 L

UF 755 G

Volume brut: 753 L
Volume net: 733 L

-50°C I High Performance Contact Shock Freezers I MBF

(to achieve core temperature of -30°C for plasma bags)

MBF 12

12 plasma bags at 500 ml each
(content 450 ml)

MBF 21

21 plasma bags at 500 ml each
(content 450 ml)

MBF 42

42 (2 x 21) plasma bags at 500 ml each
(content 450 ml)

+5°C I -35°C I Built-in / Sub-assembly Models (summary) I EB I UB

ML 150 EB* / UB**

Refrigerator:	+ 5°C
Gross volume:	153 L
Net volume:	127 L

MF 120 EB* / UB**

Deep Freezer:	- 35°C
Gross volume:	108 L
Net volume:	104 L

*The electronics are housed within an external wall-mounted cubicle. **as option

Transport Boxes / Systems I MT

MT 900

Gross volume: 247 L
Net volume: 228 L
Freezing capacity: 56 elements

MT 2

Gross volume: 2,2 L
Passive | Units: 1/2

MT 4 B

Gross volume: 8 L
Passive | Units: 4/6

MT 8 B

Gross volume: 18 L
Passive | Units: 8/14

MT 12 E

Gross volume: 24 L
Passive | Units: 15/25

MT 25 E

Gross volume: 44 L
Passive | Units: 26/40

MT 42 P

Gross volume: 43 L
Active | Units: 30/50

MT 100

Gross volume: 95 L
Active | Units: 48/-

MT 18

Gross volume: 18 L
Active

MT 50

Gross volume: 49 L
Active

MT 80

Gross volume: 80 L
Active

MT 110

Gross volume: 106 L
Active

Unit = number of bags (450ml / 270ml content)

As precious as gold – Dometic's Gold Electronic

As one of the innovative characteristics, the new Gold Electronic features a password protected settings menu. Thus to assure an optimum protection for your stored preparations. Beside this the control panel has been designed to offer a simple and intuitive utilization, ensured by the user-friendly operation panel.

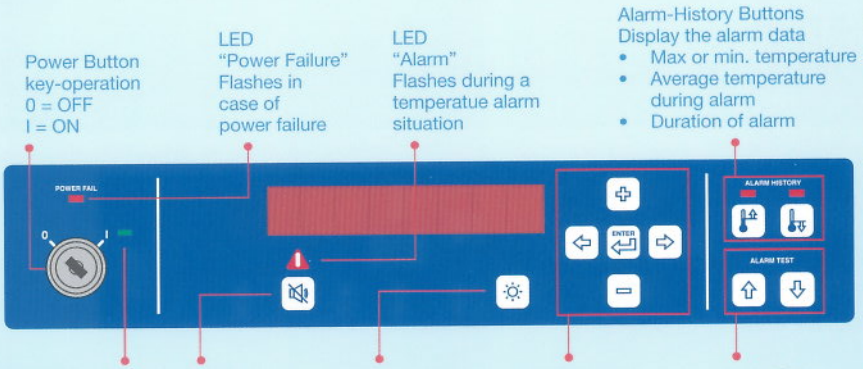
1. Power switch, key-operation O = OFF I = ON
2. LED "Alarm"
3. LED "Power on"
4. Navigation buttons
5. Back button
6. Menu button

Dometic's Silver Electronic

Operation and control panel

Operation and control panel 1

Operating parameters can be displayed using the operation and control panel that is equipped with digital display and a user-friendly keyboard.

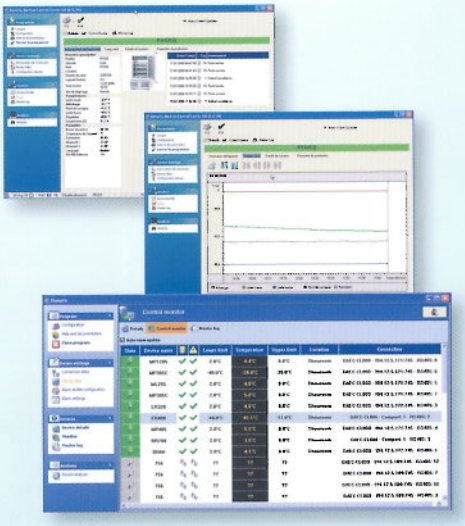


Operation and control panel 2

DMN - Dometic Monitoring Network

DMN is a universal software to gather, display and monitor temperature data (graphically illustrated) with an activity history for all appliance components. In case of power failure, temperature alarms, door opening alarms, etc., the software forwards the alarm messages directly via mail or SMS to the person in charge.

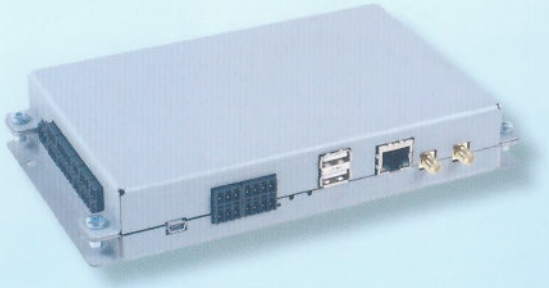
A connection to a third-party appliance is possible via network technology.



DCU - Dometic Communication Unit

The DCU, newly developed, notes all operating conditions and passes them through to a central data base – via local network (RS485 Bus, Ethernet LAN/WLAN, TCP/IP), on which devices are connected. The DCU offers a range of possibilities like:

- Interface connection of Dometic appliances to existent network
- The DCU offers direct connection to the Ethernet, even wireless, to the serial BUS, as well as to the central building control system
- Digital IN/OUT
- The integrated USB port allows to write stored data to an external memory stick
- Recording and storage of relevant data of the appliance
- The battery buffer allows continuous recording even in case of a power failure. Data are recorded and secured in the internal DCU memory (absolute timestamp included). The data can be illustrated in the DMN without time gaps
- Possibility of connection of several additional self-sufficient temperature sensors (up to 4 PT1000 & 2 PT100)
- The DCU replaces the paper temperature recorder
- The DCU also works with Dometic electronics which were applied until October 08
- The DCU, with its own power supply can be used for data collection of several sensors. All data are recorded and saved in the data base of the DMN and are available for analysing purposes at any time
- Possibility of connection of actors (4 to 20 milliA out)
- Thanks to the internal memory of the DCU, the DMN allows to diagnose breakdowns even on units that are never connected to a PC or network



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