Fiocchetti
THE COLD MANUFACTURER

Product technical data sheet

FREEZER 400 ECT-F TOUCH

Cod. FRE0402

Medical Device EMDN V0899







Disclaimer:
Images are purely indicative. The features and the accessories of the products may differ according to model and application.

General features

Intended use	Refrigerator destined to store and preserve vaccines, pharmaceutical products, bacterial cultures, samples, analysis materials, chemical products, and other laboratory formulas, to support therapy and/or prevention in clinical centers, hospitals, pharmacies, and laboratories.
Temperature range	Adjustable -25°C / -10°C
Factory setpoint | **Increment**	-20°C | 0.1°C
Ambient working class | **Climatic class**	From +16°C to +32°C | N
Nominal capacity	400 lt (14,1 cu ft)
Gross capacity | **Net capacity**	347 lt (12,3 cu ft) | 347 lt (12,3 cu ft)
External dimensions (WxDxH)	60x65,5x196 cm
Internal dimensions (WxDxH)	50x48,5x140 cm
Net weight without any internal fittings	101 kg
Package dimensions | **Weight**	Cardboard on pallet 65x72x213 cm | weight 113 kg Wooden crate on pallet 72x77x213 | weight 125 kg
Structure	Monocoque type body, made of plasticized, non-atoxic white steel interior/exterior, coated with a special antibacterial-type film, or in inner 18/10 Aisi 304 stainless steel. Rounded corners and tray-type inner bottom.
Insulation type	High density (43 kg/m³) in-walls injected PUF, without any CFC, environmental-friendly, water-foam based.
Insulation thickness	70 mm rear / 50 mm sides
Feet	No.4 unidirectional rollers + No.2 stabilizing feet
Door	No.1 solid door with ergonomic handle all door length, self-closing thanks to the spring hinge and 90°stop position.
Lightning	Full LED, all length of inner chamber, automatic switching on at door opening.
Energy saving functions	Night & Day special function and electronic, low consumption fan motors.
Internal fittings	Customizable and height adjustable, it can mix independently: • wire shelves supported by adjustable clips (dim.cm 46x45) • fully extractible drawers made of aluminium, with dividers (WxDxH): cm 11,8x40x7,5 (nr 3 compartments) • fully extractible drawers made of aluminium, without dividers (WxDxH): cm 39x40x7,5 • st. steel wire drawers on telescopic slides (WxDxH): cm 43,5x40,5x6,2 • st. steel wire shelves supported by adjustable clips (dim.cm.46x45)
Suggested internal fittings	No. 4 wire shelves

Refrigeration system

Refrigeration	Professional, ventilated, forced, hermetic compressor type
Defrost	Automatic, adaptive, including condensate water vaporization
Refrigerant	Natural R290
GWP | **ODP**	3 | 0

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Electronic controller



Controller	TOUCH controller
Type of controller	Electronic controller featuring a 7" full touchscreen display based on microprocessor architecture.0.1°C resolution, temperature readings easily visible from a distance, a real-time temperature graph, and all operational data accessible on the home page.
Power switch	Integrated in user's interface
Security features	Settable user password
Alarm system	Visual and acoustic for temperature alarms failures such as: · Open door · High temperature · Low temperature · Power failure, signaled when power is back. · Clogged condenser · Any functional failure/faulty parts
Data and event recording	Temperature graph and last 32 events viewable on the display; 10 years of data logging on SD card and 1 year on flash memory, downloadable via USB port. Log of daily MIN and MAX temperatures viewable on the display and exportable via USB in a non-editable PDF format compliant with 21 CFR Part 11.
Settable temperature limits alarms	Yes
Control sensors	NTC type probes for controller board + PT100 for DMLP monitor board (optional)
Safety thermostat	Included, to prevent overheating
Connectivity for remote alarms transmission	Set-up on the electronic controller board, can be remoted on request. Modbus TCP/IP protocol available for data reading
Temperature recording	Full recording of temperatures and alarms data
Data export	USB, SD and RJ45.

Electrical and functional data

Standard power supply	230V / 1ph / 50Hz
Standard plug type	Schuko type "F"
Compressor protection	Overload Protector included
Power absorption/current	kW 0,32 (Amp 2,3)
Inrush current	Amp 5
Noise level	<45 dBA
Heat emission according to EN 12900	W 187
Hold over time at 20°C ambient (air)	1,8 h (from -20°C to 0°C)
Energy consumption at 20°C ambient	4,5 kWh/24h

Compliancy

Directives and regulations	The offered unit complies with Regulation (EU) 2017/745 and subsequent modifications and integrations, Risk Class I (All. VIII, Cap. III, Reg. 2). The equipment is also fully compliant with the specific requirements of the norms: Directive 2006/42/EC (Machines Directive), Directive 2014/30/EU (EMC), Directive 2014/35/EU (LVD), Regulation (EU) 2024/573 (F-gas), Directive 2012/19/EU (RAEE) Regulation (EC) n.1907/2006 (REACH) Directive 2011/65/UE (ROHS II) including subsequent modifications and integrations
Available certificate	CE
Application environment	Non-flammable, non-explosive, non-corrosive, with adequate air exchange

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Accessories available on request

Visual and acoustic alarm for power failure	No.8 rechargeable batteries, AA, Ni-MH type, environmental friendly and easily replaceable, to feed power failure alarm
External contacts (Ethernet+ potential free) terminal board	
Electric-digital lock with password protection	Digital lock, the door is opened by touching an icon on the display. The function may be password protected. Mechanical release key supplied for emergency opening.
GSM module (including buffer batteries)	Plug-in module to notify on mobile phones, via sms, overall monitoring, alarms and failures of the refrigerator
Converter module type 4-20mA (including contacts terminal board)	External contacts included (this accessory excludes the installation of the GSM module)
Wi-Fi module	Plug-in module to connect to, monitor and manage the refrigerator wirelessly
Compliance kit to DIN 13277	Includes the electric digital lock, buffer batteries for power failure alarm signal and the external terminal board with potential free contact
DMLP TOUCH Digital Monitor	Visual, acoustic alarm and fully independent recording system, with accuracy 0,1 °C thanks to the PT100 probes used for temperature detection. DMLP will take over alarming function when installed as integrated module on the Ect-f Touch controller board. The module is fed by standard rechargeable batteries (power failure alarm batteries included) to register temperatures and events even in case of power outage. Data download and their management are made possible by CAPTURE software, supplied on board on the SD card, through which tables and graphs are created
PT100 product temperature simulation probe	
FIOCCHETTI COLD EYES cloud monitoring	Annual monitoring service, Cloud based, featuring the notification of alarms and failures from pc thanks to a dedicated app, including SMS messages and emails, also allowing the full download of recorded data.
FIOCCHETTI LAN SUPERVISOR	Monitoring system allowing the supervision of one or several refrigerators thanks to the access to historical data and to present equipment status. It allows the creation and export of temperature graphs of selected periods or of specific hours. A single license enables the connection of up to 100 refrigerators installed in the same building and connected to the same net (e.g., a hospital).
Additional wire shelf kit	
Extractible drawer on telescopic slides	
Extractible drawer without inner dividers on telescopic slides	
St. steel wire shelf kit	
St. steel wire drawer on telescopic slides	
Lockable drawer for narcotics H mm 100	
Rack 140x420x150H mm (max 3 per each shelf)	
Plexiglas front panel for extractible drawer	
Castors kit with brakes	
35 mm access port with stopper	
Port hole mm 15	
PT100 sensor with free contacts	
Mains voltage stabilizer	
Non-standard plug and cable	
Power 220V/60Hz	
Power 115V/60Hz	
Wooden crate package	

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