FDM
Environment Makers

Ultra low freezer

NV-NR Series

988
1125
86NR23

1549
1125
86NR39

1890
913
86NR50

837
1402
86NV23

839
1963
86NV39

839
1963
86NV50

978
1964
86NV65
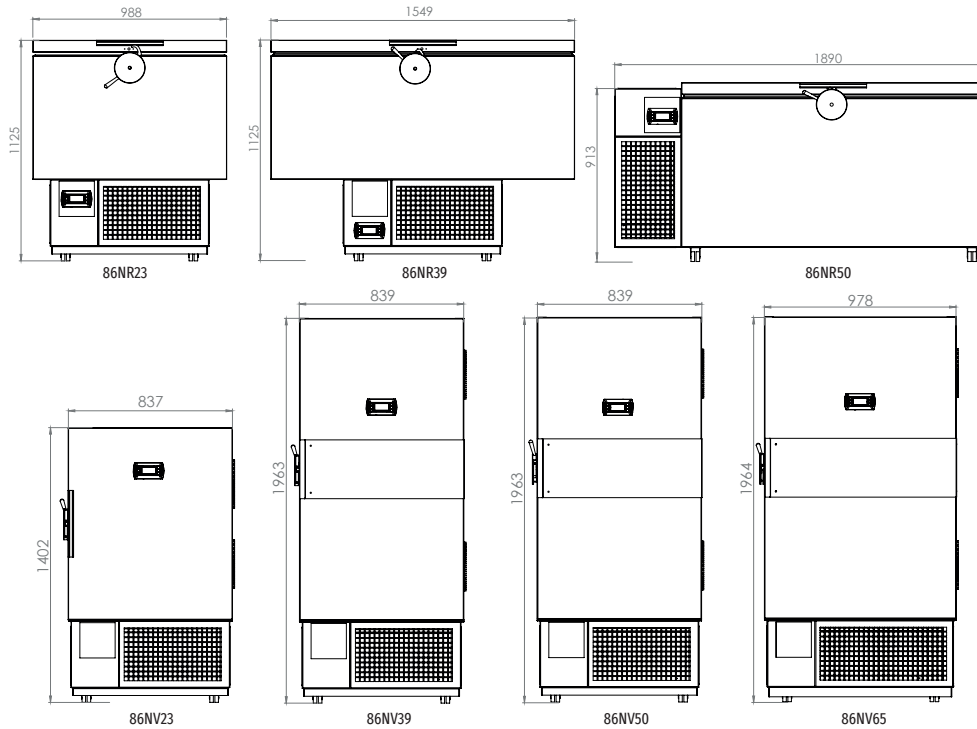
EQUIPMENT

Volume 230, 390, 500, 650 liters	**Temperature** -45°C...-86°C	**Stability** ±1.5 K
Shelves* Height adjustable	*ultra*FACE Historical data controller	**Warmdown time** 180 min
Backup battery Always on dispaly	**Alarm** Always on temperature monitoring	**Compartments*** Internal compartments division
Swivel wheels 4 self-lock swivel wheels	**Eco refrigerant** R170+R449A low *GWP*	**Electric power** 230V / 50Hz

* only for upright models

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FDM reserves the right to modify its equipment at any time without updating this manual.

Model code	86NV23	86NV39	86NV50	86NV65	86NR23	86NR39	86NR50
Temperature data							
Temperature range [°C]				-45…-86			
Temperature fluctuation at -80°C [± K]				1.5			
Warm-up time during power failure from -80 °C to -60 °C [min]				140			
Warm-down time from 0 °C to –80 °C [min]				180			
Structure and insulation							
Disposition			Upright			Chest	
Exterior material				Phosphated sheet steel			
Internal material				AISI 304 Stainless Steel			
Insulation				CFC and HCFC free - 140 mm max.			
Shelf grill		Removable and height adjustable				no shelves	
Alarm and security							
Type alarm				Audio-visual			
Alarm parameter				Hot temperature			
Remote connection				•			
Data storage				by micro-usb			
Security device				Alarm system with backup battery			
Data Dimension							
Net Interior volume [l]	230	390	500	650	230	390	500
Net weight unit (without load) [Kg]	200	280	320	390	190	270	310
Interior Dimension							
Width [mm]	610	610	600	740	760	1310	1310
Depth [mm]	500	500	630	670	600	610	600
Height [mm]	760	1310	1310	1310	500	500	630
Exterior Dimension							
Width [mm]	840	840	840	980	1000	1550	1890
Depth [mm]	750	750	880	900	840	840	840
Height [mm]	1420	1970	1970	1970	1000	1090	910
Interior Shelves							
Fixed shelves [n°]	1	1	1	1		-	
Adjustable shelves [n°]	2	3	3	3		-	
Total shelves [n°]	3	4	4	4		-	
Usable area, Width x Depth [mm]	440x590	440x590	570x590	730x660		-	
Maximum load per shelf [Kg]	50	50	50	50		-	
Compartments							
Interior compartment doors [n°]	2	4	4	4	1	1	**1**
Rack for cryoboxes data							
Total capacity of rack [n°]	8	16	16	20	20	26	**36**
Total capacity of cryoboxes 5.1 H size [n°]	144	240	320	400	160	288	**360**
Total capacity of cryoboxes 7.7 H size [n°]	96	144	192	240	100	180	**360**

All technical data are specified for units with standard equipment at an ambient temperature of 25 °C and a voltage fluctuation of ±10 %.

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Model code	86NV23	86NV39	86NV50	86NV65	86NR23	86NR39	86NR50
Sound pressure level							
Sound pressure level [dB]				58			
Electrical Data							
Rated Voltage [V]	230	230	230	230	230	230	230
Power Frequency [Hz]	50	50	50	50	50	50	50
Nominal Power [kW]	0.8	1.55	1.55	1.55	0.8	1.55	1.55
Unit Fuse [A]	10	10	10	10	10	10	10
Phase (Nominal voltage)	1~	1~	1~	1~	1~	1~	1~

Main Options

- **ASMS100 -** Remote notification alarm via text message
- **DPS100 -** Surge protection device for regulating and circuit control
- **ST100 -** Incorporated voltage stabilizer system
- **UPS100 -** Uninterruptible power supply
- **BA0188 -** Weekly circular chart temperature recorder, including 50 papers and 2 pens
- **RS485 -** RS485 Serial interface for remote connection
- **RS485/USB -** RS485/USB interface converter
- **RS232 -** RS232 Serial interface for remote connection
- **ETH100 -** Ethernet interface for remote connection
- **SND20T -** additional Pt 100, with flexible cable installed with external connection
- **BK201 -** Security backup system with CO2
- **LN200 -** Security backup system with LN2

- **RFG100 -** Security refrigerant system
- **RFID100 -** Restricted access door with traceability by smart card
- **86NV-S2 -** Double access door
- **VRACK -** Chamber stainless steel rack for cryoboxes
- **IQ-OQ-100 -** Qualification IQ/OQ
- **PAC00 -** Wooden crate packaging
- **PAW00 -** Wooden boxes packaging
- **FA100C -** Access cables port with plug
- **GP100 -** Additional shelf
- **GP100R -** Additional reinforced shelf
- **TE110 -** Power supply 110 V 50-60 Hz

For the full options availability go to: **bit.ly/2n93xRT**

Click and go to the website

All technical data are specified for units with standard equipment at an ambient temperature of +24 ˚C and a voltage fluctuation of ±10 %.

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