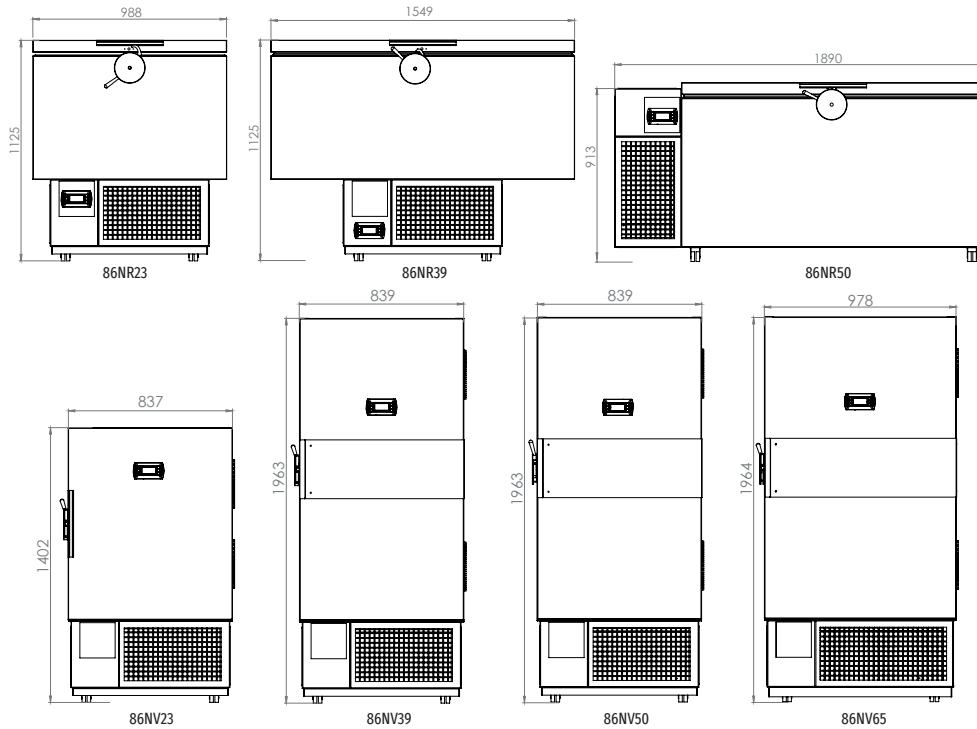


Ultra low freezer

NV-NR Series



EQUIPMENT



Volume

230, 390, 500, 650 liters



Temperature

-45°C...-86°C



Stability

±1.5 K



Shelves*

Height adjustable



ultraFACE

Historical data controller



Warmdown time

180 min



Backup battery

Always on display



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

FDM - ENVIRONMENT MAKERS

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	•						
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 %.

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

- **AP100** - Open door alarm
- **ASMS100** - Remote notification alarm via text message
- **CT100** - Audible and visual alarm system independent of the control system
- **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
- **UDB100** - USB port for storage data
- **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
- **CO200** - 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

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