

# Lab Freeze Dryer FREEZE-DRYING SYSTEM



### **N Series Freeze Dryer**

#### FREEZE-DRYING SYSTEM





**MD-10N/A** 

vacuum pump



#### A: Ordinary type

Suitable for the drying of liquid and solid of bulk materials.



#### **B:** Pressure cap type

Suitable for the drying of materials in penicillin vials, and can achieve vacuum seal packaging of samples. It includes the functions of Ordinary type.



#### **C:Ordinary manifold type**

Suitable for lyophilizing bulk or small materials, and can be used with lyophilized bottles, vials, and wide-mouth bottles.

#### **Optional Function**

- Imported vacuum pump
- Automatic nitrogen filling interface
- Eggplant bottle T-frame
- Eutectic point test
- Cold trap electric heating defrost
- Condenser temperature configurations with -80°C
- Sample plate PID intelligent heating

#### **Features**

- The control system automatically saves freeze-drying data and allows you to view real-time freeze-drying curves and historical curves.
- 7-inch LCD screen, easy to operate.
- The drying chamber of the freeze dryer is made of polycarbonate material, which has high transparency and strong sealing performance.
- Can store multiple freeze-drying curves to realize data extraction from USB disk.
- Equipped with a filling valve that can be filled with dry inert gas.
- The cold trap temperature can be set, which is beneficial to extending the life of the vacuum pump.
- Model 10ND adds PID intelligent heating mode to achieve more accurate temperature control and more stable temperature rise.

#### **Main Technical Parameters**

Model		MD-10N			MD-10ND		
Туре		MD-10N/A	MD-10N/B	MD-10N/C	MD-10ND/A	MD-10ND/B	MD-10ND/C
Dryer area(m²)		0.12	0.08	0.12	0.12	0.08	0.12
Ability to capture water(Kg/batch)		3	3	3	4	4	3
Schering bottle quantity	Ф12mm	920	560	920	920	560	920
	Ф16mm	480	285	480	480	285	480
	Ф22mm	260	165	260	260	165	260
Eggplant shape bottle		0	0	8	0	0	8
Plate load capacity (L)		1.5	1	1.5	1.5	1	1.5
Plate size(mm)		Ф200	Ф180	Ф200	Ф200	Ф180	Ф200
Plate distance (mm)		70					
Tray quantity (pc)		4	3	4	4	3	4
Cold chamber size(mm)		Ф250×150			Ф250×250		
Cold trap the lowest temperature(°C)		≤-50 (No load)					
Ultimate vacuum(Pa)		≤5 (No load)					
Power Kw(220V50Hz)		0.95			1		
Amibient temperature(°C)		≤28					
Overall dimension(mm)		620(L)×475(W)×490(H)+510			620(L)×475(W)×490(H)+510		
Weight(kg)		57					
Heating		No			Yes		

## **F Series Freeze Dryer**

#### **Features**

- The difference between drying room temperature is  $\leq 1^{\circ}$ C, and the drying effect is uniform.
- The plate temperature is adjustable and controllable, allowing pilot testing and production processes to be explored.
- Equipped with a filling valve that can be filled with dry inert gas.
- The door of the drying room is made of aviation-grade acrylic material.
- PLC controller, PID adjust temperature, display freeze-drying curve and historical curve.
- Support U disk data transfer and data printing.



#### **Main Technical Parameters**

Model		MD-20F/A	MD-30F/A		
Туря	е	Ordinary	Ordinary		
Dryer are	a (m²)	0.21	0.32		
Ability to capture w	vater(Kg/batch)	4	6		
Schering	Ф12mm	1300	1950		
bottle	Ф16mm	814	1160		
quantity	Ф22mm	430	615		
Plate load capacity (L)		3	4.5		
Plate size	L/mm	400			
Plate Size	W/mm	270			
Plate distance (mm)		70			
Plate quantity (pc)		2+1	3+1		
Plate temperature range(°C)		-50-+70(no load)			
Cold trap the Lowest temperature (°C)		≤-80(no load)			
Ultimate vac	cuum(Pa)	≤2(no load)			
Power KW (2:	20V50Hz)	3.03KW	3.8		
Amibient ten	nperature	≤28			
Overall dime (L*W*Hmm		1100*770*1300	1100*680*1240		
Weight	(Kg)	236	335		