Laboquest

Top press Vacuum Freeze Dryer

TPFQ Series

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Top press Vacuum Freeze Dryer TPFQ Series

Top press Vacuum Freeze Dryer TPFQ 3520

Top press Vacuum Freeze Dryer TPFQ 3520 is an electrical heating vacuum unit with a freeze drying area of 0.09 m^2 and condensing temperature of -50 ^{0}C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Transparent drying chamber helps in visualization of drying process.

Features

- LCD touch screen for parameter manipulation and observation
- PLC controller with multiple built-in programs (36 segments each)
- Transparent acrylic drying chamber for easy process observation
- High speed vacuum pump
- Optimum ice capture condenser function
- Large capacity ice condenser trap with external coiling tubes
- Checking, storage and modification of historical curves and records in real time
- Login facility with multi-level password protection for sample security
- Alarm system (elevated temperature, error diagnosis, equipment maintenance)
- Adjustable Pa or mbar vacuum degree display
- Over-heating safety control system
- USB interface to export data

Top press Vacuum Freeze Dryer TPFQ Series

Top press Vacuum Freeze Dryer TPFQ 3521

Top press Vacuum Freeze Dryer TPFQ 3521 is an electrical heating vacuum unit with a freeze drying area of 0.09 m^2 and condensing temperature of -80 ^{0}C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Transparent drying chamber helps in visualization of drying process.

Features

- LCD touch screen for parameter manipulation and observation
- PLC controller with multiple built-in programs (36 segments each)
- Transparent acrylic drying chamber for easy process observation
- High speed vacuum pump
- Optimum ice capture condenser function
- Large capacity ice condenser trap with external coiling tubes
- Checking, storage and modification of historical curves and records in real time
- Login facility with multi-level password protection for sample security
- Alarm system (elevated temperature, error diagnosis, equipment maintenance)
- Adjustable Pa or mbar vacuum degree display
- Over-heating safety control system
- USB interface to export data

Applications

Used in medicine, pharmacy, biology, pharmaceutical and food industry, research institutes, archaeological conservators, food and beverage industries for long term preservation of sample

Top press Vacuum Freeze Dryer TPFQ Series

Specifications

Model No	TPFQ 3520	TPFQ 3521
Freeze drying area	0.09 m^2	0.09 m^2
Product dimensions	630 x 580 x (970 + 540) mm	810 x 580 x (950 + 540) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	- 50 ^0C	- 80 ^0C
Trays	3 layers	3 layers
Shelf temperature	RT to 80 ^0C	RT to 80 ^0C
Vacuum degree	< 10 Pa	< 10 Pa
Defrosting mode	Off cycle defrosting	Off cycle defrosting
Cooling mode	Air cooling	Air cooling
Refrigerant	CFC free refrigerant	CFC free refrigerant
Bulk loading capacity (10 mm thickness)	0.9 L	0.9 L
Vacuum pump flow rate	4 L / S (14.4 m^3 / h)	4 L / S (14.4 m^3 / h)
Vial capacity (Φ 22 mm)	183	183
Vial capacity (Φ 16 mm)	345	345
Vial capacity (Φ 12 mm)	615	615
Power consumption	1.8 kW	2.1 kW
Power supply	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz
Product material	SUS304 stainless steel	SUS304 stainless steel
Condenser size (D x H)	Φ 270 x 400 mm	Φ 270 x 400 mm
Drying chamber size	Φ 300 x 540 mm	Φ 300 x 540 mm
Tray size	Φ 200 mm	Φ 200 mm
Tray spacing	70 mm	70 mm
Weight	165 kgs	195 kgs

Top press Vacuum Freeze Dryer TPFQ Series

Top press Vacuum Freeze Dryer TPFQ 4320

Top press Vacuum Freeze Dryer TPFQ 4320 is an electrical heating vacuum unit with a freeze drying area of 0.12 m^2 and condensing temperature of -50 ^0C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Transparent drying chamber helps in visualization of drying process.

Features

- LCD touch screen for parameter manipulation and observation
- PLC controller with multiple built-in programs (36 segments each)
- Transparent acrylic drying chamber for easy process observation
- High speed vacuum pump
- Optimum ice capture condenser function
- Large capacity ice condenser trap with external coiling tubes
- Checking, storage and modification of historical curves and records in real time
- Login facility with multi-level password protection for sample security
- Alarm system (elevated temperature, error diagnosis, equipment maintenance)
- Adjustable Pa or mbar vacuum degree display
- Over-heating safety control system
- USB interface to export data

Top press Vacuum Freeze Dryer TPFQ Series

Top press Vacuum Freeze Dryer TPFQ 4321

Top press Vacuum Freeze Dryer TPFQ 4321 is an electrical heating vacuum unit with a freeze drying area of 0.12 m^2 and condensing temperature of -80 ^{0}C. Equipped with electrical heating shelf and sensor calibration function for rapid and accurate drying process. LCD operational panel makes monitoring of parameters easy. Transparent drying chamber helps in visualization of drying process.

Features

- LCD touch screen for parameter manipulation and observation
- PLC controller with multiple built-in programs (36 segments each)
- Transparent acrylic drying chamber for easy process observation
- High speed vacuum pump
- Optimum ice capture condenser function
- Large capacity ice condenser trap with external coiling tubes
- Checking, storage and modification of historical curves and records in real time
- Login facility with multi-level password protection for sample security
- Alarm system (elevated temperature, error diagnosis, equipment maintenance)
- Adjustable Pa or mbar vacuum degree display
- Over-heating safety control system
- USB interface to export data

Applications

Used in medicine, pharmacy, biology, pharmaceutical and food industry, research institutes, archaeological conservators, food and beverage industries for long term preservation of sample

Top press Vacuum Freeze Dryer TPFQ Series

Specifications

Model No	TPFQ 4320	TPFQ 4321
Freeze drying area	0.12 m^2	0.12 m^2
Product dimensions	630 x 580 x (970 + 540) mm	810 x 580 x (950 + 540) mm
Condenser capacity	6 kg / 24 h	6 kg / 24 h
Condenser temperature	-50 ^0C	-80 ^0C
Trays	4 layers	4 layers
Shelf temperature	RT to 80 ^0C	RT to 80 ^0C
Vacuum degree	< 10 Pa	< 10 Pa
Defrosting mode	Off cycle defrosting	Off cycle defrosting
Cooling mode	Air cooling	Air cooling
Refrigerant	CFC free refrigerant	CFC free refrigerant
Bulk loading capacity (10 mm thickness)	1.2 L	1.2 L
Vacuum pump flow rate	4 L / S (14.4 m^3 / h)	4 L / S (14.4 m^3 / h)
Vial capacity (Φ 22 mm)	244	244
Vial capacity (Φ 16 mm)	460	460
Vial capacity (Φ 12 mm)	820	820
Power consumption	1.8 kW	2.1 kW
Power supply	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz	220 V / 50 Hz, 110 V / 60 Hz, 120 V / 60 Hz
Product material	SUS304 stainless steel	SUS304 stainless steel
Condenser size (D x H)	Φ 270 x 400 mm	Φ 270 x 400 mm
Drying chamber size	Φ 300 x 540 mm	Φ 300 x 540 mm
Tray size	Φ 200 mm	Φ 200 mm
Tray spacing	50 mm	50 mm
Weight	165 kgs	195 kgs

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Optional Accessories

Accessory No	Accessory
1	Vacuum control valve
2	Intake backfilling filter
3	Air inlet pump filter
4	Nitrogen inflation valve
5	Eutectic point tester
6	Electrical heating-defrosting mode
7	Exhaust filter / oil mist pump filter
8	Automated backfilling / drainage system
9	Cascade refrigeration
10	Stainless steel organic solvent sample chamber
11	RS232 software