

Freeze Dryer

LIOSMART 8/5P



- New tool for pilot or R&D freeze-drying
- 0,10 m² shelf area
- Shelf fluid circulated cooling and heating
- -55°C condenser coil temperature
- Vial cap stoppering system as standard
- 50 recipes, each with up to 50 segments
- Software packet with remote control via virtual user interface
- Single compressor refrigeration system
- Dry vacuum pump build-in frame

Temperature



Vacuum & pressure



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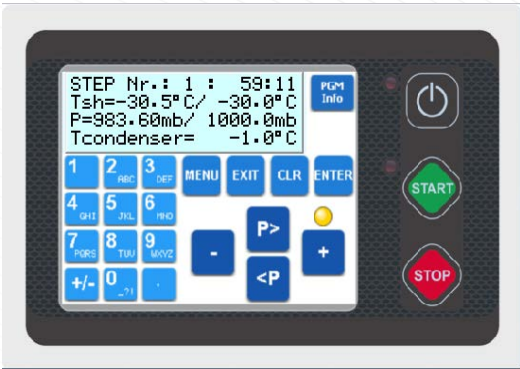
Device specifications:

- Perfected temperature control on shelves
- Smooth and easy to clean chamber & shelves
- Shelves and chamber made in AISI 304
- Exterior made in AISI 304
- Fully transparent door for product and condenser observation
- Vacuum control function
- Metering leak valve for air or nitrogen purging

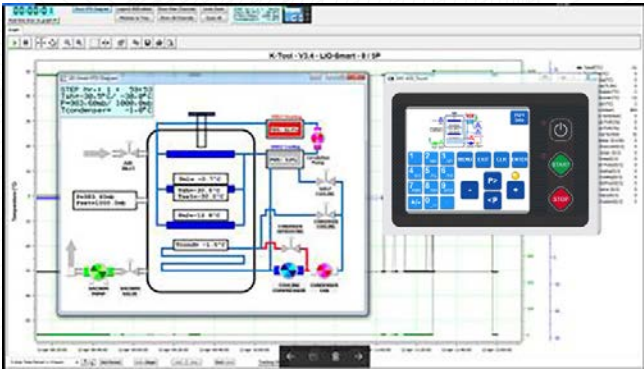


Technical Data:	LIOSMART 8/5P
External dimensions (WxDxH) in mm	750 x 750 x 1511
Chamber dimension (WxDxH) in mm	400 x 380 x 400
Ice condenser performance	4kg / 24h
Ice condenser temperature (°C)	-55
Ice condenser defrost	Reverse refrigeration loop
Number of shelves	2 working + 1 guardian stoppering
Shelf size (WxD) in mm	300 x 300
Shelf surface	2 x 0.09 m² = 0.18 m²
Shelf spacing	max 80 mm (stoppering fully opened) min 30 mm (stoppering fully closed)
Shelf Temperature range (°C)	-40...+60
Temperature stability (°C)	+/- 0.1
Temperature uniformity (°C)	+/- 0.5...+/-1.2
Temperature set resolution (°C)	0.1
Cool down rate	From +40°C to 0°C...18 min From 0°C to -40°C...25 min
Heat up rate	From -40°C to +40°C...30 min
Cooling	Air cooled hermetic single compressor system
Heating	Electrical
User interface	Touch screen fully programmable 50 recipes each with up to 50 process steps
Software	Windows compatible History & full remote control via virtual user interface
Door	Fully transparent single handed closing
Power supply	3x400V / 50 Hz / 12A
Wattage (W)	3200
Interface	RS 232 / USB
Temperature probe	PT-100 – shelf temperature PT-100 – condenser temperature PT-100 Material 1 PT-100 Material 2
Vacuum pump	Dry: nXDS-10i -Edwards Optional other models
Weight (kg)	200

User interface:



Software:



Dimensions:

