



SD 302-21



The SD Series is equipped with a dynamic drying unit U 2000. Engineered for medium to long-term constant low humidity storage of $\leq 1\%RH$.

Humidity, temperature, alarm functions are shown and can be adjusted on a digital display.

The circulation of air in the cabinet is regulated through an inside fan.

All surfaces are ESD coated in conformity with current ESD 61340-5-1 standard.

The SD-302-21 is ideal for the moisture-proof and anti-oxidation storage of wide-ranging technologies and conforms with IPC/JEDEC J- STD 033C & IPC-1601.



Features

- **Accuracy of sensor RH% & T°C**
- **Lockable doors**
- **ESD safe design**
- **Shelves**
- **Door alarm**
- **Dry unit**
- **ESD bonding point**
- **21 serie digital panel**
- **Pre mounted holes**
- **Power supply**
- +/- 3% RH, +/-0.3 °C
- 2 doors locked with key.
- Norm (IEC 61340-5-1)
- ESD metal painted body (10^6 Ohm/sq).
- Dissipative glazing (in- and outside 10^8 Ohm/sq).
- 7 in height adjustable chrome steel shelves.
- Door is equipped with a switch which triggers the humidity or door alarm if the preset value is exceeded.
- U 2000 dry unit.
- ESD wristband can be connected with the cabinet
- Very convenient settings of RH%, temperature, alarm and calibration funtions.
- For nitrogen unit & heater
- Cable 5 meter with IEC plug

Benefits

- **Maintenance**
- **Highly energy sufficient**
- **Option availability**
- **Recoverytime after dooropening**
- **Adjustable legs**
- **Datalogging**
- **Temperature**
- **IPC**
- The drying unit is maintenance free.
- Average power consumption 35 W/h.
- N2 auto Flow, Heating, SMD Reel racks, etc.
- <15 min to below 1%. (by 1 door opening)
- For leveling out.
- Through network with software.
- Maximal up to 40 °C (optional)
- According to IPC/JEDEC J- STD 033C & IPC-1601.



Technical Data Cabinet

- External dimensions: (W x H x D) 500 x 1227 x 640 mm
- Internal dimensions: (W x H x D) 490 x 1124 x 602(594) mm
- Weight: 68 kg
- Weight on shelf: 30 kg
- Max. loading capacity: 100 kg
- Body: Steel, conductive coated 10^6 - $10^8 \Omega/\text{sq}$
- Shelves (W x D): 4 pcs long, 468 x 510 mm adjustable.
3 pcs short, 468 x 468 mm adjustable.
- Volume: 320 L
- Voltage: 230 V AC (120 V AC optional)
- Power consumption: 35 W/h
- Protection class: hard grounded, Class 1
- Humidity level cabinet: Drying $\leq 1\%$ RH *

*(depending on amount of dooropenings)

Technical Data Dry Unit U-2000

- Control: Adjustable with control panel 21-series
- Voltage level: 230 V/50 Hz. (optional 120 V/60 Hz)
- Power consumption: 35 W/h
- Dimensions: W x L X D = 260 mm x 380 mm x 100 mm
- Weight: 8,1 kg.

Technical Data 21 Display

Settings:

- Nominal value humidity
- Nominal value humidity alarm (light)
- Delay time humidity alarm
- Nominal value temperature
- Door alarm buzzer
- Offset possibilities



Technical Data N² (Auto) Flow

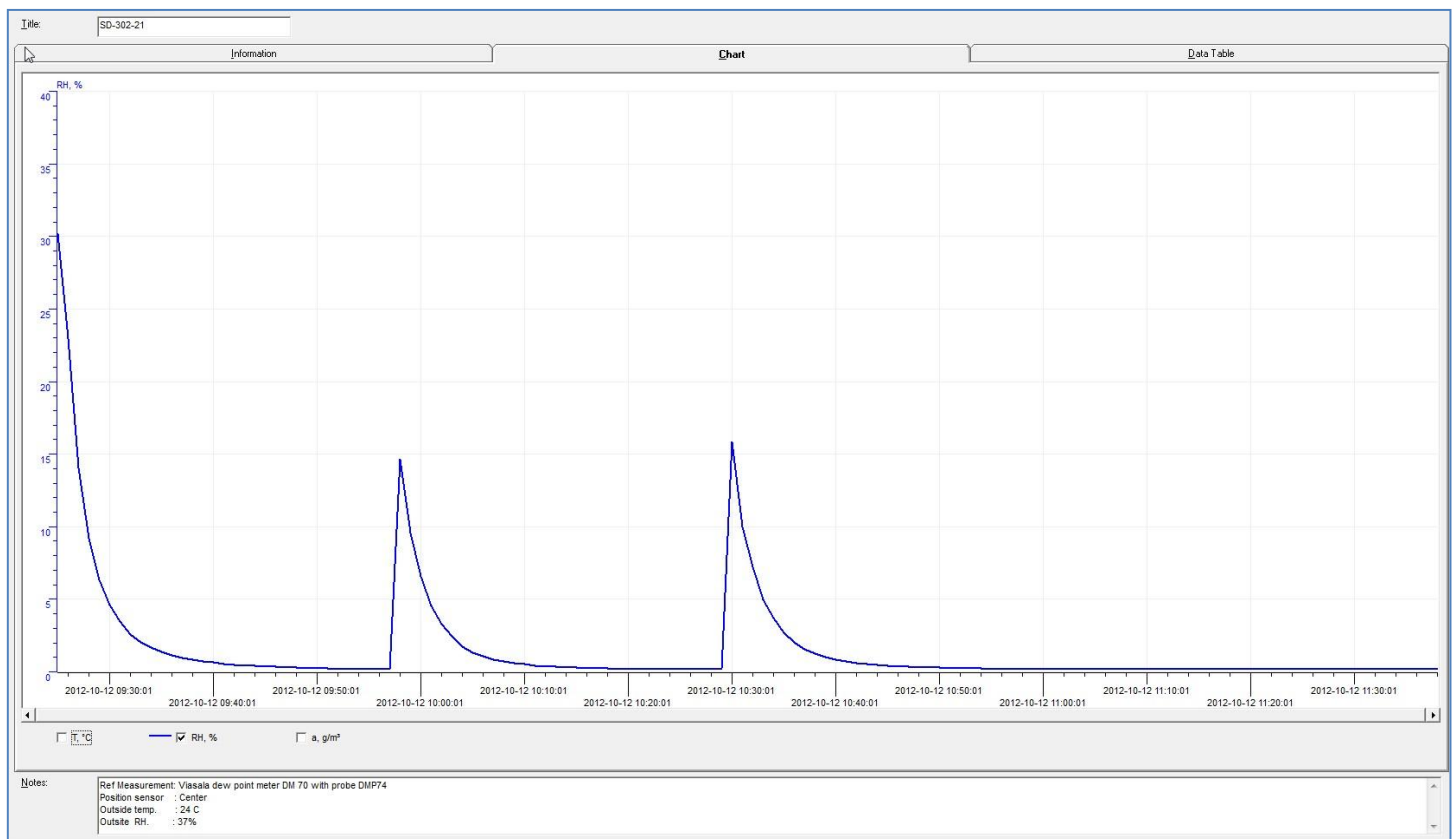
- Power supply: 230 V AC (110 V AC optional)
- N² Connection: 8 mm hose connection
- N² Pressure: 1 – 6 bar
- N² Standby- amount: 0 – 25 L/min
- N² Purge: 0 – 25 L/min

Technical Data Heater SH 230-1

- Voltage: 230 V AC (110 V AC optional)
- Frequency AC: 50/60 Hz
- Power: 530 W
- Temperature sensor: PTC 100
- Thermal protection: 90 °C
- Temperature range: 30 – 40 °C
- Air Flow: 86 M³/H
- Display tolerance: 1 digit at 25 °C



Performance



Test conditions



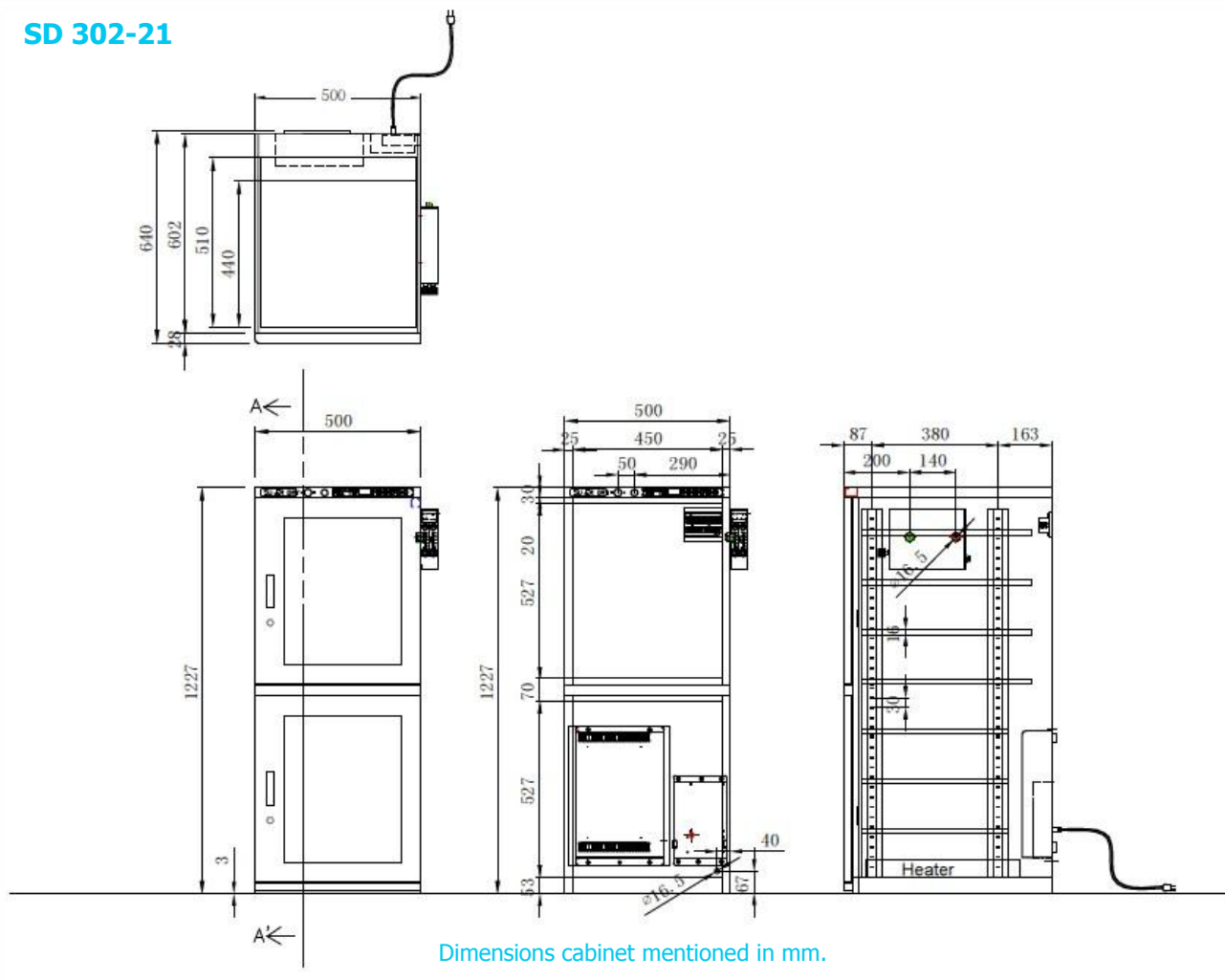
Instrument:
 Type of dew point sensor:
 Accuracy of dew point sensor:
 Location of sensor:
 Ambient conditions:
 Dooropenings:

Vaisala.
 Vaisala drycap 180M
 $\pm 0,2^{\circ} \text{C}$ at $+ 20^{\circ} \text{C}$ ($+ 68^{\circ} \text{F}$)
 In the direct surrounding of cabinet sensor
 Humidity $50 \pm 5\% \text{ rH}$, $25^{\circ} \pm 2^{\circ} \text{C}$, Pressure $994 \pm 20 \text{ hPa}$.
 2 dooropenings, 15 sec. (average RH 0,70%)



Technical Drawings

SD 302-21

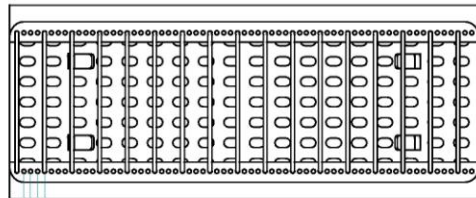
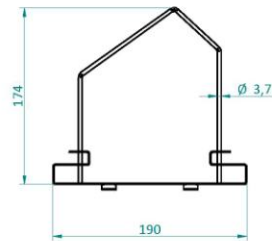
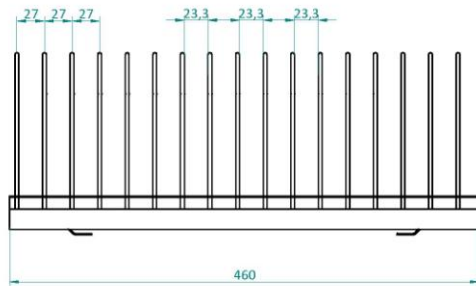


Number of shelves top section	1	2	3	4
Distance (in mm) between shelves if equally divided (if bottom shelf is mounted on the lowest possible position in the section)	x	250	160	125
Remaining space between top shelf and top beam	495	245	160	105
Remaining space between bottom shelf and bottom cabinet (if bottom shelf is mounted on the lowest possible position in the section)	0	0	0	0
Loading capacity shelves m ² (468 mm x 510 mm)	0,24	0,48	0,71	0,95
Number of shelves bottom section	1	2	3	
Distance (in mm) between shelves if equally divided in bottom section	x	165	103	x
Remaining space between top shelf and top beam	295	155	120	x
Remaining space between bottom shelf and bottom cabinet	265	175	145	x
Loading capacity shelves m ² (468 mm x 468 mm)	0,22	0,44	0,66	x
Shelves are adjustable every (mm)	30	30	30	30

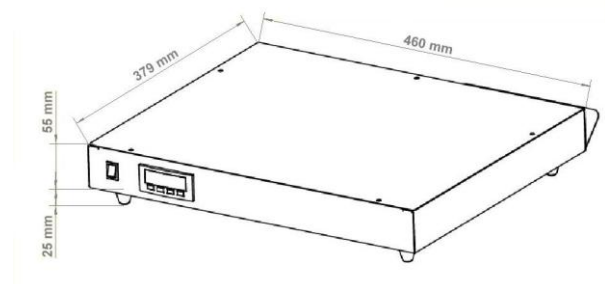
Measurements can slightly deviate



Technical Drawings



Dimensions of the SMD Reel Rack, item number 20014000



Dimensions of the heater SH 230-1, item number 21001300



Options



N2 auto flow system,

The Auto-Flow-System is developed to use in combination with a Totech drying cabinet. The device is used for the quick removal of moisture in the cabinet after the doors has been opened .The drying process is realized by using nitrogen (N²), which is add automatically after the doors have been closed. (timer controlled)

Item number 22613001



N2 flow system 10-100,

The N2 Flow-System is developed to use in combination with a Totech drying cabinet. The device is used for the quick removal of moisture in the cabinet. The drying process is realized by using nitrogen (N²). Adjustable 10 – 100 L/min

Item number 20010020



SMD Reel Rack,

460 mm length, and mountable on shelf.

Item number 20014000

SMD Reel supports,
reel support for 2001400

Item number 20014200



Humidity calibrator Hygropalm 22,

precision measuring device for calibrating sensors

Set including Hygroclip sensor, case and cable
Item number 20001019

Hygropalm only
Item number 20001016



Heater SH 230-1,

40°C heater

Item number 21001300



Humidity alarm light Red or Orange,

Item number 20016033



Options



Shelf,

Chrome steel shelf, short

Item number 20030210

Brackets 4 pcs, item number 30003010



Shelf,

Chrome steel shelf, long

Item number 20030202

Brackets 4 pcs, item number 30003010



Set main spare parts SD cabinet,

Set includes the main spareparts of the SD cabinet: Dry-unit U-2000, Main PCB and Power Supply

Item number 30006099

Exchange set main spare parts SD cabinet,

Same set as above, but now as exchange.

Item number 30006096



SD network PCB incl. software,

Item number 20024220

Version 21-01

