



## SD 1104-21



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

Humidity, temperature and alarm function 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-1104-21 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
- 4 doors locked with key.
- Norm (IEC 61340-5-1)  
ESD metal painted body (10<sup>6</sup> Ohm/sq).  
Dissipative glazing (in- and outside 10<sup>8</sup> Ohm/sq).
- 5 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 (2 pieces)
- ESD wristband can be connected with the cabinet
- Very convenient settings of RH%, temperature, alarm and calibration functions.
- 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.
- <35 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) 1200 x 1675(1840) x 658(768) mm
- Internal dimensions: (W x H x D) 1190 x 1533 x 630 mm
- Weight: 176 kg
- Weight on shelf: 50 kg
- Max. loading capacity: 300 kg
- Body: Steel, conductive coated  $10^6$ - $10^8$   $\Omega$ /sq
- Shelves (W x D): 5 pcs, 1150 x 490 mm adjustable
- Volume: 1179 L
- Voltage: 230 V AC (120 V AC optional)
- Power consumption: 70 W/h
- Dry Units: 2 dry units U 2000
- Protection class: hard grounded, Class 1
- Humidity level cabinet: Drying 1 – 2% 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 N<sup>2</sup> (Auto) Flow

- Power supply: 230 V AC (110 V AC optional)
- N<sup>2</sup> Connection: 8 mm hose connection
- N<sup>2</sup> Pressure: 1 – 6 bar
- N<sup>2</sup> Standby- amount: 0 – 25 L/min
- N<sup>2</sup> Purge: 0 – 25 L/min

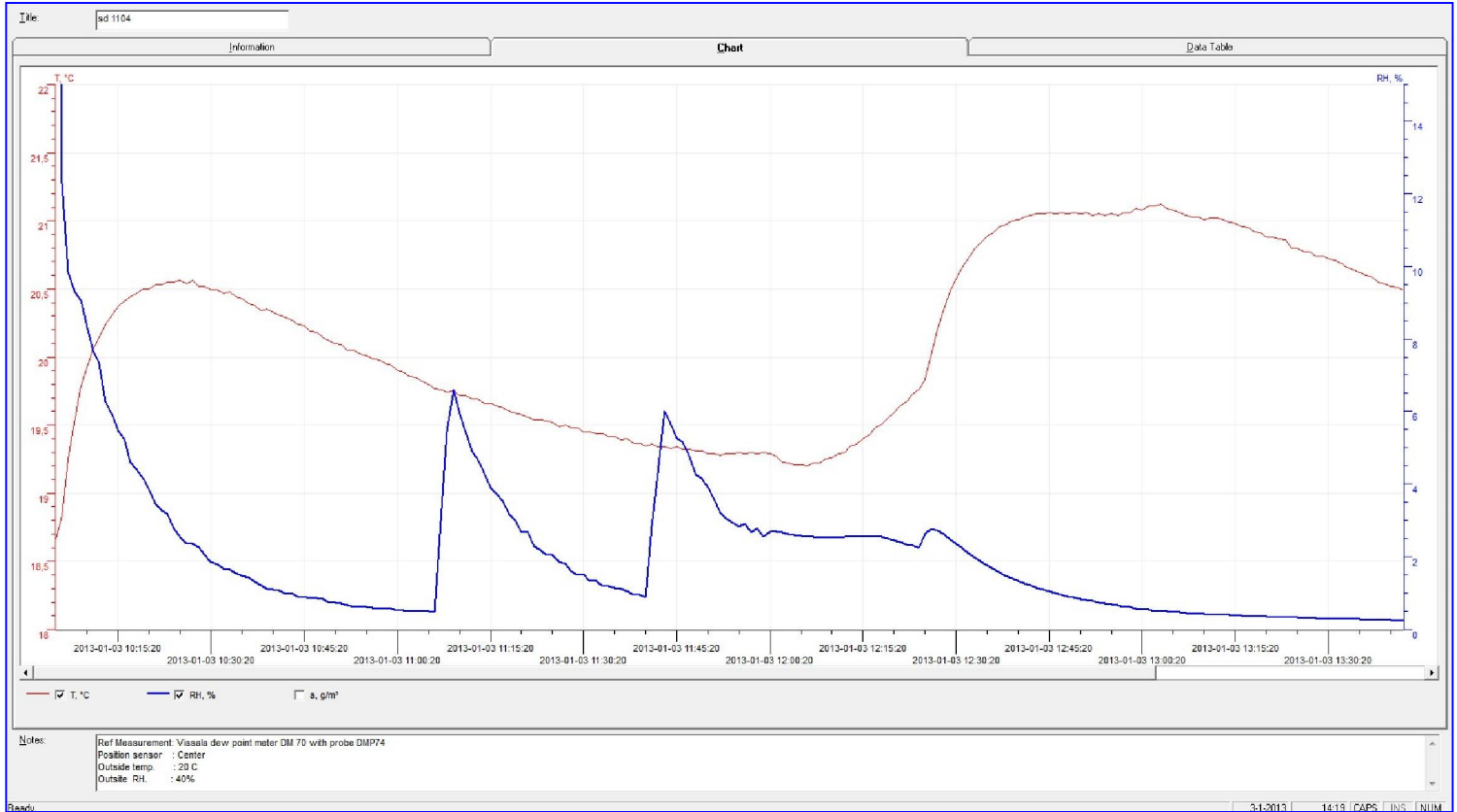
## Technical Data Heater SH 230-4

- Voltage: 230 V AC (110 V AC optional)
- Frequency AC: 50/60 Hz
- Power: 780 W
- Temperature sensor: PTC 100
- Thermal protection: 90 °C
- Temperature range: 30 – 40 °C
- Air Flow: 86 M<sup>3</sup>/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%)

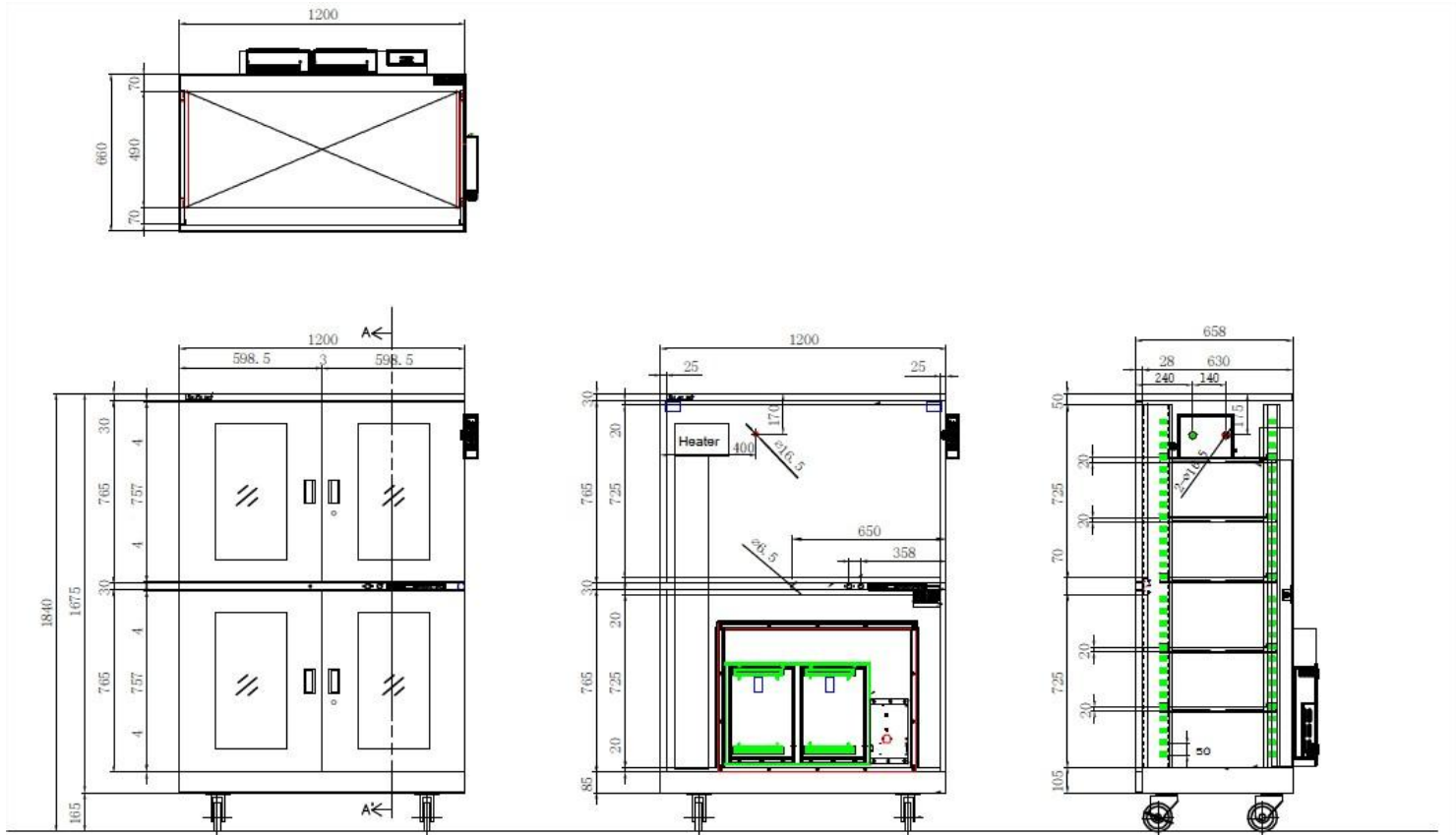






## Technical Drawings

### SD 1104-21



Dimensions mentioned in mm.

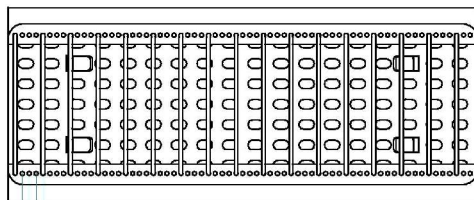
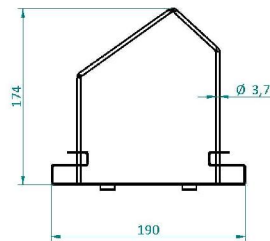
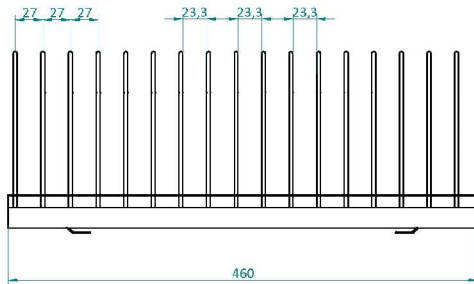
Number of shelves bottom section	2	3	4	5
Distance (in mm) between shelves if equally divided in bottom section	230	180	130	80
Remaining space between top shelf and middle beam	230	130	105	175
Remaining space between bottom shelf and bottom cabinet	225	175	75	125
Loading capacity shelves m <sup>2</sup> (1155 mm x 490 mm)	1,13	1,72	2,264	2,83
Number of shelves top section	2	3	4	5
Distance (in mm) between shelves if equally divided (if bottom shelf is mounted at lowest possible position in top section)	330	230	180	130
Remaining space between top shelf and top beam	375	225	225	125
Remaining space between bottom shelf and middle beam	0	0	0	0
Loading capacity shelves m <sup>2</sup> (1155 mm x 490 mm)	1,13	1,72	2,264	2,83
Shelves are adjustable every mm	30	30	30	30

Measurements can slightly deviate. For loading capacity shelves see specification SD 1104.



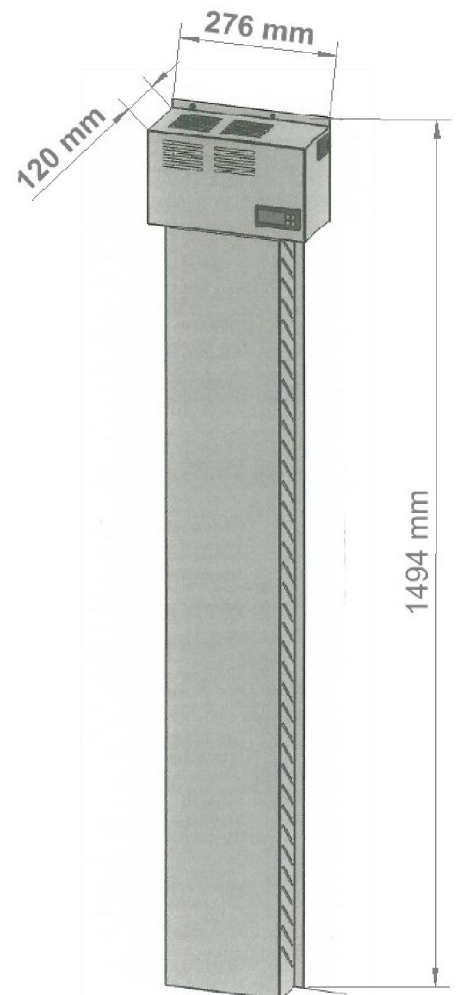


## Technical Drawings



6,75  
6,75  
6,75

Dimensions of the SMD Reel Rack, item number 20014000



Dimensions of the Heater SH 230-4, item number 21001001





## 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 (N<sup>2</sup>), 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 (N<sup>2</sup>). Adjustable 10 – 100 L/min

Item number 20010020.



### **SMD Reel Rack,**

460 mm length, and mountable on shelf.

Item number 20014000



### **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



### **Humidity alarm light Red or Orange,**

Item number 20016033



### **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







## Options



### Shelf standard,

For cabinets type 1106 and 1104.

Item number 20111409

Brackets 2 pcs, item number 20111709



### Shelf,

For cabinets with 2 drying units.

Item number 20111609

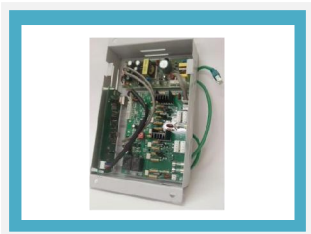
Brackets 2 pcs, item number 20111709



### Heater SH 230-4,

40°C heater

Item number 21001001



### SD network PCB incl. software,

Item number 20024220



### Adjustable legs

4 in height adjustable legs (63 – 80 mm).

Item number 20010010

version 21-01

