

## SD 151-21



### Storage Cabinet



#### Outstanding performance

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 integrated 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.



## SD 151-21

### Standard Features

|   |  |
|---|--|
| ✓ <b>Accuracy of sensor RH% &amp; T°C</b> | +/- 3% RH, +/- 0,3°C   |
| ✓ <b>ESD safe design</b>                  | Norm (IEC 61340-5-1)<br>ESD metal painted body (<10 <sup>6</sup> Ohm/sq)<br>Dissipative glazing (in- and outside 10 <sup>8</sup> Ohm/sq) |
| ✓ <b>Door alarm buzzer</b>                | Longer door openings are detected, high RH levels are detected   |
| ✓ <b>Lockable doors</b>                   | 1 door locked with key   |
| ✓ <b>Shelves</b>                          | In height adjustable chrome steel shelves (3 pcs)  |
| ✓ <b>1 series digital display</b>         | Very convenient settings of RH%, temperature, alarm and calibration functions.   |
| ✓ <b>Drying unit</b>                      | U-2000 drying unit   |
| ✓ <b>ESD bonding point</b>                | ESD wristband can be connected to the cabinet  |
| ✓ <b>Pre mounted holes</b>                | For nitrogen unit & heater   |
| ✓ <b>Power supply</b>                     | Power cord 5 meter with IEC plug   |

### Benefits

|   |   |
|---|---|
| ✓ <b>Datalogging</b>                      | Through network with software (optional)                |
| ✓ <b>Recovery time after door opening</b> | <15 minutes to below 1% (by 1 door opening)             |
| ✓ <b>Highly energy efficient</b>          | Average power consumption 35 W/h.                       |
| ✓ <b>Option availability</b>              | N <sub>2</sub> auto flow, heating, SMD reel racks, etc. |
| ✓ <b>IPC</b>                              | According to IPC-JEDEC J-STD 033C & IPC-1601            |
| ✓ <b>Temperature</b>                      | Maximal up to 40°C (optional)                           |
| ✓ <b>Maintenance</b>                      | The drying unit is maintenance free, easy to service    |

## SD 151-21

### Technical data cabinet

|                           |   |
|---------------------------|---|
| ✓ External dimensions:    | (W x H x D) 500 x 630 x 580 mm                |
| ✓ Internal dimensions:    | (W x H x D) 490 x 560 x 450(530) mm           |
| ✓ Weight:                 | 37.1 kg                                       |
| ✓ Weight on shelf:        | 30 kg   |
| ✓ Max. loading capacity:  | 100 kg  |
| ✓ Body:                   | Steel, conductive coated 10 <sup>8</sup> Ω/sq |
| ✓ Shelves (WxD):          | 4 pcs, 468 x 380 mm adjustable.               |
| ✓ Volume:                 | 320 L   |
| ✓ Electric supply:        | 230 VAC (120 VAC optional)                    |
| ✓ Power consumption:      | Average 35 W/h (excl. heating)                |
| ✓ Protection class:       | Class 1, hard grounded                        |
| ✓ Humidity level cabinet: | ≤1% RH depending on amount of door openings   |

### Technical data type 1 display

#### Settings

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

### Technical data dry-unit U-2000 series

- ✓ Control: Adjustable with control panel type 1
- ✓ Dehumidifying Temperature: 10 – 40° C
- ✓ Electric supply: 230 VAC (120 VAC optional)
- ✓ Dimensions (L x B x H): 260 x 380 x 100 mm
- ✓ Weight: 8,1 kg

## SD 151-21

### Technical data heater SH-230-1

|                       |  |
|-----------------------|--|
| ✓ Voltage:            | 230 VAC / 50 Hz (120 VAC / 60 Hz optional) |
| ✓ Power:              | 530 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                           |

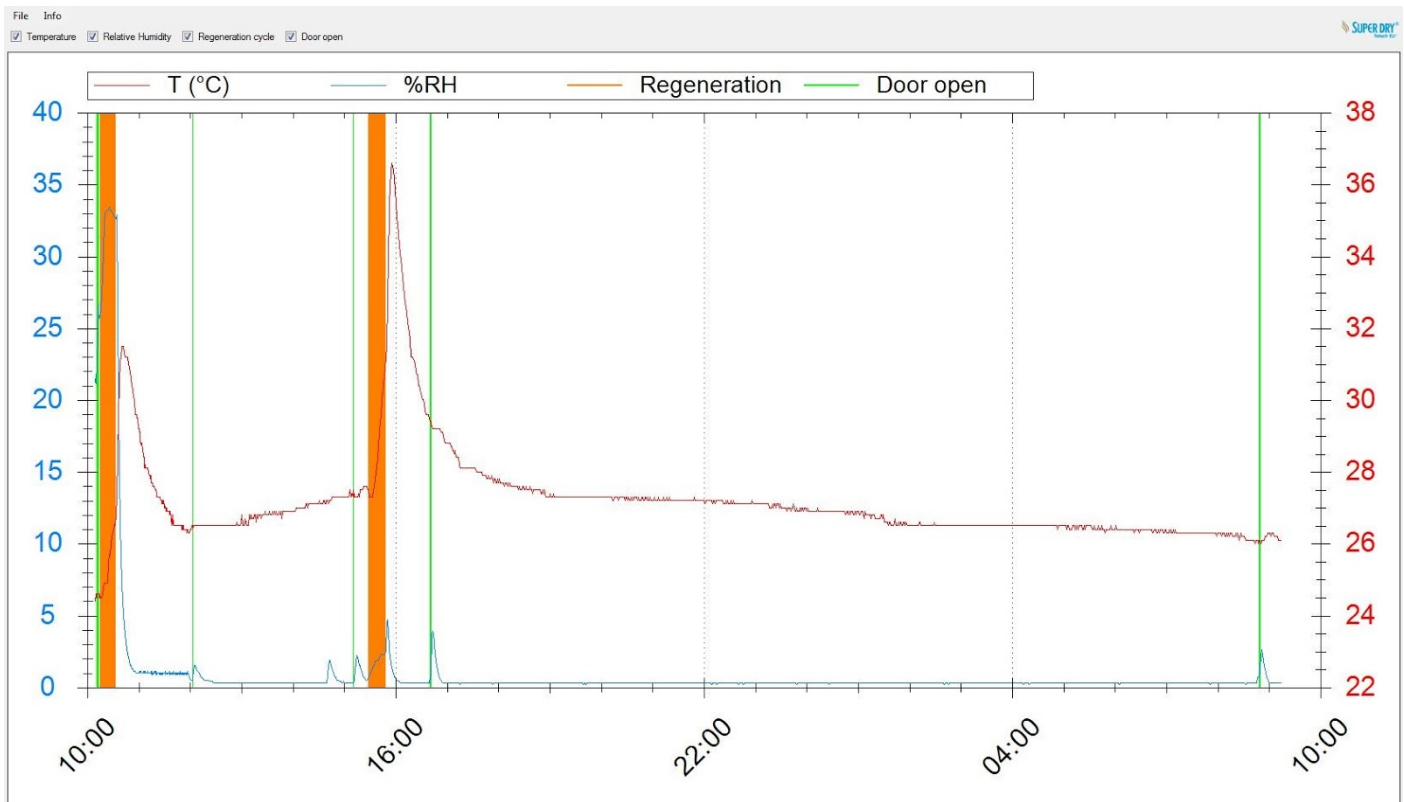
### Technical data N<sup>2</sup> (Auto) Flow

|                                  |                     |
|----------------------------------|---------------------|
| ✓ Power supply:                  | 90 - 230 VAC        |
| ✓ N <sup>2</sup> connection:     | 8mm 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        |
| ✓ Purge time:                    | 0 - 99 min          |

## SD 151-21

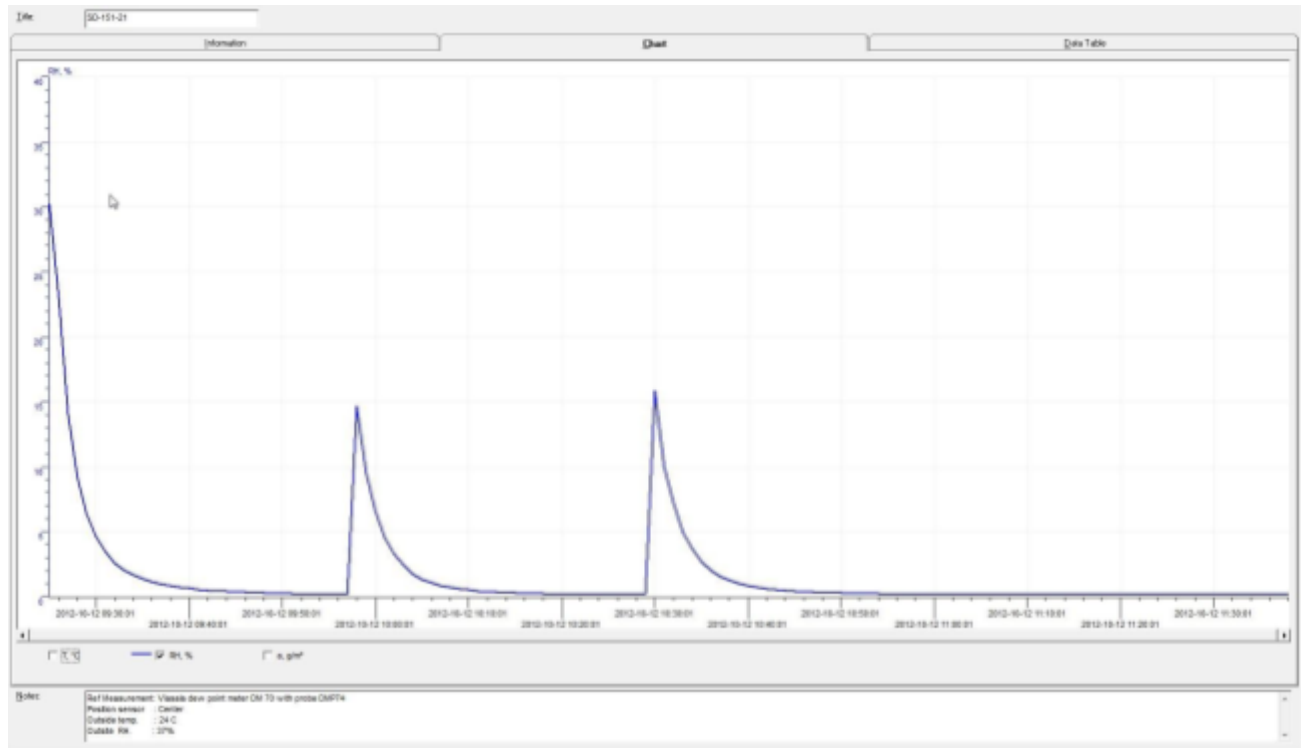
### Free Totech viewer

- ✓ Writing of climate data, door openings and alarms to SD card
- ✓ Transfer data through Ethernet to PC (history data)
- ✓ User-friendly display of all relevant data
- ✓ Data processing in MS-Excel
  
- ✓ Seamless documentation
- ✓ Excellent process safety



# SD 151-21

## Performance test

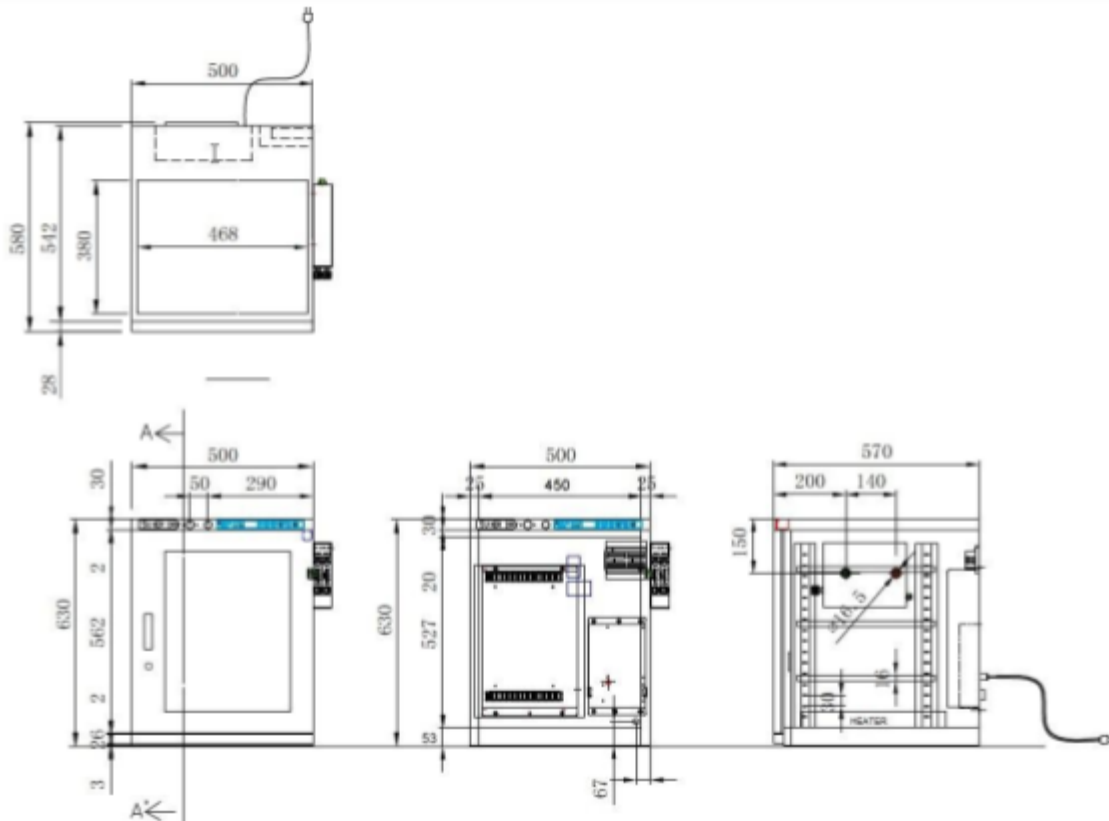


## Test conditions

- ✓ Instrument: Vaisala
- ✓ Type of dew point sensor: Vaisala drycap 180M
- ✓ Accuracy of dew point sensor:  $\pm 0,2^{\circ} \text{C}$  at  $+ 20^{\circ} \text{C}$  ( $+ 68^{\circ} \text{F}$ )
- ✓ Location of sensor: In the direct surroundings of the cabinet sensor
- ✓ Ambient conditions: Hum.  $50 \pm 5\% \text{ rH}$ ,  $22^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , Pressure  $994 \pm 20 \text{ hPa}$
- ✓ Door openings: 2 door openings, 15 sec.

For more detailed test results, please refer to our website.

## Technical drawings



Dimensions mentioned in mm.

## Shelves

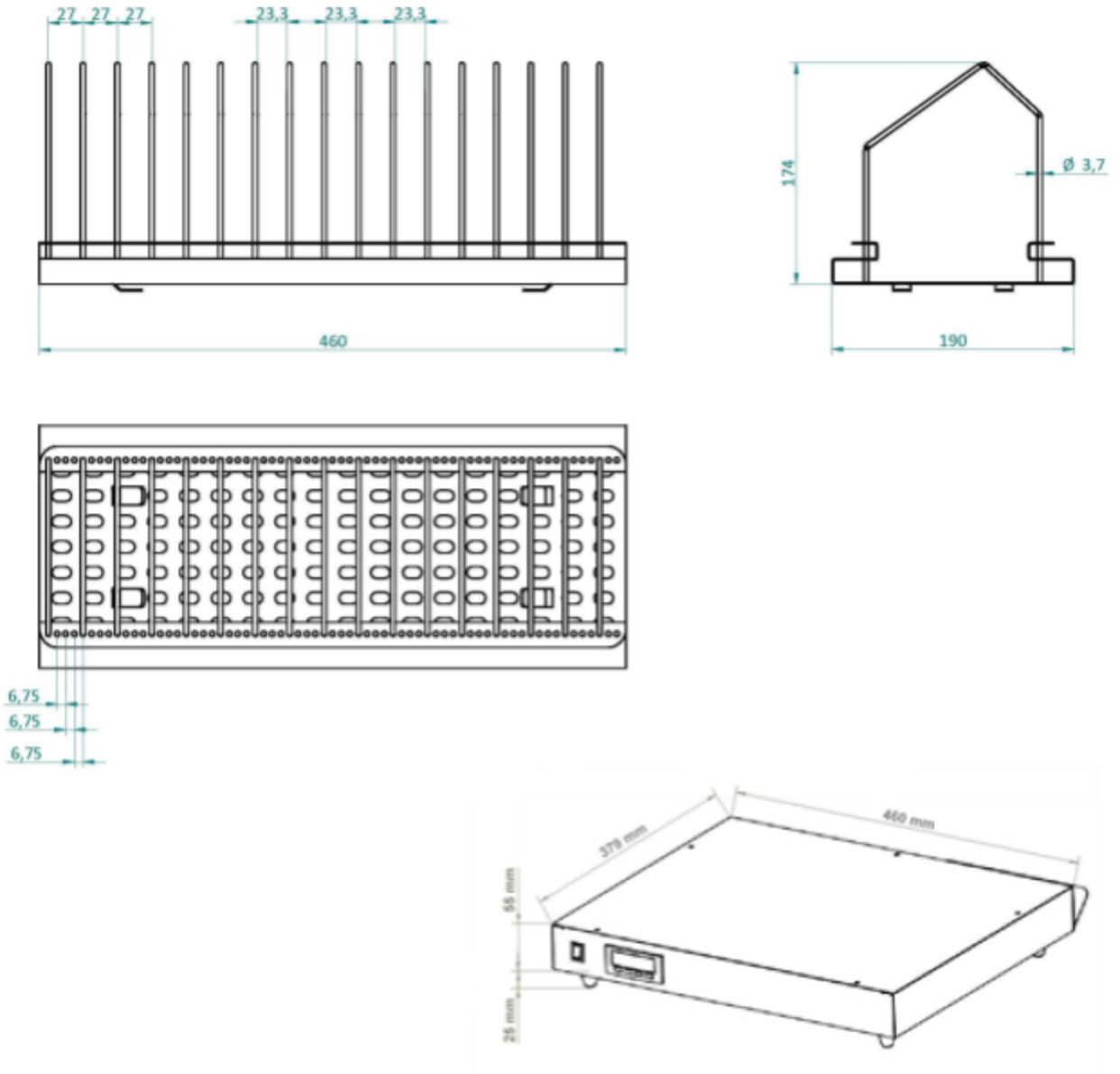
Number of different types of shelves that can be mounted in the cabinet

| Number of shelves bottom section                                      | 1    | 2    | 3    |
|---|------|------|------|
| Distance (in mm) between shelves if equally divided in bottom section | x    | 165  | 103  |
| Remaining space between top shelf and middle beam                     | 295  | 155  | 120  |
| Remaining space between bottom shelf and bottom cabinet               | 265  | 175  | 145  |
| Loading capacity shelves m <sup>2</sup> (1155 mm x 780 mm)            | 0,18 | 0,35 | 0,53 |

Measurements can slightly deviate.

## SD 151-21

### Technical drawings





## SD 151-21

### Options



**SMD Reel rack with reel supports**  
460 mm length.

*Item number 20014000*



**Reel support**  
Additional reel supports for 20014000.

*Item number 20014200*



**Humidity alarm signal lamp**  
One color (orange or red), magnetically fixed, providing optical signals on operational states and exceeded limit values. Operates on 24V.

*Item number 20016033*



**N<sup>2</sup> Autoflow system**  
The autoflow 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 have been opened. The drying process is realised by using Nitrogen (N<sup>2</sup>), which is purged automatically after the doors are closed. (timer controlled)

*Item number 22613001*

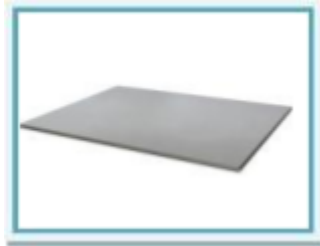


**Heater SH 230-1**  
40°C heater

*Item number 21001300*

## SD 151-21

### Options



#### Shelf standard

Chrome steel shelf, short:  
*Item number 20030210*

Chrome steel shelf, long:  
*Item number 20030202*



#### 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:  
*Item number 30006096*



#### SuperDry Data Logger

Highly accurate data logger with standard Ethernet interface.  
Compatible with the Free Totech Viewer and Totech Monitor.

*Item number 47000582*