

## **ADDITIONAL EQUIPMENT**

**S-DC** Swivel supports (to replace casters)

2 C-DC Light tower

3 SHW-DC/ SHG-DC/ SHB-DC Additional shelves

SHB-SH-DC/ SHG-SH-DC/ SHW-SH-**DC** Additional shortened shelves

DC-AA Automatic nitrogen unit

DC-AW Manual nitrogen unit

SCO-W-DC/SCO-G-DC/SCO-B-DC Reels adjustable rack

LIW-DC/LIB-DC/LIG-DC Shelves separation elements

VHM software

10 LED-DC Inner LED indicative lighting

**USC-DC/USS-DC** Sliding shelves

12 USB-DC, optional USB port

SCO-W-DC/SCO-G-DC/SCO-B-DC SMD Reels adjustable rack



SMD Reels adjustable Rack is mounted on a standard dry storage cabinet shelf. Allows organizing three rows for 82-215 mm diameter SMD reels. Minimum width of each cell is 27 mm.

Available in:

White RAL 9010 (code SCO-W-DC) Light grey RAL 7035 (code SCO-G-D) or RAL 9005 (code SCO-B-DC)

LIW-DC/LIB-DC/LIG-DC

Mounted on a standard dry storage cabinet shelf. Limits the inner space of the shelf for components storage. Can be installed in both positions - along and across the shelf.

Shelves separators

Available in:

RAL 9010 (code LIW-DC) Light grey RAL 7035 (code LIG-DC) or RAL 9005 (code LIB-DC)

ly software that helps the operator to be aware of the storage conditions; records dry cabinet data and allows checking the graphs over a period of time.

## VHM software VIKING

VIKING humidity manager is a user-friend-









DC ESD series dry storage cabinet is a line of special equipment designed to provide ultra-low ranges of relative humidity, which is necessary for handling moisture-sensitive components and materials including precision metal parts, printed circuit boards, plates, nano fibers, cassettes, laboratory samples, electronic modules.

All DC ESD series cabinets produced only in antistatic (ESD) version, in strict compliance with ESD safety regulations of IEC 61340-5-1. For dry storage cabinets we use only specific ESD glass with conductive surface (conductivity  $10^3 - 10^5$  Ohm) and ESD wheels. All the shelves and horizontal surfaces of the cabinet are grounded and ESD coating of all metal elements is applied.

All cabinets are supplied in a set with one middle standard or shortened shelf for each section. All cabinets except for 1-section version are supplied in a set with ESD wheels. Each section has a separate key.

DC ESD series dry storage cabinets feature low noise level and equipped with temperature and humidity levels indication and door alarm system.

CODE	DC-1 ESD	DC-2 ESD	DC-3 ESD	DC-4 ESD	DC-6 ESD
Picture number	1	2	3	4	5
Number of doors	1	2	3	4	6
Dimensions, mm					
Width	600			1205	
Height	737	1342	1947	1342	1947
Depth	640				
Capacity, liters	238	454	670	900	1340
Weight, kg	60	100	131	170	227

All DC series cabinets are equipped with RS-232 that allows data collection. One should simply connect DC dry cabinet to a computer using standard cable.

DC series cabinets feature humidity & temperature display with parameter value input on easy-to-operate three buttons digital control LCD-panel.

Humidity and temperature monitoring is performed by the built-in precision sensor with digital interface, processor and LCD display. Monitoring is performed by a sensor, based on CMOS technology, each sensor is being factory calibrated prior to installation.

## DC ESD series dry cabinets are available in:

White	RAL 9010	(code DC-W ESD, for example DC-3W ESD for 3-doors white cabinet)
Light grey	RAL 7035	(code DC-G ESD, for example DC-6G ESD for 6-doors grey cabinet)
Black	RAL 9005	(code DC-B ESD, for example DC-1B ESD for

1-door	black	cabinet)
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TECHNICAL SPECIFICATIONS	VALUE	
Humidity range	1-50%	
Precision	±1%	
Absorption of moisture	automatically regenerated absorbent (Zeolite)	
Max. dimensions of units to store	Width up to 500 mm* Heights up to 510 mm* Depth up to 570 mm*	
Door alarm	integrated	
Supply voltage	230±10%	
Max. power consumption	210-240 watt-hour in regeneration phase, 20-30 watt-hour in storage phase	
IP protection class	IP 55	

<sup>\*</sup> separate numbers for each dimension

## DESICCATION AND RECOVERY TIME

**Recovery Time** – is one of the most critical performance parameters of any dry storage cabinet, it refers to the time required for the cabinet to reduce the RH level back to its set point after the door been opened and closed.

3-doors cabinet with 1 dehumidifier unit	1-door cabinet with 1 dehumidifier unit or 6-doors cabinet with 2 dehumidifier units
≤ 1 hour 40 mins	≤ 1 hour 20 mins
≤ 60 mins	≤ 40 mins
≤ 4 mins	≤ 1 min
≤ 8 mins	≤ 3 mins
≤ 15 mins	≤ 7mins
≤ 25 mins	≤ 13 mins
≤ 35 mins	≤ 18 mins
	with 1 dehumidifier unit  ≤ 1 hour 40 mins ≤ 60 mins ≤ 4 mins ≤ 8 mins ≤ 15 mins ≤ 25 mins

<sup>\*</sup> After 10 sec door opening,

DC ESD dry cabinets meet or exceed international standards:

IPC/JEDEC J-STD 033C «Handling, Packing, Shipping and Use of Moisture/

Reflow Sensitive Surface Mount Devices»;

IPC/JEDEC J-STD-020C «Moisture/Reflow Sensitivity Classification for Nonhermetic Solid State Surface Mount Devices»;

EIA/IPC/JEDEC J-STD-075 «Classification of Non-IC Electronic Components

for Assembly Processes».





10 LED-DC Inner LED indicative lighting

Inner LED indicative lighting helps to quickly check the cabinet's current status:

- Green indicates the cabinet proper functioning and targeted relative humidity/O2 level,
- Yellow cabinet is in recovery mode (for example, after opening the door),
- Purple the cabinet is working in nitrogen supply mode before reaching O2 level,
- Flashing red when the door is being opened for more than 30 sec,
- Cold white when opening the door or when changing the cabinet settings.
- 11 USC-DC/USS-DC Sliding shelves

- Red - reports critical errors in cabinet operation,



Sliding shelf is a kit containing two sections with sliding mechanism, upper section is equipped with upturns for components and assemblies' storage, lower section is a narrow case for documents storage.



<sup>\*\*</sup>After 20 sec door opening. Recovery tested at 50%RH @ 25°C