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Lab equipment and more

BIOAIR

DATASHEET

SAFEMATE TOTAL

Class II MicroBiological Safety Cabinet Type B2,

S@femate TOTAL Cabinets have been designed according to the airflow specifications for NSF49 Class II Type B2 cabinets, also known as “total exhaust”. 100% fresh air is taken in from the lab, either from the front aperture and from a main inlet. The air from the main inlet is then cleaned by the main HEPA H14 filter to provide an ISO5 working area and joins with the air from the front aperture on the bottom of the cabinet. All the air is then circulated behind the backwall of the unit and filtered via the exhaust HEPA H14 filter and reinjected into the environment.
This kind of units are designed to be hard ducted and provide the possibility to work safely with small amounts of chemicals without the risk of increased concentration due to the air recirculation.

This cabinet MUST be connected to an external ducting system. Please read the information provided in the INSTALLATION REQUIREMENTS paragraph for more details.

MAIN SPECIFICATIONS

- Sloped front sash (5°)
- Swinging front window for optimal clearing access
- Maximum height of front aperture: mm 440.
- Front sash in stratified safety glass, 6mm.
- Front window presses on the gasket when in closed position to ensure no leakages.
- Sliding sash with electrical operation and auto recognition of the correct work position
- Front grid with “V” shape to avoid obstructing it with the arms. No need to use armrests.
- Filter replacement and electric/electronic components maintenance from front side.
- External surface in epoxy-painted steel.
- Working chamber and work surface fully realized in stainless steel AISI304 with SB finishing. Easy to clean as required by EN12469:2000.
- Work surface divided in sectors, available both solid or perforated.
- Air decontamination provided by HEPA H14 filters, with efficiency >99.995% (test MPPS according to EN1822.1)
- DOP test port for easy check of HEPA filters integrity.
- Internal sockets with IP55 protection level.
- Constant monitoring of the following parameters:
    - Laminar flow speed (measured by anemometer monitoring of exhaust flow);
    - Inflow speed (measured by anemometer monitoring of exhaust flow);
    - Optical/acoustic alarm for insufficient inflow barrier;
    - Optical/acoustic alarm for insufficient laminar flow;
    - Operating hours visualization for: cabinet, HEPA filters, UV.

- Volt-free contact for remote blower control or connection to a remote alarm system.
- Exhaust connector: diameter 315mm.

STANDARD UTILITIES

Utilities are located on the back wall of the working area. Connectors for the utilities are located on the top of the cabinet towards the back.

Electrical sockets. On the back wall
DOP sampling port. Below the work surface, left side.
UV lamp installed on the back wall.

OPTIONALS ACCESSORIES

Description	Part No.
Stand for S@femate TOTAL 1.2	AS1L410
Castor kit	AZ1L010
2 Drawers file cabinet	AC10000

OPTIONAL UTILITIES

Vacuum tap. On right side.
Gas tap with safety solenoid valve. On right side.
Additional sockets
RS232 data transmission kit (Software not included)

TECHNICAL SPECIFICATIONS

MODEL	S@FEMATE TOTAL 1.2
Cabinet Part No.	LDK4E0N
Perforated work surface	AZ9K040
Solid work surface	AZ9K041
External size(lxpxh) mm	1380x795x1640
Work area size (lxpxh) mm	1230x600x700
Height including stand (mm)	2175
Front Aperture (mm)	195
Weight (Kg)	240
HEPA filters efficiency	> 99,995% MPPS (test MPPS according to EN1822.1)
Exhaust air volume	≈1400 m^3/h
Motorblower(s)	Centrifugal with speed autoregulation based on filter clogging status. IP55 protection level
Power supply	230V 50/60Hz
Power (W)	375

Internal Sockets	2
Fluorescent lamps	2x30W
Lighting	1200 lux

INSTALLATION REQUIREMENTS

IMPORTANT: Read carefully the following information. The requirements provided in this paragraph are mandatory and must be available at the installation site to allow a proper installation and functioning of the cabinet.

This cabinets requires to be connected to an external duct provided with an extraction motorblower properly sized to provide a prevalence at the exhaust filter of at least 330pascal and up to 500pascal, with an airflow volume of 1300m^3/h ± 10% (accounting for any additional load due to the channel structure)

For the activation of the external motorblower along with the cabinet, the unit provides a volt-free contact (Normally Open) which can support a maximum voltage/current of 24V/2A.

The power supply for the external blower is not provided by the cabinet.