

ESUC 230/390/650

Filter, suction and supply unit (performance class 230 – 650 m³/h)



Key Facts

- ✓ Output air suction and filtering
- ✓ Control of cleaning equipment
- ✓ Power supply for ionisation
- ✓ Compressed air preparation and control
- ✓ Monitoring and signal output

Product Description

The ESUC 230 – 650 design is for demanding applications with the KIST + ESCHERICH surface cleaning devices and belongs to performance class 1. This model features flexible filter technology: It can be configured as a single-stage or multi-stage system, using either bag or compact filters to effectively clean output air with smaller to medium particle emissions. The purified airstream is dispersed in a controlled way either into the work environment or via an external output air system.

A central unit control monitors all connected cleaning devices as well as internal components such as the suction fan and the HV power supply. The precise adjustment of parameters such as compressed air supply and suction strength allows individual cleaning processes to be optimised. External devices, such as ionisers or flow monitors, are also monitored as required. Error states automatically trigger warning signals, which are displayed via signal lamps and forwarded as external status signals. Thanks to the integration option of the ESUC 230 – 650 into existing machine controllers, PLC-based systems and bus connections can be integrated easily as well.

- Central operating unit with status and error display
- Full filter prompt and collective error signal on the device
- Monitoring of filters and connected or integrated components and single error message to the remote control
- Actuation via remote machine control is possible
- 4 castors (2 lockable swivel castors) or height-adjustable levelling feet
- Colour RAL 7035 light grey / RAL 5003 sapphire blue (special colour on request)
- Additional variants available: CR, ESD

Suction / filtration

- Different performance classes, suitable for cleaning devices of various sizes
- Compact or bag filters for light and medium particle volumes
- Single- or two-stage design
- Easy filter change
- Universal suction port arrangement on the rear for connecting several cleaning stations

Technical Data

ESUC 230/390/650 Standard

	ESUC 230	ESUC 390	ESUC 650
Version	Standard	Standard	Standard
Volume flow (max.)	230 m³/h	390 m³/h	645 m³/h
Number of possible filter stages	1	1, 2	1, 2
Operating voltage	1x 230 V, PE, N	1x 230 V, PE, N or 1x115 V, PE, N	1x 230 V, PE, N or 1x115 V, PE, N
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated power	0.34–1.54 kVA	0.4–1.6 kVA	0.5–1.7 kVA
Rated current (max.)	4.5-6.5 A	1.8-6.8 A	2.2-7.2 A
Pre-fuse	16 A	16 A	16 A
Diameter of the suction port	2× DN55 + 1× DN80 + 1× DN110	2× DN55 + 1× DN80 + 1× DN110	2× DN55 + 1× DN80 + 1× DN110
		4x DN40	4x DN40
		4x DN55	4x DN55
		2× DN40 + 2× DN80	2× DN40 + 2× DN80
Diameter of the output air port	1x DN80 or diffused	1x DN80 or diffused	1x DN110 or diffused
Pressure difference (max.)	4300 Pa	3700 Pa	3100 Pa
Compressed air quality	factory, oil-free, dry	factory, oil-free, dry	factory, oil-free, dry
Operating air pressure input	max. 8 bar	max. 8 bar	max. 8 bar
Ambient temperature (min. – max.)	5 - 40 °C	5 - 40 °C	5 - 40 °C
Weight	75–80 kg	77–95 kg	78–96 kg
Degree of protection for control cabinet	IP54	IP54	IP54

ESUC 230/390/650 ESD

	ESUC 230 ESD	ESUC 390 ESD	ESUC 650 ESD
Version	ESD applications	ESD applications	ESD applications
Volume flow (max.)	230 m³/h	390 m³/h	645 m³/h
Number of possible filter stages	1	1, 2	1, 2
Operating voltage	1x 230 V, PE, N	1x 230 V, PE, N or 1x115 V, PE, N	1x 230 V, PE, N or 1x115 V, PE, N
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Rated power	0.34–1.54 kVA	0.4–1.6 kVA	0.5–1.7 kVA
Rated current (max.)	4.5–6.5 A	1.8–6.8 A	2.2–7.2 A
Pre-fuse	16 A	16 A	16 A
Diameter of the suction port	2× DN55 + 1× DN80 + 1× DN110	2× DN55 + 1× DN80 + 1× DN110	2× DN55 + 1× DN80 + 1× DN110
		4x DN40	4x DN40
		4x DN55	4x DN55
		2× DN40 + 2× DN80	2× DN40 + 2× DN80
Diameter of the output air port	1x DN80 or diffused	1x DN80 or diffused	1x DN110 or diffused
Pressure difference (max.)	4300 Pa	3700 Pa	3100 Pa
Compressed air quality	factory, oil-free, dry	factory, oil-free, dry	factory, oil-free, dry
Operating air pressure input	max. 8 bar	max. 8 bar	max. 8 bar
Ambient temperature (min. – max.)	5 - 40 °C	5 - 40 °C	5 - 40 °C
Weight	75–80 kg	77–95 kg	78–96 kg
Degree of protection for control cabinet	IP54	IP54	IP54

ESUC 230/390/650 CR

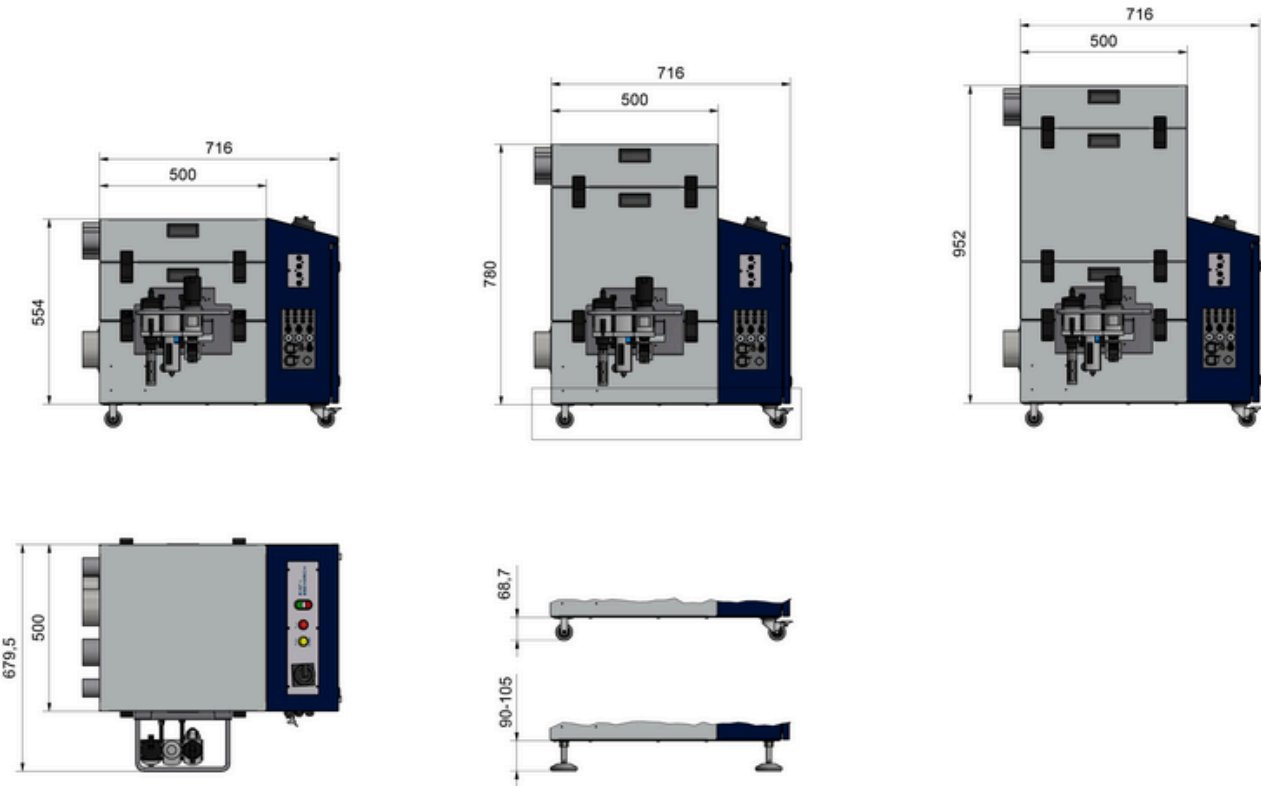
	ESUC 390 CR	ESUC 650 CR
Version	Cleanroom optimised	Cleanroom optimised
Volume flow (max.)	390 m³/h	645 m³/h
Number of possible filter stages	1, 2, police filter	1, 2, police filter
Operating voltage	1x 230 V, PE, N or 1x115 V, PE, N	1x 230 V, PE, N or 1x115 V, PE, N
Frequency	50/60 Hz	50/60 Hz
Rated power	0.4–1.6 kVA	0.5–1.7 kVA
Rated current (max.)	1.8–6.8 A	2.2–7.2 A
Pre-fuse	16 A	16 A
Diameter of the suction port	DN80	DN80
	DN110	DN110
Diameter of the output air port	1x DN80 or diffused via police filter box	1x DN110 or diffused via police filter box
	or DN150 via police filter box	or DN150 via police filter box
Pressure difference (max.)	3700 Pa	3100 Pa
Compressed air quality	factory, oil-free, dry	factory, oil-free, dry
Operating air pressure input	max. 8 bar	max. 8 bar
Ambient temperature (min. – max.)	5 - 40 °C	5 - 40 °C
Weight	70–99 kg	71–100 kg
Degree of protection for control cabinet	IP54	IP54

Notes:

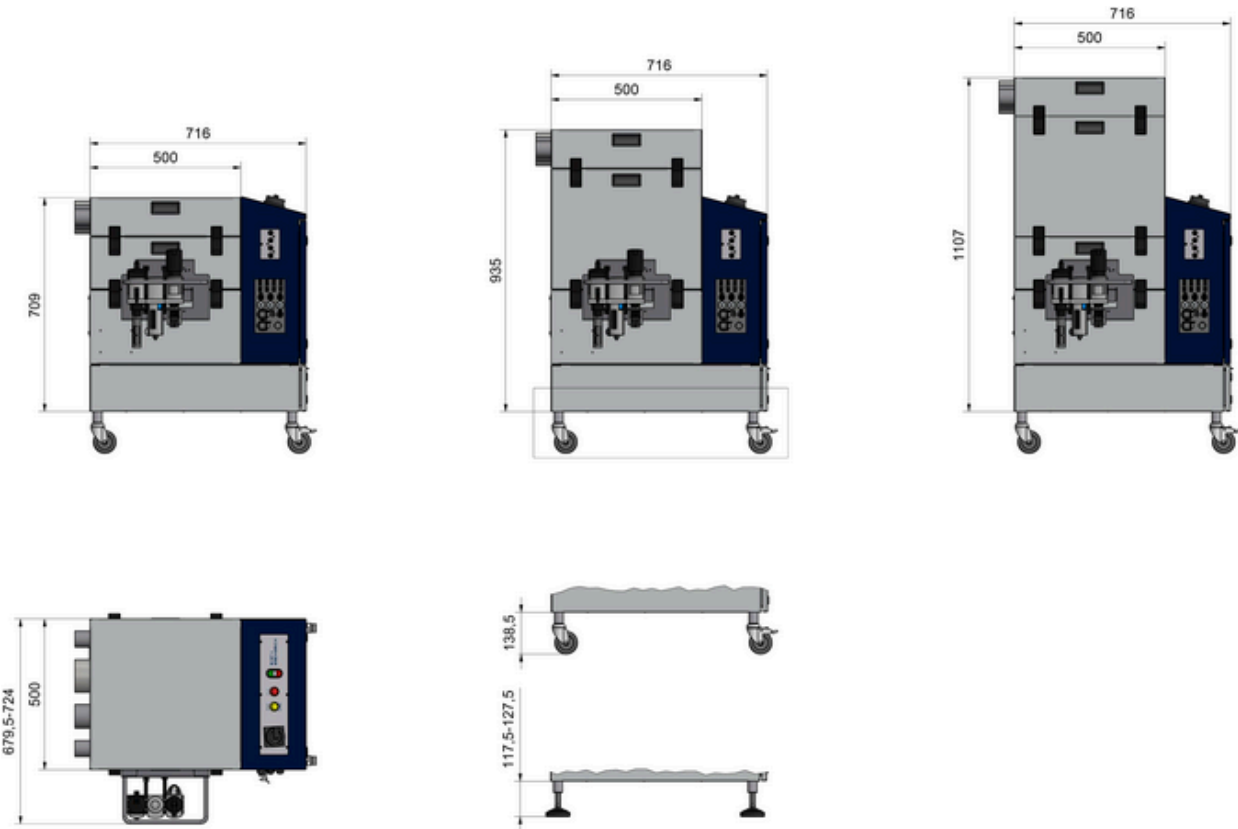
- The maximum volume flow rate and maximum pressure difference are the fan characteristic values in suction mode, free-blowing.
- The rated power and rated current as well as the weight vary depending on the equipment.
- The stated weight refers to a variant without added options.

Technical Drawings

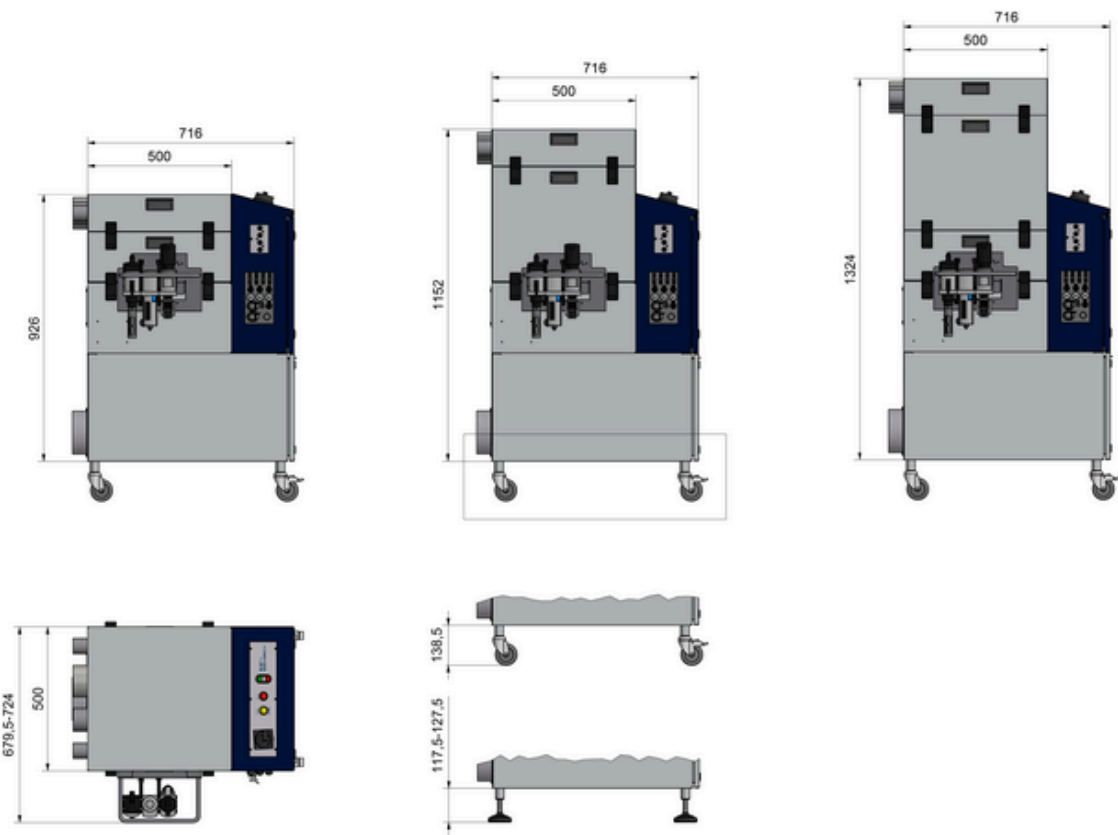
ESUC 230/390/650: Standard



ESUC 230/390/650: with police filter box, diffused



ESUC 230/390/650: with police filter box and output air



Options

- Compressed Air Preparation and Control
- HV power supply and monitoring for AC ionisation systems
- Power supply and monitoring for DC or ESD ionisation systems
- Control of switched cleaning
- Control and monitoring of cleaning systems with movement
- Control of ROTORCLEAN cleaning systems
- Settings of the suction strength (rev speed setting) of the fan
- Extended monitoring of system parameters (operating pressure, volume flow, rev speed of rotating nozzles)
- Connection to external systems via Profibus/Profinet
- Cleanroom design for contamination-free filter changes
- Output air via output air port or diffused downwards into the work environment
- Additions for cleanroom design variant: Output air is diffused downwards via a police filter into the work environment or through an output air port via police filter
- Touch panel for setting system parameters and individual error messages on the suction device directly

Related Products



Accessories filter



Accessories for output
air components



Accessories for suction
hoses



ALM

Volume flow monitoring in
the suction line



ALBY

Bypass to divert airflow for
reduced turbulence



AL2V

2-way distributor for
controlling the alternating
operation of two cleaning
devices on one suction
device