

MUB+FILTER Insulated duct fans

Efficient fans for supply or exhaust ventilation systems with built in panel filter

- With built-in panel-filter, Coarse 65% (G4)
- Acoustic and thermal insulation 30 mm
- Indoor and outdoor installation
- Modular system of accessories
- Available with AC and EC motors for 50 and 60Hz

[Find more details in our online catalogue](#)



Flexibility

Designed as a process ventilation unit for removing process loads, as heat loads, dusts, etc... Used as an extract air unit for extracting mode or as a supply air unit as displacement mode. Installation in any mounting position is possible. Construction of casing and thermal insulation permits **outdoor** and **indoor** use.

Modularity

Thanks to variety types of **accessories** as flexible connections, dampers, roof, base frame, etc. it is easy to design any ventilation system according to your demand.

Performance

High performance impeller together with **high efficient** motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Noise

The **casing** of **MUB + FILTER** models have perfect **acoustic** and **thermal** insulation capacity.

Certifications



Green Ventilation

MUB+FILTER 042 400EC

with integrated filter Coarse 65% (G4)

- With built-in panel-filter, Coarse 65% (G4)
- Revision-panel at side
- 100% speed-controllable
- Integrated electronic motor protection
- Low sound level
- Installation in any mounting position
- Maintenance-free and reliable

- Energy-saving

The Filter MUB-EC fans are driven by EC-external rotor motors. These are energy saving motors with high efficiency. The power electronics are integrated in the motor housing. All models have one potential-free terminal for error message. All motors are suitable to be used for 50/60Hz. The input voltage for single phase units can vary between 200 and 277V, for three phase units between 380 and 480V. Speed control by a 0-10V signal. From size 450 the motor has an output voltage of 10V and 20V for an external potentiometer.

All models are equipped with impellers with backward curved blades, manufactured from aluminium. The casing consists of an aluminium frame with fibreglass reinforced plastic corners of PA6; highly shock-resistant. The double skin panels are manufactured from galvanized steel with 30 mm mineralwool insulation. To avoid condensation the profile is provided with a separate chamber to fix the screws. The panels are removable, any outlet side can be chosen, allowing flexible ventilation solutions.

The unit is equipped with a panel-filter, filter-class Coarse 65% (G4) and a revision-panel for replacement of the filter. The maximal airvolume is limited by the filter at maximum of 1200 l/s.

Designed as a process ventilation unit for removing process loads, as heat loads, dusts, etc... Used as an extract-air-unit for extracting mode or as a supply-air-unit as displacement mode.

Installation in any mounting position is possible.

Features

Construction

The casing consists of a corrosion-resistant aluminium frame with fibreglass reinforced plastic corners of PA6; highly shock-resistant. Panels made of double skin galvanized sheet steel with 30 mm acoustic and thermal rockwool insulation.

Impeller

The MUB + FILTER fans use radial impeller with backward curved blades. These are from high-performance composite material or aluminum, dynamically balanced and paired with corresponding external rotor motors or IEC motor with efficiency IE3.

Motor

Depending on the type, MUB + FILTER fans are equipped with AC or EC external rotor motors. Motors are suitable for 50Hz and 60Hz.

Motor protection

Depending on the type, AC motors have an integrated thermal protection with manual (electrical) reset, prewired integral thermocontact TK or thermistor PTC with leads to a motor protection device. Fans with EC motors have an integrated electronic thermal protection including locked-rotor protection and soft-start.

Control

EC motors with built-in potentiometer to adjust working point can be also controlled by external signal 0-10V. EC motors, depending on the type are also equipped with ModBus communication or alarm signal. AC motors can be controlled by 5-step, stepless speed regulator, D/Y switch or frequency converter.

Installation

The MUB + FILTER fans can be installed in any position indoor and together with weather protection roof also outdoor. With mounted base frame the MUB + FILTER fans can stand on floor. For preventing vibration to the duct it is recommended to use flexible connections.

Filter

MUB + Filter comes with a built-in Coarse 65% (G4) panel filter.

Technical parameters

Unit		
Frequency	50; 60	Hz
Voltage (nominal)	230	V
Phases	1~	
Input current	2.37	A
Input power	538	W
Speed regulation	Stepless; None	
Air flow	max 4,309	m³/h
Product type	Supply unit	

Supply fan		
Voltage	230	V
Phases	1~	
Current	2.2	A
Input power (P1), supply fan	500	W
Impeller speed	1,523	rpm
Max. Temperature of transported air, when speed controlled	50	°C
Insulation class	F	
Enclosure class, motor	IP55	

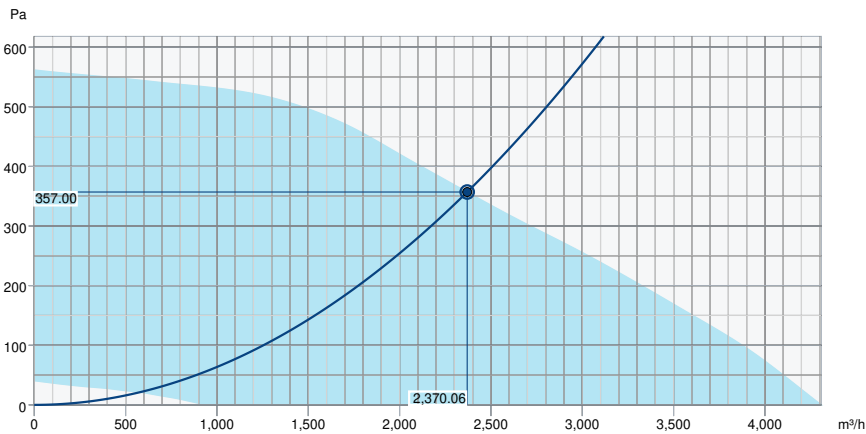
Filter		
Filter class	Coarse 65%	

Supply air filter		
Material in filter	Panel-Filter	

Dimensions and weights		
Weight	54.4	kg

Performance

Performance curve



Hydraulic data

Required air flow	2,370 m³/h
Required static pressure	357 Pa
Working air flow	2,370 m³/h
Working static pressure	357 Pa
Air density	1.204 kg/m³
Power	535.6 W
Fan control - RPM	1,509 rpm
Current	2.36 A
SFP	0.814 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	40	58	63	66	71	67	62	55	74
Outlet	dB(A)	40	57	63	66	70	66	62	54	73
Surrounding	dB(A)	19	39	39	36	41	40	30	20	47
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	40
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	26

Acoustic

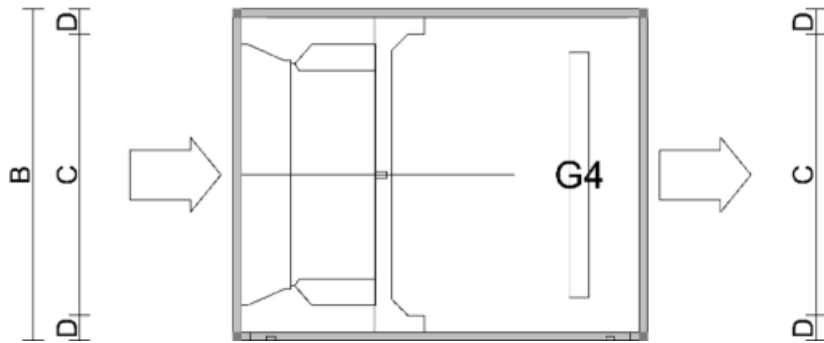
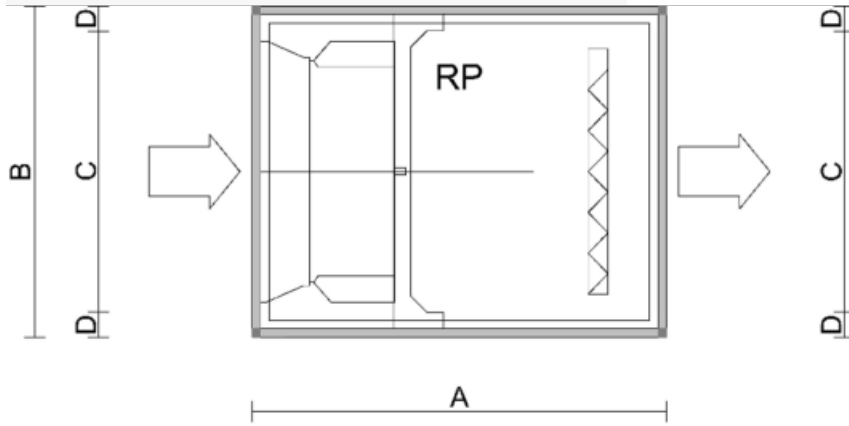
The Level of Casing-Breakout-Noise depends on the quality of shielding the acoustic inlet and outlet noises.

The shown Level of Casing-Breakout-Noise will be reached only in case of 100 % shielding the acoustic inlet and outlet noise and a correspondingly low environment noise.

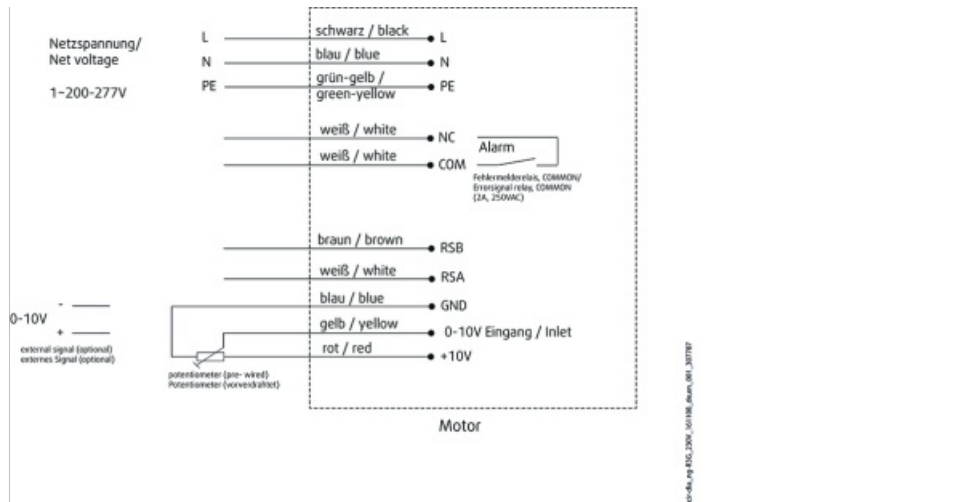
Dimension

A	820	mm	
B	690	mm	
C	548	mm	Connection dimension duct
D	71	mm	

G4 = Coarse 65%



Wiring



Accessories

- CXE/AVC Modbus (37256)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- SD-MUB Vibration pad set (37324)
- UGS 042/500 adapter flex. (4357)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CCMI outlet 042 d400 KIT 30mm (239093)
- GRU 042 MUB+Filter base frame (278452)
- Room hygrostat HR-S (286251)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Vent control board (3115)
- FGV 042/586-586 flex. conn. (4605)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC-2, 0-10V (449084)
- WSG 042 MUB complete (31485)
- Presence detector/IR24-P (6995)
- CCM inlet MUB042 d400 (311780)
- Filter Coarse65%-G4 545x625x47 (156882)
- KKD 042-damper-section (333317)
- WSD f. MUB+FILTER 042 complete (278544)

Documents

- Installation, Operation and Maintenance instruction_001
- EU Declaration of Conformity_en_001.pdf
- COMMISSIONING REPORT_FANS_160628_EN_001.PDF