

MUB 042 500EC Multibox

Centrifugal box fan, insulated, flexible outlet

Item number: [235427](#)

Variant: 400V 3~ 50/60Hz - 90° air flow



- 100 % speed controllable
- Integrated electronic motor protection
- Low noise level
- Flexible airflow direction due to removable panels
- Installation in any mounting position
- Safe and maintenance free operation
- Energy-saving
- Potentiometer included for ease of commissioning
- RS-485 interfaces for networking via MODBUS RTU from size 355
- AMCA-certified performance curves

The 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. From size 355 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.

The fans are delivered with a pre-wired potentiometer (0-10 V) that allows you to easily find the desired working point.

All models are equipped with impellers with backward curved blades, manufactured from polypropylen PP. The casing consists of an aluminium frame with fibreglass reinforced plastic corners of PA6; highly shock-resistant.

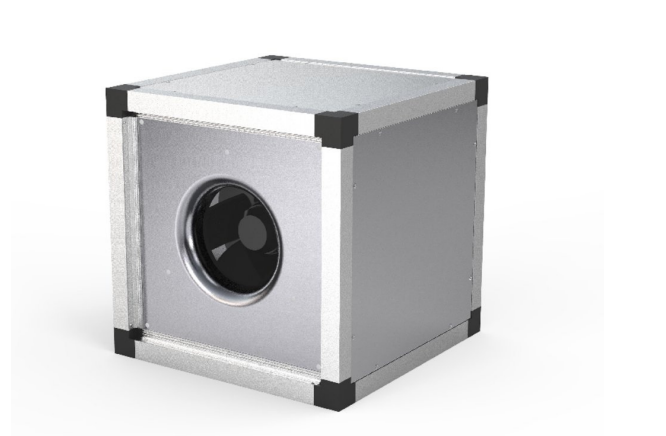
The double skin panels are manufactured from galvanized steel with 30 mm mineralwool insulation. To avoid condensation the profile is provided with a separate chamber to fix the screws.

The panels are removable, any outlet side can be chosen, allowing flexible ventilation solutions.

The Multibox can also be used as extract- or supply air unit in air handling units. Installation in any mounting position is possible.

MUB with additional modules (filters, heaters etc.) are available as air handling units "K025, K042 or K062" on request!

The MUB-EC series in sizes 315 to 710 is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Technical parameters

Nominal data		
Voltage (nominal)	400	V
Frequency	50; 60	Hz
Phase(s)	3~	
Input power	1,338	W
Input current	2.05	A
Impeller speed	1,388	r.p.m.
Air flow	max ; 8,255;	m³/h
Temperature of transported air	max 55	°C
Max temperature of transported air, when speed controlled	55	°C
Protection/Classification		
Enclosure class, motor	IP55	
Insulation class	F	

Data according to ErP

ErP ready

ErP 2016; ErP 2018

Dimensions and weights

Weight

54.5 kg

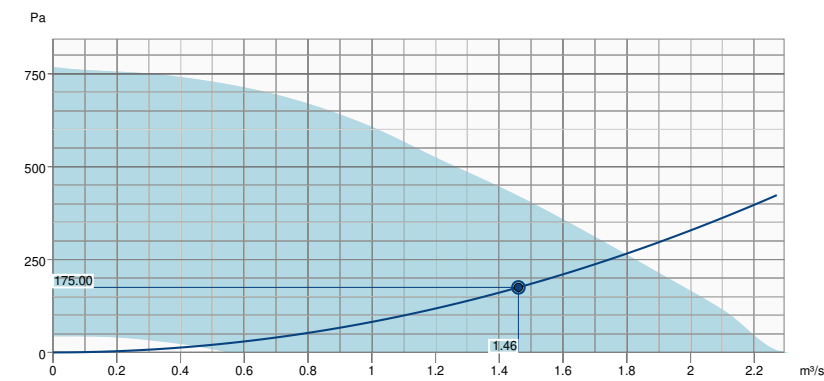
Others

Motor type

EC

Performance

Performance curve

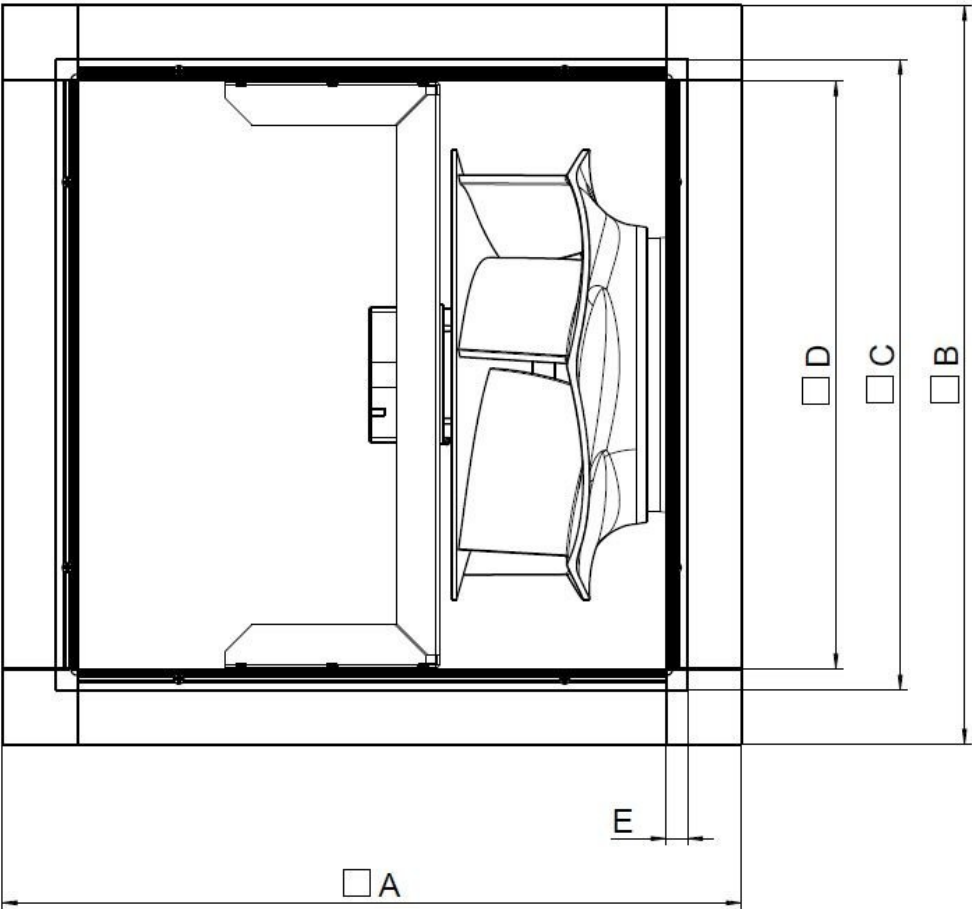


Hydraulic data	
Required air flow	1.46 m³/s
Required static pressure	175 Pa
Working air flow	1.46 m³/s
Working static pressure	175 Pa
Air density	1.204 kg/m³
Power	725.8 W
Fan control - RPM	1090 rpm
Current	1.14 A
SFP	0.497 kW/m³/s
Control voltage	7.9 V
Supply voltage	400 V

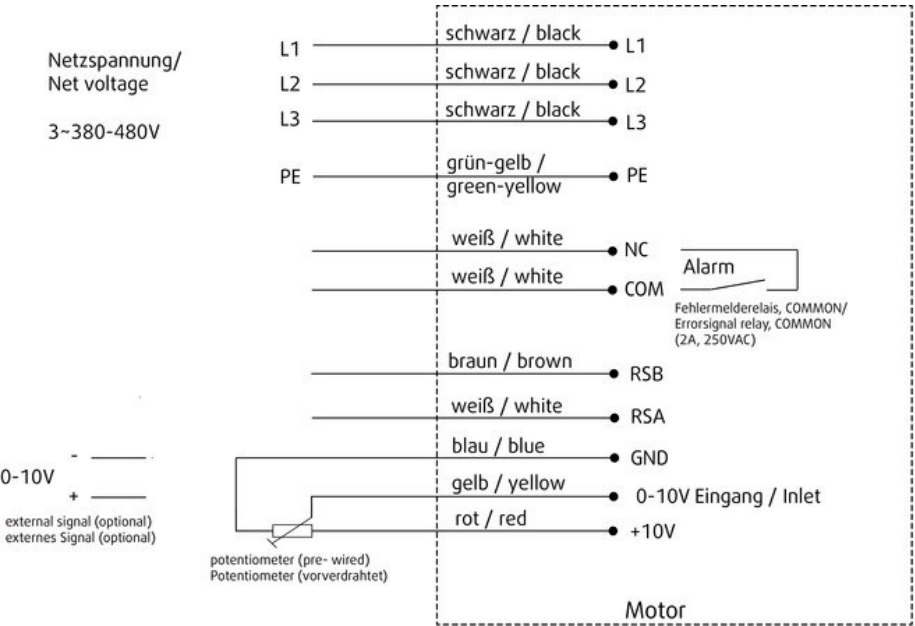
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	49	67	66	71	71	68	65	58	77
Outlet	dB(A)	51	69	67	72	73	70	66	59	78
Surrounding	dB(A)	29	48	41	41	42	42	34	23	51
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	44
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	30

Dimension

MUB 042	□A	□B	□C	□D	E
400/450/500	690	690	590	548	21



Wiring



wiring_mg-71g-400V_161108_drahten_001_315311

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.

Product		
Trade name	Systemair	
Product name	MUB 042 500EC	
Ecodesign		
ErP compliance	2018	
Unit category	NRVU	
Drive	Integrated VSD	
Unit type	UVU	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv nom	1.15	m³/s
P nom	1.31	kW
Ps nom	546	Pa
Fan efficiency	47.8	%
External Leakage	5	%
Sound power level LWA	81	dB(A)

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)
- MTV-1/010 Controller 0..10V+ (30650)
- SD-MUB Vibration pad set (37324)
- TUNE-AHU-DE007-042-588x588-M0 (79881)
- WSD 042 (730x730x70) complete (31481)
- CO2RT-R-D Transmitter (6993)
- Presence detector/IR24-P (6995)
- TFR Temp. Sensor (5158)
- CCM inlet MUB042 d500 (311781)
- CCM outlet MUB042 d500 (311683)
- CCMI outlet 042 d500 KIT 30mm (239094)
- KKC-DX-L 042 cooling section (277261)
- KKC-W-L 042 cooling section (277269)
- KKF 30 042-filter-section (93311)
- KKS 042 silencer-section (276851)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Vent control board (3115)
- FGV 042/586-586 flex. conn. (4605)
- MTP 20, on/off, 3-step (310220)
- S-5EC/FRQ (76738)
- TCA 150D Temp. contr. module (32186)
- UGS 042/500 adapter flex. (4357)
- WSG 042 MUB complete (31485)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CCM inlet MUB042 d400 (311780)
- CCM outlet MUB042 d400 (311682)
- CCMI outlet 042 d400 KIT 30mm (239093)
- GRU 042 base frame h= 100mm (276661)
- KKC-DX-R 042 cooling section (277265)
- KKC-W-R 042 cooling section (277273)
- KKH-HW 042 heater-section (93339)

Documents

- imo_mub_all_010_en_248056
- MUB_EC_PID7911_LICENSEAPPENDIX.PDF
- EU DECLARATION OF CONFORMITY_MUB_EN_[002].PDF
- COMMISSIONING REPORT_FANS_160628_EN_001.PDF