

# MUB 042 500D4-A2 IE2

Item no. 33542

Version: 4-pol 50Hz 90° airflow

Document type: **Product card**

Document date: **2014-02-14**

Generated by: **Systemair Online Catalogue**

## Description

- High efficient motor IE2
- Speed-controllable via frequency converter
- Integral cold conductor (PTC)
- Low sound level
- Flexible airflow direction due to removable panels
- Installation in any mounting position
- Easy to maintain and reliable

The MUB fans size 500D4-A2 are equipped with high efficient IE2 motors. The MUB fans have an impeller with backward curved blades, manufactured from aluminum. Speed control is only possible by using a frequency converter. Motor protection is done by cold conductors (PTC), which have to be connected to an external motor protection device. The casing consists of an aluminum frame with fiberglass reinforced plastic corners of PA6; highly shock-resistant. The double skin panels are manufactured from galvanized steel with 20 mm mineral wool insulation. To avoid condensation the profile is provided with a separate chamber to fix screws. The Multibox fans are delivered for straight through airflow but can easily be rebuilt due to removable panels. This allows flexible ventilation solutions. The MUB 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!

**Please note: Speed control by voltage, i.e. voltage transformers, is not possible!**



In accordance with Commission Regulation (EC) no 640/2009 of the European Parliament - eco-design requirements for electric motors - the new international efficiency classes are binding as of 16 June 2011. These guidelines defined by CEMEP and EPACT are regarded as international standard for energy-saving high-efficiency motors for frequencies of 50 or 60 Hz and make the use of IE2 motors mandatory.

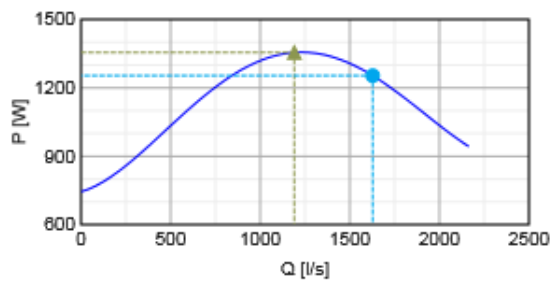
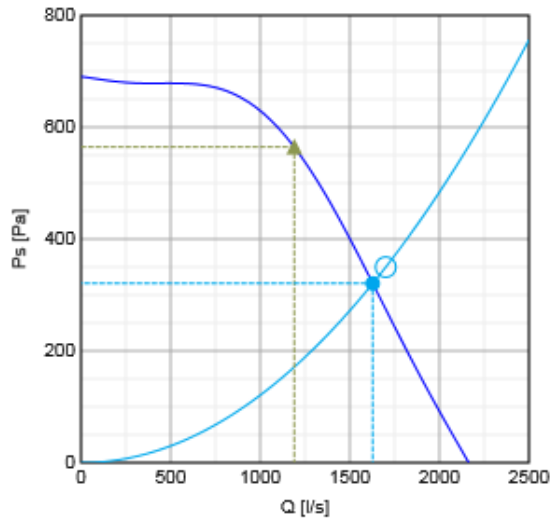
With this new and more efficient technology we offer our customers many advantages such as environmentally friendly operation, reduced energy consumption and hence lower emissions. IE2 motors have a higher efficiency even in part load operation and allow optimum adjustment to the operating point. In addition, the IE2 motors generate less noise and develop less heat, which has a positive influence on the efficiency and the cooling requirement of the motor. Please note: IE2 motors cannot be speed controlled by voltage, i.e. voltage transformers.

## Technical parameters

Voltage	400	V
Connection	Y	
Frequency	50	Hz
Phase	3	~
Power (P1)	1356	W
Current	3.39	A
Starting current	23	A
Max. airflow	2163	l/s
Fan impeller speed	1400	r.p.m.
Max. temperature of transported air	40	°C
Sound pressure level at 3 m	55	dB(A)
Weight	65.5	kg
Insulation class, motor	F	
Enclosure class, motor	55	IP

## Performance

### Diagrams



#### Hydraulic data

	Required point		Working point						
	Q [l/s]	Ps [Pa]	Q [l/s]	Ps [Pa]	P [W]	n [r.p.m.]	I [A]	SFP [kW/m³/s]	U [V]
Max efficiency			▲ 1190	▲ 564	▲ 1355	1441	2.87	1.14	400
User	○ 1700	○ 350	● 1628	● 321	● 1253	1446	2.77	0.77	400

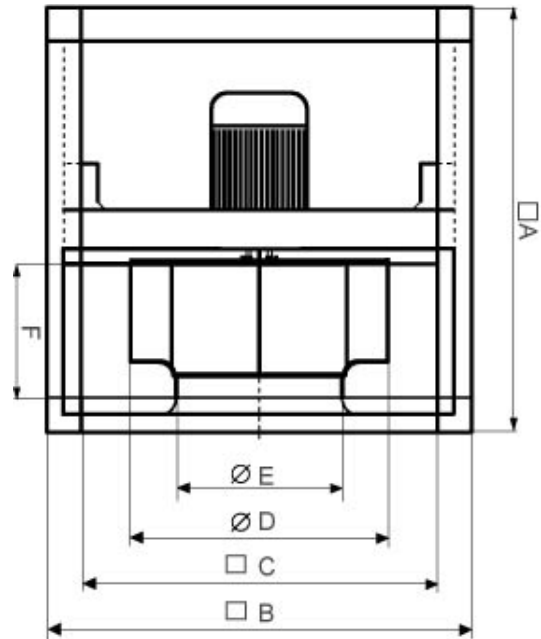
#### Acoustics

500D4	Hz	Tot	63	125	250	500	1k	2k	4k	8k
LwA Inlet	dB(A)	77	64	66	70	72	71	68	63	56
LwA Outlet	dB(A)	79	66	68	72	74	73	70	65	58
LwA Surrounding	dB(A)	62	49	51	55	57	56	53	48	41

Measuring point:  $q_v = 1,19 \text{ m}^3/\text{s}$ ,  $P_s = 564 \text{ Pa}$

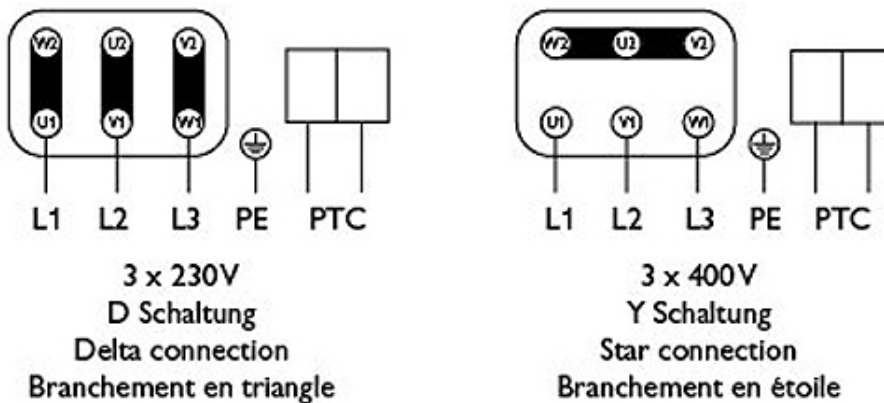
#### Dimensions

	□A	□B	□C	∅D	∅E	F
MUB042 400	670	670	590	404	253	300
MUB042 450	670	670	590	454	286	300
MUB042 500	670	670	590	504	321	300
MUB062 560	800	800	720	570	361	321
MUB062 630	800	800	720	635	407	321
MUB100 630	1000	1000	920	635	389	378



## Wiring

### Dreiphasenmotor mit Kaltleiter Three phase motor with cold conductor Moteur triphasé avec résistance PTC



**Drehrichtungsänderung durch Vertauschen von 2 Phasen**  
**Changing of direction of rotation by interchanging of two phases**  
**Changement de sens de rotation par inversion de deux phases**

**Typenschild beachten! See label! Voir plaquette!**

## Accessories

### Electric accessories

- FRQ-4A V2 (36227)
- FRQ5-4A+LED V2 (36229)
- FRQ5S-4A+LED V2 (36233)
- FRQS-4A V2 (36231)
- FXDM5AM Frequency inv. IP54 (31387)
- REV-5POL/05 incl. EMC KIT (34549)
- REV-5POL/05 ON/OFF (33979)
- U-EK230E EX Motorprotec. (30199)

### Accessories

- CCM inlet MUB042 d400 (311780)
- CCM inlet MUB042 d500 (311781)
- CCM outlet MUB042 d400 (311682)
- CCM outlet MUB042 d500 (311683)

CCMI outlet MUB042 d400 insul. (311562)  
CCMI outlet MUB042 d500 insul. (311565)  
FGV 042/586-586 flex. conn. (4605)  
SDM Service Door MUB 042 comp. (32572)  
SRKG 042/588-588 shutter valve (4868)  
UGS 042/500 adapter flex. (4357)  
WSD 042 (730x730) (300689)  
WSG 042 weather protec. guard (4362)

## Documentation



[\(EG-Konformitaetserklaerung MUB\\_DE-EN.pdf, 472kB\)](#)



[\(IMO\\_MUB\\_2013-10\\_311722.pdf, 3MB\)](#)



[\(Operating and maintenance instructions.pdf, 1MB\)](#)