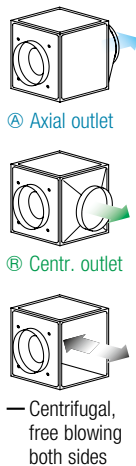


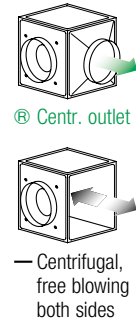
GB EC 500



Any installation position and location due to five possible outlet directions.



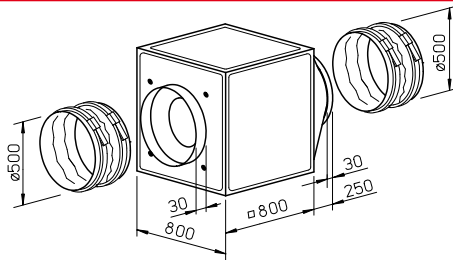
GB EC 500 T120



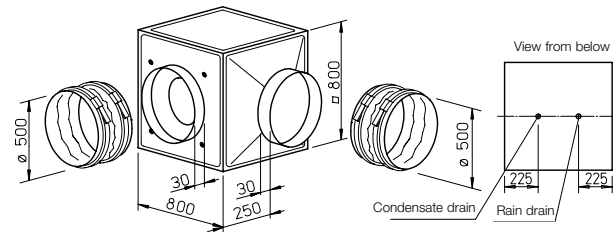
For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.



Dimensions GB EC 500



Dimensions GB EC 500 T120



Special features of the GB EC T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C, e.g. as an extract air fan in commercial kitchens and many process technology applications.
- Motor located outside of air flow.
- Thermally insulated partition between motor and impeller, made of galvanised steel sheet, with 20 mm thick, non-flammable mineral wool.
- Complete motor-impeller unit can be removed without dismantling the system components.
- Inspection cover with handle, easily removable for cleaning and maintenance.
- Condensate tray with condensate drain as standard. Hole provided for rain drain (accessories) for outdoor installation.

Installation

Installation position with condensate drain below. Flexible installation due to three possible centrifugal outlet directions of the outlet fitting. Protected outdoor installation possible with weather protection cover and grille (accessories).

Electrical connection

Standard terminal box (IP54) directly to the commutation electronics.

Special features of the GB EC series

Any installation position and flexible installation due to five possible outlet directions of the outlet fitting. The wall bracket (accessories) must be used for wall installation. Protected outdoor installation possible with weather protection cover and grille (accessories).

Electrical connection

Standard terminal box (IP54) mounted to external cable.

Description for both series

Casing

Self-supporting frame construction made of aluminium hollow profiles. Double-walled, 20 mm thick side panels made of galvanised steel sheet, sound and heat insulated by non-flammable mineral wool lining. Nozzle on inlet side for optimal inflow as well as connectors and flexible connecting sleeve (for the respective max. permissible air flow temperature) for duct connection. Moulded part (square to round) on outlet side for low-loss outflow and flexible connecting sleeve to prevent structure-borne noise transmission. Simple positioning with standard crane hook.

Impeller

Free-running high performance centrifugal impeller made of aluminium, directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 2.5.

Drive

Energy-saving, speed-controllable EC external rotor motor in protection category IP54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection

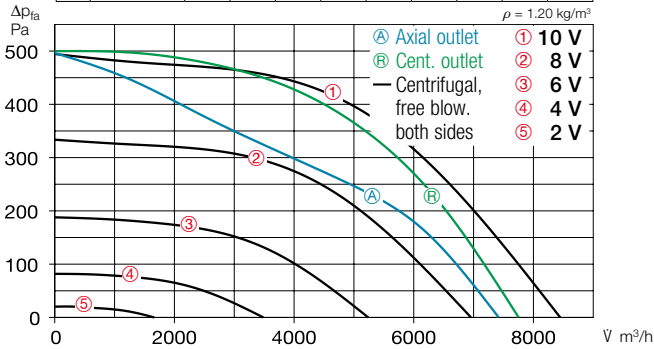
Integrated electronic temperature monitoring system for EC motor and electronics.

Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temp.	Weight net aprx.	Universal control system		Speed potentiometer			
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44																
GBD EC 500 A	05818	500	8450	1200	43	0.95	1.60	1415	50	80.5	EUR EC ^{1) 2)}	01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737
GBD EC 500 B	05813	500	10680	1500	46	2.00	3.14	1415	60	82.0	EUR EC ^{1) 2)}	01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737
T120 Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP54																
GBD EC 500 A T120	06477	500	9850	1400	51	1.45	2.4	1214.1	120	96.0	EUR EC ^{1) 2)}	01347	PU 10 ¹⁾	01734	PA 10 ¹⁾	01735

1) Multiple EC fans can normally be connected. 2) Alternative electronic diff. pressure/temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267).

Performance curves GBD EC 500 A

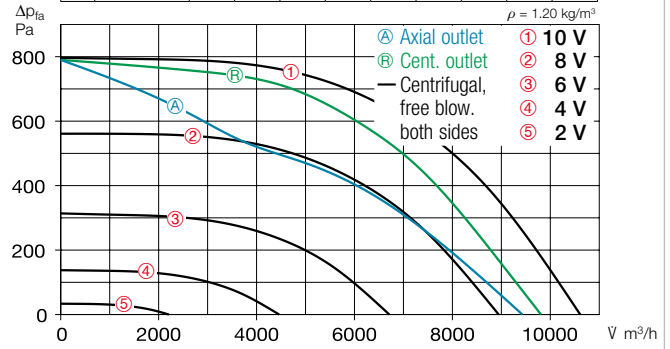
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k	
L _{WA} Radiation		dB(A)	63	57	60	55	54	45	39	31
L _{WA} Inlet side		dB(A)	75	57	66	66	69	68	66	59
L _{WA} Outlet side		dB(A)	78	61	66	70	74	72	68	60



Free blowing						
Voltage V	n min ⁻¹	V m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1200	8450	620	1.14	43	0.27
8	990	6960	350	0.76	39	0.18
6	740	5240	160	0.43	33	0.11
4	490	3490	60	0.23	25	0.06

Performance curves GBD EC 500 B

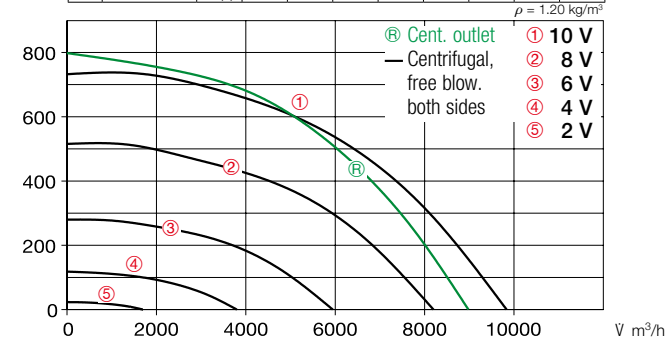
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k	
L _{WA} Radiation		dB(A)	66	56	65	58	57	53	50	43
L _{WA} Inlet side		dB(A)	79	58	70	72	74	73	68	61
L _{WA} Outlet side		dB(A)	82	62	73	76	77	75	71	64



Free blowing						
Voltage V	n min ⁻¹	V m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1500	10680	1270	2.10	46	0.43
8	1260	9000	770	1.30	42	0.31
6	940	6740	350	0.77	36	0.19
4	630	4500	120	0.41	28	0.10

Performance curves GBD EC 500 T120

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k	
L _{WA} Radiation		dB(A)	68	42	49	66	45	44	38	30
L _{WA} Inlet side		dB(A)	80	58	67	70	71	72	77	58
L _{WA} Outlet side		dB(A)	83	67	75	77	78	76	70	61



Free blowing						
Voltage V	n min ⁻¹	V m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1400	9850	856	1.50	51	0.31
8	1170	8020	520	1.10	47	0.23
6	860	5930	224	0.60	40	0.14
4	550	3800	76	0.40	31	0.07

■ Power control

Continuously variable speed control with internal (delivery) or external potentiometer or continuously variable speed regulation with universal control system (see table). Performance levels are shown in the performance curve as an example.

■ Noise

The total level and range are specified above the performance diagram for:

- Case-radiated sound power
- Inlet side sound power
- Outlet side sound power

The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and the table below the performance curve.

■ Accessories for both series

Vibration dampers for indoor installation. 1 set = 4 pcs.
SDD-U Ref. no. 05627

Wall bracket for wall installation.
GB-WK 500 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG EC 500 Ref. no. 05640

Weather protection cover for protected outdoor installation.
GB-WSD EC 500 Ref. no. 05749

■ Special accessories

for GB EC series
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW EC 500 Ref. no. 05645 (a condensate tray with condensate drain is included in delivery for GB EC T120).

for GB EC T120 series
Rain drain for outdoor installation (Hole in casing base already provided).
GB-RA Ref. no. 09418

■ References	Page
Universal control system, electronic controllers, Speed potentiometer	613 ff.