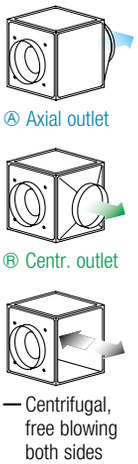
GB EC 450



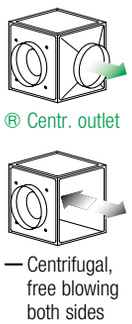


Any installation position and location due to five possible outlet directions.

EC

GB EC 450 T120

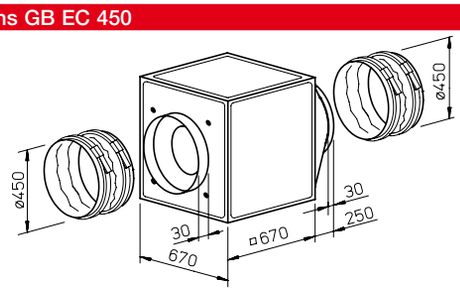




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

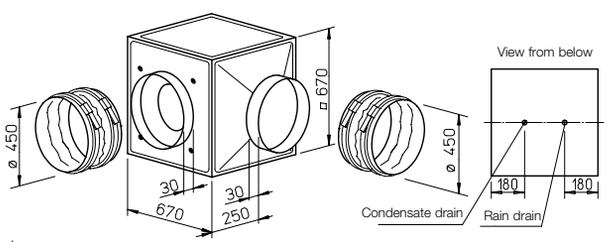
T120 EC

Dimensions GB EC 450



Dim. in mm

Dimensions GB EC 450 T120



Dim. in mm

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**
  For GBW EC, standard terminal box (IP54) mounted to external cable for GBD EC, standard terminal box mounted directly on the motor.

Description for both series

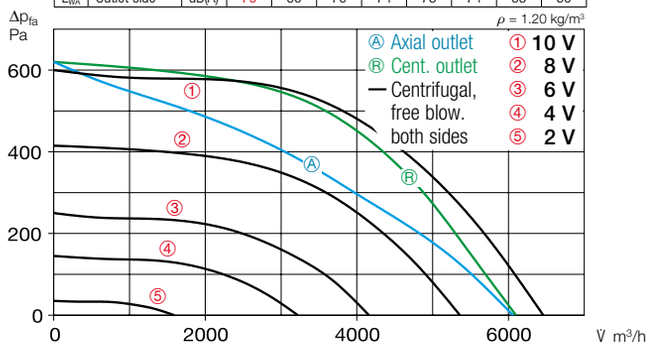
- **Casing**
  Self-supporting frame construction made of aluminium hollow profiles. Double-walled, 20 mm thick side panels made of galvanised steel sheet, sound and heat insulated by non-flammable mineral wool lining.
  Nozzle on inlet side for optimal inflow as well as connectors and flexible connecting 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.

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 Flush-mounted		Speed potentiometer Surface-mounted	
		mm	V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP44																
GBW EC 450	05811	450	6460	1450	38	1.00	4.5	973	50	52.0	**EUR EC**[1) 2)]	01347	**PU 24**[1)]	01736	**PA 24**[1)]	01737
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44																
GBD EC 450	05812	450	7450	1500	39	1.10	1.9	1415	55	52.0	**EUR EC**[1) 2)]	01347	**PU 24**[1)]	01736	**PA 24**[1)]	01737
T120 **Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP54**																
GBW EC 450 T120	06475	450	6250	1230	45	0.65	2.8	1223.1	120	66.0	**EUR EC**[1) 2)]	01347	**PU 10**[1)]	01734	**PA 10**[1)]	01735
T120 **Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP54**																
GBD EC 450 T120	06476	450	7100	1400	48	0.95	1.7	1214.1	120	66.0	**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 GBW EC 450

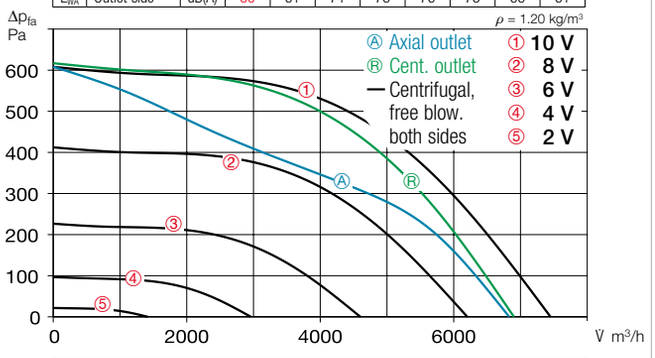
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	58	48	56	48	47	46	42	31
L_{WA}	Inlet side	dB(A)	75	54	66	68	70	69	64	57
L_{WA}	Outlet side	dB(A)	79	60	70	74	75	74	65	60



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1450	6460	614	2.72	38	0.34
8	1200	5360	363	1.61	35	0.24
6	930	4160	185	0.82	31	0.16
4	710	3220	92	0.41	26	0.10

Performance curves GBD EC 450

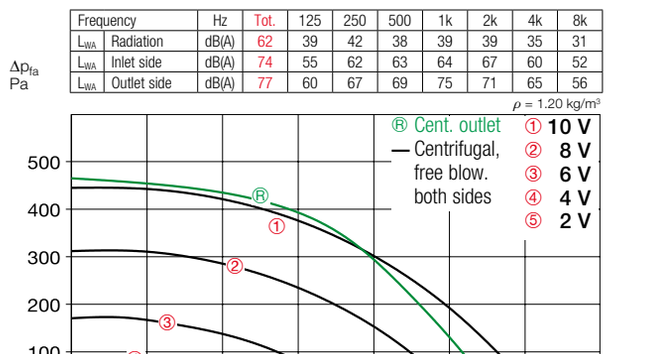
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	59	49	57	49	48	47	43	32
L_{WA}	Inlet side	dB(A)	76	55	67	69	71	70	65	58
L_{WA}	Outlet side	dB(A)	80	61	71	75	76	75	66	61



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	7450	700	1.30	39	0.34
8	1240	6200	400	0.90	36	0.23
6	920	4600	170	0.50	30	0.13
4	600	2960	60	0.24	21	0.07

Performance curves GBW EC 450 T120

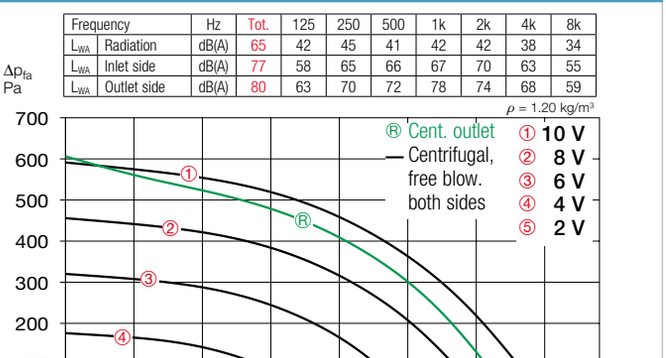
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	62	39	42	38	39	39	35	31
L_{WA}	Inlet side	dB(A)	74	55	62	63	64	67	60	52
L_{WA}	Outlet side	dB(A)	77	60	67	69	75	71	65	56



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1230	6250	380	1.67	45	0.22
8	1030	5210	230	1.04	41	0.16
6	760	3860	105	0.53	35	0.10
4	500	2480	40	0.32	25	0.05

Performance curves GBD EC 450 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	42	45	41	42	42	38	34
L_{WA}	Inlet side	dB(A)	77	58	65	66	67	70	63	55
L_{WA}	Outlet side	dB(A)	80	63	70	72	78	74	68	59



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1400	7100	560	1,70	48	0,28
8	1230	6210	380	0,72	41	0,22
6	1030	5200	230	0,53	35	0,16
4	760	3850	110	0,33	26	0,10

Drive
Energy-saving, speed-controllable EC external rotor motor in protection category IP54 with a high level of efficiency. Maintenance-free and ball bearing mounted.

Motor protection
Integrated electronic temperature monitoring system for EC motor and electronics.

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 450 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 450 Ref. no. 05639

Weather protection cover for protected outdoor installation.
GB-WSD 450 Ref. no. 05748

Special accessories

☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 450 Ref. no. 05644
(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	615 ff.