GigaBox boxventilatoren - catalogus 6.1

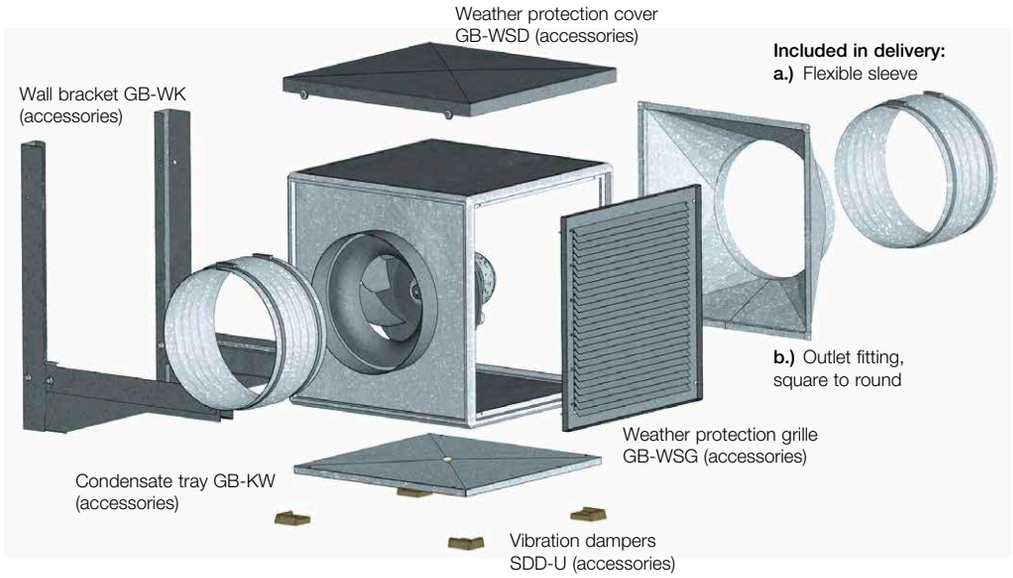
Helios
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100 years

Helios

GigaBox and accessories



Reference	Page
Planning information, acoustics	14 ff.
General techn. information, power control	19 ff.

Application
Multifunctional fan box for the transportation of medium to large volume flows against high resistances in ventilation systems of all kinds. The compact frame design and easy-to-install accessories allow variable and thus optimal adaptation to structural conditions by simply repositioning the casing panels.

☐ **GB T120 and GB EC T120**
The GigaBox T120 types are designed for the delivery of contaminated, humid and hot air up to max. 120 °C, e.g. as extract air fans in commercial kitchens and many process technology applications.
GigaBox T120 types with EC drive technology are optionally available for energy-saving applications and low operating costs.

☐ **GB EC**
GigaBox types with EC drive technology are optionally available for energy-saving applications and low operating costs.

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 duct connection. Moulded part (square to round) on outlet side for low-loss outflow and flexible connecting sleeve to prevent structure-borne noise transmission. The flexible connecting sleeves included in the scope of delivery correspond to a maximum permissible air flow temperature of +70 °C or +120 °C for types GB T120 and GB EC T120. Simple positioning with standard crane hook.

☐ The drive motor is located outside of the air flow for GB T120 and GB EC T120. The thermally insulated partition is also the support plate for the motor-impeller unit and it can be completely removed for inspection without dismantling the system components.

Power control

☐ **GB and GB T120**
All types (excluding GBD 630/4 T120, GBD 710/4 and GBD 710/4 T120) are speed-controllable using 5-step transformer controllers. The 3~ GB types can also be inexpensively operated at two speeds using a Y/Δ switch (accessory DS 2 or motor protection circuit breaker M 4).
Performance levels are shown in the performance diagram.
Control by means of frequency converter with integrated sine filter (FU-BS, accessories) is possible for 3~ types;
GBD 630/4 T120, GBD 710/4 and GBD 710/4 T120 can only be controlled by frequency converter FU-BS.

☐ **GB EC and GB EC T120**
All EC types have continuously variable speed control with internal (delivery) or external via speed potentiometer. Control is also possible via three level switch or continuously variable via universal control system or electronic differential pressure/temperature controller. Performance levels are shown on the performance curve as examples.

Positioning, installation

☐ **GB and GB EC**
Any installation position and flexible installation due to five possible outlet directions of the outlet fitting. Removable side panels allow inspection access from all sides.

☐ **GB T120 and GB EC T120**
Installation position with condensate drain below. Flexible installation due to three possible centrifugal outlet directions of the outlet fitting. Inspection cover with handle, easily removable for cleaning and maintenance. Simple positioning with crane hook as standard. The transmission of structure-borne noise to buildings is minimised by vibration dampers (type SDD-U, accessories). The transmission of vibrations to the duct system is prevented by the standard flexible connecting sleeves.

Impeller
Free-running high performance centrifugal impeller with backward curved plastic blades (nominal size 250 made of steel) on galvanised steel plate, directly driven. Series GB EC, GB from nominal size 500 and GB T120 and GB EC T120 with aluminium impellers. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3 or 2.5.

Drive

☐ **GB and GB T120**
IEC standard motor or maintenance-free external rotor motor in protection category IP54 or 44. Thermal overload protection through thermal contacts in the winding. Suitable for continuous operation S1. Insulation class F. The ball bearings have a sufficient lubricant supply for their service life.

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

Electrical connection

☐ **GB and GB T120**
Standard terminal box,
only for alternating currents.

Air flow direction
The air flow direction cannot be changed for centrifugal fans, but it can be set by the corresponding positioning. The throughflow can also be individually adapted to structural conditions by converting the outlet fitting and panels. The correct motor rotation direction and air flow direction is marked by arrows on the fan and must be checked during commissioning.

Incorrect direction of rotation
Operation in the incorrect direction of rotation overloads the AC motor and causes the thermal contacts to respond. Typical concomitant features include: Low flow rate, vibration and abnormal noise.

Air flow temperature
The maximum permissible air flow temperature is shown in the type table.

Ambient temperature
From –40 °C to +40 °C.

VDI 2052 “Ventilation equipment for kitchens – Planning, design, inspection” is applied for the planning of extract air systems in commercial kitchens. The following applies for extract air fans:

- Fans in extraction systems must be designed and installed so that they can be easily accessed, easily controlled and cleaned. It must be possible to deactivate them from the kitchen. The drive motors must be located outside of the extract air volume flow. Connected extraction hoods must separate solid and liquid components as far as possible. Flame propagation to downstream components must be prevented.

These specific requirements are remarkably fulfilled by the GigaBoxes GB T120 and GB EC T120. The freely accessible casing and double-walled side panels allow problem-free cleaning with degreasing agents and steam.

The guideline on fire protection requirements pertaining to ventilation systems (LüAR ventilation system guideline) of September 2006 has been largely introduced nationwide by law.
This resulted in additional requirements for extract air systems in commercial and comparable kitchens:

- Extract air ducts must also be made of non-combustible materials (building material class A1 or A2 pursuant to DIN 4102). From the point of exit from the kitchen, they must have fire resistance class L90 at least or be equipped with a damper with proof of use for this purpose.

- Kitchen extract air ducts must not be interconnected or connected to other ventilation ducts. The combination of room air with the cooking zone extraction within the kitchen as well as the connection of multiple kitchen extraction hoods to one shared extract air duct is permitted.

- Suitable grease filters or separating elements made of non-combustible materials must be connected to or directly behind the extraction systems (hoods or ventilation ceilings). It must be possible to easily install and remove these for cleaning.

- The extract air ducts must have smooth inner surfaces which are easy to clean. Profiled walls such as e.g. flexible ducts and porous or absorbent building materials are not permitted. Grease and condensate must not leak through the walls.

- The extract air ducts must have inspection openings at distances of max. 3 m after each change of direction and in horizontal, straight sections. Their dimensions must correspond to the duct cross-section or at least 3600 cm2. Devices for catching and draining condensate and cleaning agents must be provided at suitable points in the pipeline.

- **Fire protection for neighbouring buildings**
  If a ventilation system is located on the building envelope (wall), the ventilation system parts must have a fire-resistant lining L90. This also applies to fans and their extract air ducts which lead outside (up to the roof).

- **Fire protection in the attic**
  Ventilation system (fan) parts in the attic must have a fire-resistant lining L90.
  Ducts which lead outside must be lined up to the roofing.
  Ventilation ducts (in the building and attic) must have a fire-resistant lining.







- With regard to the GigaBox T120 series, the motor is located outside of the air flow and it is separated from the impeller by a thermally insulated wall.
  The motor-impeller unit can be removed without dismantling the duct system.

- Installation of outlet-side fitting for GB T120 and GB EC T120 radially upwards or laterally.

- GB T120 and GB EC T120 with easily removable inspection cover.

By combining the parameters of static pressure increase Δp_{fa}, case-radiated noise and inlet side air noise as sound pressure at 4 m (free field conditions), the following table facilitates the selection of GigaBox EC centrifugal fans.

EC	Sound press. Radiation	Sound press. Inlet side	Flow rate $\dot{V}$ m³/h depending on static pressure												
	L_{PA} dB(A)	L_{PA} dB(A)	(ΔP_{fa}) in Pa												
Type	at 4 m dist.	at 4 m dist.	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW EC 250	31	43	2010	1880	1750	1600	1360	1010							
GBW EC 315	32	44	2620	2460	2310	2130	1830	1500							
GBW EC 355	30	49	3440	3270	3120	2950	2740	2500	2135	1630					
GBW EC 400 A	36	48	4050	3860	3600	3350	3050	2670	1880						
GBW EC 400 B	37	52	5160	4970	4730	4550	4210	4100	3800	3410	2900				
GBW EC 450	38	55	6460	6280	6100	5890	5660	5450	5190	4870	4600	3810			
GBD EC 450	39	56	7450	7240	7010	6760	6520	6270	6000	5690	5340	4420	390		
GBD EC 500 A	43	55	8450	8070	7740	7420	7030	6570	6140	5650	4890				
GBD EC 500 B	46	59	10680	10440	10210	9960	9700	9450	9200	8930	8620	7990	7210	5990	560
GBD EC 560	49	60	14040	13720	13460	13180	12880	12560	12240	11910	11540	10670	9680	8090	5150
GBD EC 630	44	60	15570	15170	14760	14360	13950	13520	13050	12560	11990	10450	8160		
GBD EC 710 A	42	53	15680	15030	14350	13680	12950	11880	10880	9450	6560				
GBD EC 710 B	48	61	18940	18370	17920	17400	16830	16220	15570	14850	14040	11880	6930		

EC T120	Sound press. Radiation	Sound press. Inlet side	Flow rate $\dot{V}$ m³/h depending on static pressure												
	L_{PA} dB(A)	L_{PA} dB(A)	(ΔP_{fa}) in Pa												
Type	at 4 m dist.	at 4 m dist.	**0**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**
GBW EC 250 T120	40	52	2340	2140	1890	1630	1320	800							
GBW EC 315A T120	39	52	3050	2750	2390	1920	800								
GBW EC 355 T120	40	53	3840	3470	3020	2420	1210								
GBD EC 355 T120	40	53	3840	3470	3030	2420	1210								
GBW EC 400 T120	43	56	4730	4280	3730	2870	1490								
GBD EC 400 T120	46	56	5410	5010	4510	3930	3130	1990							
GBW EC 450 T120	45	57	6250	5720	5070	4130	2610								
GBD EC 450 T120	48	60	7100	6610	6140	5460	4660	3350							
GBD EC 500 T120	51	63	9610	9110	8550	7960	7170	6180	4920	2530					
GBD EC 560 T120	53	65	11650	11140	10630	10090	9510	8870	8060	7140	5520				
GBD EC 630 T120	54	68	14540	14060	13600	13150	12660	12050	11330	10540	9530	8060	4590		
GBD EC 710 T120	51	65	18360	17910	17440	16930	16370	15730	15030	14250	13330	12210	10920	9300	6760

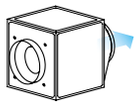
By combining the parameters of static pressure increase Δp_{fa}, case-radiated noise and inlet side air noise as sound pressure at 4 m (free field conditions), the following table facilitates the selection of GigaBox AC centrifugal fans.

	Sound press. Radiation	Sound press. Inlet side	Flow rate $\dot{V}$ m³/h depending on static pressure												
	L_{PA} dB(A)	L_{PA} dB(A)	(ΔP_{fa}) in Pa												
Type	at 4 m dist.	at 4 m dist.	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW 250/4	27	39	1420	1160	890	500									
GBW 315/4	29	41	1760	1500	1260	970	560								
GBW 355/4	38	48	3060	2850	2640	2420	2180	1900	1510	560					
GBD 355/4/4	34	46	3090	2910	2720	2520	2290	2030	1680	1000					
GBW 400/4	38	50	4670	4430	4220	3990	3690	3390	3040	2590	1720				
GBD 400/4/4	38	50	4650	4410	4160	3920	3610	3310	2940	2450	1470				
GBW 450/4	40	49	4610	4400	4200	3990	3770	3530	3270	2970	2610				
GBD 450/4/4	33	49	6500	6220	5940	5660	5350	5000	4660	4300	3770	2060	110	6110	
GBW 500/4	47	59	8320	8020	7740	7460	7180	6910	6630	6340	6030	5330	4340	370	
GBD 500/4/4	45	57	8860	8540	8220	7880	7530	7160	6770	6350	5900	4800	2940	140	
GBW 560/4	45	57	9150	8910	8670	8420	8160	7890	7620	7330	7030	6360	5570	4500	2270
GBD 560/4/4	44	57	12610	12260	11910	11560	11200	10830	10450	10050	9630	8690	7540	5950	2940
GBD 560/6/6	35	48	8670	8160	7600	6990	6280	5410	4210	2190					
GBD 630/4/4	51	62	14430	14070	13710	13370	13040	12720	12390	12050	11710	11000	10200	9280	8110
GBD 630/6/6	42	53	9990	9430	8870	8290	7670	6980	6160	5070	3020				
GBD 710/4	46	59	20285	20020	19760	19490	19210	18930	18640	18340	18040	17400	16730	15990	15190
GBD 710/6/6	51	62	18740	17980	17190	16360	15490	14560	13550	12440	11170	7730	970		

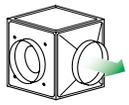
T120	Sound press. Radiation	Sound press. Inlet side	Flow rate $\dot{V}$ m³/h depending on static pressure												
	L_{PA} dB(A)	L_{PA} dB(A)	(ΔP_{fa}) in Pa												
Type	at 4 m dist.	at 4 m dist.	**0**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**
GBW 355/4 T120	36	49	3460	2990	2460	1505									
GBD 355/4/4 T120	36	49	3470	3045	2510	1690									
GBW 400/4 T120	40	53	4930	4380	3790	2900	1580								
GBD 400/4/4 T120	40	53	4870	4295	3650	2740	1370								
GBW 450/4 T120	45	57	7110	6480	5850	5135	4350	3300	1900						
GBD 450/4/4 T120	45	57	7180	6600	5950	5220	4340	3230	1340						
GBW 500/4 T120	45	59	8345	7770	7160	6480	5670	4680	3510	1840					
GBD 500/4/4 T120	45	59	8350	7765	7180	6600	5910	4970	3820	1920					
GBD 560/4/4 T120	48	62	12300	11690	11080	10475	9800	9120	8410	7430	6000				
GBD 630/4 T120	53	67	14140	13690	13200	12720	12230	11670	11150	10470	8830	7850	6820	5150	
GBD 710/4 T120	55	66	18200	17650	17200	16650	16000	15300	14500	13750	12800	11850	10850	9800	8500

GB EC 250

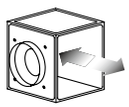




Ⓐ Axial outlet



Ⓡ Centr. outlet



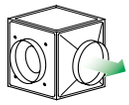
— Centrifugal, free blowing both sides

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

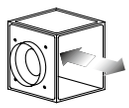
EC

GB EC 250 T120





Ⓡ Centr. outlet

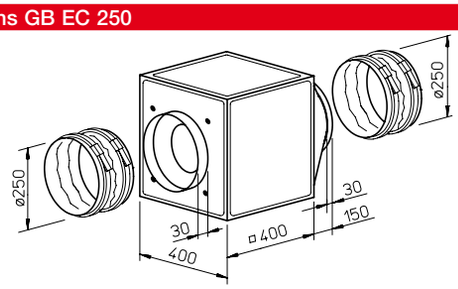


— Centrifugal, free blowing both sides

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

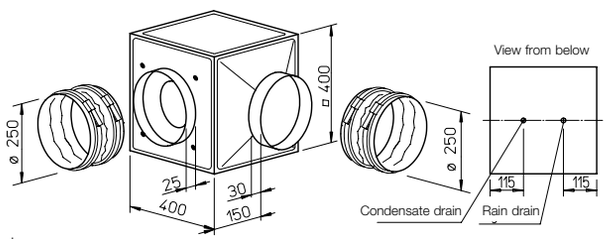
T120 EC

Dimensions GB EC 250



Dim. in mm

Dimensions GB EC 250 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**
  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 plastic (Type 120 made of aluminum), 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 a high level of efficiency. Maintenance-free and ball bearing mounted.

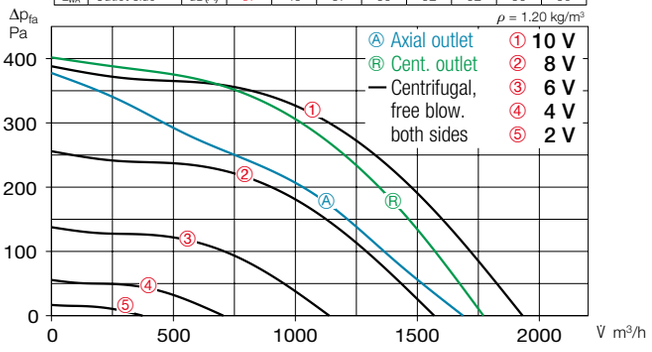
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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 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 250	05807	250	1930	2190	33	0.18	0.78	1354	60	20.0	**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 250 T120	06371	250	2335	2200	40	0.27	1,20	1354	120	27.0	**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 250

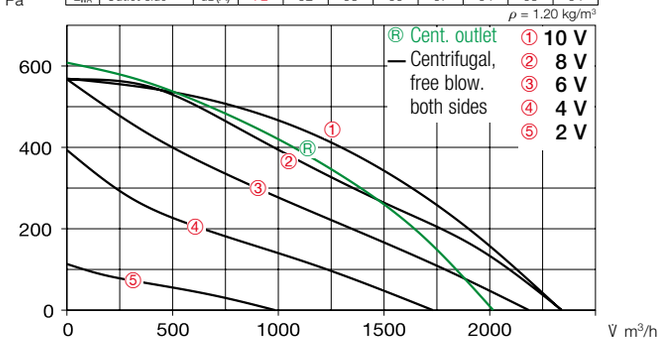
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	51	41	48	44	41	39	36	29
L_{WA}	Inlet side	dB(A)	63	44	54	56	58	57	52	45
L_{WA}	Outlet side	dB(A)	67	45	57	59	62	62	56	50



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1650	2010	120	0.53	31	0.22
8	1325	1600	70	0.31	28	0.15
6	1000	1200	35	0.16	22	0.11
4	710	830	21	0.09	17	0.09

Performance curves GBW EC 250 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	57	47	55	50	43	40	32	29
L_{WA}	Inlet side	dB(A)	69	51	59	62	64	65	59	49
L_{WA}	Outlet side	dB(A)	72	52	63	66	67	64	63	54



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2310	2335	169	0.76	40	0.26
8	2300	2330	167	0.75	40	0.26
6	2144	2180	140	0.63	38	0.23
4	1697	1730	73	0.35	33	0.15

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 250 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 250 Ref. no. 05637

Weather protection cover for protected outdoor installation.
GB-WSD 250 Ref. no. 05746

Special accessories

☐ **for GB EC series**

Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 250 Ref. no. 05642
(a condensate tray with condensate drain is included in delivery for GB EC T120).

☐ **for GB EC T120 series**

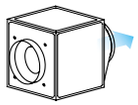
Rain drain for outdoor installation (Hole in casing base already provided).
GB-RA Ref. no. 09418

EC box fans

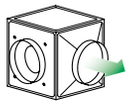
References	**Page**
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Accessory details	**Page**
Universal control system, electronic controllers, speed potentiometer	615 ff.

GB EC 315

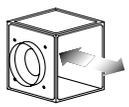




Ⓐ Axial outlet



Ⓡ Centr. outlet



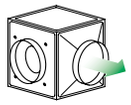
— Centrifugal, free blowing both sides

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

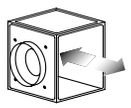
EC

GB EC 315 T120





Ⓡ Centr. outlet

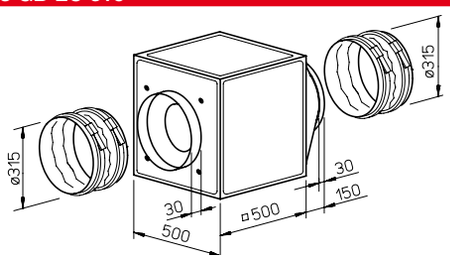


— Centrifugal, free blowing both sides

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

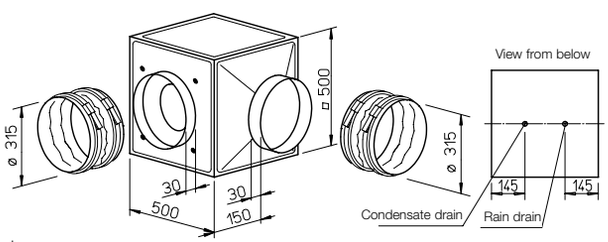
T120 EC

Dimensions GB EC 315



Dim. in mm

Dimensions GB EC 315 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**
  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 plastic (Type 120 made of aluminum), directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

- **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.

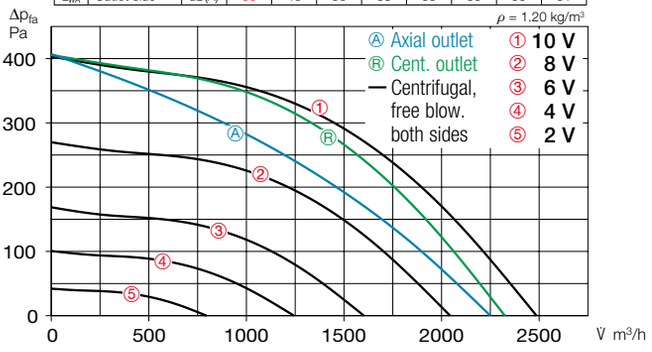
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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 315	05808	315	2500	1700	33	0.22	0.99	1354	50	31.0	**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 315 A T120	06370	315	3050	1700	39	0.29	1.3	1223.1	120	42.0	**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 315

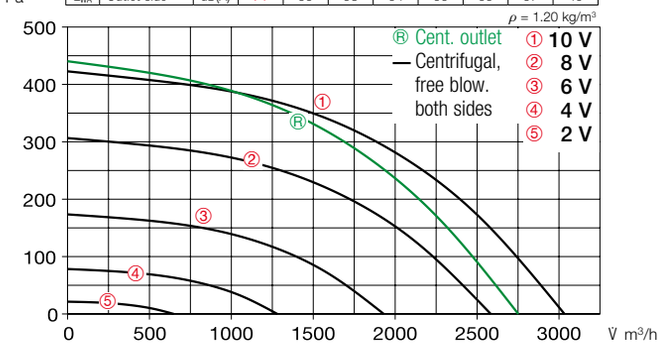
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	52	38	46	46	46	45	43	32
L_{WA}	Inlet side	dB(A)	64	43	56	57	58	58	54	44
L_{WA}	Outlet side	dB(A)	69	48	58	63	65	65	59	51



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	2620	142	0.63	32	0.20
8	1250	2200	85	0.38	29	0.14
6	930	1630	42	0.19	24	0.09
4	710	1250	25	0.11	20	0.07

Performance curves GBW EC 315 A T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	56	48	52	49	47	44	41	38
L_{WA}	Inlet side	dB(A)	69	56	61	63	62	63	58	48
L_{WA}	Outlet side	dB(A)	71	55	63	64	66	65	57	49



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1700	3050	190	0.90	39	0.23
8	1440	2580	125	0.60	36	0.17
6	1090	1930	60	0.38	30	0.11
4	730	1280	25	0.27	21	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 315 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 315 Ref. no. 05638

Weather protection cover for protected outdoor installation.
GB-WSD 315 Ref. no. 05747

Special accessories

☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 315 Ref. no. 05643
(a condensate tray with condensate drain is included in delivery for GB EC T120).

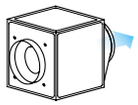
☐ **for GB EC T120 series**
Rain drain for outdoor installation (Hole in casing base already provided).
GB-RA Ref. no. 09418

EC box fans

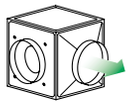
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Accessory details	**Page**
Universal control system, electronic controllers, speed potentiometer	615 ff.

GB EC 355

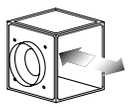




Ⓐ Axial outlet



Ⓡ Centr. outlet



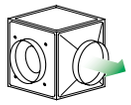
— Centrifugal, free blowing both sides

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

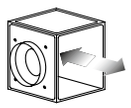
EC

GB EC 355 T120





Ⓡ Centr. outlet

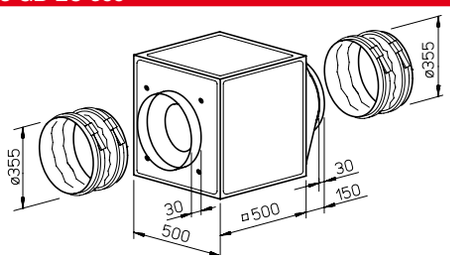


— Centrifugal, free blowing both sides

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

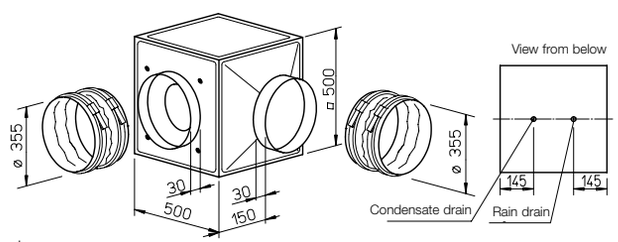
T120 EC

Dimensions GB EC 355



Dim. in mm

Dimensions GB EC 355 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**
  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 6.3.

- **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.

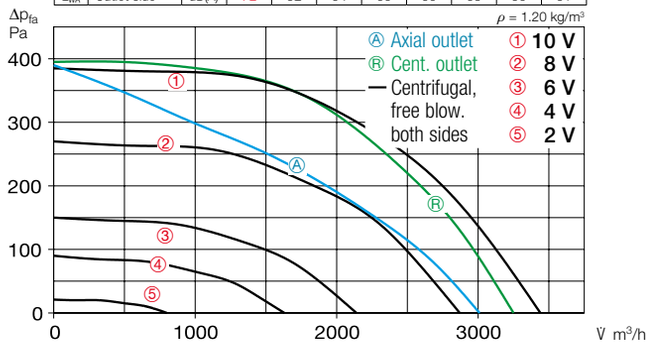
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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 355	05809	355	3440	1500	30	0.35	1.55	973	50	33.0	**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 355 T120	06372	355	3840	1500	40	0.36	1.5	973	55	31.0	**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 355 T120	06452	355	3840	1500	40	0.36	0.7	1214.1	120	44.0	**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 355

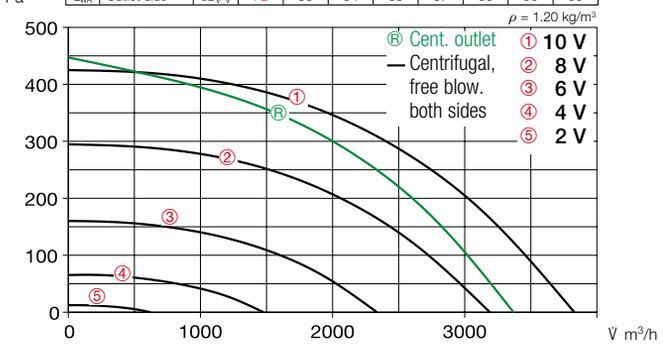
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	50	45	44	39	42	41	38	29
L_{WA}	Inlet side	dB(A)	69	49	63	65	62	59	55	48
L_{WA}	Outlet side	dB(A)	72	52	64	68	66	63	58	51



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	3440	235	1.04	30	0.25
8	1250	2870	140	0.62	27	0.17
6	930	2140	64	0.28	22	0.11
4	710	1630	34	0.15	18	0.08

Performance curves GBW EC 355 T120

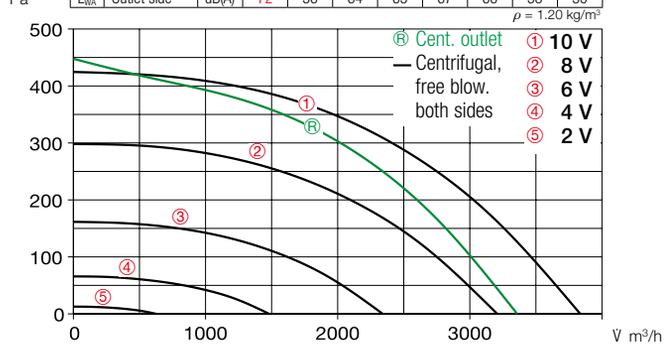
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	57	49	53	50	48	45	42	39
L_{WA}	Inlet side	dB(A)	70	57	62	64	63	64	59	49
L_{WA}	Outlet side	dB(A)	72	56	64	65	67	66	58	50



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	3840	255	1.15	40	0.24
8	1250	3190	154	0.74	36	0.17
6	920	2330	68	0.43	30	0.11
4	590	1490	26	0.28	20	0.06

Performance curves GBD EC 355 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	57	49	53	50	48	45	42	39
L_{WA}	Inlet side	dB(A)	70	57	62	64	63	64	59	49
L_{WA}	Outlet side	dB(A)	72	56	64	65	67	66	58	50



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	3840	261	0.60	40	0.24
8	1250	3220	160	0.40	36	0.18
6	920	2350	75	0.30	30	0.11
4	590	1480	32	0.20	20	0.08

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 355 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 355 Ref. no. 05638

Weather protection cover for protected outdoor installation.
GB-WSD 355 Ref. no. 05747

Special accessories

☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 355 Ref. no. 05643
(a condensate tray with condensate drain is included in delivery for GB EC T120).

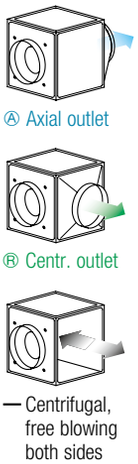
☐ **for GB EC T120 series**
Rain drain for outdoor installation (Hole in casing base already provided).
GB-RA Ref. no. 09418

EC box fans

References	**Page**
Planning information	14 ff.
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Accessory details	**Page**
Universal control system, electronic controllers, speed potentiometer	615 ff.

GB EC 400



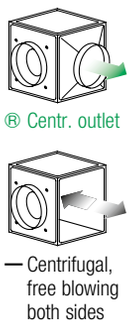


Any installation position and location due to five possible outlet directions.

EC

GB EC 400 T120

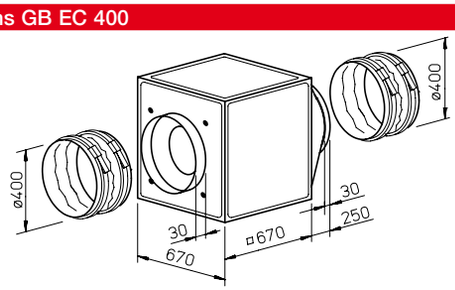




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

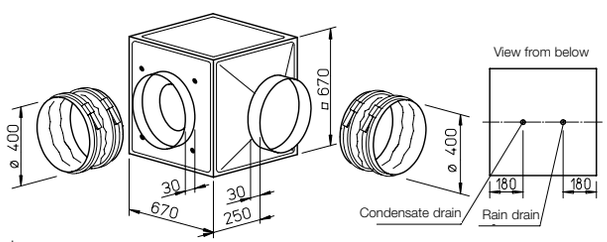
T120 EC

Dimensions GB EC 400



Dim. in mm

Dimensions GB EC 400 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**
  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 a high level of efficiency. Maintenance-free and ball bearing mounted.

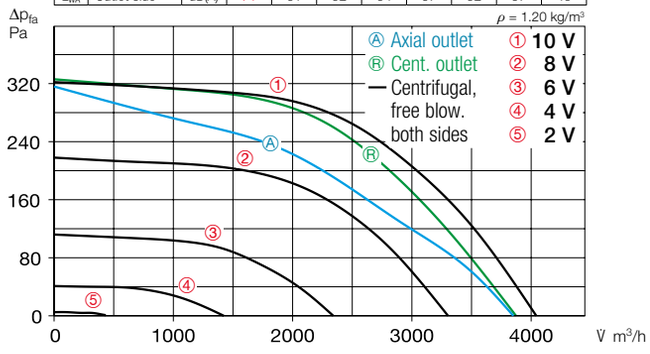
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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 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 400 A	05817	400	4050	1200	36	0.34	1.52	973	50	43.0	**EUR EC**[1) 2)]	01347	**PU 24**[1)]	01736	**PA 24**[1)]	01737
GBW EC 400 B	05810	400	5160	1500	37	0.62	2.80	973	50	46.0	**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 400 T120	06453	400	4730	1320	43	0.43	1.80	1223.1	120	60.0	**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 400 T120	06454	400	5410	1500	46	0.62	1,20	1214.1	120	60.0	**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 400 A

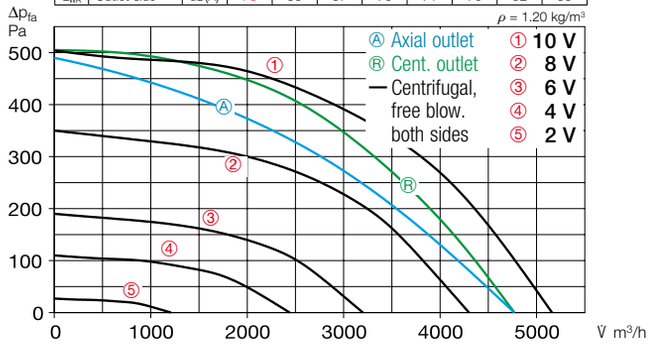
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	56	52	52	47	43	40	35	27
L_{WA}	Inlet side	dB(A)	68	53	62	67	60	58	55	48
L_{WA}	Outlet side	dB(A)	71	61	62	64	67	62	57	48



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1200	4050	210	0.93	36	0.19
8	990	3300	120	0.52	32	0.13
6	710	2340	50	0.22	25	0.08
4	430	1420	20	0.09	18	0.05

Performance curves GBW EC 400 B

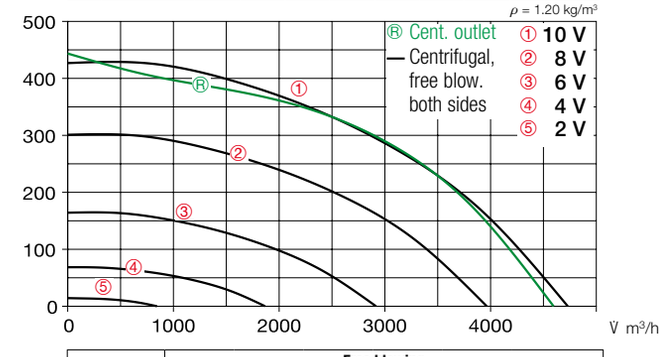
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	57	46	54	49	48	46	43	39
L_{WA}	Inlet side	dB(A)	72	53	64	65	66	67	59	53
L_{WA}	Outlet side	dB(A)	76	56	67	70	71	70	62	55



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	5160	395	1.75	37	0.28
8	1250	4300	245	1.08	34	0.21
6	930	3200	120	0.52	29	0.13
4	710	2440	65	0.28	25	0.09

Performance curves GBW EC 400 T120

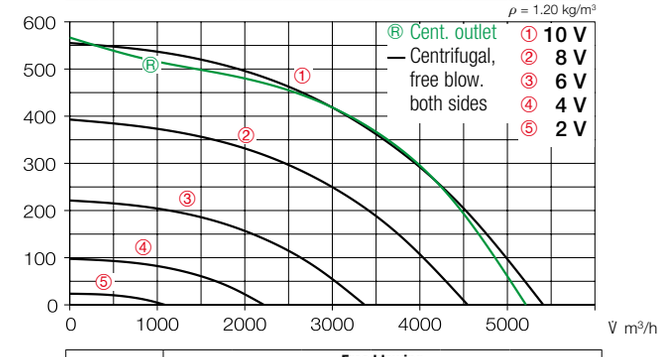
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	60	41	38	36	37	35	32	24
L_{WA}	Inlet side	dB(A)	73	56	58	61	66	67	61	50
L_{WA}	Outlet side	dB(A)	75	62	63	65	71	70	77	53



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1320	4730	280	1,24	43	0.21
8	1100	3950	170	0.80	39	0.15
6	820	2950	75	0.44	33	0.09
4	530	1880	30	0.30	23	0.06

Performance curves GBD EC 400 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	63	44	41	39	40	38	35	27
L_{WA}	Inlet side	dB(A)	76	59	61	64	69	70	64	53
L_{WA}	Outlet side	dB(A)	78	65	66	68	74	73	70	57



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	5410	410	1,00	46	0,27
8	1260	4550	260	0,60	42	0,21
6	950	3370	130	0,40	36	0,14
4	630	2220	60	0,20	28	0,10

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 400 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 400 Ref. no. 05639

Weather protection cover for protected outdoor installation.
GB-WSD 400 Ref. no. 05748

Special accessories

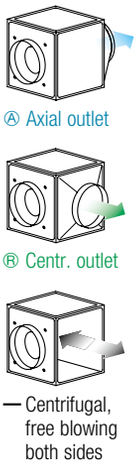
☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 400 Ref. no. 05644
(a condensate tray with condensate drain is included in delivery for GB EC T120).

☐ **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.

GB EC 450



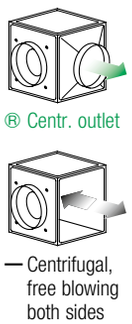


Any installation position and location due to five possible outlet directions.

EC

GB EC 450 T120

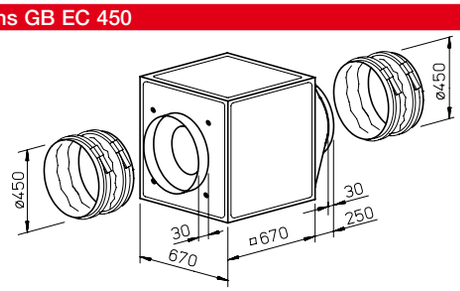




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

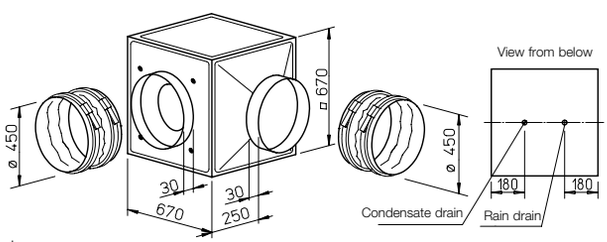
T120 EC

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

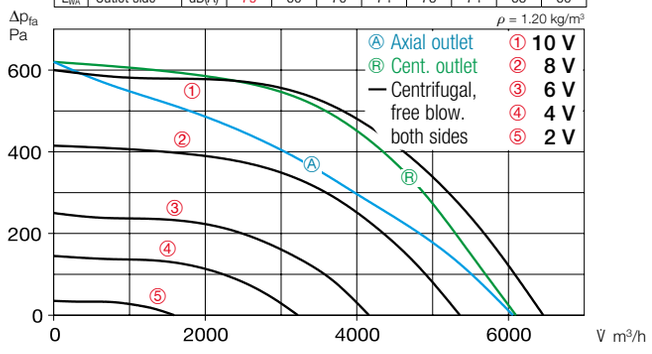
- **Casing**
  Self-supporting frame construction made of aluminium hollow profiles. Double-walled, 20 mm thick side panels made of galvanised steel sheet, sound and heat insulated by non-flammable mineral wool lining.
  Nozzle on inlet side for optimal inflow as well as connectors and flexible connecting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

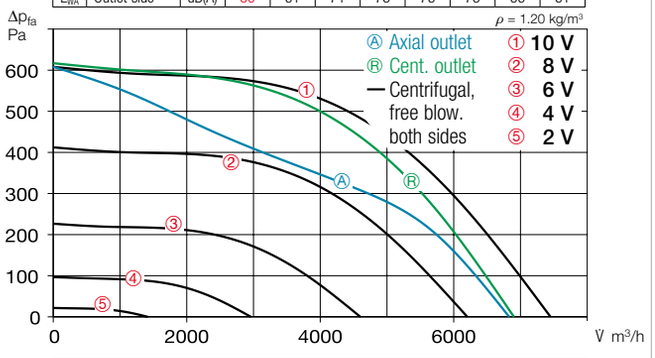
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	58	48	56	48	47	46	42	31
L_{WA}	Inlet side	dB(A)	75	54	66	68	70	69	64	57
L_{WA}	Outlet side	dB(A)	79	60	70	74	75	74	65	60



	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

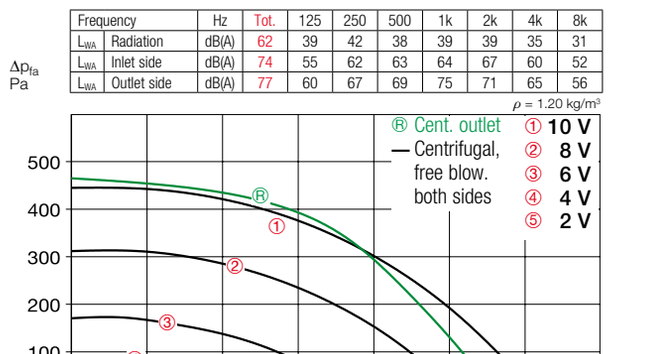
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	59	49	57	49	48	47	43	32
L_{WA}	Inlet side	dB(A)	76	55	67	69	71	70	65	58
L_{WA}	Outlet side	dB(A)	80	61	71	75	76	75	66	61



	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

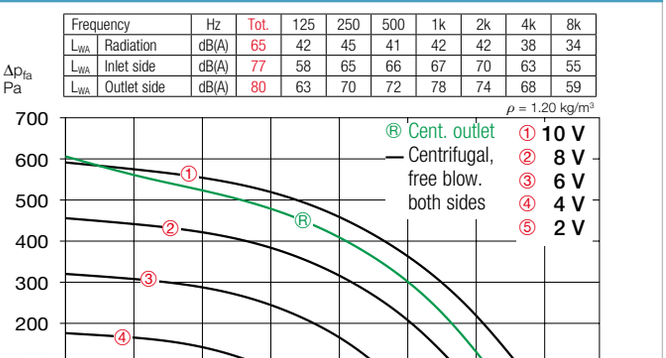
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	62	39	42	38	39	39	35	31
L_{WA}	Inlet side	dB(A)	74	55	62	63	64	67	60	52
L_{WA}	Outlet side	dB(A)	77	60	67	69	75	71	65	56



	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

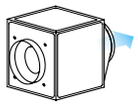
☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 450 Ref. no. 05644
(a condensate tray with condensate drain is included in delivery for GB EC T120).

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

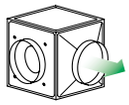
References	**Page**
Universal control system, electronic controllers, Speed potentiometer	615 ff.

GB EC 500

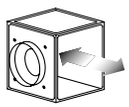




Ⓐ Axial outlet



Ⓡ Centr. outlet



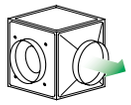
— Centrifugal, free blowing both sides

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

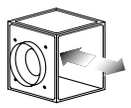
EC

GB EC 500 T120





Ⓡ Centr. outlet

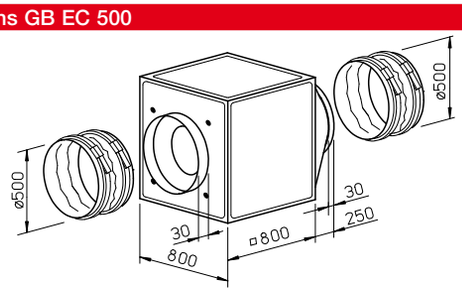


— Centrifugal, free blowing both sides

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

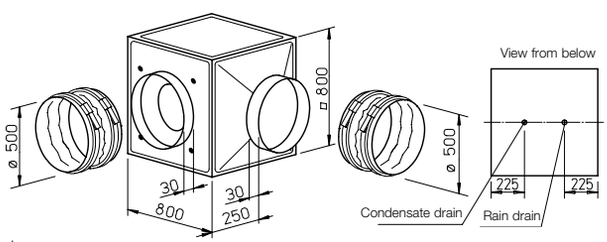
T120 EC

Dimensions GB EC 500



Dim. in mm

Dimensions GB EC 500 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**
  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.

- **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.

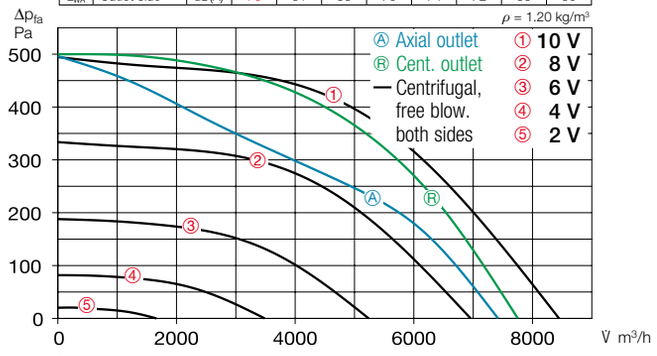
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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.
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

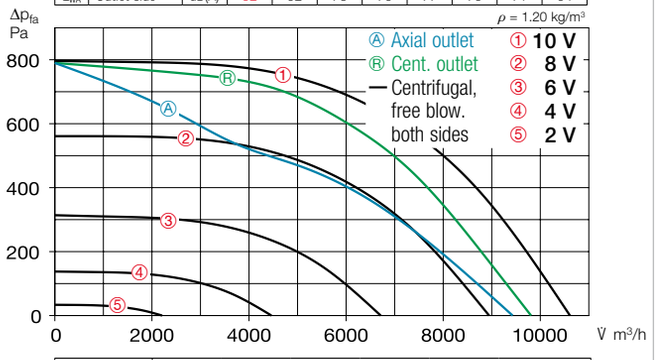
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	63	57	60	55	54	45	39	31
L_{WA}	Inlet side	dB(A)	75	57	66	66	69	68	66	59
L_{WA}	Outlet side	dB(A)	78	61	66	70	74	72	68	60



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** 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

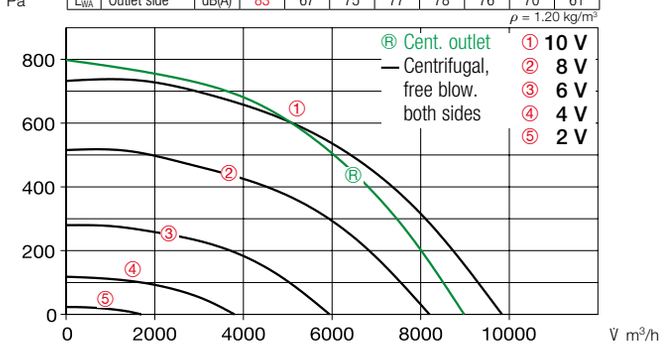
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	66	56	65	58	57	53	50	43
L_{WA}	Inlet side	dB(A)	79	58	70	72	74	73	68	61
L_{WA}	Outlet side	dB(A)	82	62	73	76	77	75	71	64



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** 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	**V̇** 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

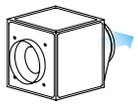
☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW EC 500 Ref. no. 05645
(a condensate tray with condensate drain is included in delivery for GB EC T120).

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

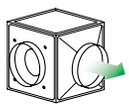
References	**Page**
Universal control system, electronic controllers, Speed potentiometer	615 ff.

GB EC 560

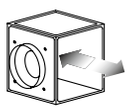




Ⓐ Axial outlet



Ⓡ Centr. outlet



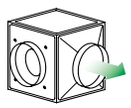
— Centrifugal, free blowing both sides

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

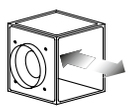
EC

GB EC 560 T120





Ⓡ Centr. outlet

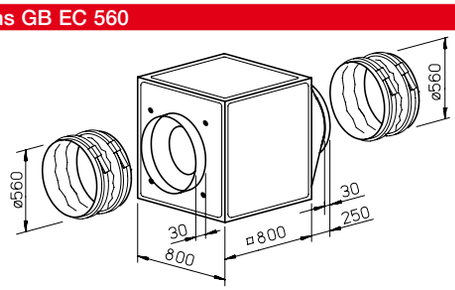


— Centrifugal, free blowing both sides

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

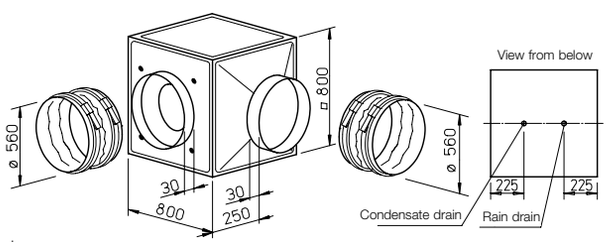
T120 EC

Dimensions GB EC 560



Dim. in mm

Dimensions GB EC 560 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**
  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.

- **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.

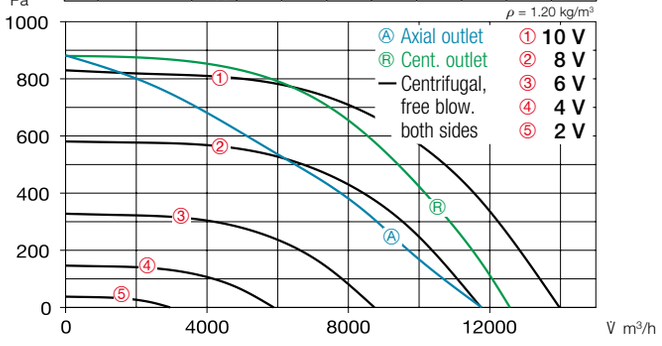
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44																
GBD EC 560	05814	560	14040	1375	49	2.80	4.30	1415	50	83.0	**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 560 T120	06481	560	12100	1400	53	2.30	3.60	1214.1	120	102.0	**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 560

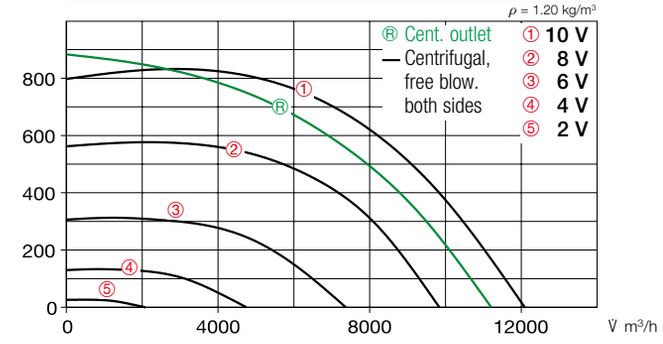
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	69	60	67	58	57	56	55	49
L_{WA}	Inlet side	dB(A)	79	61	71	73	74	72	66	60
L_{WA}	Outlet side	dB(A)	84	65	74	79	80	75	70	62



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1375	14040	1680	2.70	49	0.43
8	1150	11800	1000	1.70	45	0.31
6	870	8770	450	0.95	39	0.18
4	580	5900	160	0.48	30	0.10

Performance curves GBD EC 560 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	70	48	49	47	47	47	43	37
L_{WA}	Inlet side	dB(A)	82	66	75	72	71	70	67	59
L_{WA}	Outlet side	dB(A)	85	76	77	79	79	77	72	64



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1400	12100	1360	2.40	53	0.40
8	1160	9680	790	1.60	49	0.21
6	860	7150	340	0.90	42	0.14
4	550	4620	110	0.50	33	0.10

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 560 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 560 Ref. no. 05640

Weather protection cover for protected outdoor installation.
GB-WSD 560 Ref. no. 05749

Special accessories

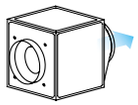
☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 560 Ref. no. 05645
(a condensate tray with condensate drain is included in delivery for GB EC T120).

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

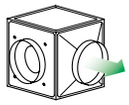
References	**Page**
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Universal control system, electronic controllers, speed potentiometer	615 ff.

GB EC 630

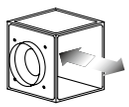




Ⓐ Axial outlet



Ⓡ Centr. outlet



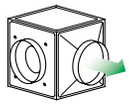
— Centrifugal, free blowing both sides

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

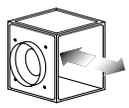
EC

GB EC 630 T120





Ⓡ Centr. outlet

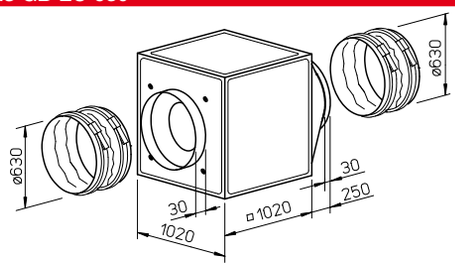


— Centrifugal, free blowing both sides

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

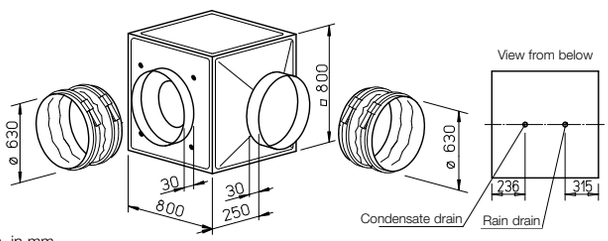
T120 EC

Dimensions GB EC 630



Dim. in mm

Dimensions GB EC 630 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**
  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.

- **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.

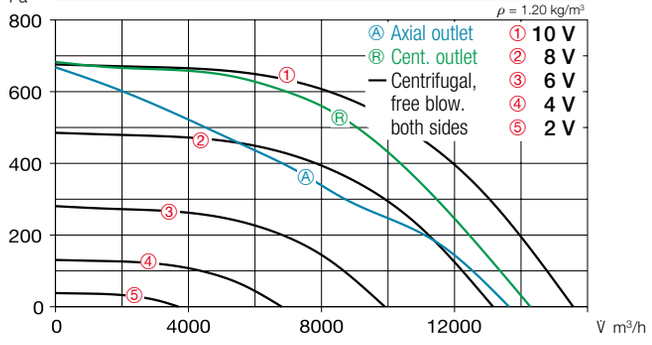
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44																
GBD EC 630	05815	630	15570	1100	44	2.49	3.87	1415	60	113.0	**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 630 T120	06485	630	15300	1350	54	3.60	5.50	1214.1	120	112.0	**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 630

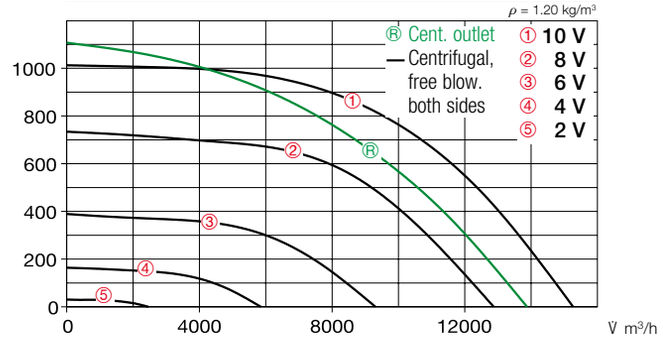
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	64	58	61	53	53	51	49	41
L_{WA}	Inlet side	dB(A)	80	66	71	72	74	73	72	68
L_{WA}	Outlet side	dB(A)	83	69	76	77	78	75	68	61



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1100	15570	1490	2.40	44	0.35
8	930	13200	910	1.60	41	0.25
6	710	9920	420	0.86	35	0.15
4	480	6800	160	0.48	27	0.08

Performance curves GBD EC 630 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	71	45	49	45	49	44	37	28
L_{WA}	Inlet side	dB(A)	85	59	70	71	76	79	74	64
L_{WA}	Outlet side	dB(A)	88	70	70	80	83	83	79	67



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1350	15300	2250	3,90	54	0.53
8	1130	12200	1320	2,70	50	0.39
6	830	8970	560	1,50	43	0.22
4	540	5810	180	0,77	34	0.11

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 630 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 630 Ref. no. 05641

Weather protection cover for protected outdoor installation.
GB-WSD 630 Ref. no. 05750

Special accessories

☐ **for GB EC series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW EC 630 Ref. no. 05646
(a condensate tray with condensate drain is included in delivery for GB EC T120).

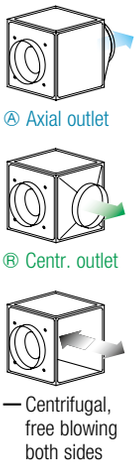
☐ **for GB EC T120 series**
Rain drain for outdoor installation (Hole in casing base already provided).
GB-RA Ref. no. 09418

EC box fans

References	**Page**
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Universal control system, electronic controllers, speed potentiometer	615 ff.

GB EC 710



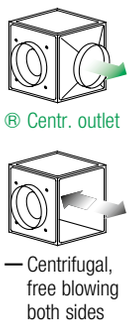


Any installation position and location due to five possible outlet directions.

EC

GB EC 710 T120

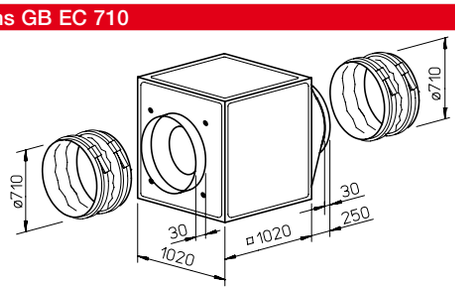




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

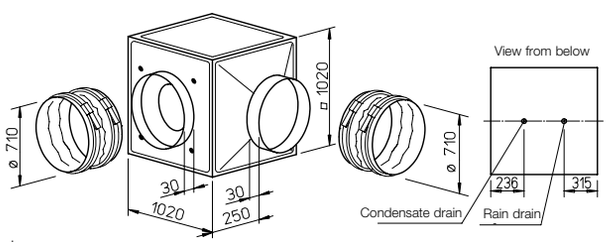
T120 EC

Dimensions GB EC 710



Dim. in mm

Dimensions GB EC 710 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**
  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.

- **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.

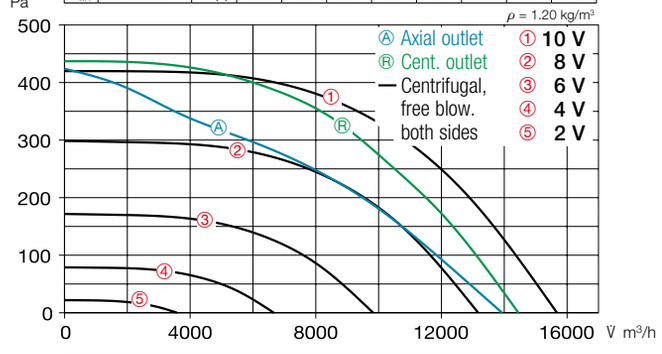
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.

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.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44																
GBD EC 710 A	05816	710	15680	775	42	1.57	2.53	1415	60	117.0	**EUR EC**[1) 2)]	01347	**PU 24**[1)]	01736	**PA 24**[1)]	01737
GBD EC 710 B	05819	710	18940	940	48	2.78	4.30	1415	60	121.0	**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 710 T120	06488	710	18360	1380	51	4.63	7.80	1214.1	120	207.0	**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 710 A

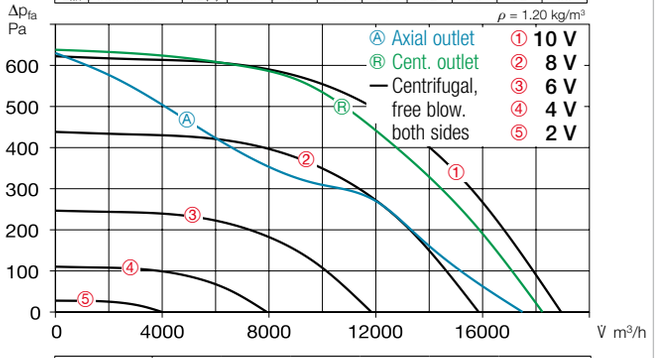
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	62	58	57	52	51	50	46	44
L_{WA}	Inlet side	dB(A)	73	60	64	66	68	66	61	59
L_{WA}	Outlet side	dB(A)	75	60	67	69	72	68	63	62



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	775	15680	980	1.70	42	0.23
8	650	13250	590	1,20	38	0.16
6	495	9840	280	0.70	33	0.10
4	340	6680	100	0.40	25	0.05

Performance curves GBD EC 710 B

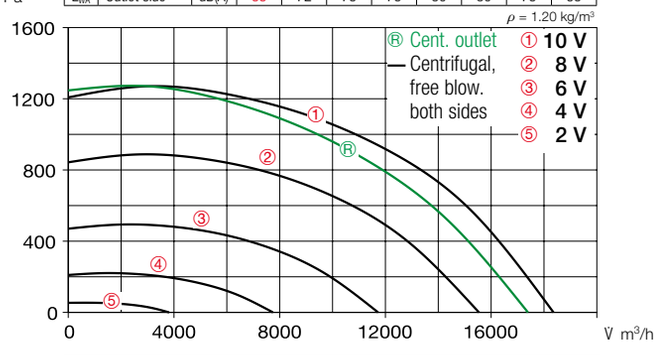
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	68	65	64	54	53	51	47	41
L_{WA}	Inlet side	dB(A)	81	62	74	75	75	73	70	61
L_{WA}	Outlet side	dB(A)	85	65	74	77	82	76	72	63



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	940	18940	1710	2.70	48	0.32
8	790	15950	1020	1.70	44	0.23
6	590	11900	450	0.94	38	0.14
4	390	8010	150	0.46	30	0.07

Performance curves GBD EC 710 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	73	68	65	63	66	63	62	59
L_{WA}	Inlet side	dB(A)	82	72	73	75	76	75	72	65
L_{WA}	Outlet side	dB(A)	85	72	75	75	80	80	75	68



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1380	18360	2640	5.00	51	0.52
8	1160	15540	1607	3.40	47	0.37
6	870	11720	710	1.90	41	0.22
4	580	7740	240	0.80	32	0.11

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.

Special accessories

☐ **for GB EC series**

Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 710 Ref. no. 05646
(a condensate tray with condensate drain is included in delivery for GB EC T120).

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

☐ **for GB EC T120 series**

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

Accessories for both series

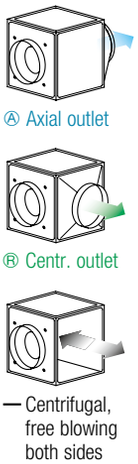
Weather protection grille for outlet-side coverage.
GB-WSG 710 Ref. no. 05641

Weather protection cover for protected outdoor installation.
GB-WSD 710 Ref. no. 05750

References	**Page**
Universal control system, electronic controllers, Speed potentiometer	615 ff.

GB 250

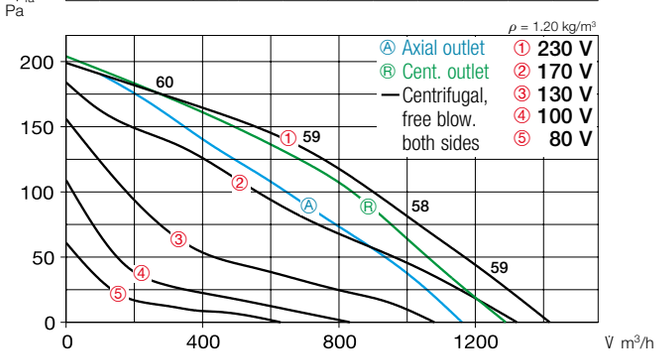




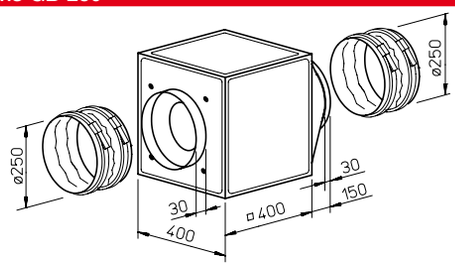
Any installation position and location due to five possible outlet directions.

Performance curves GBW 250/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	46	36	44	39	32	29	21	18
L_{WA}	Inlet side	dB(A)	58	40	48	51	53	54	48	38
L_{WA}	Outlet side	dB(A)	61	41	52	55	56	53	52	43



Dimensions GB 250



Dim. in mm

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 steel with backward curved blades on galvanised steel plate, 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
Through maintenance-free, speed-controllable external rotor motor in protection category IP44.
Ball bearing mounted, radio interference-free.

Electrical connection
Standard terminal box (IP54) on motor.

Motor protection
Through built-in thermal contacts wired in series to the winding, automatic deactivation and reactivation after cooling.

Power control
Speed-controllable through voltage reduction using a 5-step transformer.
Performance levels are shown in the performance curve as an example.

Installation
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).

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

Accessories

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

Wall bracket for wall installation.
GB-WK 250 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 250 Ref. no. 05637

Weather protection cover for protected outdoor installation.
GB-WSD 250 Ref. no. 05746

Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 250 Ref. no. 05642

References	Page
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Speed contr., controllers	601 ff.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temp. at Rat. vol.	Maximum air flow temp. at control	Weight net aprx.	Transformer speed controller 5-step without motor protection circuit breaker Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg		
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP44													
GBW 250/4	05509	1420	1340	26	0.095	0.44	0.44	923	70	70	18.0	**TSW 1.5**	01495

GB 315



Ⓐ Axial outlet

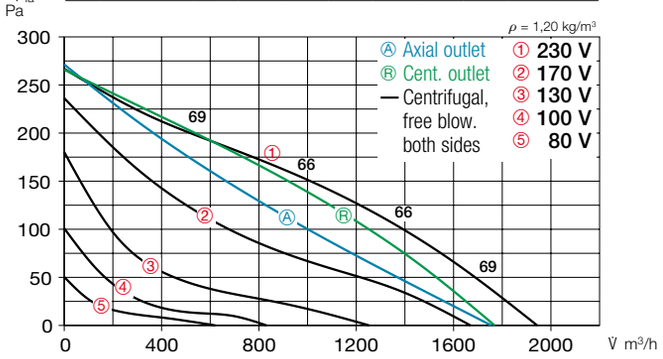
Ⓡ Centr. outlet

— Centrifugal, free blowing both sides

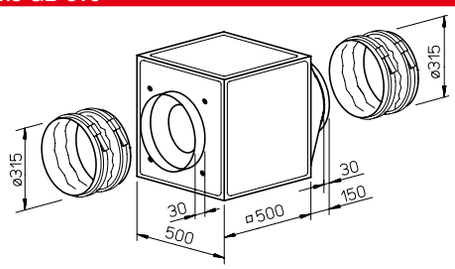
Any installation position and location due to five possible outlet directions.

Performance curves GBW 315/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	46	40	44	34	29	23	13	9
L_{WA}	Inlet side	dB(A)	58	38	51	55	52	51	47	41
L_{WA}	Outlet side	dB(A)	66	46	61	62	59	54	47	42



Dimensions GB 315



Dim. in mm

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 steel with backward curved blades, directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

Drive
Through maintenance-free, speed-controllable external rotor motor in protection category IP44.
Ball bearing mounted, radio interference-free.

Electrical connection
Standard terminal box (IP54) on motor.

Motor protection
Through built-in thermal contacts wired in series to the winding, automatic deactivation and reactivation after cooling.

Power control
Speed-controllable through voltage reduction using a 5-step transformer.
Performance levels are shown in the performance curve as an example.

Installation
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)

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

Accessories

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

Wall bracket for wall installation.
GB-WK 315 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 315 Ref. no. 05638

Weather protection cover for protected outdoor installation.
GB-WSD 315 Ref. no. 05747

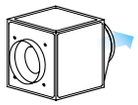
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 315 Ref. no. 05643

References	Page
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Speed contr., controllers	601 ff.

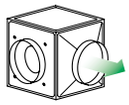
Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temp. at Rat. vol.	Maximum air flow temp. at control	Weight net aprx.	Transformer speed controller 5-step without motor protection circuit breaker Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg		
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP44													
GBW 315/4	05510	1940	1200	24	0.124	0.56	0.56	923	60	60	30.0	**TSW 1.5**	01495

GB 355

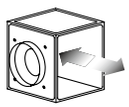




Ⓐ Axial outlet



Ⓡ Centr. outlet

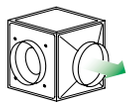


— Centrifugal, free blowing both sides

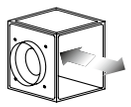
Any installation position and location due to five possible outlet directions.

GB 355 T120





Ⓡ Centr. outlet

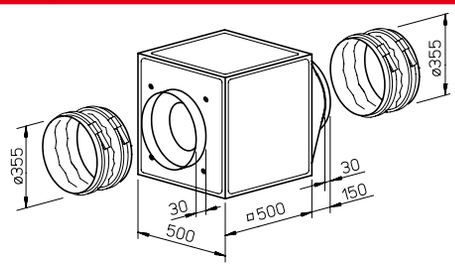


— Centrifugal, free blowing both sides

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

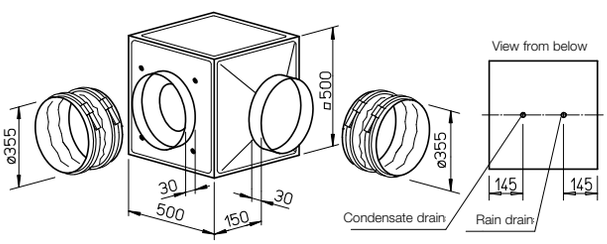
T120

Dimensions GB 355



Dim. in mm

Dimensions GB 355 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved plastic blades (aluminium impellers for GB T120), directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

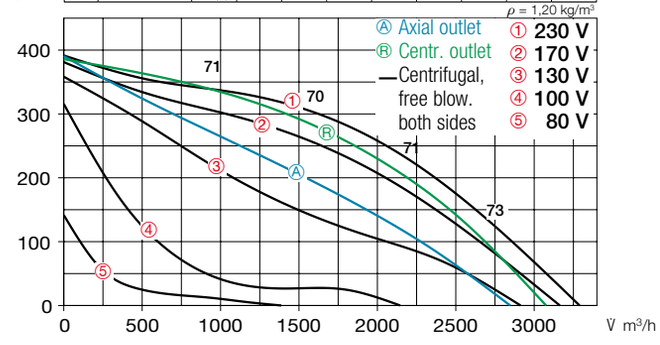
- **Drive**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54																	
GBW 355/4	05511	3280	1410	33	0.28	1.35	1.90	864	60	60	32.0	**MWS 3**	01948	**TSW 3.0**	01496	**MW**[1]	01579
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, ⅄/△ connection, protection category IP54																	
GBD 355/4/4	05512	3030/3320	1200/1390	32	0.21/0.28	0.36/0.67	0.67	867	60	60	32.0	**RDS 1**	01314	**TSD 1.5**	01501	**MD**	05849
T120 **Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54**																	
GBW 355/4 T120	05770	3460	1340	36	0.32	1.55	1.75	935	120	120	38.0	**MWS 3**	01948	**TSW 3.0**	01496	**MW**[1]	01579
T120 **Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, ⅄/△ connection, protection category IP54**																	
GBD 355/4/4 T120	05771	2990/3470	1100/1360	36	0.22/0.33	0.40/0.75	0.75	947	120	120	38.0	**RDS 1**	01314	**TSD 0.8**	01500	**MD**	05849

1) Incl. operating switch

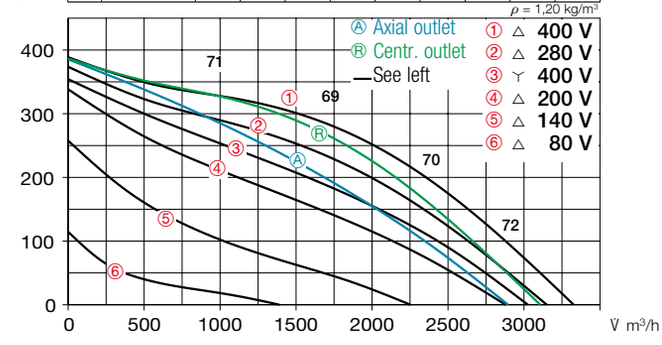
Performance curves GBW 355/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	50	44	48	38	34	28	18	14
L_{WA}	Inlet side	dB(A)	63	42	56	60	56	56	52	46
L_{WA}	Outlet side	dB(A)	70	50	66	66	64	58	52	46



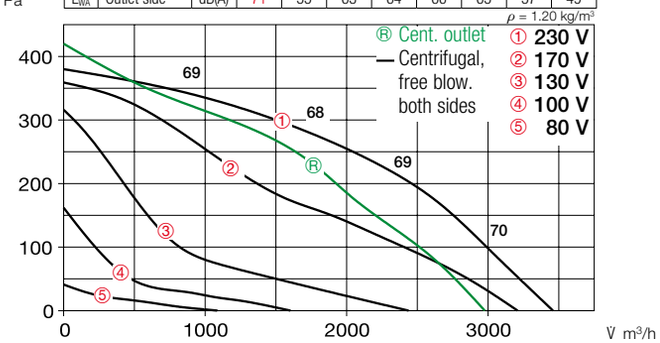
Performance curves GBD 355/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	49	48	44	36	32	30	22	18
L_{WA}	Inlet side	dB(A)	62	50	56	58	54	54	52	44
L_{WA}	Outlet side	dB(A)	69	62	62	64	64	60	50	46



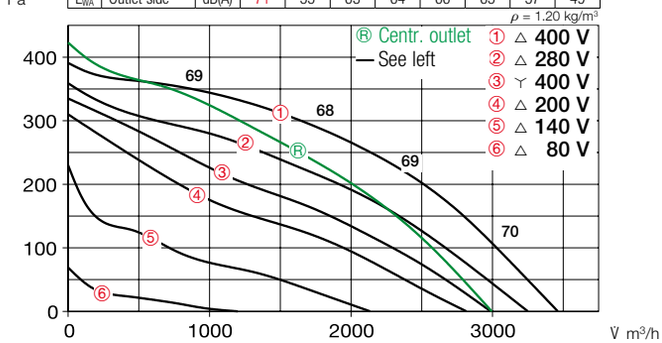
Performance curves GBW 355/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	56	48	52	49	47	44	41	38
L_{WA}	Inlet side	dB(A)	69	55	61	63	62	63	58	48
L_{WA}	Outlet side	dB(A)	71	55	63	64	66	65	57	49



Performance curves GBD 355/4/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	56	48	52	49	47	44	41	38
L_{WA}	Inlet side	dB(A)	69	55	61	63	62	63	58	48
L_{WA}	Outlet side	dB(A)	71	55	63	64	66	65	57	49



Electrical connection
Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Motor protection
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

Power control
All types are speed-controllable using voltage reduction by means of transformer (accessories). The 3~ types can also be operated at two speeds using a Y/△ switch or motor protection circuit breaker M 4. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

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 355 Ref. no. 05625

Weather protection grille for outlet-side coverage.
GB-WSG 355 Ref. no. 05638

Weather protection cover for protected outdoor installation.
GB-WSD 355 Ref. no. 05747

Speed switch and on/off switch for two-speed Y/△ switchable three-phase current fans.
DS 2 [2] Ref. no. 01351

[2] required motor protection circuit breaker: Type MD, No. 05849.

Special accessories

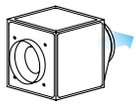
☐ **for GB series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 355 Ref. no. 05643
(a condensate tray with condensate drain is included in delivery for GB T120).

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

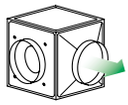
References	Page
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Speed controllers and motor prot. circ. breakers	601 ff.

GB 400

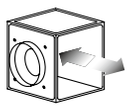




Ⓐ Axial outlet



Ⓡ Centr. outlet

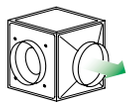


— Centrifugal, free blowing both sides

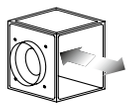
Any installation position and location due to five possible outlet directions.

GB 400 T120





Ⓡ Centr. outlet

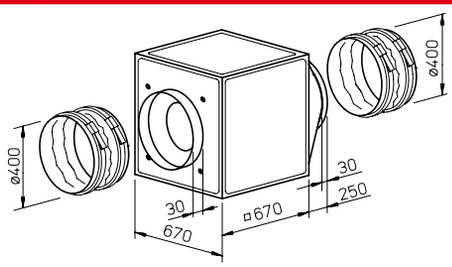


— Centrifugal, free blowing both sides

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

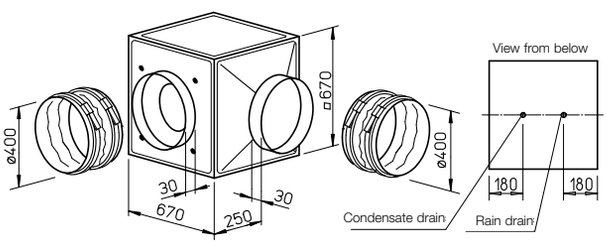
T120

Dimensions GB 400



Dim. in mm

Dimensions GB 400 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved plastic blades on galvanised steel plate (aluminium impellers for GB T120), 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.

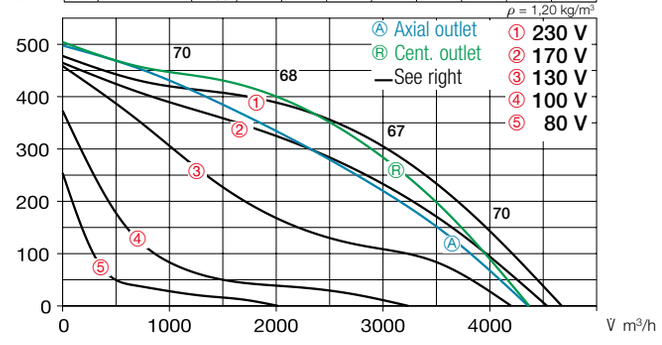
- **Drive**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54																	
GBW 400/4	05513	4680	1400	29	0.51	2.45	3.26	864	60	60	52.0	**MWS 5**	01949	**TSW 5.0**	01497	**MW**[1]	01579
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54																	
GBD 400/4/4	05514	4140/4650	1105/1355	28	0.31/0.44	0.51/0.88	0.92	867	60	60	52.0	**RDS 2**	01315	**TSD 1.5**	01501	**MD**	05849
T120 **Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54**																	
GBW 400/4 T120	05772	4930	1280	40	0.54	2.50	2.50	935	120	100	62.0	**MWS 3**	01948	**TSW 3.0**	01496	**MW**[1]	01579
T120 **Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54**																	
GBD 400/4/4 T120	05773	4010/4870	975/1255	40	0.29/0.48	0.50/1.10	1.10	947	120	120	62.0	**RDS 2**	01315	**TSD 1.5**	01501	**MD**	05849

1) Incl. operating switch

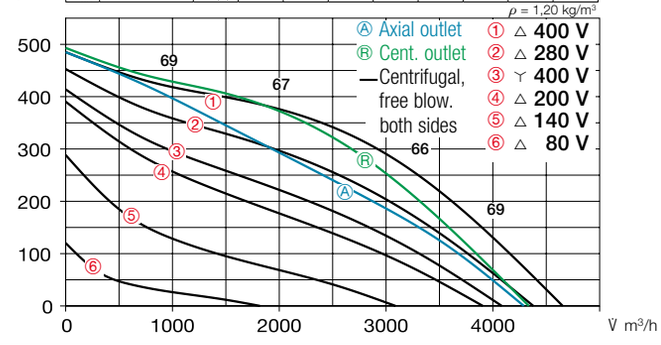
Performance curves GBW 400/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	49	46	44	37	36	28	24	20
L_{WA}	Inlet side	dB(A)	67	52	61	62	60	59	52	46
L_{WA}	Outlet side	dB(A)	71	62	64	65	65	62	57	50



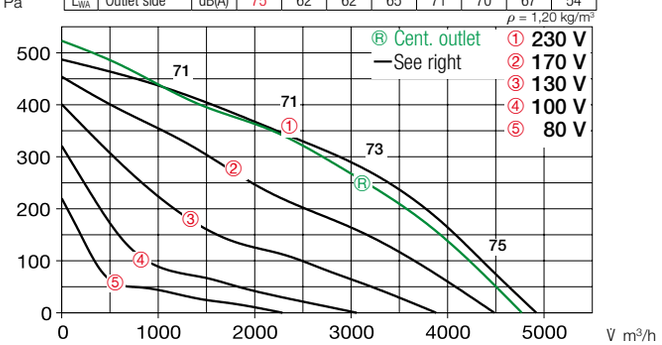
Performance curves GBD 400/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	53	50	48	43	39	36	33	22
L_{WA}	Inlet side	dB(A)	69	58	62	63	63	60	57	53
L_{WA}	Outlet side	dB(A)	75	64	67	69	70	67	59	57



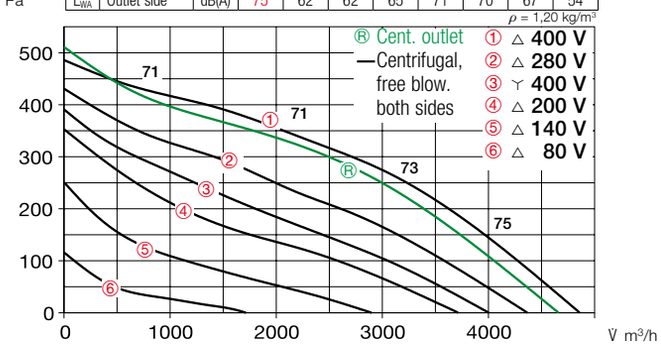
Performance curves GBW 400/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	60	56	53	51	52	50	47	39
L_{WA}	Inlet side	dB(A)	73	58	60	63	68	69	63	52
L_{WA}	Outlet side	dB(A)	75	62	62	65	71	70	67	54



Performance curves GBD 400/4/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	60	56	53	51	52	50	47	39
L_{WA}	Inlet side	dB(A)	73	58	60	63	68	69	63	52
L_{WA}	Outlet side	dB(A)	75	62	62	65	71	70	67	54



Electrical connection
Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Motor protection
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

Power control
All types are speed-controllable using voltage reduction by means of transformer (accessories). The 3~ types can also be operated at two speeds using a ⅄/△ switch or motor protection circuit breaker M 4. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

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 400 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 400 Ref. no. 05639

Weather protection cover for protected outdoor installation.
GB-WSD 400 Ref. no. 05748

Speed switch and on/off switch for two-speed ⅄/△ switchable three-phase current fans.
DS 2 [2] Ref. no. 01351

[2] required motor protection circuit breaker: Type MD, No. 05849.

Special accessories

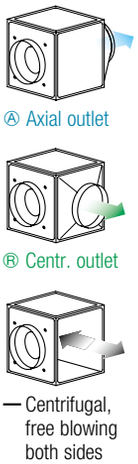
☐ **for GB series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 400 Ref. no. 05644
(a condensate tray with condensate drain is included in delivery for GB T120).

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

References	Page
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Speed controllers and motor prot. circ. breakers	601 ff.

GB 450

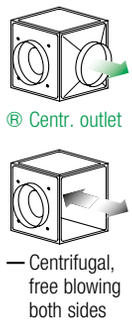




Any installation position and location due to five possible outlet directions.

GB 450 T120

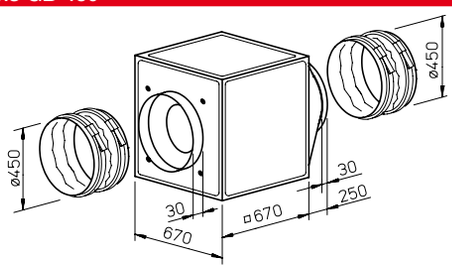




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

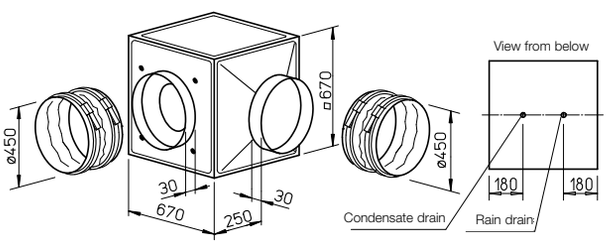
T120

Dimensions GB 450



Dim. in mm

Dimensions GB 450 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved plastic blades (aluminium impellers for GB T120), 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**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

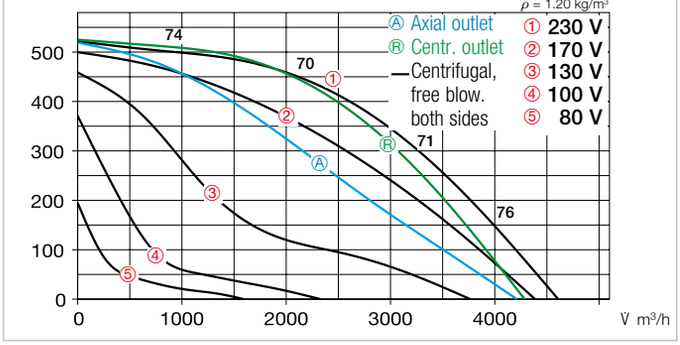
- **Electrical connection**
  Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54																	
GBW 450/4	05515	4600	1380	40	0.66	2.90	4.0	864	45	45	49.0	**MWS 5**	01949	**TSW 5.0**	01497	**MW**[1]	01579
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54																	
GBD 450/4/4	05516	5670/6500	1060/1345	42	0.50/0.73	0.87/1.47	1.52	867	55	55	50.0	**RDS 2**	01315	**TSD 1.5**	01501	**MD**	05849
T120 **Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54**																	
GBW 450/4 T120	05774	7110	1370	45	1.00	4.60	5.50	935	120	100	74.0	**MWS 7.5**	01950	**TSW 7.5**	01596	**MW**[1]	01579
T120 **Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54**																	
GBD 450/4/4 T120	05775	6210/7180	1100/1350	45	0.65/0.90	1.10/1.60	1.80	947	120	110	74.0	**RDS 2**	01315	**TSD 3.0**	01502	**MD**	05849

1) Incl. operating switch.

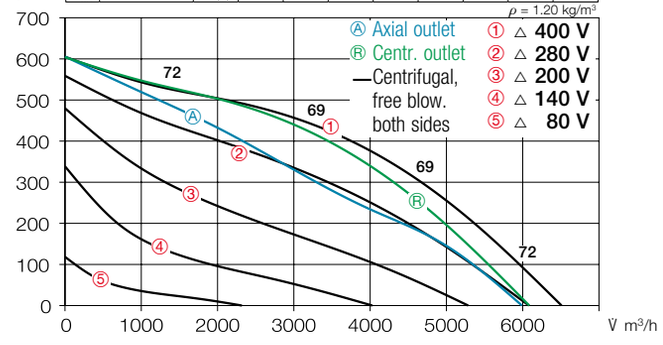
Performance curves GBW 450/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	60	56	56	51	47	44	39	31
L_{WA}	Inlet side	dB(A)	69	61	63	65	67	65	60	54
L_{WA}	Outlet side	dB(A)	75	64	66	68	70	68	63	57



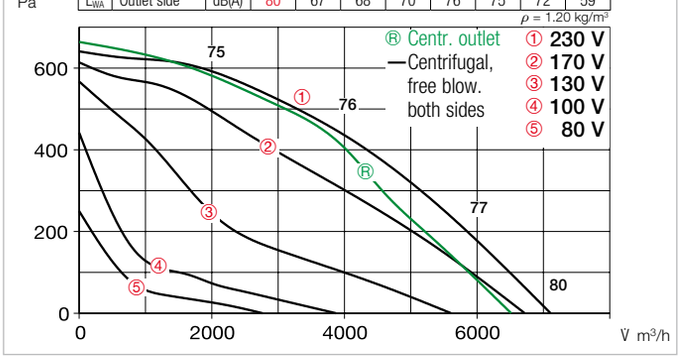
Performance curves GBD 450/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	62	59	58	48	47	45	41	35
L_{WA}	Inlet side	dB(A)	73	63	64	67	66	66	63	57
L_{WA}	Outlet side	dB(A)	79	68	72	73	73	71	66	59



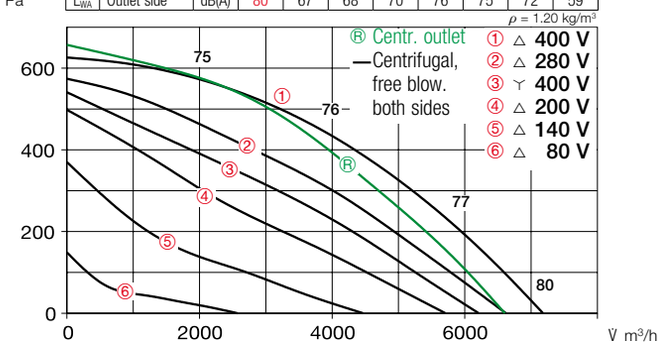
Performance curves GBW 450/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	61	58	56	57	55	52	44
L_{WA}	Inlet side	dB(A)	77	62	64	67	72	73	67	56
L_{WA}	Outlet side	dB(A)	80	67	68	70	76	75	72	59



Performance curves GBD 450/4/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	61	58	56	57	55	52	44
L_{WA}	Inlet side	dB(A)	77	62	64	67	72	73	67	56
L_{WA}	Outlet side	dB(A)	80	67	68	70	76	75	72	59



Motor protection
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

Power control
All types are speed-controllable using voltage reduction by means of transformer (accessories).
The 3~ types can also be operated at two speeds using a Y/△ switch or motor protection circuit breaker M 4. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

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

Speed switch and on/off switch for two-speed Y/△ switchable three-phase current fans.
DS 2 [2] Ref. no. 01351

[2] required motor protection circuit breaker: Type MD, No. 05849.

Special accessories

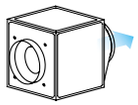
☐ **for GB series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 450 Ref. no. 05644
(a condensate tray with condensate drain is included in delivery for GB T120).

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

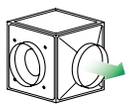
References	Page
Planning information	14 ff.
General techn. information, power control	19 ff.
Accessory details	**Page**
Speed controllers and motor prot. circ. breakers	601 ff.

GB 500

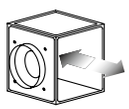




Ⓐ Axial outlet



Ⓡ Centr. outlet

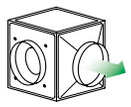


— Centrifugal, free blowing both sides

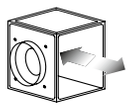
Any installation position and location due to five possible outlet directions.

GB 500 T120





Ⓡ Centr. outlet

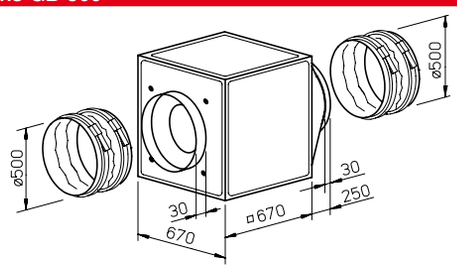


— Centrifugal, free blowing both sides

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

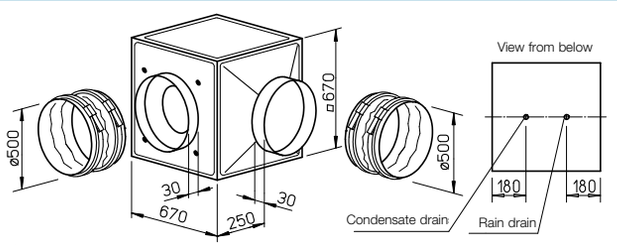
T120

Dimensions GB 500



Dim. in mm

Dimensions GB 500 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved blades, 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**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

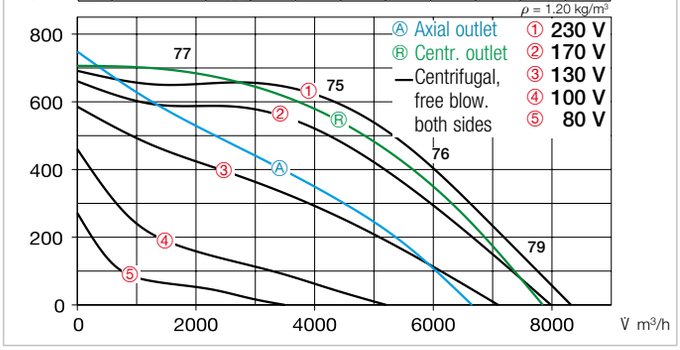
- **Electrical connection**
  Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54																	
GBW 500/4	05517	8320	1400	47	1.50	6.70	9.60	865	50	50	61	**MWS 10**	01946	**TSW 10**	01498	**MW**[1]	01579
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54																	
GBD 500/4/4	05518	7650/8860	1075/1340	45	0.97/1.45	1.60/2.80	2.90	867	50	50	57	**RDS 7**	01578	**TSD 5.5**	01503	**MD**	05849
T120 **Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54**																	
GBW 500/4 T120	05776	8345	1340	45	1.40	6.1	7.0	301	120	100	75	**MWS 10**	01946	–		–	
T120 **Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54**																	
GBD 500/4/4 T120	05777	7320/8350	1120/1370	45	0.95/1.30	1.60/2.50	2.5	947	120	110	75	**RDS 4**	01316	**TSD 3.0**	01502	**MD**	05849

1) Incl. operating switch

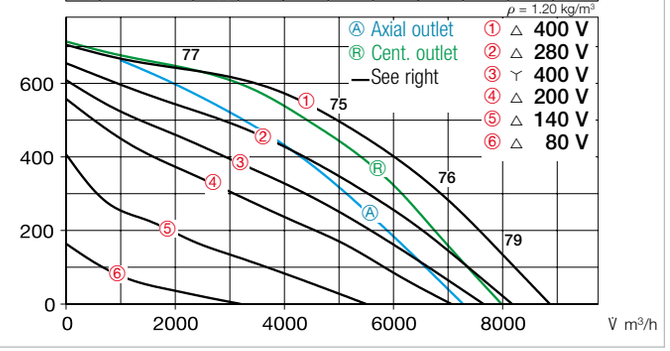
Performance curves GBW 500/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	67	64	63	53	52	50	46	40
L_{WA}	Inlet side	dB(A)	79	63	72	72	74	72	66	59
L_{WA}	Outlet side	dB(A)	83	72	75	76	78	75	71	67



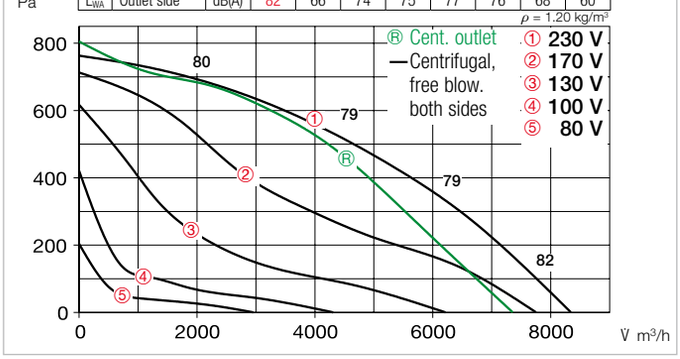
Performance curves GBD 500/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	59	62	57	56	47	41	33
L_{WA}	Inlet side	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Outlet side	dB(A)	80	61	73	74	74	73	69	60



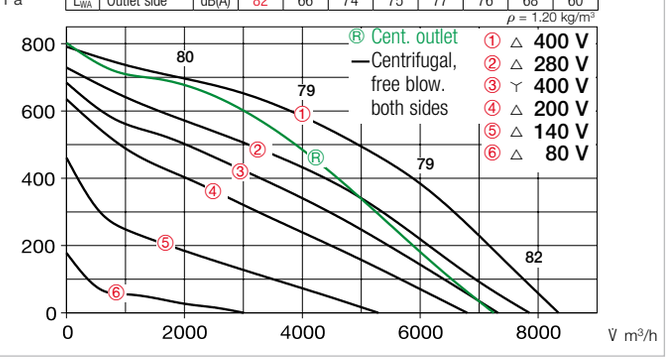
Performance curves GBW 500/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	54	61	58	57	56	50	42
L_{WA}	Inlet side	dB(A)	79	65	71	73	72	73	68	58
L_{WA}	Outlet side	dB(A)	82	66	74	75	77	76	68	60



Performance curves GBD 500/4/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	54	61	58	57	56	50	42
L_{WA}	Inlet side	dB(A)	79	65	71	73	72	73	68	58
L_{WA}	Outlet side	dB(A)	82	66	74	75	77	76	68	60



Motor protection
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

Power control
All types are speed-controllable using voltage reduction by means of transformer (accessories).
The 3~ types can also be operated at two speeds using a ⋎/△ switch or motor protection circuit breaker M 4. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

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 500 Ref. no. 05639

Weather protection cover for protected outdoor installation.
GB-WSD 500 Ref. no. 05748

Speed switch and on/off switch for two-speed ⋎/△ switchable three-phase current fans.
DS 2 [2] Ref. no. 01351

[2] required motor protection circuit breaker: Type MD, No. 05849.

Special accessories

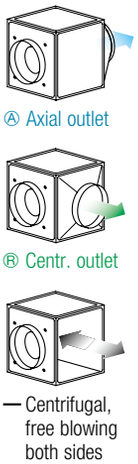
☐ **for GB series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 500 Ref. no. 05644
(a condensate tray with condensate drain is included in delivery for GB T120).

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

References	Page
Planning information	14 ff.
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Accessory details	**Page**
Speed controllers and motor prot. circ. breakers	601 ff.

GB 560

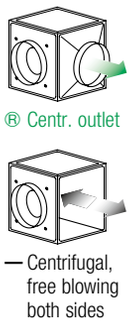




Any installation position and location due to five possible outlet directions.

GB 560 T120

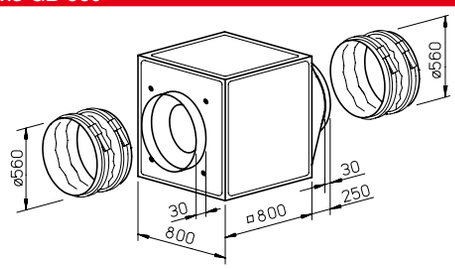




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

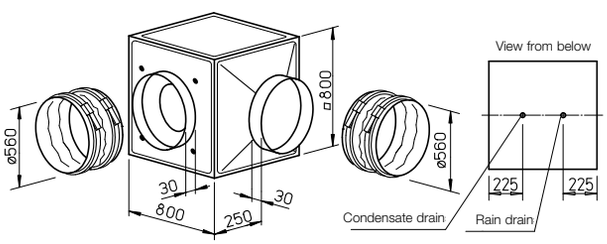
T120

Dimensions GB 560



Dim. in mm

Dimensions GB 560 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved blades, 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**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

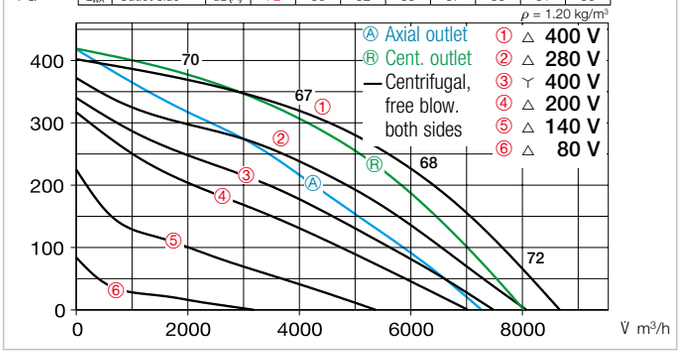
- **Electrical connection**
  Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54																	
GBW 560/4	05508	9150	1410	45	1.83	7.93	11.1	865	45	45	92	**MWS 10**	01946	**TSW 10**	01498	**MW**[1]	01579
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54																	
GBD 560/6/6	05522	7500/8670	705/885	35	0.51/0.80	0.90/1.85	1.90	867	50	50	80	**RDS 4**	01316	**TSD 3.0**	01502	**MD**	05849
GBD 560/4/4	05521	11100/12610	1110/1350	44	1.70/2.60	2.80/4.80	4.90	867	50	40	90	**RDS 7**	01578	**TSD 7.0**	01504	**MD**	05849
T120 **Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54**																	
GBD 560/4/4 T120	05778	11520/12300	1250/1400	48	1.85/2.50	3.20/6.80	6.80	520	120	120	105	**RDS 7**	01578	**TSD 7.0**	01504	**MD**	05849

1) Incl. operating switch.

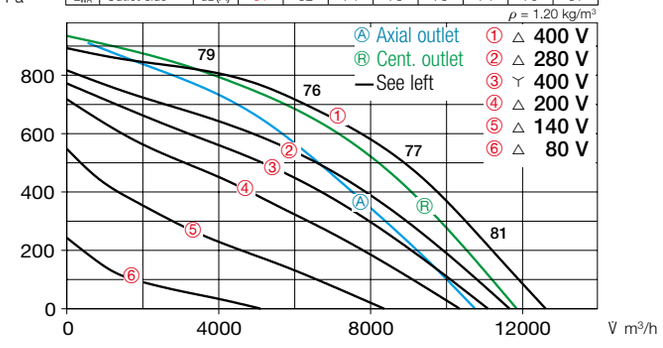
Performance curves GBD 560/6/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	55	52	51	42	40	37	32	25
L_{WA}	Inlet side	dB(A)	68	51	53	63	64	61	53	43
L_{WA}	Outlet side	dB(A)	72	60	62	69	67	66	61	50



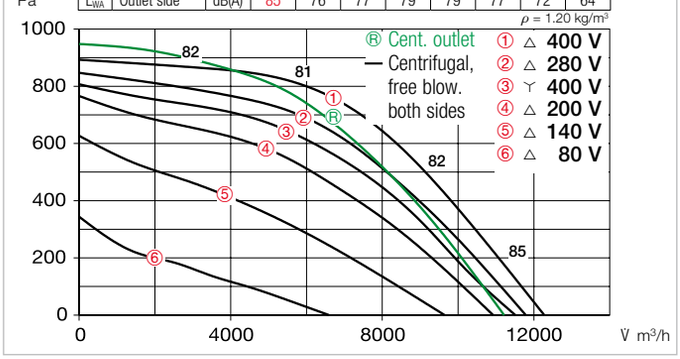
Performance curves GBD 560/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	64	64	64	48	50	46	43	37
L_{WA}	Inlet side	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Outlet side	dB(A)	81	62	74	75	75	74	70	61



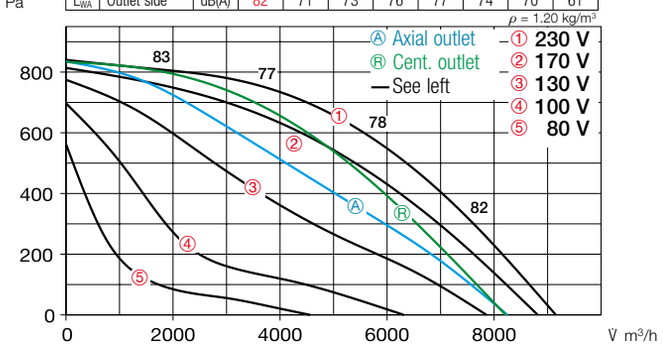
Performance curves GBD 560/4/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	68	61	62	60	60	60	56	50
L_{WA}	Inlet side	dB(A)	82	69	78	75	74	73	70	62
L_{WA}	Outlet side	dB(A)	85	76	77	79	79	77	72	64



Performance curves GBW 560/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	65	62	61	51	50	48	44	38
L_{WA}	Inlet side	dB(A)	76	63	68	69	71	69	64	57
L_{WA}	Outlet side	dB(A)	82	71	73	76	77	74	70	61



Motor protection
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

Power control
All types are speed-controllable using voltage reduction by means of transformer (accessories). The 3~ types can also be operated at two speeds using a ⋎/△ switch or motor protection circuit breaker M 4. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.
- ☐ The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table.

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 560 Ref. no. 05626

Weather protection grille for outlet-side coverage.
GB-WSG 560 Ref. no. 05640

Weather protection cover for protected outdoor installation.
GB-WSD 560 Ref. no. 05749

Speed switch and on/off switch for two-speed ⋎/△ switchable three-phase current fans.
DS 2 [2] Ref. no. 01351

[2] required motor protection circuit breaker: Type MD, No. 05849.

Special accessories

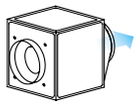
☐ **for GB series**
Condensate tray with drain connectors (central) for duct/hose connection.
GB-KW 560 Ref. no. 05645
(a condensate tray with condensate drain is included in delivery for GB T120).

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

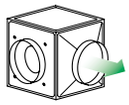
References	Page
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GB 630

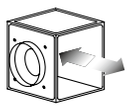




Ⓐ Axial outlet



Ⓡ Centr. outlet

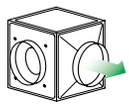


— Centrifugal, free blowing both sides

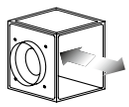
Any installation position and location due to five possible outlet directions.

GB 630 T120





Ⓡ Centr. outlet

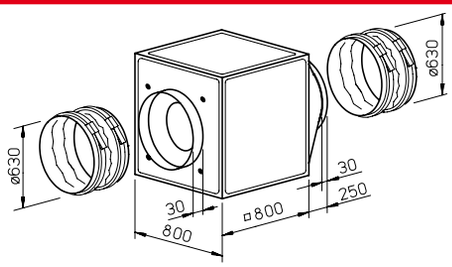


— Centrifugal, free blowing both sides

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

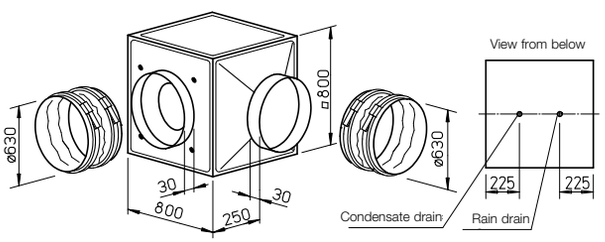
T120

Dimensions GB 630



Dim. in mm

Dimensions GB 630 T120



Dim. in mm

Special features of the GB T120 series

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved blades, 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.

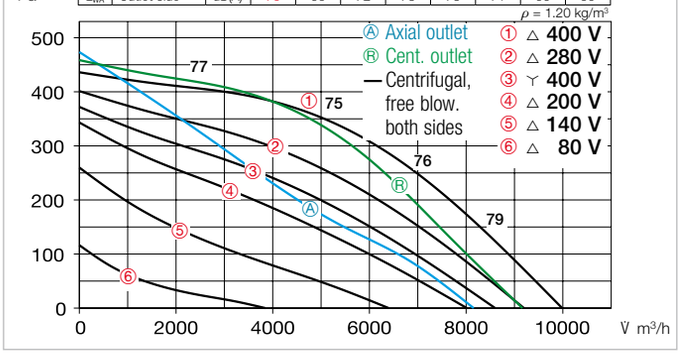
- **Drive**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

- **Electrical connection**
  Standard terminal box (IP54) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		$\dot{V}$ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/△ connection, protection category IP54																	
GBD 630/6/6	05524	8600/9990	720/890	42	0.64/0.93	1.08/1.88	2.03	867	60	60	86	**RDS 4**	01316	**TSD 5.5**	01503	**MD**	05849
GBD 630/4/4	05523	12950/14430	1130/1380	51	2.40/3.45	4.10/6.20	7.20	867	60	60	105	**RDS 11**	01332	**TSD 11**	01513	**MD**	05849
T120 **Three-phase current motor, 3~, 400 V, 50 Hz, protection category IP54**																	
GBD 630/4 T120	05779	14140	1445	53	4.40	8.0	–	499	120	–	105	–	–	–	–	**MD**	05849

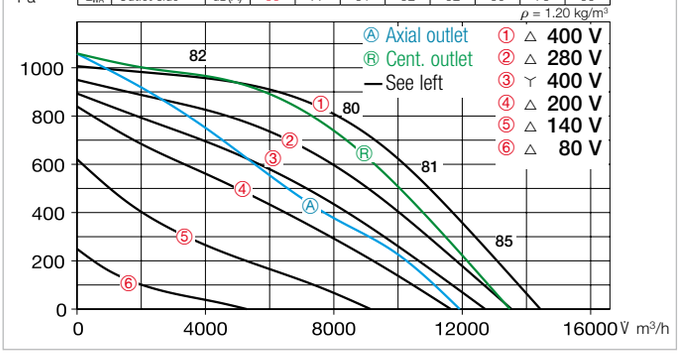
Performance curves GBD 630/6/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	62	59	58	48	47	45	41	35
L_{WA}	Inlet side	dB(A)	73	63	64	67	66	66	63	57
L_{WA}	Outlet side	dB(A)	79	68	72	73	73	71	66	59



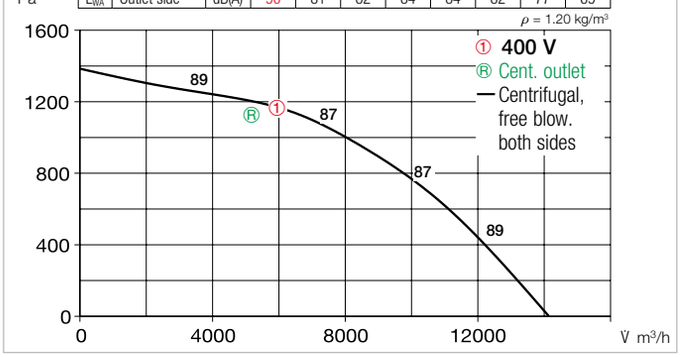
Performance curves GBD 630/4/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	71	68	57	57	56	54	50	44
L_{WA}	Inlet side	dB(A)	82	72	73	76	75	75	72	66
L_{WA}	Outlet side	dB(A)	88	77	81	82	82	80	75	68



Performance curves GBD 630/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	73	66	67	65	65	65	61	55
L_{WA}	Inlet side	dB(A)	87	74	83	80	79	78	75	67
L_{WA}	Outlet side	dB(A)	90	81	82	84	84	82	77	69



Motor protection

Types GBD with external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker. Type GBD T120 with PTC thermistors for direct wiring to the motor protection circuit breaker or the frequency converter FU-BS (see type table, accessories).

Power control

All types (except for GBD T120) are speed-controllable using voltage reduction by means of transformer (accessories).
The 3~ types can also be operated at two speeds using a ⋎/△ switch or motor protection circuit breaker M 4; Type GBD T120 can only be controlled using a frequency converter with sine filter. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.

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

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 630	Ref. no. 05626

Weather protection grille for outlet-side coverage.

GB-WSG 630	Ref. no. 05640

Weather protection cover for protected outdoor installation.

GB-WSD 630	Ref. no. 05749

Special accessories

☐ **for GB series**

Condensate tray with drain connectors (central) for duct/hose connection.

GB-KW 630	Ref. no. 05645

(a condensate tray with condensate drain is included in delivery for GB T120).

Speed switch and on/off switch for two-speed ⋎/△ switchable three-phase current fans.

DS 2 [1)]	Ref. no. 01351

1) required motor protection circuit breaker: Type MD, No. 05849.

☐ **for GB T120 series**

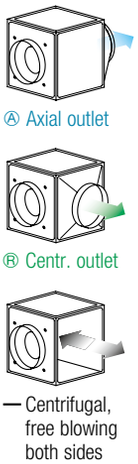
Rain drain for outdoor installation (Hole in casing base already provided).

GB-RA	Ref. no. 09418

References	Page
Planning information	14 ff.
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Accessory details	**Page**
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GB 710

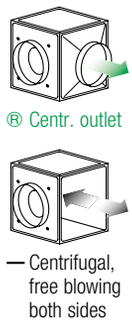




Any installation position and location due to five possible outlet directions.

GB 710 T120

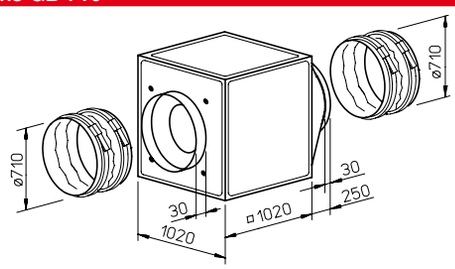




For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.

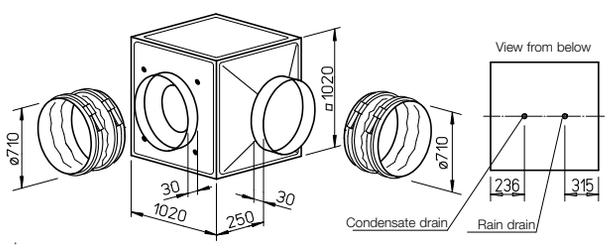
T120

Dimensions GB 710



Dim. in mm

Dimensions GB 710 T120



Dim. in mm

Special features of the GB T120 seriesT120

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C.
- 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 GB T120**
  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).

Special features of the GB 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).

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 with backward curved blades, 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.

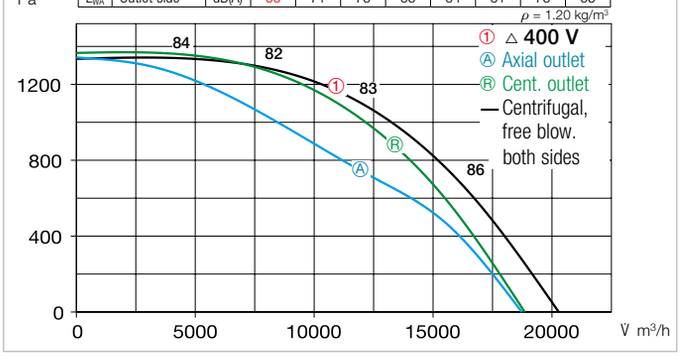
- **Drive**
  Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP54. Ball bearing mounted.

- **Electrical connection**
  Standard terminal box (IP54/55) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-rad. sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Max. air flow temperature at Rat. vol.	Max. air flow temperature at Control	Weight net aprx.	Speed controller 5-step with motor prot. circuit breaker Type	Ref. no.	Speed controller 5-step without motor prot. circuit breaker Type	Ref. no.	Mot. prot. circ. break. for connecting built-in thermal contacts Type	Ref. no.
		V̇ m³/h	min⁻¹	dB(A) in 4m	kW	A	A	No.	+ °C	+ °C	kg						
Three-phase current motor, 3~, 400 V, 50 Hz, protection category IP55																	
GBD 710/4	05529	20285	1465	51	5.97	10.20	–	499	75	–	170	–		–		**MD**	05849
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP54																	
GBD 710/6/6	05525	16000/18740	690/890	46	1.55/2.45	2.90/4.70	4.70	867	45	45	157	**RDS 7**	01578	**TSD 7.0**	01504	**MD**	05849
T120 **Three-phase current motor, 3~, 400 V, 50 Hz, protection category IP54**																	
GBD 710/4 T120	05756	18200	1465	55	5.89	10.4	–	499	120	–	188	–		–		**MD**	05849

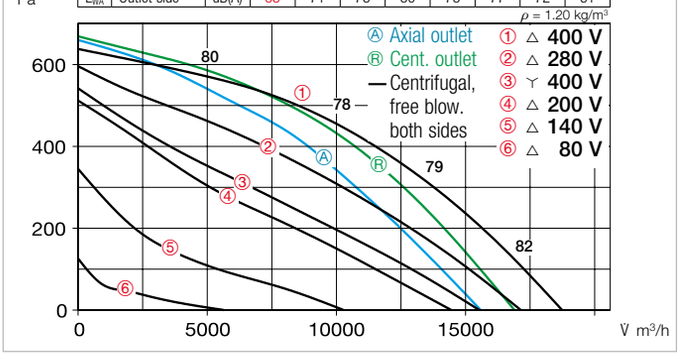
Performance curves GBD 710/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	71	67	68	58	56	53	48	41
L_{WA}	Inlet side	dB(A)	82	70	73	77	76	74	71	60
L_{WA}	Outlet side	dB(A)	88	71	73	83	84	81	73	63



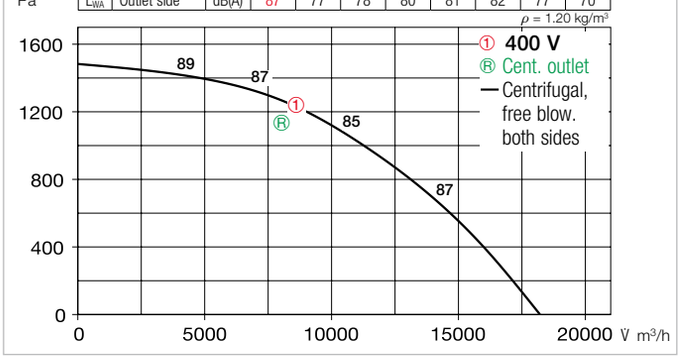
Performance curves GBD 710/6/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	66	63	62	53	51	48	43	36
L_{WA}	Inlet side	dB(A)	79	62	64	74	75	72	64	54
L_{WA}	Outlet side	dB(A)	83	71	75	80	78	77	72	61



Performance curves GBD 710/4 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	75	70	67	65	68	65	64	61
L_{WA}	Inlet side	dB(A)	86	73	76	76	81	81	67	69
L_{WA}	Outlet side	dB(A)	87	77	78	80	81	82	77	70



Motor protection

Types GBD with external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker. Type GBD T120 with PTC thermistors for direct wiring to the motor protection circuit breaker or the frequency converter FU-BS (see type table, accessories).

Power control

All types (except for GBD T120) are speed-controllable using voltage reduction by means of transformer (accessories). GBD 710/6/6 can also be operated at two speeds using a ⅄/△ switch or motor protection circuit breaker M 4; Type GBD T120 can only be controlled using a frequency converter with sine filter. Performance levels are shown in the performance diagram.

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 inlet side sound power level is also specified above the nominal performance curve in the performance diagram.

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

Special accessories

☐ **for GB series**

Condensate tray with drain connectors (central) for duct/hose connection.

GB-KW 710 Ref. no. 05646

(a condensate tray with condensate drain is included in delivery for GB T120).

Speed switch and on/off switch for two-speed ⅄/△ switchable three-phase current fans.

DS 2 [1] Ref. no. 01351

[1] required motor protection circuit breaker: Type MD, No. 05849.

☐ **for GBD 710/6/6**

Vibration dampers for indoor installation. 1 set = 4 pcs.

SDD-U Ref. no. 05627

☐ **for GB T120 series**

Rain drain for outdoor installation (Hole in casing base already provided).

GB-RA Ref. no. 09418

Accessories for both series

Weather protection grille for outlet-side coverage.

GB-WSG 710 Ref. no. 05641

Weather protection cover for protected outdoor installation.

GB-WSD 710 Ref. no. 05750

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