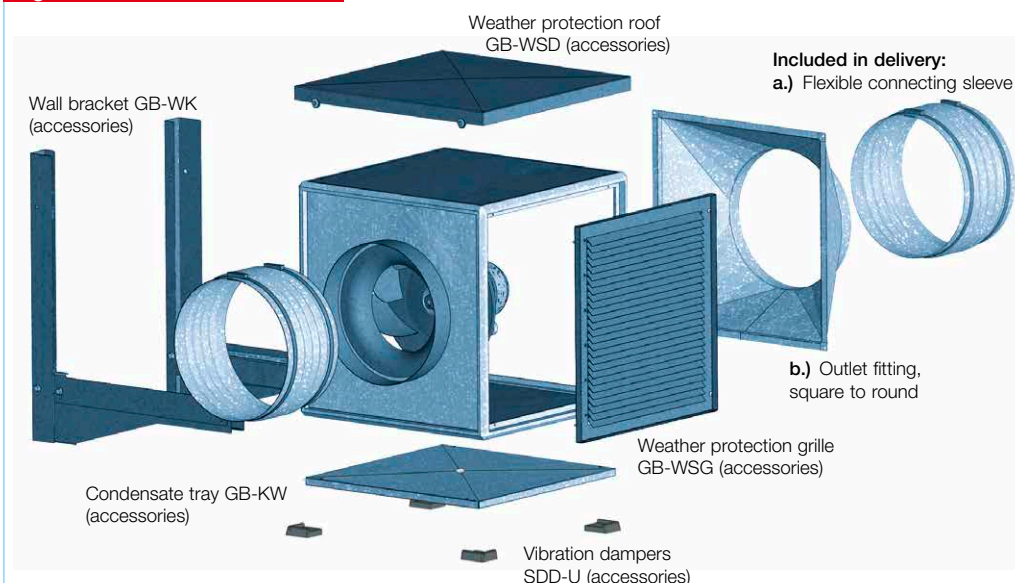


GigaBox and accessories



Reference	Page
Planning information, acoustics	10 ff.
General techn. information, power control	15 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 the lowest operating costs.

GB EC

GigaBox types with EC drive technology are optionally available for energy-saving applications and the lowest 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 max. permissible air flow temperature of +70 °C or +120 °C for types

GB T120 and GB EC T120.

Simple positioning with crane hook as standard.

- 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-control-able using 5-step transformer or electronic 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 M4).

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 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 characteristic curve as examples.

Positioning, installation

GB and GB EC

Any installation position and flexible installation due to five possi-

ble 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 IP 54 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-control-able EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Electrical connection

GB and GB T120

Standard terminal box, protection category IP 54.

GB EC

Standard terminal box (IP 54) mounted to external cable.

GB EC T120

Standard terminal box (IP 54) directly to the commutation electronics.

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.

GigaBox EC centrifugal fans

Selection table



By combining the parameters of static pressure increase Δp_{ia} , 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.

	Sound press. Radiation	Sound press. inlet side	Flow rate \dot{V} m ³ /h depending on static pressure												
Type GB EC	L _{PA} dB(A)	L _{PA} dB(A)	(ΔP _{ia}) in Pa												
	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	7300	7120	6870	6650	6390	6110	5800	5500	5180	4420	3070		
GBD EC 500 A	43	55	8280	7980	7700	7380	7000	6620	6170	5680	5070	1800			
GBD EC 500 B	46	59	10500	10260	9980	9730	9410	9100	8850	8600	8320	7600	6650	5300	
GBD EC 560	49	59	13370	13110	12800	12510	12190	11930	11610	11280	10920	10310	9580	8320	6700
GBD EC 630	44	60	15000	14680	14200	13870	13450	12930	12380	11900	11310	10180	7850		
GBD EC 710 A	42	53	15890	15020	14250	13500	12510	11670	10680	9500	6730				
GBD EC 710 B	48	61	19630	19060	18400	16760	17130	16460	15720	15050	14060	11910	6960		

	Sound press. Radiation	Sound press. inlet side	Flow rate \dot{V} m ³ /h depending on static pressure												
Type GB EC T120	L _{PA} dB(A)	L _{PA} dB(A)	(ΔP _{ia}) in Pa												
	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	3030	2750	2390	1920	800								
GBW EC 355 T120	40	53	3830	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	59	4740	4290	3670	2880	1500								
GBW EC 450 T120	45	57	6200	5720	5070	4130	2610								
GBD EC 450 T120	48	60	6210	5690	5080	4140	2610								
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_{ia} , 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 V m ³ /h depending on static pressure												
Type GB	L _{PA} dB(A)	L _{PA} dB(A)	(ΔP _{ia}) in Pa												
	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	4120	3920	3720	3500	3270	3000	2690	2260	1440				
GBD 400/4/4	38	50	4120	3910	3710	3500	3290	3050	2780	2430	1870				
GBW 450/4	40	49	4610	4400	4200	3990	3770	3530	3270	2970	2610				
GBD 450/4/4	40	52	5500	5220	4930	4640	4330	4000	3640	3210	2670				
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	20280	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		

	Sound press. Radiation	Sound press. inlet side	Flow rate V m ³ /h depending on static pressure												
Type GB T120	L _{PA} dB(A)	L _{PA} dB(A)	(ΔP _{ia}) in Pa												
	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

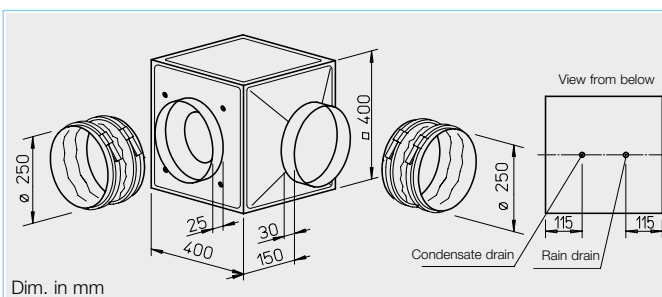
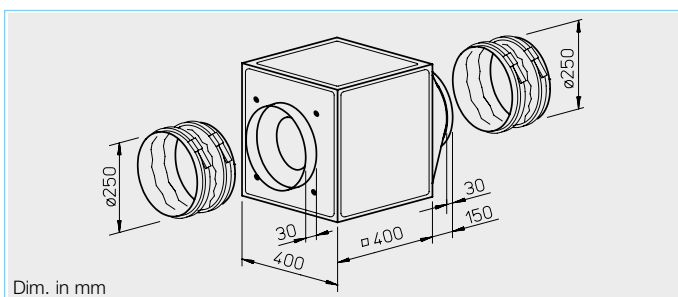
GB EC

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



GB EC T120

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



■ 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 GB EC 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

■ Special feature

- GB EC series 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

□ 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-control-lable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

□ Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

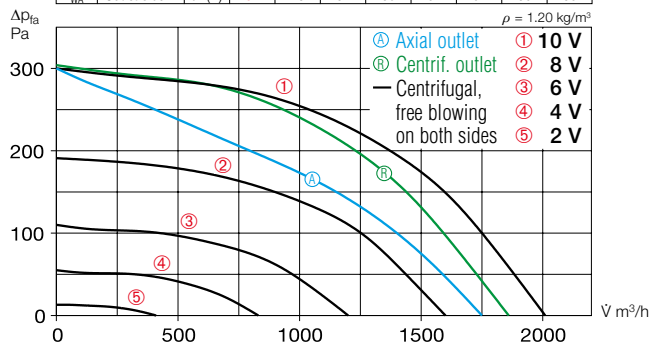
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system	Speed potentiometer	Flush-mounted	Surface-mounted
		mm	V m³/h	min⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54														
GBW EC 250	05807	250	2010	1650	31	0.17	0.76	973	55	20.0	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾ 01737
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54														
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).

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



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

Power control

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

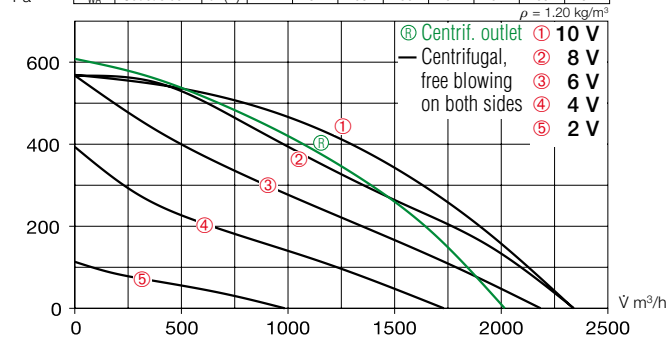
Noise

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

- 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 characteristic curve.

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



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

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 roof 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



References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

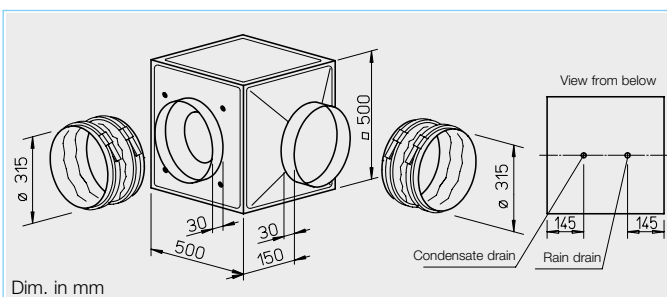
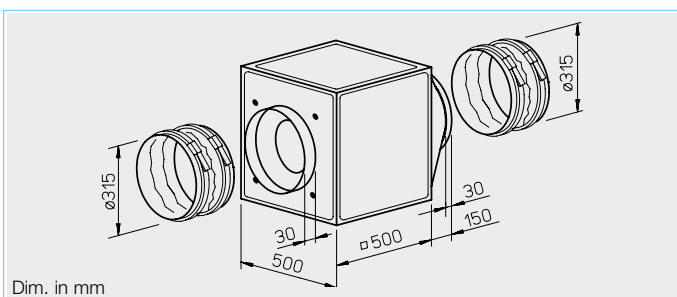
GB EC

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



GB EC T120

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



■ 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 GB EC 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

■ Special feature

- GB EC series 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

□ 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-controlable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

□ Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

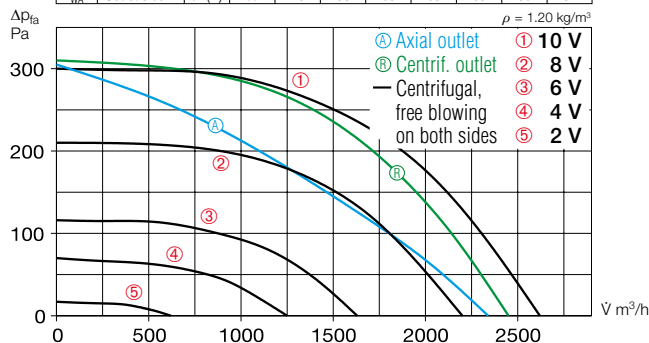
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system	Speed potentiometer	Flush-mounted	Surface-mounted
		mm	V m³/h	min⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54														
GBW EC 315	05808	315	2617	1500	32	0.20	0.9	973	55	31.0	EUR EC ^{1) 2)} 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾ 01737
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54														
GBW EC 315 A T120	06370	315	3049	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).

GBW EC 315

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



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

Power control

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

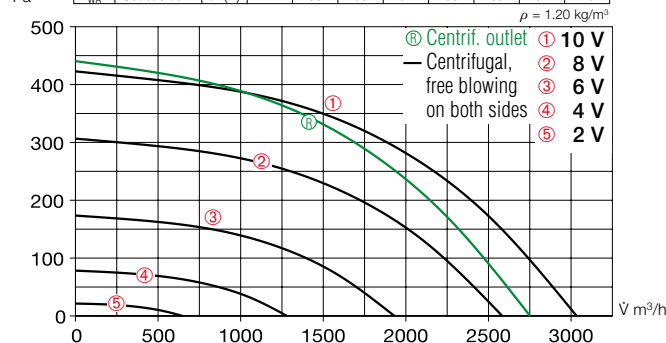
Noise

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

- 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 characteristic curve.

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	38
L _{WA} Inlet side		dB(A)	69	56	61	63	62	63	48
L _{WA} Outlet side		dB(A)	71	55	63	64	66	57	49



Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1700	3049	191	0.87	39	0.23
8	1440	2580	124	0.61	36	0.17
6	1090	1930	60	0.38	30	0.11
4	730	1280	25	0.27	21	0.07

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 roof 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



References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

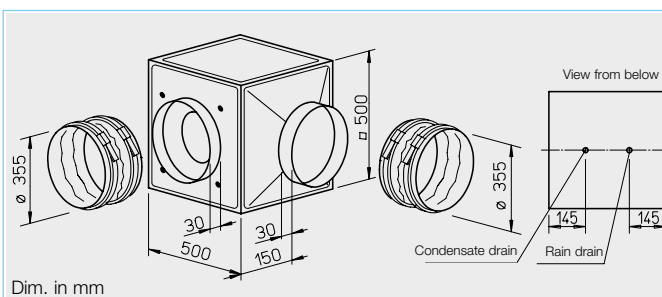
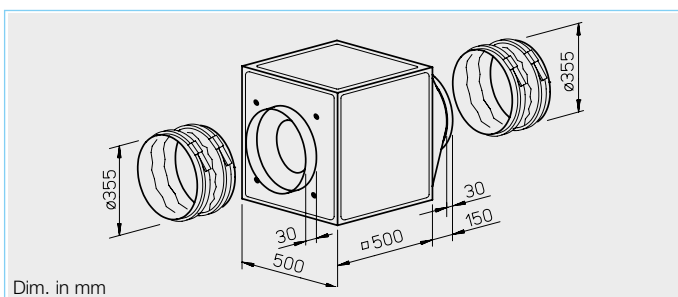
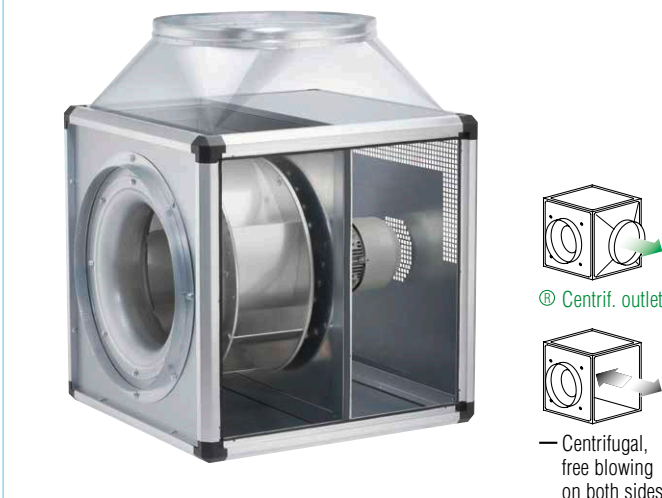
GB EC

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



GB EC T120

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



■ 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 GB EC 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

■ Special feature

- **GB EC series 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 roof and grille (accessories).

□ Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

□ 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-controlable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

□ Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

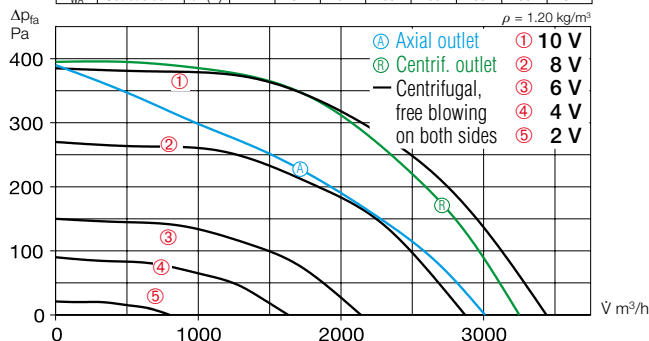
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consump- tion	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer			
											Flush-mounted	Surface-mounted				
		mm	Ų m³/h	min ⁻¹	dB(A) at 4 m	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 IP 54																
GBW EC 355	05809	355	3438	1500	30	0.35	1.55	973	50	33.0	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737	
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54																
GBW EC 355 T120	06372	355	3836	1500	40	0.36	1.5	1223.1	120	44.0	EUR EC ¹⁾²⁾ 01347	PU 10 ¹⁾	01734	PA 10 ¹⁾	01735	
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54																
GBD EC 355 T120	06452	355	3842	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).

GBW EC 355

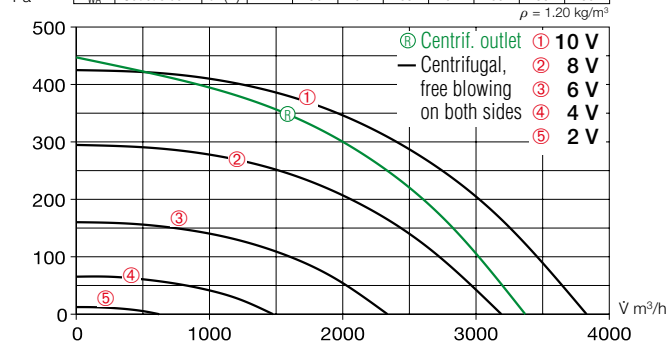
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation	dB(A)	50	45	44	39	42	41	38	29
L _{WA} Inlet side	dB(A)	69	49	63	65	62	59	55	48
L _{WA} Outlet side	dB(A)	72	52	64	68	66	63	58	51



Voltage V	n min ⁻¹	ṽ 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

GBW EC 355 T120

Δp _{fa}	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

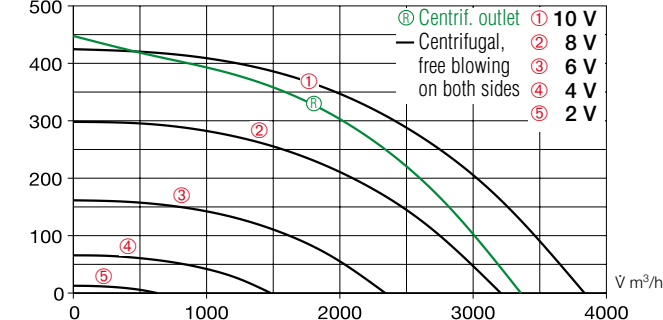


Voltage V	n min ⁻¹	ṽ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1500	3830	255	1.15	40	0.24
8	1250	3190	154	0.74	36	0.17
6	920	2330	68	0.43	30	0.11
4	590	1490	26	0.28	20	0.06

GBD EC 355 T120

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k	
Δp_{Pa}	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

$\rho = 1.20 \text{ kg/m}^3$



Voltage V	n min ⁻¹	ṽ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1500	3840	261	1.70	40	0.24
8	1250	3220	160	1.31	36	0.18
6	920	2350	75	0.85	30	0.11
4	590	1480	32	0.63	20	0.08

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 roof 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

Power control

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

Noise

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

- 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 characteristic curve.



References	Page
Planning information	10 ff.
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Universal control system, electronic controllers, speed potentiometer	585 ff.

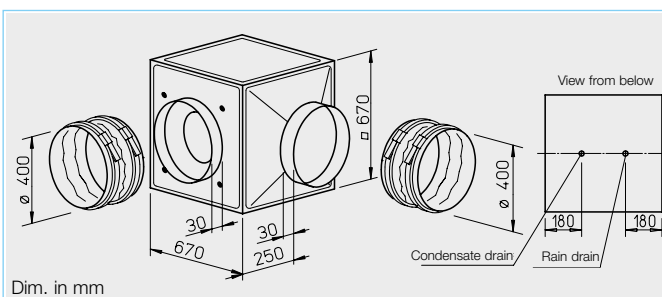
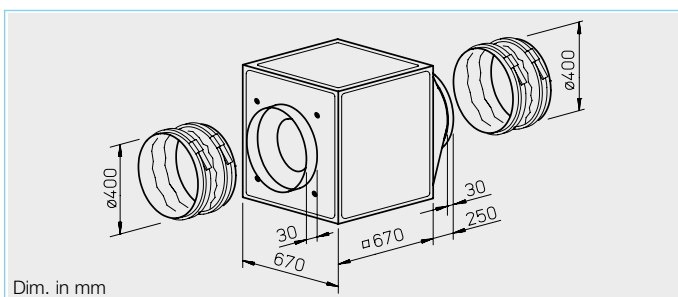
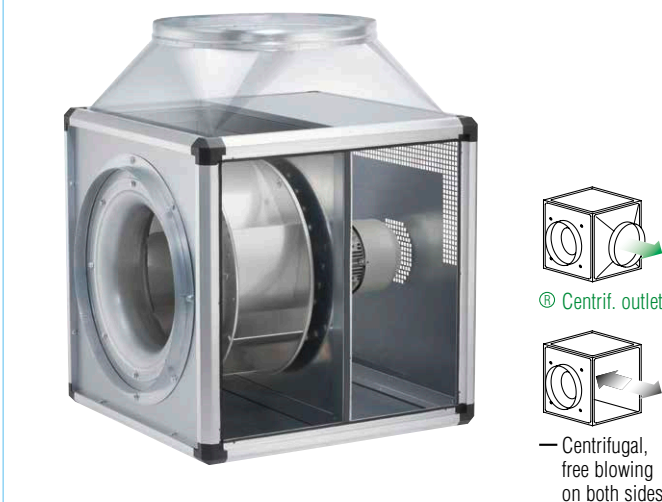
GB EC

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



GB EC T120

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



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 GB EC 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

Special feature

GB EC series 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

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 IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

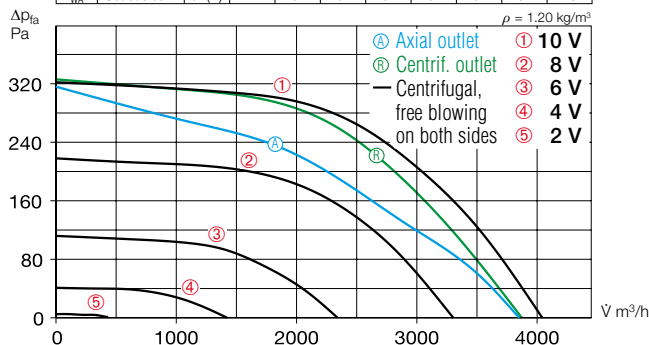
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consump- tion	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer		Flush-mounted	Surface-mounted
											Type	Ref. no.	Type	Ref. no.		
		mm	∇ m³/h	min ⁻¹	dB(A) at 4 m	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 IP 54																
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	5155	1500	37	0.62	2.80	973	50	46.0	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737	
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54																
GBW EC 400 T120	06453	400	4650	1320	43	0.43	1.80	1223.1	120	60.0	EUR EC ¹⁾²⁾ 01347	PU 10 ¹⁾	01734	PA 10 ¹⁾	01735	
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54																
GBD EC 400 T120	06454	400	5090	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).

GBW EC 400 A

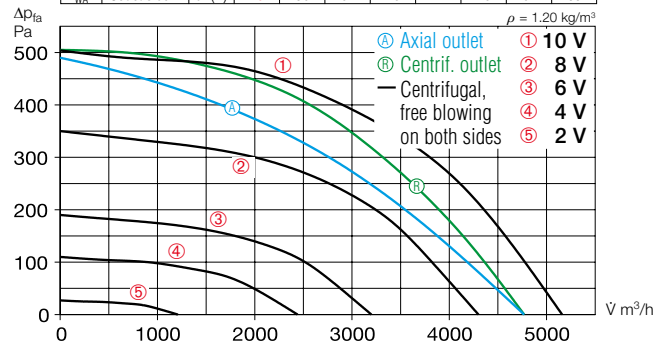
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	56	52	47	43	40	35	27
L _{WA} Inlet side		dB(A)	68	53	62	60	58	55	48
L _{WA} Outlet side		dB(A)	71	61	62	64	62	57	48



Free blowing						
Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1200	4040	209	0.93	36	0.19
8	990	3300	118	0.52	32	0.13
6	710	2340	49	0.22	25	0.08
4	430	1420	21	0.09	18	0.05

GBW EC 400 B

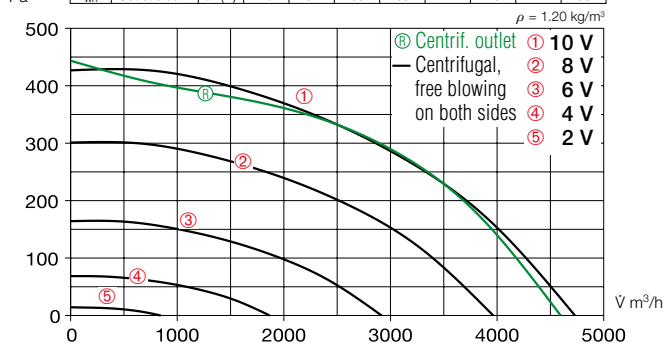
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	57	46	54	49	48	43	39
L _{WA} Inlet side		dB(A)	72	53	64	65	66	59	53
L _{WA} Outlet side		dB(A)	76	56	67	70	71	62	55



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	244	1.08	34	0.21
6	930	3200	117	0.52	29	0.13
4	710	2440	63	0.28	25	0.09

GBW EC 400 T120

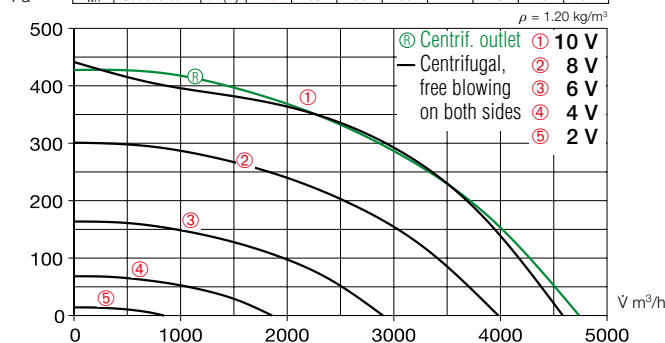
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	60	41	38	36	37	35	24
L _{WA} Inlet side		dB(A)	73	56	58	61	66	61	50
L _{WA} Outlet side		dB(A)	75	62	63	65	71	70	53



Free blowing						
Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1320	4650	276	1.24	43	0.21
8	1100	3950	170	0.80	39	0.15
6	820	2950	74	0.44	33	0.09
4	530	1880	29	0.30	23	0.06

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	27
L _{WA} Inlet side		dB(A)	76	59	61	64	69	70	53
L _{WA} Outlet side		dB(A)	78	65	66	68	74	73	57



Free blowing						
Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1320	4750	279	0.60	46	0.21
8	1110	3990	173	0.45	39	0.16
6	820	2900	82	0.30	33	0.10
4	530	1890	35	0.22	23	0.07

Power control

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

Noise

The total level and range are specified above the performance diagram for:
 - 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 characteristic 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 roof 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	585 ff.

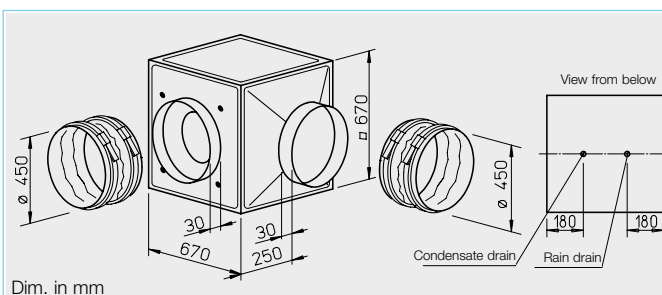
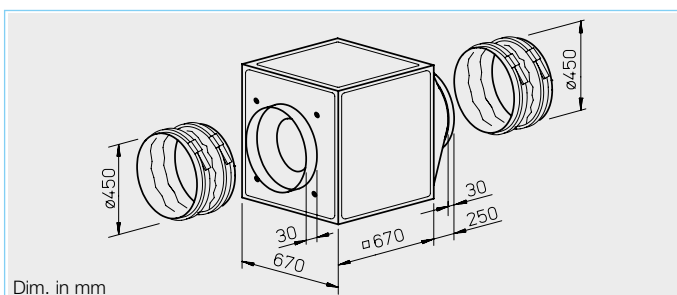
GB EC

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



GB EC T120

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



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 GB EC 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

Special feature

GB EC series 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

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 IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

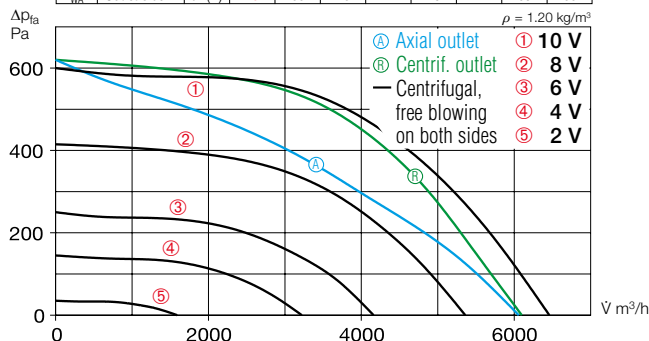
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consump- tion	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer		Flush-mounted	Surface-mounted
											Type	Ref. no.	Type	Ref. no.		
		mm	ṽ m³/h	min ⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V (GBW) / Three-phase current, 3~, 400 V (GBD) – 50/60 Hz, EC motor, protection category IP 54																
GBW EC 450	05811	450	6458	1450	38	1.00	4.5	973	50	52.0	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737	
GBD EC 450	05812	450	7317	1500	39	1.00	1.8	976	55	52.0	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾	01736	PA 24 ¹⁾	01737	
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP 54																
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	
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54																
GBD EC 450 T120	06476	450	6450	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).

GBW EC 450

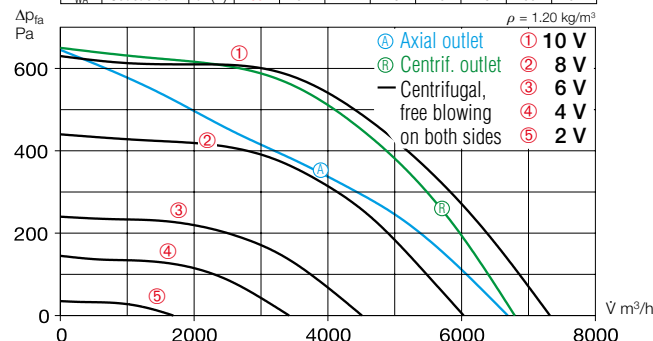
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	58	48	56	48	47	46	42
L _{WA} Inlet side		dB(A)	75	54	66	68	70	69	64
L _{WA} Outlet side		dB(A)	79	60	70	74	75	74	65



Free blowing						
Voltage V	n min ⁻¹	\dot{V} 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

GBD EC 450

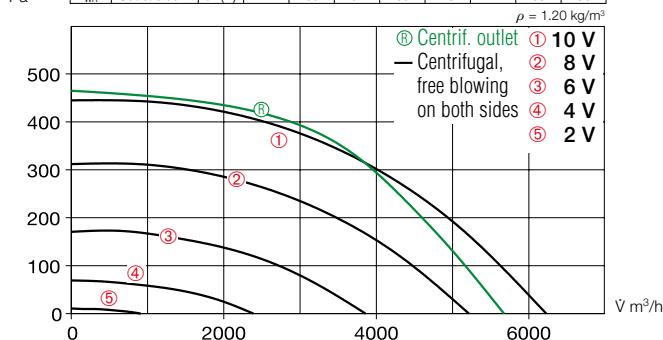
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	59	49	57	49	48	47	43
L _{WA} Inlet side		dB(A)	76	55	67	69	71	70	65
L _{WA} Outlet side		dB(A)	80	61	71	75	76	75	66



Free blowing						
Voltage V	n min ⁻¹	\dot{V} m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1500	7320	640	1.20	39	0.31
8	1250	6030	380	0.80	36	0.23
6	930	4510	170	0.45	31	0.14
4	710	3420	90	0.27	28	0.10

GBW EC 450 T120

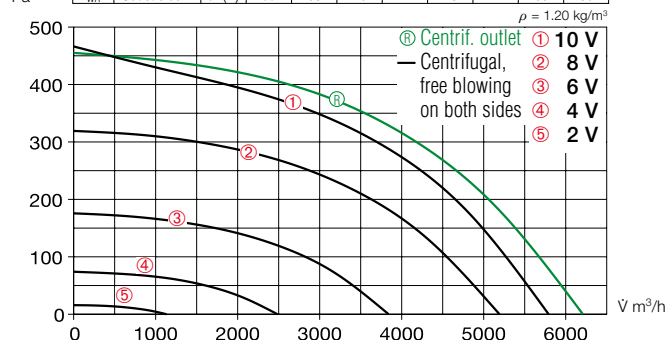
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	62	39	42	38	39	39	35
L _{WA} Inlet side		dB(A)	74	55	62	63	64	67	60
L _{WA} Outlet side		dB(A)	77	60	67	69	75	71	65



Free blowing						
Voltage V	n min ⁻¹	\dot{V} m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1230	6250	376	1.67	45	0.22
8	1030	5210	227	1.04	41	0.16
6	760	3860	102	0.53	35	0.10
4	500	2480	37	0.32	25	0.05

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
L _{WA} Inlet side		dB(A)	77	58	65	66	67	70	63
L _{WA} Outlet side		dB(A)	80	63	70	72	78	74	68



Free blowing						
Voltage V	n min ⁻¹	\dot{V} m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1400	6450	380	2.20	48	0.21
8	1030	5200	368	1.60	41	0.25
6	760	3850	108	1.00	35	0.10
4	500	2510	44	0.67	26	0.06

Power control

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

Noise

The total level and range are specified above the performance diagram for:
 - 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 characteristic 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 roof 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	585 ff.

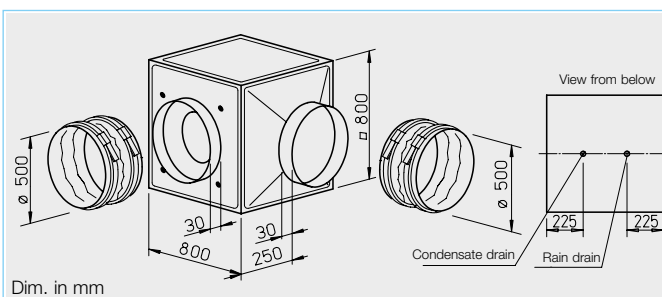
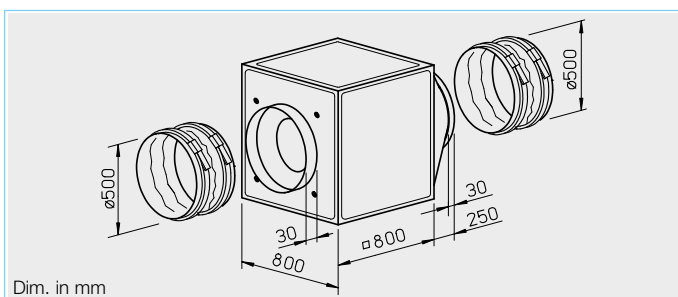
GB EC

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



GB EC T120

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



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 GB EC 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

Special feature

GB EC series 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

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-controlable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection

Integrated electronic temperature monitoring system for EC motor and electronics.

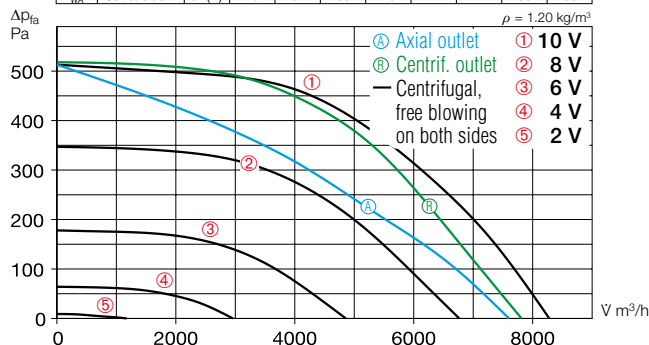
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system	Speed potentiometer
		mm	m³/h	min⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.
												Type
												Ref. no.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54												
GBD EC 500 A	05818	500	8280	1200	43	1.10	1.80	976	50	80.5	EUR EC ¹⁾²⁾ 01347	PU 24 ¹⁾ 01736 PA 24 ¹⁾ 01737
GBD EC 500 B	05813	500	10500	1500	46	1.95	3.10	976	50	79.0	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 IP 54												
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).

GBD EC 500 A

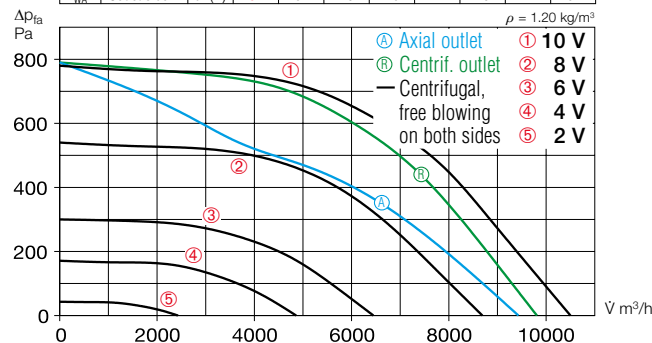
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	63	57	60	55	54	45	39
L _{WA} Inlet side		dB(A)	75	57	66	66	69	68	59
L _{WA} Outlet side		dB(A)	78	61	66	70	74	72	60



Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1200	8280	701	1.20	43	0.30
8	990	6770	414	0.75	39	0.22
6	710	4860	190	0.37	32	0.14
4	430	2960	63	0.16	22	0.08

GBD EC 500 B

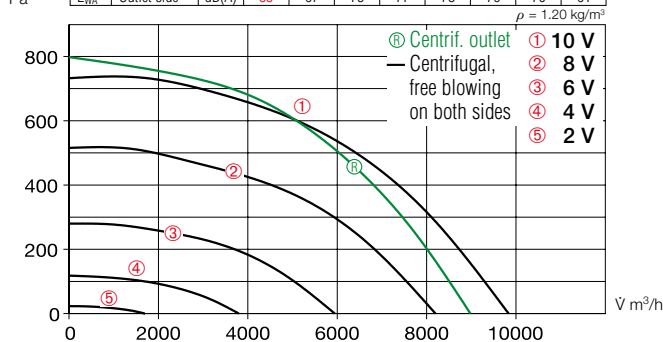
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Radiation		dB(A)	66	56	65	58	57	53	43
L _{WA} Inlet side		dB(A)	79	58	70	72	74	73	61
L _{WA} Outlet side		dB(A)	82	62	73	76	77	75	64



Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1500	10500	1250	2.10	46	0.43
8	1250	8690	745	1.30	43	0.31
6	930	6450	300	0.60	38	0.17
4	710	4860	170	0.40	34	0.13

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
L _{WA} Inlet side		dB(A)	80	58	67	70	71	72	58
L _{WA} Outlet side		dB(A)	83	67	75	77	78	76	61



Voltage V	n min ⁻¹	V̇ m³/h	P W	I A	Lp dB(A)	SFP kW/m³/s
10	1400	9850	856	4.60	51	0.31
8	1170	8020	520	4.60	47	0.23
6	860	5930	224	1.80	40	0.14
4	550	3800	76	1.05	31	0.07

Power control

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

Noise

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



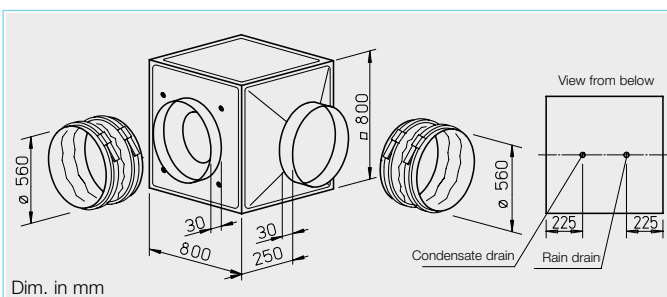
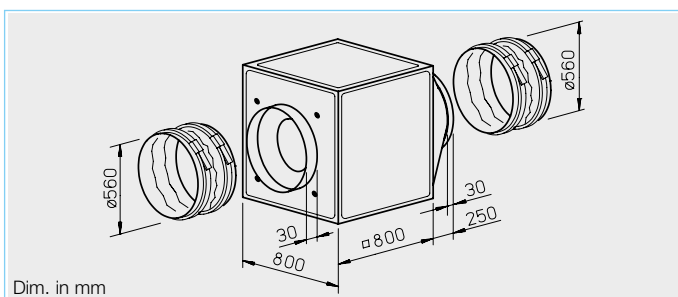
References	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

GB EC

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

**GB EC T120**

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



■ **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 GB EC 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 roof and grille (accessories).

□ **Electrical connection**

Standard terminal box (IP 54) directly to the commutation electronics.

■ **Special feature**

- **GB EC series 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 roof and grille (accessories).

□ **Electrical connection**

Standard terminal box (IP 54) 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 crane hook as standard.

□ **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-control-lable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

□ **Motor protection**

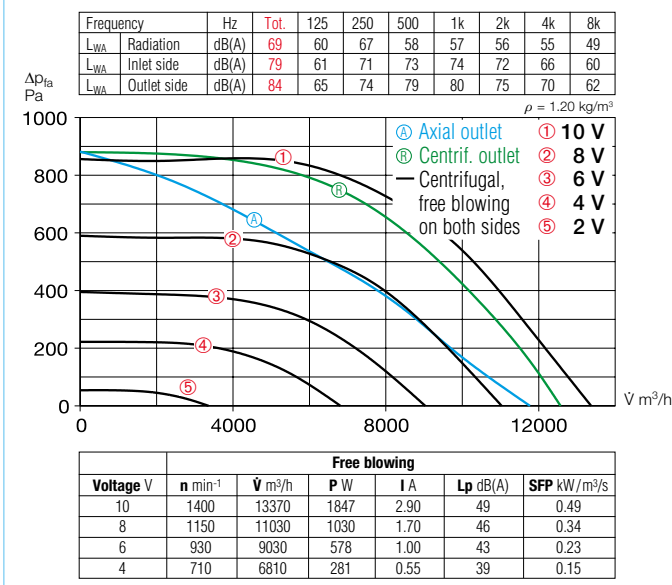
Integrated electronic temperature monitoring system for EC motor and electronics.

Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consump- tion	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer			
											Flush-mounted	Surface-mounted	Flush-mounted	Surface-mounted	Flush-mounted	Surface-mounted
		mm	Ų m³/h	min⁻¹	dB(A) at 4 m	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 IP 54																
GBD EC 560	05814	560	13367	1400	49	2.80	4.30	976	50	83.0	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 IP 54																
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			

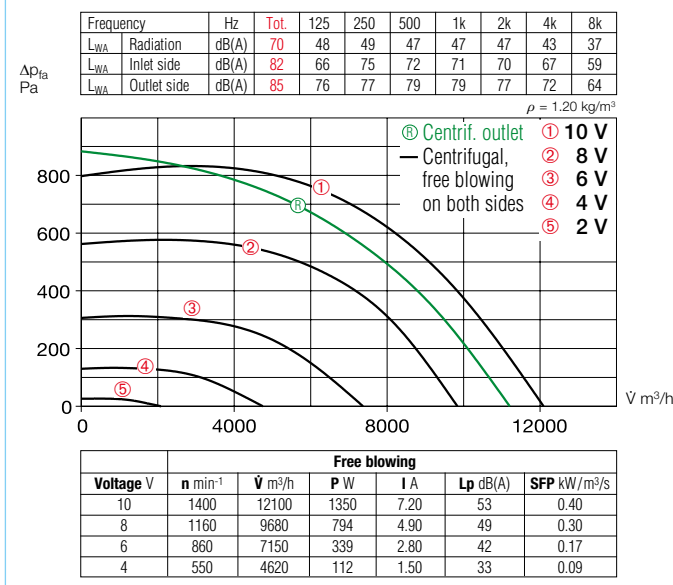
1) Multiple EC fans can normally be connected.

2) Alternative electronic diff. pressure/temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267).

GBD EC 560



GBD EC 560 T120



Power control

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

Noise

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

- 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 characteristic 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 roof 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



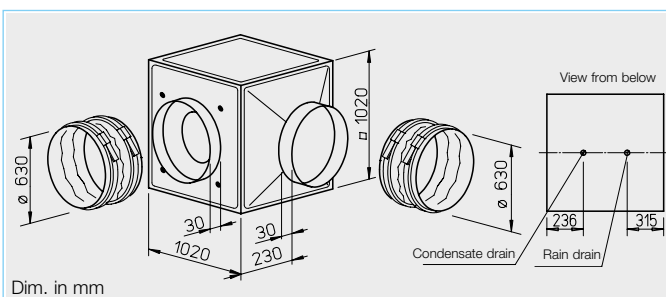
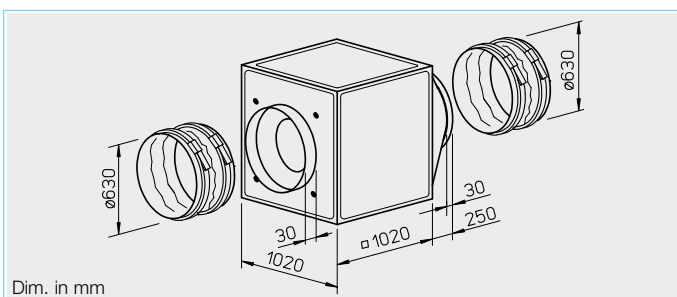
References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

GB EC

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

**GB EC T120**

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



■ **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 GB EC 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 roof and grille (accessories).

□ **Electrical connection**

Standard terminal box (IP 54) directly to the commutation electronics.

■ **Special feature**

- **GB EC series 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 roof and grille (accessories).

□ **Electrical connection**

Standard terminal box (IP 54) 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 crane hook as standard.

□ **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-controlable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

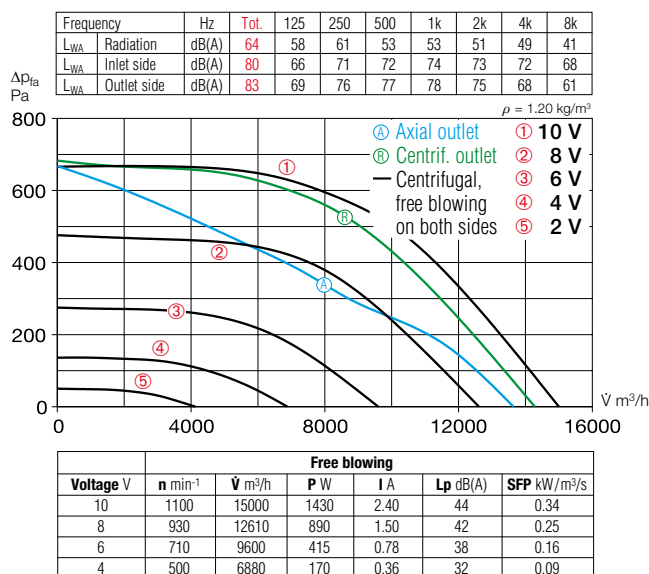
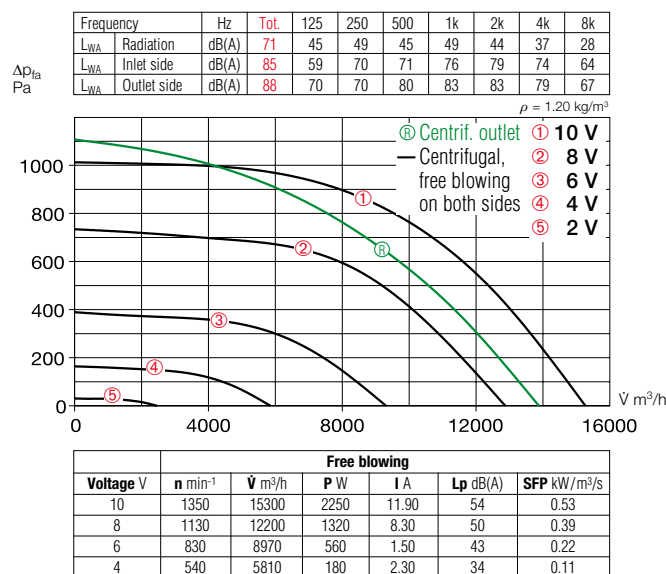
□ **Motor protection**

Integrated electronic temperature monitoring system for EC motor and electronics.

Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consump- tion	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer	
											Flush-mounted	Surface-mounted		
		mm	m³/h	min ⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54														
GBD EC 630	05815	630	15000	1100	44	2.30	3.70	976	50	116.0	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 IP 54														
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).

GBD EC 630

GBD EC 630 T120

Power control

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

Noise

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

- 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 characteristic 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. 05640

Weather protection roof for protected outdoor installation.

GB-WSD 630 Ref. no. 05749

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



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Planning information	10 ff.
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Accessory details	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

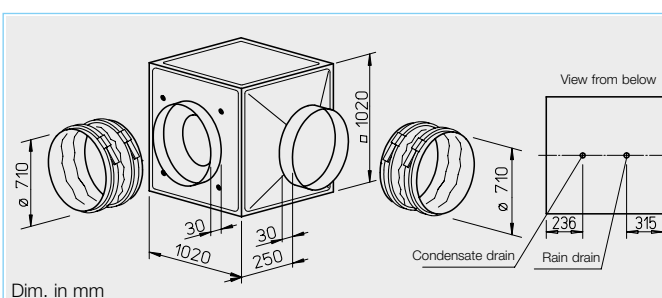
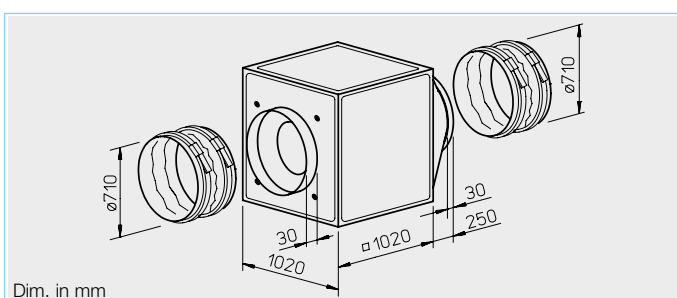
GB EC

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



GB EC T120

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



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 GB EC 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) directly to the commutation electronics.

Special feature

GB EC series 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 roof and grille (accessories).

Electrical connection

Standard terminal box (IP 54) 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 crane hook as standard.

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-controlable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection

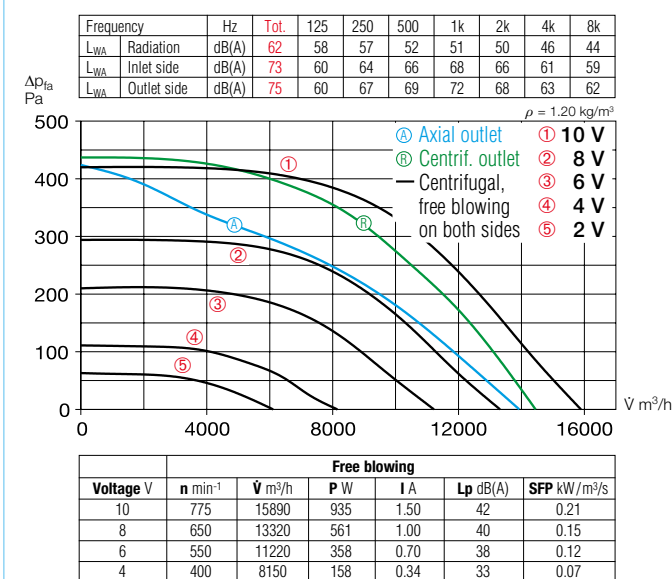
Integrated electronic temperature monitoring system for EC motor and electronics.

Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system	Speed potentiometer
		mm	m³/h	min⁻¹	dB(A) at 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54												
GBD EC 710 A	05816	710	15892	775	42	1.50	2.40	976	50	119.0	EUR EC 1) 2) 01347	PU 24 1) 01736 PA 24 1) 01737
GBD EC 710 B	05819	710	19650	940	48	2.65	4.10	976	50	100.0	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 IP 54												
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

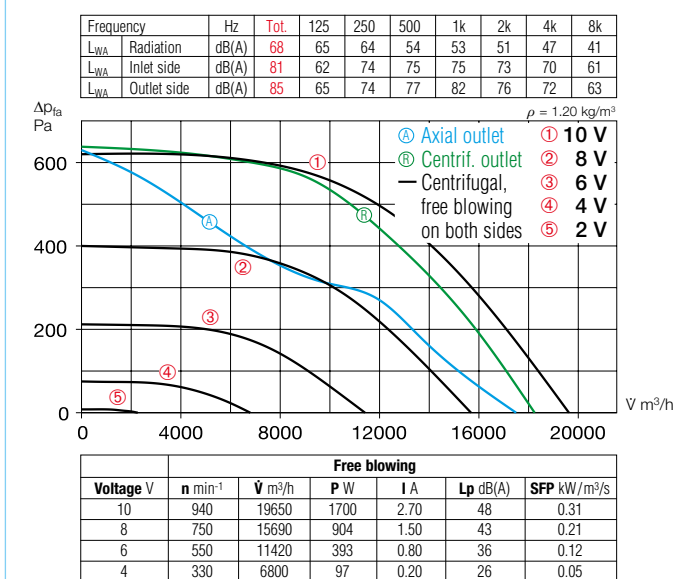
1) Multiple EC fans can normally be connected.

2) Alternative electronic diff. pressure/temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267).

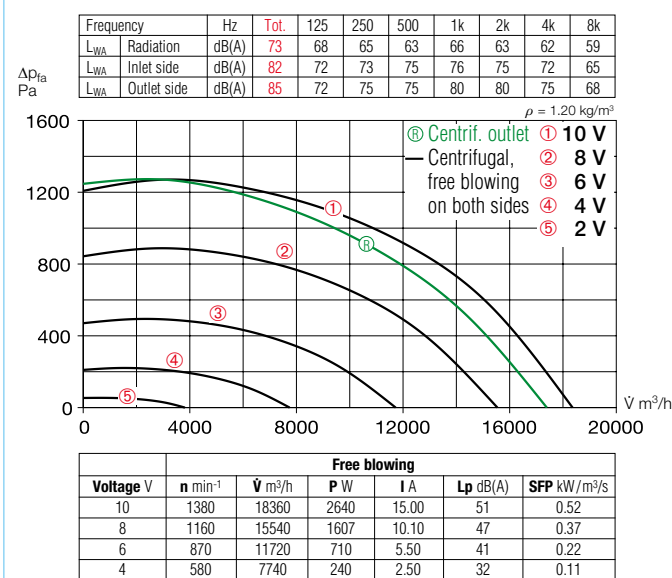
GBD EC 710 A



GBD EC 710 B



GBD EC 710 T120



Power control

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

Noise

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

- 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 characteristic curve.

Accessories for both series

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

SDD-U Ref. no. 05627

Weather protection grille for outlet-side coverage.

GB-WSG 710 Ref. no. 05741

Weather protection roof for protected outdoor installation.

GB-WSD 710 Ref. no. 05750

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).

for GB EC T120 series

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

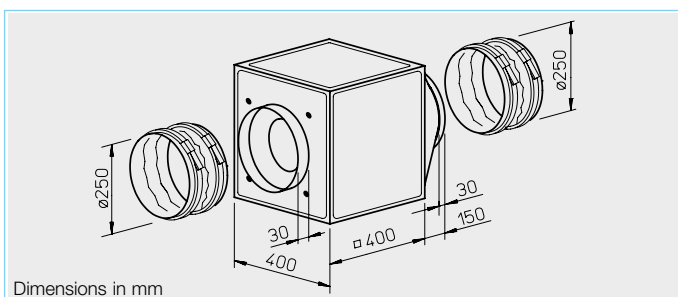
GB-RA Ref. no. 09418



References	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.

GB

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



■ Description

■ 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 crane hook as standard.

□ 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 6.3.

□ Drive

Through maintenance-free, speed-controllable external rotor motor in protection category IP 44. Ball bearing mounted, radio interference-free.

□ Electrical connection

Standard terminal box (IP 54) on motor.

□ Motor protection

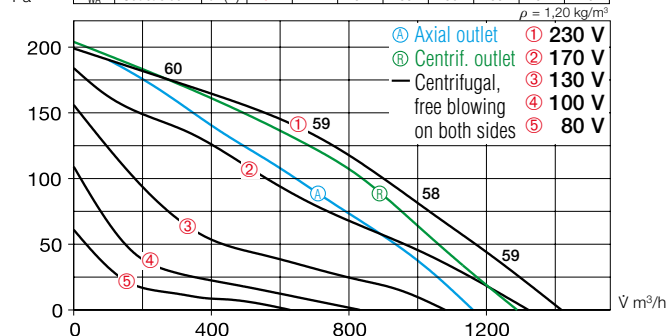
Through built-in thermal contacts wired in series to the winding, automatic deactivation and reactivation after cooling.

□ Power control

Through voltage reduction using 5-step transformer or electronically speed-controllable. Performance levels are shown in the characteristic curve as an example.

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
L _{WA} Inlet side		dB(A)	58	40	48	51	53	54	48
L _{WA} Outlet side		dB(A)	61	41	52	55	56	53	43



□ 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 roof and grille (accessories).

■ Noise

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

- Radiated sound power
 - Inlet side sound power
 - Outlet side sound power
- The inlet side sound power level is also specified above the nominal characteristic 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 roof for protected outdoor installation.

GB-WSD 250 Ref. no. 05746

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

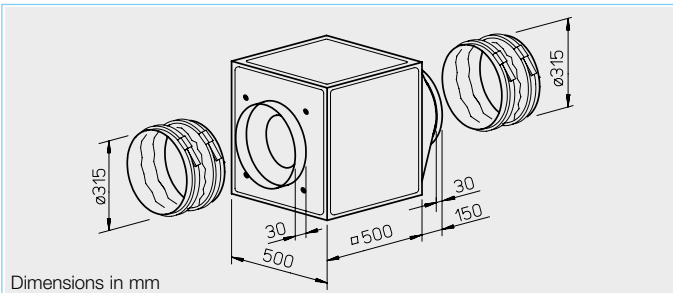
GB-KW 250 Ref. no. 05642

References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Speed contr., controllers	571 ff.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Transformer speed controller 5-step without motor protection circuit breaker	
		ṽ m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 44												
GBW 250/4	05509	1409	1340	26	0.93	0.44	0.44	923	70	70	18.0	TSW 1.5 01495

GB

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



Description

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 crane hook as standard.

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 6.3.

Drive

Through maintenance-free, speed-controllable external rotor motor in protection category IP 44. Ball bearing mounted, radio interference-free.

Electrical connection

Standard terminal box (IP 54) on motor.

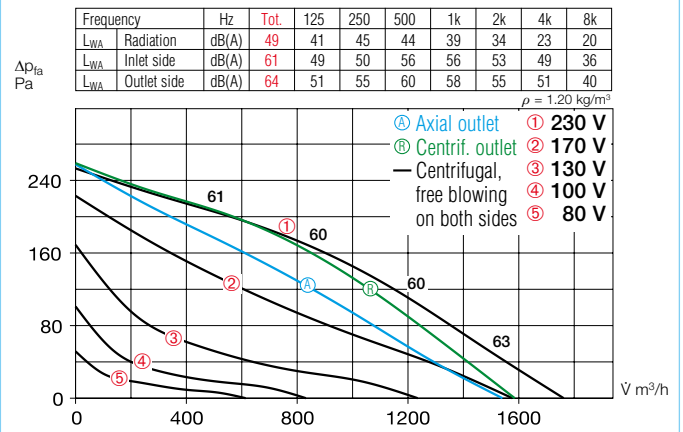
Motor protection

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

Power control

Through voltage reduction using 5-step transformer or electronically speed-controllable. Performance levels are shown in the characteristic curve as an example.

GBW 315/4



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 roof and grille (accessories).

Noise

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

- Radiated sound power
- Inlet side sound power
- Outlet side sound power
- The inlet side sound power level is also specified above the nominal characteristic 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 roof for protected outdoor installation.

GB-WSD 315 Ref. no. 05747

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

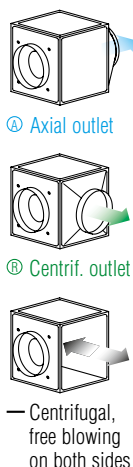
GB-KW 315 Ref. no. 05643

References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Speed contr., controllers	571 ff.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Transformer speed controller 5-step without motor protection circuit breaker	
		m^3/h	min^{-1}	dB(A) at 4 m	kW	A	A	No.	$^{\circ}\text{C}$	kg	Type	Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 44												
GBW 315/4	05510	1760	1230	29	0.123	0.55	0.55	923	55	55	31.0	TSW 1.5 01495

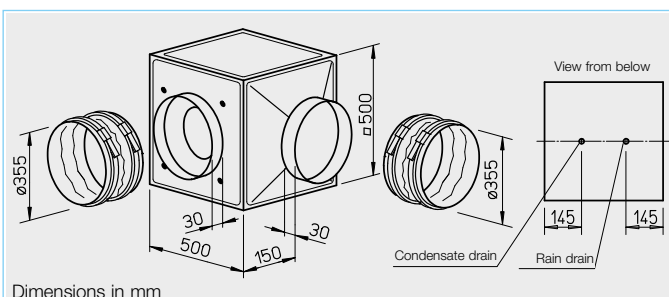
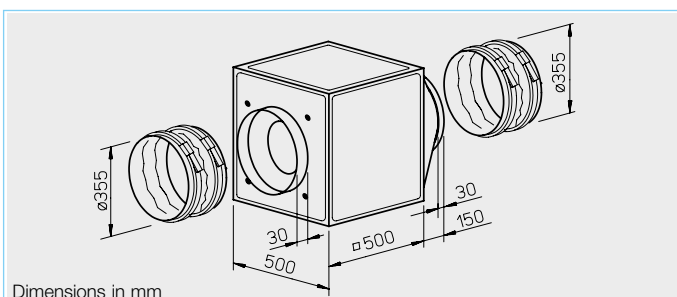
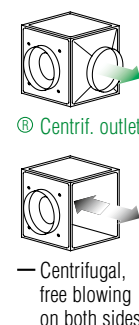
GB

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



GB T120

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



■ 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 roof and grille (accessories).

■ Special feature

□ GB series 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 roof 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 crane hook as standard.

□ Impeller

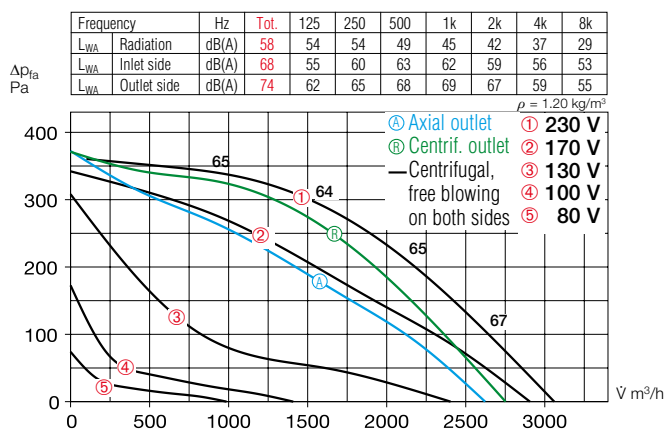
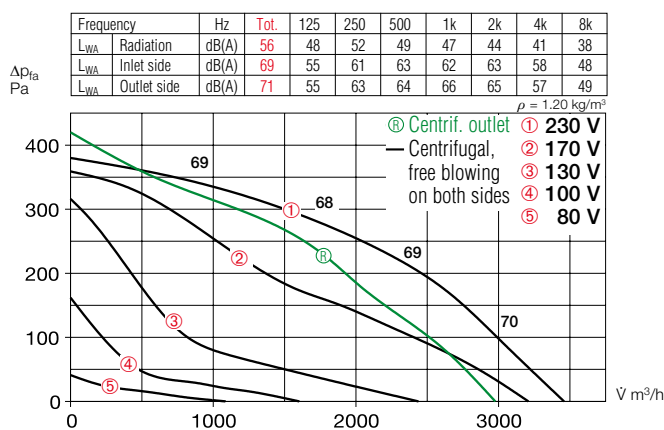
Free-running high performance centrifugal impeller with backward curved plastic blades on galvanised steel plate (aluminium impellers for GB T120), directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

□ Drive

Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker	without mot. prot. circuit breaker	Mot. prot. circ. break. for connecting built- in thermal contacts				
		\dot{V} m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
GBW 355/4	05511	3060	1375	38	0.29	1.47	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, Y/Δ connection, protection category IP 54																	
GBD 355/4/4	05512	2850/3100	1230/1405	34	0.25/0.34	0.41/0.75	0.75	867	55	55	35.0	RDS 1	01314	TSD 1.5	01501	MD	05849
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
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
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54																	
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.

GBW 355/4

GBW 355/4 T120

Electrical connection

Standard terminal box (IP 54) 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.

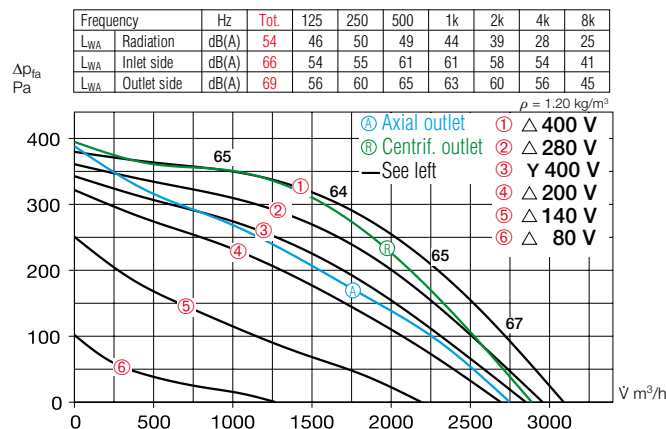
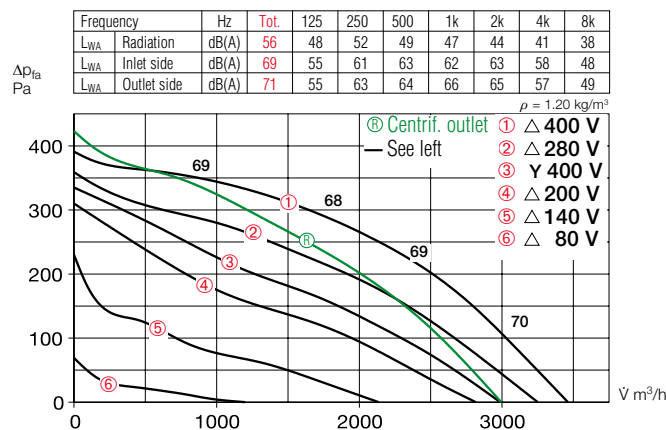
Power control

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/Δ switch or motor protection circuit breaker M4. Performance levels are shown in the performance diagram.

Noise

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

- Radiated sound power
 - Inlet side sound power
 - Outlet side sound power
- The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 355/4/4

GBD 355/4/4 T120

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 roof for protected outdoor installation.

GB-WSD 355 Ref. no. 05747

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

Type DS 2²⁾ 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

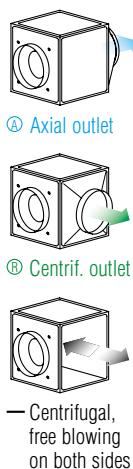
Rain drain for outdoor installation (Hole in casing base already provided).

GB-RA Ref. no. 09418

References	Page
Planning information	10 ff.
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Speed controllers and motor prot. circuit breakers	571 ff.

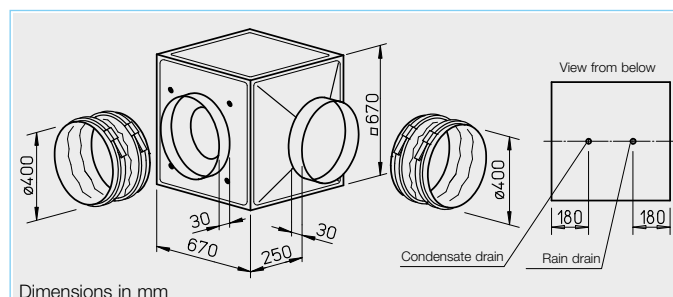
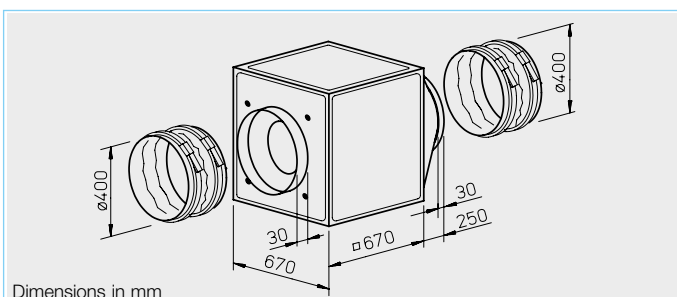
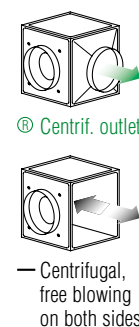
GB

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



GB T120

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



■ 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 roof and grille (accessories).

■ Special feature

□ GB series 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 roof 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 crane hook as standard.

□ Impeller

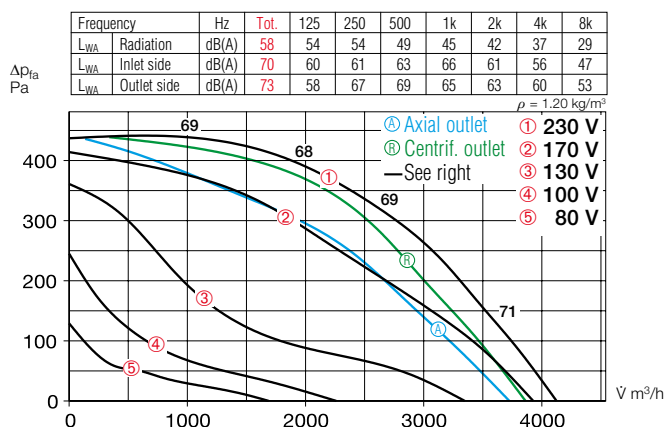
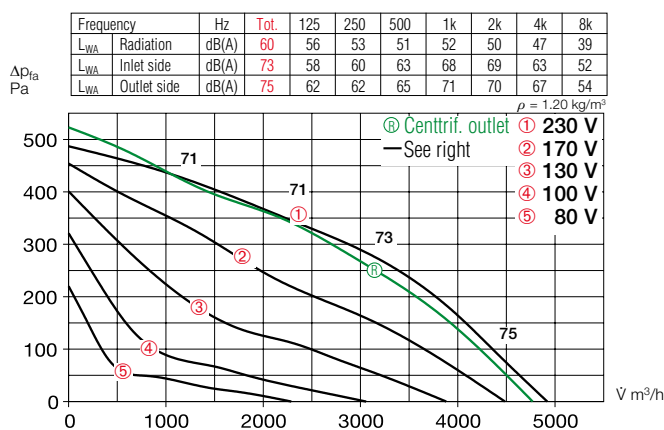
Free-running high performance centrifugal impeller with backward curved plastic blades on galvanised steel plate (aluminium impellers for GB T120), directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

□ Drive

Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption at rated voltage	in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker	without mot. prot. circuit breaker	Mot. prot. circ. break. for connecting built- in thermal contacts				
		\dot{V} m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
GBW 400/4	05513	4300	1360	38	0.53	2.40	2.80	864	50	50	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 IP 54																	
GBD 400/4/4	05514	3700/4100	1193/1390	38	0.38/0.49	0.61/1.05	1.08	867	50	45	52.0	RDS 2	01315	TSD 1.5	01501	MD	05849
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
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
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54																	
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 1	01314	TSD 1.5	01501	MD	05849

1) Incl. operating switch.

GBW 400/4

GBW 400/4 T120

Electrical connection

Standard terminal box (IP 54) 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.

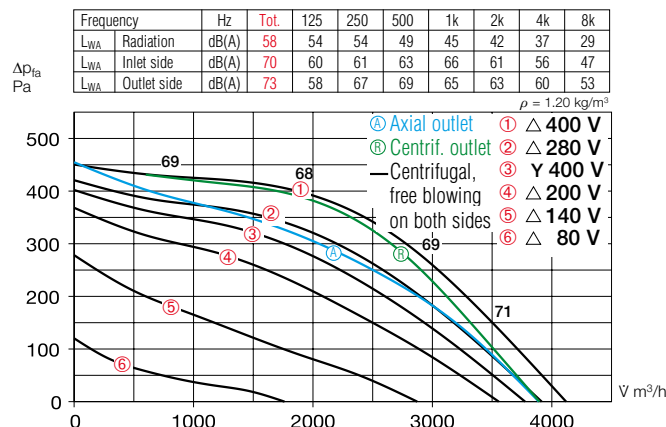
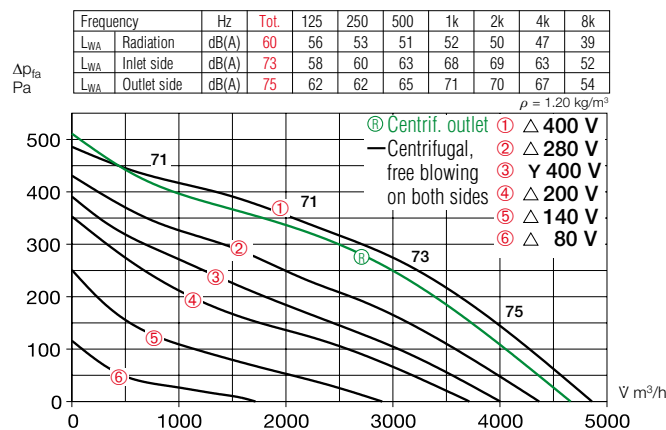
Power control

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/Δ switch or motor protection circuit breaker M4. Performance levels are shown in the performance diagram.

Noise

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

- Radiated sound power
 - Inlet side sound power
 - Outlet side sound power
- The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 400/4/4

GBD 400/4/4 T120

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 roof for protected outdoor installation.

GB-WSD 400 Ref. no. 05748

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

Type DS 2²⁾ 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	10 ff.
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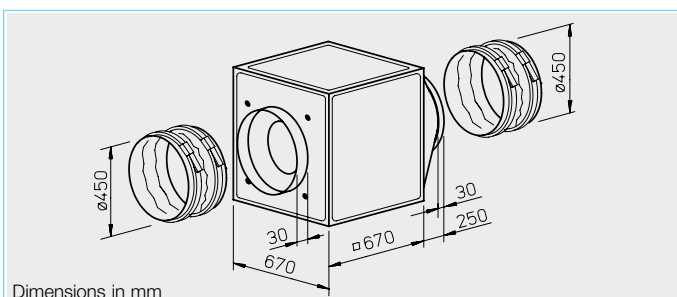
GB

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

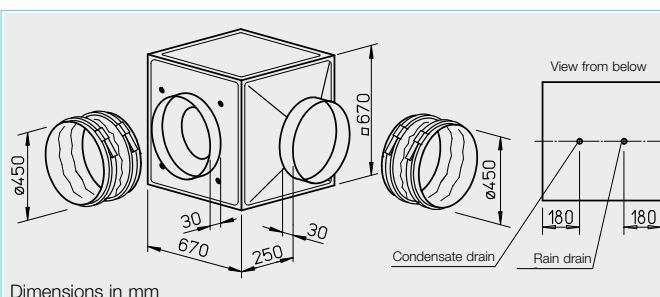


GB T120

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



Dimensions in mm



Dimensions 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 roof and grille (accessories).

■ Special feature

□ GB series 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 roof 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 crane hook as standard.

□ Impeller

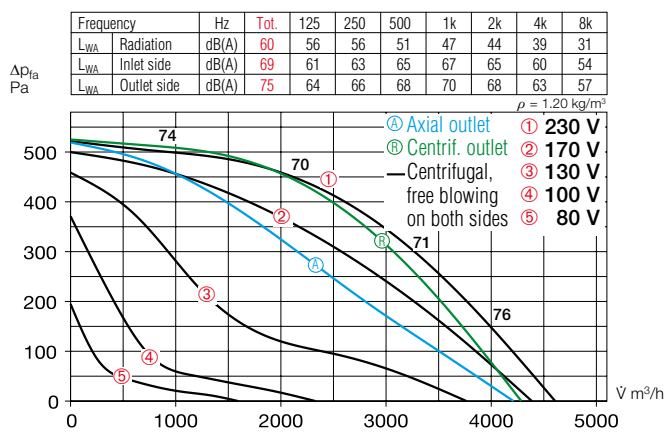
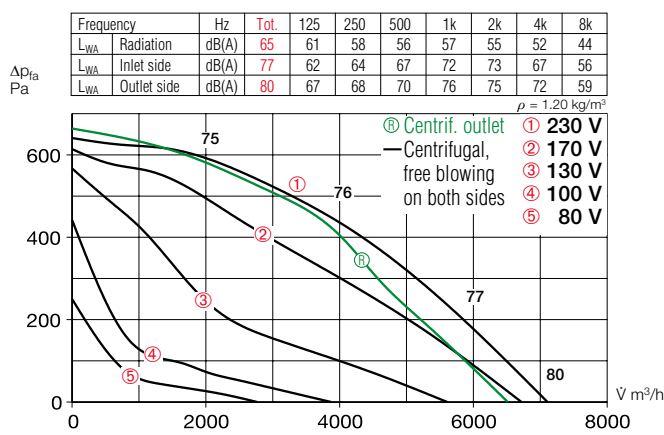
Free-running high performance centrifugal impeller with backward curved plastic blades on galvanised steel plate (aluminium impellers for GB T120), directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

□ Drive

Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker		without mot. prot. circuit breaker		Mot. prot. circ. break. for connecting built- in thermal contacts		
		V m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
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 IP 54																	
GBD 450/4/4	05516	4350/5450	880/1240	40	0.36/0.67	0.67/1.33	1.30	867	55	55	49.0	RDS 2	01315	TSD 1.5	01501	MD	05849
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
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
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54																	
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.

GBW 450/4

GBW 450/4 T120

Electrical connection

Standard terminal box (IP 54) 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.

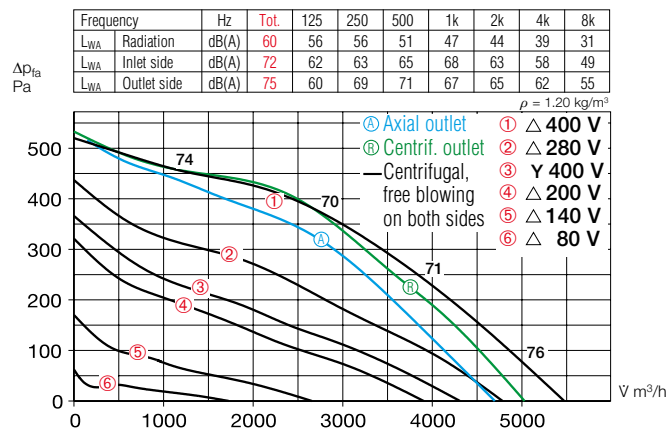
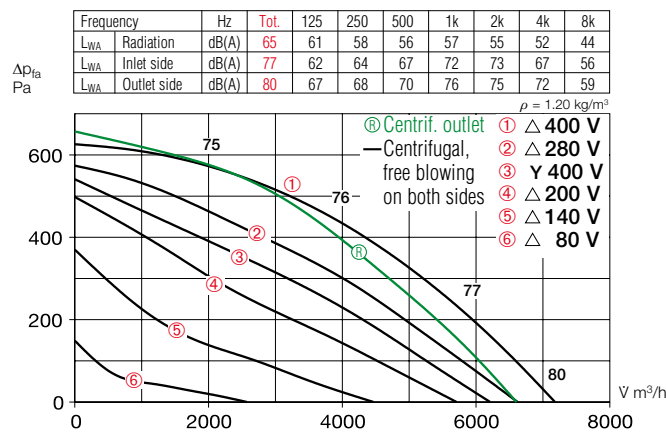
Power control

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/Δ switch or motor protection circuit breaker M4. Performance levels are shown in the performance diagram.

Noise

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

- Radiated sound power
 - Inlet side sound power
 - Outlet side sound power
- The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 450/4/4

GBD 450/4/4 T120

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 roof for protected outdoor installation.

GB-WSD 450 Ref. no. 05748

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

Type DS 2²⁾ 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	10 ff.
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Accessory details	Page
Speed controllers and motor prot. circuit breakers	571 ff.

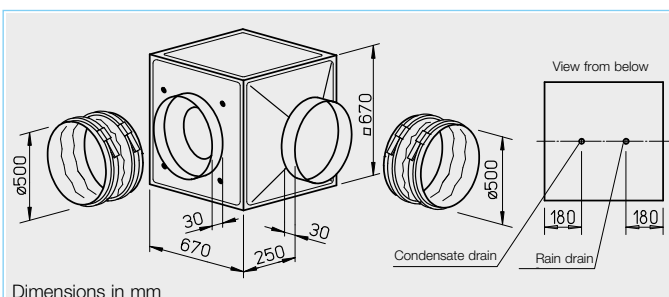
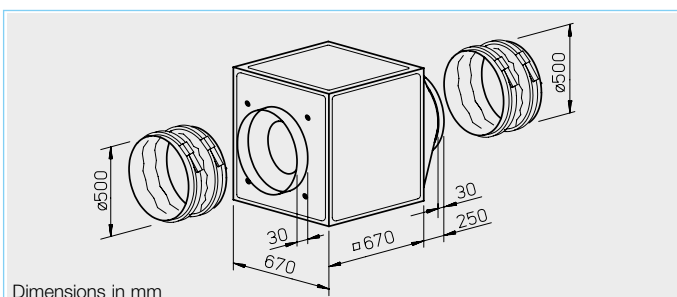
GB

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



GB T120

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



■ 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 roof and grille (accessories).

■ Special feature

□ GB series 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 roof 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 crane hook as standard.

□ 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 6.3.

□ Drive

Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

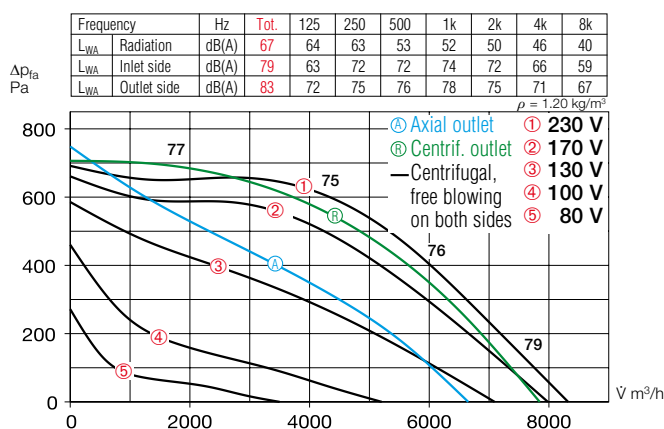
□ Electrical connection

Standard terminal box (IP 54) on motor; on the motor support plate for GB T120.

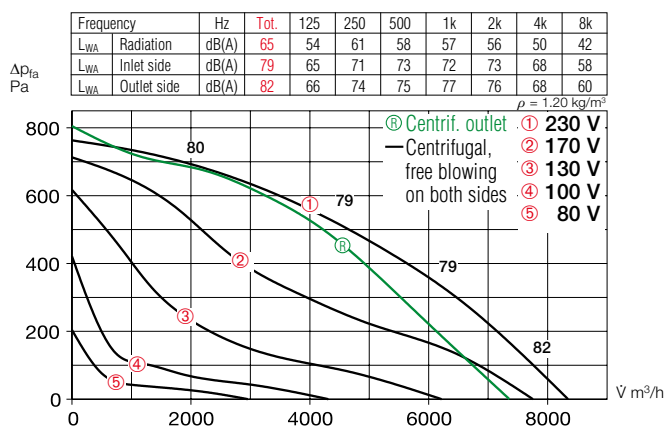
Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption at rated voltage	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker		without mot. prot. circuit breaker		Mot. prot. circ. break. for connecting built- in thermal contacts		
		V m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
GBW 500/4	05517	8321	1401	47	1.50	6.70	9.60	865	65	55	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 IP 54																	
GBD 500/4/4	05518	8000/9200	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
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54																	
GBW 500/4 T120	05776	8345	1340	45	1.40	6.1	7.0	301	120	100	75	MWS 10	01946	—	—	—	—
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54																	
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.

GBW 500/4



GBW 500/4 T120



Motor protection

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

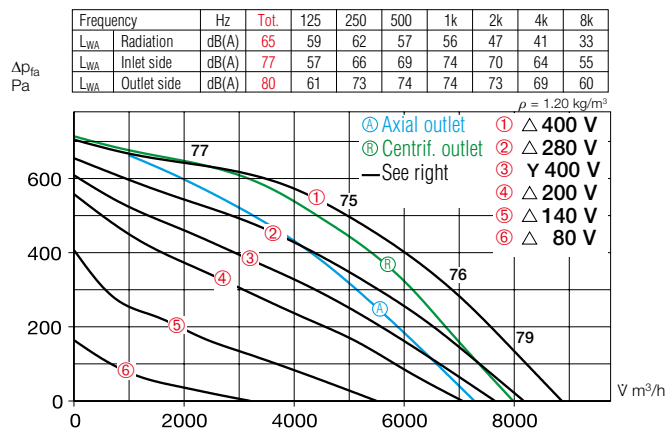
Power control

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/Δ switch or motor protection circuit breaker M4. Performance levels are shown in the performance diagram.

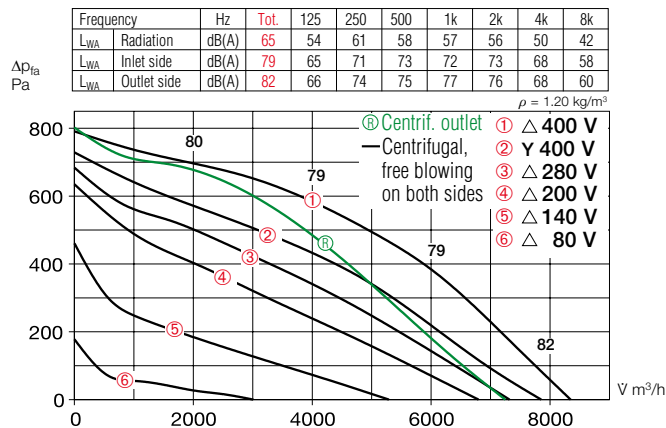
Noise

The total level and range are specified above the performance diagram for:
– Radiated sound power
– Inlet side sound power
– Outlet side sound power
The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 500/4/4



GBD 500/4/4 T120



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 roof for protected outdoor installation.

GB-WSD 500 Ref. no. 05748

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

Type DS 2²⁾ 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

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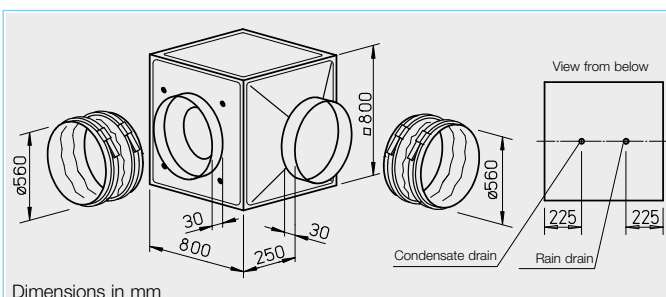
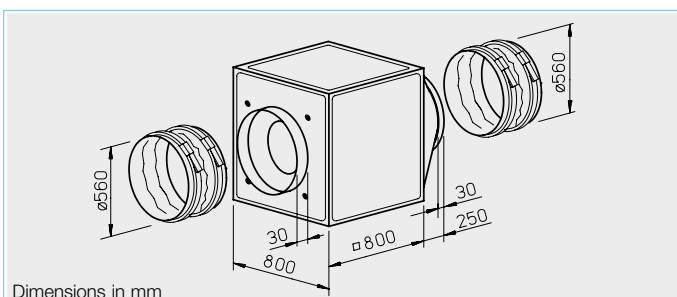
GB

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



GB T120

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



■ 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 roof and grille (accessories).

■ Special feature

□ GB series 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 roof 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 crane hook as standard.

□ 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 6.3.

□ Drive

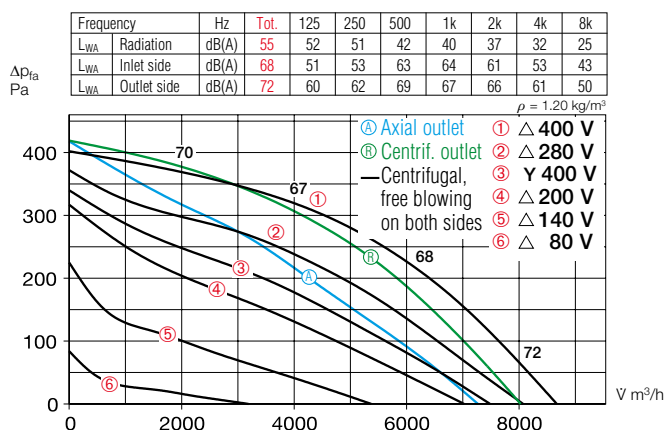
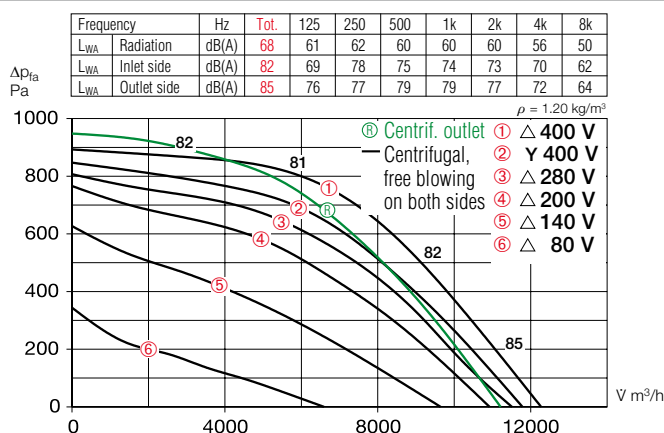
Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

□ Electrical connection

Standard terminal box (IP 54) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker	Mot. prot. circ. break. for connecting built-in thermal contacts
		V m³/h	min⁻¹	dB(A) at 4 m	kW	A	No.	+°C	kg	Type Ref. no.	Type Ref. no.
Alternating current, 1~, 230 V, 50 Hz, capacitor motor, protection category IP 54											
GBW 560/4	05508	9123	1409	45	1.83	7.93	11.5	865	45	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 IP 54											
GBD 560/6/6	05522	7800/9000	705/885	35	0.51/0.80	0.90/1.85	1.90	867	60	RDS 4 01316	TSD 3.0 01502 MD 05849
GBD 560/4/4	05521	11500/13000	1110/1350	44	1.70/2.60	2.80/4.80	4.90	867	55	RDS 7 01578	TSD 7.0 01504 MD 05849
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54											
GBD 560/4/4 T120	05778	11520/12300	1250/1400	48	1.85/2.50	3.20/6.80	6.80	520	120	RDS 7 01578	TSD 7.0 01504 MD 05849

1) Incl. operating switch.

GBD 560/6/6

GBD 560/4/4 T120

Motor protection

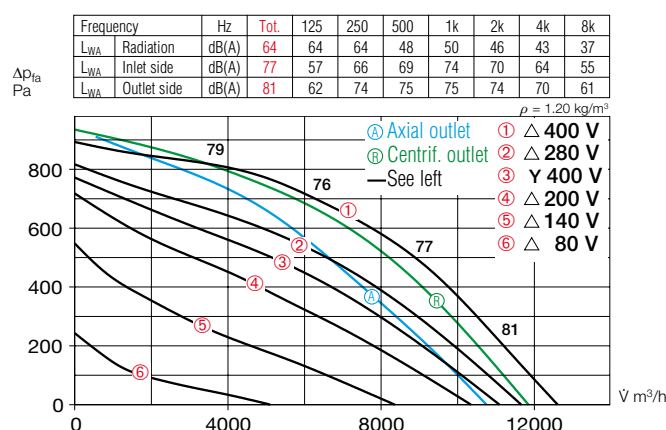
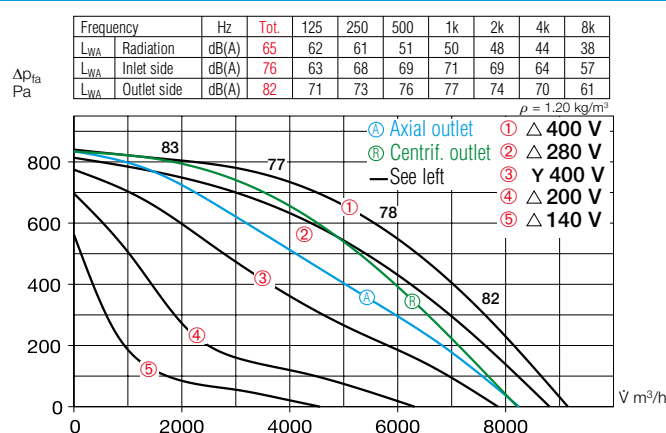
With external thermal contacts on the terminal block, which must be wired to the motor protection circuit breaker.

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/ Δ switch or motor protection circuit breaker M4. Performance levels are shown in the performance diagram.

Noise

The total level and range are specified above the performance diagram for:
 — Radiated sound power
 — Inlet side sound power
 — Outlet side sound power
 The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 560/4/4

GBW 560/4

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 roof for protected outdoor installation.

GB-WSD 560 Ref. no. 05749

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

Type DS 2²⁾ 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**

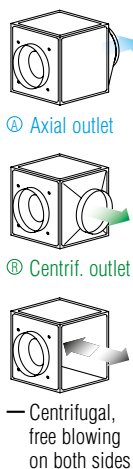
Rain drain for outdoor installation (Hole in casing base already provided).

GB-RA Ref. no. 09418

References	Page
Planning information	10 ff.
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Speed controllers and motor prot. circuit breakers	571 ff.

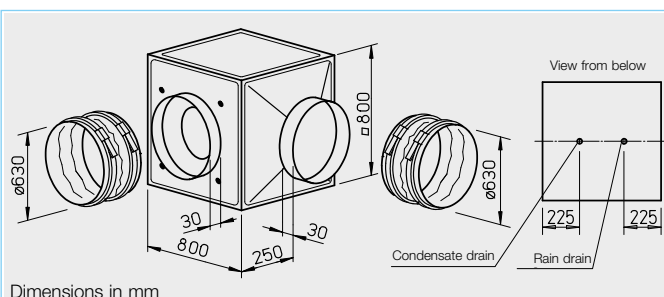
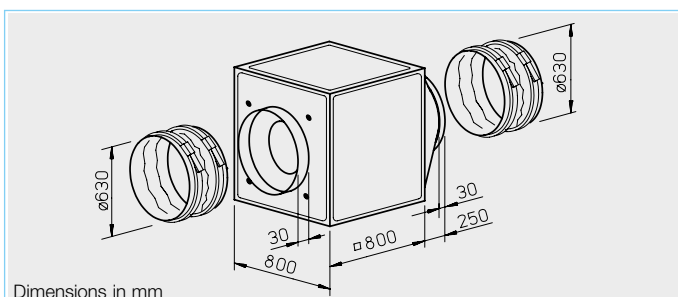
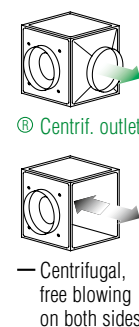
GB

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



GB T120

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



■ 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 roof and grille (accessories).

■ **Special feature**

- ☐ GB series 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 roof 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 crane hook as standard.

☐ 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 6.3.

☐ Drive

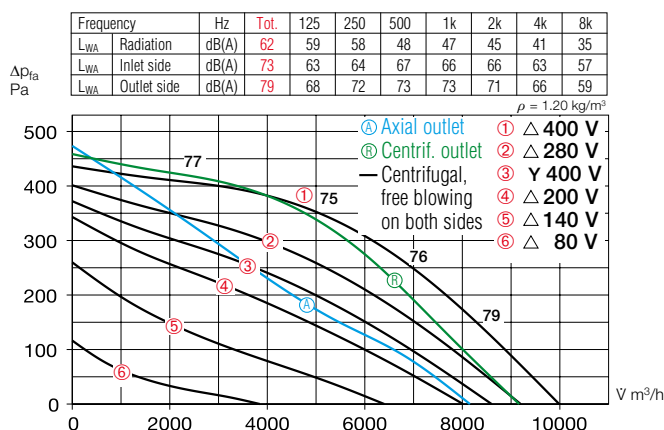
Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

□ Electrical connection

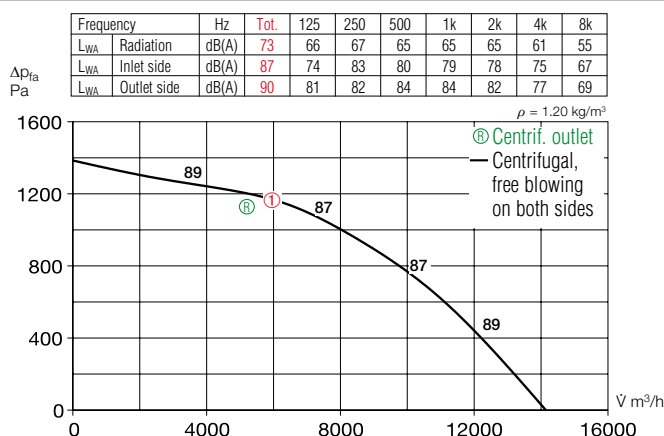
Standard terminal box (IP 54)
on motor; on the motor support
plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current at rated voltage	consumption in control mode	Wiring diagram	Maximum air flow temperature at rat. volt.	Weight net approx.	Speed controller 5-step with motor prot. circuit breaker				Mot. prot. circ. break. for connecting built- in thermal contacts		
		∇ m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Two-speed, three-phase current motor, 3~, 400 V, 50 Hz, Y/Δ connection, protection category IP 54																	
GBD 630/6/6	05524	8600/9990	723/893	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	12954/14430	1128/1383	51	2.40/3.45	4.10/6.20	7.20	867	75	50	105	RDS 11	01332	TSD 11.0	01513	MD	05849
Three-phase current motor, 3~, 400 V, 50 Hz, protection category IP 54																	
GBD 630/4 T120	05779	14200	1445	53	4.40	8.0	—	499	120	—	105	—	—	—	—	MD	05849

GBD 630/6/6



GBD 630/4 T120



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 Y/ Δ switch or motor protection circuit breaker M4; 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:
 – Radiated sound power
 – Inlet side sound power
 – Outlet side sound power
 The inlet side sound power level is also specified above the nominal characteristic 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 roof 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 Y/ Δ switchable three-phase current fans.

Type DS 2¹⁾ Ref. no. 01351

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

for GB T120 series

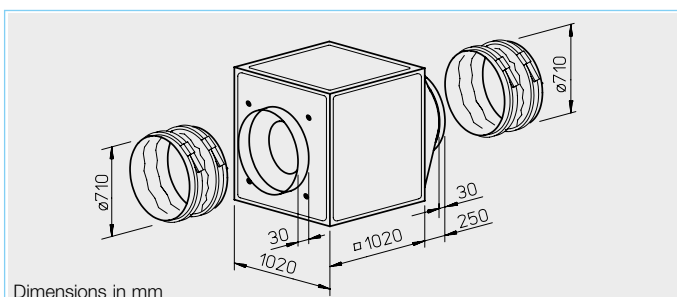
Rain drain for outdoor installation (Hole in casing base already provided).

GB-RA Ref. no. 09418

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GB

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



■ 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 roof and grille (accessories).

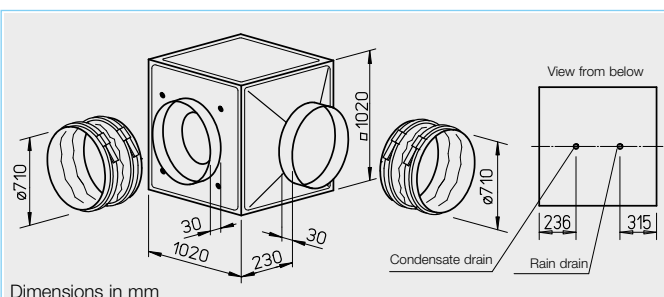
■ **Special feature**

- ☐ GB series 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 roof and grille (accessories).

GB T120

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



- 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 crane hook as standard.

☐ 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 6.3.

☐ Drive

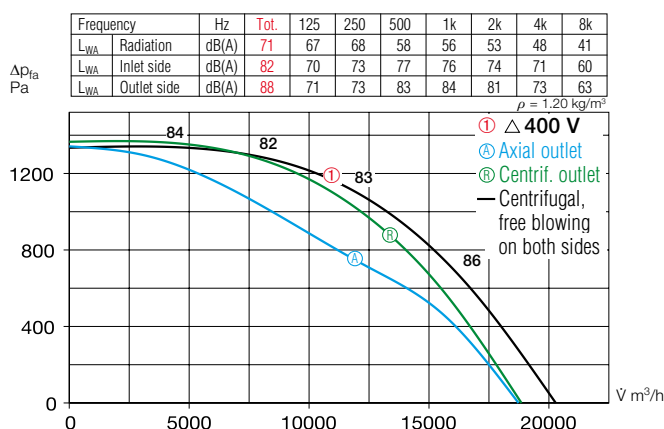
Through maintenance-free, speed-controllable external rotor motor or IEC standard motor in protection category IP 54. Ball bearing mounted, radio interference-free.

Electrical connection

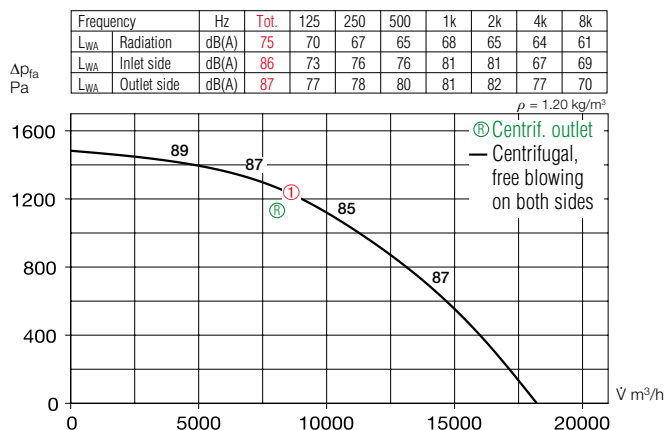
Standard terminal box (IP 54/55) on motor; on the motor support plate for GB T120.

Type	Ref. no.	Max. flow rate	Rated speed	Case-radiated sound pressure	Power consump- tion	Current consumption		Wiring diagram	Maximum air flow		Weight net approx.	Speed controller 5-step		Mot. prot. circ. break for connecting built- in thermal contacts			
						at rated voltage	in control mode		rat. volt.	temperature at control		with motor prot. circuit breaker	without mot. prot. circuit breaker				
		ℳ m³/h	min ⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Three-phase current motor, 3~, 400 V, 50 Hz, Y/△ connection, protection category IP 55																	
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/△ connection, protection category IP 54																	
GBD 710/6/6	05525	16500/19000	690/890	46	1.55/2.45	2.90/4.70	4.70	867	50	50	157	RDS 7	01578	TSD 7.0	01504	MD	05849
Three-phase current motor, 3~, 400 V, 50 Hz, protection category IP 54																	
GBD 710/4 T120	05756	18200	1465	55	5.89	10.4	—	499	120	—	188	—	—			MD	05849

GBD 710/4



GBD 710/4 T120



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 Y/Δ switch or motor protection circuit breaker M4; Type GBD T120 can only be controlled using a frequency converter with sine filter. Performance levels are shown in the performance diagram.

Noise

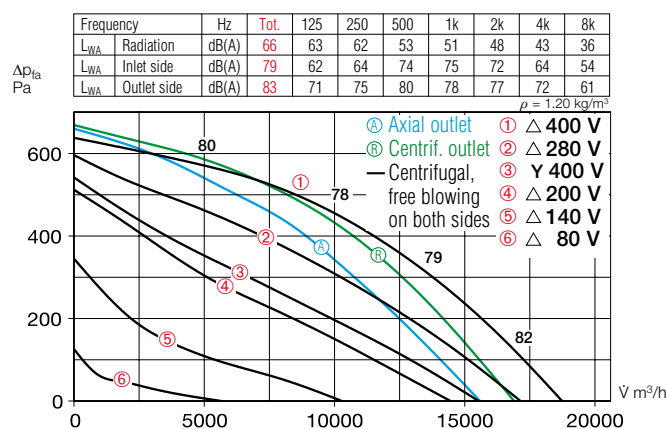
The total level and range are specified above the performance diagram for:

- Radiated sound power
- Inlet side sound power
- Outlet side sound power

The inlet side sound power level is also specified above the nominal characteristic 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.

GBD 710/6/6



Accessories for both series

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

SDD-U Ref. no. 05627

Weather protection grille for outlet-side coverage.

GB-WSG 710 Ref. no. 05641

Weather protection roof for protected outdoor installation.

GB-WSD 710 Ref. no. 05750

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 Y/Δ switchable three-phase current fans.

Type DS 2¹⁾ 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

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