

LONGAR® Type 8 Activated Carbon Filters



LONGAR® TYPE 8 FEATURES:

- High grade carbon / High carbon content / Low pressure loss
- Robust modular construction
- Carbon Unit or panel format / Standard and Custom sizes available
- CNC manufactured / Precision products every time

APPLICATIONS

- Reduction of Cooking Odours
- Removal of Kerosene Exhaust Fumes
- General Odour Reduction
- Neutralisation of Ammonia and its Derivatives
- Removal of Formaldehyde
- Removal of Airborne Pollutants and Contaminants
- Removal of Acid Gases (please enquire as to specific contaminant)

LONGAR® TYPE 8 ACTIVATED CARBON FILTERS

Activated carbon has for many years been used to remove airborne noxious fumes and gases. Its origins date back to the First World War, when gas masks were first filled with Activated carbon to remove chlorine gas. Today Longar produces a wide range of carbon filters to deal with a variety of air pollution scenarios.

There are many situations where carbon filtration is used to eliminate toxic or offensive odours, some of these are sewage works, hospitals, slaughterhouses, restaurant kitchens, airports, toilets, wash rooms, laboratories, and office blocks.

PRE FILTRATION

Carbon filters are designed to remove fumes and odours, they are not suitable for removing dust and fine particles. If left unprotected, the life of the carbon product is severely reduced. To protect the filters use the correct pre filtration. If you are unsure please enquire for further information.

LONGAR® TYPE 8 ACTIVATED CARBON PANELS

The Activated carbon panel are sealed into a galvanised steel frame; a scrim is then added to protect the carbon surface from dust contamination. Sealing the carbon panel stops any air by-pass; our panels are manufactured using CNC technology to ensure precision manufacture with exact tolerances.

Our panels are the strongest on the market place with a wide range of standard sizes available, custom sizes are also available on request.

LONGAR® TYPE 8 ACTIVATED CARBON UNITS (ACU)

For a modular approach to fume removal the ACU is the ideal solution. The ACU unit is manufactured from a number of carbon panels held in place by a CNC made corrosion proof metal casing. The carbon panels inside the units are 25mm thick, sealed into the frames using polymer which eliminates the possibility of any air by-pass around the carbon.

LONGAR® TYPE 8 CYLINDRICAL FILTER

These are constructed from perforated galvanised steel then formed into cylindrical cartridges containing high grade or impregnated carbon. The cylinders have a bayonette fit into the filter mounting plate.

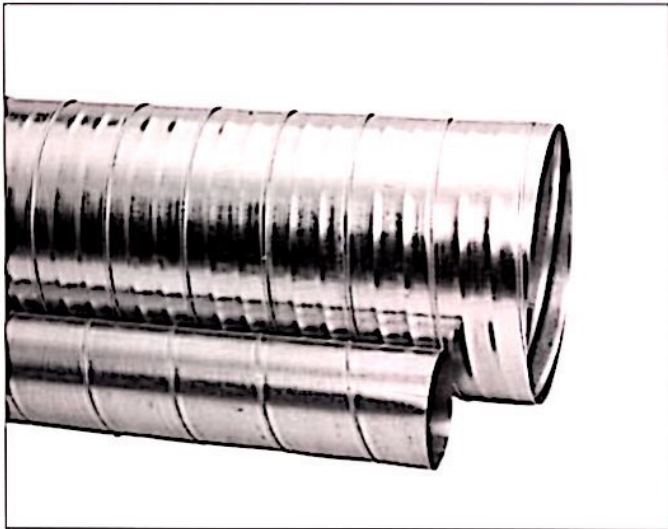
All cylinders have a unique feature of having the option to replace any spent carbon and then refill with new replenished carbon.

For technical specifications, part numbers and ordering information, please see overleaf.

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Circular duct

SR



Description

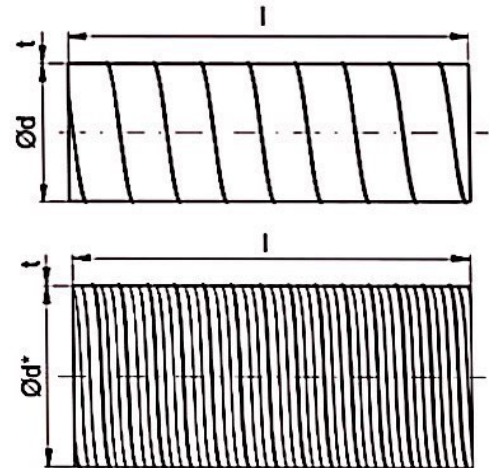
Circular duct.

Ducts are always produced locally and can therefore have different thicknesses and other specifications per country.

The ducts can be produced both with and without click function (notches).

Please specify when ordering.

Dimensions



Ød std nom	O πd m	A $\pi d^2/4$ m ²	t std [mm]	l std [mm]	ml std kg/m
63	0,198	0,003	0,5	3000	0,89
80	0,251	0,005	0,45	3000	0,91
100	0,314	0,008	0,45	3000	1,14
112	0,352	0,010	0,45	3000	1,28
125	0,393	0,012	0,45	3000	1,41
140	0,440	0,015	0,5	3000	1,76
150	0,471	0,018	0,5	3000	1,89
160	0,503	0,020	0,5	3000	2,02
180	0,565	0,025	0,5	3000	2,26
200	0,628	0,031	0,5	3000	2,56
224	0,704	0,039	0,5	3000	3,42
250 *	0,785	0,049	0,5	3000	3,18
280	0,880	0,062	0,55	3000	3,92
300 *	0,942	0,071	0,55	3000	4,20
315 *	0,990	0,078	0,55	3000	4,41
355 *	1,115	0,099	0,55	3000	4,96
400 *	1,257	0,126	0,55	3000	6,01
450 *	1,414	0,159	0,6	3000	7,37
500 *	1,571	0,196	0,7	3000	9,54
560 *	1,759	0,246	0,7	3000	12,2
600 *	1,885	0,283	0,7	3000	13,1
630 *	1,979	0,312	0,7	3000	12,0
710 *	2,231	0,396	0,8	3000	15,5
800 *	2,513	0,503	0,8	3000	17,4
900 *	2,827	0,636	0,9	3000	21,7
1000 *	3,142	0,785	0,9	3000	24,1
1120 *	3,519	0,985	0,9	3000	27,0
1250 *	3,927	1,227	0,9	3000	30,2
1400 *	4,398	1,539	1,25	2400	48,0
1500 *	4,712	1,767	1,25	2400	51,4
1600 *	5,027	2,011	1,25	2400	54,8

* With outturned stiffening corrugation.

Ordering example

Product	SR	200	3000	CLIC
Dimension Ød				
Length l				
Type				

LONGAR® Type 8

Activated Carbon Filters

FITTING INSTRUCTIONS

- Fit products in accordance with installation contractor's specifications. Observe direction of airflow.

HANDLING

- Handle with care when unpacking.
- Store in dry and frost protected place.

MAINTENANCE

- Carbon filters cannot be cleaned upon reaching the end of their service life. They must be replaced.
- All maintenance and replacement schedules will be set by the original equipment installer. Please refer to this for more information.
- When handling any components suitable PPE should be used – gloves, eye protection and access equipment.
- Carbon filters may be recycled.

PACKAGING

All units are packaged in double wall boxes, stapled closed for protection whilst in transit against contamination.

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)					
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Airflow M ³ /SEC @0.12 Contact	Pressure Loss - Pascals
CARBONCUBE242424	597 x 597 x 597mm	609 x 609 x 609mm	60.00kgs	1.00	97
	23.50 x 23.50 x 23.50"	24 x 24 x 24"	132.00lbs		
CARBONCUBE242418	597 x 597 x 450mm	609 x 609 x 457mm	44.00kgs	0.75	97
	23.50 x 23.50 x 17.72"	24 x 24 x 18"	96.80lbs		
CARBONCUBE241824	597 x 450 x 597mm	609 x 457 x 609mm	46kgs	0.75	97
	23.50 x 17.72 x 23.50"	24 x 18 x 24"	101.20lbs		
CARBONCUBE182424	450 x 597 x 597mm	457 x 609 x 609mm	46kgs	0.75	97
	17.72 x 23.50 x 23.50"	18 x 24 x 24"	101.20lbs		
CARBONCUBE242416	597 x 597 x 395mm	609 x 609 x 406mm	40.00kgs	0.67	97
	23.50 x 23.50 x 15.55"	24 x 24 x 16"	88.00lbs		
CARBONCUBE242412	597 x 597 x 292mm	609 x 609 x 305mm	33.00kgs	0.50	97
	23.50 x 23.50 x 11.50"	24 x 24 x 12"	72.60lbs		
CARBONCUBE241224	597 x 297 x 597mm	609 x 304 x 609mm	32.00kgs	0.50	97
	23.50 x 11.69 x 23.50"	24 x 12 x 24"	70.40lbs		
CARBONCUBE24824	597 x 197 x 597mm	609 x 203 x 609mm	19.00kgs	0.33	97
	23.50 x 7.76 x 23.50"	24 x 8 x 24"	41.80lbs		
CARBONCUBE202018	495 x 495 x 445mm	508 x 508 x 457mm	36kgs	0.52	97
	19.49 x 19.49 x 17.52"	20 x 20 x 18"	79.20lbs		
CARBONCUBE181818	450 x 450 x 450mm	457 x 457 x 457mm	28.00kgs	0.42	97
	17.72 x 17.72 x 17.72"	18 x 18 x 18"	61.60lbs		
FINAL RECOMMENDED PRESSURE DROP: 450 PASCALS					

Pressure drop and airflow information available on request.



LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT



Roof hood

HN



Description

Ventilation hood for air exit above roof, suitable for both industrial and comfort ventilation. The air is ejected in an upwards-directed jet. This avoids contaminating the air in the vicinity of the hood, and soiling of the area around the hood. The ejection is so effective that you can install a fresh air inlet in the immediate vicinity of the hood, without any special precautions.

NOTE! When fans are not running there is always a risk for drifting snow and damp to penetrate into ducts. At some occasions also condensation can cause trouble.

The hood is made of galvanised sheet steel, and can also be supplied in other materials such as stainless steel sheet 1.4301, stainless acid-resistant steel sheet 1.4404, aluzinc AZ185 and painted in various colours, to special order. It has a net over the opening and an internal rain funnel to collect rainwater and snow, which is drained out of the hood through a hose. The hose can withstand temperatures of between -45 and +65 °C.

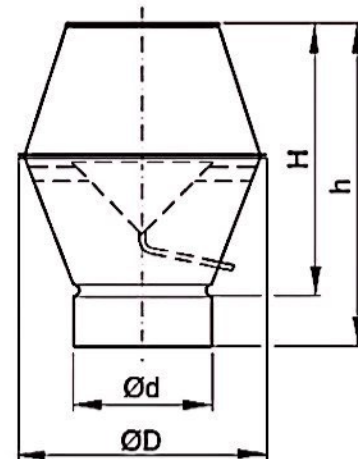
The hood has a female connection, which fits outside a ventilation duct.

As special delivery the hood can be supplied with three anchoring wire-loops. It is standard on Ø400.

Ordering example

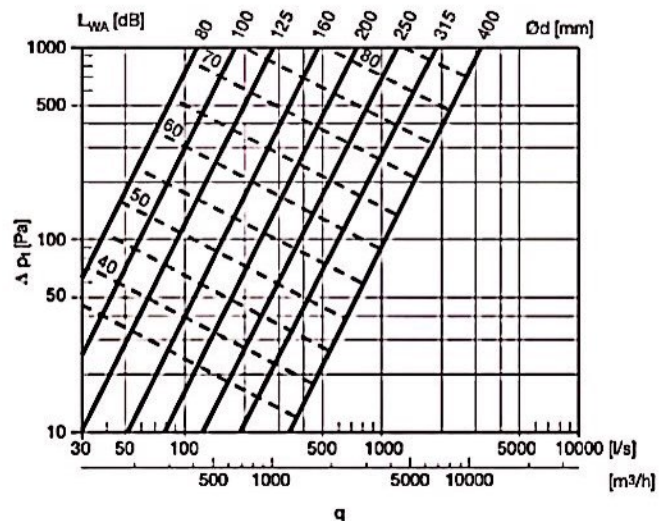
Product	HN	315
Dimension Ød		

Dimensions



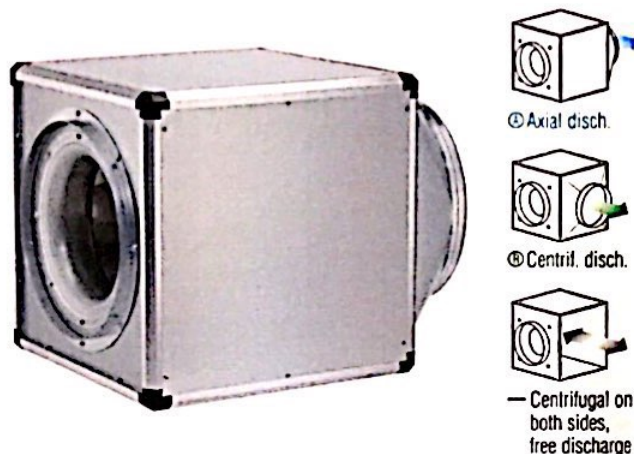
Ød nom	ØD [mm]	H [mm]	h [mm]	m [kg]	Roof through connection TGR	
					50 mm	100 mm
					Size	
80	130	160	310	0,66	3	3
100	180	220	360	0,96	3	3
125	225	240	380	1,26	3	4
160	280	340	475	1,95	3	4
200	345	420	555	2,92	3	4
250	430	505	640	4,31	4	5
315	550	620	755	6,75	5	6
400	685	846	981	9,57	5	6

Technical data



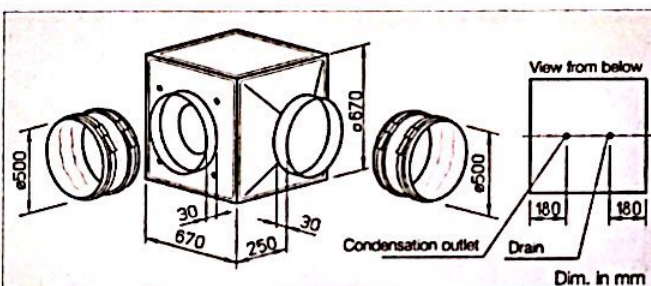
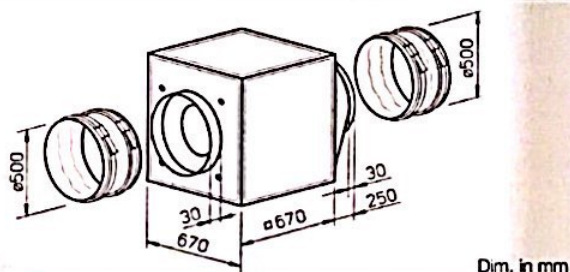
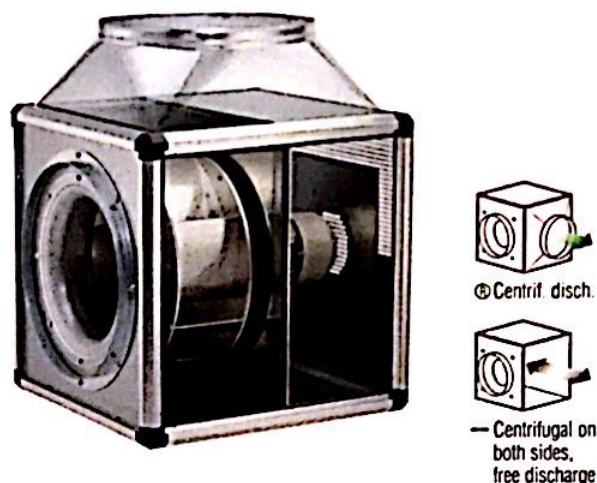
GB

Arbitrary installation position and flexible assembly by five possible discharge directions.



GB T120

Designed for moving dirty, humid and hot air up to max. 120° C. Motor located outside the air flow.



Special features of types GB T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

Assembly GB T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

Feature

Assembly of types GB

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter. For wall mounting the wall bracket (accessories) have to be used. Outdoor installation is possible using outdoor cover

hood and external weather louvers (accessories).

Specification of both types

Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

Motor

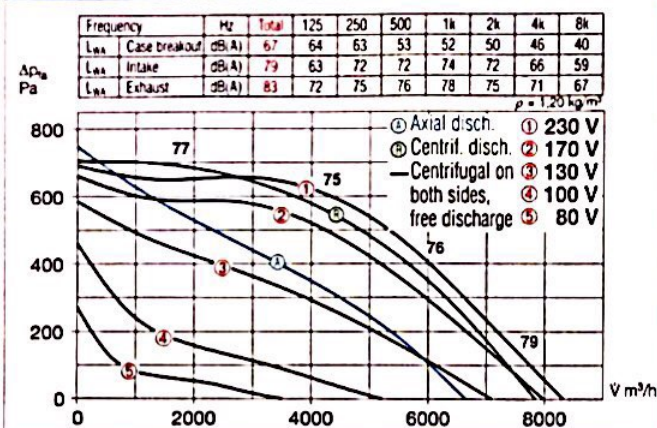
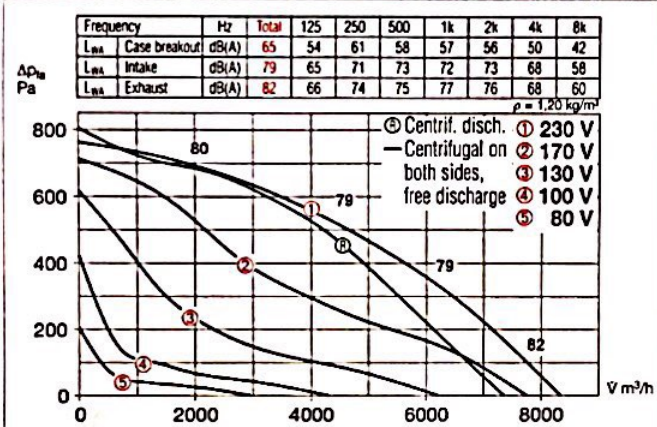
Maintenance-free external rotor motor or IEC-standard motor protected to IP 54. With ball bearings and interference-free as standard.

Electrical connection

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

Type	Ref. no.	Air flow volume (FID)	R.P.M.	Sound press. case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature Full load controlled	Weight (net) kg	5 step transformer controller with mot. protect. unit	Full motor protection unit using the thermal contacts
		V m³/h	min⁻¹	dB(A) in 4 m	kW	A	A	No.	+°C	+°C	Type Ref. no.	Type Ref. no.
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54												
GBW 500/4	5517	8321	1401	47	1.50	6.70	9.60	865	65	55	61	MWS 10 1946 TSW 10 1498 MW ¹⁾ 1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/Δ wiring, protection to IP 54												
GBD 500/4/4	5518	8000/9200	1075/1340	45	0.97/1.45	1.60/2.80	2.90	867	50	50	57	RDS 7 1578 TSD 5,5 1503 MD 5849
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54												
GBW 500/4 T120	5776	8345	1340	45	1.40	6.1	7.0	301	120	100	75	MWS 10 1946 — —
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/Δ wiring, protection to IP 54												
GBD 500/4/4 T120	5777	7320/8350	1120/1370	45	0.95/1.30	1.60/2.50	2.5	947	120	110	75	RDS 4 1316 TSD 3,0 1502 MD 5849

1) incl. operation switch

GBW 500/4

GBW 500/4 T120

Motor protection

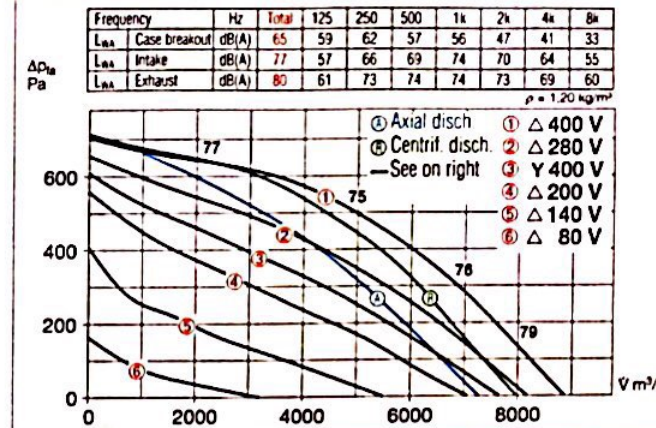
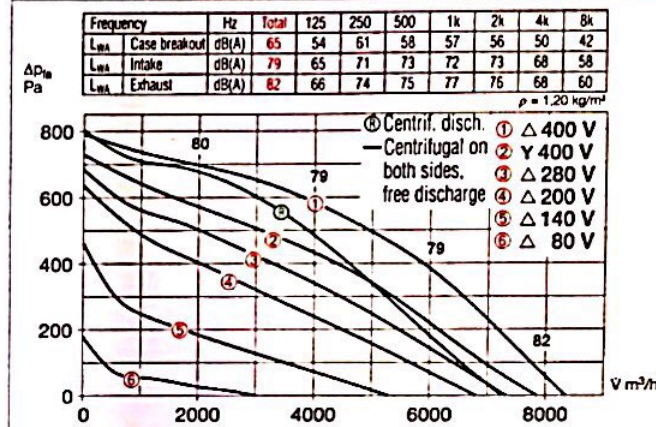
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

Speed control

All types are speed controllable by voltage reduction using a transformer controller. The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
 - Sound level case breakout
 - Sound level intake
 - Sound level exhaust
 In the table below as well as underneath the performance curve you can find additionally the sound pressure levels at 4 m (free field conditions).

GBD 500/4/4

GBD 500/4/4 T120

Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.

SDD-U Ref. no. 5627

Wall bracket for wall mounting.

GB-WK 500 Ref. no. 5626

External weather louvers to cover exhaust opening.

GB-WSG 500 Ref. no. 5639

Outdoor cover hood for outdoor installation.

GB-WSD 500 Ref. no. 5748

On/Off and 2-speed switch for 3-phase Y/Δ motors.

Type DS 2² Ref. no. 1351

² full motor protection unit recommended:
MD Ref. No. 5849

Specific accessories
for types GB

Condensate collector with condensate spigot for pipe connection.

GB-KW 500 Ref. no. 5644

(Condensate collector with condensate spigot included in delivery with GB T120).

for types GB T120

Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).

GB-RA Ref. no. 9418

Information	Page
Information for planning	10 on
General techn. information, speed control	15 on
Accessory-Details	Page
Speed controller and full motor protection unit	525 on