

PRODUCT CATALOGUE



**ROOFTOP
BAL TIC**

PROVIDING **GLOBAL SYSTEM** SOLUTIONS





Cooling only



Heat pump



Cooling and gas heat



Dual fuel



- Compliant with EUROVENT certification program
- Compliant with EN 60204-1
- Compliant with PED 97-23 directive
- Alternate defrost : All heat pump Baltics with 2 circuits, have independent defrost. When one circuit is in defrost cycle, the second is still in heat pump mode
- Dynamic defrost : using a set of sensors, Climatic50 detects when coils are frozen and starts defrost cycle only when needed
- Aluzinc casing (10 years warranty against corrosion)
- Stainless steel fixings
- Aluminium condensate drain pan
- Easy access to all components
- Thermostatic expansion valves
- Variable drive pulley as a standard feature
- External pressure tap allows easier measurements of HP/LP without opening the rooftop
- External static pressure up to 400 Pa (size 20 to 35) and 500 Pa (size 40 to 50)
- 93% efficiency gas burner
- Fireproof (MO) insulation
- Removable condensate drain pan, the bent drain traps are shipped as a kit
- Plug and play unit, all units have factory fitted options, fully tested and wired
- All electrical components are protected by circuit breakers
- Numbered wires , all wires and connectors are numbered as shown on the electrical drawing to facilitate maintenance and diagnostic
- BDK units (dual-fuel), combine heat pump heating with gas fired heating
CLIMATIC 50 allows the selection of the most efficient way to generate heat based on the outside temperature
- Scroll compressors



CLIMATIC™ 50

- 16 bits, 2 megabytes flash memory processor
- Can display 50 different faults
- 100 settings available for customisation
- 100 readings available for diagnostic and monitoring
- Anti shortcycle, equalisation of compressor running time functionality
- Master-slave capability, staggered start feature
- Automatic summer/winter time change
- 4 dry outputs contacts and 2 dry inputs contacts are available as standard

BC/BH/BG/BD - 20 → 50 KW

GENERAL DATA

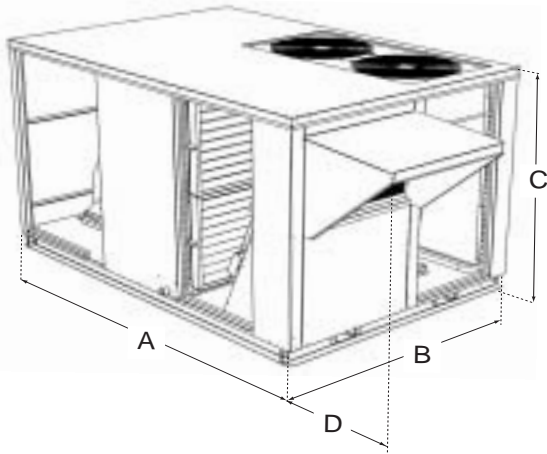
BALTIC	BCK/BHK/BGK/BDK	020	025	030	035
Cooling mode BCK/BGK					
Gross cooling capacity (35 °C ext, 27 °C in, 47% HR) Eurovent	kW	19,8	24,3	31,2	34,6
Gross cooling capacity (32 °C ext, 26 °C in, 60% HR)	kW	20,9	25,5	32,9	36,5
Gross COP cooling (35 °C ext, 27 °C in, 47% HR)		2,5	2,2	2,3	2,1
Gross COP cooling (32 °C ext, 26 °C in, 60% HR)		2,7	2,5	2,5	2,4
Power input BCK	kW	8	10,9	13,6	16,1
Heating mode BCK					
Net heating capacity (7 °C ext, 20 °C in)	kW	18,3	23,3	30,2	33,4
Net COP heating (7 °C ext, 20 °C in)		2,7	2,6	2,6	2,6
Auxiliary heating					
Gas heat capacity	kW - S/H (1)	18,6/30,7	18,6/30,7	18,2/42,8	18,2/42,8
Electric heater capacity	kW - S/M/H (1)	12/24/36	12/24/36	24/36/48	24/36/48
Hot water coil capacity (20 °C in / water 90-70 °C)	kW - S/H (1)	23,6/38,5	26,6/38,5	34,2/49,0	37,1/53,5
Refrigeration circuit					
Number of compressors / Number of circuits	nb	1/1	1/1	2/2	2/2
Scroll compressor type	type	ZR81	ZR11	ZR72	ZR81
Refrigerant charge per circuit	kg	3	3	4	4
Maximum Outdoor temperature at Indoor 27 °C DB/ 19 °C WB	°C	45	43	44	42
Ventilation					
Nominal airflow at 100 Pa	m ³ /h	3600	4500	5400	6300
Minimum airflow	m ³ /h	2900	3600	4300	5000
Maximum airflow	m ³ /h	4300	5400	6500	7600
Acoustic					
Outdoor sound pressure at 10 meters	dB(A)	50	51	49	50
Indoor sound power (supply)	dB(A)	75	80	76	79
BALTIC	BCK/BHK/BGK/BDK	040	045	050	
Cooling mode BCK/BGK					
Gross cooling capacity (35 °C out, 27 °C in, 47% HR) Eurovent	kW		40,2	44,2	47,7
Gross cooling capacity (32 °C out, 26 °C in, 60% HR)	kW		42,5	46,6	50,3
Gross COP cooling (35 °C out, 27 °C in, 47% HR)			2,4	2,3	2,2
Gross COP cooling (32 °C out, 26 °C in, 60% HR)			2,7	2,5	2,4
Power input BCK	kW		16,7	19,2	22,1
Heating mode BCK					
Net heating capacity (7 °C out, 20 °C in)	kW		38,8	42,7	47,3
Net COP heating (7 °C out, 20 °C in)			2,7	2,6	2,6
Auxiliary heating					
Gas heat capacity	kW - S/H (1)		30,7/55,8	30,7/55,8	30,7/55,8
Electric heater capacity	kW - S/M/H (1)		27/45/54	27/45/54	27/45/54
Hot water coil capacity (20 °C in / water 90-70 °C)	kW - S/H (1)		46,8/66,5	49,8/71,2	52,6/75,5
Refrigeration circuit					
Number of compressors / Number of circuits	nb		2/2	2/2	2/2
Scroll compressor type	type		ZR90	ZR90+ZR11	ZR11
Refrigerant charge per circuit	kg		5,5	5,5	5,7
Maximum Outdoor temperature at Indoor 27 °C DB/ 19 °C WB	°C		45	43	42
Ventilation					
Nominal airflow at 100 Pa	m ³ /h		7200	8100	9000
Minimum airflow	m ³ /h		5800	6500	7200
Maximum airflow	m ³ /h		8600	9700	10800
Acoustic					
Outdoor sound pressure at 10 meters	dB(A)		50	50	51
Indoor sound power (supply)	dB(A)		76	78	80

(1) : S = Standard heat - M = Medium heat - H = High heat

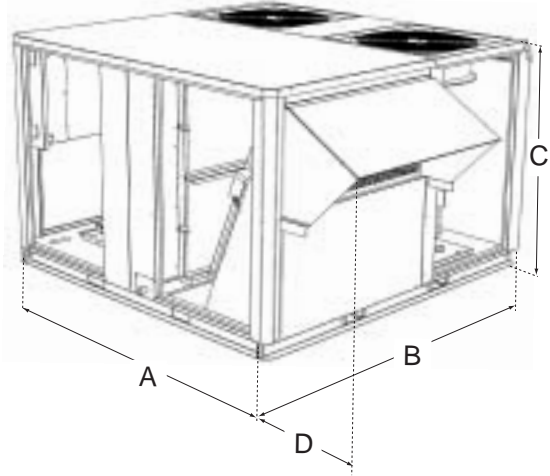


PHYSICAL DATA

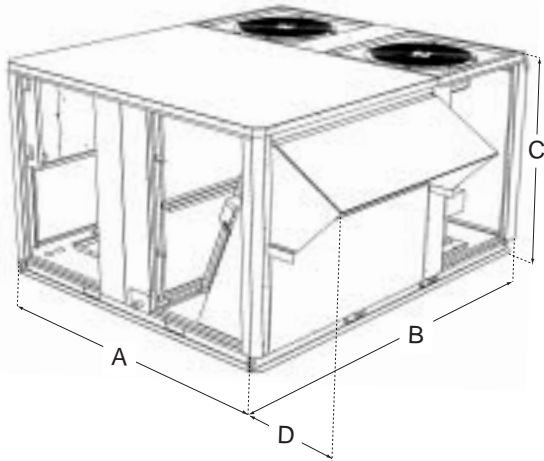
B BOX



C BOX



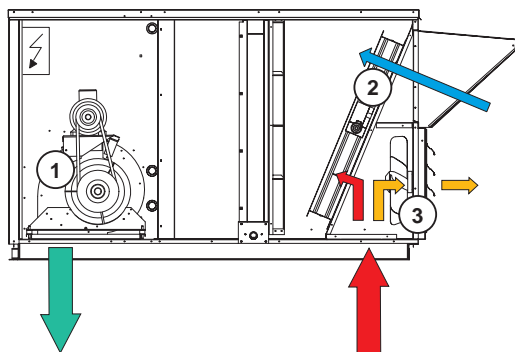
D BOX



BALTIC BCK/BHK/BGK/BDK		020	025	030	035	040	045	050
View		B BOX	B BOX	C BOX	C BOX	D BOX	D BOX	D BOX
A	mm	2050	2050	1950	1950	1950	1950	1950
B	mm	1418	1418	1913	1913	2233	2233	2233
C	mm	1220	1220	1220	1220	1220	1220	1220
D	mm	478	478	418	418	418	418	418
Weight of standard units								
without hood	kg	377	428	501	503	626	630	638
with hood	kg	400	451	529	531	659	663	671
Weight of gas units								
Standard heat without hood	kg	419	472	567	572	709	718	723
Standard heat with hood	kg	442	495	595	600	742	751	756
High heat without hood	kg	431	484	586	591	730	739	744
High heat with hood	kg	454	507	614	619	763	772	777

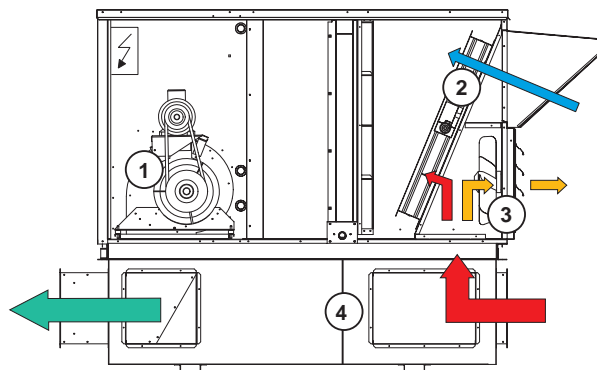
ROOFCURB

BALTIC PRINCIPLE SKETCH



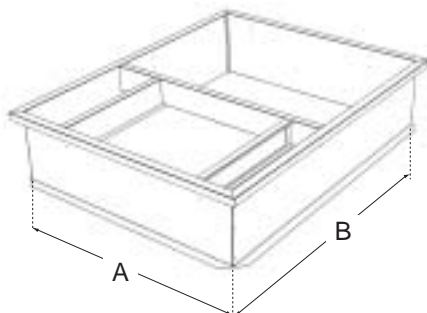
- Fresh air
 - Return air
 - Exhaust air
 - Supply air
- 1** Supply fan
 - 2** Economiser damper
 - 3** Exhaust damper or Exhaust damper + exhaust air

MULTIDIRECTIONAL ROOFCURB PRINCIPLE SKETCH

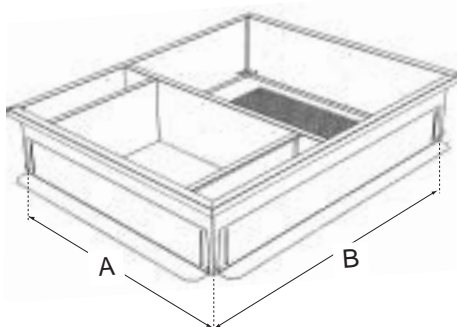


- Fresh air
 - Return air
 - Exhaust air
 - Supply air
- 1** Supply fan
 - 2** Economiser damper
 - 3** Exhaust damper or Exhaust damper + exhaust air
 - 4** Multidirectional roof curb

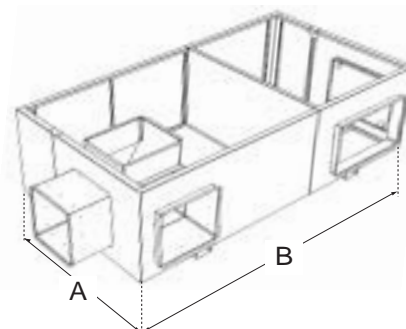
NON ADJUSTABLE, NON ASSEMBLED ROOFCURB



ADJUSTABLE ROOFCURB



MULTIDIRECTIONAL ROOFCURB



ROOF OPENING / EXTERNAL DIMENSION

BALTIC BCK/BHK/BGK/BDK			020	025	030	035	040	045	050
<i>Non-adjustable, non assembled roofcurb</i>									
BCK BHK	A	mm	1083	1083	1280	1280	1530	1530	1530
	B	mm	1783	1783	1640	1640	1640	1640	1640
BGK BDK	A	mm	1083	1083	1280	1280	1530	1530	1530
	B	mm	1783	1783	1640	1640	1640	1640	1640
<i>Assembled adjustable roofcurb</i>									
BCK BHK	A	mm	1085	1085	1282	1282	1532	1532	1532
	B	mm	1795	1795	1642	1642	1642	1642	1642
BGK BDK	A	mm	1085	1085	1282	1282	1532	1532	1532
	B	mm	1795	1795	1642	1642	1642	1642	1642
<i>Multidirectional roofcurb (External dimensions. No roof opening required)</i>									
BCK BHK	A	mm	1236	1236	1433	1433	1683	1683	1683
	B	mm	2182	2182	2035	2035	2105	2105	2105
BGK BDK	A	mm	1236	1236	1433	1433	1683	1683	1683
	B	mm	2182	2182	2035	2035	2105	2105	2105



OPTIONS

❑ **Non adjustable, non assembled roofcurb**

Shipped folded flat for ease of shipping and handling, it is easily field assembled.

❑ **Adjustable Roofcurb**

Aluzinc construction. For this adjustable roofcurb that can be installed on a roof with up to 4 to 5% slope in all directions.

❑ **Multidirectional flow roofcurb**

Enable many airflow possibilities, including horizontal supply and return on the same side.

❑ **Air Sock Control**

Soft start control allows the air socks to be progressively filled with air on start up.

❑ **Economiser**

"Free cooling" is provided through the use of fresh air when appropriate rather than cooling the return air includes fresh and return air damper and hood.

❑ **Gravity exhaust damper**

Gravity exhaust damper relieves the pressure when outside air is being introduced in the system.

❑ **Power Exhaust Fan**

Installed with economiser assembly, it provides exhaust air pressure relief when high levels of outside air are being introduced in the system.

❑ **DC 50 : Comfort Display**

This is a remote controller for non-technical customer. It was designed to aesthetically fit in the room and be very easy to use.

With DC50, the customer can change the scheduling of the different time zones, modify temperature set points and percentage of fresh air in each zone.

❑ **DS 50 : Service Display**

This new service display controller is a plug and play feature. This allows service personnel to set, up to 100 settings, read up to 100 variables, up to 50 faults and read the history of the last 16 faults.

❑ **Analogic «Blower-on» sensor and dirty filter indication**

A differential pressure sensor measures the pressure drop across the evaporator coil and filters. It indicates if the filters are dirty, missing or if there is no airflow.

❑ **Panel filters with metal frames and disposable filter media (EU4 / G4)**

Metallic frame with washable filter media (rated EU4/G4) available.

❑ **Indoor Air Quality Sensor**

This feature gives the possibility to match minimum fresh air requirements with occupancy. It measures CO2 levels and adjusts fresh air flow rate accordingly.

❑ **Electric Heater**

3 sizes : "Standard", "Medium", and "High" heat. "Standard" and "Medium" heat are 2 stages electric heaters, "High" heat is fully modulated with TRIAC control allowing a constant supply temperature.

❑ **Hot Water Coil**

2 and 3 row hot water coils configurations are available and offer fully modulated control through the use of a 3 way valve.

❑ **93% high efficiency Gas Burner Option**

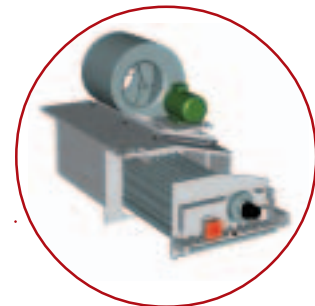
Lennox is proud to introduce the first high efficiency gas burner available on rooftop in Europe with 93% efficiency.

❑ **Customised color**

Units can be supplied in various colours to suit any application or requirement.

❑ **Anti-Corrosion Protection**

Where the units are installed in potentially aggressive environments. Coils can be treated with "blygold" coating.



- Fire-Stat**
 This thermostat provides a signal when the temperature of the airstream is above an adjustable set point.
- Disconnect Switch**
 A lockable main disconnect switch is available to increase safety around the rooftop unit.
- Smoke Detector**
 The ionic head of the smoke detector can detect any type of smoke. When this occurs the unit will stop operating, the return air damper will close fully and the fresh air damper will open fully .
- CLIMALINK2 / CLIMALOOK2**
 Smart and very competitive monitoring system, it allows the supervision of up to 12 rooftops equipped with Climatic50 either on site, or remotely through the use of a phone line and Internet explorer. Most of the settings/variables/faults/schedules are accessible with Climalink/Climalook2.
- CLIMALOOK3**
 Climalook3 has the same functionality as Climalook2 but can also supervise up to 8 rooftops equipped with Climatic2 and 12 rooftops equipped with Climatic50.

MAIN FORM



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