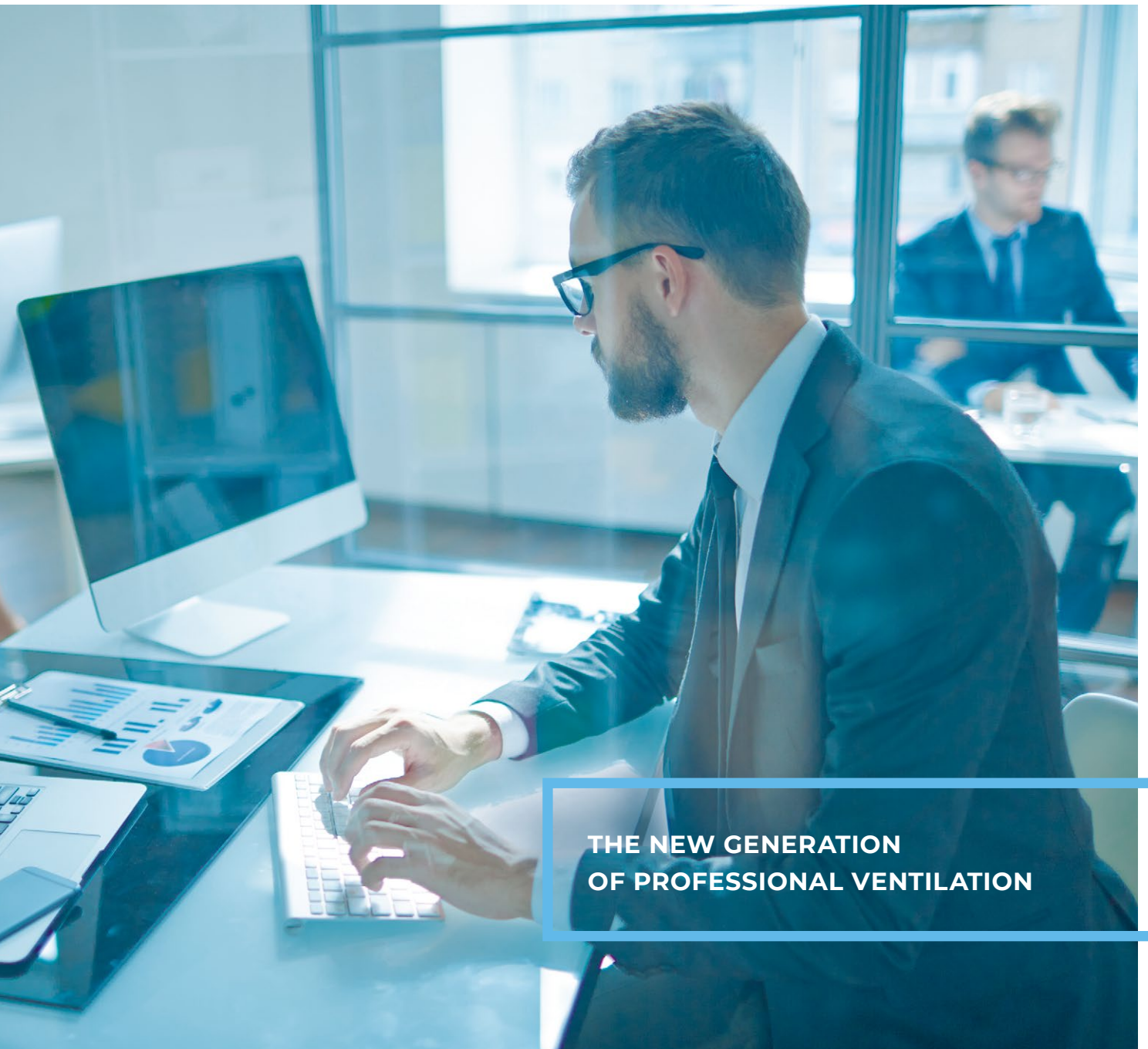


# BLAUAIR BLS



THE NEW GENERATION  
OF PROFESSIONAL VENTILATION

2

# BLAUAIR BLS

**COMMERCIAL  
AIR HANDLING  
UNITS  
WITH EXTENDED  
POSSIBILITIES**



**1 000 – 20 000 m<sup>3</sup>/h**



## FEATURES

Air flow capacity: 1 000 – 20 000 m<sup>3</sup>/h.

Integrated control system.

Modular frameless casing design.

Wide range of rotary and plate heat exchangers.

## Improved design with better performance

### T2 / TB2 / L1 / D1

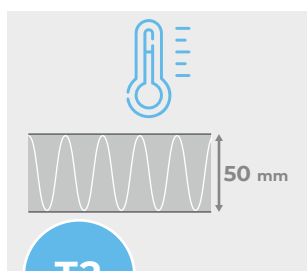
The construction of the case with a PVC profile ensures the absence of thermal bridges, minimizes heat loss and reduces the noise level.


**TB2**

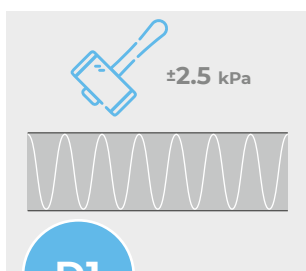
Thermal bridging


**L1**

Leakage


**T2**

Thermal transmittance


**D1**

Mechanical strength

## Heat exchangers

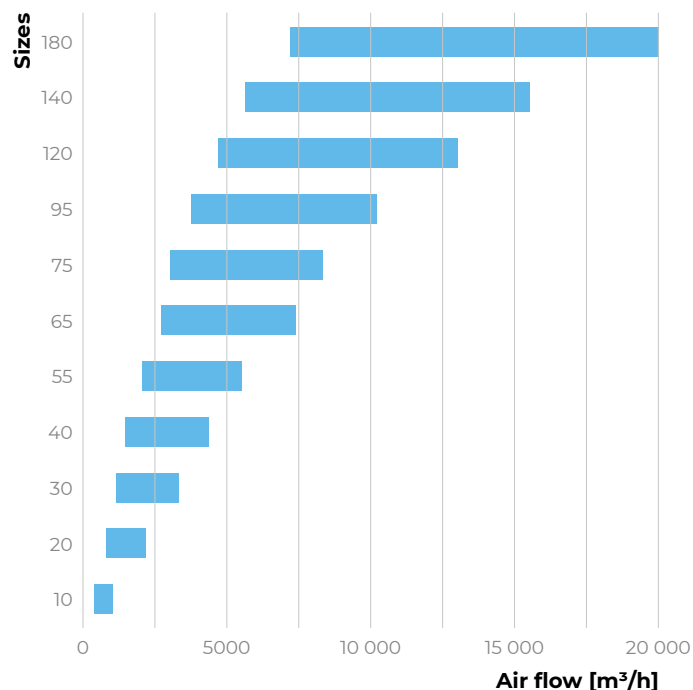
Heat exchanger efficiency up to 90 % – efficient in energy saving and reducing ventilation system costs.

Air handling units with a sorption rotor have high efficiency and keep comfortable humidity with low risk of frosting.

High-efficient counter-flow heat exchangers with lower pressure losses. As standard, the regenerators are equipped with a bypass damper.



## Sizes and capacities of BLS units



## Fans with ultra premium class motors and FanGrids

Electronically commutated direct current motors (EC motors) with an external rotor, equipped with a backward curved impeller, are used. Such motors with an IE5 class are the most progressive solution for energy saving.

In FanGrids, multiple small fans operate in parallel, rather than having one large fan. This provides redundancy, ensuring fail-safe operation.





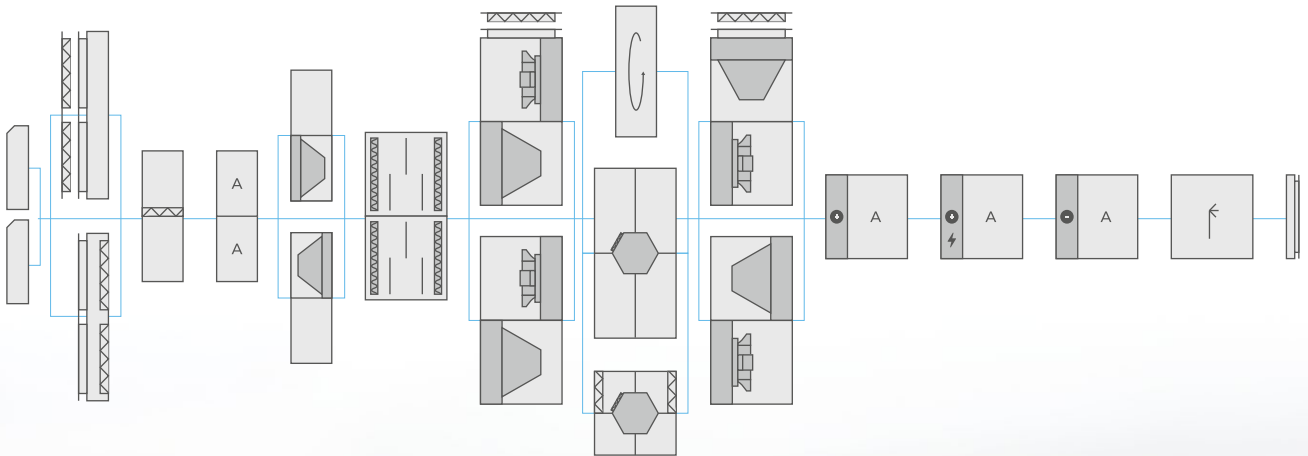
## Modular design allows:

combining sections fast without leakages;

optimizing manufacturing time;

making transportation easier.



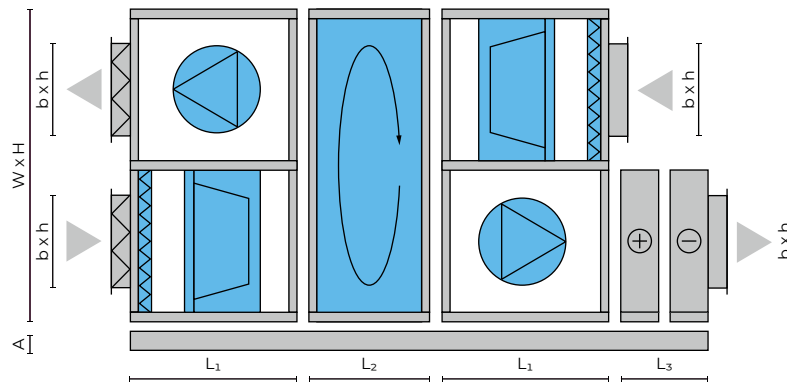


## Overall dimensions [mm]

### BLS R

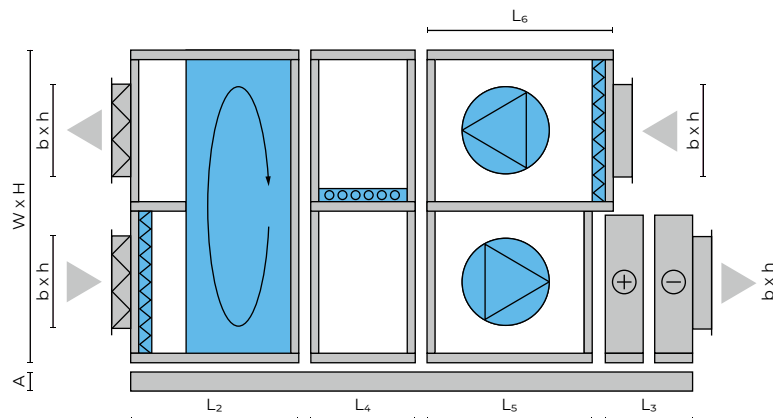
Size	W	H	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	b	h	A
10	800	940	700	430	900	500	200	120
20	1000	1100	700	430	900	700	250	120
30	1200	1300	700	430	900	900	350	120
40	1200	1460	700	430	900	900	400	120
55	1350	1560	700	430	900	1000	500	120
65	1500	1880	800	470	900	1200	600	120
75	1600	1880	800	470	900	1300	600	120
95	1730	1880	800	470	900	1400	600	120
120	2110	2220	800	470	900	1800	800	120
140	2110	2220	800	470	900	1800	800	120
180	2360	2520	950	470	900	2000	1000	120

\* if the data does not match the data in the selection software, kindly refer to the data displayed in the software.



Size	W	H	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	b	h	A
10	800	940	580	900	480	700	900	500	200	120
20	1000	1100	580	900	480	700	950	700	250	120
30	1200	1300	580	900	480	700	950	900	350	120
40	1200	1460	580	900	480	700	950	900	400	120
55	1350	1560	580	900	480	700	950	1000	500	120
65	1500	1880	620	900	580	800	1050	1200	600	120
75	1600	1880	620	900	580	800	1050	1300	600	120
95	1730	1880	620	900	580	800	1050	1400	600	120
120	2110	2220	620	900	680	800	1050	1800	800	120
140	2110	2220	620	900	680	800	1050	1800	800	120
180	2360	2520	620	900	800	950	1100	2000	1000	120

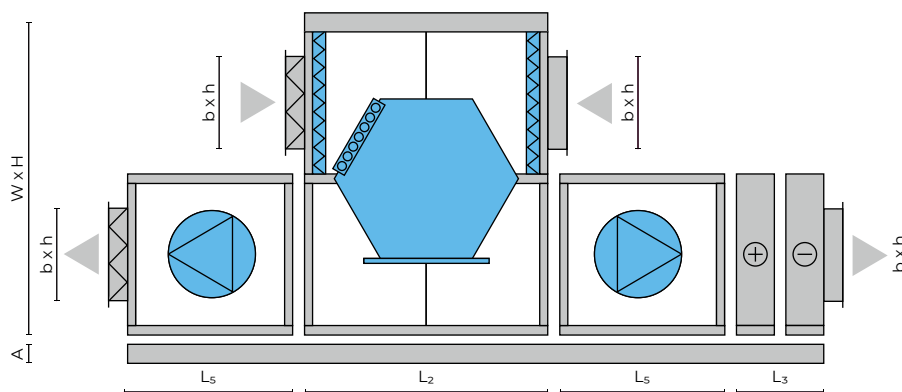
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## BLS CF

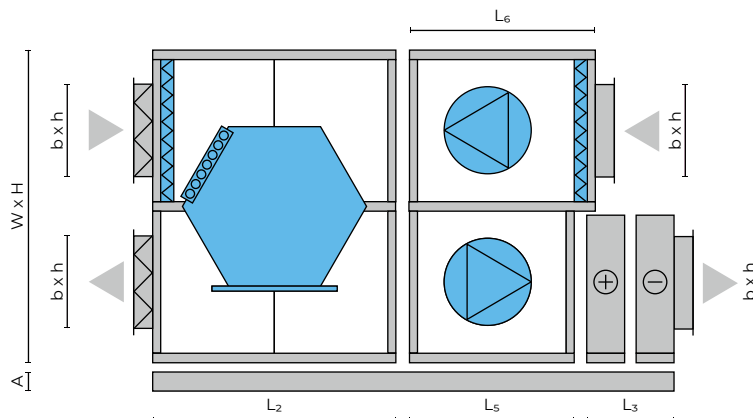
Size	W	H	L <sub>2</sub>	L <sub>3</sub>	L <sub>5</sub>	b	h	A
10	800	940	1440	900	700	500	200	120
20	1000	1100	1440	900	700	700	250	120
30	1200	1300	1440	900	700	900	350	120
40	1200	1460	1580	900	700	900	400	120
55	1350	1560	2000	900	700	1000	500	120
65	1500	1880	2288	900	800	1200	600	120
75	1600	1880	2288	900	800	1300	600	120
95	1730	1880	2288	900	800	1400	600	120
120	2110	2220	2568	900	800	1800	800	120
140	2110	2220	2568	900	800	1800	800	120
180	2360	2520	2835	900	950	2000	1000	120

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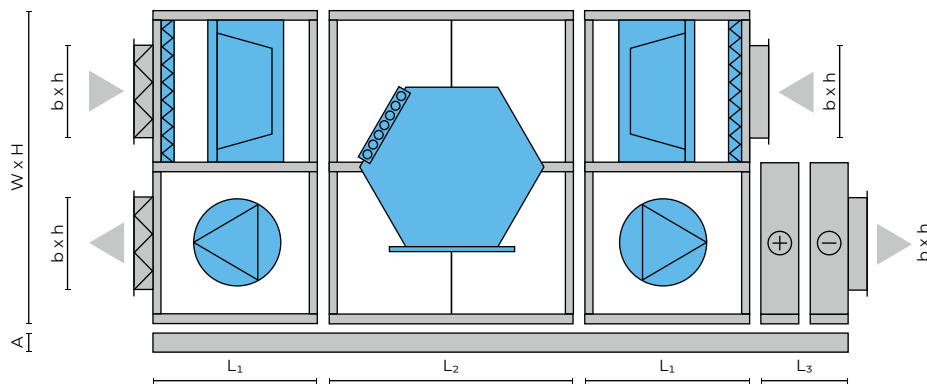
Size	W	H	L <sub>2</sub>	L <sub>3</sub>	L <sub>5</sub>	L <sub>6</sub>	b	h	A
10	800	940	1440	900	700	900	500	200	120
20	1000	1100	1440	900	700	950	700	250	120
30	1200	1300	1440	900	700	950	900	350	120
40	1200	1460	1580	900	700	950	900	400	120
55	1350	1560	2000	900	700	950	1000	500	120
65	1500	1880	2288	900	800	1050	1200	600	120
75	1600	1880	2288	900	800	1050	1300	600	120
95	1730	1880	2288	900	800	1050	1400	600	120
120	2110	2220	2568	900	800	1050	1800	800	120
140	2110	2220	2568	900	800	1050	1800	800	120
180	2360	2520	2835	900	950	1100	2000	1000	120

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Size	W	H	L1	L2	L3	b	h	A
10	800	940	700	1440	900	500	200	120
20	1000	1100	700	1440	900	700	250	120
30	1200	1300	700	1440	900	900	350	120
40	1200	1460	700	1580	900	900	400	120
55	1350	1560	700	2000	900	1000	500	120
65	1500	1880	800	2288	900	1200	600	120
75	1600	1880	800	2288	900	1300	600	120
95	1730	1880	800	2288	900	1400	600	120
120	2110	2220	800	2568	900	1800	800	120
140	2110	2220	800	2568	900	1800	800	120
180	2360	2520	950	2835	900	2000	1000	120

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The modern design of air handling units enables them to achieve improved technical specifications. This includes a lower airflow velocity within the unit and better SFP performance.



## Integrated control system

Plug-and-play unit: full electric wiring.

### Additional option – full factory electric wiring includes:

Installation of air damper actuators. Routing of contacts from actuators to the terminal box.

Installation of differential pressure switches in filter sections. Installation of a relay actuation threshold to the necessary level (final pressure drop according to the selection).

Installation of frost protection thermostats in water heating coils sections.

Installation of the VFD in the rotary heat exchanger section.

Installation of bypass damper actuators in the plate heat exchanger section.

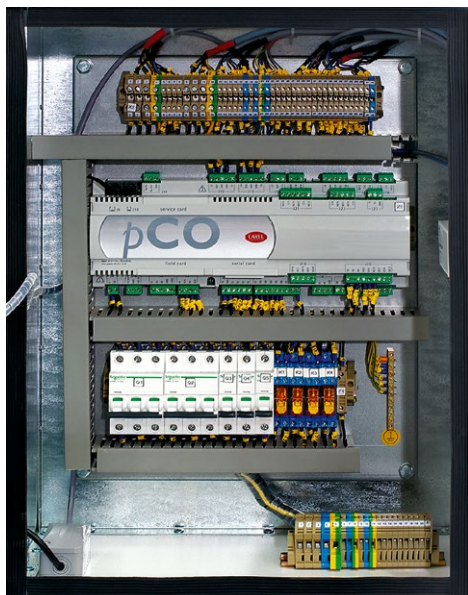
Routing of all electric contacts in the electric heater sections.

Routing of all electric contacts in the fan sections.

Installation and adjustment of all temperature and humidity sensors inside the unit.

All the electric contacts are routed to the junction box, which is mounted in one of the sections.

Plug-and-play option implies the possibility of shipment in separate blocks. In this case, joints and connection boxes are installed between the sections.



## Building Management Systems

**BlauAir BLS** units control system can be easily integrated into building management systems (SCADA, BMS, «smart house»).

All the information processed by a programmable logic controller, is easily accessible via standard communication protocols:

- MODBUS TCP;
- LON WORKS.

Any other protocol can be used according to customer's choice and project requirements.





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