

redge[®] FORMERLY
LENNOX



ONEAIR

Compact and Modular air handling unit



420 - 80000 m³/h



ISO 9001
ISO 14001
CERTIFIED



ErP
Ready



- # High efficiency Air Handling Unit to any building design.
- # Compact design
- # High corrosion resistance granted by magnelis structure for each size.
- # High heat recovery efficiency
- # Easy maintenance

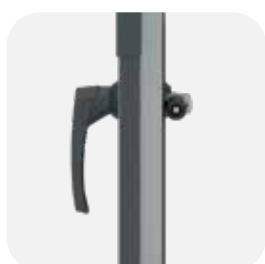
PANELS

- # Panels made of mineral wool, double-sided coated with metal sheet with zinc-magnesium coating - Magnelis®
- # Corrosion class: C5
- # Panel thickness: 50 mm
- # Thermal insulation: mineral wool



POURED GASKET

- # High tightness of inspection panels achieved through the use of a poured gasket
- # Continuity of the gasket along the entire length
- # Microbiological neutrality



DOOR HANDLES

- # Easy access to panel components
- # Adjustable roller pressure ensures that the panels remain sealed during the life of the air handling unit



COMPACT SIZE

- # Ability to move the unit through a 900 mm door
- # Air handling unit base configuration: heat recovery, fan sets, filters, heater (optional)
- # Number of sections:
 - Sizes LXVVSA11-22 RRG and HEX - one section
 - Sizes LXVVSA29-56 RRG - two sections
 - Sizes LXVVSA29-40 HEX - three sections



HIGH EFFICIENCY

- # Rotary heat exchanger: condensing or sorption
- # HEX counterflow heat exchanger: aluminium
- # Highly efficient fan sets with electronically commutated (EC) motors

EASY TO MAINTAIN AND CLEAN

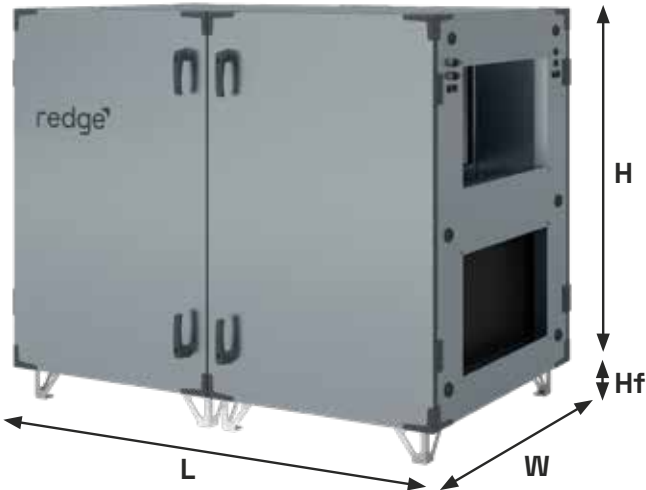
- # Access to the unit from both sides
- # Easy access for cleaning fan sets and heat exchangers

CONTROLS



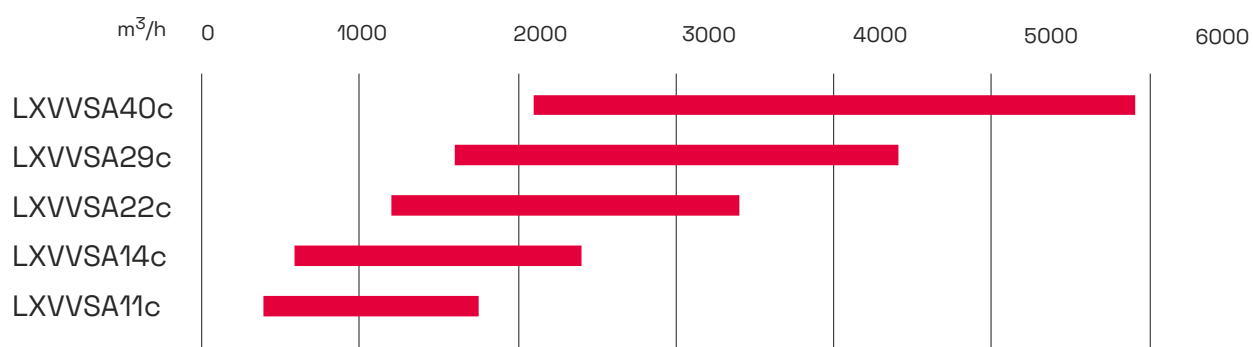
- # Positioned in the exhaust air path, which prevents condensation on controls components
- # Multifunctional controls integrated with the unit - configured and ready to operate (Plug&Play)
- # Ability to connect service devices without opening the unit
- # Remote servicing capability via Ethernet, Wi-Fi, Bluetooth, GSM

AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

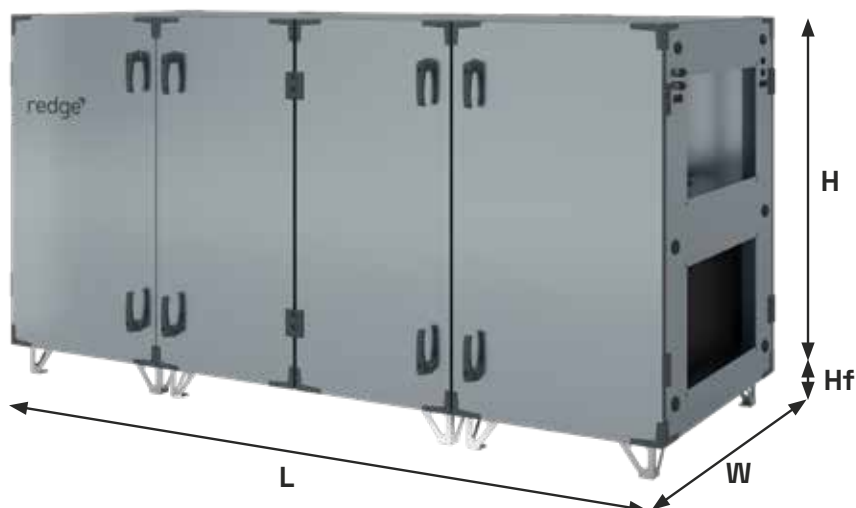


* The height of the unit does not include the height of the frame

AIR HANDLING UNITS WITH COUNTERFLOW HEAT EXCHANGER



Size	Min. air flow	Max. air flow	Height *	Width	Length	Connection diameter	Connection height	Connection width	Frame height
	m³/h	m³/h	mm	mm	mm	mm	mm	mm	mm
LXVVSA11c	390	1700	962	750	2000	315	-	-	120
LXVVSA14c	590	2400	1062	865	2000	400	-	-	120
LXVVSA22c	1200	3400	1175	947	2540	-	400	500	120
LXVVSA29c	1600	4400	1330	1124	2811	-	400	700	120
LXVVSA40c	2100	5900	1478	1284	2811	-	400	800	120



* The height of the unit does not include the height of the frame

ADDITIONAL AIR HANDLING FUNCTIONS

UNITS WITH ROTARY AND COUNTERFLOW HEAT EXCHANGER



ADDITIONAL PROTECTION AGAINST EXTERNAL CONDITIONS:

- # Roof over base unit and extensions
- # Cover on air dampers actuator

Available additional features: duct silencer, freon cooler, water cooler.

			LXVVSA11c	LXVVSA14c	LXVVSA22c	LXVVSA29c	LXVVSA40c	LXVVSA56c
Silencer	Length	mm	300/1000	300/1000	1065	1065	1065	1065
	External width	mm	630	750	794	910	1070	1300
Freon cooler	External height	mm	410	460	584	662	736	856
	Length	mm	540	540	771	771	771	771
Water cooler	External width	mm	630	750	794	910	1070	1300
	Outside height	mm	410	460	584	662	736	856
	Length	mm	540	540	718	718	718	718

ADDITIONAL PROTECTION AGAINST EXTERNAL CONDITIONS

- # Additional protection of the connection point to the main
- # Additional casing for damper actuators



CONTROLS

- # Positioned in the exhaust air path, which prevents condensation on controls components
- # Multifunctional controls integrated with the unit - configured and ready to operate (Plug&Play)
- # Ability to connect service devices without opening the unit
- # Remote servicing capability via Ethernet, Wi-Fi, Bluetooth, GSM



EXTERNAL COMMUNICATION PORTS

- # Connecting to the controller without opening the unit



DEDICATED AIR-HANDLING MEASUREMENT BOARD

- # Optimised connections inside the air handling unit
- # Active filter contamination measurement
- # Continuous air volume (CAV) control
- # Exhaust air temperature and humidity measurement

MINI-PLEAT FILTERS

Air filters with extended high efficiency filtration surface.

- # Supply - EU7 (ePM2,5 65%)
- # Exhaust - EU5 (ePM10 50%)



EC MOTORS

- # Efficient, silent and low vibrations fan with electronically commutated motor in a IE4 class.



ENERGY RECOVERY

- # Highly efficient counterflow hex recovery with by-pass.
- # Recovery efficiency reaching 90%.

CASING

- # Panels filled with mineral wool, enclosed with steel sheet on both sides.
- # Casing parameters according to EN 1886: T2, TB3, L1, D1, F9.



RECUPERATOR BY-PASS

- # Stepless adjustment of heat recovery capacity.
- # Passive cooling function.
- # Recuperator frost protection.



CONTROLS

- # Multifunctional controls, integrated with the unit – fully pre-configured and ready to run.



LXVVS030s



LXVVS020s



LXVVS015s



LXVVS010s



LXVVS005s

← **150 m³/h** - airflow range - **3300 m³/h** →

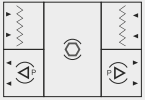


max. 490 mm

Base unit overall data

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection height	DUCT CONNECTION WIDTH
	[m ³ /h]	[m ³ /h]	[mm]	[mm]	[mm]	[mm]
LXVVS005s	500	150 - 650	400	770	318	305
LXVVS010s	1000	300 - 1100	400	1190	318	515
LXVVS015s	1500	450 - 1650	400	1590	318	715
LXVVS020s	2000	600 - 2200	490	1650	408	743
LXVVS030s	3000	900 - 3300	490	2200	408	1018

Section length

Unit size		F	H	C	HC
	Base unit	Additional air treatment functions			
	[mm]	[mm]	[mm]	[mm]	[mm]
LXVVS005s	1350	320	320	390 - 480	480 - 800
LXVVS010s	1500	220	220	390 - 480	480 - 780
LXVVS015s	1500	220	220	390 - 480	480 - 780
LXVVS020s	1828	220	220	390 - 480	480 - 780
LXVVS030s	1828	220	220	390 - 480	480 - 780

Duct accessories

Dimmension WxH [mm]	LXVVS005s	LXVVS010s	LXVVS015s	LXVVS020s	LXVVS030s
Flexible connection	305x313	485x288	685x288	730x375	1005x375
Air damper	305x313	485x288	685x288	730x375	1005x375
Rectangle spigot	305x313/300x300	510x310/400x350	710x310/400x350	740x400/500x400	1015x400/800x400
Rounded spigot	305x313/355	510x310/355	710x310/355	740x400/450	1015x400/450

CASING

- # Panels filled with mineral wool, enclosed with steel sheet on both sides.
- # Casing parameters according to EN 1886: T2, TB3, L1, D1, F9.



ENERGY RECOVERY

- # Highly efficient heat wheel driven by EC motor.
- # Recovery efficiency reaching 86%.



CONTROLS

- # Multifunctional controls, integrated with the unit – fully pre-configured and ready to run.

MINI-PLEAT FILTERS

Air filters with extended high efficiency filtration surface.

Supply - EU7 (ePM_{2,5} 65%)

Exhaust - EU5 (ePM₁₀ 50%)



EC MOTORS

Efficient, silent and low vibrations fan with electronically commutated motor in a IE4 class.



ENERGY RECOVERY

Highly efficient counterflow hex recovery with by-pass
Recovery efficiency reaching 90%

With rotary heat exchanger or hex counter-flow heat exchanger



With rotary heat exchanger and heat pump



TOP with counter-flow heat exchanger (hex)

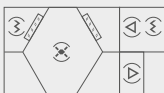


Base unit overall data

Unit size	Nominal airflow	Airflow range	Height	Width	Duct connection height	Duct connection width
	[m ³ /h]	[m ³ /h]	[mm]	[mm]	[mm]	[mm]
LXVVS021c	2100	840 - 2310	991	967	345	860
LXVVS030c	3000	900 - 3300	1255	967	480	860
LXVVS040c	4000	1200 - 4400	1255	1174	480	1065
LXVVS055c	5500	1650 - 6050	1525	1345	615	1235
LXVVS075c	7500	2250 - 8250	1765	1486	735	1380
LXVVS100c	10000	3000 - 11000	1965	1666	835	1560
LXVVS120c	12000	3600 - 13200	2039	1897	870	1790
LXVVS150c	15000	4500 - 16500	2241	2091	970	1985

Height includes 90 mm base rail

Base unit lengths

Unit size						
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
LXVVS021c	1240	1080	1080	2 230	2 230	2 500
LXVVS030c	1240	1080	1080	2 230	2 230	2 500
LXVVS040c	1240	1080	1080	2 230	2 230	2 500
LXVVS055c	1240	1080	1080	2 290	2 290	2 560
LXVVS075c	1240	1080	1080	2 530	2 530	2 800
LXVVS100c	1300	1300	1080	2 570	2 570	2 800
LXVVS120c	1300	1300	1080	2 670	2 670	2 900
LXVVS150c	1300	1300	1080	2 730	2 730	2 940

Additional section length

Unit size	F	H	C	HC	S
	[mm]	[mm]	[mm]	[mm]	[mm]
LXVVS021c	310	310 - 710	370 - 710	710	1080
LXVVS030c	310	310 - 710	370 - 710	710	1080
LXVVS040c	310	310 - 710	370 - 710	710	1080
LXVVS055c	310	310 - 630	450 - 790	790	1080
LXVVS075c	310	310 - 630	450 - 790	790	1080
LXVVS100c	310	310 - 630	890	890	1080
LXVVS120c	310	310 - 630	890	890	1080
LXVVS150c	310	310 - 630	920	920	1080

CASING SKIN

- # Rigid, durable structure of the casing.
- # Low absorption of heat radiation and UV.
- # High resistance to weather conditions.

FAN SECTION CAGE

- # Improved longitudinal rigidity of the structure.
- # Facilitated sections joining.

FOUNDATION

- # Transport facilitation.
- # High resistance of the frame to deflection.

STRUCTURAL POSTS

- # Broken thermal bridges as standard.
- # High resistance to weather conditions and UV radiation.



CANOPY

- # The canopy is made of 0,5 mm steel sheet, double side coated with 185 um of zinc (DX51D AZ185).
- # Canopy is assembled of modules equipped with self-latching grooves securing perfect tightness of the joints. Modular structure of the canopy ensures its easy and safe assembly.



ERGONOMIC INSPECTION PANEL LOCK

- # Highly aesthetic and ergonomic handles securing perfect tightness of inspection panels.

ALUMINUM STRUCTURAL POSTS WITH ADDITIONAL SEALING BLADE AND THERMAL BREAK

- # Broken thermal bridge as standard – eliminates humidity condensation on units structural elements.
- # Blade along the inspection window ensures labyrinth tightening between panel and AHU body – currently the most effective solution on the market, mainly applied to laboratory equipment.
- # Symmetrical groove in the vertical post's mounting feet secures its 100% tightness with the AHU casing structure.



NEXT LEVEL
HVAC SOLUTIONS