

VALLOX EXXEO

Modern elegant roof fan range

The Vallox Exxeko range includes seven roof fans of different sizes and three models with different control methods.



VALLOX
HOME *of* FRESH AIR

VALLOX EXXEO ROOF FAN RANGE

The Vallox Exxero range comprises the roof fans Vallox Exxero 150, 300, 700, 1400, 2000, 2500 and 4100. The most suitable model is chosen according to the required air volume: with a static pressure loss of 150 Pa, the air flow of the smallest roof fan in the range, Vallox Exxero 150, is 150 dm³/s, while the air volume of the largest fan is 4,100 dm³/s.

The Vallox Exxero roof fan range features models with three different control methods: the basic model **Vallox Exxero**; the **Vallox Exxero DPC** (Differential Pressure Control) model equipped with an integrated differential pressure transmitter; and the **Vallox Exxero DS** (Dual Speed) model designed for renovation projects. The basic model and DPC model can be connected to the building automation system via the Modbus bus and controlled with voltage messages. On/off status or alarm information can be obtained from both models. The DS model can utilise existing electrical connections and controls. Speed settings for both speeds can be made with a potentiometer.

Vallox Exxero roof fans are tiltable, upward-blowing and soundproofed on the inside of the enclosure. All models come with a safety switch connected, and controls are integrated into the frame. All models have air flow measuring tubes, and the fan is equipped with an EC motor. The metal parts meet the requirements of the EN ISO 12944-2 standard.

QUICK SELECTION TABLE

	Volume flow rate, qv (m ³ /s) the penetration part in place in the roof fan Static pressure difference (Pa)														
Static pressure difference (Pa)	50	75	100	125	150	175	200	225	250	300	350	400	500	600	800
Vallox Exxero 150	0,204	0,192	0,180	0,170	0,160	0,147	0,137	0,126	0,113	0,085	0,058	0,035			
Vallox Exxero 300	0,366	0,357	0,347	0,337	0,327	0,315	0,302	0,288	0,273	0,243	0,213	0,182	0,130		
Vallox Exxero 700	0,767	0,756	0,744	0,731	0,719	0,704	0,689	0,675	0,659	0,624	0,581	0,534	0,409		
Vallox Exxero 1400	1,503	1,482	1,458	1,435	1,412	1,389	1,367	1,345	1,322	1,263	1,196	1,128	0,986	0,76	
Vallox Exxero 2000	2,281	2,233	2,184	2,134	2,08	2,03	1,983	1,92	1,856	1,725	1,565				
Vallox Exxero 2500	2,935	2,849	2,742	2,648	2,565	2,466	2,356	2,235	2,098	1,734	1,003	0,599			
Vallox Exxero 4100	4,417	4,357	4,299	4,247	4,187	4,121	4,058	3,995	3,932	3,804	3,663	3,513	3,196	2,793	1,125

	Volume flow rate, qv (m ³ /h) the penetration part in place in the roof fan Static pressure difference (Pa)														
Static pressure difference (Pa)	50	75	100	125	150	175	200	225	250	300	350	400	500	600	800
Vallox Exxero 150	734,4	691,2	648	612	576	529,2	493,2	453,6	406,8	306	208,8	126			
Vallox Exxero 300	1317,6	1285,2	1249,2	1212,2	1177,2	1134	1087,2	1036,8	982,8	874,8	766,8	655,2	468		
Vallox Exxero 700	2761,2	2721,6	2678,4	2631,6	2588,4	2534,4	2480,4	2430	2372,4	2246,4	2091,6	1922,4	1472,4		
Vallox Exxero 1400	5410	5335	5248	5166	5083	5000	4921	4842	4759	4546	4305	4060	3549	2736	
Vallox Exxero 2000	8211	8083	7862	7682	7488	7308	7139	6912	6682	6210	5634				
Vallox Exxero 2500	10566	10256	9871	9532	9234	8877	8481	8046	7552	6242	3708	2156			
Vallox Exxero 4100	15901	15685	15476	15289	15073	14836	14609	14382	14155	13694	13187	12647	11506	10055	4050



- Seven roof fans with different air volumes, three models with different control methods.
- The metal parts of the roof fan meet the requirements of the EN ISO 12944-2 standard (environmental impact category C4; C5 when painted).
- The enclosure is made of zinc-magnesium coated sheet metal. It can be painted to order with RAL tones.
- Upward-blowing
- Plastic fan wheel with EC motor
- Withstands constant air flow temperature up to +60°C
- Controls integrated into the frame
- Enclosure soundproofed on the inside
- Enclosure protection class of electrical equipment IP54
- All models come with a connected safety switch
 - Basic and DPC models: Katko KSM 416 U (100 x 128 x 56)
 - DS model: Katko TKM 616 U (97 x 131 x 106)
- Diverse control options (see page 5).
- All models are equipped with air flow measuring tubes.
- All models are tiltable, and the structure is easy to open for maintenance. Wide range of accessories
- CE marking

WHY CHOOSE A VALLOX EXXEO ROOF FAN?

The zinc-magnesium coating protects the sheet metal against corrosion (environmental impact category C4).

The optional paint coating with the chosen RAL colour provides the roof fan surface with an additional layer of protection (environmental impact category C5).

The sealed tilting part included in the standard delivery efficiently seals the roof fan against the roof penetration.

The tilting part enables turning the roof fan to the side during maintenance.

The roof fan may be installed on top of a penetration made on site or by using the optional factory-made Vallox Exxero roof penetration.

When replacing an old roof fan, the mounting frame (standard delivery) makes installing easier.

With lifting lugs, the roof fan can be lifted onto the roof easily and safely.

Rainwater is led to the side of the fan, and the perforated roof panel prevents leaves and other loose rubbish from entering the unit.

The control equipment is fully protected and integrated inside the roof fan behind a safety door.

The unit is delivered with the safety switch installed and cabled.

Excluding the two smallest sizes, the roof fans are ready to be directly connected to Modbus (not the DS model). The two smallest fans can also be controlled with a Modbus connection via a control panel card.

The sound dampening elements in the detachable side panels efficiently attenuate the sound penetrating the enclosure, ensuring that the roof fan is silent.

An outdoor temperature sensor and duct-mounted temperature sensor, humidity, carbon dioxide and VOC transmitters, a clock switch and a potentiometer are available as accessories.

Information to assist planning

The Vallox Exxero roof fans can be found in the MagiCAD Cloud product database and they are available in the AutoCad and Revit software. In addition, the products can be found in the Cadmatic HVAC software.

Technical support for professionals

The Vallox technical support team will assist professionals in questions related to ventilation design, installation, setup and warranty servicing.



PRODUCT NUMBERS AND HVAC CODES

Item	Product number	HVAC code
Basic models with EC control panel card:		
Vallox Exxeo 150	4117586	7815099
Vallox Exxeo 300	4117015	7815102
Vallox Exxeo 700	4118660	7815105
Vallox Exxeo 1400	4118795	7815108
Vallox Exxeo 2000	4118796	7815111
Vallox Exxeo 2500	4118778	7815114
Vallox Exxeo 4100	4118779	7815117
Dual speed model for renovation projects:		
Vallox Exxeo 150 DS	4118736	7815101
Vallox Exxeo 300 DS	4118813	7815104
Vallox Exxeo 700 DS	4118815	7815107
Vallox Exxeo 1400 DS	4118797	7815110
Vallox Exxeo 2000 DS	4118798	7815113
Vallox Exxeo 2500 DS	4118780	7815116
Vallox Exxeo 4100 DS	4118781	7815119
A model equipped with a differential pressure transmitter:		
Vallox Exxeo 150 DPC	4118737	7815100
Vallox Exxeo 300 DPC	4118814	7815103
Vallox Exxeo 700 DPC	4118816	7815106
Vallox Exxeo 1400 DPC	4119852	7815109
Vallox Exxeo 2000 DPC	4119854	7815112
Vallox Exxeo 2500 DPC	4118782	7815115
Vallox Exxeo 4100 DPC	4118783	7815118

Item	Product number	HVAC code
Supplies:		
Vallox Exxeo clock switch	986020	7815235
Vallox Exxeo potentiometer	986010	7815236
Vallox Exxeo humidity transmitter	986040	7815237
Vallox Exxeo VOC transmitter	949078	7815238
Vallox Exxeo CO2 transmitter	949077	7815239
Vallox Exxeo temperature sensor for wall	986030	7815240
Vallox Exxeo duct-mounted temperature sensor	998238	7815241
Vallox Exxeo 150 roof penetration part	4121409	7815242
Vallox Exxeo 300/700 roof penetration part	4120165	7815243
Vallox Exxeo 1400/2000 roof penetration part	4121527	7815244
Vallox Exxeo 2500/4100 roof penetration part	4121535	7815245
Vallox Exxeo 150 underpressure damper	4121511	7815246
Vallox Exxeo 300/700 underpressure damper	4121506	7815247
Vallox Exxeo 1400/2000 underpressure damper	4121486	7815248
Vallox Exxeo 2500/4100 underpressure damper	4121447	7815249
Vallox Exxeo RAL colour		

The following must be observed when choosing the roof fan:

The static pressure indicated by the graph = pressure available for use in the ducts.
The pressure was calculated at the bottom end of the penetration part.
Air density = 1.20 kg/m³.

See the quick selection table on page 2 of this brochure.



TECHNICAL SPECIFICATIONS

Model	Weight kg	Electrical connection	Power taken from the network P1 kW	Power (A)	Fan enclosure protection class
Vallox Exxeo 150	20	1~ 230 VAC, 50 Hz	0.085	0.7	IP54
Vallox Exxeo 150 DS	23	1~ 230 VAC, 50 Hz	0.085	0.7	IP54
Vallox Exxeo 150 DPC	20	1~ 230 VAC, 50 Hz	0.085	0.7	IP54
Vallox Exxeo 300	29	1~ 230 VAC, 50 Hz	0.170	1.4	IP54
Vallox Exxeo 300 DS	32	1~ 230 VAC, 50 Hz	0.170	1.4	IP54
Vallox Exxeo 300 DPC	29	1~ 230 VAC, 50 Hz	0.170	1.4	IP54
Vallox Exxeo 700	32	1~ 230 VAC, 50 Hz	0.440	2.2	IP54
Vallox Exxeo 700 DS	35	1~ 230 VAC, 50 Hz	0.440	2.2	IP54
Vallox Exxeo 700 DPC	32	1~ 230 VAC, 50 Hz	0.440	2.2	IP54
Vallox Exxeo 1400	68	1~ 230 VAC, 50 Hz	0.800	4.0	IP54
Vallox Exxeo 1400 DS	70	1~ 230 VAC, 50 Hz	0.800	4.0	IP54
Vallox Exxeo 1400 DPC	68	1~ 230 VAC, 50 Hz	0.800	4.0	IP54
Vallox Exxeo 2000	73	3~ 400 VAC, 50 Hz	1.100	1.8	IP55
Vallox Exxeo 2000 DS	75	3~ 400 VAC, 50 Hz	1.100	1.8	IP55
Vallox Exxeo 2000 DPC	73	3~ 400 VAC, 50 Hz	1.100	1.8	IP55
Vallox Exxeo 2500	99	3~ 400 VAC, 50 Hz	1.100	1.85	IP55
Vallox Exxeo 2500 DS	101	3~ 400 VAC, 50 Hz	1.100	1.85	IP55
Vallox Exxeo 2500 DPC	99	3~ 400 VAC, 50 Hz	1.100	1.85	IP55
Vallox Exxeo 4100	107	3~ 400 VAC, 50 Hz	3.500	5.6	IP55
Vallox Exxeo 4100 DS	109	3~ 400 VAC, 50 Hz	3.500	5.6	IP55
Vallox Exxeo 4100 DPC	107	3~ 400 VAC, 50 Hz	3.500	5.6	IP55



CONTROLLING

Model	Control methods
Basic model	2-speed or 0–10 V control and Modbus connection
DS model	Similar to an old AC dual speed roof fan
DPC model	2-speed or 0–10 V control, pressure and air volume control and Modbus connection

SOUND PRESSURE LEVEL

Sound pressure level L_{pA} - at distance r, dB(A), roof fan installed on top of the flue					
1 m	10 m	20 m	30 m	40 m	50 m
-11 dB	-31 dB	-37 dB	-41 dB	-43 dB	-45 dB

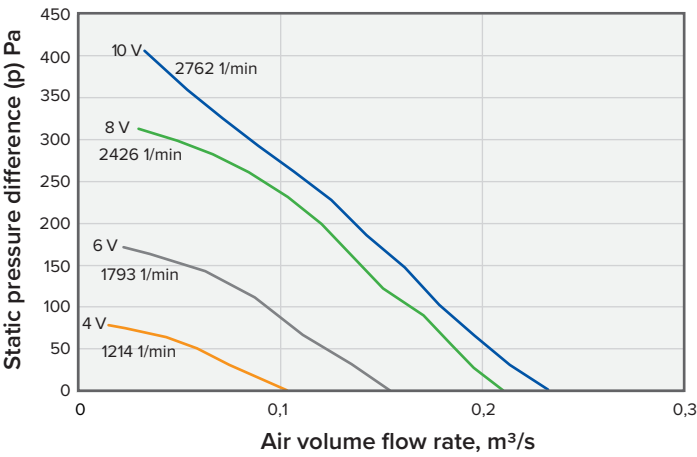
Adjustments to Vallox Exxeo's sound power level to the environment (L_{wA}) to define the sound pressure level L_{pA} .



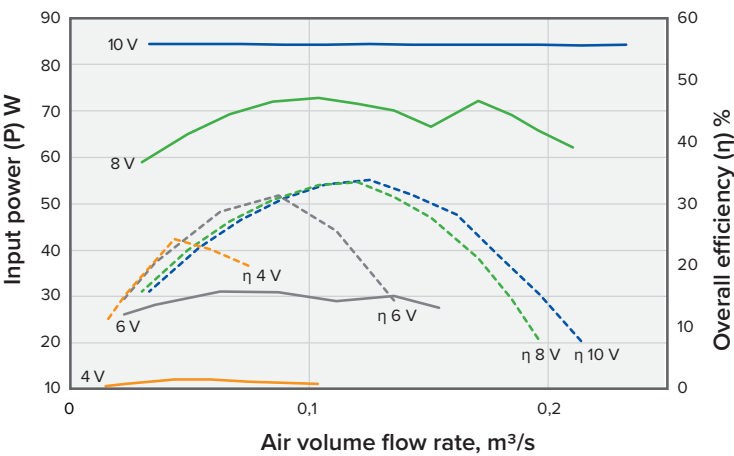
Read more about the Vallox Exxeo roof fan range on our website at www.vallox.com/vallox-exxeo/

VALLOX EXXEO 150 | 150 DPC | 150 DS

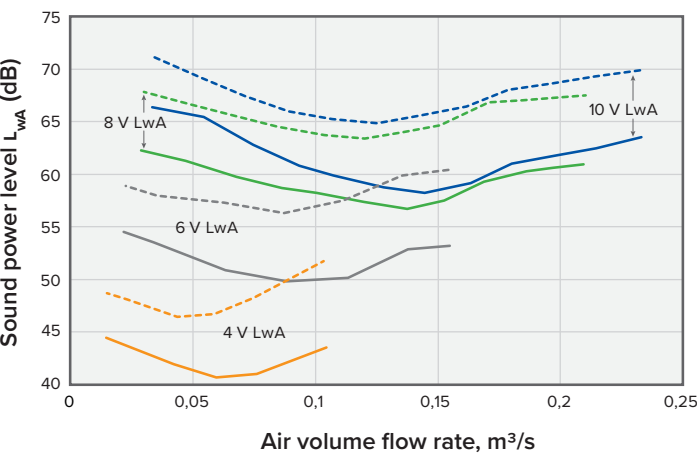
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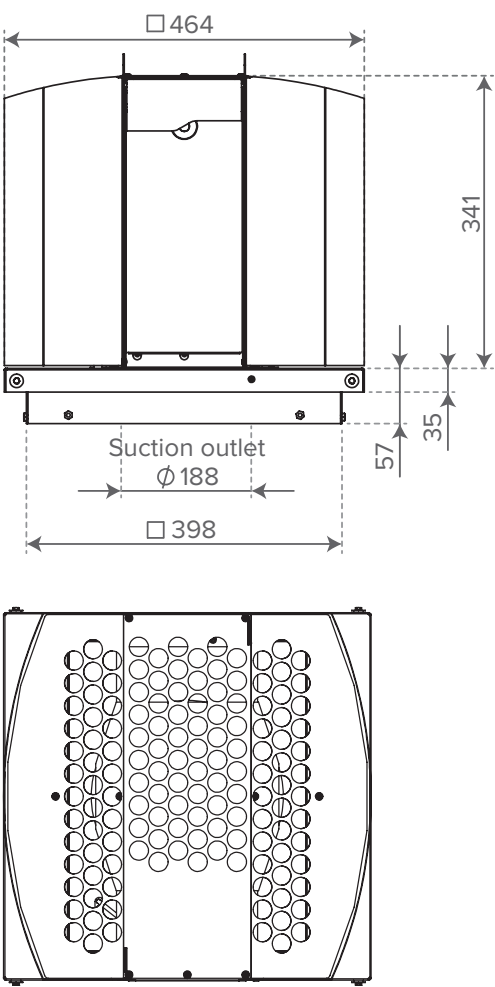
Input power and efficiency



Sound values

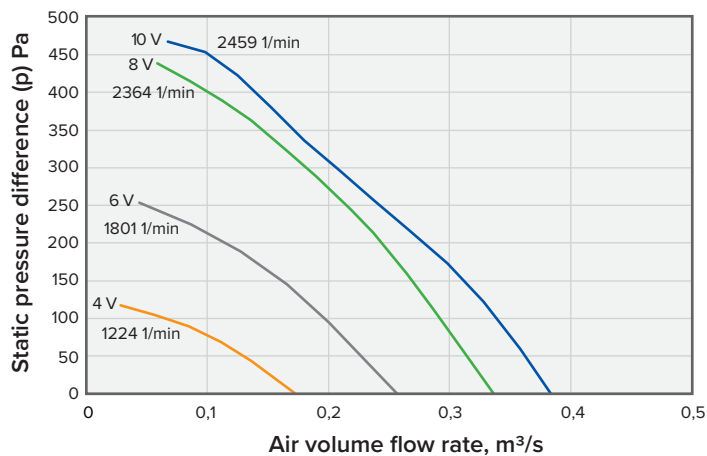


Dimension diagrams

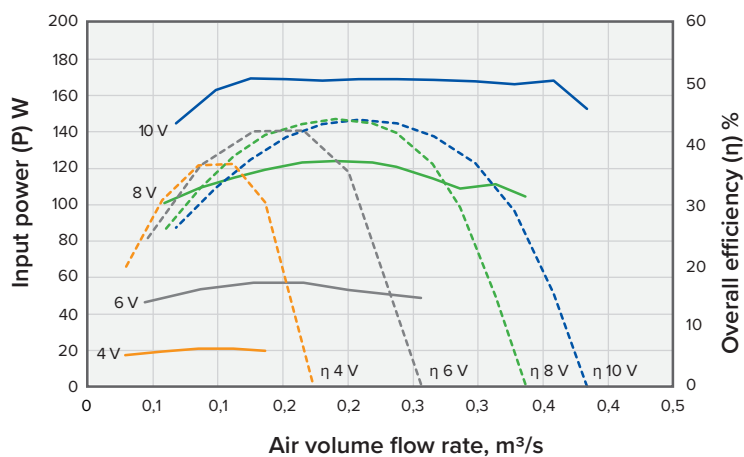


- Sound power level to the suction duct
- - - Sound power level to the environment

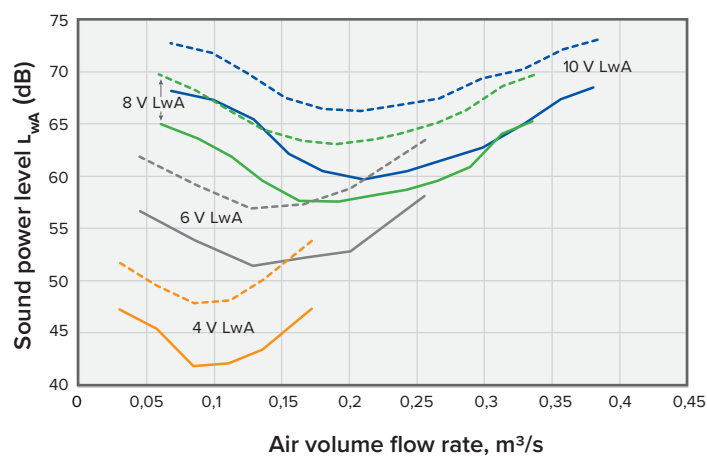
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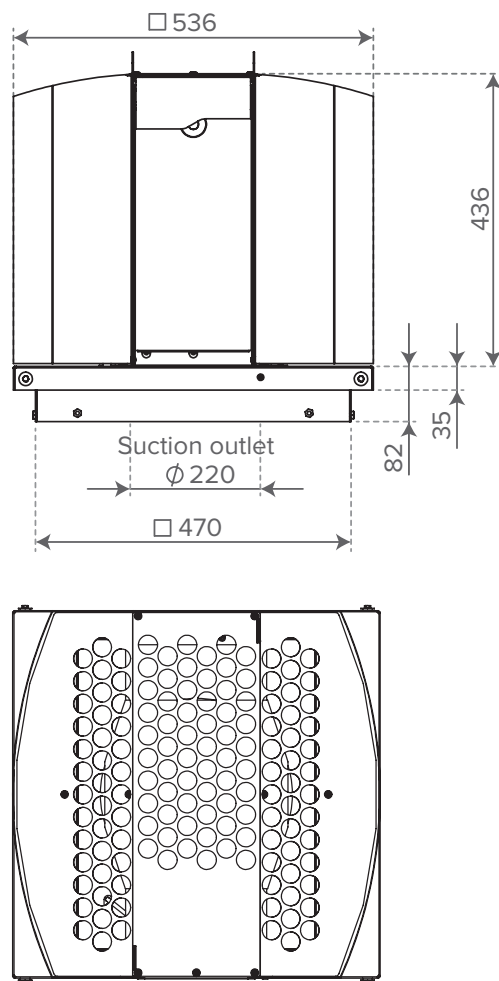
Input power and efficiency



Sound values



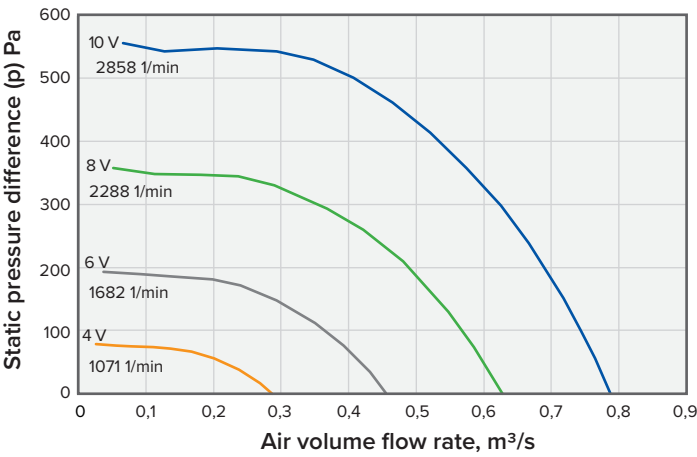
Dimension diagrams



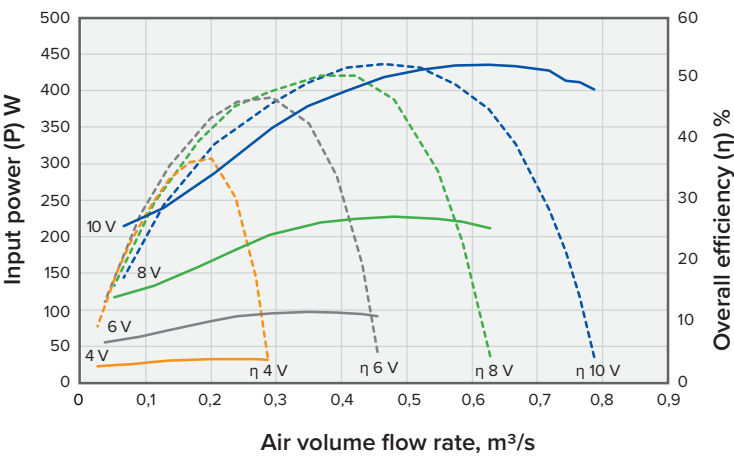
- Sound power level to the suction duct
- - - Sound power level to the environment

VALLOX EXXEO 700 | 700 DPC | 700 DS

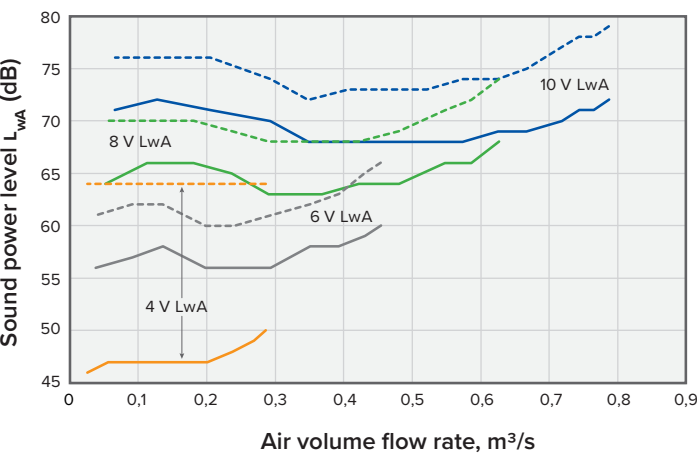
Static pressure loss



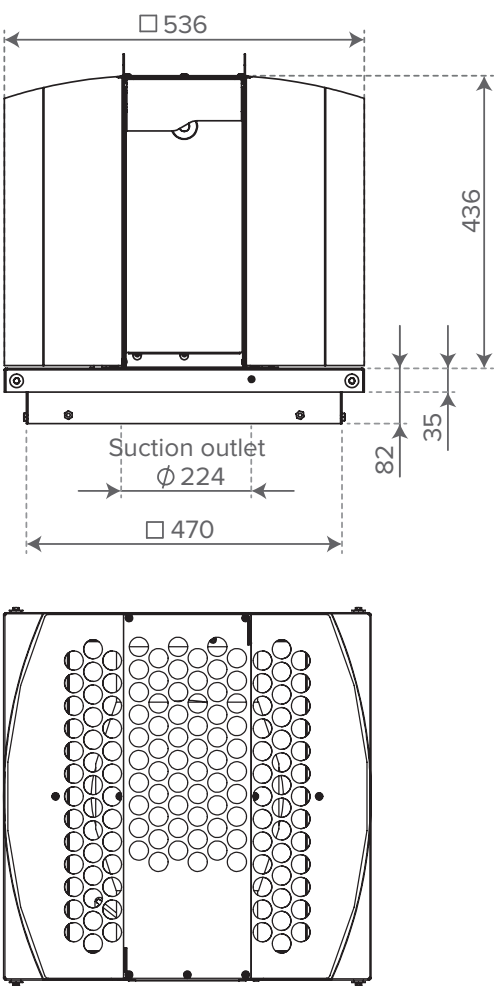
Input power and efficiency



Sound values



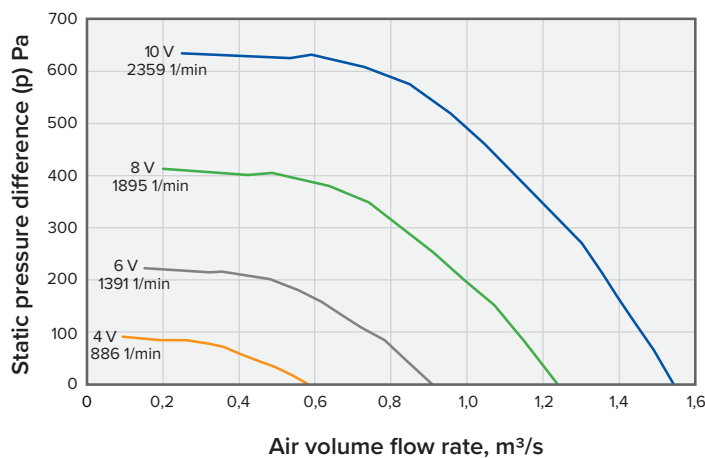
Dimension diagrams



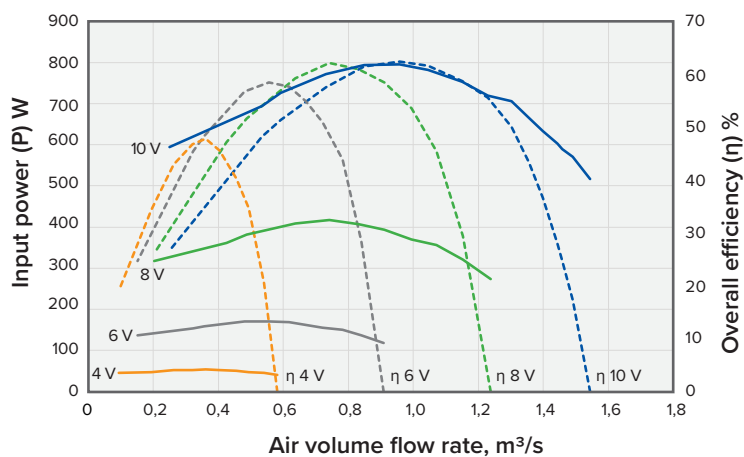
- Sound power level to the suction duct
- - - Sound power level to the environment

VALLOX EXXEO 1400 | 1400 DPC | 1400 DS

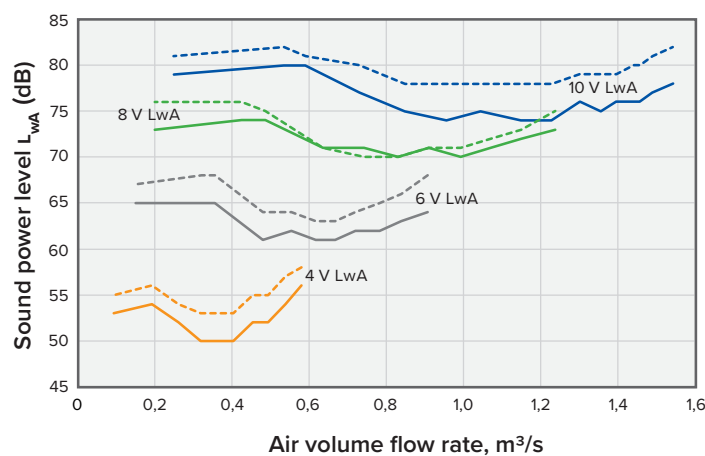
Static pressure loss



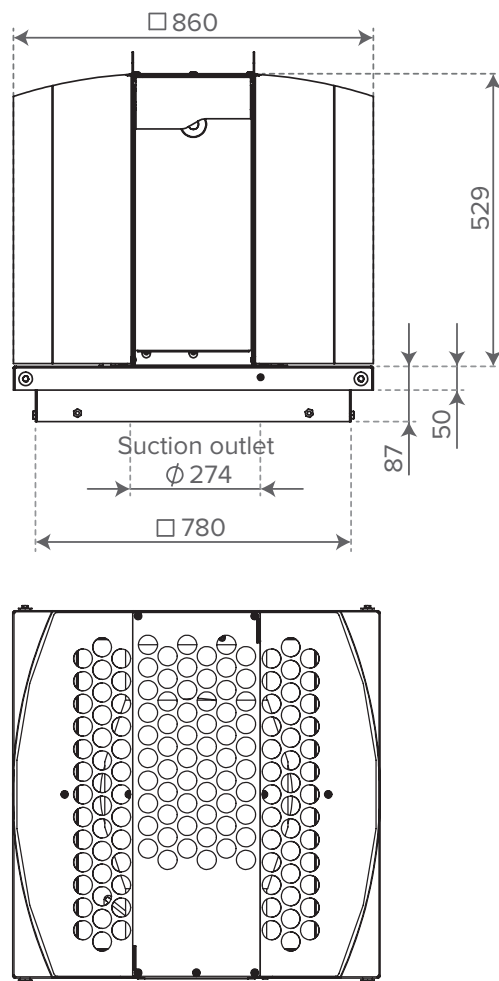
Input power and efficiency



Sound values

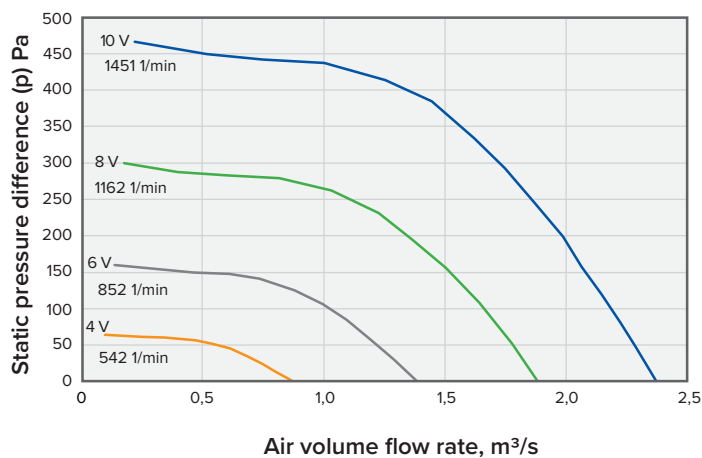


Dimension diagrams

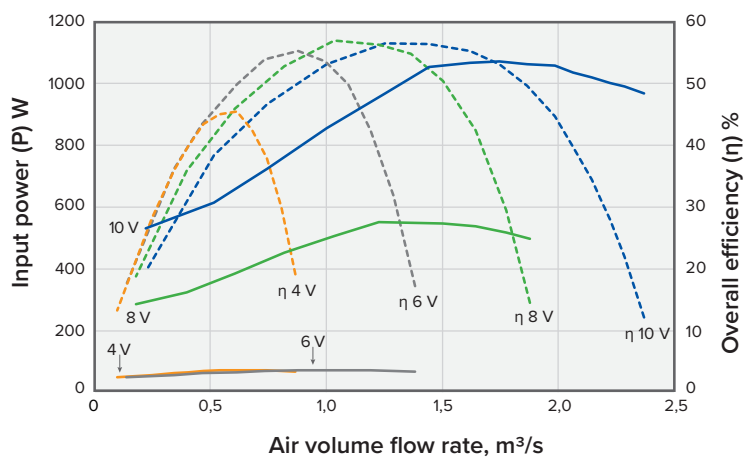


- Sound power level to the suction duct
- - - Sound power level to the environment

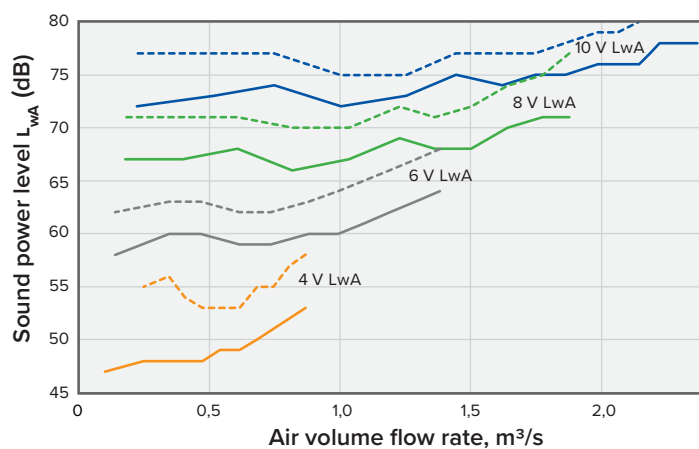
Static pressure loss



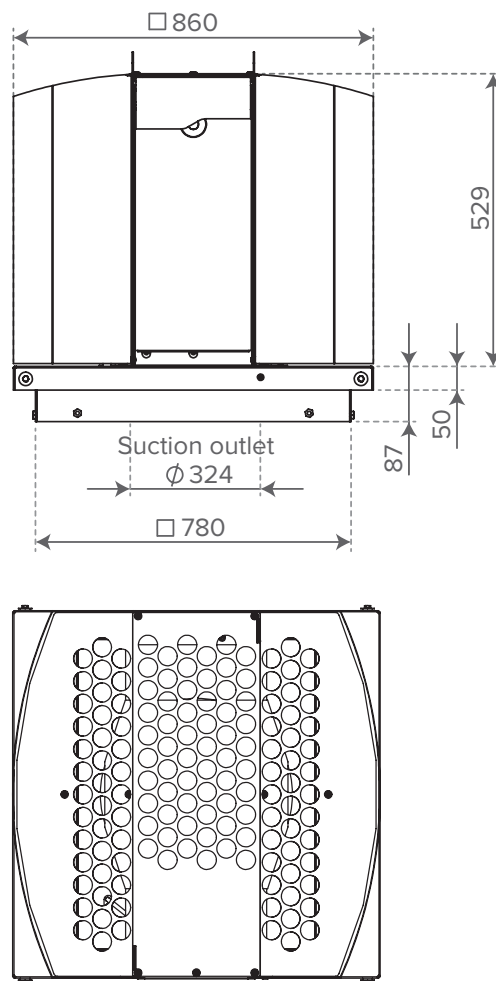
Input power and efficiency



Sound values



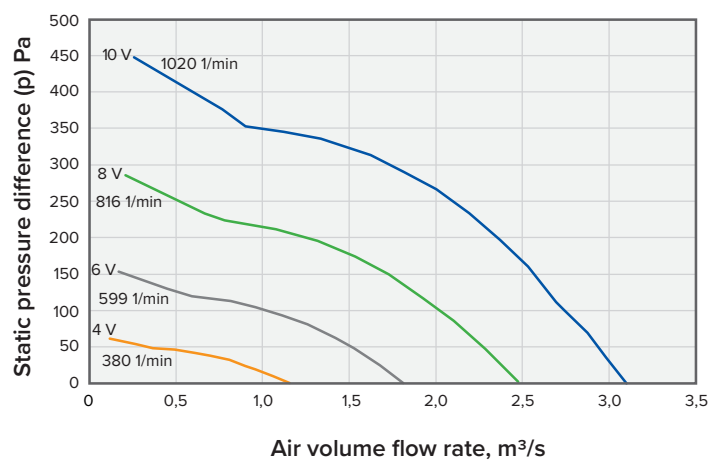
Dimension diagrams



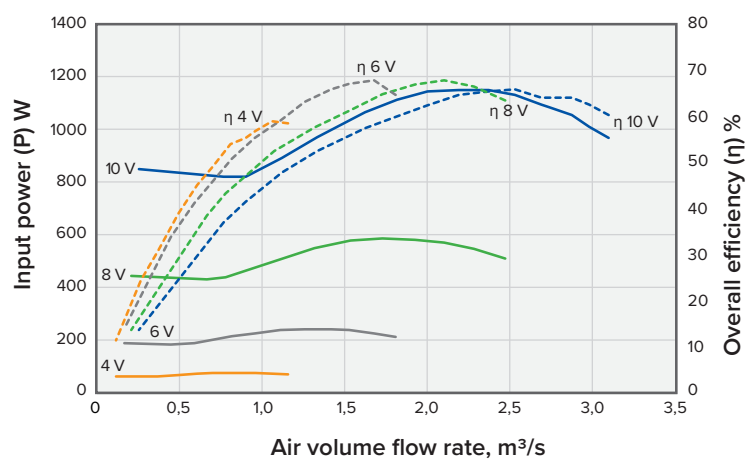
- Sound power level to the suction duct
- - - Sound power level to the environment

VALLOX EXXEO 2500 | 2500 DPC | 2500 DS

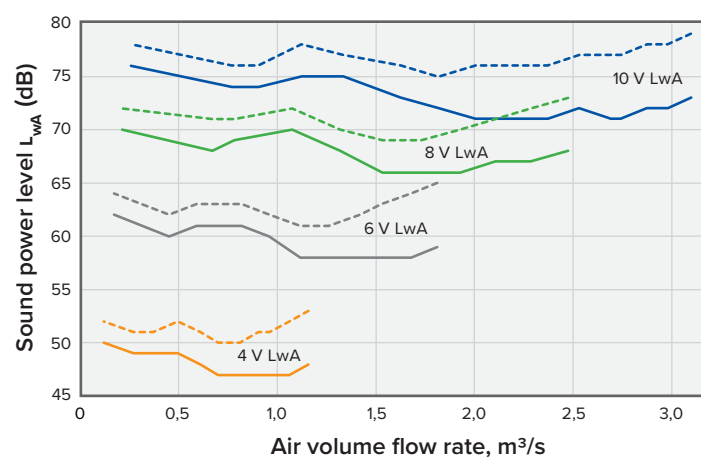
Static pressure loss



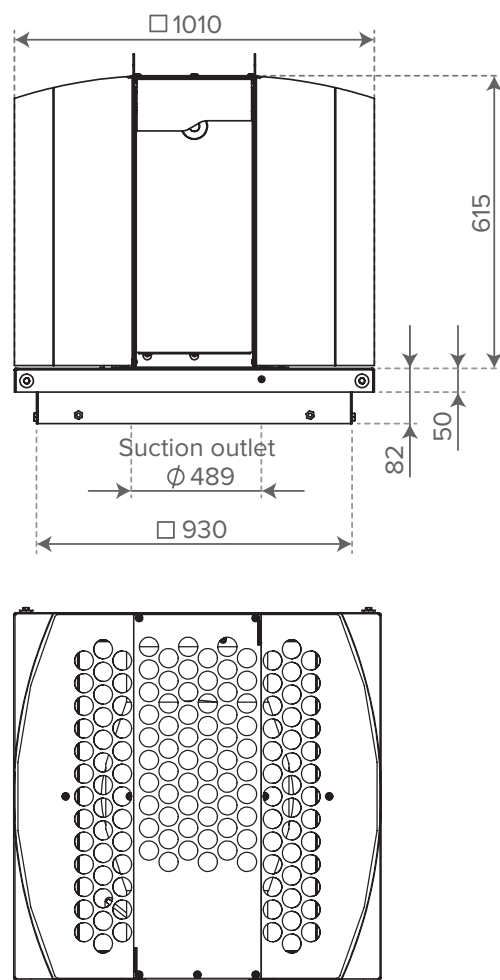
Input power and efficiency



Sound values

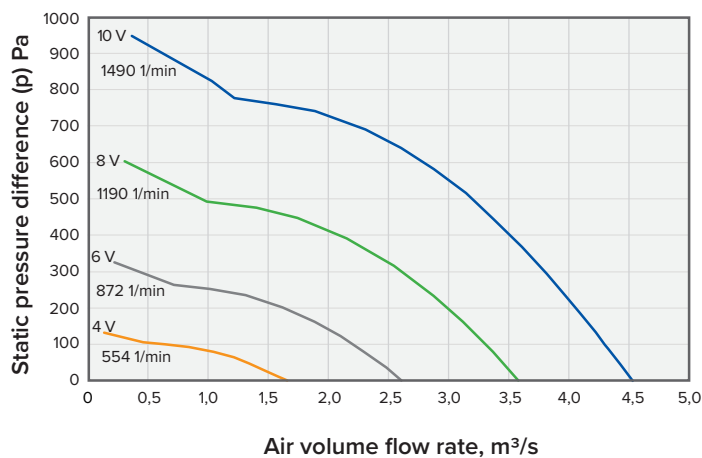


Dimension diagrams

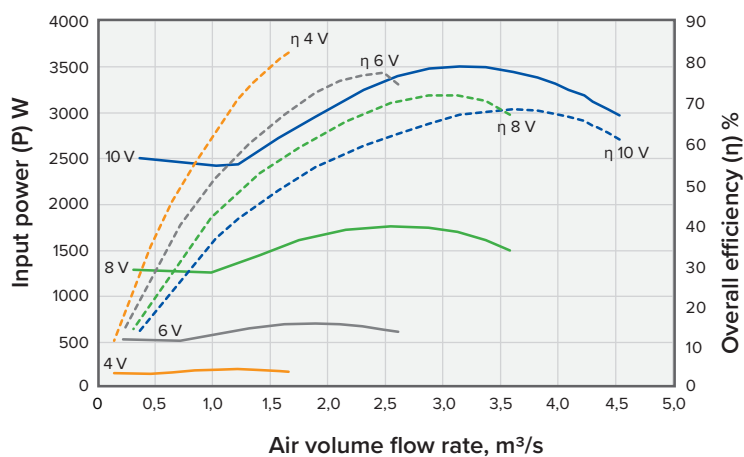


- Sound power level to the suction duct
- - - Sound power level to the environment

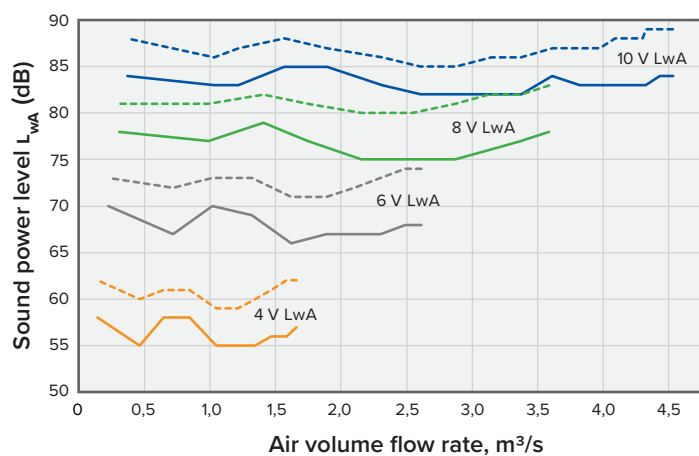
Static pressure loss



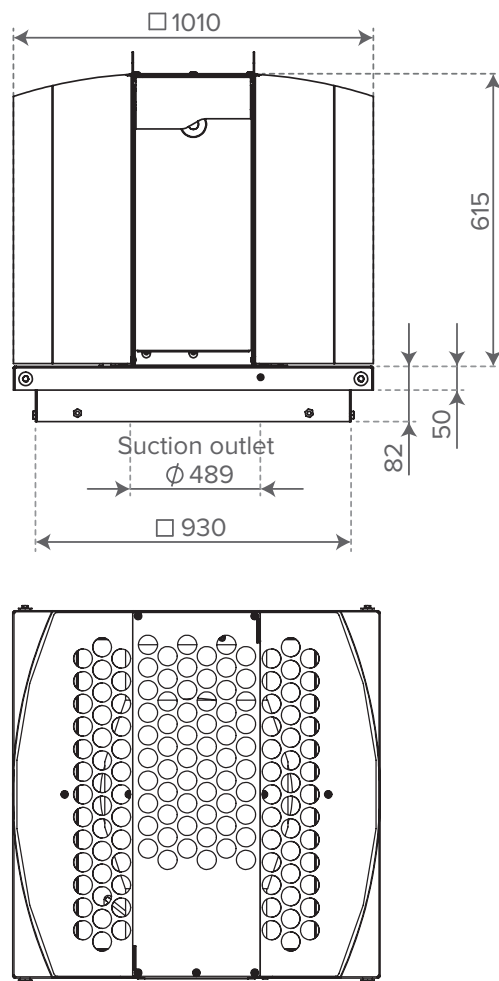
Input power and efficiency



Sound values



Dimension diagrams



— Sound power level to the suction duct
 - - - Sound power level to the environment

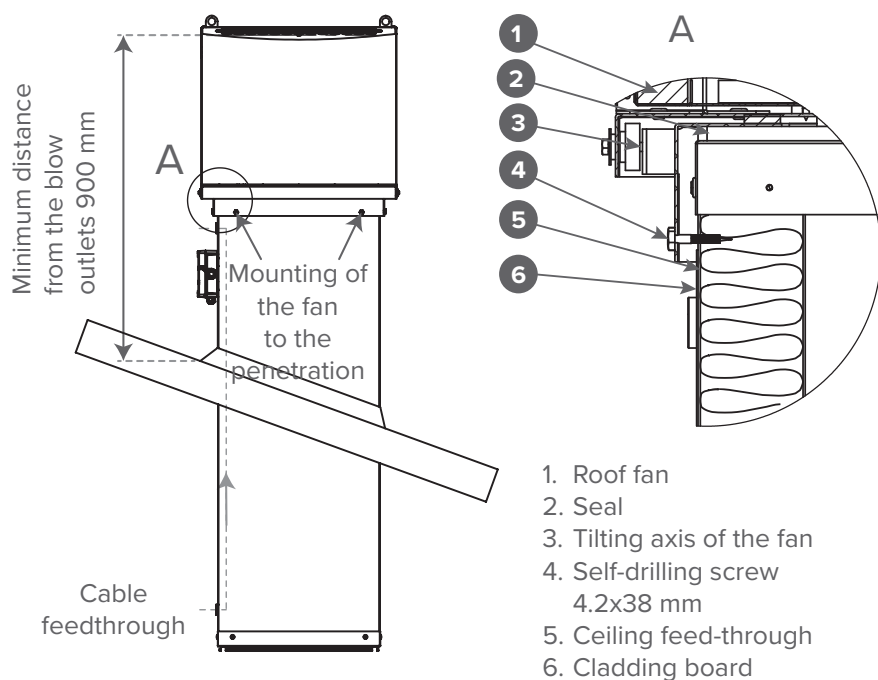
INSTALLATION

Vallox Exxeo roof fans may be installed on top of a penetration made on site or using the factory-made Vallox Exxeo roof penetration part.

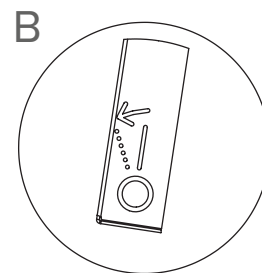
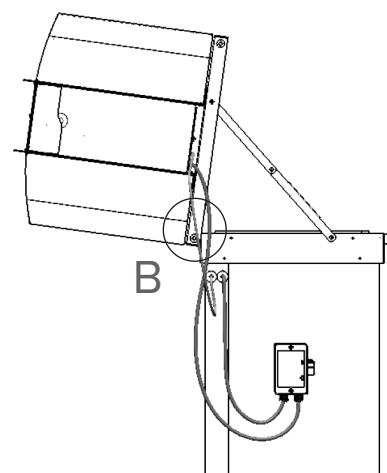
The tilting part attached to the fan is equipped with a seal that seals the fan against the roof penetration. The fan is fastened to the roof penetration with self-drilling screws. Below is an illustration of the installation of the fan.

Lift the fan from the enclosure lugs. Pay attention to the lifting angle of the sling. The lifting angle of the sling should be less than 50°.

Where necessary, the mounting frame delivered with the fan can be used for installing the fan on top of an existing flue or roof penetration part.



See the Vallox Exxeo manual for more detailed installation instructions.

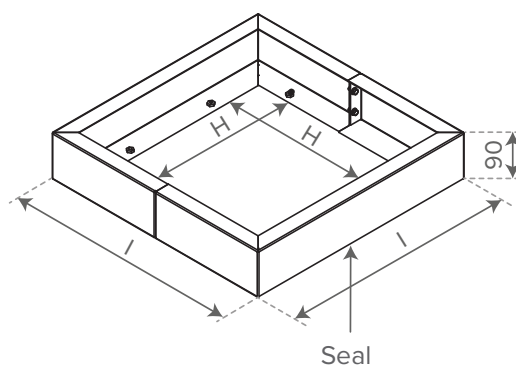


Dimensions of the safety switch are marked in Figure C.

The pivot point is marked on the bottom plate of the fan as shown in Figure B.

Vallox Exxeo mounting frame

DIMENSIONS		
	H	I
Vallox Exxeo 150	290	390
Vallox Exxeo 300/700	360	460
Vallox Exxeo 1400/2000	670	770
Vallox Exxeo 2500/4100	820	920



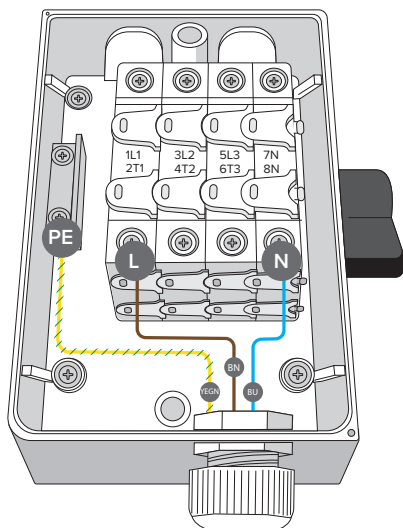
Electric and control connections

Connection instructions for roof fans of different air volumes and models, their controls and accessories can be found in the Vallox Exxeo manual.

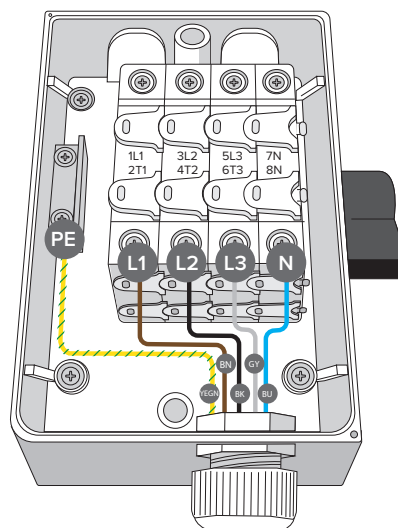
See the Vallox Exxeo manual for more detailed information.

Please note that there are separate instructions for the control panel (basic and DPC models).

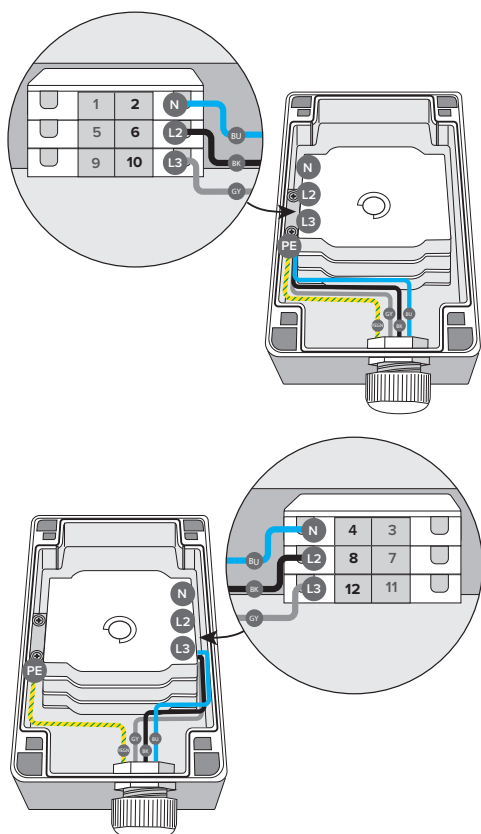
Vallox Exxeo 150-1400
(basic model and DPC model)



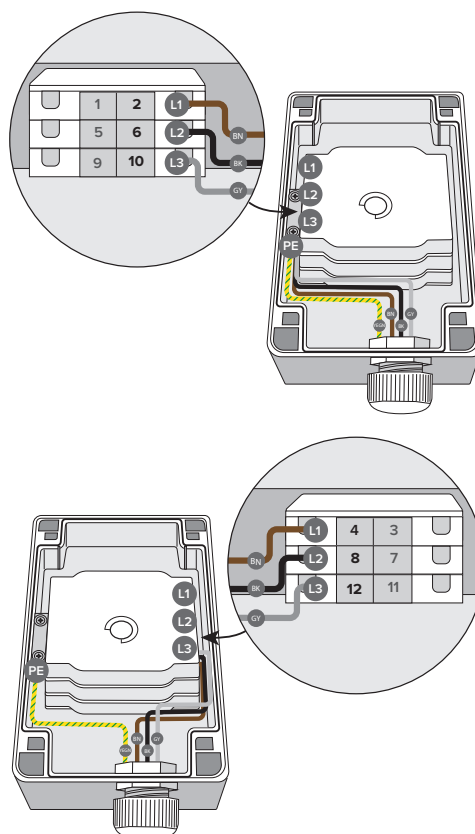
Vallox Exxeo 2000-4100
(basic model and DPC model)



Vallox Exxeo 150-1400 (DS model)



Vallox Exxeo 2000-4100 (DS model)



ACCESSORIES

Product numbers and HVAC codes can be found on page 4 of this brochure.

Vallox Exxeo clock switch

- Digital week clock switch for DIN rail Operating voltage 230 V AC.
- Enclosure protection class IP20.
- Operating temperature -10°C...+45°C.
- Week clock delivery includes the clock and enclosure (IP55).

Vallox Exxeo potentiometer

- The roof fan control panel card provides an operating voltage of +11 V for 0-10 V stepless control of the potentiometer.
- Dimensions (w x h x d): 82 x 82 x 65 mm.
- The potentiometer can be immersed in the outlet box IP44 or mounted on the wall surface IP54.

Vallox Exxeo humidity transmitter

- The humidity transmitter measures the relative humidity and temperature of the air in the ventilation duct.
- The humidity and temperature data are converted into linear analog messages. Operating voltage 24 V.
- Enclosure protection class (metering probe or cable feedthrough down): Transmitter part IP54, sensor IP20.
- Dimensions (w x h x d): 96 x 119 x 233 mm.

Vallox Exxeo VOC transmitter

- VOC transmitters are designed to measure and adjust VOC content (VOC = Volatile Organic Compound) and temperature in ventilation ducts. Need-based ventilation can be efficiently controlled with VOC data.
- Operating voltage 24 V.
- Enclosure protection class (metering probe or cable feedthrough down): Transmitter part IP54, sensor IP20.
- Dimensions (w x h x d): 105 x 104 x 155 mm.

Vallox Exxeo CO2 transmitter

- CO2 transmitters are designed to measure and adjust the carbon dioxide content and temperature in ventilation ducts.
- Operating voltage 24 V.
- Enclosure protection class (metering probe or cable feedthrough down): Transmitter part IP54, sensor IP20.
- Dimensions (w x h x d): 105 x 104 x 155 mm.

Vallox Exxeo temperature sensor for wall

- Temperature sensor for mounting on external walls of buildings for outdoor temperature compensation.
- Measuring element NTC 10.
- Protection class IP54.
- Bushing seal M16 x 1.5.
- Measuring range -50°C...+50°C.
- Time constant 10 min
- Materials: Box lid PC, base PBT, bushing seal PA

Vallox Exxeo duct-mounted temperature sensor

- Duct sensors are used for density adjustments.
- Measuring element NTC 10.
- Protection class IP54.
- Bushing seal M16 x 1.5.
- Measuring range -50°C...+50°C
- Time constant 25 s
- Materials:
 - Box lid PC, base PBT, bushing seal PA
 - Conduit Ms, Ø 8 mm, length 250 mm
 - Flange PA

Vallox Exxeo roof penetration part

- The roof penetration part is used for the roof fan installation (see page 16).

Vallox Exxeo underpressure damper

- The underpressure damper closes the duct and prevents outdoor air from flowing back when the roof fan is switched off (see page 16).

Vallox Exxeo RAL colour

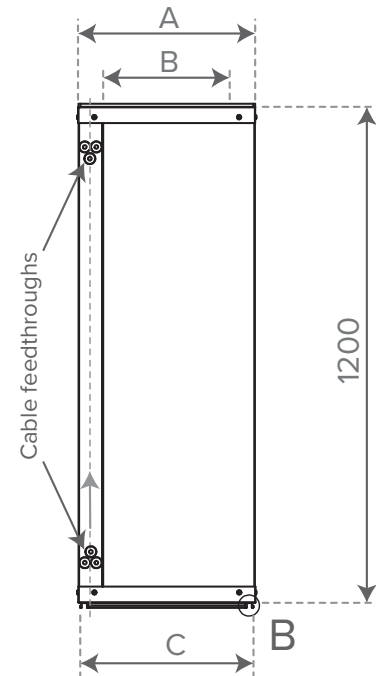
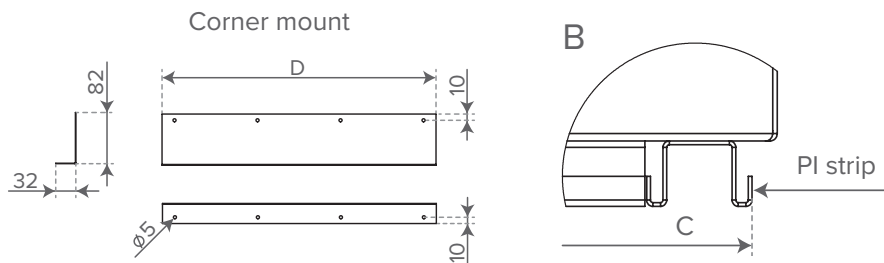
- Upon request, Vallox Exxeo roof fans are delivered painted with the chosen RAL tone.

Vallox Exxeo roof penetration part (optional)

The roof penetration part is made of magnesium-zinc coated sheet metal. Inside, there is a galvanized perforated plate and a 60 mm mineral wool plate covered with mesh-reinforced black aluminum laminate. The fire rating of the mineral wool plate is (A2 - s1, d0) and density 180 kg/m³. It is intended for the fire insulation of rectangular air ducts up to fire rating EI60. The roof penetration

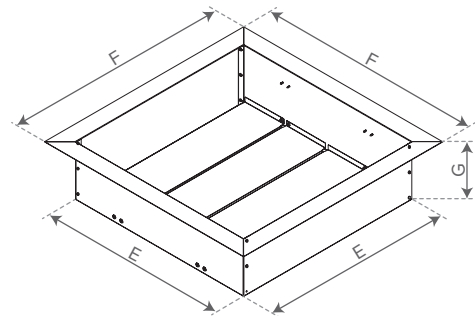
part is delivered with corner mounts which can be used for fastening the roof penetration part to the roof structures. The roof penetration part includes a cable trough through which the feed and control cables can be led to the fan.

DIMENSIONS				
	A	B	C	D
Vallox Exxeo 150	380	255	370	240
Vallox Exxeo 300/700	450	325	440	308
Vallox Exxeo 1400/2000	760	635	750	620
Vallox Exxeo 2500/4100	920	795	910	770



Vallox Exxeo underpressure damper (optional)

DIMENSIONS			
	E	F	G
Vallox Exxeo 150 underpressure damper	240	350	135
Vallox Exxeo 300/700 underpressure damper	308	420	166
Vallox Exxeo 1400/2000 underpressure damper	620	730	190
Vallox Exxeo 2500/4100 underpressure damper	770	870	230



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