

ADV

AXIAL FLOW ROOF EXTRACT UNIT

- Mechanical extract ventilator
- Vertical air discharge
- Automatic weather flaps

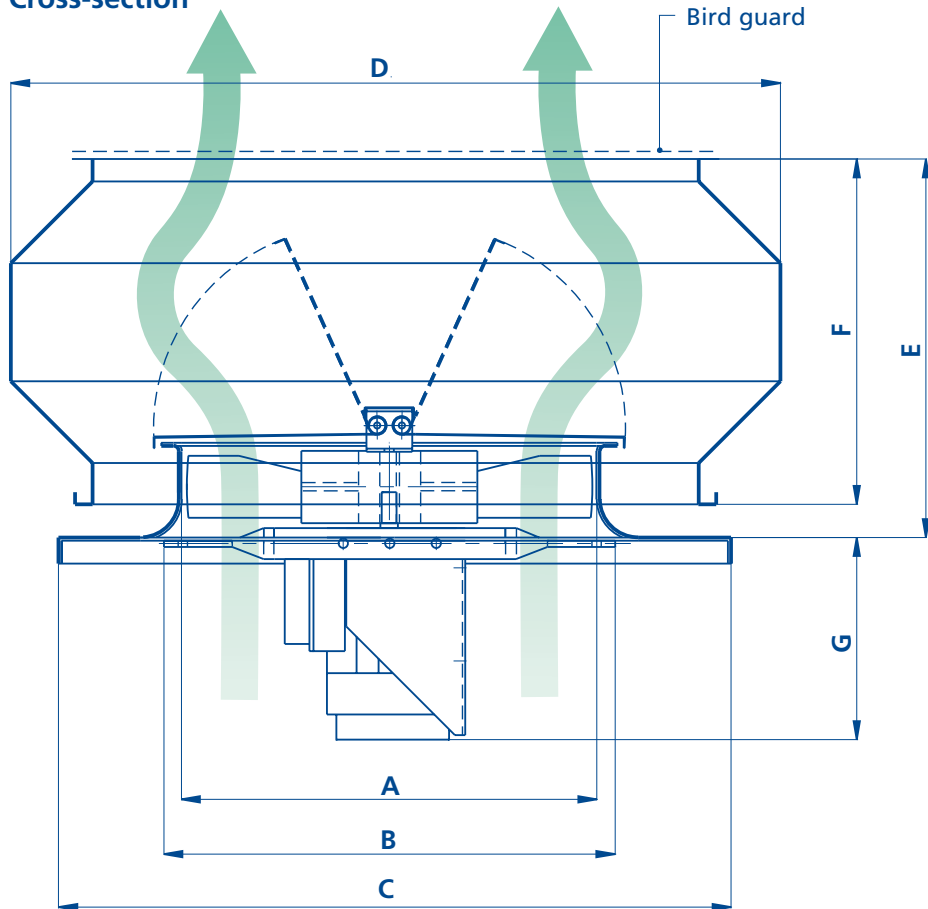


Bovema 
Konstrukties B.V.

Bovema Konstrukties B.V. is a member of the international Bovema Beheer Group

TECHNICAL SPECIFICATIONS

Cross-section



Type	A	B	C	D	E	F	G
400-4	400	450	650	700	392	367	210
400-6	400	450	650	700	392	367	210
450-4	450	480	650	750	407	382	235
450-6	450	480	650	750	407	382	210
500-4	500	550	750	800	422	397	235
500-6	500	550	750	800	422	397	210
560-4	560	580	750	925	462	437	235
560-6	560	580	750	925	462	437	210
630-4	630	680	850	1000	492	467	280
630-6	630	680	850	1000	492	467	235
710-4	710	750	1000	1100	552	527	300
710-4s	710	750	1000	1100	552	527	300
710-6	710	750	1000	1100	552	527	280

Figures in mm



Lloyds Quality Assurance audits the production process and management systems twice each year

ADV

AXIAL FLOW ROOF EXTRACT UNIT

Single speed motor 400V-A/C-3Ph-50Hz

Single speed Motor 230V-A/C-1Ph-50Hz

Type	kW	Amp	RPM	kW	Amp	RPM	dB(A)	kg
400-4	0.25	0.83	1400	0.25	2.1	1380	60	25
400-6	0.25	0.92	920	0.25	2.2	910	50	25
450-4	0.55	1.45	1420	0.55	3.9	1400	61	28
450-6	0.25	0.92	920	0.25	2.2	910	51	28
500-4	0.55	1.45	1420	0.55	3.9	1400	63	35
500-6	0.25	0.92	920	0.25	2.2	910	54	35
560-4	0.75	1.90	1420	0.75	5.2	1400	68	48
560-6	0.25	0.92	920	0.25	2.2	910	58	45
630-4	1.50	3.45	1420	on request			72	55
630-6	0.55	1.78	930	on request			60	50
710-4	2.20	4.80	1430	on request			74	70
710-4s	3.00	6.48	1430	on request			80	73
710-6	0.75	2.36	930	on request			68	68

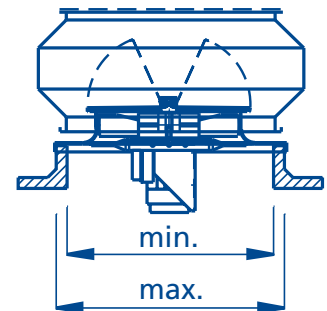
dB(A) at 4 mtr. (free field)

2 Speed motor 400V-A/C-3Ph 50 Hz

Type	kW	Amp	RPM	winding
400-4/6	0.30/0.10	0.90/0.56	1400/950	separated
400-4/8	0.37/0.09	1.20/0.49	1390/680	Dahlander
450-4/6	0.45/0.15	1.30/0.73	1400/960	separated
450-4/8	0.55/0.11	1.60/0.54	1380/700	Dahlander
500-4/6	0.45/0.15	1.30/0.73	1400/960	separated
500-4/8	0.55/0.11	1.60/0.54	1380/700	Dahlander
560-4/6	0.65/0.22	1.70/0.94	1400/960	separated
560-4/8	0.75/0.16	2.00/0.70	1390/700	Dahlander
630-4/6	1.50/0.45	3.50/1.60	1400/940	separated
630-4/8	1.50/0.31	3.70/1.50	1420/710	Dahlander
710-4/6	2.00/0.60	4.50/2.00	1430/960	separated
710-4/8	2.20/0.48	5.10/1.80	1430/720	Dahlander

∅pstand (mm)

Type	min.	max.
400	450	600
450	480	600
500	550	700
560	580	700
630	680	800
710	750	1100



Figures for 4-pole motor

Air Capacity in m³/hr, system resistance in Pa

Type	0	10	20	30	40	60	80	100
400-4	4800	4390	4300	4180	4070	3840	3590	3320
400-6	2810	2650	2480	2290	2050	-	-	-
450-4	6330	6220	6100	5990	5860	5590	5310	5000
450-6	4000	3980	3840	3650	3450	3230	-	-
500-4	8400	8200	8000	7875	7750	7500	7250	6800
500-6	5400	5100	4900	4700	4400	3600	-	-
560-4	11400	11200	1100	10800	10650	10300	10100	9700
560-6	7150	7000	6750	6500	6300	5450	4300	-
630-4	16000	15800	15600	15400	15200	14800	14300	13900
630-6	10300	10000	9650	9350	9000	8200	7150	-
710-4	21800	21500	21300	21050	20850	20400	19800	19450
710-4s	25350	25100	24950	24500	24300	23700	23150	22650
710-6	14000	13650	13300	12850	12550	11700	10500	9300

General information

DESCRIPTION

The **Bovema** ADV roof ventilator is an aluminium mechanical extract unit, with an axial flow fan, designed to remove large volumes of air with low energy consumption. It is particularly suitable for the exhaust of free air from large buildings and has low system resistance. The ADV unit exhausts the extract air vertically, where it is diluted by outside air, clear of the roof construction. The roof cowl has an external stainless steel bird guard and gravity type non-return shutters. The aerodynamic low profile cowl, with closed non-return shutters, ensures the building remains watertight. The lightweight aluminium construction is suitable for installation onto steel, wood or concrete up stands and the ventilator can be supplied with purpose-designed flanges to match various types of glazing system. The special flange system allows the direct installation of the ADV ventilator into rooflight constructions, without the need for additional structural openings. The low profile ADV ventilator is manufactured to NEN-EN-ISO 9002 quality control standards, from high quality corrosion resistant aluminium, to ensure long life and low maintenance.

OPERATING PRINCIPLES

The motor is directly connected to the fan shaft for minimal transmission losses and the fan motors are air cooled by the extract air, which passes through the unit, to be discharged vertically from the weather cowl. The fan pressure to allow air to be expelled lifts the gravity shutter. When the fan stops it closes to cover the opening and prevents water penetration and air losses, when ventilation is not required. The ADV-ventilator is suitable for continuous operation.

DESIGN

Standard:

- Fully welded aluminium base unit for upstand or glazing system installation
- Aluminium cased motor to IP55 rating and class F insulation
- Aluminium axial flow fan, with adjustable blade angle
- Aluminium cowl, removable for maintenance.
- Motor with frequency speed control
- Gravity based non-return shutter
- Stainless steel bird guard

Options:

- Motor protection for 100% Relative Humidity (Moisture proof)
- Explosion proof motor
- Polypropylene fan
- Motor for non-standard voltages
- Local isolation switch
- Single skin aluminium upstand
- Double skin insulated aluminium upstand

CAPACITY

1800 m³/hr to 25000 m³/hr, (0.5 m³/s to 6.9-m³/s)

MATERIALS

Installation flange and fan housing	Aluminium Al99.5 / 1S HH alloy
Roof Cowl	Aluminium AlMg3 alloy
Electric motor casing	Cast aluminium
Fan	Cast aluminium (fully balanced)
Non-return shutter	Aluminium AlMg3 alloy
Motor connection brackets	Stainless steel
Bird screen	Stainless steel

GENERAL

The ADV mechanical extract fan unit is supplied fully assembled and is tested before despatch. The standard unit is manufactured in natural mill finished aluminium but can be polyester powder paint finished to any RAL colour, selected from the Bovema standard colour range.

SERVICE

The Bovema group offers a comprehensive service covering the specification and installation of our products.

