RDV

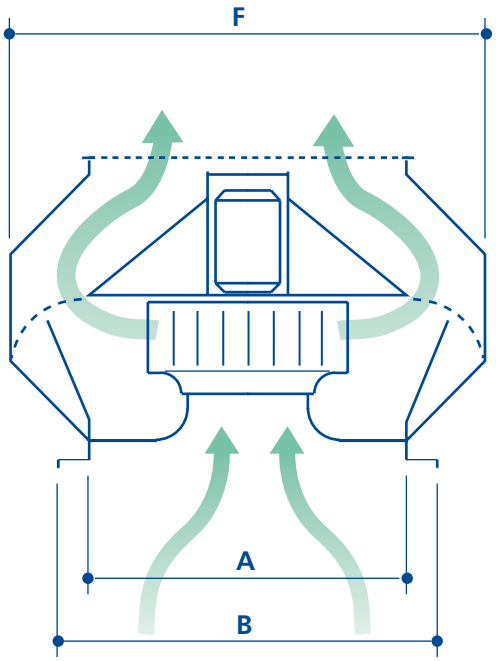
MECHANICAL RADIAL FLOW ROOF VENTILATOR

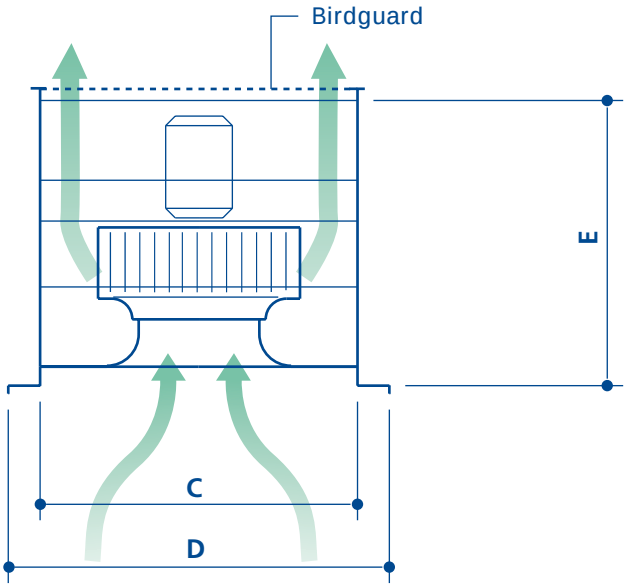
- Day to day exhaust ventilator
- Vertical air discharge
- Designed for high system resistances
- Motor protected, outside air-stream

Bovema Konstrukties B.V.

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

TECHNICAL SPECIFICATIONS





Sizes in mm

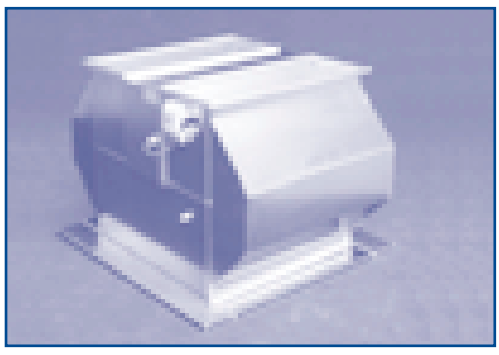
Model	A	B	C	D	E	F
400	650	870	650	870	650	975
450	650	870	650	870	650	975
500	800	1020	800	1020	800	1200
560	800	1020	800	1020	800	1200
630	1000	1220	1000	1220	1000	1500
710	1000	1220	1000	1220	1000	1500

Soundlevel in dB at 1m free field conditions

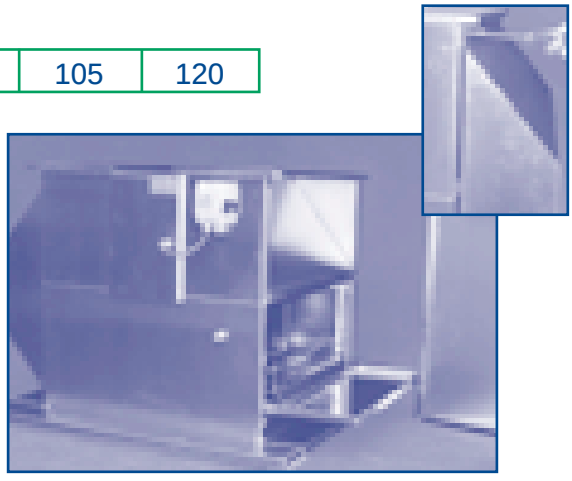
Model	400	450	500	560	630	710
4 polig	72	76	77	83	85	89
6 polig	65	68	70	75	78	79

Weight in Kg

	55	60	66	75	105	120



Lightweight corrosion resistant exhaust ventilator



Accessible for easy inspection and maintenance

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

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Installed Power

	4-pole		6-pole		4/6-pole		4/8-pole	
Model	kW	A	kW	A	kW	A	kW	A
400	0,55	1,45	0,18	0,75	0,45/0,15	1,30/0,73	0,55/0,11	1,60/0,54
450	0,75	1,90	0,25	0,92	0,65/0,22	1,70/0,94	0,75/0,16	2,00/0,70
500	1,50	3,45	0,37	1,25	1,50/0,45	3,50/1,60	1,50/0,31	3,70/1,50
560	2,20	4,80	0,55	1,78	2,50/0,80	5,50/2,50	2,20/0,48	5,10/1,80
630	4,00	8,60	1,10	3,25	4,50/1,50	9,20/5,10	3,50/0,75	7,00/2,50
710	7,50	14,8	2,20	5,40	6,00/2,00	12,0/5,60	6,80/1,40	13,7/5,10

Minimum RPM for speed regulation

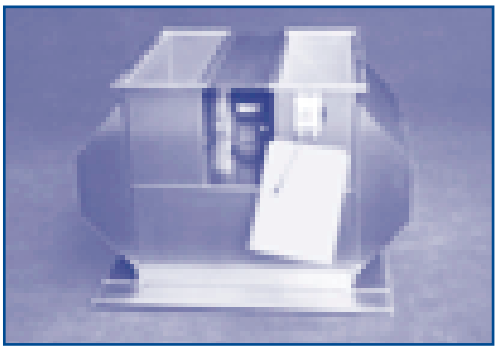
type	n (r/min)
400	400
450	400
500	400
560	350
630	350
710	350

- All data for 400V - AC - 3Ph - 50 Hz
- Single speed motors from 4 Kw suitable for star/delta
- All 4/6-pole motor designs have a shielded winding
- All 4/8-pole motor designs have a Dahlander winding

Air capacity in m^3/h, system resistance in Pa

Model	0	25	50	75	100	150	200	250	300	400	500	600	700	800	900	1000
400-4	3900	3820	3750	3680	3600	3400	3100	2900	2700							
400-6	2400	2350	2200	2000	1800	1150										
400-8	1800	1700	1400	1100												
450-4	5500	5400	5250	5100	5000	4800	4500	4200	4000	3200						
450-6	3500	3400	3300	3100	2800	2400	1500									
450-8	2700	2600	2300	1900	1600											
500-4	7500	7400	7250	7100	7000	6900	6700	6400	6000	5500	4900					
500-6	4900	4700	4600	4400	4000	3600	3000									
500-8	3600	3500	3400	3100	2700	1600										
560-4	11000	10850	10750	10600	10500	10000	9000	9750	9500	8750	8000	7000	6000	4600		
560-6	7000	6750	6500	6200	6000	5600	5000	4100	2500							
560-8	5000	4800	4600	4300	3900	3000										
630-4	15000	14850	14750	14600	14500	14000	13700	13500	13200	12500	12000	11000	10500	9000	8000	
630-6	10000	9600	9550	9300	9200	9000	8500	8000	7200	5500						
630-8	7000	6950	6900	6800	6300	5500	4400									
710-4	23000	22500	22000	21200	21000	20900	20500	20200	20000	19500	18800	17900	17000	15500	14000	13000
710-6	14000	13600	13500	13200	13000	12800	12200	11500	11000	9000						
710-8	10500	10300	10100	10000	9750	9000	8000	7000								

Good accessibility for maintenance and cleaning



Motor outside the airflow

General information

DESCRIPTION

The Bovema RDV ventilator is an aluminium mechanical roof 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 having a very efficient fan unit. The centrifugal fan allows for the operation of systems with long duct runs, extract hoods, heat recovery or filters, all of which result in high system resistances.
The motor housing is hinged and the complete unit may be taken apart to allow ease of access to the fan, motor, and shutters, for inspection and maintenance purposes. The RDV unit exhausts the air vertically, where it is diluted by the external air, clear of the roof construction. The roof cowl is complete with an external stainless steel birdguard and gravity operated non-return shutters. The standard construction has a base flange suitable for installation onto a steel, wooden or concrete upstand. The ventilator may also be supplied with a purpose designed flange to match various types of glazing systems.
The RDV ventilator is manufactured to NEN-EN-ISO 9002 quality control standards, from high quality

OPERATION PRINCIPLES

The motor is directly connected to the fan shaft for minimal transmission losses and the fan motor is in a protected motor compartment outside the airflow. This keeps the motor clean and in good condition and provides for exellent motor cooling. The aluminium fan unit has backward curved blades, and the extract air is discharged vertically via the roof cowl unit. The fan pressure opens the vertically hinged shutters to allow the extract air to be expelled. When the fan stops these shutters close to minimise air and heat losses through the unit and to prevent water ingress. The RDV ventilator with its non overloading backward curved fan is suitable for continuous operation.

DESIGN

Standard:
* Fully welded aluminium base unit, for upstand or glazing system installation
* Aluminium cased electric motor, to IP55 rating and class F insulation
* Aluminium axial flow fan, with backward curved blades
* Aluminium cowl, hinged for ease of access for maintenance
* Motor available with frequency speed control
* Non-return shutters
* Stainless steel bird guard

Options:
* Motor protection for 100% Relative Humidity (Moisture proof)
* Explosion proof motor
* Motor for non-standard voltages
* Local isolation switch, for maintenance

CAPACITY

1,800 m^3/hr to 23,000 m^3/hr (0.5 m^3/s to 6.4m^3/s)

MATERIALS

Installation flange and fan housing	Aluminium Al 99.5 / 1S HH alloy
Roof Cowl	Aluminium AlMg3 alloy
Electric motor casing	Cast aluminium
Fan	Welded aluminium, (fully balanced)
Non-return shutter	Aluminium AlMg3 alloy
Motor connection brackets	Aluminium AlMg3 alloy
Birdscreen	Stainless steel

GENERAL

The RDV mechanical extract fan unit is supplied fully assembled and each unit is test operated prior to despatch.
The standard unit is manufactured in natural mill finished aluminium but can be made available with a polyester powder paint finish to any RAL colour, selected from the Bovema standard range.

SERVICE

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

Bovema

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