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Specialist in climate control
since 1945



MDV BLUE

ROOF FAN

mark[®]
CLIMATE TECHNOLOGY
FOR A HEALTHY CLIMATE



MARK MDV BLUE

SUSTAINABLE AND EFFICIENT AIR EXTRACTION

Mark MDV Blue roof fan is suitable for extracting air from buildings and features the latest developments in the field of fans, including the efficient EC-technology. This enables the MDV Blue to guarantee a very low power consumption combined with excellent performance.

The MDV Blue roof fan is available in various sizes and air capacities ranging from 300 m³/h to 15.000 m³/h. The roof fan is equipped with a centrifugal fan, the casing is made of Sendzimir steel plate.

The MDV Blue is widely applicable, for example in factories, welding and fabrication halls, offices and supermarkets.

Mark gives standard 2 year product warranty.



EU 1253

This standard is adopted by the European Parliament in which demands are made regarding the eco-design of ventilation units. Air handling units (supply and exhaust units) with an air flow higher than 1000 m³/h must be fitted with adjustable heat recovery with a prescribed minimum efficiency. In this configuration, the fans need to be supplied with speed control so that the SFP (specific fan power) limits are not exceeded. With these new requirements, the European Commission aims to significantly reduce the maximum power consumption of ventilation systems in buildings.

Mark's MDV Blue complies completely with the EU Directive 1253/2018.

COSTS

The latest technology in the field of fans and the controlling of it makes it that the MDV Blue is very economical. In combination with a long service life, this aspect ensures that the purchasing price will be earned back in a short period of time when compared to other similar products.

FITTING THE MDV

The MDV Blue is easy to install on the current roof curbs and support stands which are used in construction.

MODBUS

The MDV Blue EC features an integrated Modbus communication. This enables the connecting of one or more roof fans to the building management system (BMS).

FLEXIBLE AND FAST

Because the roof fans are manufactured by ourselves, we can adequately respond to special requests and urgent orders.

FEATURES

- Competitive pricing
- EC-technology
- Reliable
- High efficiency
- Meets the EU 1253 regulation
- 300 m³/h to 15.000 m³/h
- Low maintenance
- Good chemical resistance
- Complete BMS integration possible

Optional

- Aluminium casing seawater resistant AlMg3
- Controls: e.g. constant pressure, 0-10V, presence control, CO2 control, humidity control and temperature control.

TECHNICAL SPECIFICATIONS

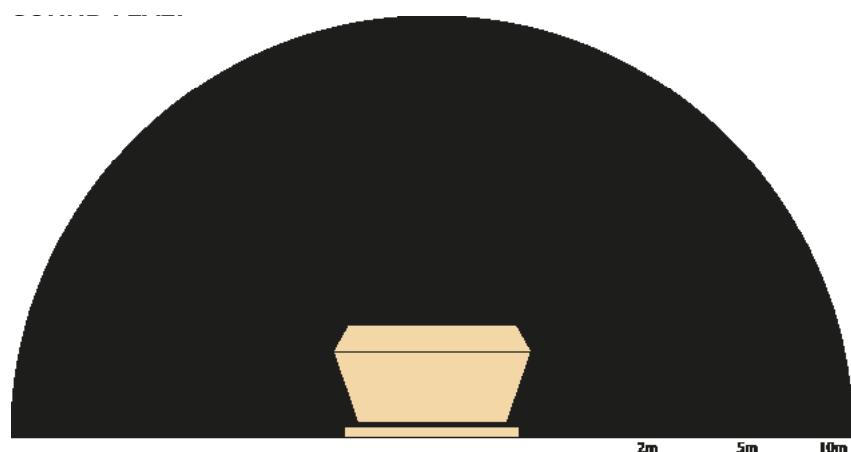
| MDV Blue | | 225 | 355 | 400 | 450EC | 500 | 630 |
|---------------------------|---------------------|------|-------|-------|-------|-------|-------|
| Supply voltage (50Hz) | V | 230 | 230 | 230 | 230 | 400 | 400 |
| Nominal air flow | m ³ /s | 0,25 | 0,56 | 1,16 | 1,39 | 2,50 | 3,89 |
| Nominal power consumption | kW | 0,07 | 0,15 | 0,26 | 0,32 | 0,82 | 1,40 |
| SFP nominal | W/m ³ /s | 277 | 275 | 228 | 199 | 330 | 362 |
| Nominal air velocity | m/s | 6,69 | 13,37 | 16,73 | 18,73 | 23,77 | 24,03 |
| Nominal pressure | Pa | 72 | 105 | 120 | 120 | 142 | 178 |
| Stat. efficiency fan | % | 26,0 | 38,2 | 52,7 | 60,4 | 43,1 | 49,2 |
| Noise level (5m)* | dB(A) | 63 | 65 | 63 | 67 | 72 | 72 |
| Maximum air flow | m ³ /h | 1200 | 3150 | 4300 | 5300 | 10750 | 15000 |
| Current I max | A | 1,4 | 2,2 | 3,0 | 2,2 | 4,0 | 4,2 |
| Weight | kg | 16 | 32 | 35 | 48 | 62 | 100 |
| Protection class | IP | 54 | 54 | 54 | 54 | 54 | 54 |

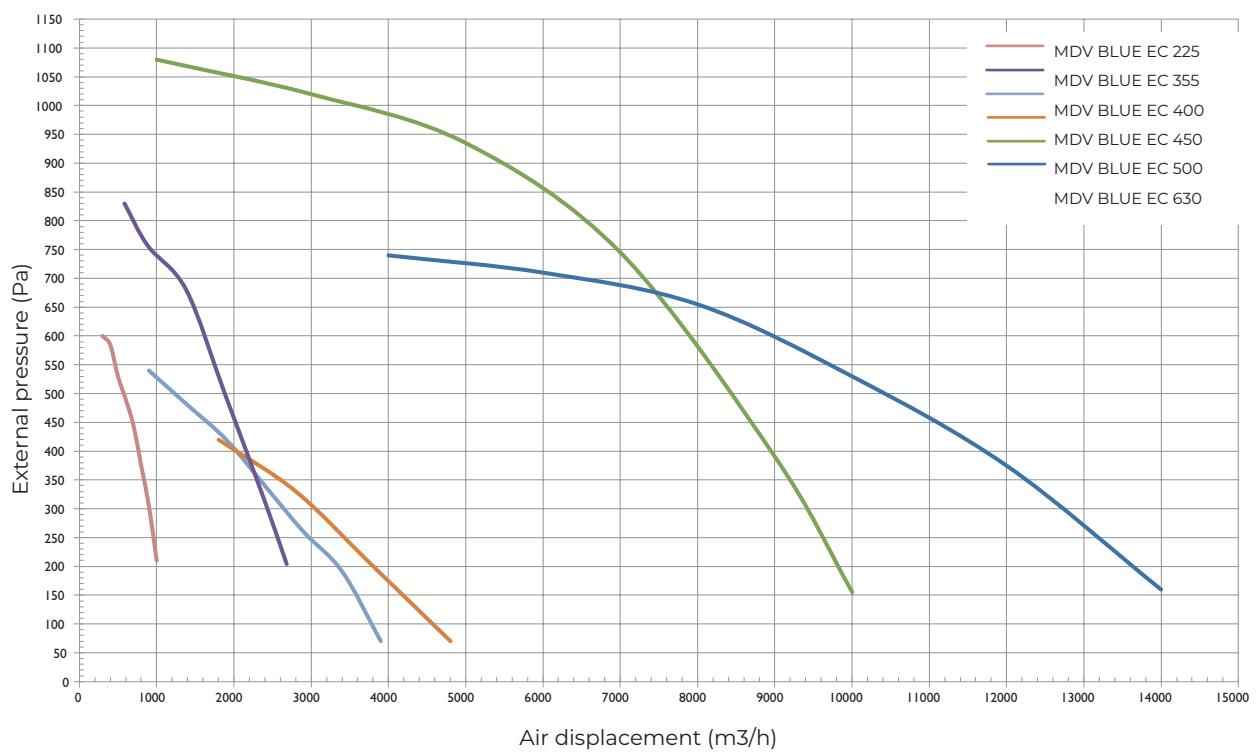
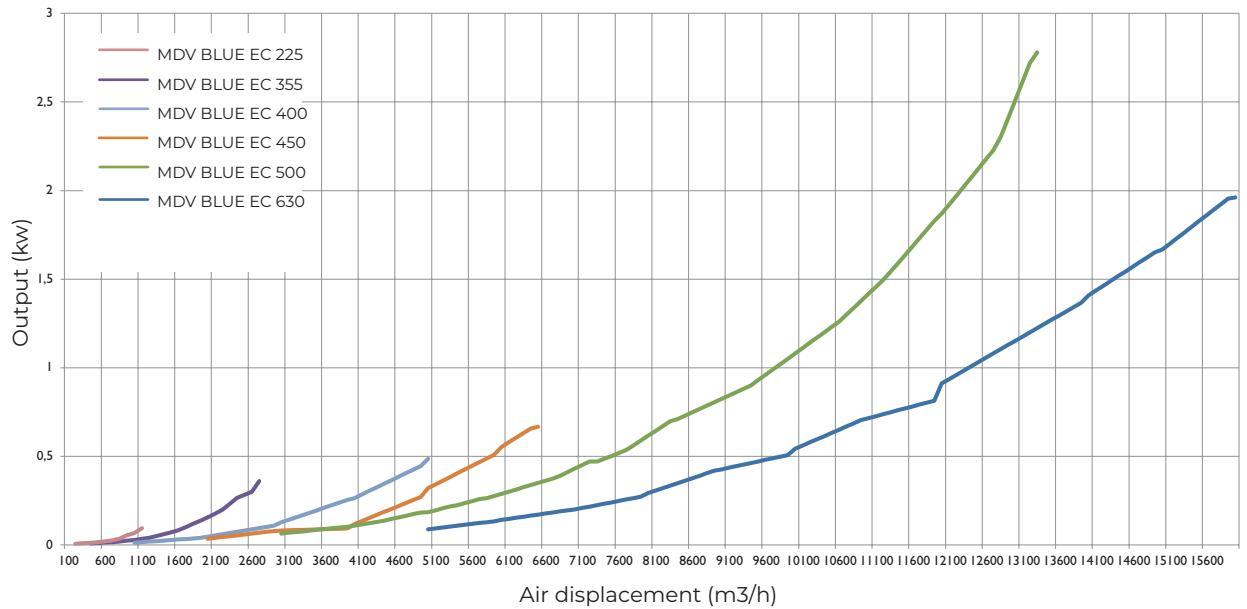
Thermal efficiency: N.A.

HRS: None

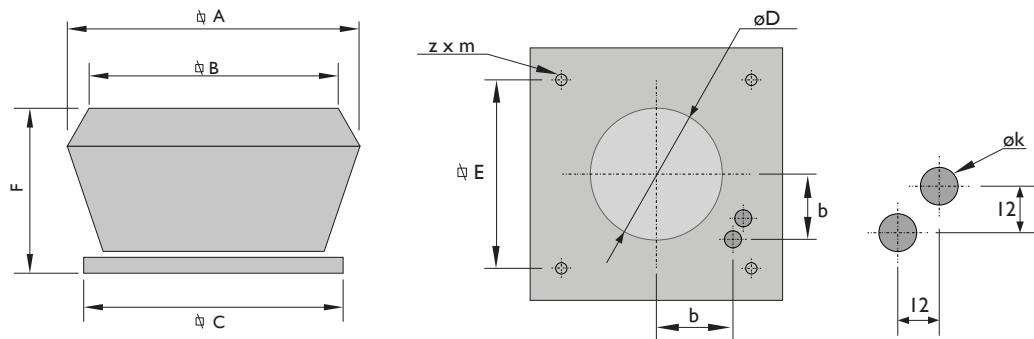
Category: NRVE

Working temperature: -20 / +60 °C





DIMENSIONS



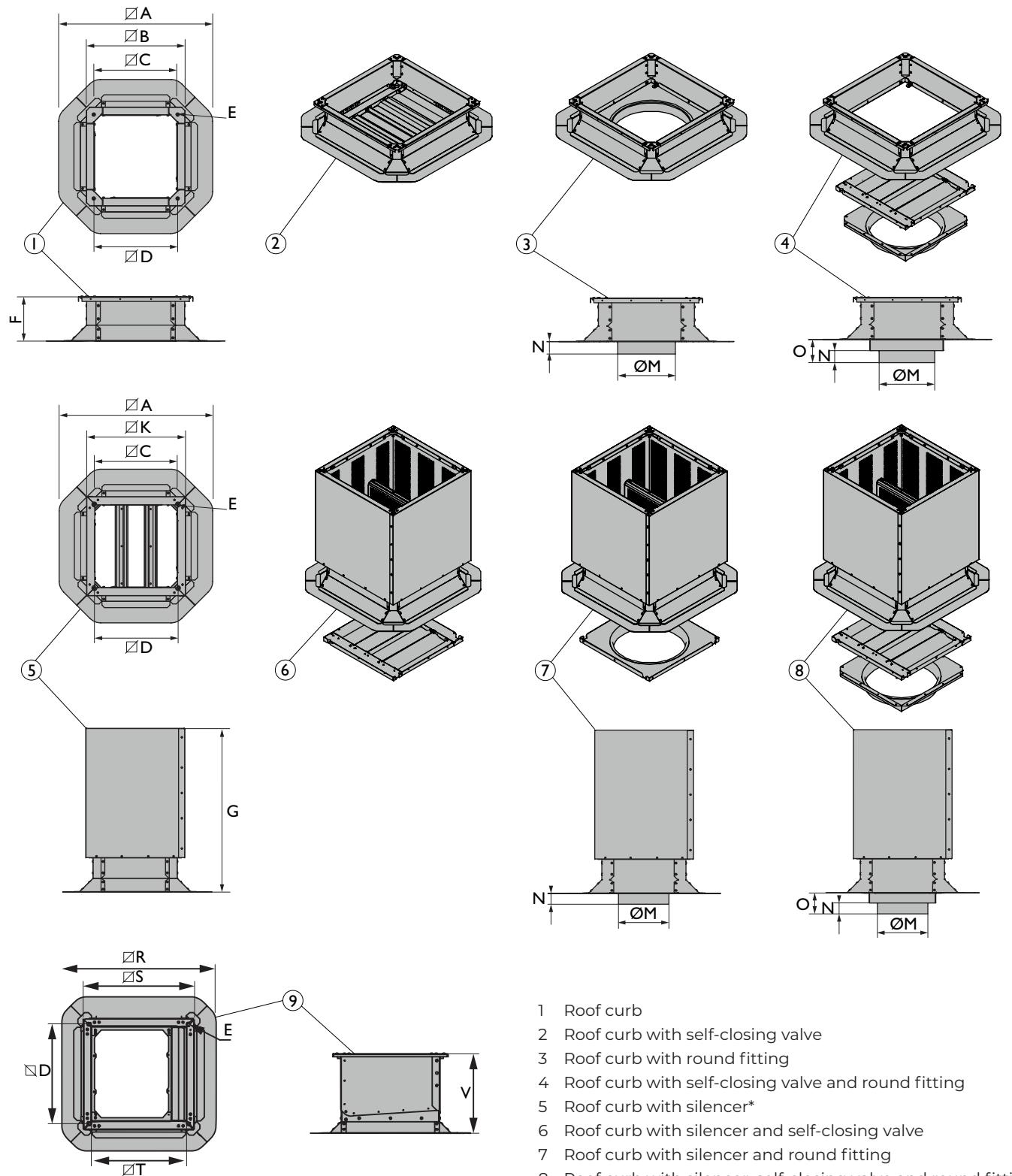
| Type | A | B | C | D | E | F | b | z x m | øk |
|--------------|------|-----|-----|-----|-----|-----|-----|---------|----|
| MDV Blue 225 | 514 | 430 | 435 | 200 | 330 | 277 | 115 | 4 x ø9 | 20 |
| MDV Blue 355 | 715 | 590 | 595 | 290 | 450 | 365 | 160 | 4 x ø12 | 20 |
| MDV Blue 400 | 715 | 590 | 595 | 365 | 450 | 365 | 160 | 4 x ø12 | 20 |
| MDV Blue 450 | 880 | 660 | 665 | 410 | 535 | 480 | 220 | 4 x ø12 | 20 |
| MDV Blue 500 | 870 | 720 | 723 | 450 | 590 | 480 | 245 | 4 x ø12 | 20 |
| MDV Blue 630 | 1135 | 935 | 939 | 550 | 750 | 570 | 260 | 4 x ø12 | 20 |



Adjustable (0-30°) roof curb available on request

Project Bitcoin

ACCESSORIES & ADDITIONAL SECTIONS



- 1 Roof curb
- 2 Roof curb with self-closing valve
- 3 Roof curb with round fitting
- 4 Roof curb with self-closing valve and round fitting
- 5 Roof curb with silencer*
- 6 Roof curb with silencer and self-closing valve
- 7 Roof curb with silencer and round fitting
- 8 Roof curb with silencer, self-closing valve and round fitting
- 9 0-30° adjustable roof curb

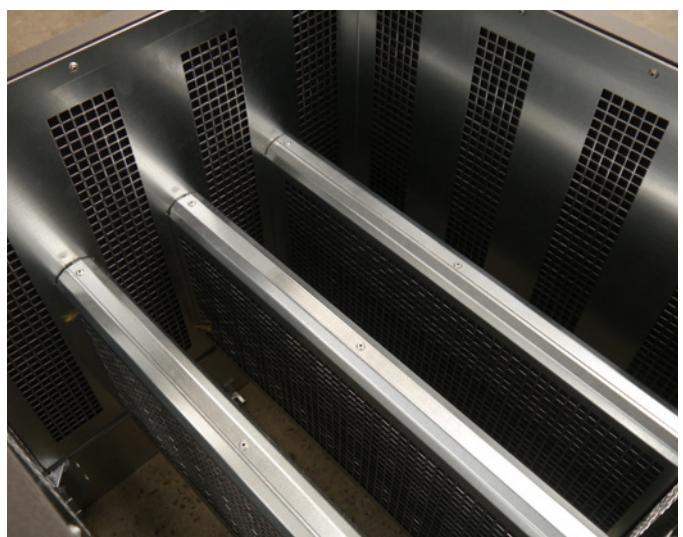
* silencer is also available separately, price on request.
Damper value 9 dB(A)

Dimensions (mm) belonging to page 7

| Type | A | B | C | D | E | F | G | K | M | N | O | R | S | T | V |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| 225 | 610 | 390 | 328 | 320 | M8 | 150 | 648 | 392 | 200 | 43 | 83 | 515 | 372 | 312 | 255 |
| 355/400 | 728 | 510 | 448 | 450 | M10 | 150 | 733 | 514 | 355 | 53 | 93 | 635 | 490 | 431 | 316 |
| 450 | 815 | 600 | 533 | 530 | M10 | 150 | 733 | 598 | 400 | 53 | 93 | 720 | 575 | 516 | 372 |
| 500 | 870 | 650 | 588 | 585 | M10 | 150 | 698 | 656 | 450 | 53 | 93 | 775 | 630 | 571 | 372 |
| 630 | 1030 | 810 | 748 | 745 | M10 | 150 | 698 | 816 | 600 | 63 | 103 | 934 | 790 | 731 | 341 |

Weights (kg)

| Type | 225 | 355/400 | 450 | 500 | 630 |
|---|------|---------|------|------|------|
| Roof curb | 6,3 | 8,4 | 9,9 | 10,9 | 13,7 |
| Roof curb with self-closing valve | 7,6 | 10,4 | 12,5 | 13,8 | 18,2 |
| Roof curb with round fitting | 7,8 | 10,4 | 12,7 | 14,0 | 18,1 |
| Roof curb with self-closing valve and round fitting | 8,4 | 11,0 | 14,2 | 15,8 | 21,1 |
| Roof curb with silencer | 19,6 | 29,2 | 33,1 | 37,4 | 46,6 |
| Roof curb with silencer and self-closing valve | 20,8 | 31,1 | 35,7 | 40,3 | 51,2 |
| Roof curb with silencer and round fitting | 21,1 | 31,2 | 35,8 | 40,6 | 51 |
| Roof curb with silencer, self-closing valve and round fitting | 21,7 | 32,3 | 37,4 | 42,3 | 54,1 |
| 0-30° adjustable roof curb | 6,6 | 10 | 13,5 | 15 | 18 |



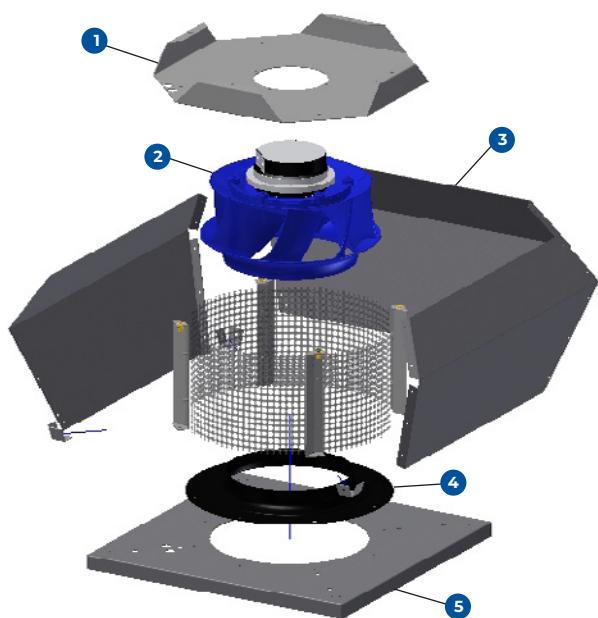
Roof curb with silencer

INSTALLATION

The robust and simple design of the roof fan ensures that it is quick and easy to install.

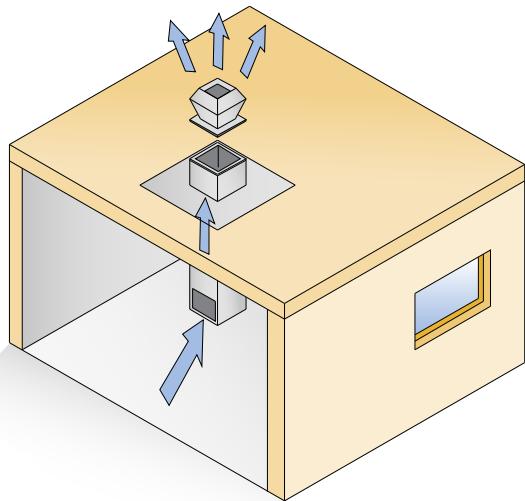
Because of the modular design, both during installation and during maintenance components are easily accessible and user friendly. A complete maintenance operation can be performed with just a few tools.

EXPLODED VIEW

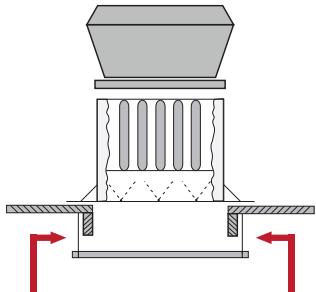


- ① Anti-vibration motor plate
- ② Energy-saving fan
- ③ Robust housing
- ④ Noise-reducing inlet cone
- ⑤ Base plate

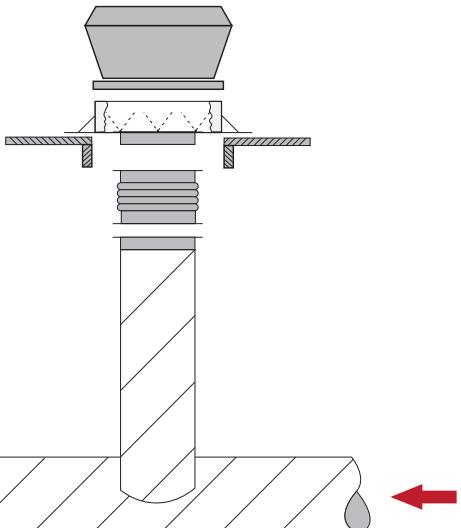
Assembly & location suggestions



MDV with sound absorbing plate



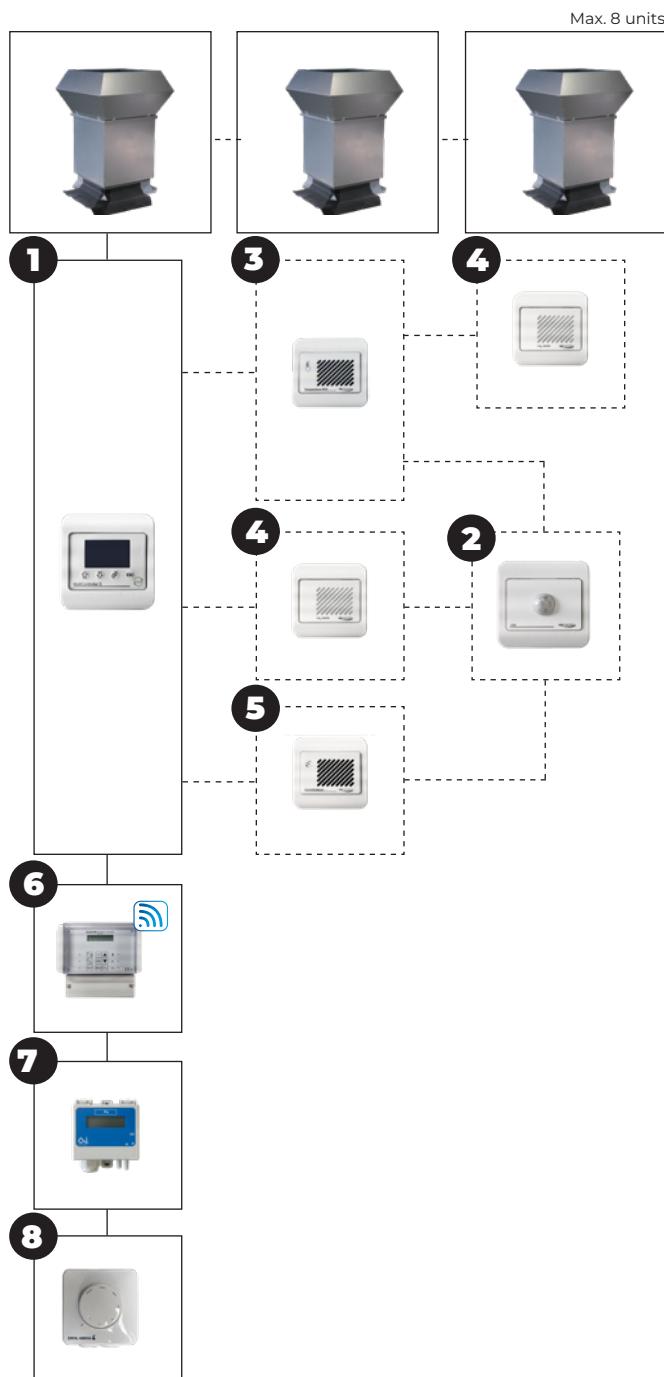
MDV with duct connection



CONTROLS

MODBUS

The built-in Modbus communication in the MDV Blue EC enables the easy controlling and remote reading via the building management system. Information such as faults and history are easy to read.



POTENTIOMETER CONTROL

In combination with the MDV Blue EC, it is possible to issue a 0-10V signal by means of a potentiometer to control the fan in a variable manner.

| Combination options | |
|---------------------|-------------|
| MDV BLUE | + 1 |
| MDV BLUE | + 1 + 3 |
| MDV BLUE | + 1 + 4 |
| MDV BLUE | + 1 + 5 |
| MDV BLUE | + 1 + 3 + 4 |
| MDV BLUE | + 1 + 3 + 2 |
| MDV BLUE | + 1 + 4 + 2 |
| MDV BLUE | + 1 + 5 + 2 |
| MDV BLUE | + 6 |
| MDV BLUE | + 7 |
| MDV BLUE | + 8 |

1 = Multi Controller E regulate 230V

2 = Presence sensor

3 = RoomTemperature sensor

4 = Room CO₂ sensor

5 = Room Humidity sensor

6 = PinTherm Connect

7 = Active pressure sensor

8 = Potentiometer

MARKCLIMATE.COM



MARK CLIMATE TECHNOLOGY

Beneden Verlaat 87-89
9645 BM Veendam
Nederland

T: +31 (0)598 656623
E: info@markclimate.com
I: www.markclimate.com

MARK EIRE BV

Coolea, Macroom Co. Cork
P12 W660
Ireland

T: +353 (0) 26 45334
E: sales@markeire.com
I: www.markeire.com