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|----------------------------------------------|-----------|
| MARK MDV BLUE | 2 |
| TECHNICAL SPECIFICATIONS | 4 |
| DIMENSIONS | 6 |
| ASSEMBLY AND INSTALLATION SUGGESTIONS | 7 |
| ACCESSORIES & ADDITIONAL SECTIONS | 8 |
| INSTALLATION | 10 |
| CONTROLS | 11 |

Changes reserved

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.

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.

EU 1253/2018

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.



Examples of MDV Blue applications.



Technical specifications

SPECIFICATIONS

| MDV Blue EC | | 225 | 355 | 400 | 450 | 500 | 630 |
|---------------------------|---------------------|------|-------|-------|-------|-------|-------|
| Supply voltage (50Hz) | V | 230 | 230 | 230 | 230 | 400 | 400 |
| Nominal air flow | m ³ /s | 0,25 | 0,56 | 1,16 | 1,61 | 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.

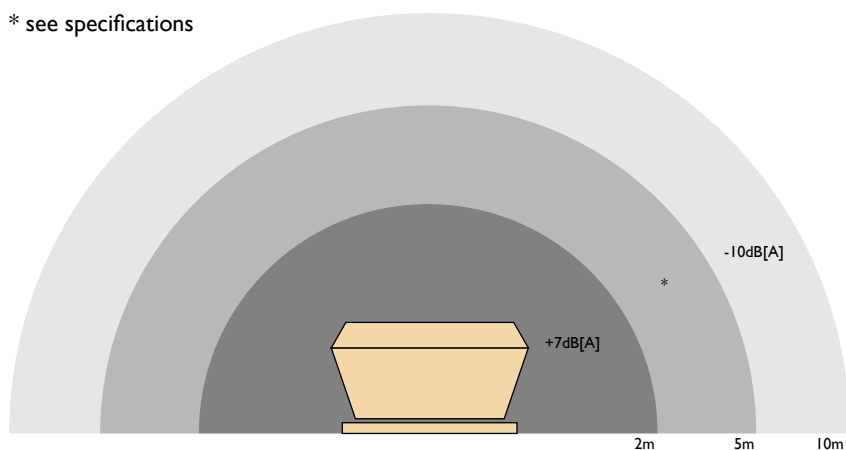
HRS: None

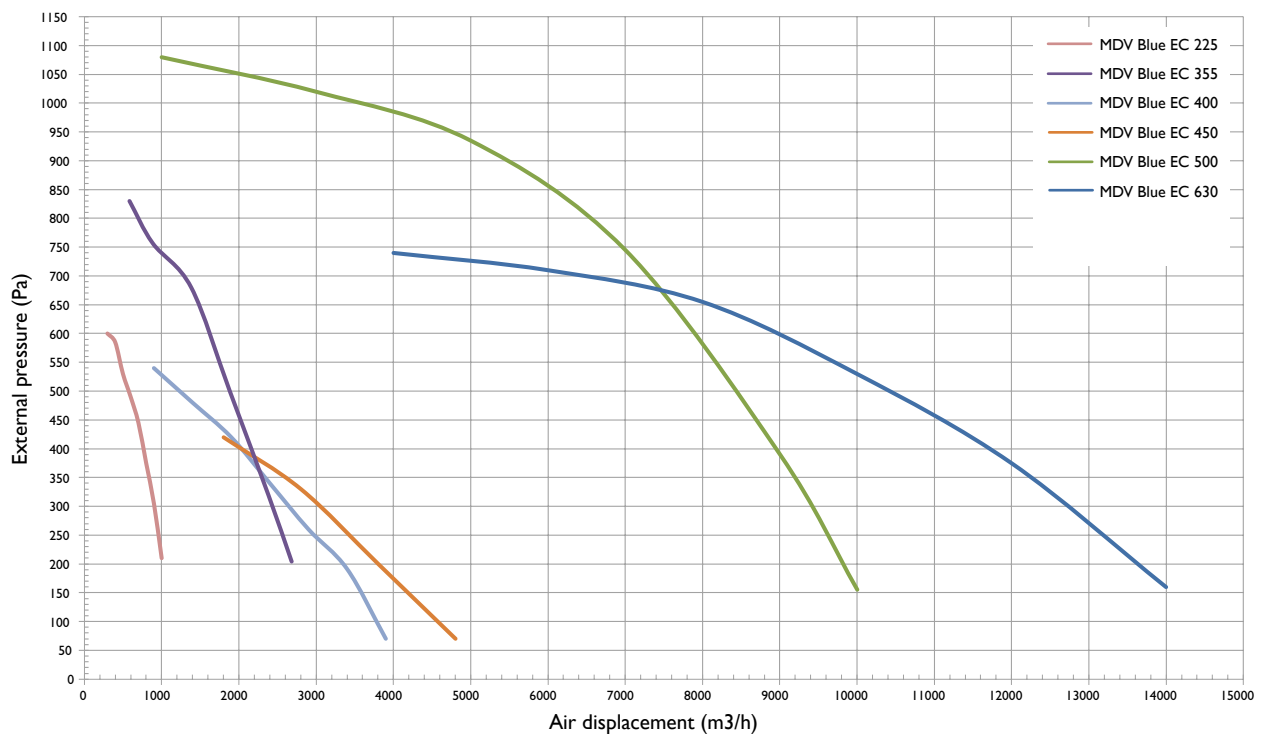
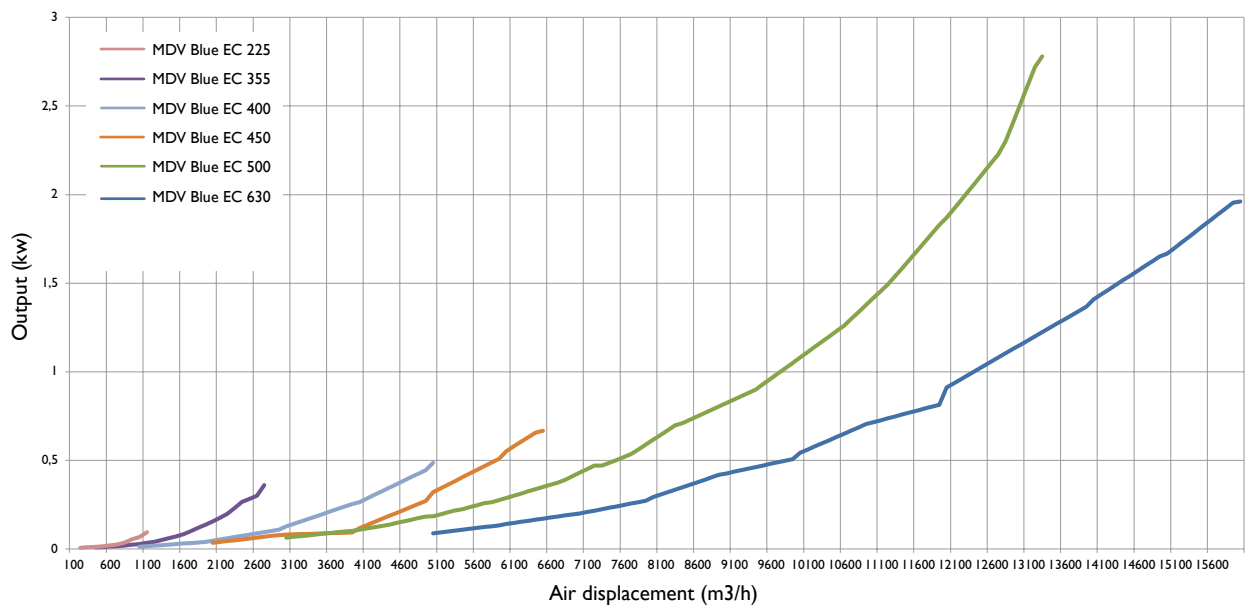
Category: NRVE

Working temperature: -20 / +60 °C

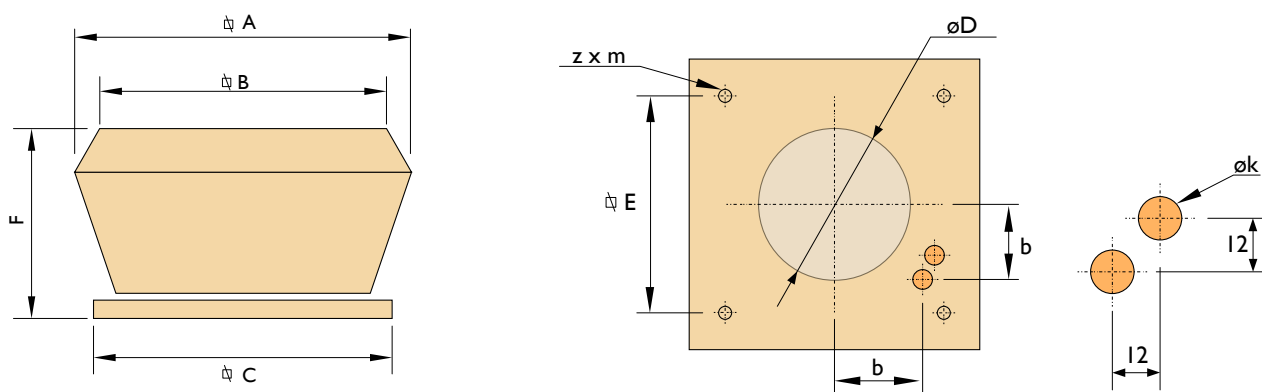
SOUND LEVEL

* see specifications





Dimensions



| Type | A | B | C | D | E | F | b | z x m | $\varnothing k$ |
|--------------|------|-----|-----|-----|-----|-----|-----|----------------------|-----------------|
| MDV Blue 225 | 514 | 430 | 435 | 200 | 330 | 277 | 115 | 4 x $\varnothing 9$ | 20 |
| MDV Blue 355 | 715 | 590 | 595 | 290 | 450 | 365 | 160 | 4 x $\varnothing 12$ | 20 |
| MDV Blue 400 | 715 | 590 | 595 | 365 | 450 | 365 | 160 | 4 x $\varnothing 12$ | 20 |
| MDV Blue 450 | 880 | 660 | 665 | 410 | 535 | 480 | 220 | 4 x $\varnothing 12$ | 20 |
| MDV Blue 500 | 870 | 720 | 723 | 450 | 590 | 480 | 245 | 4 x $\varnothing 12$ | 20 |
| MDV Blue 630 | 1135 | 935 | 939 | 550 | 750 | 570 | 260 | 4 x $\varnothing 12$ | 20 |

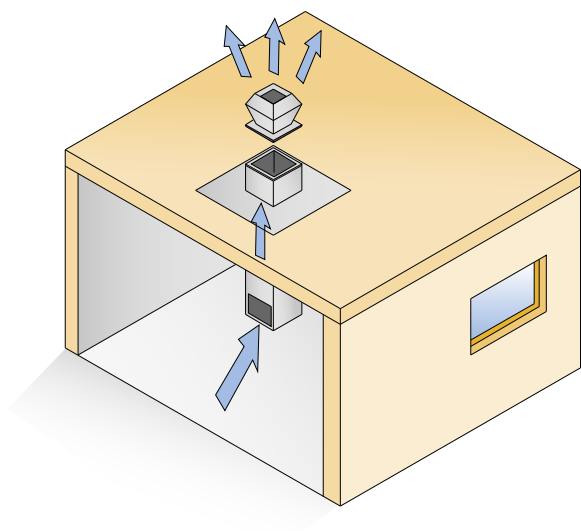


Roof curb including silencer

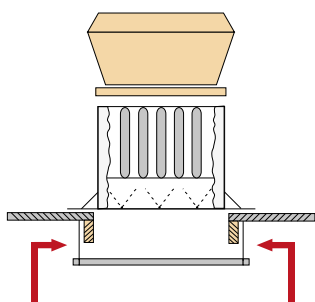


Adjustable (0-30°) roof curb available on request for types 355 - 500.

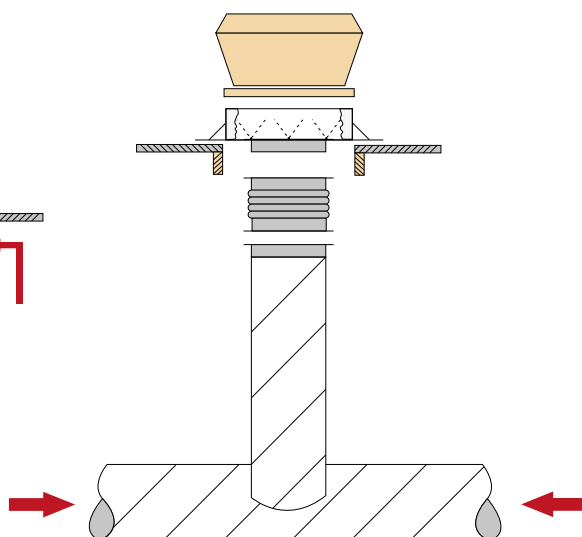
Assembly & location suggestions



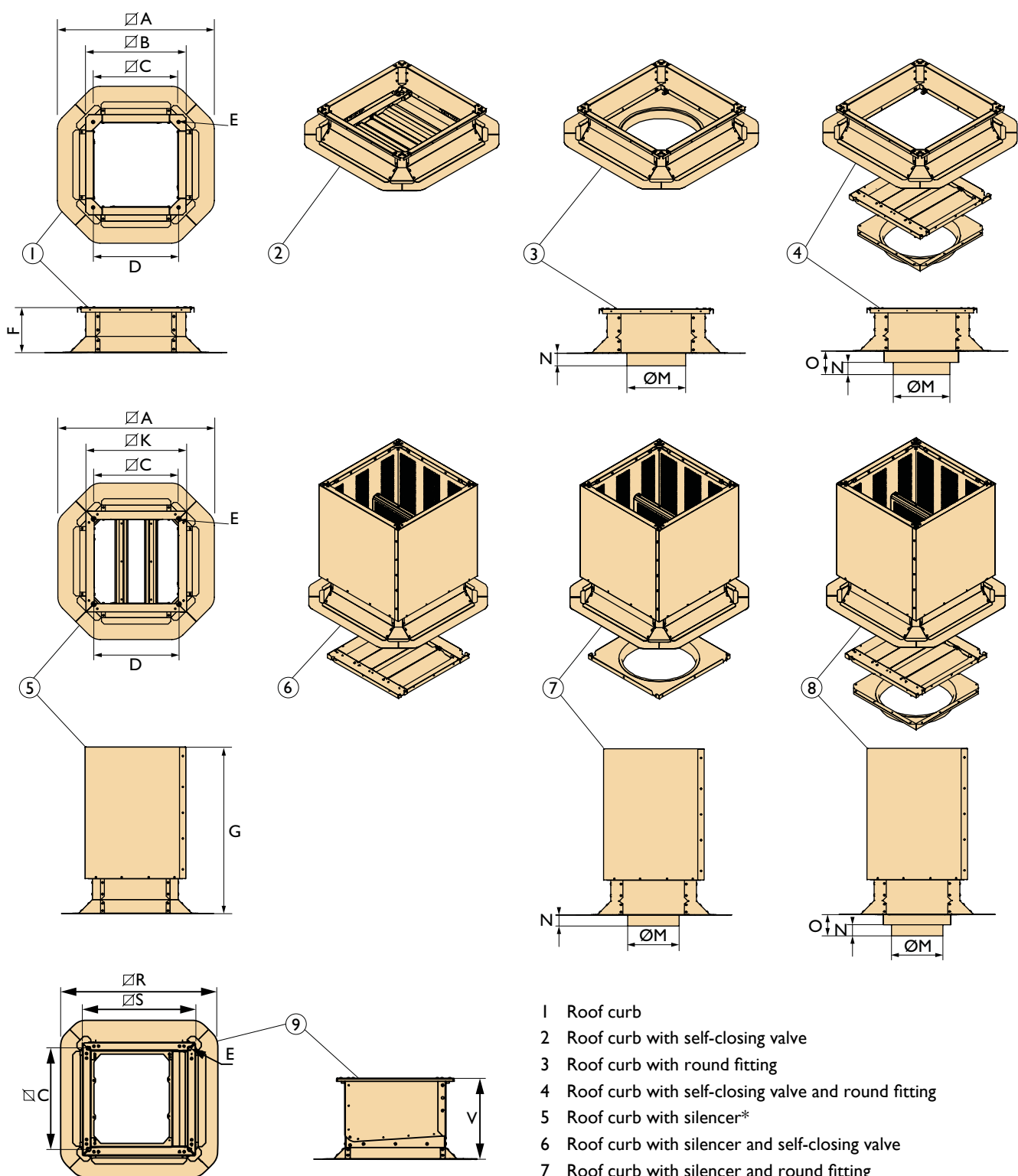
MDV with sound absorbing plate



MDV with duct connection



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 seperately, price on request.

Dimensions (mm) belonging to page 8

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

Weights (kg)

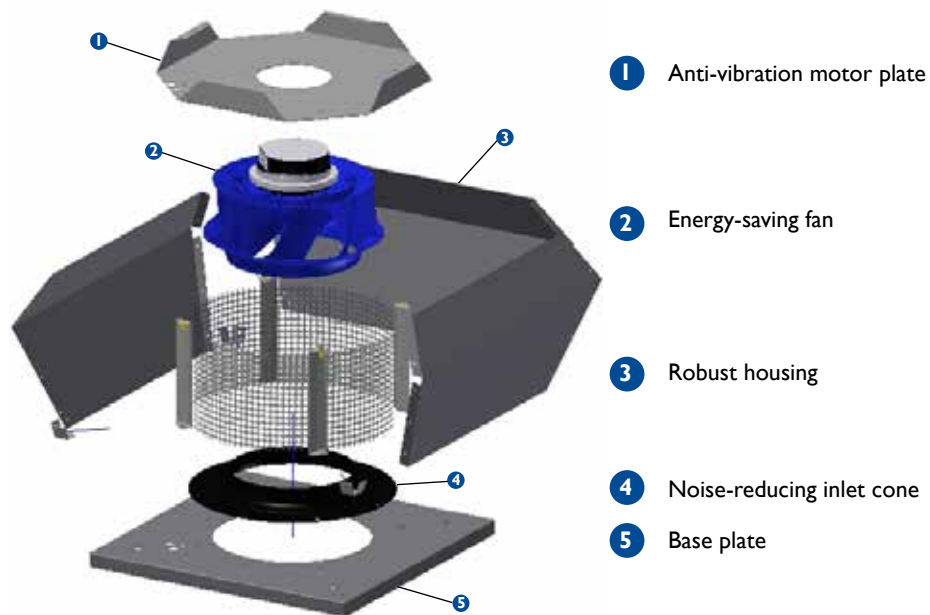
| Type | 225 | 355/400 | 450 | 500 | 630 |
|---------------------------------------------------------------|------|---------|------|------|------|
| Roof curb | 6,3 | 8,4 | 9,9 | 10,9 | 13,7 |
| Roof curb with self-closing valve | 7,6 | 10,4 | 12,5 | 13,8 | 18,2 |
| Roof curb with round fitting | 7,8 | 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 |

Installation

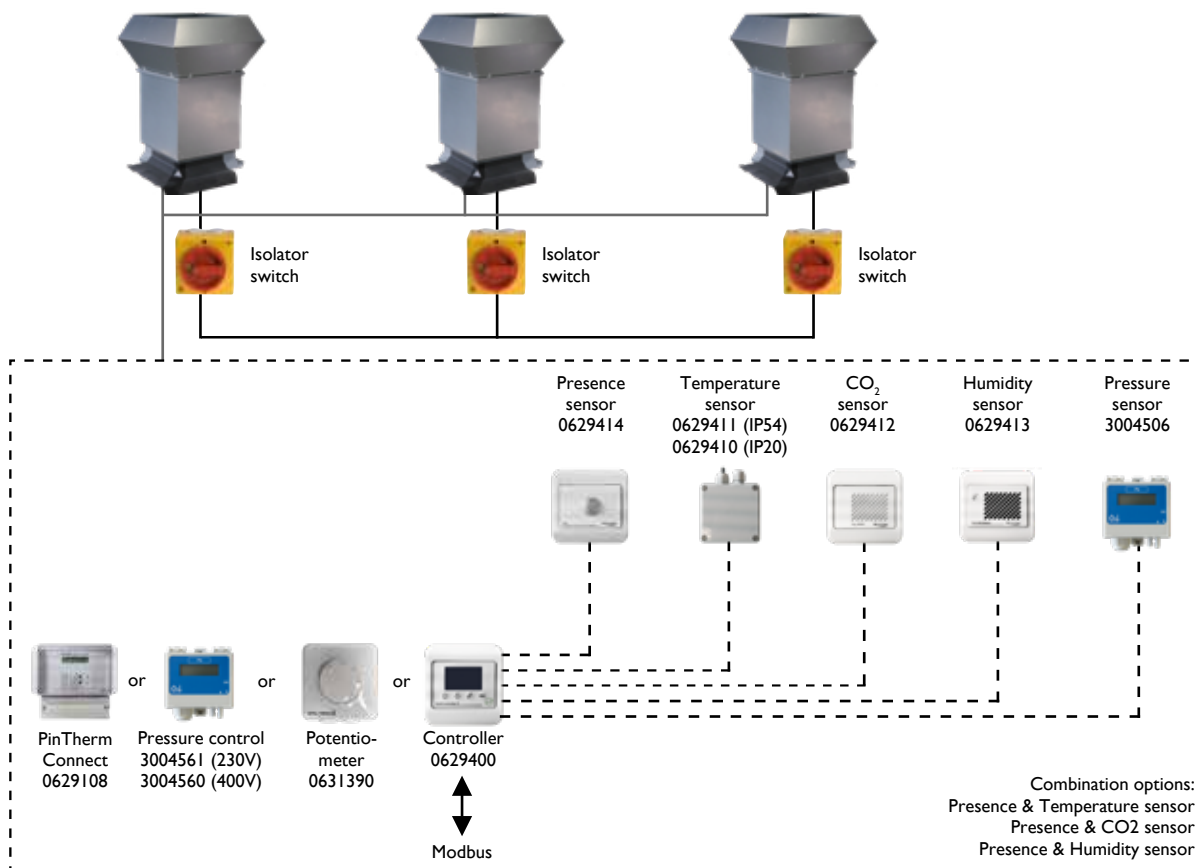
The robust and simple design of the roof fan ensures that it is quick and easy to install.

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



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.