

# MDV Blue

## Roof fan



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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 m<sup>3</sup>/h to 15.000 m<sup>3</sup>/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 m<sup>3</sup>/h to 15.000 m<sup>3</sup>/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, CO<sub>2</sub> 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 m<sup>3</sup>/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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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.

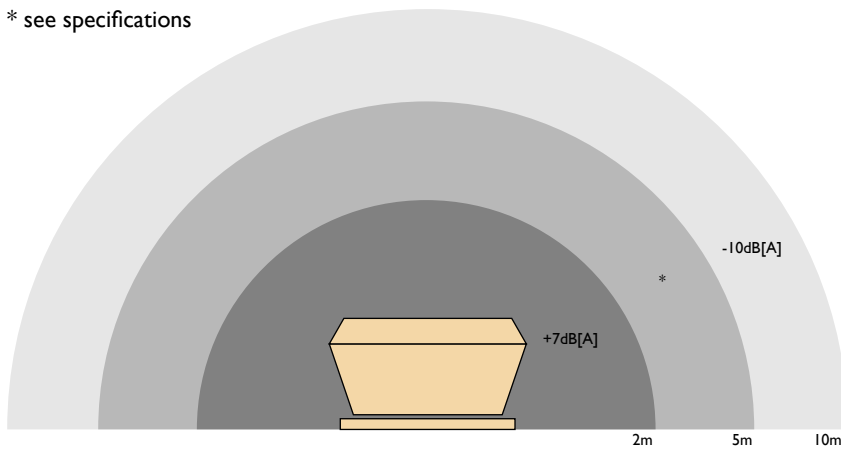
HRS: None

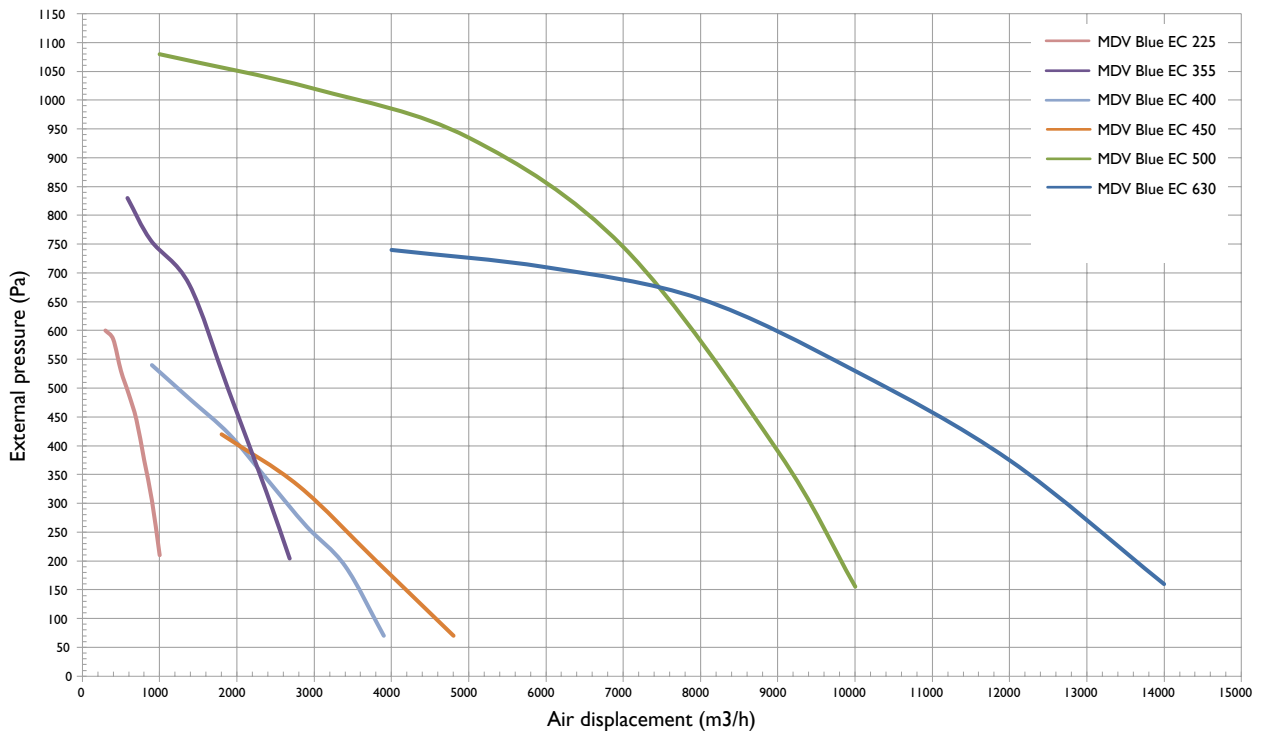
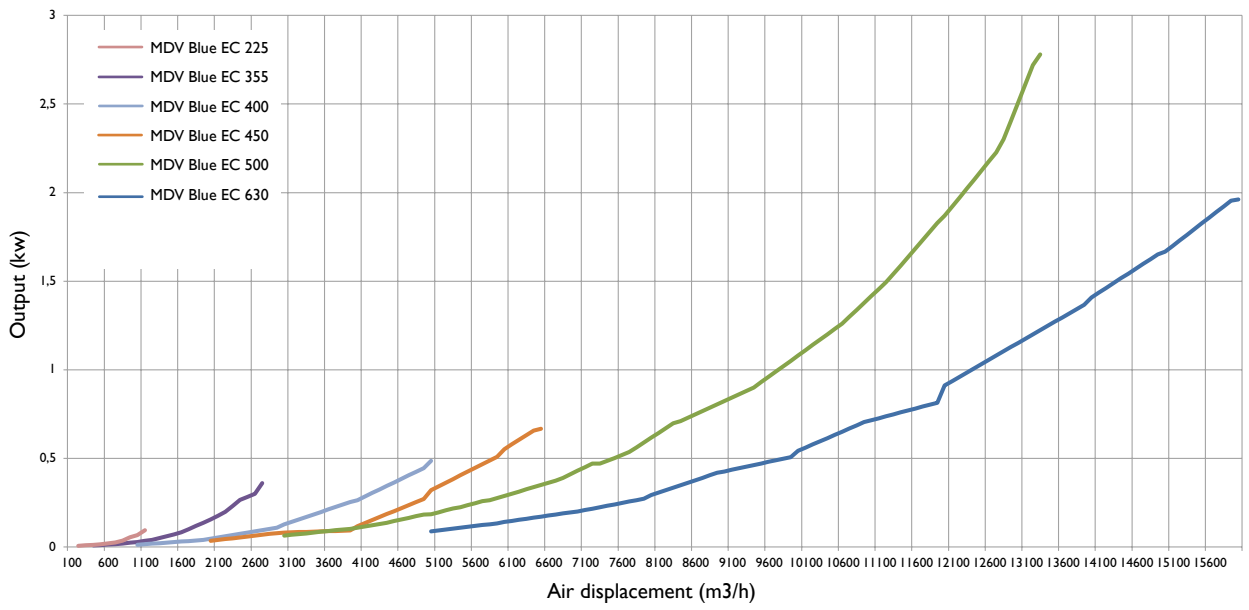
Category: NRVE

Working temperature: -20 / +60 °C

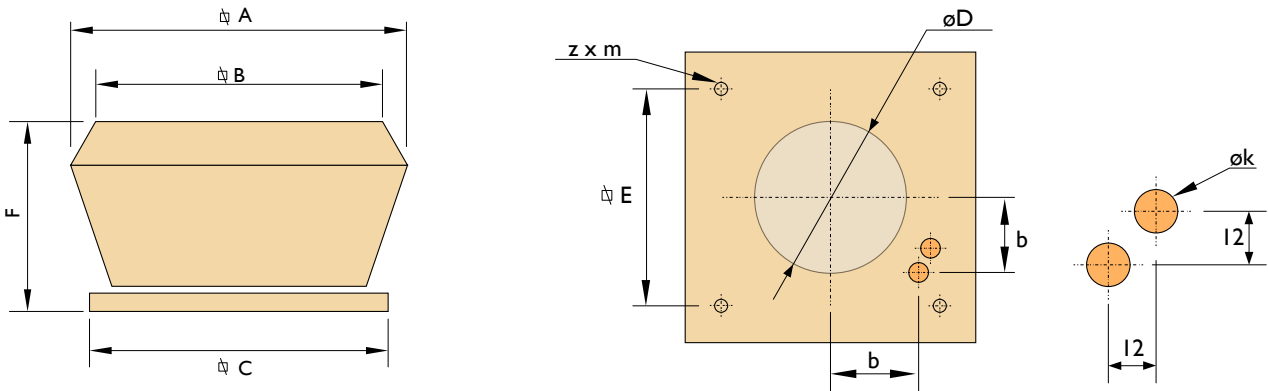
### SOUND LEVEL

\* 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



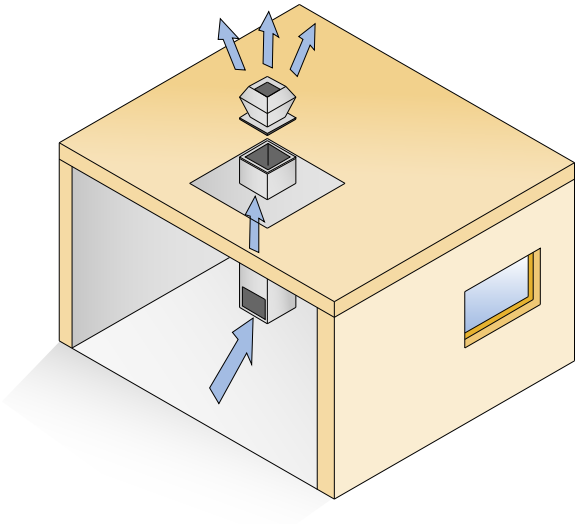
Roof curb including silencer



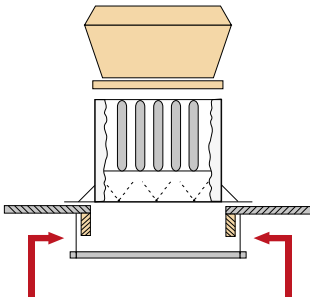
Adjustable (0-30°) roof curb available on request for types 355 - 500.



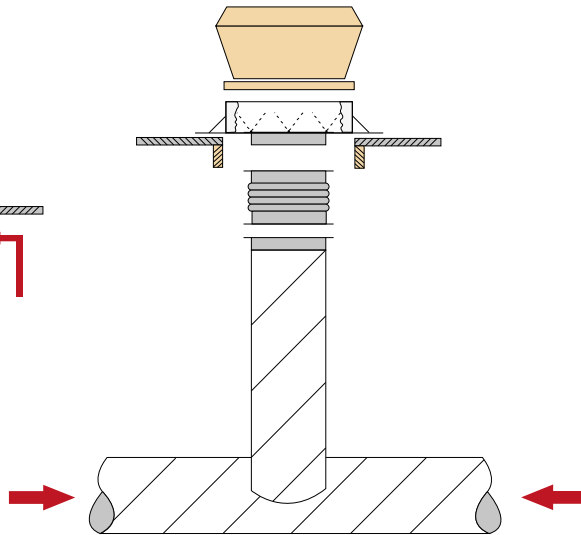
## Assembly & location suggestions



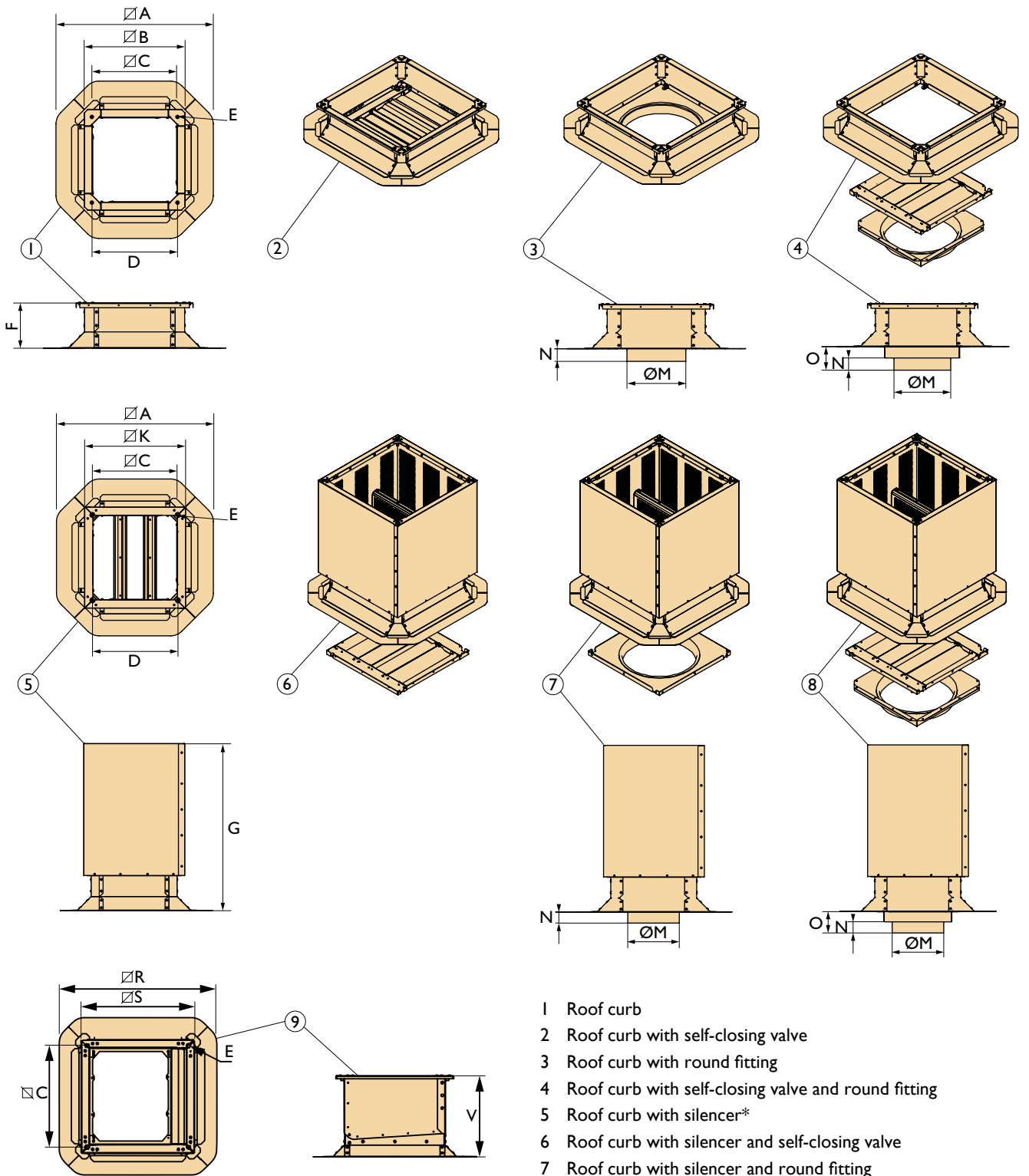
MDV with sound absorbing plate



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)

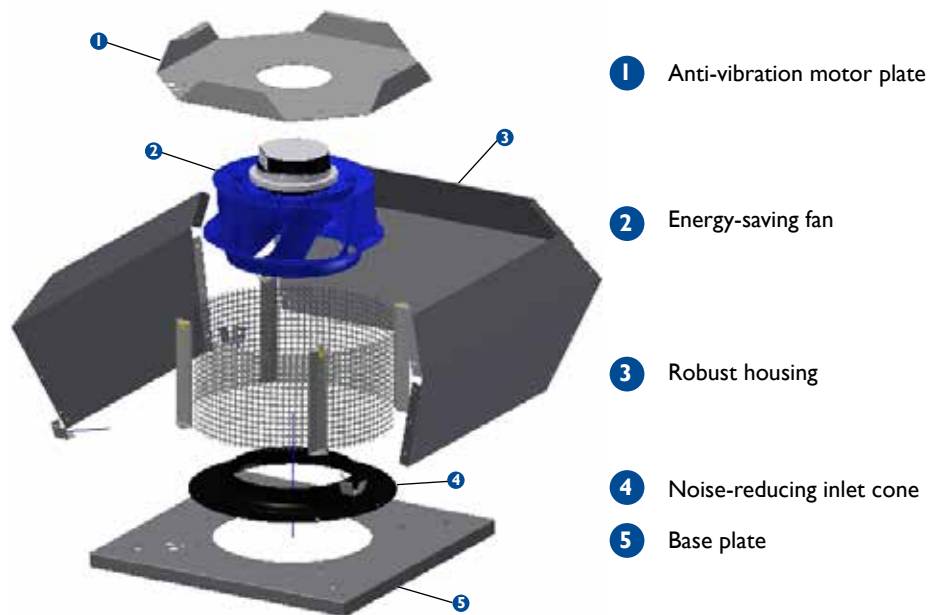
Type	225	355/400	450	500	630
Roof curb	6,3	8,4	9,9	10,9	13,7
Roof curb with self-closing valve	7,6	10,4	12,5	13,8	18,2
Roof curb with round fitting	7,8	10,4	12,7	14,0	18,1
Roof curb with self-closing valve and round fitting	8,4	11,0	14,2	15,8	21,1
Roof curb with silencer	19,6	29,2	33,1	37,4	46,6
Roof 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

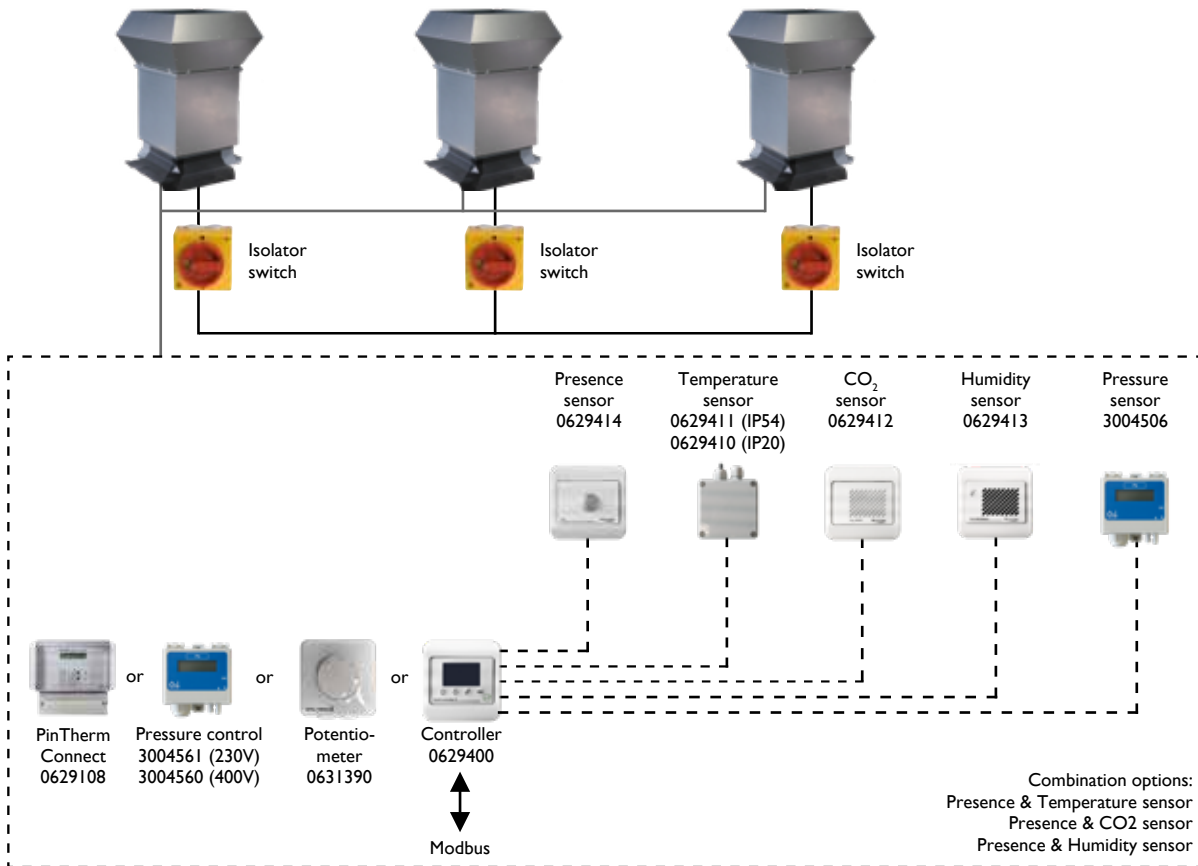
The robust and simple design of the roof fan ensures that it is quick and easy to install.

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.



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