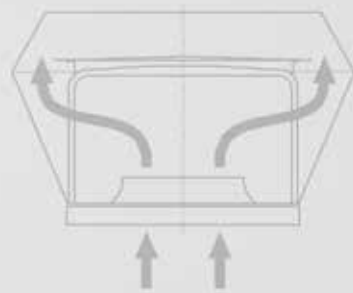


Technical documentation

# Ventilation units

Roof extract fans DV-2

Smoke extract fans ER





# Roof extract fan Smoke extract fans

DV-2  
ER

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## Smoke Extract Fans ER

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# Roof extract fan DV-2

## Description



Application area: Wolf DV-2 roof extract fans are designed to provide controlled ventilation in buildings. These vertical discharge roof extract fans are suitable for transporting dust-free air and other non-aggressive gases in the temperature range -20 °C to +40 °C.



The DV-2 is equipped with advanced EC motor technology as standard and is available in 6 sizes, with air handling rates of up to 13,000 m<sup>3</sup>/h. The casing is made of weather-resistant plastic (colour light grey, RAL 7035) and the special design ensures that the extract air is removed in a vertical stream far above the roof. The plastic used is 100 % recyclable. All roof extract fans are supplied with a mounted and fully wired isolator and terminal box.

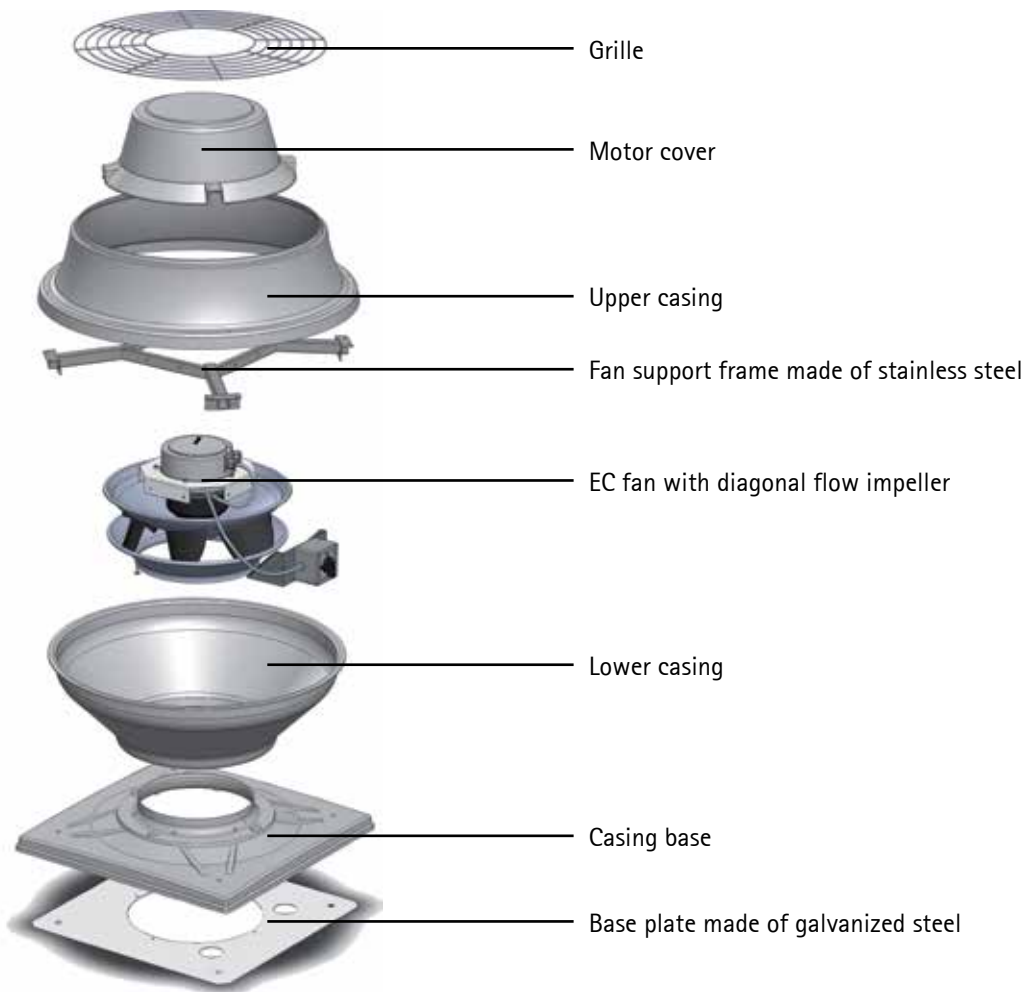


The energy-saving EC fans feature variable speed control via a 0-10 V signal, the appropriate speed controller is available as an accessory. A Modbus interface is integrated as standard. The motor electronics are equipped with integral overload protection, therefore no motor overload relay is required. The specially designed diagonal flow impeller in aluminium with reinforced fibre glass blades is extremely quiet and perfectly adapted to the air flow requirements.

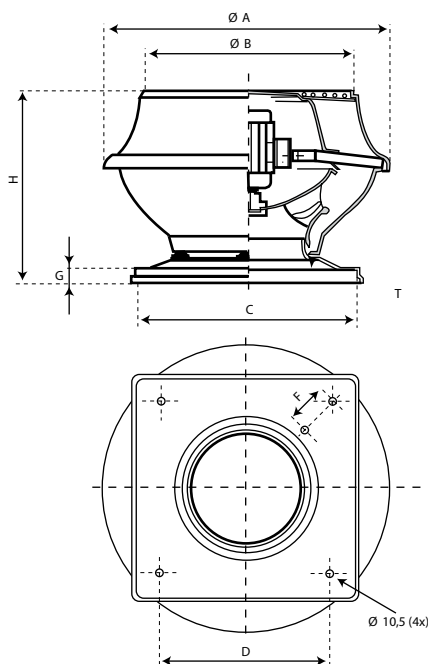
# Roof extract fan DV-2

## Unit layout / Dimensions

### Unit layout



### Dimensions

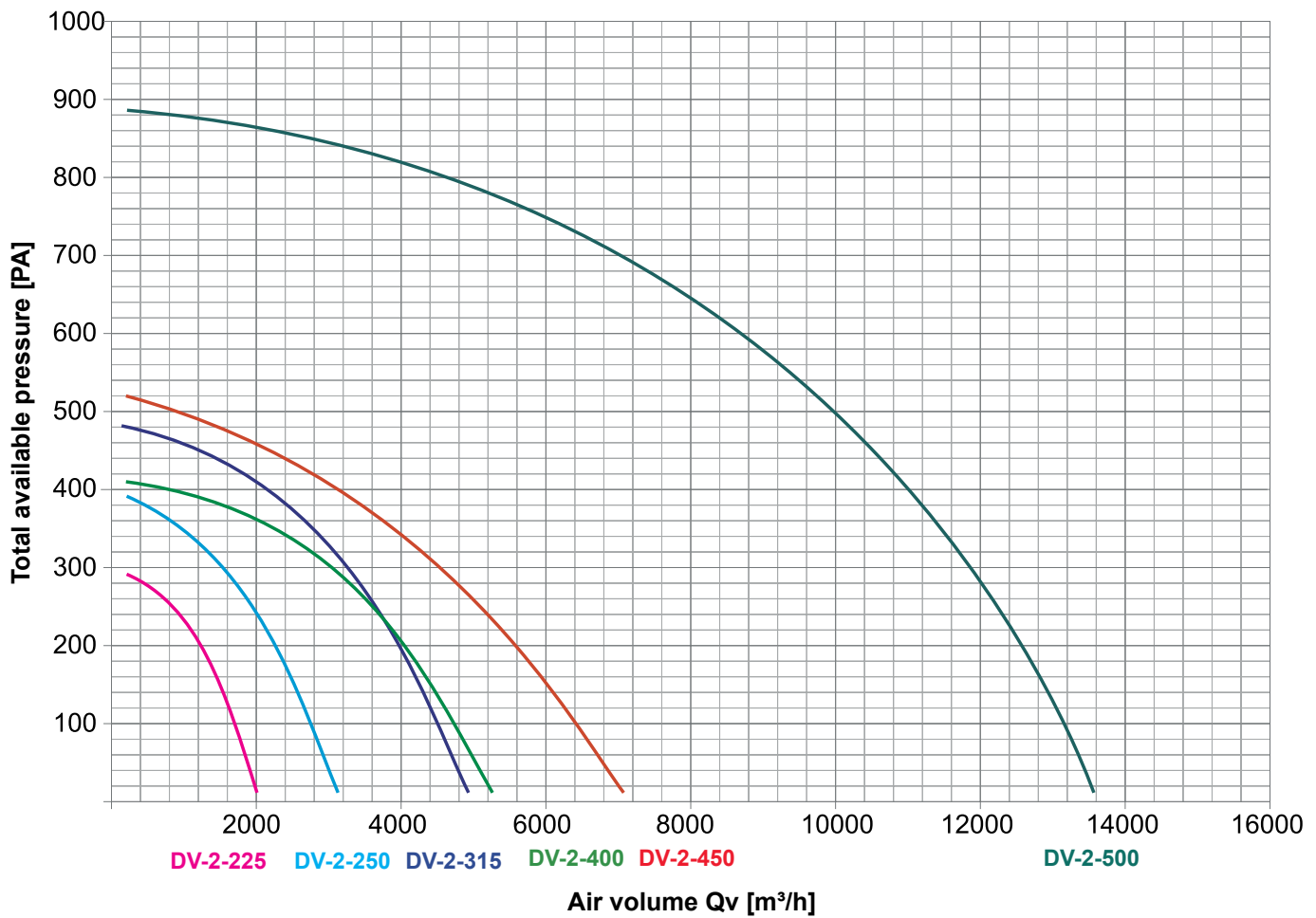


Type	Ø A	Ø B	C	D	F	G	H
DV-2-225	622	466	425	330	75	40	415
DV-2-250	710	540	565	450	100	40	435
DV-2-315	768	588	565	450	100	40	500
DV-2-400	860	640	645	535	120	40	550
DV-2-450	990	740	710	590	120	50	640
DV-2-500	1130	860	915	750	180	50	690

## Overview of types

Type	Supply voltage [V]	V max. [m <sup>3</sup> /h]	Speed max. [rpm]	PeI max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-225-230 V	230	2000	1600	0.179	0.83		11
DV-2-225-400 V	3x400	2000	1600	0.194	0.45		12
DV-2-250-230 V	230	3300	1600	0.375	1.71		14
DV-2-250-400 V	3x400	3300	1600	0.381	0.70	-20 to +40	15
DV-2-315-230 V	230	4500	1480	0.520	2.29		17
DV-2-315-400 V	3x400	5000	1600	0.662	1.20		18
DV-2-400-400 V	3x400	5200	1370	0.533	0.99		22
DV-2-450-400 V	3x400	7000	1370	0.912	1.58		27
DV-2-500-400 V	3x400	13000	1500	3.280	4.99		43

## Air handling performance overview



### Note

All roof extract fans are equipped with protective grilles on the outlet side, in line with DIN EN ISO 13857. The inlet side is supplied without a grille as standard, as accessories usually need to be connected first.

If the impeller is freely accessible due to the type of fan installation, safety devices in line with DIN EN ISO 13857 must be attached to the fan.

### Variable speed controller



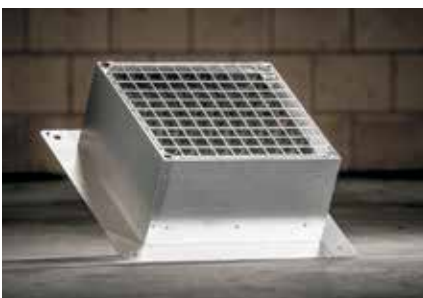
- For variable control of the roof extract fan
- Rating IP 30
- Dimensions 85 x 91 x 27 mm, colour pure white

### Roof base / high roof base



- For installing the DV-2 on a flat roof
- Casing made of reinforced fibre glass, colour light grey (RAL 7035)
- Roof base design with insulation, high roof base design with installation space for intake silencer (Advantage: All components can be installed on the roof, no additional space required in the room)

### Automatic cover flap for roof base



- Intended for use with roof base
- Made of galvanized sheet steel with plastic fins

### Automatic cover flap for high roof base

- Intended for use with high roof base
- Made of galvanized sheet steel with plastic fins

### Intake silencer



- Installation directly on the base of the roof extract fan casing for optimal sound attenuation
- Galvanized sheet steel enclosure, insulation material made of plastic
- Low pressure drop due to special shape of the insulation material
- Can be combined with the roof base and high roof base

### Duct connecting plate



- For connection to a circular duct
- Made of galvanized sheet steel

### Sealing plate



- For sealing the casing base, intake silencer or cover flap
- Closed cell, weather-resistant sealing material

### Intermediate piece



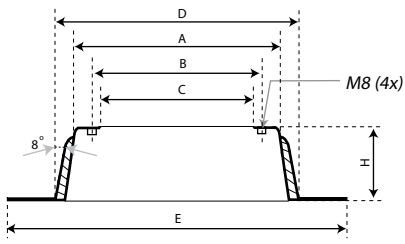
- Establishes an airtight connection to the intake silencer or cover flap
- Suitable for different heights of roof outlets



# Roof extract fan DV-2

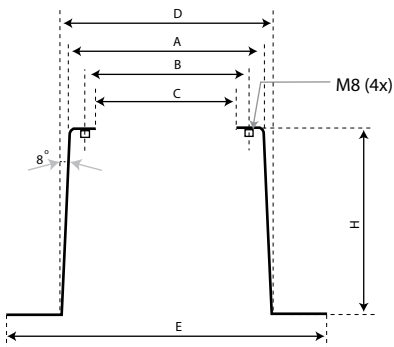
## Dimensions

### Dimensions, roof base



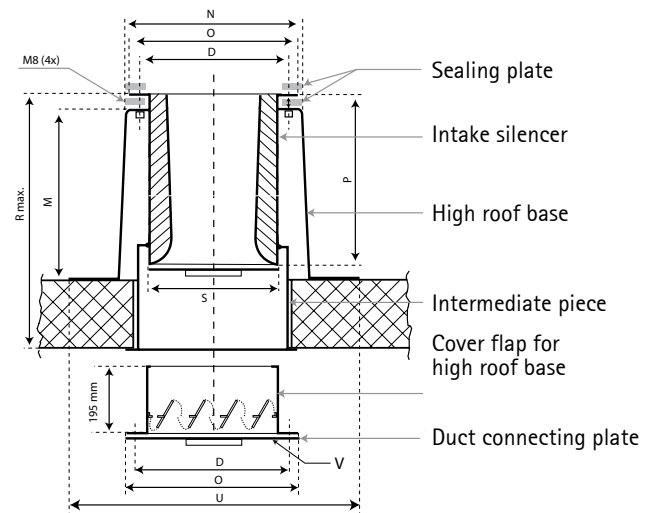
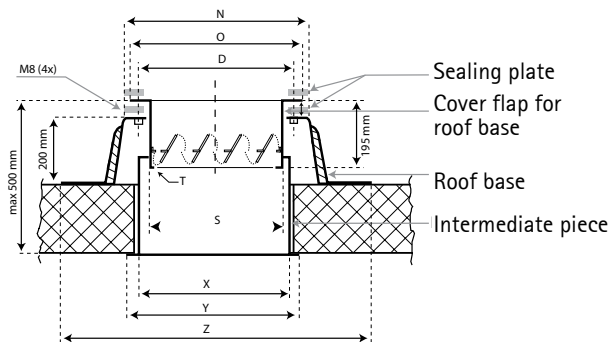
Type	A	B	C	D	E	H
DV-2-225	380	330	300	435	635	200
DV-2-250/315	520	450	420	575	780	200
DV-2-400	600	535	490	655	855	200
DV-2-450	670	590	560	725	920	200
DV-2-500	870	750	700	925	1150	200

### Dimensions, high roof base



Type	A	B	C	D	E	H
DV-2-225	375	330	300	515	715	500
DV-2-250/315	520	450	420	660	860	500
DV-2-400	600	535	490	740	940	500
DV-2-450	670	590	560	866	1070	700
DV-2-500	870	750	700	1070	1350	700

### Dimensions, complete assembly



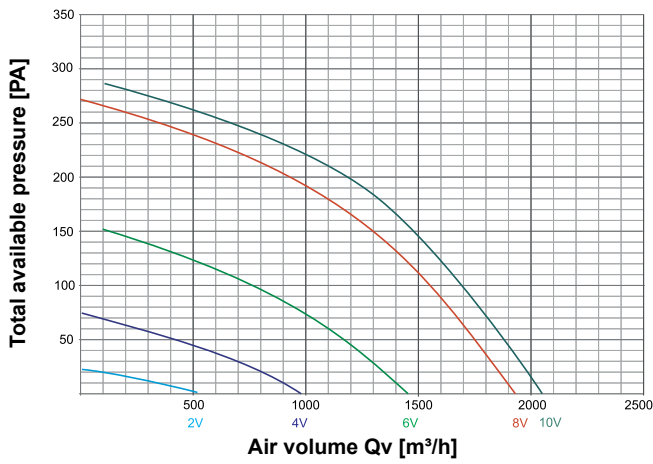
Type	D	M	N	O	P	R	S	T	U	V	X	Y	Z
DV-2-225	330	500	380	370	495	800	285	M6x15 (6x)	720	Ø7 (6x)	321	383	640
DV-2-250	450	500	520	510	495	800	387	M6x15 (6x)	860	Ø7 (6x)	423	485	780
DV-2-315	450	500	520	510	495	800	387	M8x15 (6x)	860	Ø9 (6x)	423	485	780
DV-2-400	535	500	600	600	495	800	477	M6x15 (6x)	940	Ø9 (6x)	513	575	860
DV-2-450	590	700	670	670	695	1000	547	M8x15 (6x)	1070	Ø9 (6x)	583	645	930
DV-2-500	750	700	870	810	695	1000	687	M8x15 (6x)	1350	Ø9 (6x)	710	785	1150

# Roof extract fan DV-2

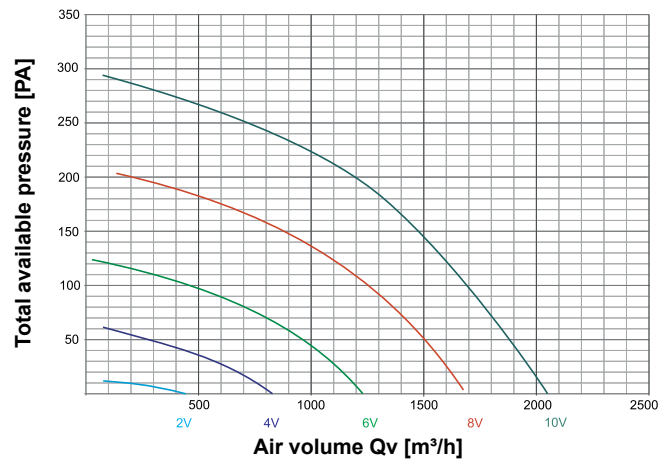
## Performance overview 225

Type	Supply voltage [V]	V max. [m³/h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-225-230 V	230	2000	1600	0.179	0.83	-20 to +40	11
DV-2-225-400 V	3x400	2000	1600	0.194	0.45	-20 to +40	12

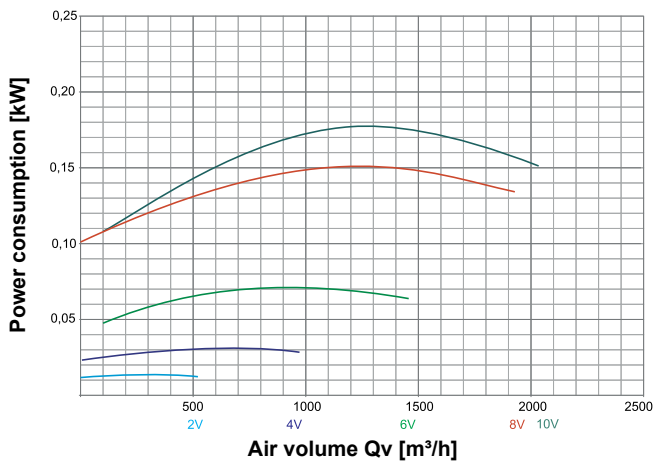
DV-2-225-230 V



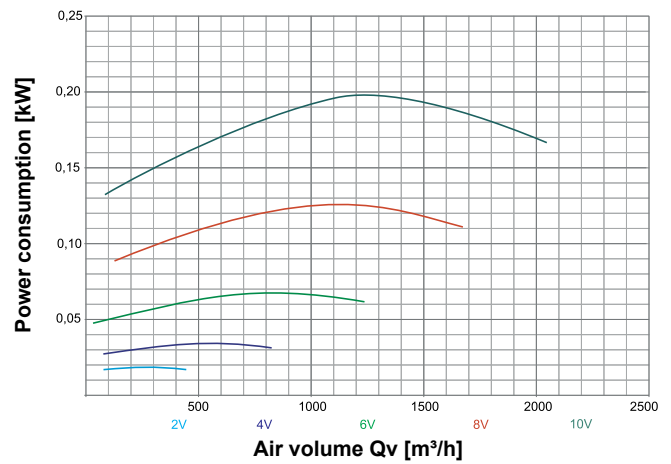
DV-2-225-400 V



DV-2-225-230 V



DV-2-225-400 V



### Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-225	1600	150	52	62	55	61	54	50	39	63

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-225	1600	150	49	55	47	49	38	36	31	52

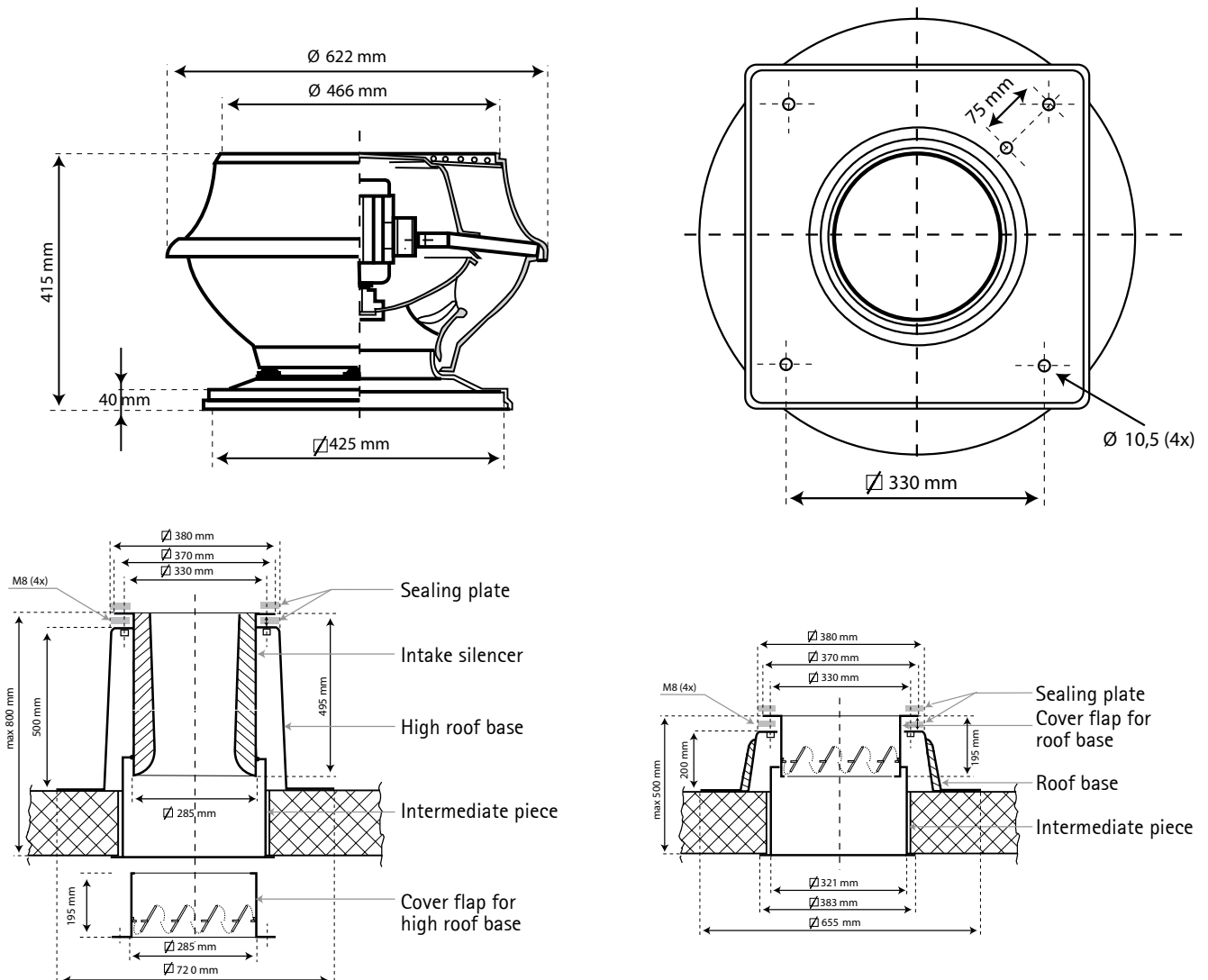
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-225	1600	150	50

### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

### Dimensions

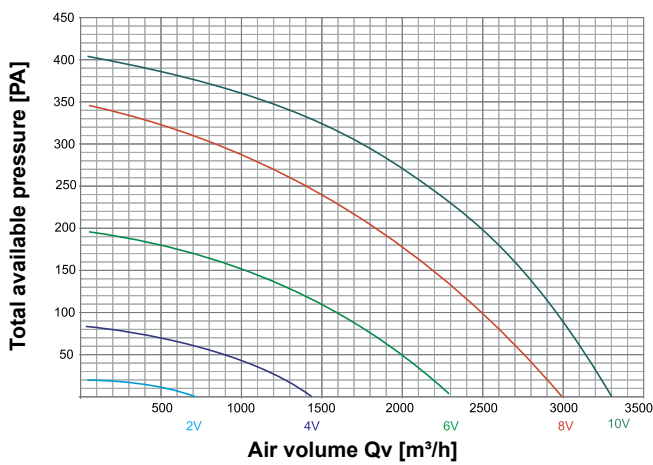


# Roof extract fan DV-2

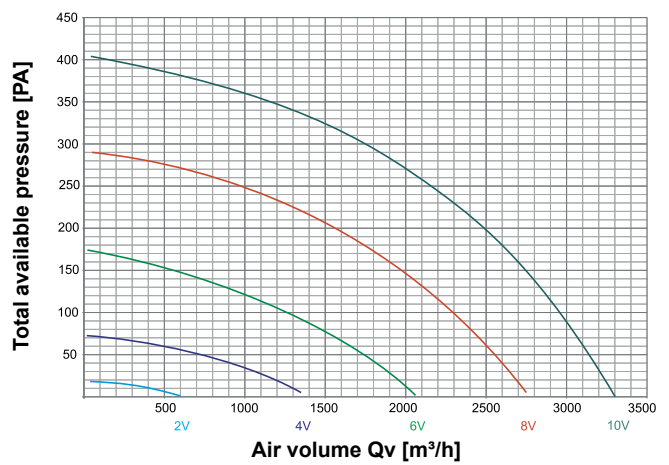
## Performance overview 250

Type	Supply voltage [V]	V max. [m <sup>3</sup> /h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-250-230 V	230	3300	1600	0.375	1.71	-20 to +40	14
DV-2-250-400 V	3x400	3300	1600	0.381	0.70	-20 to +40	15

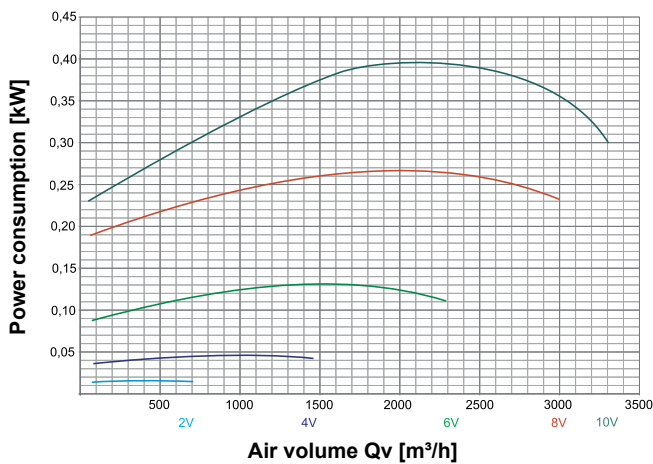
DV-2-250-230 V



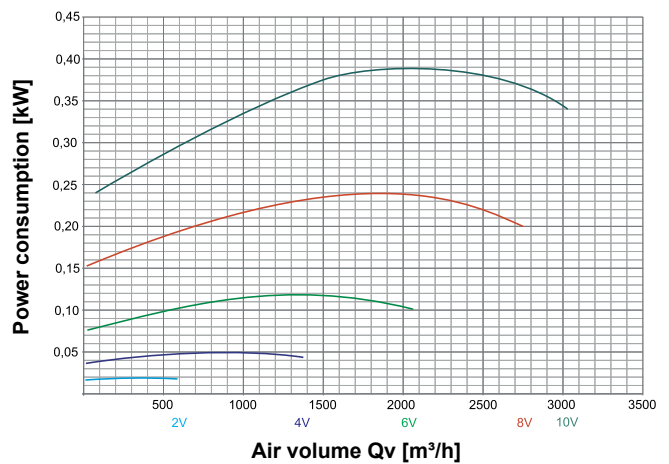
DV-2-250-400 V



DV-2-250-230 V



DV-2-250-400 V



# Roof extract fan DV-2

## Performance overview 250

### Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-250	1600	150	61	65	64	66	59	56	39	69

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-250	1600	150	57	58	54	51	43	44	33	56

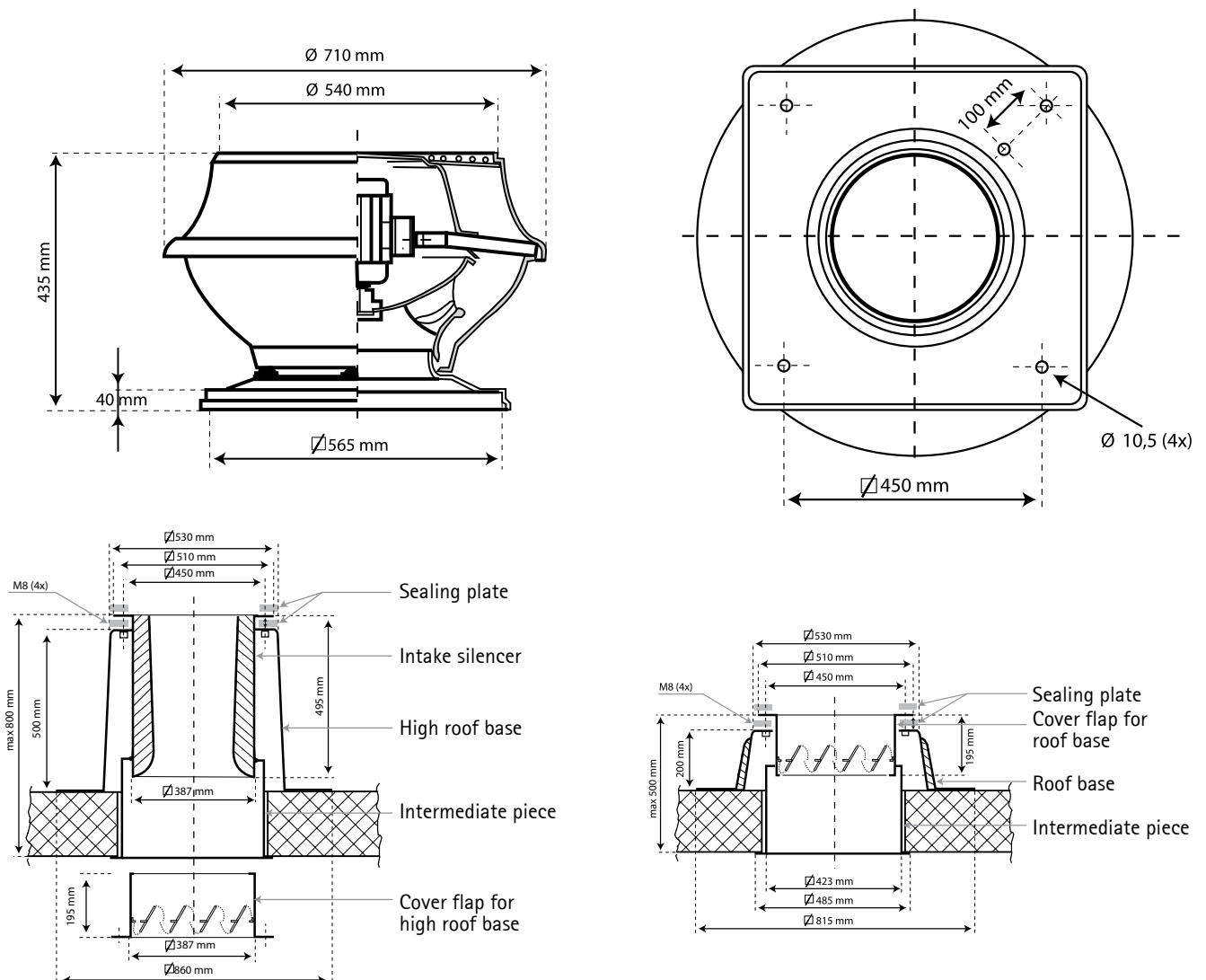
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-250	1600	150	54

### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

### Dimensions

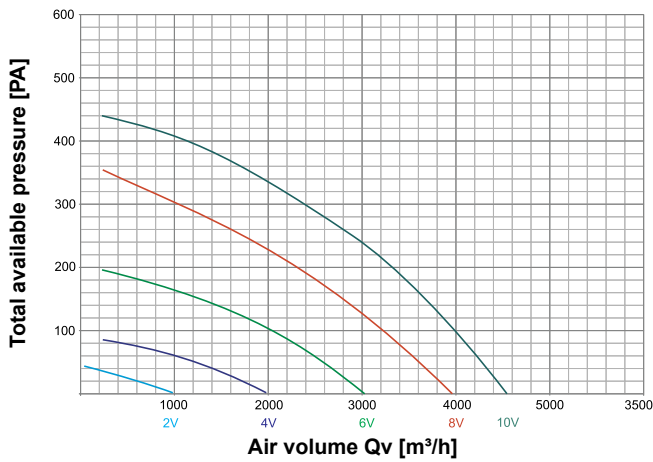


# Roof extract fan DV-2

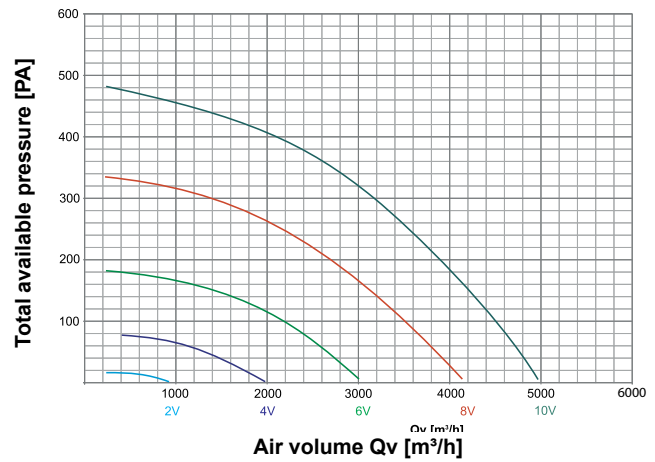
## Performance overview 315

Type	Supply voltage [V]	V max. [m <sup>3</sup> /h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-315-230 V	230	4500	1480	0.520	2.29	-20 to +40	17
DV-2-315-400 V	3x400	5000	1600	0.662	1.20	-20 to +40	18

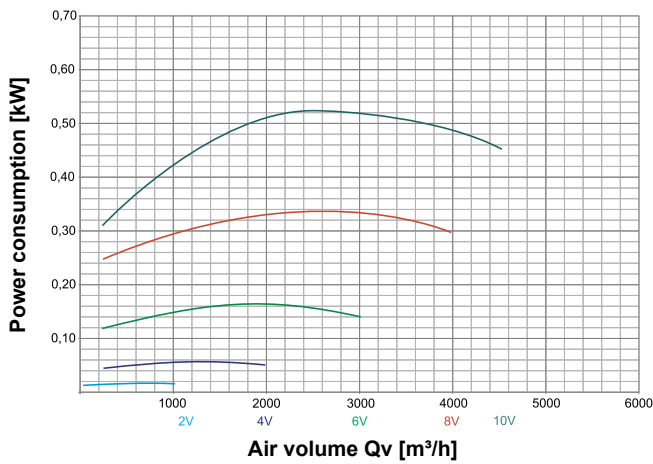
DV-2-315-230 V



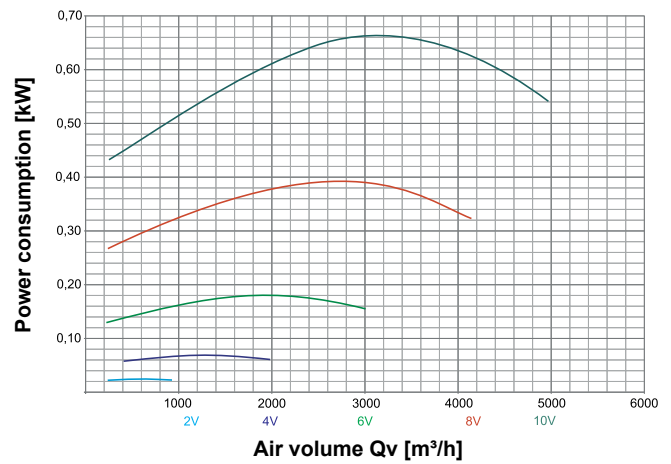
DV-2-315-400 V



DV-2-315-230 V



DV-2-315-400 V



## Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-315	1600	150	63	68	65	66	60	56	42	69

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-315	1600	150	59	61	55	51	44	44	36	57

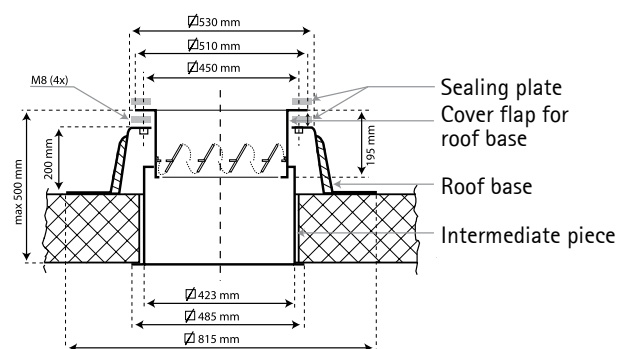
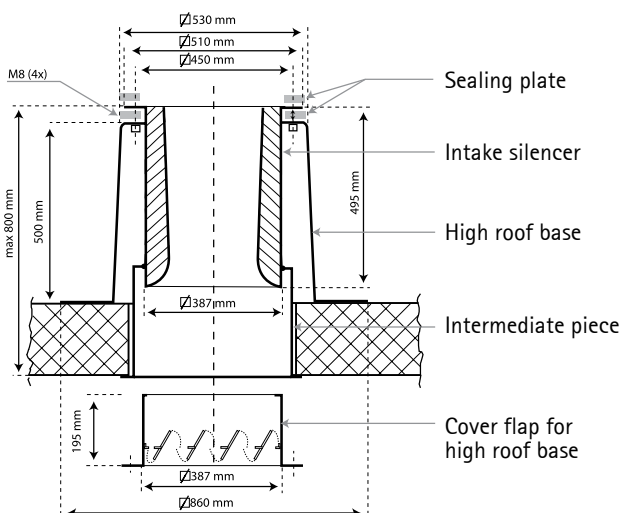
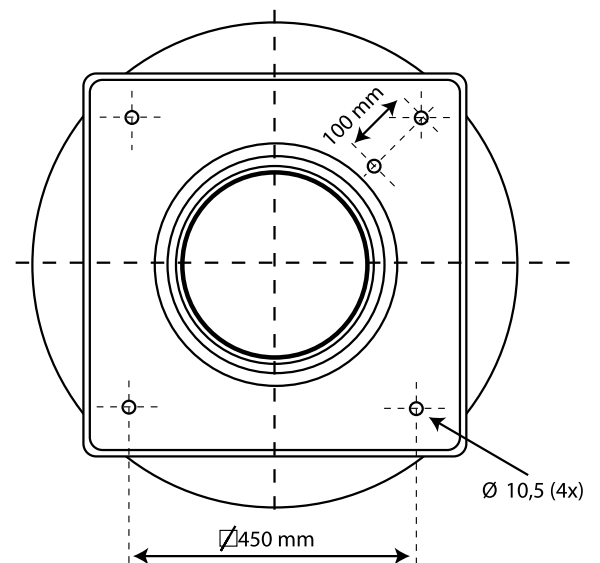
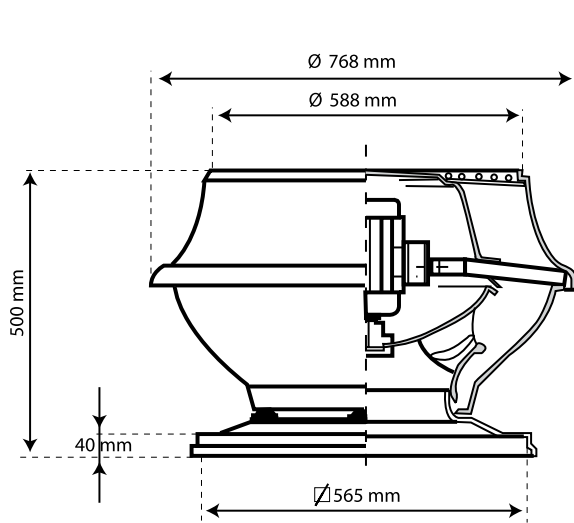
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-315	1600	150	56

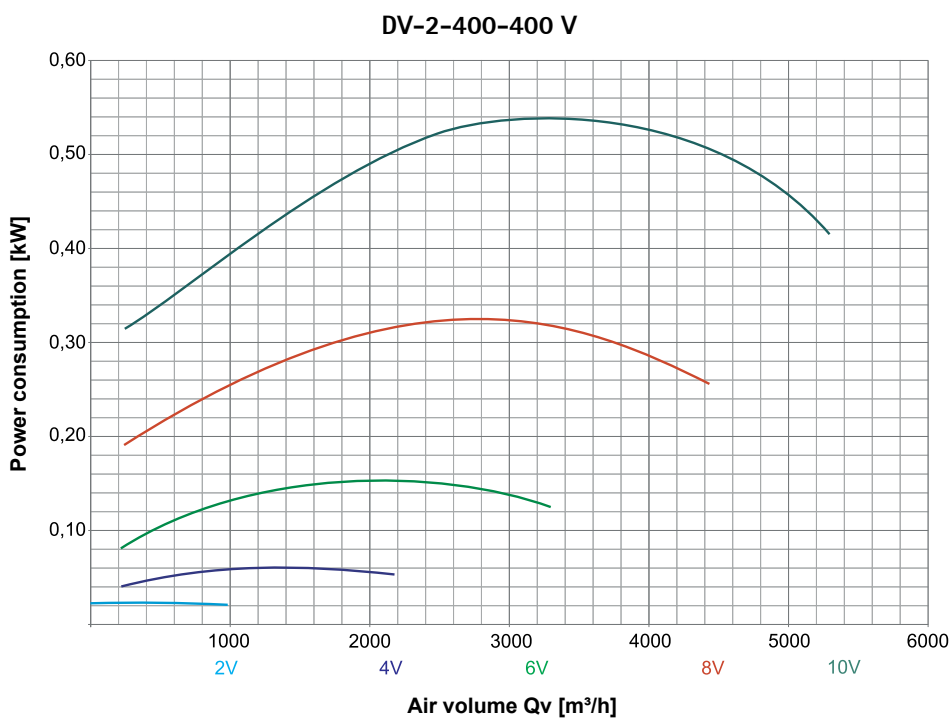
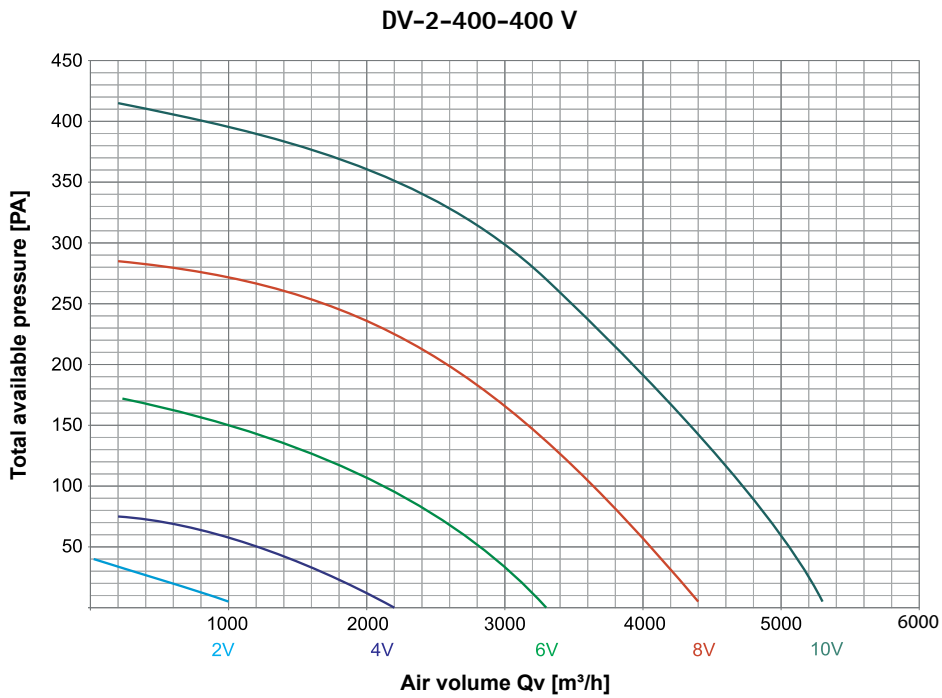
### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

## Dimensions



Type	Supply voltage [V]	V max. [m³/h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-400-400 V	3x400	5200	1370	0.533	0.99	-20 to +40	22





# Roof extract fan DV-2

## Performance overview 400

### Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-400	1380	150	67	69	62	67	65	61	44	71

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-400	1380	150	64	62	52	53	50	47	37	59

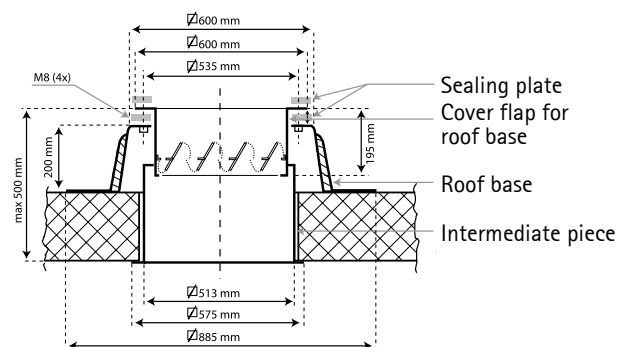
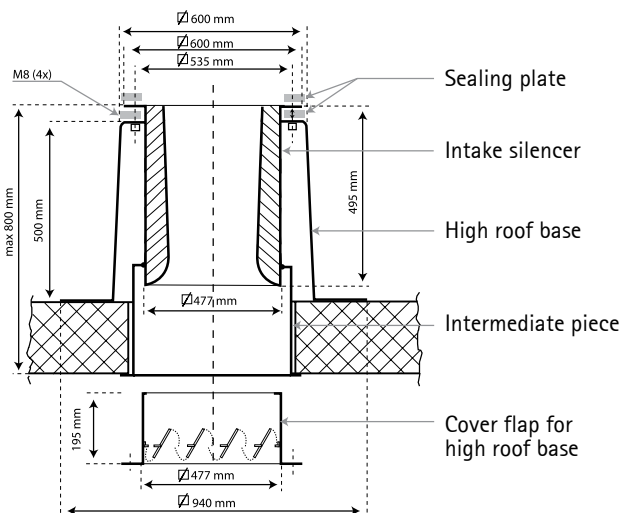
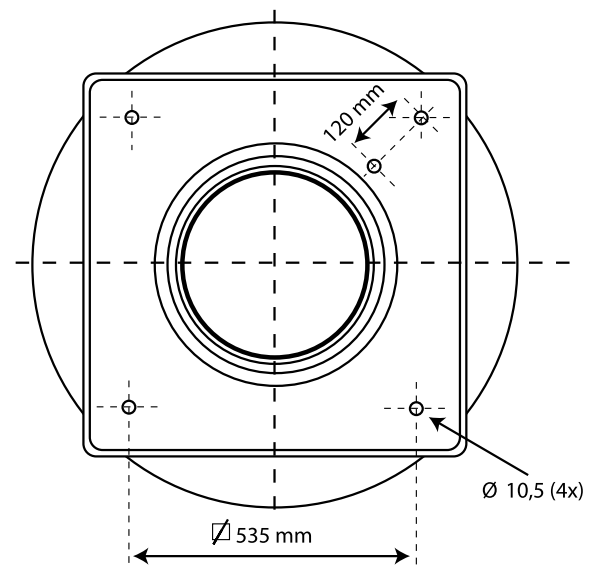
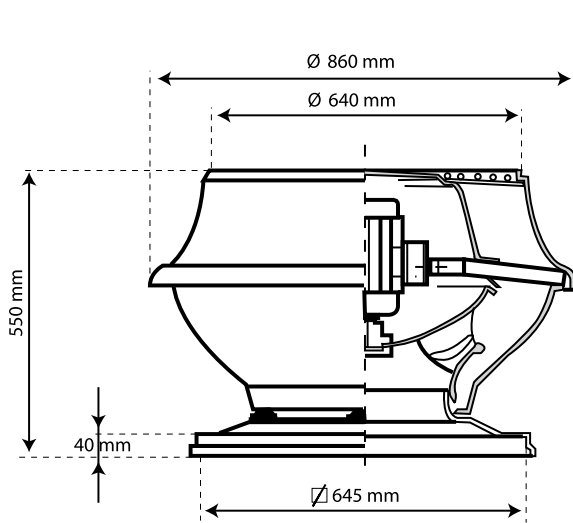
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-400	1380	150	56

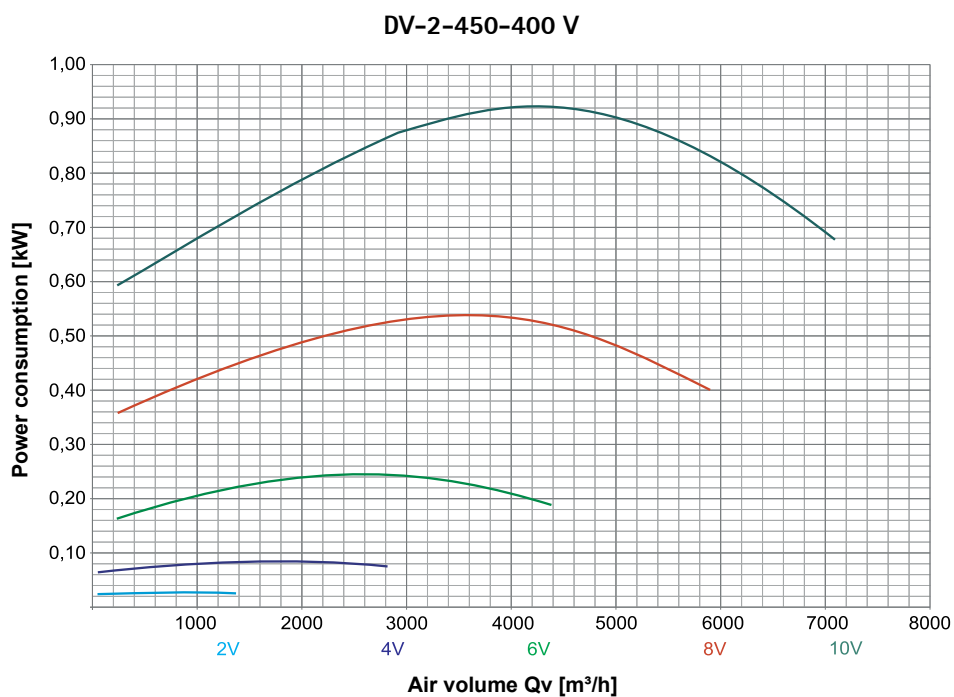
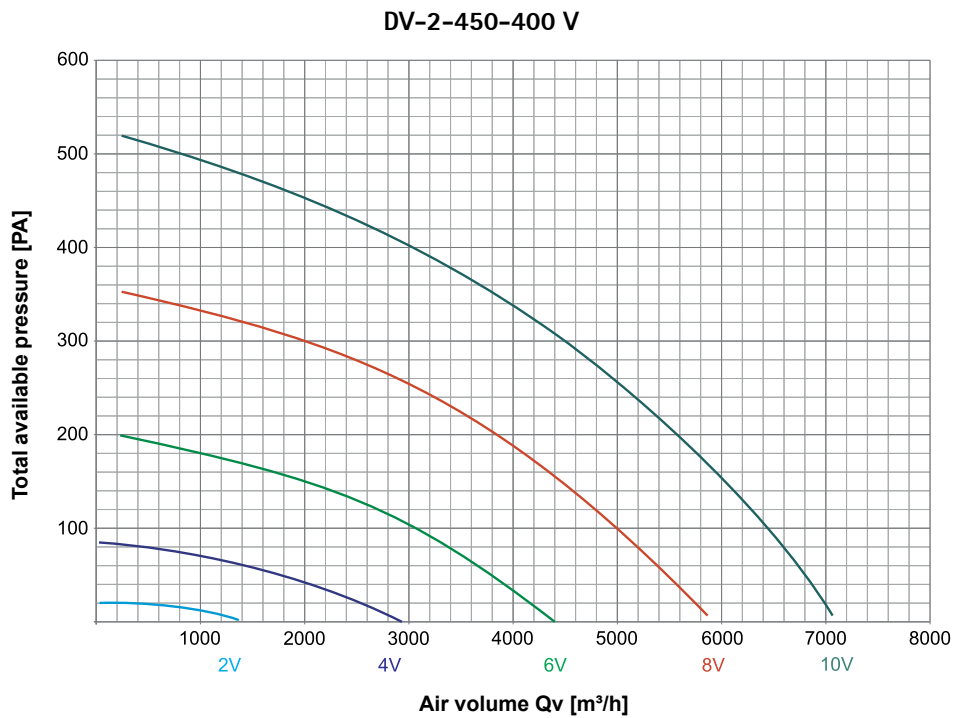
### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

### Dimensions



Type	Supply voltage [V]	V max. [m³/h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-450-400 V	3x400	7000	1370	0.912	1.58	-20 to +40	27



# Roof extract fan DV-2

## Performance overview 450

### Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-450	1380	150	70	69	69	71	64	63	47	74

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-450	1380	150	67	63	59	56	48	48	39	61

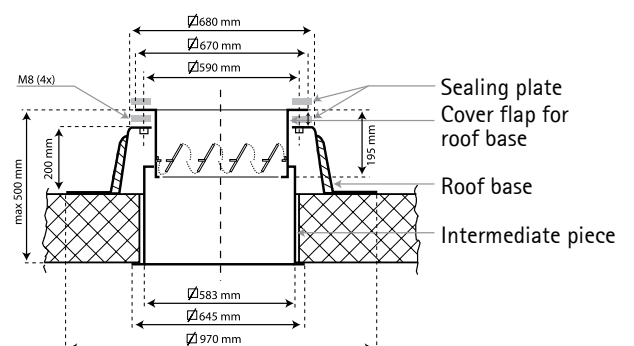
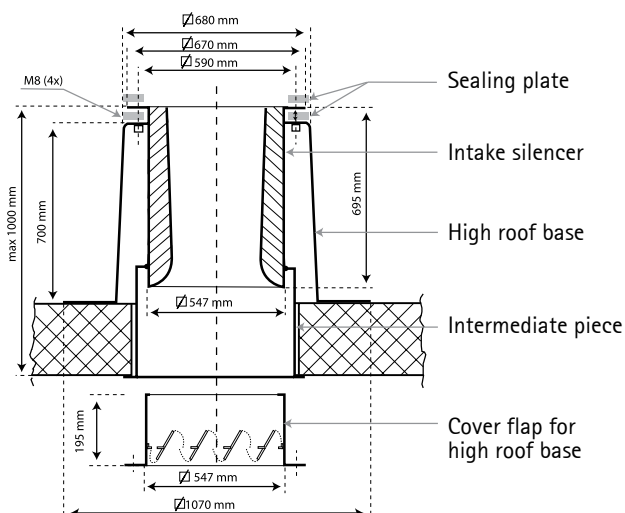
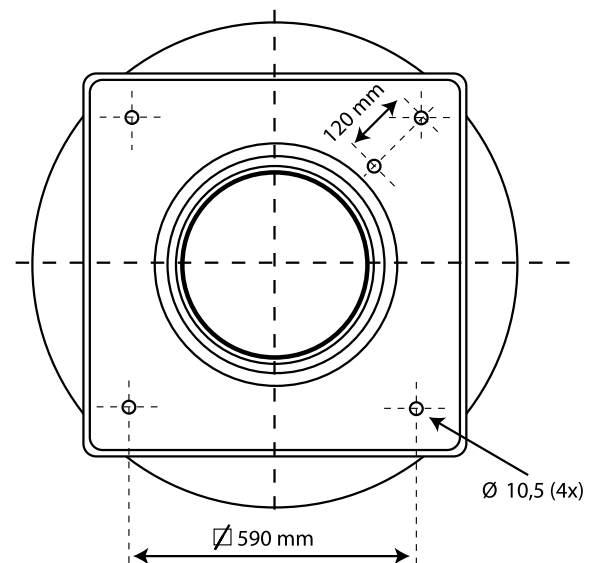
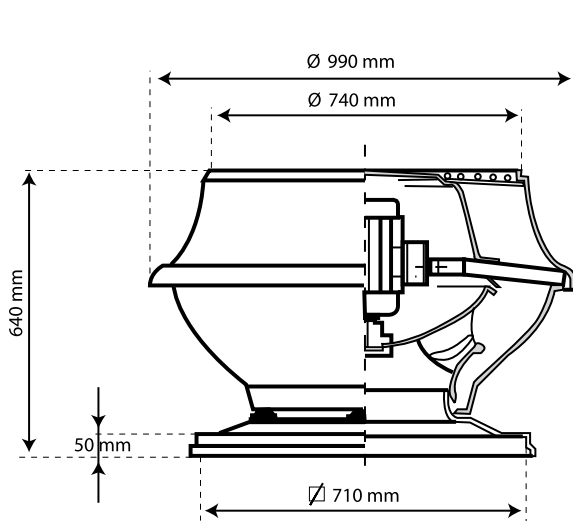
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-450	1380	150	58

### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

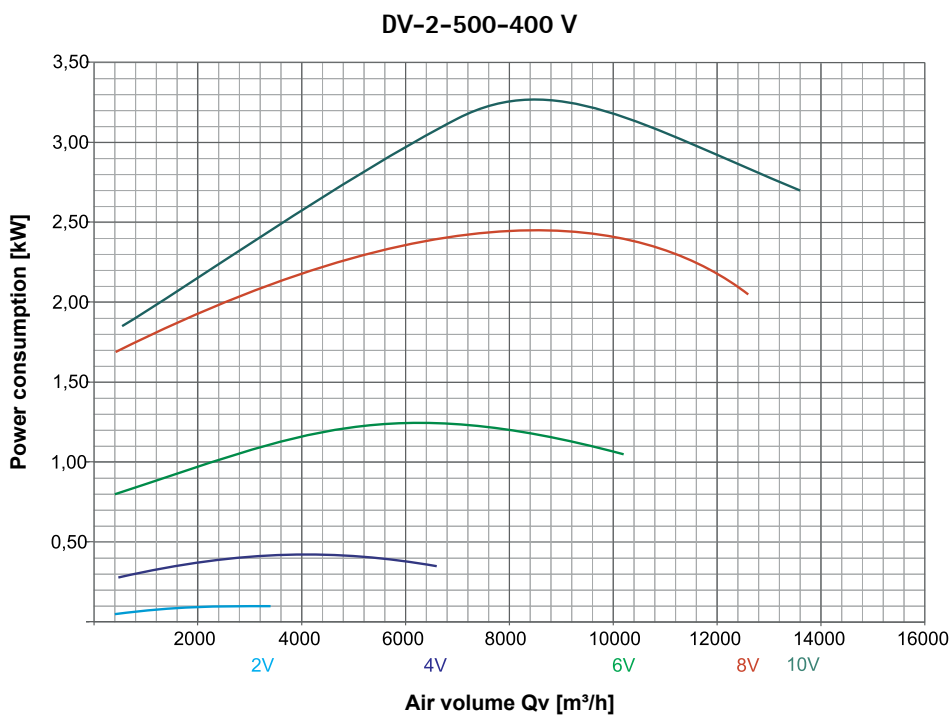
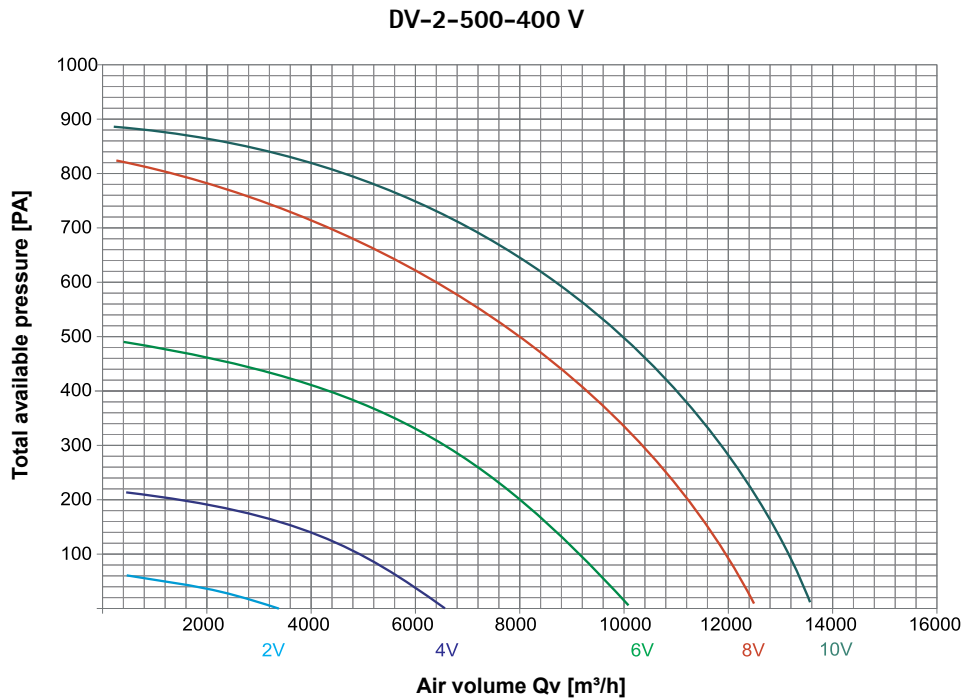
### Dimensions



# Roof extract fan DV-2

## Performance overview 500

Type	Supply voltage [V]	V max. [m³/h]	Speed max. [rpm]	Pel max. [kW]	Current max. [A]	Flow medium temp. [°C]	Weight [kg]
DV-2-500-400 V	3x400	13000	1500	3.280	4.99	-20 to +40	43



# Roof extract fan DV-2

## Performance overview 500

### Sound emission data

Sound power level on suction side

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-500	1370	150	80	75	78	75	70	65	53	79

Sound power level on suction side with intake silencer

Type	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-500	1370	150	77	64	66	54	53	50	47	66

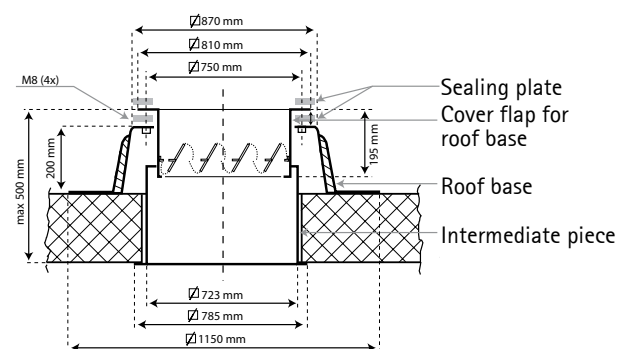
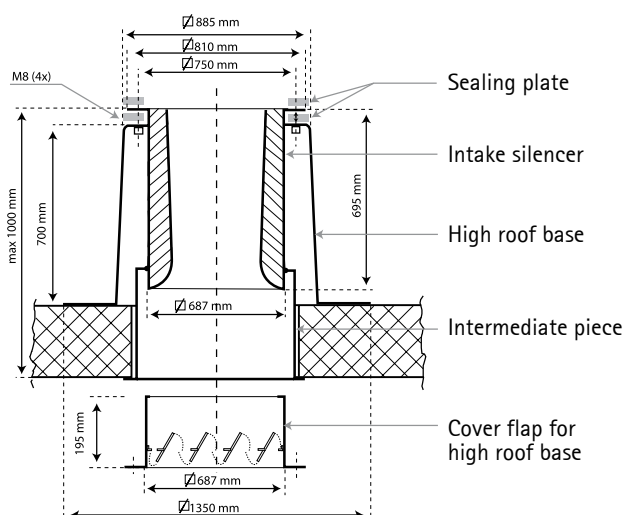
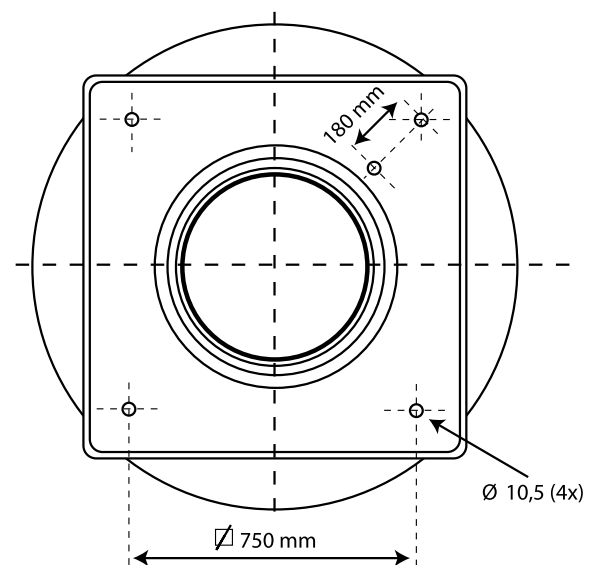
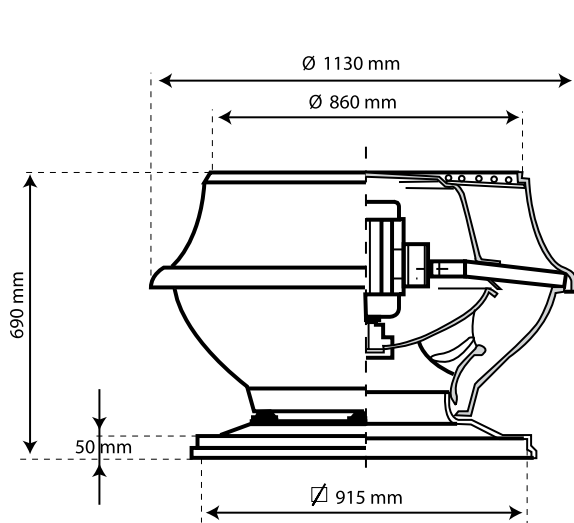
Sound pressure level next to the unit at a distance of 4 m

Type	Speed [rpm]	External pressure [Pa]	Sound pressure level at a distance of 4 m [dB(A)]
DV-2-500	1370	150	66

### Note

- At differing speeds the correction is  $50 \log (n_0/n_1)$  [dB].
- Doubling the distance to the unit reduces the sound pressure level by 6 dB.

### Dimensions

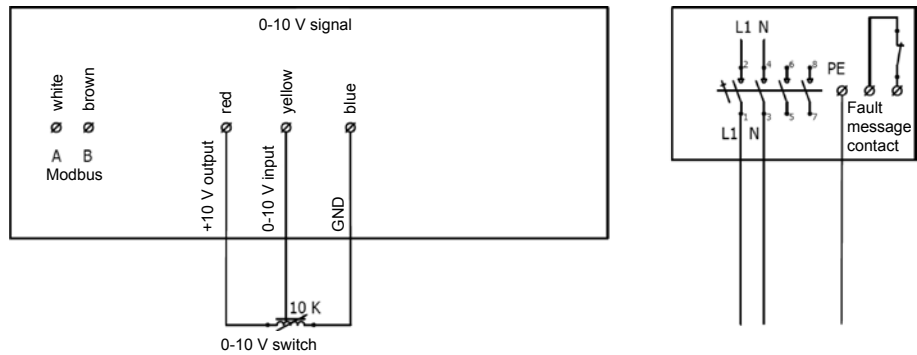


# Roof extract fan DV-2

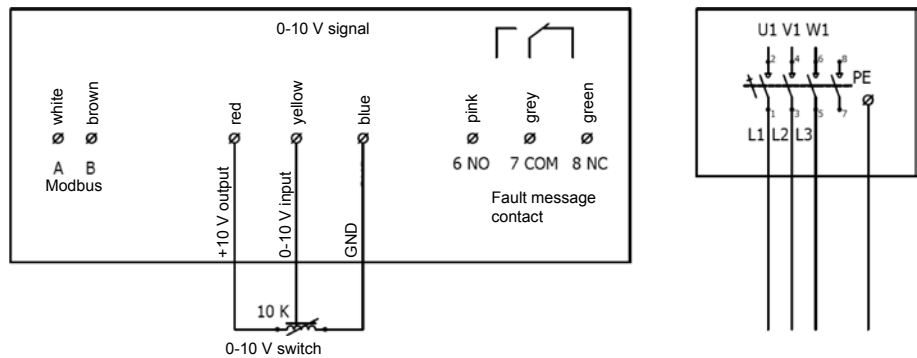
# Electrical connection

- Notes**
- The DV-2 is equipped with an EC motor. This contains an electronics assembly to protect the motor from overloading. As a result, no motor overload relay is required.
  - The cable must be protected with a type C circuit breaker.
  - An external speed controller or a 0-10 V signal must be connected to the DV-2.

## DV-2 230 V



## DV-2 400 V



## Smoke Extract Fans ER

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### Description



Air discharge vertical and swirl free.  
Casing made of aluminium.  
Base frame and mechanically stressed parts made of galvanized sheet steel.  
Impeller made of steel, welded and coated.  
Motor separated from air stream.  
Casing side parts removable, centre parts to be swivelled (up to size 7190).  
Ready for connection; free cable lead, protected by a steel tube.  
Installation plate for isolator switch or connection box as a standard.  
Isolator switch as an option (loose for fitting on site)

Smoke-extract roof fans of the lines RDM 56 and RDM 57 are provided for to deflecting heat and smoke in case of fire especially in the first phase with usually high smoke content. They have to keep the escape ways smoke free, reduce damages, and ease fire fighting actions.

They fulfil the actual requirements for "Mechanical Extract Devices (MA)"

#### **RDM 56-, +400 °C - 120 min**

The fans of the range RDM 56 do respond to the requirements of the category 1, 2, and 3 according to EN 12101-3. EC-certificate of conformity: 0036 CPD RG01 01.  
They have been certified by the DIBt with certificate N° Z-78.1-26

#### **RDM 57-, +600 °C - 120 min**

The fans of the range RDM 57 correspond to the requirements of the category 1, 2, 3, and 4 according to EN 12101-3. EC-certificate of conformity: 0036 CPD RG01 02.  
They have been certified by the DIBt with certificate N° Z-78.1-27.

The fans have been tested by the research and test laboratory of the chair for home improvement and construction techniques at the University of Munich and have subsequently been certified by the DIBt, Berlin.  
Certificates can be provided on request.

The roof fans comply with the tolerances of Class 2 of DIN 24 166 "Fans; technical delivery conditions".

The smoke extract roof fans are equipped with IEC standard motors B5, protection class IP 55 and heat class F.

#### **Attention!**

In case of fire the motor must not be electrically "protected". All high temperature and high current securities have to be bridged, i.e. to be put out of order.



A full fan line: 23 standard sizes

Performance range: 3300 up to 57200 m<sup>3</sup>/h

Smoke Extract Fans ER	Flow rate $\dot{V}_{ma}$	Available pressure	Voltage	Speed	Motor rating	Rated current	Weight	Isolator switch
RDM 56/57	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
2528-2W-11	3300	950	230/400 Δ/Y	2830	1.1	4.16/2.4	39	0055-32
2531-4D-10	2200	270	230/400 Δ/Y	1395	0.55	2.50/1.44	35	0055-32
3535-4D-10	3370	320	230/400 Δ/Y	1395	0.55	2.50/1.44	44	0055-32
3540-4D-10	4700	440	230/400 Δ/Y	1395	0.55	2.50/1.44	50	0055-32
3545-4W-13	5750	570	230/400 Δ/Y	1425	1.1	4.3/2.5	55	0055-32
3545-HD-10	3700/1900	215/50	400 Y/YY	935/425	0.3/0.075	1.0/0.44	55	0075-62
4550-4W-16	9450	650	230/400 Δ/Y	1455	2.2	8.05/4.65	87	0055-32
4550-HD-14	6200/3000	280/70	400 Y/YY	965/460	0.55/0.12	2.0/0.88	82	0075-62
4556-4W-17	11400	800	230/400 Δ/Y	1455	3	10.7/6.2	100	0055-32
4556-6W-13	7300	320	230/400 Δ/Y	925	0.75	3.4/1.98	94	0055-32
4556-HD-16	7300/3750	320/100	400 Y/YY	940/460	1.1/0.18	2.85/1.09	103	0075-62
5663-6W-16	11900	470	230/400 Δ/Y	970	1.5	6.4/3.7	181	0055-32
5663-HD-19	11900/5900	470/130	400 Y/YY	955/450	1.8/0.45	5.1/2.0	199	0075-62
5671-6W-21	14500	620	230/400 Δ/Y	970	3	12.1/7.0	190	0055-32
5671-HD-24	14500/7400	620/160	400 Y/YY	965/480	3.3/0.7	6.8/2.5	216	0075-62
7180-6W-24	25000	780	400 Δ	970	5.5	12.0	288	0075-62
7180-8D-21	18800	440	230/400 Δ/Y	700	2.2	9.9/5.7	300	0055-32
7180-HD-28	25000/12000	780/180	400 Y/YY	975/485	6.2/1.3	12.5/4.1	348	0075-62
7190-6W-28	33500	980	400 Δ	975	11.0	22.5	297	0110-62
7190-HD-26	33500/15800	975/485	400 Y/YY	975/485	9.0/2.0	18.5/6.2	390	0110-62
9090-4W-31	51900	2000	400 Δ	1465	22	41.5	590	0220-62
9090-ID-34	57200/38200	2200/1000	400 Y/Y	1470/980	26/9.5	49.0/20.0	640	0300-62
9090-GD-34	57200/28800	2200/590	400 Y/YY	1470/732	28/7.5	52.0/20.5	640	0300-62

### Safety Guards

All roof extract fans are supplied with a discharge-side mesh safety guard in accordance with DIN EN 294.

The inlet side is not fitted with a standard guard, because it is normal practice to connect other system parts to this end.

**However, if the unit is installed in such a way that accidental contact with the impeller is possible, an additional inlet guard has to be fitted acc. to DIN EN ISO 13857!**

The fans may only be put into operation if all necessary protection devices are fitted and made effective (see maintenance instructions)!

The safety guards are to be executed acc. to DIN EN ISO 12100 "Safety of machinery - Basic concepts, general principles for design".

### Safety instructions



**Transport, fitting, electrical connection, start up, and maintenance are to be executed following the instructions given in the manual and by respecting the actual standards, guide lines, and safety rules.**

**Please take care of the special cable lead when installing smoke extract fans.**

### Performance data

The performance curves are obtained using an inlet side test chamber in accordance with ISO 5801.

The performance grids show the effective pressure increase  $\Delta p_{fa}$  (or  $p_{sF}$ ) (Pressure increase obtained from the fan in free-field conditions) as a function of the flow volume  $V$  (or  $q_v$ ). Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ . The roof fans comply with the tolerances of Class 2 of DIN EN ISO 5801 "Industrial fans - Performance testing using standardized airways"

### Sound Data

Measurement and evaluation of noise levels are in accordance with DIN 45 635 - 38 "Sound measurements on machines; fans". In the technical data the A-weighted sound power level at maximum flow rate is given.

The computer aided data collection and evaluation enables to obtain highly reliable data precision. In the curves the emission value of the A-sound-power level  $L_{WA}$  is given, having the same value for intake ( $L_{WA3}$ ) as for the discharge ( $L_{WA8}$ ). For more exact calculations when determining the required attenuation, the sound power level in the octave bands is important.

$$L_{W\text{okt } 3/8} \text{ (or } L_{Wfc \ 3/8}) = L_{WA} + L_{Wrel \ 3/8}$$

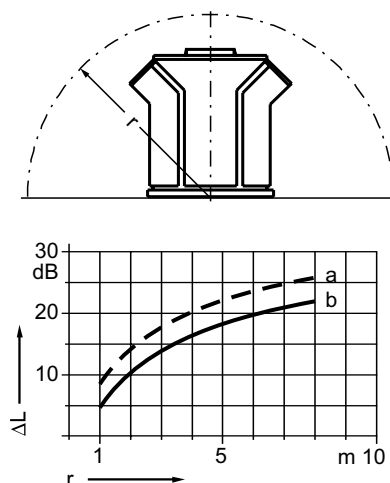
The relative sound power levels for inlet and discharge sides, at various duty points, can be read from the corresponding tables.

### Calculation of the sound pressure level

Because conditions in the operating environment are usually far from ideal for measurement and can vary greatly, a determination of the A-sound-pressure level at any distance is only possible with great uncertainty.

$$L_{pA} \approx L_{WA} - \Delta L$$

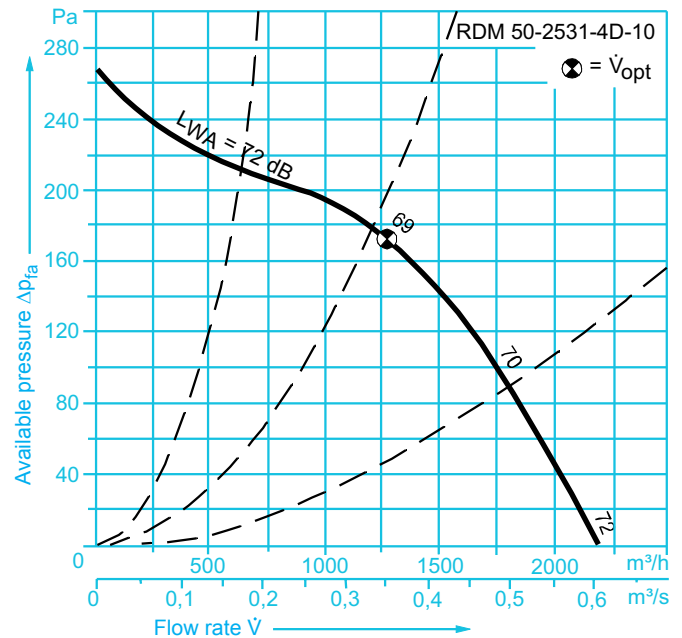
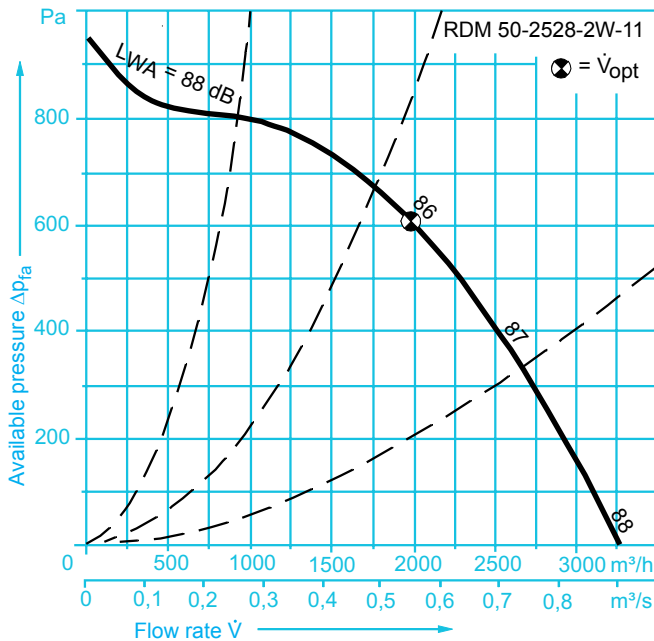
The diagram below supplies the correction value " $\Delta L$ " in function of the distance " $r$ " from the fan centre. Under ideal conditions, with a clear hemisphere of sound propagation, curve "a" is valid. However, curve "b" is recommended for practical estimates. The calculation of the intake sound-power level is only possible if the exact noise parameters of the connected room are known (see VDI 2081!).



# Smoke extract fans ER

## Technical data

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
2528-2W-11	3300	950	230/400 Δ/Y	2830	1.1	4.16/2.4	39	0055-32
2531-4D-10	2200	270	230/400 Δ/Y	1395	0.55	2.51/1.45	35	0055-32



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3} = L_{WA8}$ ) acc. to DIN 45635-38.  
Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .

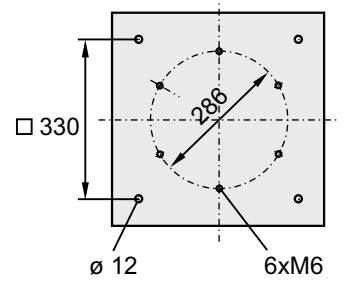
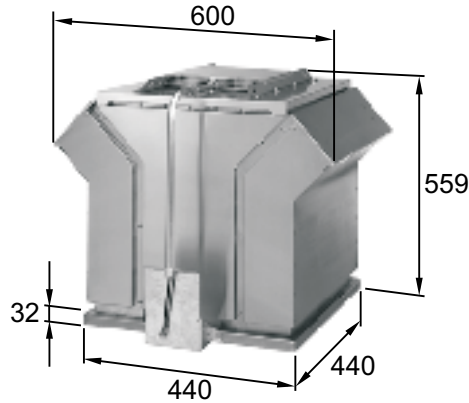
Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
<b>RDM 56/57-2528; -2531</b>																			
<b>2-poles</b>																			
Duty point	63	125	250	500	1000	2000	4000	8000	Hz	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	16	12	3	-4	-13	-17	-20	-27	dB	0.5 $\dot{V}_{opt}$	-5	0	0	-2	-5	-8	-12	-19	dB
$\dot{V}_{opt}$	1	1	6	-3	-12	-14	-15	-24	dB	$\dot{V}_{opt}$	-8	-6	-1	-3	-6	-8	-9	-17	dB
$\dot{V}_{max}$	-2	-4	-5	-3	-12	-16	-15	-19	dB	$\dot{V}_{max}$	-9	-8	-3	-2	-6	-8	-8	-15	dB
<b>4-poles</b>																			
Duty Point	63	125	250	500	1000	2000	4000	8000	Hz	Duty Point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	13	12	2	-3	-10	-14	-19	-27	dB	0.5 $\dot{V}_{opt}$	-2	0	-2	-3	-5	-8	-13	-21	dB
$\dot{V}_{opt}$	9	12	1	-3	-10	-13	-18	-27	dB	$\dot{V}_{opt}$	-5	0	-2	-3	-5	-7	-13	-21	dB
$\dot{V}_{max}$	4	10	1	-2	-10	-13	-15	-23	dB	$\dot{V}_{max}$	-10	-1	-4	-3	-5	-6	-12	-19	dB

# Smoke extract fans ER

## Dimensions

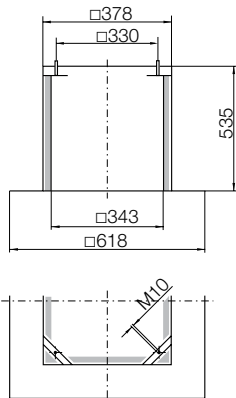
### Dimensions

RDM 56/57 2528-2W-11  
RDM 56/57 2531-4D-10

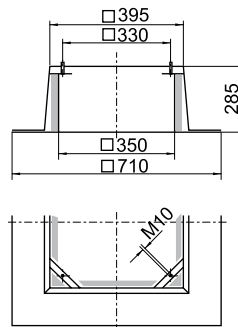


### Flat roof upstand

**ZBS 10-0040**  
(600 °C), 14 kg

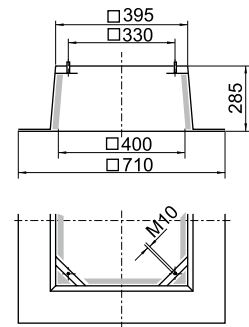


**ZBS 03-0040**  
(600 °C), 8 kg

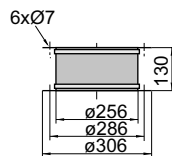


**ZBS 20-0040**

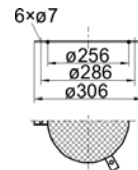
For RDM56 only, when connected to duct, 8 kg



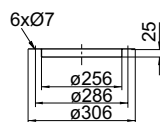
**Flexible connection at intake**  
**ZKE 30-0250** (600 °C), 1.7 kg



**Mesh safety guard**  
**ZSG 04-0250**, 0.4 kg

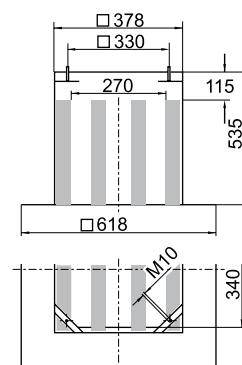


**Mating flange**  
**ZKF 11-0250** (600 °C), 0.6 kg



**Silencer upstand ZDS 32-0040**  
(600 °C), 18 kg

Robust casing of coated sheet steel.  
ZDS 32-0400 with removable baffles.



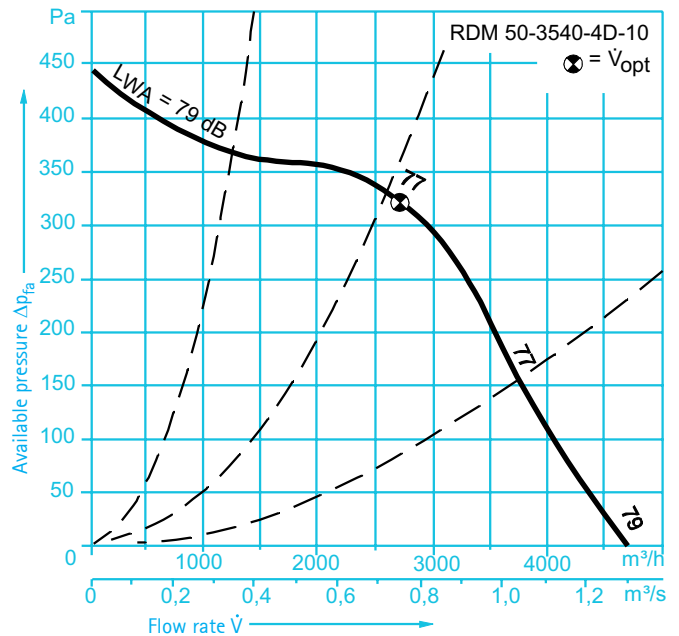
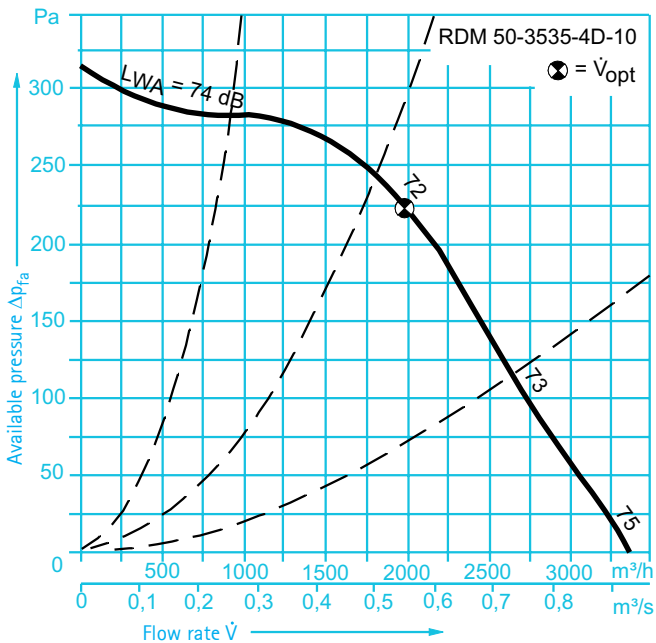
Average attenuation  $L_{WA}$  16 dB

Attenuation in dB at mid frequencies in Hz			
63 Hz	3 dB	1000 Hz	19 dB
125 Hz	5 dB	2000 Hz	23 dB
250 Hz	8 dB	4000 Hz	21 dB
500 Hz	13 dB	8000 Hz	15 dB

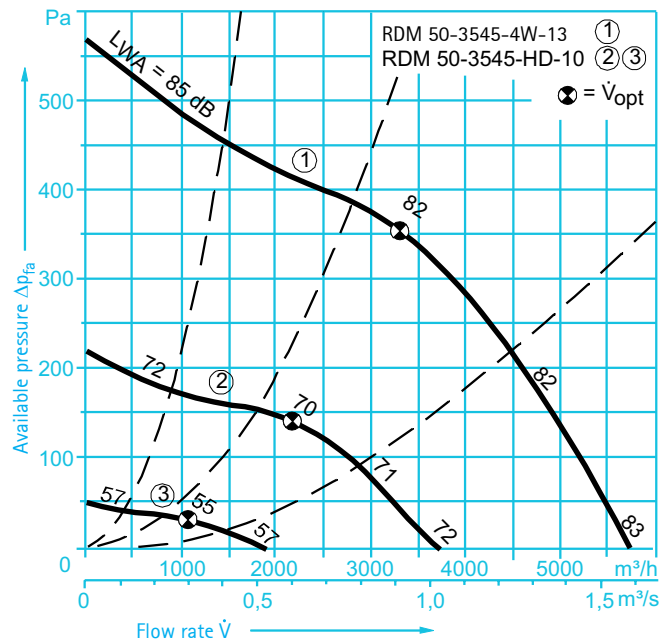
Pressure loss  $p_A$  through silencer upstand  
In Pa, at flow rates in m<sup>3</sup>/h

m <sup>3</sup> /h	Pa
1500	25
2000	40
3000	100
4000	170

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
3535-4D-10	3370	320	230/400 Δ/Y	1395	0.55	2.51/1.45	44	0055-32
3540-4D-10	4700	440	230/400 Δ/Y	1395	0.55	2.51/1.45	50	0055-32
3545-4W-13	5750	570	230/400 Δ/Y	1425	1.1	4.3/2.5	55	0055-32
3545-HD-10	3700 / 1900	215/50	400 Y/YY	935/425	0.3/0.075	1.0/0.44	55	0075-62



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3} = L_{WA8}$ ) acc. to DIN 45635-38. Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .



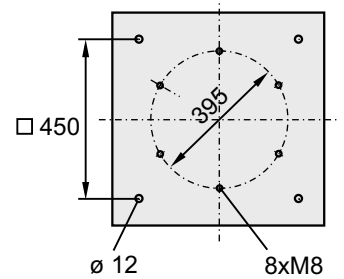
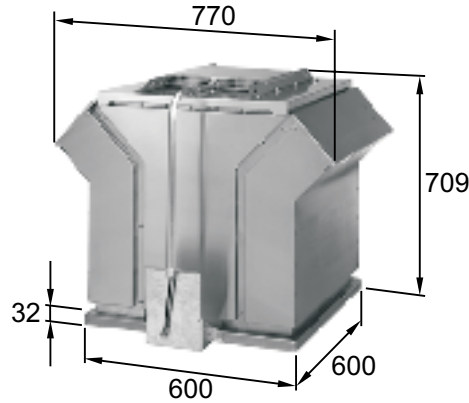
Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
<b>RDM 56/57-3535; -3540; - 3545</b>																			
<b>4-poles</b>																			
Duty Point	63	125	250	500	1000	2000	4000	8000	Hz	Duty Point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	13	11	2	-2	-11	-16	-21	-27	dB	0.5 $\dot{V}_{opt}$	-3	4	-1	-4	-6	-7	-12	-20	dB
$\dot{V}_{opt}$	9	11	2	-2	-11	-16	-20	-24	dB	$\dot{V}_{opt}$	-6	4	-1	-4	-6	-7	-12	-19	dB
$\dot{V}_{max}$	6	9	2	-1	-12	-17	-19	-21	dB	$\dot{V}_{max}$	10	4	-1	-3	-6	-7	-13	-17	dB
<b>6-poles</b>																			
Duty Point	63	125	250	500	1000	2000	4000	8000	Hz	Duty Point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	16	10	1	-1	-10	-16	-22	-27	dB	0.5 $\dot{V}_{opt}$	1	6	0	-3	-6	-9	-16	-25	dB
$\dot{V}_{opt}$	14	11	2	-2	11	-17	-22	-29	dB	$\dot{V}_{opt}$	-1	6	0	-4	-6	-9	-15	-25	dB
$\dot{V}_{max}$	11	13	3	-1	-12	-17	-21	-29	dB	$\dot{V}_{max}$	-1	6	1	-3	-6	-8	-13	-25	dB

# Smoke extract fans ER

## Dimensions

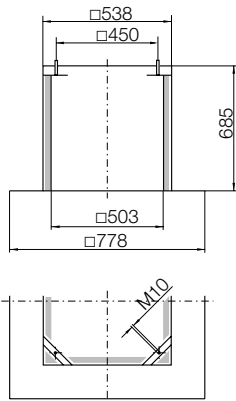
### Dimensions

- RDM 56/57 3535-4D-10
- RDM 56/57 3540-4D-10
- RDM 56/57 3545-4W-13
- RDM 56/57 3540-HD-10

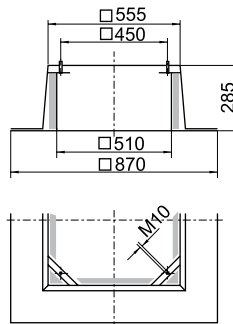


### Flat roof upstand

**ZBS 10-0056**  
(600 °C), 30 kg

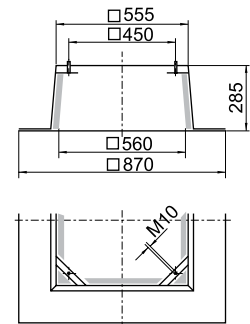


**ZBS 03-0056**  
(600 °C), 10 kg

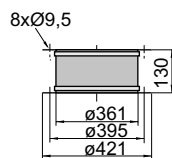


**ZBS 20-0056**

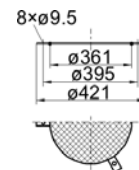
For RDM56 only, when connected to duct, 10 kg



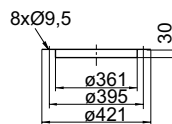
**Flexible connection at intake**  
**ZKE 30-0355** (600 °C), 2.7 kg



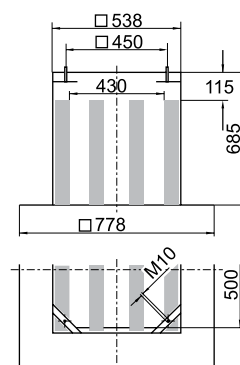
**Mesh safety guard**  
**ZSG 04-0355**, 0.6 kg



**Mating flange**  
**ZKF 11-0355** (600 °C), 0.9 kg



**Silencer upstand ZDS 32-0056**  
(600 °C), 40 kg  
with removable baffles



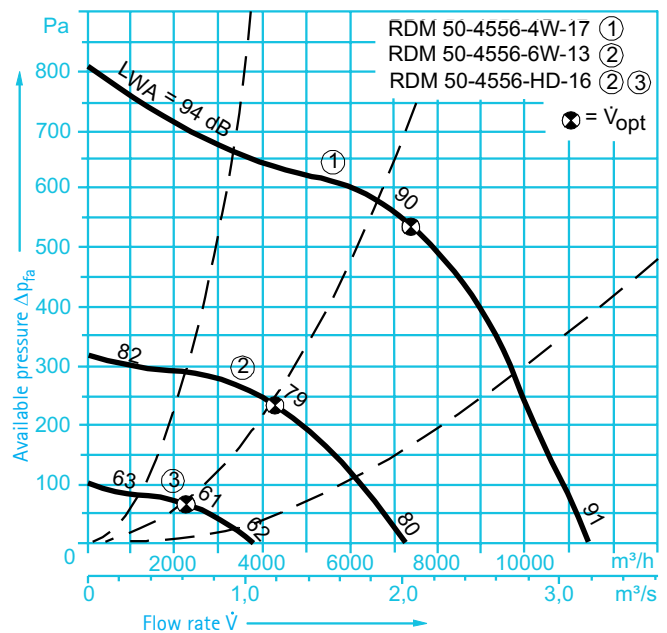
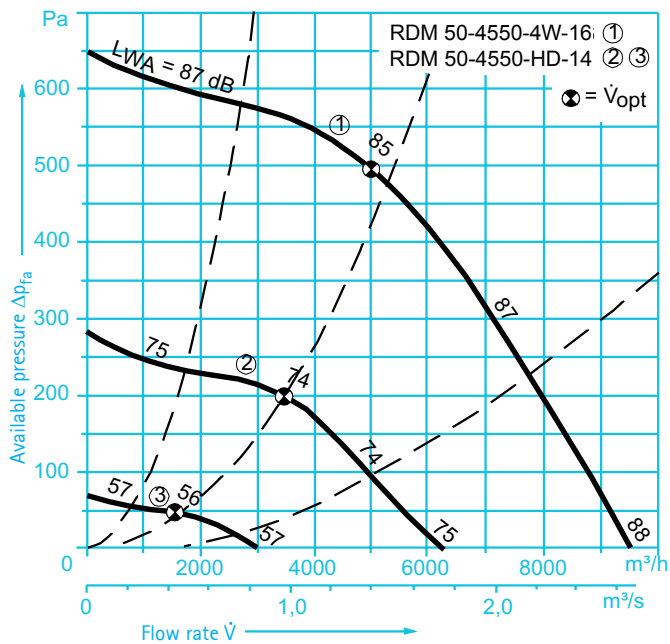
Average attenuation  $L_{WA}$  16 dB

Attenuation in dB at mid frequencies in Hz			
63 Hz	3 dB	1000 Hz	18 dB
125 Hz	5 dB	2000 Hz	21 dB
250 Hz	8 dB	4000 Hz	20 dB
500 Hz	12 dB	8000 Hz	15 dB

Pressure loss  $p_A$  through silencer upstand  
In Pa, at flow rates in  $m^3/h$

$m^3/h$	Pa
3000	25
4000	42
6000	80
8000	160

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
4550-4W-16	9450	650	230/400 Δ/Y	1455	2.2	8.05/4.65	87	0055-32
4550-HD-14	6200/3000	280/70	400 Y/YY	965/460	0.55/0.12	2.0/0.88	82	0075-62
4556-4W-17	11400	800	230/400 Δ/Y	1455	3	10.7/6.2	100	0055-32
4556-6W-13	7300	320	230/400 Δ/Y	925	0.75	3.4/1.98	94	0055-32
4556-HD-16	7300/3750	320/100	400 Y/YY	940/460	1.1/0.18	2.85/1.09	103	0075-62



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3}=L_{WA8}$ ) acc. to DIN 45635-38. Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .

Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
<b>RDM 56/57-4550; - 4556</b>																			
<b>4-poles</b>																			
Duty point	63	125	250	500	1000	2000	4000	8000	Hz	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	14	10	1	-2	-11	-14	-15	22	dB	0.5 $\dot{V}_{opt}$	1	5	0	-4	-5	-9	-13	-20	dB
$\dot{V}_{opt}$	9	12	0	-3	-11	-15	-15	-21	dB	$\dot{V}_{opt}$	-4	8	-1	-5	-6	-9	-12	-19	dB
$\dot{V}_{max}$	3	9	1	-2	-12	-16	-16	-12	dB	$\dot{V}_{max}$	-8	8	-2	-4	-6	-9	-15	-12	dB
<b>6-poles</b>																			
Duty point	63	125	250	500	1000	2000	4000	8000	Hz	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	15	11	1	-2	-11	-15	-16	-23	dB	0.5 $\dot{V}_{opt}$	2	4	1	-4	-5	-7	-13	-22	dB
$\dot{V}_{opt}$	11	13	-1	-4	-12	-16	-17	-25	dB	$\dot{V}_{opt}$	0	4	0	-4	-6	-8	-13	-22	dB
$\dot{V}_{max}$	7	15	3	-1	10	-14	-12	-21	dB	$\dot{V}_{max}$	-4	6	1	-3	-6	-8	-12	-22	dB

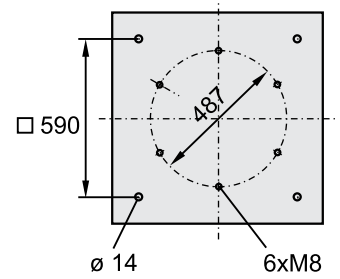
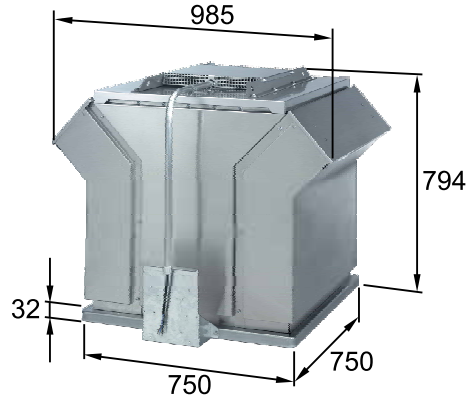


# Smoke extract fans ER

## Dimensions

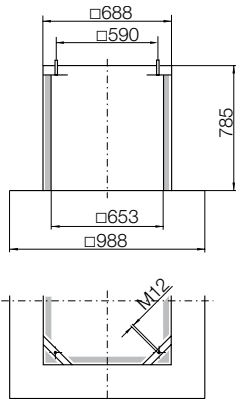
### Dimensions

- RDM 56/57 4550-4W-16
- RDM 56/57 4550-HD-14
- RDM 56/57 4556-4W-17
- RDM 56/57 4556-6W-13
- RDM 56/57 4556-HD-16

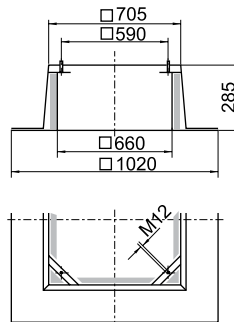


### Flat roof upstand

**ZBS 10-0071**  
(600 °C), 60 kg

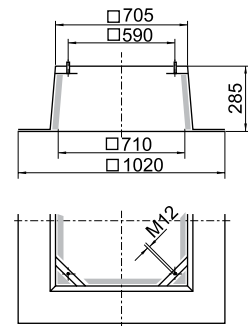


**ZBS 03-0071**  
(600 °C), 16 kg

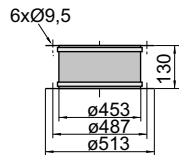


**ZBS 20-0071**

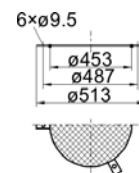
For RDM56 only, when connected to ducts, 16 kg



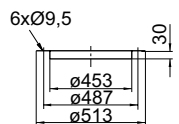
**Flexible connection at intake**  
**ZKE 30-0450** (600 °C), 3.5 kg



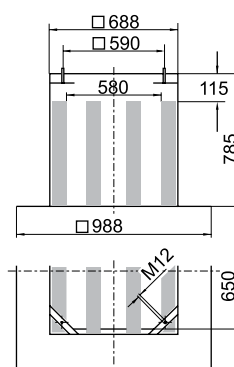
**Mesh safety guard**  
**ZSG 04-0450**, 0.7 kg



**Mating flange**  
**ZKF 11-0450** (600 °C), 1.2 kg



**Silencer upstand ZDS 32-0071**  
(600 °C), 79 kg



Average attenuation  $L_{WA}$  17 dB

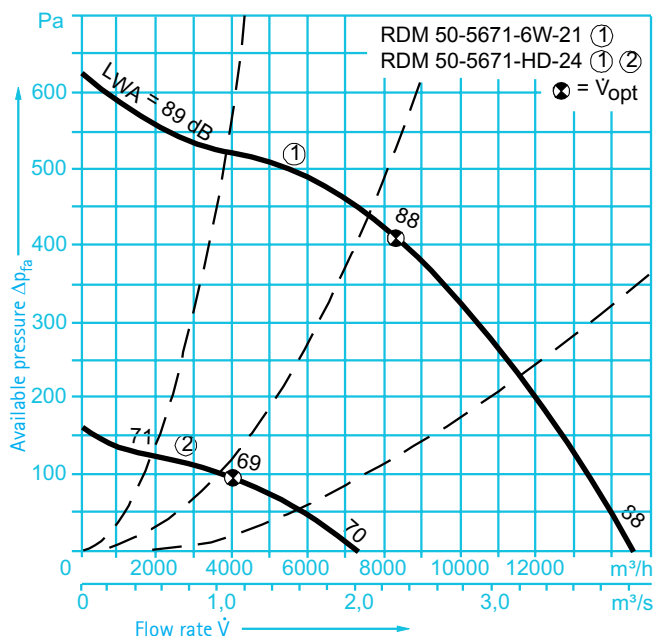
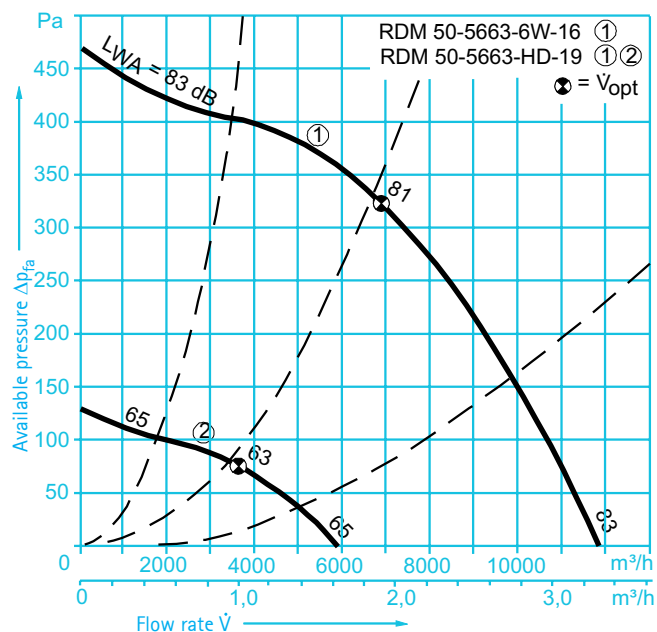
Attenuation in dB at mid frequencies in Hz			
63 Hz	3 dB	1000 Hz	20 dB
125 Hz	5 dB	2000 Hz	25 dB
250 Hz	9 dB	4000 Hz	22 dB
500 Hz	13 dB	8000 Hz	17 dB

Pressure loss  $p_A$  through silencer upstand

In Pa, at flow rates in m<sup>3</sup>/h

m <sup>3</sup> /h	Pa
5000	25
8000	60
10000	95
12000	110

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
5663-6W-16	11900	470	230/400 Δ/Y	970	1.5	6.4/3.7	181	0055-32
5663-HD-19	11900/5900	470/130	400 Y/YY	955/450	1.8/0.45	5.1/2.0	199	0075-62
5671-6W-21	14500	620	230/400 Δ/Y	970	3	12.1/7.0	190	0055-32
5671-HD-24	14500/7400	620/160	400 Y/YY	965/480	3.3/0.7	6.8/2.5	216	0075-62
4556-HD-16	7300/3750	320/100	400 Y/YY	940/460	1.1/0.18	2.85/1.09	103	0075-62



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3} = L_{WA8}$ ) acc. to DIN 45635-38. Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .

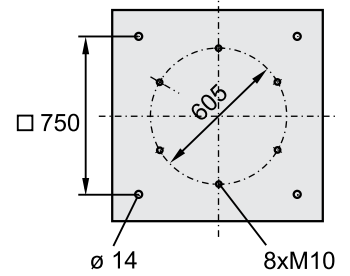
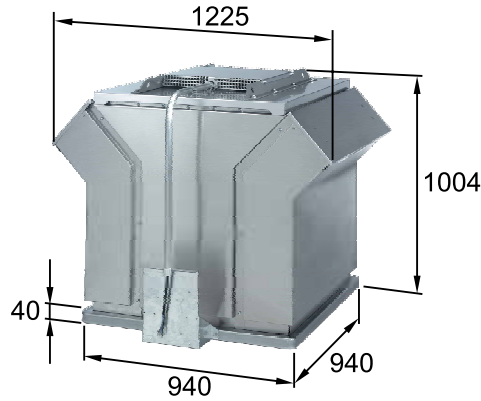
Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
<b>RDM 56/57-5663; - 5671</b>																			
<b>6-poles</b>																			
<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz	<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz
<b>0.5 <math>\dot{V}_{opt}</math></b>	14	11	1	-2	-9	-14	-16	-23	dB	<b>0.5 <math>\dot{V}_{opt}</math></b>	2	3	0	-3	-5	-8	-13	-21	dB
<b><math>\dot{V}_{opt}</math></b>	11	12	-1	-4	-10	-15	-16	-22	dB	<b><math>\dot{V}_{opt}</math></b>	1	3	-1	-4	-5	-8	-12	-19	dB
<b><math>\dot{V}_{max}</math></b>	7	13	1	-2	-9	-13	-10	-15	dB	<b><math>\dot{V}_{max}</math></b>	-3	4	-1	-4	-6	-8	-11	-16	dB

# Smoke extract fans ER

## Dimensions

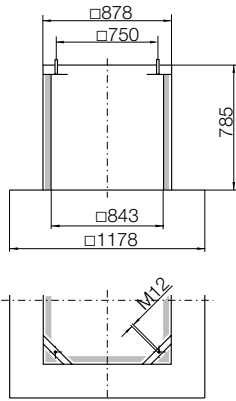
### Dimensions

- RDM 56/57 5663-6W-16
- RDM 56/57 5663-HD-19
- RDM 56/57 5671-6W-21
- RDM 56/57 5671-HD-24

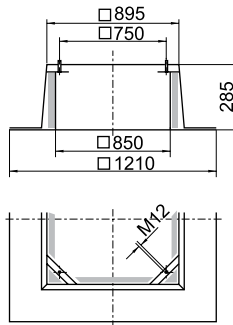


### Flat roof upstand

**ZBS 10-0090**  
(600 °C), 80 kg

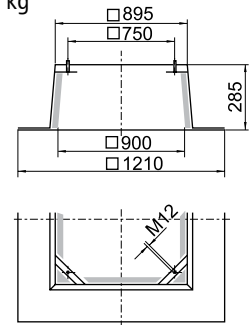


**ZBS 03-0090**  
(600 °C), 25 kg

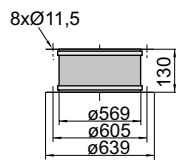


**ZBS 20-0090**

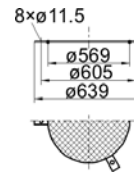
For RDM56 only, when connected to duct, 25 kg



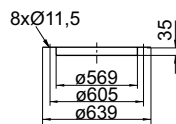
**Flexible connection at intake**  
**ZKE 30-0560** (600 °C), 5.0 kg



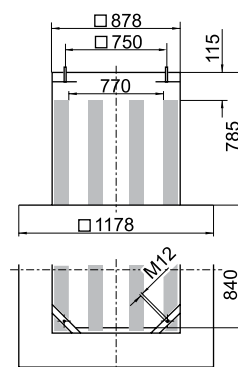
**Mesh safety guard**  
**ZSG 04-0560**, 0.8 kg



**Mating flange**  
**ZKF 11-0560** (600 °C), 1.8 kg



**Silencer upstand ZDS 32-0090**  
(600 °C), 105 kg



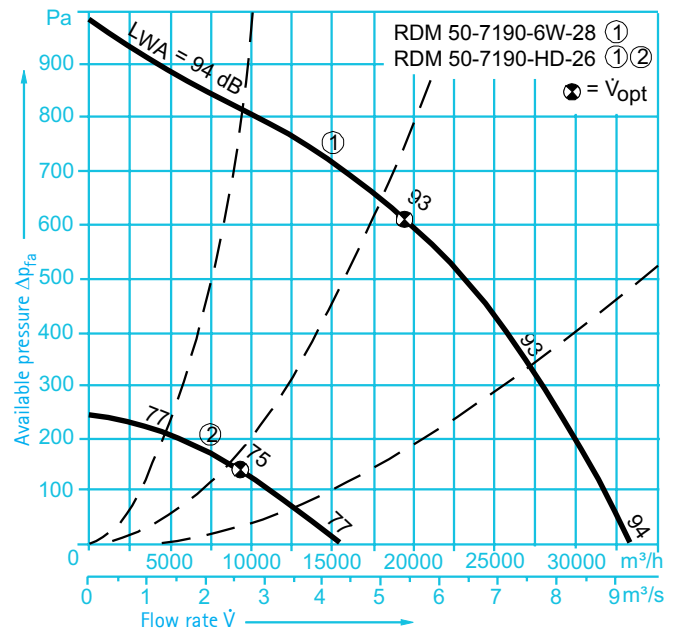
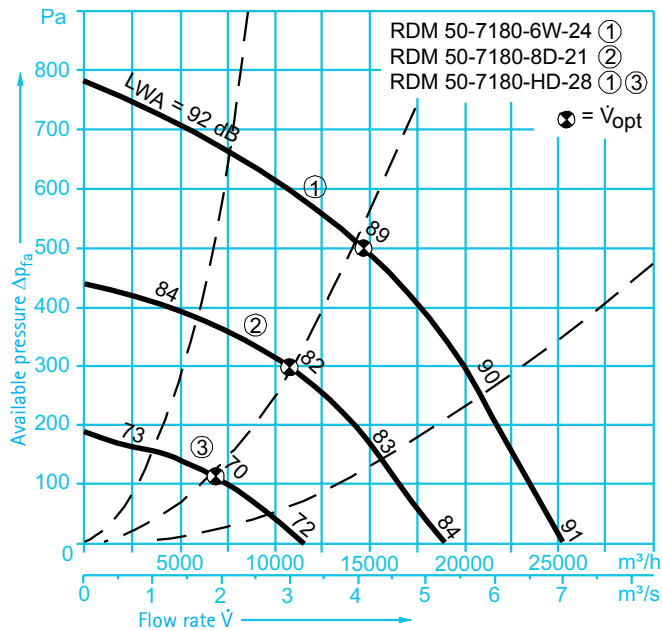
Average attenuation  $L_{WA}$  15 dB

Attenuation in dB at mid frequencies in Hz			
63 Hz	2 dB	1000 Hz	17 dB
125 Hz	5 dB	2000 Hz	21 dB
250 Hz	8 dB	4000 Hz	19 dB
500 Hz	11 dB	8000 Hz	13 dB

Pressure loss  $p_A$  through silencer upstand

In Pa, at flow rates in m <sup>3</sup> /h	
m <sup>3</sup> /h	Pa
10000	20
15000	40
20000	80
30000	180

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
7180-6W-24	25000	780	400/690 Δ/Y	970	5.5	12.8/7.4	288	0075-62
7180-8D-21	18800	440	230/400 Δ/Y	700	2.2	9.9/5.7	300	0055-32
7180-HD-28	25000/12000	780/180	400 Y/YY	975/485	6.2/1.3	12.5/4.1	348	0075-62
7190-6W-28	33500	980	400 Δ	975	9	22.5	297	0110-62
7190-HD-26	33500/15800	980/240	400 Y/YY	975/485	9.0/2.0	18.5/6.2	390	0110-62



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3}=L_{WA8}$ ) acc. to DIN 45635-38. Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .

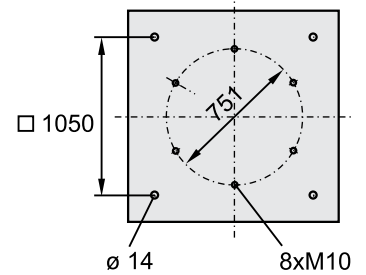
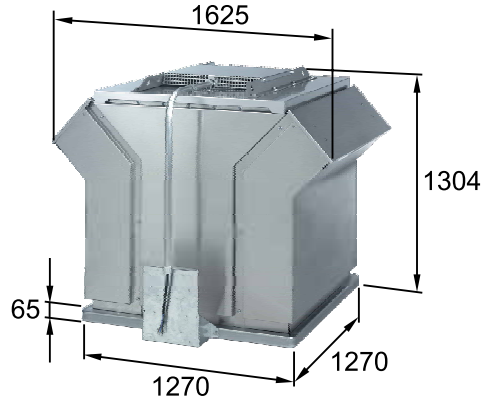
Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
RDM 56/57-7180; - 7190																			
6-poles																			
Duty point	63	125	250	500	1000	2000	4000	8000	Hz	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	15	11	1	-2	-10	-14	-16	-23	dB	0.5 $\dot{V}_{opt}$	2	4	1	-4	-5	-8	-13	-21	dB
$\dot{V}_{opt}$	11	13	-1	-4	-11	-15	-17	-23	dB	$\dot{V}_{opt}$	1	4	0	-4	-6	-8	-13	-21	dB
$\dot{V}_{max}$	7	14	3	-1	-10	-13	-12	-19	dB	$\dot{V}_{max}$	-3	4	0	-3	-6	-8	-12	-20	dB
8-poles																			
Duty point	63	125	250	500	1000	2000	4000	8000	Hz	Duty point	63	125	250	500	1000	2000	4000	8000	Hz
0.5 $\dot{V}_{opt}$	15	5	1	-2	-8	-14	-17	-24	dB	0.5 $\dot{V}_{opt}$	3	1	-1	-3	-6	-8	-15	-23	dB
$\dot{V}_{opt}$	15	4	0	-3	-7	-13	-15	-24	dB	$\dot{V}_{opt}$	3	0	-2	-3	-5	-8	-14	-23	dB
$\dot{V}_{max}$	15	3	1	-3	-9	-14	-13	-25	dB	$\dot{V}_{max}$	3	2	0	-3	-6	-9	-10	-23	dB

# Smoke extract fans ER

## Dimensions

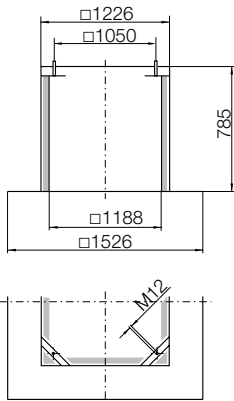
### Dimensions

- RDM 56/57 7180-6W-24
- RDM 56/57 7180-8D-21
- RDM 56/57 7180-HD-28
- RDM 56/57 7190-6W-28
- RDM 56/57 7190-HD-26

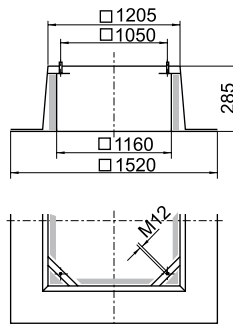


### Flat roof upstand

**ZBS 10-0125**  
(600 °C), 103 kg

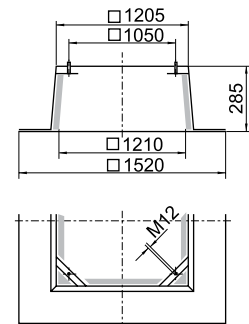


**ZBS 03-0125**  
(600 °C), 34 kg

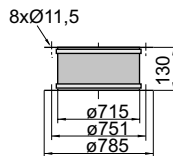


**ZBS 20-0125**

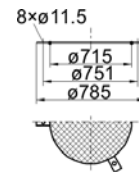
For RDM56 only, when connected to duct,  
34 kg



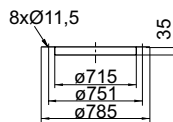
**Flexible connection at intake**  
**ZKE 30-0710** (600 °C), 7.3 kg



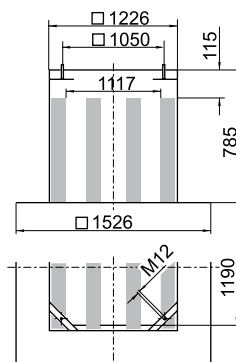
**Mesh safety guard**  
**ZSG 04-0710**, 1.1 kg



**Mating flange**  
**ZKF 11-0710** (600 °C), 2.8 kg



**Silencer upstand ZDS 32-0125**  
(600 °C), 180 kg



Average attenuation  $L_{WA}$  16 dB

Attenuation in dB at mid frequencies in Hz			
63 Hz	3 dB	1000 Hz	20 dB
125 Hz	6 dB	2000 Hz	25 dB
250 Hz	8 dB	4000 Hz	23 dB
500 Hz	14 dB	8000 Hz	11 dB

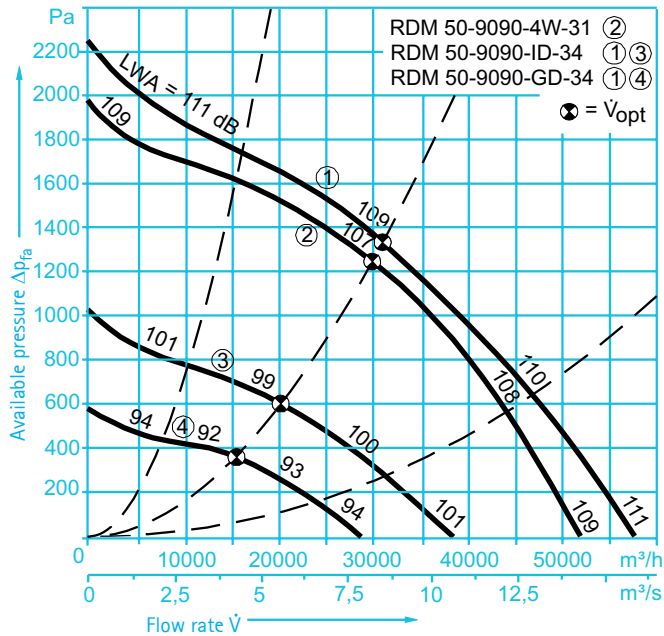
Pressure loss  $p_A$  through silencer upstand  
In Pa, at flow rates in  $m^3/h$

$m^3/h$	Pa
17000	20
20000	30
25000	40
30000	65
40000	110

# Smoke extract fans ER

## Technical data

Smoke extract fan ER	Flow rate	Available pressure	Voltage	Speed	Motor rating	Rated current	Weights	Isolator switch
RDM 56/57-	m <sup>3</sup> /h	Pa	V	1/min	kW	A	kg	ESH 21
9090-4W-31	51900	2000	400/690 Δ/Y	1465	22	41.5/24.1	590	0220-62
9090-ID-34	57200/38200	2200/1000	400 Y/Y	1470/980	26/9.5	49.0/20.0	640	0300-62
9090-GD-34	57200/28800	2200/590	400 Y/YY	1470/732	28/7.5	52.0/20.5	640	0300-62



In the curves the A-weighted sound power level is  $L_{WA}$  ( $=L_{WA3} = L_{WA8}$ ) acc. to DIN 45635-38. Reference media density:  $\rho_1 = 1.15 \text{ kg/m}^3$ .

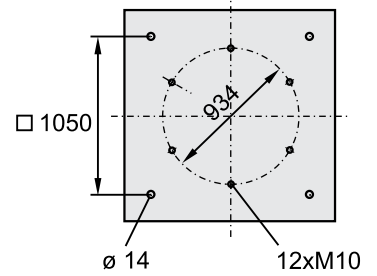
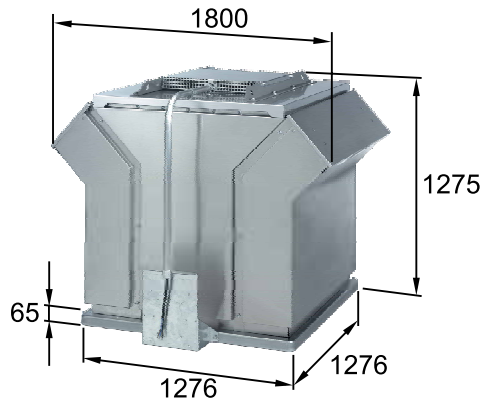
Intake										Discharge									
Relative sound power level $L_{Wrel3}$ at octave mid frequencies $f_m$										Relative sound power level $L_{Wrel8}$ at octave mid frequencies $f_m$									
<b>RDM 56/57-9090</b>																			
<b>4-poles</b>																			
<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz	<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz
<b>0.5 <math>\dot{V}_{opt}</math></b>	15	11	1	-2	-10	-14	-16	-23	dB	<b>0.5 <math>\dot{V}_{opt}</math></b>	2	4	1	-4	-5	-8	-13	-21	dB
<b><math>\dot{V}_{opt}</math></b>	11	13	-1	-4	-11	-15	-17	-23	dB	<b><math>\dot{V}_{opt}</math></b>	1	4	0	-4	-6	-8	-13	-21	dB
<b><math>\dot{V}_{max}</math></b>	7	14	3	-1	-10	-13	-12	-19	dB	<b><math>\dot{V}_{max}</math></b>	-3	4	0	-3	-6	-8	-12	-20	dB
<b>6-poles</b>																			
<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz	<b>Duty point</b>	63	125	250	500	1000	2000	4000	8000	Hz
<b>0.5 <math>\dot{V}_{opt}</math></b>	15	11	1	-2	-10	-14	-16	-23	dB	<b>0.5 <math>\dot{V}_{opt}</math></b>	2	4	1	-4	-5	-8	-13	-21	dB
<b><math>\dot{V}_{opt}</math></b>	11	13	-1	-4	-11	-15	-17	-23	dB	<b><math>\dot{V}_{opt}</math></b>	1	4	0	-4	-6	-8	-13	-21	dB
<b><math>\dot{V}_{max}</math></b>	7	14	3	-1	-10	-13	-12	-19	dB	<b><math>\dot{V}_{max}</math></b>	-3	4	0	-3	-6	-8	-12	-20	dB

# Smoke extract fans ER

## Dimensions

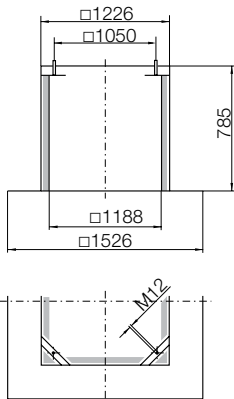
### Dimensions

RDM 56/57 9090-4W-31  
 RDM 56/57 9090-ID-34  
 RDM 56/57 9090-GD-34

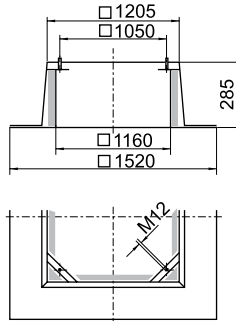


### Flat roof upstand

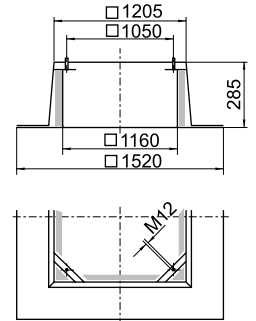
ZBS 10-0125



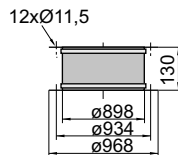
ZBS 33-0125 (600 °C)  
 For RDM 57, 66 kg



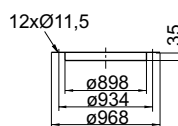
ZBS 31-0125 (400 °C)  
 For RDM 56, 66 kg



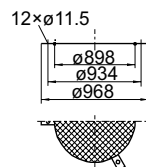
Flexible connection at intake  
 ZKE 33-0900 (600 °C), 9.6 kg



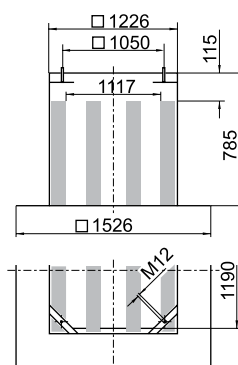
Mating flange  
 ZKF 11-0900 (600 °C), 3.4 kg



Mesh safety guard  
 ZSG 04-0900, 1.6 kg



Silencer upstand ZDS 32-0125  
 (600 °C), 180 kg



Average attenuation  $L_{WA}$  16 dB

Attenuation in dB at mid frequencies in Hz			
63 Hz	3 dB	1000 Hz	20 dB
125 Hz	6 dB	2000 Hz	25 dB
250 Hz	8 dB	4000 Hz	23 dB
500 Hz	14 dB	8000 Hz	11 dB

Pressure loss  $p_A$  through silencer upstand  
 In Pa, at flow rates in  $m^3/h$

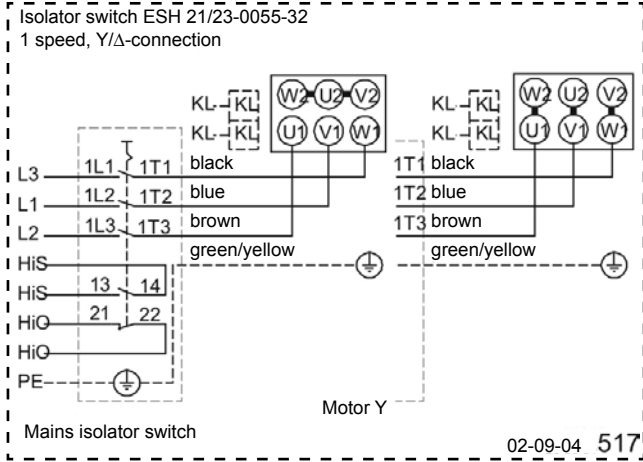
$m^3/h$	Pa
17000	20
20000	30
25000	40
30000	65
40000	110

# Smoke extract fans ER

# Isolator switches

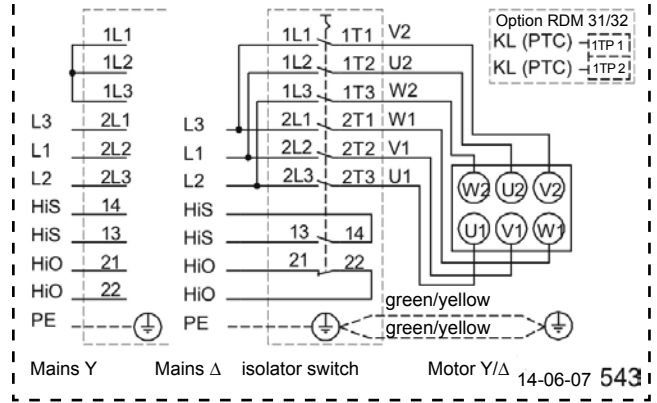
## Isolator switch ESH 21-0055-32 for

ER 2528-2W-11, ER 2531-4D-10  
 ER 3535-4D-10, ER 3540-4D-10, ER 3545-4W-13  
 ER 4550-4DW-16, ER 4556-4W-17, ER 4556-6W-13  
 ER 5663-6W-16, ER 5671-6W-21  
 ER 7180-8D-21



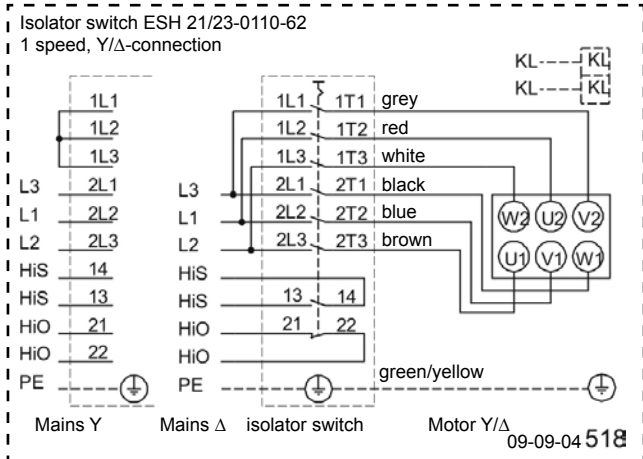
## Isolator switch ESH 21-0220-62 for

ER 9090-4W-31  
 Isolator switch ESH 21/23-0220-62  
 for 3-phase motors, 1 speed, Y/Δ-connection



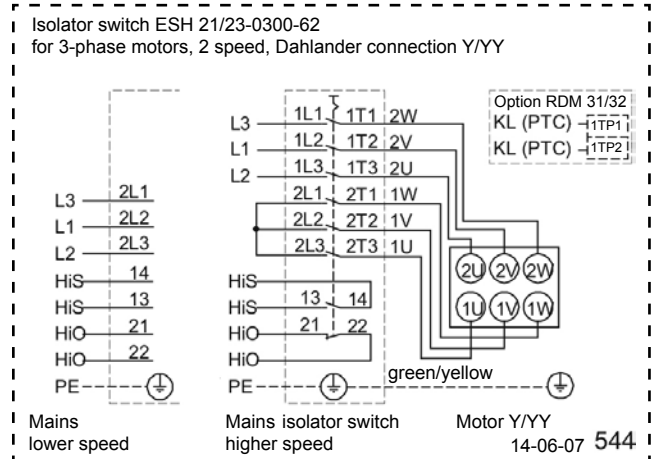
## Isolator switch ESH 21-0110-62 for

ER 7190-HD-26, ER 7190-6W-28



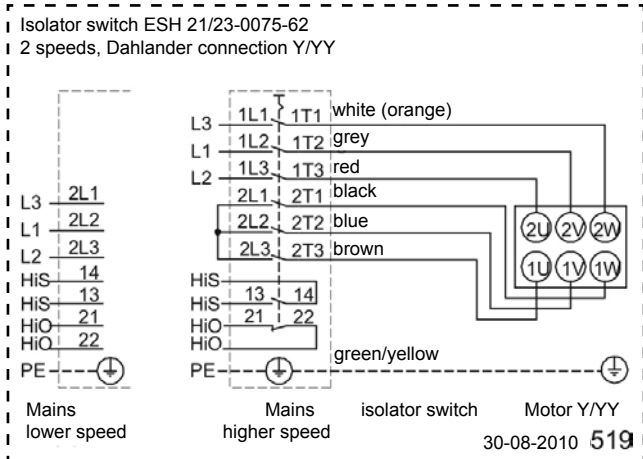
## Isolator switch ESH 21-0300-62 for

ER 9090-GD-34  
 Isolator switch ESH 21/23-0300-62  
 for 3-phase motors, 2 speed, Dahlander connection Y/YY



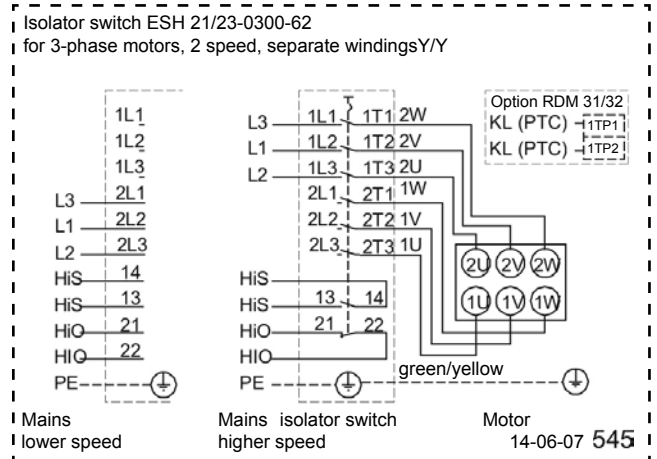
## Isolator switch ESH 21-0075-62 for

ER 3545-HD-10,  
 ER 4550-HD-14, ER 4556-HD-16  
 ER 5663-HD-19, ER 5671-HD-24  
 ER 7180-6W-24, ER 7180-HD-28



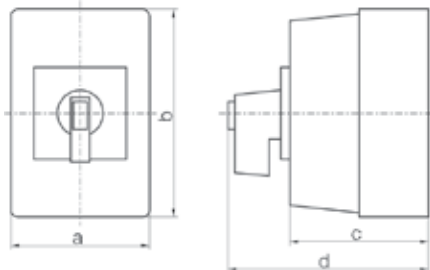
## Isolator switch ESH 21-0300-62 for

ER 9090-ID-34  
 Isolator switch ESH 21/23-0300-62  
 for 3-phase motors, 2 speed, separate windings Y/Y





### Isolator switch ESH 21



#### Execution

Clear grey plastic casing for on surface fitting. Protection IP 65. Black handle for positions "0" and "I". Cover coupling with integrated locking device.

Clear terminal arrangement. Every switch is equipped with a wiring diagram.

#### Function

The isolator switch is installed for isolating the smoke extract fan from the mains safely on site in case of checking, cleaning, or maintenance works. So accidents by uncontrolled switching on can be avoided and service operations will be eased.

Every isolator switch is provided with potential free contacts (1 open, 1 closed).

ESH 21	A	B	C	D
0055-32	85	120	80	138
0075-62	100	190	91	149
0110-62	100	190	91	149
0220-62	145	250	100	158
0300-62	200	300	172	245

### Smoke detector switch panel EBG (on request)



#### Execution

Robust coated sheet steel casing, protection IP 54, are integrated. Permitted surrounding temperature up to +40 °C.

Signals and buttons arranged on the front door.

#### Function

If there is a fire, the smoke detector switch automatically switches on a smoke extract fan. Any motor overload relays or inverters are bypassed and two-stage fans are switched to their higher speed.

The switch reacts as required to fire alarm sensors, manual activation buttons or direct activation by a fire alarm control panel (FACP). For this, use only allocated activation accessories. Manual activation via the function keys in the front panel is possible.

### ARM-1 / AMM-2 Automatic smoke detector



#### ARM-1 automatic smoke detector

The ARM-1 smoke detector is an optical smoke detector for threshold systems. It contains a labyrinth measuring chamber to exclude external light. Any smoke ingress is detected. Intelligent evaluation of the measuring chamber signal ensures a high level of operational reliability. The smoke detector remains in standby after being triggered. It is reset by briefly switching off the supply voltage.



#### AMM-2 automatic multi sensor smoke detector

The AMM-2 multi sensor detector is an optical/thermal detector for threshold systems. In addition to the optical smoke detector it is equipped with a thermal sensor for temperature capture.

#### ARM-1 / AMM-2 specification

Rated voltage	9 - 33 V DC
Standby current	approx. 0.1 mA
Alarm current	approx. 20 mA
Signal	red LED for alarm
Humidity	max. 95% RH / 40 °C
Ambient temperature	-10 °C to +60 °C
Monitoring area	max. 60 m <sup>2</sup> to Vds
Enclosure protection class	IP 40
Dimensions	Ø 100 mm x H 52 mm
Approval	G 203035 Vds
Designation	CE

#### AMM-2

Responsiveness	60 °C < 0.15 dB/m
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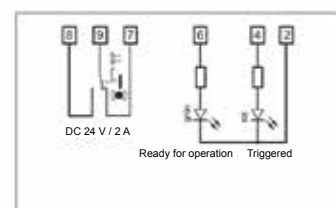
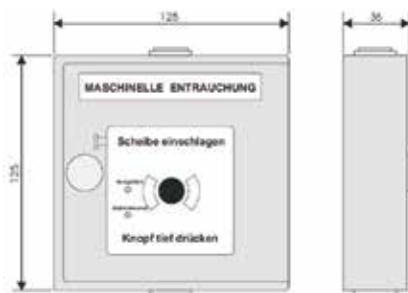
### DKM-2K-OR Pushbutton detector

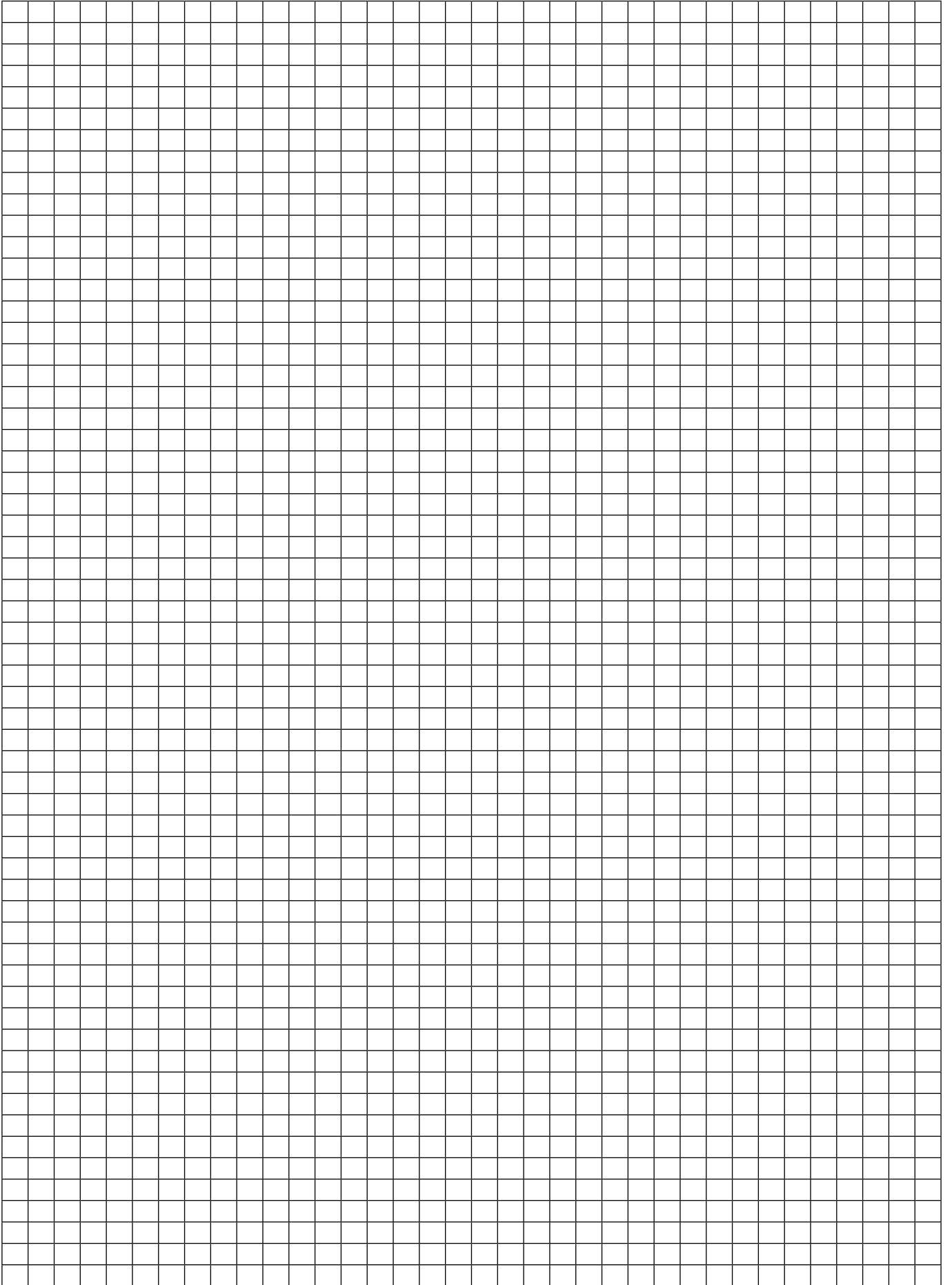


#### Description

The pushbutton detector comprises a flat aluminium or plastic enclosure with door. It is equipped with a standard lock and replaceable thin glass window for protection against accidental activation. In the event of an emergency the glass is broken to trigger the detector. The system status is shown by the indicator lights READY FOR OPERATION (betriebsbereit) and TRIGGERED (ausgelöst).

The DKM-2K-OR has a maintained-contact actuator which is locked in the triggered position. The system can only be reset by using the concealed stop lever. The trigger contacts of several detectors must be connected in series. To delete the trigger signal on the EBG, all detectors must be reset again. The detector loop is monitored for wire break.







The comprehensive equipment range from system supplier Wolf offers the ideal solution for commercial and industrial buildings, for new build and for modernisation projects alike. The range of Wolf control units fulfils every need where heating convenience is concerned. The products are easy to operate, energy-efficient and reliable. Photovoltaic and solar heating systems can be quickly integrated into existing systems. All Wolf products can be easily and rapidly commissioned and maintained.

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