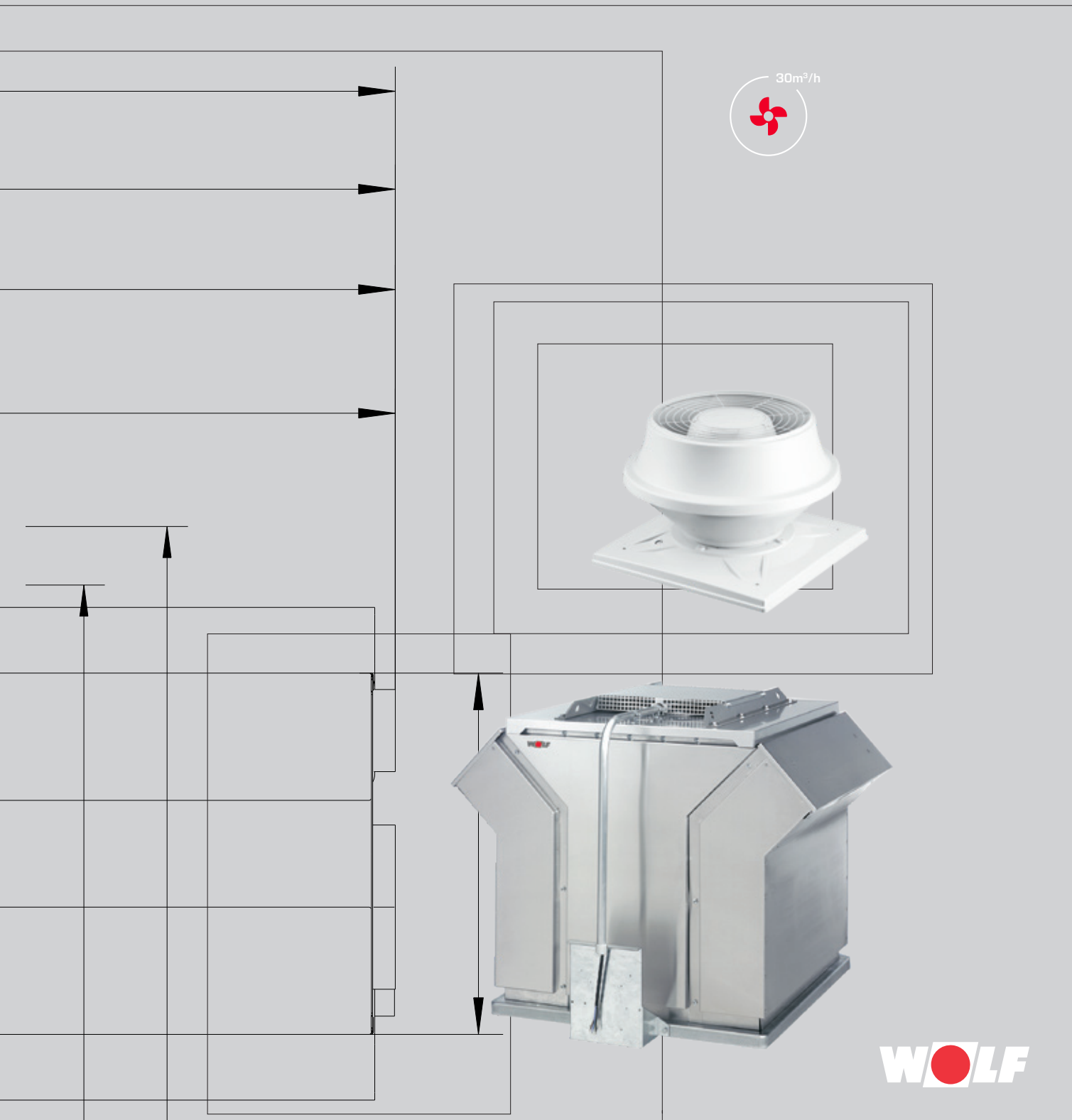
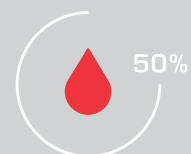
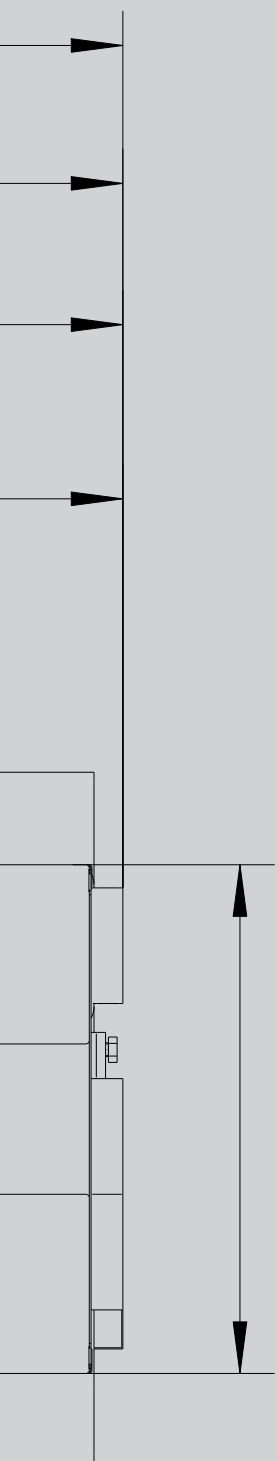


TECHNICAL DOCUMENTATION

WOLF VENTILATION UNITS

ROOF EXTRACT FAN DV-2 / SMOKE EXTRACT FAN ER





THE EXTENSIVE EQUIPMENT RANGE

from system supplier WOLF offers the ideal solution for commercial and industrial buildings, new build and modernisation projects alike.

The range of WOLF control units can meet any requirement for heating convenience.

All equipment is easy to operate, highly energy efficient and reliable.

Solar thermal systems can be swiftly integrated into existing systems.

WOLF equipment is easy and quick to install and maintain.

ROOF EXTRACT FAN DV-2	DESCRIPTION	04
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ROOF EXTRACT FAN DV-2

DESCRIPTION



- Application range: 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.



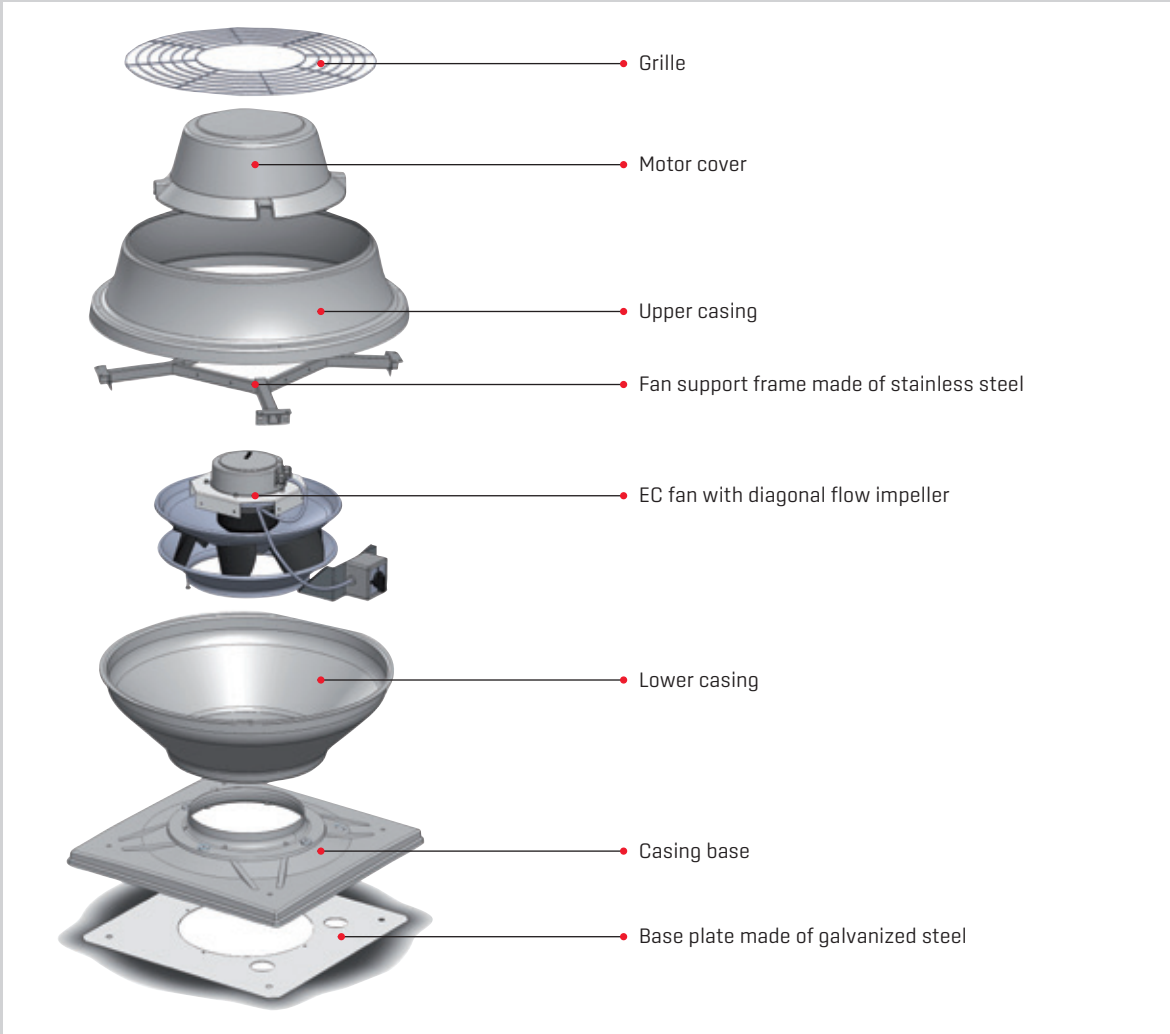
- The DV-2 is equipped with advanced EC motor technology as standard and is available in 6 sizes, with air handling rates of up to 13,000 m³/h. The casing is made of weather-resistant plastic (colour: light grey, RAL 7035) and the special design ensures that the extract air is removed in a vertical stream 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.



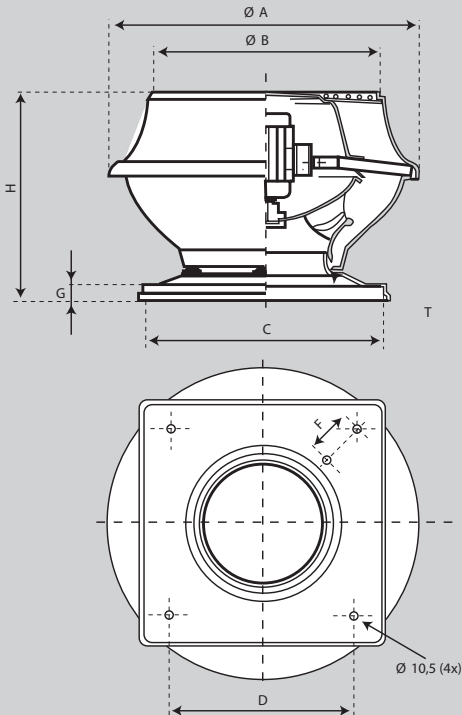
- The energy saving EC fans feature variable speed control via a 0-10 V signal, the appropriate speed controller is available as an accessory. A Modbus interface is integrated as standard. The motor electronics are equipped with integral overload protection, therefore no motor overload relay is required.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

ROOF EXTRACT FAN DV-2 UNIT LAYOUT / DIMENSIONS

UNIT LAYOUT



DIMENSIONS



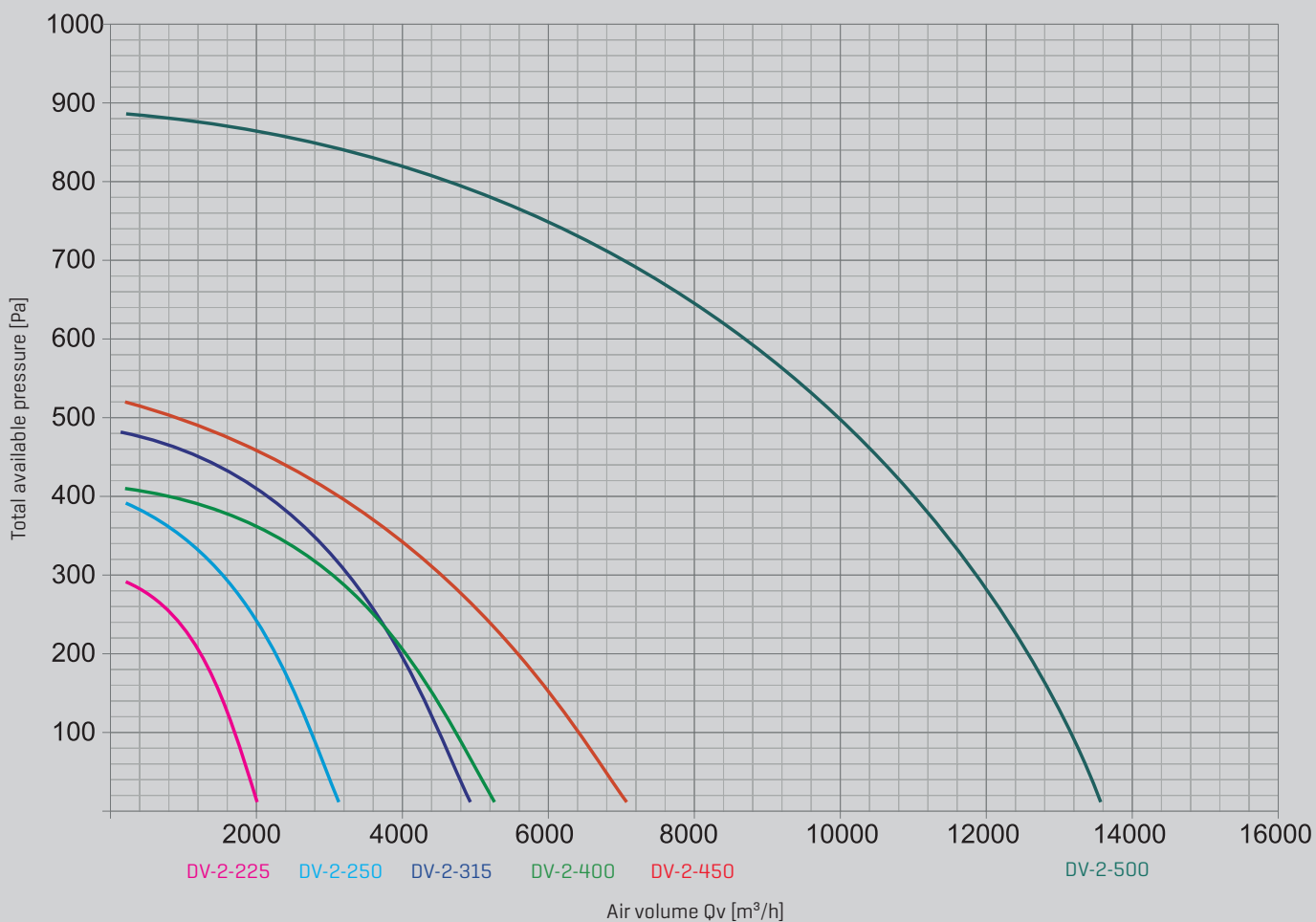
TYPE	Ø A	Ø B	C	D	F	G	H
DV-2-225	622	466	425	330	75	40	415
DV-2-250	710	540	565	450	100	40	435
DV-2-315	768	588	565	450	100	40	500
DV-2-400	860	640	645	535	120	40	550
DV-2-450	990	740	710	590	120	50	640
DV-2-500	1130	860	915	750	180	50	690

ROOF EXTRACT FAN DV-2 SELECTION

OVERVIEW OF TYPES

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. speed [rpm]	Max. pel [kW]	MAX. CURRENT [A]	Flow medium temperature [°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		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		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 EN ISO 13857. The inlet side is supplied without a grille as standard, as other 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 EN ISO 13857 must be attached to the fan.

Variable speed controller



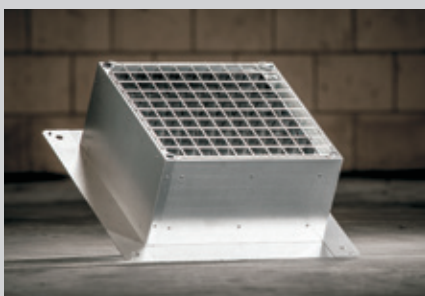
- For variable control of the roof extract fan
- Rating IP 30
- Dimensions 85 x 91 x 27 mm, colour: pure white

Flat roof upstand / high flat roof upstand



- For installing the DV-2 on a flat roof
- Casing made of reinforced fibre glass, colour: light grey (RAL 7035)
- Flat roof upstand version with insulation, high flat roof upstand version with installation space for intake silencer (benefit: all components can be installed on the roof, no additional space is required in the room)

Automatic locking cap for flat roof upstand



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

Automatic locking cap for high flat roof upstand

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

ROOF EXTRACT FAN DV-2 ACCESSORIES

Intake silencer



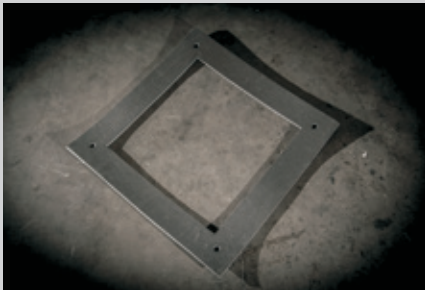
- Installation directly on the base of the roof extract fan casing for optimal sound attenuation
- Galvanized sheet steel enclosure, insulation material made of plastic
- Low pressure drop due to special shape of the insulation material
- Can be combined with flat roof upstand and high flat roof upstand

Duct connecting plate



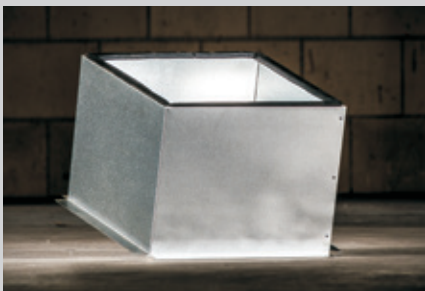
- For connection to a circular duct
- Made of galvanized sheet steel

Sealing plate



- For sealing the casing base, intake silencer or locking cap
- Closed cell, weather-resistant sealing material

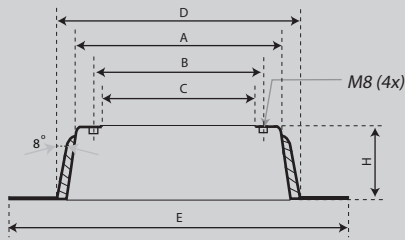
Connection piece



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

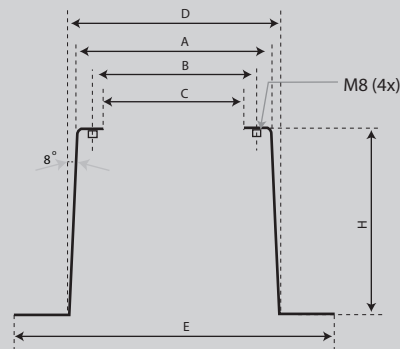
ROOF EXTRACT FAN DV-2 DIMENSIONS

Dimensions, flat roof upstand



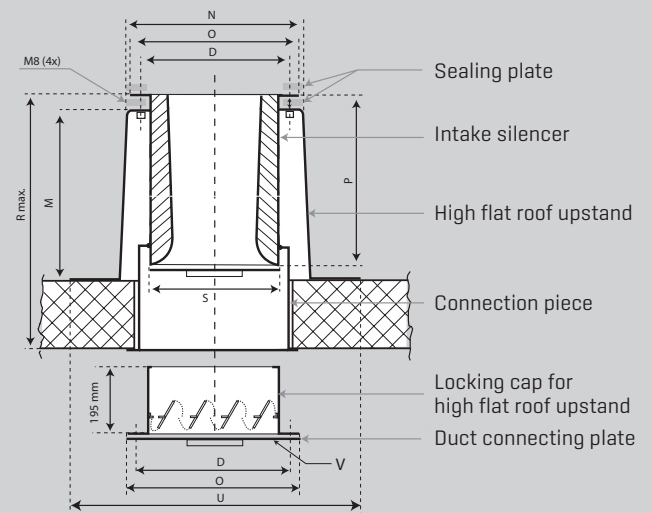
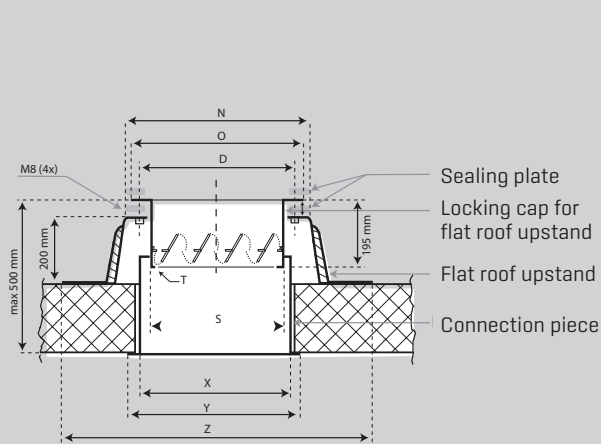
TYPE	A	B	C	D	E	H
DV-2-225	380	330	300	435	635	200
DV-2-250/315	520	450	420	575	780	200
DV-2-400	600	535	490	655	855	200
DV-2-450	670	590	560	725	920	200
DV-2-500	870	750	700	925	1150	200

Dimensions, high flat roof upstand



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

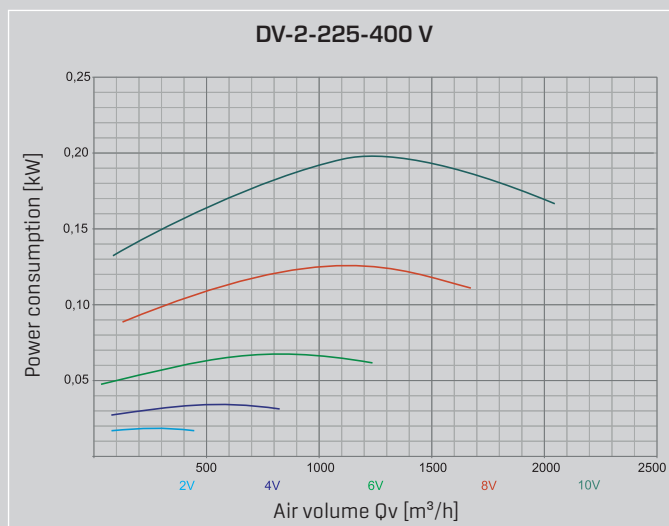
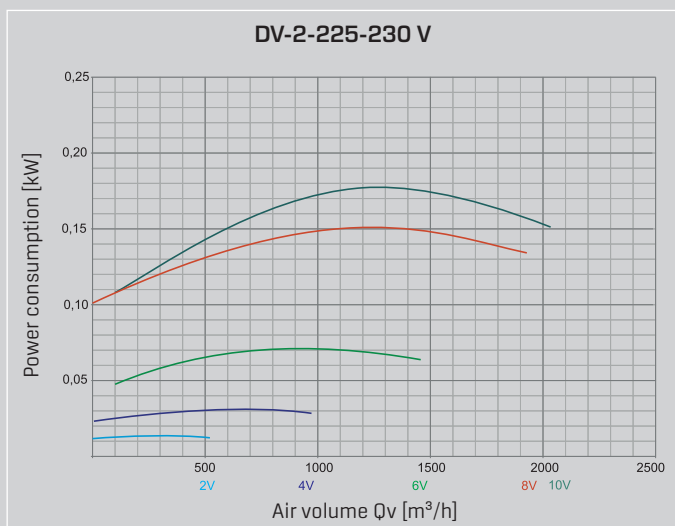
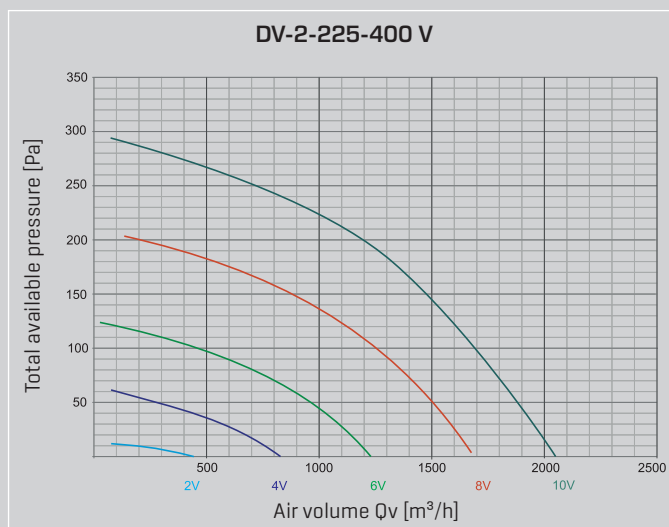
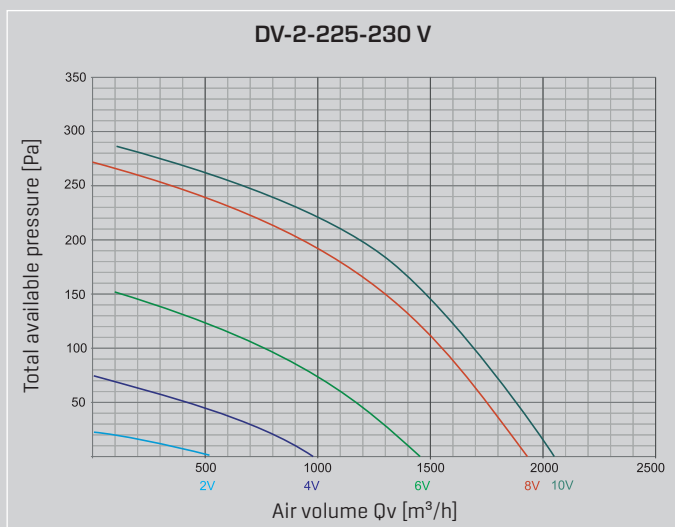


TYPE	D	M	N	O	P	R	S	T	U	V	X	Y	Z
DV-2-225	330	500	380	370	495	800	285	M6x15 (6x)	720	Ø7 (6x)	321	383	640
DV-2-250	450	500	520	510	495	800	387	M6x15 (6x)	860	Ø7 (6x)	423	485	780
DV-2-315	450	500	520	510	495	800	387	M8x15 (6x)	860	Ø9 (6x)	423	485	780
DV-2-400	535	500	600	600	495	800	477	M6x15 (6x)	940	Ø9 (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]	Max. V [m ³ /h]	Max. speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°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



ROOF EXTRACT FAN DV-2 PERFORMANCE OVERVIEW 225

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

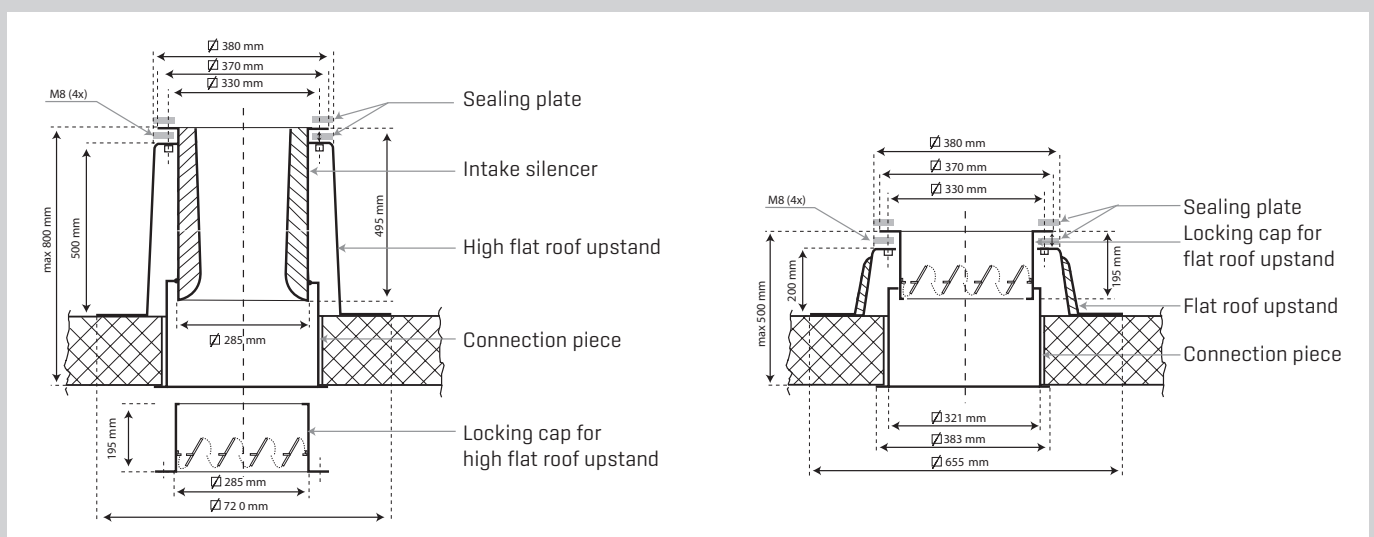
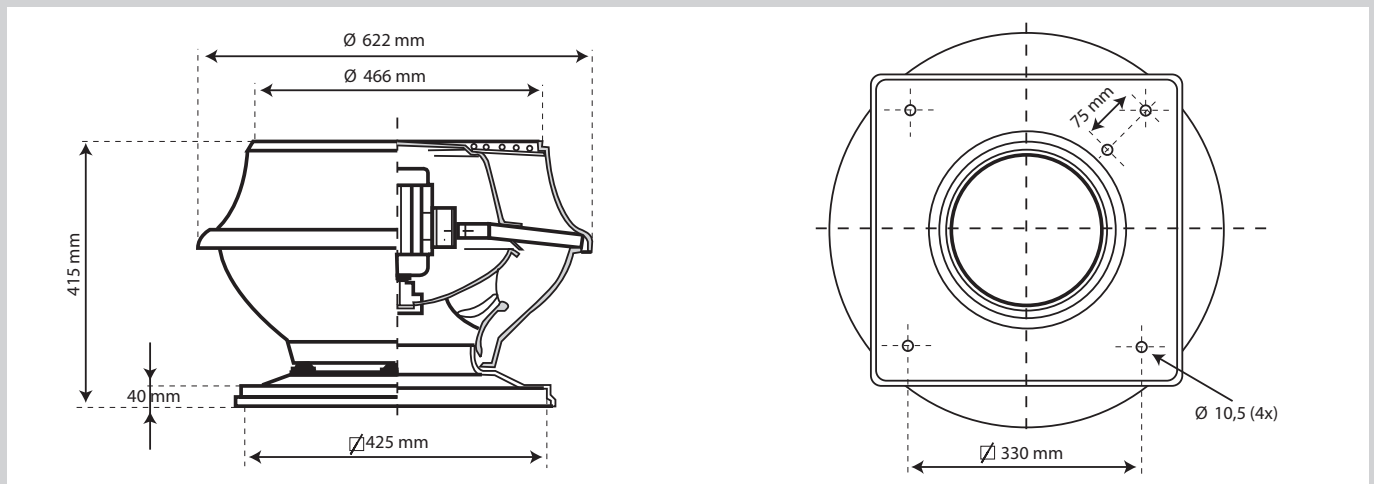
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-225	1600	150	49	55	47	49	38	36	31	52

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]
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.

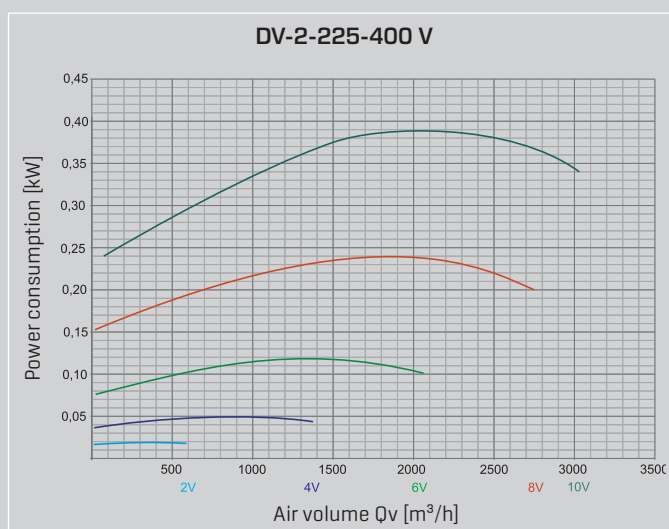
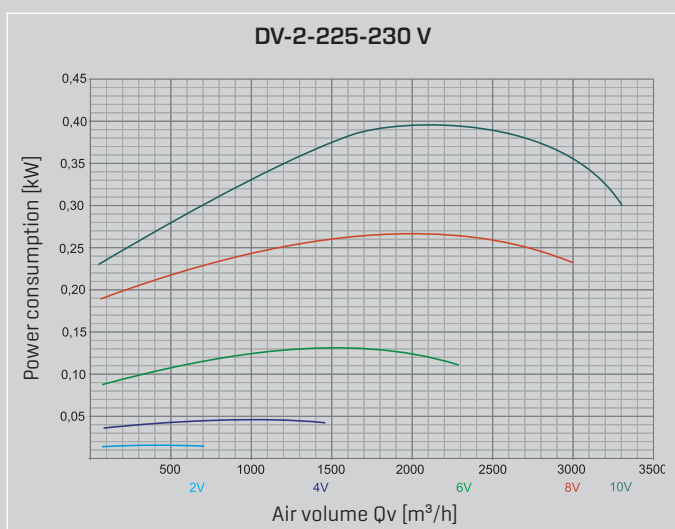
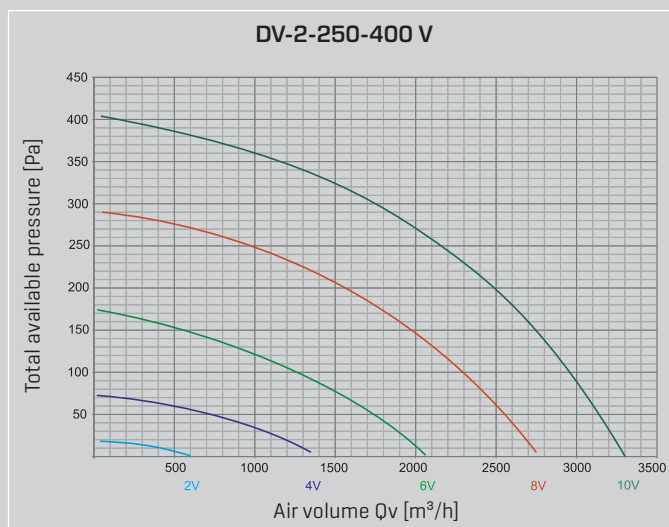
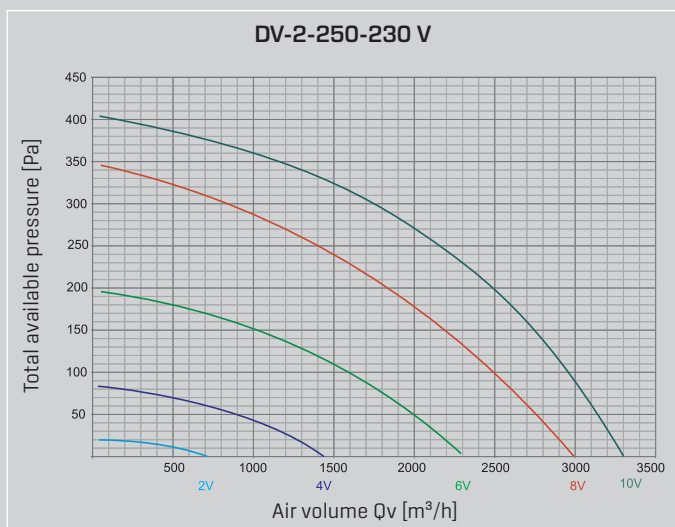
DIMENSIONS



ROOF EXTRACT FAN DV-2

PERFORMANCE OVERVIEW 250

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°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	0.7	-20 to +40	15



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

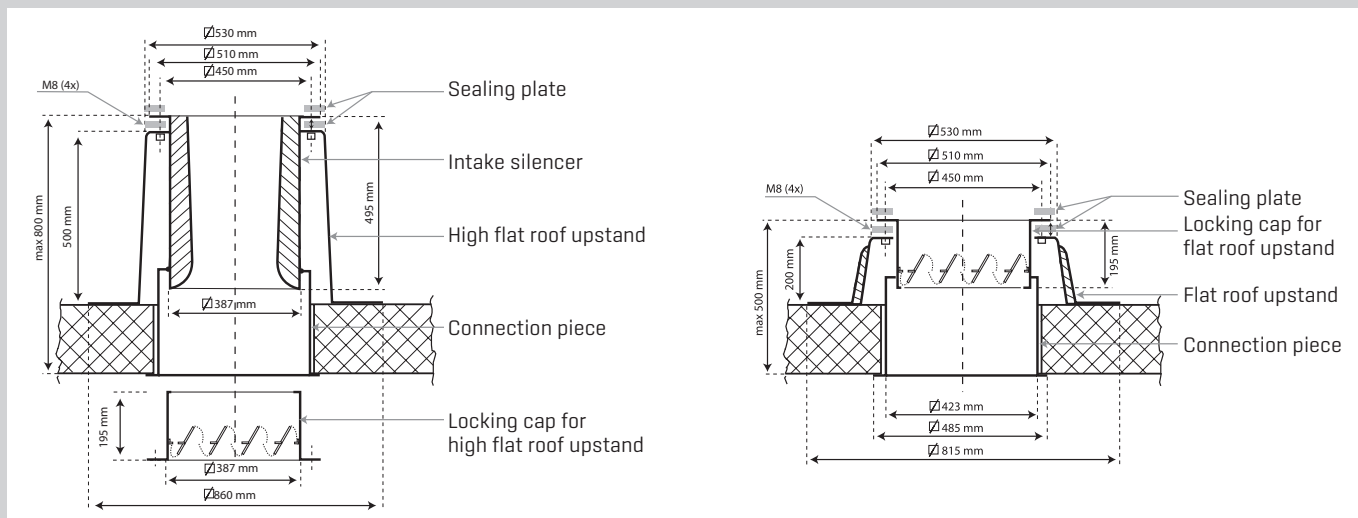
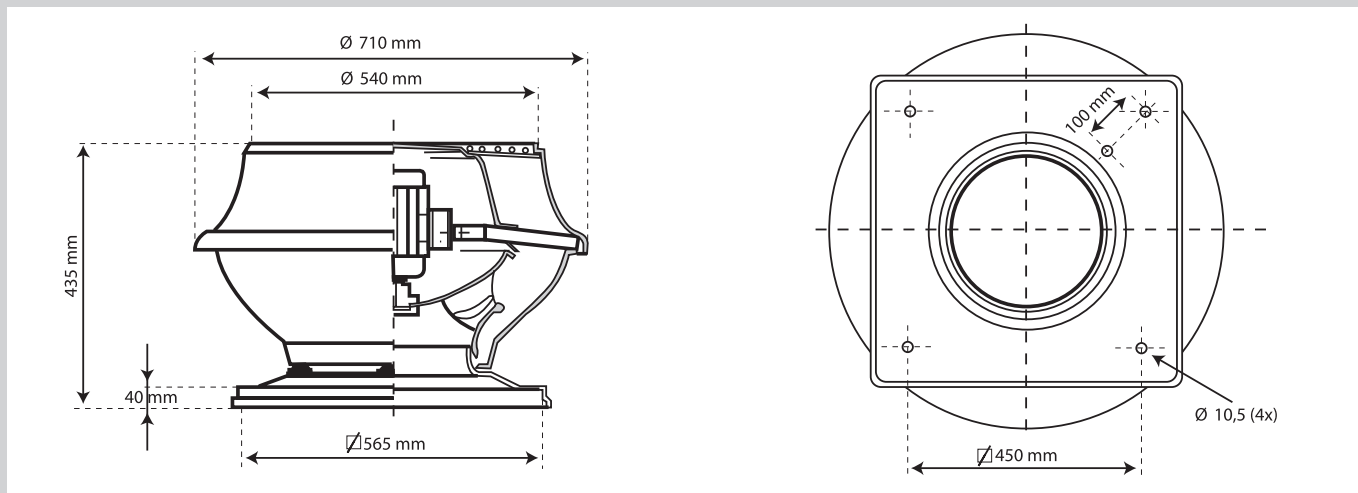
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-250	1600	150	57	58	54	51	43	44	33	56

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]
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.

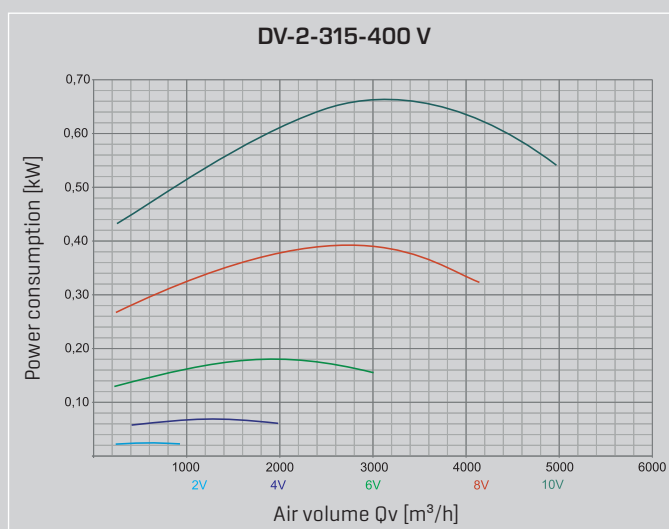
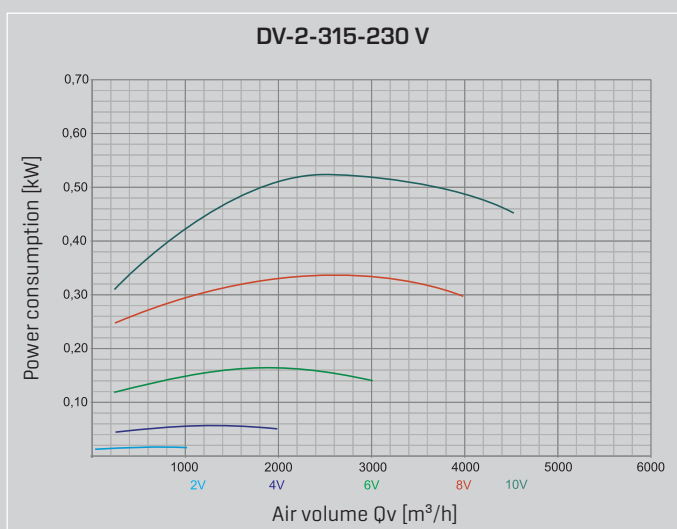
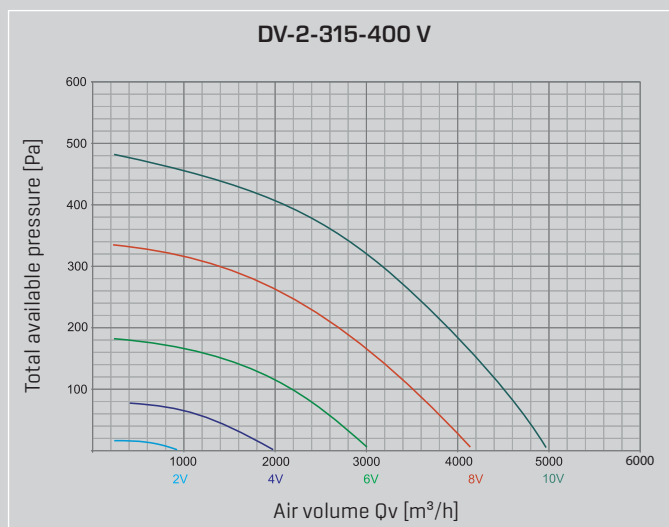
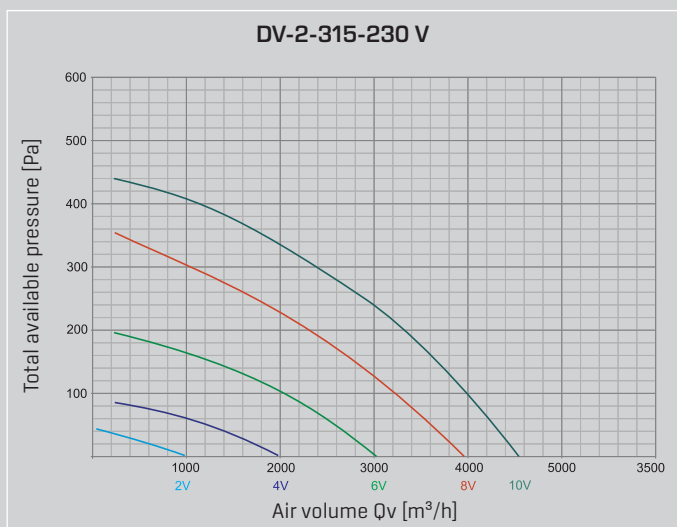
DIMENSIONS



ROOF EXTRACT FAN DV-2

PERFORMANCE OVERVIEW 315

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°C]	Weight [kg]
DV-2-315-230 V	230	4500	1480	0.52	2.29	-20 to +40	17
DV-2-315-400 V	3x400	5000	1600	0.662	1.2	-20 to +40	18



ROOF EXTRACT FAN DV-2 PERFORMANCE OVERVIEW 315

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

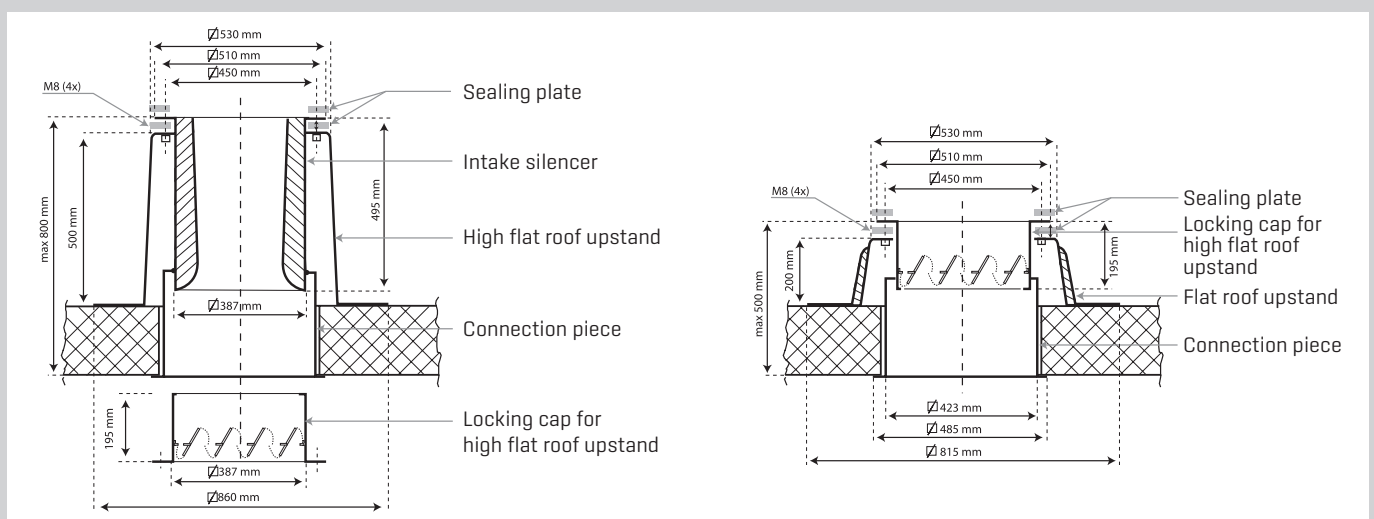
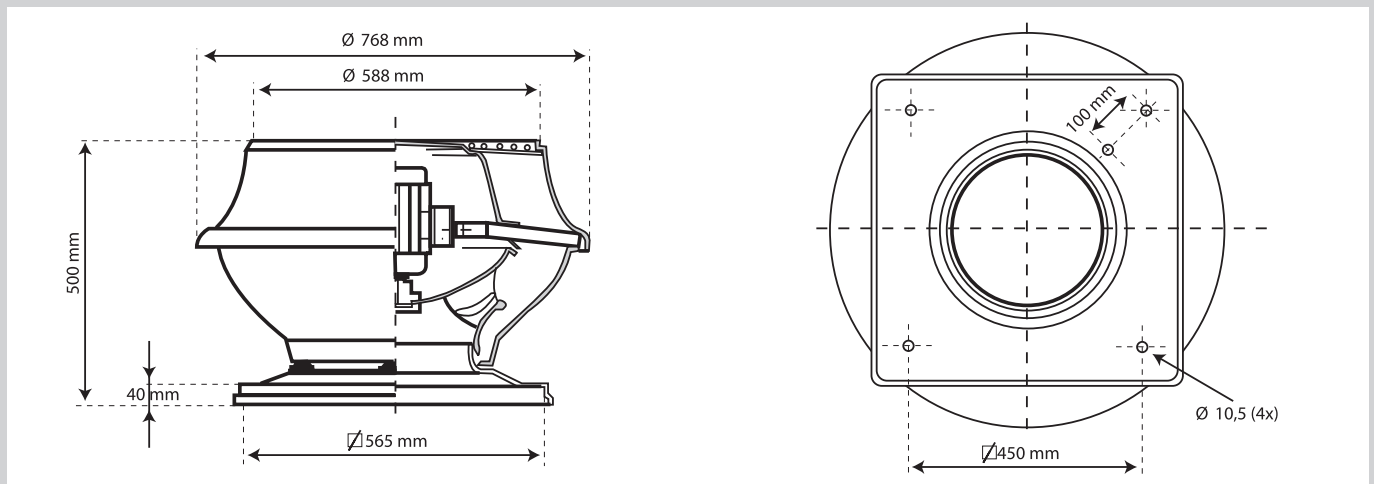
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-315	1600	150	59	61	55	51	44	44	36	57

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]
DV-2-315	1600	150	55

- 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.

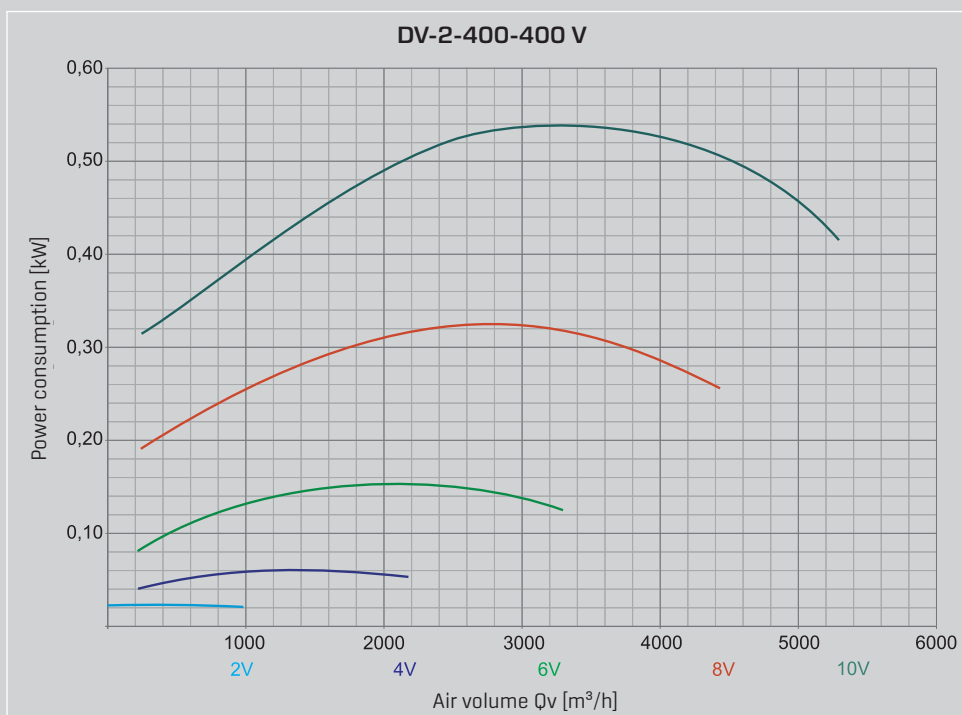
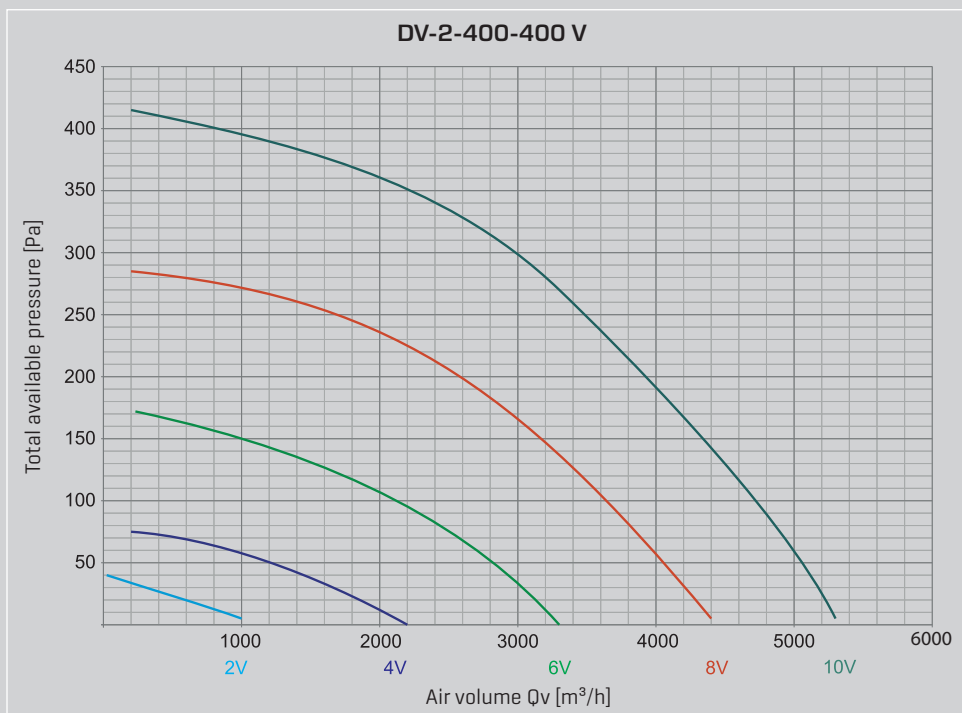
DIMENSIONS



ROOF EXTRACT FAN DV-2

PERFORMANCE OVERVIEW 400

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°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

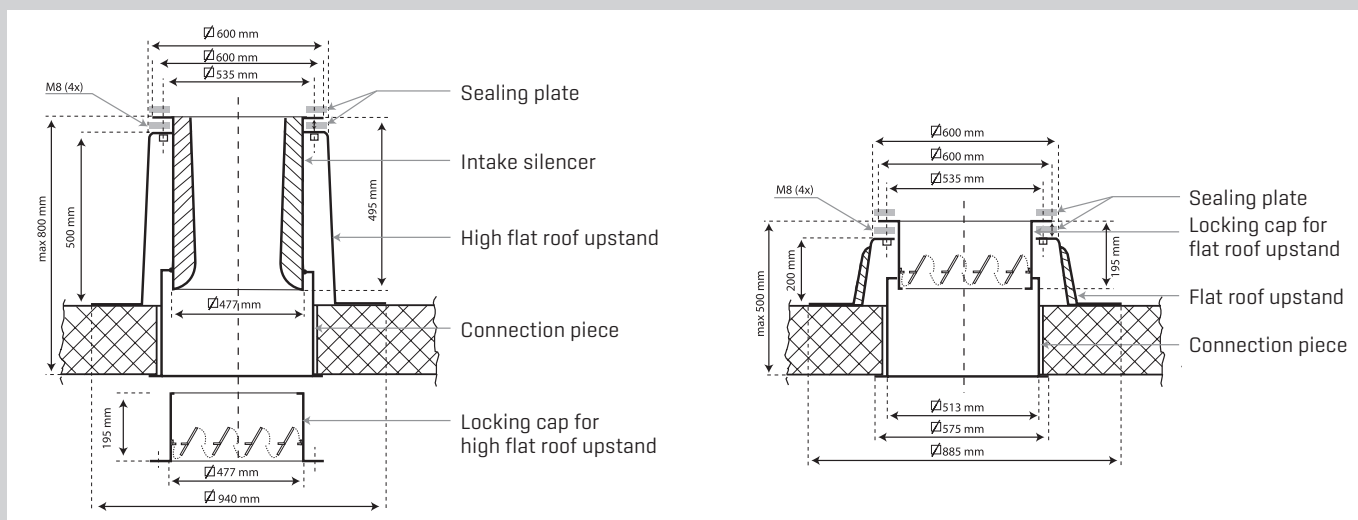
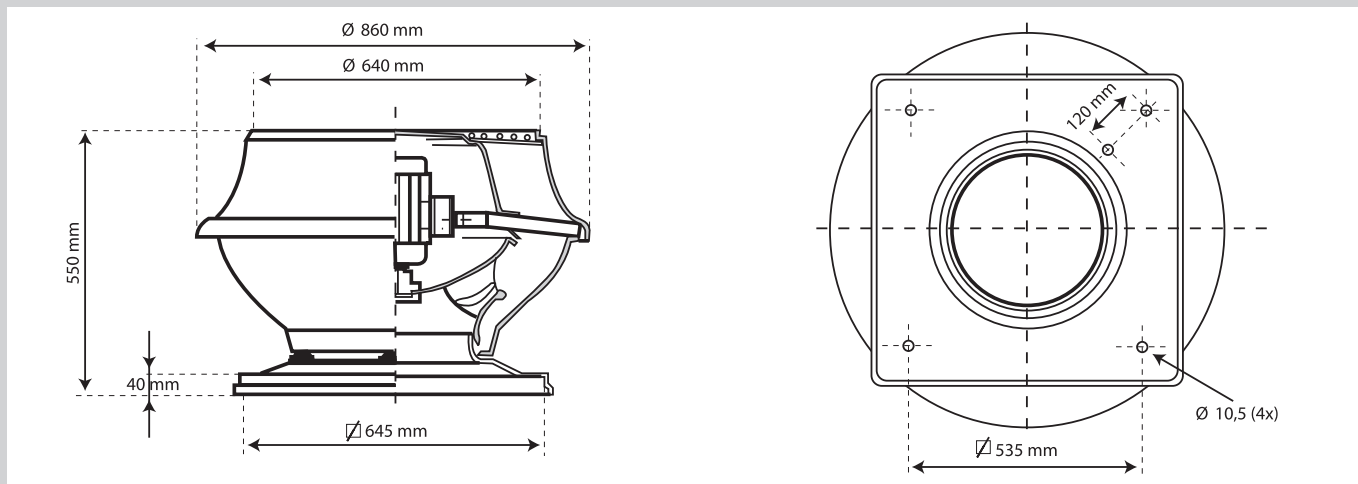
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-400	1380	150	64	62	52	53	50	47	37	59

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]
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.

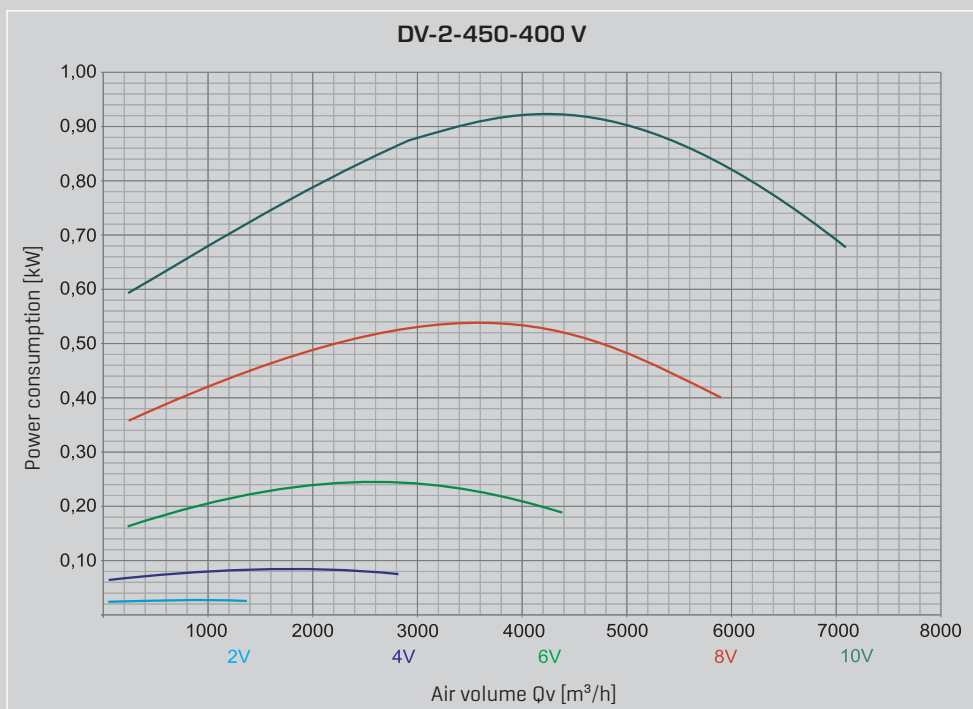
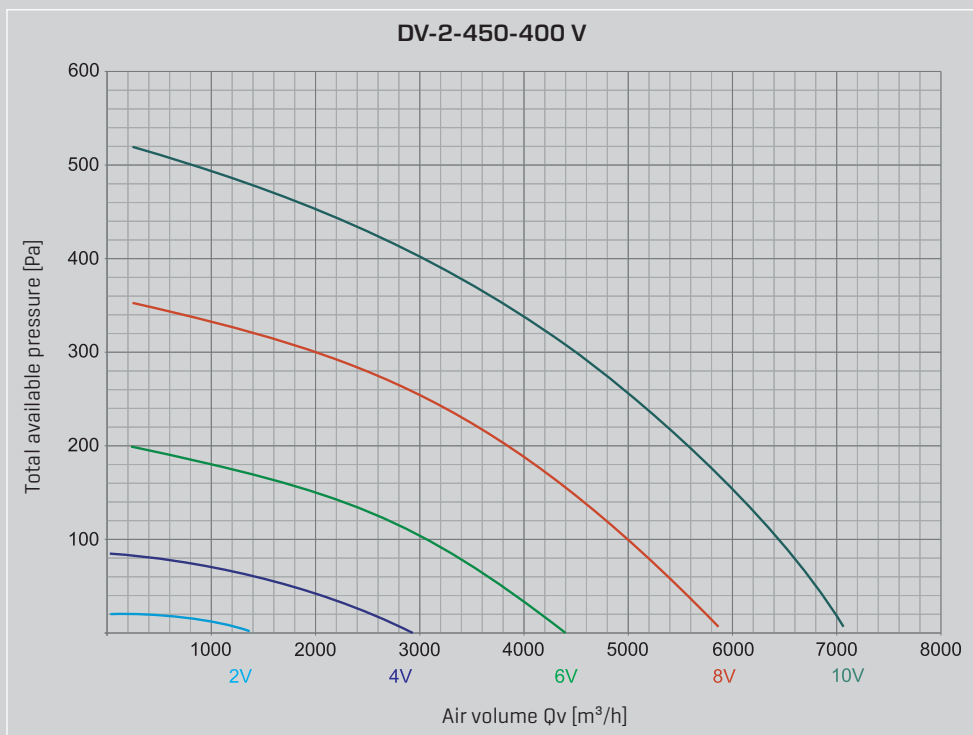
DIMENSIONS



ROOF EXTRACT FAN DV-2

PERFORMANCE OVERVIEW 450

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. Speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°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

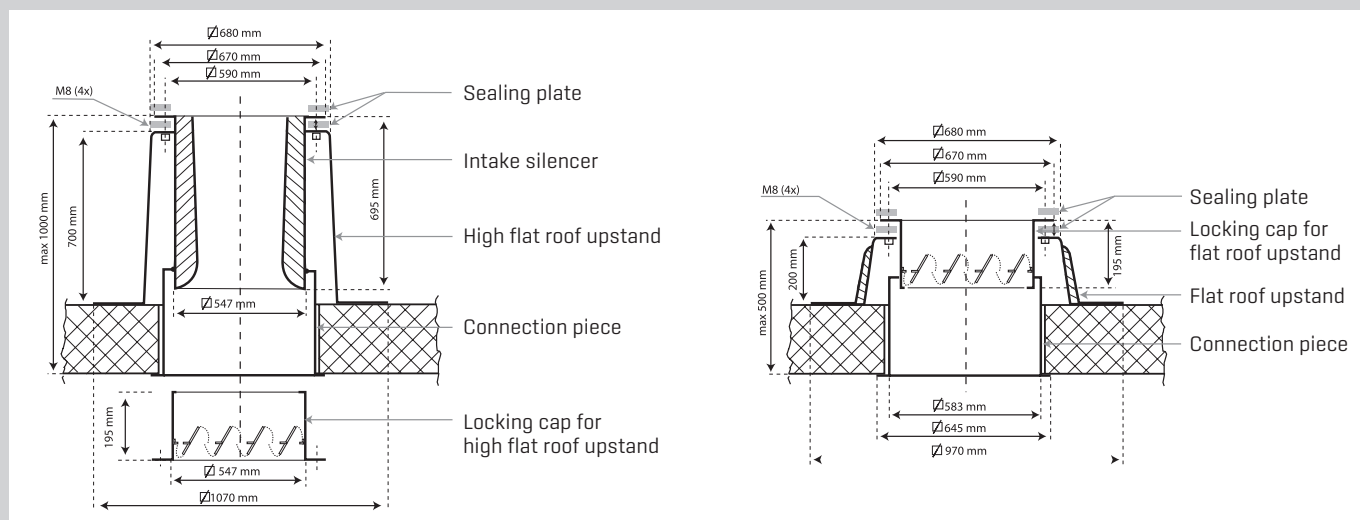
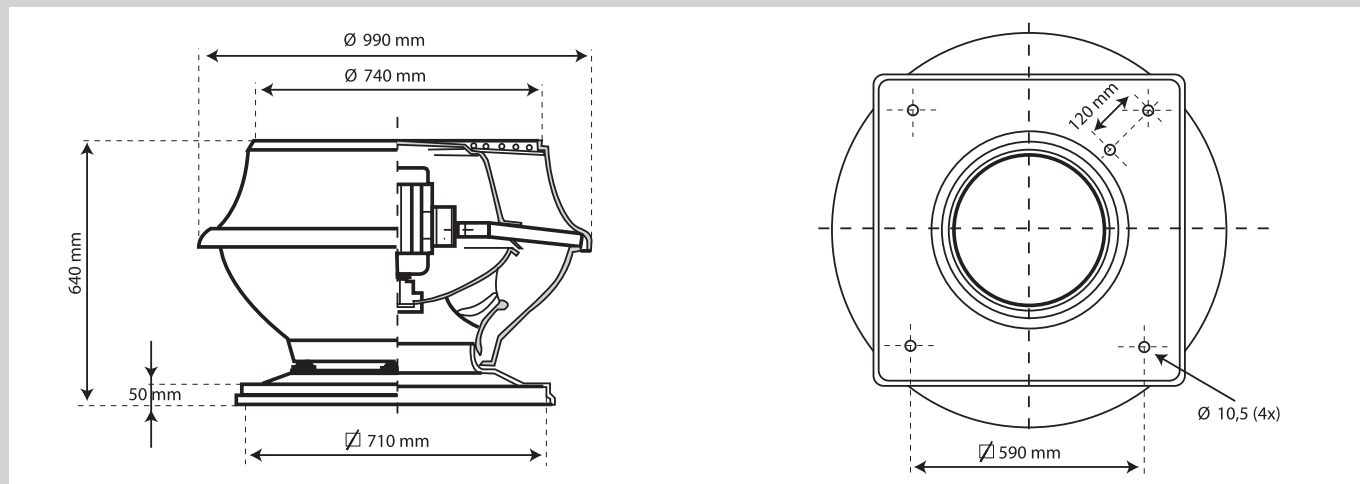
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-450	1380	150	67	63	59	56	48	48	39	61

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]
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.

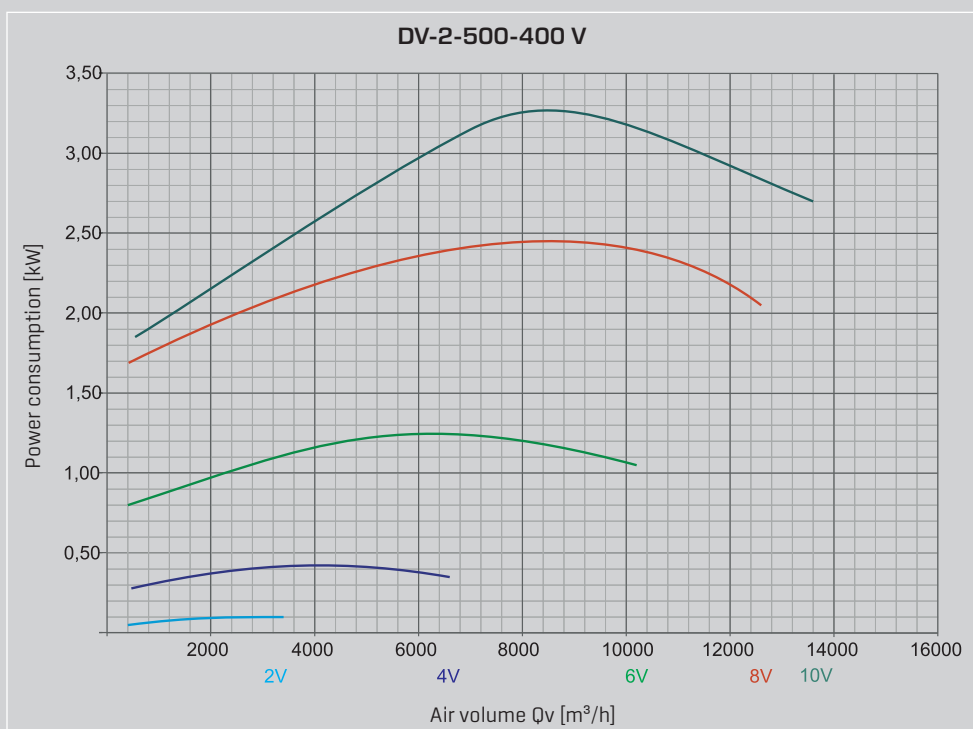
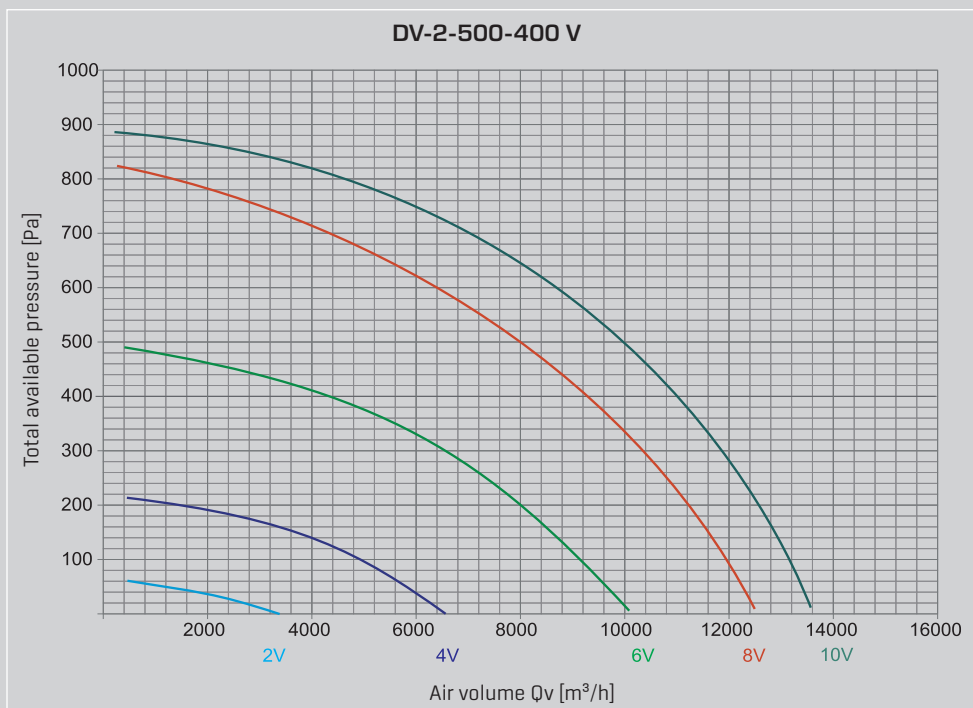
DIMENSIONS



ROOF EXTRACT FAN DV-2

PERFORMANCE OVERVIEW 500

TYPE	Supply voltage [V]	Max. V [m ³ /h]	Max. speed [rpm]	Max. Pel [kW]	Max. current [A]	Flow medium temperature [°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

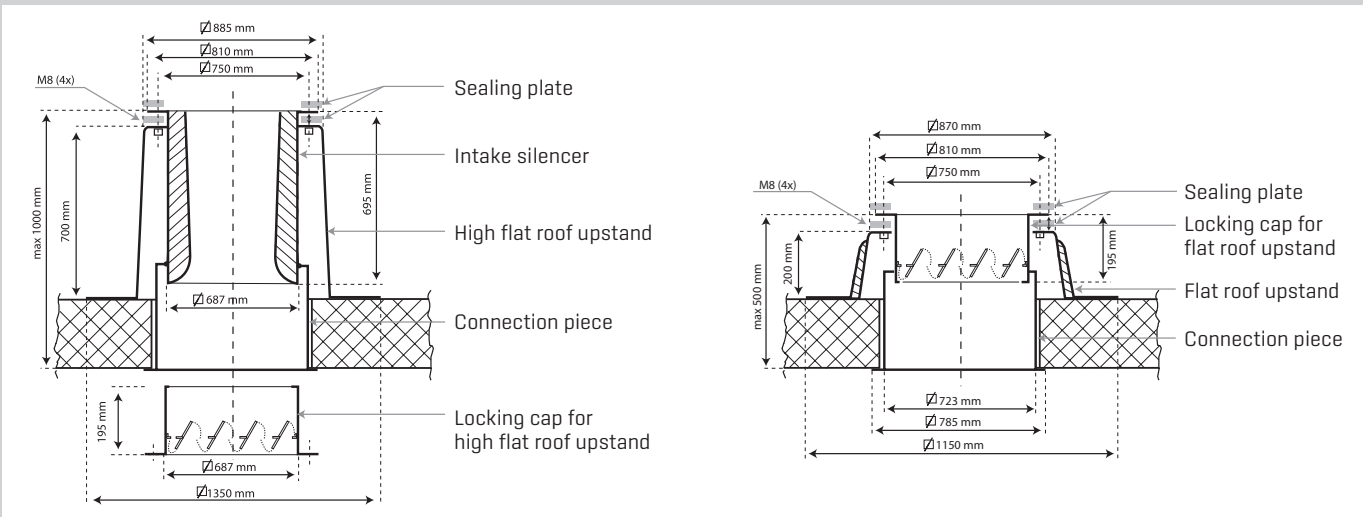
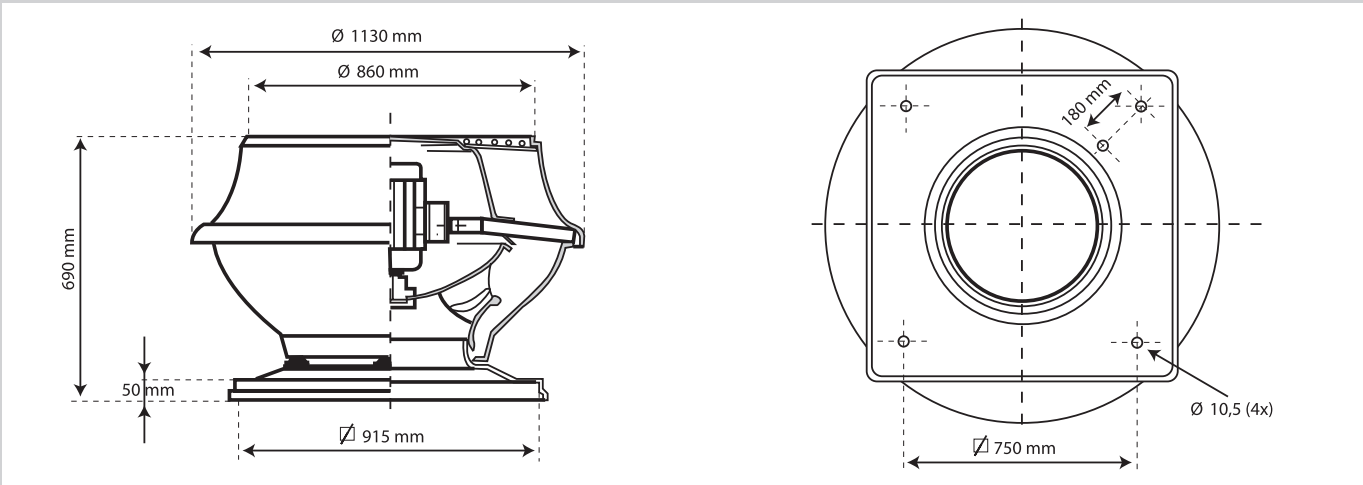
TYPE	Speed [rpm]	External pressure [Pa]	125 Hz [dB]	250 Hz [dB]	500 Hz [dB]	1 kHz [dB]	2 kHz [dB]	4 kHz [dB]	8 kHz [dB]	Total level [dB(A)]
DV-2-500	1370	150	77	64	66	54	53	50	47	66

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]
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



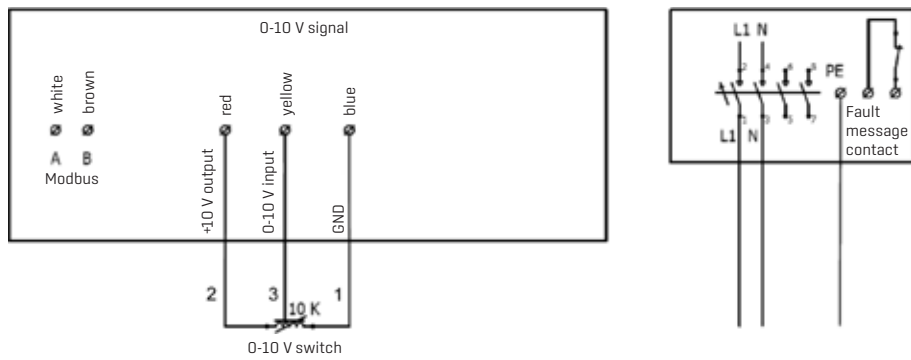
ROOF EXTRACT FAN DV-2

ELECTRICAL CONNECTION

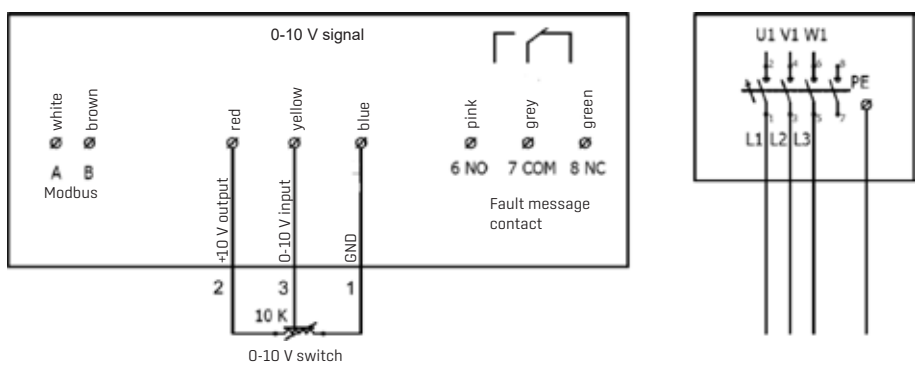
Notes

- 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 FAN ER	DESCRIPTION	24
	TYPE OVERVIEW	25
	NOTES	26-27
PERFORMANCE OVERVIEW / DIMENSIONS	RDM 56/57-25..	28-29
	RDM 56/57-35..	30-31
	RDM 56/57-45..	32-31
	RDM 56/57-56..	34-35
	RDM 56/57-71..	36-37
	RDM 56/57-90..	38-39
INSPECTION SWITCH		40
ACCESSORIES		41-42

ER SMOKE EXTRACT FAN

DESCRIPTION

DESCRIPTION



Vertical air discharge without rotation.
Aluminium casing.
Base frame and mechanically stressed components made from zinc-plated sheet steel.
Impeller made from sheet steel, welded and coated.
Motor separated from extract air flow.
Removable casing side panels, casing middle part swivels out (up to 7190).
Fully wired with cable routed out. Cable protected by metal tube.
Mounting plate for inspection switch or terminal box as standard.
Optional inspection switch (supplied loose).

Roof smoke extract fans of series RDM 56 and RDM 57 serve to conduct away smoke and heat in case of a fire, especially during the starting phase of the fire, to keep escape routes free from smoke, to reduce material losses and to make firefighting easier.

They meet the requirements applicable by today's standards in respect of mechanical extractors:

RDM 56-, +400 °C - 120 min

The fans from the RDM 56 series meet the requirements of categories 1, 2 and 3 in accordance with EN 12101-3.
EC Certificate of Conformity: 0036 CPD RG01 01.
They are approved by the building inspectorate (DIBt).
Approval number Z-78.1-26.

RDM 57-, +600 °C - 120 min

The fans from the RDM 57 series meet the requirements of category 1, 2, 3 and 4 in accordance with EN 12101-3.
EC Certificate of Conformity: 0036 CPD RG01 02.
They are approved by the building inspectorate (DIBt).
Approval number Z-78.1-27.

The fans have been tested and certified by the Research and Test Laboratory of the Institute of Housing Technology and Building Physics at the Technical University of Munich and are DIBt-approved.

Test results can be made available on request.

According to DIN 24166 "Fans, technical delivery conditions", roof extract fans are classified in accuracy class 2.

The roof smoke extract fans are equipped with version B5 standard motors, with IP 55 rating and thermal category F.

Please note

In the event of a fire, the motor should not be "protected". All excess temperature and excess current limiters must be automatically bypassed, i.e. disabled.

ER SMOKE EXTRACT FAN TYPE OVERVIEW

PRODUCT RANGE: 23 standard types
CAPACITY RANGE: 3300 - 57,200 m³/h

SMOKE EXTRACT FAN ER	Flow rate	Usable pressure increase	Supply voltage	Speed	Rated motor output	Rated motor current	Weight	Inspection switch
RDM 56/57	m ³ /h	Pa	V	rpm	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	0075-32
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

ER SMOKE EXTRACT FAN NOTES

SAFETY EQUIPMENT

All roof extract fans have a protective grille on the outlet side in line with EN ISO 13857. The inlet side is supplied without a grille as standard, as other system components usually need to be connected first.

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

The fans should only be commissioned once all necessary safety devices have been fitted and connected [observe operating instructions].

The safety devices must comply with EN ISO 12100 "Safety of machinery - General principles for design".

SAFETY REGULATIONS

Transportation, installation, wiring, commissioning and maintenance must be carried out in accordance with the operating instructions in compliance with applicable standards, directives and safety regulations.



Pay attention to cable routing when connecting the smoke extract fans.

PERFORMANCE MEASUREMENTS

The fan performance curves are determined in a test chamber on the intake side as per ISO 5801.

The diagrams show the static pressure increase Δp_{fa} [or p_{sF}] [pressure increase of the free discharge fan] subject to the flow rate V [or q_v]. The data applies to a reference density of ρ_1 (ρ) = 1.15 kg/m³. According to EN ISO 5801 "Industrial fans - Performance testing using standardized airways", the roof extract fans are classified in accuracy class 2.

NOISE

Noise is measured and evaluated in accordance with DIN 45 635-38 "Measurement of noise emitted by machines; fans".
The specification tables give the A-weighted sound power level at maximum flow rate.

Computerised capture and evaluation of the actual values ensures high repeatability.
In the characteristic diagrams, the emission level is the A sound power level L_{WA} , which has the same numerical value for the inlet side [L_{WA3}] and outlet side [L_{WA8}].

For more precise calculations to determine sound insulation measures, the sound power level in octave bands is significant.

$$L_{Woct\ 3/8} \text{ [or } L_{Wfc\ 3/8}] = L_{WA} + L_{Wrel\ 3/8}$$

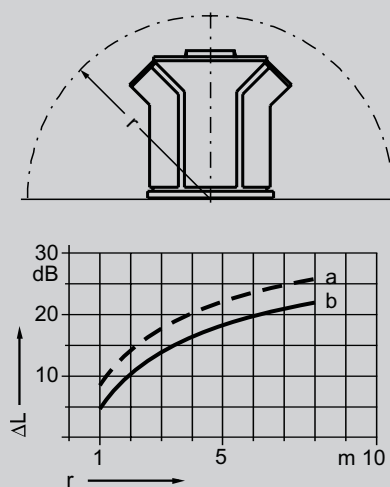
The relative sound power levels for the inlet and outlet sides at various operating points can be found in the relevant tables.

DETERMINING THE SOUND PRESSURE LEVEL

It is difficult to accurately determine the A sound pressure level L_{pA} to be expected on the outlet side at any distance, because ambient conditions generally deviate considerably from the ideal and can vary significantly.

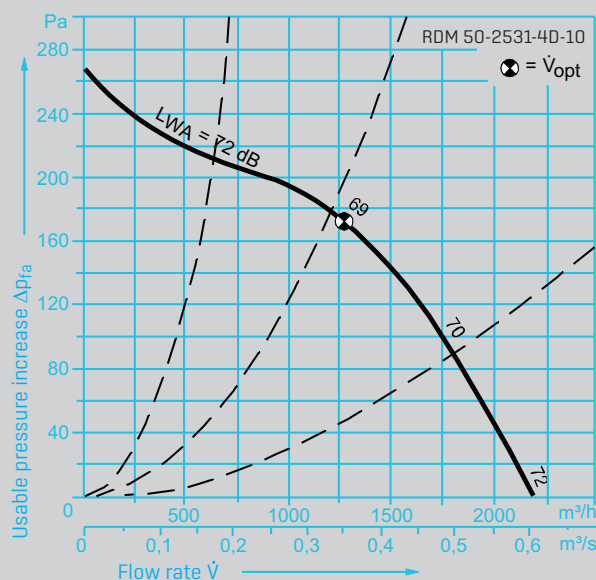
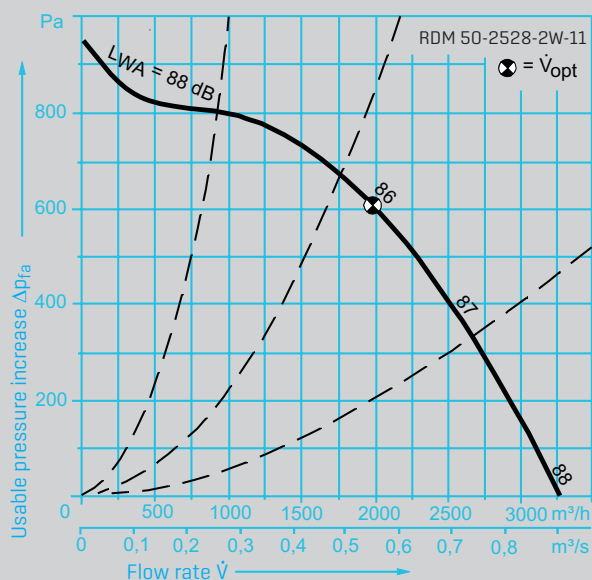
$$L_{pA} \approx L_{WA} - \Delta_L$$

The diagram shows the correction factor " Δ_L " as a function of clearance radius " r " from the fan centre point. Under ideal conditions, curve "a" can be used. However, for a practical estimate, curve "b" is recommended. The sound pressure level on the inlet side can only be determined if the precise room properties are known [observe VDI 2081].



ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate	Usable pressure increase	Supply voltage	Speed	Rated motor power	Rated motor current	Weight	Inspection switch
RDM 56/57-	m ³ /h	Pa	V	rpm	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



The characteristics diagrams show A-weighted sound power level L_{WA} ($=L_{WA3} = L_{WA8}$) to DIN 45635-38. Reference density of pumped medium $\rho_1 = 1.15 \text{ kg/m}^3$.

RDM 56/57-2528; -2531

INLET SIDE

Relative sound power level L_{Wrel3} with octave centre frequencies f_m

2-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	16	12	3	-4	-13	-17	-20	-27	dB
\dot{V}_{opt}	1	1	6	-3	-12	-14	-15	-24	dB
\dot{V}_{max}	-2	-4	-5	-3	-12	-16	-15	-19	dB

4-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	13	12	2	-3	-10	-14	-19	-27	dB
\dot{V}_{opt}	9	12	1	-3	-10	-13	-18	-27	dB
\dot{V}_{max}	4	10	1	-2	-10	-13	-15	-23	dB

OUTLET SIDE

Relative sound power level L_{Wrel8} with octave centre frequencies f_m

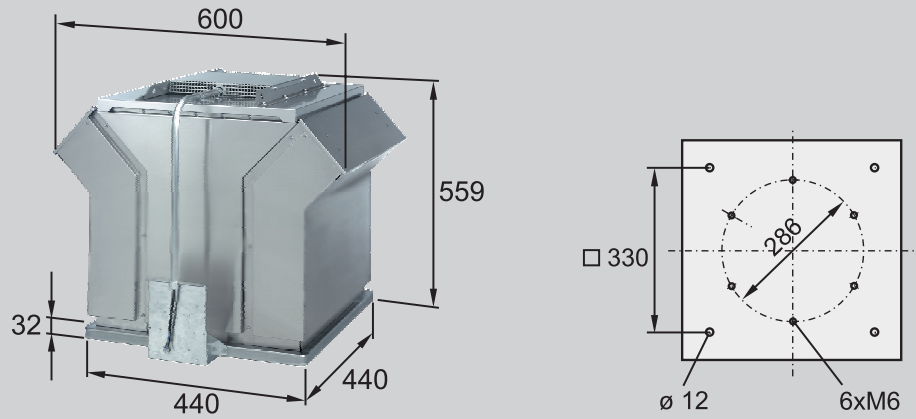
63	125	250	500	1000	2000	4000	8000	Hz
-5	0	0	-2	-5	-8	-12	-19	dB
-8	-6	-1	-3	-6	-8	-9	-17	dB
-9	-8	-3	-2	-6	-8	-8	-15	dB

63	125	250	500	1000	2000	4000	8000	Hz
-2	0	-2	-3	-5	-8	-13	-21	dB
-5	0	-2	-3	-5	-7	-13	-21	dB
-10	-1	-4	-3	-5	-6	-12	-19	dB

ER SMOKE EXTRACT FAN DIMENSIONS

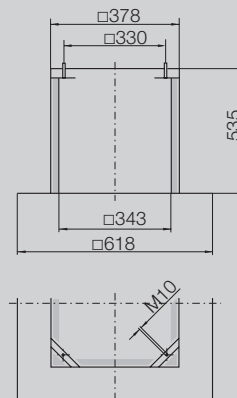
DIMENSIONS

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

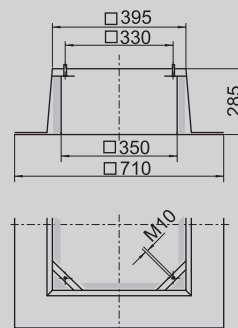


FLAT ROOF UPSTAND

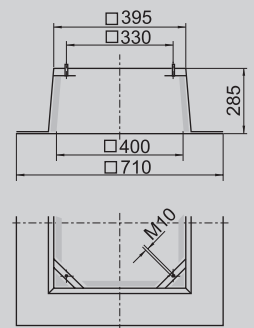
ZBS 10-0040
[600 °C], 14 kg



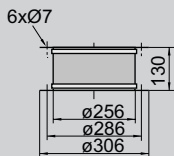
ZBS 03-0040
[600 °C], 8 kg



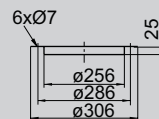
ZBS 20-0040
Only for RDM56, with
duct connection, 8 kg



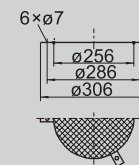
INTAKE FITTING
ZKE 30-0250 [600 °C], 1.7 kg



INTAKE FLANGE
ZKF 11-0250 [600 °C], 0.6 kg

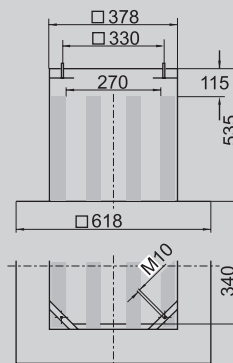


PROTECTIVE GRILLE
ZSG 04-0250, 0.4 kg



UPSTAND SILENCER
ZDS 32-0040 [600 °C], 18 kg

Stable, coated sheet steel outer sheath.
ZDS 32-0040 with removable splitters.



Average attenuation value L_{WA} 16 dB

Attenuation values in dB with centre frequencies in Hz

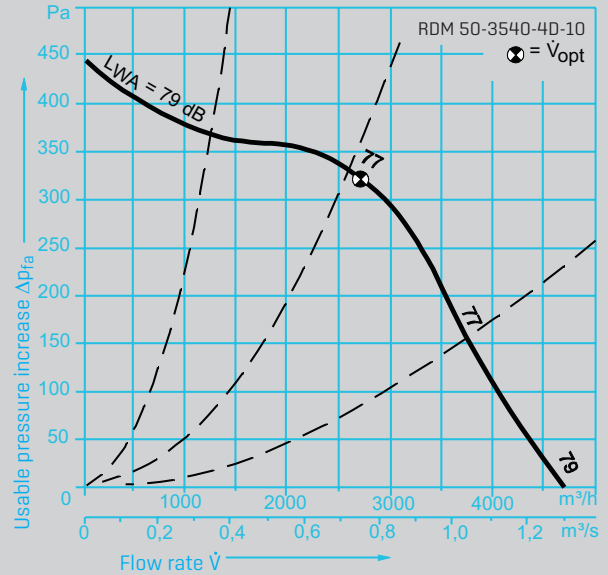
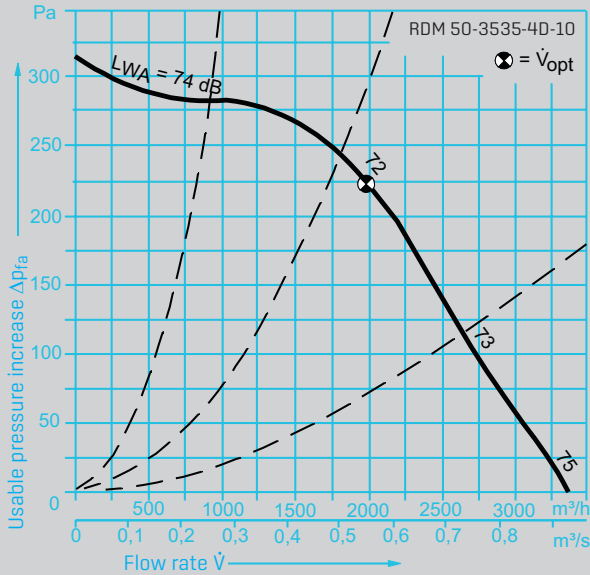
63 Hz	3 dB	1000 Hz	19 dB
125 Hz	5 dB	2000 Hz	23 dB
250 Hz	8 dB	4000 Hz	21 dB
500 Hz	13 dB	8000 Hz	15 dB

Pressure drop p_A in upstand silencer
in Pa, at flow rate in m^3/h

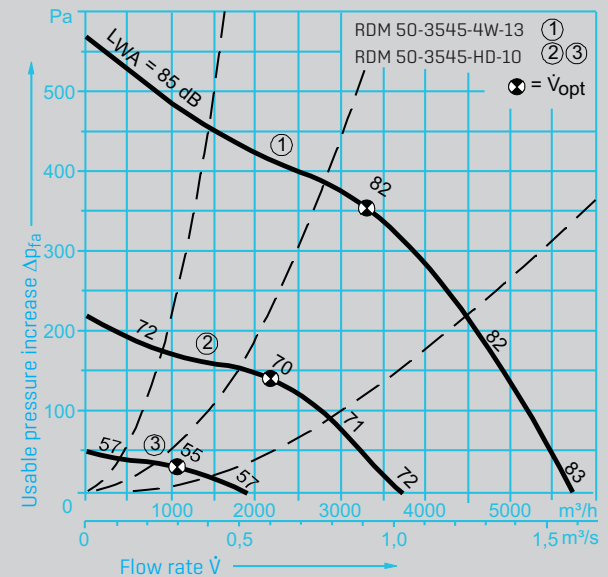
m^3/h	Pa
1500	25
2000	40
3000	100
4000	170

ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate	Usable pressure increase	Supply voltage	Speed	Rated motor output	Rated motor current	Weight	Inspection switch
RDM 56/57-	m ³ /h	Pa	V	rpm	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



The characteristics diagrams show A-weighted sound power level L_{WA} ($=L_{WA3} = L_{WA8}$) to DIN 45635-38. Reference density of pumped medium $\rho_1 = 1.15 \text{ kg/m}^3$.



RDM 56/57-3535; -3540; - 3545

INLET SIDE

Relative sound power level L_{Wrel3} with octave centre frequencies f_m

4-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	13	11	2	-2	-11	-16	-21	-27	dB
\dot{V}_{opt}	9	11	2	-2	-11	-16	-20	-24	dB
\dot{V}_{max}	6	9	2	-1	-12	-17	-19	-21	dB

6-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	16	10	1	-1	-10	-16	-22	-27	dB
\dot{V}_{opt}	14	11	2	-2	11	-17	-22	-29	dB
\dot{V}_{max}	11	13	3	-1	-12	-17	-21	-29	dB

OUTLET SIDE

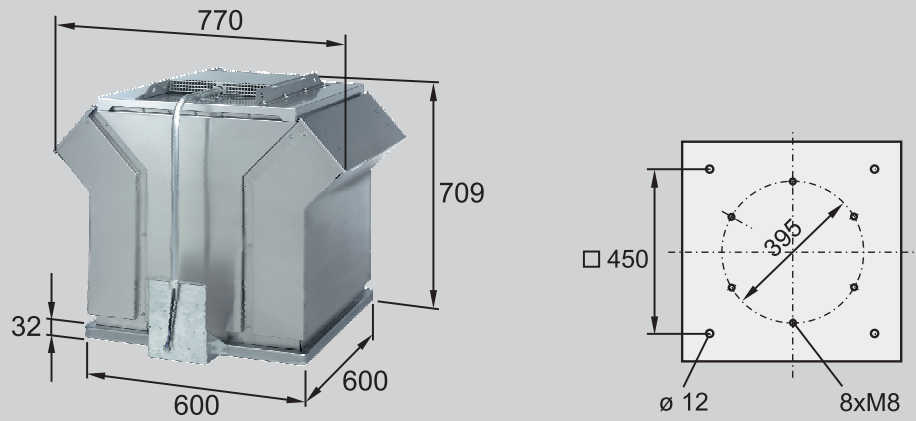
Relative sound power level L_{Wrel8} with octave centre frequencies f_m

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	-3	4	-1	-4	-6	-7	-12	-20	dB
\dot{V}_{opt}	-6	4	-1	-4	-6	-7	-12	-19	dB
\dot{V}_{max}	10	4	-1	-3	-6	-7	-13	-17	dB

ER SMOKE EXTRACT FAN DIMENSIONS

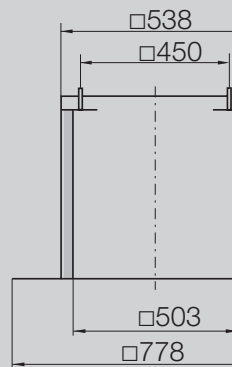
DIMENSIONS

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

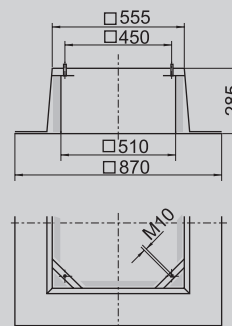


FLAT ROOF UPSTAND

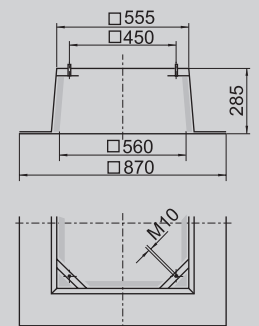
ZBS 10-0056
[600 °C], 30 kg



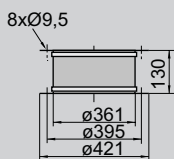
ZBS 03-0056
[600 °C], 10 kg



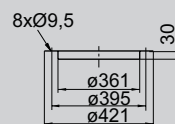
ZBS 20-0056
Only for RDM56, with
duct connection, 10 kg



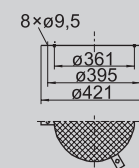
INTAKE FITTING
ZKE 30-0355 [600 °C], 2.7 kg



INTAKE FLANGE
ZKF 11-0355 [600 °C], 0.9 kg

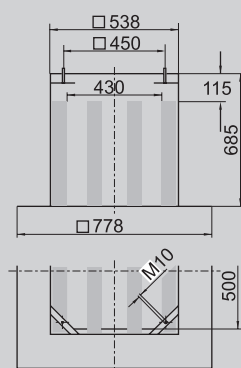


PROTECTIVE GRILLE
ZSG 04-0355, 0.6 kg



UPSTAND SILENCER
ZDS 32-0056 [600 °C], 40 kg

with removable splitters.



Average attenuation value L_{WA} 16 dB

Attenuation values in dB with centre frequencies in Hz

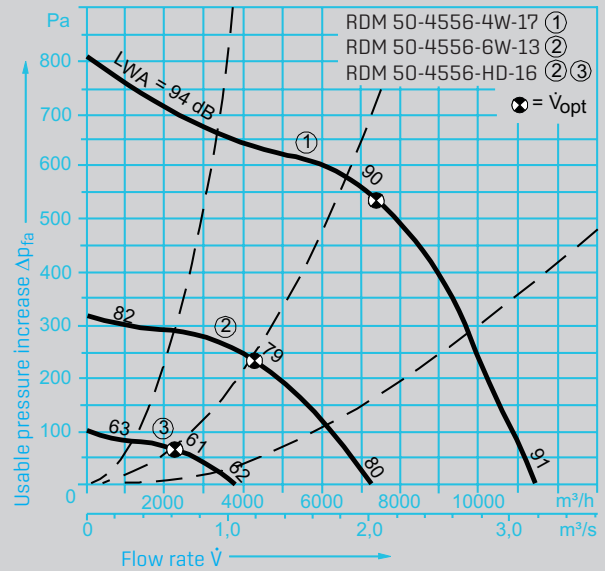
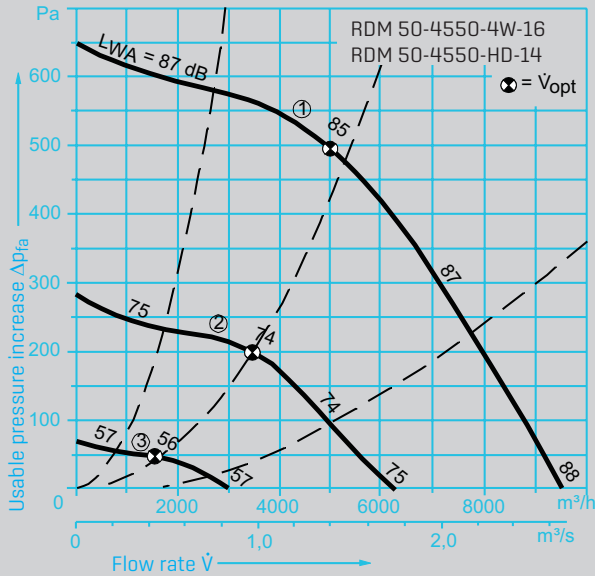
63 Hz	3 dB	1000 Hz	18 dB
125 Hz	5 dB	2000 Hz	21 dB
250 Hz	8 dB	4000 Hz	20 dB
500 Hz	12 dB	8000 Hz	15 dB

Pressure drop p_A in upstand silencer
in Pa, at flow rate in m^3/h

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

ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate m ³ /h	Usable pressure increase Pa	Supply voltage V	Speed rpm	Rated motor output kW	Rated motor current A	Weight kg	Inspection switch ESH 21
RDM 56/57-								
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



The characteristics diagrams show A-weighted sound power level LWA [=LWA3 =LWA8] to DIN 45635-38.
Reference density of pumped medium $\rho = 1.15 \text{ kg/m}^3$.

RDM 56/57-4550; - 4556

INLET SIDE

Relative sound power level L_{Wrel3} with octave centre frequencies f_m

4-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	14	10	1	-2	-11	-14	-15	22	dB
\dot{V}_{opt}	9	12	0	-3	-11	-15	-15	-21	dB
\dot{V}_{max}	3	9	1	-2	-12	-16	-16	-12	dB

6-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	15	11	1	-2	-11	-15	-16	-23	dB
\dot{V}_{opt}	11	13	-1	-4	-12	-16	-17	-25	dB
\dot{V}_{max}	7	15	3	-1	10	-14	-12	-21	dB

OUTLET SIDE

Relative sound power level L_{Wrel8} with octave centre frequencies f_m

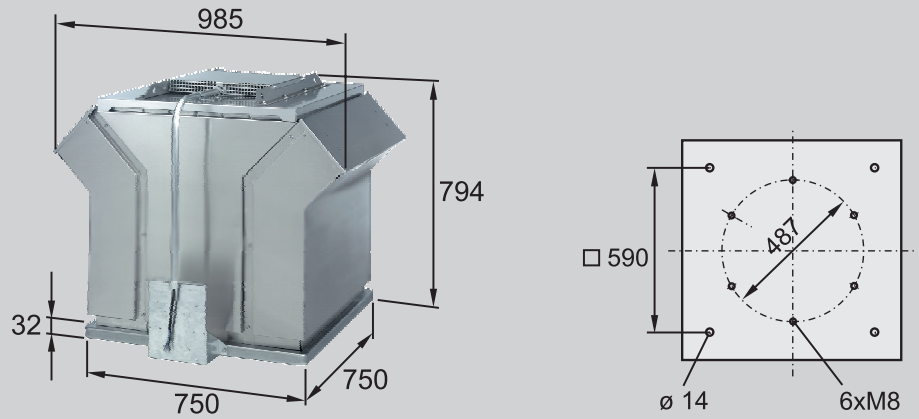
Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	1	5	0	-4	-5	-9	-13	-20	dB
\dot{V}_{opt}	-4	8	-1	-5	-6	-9	-12	-19	dB
\dot{V}_{max}	-8	8	-2	-4	-6	-9	-15	-12	dB

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	2	4	1	-4	-5	-7	-13	-22	dB
\dot{V}_{opt}	0	4	0	-4	-6	-8	-13	-22	dB
\dot{V}_{max}	-4	6	1	-3	-6	-8	-12	-22	dB

ER SMOKE EXTRACT FAN DIMENSIONS

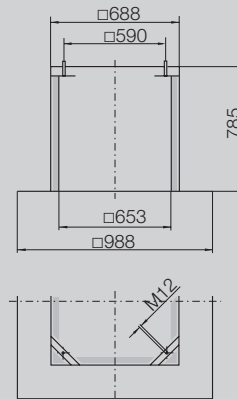
DIMENSIONS

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

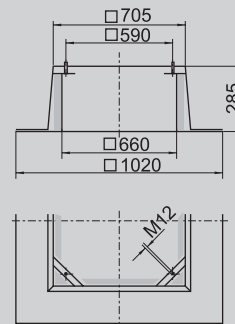


FLAT ROOF UPSTAND

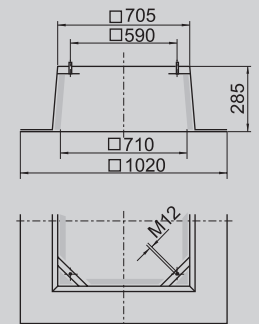
ZBS 10-0071
[600 °C], 60 kg



ZBS 03-0071
[600 °C], 16 kg

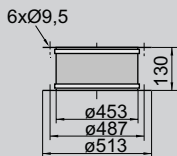


ZBS 20-0071
Only for RDM56, with
duct connection, 16 kg



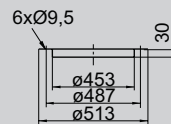
INTAKE FITTING

ZKE 30-0450 [600 °C], 3.5 kg



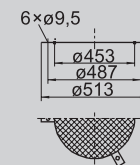
INTAKE FLANGE

ZKF 11-0450 [600 °C], 1.2 kg



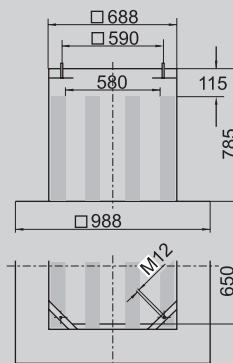
PROTECTIVE GRILLE

ZSG 04-0450, 0.7 kg



UPSTAND SILENCER

ZDS 32-0071 [600 °C], 79 kg



Average attenuation value L_{WA} 17 dB

Attenuation values in dB with centre frequencies in Hz

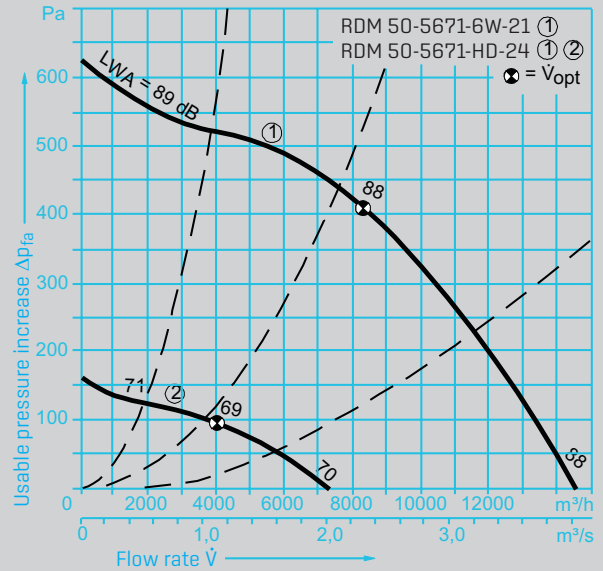
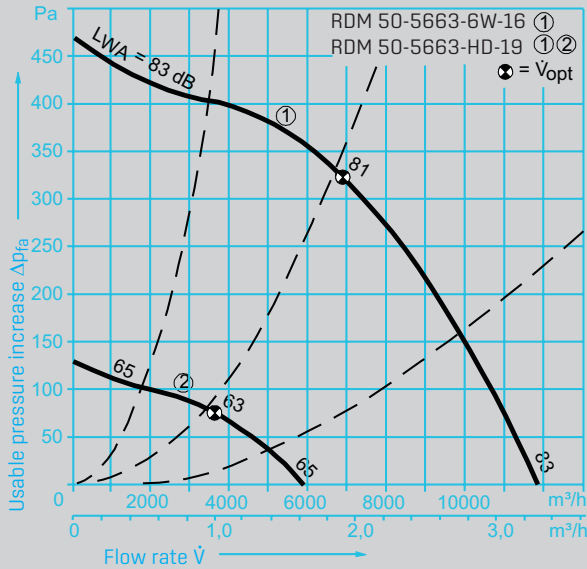
63 Hz	3 dB	1000 Hz	20 dB
125 Hz	5 dB	2000 Hz	25 dB
250 Hz	9 dB	4000 Hz	22 dB
500 Hz	13 dB	8000 Hz	17 dB

Pressure drop p_A in upstand silencer
in Pa, at flow rate in m^3/h

m^3/h	Pa
5000	25
8000	60
10000	95
12000	110

ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate m ³ /h	Usable pressure increase Pa	Supply voltage V	Speed rpm	Rated motor output kW	Rated motor current A	Weight kg	Inspection switch 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



The characteristics diagrams show A-weighted sound power level LWA [=LWA3 =LWA8] to DIN 45635-38. Reference density of pumped medium $\rho = 1.15 \text{ kg/m}^3$.

RDM 56/57-5663; - 5671

INLET SIDE

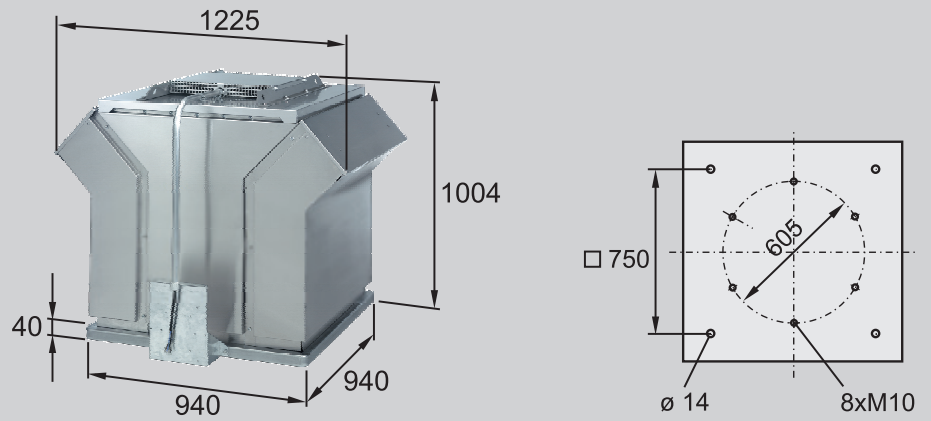
Relative sound power level L_{Wrel3} with octave centre frequencies f_m

6-pole Op.point	INLET SIDE									OUTLET SIDE								
	63	125	250	500	1000	2000	4000	8000	Hz	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	14	11	1	-2	-9	-14	-16	-23	dB	2	3	0	-3	-5	-8	-13	-21	dB
\dot{V}_{opt}	11	12	-1	-4	-10	-15	-16	-22	dB	1	3	-1	-4	-5	-8	-12	-19	dB
\dot{V}_{max}	7	13	1	-2	-9	-13	-10	-15	dB	-3	4	-1	-4	-6	-8	-11	-16	dB

ER SMOKE EXTRACT FAN DIMENSIONS

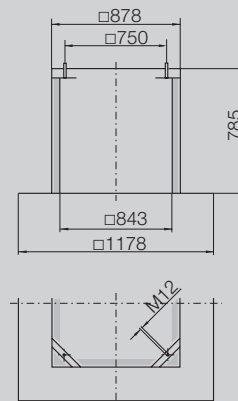
DIMENSIONS

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

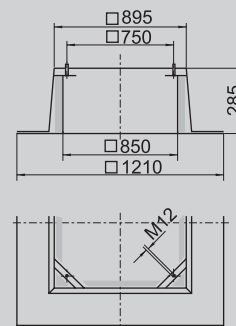


FLAT ROOF UPSTAND

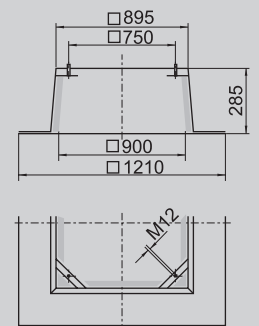
ZBS 10-0090
(600 °C), 80 kg



ZBS 03-0090
(600 °C), 25 kg

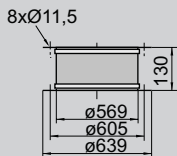


ZBS 20-0090
Only for RDM56, with
duct connection, 25 kg



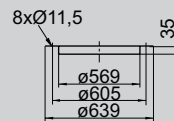
INTAKE FITTING

ZKE 30-0560 (600 °C), 5.0 kg



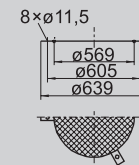
INTAKE FLANGE

ZKF 11-0560 (600 °C), 1.8 kg



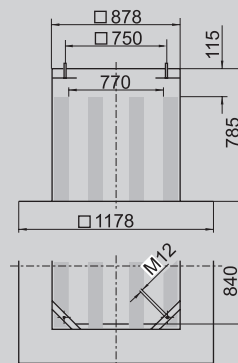
PROTECTIVE GRILLE

ZSG 04-0560, 0.8 kg



UPSTAND SILENCER

ZDS 32-0090 (600 °C), 105 kg



Average attenuation value L_{WA} 15 dB

Attenuation values in dB with centre 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

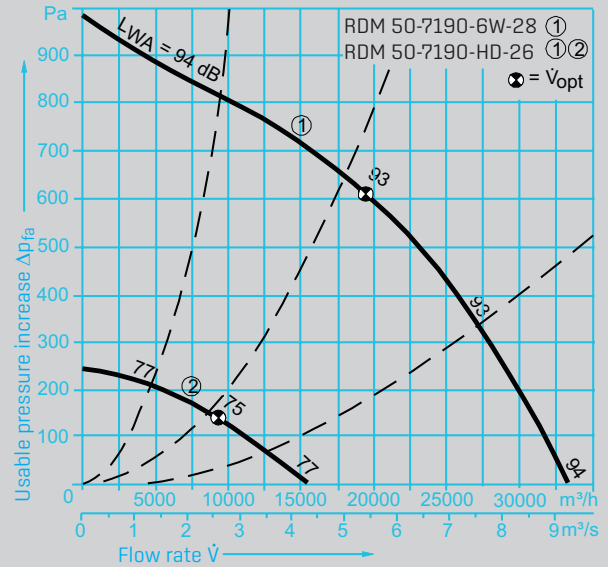
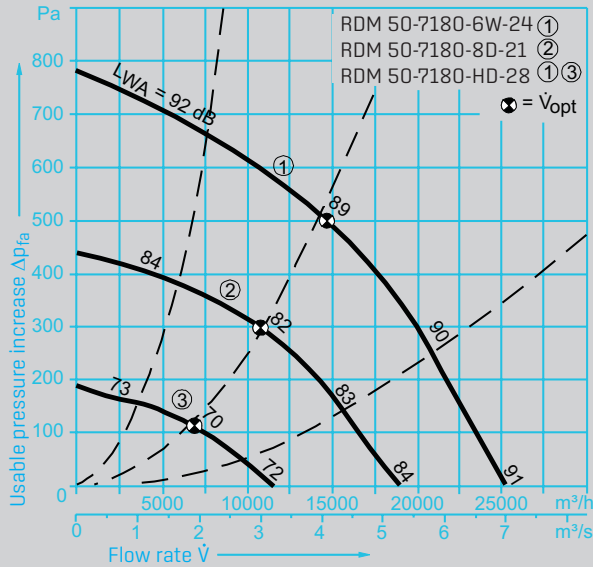
Pressure drop p_A in upstand silencer

in Pa, at flow rate in m^3/h

m^3/h	Pa
10000	20
15000	40
20000	80
30000	180

ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate m ³ /h	Usable pressure increase Pa	Supply voltage V	Speed rpm	Rated motor output kW	Rated motor current A	Weight kg	Inspection switch ESH 21
RDM 56/57-								
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



The characteristics diagrams show A-weighted sound power level LWA [=LWA3 =LWA8] to DIN 45635-38.
Reference density of pumped medium $\rho = 1.15 \text{ kg/m}^3$.

RDM 56/57-7180; - 7190

INLET SIDE

Relative sound power level L_{Wrel3} with octave centre frequencies f_m

6-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	15	11	1	-2	-10	-14	-16	-23	dB
\dot{V}_{opt}	11	13	-1	-4	-11	-15	-17	-23	dB
\dot{V}_{max}	7	14	3	-1	-10	-13	-12	-19	dB

8-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	15	5	1	-2	-8	-14	-17	-24	dB
\dot{V}_{opt}	15	4	0	-3	-7	-13	-15	-24	dB
\dot{V}_{max}	15	3	1	-3	-9	-14	-13	-25	dB

OUTLET SIDE

Relative sound power level L_{Wrel8} with octave centre frequencies f_m

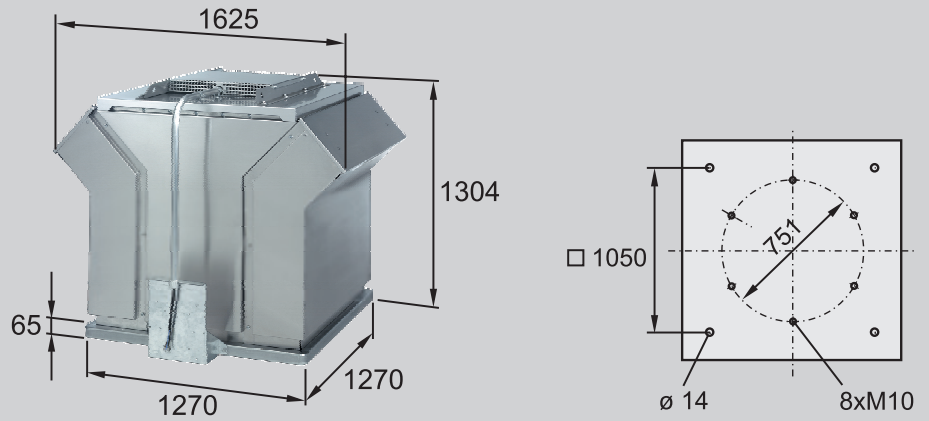
63	125	250	500	1000	2000	4000	8000	Hz
2	4	1	-4	-5	-8	-13	-21	dB
1	4	0	-4	-6	-8	-13	-21	dB
-3	4	0	-3	-6	-8	-12	-20	dB

63	125	250	500	1000	2000	4000	8000	Hz
3	1	-1	-3	-6	-8	-15	-23	dB
3	0	-2	-3	-5	-8	-14	-23	dB
3	2	0	-3	-6	-9	-10	-23	dB

ER SMOKE EXTRACT FAN DIMENSIONS

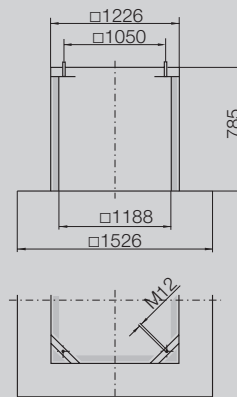
DIMENSIONS

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

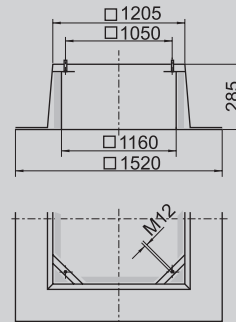


FLAT ROOF UPSTAND

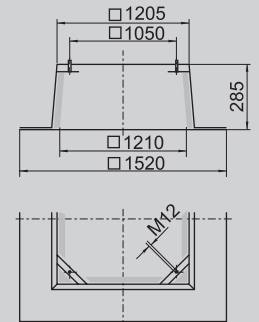
ZBS 10-0125
[600 °C], 103 kg



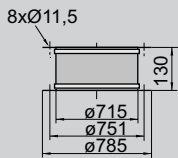
ZBS 03-0125
[600 °C], 34 kg



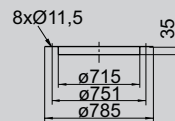
ZBS 20-0125
Only for RDM56, with
duct connection, 34 kg



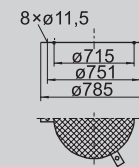
INTAKE FITTING
ZKE 30-0710 [600 °C], 7.3 kg



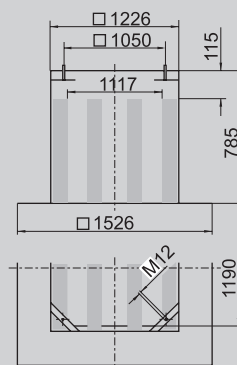
INTAKE FLANGE
ZKF 11-0710 [600 °C], 2.8 kg



PROTECTIVE GRILLE
ZSG 04-0710, 1.1 kg



UPSTAND SILENCER
ZDS 32-0125 [600 °C], 180 kg



Average attenuation value L_{WA} 16 dB

Attenuation values in dB with centre frequencies in Hz

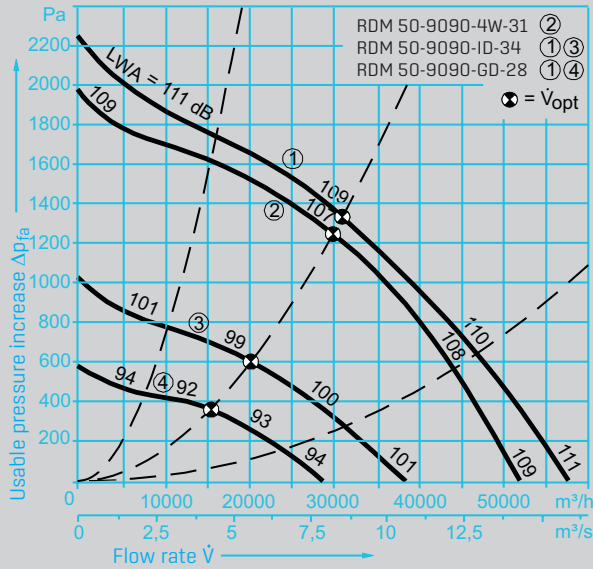
63 Hz	3 dB	1000 Hz	20 dB
125 Hz	6 dB	2000 Hz	25 dB
250 Hz	8 dB	4000 Hz	23 dB
500 Hz	14 dB	8000 Hz	11 dB

Pressure drop p_A in upstand silencer
in Pa, at flow rate in m^3/h

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

ER SMOKE EXTRACT FAN PERFORMANCE OVERVIEW

Smoke extract fan ER	Flow rate m ³ /h	Usable pressure increase Pa	Supply voltage V	Speed rpm	Rated motor output kW	Rated motor current A	Weight kg	Inspection switch ESH 21
RDM 56/57-								
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



The characteristics diagrams show A-weighted sound power level L_{WA} ($=L_{WA3} = L_{WA8}$) to DIN 45635-38.
Reference density of pumped medium $\rho_1 = 1.15 \text{ kg/m}^3$.

RDM 56/57-9090

INLET SIDE

Relative sound power level L_{Wrel3} with octave centre frequencies f_m

4-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	15	11	1	-2	-10	-14	-16	-23	dB
\dot{V}_{opt}	11	13	-1	-4	-11	-15	-17	-23	dB
\dot{V}_{max}	7	14	3	-1	-10	-13	-12	-19	dB

6-pole

Op.point	63	125	250	500	1000	2000	4000	8000	Hz
$0.5 \dot{V}_{opt}$	15	11	1	-2	-10	-14	-16	-23	dB
\dot{V}_{opt}	11	13	-1	-4	-11	-15	-17	-23	dB
\dot{V}_{max}	7	14	3	-1	-10	-13	-12	-19	dB

OUTLET SIDE

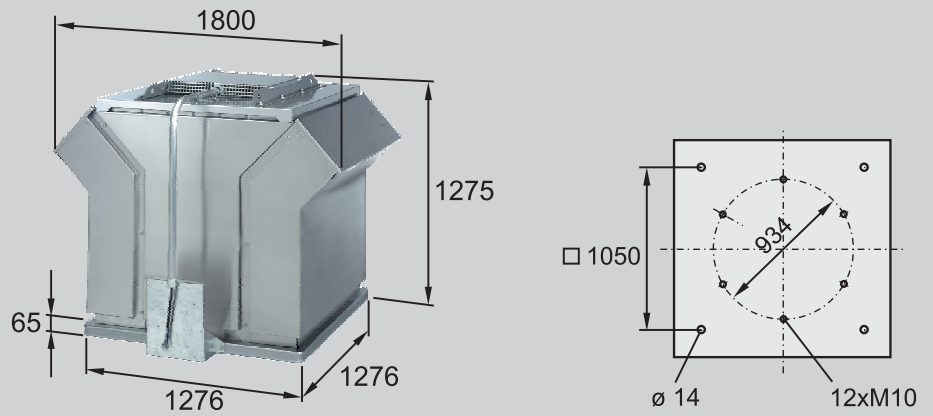
Relative sound power level L_{Wrel8} with octave centre frequencies f_m

63	125	250	500	1000	2000	4000	8000	Hz
2	4	1	-4	-5	-8	-13	-21	dB
1	4	0	-4	-6	-8	-13	-21	dB
-3	4	0	-3	-6	-8	-12	-20	dB

ER SMOKE EXTRACT FAN DIMENSIONS

DIMENSIONS

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



FLAT ROOF UPSTAND

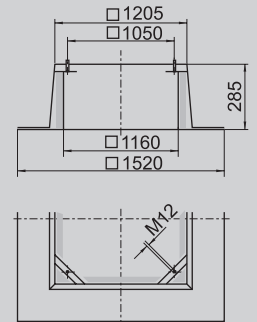
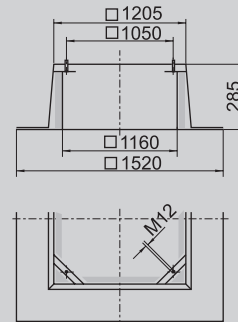
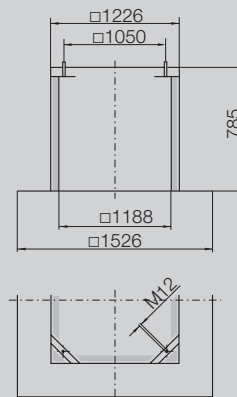
ZBS 10-0125

ZBS 33-0125

[600 °C], for RDM 57, 66 kg

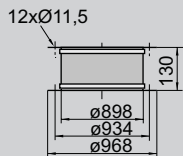
ZBS 20-0125

[400 °C], for RDM 56, 66 kg



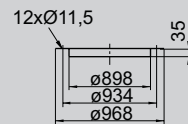
INTAKE FITTING

ZKE 33-0900 [600 °C], 9.6 kg



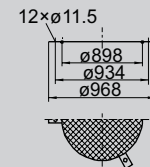
INTAKE FLANGE

ZKF 11-0900 [600 °C], 3.4 kg



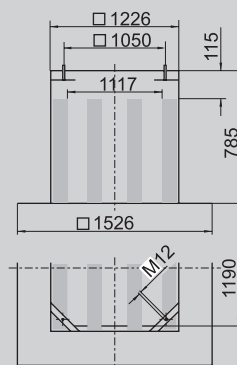
PROTECTIVE GRILLE

ZSG 04-0900, 1.6 kg



UPSTAND SILENCER

ZDS 32-0125 [600 °C], 180 kg



Average attenuation value L_{WA} 16 dB

Attenuation values in dB with centre 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

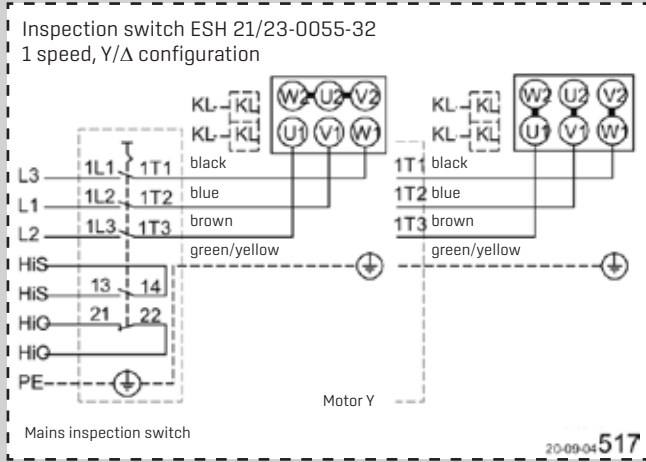
Pressure drop p_A in upstand silencer

in Pa, at flow rate in m^3/h

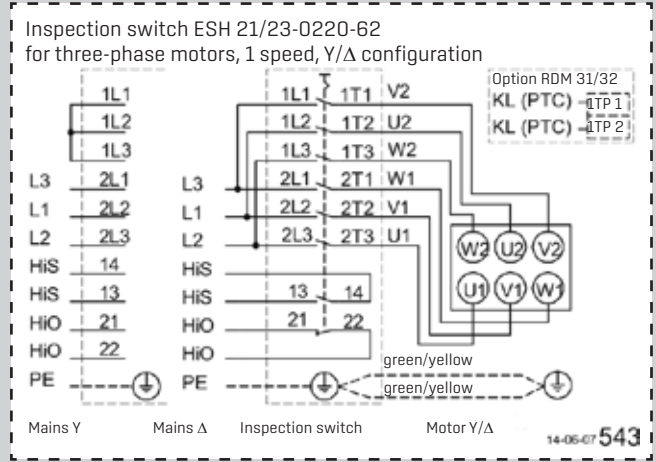
m^3/h	Pa
17000	20
20000	30
25000	40
30000	65
40000	110

ER SMOKE EXTRACT FAN INSPECTION SWITCH

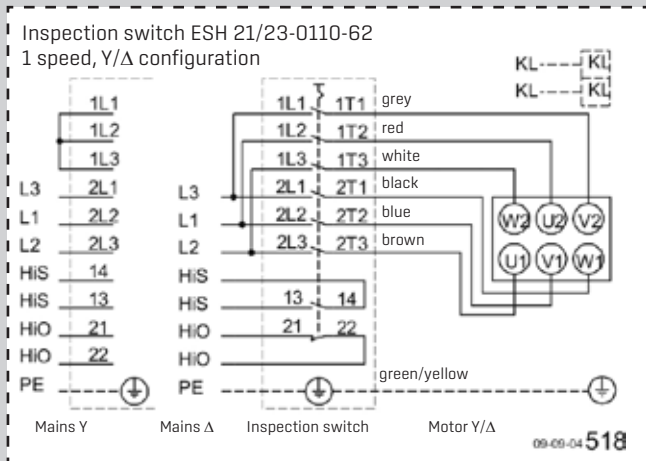
Inspection switch ESH 21-0055-32 for
ER 2528-2W-11, ER 2531-4D-10
ER 3535-4D-10, ER 3540-4D-10, ER 3545-4W-13
ER 4550-4W-16, ER 4556-4W-17, ER 4556-6W-13
ER 5663-6W-16, ER 5671-6W-21
ER 7180-8D-21



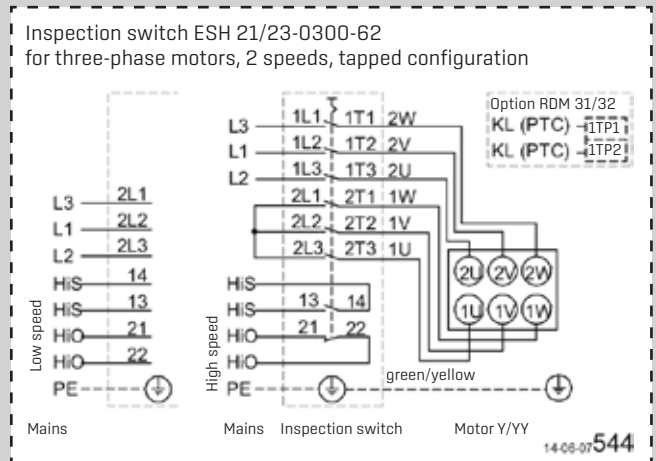
Inspection switch ESH 21-0220-62 for
ER 9090-4W-31



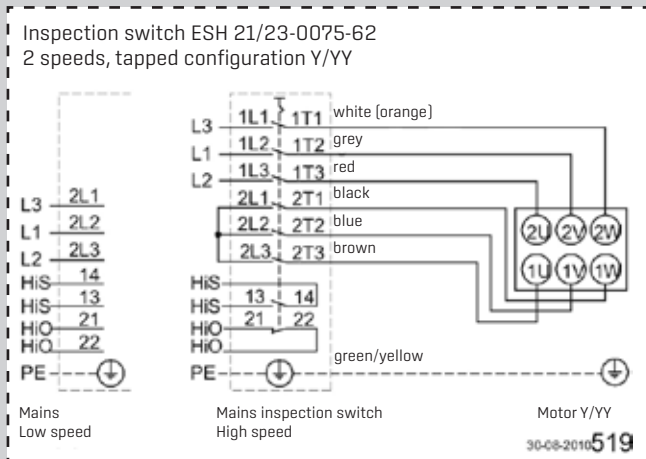
Inspection switch ESH 21-0110-62 for
ER 7190-HD-26, ER 7190-6W-28



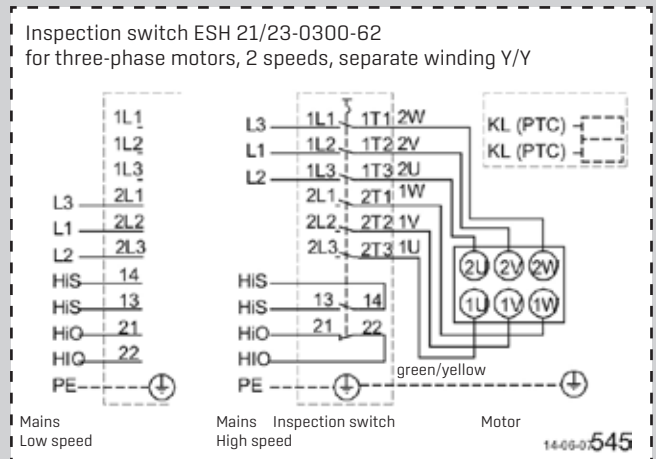
Inspection switch ESH 21-0300-62 for
ER 9090-GD-34



Inspection 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



Inspection switch ESH 21-0300-62 for
ER 9090-ID-34



INSPECTION SWITCH ESH 21



Design

Light grey plastic casing in mounting version. IP rating IP 65. Black switch with switching positions "0" and "I". Cover connector with integral lock for securing with a padlock.

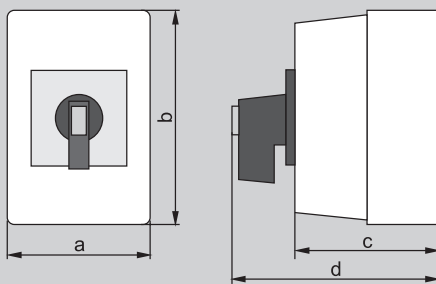
It contains clear terminals. Each switch has a connection diagram.

Function

During cleaning, maintenance or inspection, the inspection switch isolates the fan - on site - safely from the mains to prevent accidents due to uncontrolled activation of the system by a third party.

This makes the work of service personnel considerably easier.

All assigned inspection switches are designed with floating contacts (1 N/O contact and 1 N/C contact).



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 SWITCHING UNIT EBG Design
(ON REQUEST)



Stable, coated sheet steel casing with IP rating IP 54. Permissible ambient temperature up to + 40 °C. Operating and display elements arranged clearly on the front panel.

Function

If there is a fire, the smoke detector switch automatically switches on a smoke extract fan. Any motor overload relays or frequency converters 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.

ER SMOKE EXTRACT FAN ACCESSORIES

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. 100 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 ² to Vds
Casing IP rating	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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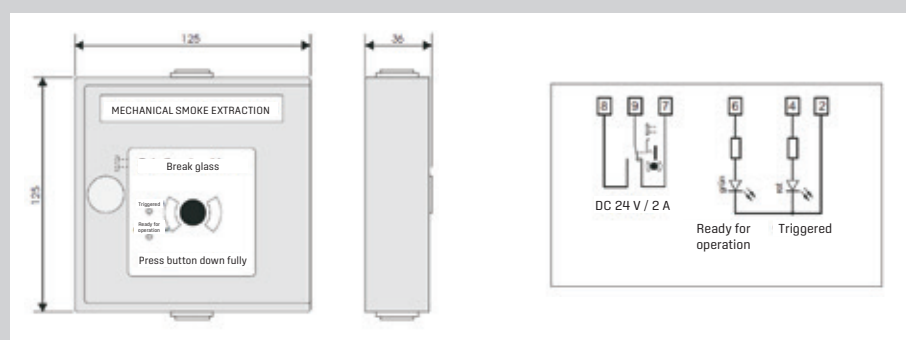
DKM-2K-OR PUSHBUTTON DETECTOR

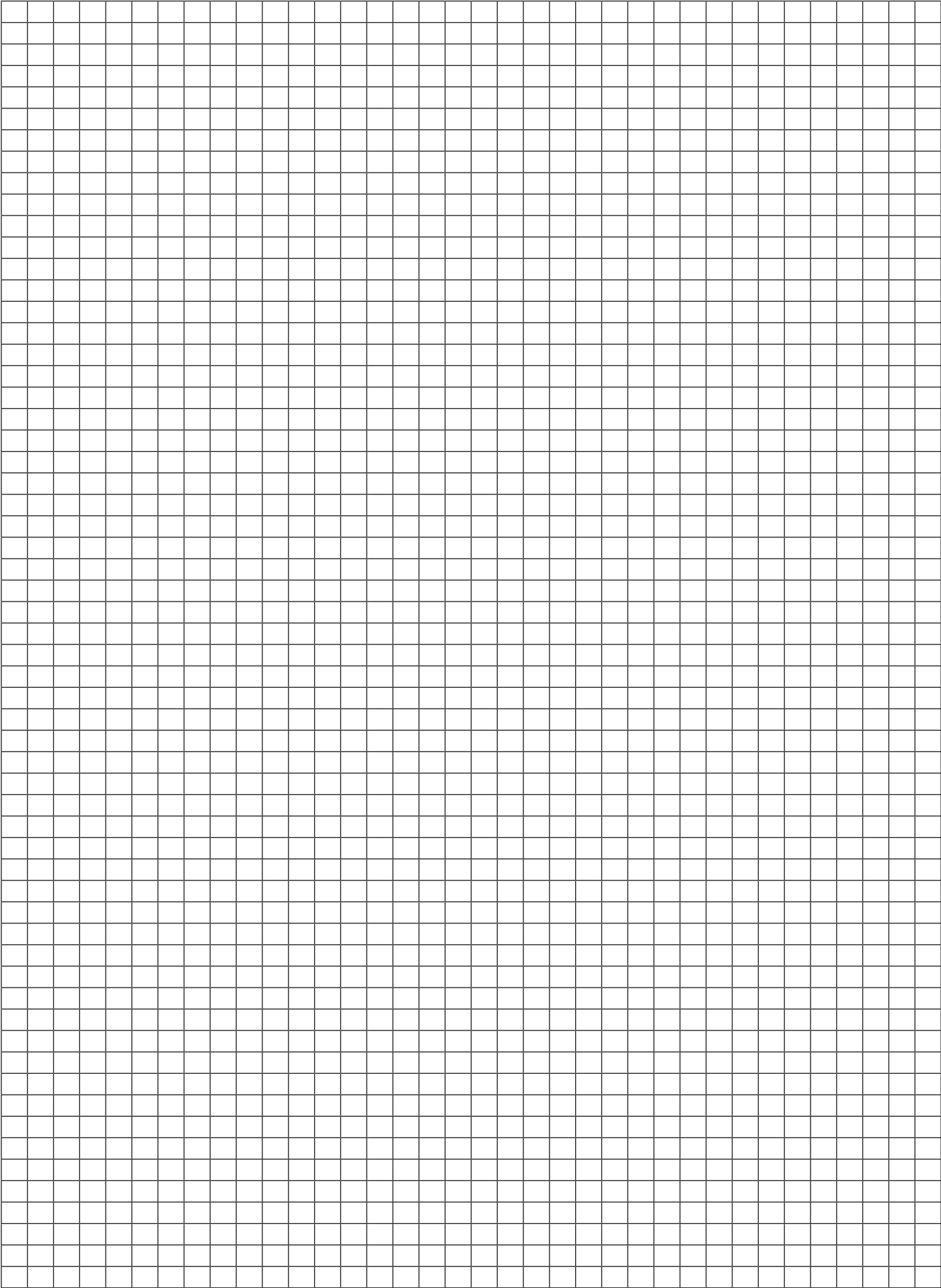


Description

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 indicator lights for OPERATIONAL RELIABILITY and TRIGGERED.

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.





Dealer address

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