Iso-VS EC

Sound-insulated smoke extraction fan

Designed for smoke control and general ventilation systems. Thanks to the EC motor and thermally and acoustically insulated casing, the fan provides high energy efficiency and low noise levels.

Air flow:
up to 27 500 m³/h

Transported air temperature:
+120 °C for long-term operation;
+400 °C for operation
up to 120 minutes



Application

- The fan can operate both in smoke extraction mode at a temperature of 400 °C for 2 hours and in general ventilation mode. The use of an EC motor reduces power consumption during prolonged fan operation. This is achieved through the high efficiency of the motor, electrical switching, and the ability to smoothly and accurately regulate the rotation speed without using external frequency converters.
- In continuous operation mode, the fan is designed to move air at temperatures up to 120 °C. Thanks to its combination of high thermal resistance, convenient and quick access for maintenance, low noise, and high energy efficiency, the fan can be used in ventilation systems in professional cooking areas, restaurants, and cafes, as well as in ventilation systems for shopping centers, office buildings, parking lots, garages, warehouses, and industrial premises.

Speed conrol

- The VSD EC fan is controlled with an external 0–10 V control signal
- Maximum speed of the fan does not depend on the power mains frequency, providing proper and stable operation in both 50 and 60 Hz power mains.

Electric motor

- The fan is equipped with a single-phase (up to 1.5 kW) or three-phase EC motor designed for 230/400 V voltage and frequency of 50 and 60 Hz.
- The electric motor is installed outside the air flow.
- The motor's ingress protection rating according to IEC 60034-5 is IP55.

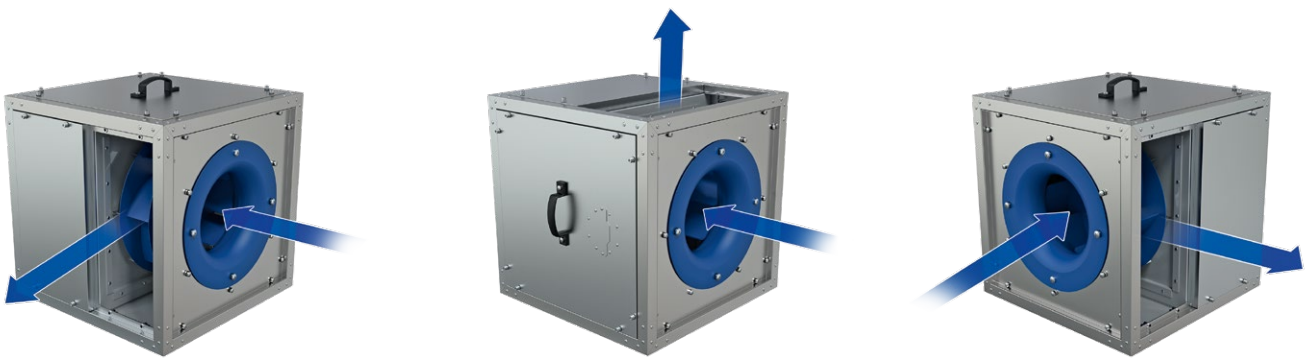
Mounting

- The fan is installed with a square or round air duct.
- The connection to the air ducts is carried out by means of a flexible joint or an adapter joint of the appropriate cross-section.
- The fan is powered through the external terminal box.
- The fan can be installed in any position according to the direction of air flow, provided that access for maintenance is ensured.

Design

- The fan casing features heat and sound insulating two-layer panels, made of galvanized steel to protect it from environmental exposure.
- The panels are insulated with 20 mm thick non-flammable mineral wool.
- The impeller with backward-curved blades is powder coated.
- The connecting spigots, which also serve as anti-vibration dampers, can be of square or round cross-section.
- The round connecting spigots are equipped with rubber seals.
- The connecting spigots are not included in the delivery set and must be ordered separately.
- The direction of air flow and air mixtures is controlled by rearranging the panels on the fan frame.

Example of repositioning the panels

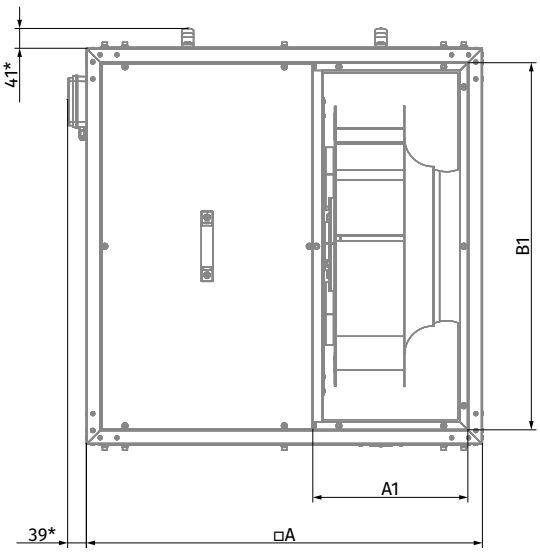


Designation key

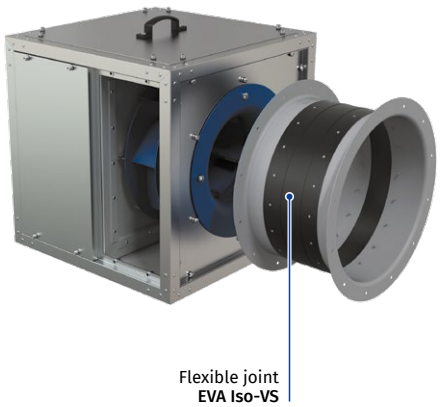
Series	Diameter [cm]		Phases		Motor power [kW]	Motor type	Case coating
Iso-VS: sound-insulated smoke removal fan (400°C)	**31; 35; 40; 45; 50; 56; 63; 71; 80**	–	**E:** single-phase **D:** three-phase	/	**0.55; 1.1; 1.5; 3; 5.5**	**EC:** synchronous electronically commutated motor	**_:** galvanized steel (default) **RAL 7004:** the RAL is specified if applicable

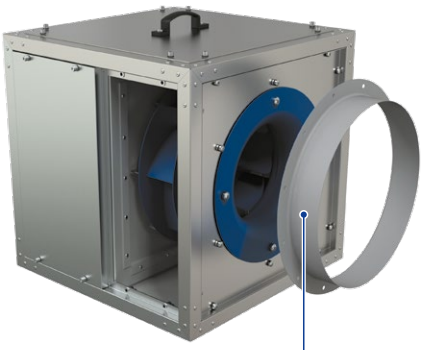
Dimensions [mm]

Model	A	A1	B1	Weight [kg]
Iso-VS 31-E/0.55 EC	500	200	440	48
Iso-VS 35-E/0.55 EC	600	225	540	57
Iso-VS 40-E/0.55 EC	670	252	610	71
Iso-VS 45-E/1.1 EC	700	282	640	84
Iso-VS 50-E/1.5 EC	820	321	760	109
Iso-VS 50-D/1.5 EC	820	321	760	106
Iso-VS 56-D/3 EC	900	365	840	140
Iso-VS 63-D/3 EC	1000	409	940	170
Iso-VS 63-D/5.5 EC	1000	409	940	178
Iso-VS 71-D/3 EC	1075	456	1015	250
Iso-VS 80-D/5.5 EC	1175	506	1115	311



Installation example with accessories

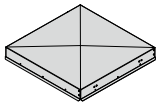

Flexible joint
EVA Iso-VS


Connecting flange
FR Iso-VS


Protective cover
RSD Iso-VS

Mounting bracket
MH Iso-VS

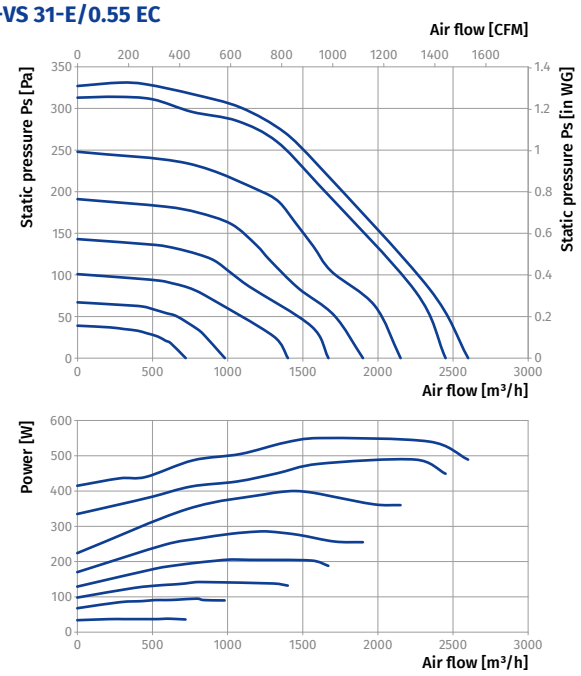
Accessories

Backdraft damper	Flexible joint	Connecting flange	Mounting bracket	Protective cover	Speed controller
					
VRV-AF...400/2	**EVA Iso-VS**	**FR Iso-VS**	**MH Iso-VS**	**RSD Iso-VS**	**CDT E/0-10**

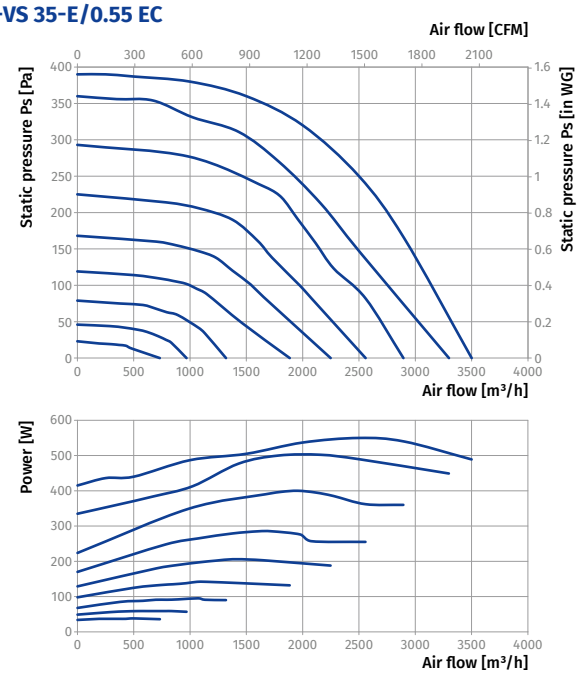
Technical data

Standard size	Voltage [V]	Frequency [Hz]	Fan model	Rated power Ny [kW]	Max. unit current [A]	Maximum air flow [m³/h]	Rated RPM [min⁻¹]	Sound pressure at 3 m [dBA]	Motor IP rating	IP rating
31	1~230	50/60	Iso-VS 31-E/0.55 EC	0.55	4.9	2600	1500	57	IP55	IPX4
35	1~230	50/60	Iso-VS 35-E/0.55 EC	0.55	4.9	3500	1500	58	IP55	IPX4
40	1~230	50/60	Iso-VS 40-E/0.55 EC	0.55	4.9	4600	1500	60	IP55	IPX4
45	1~230	50/60	Iso-VS 45-E/1.1 EC	1.1	7.9	7200	1500	62	IP55	IPX4

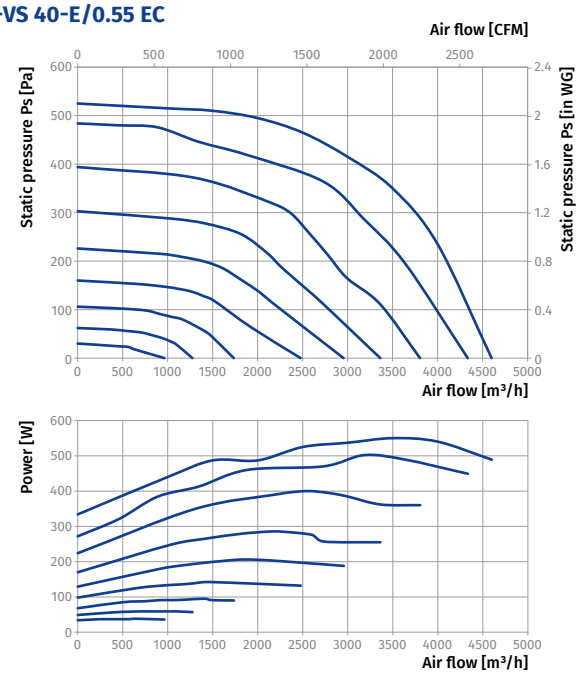
ISO-VS 31-E/0.55 EC



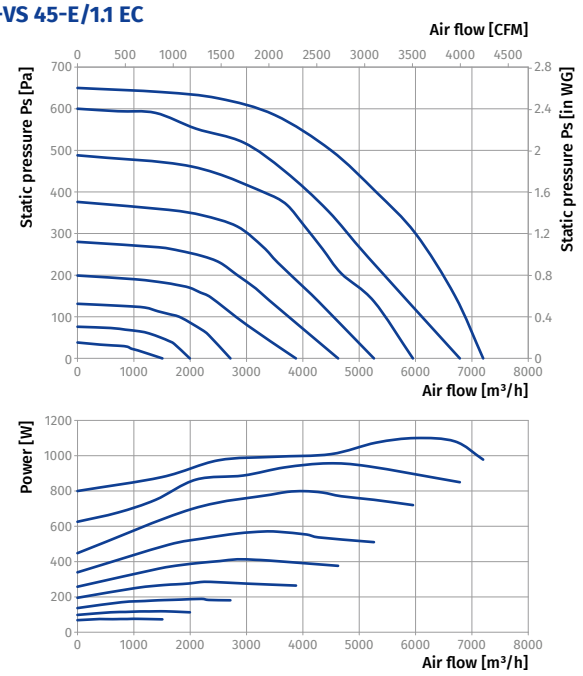
ISO-VS 35-E/0.55 EC



ISO-VS 40-E/0.55 EC

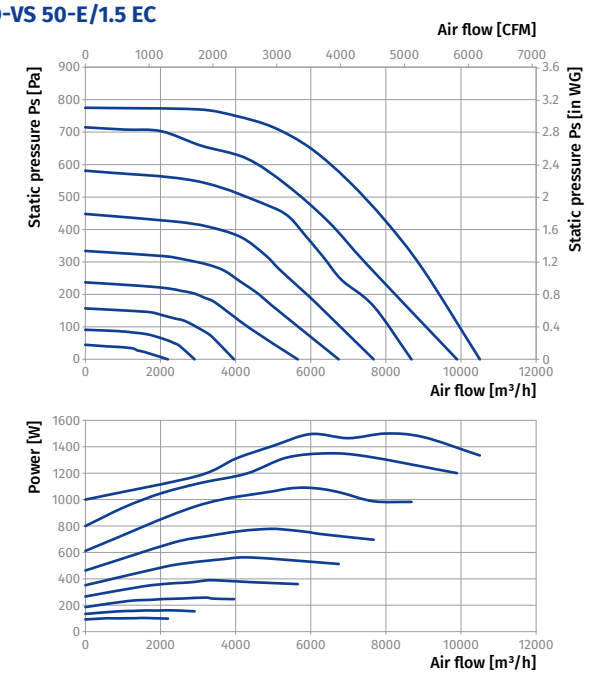


ISO-VS 45-E/1.1 EC

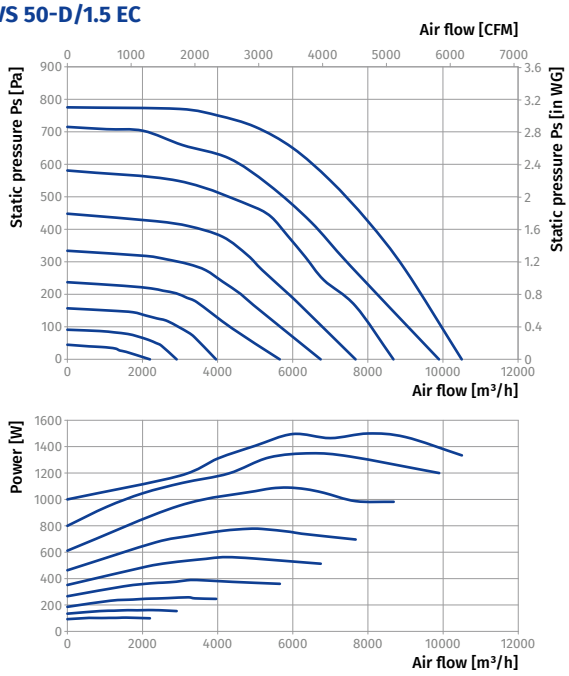


Standard size	Voltage [V]	Frequency [Hz]	Fan model	Rated power Ny [kW]	Max. unit current [A]	Maximum air flow [m³/h]	Rated RPM [min⁻¹]	Sound pressure at 3 m [dBA]	Motor IP rating	IP rating
50	1~230	50/60	Iso-VS 50-E/1.5 EC	1.5	10.5	10500	1500	63	IP55	IPX4
50	3~400	50/60	Iso-VS 50-D/1.5 EC	1.5	10.5	10500	1500	63	IP55	IPX4
56	3~400	50/60	Iso-VS 56-D/3 EC	3	6.4	15700	1500	64	IP55	IPX4

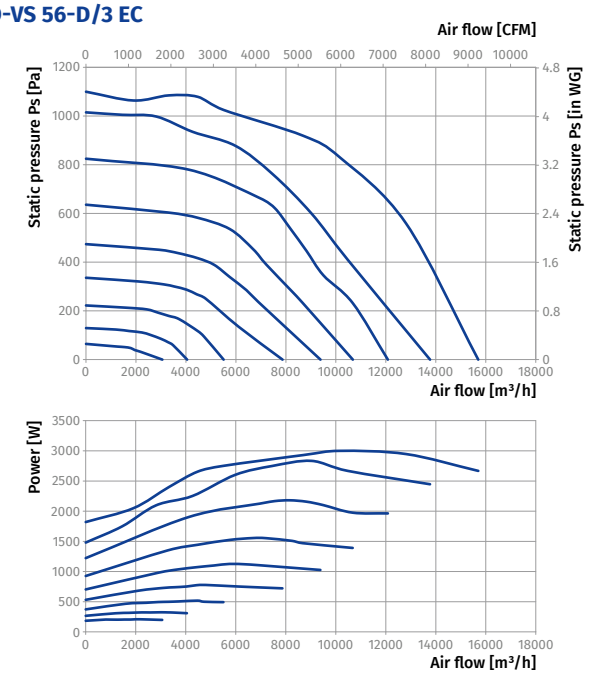
ISO-VS 50-E/1.5 EC



ISO-VS 50-D/1.5 EC

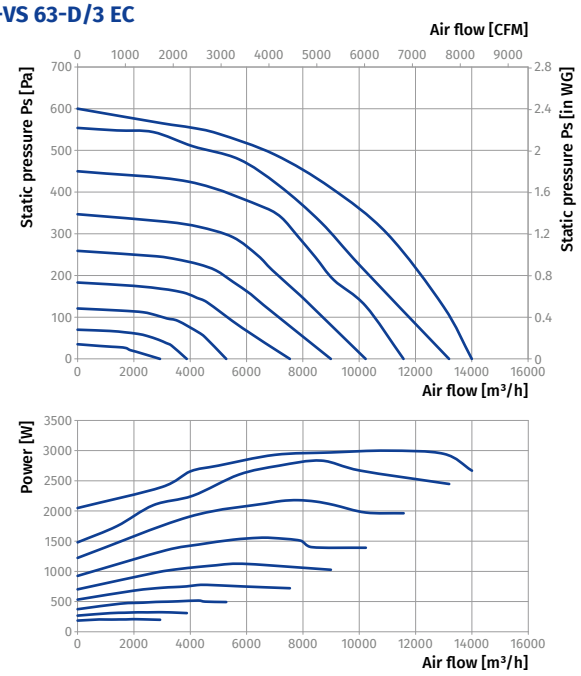


ISO-VS 56-D/3 EC

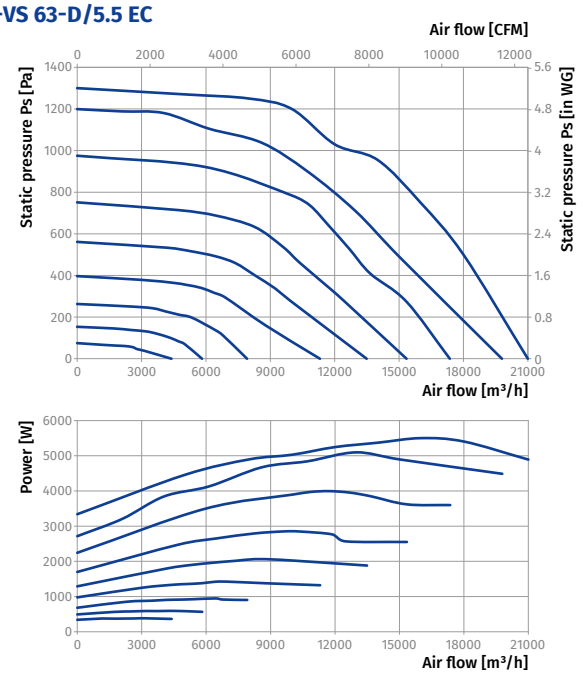


Standard size	Voltage [V]	Frequency [Hz]	Fan model	Rated power Ny [kW]	Max. unit current [A]	Maximum air flow [m³/h]	Rated RPM [min⁻¹]	Sound pressure at 3 m [dBA]	Motor IP rating	IP rating
63	3~400	50/60	Iso-VS 63-D/3 EC	3	7.2	14000	1000	65	IP55	IPX4
63	3~400	50/60	Iso-VS 63-D/5.5 EC	5.5	10.9	21000	1500	67	IP55	IPX4
71	3~400	50/60	Iso-VS 71-D/3 EC	3	7.2	20000	1000	66	IP55	IPX4
80	3~400	50/60	Iso-VS 80-D/5.5 EC	5.5	12.9	27500	1000	67	IP55	IPX4

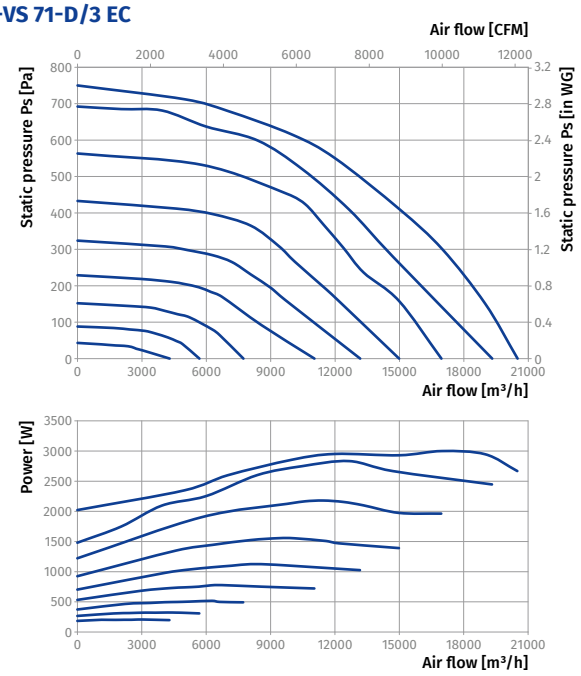
ISO-VS 63-D/3 EC



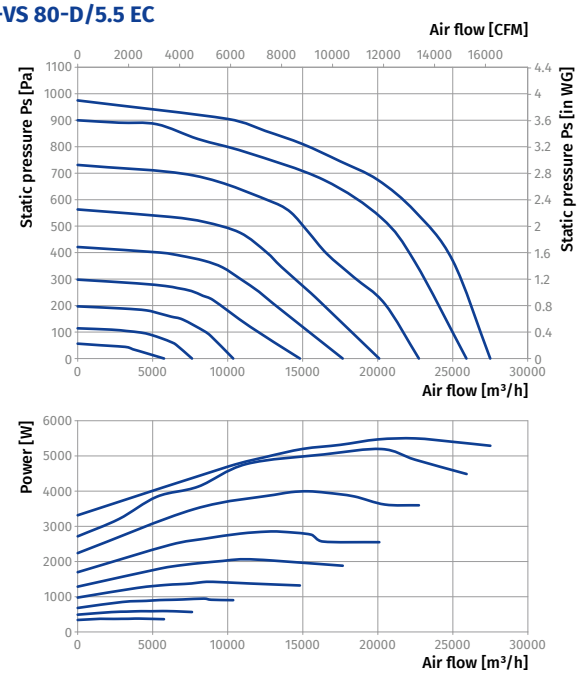
ISO-VS 63-D/5.5 EC



ISO-VS 71-D/3 EC



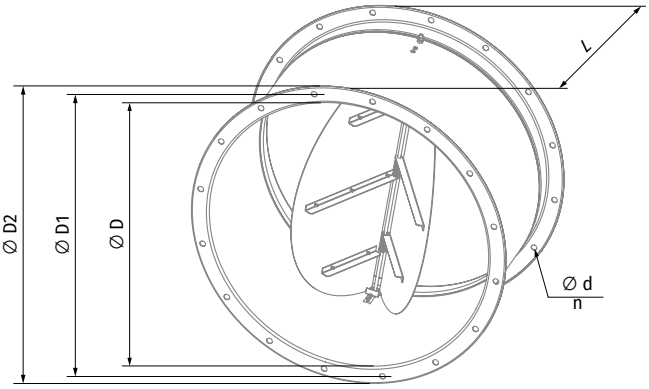
ISO-VS 80-D/5.5 EC



Iso-VS accessories

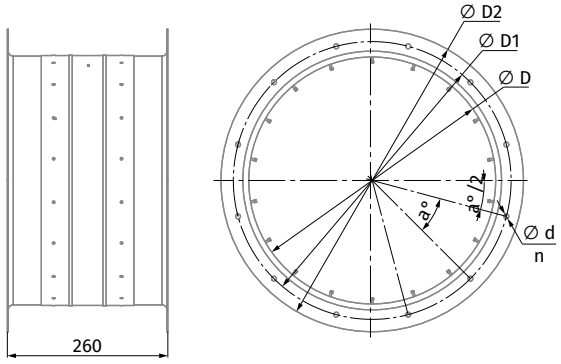
BACKDRAFT DAMPER VRV-AF...400/2

Model	Dimensions [mm]						Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n	L	
VRV-AF-315-400/2	315	365	405	8	6	190	3.6
VRV-AF-355-400/2	355	405	445	8	6	225	4.5
VRV-AF-400-400/2	400	450	490	8	12	250	5.4
VRV-AF-450-400/2	450	500	540	8	12	250	6.2
VRV-AF-500-400/2	500	560	590	12	12	250	7.1
VRV-AF-560-400/2	560	620	650	12	12	320	9.6
VRV-AF-630-400/2	630	690	720	12	12	370	14.2
VRV-AF-710-400/2	710	770	810	12	16	390	21.4
VRV-AF-800-400/2	800	860	900	12	16	390	25.4



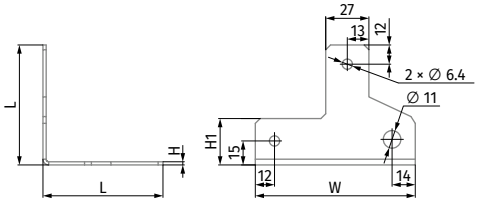
FLEXIBLE JOINT EVA ISO-VS

Model	Dimensions [mm]					Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n	
EVA Iso-VS 315	315	365	405	8	6	3.79
EVA Iso-VS 355	355	405	445	8	6	4.25
EVA Iso-VS 400	400	450	490	8	12	4.76
EVA Iso-VS 450	450	500	540	8	12	5.34
EVA Iso-VS 500	500	560	600	12	12	6.12
EVA Iso-VS 560	560	620	660	12	12	6.83
EVA Iso-VS 630	630	690	730	12	12	7.66
EVA Iso-VS 710	710	770	810	12	16	8.6
EVA Iso-VS 800	800	860	900	12	16	9.67



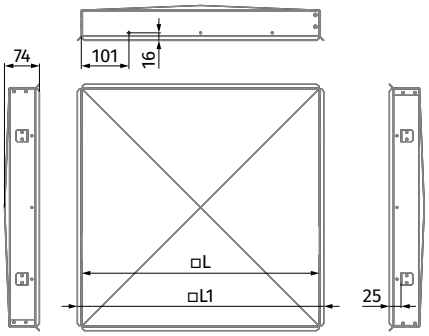
MOUNTING BRACKET MH ISO-VS

Model	Dimensions [mm]				Weight [kg]
	H	H1	L	W	
MH Iso-VS 280-450	2	29	90	125	0.12
MH Iso-VS 500-800	3	29	90	125	0.21



PROTECTIVE COVER RSD ISO-VS

Model	Dimensions [mm]		Weight [kg]
	L	L1	
RSD Iso-VS 315	503	522	2.42
RSD Iso-VS 355	603	622	3.25
RSD Iso-VS 400	673	692	3.91
RSD Iso-VS 450	703	722	4.21
RSD Iso-VS 500	823	842	6.57
RSD Iso-VS 560	903	922	7.71
RSD Iso-VS 630	1003	1022	9.27
RSD Iso-VS 710	1078	1097	10.53
RSD Iso-VS 800	1178	1197	12.3



CONNECTION FLANGE FR ISO-VS

Model	Dimensions [mm]					Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n	
FR Iso-VS 315	315	365	405	8	6	1.7
FR Iso-VS 355	355	405	445	8	6	1.9
FR Iso-VS 400	400	450	490	8	12	2.13
FR Iso-VS 450	450	500	540	8	12	2.39
FR Iso-VS 500	500	560	600	12	12	2.75
FR Iso-VS 560	560	620	660	12	12	3.06
FR Iso-VS 630	630	690	730	12	12	3.44
FR Iso-VS 710	710	770	810	12	16	3.86
FR Iso-VS 800	800	860	900	12	16	4.34

