



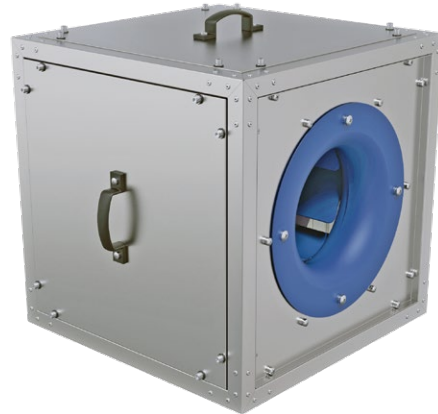
Series

VSD

Sound-insulated smoke extraction fan

 Air flow: up to **28 500 m³/h**.

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



APPLICATION

The sound-insulated dual-purpose smoke extraction fan is used in emergency exhaust ventilation systems for forced extraction of smoke, heated gases and combustion products. May be used in general exhaust ventilation systems in shopping centers, offices, garages, warehouses, and kitchens.

OPERATION

The fan is designed to extract smoke and air mixtures heated up to +400 °C for up to 120 minutes, and long-term operation with transported air temperature of up to +120 °C. The fan can be equipped with a frequency converter for speed control. The fan can be manufactured for temperate (**U**), cold (**HL**), tropical (**T**) or marine moderately cold (**M**) climates of the first placement category.

ELECTRIC MOTOR

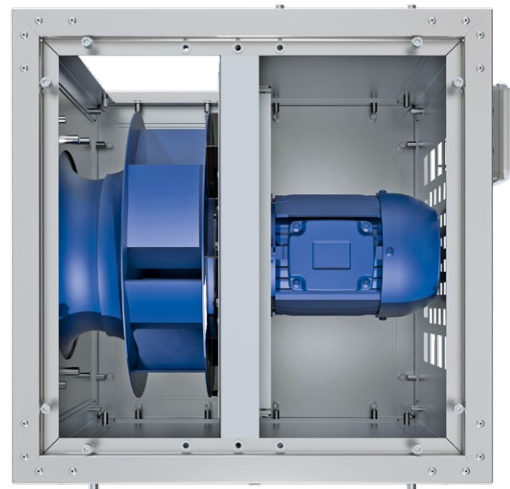
The fan is equipped with a single-phase (up to 1.1 kW) or three-phase electric motor designed for 220/400 V voltage. The electric motor is installed outside the air flow on an additional panel inside the fan. The motor ingress protection rating according to IEC 60034-5 is IP55.

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 is made of an aluminum frame fastened with aluminum corners and removable heat and sound insulating double-layer panels made of galvanized steel. 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.



DESIGNATION KEY

Series
VSD: sound-insulated smoke removal fan (400 °C)

Diameter [mm]
280, 315, 355, 400, 450, 500, 560, 630, 710, 800

Number of poles
2, 4, 6, 2/4, 4/6, 4/8

Phases
E: single-phase
D: three-phase

Motor power [kW]
x: single-speed
x/x: two-speed

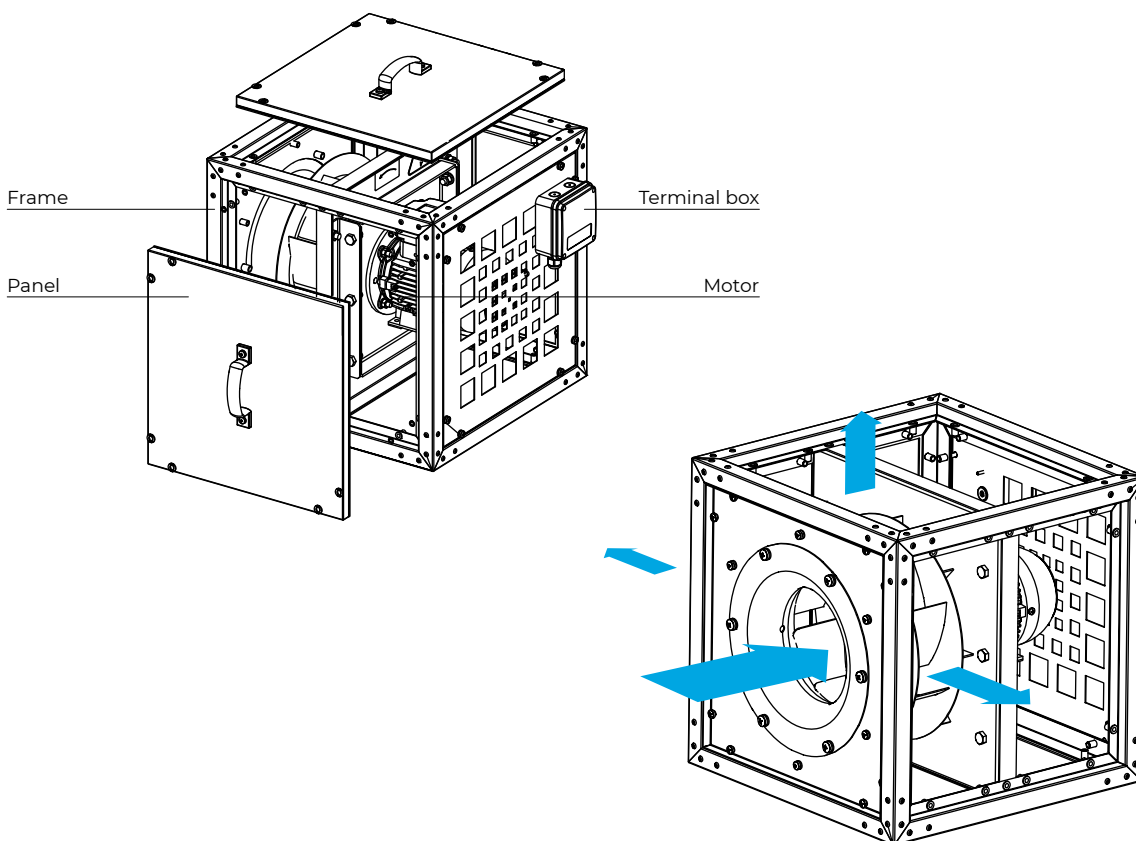
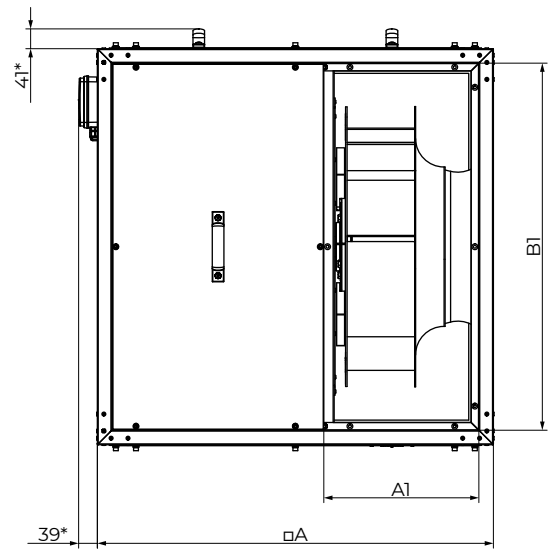
Climatic category
U: moderate climate; **HL:** cold climate; **T:** tropical climate; **MI:** maritime moderately cold climate

Case coating
 -: galvanized steel (default)
RAL 7004: the RAL is specified if applicable

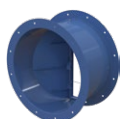
VSD -355-4D / x-U1 RAL 7004

OVERALL DIMENSIONS [mm]

Fan type	A	A1	B1	Weight [kg]
VSD-280-2D	450	190	390	39
VSD-280-2E	450	190	390	39
VSD-315-2D	500	200	440	50.6
VSD-315-2E	500	200	440	50.6
VSD-315-4D	500	200	440	46.5
VSD-315-4E	500	200	440	46.5
VSD-355-4D	600	225	540	61.6
VSD-355-4E	600	225	540	61.6
VSD-400-4D	670	252	610	72
VSD-400-4E	670	252	610	65.7
VSD-450-4D	700	282	640	76.7
VSD-450-4E	700	282	640	76.7
VSD-500-4D	820	321	760	111
VSD-560-4D	900	365	840	144
VSD-630-4D	1000	409	940	166
VSD-710-4D	1075	456	1015	262
VSD-710-6D	1075	456	1015	237
VSD-800-6D	1175	506	1115	311



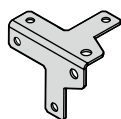
ACCESSORIES



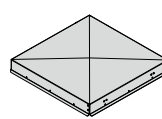
Backdraft damper
KOM-VO...400/2



Flexible joint
VVG VSD



Mounting bracket
MB VSD



Protective cover
VPR VSD



Frequency converter
Basic Drive FC-101

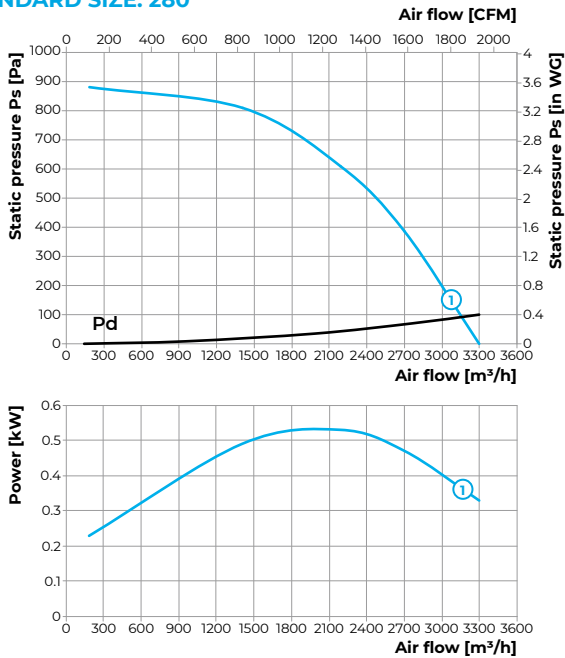


Safety switches
AS

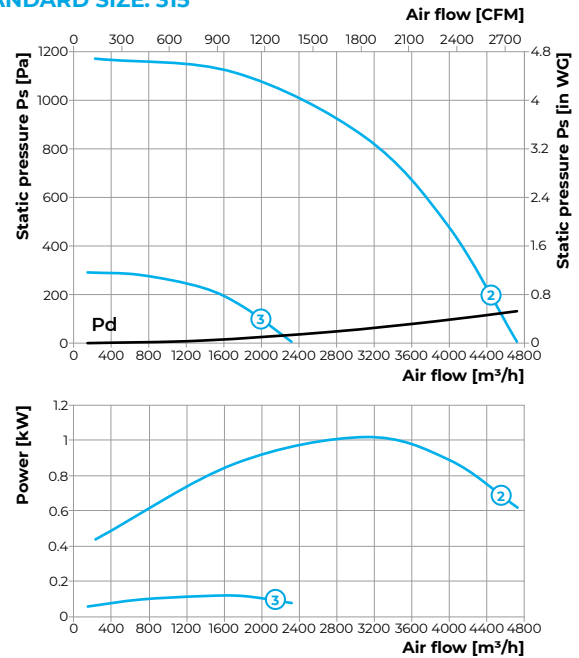
TECHNICAL DATA

Standard size	Number of poles	Voltage [V/50 Hz]	Fan model	Rated power Ny [kW]	Rated RPM [min ⁻¹]	High speed curve number	Low speed curve number
280	2	3~400	VSD-280-2D/0.55	0.55	2880	①	
280	2	1~230	VSD-280-2E/0.55	0.55	2880	①	
315	2	3~400	VSD-315-2D/1.1	1.1	2880	②	
315	2	1~230	VSD-315-2E/1.1	1.1	2880	②	
315	4	3~400	VSD-315-4D/0.25	0.25	1440	③	
315	4	1~230	VSD-315-4E/0.25	0.25	1440	③	
315	2/4	3~400	VSD-315-2/4D/1.1/0.25	1.1/0.25	2880/1440	②	③
355	4	3~400	VSD-355-4D/0.37	0.37	1440	④	
355	4	1~230	VSD-355-4E/0.37	0.37	1440	④	
355	4/6	3~400	VSD-355-4/6D/0.37/0.1	0.37/0.1	1420/905	④	⑤
400	4	3~400	VSD-400-4D/0.55	0.55	1440	⑥	
400	4	1~230	VSD-400-4E/0.55	0.55	1440	⑥	
400	4/6	3~400	VSD-400-4/6D/0.55/0.2	0.55/0.2	1420/905	⑥	⑦

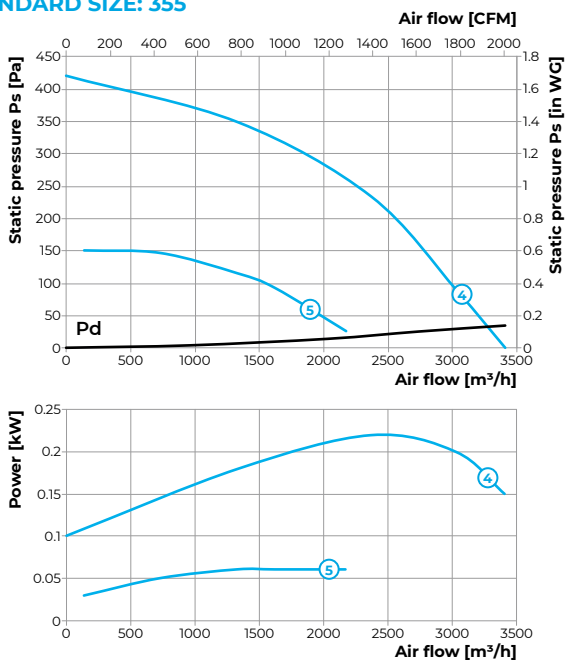
STANDARD SIZE: 280



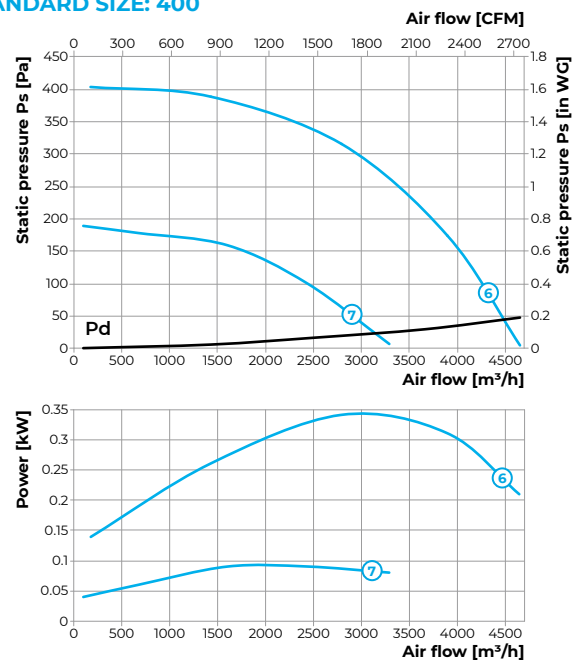
STANDARD SIZE: 315



STANDARD SIZE: 355

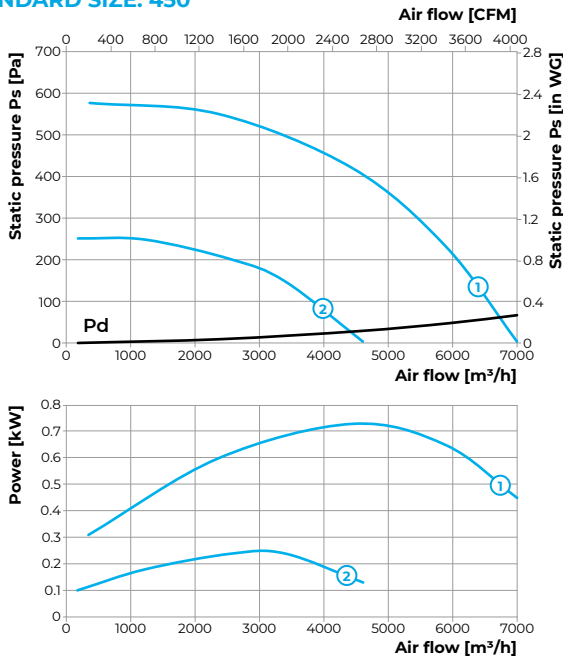


STANDARD SIZE: 400

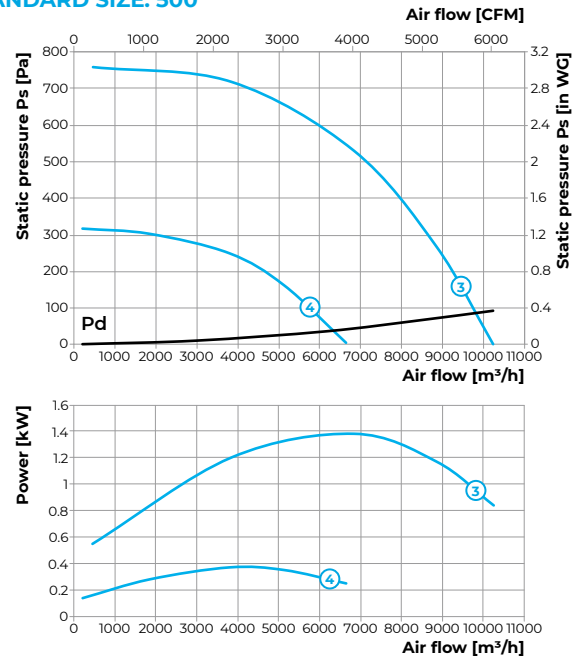


Standard size	Number of poles	Voltage [V/50 Hz]	Fan model	Rated power Ny [kW]	Rated RPM [min ⁻¹]	High speed curve number	Low speed curve number
450	4	3~400	VSD-450-4D/0.75	0.75	1440	①	
450	4	1~230	VSD-450-4E/0.75	0.75	1440	①	
450	4/6	3~400	VSD-450-4/6D/0.75/0.25	0.75/0.25	1435/905	①	②
500	4	3~400	VSD-500-4D/1.5	1.5	1440	③	
500	4/6	3~400	VSD-500-4/6D/1.5/0.37	1.5/0.37	1430/920	③	④
560	4	3~400	VSD-560-4D/3	3	1440	⑤	
560	4/6	3~400	VSD-560-4/6D/3.0/1.0	3.0/1.0	1435/950	⑤	⑥
560	4/8	3~400	VSD-560-4/8D/2.8/0.7	2.8/0.7	1435/710	⑤	⑦
630	4	3~400	VSD-630-4D/4	4	1440	⑧	
630	4/6	3~400	VSD-630-4/6D/4.5/1.5	4.5/1.5	1445/950	⑧	⑨
630	4/8	3~400	VSD-630-4/8D/3.8/1.0	3.8/1.0	1445/720	⑧	⑩

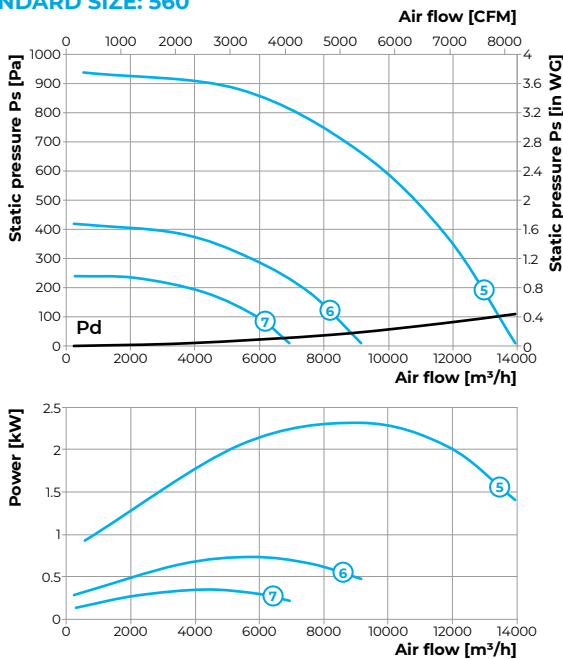
STANDARD SIZE: 450



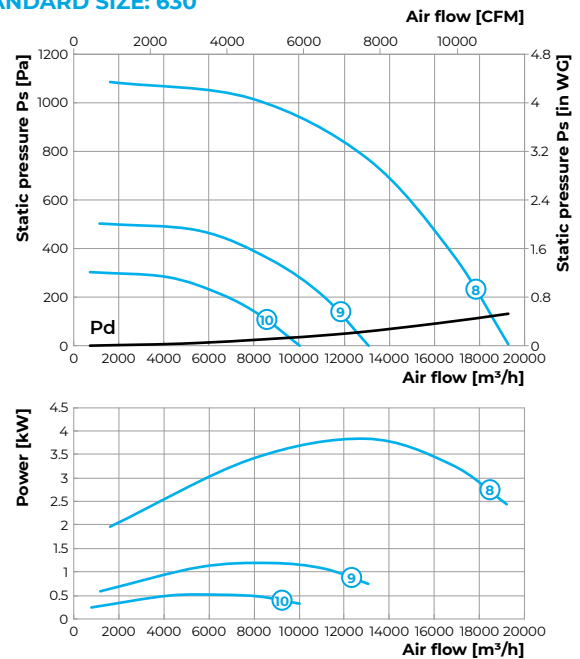
STANDARD SIZE: 500



STANDARD SIZE: 560

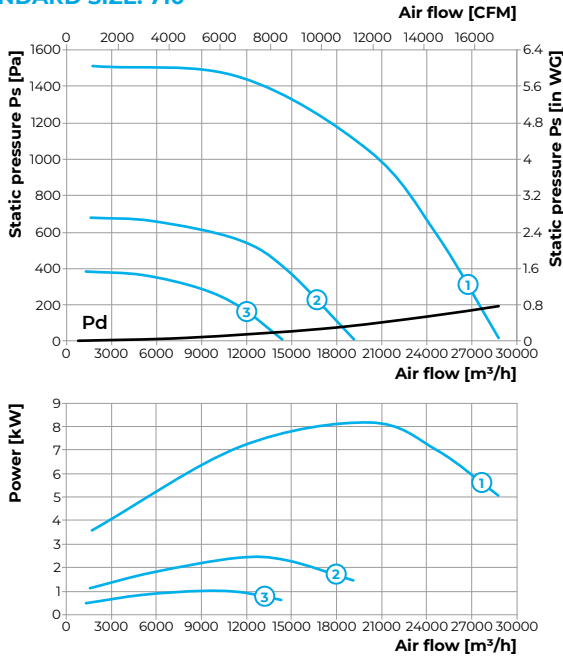


STANDARD SIZE: 630

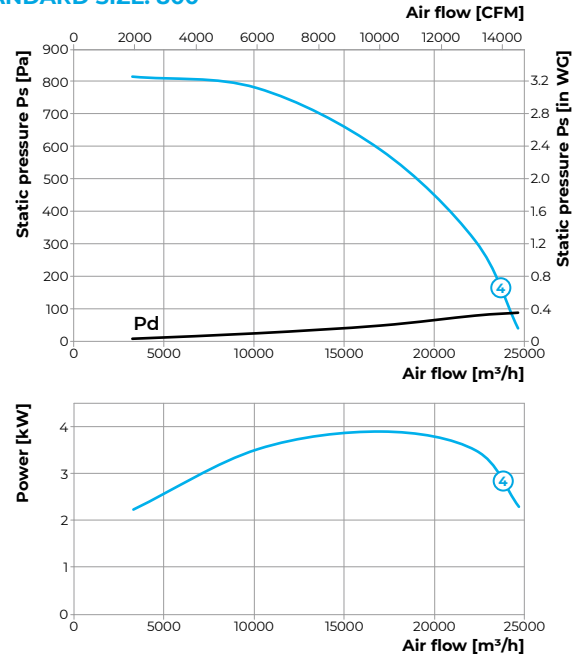


Standard size	Number of poles	Voltage [V/50 Hz]	Fan model	Rated power Ny [kW]	Rated RPM [min ⁻¹]	High speed curve number	Low speed curve number
710	4	3~400	VSD-710-4D/7.5	7.5	1440	①	
710	6	3~400	VSD-710-6D/2.2	2.2	960	②	
710	4/6	3~400	VSD-710-4/6D/7.5/3.5	7.5/3.5	1455/960	①	②
710	4/8	3~400	VSD-710-4/8D/7.2/1.8	7.2/1.8	1455/720	①	③
800	6	3~400	VSD-800-6D/4	4	960	④	

STANDARD SIZE: 710



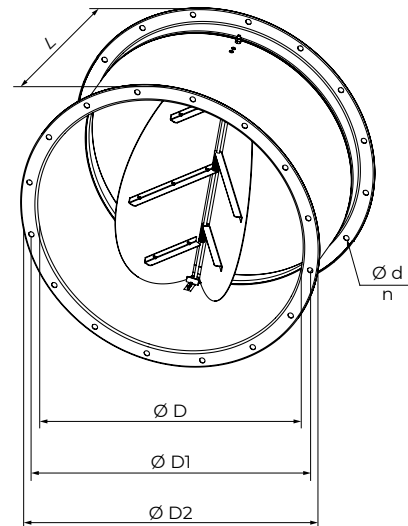
STANDARD SIZE: 800



VSD ACCESSORIES

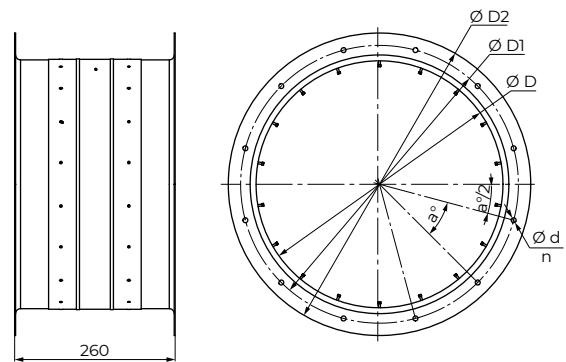
BACKDRAFT DAMPER KOM-VO...400/2

Model	Dimensions [mm]						Weight [kg]
	∅ D	∅ D1	∅ D2	∅ d	n	L	
KOM-VO-280-400/2	280	340	370	8	6	190	3.2
KOM-VO-315-400/2	315	365	405	8	6	190	3.6
KOM-VO-355-400/2	355	405	445	8	6	225	4.5
KOM-VO-400-400/2	400	450	490	8	12	250	5.4
KOM-VO-450-400/2	450	500	540	8	12	250	6.2
KOM-VO-500-400/2	500	560	590	12	12	250	7.1
KOM-VO-560-400/2	560	620	650	12	12	320	9.6
KOM-VO-630-400/2	630	690	720	12	12	370	14.2
KOM-VO-710-400/2	710	770	810	12	16	390	21.4
KOM-VO-800-400/2	800	860	900	12	16	390	25.4



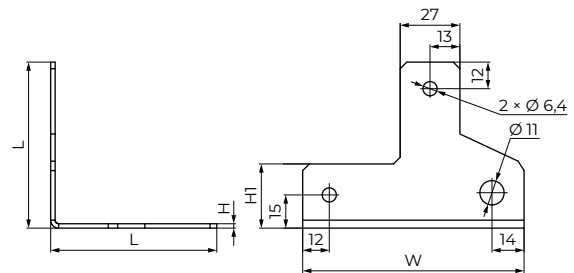
FLEXIBLE JOINT VVG VSD

Model	Dimensions [mm]					Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n	
VVG VSD 280	280	340	370	8	6	3.39
VVG VSD 315	315	365	405	8	6	4.76
VVG VSD 355	355	395	435	10	8	4.76
VVG VSD 400	400	450	490	8	12	4.76
VVG VSD 450	450	500	540	8	12	5.34
VVG VSD 500	500	560	600	12	12	6.12
VVG VSD 560	560	620	660	12	12	6.83
VVG VSD 630	630	690	730	12	12	7.66
VVG VSD 710	710	770	810	12	16	8.6
VVG VSD 800	800	860	900	12	16	9.67



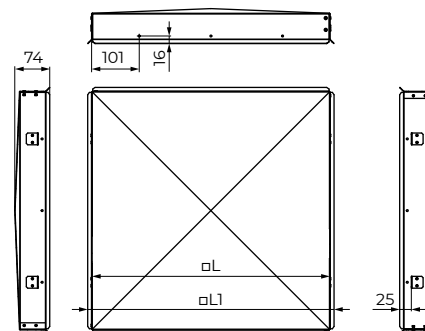
MOUNTING BRACKET MB VSD

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



PROTECTIVE COVER VPR VSD

Model	Dimensions [mm]		Weight [kg]
	L	L1	
VPR VSD 280	456	472	2
VPR VSD 315	503	522	2.42
VPR VSD 355	603	622	3.25
VPR VSD 400	673	692	3.91
VPR VSD 450	703	722	4.21
VPR VSD 500	823	842	6.57
VPR VSD 560	903	922	7.71
VPR VSD 630	1003	1022	9.27
VPR VSD 710	1078	1097	10.53
VPR VSD 800	1178	1197	12.3



CONNECTION FLANGE PK VSD

Model	Dimensions [mm]					Weight [kg]
	Ø D	Ø D1	Ø D2	Ø d	n	
PK VSD 280	280	340	370	8	6	1.52
PK VSD 315	315	365	405	8	6	1.7
PK VSD 355	355	405	445	8	6	1.9
PK VSD 400	400	450	490	8	12	2.13
PK VSD 450	450	500	540	8	12	2.39
PK VSD 500	500	560	600	12	12	2.75
PK VSD 560	560	620	660	12	12	3.06
PK VSD 630	630	690	730	12	12	3.44
PK VSD 710	710	770	810	12	16	3.86
PK VSD 800	800	860	900	12	16	4.34

