

Smoke extract roof fans



DVG/F

- Smoke and heat extract unit + normal ventilation
- Up to 400°C/120 min (F400/120, F400/90, F300, F200)
- Normal ventilation up to 120°C continuous operation
- Vertical exhaust DVG-V or horizontal DVG-H
- Includes pre-wired isolator
- Suitable for coastal applications
- Wide range of accessories
- Tested acc. to EN 12101-3 at LGAI, Barcelona
- CE-certified acc. to EN 12101-3, 2002-06 at TÜV Süd

The DVG/F smoke extract fans are used in case of fire to extract smoke gases from rooms, and also during normal working conditions for standard ventilation.

Smoke-free escape ways increase the chances to rescue people in case of a fire. The casing is manufactured from seawater resistant aluminium. The base frame consists of galvanised steel. The impeller with backward-curved blades is manufactured from galvanised steel.

Motor outside air stream is air cooled. The fan is equipped with IEC standard motors according to the 2009/640/EC guideline and IEC 60034-30, with protection class IP 54, insulation class F. Thermal motor protection (PTC or thermal contact built-in) on request, in IE2 motors serial PTC built-in, in DVG 400D4V serial thermal

contact built-in. For frequency controlled single speed units up to 0,55 kW PTC must be ordered (since IE1 motors built-in). For two speed fans (up to 4 kW) two speed switch, S-DT2 SKT/S-DT2 GKT is available as accessory (in this case thermal contact must be ordered; not suitable for PTC or without thermal contact).

In case of fire two speed switch, eventual speed controller at DVG 400D4V and motor protective devices must be bridged to guarantee functional capability (connection direct to mains). For speed control use only combination of frequency inverter and appropriate all pole sine filter (hot tested at LGAI with inverter and sine filter).

If frequency inverter used in case of fire, PTC must be bridged and switching on max. speed even after eventual short sup-

ply cut off assured. Operating over 50 Hz is not allowed. Frequency controlled units can have additional EMC protection (available on request).

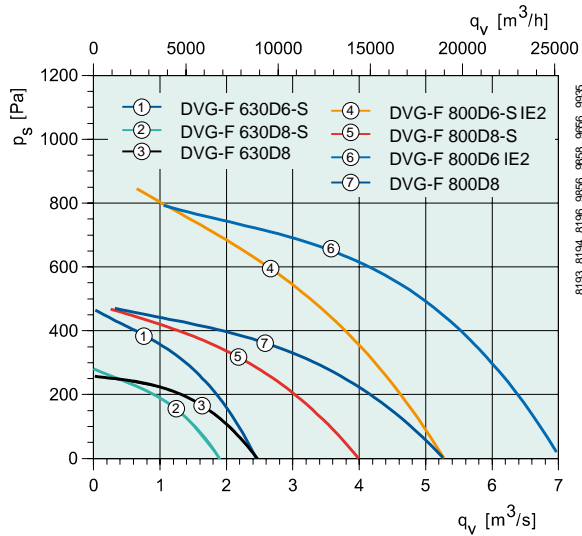
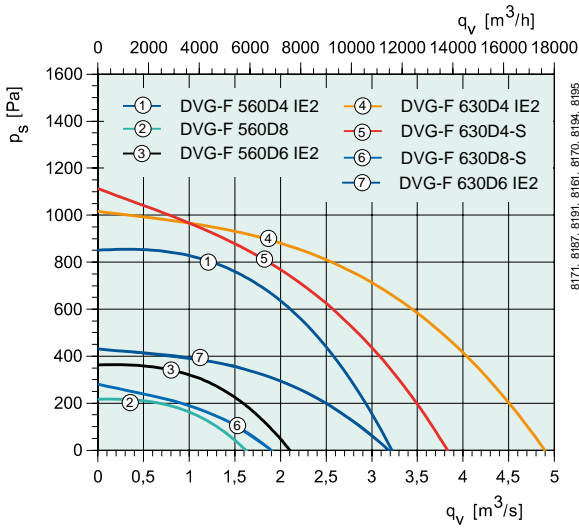
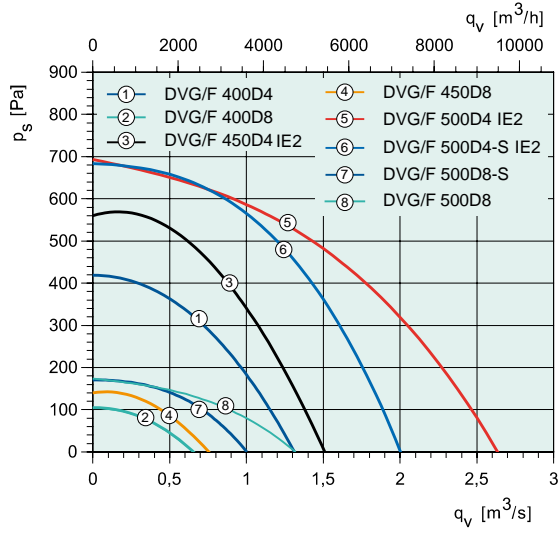
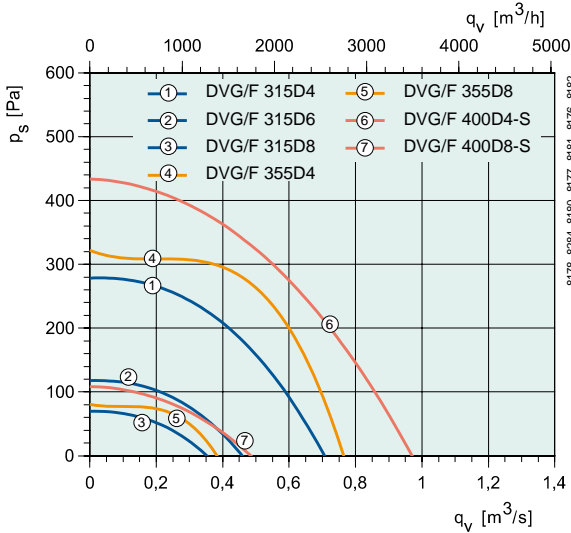
Note: article numbers in tables refer to items without PTC or thermal contact, with exception of items with IE2 motors, where PTC is serial built-in.

Note: diagrams and data of max. airflow and sound level refer to items with vertical exhaust DVG-V; diagrams and data of DVG-H are available on-line. Data related to motor and weight of delivered items can vary from catalogue data due to different suppliers.

TECHNICAL DATA

DVG/F		315D4	315D4-8	355D4	355D4-8	400D4-S	400D4-8-S	400D4	400D4-8	450D4 IE2
Art no. DVG-V (vertical)		32306	32307	32308	32309	32310	32311	32312	32313	95164
Art no. DVG-H (horizontal)		95001	95002	95003	95004	95005	95006	95007	95008	95153
Voltage/Frequency	V/50 Hz	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~
Power at shaft	kW	0.37	0.37/0.12	0.37	0.37/0.12	0.37	0.37/0.12	0.55	0.50/0.12	0.75
Current	A	0.95	1.3/0.6	0.95	1.3/0.6	1.6	1.3/0.6	1.6	1.6/0.6	2.1
Starting current	A	4.1	3.4/1.3	4.1	3.4/1.3	6.6	3.4/1.3	6.6	5.8/1.3	10.1
Max air flow	m³/s	0.71	0.71/0.36	0.81	0.76/0.38	0.97	0.97/0.49	1.31	1.31/0.66	1.52
R.p.m.	min-1	1405	1350/680	1405	1350/680	1390	1350/680	1390	1410/670	1425
Max. temp. of transp. air*	°C	400	400	400	400	400	400	400	400	400
Sound pressure level at 4 m	dB(A)	55	55/39	56	56/41	59	59/43	62	62/46	65
Sound pressure level at 10 m	dB(A)	49	49/33	50	50/35	53	53/37	55	55/40	58
Weight vertical/horizontal	kg	41/39	41/39	43/41	43/41	45/41	45/41	46/44	46/44	56/52
Enclosure class, motor		IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
PTC serial built-in motor										PTC
S-DT2DKT, S-DT2GKT			...DKT		...DKT		...DKT		...DKT	
FXDM										
Wiring diagram p. 391-400		15b	14a	15b	14a	15b	14a	15b	14a	15c
*for 120 min										

QUICK SELECTION



VENTILATION ACCESSORIES

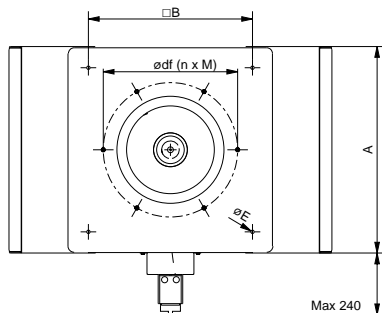
-  ASFV p. 384
-  ASK/F p. 380
-  ASSG/F p. 383
-  FDGE/F p. 378
-  SSG/F p. 378
-  FDG/F p. 377
-  VKG/F p. 383

DVG/F		450D4-8	500D4 IE2	500D4-S IE2	500D4-8-S	500D4-8	560D4 IE2	560D4-8	560D6 IE2	630D4 IE2
Art no. V (vertical)		32315	95165	95166	32317	32319	95169	32323	95170	95171
Art no. H (horizontal)		95010	95154	95155	95012	95014	95158	95018	95159	95160
Voltage/Frequency	V/50 Hz	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~
Power at shaft	kW	1.1/0.25	1.5	1.1	1.1/0.25	1.4/0.35	2.2	2.5/0.6	0.75	4
Current	A	3.1/1.2	3.5	2.6	3.1/1.25	3.5/1.4	4.9	5.9/2.4	2	8.7
Starting current	A	12.4/3	20.3	12.5	12.4/3.0	14.4/3.5	28.9	30.7/7.4	5.8	51
Max air flow	m³/s	1.52/0.76	2.64	2	2.0/1.0	2.64/1.32	3.24	3.24/1.6	2.11	4.91
R.p.m.	min ⁻¹	1400/690	1420	1435	1400/690	1400/680	1425	1430/710	880	1445
Max. temp. of transp. air*	°C	400	400	400	400	400	400	400	400	400
Sound pressure level at 4 m	dB(A)	65/48	70	66	66/49	70/52	72	72/51	58	75
Sound pressure level at 10 m	dB(A)	58/42	63	60	60/44	63/45	67	67/46	52	69
Weight vertical/horizontal	kg	58/55	86/82	87/83	87/83	86/82	104/99	107/102	96/91	128/123
Enclosure class, motor		IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
PTC serial built-in motor			PTC	PTC			PTC		PTC	PTC
S-DT2DKT, S-DT2GKT		...DKT			...DKT	...DKT		...DKT		
FXDM...			...5AM	...5AM			...5AM		...5AM	...14AM
Wiring diagram p. 391-400		14a	15c	15c	14a	14a	15c	14a	15c	15c
*for 120 min										

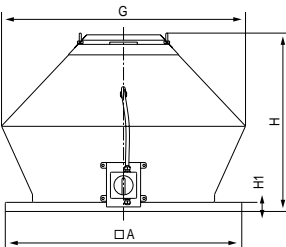
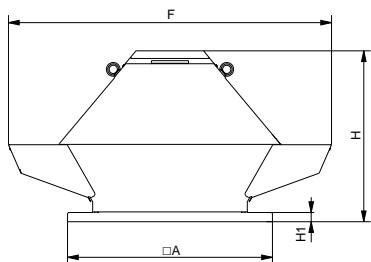
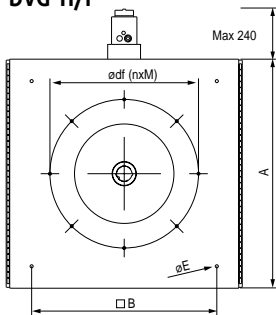
Smoke extract roof fans

DIMENSIONS

DVG-V/F



DVG-H/F

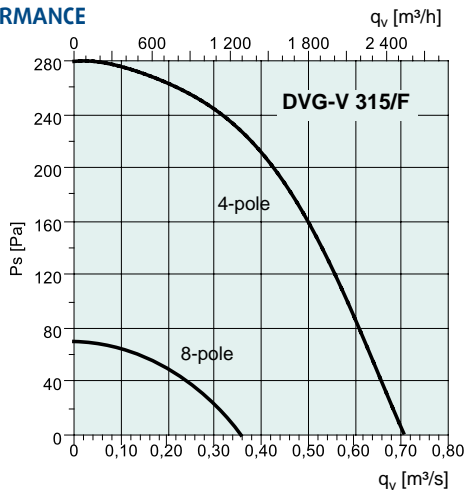


DVG/F	□A	□B	∅E	F	G	∅df (n x M)	H1	H
315	598	450	12	891	594	438 (6xM8)	30	520
355	598	450	12	1003	704	438 (6xM8)	30	567
400	668	535	12	1053	724	438 (6xM8)	30	557
450	668	535	12	1261	854	438 (6xM8)	30	637
500	943	750	14	1343	892	605 (8xM8)	30	696
560	943	750	14	1540	1078	605 (8xM8)	30	773
630	1039	840	14	1573	1072	674 (8xM8)	40	858
800	1255	1050	14	2024	1280	872 (8xM8)	40	999

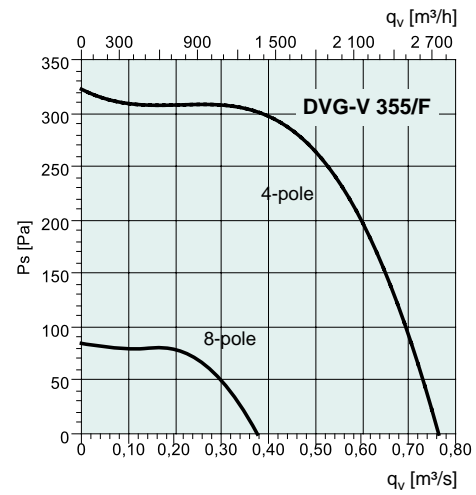
DVG/F		630D4-S IE2	630D4-8-S	630D6 IE2	630D6-S IE2	630D6-8-S	630D4-8		
Art no. DVG-V (vertical)		95172	32328	95173	95174	32326	32333		
Art no. DVG-H (horizontal)		95161	95023	95162	95163	95021	95028		
Voltage/Frequency	V/50 Hz	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~		
Power at shaft	kW	3	3.6/0.9	1.5	1.1	1.0/0.4	4.6/1.1		
Current	A	6.6	8.0/3.2	3.8	2.9	3.3/1.35	9.5/3.5		
Starting current	A	36.7	44.0/10.0	18.6	10.8	14.2/4.7	57/12.3		
Max air flow	m³/s	3.82	3.82/1.89	3.19	2.45	2.45/1.89	4.91/2.47		
R.p.m.	min⁻¹	1400	1430/710	945	890	950/710	1450/720		
Max. temp. of transp. air*	°C	400	400	400	400	400	400		
Sound pressure level at 4 m	dB(A)	71	71/55	66	62	62/55	75/59		
Sound pressure level at 10 m	dB(A)	65	65/49	60	56	55/49	69/54		
Weight	kg	119/114	128/123	115/110	111/106	117/112	144/139		
Enclosure class, motor		IP 54	IP 54	IP 54	IP 54	IP 54	IP 54		
PTC serial built-in motor		PTC		PTC	PTC				
S-DT2DKT, S-DT2GKT			...DKT			...GKT	...DKT		
FXDM...		...8AM		...5AM					
Wiring diagram p. 391-400		15c	14a	15c	15c	15a	14a		
* for 120 min									

DVG/F		800D6-S IE2	800D6-8-S	800D6 IE2	800D6-8				
Art no. DVG-V (vertical)		95131	95132	95128	95130				
Art no. DVG-H (horizontal)		95126	95127	95122	95125				
Voltage/Frequency	V/50 Hz	400 3~	400 3~	400 3~	400 3~				
Power at shaft	kW	3	2.8/1.1	5.5	5.7/2.4				
Current	A	6.8	7.5/3.8	12.6	12.3/6.2				
Starting current	A	34.7	38.3/15.6	76	62.8/21.7				
Max air flow	m³/s	5.28	5.28/3.96	7.03	7.08/5.28				
R.p.m.	min⁻¹	950	970/730	960	960/720				
Max. temp. of transp. air*	°C	400	400	400	400				
Sound pressure level at 4 m	dB(A)	71	71/63	74	74/68				
Sound pressure level at 10 m	dB(A)	64	64/56	66	66/60				
Weight vertical/horizontal	kg	202/195	208/201	212/205	219/212				
Enclosure class, motor		IP 54	IP 54	IP 54	IP 54				
PTC serial built-in motor		PTC		PTC					
S-DT2DKT, S-DT2GKT			...GKT		...GKT				
FXDM...		...8AM		...14AM					
Wiring diagram p. 391-400		15c	15a	13b D	15a				
*for 120 min									

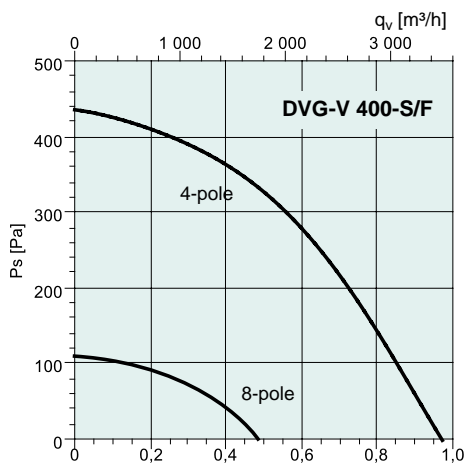
PERFORMANCE



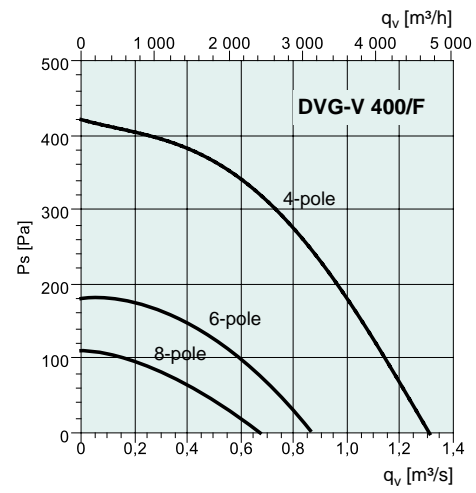
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L_{WA} Inlet	78	51	72	72	69	71	69	64	61
L_{WA} Outlet	76	54	65	72	67	69	67	61	51
Measurement point: 0,6 m^3/s ; 80 Pa									
8-pole									
L_{WA} Inlet	62	40	58	54	54	53	53	45	36
L_{WA} Outlet	60	44	52	53	53	55	50	42	33
Measurement point: 0,2 m^3/s ; 50 Pa									



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L_{WA} Inlet	81	55	75	75	73	74	73	67	64
L_{WA} Outlet	77	55	67	74	69	71	68	62	52
Measurement point: 0,6 m^3/s ; 200 Pa									
8-pole									
L_{WA} Inlet	65	43	61	57	57	56	56	48	39
L_{WA} Outlet	62	46	54	55	55	57	52	44	35
Measurement point: 0,3 m^3/s ; 50 Pa									

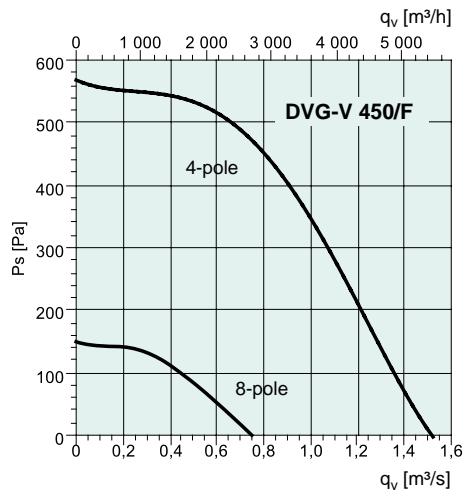


dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L_{WA} Inlet	82	55	76	76	73	75	73	68	65
L_{WA} Outlet	82	60	71	78	73	75	73	67	57
Measurement point: 0,7 m^3/s ; 220 Pa									
8-pole									
L_{WA} Inlet	66	44	62	58	58	57	57	49	40
L_{WA} Outlet	66	50	58	59	59	61	56	48	39
Measurement point: 0,4 m^3/s ; 50 Pa									

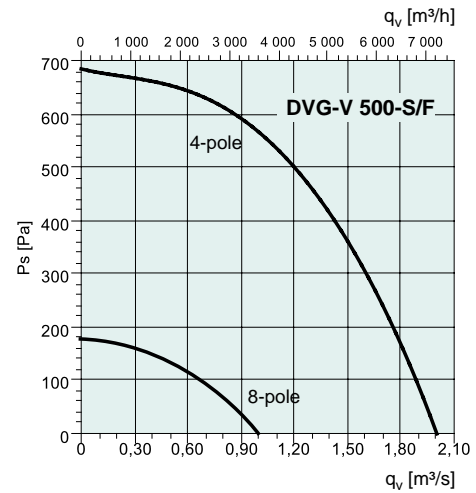


dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L_{WA} Inlet	85	58	79	79	76	78	76	71	68
L_{WA} Outlet	85	63	74	81	76	78	76	70	60
Measurement point: 1,1 m^3/s ; 125 Pa									
6-pole									
L_{WA} Inlet	76	46	69	69	69	68	69	61	53
L_{WA} Outlet	76	55	66	70	69	71	67	59	49
Measurement point: 0,6 m^3/s ; 100 Pa									
8-pole									
L_{WA} Inlet	69	47	65	61	61	60	60	52	43
L_{WA} Outlet	68	52	60	61	61	63	58	50	41
Measurement point: 0,5 m^3/s ; 50 Pa									

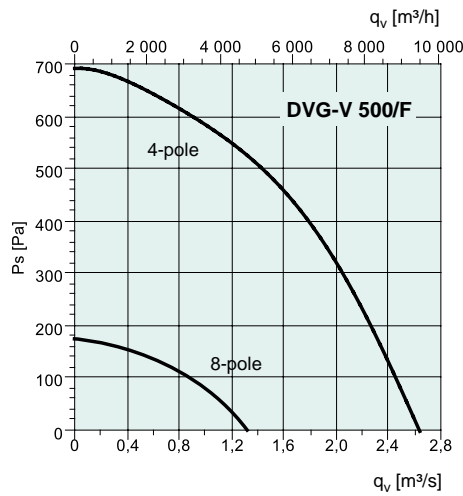
Smoke extract roof fans



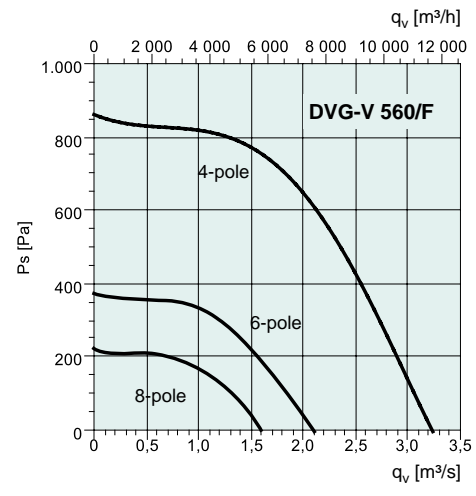
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	88	56	71	73	78	86	74	67	63
L _{WA} Outlet	87	57	73	77	81	84	73	67	60
Measurement point: 1,2 m ³ /s; 200 Pa									
8-pole									
L _{WA} Inlet	71	50	61	63	61	67	62	62	50
L _{WA} Outlet	69	52	58	63	62	63	59	56	39
Measurement point: 0,6 m ³ /s; 50 Pa									



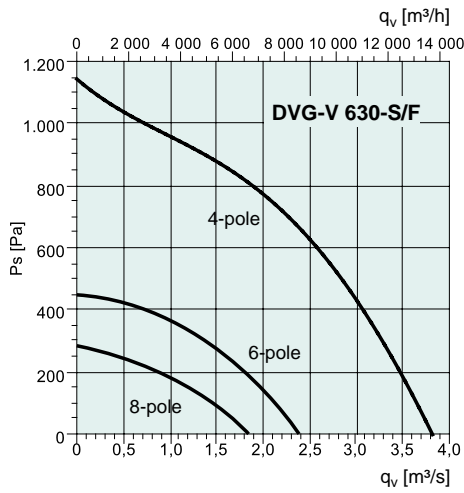
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	88	61	81	81	79	81	78	79	66
L _{WA} Outlet	88	63	76	81	80	84	78	73	62
Measurement point: 1,2 m ³ /s; 500 Pa									
8-pole									
L _{WA} Inlet	72	53	62	64	63	66	67	55	45
L _{WA} Outlet	69	52	59	62	63	65	61	52	40
Measurement point: 0,6 m ³ /s; 130 Pa									



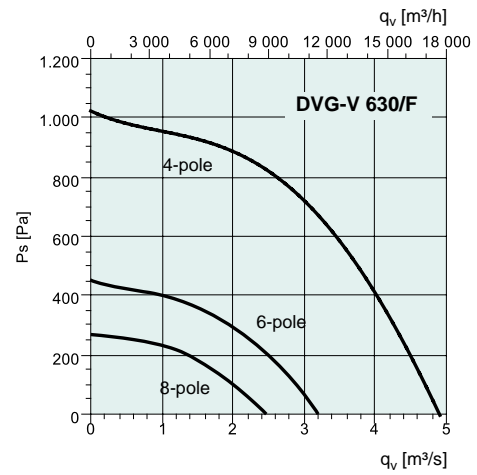
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	90	61	74	84	83	83	84	81	74
L _{WA} Outlet	91	64	75	86	83	87	82	76	65
Measurement point: 2,1 m ³ /s; 300 Pa									
8-pole									
L _{WA} Inlet	72	50	68	64	64	63	63	55	46
L _{WA} Outlet	73	57	65	66	66	68	63	55	46
Measurement point: 1,1 m ³ /s; 50 Pa									



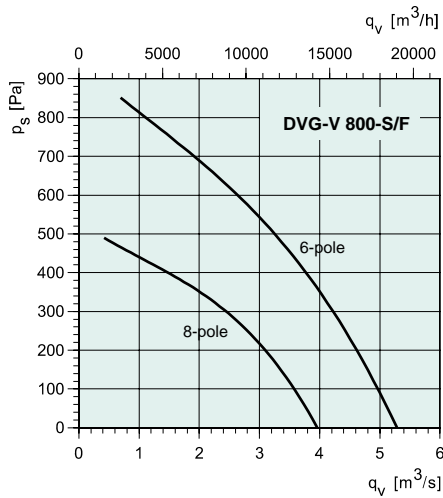
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	94	59	85	86	84	85	87	84	82
L _{WA} Outlet	94	67	84	88	88	89	85	77	70
Measurement point: 2,5 m ³ /s; 400 Pa									
6-pole									
L _{WA} Inlet	87	57	80	80	80	79	80	71	64
L _{WA} Outlet	82	61	73	77	74	75	74	66	58
Measurement point: 1,8 m ³ /s; 100 Pa									
8-pole									
L _{WA} Inlet	76	55	65	68	66	72	67	67	55
L _{WA} Outlet	74	58	64	69	67	69	65	61	44
Measurement point: 1,5 m ³ /s; 50 Pa									



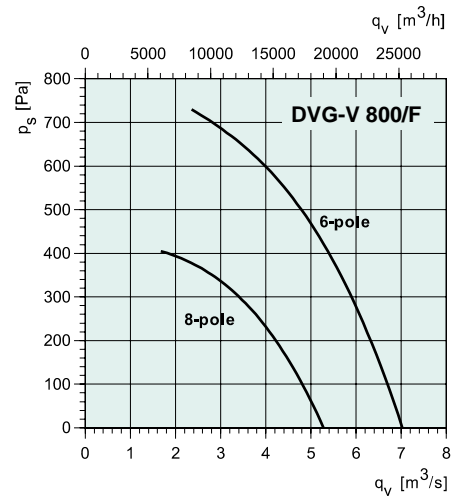
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	94	60	86	80	83	87	87	87	72
L _{WA} Outlet	93	66	84	84	86	88	84	79	68
Measurement point: 2,8 m ³ /s; 500 Pa									
6-pole									
L _{WA} Inlet	85	55	78	78	78	77	78	70	62
L _{WA} Outlet	84	63	74	78	77	79	75	67	57
Measurement point: 2,2 m ³ /s; 100 Pa									
8-pole									
L _{WA} Inlet	78	56	74	70	70	69	69	61	52
L _{WA} Outlet	77	61	69	70	70	72	67	59	50
Measurement point: 1,7 m ³ /s; 60 Pa									



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
4-pole									
L _{WA} Inlet	97	68	79	91	90	92	87	81	72
L _{WA} Outlet	96	66	85	86	89	89	89	87	77
Measurement point: 3,8 m ³ /s; 500 Pa									
6-pole									
L _{WA} Inlet	87	57	80	80	80	79	80	71	64
L _{WA} Outlet	89	69	79	83	82	84	80	72	62
Measurement point: 2,8 m ³ /s; 120 Pa									
8-pole									
L _{WA} Inlet	81	59	77	73	73	72	72	64	55
L _{WA} Outlet	82	66	74	75	75	77	72	64	55
Measurement point: 2,1 m ³ /s; 80 Pa									



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
6-pole									
L _{WA} Inlet	88	48	64	69	78	81	84	83	70
L _{WA} Outlet	91	56	70	76	84	88	84	79	64
Measurement point: 4,2 m ³ /s; 300 Pa									
8-pole									
L _{WA} Inlet	82	34	58	64	70	76	79	70	67
L _{WA} Outlet	83	45	61	68	77	79	75	68	69
Measurement point: 3,6 m ³ /s; 100 Pa									



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
6-pole									
L _{WA} Inlet	96	55	65	81	87	89	93	86	83
L _{WA} Outlet	94	42	65	75	87	91	87	77	67
Measurement point: 5,4 m ³ /s; 400 Pa									
8-pole									
L _{WA} Inlet	90	48	62	70	79	88	84	77	71
L _{WA} Outlet	87	42	59	70	82	84	77	69	63
Measurement point: 3,9 m ³ /s; 250 Pa									



DVG-V, H 400D4V/400

- Smoke and heat extract unit + normal ventilation
- Up to 400°C/120 min (F400/120, F400/90, F300, F200)
- Normal ventilation up to 120°C continuous operation
- Horizontal/Vertical exhaust
- Service switch serial
- Suitable for coastal applications
- Suitable for speed control with transformer
- Nominal motor power 0,55 kW (not affected by Commission regulation (EC) No 640/2009)
- Wide range of accessories
- Tested acc. to EN 12101-3 at LGAI, Barcelona
- CE-certification acc. to EN 12101-3, 2002-06 at TÜV Süd

ELECTRICAL ACCESSORIES



RTRD
p. 321



STDT 16
p. 342

The DVG smoke extract fans are used in case of fire to extract smoke gases from rooms, and also during normal working conditions for standard ventilation.

Smoke-free escape ways increase the chances to rescue people in case of a fire. For installation only on top of heated buildings.

The casing is manufactured from seawater resistant aluminium.

The base frame consists of galvanised steel. The impeller with backward-curved blades is manufactured from galvanised steel.

Motor outside air stream of IE1 standard efficiency is cooled with fresh air. Thermal contact built-in motor. In case of fire eventual transformer and all protective devices must be bridged to guarantee functional capability (connection direct to mains).

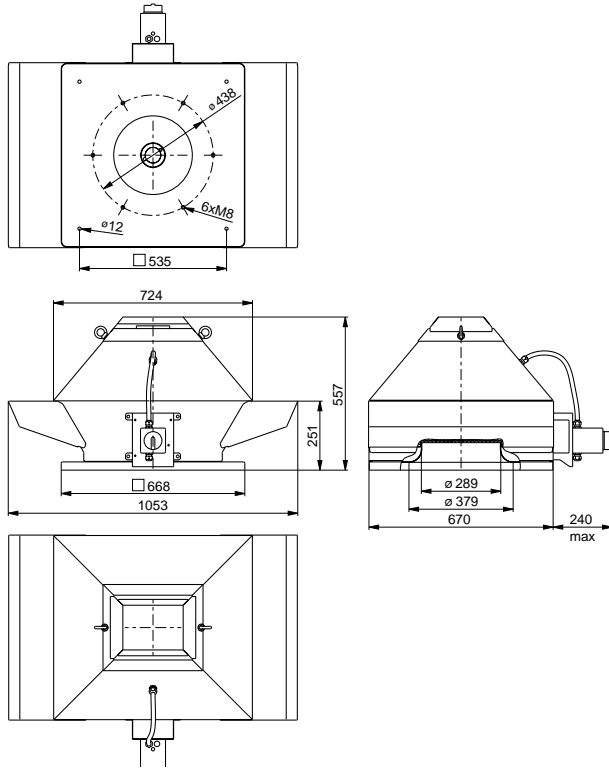
TECHNICAL DATA

DVG/F		DVG-V 400D4V	DVG-H 400D4V						
		Art no. V (vertical)	Art no. H (horizontal)						
		95220	95221						
Voltage/Frequency	V/50 Hz	400 3~	400 3~						
Power at shaft	kW	0.55	0.55						
Current	A	1.5	1.5						
Starting current	A	5.4	5.4						
Max air flow	m³/s	1.32	1.42						
R.p.m.	min ⁻¹	1290	1290						
Max. temp. of transp. air	°C	120	120						
Max. temp. of transp. air*	°C	400	400						
Sound pressure level at 4 m	dB(A)	62	63						
Sound pressure level at 10 m	dB(A)	55	56						
Weight	kg	46	44						
Insulation class, motor		F	F						
Enclosure class, motor		IP 55	IP 55						
Wiring diagram p. 391-400		7	7						

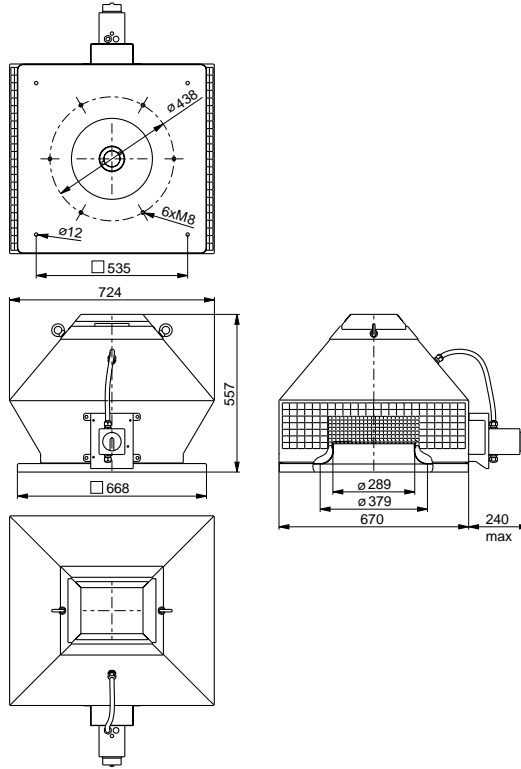
*for 120 min

DIMENSIONS

DVG/F-V



DVG/F-H



VENTILATION ACCESSORIES



ASFV p. 384



ASK/F p. 380



ASSG/F p. 383



FDG/F p. 377



FDGE/F p. 378



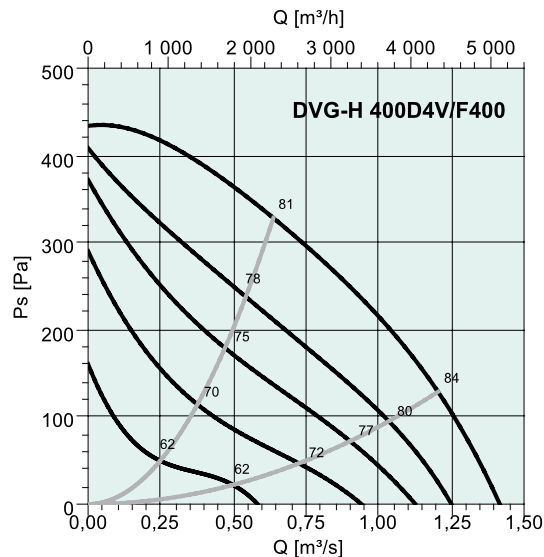
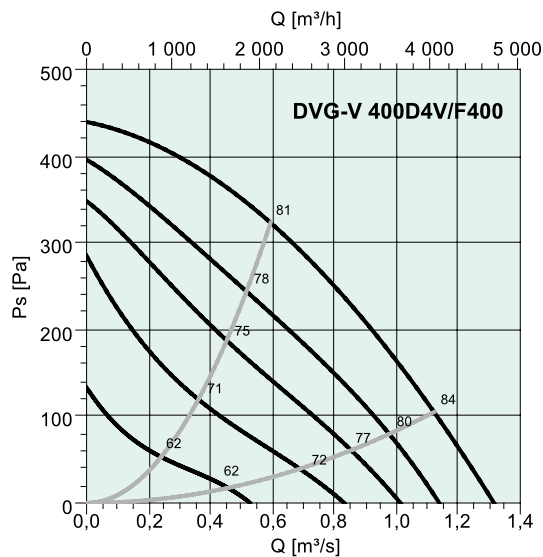
SSG/F p.378



SSGE/F p. 379



VKG/F p. 383



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	82	55	76	75	73	74	73	68	65
L _{WA} Outlet	82	60	71	78	73	75	73	56	82
Measurement point: 0.62 m³/s; 315 Pa									

dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	82	55	76	76	73	74	73	68	65
L _{WA} Outlet	83	61	72	78	74	76	75	70	60
Measurement point: 0.78 m³/s; 290 Pa									

Installation example DVG

