

DHS/DVS/DVSI

- Speed-controllable
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

The DVS/DHS/DVSI models have impellers with backward curved blades and external rotor motors. All motors are speed controllable by voltage. Frequency inverters must have an allpole sine filter. The motors are suspended on effective vibration dampers.

DVS/DHS/DVSI...EZ/EV/ES: 1~ motor with connection for 2-speeds
 DVS/DHS/DVSI...E4: 1-speed motor
 DVS/DHS/DVSI...DV/DS: 3~ with Y/D-connection for 2-speeds

To protect the motors from overheating the DVS/DHS/DVSI up to size 311 have integral thermal contacts, from size 355 with external leads for connection to a motor protection device. The casing is made from seawater resistant aluminum. Suitable for coastal applications. The impellers are manufactured from high-performance composite material. DVS with outlet vertical DHS with outlet horizontal DVSI with 50 mm mineral wool insulation for low noise level.

ELECTRICAL ACCESSORIES



S-ET/STDT
p. 341-342



RTRE p. 320



RTRD/RTRDU
p. 321



REU p. 320



REE p. 321



S2S 160
p. 340



S-DT2 SKT
p. 340

SPEED CONTROL

DHS/DVS/DVSI	Transformer Five step	Transformer Five step high/low	Electronic Two step	Thyristor Stepless
190EZ-311ES	RE 1.5	REU 1.5	S2S 160	REE 1
355E4	RTRE 1.5	REU 1.5*	-	REE 2
355DV	RTRD 2	RTRDU 2*	S-DT2SKT	-
710DS	RTRD 7	RTRDU 7*	S-DT2SKT	-

+ motor protection S-ET 10/STDT 16

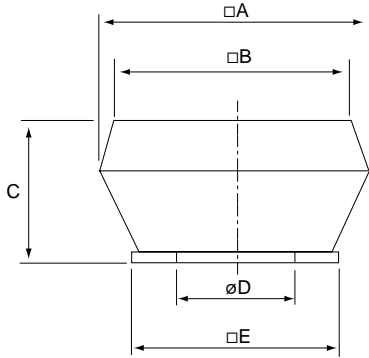
TECHNICAL DATA

DHS/DVS/DVSI		190EZ	225EZ	225EV	310EV	310ES	311EV	311ES	355E4	355DV	710DS	710D6-L
Art no. DHS		5712	5713	5714	5703	5704	5705	5715	5706	5707	5729	33181
Art no. DVS Tech. data is relating to DVS		5730	5731	5732	5733	5734	5735	5736	5737	5710	5752	33177
Art no. DVSI		30273	30275	30274	2347	2350	2352	2381	2356	2354	2378	33179
Voltage/Frequency	V/50 Hz	230 1~	230 1~	230 1~	230 1~	230 1~	230 1~	230 1~	230 1~	400 3~	400 3~	Y400 3~
Power	W	80	113	48	116	70	135	100	279	249	2475	2562
Current	A	0.36	0.5	0.227	0.53	0.30	0.6	0.38	1.22	0.58	4.0	4.86
Max air flow	m3/s	0.155	0.228	0.142	0.406	0.369	0.46	0.439	0.773	0.779	4.58	4.12
R.p.m.	min-1	2240	2590	1422	1365	1000	1365	940	1401	1350	883	941
Max temp. of transported air	°C	40	40	40	40	40	40	40	40	40	40	40
" when speed controlled	°C	40	40	40	40	40	40	40	40	40	40	
Sound pressure level DVS*	dB(A)	48/40	49/41	41/33	44/36	37/29	45/37	38/30	47/39	47/39	58/50	65/57
Weight	kg	5/5/12	6/6/14	6/6/14	13/13/19	13/13/19	13/13/20	13/13/16	25/25/38	25/25/37	88/88/104	88/88/104
Insulation class, motor		B	B	B	B	B	B	B	B	B	F	F
Enclosure class, motor		IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 44	IP 54	IP 54
Capacitor	µF	2	3	2	4	1.5	5	2	8	-	-	-
Wiring diagram p. 391-400		20	20	20	20	20	20	20	5	16	18	18 Y

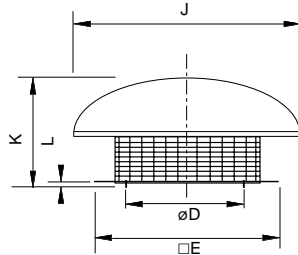
* at 4/10 m. DHS +2 dB, DVSI -9 dB

DIMENSIONS

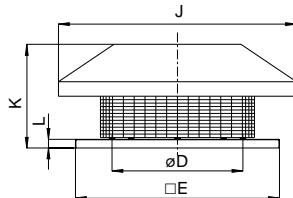
DVS/DVSI



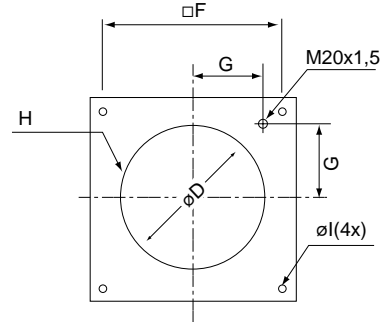
DHS 190-355



DHS 710



DHS/DVS/DVSI bottom view



DHS	□A	□B	C	øD	□E	□F	G	H	øI	J	K	L
190EZ, 225EZ/EV	-	-	-	213	335	245	105	6xM6	10	ø417	150	30
310EV/ES, 311EV/ES	-	-	-	285	435	330	146	6xM6	10	ø540	250	30
355E4/DV	-	-	-	438	595	450	200	6xM8	12	ø720	330	30
710DS	-	-	-	647	1035	840	320	8xM8	14	□1282	580	40

DVS	□A	□B	C	øD	□E	□F	G	H	øI	J	K	L
190EZ, 225EZ/EV	370	295	170	213	335	245	105	6xM6	10	-	-	-
310EV/ES, 311EV/ES	560	470	330	285	435	330	146	6xM6	10	-	-	-
355E4/DV	720	618	390	438	595	450	200	6xM8	12	-	-	-
710DS	1350	-	660	647	1035	840	320	8xM8	14	-	-	-

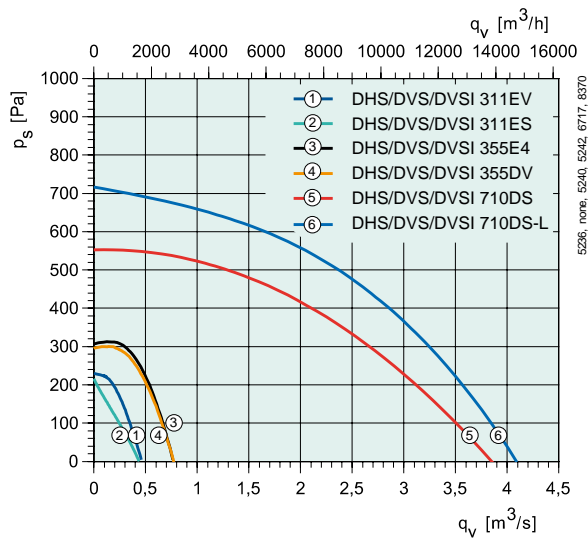
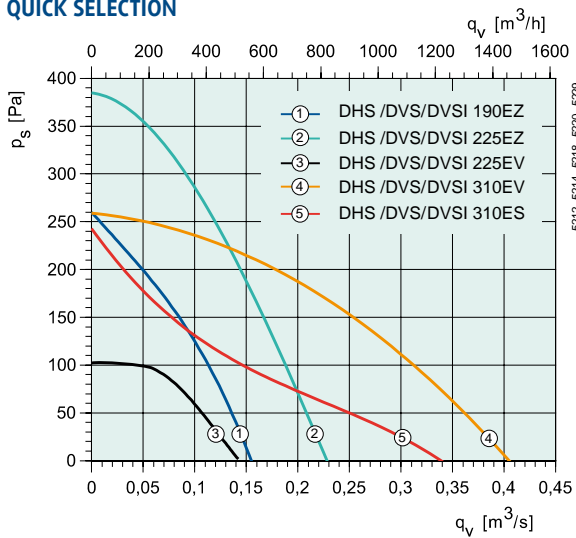
DVSI	□A	□B	C	øD	□E	□F	G	H	øI	J	K	L
190EZ, 225EZ/EV	497	295	179	213	335	245	105	6xM6	10	-	-	-
310EV/ES, 311EV/ES	690	470	369	285	435	330	146	6xM6	10	-	-	-
355E4/DV	874	618	439	438	595	450	200	6xM8	12	-	-	-
710DS	1483	-	729	674	1035	840	320	8xM8	14	-	-	-

VENTILATION ACCESSORIES



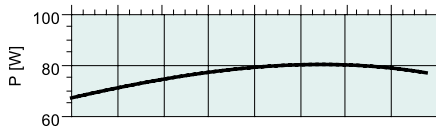
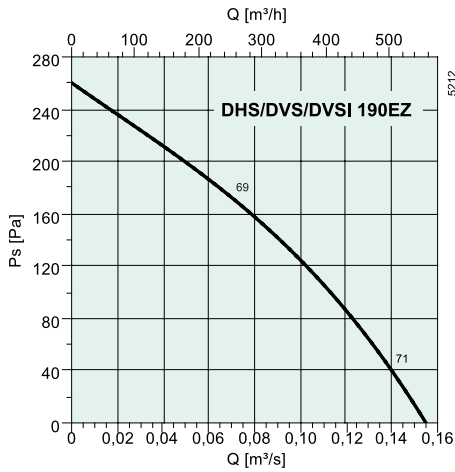
Roof fans

QUICK SELECTION



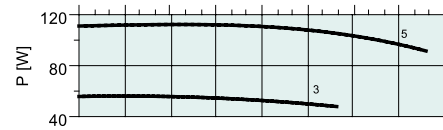
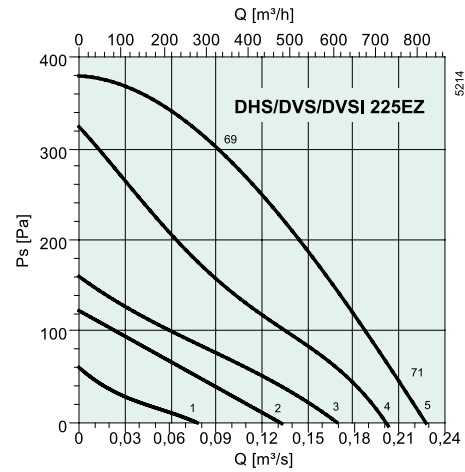
Roof fans

PERFORMANCE



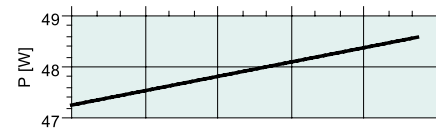
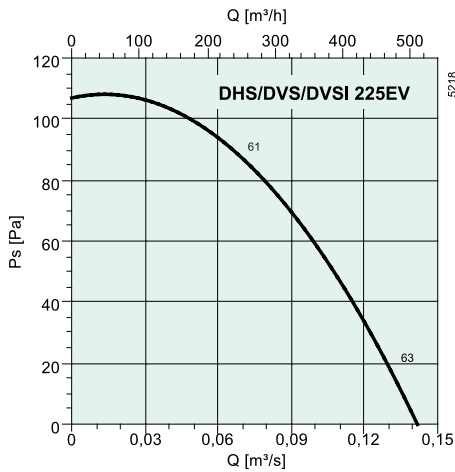
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	71	42	60	64	66	65	62	57	50
L _{WA} Surrounding	72	43	61	65	67	66	63	58	51
DVSI									
L _{WA} Surrounding	67	54	56	60	62	61	58	53	46
With SSD									
L _{WA} Inlet	60	40	55	56	55	46	42	37	32

Measurement point: 0,07 m³/s; 172 Pa



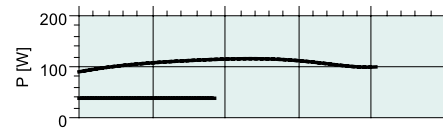
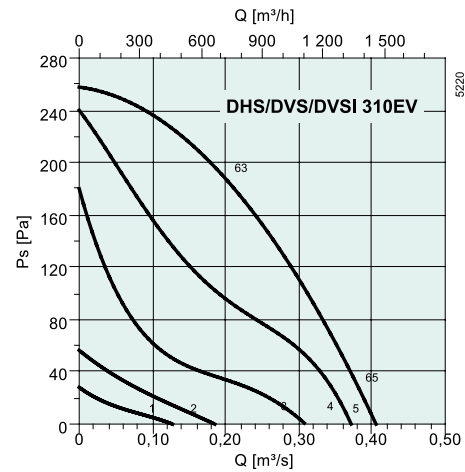
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	71	42	60	64	66	65	62	57	50
L _{WA} Surrounding	72	43	61	65	67	66	63	58	51
DVSI									
L _{WA} Surrounding	67	54	56	60	62	61	58	53	46
With SSD									
L _{WA} Inlet	60	40	55	56	55	46	42	37	32

Measurement point: 0,14 m³/s; 240 Pa



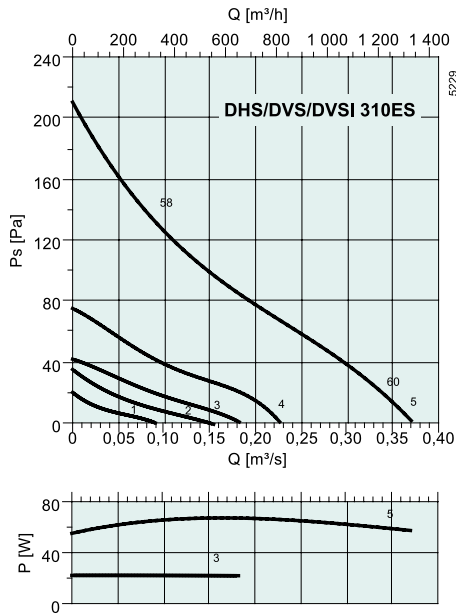
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	63	34	52	56	58	57	54	49	42
L _{WA} Surrounding	64	35	53	57	59	58	55	50	43
DVSI									
L _{WA} Surrounding	58	51	51	53	51	45	38	36	30
With SSD									
L _{WA} Inlet	52	32	47	48	47	38	34	29	24

Measurement point: 0,07 m³/s; 87 Pa



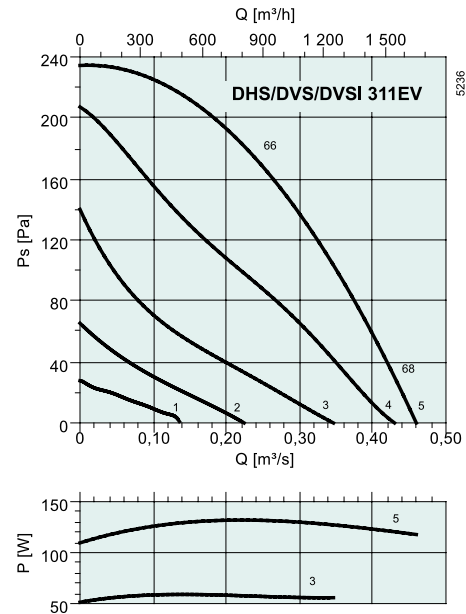
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	65	52	54	58	60	59	56	51	44
L _{WA} Surrounding	67	54	56	60	62	61	58	53	46
DVSI									
L _{WA} Surrounding	58	51	51	53	51	45	38	36	30
With SSD									
L _{WA} Inlet	55	49	49	50	48	41	35	31	29

Measurement point: 0,14 m³/s; 220 Pa



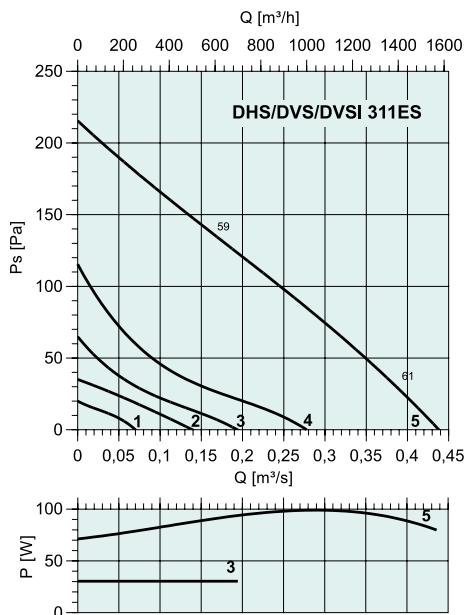
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	58	45	47	53	53	53	49	44	36
L _{WA} Surrounding	60	47	49	54	55	55	51	46	38
DVSI									
L _{WA} Surrounding	51	44	44	47	44	39	31	29	22
With SSD									
L _{WA} Inlet	49	42	42	44	41	35	28	24	21

Measurement point: 0,15 m³/s; 84 Pa



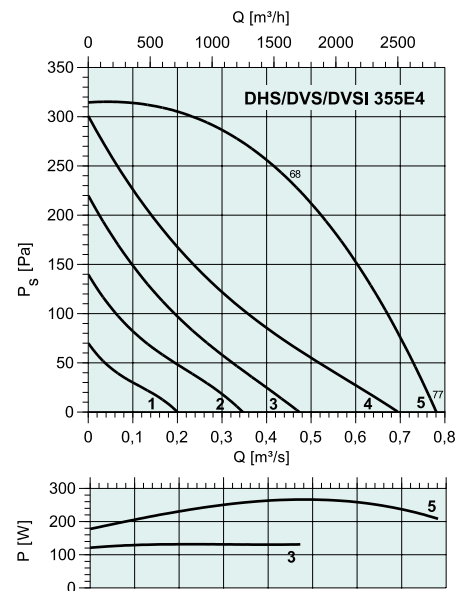
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	66	53	55	59	61	60	57	52	45
L _{WA} Surrounding	68	55	57	61	63	62	59	54	47
DVSI									
L _{WA} Surrounding	59	52	52	54	52	46	39	37	31
With SSD									
L _{WA} Inlet	56	50	50	51	49	42	36	32	30

Measurement point: 0,28 m³/s; 169 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	59	46	48	53	54	54	50	45	37
L _{WA} Surrounding	61	48	50	55	56	56	52	47	39
DVSI									
L _{WA} Surrounding	52	45	45	48	45	40	32	30	23
With SSD									
L _{WA} Inlet	50	43	48	45	42	36	29	25	22

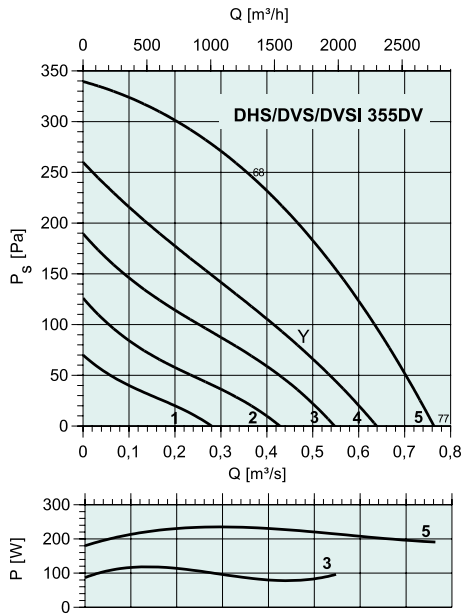
Measurement point: 0,17 m³/s; 137 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L _{WA} Inlet	68	55	57	61	63	62	59	54	47
L _{WA} Surrounding	70	57	59	63	65	64	61	56	49
DVSI									
L _{WA} Surrounding	61	54	54	55	54	48	41	39	33
With SSD									
L _{WA} Inlet	58	52	52	53	49	43	37	38	32

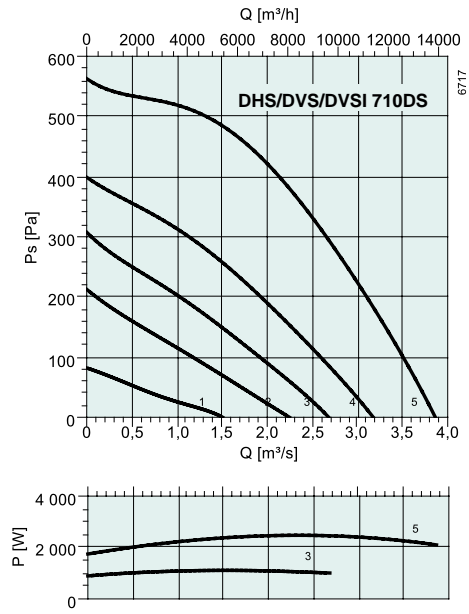
Measurement point: 0,45 m³/s; 240 Pa

Roof fans



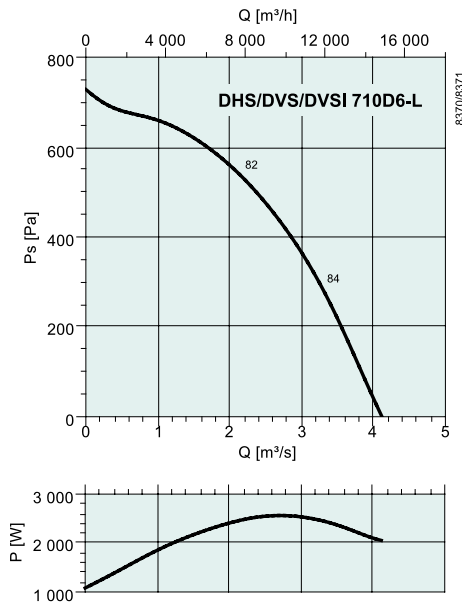
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	68	55	57	61	63	62	59	54	47
L_{wA} Surrounding	70	57	59	63	65	64	61	56	49
DVSI									
L_{wA} Surrounding	61	54	54	56	54	48	41	39	33
With SSD									
L_{wA} Inlet	58	52	52	53	49	43	37	38	32

Measurement point: 0,45 m³/s; 240 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	79	66	68	73	74	74	70	65	57
L_{wA} Surrounding	81	68	70	75	76	76	72	67	59
DVSI									
L_{wA} Surrounding	72	65	65	68	65	60	52	50	43
With SSD									
L_{wA} Inlet	69	63	62	65	60	54	45	42	46

Measurement point: 2,1 m³/s; 402 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	82	66	73	75	75	78	78	75	65
L_{wA} Surrounding	88	62	69	75	81	83	83	78	68
DVSI									
L_{wA} Surrounding	79	59	70	71	73	71	69	68	61
With SSD									
L_{wA} Inlet	72	63	67	67	61	58	53	52	54

Measurement point: 2,1 m³/s; 537 Pa