

# Square duct fans



## MUB

The MUB fans have impellers with backward curved blades, manufactured from polyamide (size 355), aluminium (size 400-560), welded steel painted in RAL 5002 (size 100 630D4-L). The MUB 355-500 is equipped with external rotor motors, fully speed controllable. MUB 500-560DV, DS are driven by an IEC standard motor. For size 630D4-A2, 630D4-L and 710D6-A speed control is only possible by using a frequency converter.

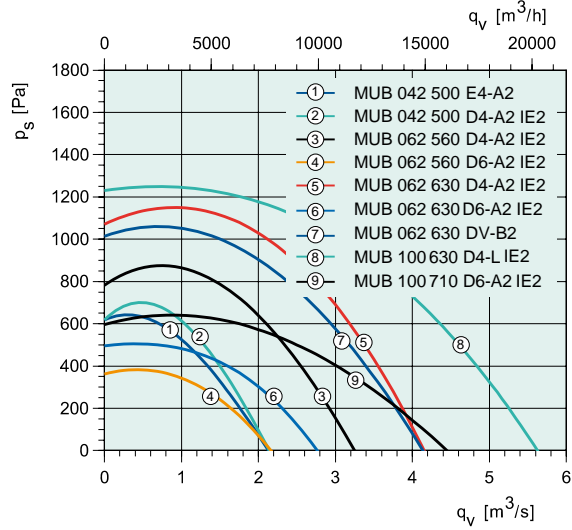
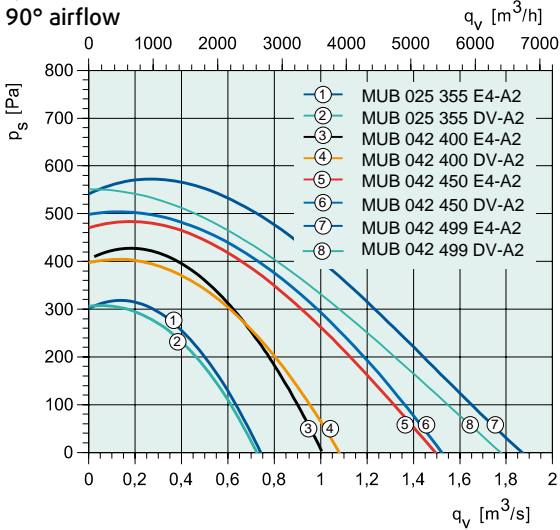
All single speed motors are in IE2 execution and possible to control via frequency converter. The three phase motors are D/Y connected for two speed operation. Motor protection is done by thermal contacts, which have to be connected to an external motor protection device.

The casing consists of a corrosion-resistant aluminum frame with fiberglass reinforced plastic corners of PA6; highly shock resistant. The double skin panels are manufactured from galvanized steel with 20 mm mineral wool insulation.

To avoid condensation the profile is provided with a separate chamber to fix screws. The Multibox fans are delivered for straight through airflow but can easily be rebuilt due to removable panels. This allows flexible ventilation solutions. The MUB can also be used as extract- or supply air unit in air handling units. Installation in any mounting position is possible.

### QUICK SELECTION

#### 90° airflow



### ELECTRICAL ACCESSORIES



S-ET/STDT p. 341-342



RTRE p. 320



REU p. 320



REE p. 321



RTRD/RTRDU p. 321



FRQ p. 325



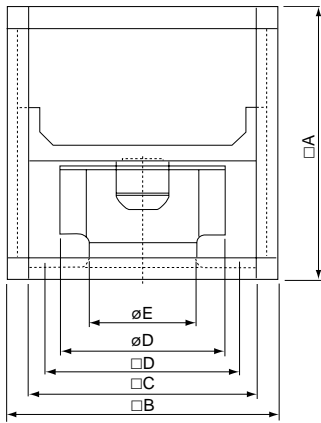
S-DT2 SKT p. 340

### TECHNICAL DATA

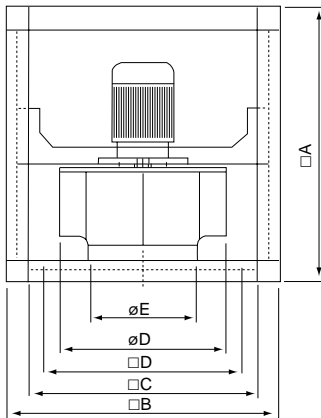
MUB		025 355	025 355	042 400	042 400	042 450	042 450	042 499	042 499	042 500
Art no.		2104	2775	2116	2112	2124	2123	2134	2133	2141
Techn.data is relating to 90° outlet		E4-A2	DV-A2	E4-A2	DV-A2	E4-A2	DV-A2	E4-A2	DV-A2	E4-A2
Voltage/Frequency	V/50 Hz	230 1~	400 3~	230 1~	400 3~	230 1~	400 3~	230 1~	400 3~	230 1~
Power	W	264	243	467	430	756	726	1023	1457	1310
Current	A	1.19	0.541	2.13	0.826	3.33	1.32	4.72	1.64	5.78
Max air flow	m3/s	0.741	0.731	1.01	1.08	1.48	1.52	1.87	1.76	2.13
R.p.m.	min-1	1399	1349	1358	1339	1249	1277	1270	1210	1332
Max temp. of transported air	°C	40	40	40	40	60	40	40	40	40
Sound pressure level at 3 m	dB(A)	55	55	49	49	52	52	48	48	56
Weight	kg	37	37	58	57	60	62	66	64	68
Insulation class, motor		B	B	F	F	F	F	F	F	F
Enclosure class, motor		IP 44	IP 44	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
Capacitor		8	-	10	-	16	-	20	-	30
Motor protection		S-ET 10	STDT 16	S-ET 10	STDT 16	S-ET 10	STDT 16	S-ET 10	STDT 16	S-ET 10
Speed control, five-step	Transformer	RTRE 1.5	RTRD 2	RTRE 3	RTRD 2	RTRE 5	RTRD 2	RTRE 5	RTRD 2	RTRE 7
Speed control, five step high/low	Transformer	REU 1.5*	RTRDU 2	REU 3*	RTRDU 2	REU 5*	RTRDU 2	REU 5	RTRDU 2	REU 7
Speed control, 2-step		-	S-D2SKT	-	S-D2SKT	-	S-D2SKT	-	S-D2SKT	-
Speed control, stepless	Thyristor	REE 2*	-	REE 4*	-	REE 4*	-	-	-	-
Wiring diagram p. 391-400		5	16	5	16	5	18	6	18	6

\* + S-ET 10

DIMENSIONS

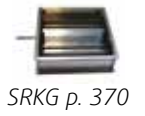


	A	B	C	D	øD	øE
MUB025 355	500	500	420	378	355	224
MUB042 400	670	670	590	548	404	253
MUB042 450	670	670	590	548	454	286
MUB042 499	670	670	590	548	504	321
MUB042 500E4-A2	670	670	590	548	504	321
MUB062 630DV-B2	800	800	720	678	635	407



	A	B	C	D	øD	øE
MUB042 500DS-A2	670	670	590	548	504	321
MUB042 500DV-A2	670	670	590	548	504	321
MUB062 560DS-A2	800	800	720	676	570	361
MUB062 560DV-A2	800	800	720	676	570	361
MUB062 630DV-B2	800	800	720	678	635	407
MUB062 630DS-B2	800	800	720	678	635	407
MUB062 630D4-L	1000	1000	920	878	630	389
MUB062 710D6-A2	1000	1000	920	878	715	460
MUB100 630D4-L	1000	1000	920	878	630	389
MUB100 710D6-A2	1000	1000	920	878	715	460

VENTILATION ACCESSORIES

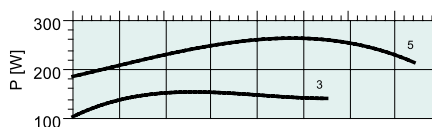
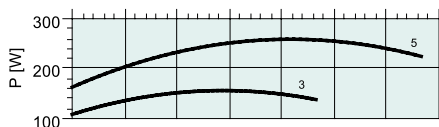
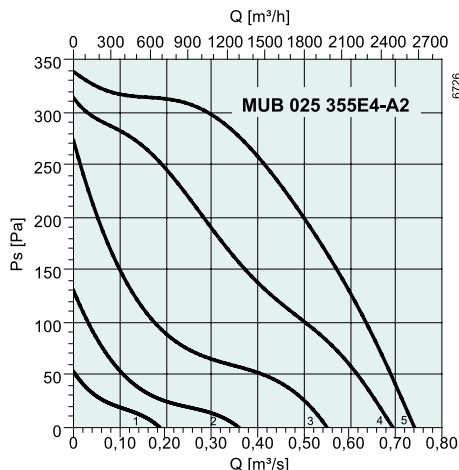
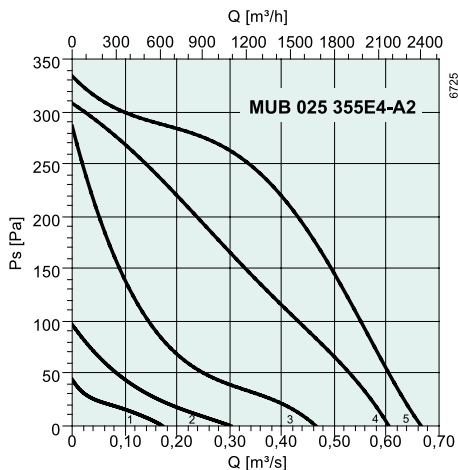


Square duct fans

MUB		042 500	062 560	062 560	062 630	062 630	062 630	100 630	100 710
Art no.		33542	33543	33544	33545	33546	2150	33549	33548
Techn.data is relating to 90° outlet		D4-A2 IE2	D4-A2 IE2	D6-A2 IE2	D4-A2 IE2	D6-A2 IE2	DV-B2	D4-L IE2	D6-A2 IE2
Voltage/Frequency	V/50 Hz	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	400 3~	230D/400 3~
Power at shaft (P2)	W	1500	2200	750	4000	1500	3890	4000	2200
Current	A	3.39	4.64	1.98	8.12	3.61	6.4	8.12	5.1
Max air flow	m3/s	2.15	3.25	2.19	3.89	2.76	4.17	5.07	4.47
R.p.m.	min-1	1400	1420	905	1450	940	1370	1450	945
Max temp. of transported air	°C	40	40	40	40	40	40	40	40
Sound pressure level at 3 m	dB(A)	55	56	47	68	53	69	74	59
Weight	kg	68	99	117	135	130	145	160	160
Insulation class, motor		F	F	F	F	F	F	F	F
Enclosure class, motor		IP 55	IP 55	IP 55	IP 55	IP 55	IP 54	IP 55	IP 55
Motor protection		-	-	-	-	-	STDT 16	-	-
Speed control, five-step		FRQ5(S)-4A	FRQ5(S)-10A	FRQ5(S)-4A	FRQ5(S)-10A	FRQ5(S)-4A	RTRD 14	FRQ5(S)-10A	FRQ5(S)-10A
Speed control, 2-step		-	-	-	-	-	S-D2SKT	-	-
Speed control, stepless		FRQ(S)-4A	FRQ(S)-10A	FRQ(S)-4A	FRQ(S)-10A	FRQ(S)-4A	-	FRQ(S)-10A	FRQ(S)-10A
Wiring diagram p. 391-400		13b Y	13b Y	13b Y	13b D	13b Y	18	13b D	13b Y

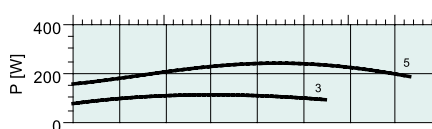
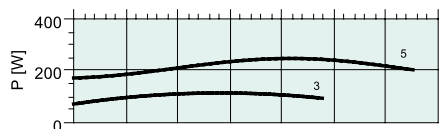
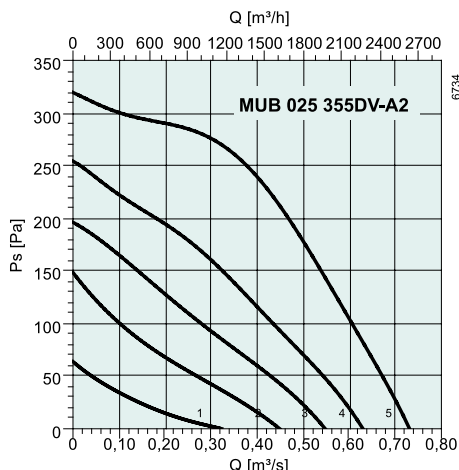
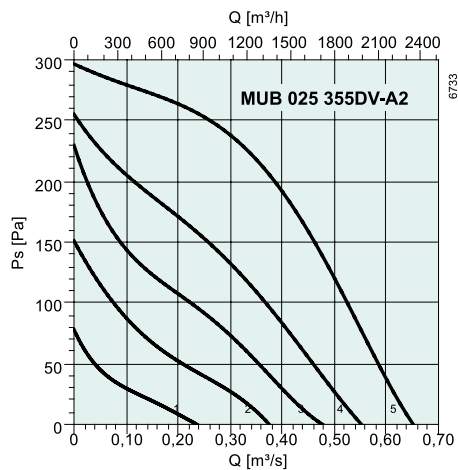
## PERFORMANCE

Square duct fans



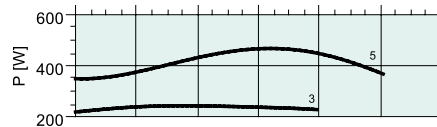
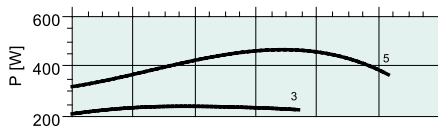
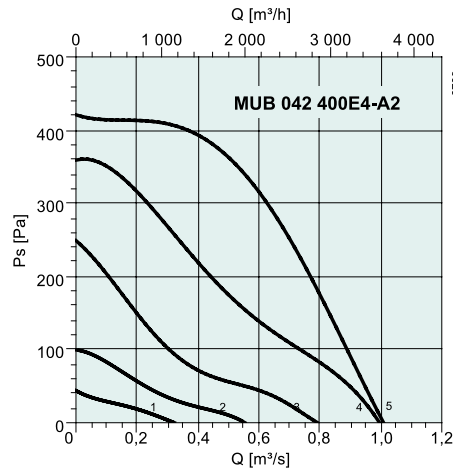
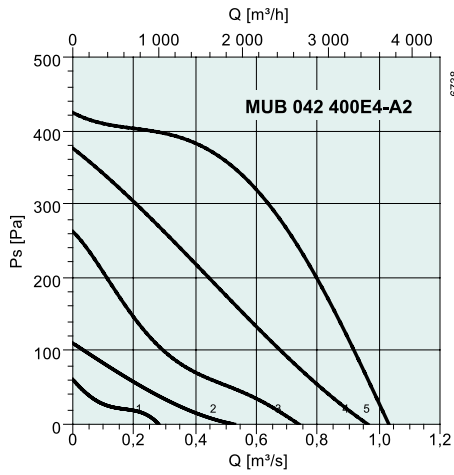
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	68	55	57	61	63	62	59	54	47
L <sub>WA</sub> Outlet	70	57	59	63	65	64	61	56	49
L <sub>WA</sub> Surrounding	62	49	51	55	57	56	53	48	41

Measurement point: 0,33 m<sup>3</sup>/s; 270 Pa



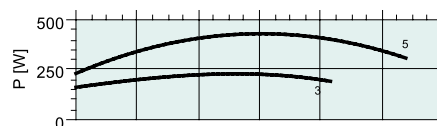
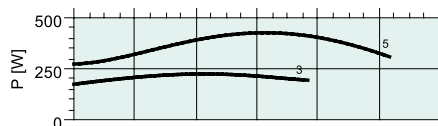
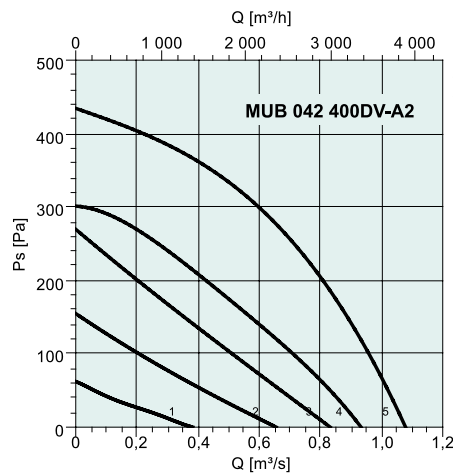
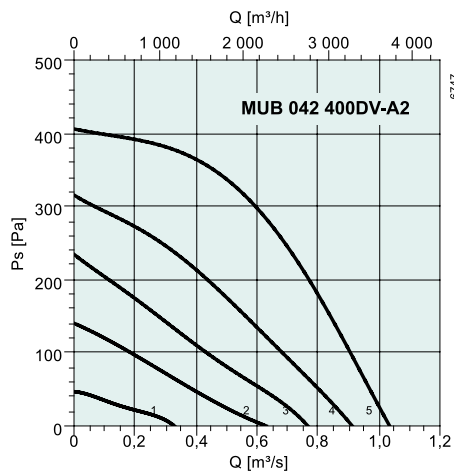
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	68	55	57	61	63	62	59	54	47
L <sub>WA</sub> Outlet	70	57	59	63	65	64	61	56	49
L <sub>WA</sub> Surrounding	62	49	51	55	57	56	53	48	41

Measurement point: 0,42 m<sup>3</sup>/s; 250 Pa



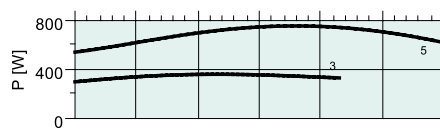
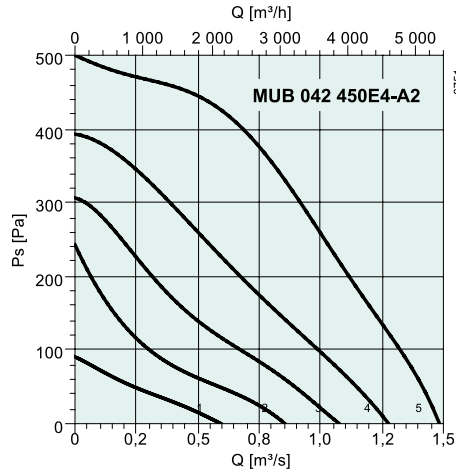
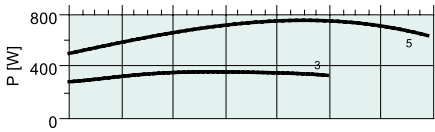
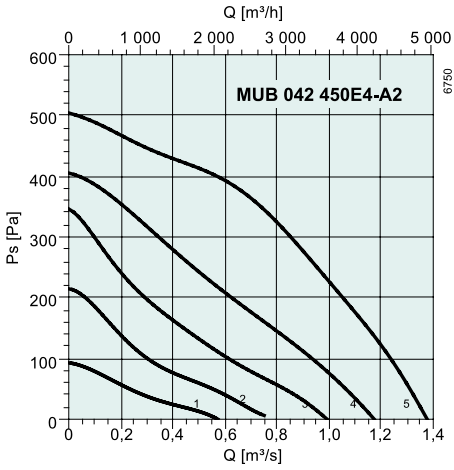
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	72	59	61	65	67	66	63	58	51
L <sub>WA</sub> Outlet	74	61	63	67	69	68	65	60	53
L <sub>WA</sub> Surrounding	56	43	45	49	51	50	47	42	53

Measurement point: 0,48 m<sup>3</sup>/s; 365 Pa



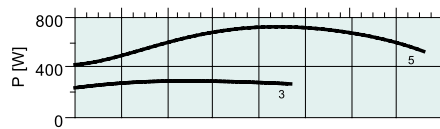
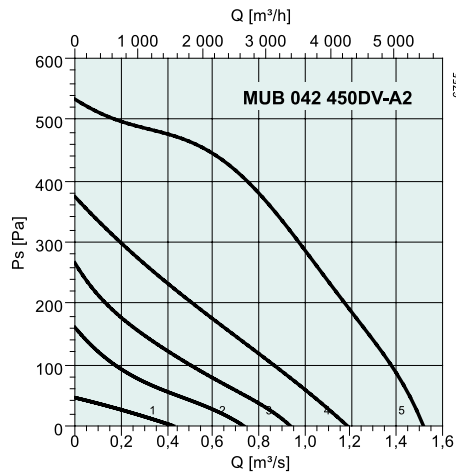
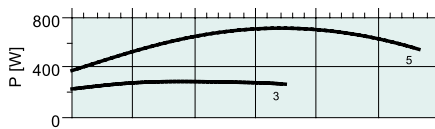
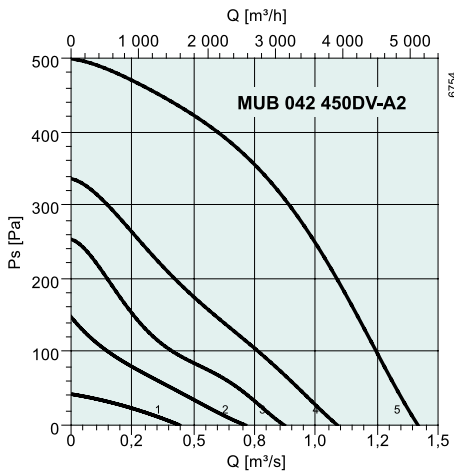
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	72	59	61	65	67	66	63	58	51
L <sub>WA</sub> Outlet	74	61	63	67	69	68	65	60	53
L <sub>WA</sub> Surrounding	56	43	45	49	51	50	47	42	35

Measurement point: 0,56 m<sup>3</sup>/s; 323 Pa



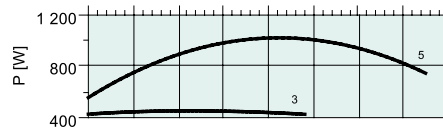
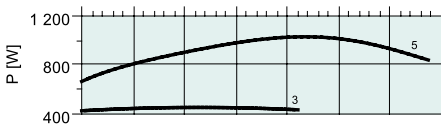
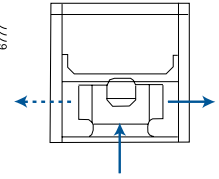
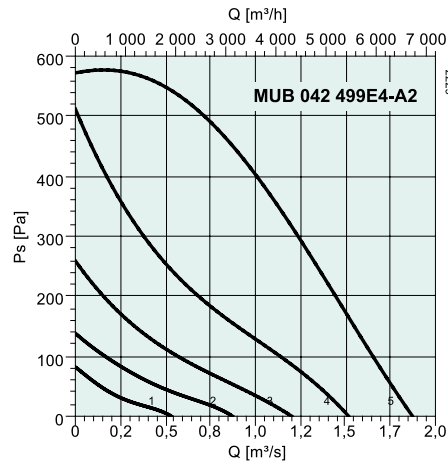
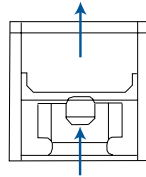
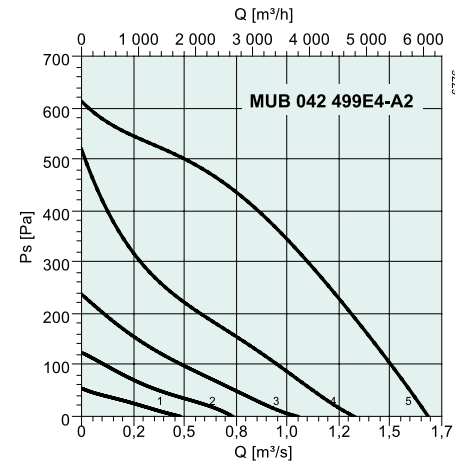
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	75	62	64	68	70	69	66	61	54
L <sub>WA</sub> Outlet	77	64	66	70	72	71	68	63	56
L <sub>WA</sub> Surrounding	59	46	48	52	54	53	50	45	38

Measurement point: 1,06 m<sup>3</sup>/s; 250 Pa



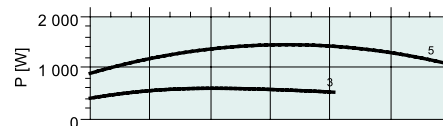
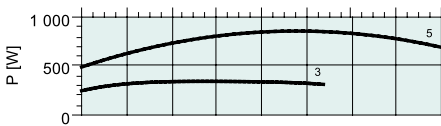
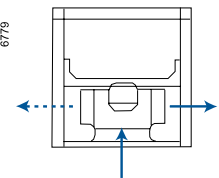
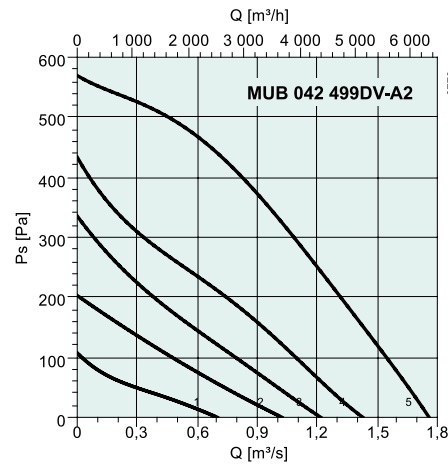
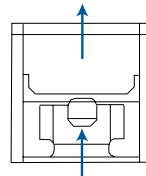
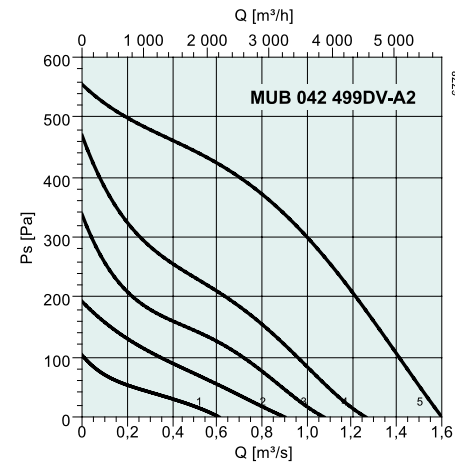
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	74	61	63	67	69	68	65	50	53
L <sub>WA</sub> Outlet	76	63	65	69	71	70	67	62	55
L <sub>WA</sub> Surrounding	59	46	48	52	54	53	50	45	38

Measurement point: 0,81 m<sup>3</sup>/s; 325 Pa



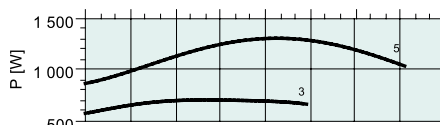
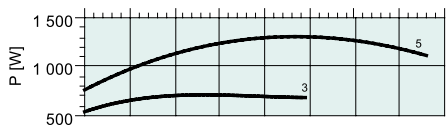
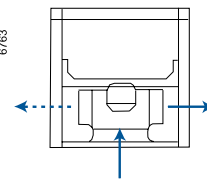
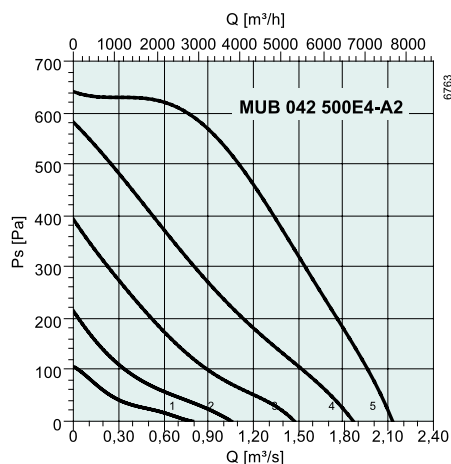
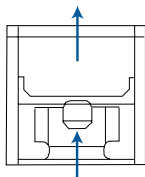
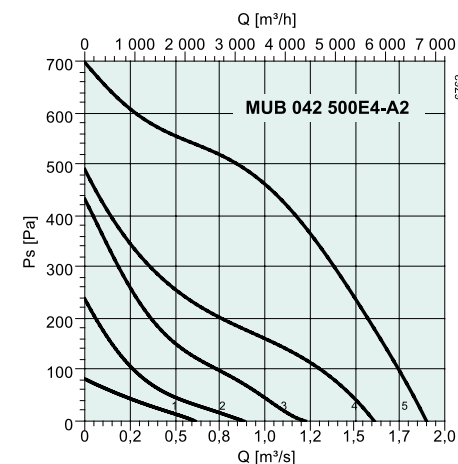
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		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	78	65	67	71	73	72	69	64	57
L <sub>WA</sub> Outlet	80	67	69	73	75	74	71	66	59
L <sub>WA</sub> Surrounding	55	42	44	48	50	49	46	41	34

Measurement point: 0,94 m³/s; 451 Pa



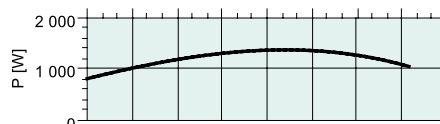
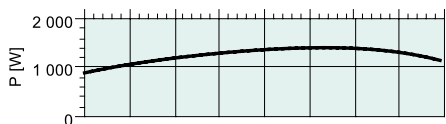
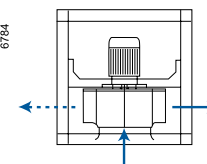
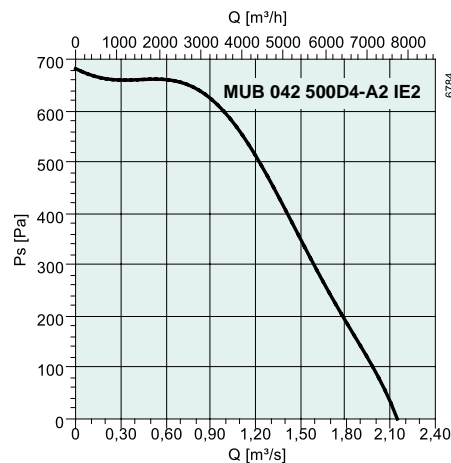
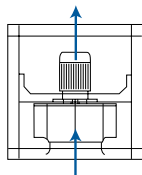
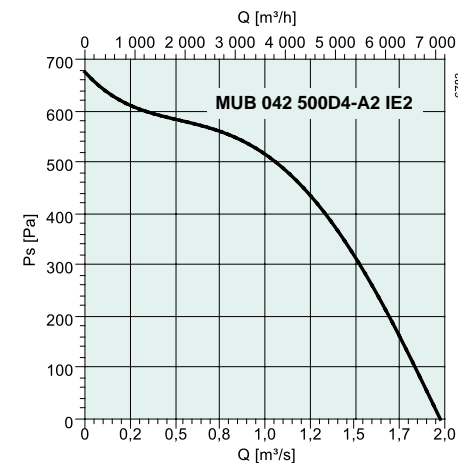
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	76	63	65	69	71	70	67	62	55
L <sub>WA</sub> Outlet	78	65	67	71	73	72	69	64	57
L <sub>WA</sub> Surrounding	55	42	44	48	50	49	46	41	34

Measurement point: 1,02 m³/s; 370 Pa



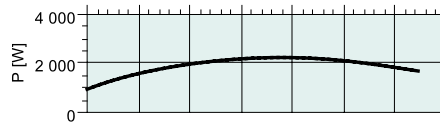
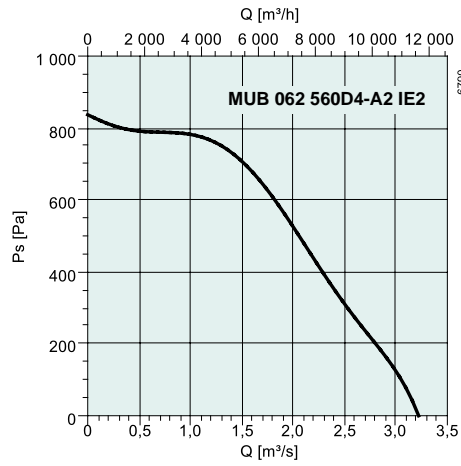
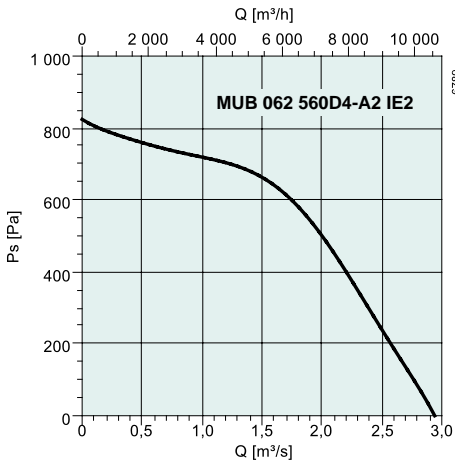
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	79	66	68	72	74	73	70	65	58
L <sub>WA</sub> Outlet	81	68	70	74	76	75	72	67	60
L <sub>WA</sub> Surrounding	63	50	52	56	58	57	54	49	42

Measurement point: 1,35 m³/s; 380 Pa



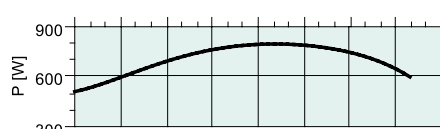
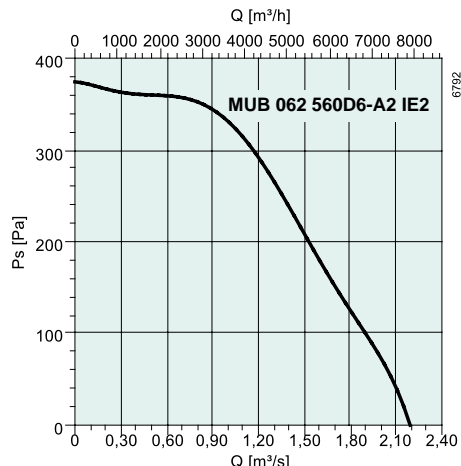
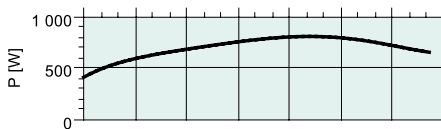
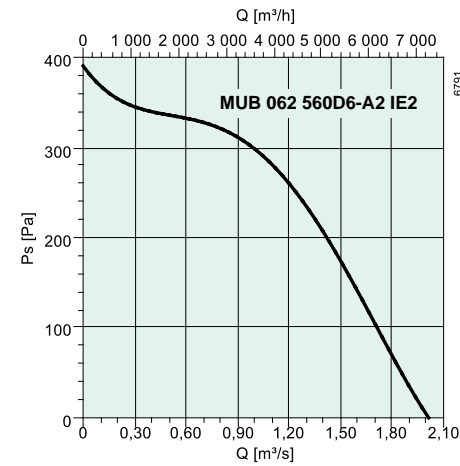
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	77	64	66	70	72	71	68	63	56
L <sub>WA</sub> Outlet	79	66	68	72	74	73	70	65	68
L <sub>WA</sub> Surrounding	62	49	51	55	57	56	53	48	41

Measurement point: 1,40 m³/s; 400 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
$L_{WA}$ Inlet	78	65	67	71	73	72	69	64	57
$L_{WA}$ Outlet	80	67	69	73	75	74	71	66	59
$L_{WA}$ Surrounding	63	50	52	56	58	57	54	49	42

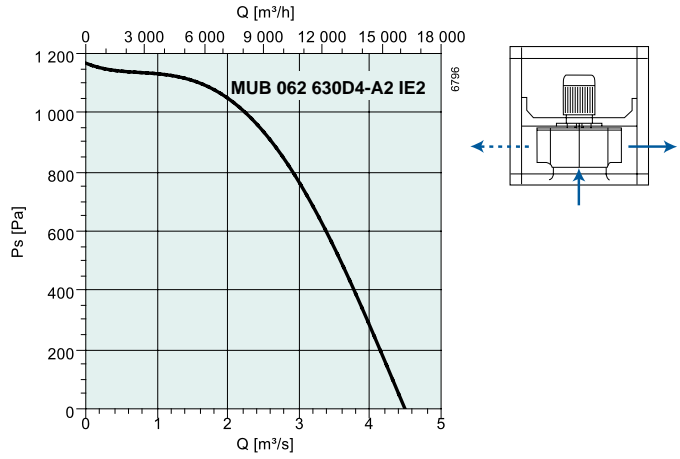
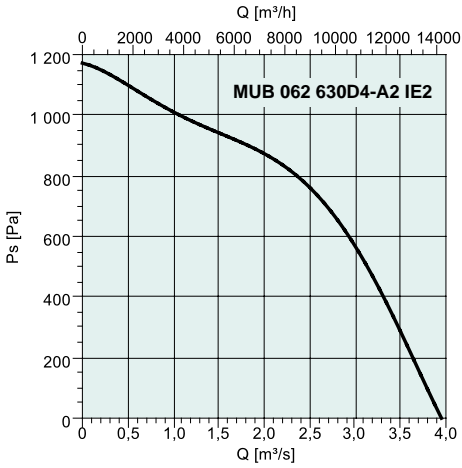
Measurement point: 2,25  $m^3/s$ ; 565 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
$L_{WA}$ Inlet	69	56	58	63	64	64	60	55	47
$L_{WA}$ Outlet	71	58	60	65	66	66	62	57	49
$L_{WA}$ Surrounding	54	51	43	48	49	49	45	40	32

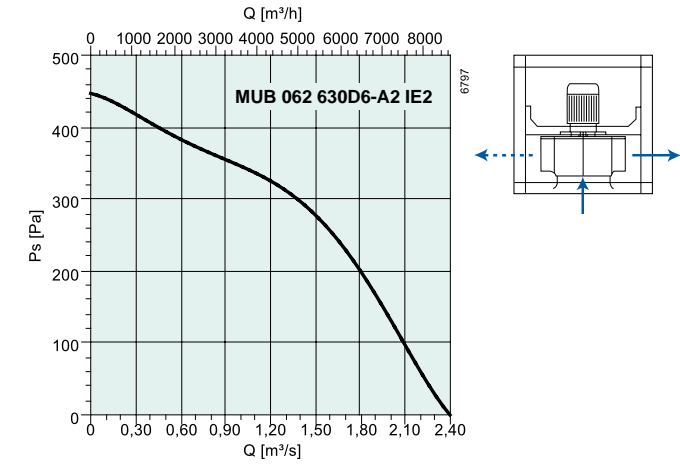
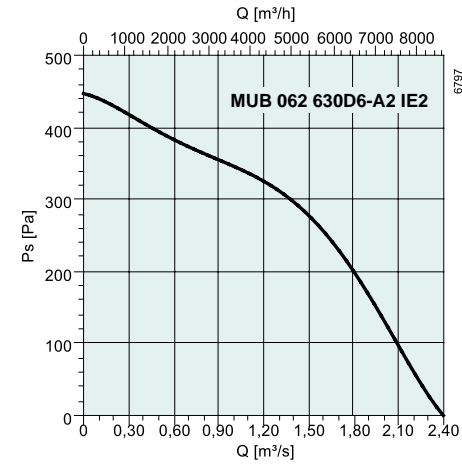
Measurement point: 1,31  $m^3/s$ ; 283 Pa





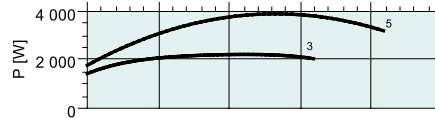
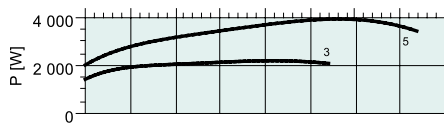
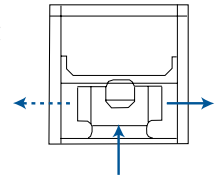
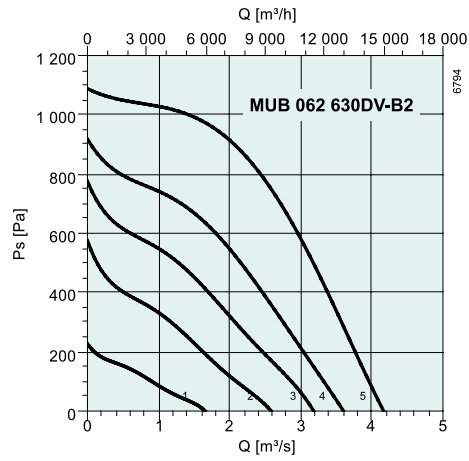
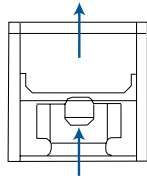
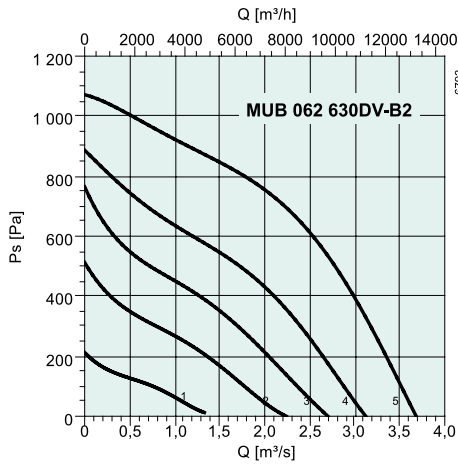
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	86	73	75	79	81	80	77	72	65
L <sub>WA</sub> Outlet	88	75	77	81	83	82	79	74	67
L <sub>WA</sub> Surrounding	75	62	64	68	70	59	66	61	54

Measurement point: 1,95 m³/s; 911 Pa



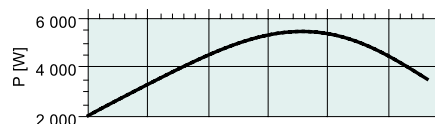
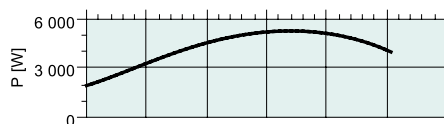
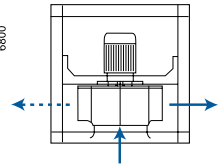
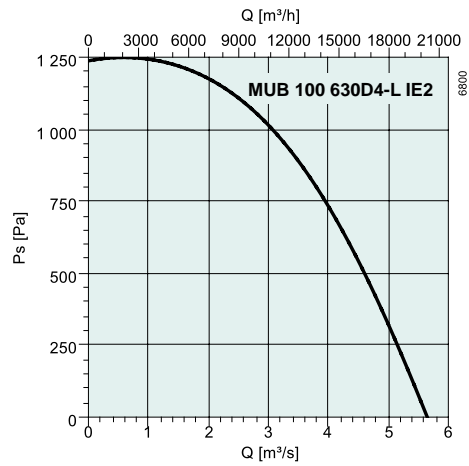
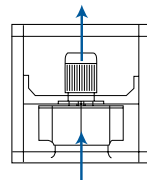
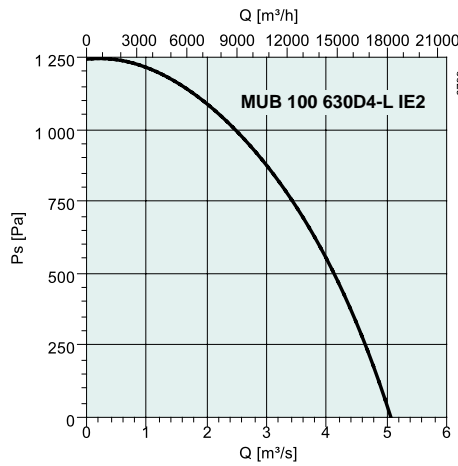
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	73	60	62	67	68	68	64	59	51
L <sub>WA</sub> Outlet	75	62	64	69	70	70	66	61	53
L <sub>WA</sub> Surrounding	60	47	49	54	55	55	51	46	38

Measurement point: 1,92 m³/s; 395 Pa



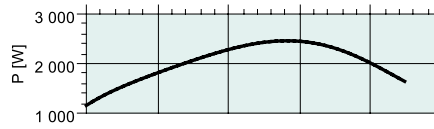
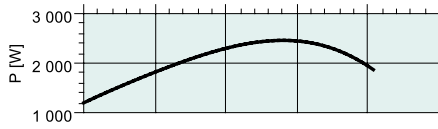
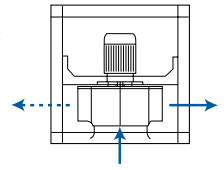
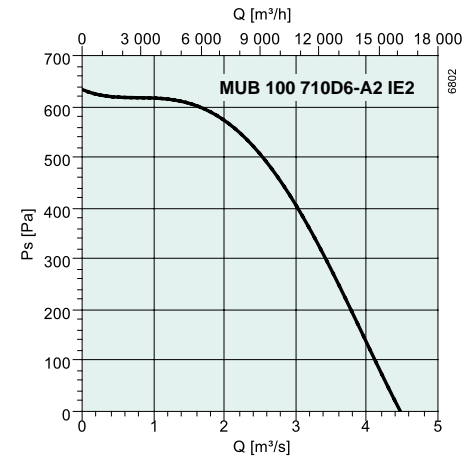
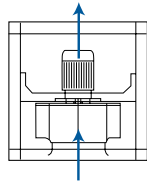
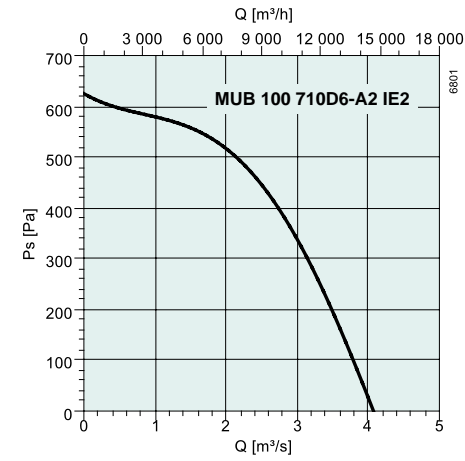
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	87	74	76	80	82	81	78	73	66
L <sub>WA</sub> Outlet	89	76	78	82	84	83	80	75	68
L <sub>WA</sub> Surrounding	76	63	65	69	71	70	67	62	55

Measurement point: 2,78 m<sup>3</sup>/s; 761 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Inlet	87	58	76	80	82	81	78	73	65
L <sub>WA</sub> Outlet	89	60	78	82	84	83	80	75	67
L <sub>WA</sub> Surrounding	81	52	70	74	76	75	72	66	59

Measurement point: 2,8 m<sup>3</sup>/s; 928 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
$L_{WA}$ Inlet	78	65	67	72	73	73	69	64	56
$L_{WA}$ Outlet	80	67	69	74	75	75	71	66	58
$L_{WA}$ Surrounding	66	53	55	60	61	61	57	52	44

Measurement point: 2,25  $m^3/s$ ; 565 Pa