Centrifugal fans single inlet

KBR/KBT EC

- EC-motors, high level of efficiency
- 100% speed controllable
- Integrated motor protection
- Low noise level
- Max. temp. of continuously transported air 120°C

EC technology is intelligent technology; using integral electronic control which eliminates the slip losses in the motor and ensures that the motor always runs at optimal load and guarantees that the proportion of energy utilized effectively is many times higher and the energy usage considerably lower compared with AC motors. EC fans are notable for their economical use of energy and excellent ease of control. They can be varied in speed to match the airflow demand, and operate at high efficiency levels. For the same air volume, they consume distinctly less energy than AC fan drives. Another special feature of EC fans is their energy-saving potential not only at full load, but especially at part-load. When operating at partload, the energy used is much lower than with an asynchronous motor of equivalent output. Reduced energy usage guarantees a drop in operating costs. The power electronics are integrated in the motor housing. All models have one potential-free terminal for error message. All motors are suitable to be used for 50/60Hz. The input voltage for single phase units can vary between 200 and 277V. Speed control by a 0-10V signal. Every motor has an output voltage of 10V for an external potentiometer or sensor. The KBR-EC fans have impellers manufactured from aluminium with backward-curved blades. The casing is manufactured from double-skinned galvanized sheet steel and is insulated with 50 mm mineral wool. The KBR-EC fans have a swing-out door for easy inspection and service. The direction of the door opening can easily be changed from left to right at site. The fan is isolated from the casing via connectors and anti-vibration dampers are incorporated into the base frame.

ELECTRICAL ACCESSORIES

MTP 10
p. 341

MTV 1 p. 341

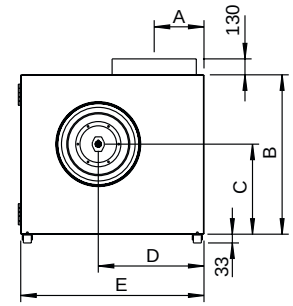
REV p. 340

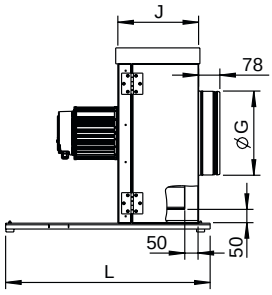
EC-Vent
p. 329-330

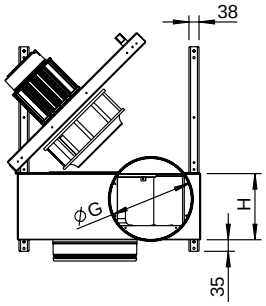
TECHNICAL DATA

KBR-EC		280	315	315-L	355	355-K	355-L		
KBT-EC								200	250
Art. no		33396	33397	33653	33400	33398	33665	33231	33259
Voltage/Frequency	V/50/60 Hz	230 1~	230 1~	230 1~	230 1~	230 1~	400 3~	230 1~	400 3~
Fan power consumption (P1)	W	107	173	1268	498	296	2567	535	1252
Current	A	0.502	0.771	5.53	2.17	1.3	3.92	2.43	2.01
Max air flow	m^3/s	0.426	0.579	1.12	0.997	0.822	1.86	0.554	0.925
R.p.m.	min-1	1512	1512	3025	1495	1514	2610	1498	1370
Max temp. of transported air	°C	120	120	120	120	120	120	70	120
" when speed controlled	°C	120	120	120	120	120	120	70	120
Sound pressure level at 4/10 m	dB(A)	31/23	34/26	49/41	39/31	39/31	52/44	36/28	37/29
Weight	kg	47	75	75	81	81	83	35.6	52.5
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 55	IP 55	IP 55
Speed control, stepless		MTP 10	MTP 10	MTP 10	MTP 10	MTP 10	MTP 10	MTP 10	MTP 10
Wiring diagram p. 391-400		46	46	48	48	46	47	48	47

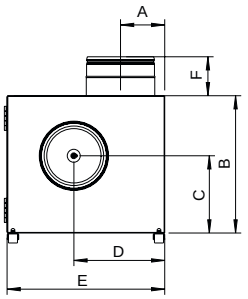
DIMENSIONS

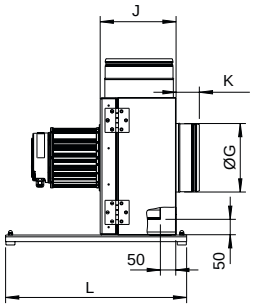


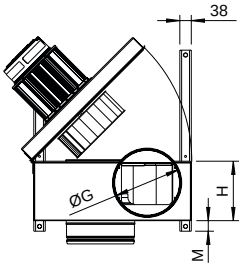




KBR-EC	A	B	C	D	E	øG	H	J	L
280	171.5	537	295	360	625	280	234	291	600
315	187.5	600	339	398	690	315	249	307	800
355	206.7	655	372	451	770	355	273	331	770







KBT-EC	A	B	C	D	E	F	øG	H	J	K	L	M
200	142.7	445	249	292	510	130	200	174	232	78	450	35
250	160	500	285	333	576	130	250	213	272	78	600	35

VENTILATION ACCESSORIES

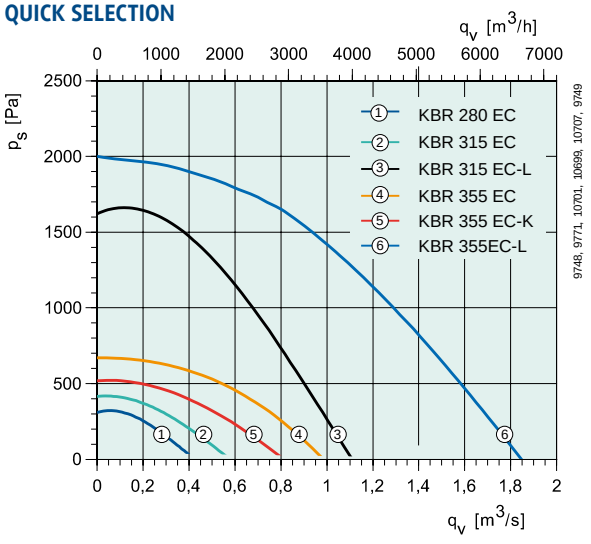
ALS-KBT p. 371

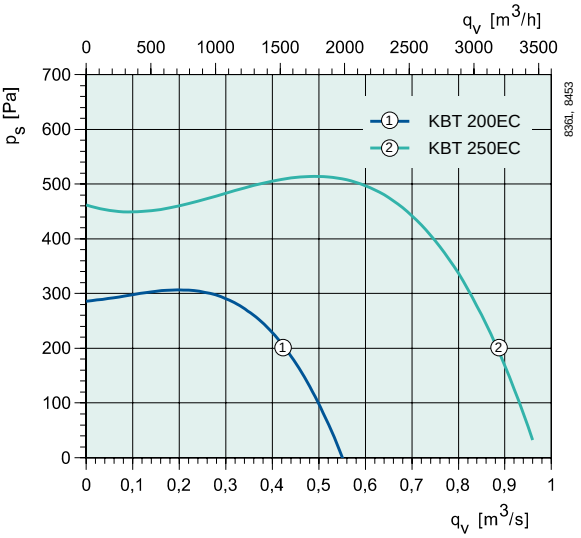
ASF/KB p. 371

WBK p. 389

WSD KBT p. 371

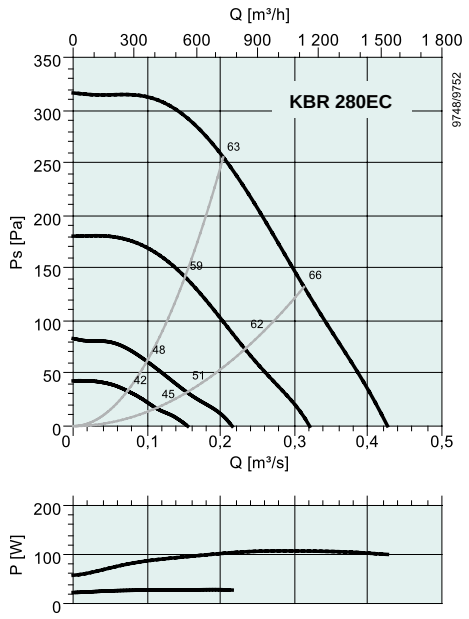
QUICK SELECTION





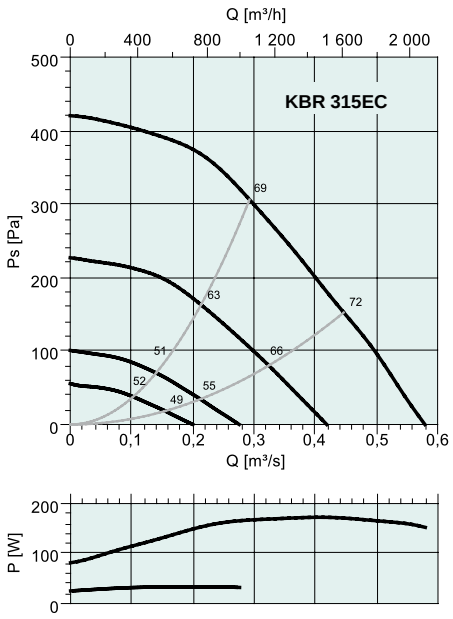
Centrifugal fans single inlet

PERFORMANCE



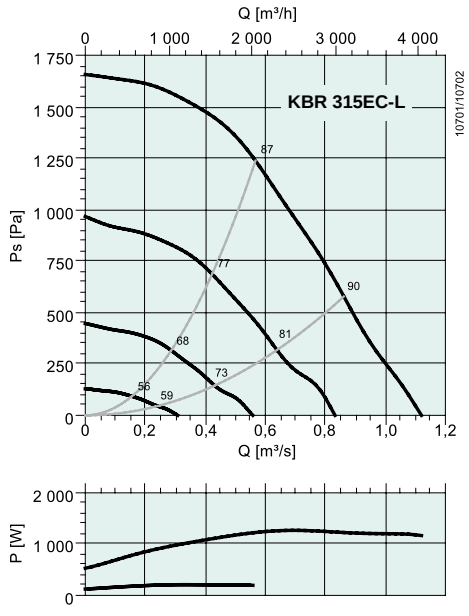
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	63	31	45	56	57	55	56	53	47
L_{wA} Outlet	64	34	47	59	58	56	56	47	46
L_{wA} Surrounding	53	28	41	47	39	43	41	50	31

Measurement point: 0,204 m^3/s; 255 Pa



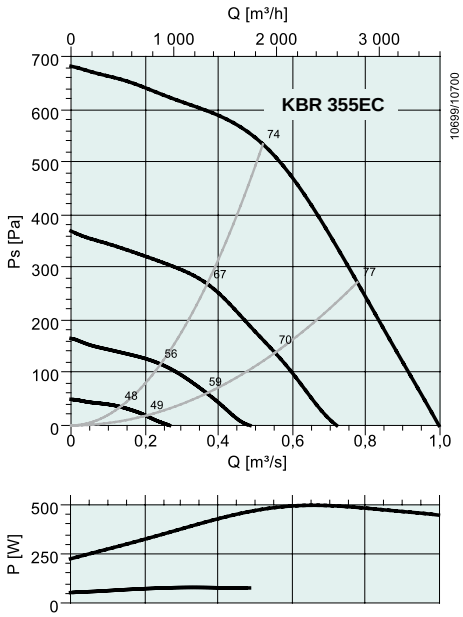
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	69	46	58	64	65	58	58	54	49
L_{wA} Outlet	70	46	58	66	66	61	60	53	48
L_{wA} Surrounding	49	16	39	45	39	44	36	34	25

Measurement point: 0,293 m^3/s; 306 Pa



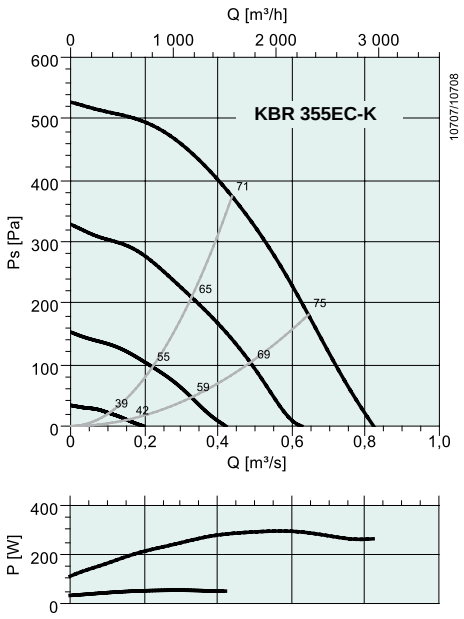
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	87	63	74	76	85	74	75	72	67
L_{wA} Outlet	90	64	72	75	88	81	80	71	66
L_{wA} Surrounding	61	42	54	55	56	51	52	48	40

Measurement point: 0.567 m^3/s; 1238 Pa



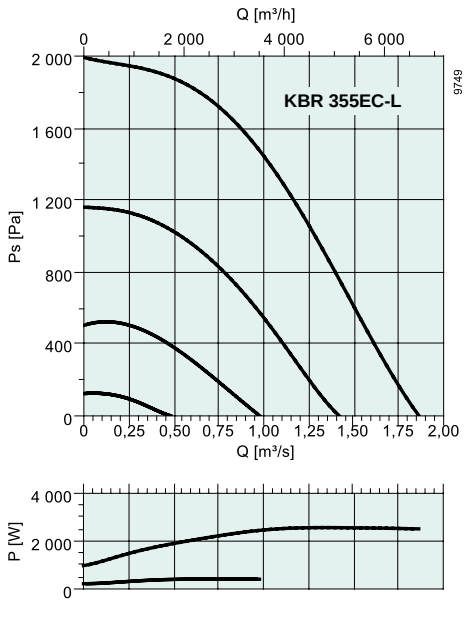
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	74	55	65	69	69	64	61	60	55
L_{wA} Outlet	76	60	65	74	68	66	61	59	54
L_{wA} Surrounding	54	26	42	45	45	45	47	49	45

Measurement point: 0,52 m^3/s; 534 Pa



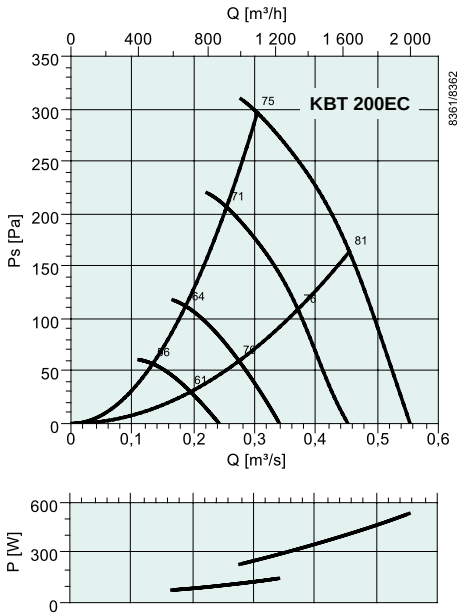
dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	71	60	62	63	67	61	61	57	51
L_{wA} Outlet	71	56	59	65	66	63	59	54	49
L_{wA} Surrounding	47	31	35	36	36	45	38	31	24

Measurement point: 0,438 m^3/s; 374 Pa



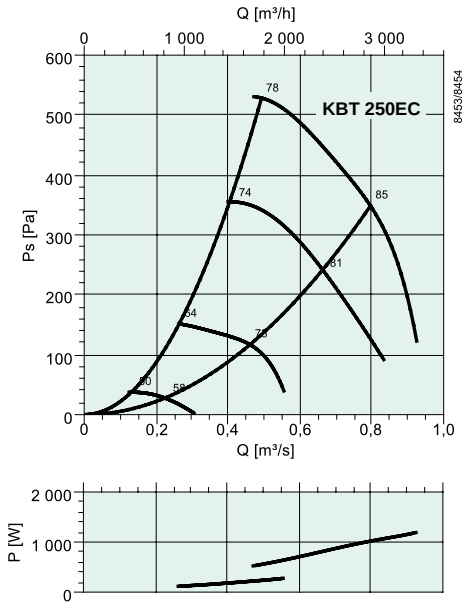
dB(A)	Tot		Frequency bands [Hz]						
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	90	-	88	87	82	80	76	70	67
L_{wA} Outlet	92	-	90	89	84	82	78	72	69
L_{wA} Surrounding	72	-	70	69	64	62	58	52	49

Measurement point: 0,93 m^3/s, Ps = 1531 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	75	60	59	72	66	68	64	62	56
L_{wA} Outlet	77	63	69	74	69	68	64	62	56
L_{wA} Surrounding	59	26	23	53	50	49	54	52	42

Measurement point: 0,304 m^3/s; 296 Pa



dB(A)	Tot	Frequency bands [Hz]							
		63	125	250	500	1k	2k	4k	8k
L_{wA} Inlet	78	51	68	69	69	73	70	69	64
L_{wA} Outlet	80	58	68	73	73	75	71	70	63
L_{wA} Surrounding	60	12	45	51	50	54	53	55	50

Measurement point: 0,493 m^3/s; 528 Pa