KR EC 450



Designed for the delivery of contaminated air.

EC

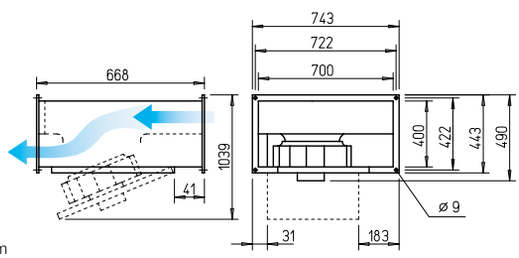
SKR EC 450 – sound-insulated



Low noise levels for inlet side and case radiation with high performance density. Use in extract air and intake air systems with specific noise level requirements.

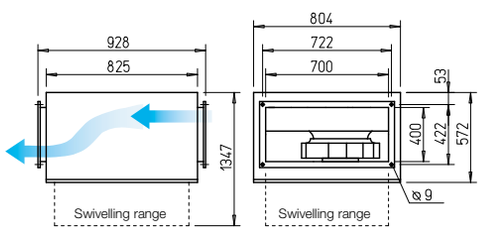
EC

Dimensions KR EC 450



Dim. in mm

Dimensions SKR EC 450 – sound-insulated



Dim. in mm

Features KR EC and SKR EC

- Highly efficient EC motor for low operating costs.
- High-pressure and high-volume centrifugal fan with high efficiency.
- Particularly easy to service (cleaning) due to retractable motor-impeller unit.
- Easily accessible for cleaning and thus designed for the delivery of contaminated air.
- Linear throughflow.
- Compact design, convenient installation.

Special features SKR EC

- Low noise levels for inlet side and case radiation with high performance density.

Description

- **Casing KR EC**
  Made of galvanised steel sheet. Double-sided rectangular duct flange profiles (20 mm) for installation in rectangular duct system.
- **Casing SKR EC**
  Like above, but with additional sound insulation cladding made of 50 mm thick mineral fibre boards. With a sound absorbing lining on the inside.

Common features KR EC and SKR EC

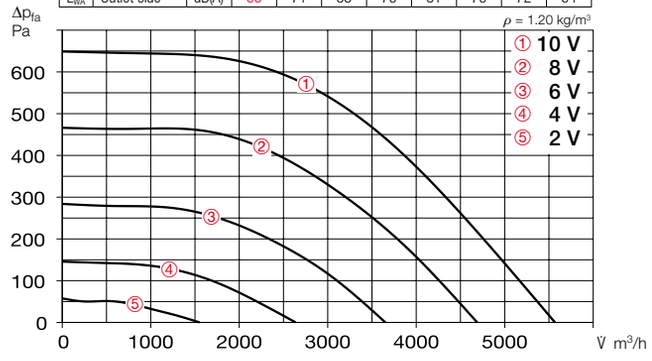
- **Impeller**
  Centrifugal, with backward curved blades made of aluminium. Aerodynamically optimised, inlet via nozzle.
- **Drive**
  Energy-efficient, speed-controllable EC external rotor motor with IP44 protection and high efficiency. Maintenance-free and equipped with ball bearings. Motor and impeller dynamically balanced.
- **Motor protection**
  Integrated electronic temperature monitoring system for EC motor and electronics.
- **Power control**
  Continuously variable speed control with potentiometer or continuously variable speed regulation with universal control system (see table). Performance levels are shown in the performance curve as an example.
- **Electrical connection**
  Terminal box (IP54) mounted to external cable.
- **Installation**
  Installation possible in any position. Note accessibility/swivel angle.
- **Noise**
  The total level and range are specified above the performance diagram for:
  ☐ Case-radiated sound power
  ☐ Inlet side sound power
  ☐ Outlet side sound power.
  The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and in the table below the performance curve.

Type	Ref. no.	Flow rate Free blowing	Rated speed	Sound press. case-radiation	Power consum.	Current consum.	Wiring diagram	Max. air flow temp.	Wgt net aprx.	Universal control system		Speed potentiometer flush-mount.		Speed potentiometer surface-mount.	
		V̇ m³/h	min⁻¹	dB(A) in 4 m	kW	A	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP44															
KRW EC 450/70/40	06127	5570	1500	48	0.86	3.80	979	60	37.0	**EUR EC** [1)2)]	01347	**PU 10** [1)]	01734	**PA 10** [1)]	01735
Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44															
KRD EC 450/70/40	08173	7520	1920	54	1.82	2.81	1479	60	38.2	**EUR EC** [1)2)]	01347	**PU 10** [1)]	01734	**PA 10** [1)]	01735
Sound-insulated SKR EC – Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP44															
SKRW EC 450/70/40 [3)]	06129	5390	1510	46	0.84	3.70	979	60	56.0	**EUR EC** [1)2)]	01347	**PU 10** [1)]	01734	**PA 10** [1)]	01735
Sound-insulated SKR EC – Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP44															
SKRD EC 450/70/40 A	08178	7460	1940	49	1.81	2.81	1479	60	57.2	**EUR EC** [1)2)]	01347	**PU 10** [1)]	01734	**PA 10** [1)]	01735

[1)] Multiple EC fans can normally be connected. [2)] alternative electronic diff. pressure/ temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267), see Accessories. [3)] Performance diagram at www.HeliosSelect.de.

Performance curves KRW EC 450/70/40

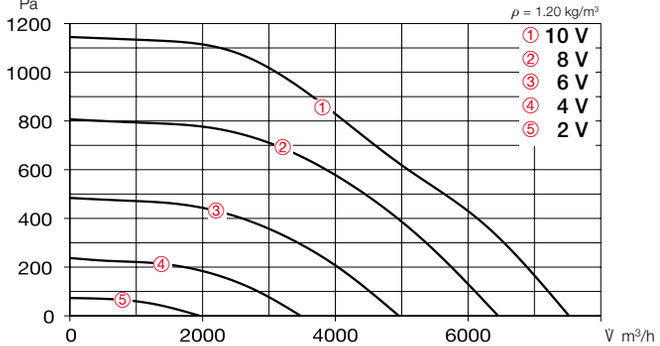
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	68	56	66	59	57	52	48	43
L_{WA}	Inlet side	dB(A)	81	70	77	72	71	71	67	59
L_{WA}	Outlet side	dB(A)	86	71	83	76	81	76	72	64



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	5570	630	2.8	48	0.40
8	1270	4690	380	1.7	43	0.29
6	980	3650	180	0.8	37	0.18
4	700	2640	75	0.4	29	0.10

Performance curves KRD EC 450/70/40

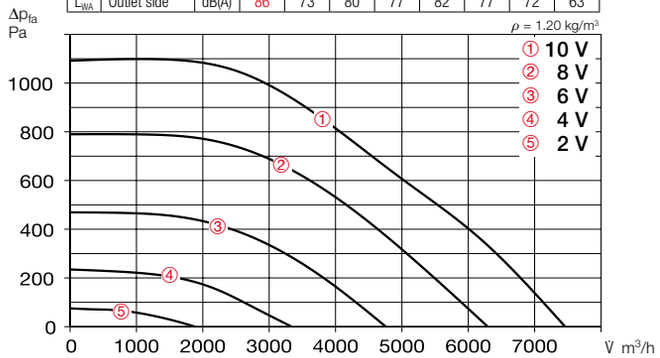
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	74	59	73	65	64	59	53	49
L_{WA}	Inlet side	dB(A)	84	74	78	76	76	77	72	66
L_{WA}	Outlet side	dB(A)	91	75	85	81	87	82	78	72



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1970	7520	1560	2.4	54	0.75
8	1670	6450	950	1.5	51	0.53
6	1290	4960	450	0.7	44	0.33
4	900	3480	170	0.4	36	0.18

Performance curves SKRD EC 450/70/40 A

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	69	61	67	56	56	48	42	39
L_{WA}	Inlet side	dB(A)	79	72	74	72	71	66	61	54
L_{WA}	Outlet side	dB(A)	86	73	80	77	82	77	72	63



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1970	7460	1500	2.3	49	0.72
8	1670	6290	920	1.4	47	0.53
6	1290	4760	440	0.7	43	0.33
4	900	3340	170	0.3	36	0.18

Accessories

External wall shutter
VK 70/40 Ref. no. 00879
Automatic overpressure shutter made of light grey plastic.



Weather protection grille
WSG 70/40 Ref. no. 00114
Stable construction made of extruded aluminium profiles, natural colour anodised.



Multi-leaf damper for rectangular duct installation
JVK 70/40 Ref. no. 06915
Frame casing with double-sided flanges, positioning mechanism outside of air flow. Electrical drive see STM, Accessories.



Fitting
FSK 70/40 Ref. no. 00840
For cost-effective integration of rectangular duct fans in round duct systems with Ø 400 mm.



Flexible connector
VS 70/40 Ref. no. 05699
Flexible rectangular duct connector with double-sided flange frame.



Counter flange
GF 70/40 Ref. no. 06924
Flange frame made of galvanised steel sheet for connection to the rectangular duct.



Rectangular duct silencer
KSD 70/40 Ref. no. 08731
For outlet and inlet side insertion in the rectangular duct system.



Rectangular duct air filter
KLF 70/40 Coarse 70%* 08723
KLF 70/40 ePM1 50%* 08647
With large bag filter. Galvanised steel sheet casing with double-sided flanges.



Warm water heating element
WHR 2/70/40 Ref. no. 08788
WHR 4/70/40 Ref. no. 08789
For installation in rectangular duct system.



Temperature control system for warm water heating element
WHS HE[1)] Ref. no. 08319

[1)] With heat output reduced to 2200 l/h for Type WHR 4/70/40.



Accessory details **Page**

Shutters and weather prot. grille 482, 563 ff.
Filters, heating elements and silencers 483 ff.
Temperature control systems for heating elements 489, 494 f
Universal control system, electronic controllers, speed potentiometer 615 ff.

* See product page 477 for detailed description.