

KVK Insulated duct fans

Insulated radial fan for limited spaces



- Design for limited installation height
- Very low noise, acoustic and thermal insulation
- Corrosion resistance of casing C4
- Indoor and outdoor installation
- Easy maintenance, service cover

[Find more details in our online catalogue](#)

Flexibility

The KVK Silent fans **combine** a high efficient **fan** and **casing** with perfect **acoustic** and **thermal** insulation capacity. The KVK Silent fans are intended to use for **supply** or **extract** air, designed to be installed in **any position**. This ensures that the fans can be used in a variety of **commercial and domestic** applications.

Reliability

Construction of casing and thermal insulation permits **outdoor** and **indoor** use. The combination of reliable casing and motor construction ensures to minimize the need for maintenance of the fans and allows long **continuous operation**. Thanks to service lid it is **easy to clean**.

Performance

High performance impeller together with **high efficient** external rotor motor are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Noise

Partly or **fully insulated** casing (depends on model) is perfectly designed to **reduce noise** mainly to **surrounding** and partly to **inlet/outlet**.

Features

Construction

Casing of all KVK fans made of **AluZinc 185**, corrosion **class C4**.

KVK Slim has acoustically/thermally **insulated lid**. **KVK Silent** has acoustically/thermally **insulated lid and casing**. Insulation made of **rockwool** and has surface liner that prevents the migration of fibers into the airstream. Casing has connection **spigot** with **rubber seals** and is equipped with an external **terminal box** with protection class **IP54**.

Impeller

KVK Slim/Silent fans use backward curved **radial** impeller. These are from lightweight, hard-wearing fiberglass reinforced **polyamide** (for sizes up to 250) or reinforced **polypropylene**, dynamically **balanced** and paired with corresponding external rotor motors.

Motor

Depending on type, fans are equipped with **AC** or high efficient **EC** external rotor motors. All motors are suitable for **50Hz** and **60Hz**.

Motor protection

Sizes **100-315 mm** with **AC** motors have **integrated** thermal protection with manual (electrical) reset.

Sizes **355-500 mm** with **AC** motors have prewired integral **thermal contacts TK** with leads to external **motor protection device**.

Fans with **EC** motors have an **integrated** electronic **thermal protection**, including **locked-rotor protection** and **soft-start**.

Control

EC motor with **built-in potentiometer** to adjust working point can be also controlled by external **signal 0-10V**.

AC motor can be controlled by **5-step** or **stepless** speed regulator.

KVK fans can be **demand controlled** via additional accessories like sensors and controllers for CO₂, temperature, humidity, presence indication and VAV.

Installation

KVK Slim/Silent fans can be installed in any position **indoor** and **outdoor**. Circular spigot with rubber seals is perfectly designed to connect to the duct by using **fast clamps preventing vibration** to the duct. A service cover with screw connection and hinges with pins make cleaning and service easy.

Technical parameters

Nominal data

Voltage (nominal)	230	V
Frequency	50; 60	Hz
Phases	1~	
Input power	120	W
Input current	0.929	A
Impeller speed	2,479	rpm
Air flow	max 0.259	m³/s
Temperature of transported air	max 60	°C
Max temperature of transported air, when speed controlled	60	°C

Sound data

Sound pressure level at 3m (20m² Sabin)	42	dB(A)
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Protection/Classification

Enclosure class, motor	IP54
Insulation class	B

Data according to ErP

Energy class, Basic unit	E
Energy class, Local demand	B
ErP ready	ErP 2018

Dimensions and weights

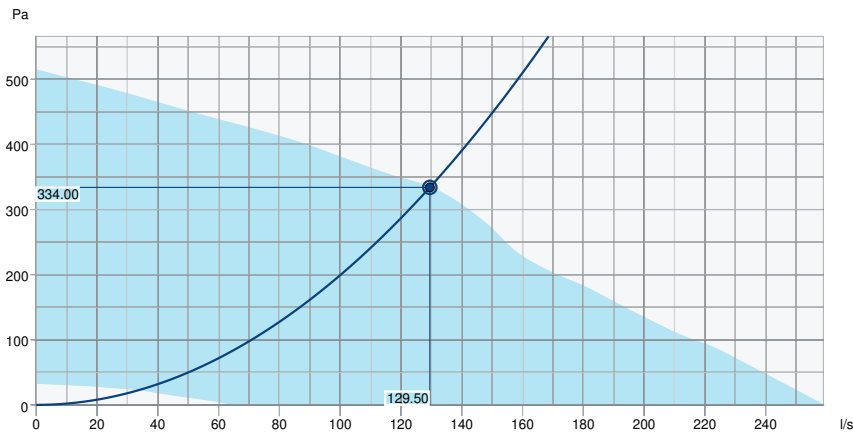
Duct dimension; Circular, inlet	200	mm
Duct dimension; Circular, outlet	200	mm
Weight	21	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve



Hydraulic data

Required air flow	129.50 l/s
Required static pressure	334 Pa
Working air flow	129.50 l/s
Working static pressure	334 Pa
Air density	1.204 kg/m³
Power	117.6 W
Fan control - RPM	2,546 rpm
Current	0.90 A
SFP	0.908 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	55	57	62	56	48	46	45	44	65
Outlet	dB(A)	52	54	63	61	58	60	53	45	67
Surrounding	dB(A)	29	33	46	42	40	29	27	29	49
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	42
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	28

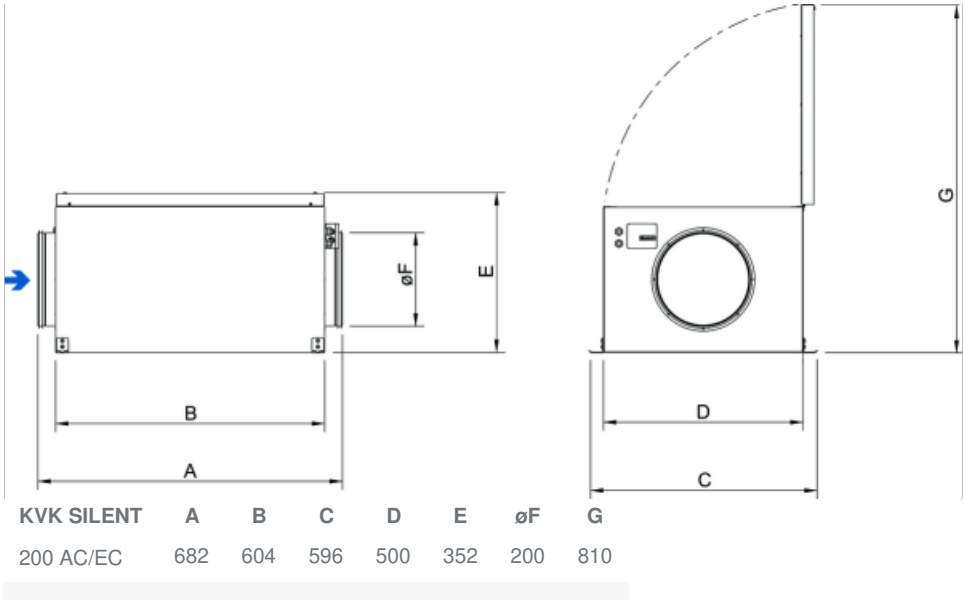
Accessories

Ecodesign

Product		
Trade name	Systemair	
Product name	KVK Silent 200 EC	
Basic unit		
ErP compliance	2016	
SEC Average	-14.6	kWh/(m².a)
SEC Cold	-31.1	kWh/(m².a)
SEC Warm	-5.3	kWh/(m².a)
SEC Class	E	
Unit category	RVU	
Unit type	UVU	
Drive	Integrated VSD	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv max	774	m³/h
P max	116	W
Sound power (LWA)	42	dB(A)
qv ref	0.042	m³/s
Ps ref	50	Pa
SPI	0.023	W/(m³/h)
CTRL	1	
MISC	1.1	
x-value	2	
External Leakage	0.1	%
AEC average	104	kWh
AHS Cold	104	kWh
AEC warm	104	kWh
AHS Average	1,715	kWh/a
AHS Cold	3,355	kWh/a
AHS Warm	776	kWh/a

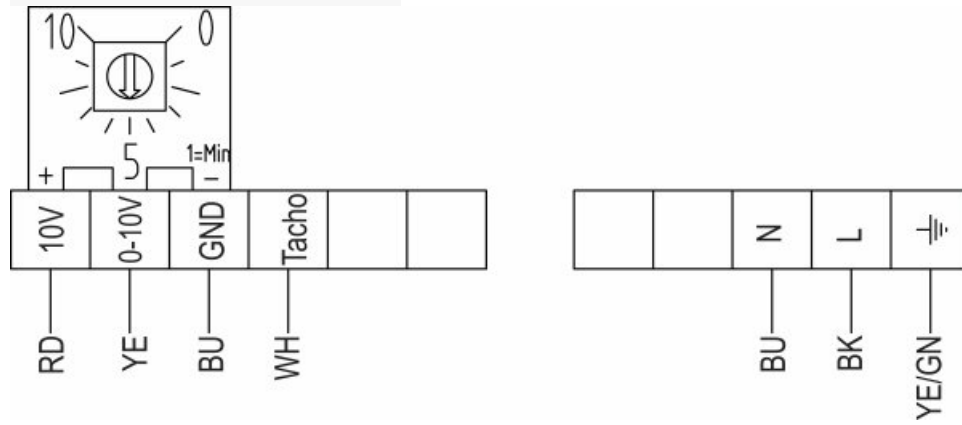
Units with local demand control		
ErP compliance	2018	
SEC Average	-27.2	kWh/(m².a)
SEC Cold	-54.3	kWh/(m².a)
SEC Warm	-11.7	kWh/(m².a)
SEC Class	B	
Unit category	RVU	
Unit type	UVU	
Drive	Integrated VSD	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv max	774	m³/h
P max	116	W
Sound power (LWA)	42	dB(A)
qv ref	0.0418	m³/s
Ps ref	50	Pa
SPI	0.023	W/(m³/h)
CTRL	0.65	
MISC	1.1	
x-value	2	
External Leakage	0.1	%
AEC average	44	kWh
AEC cold	44	kWh
AEC warm	44	kWh
AHS Average	2,830	kWh/a
AHS Cold	5,536	kWh/a
AHS Warm	1,280	kWh/a

Dimension



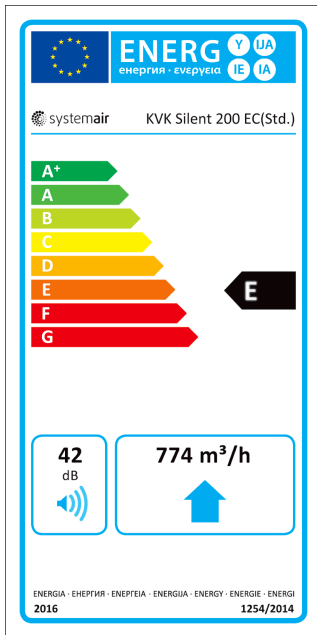
Wiring

RD	Red
YE	Yellow
BU	Blue
WH	White
GN	Green
BN	Brown
BK	Black

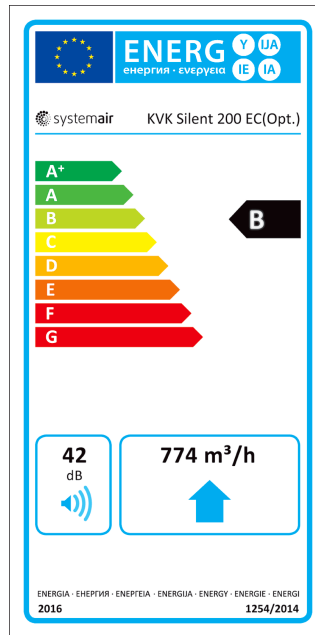


Energy class label

Energy class, Basic unit



Energy class, Local demand



Accessories

- CXE/AVC Modbus (37256)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Selector (9908)
- EC-Vent Room Unit (3018)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC, 0-10V (76738)
- HR1 Room Humidistat (215150)
- Presence detector/IR24-P (6995)
- VBF 200 Water heating battery (1732)
- CB 200-3,0 230V/1 Duct heater (5370)
- CB 200-5,0 400V/2 Duct heater (5371)
- CBMF 200-3,0 230V/1 Duct heater (12245)
- CWK 200-3-2,5 Duct cooler,circ (30023)
- FGR 200 Filter cassette (1812)
- LDC 200-300 Silencer (53369)
- LDC 200-900 Silencer (5195)
- THB 200 Hood w.cover pl. black (134465)
- VBC 200-2 Water heating batt (5459)
- VK-20 Louvre shutter (5639)
- DMD-C Pressure controller (15793)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent control board (3115)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- SG 200 Protection guard (5609)
- VKK-200 Back draft damper (1626)
- IGK-200 Wall Grid (1633)
- RT 0-30 Room Thermostat (5151)
- CB 200-2,1 230V/1 Duct heater (5384)
- CB 200-3,0 400V/2 Duct heater (5294)
- CBM 200-5,0 400V/2 Duct heater (5483)
- CBMF 200-5,0 400V/2 Duct heater (12246)
- FFR 200 Filter cassette (1773)
- FK 200 Fast clamp (1611)
- LDC 200-600 Silencer (5194)
- RSK-200 Back draft damper (5602)
- THS 200 Hood w.cover pl. black (134466)
- VBC 200-3 Water heating batt (9841)
- BMS Trickle & Boost Switch (120363)

Documents

- INSTALLATION__OPERATION_AND_MAINTENANCE_INSTRUCTION_KV_DUO__KVK_DUO__KVK_003__EN.PDF
- COMMISSIONING_RECCORD_FANS__EN.PDF