

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	75	W
Input current	0.633	A
Impeller speed	3,243	rpm
Air flow	max 0.121	m³/s
Temperature of transported air	max 55	°C
Max temperature of transported air, when speed controlled	55	°C

Sound data

Sound pressure level at 3m (20m² Sabin)	46	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

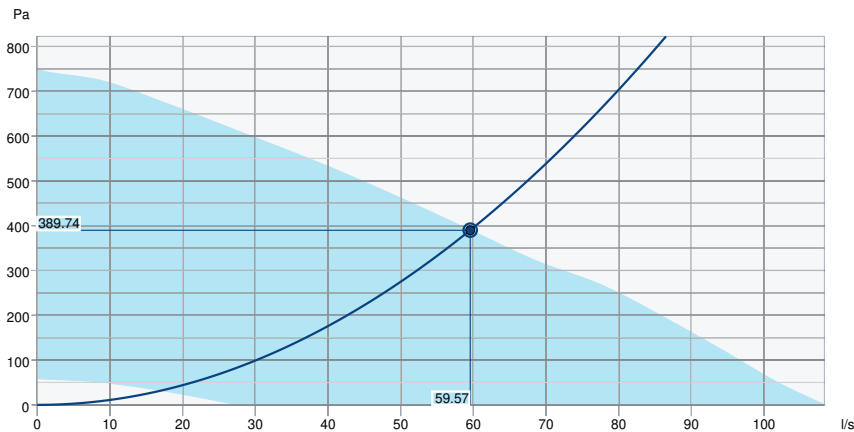
Duct dimension; Circular, inlet	125	mm
Duct dimension; Circular, outlet	125	mm
Weight	13.7	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve



Hydraulic data

Required air flow	59.56 l/s
Required static pressure	390 Pa
Working air flow	59.57 l/s
Working static pressure	390 Pa
Air density	1.204 kg/m ³
Power	73.9 W
Fan control - RPM	3,524 rpm
Current	0.60 A
SFP	1.241 kW/m ³ /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	54	54	53	47	45	41	38	61
Outlet	dB(A)	59	61	65	69	68	65	58	51	74
Surrounding	dB(A)	25	36	37	43	37	38	38	30	47
Sound pressure level at 3m (20m ² Sabine)	dB(A)	-	-	-	-	-	-	-	-	40
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	26

Accessories

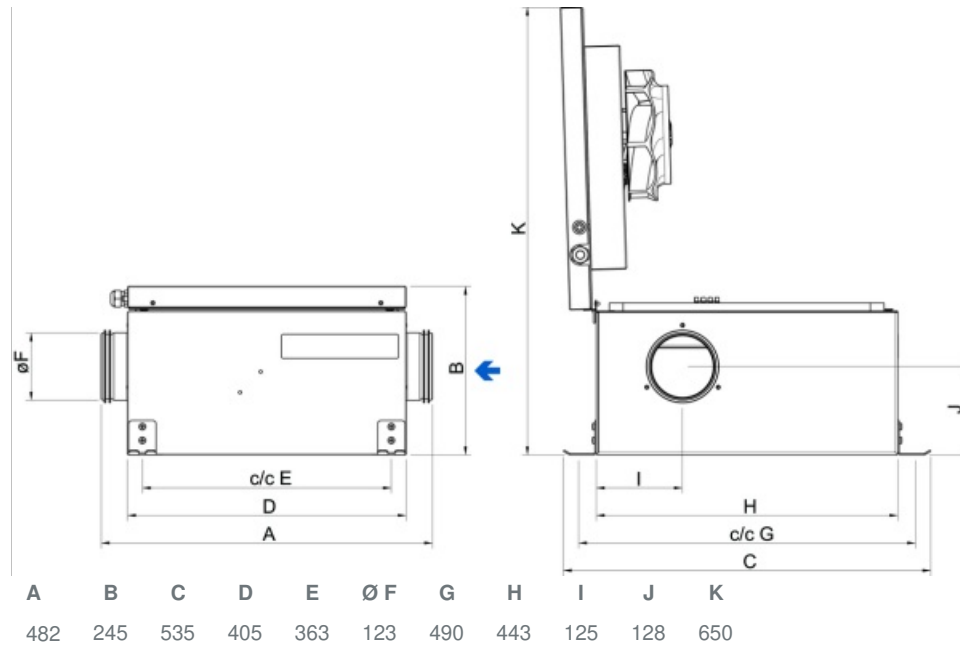
Ecodesign

Product			
Trade name		Systemair	
Product name		KVK Silent 125 EC	
Basic unit			
ErP compliance		2016	
SEC Average		-12.9	kWh/(m².a)
SEC Cold		-29.4	kWh/(m².a)
SEC Warm		-3.6	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		382	m³/h
P max		85	W
Sound power (LWA)		42	dB(A)
qv ref		0.074	m³/s
Ps ref		50	Pa
SPI		0.134	W/(m³/h)
CTRL		1	
MISC		1.1	
x-value		2	
External Leakage		8.2	%
AEC average		168	kWh
AHS Cold		168	kWh
AEC warm		168	kWh
AHS Average		17	kWh/a
AHS Cold		34	kWh/a
AHS Warm		8	kWh/a

Units with local demand control

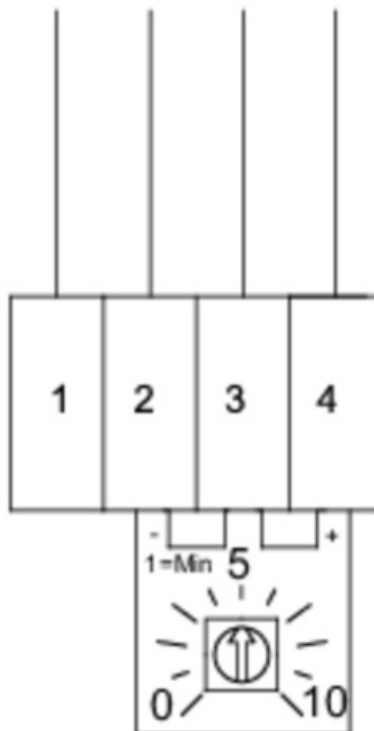
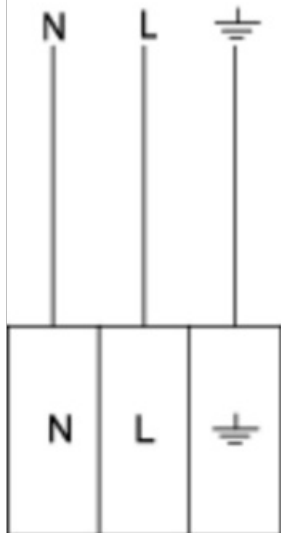
ErP compliance	2018	
SEC Average	-26.5	kWh/(m².a)
SEC Cold	-53.6	kWh/(m².a)
SEC Warm	-11	kWh/(m².a)
SEC Class	B	
Unit category	RVU	
Unit type	UVU	
Drive	Integrated VSD	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv max	382	m³/h
P max	85	W
Sound power (LWA)	42	dB(A)
qv ref	0.0742	m³/s
Ps ref	50	Pa
SPI	0.134	W/(m³/h)
CTRL	0.65	
MISC	1.1	
x-value	2	
External Leakage	8.2	%
AEC average	71	kWh
AEC cold	71	kWh
AEC warm	71	kWh
AHS Average	28	kWh/a
AHS Cold	55	kWh/a
AHS Warm	13	kWh/a

Dimension



Wiring

230V 1~



Internal potentiometer, default

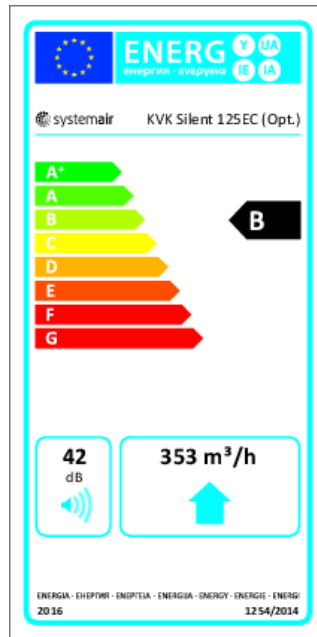
- A White
- B Blue
- C Yellow
- D Red

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)
- VBC 125-3 Water heating batt (9839)
- CB 125-1,2 230V/1 Duct heater (5290)
- CBM 125-1,2 230V/1 Duct heater (5480)
- CWK 125-3-2,5 Duct cooler,circ (30021)
- FGR 125 Filter cassette (1804)
- LDC 125-1200 Silencer (5997)
- LDC 125-600 Silencer (5190)
- RSK-125 Back draft damper (5598)
- THB 160 Hood w.cover pl. black (1764)
- THS 160 Hood w.cover pl. black (1839)
- VBF 125 Water heating battery (1730)
- 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 125 Protection guard (5607)
- VKK-125 Back draft damper (1624)
- IGK-125 Wall Grid (1631)
- RT 0-30 Room Thermostat (5151)
- CB 125-0,6 230V/1 Duct heater (5289)
- CB 125-1,8 230V/1 Duct heater (5377)
- CBMF 125-1,2 230V/1 Duct heater (12242)
- FFR 125 Filter cassette (1768)
- FK 125 Fast clamp (1608)
- LDC 125-300 Silencer (53722)
- LDC 125-900 Silencer (5191)
- THB 160 Hood w. cover pl. Red (2034)
- THS 160 Hood w. cover pl. Red (2044)
- VBC 125-2 Water heating batt (5457)
- BMS Trickle & Boost Switch (120363)

Documents

- INSTALLATION__OPERATION_AND_MAINTENANCE_INSTRUCTION_KV_DUO__KVK_DUO__KVK_003__EN.PDF
- COMMISSIONING_RECCORD_FANS__EN.PDF