

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	Hz
Phases	1~	
Input power	168	W
Input current	1.17	A
Impeller speed	1,823	rpm
Air flow	max 0.455	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)	43	dB(A)
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Protection/Classification

Enclosure class, motor	IP44
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
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Dimensions and weights

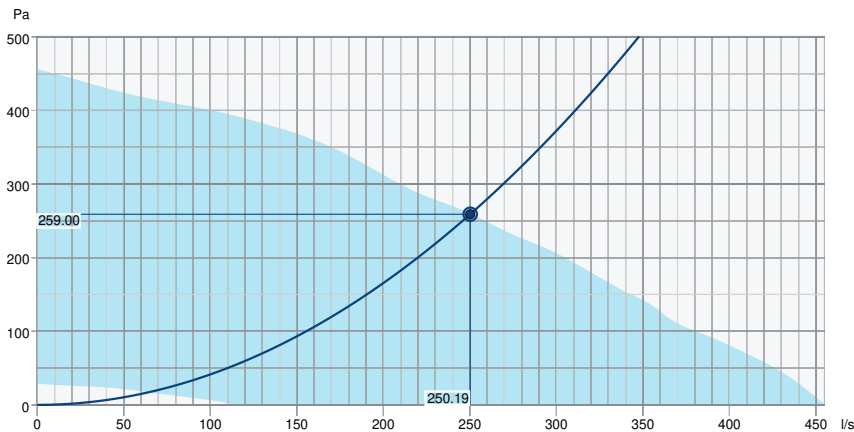
Duct dimension; Circular, inlet	250	mm
Duct dimension; Circular, outlet	250	mm
Weight	27.45	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve



Hydraulic data

Required air flow	250.19 l/s
Required static pressure	259 Pa
Working air flow	250.19 l/s
Working static pressure	259 Pa
Air density	1.204 kg/m ³
Power	164.5 W
Fan control - RPM	1,828 rpm
Current	1.10 A
SFP	0.658 kW/m ³ /s
Control voltage	10.0 V
Supply voltage	230 V

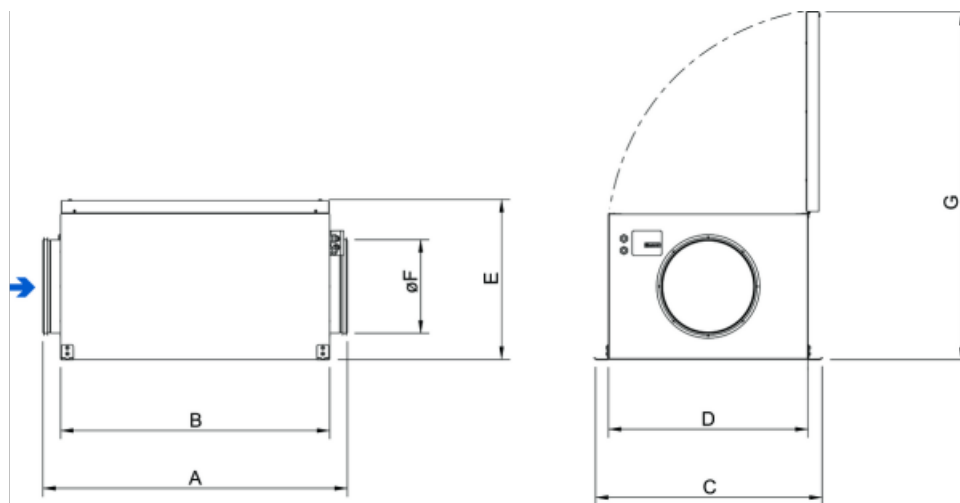
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	56	65	63	54	48	46	43	37	68
Outlet	dB(A)	50	67	66	60	62	61	55	51	71
Surrounding	dB(A)	29	42	48	40	38	32	34	26	50
Sound pressure level at 3m (20m ² Sabine)	dB(A)	-	-	-	-	-	-	-	-	43
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	29

Accessories

Ecodesign

Product			
Trade name		Systemair	
Product name		KVK Silent 250 EC	
Ecodesign			
ErP compliance		2018	
Unit category		NRVU	
Drive		Integrated VSD	
Unit type		UVU	
Heat recovery type		None	
Temperature ratio (UVU)		Not applicable	
qv nom		0.25	m³/s
P nom		0.165	kW
Ps nom		259	Pa
Fan efficiency		39.2	%
External Leakage		0.3	%
Sound power (LWA)		43	dB(A)

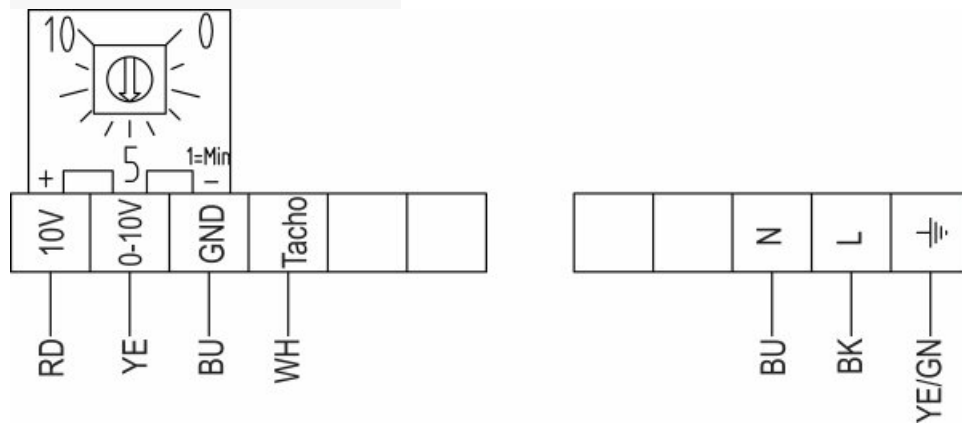
Dimension



KVK SILENT	A	B	C	D	E	øF	G
250 AC/EC	836	720	630	533	382	250	872

Wiring

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



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)
- CB 250-6,0 400V/2 Duct heater (5372)
- Presence detector/IR24-P (6995)
- CB 250-9,0 400V/3 Duct heater (5373)
- CBMF 250-3,0 230V/1 Duct heater (12248)
- CWK 250-3-2,5 Duct cooler, circ (30024)
- FGR 250 Filter cassette (1815)
- LDC 250-900 Silencer (5196)
- THB 200 Hood w.cover pl. black (134465)
- VBC 250-2 Water heating batt (5460)
- VBF 250 Water heating battery (1733)
- BMS Trickle & Boost Switch (120363)
- 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 250 Protection guard (5610)
- VKK-250 Back draft damper (1627)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CBM 250-6,0 400V/2 Duct heater (9089)
- CBMF 250-6,0 400V/2 Duct heater (12249)
- FFR 250 Filter cassette (1776)
- FK 250 Fast clamp (1612)
- RSK-250 Back draft damper (5603)
- THS 200 Hood w.cover pl. black (134466)
- VBC 250-3 Water heating batt (9843)
- VK-25 Louvre shutter (5640)

Documents

- INSTALLATION__OPERATION_AND_MAINTENANCE_INSTRUCTION_KV_DUO__KVK_DUO__KVK_003__EN.PDF
- COMMISSIONING_RECCORD_FANS__EN.PDF