

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	532	W
Input current	2.39	A
Impeller speed	1,925	rpm
Air flow	max 1.104	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)	54	dB(A)
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Protection/Classification

Enclosure class, motor	IP55
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
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Dimensions and weights

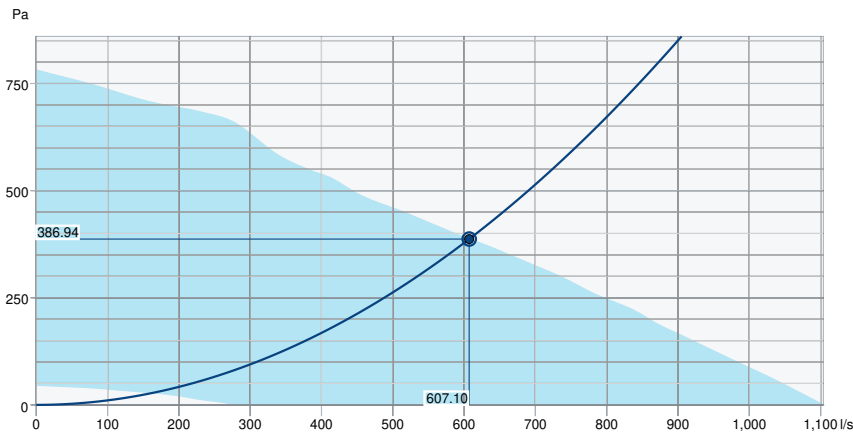
Duct dimension; Circular, inlet	400	mm
Duct dimension; Circular, outlet	400	mm
Weight	64	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve



Hydraulic data

Required air flow	607.15 l/s
Required static pressure	387 Pa
Working air flow	607.10 l/s
Working static pressure	387 Pa
Air density	1.204 kg/m³
Power	528.3 W
Fan control - RPM	1,816 rpm
Current	2.30 A
SFP	0.870 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

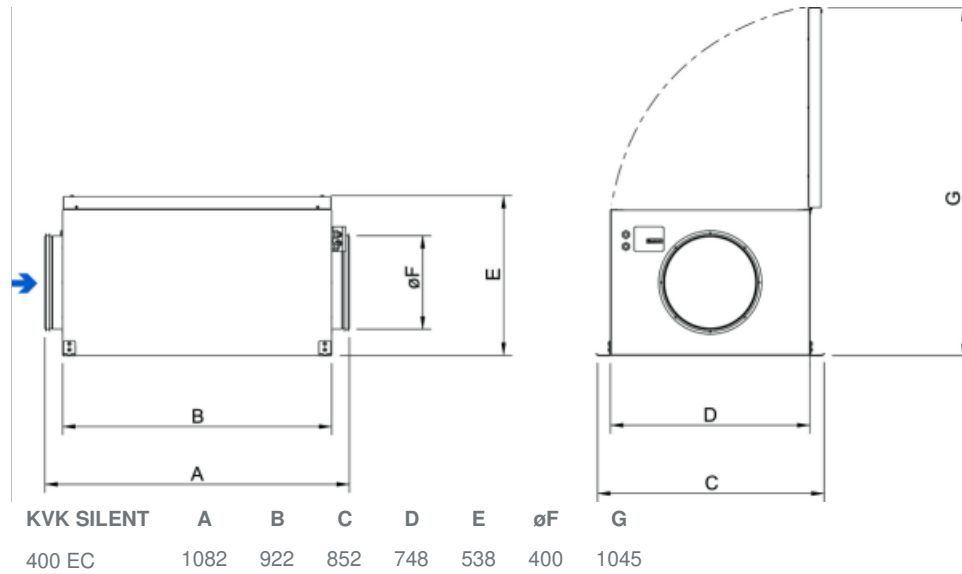
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	61	70	73	57	56	55	53	46	75
Outlet	dB(A)	53	68	72	65	68	64	60	52	76
Surrounding	dB(A)	37	50	60	47	40	36	39	34	61
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	54
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	40

Accessories

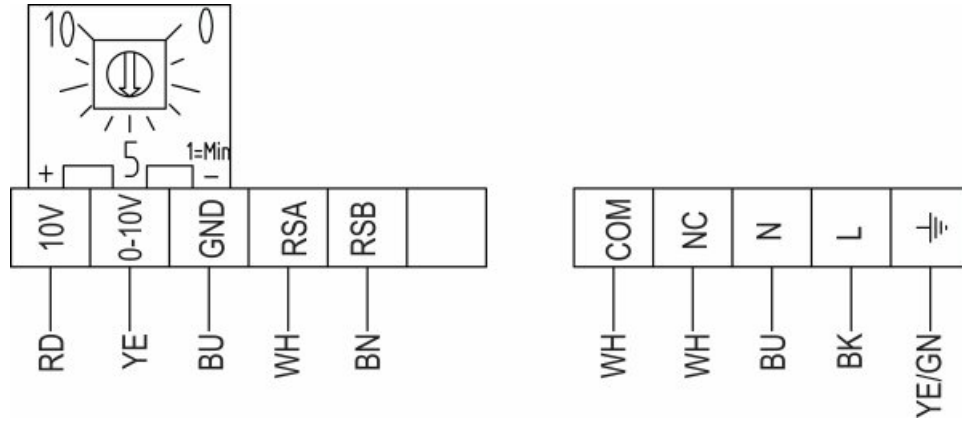
Ecodesign

Product			
Trade name		Systemair	
Product name		KVK Silent 400 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		0.607	m³/s
P nom		0.528	kW
Ps nom		387	Pa
Fan efficiency		44.5	%
External Leakage		0.1	%
Sound power (LWA)		51	dB(A)

Dimension



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)
- Pressure controller PCA 1000D2 (76739)
- SG 400 Protection guard (5613)
- VKK-400 Back draft damper (1629)
- Presence detector/IR24-P (6995)
- CB 400-12,0 400V/3 Duct heater (5393)
- CB 400-9,0 400V/3 Duct heater (5392)
- CBMF 400-9,0 400V/3 Duct heater (12511)
- FFR 400 Filter cassette (1783)
- FK 400 Fast clamp (1615)
- RSK-400 Back draft dmp. (9973)
- VBC 400-3 Water heating batt (9845)
- 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)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC, 0-10V (76738)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CB 400-6,0 400V/2 Duct heater (5391)
- CBM 400-9,0 400V/3 Duct heater (5487)
- CWK 400-3-2,5 Duct cooler, circ (30026)
- FGR 400 Filter cassette (1823)
- LDC 400-900 Silencer (5198)
- VBC 400-2 Water heating batt (5462)
- VBF 400 Water heating battery (1736)
- VK-40 Louvre shutter (5643)

Documents

- INSTALLATION__OPERATION_AND_MAINTENANCE_INSTRUCTION_KV_DUO__KVK_DUO__KVK_003__EN.PDF
- MODBUS LITE V5.01 parameter specification.pdf
- COMMISSIONING_RECCORD_FANS__EN.PDF