

# KVO 315 EC CIRCULAR DUCT FAN

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## Description

- EC-motors, high level of efficiency
- 100% speed controllable
- Low noise level
- Integrated motor protection
- Potentiometer included for ease of commissioning

EC technology is intelligent technology; using integral electronic control which eliminates the slip losses in the motor & ensures that the motor always runs at optimal load and guarantees that the proportion of energy utilised effectively is many times higher and the energy usage considerably lower compared with AC motors.

EC fans are notable for their economical use of energy and excellent ease of control. They can be varied in speed to match the airflow demand, and operate at high efficiency levels. For the same air volume, they consume distinctly less energy than AC fan drives.

Another special feature of EC fans is their energy-saving potential not only at full load, but especially at part-load. When operating at part-load, the energy used is much lower than with an asynchronous motor of equivalent output. Reduced energy usage guarantees a drop in operating costs.

The KVO EC 100-160 models have a single-inlet centrifugal fan with forward-curved blades and a maintenance-free external rotor motor(EC). KVO EC 200-315 models have a single-inlet centrifugal fan with backward-curved blades and a maintenance-free external rotor motor(EC). These fans develop relatively high static pressure and have a very high efficiency. The fans are delivered with a pre-wired potentiometer (0-10V) that allows you to easily find the desired working point.

The KVO EC motor and impeller are mounted on the access cover for ease of maintenance. The service cover can be easily removed by withdrawing the hinge pin. To protect the motor from overheating, the fans have integral thermal contacts with automatic reset. The fans can be installed in any position and are easy to connect to spiral ducts using FK mounting clamps. The KVO EC models are manufactured from galvanised sheet steel and the lid is insulated with 40mm rockwool.



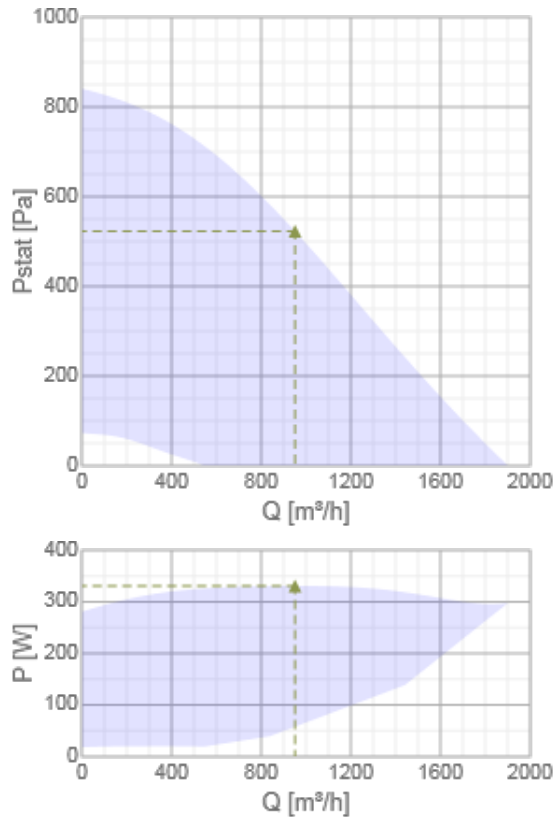
## Technical parameters

Default group		
Voltage	230	V
Frequency	50/60	Hz
Phase	1	~
Input power (P1)	331	W
Current	2,04	A
Max. airflow	1901	m <sup>3</sup> /h
Fan impeller speed	2264	r.p.m.
Sound pressure level at 3 m (20m <sup>2</sup> Sabin)	55,4	dB(A)
Weight	25,6	kg
Insulation class	F	
Enclosure class, motor	IP44	IP
Max. temperature of transported air	60	°C
Max. temperature of transported air when voltage-controlled	60	°C

ErP

## Performance

### Diagrams



### Hydraulic data

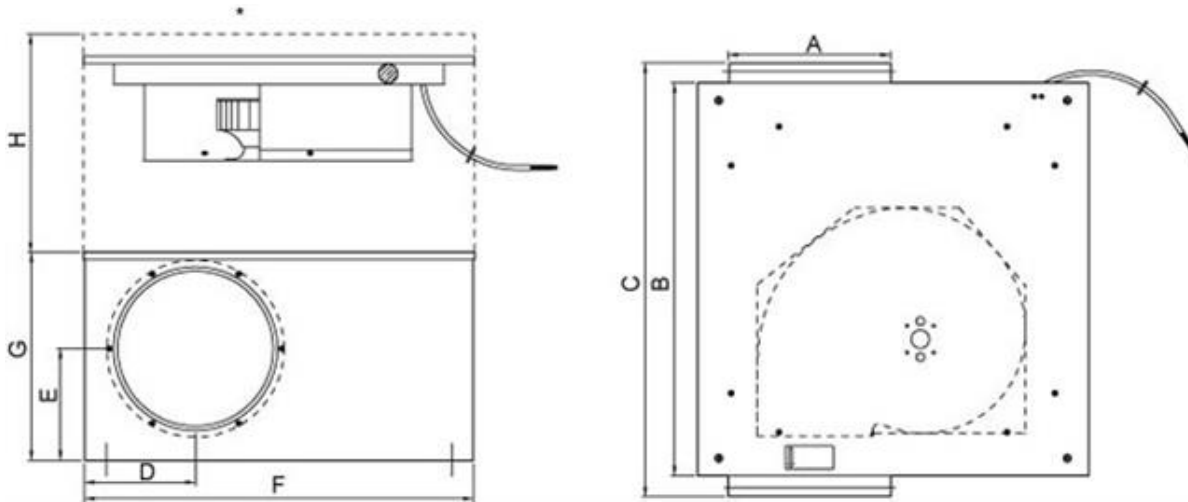
	Working point						
	Q [m³/h]	Ps [Pa]	P [W]	n [r.p.m.]	I [A]	SFP [kW/(m³/s)]	U [V]
Max efficiency	950	523	331	2264	2,04	1,25	230

### Acoustic data

Sound power level	63	125	250	500	1k	2k	4k	8k	Tot
Inlet									
Outlet									
Surrounding									


### Dimensions

\* Free area



	A	B	C	D	E	F	G	H
100	100	329	367	69	76	300	150	150
125	125	329	367	84	72	300	150	150
160	160	329	367	99	90	300	185	185
200	200	419	466	123	109	435	220	220
250	250	528	612	151	133	558	270	270
315	315	614	700	183	164	615	344	260

## Documentation

 [EC-fans\\_Operation\\_and\\_maintenance\\_instr\\_206268\\_CE\\_A013.pdf](#) (2,55MB)

## Eco design

Trade name	Systemair	
Product name	KVO 315 EC Circular duct fan	
ErP compliance	2018	
Unit category	NRVU	
Drive	Intergrated VSD	
Unit type	UVU	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv nom	950	m <sup>3</sup> /h
P nom	331	W
Ps nom	523	Pa
Fan efficiency	42	%
External Leakage	5	%
Sound power	57	dB(A)

## Specification text

KVKE 160EC Circular duct fan EC  
DN 160, 230V/50Hz, 1~, sound insulated

Centrifugal circular duct fan designed for easy and direct installation in ducts. Compact design with duct connections on both sides.

The casing is manufactured from galvanised sheet steel, thermally and sound insulated with a 50 mm layer of mineral wool, internal surfaces protected by perforated, galvanized steel sheet.

Service cover with quick release fasteners.

The fan unit is mounted on the service cover for easy cleaning and maintenance. The service cover can be easily removed by withdrawing the hinge pin.

Backward curved centrifugal impeller made of plastic. Impeller acc. to VDI 2060, balancing quality G 6.3, dynamically balanced in two planes.

Energy-saving, energy-efficient

EC-external rotor motor, maintenance-free, the motor is placed inside the air flow for cooling. Integrated, electronic motor protection. Integrated speed controller, the fan is equipped with a potentiometer (0-10V) to set the operating point directly. The potentiometer is factory-set to a value between 6 and 10V. Terminal box on the casing.

For extract and supply air.

Installation in any mounting position.

For indoor installation.

PRODUCT: SYSTEMAIR

TYPE: KVKE 160EC

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