

VCN



**USER'S MANUAL**



2012

**USE**

The centrifugal fans VCN series are designed for extract ventilation of living spaces, offices, shops, garages, kitchens, bathrooms and other residential and public premises.

The fans are designed for top installation at ventilation shaft outlets.

The fans are rated for continuous operation always connected to power mains.

Ingress protection rating according to access to hazardous parts and water ingress - IPX4.

The minimum transported temperature is -15°C. The fan is suitable for short-term air transportation with the temperature reaching -30°C. The maximum transported air temperature is

Transported medium must not contain any dust or other solid impurities, sticky substances or fibrous materials.

*Due to constant improvements the design of some models may slightly differ from those ones described in this manual.*

**BASIC  
TECHNICAL  
CHARACTERISTICS**

The fan designations, overall and connecting dimensions, parameters are shown in tables 1, 2, 3 and in fig. 1.

**FAN  
DESIGNATION  
KEY**

**VENTS VCN X K**

Modification with a backdraft damper

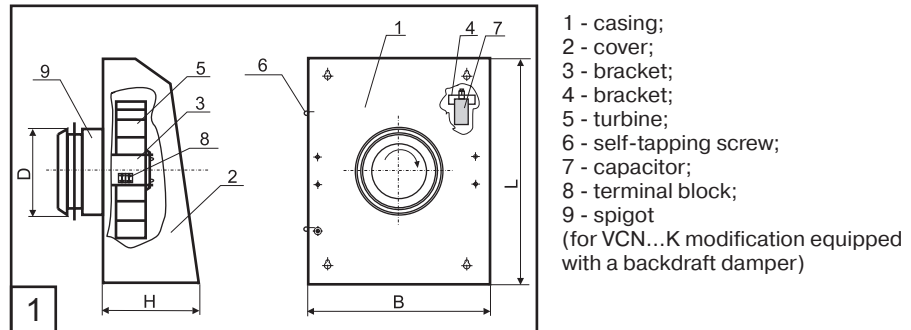
Air duct diameter [mm]

100, 125, 150, 160, 200

### Designation key example

**VENTS VCN 100** - centrifugal fan for mounting with  $\varnothing$  100 mm air duct.

**VENTS VCN 150 K** - centrifugal fan with a backdraft damper for mounting with  $\varnothing$  150 mm air duct.



**Table 1**

Fan type	Dimensions, mm				Weight, kg
	D	L	B	H	
<b>VCN 100 / VCN 100 K</b>	100	355	260	140	3,60
<b>VCN 125 / VCN 125 K</b>	125	355	260	140	3,60
<b>VCN 150 / VCN 150 K</b>	150	400	300	140	4,70
<b>VCN 160 / VCN 160 K</b>	160	400	300	140	4,70
<b>VCN 200 / VCN 200 K</b>	200	400	300	140	4,70

**Table 2**

Fan type	V, 50 Hz	W	A	m <sup>3</sup> /h	R P M	dB(A)	°C	IP
<b>VCN 100 / VCN 100 K</b>	1~ 230	71	0,31	325 (295*)	2530	54	55	IP X4
<b>VCN 125 / VCN 125 K</b>	1~ 230	75	0,33	485 (450*)	2475	54	55	IP X4
<b>VCN 150 / VCN 150 K</b>	1~ 230	96	0,42	630 (565*)	2400	58	55	IP X4
<b>VCN 160 / VCN 160 K</b>	1~ 230	95	0,41	650 (590*)	2440	60	55	IP X4
<b>VCN 200 / VCN 200 K</b>	1~ 230	96	0,42	700 (640*)	2515	62	55	IP X4

\* - for the models with an integrated backdraft damper (VCN...K)

**Table 3**

Fan type	V, 60 Hz	W	A	m <sup>3</sup> /h	R P M	dB(A)	°C	IP
<b>VCN 100 / VCN 100 K</b>	1~ 230	92	0,40	350 (320*)	2625	54	55	IP X4
<b>VCN 125 / VCN 125 K</b>	1~ 230	98	0,43	500 (465*)	2570	54	55	IP X4
<b>VCN 150 / VCN 150 K</b>	1~ 230	100	0,44	650 (595*)	2270	58	55	IP X4
<b>VCN 160 / VCN 160 K</b>	1~ 230	96	0,42	685 (625*)	2400	60	55	IP X4
<b>VCN 200 / VCN 200 K</b>	1~ 230	97	0,42	710 (650*)	2555	62	55	IP X4

\* - for the models with an integrated backdraft damper (VCN...K)

The fan ingress Protection (IP) rating from solid objects and liquids IPX4 demands extra protection against water ingress.

To protect the fan against water ingress mount a hood at the intake pipe or under the roof.

Take steps to prevent ingress of smoke, carbon monoxide and other combustion products into the room through open chimney flues or other fire-protection devices. Mounting and maintenance of the fan are allowed only by duly qualified electricians in compliance with valid rated norms.

Disconnect the fan from power mains prior to any servicing and repair works. Before connecting the fan to power mains check the fan for any visible damages of impeller and casing. The casing internals must be free of any foreign objects which can damage the impeller blade.

Do not use the fan in explosive or fire-hazardous environment.

The fan (fig. 1) consists of the casing 1 with the cover 2 that is attached by the screws 6. The clockwise rotation impeller 5, the capacitor 7 and the terminal block 8 are installed inside the casing on the brackets 3 and 4 for connection to single-phase power mains. The casing is equipped with an intake spigot for connection to air duct.

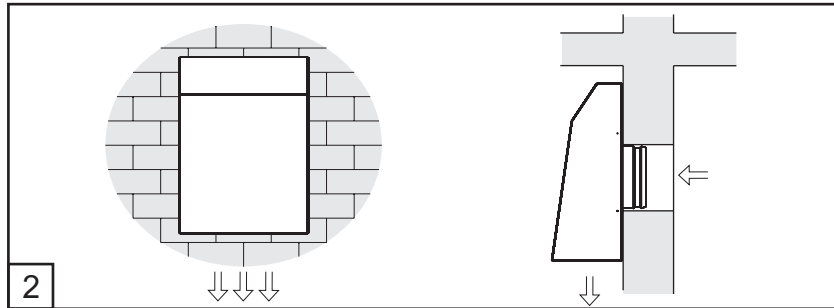
The fan is designed for top mounting (fig. 2).

#### SAFETY REQUIREMENTS



#### FAN STRUCTURE

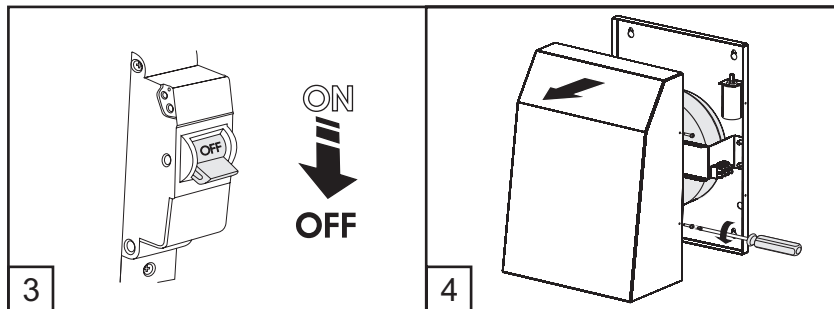
#### INSTALLATION AND MOUNTING GUIDELINES

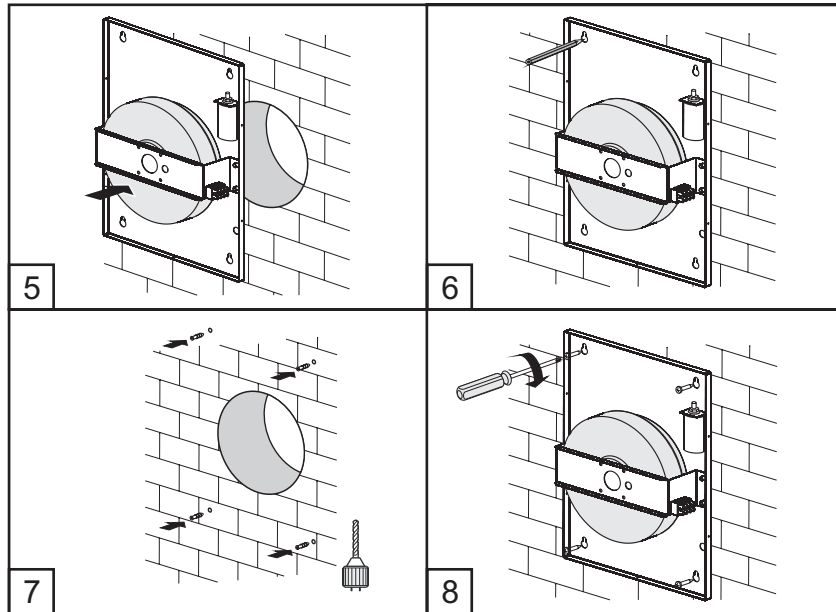


2 Disconnect the fan from power mains prior to any wireworks (fig. 3).

To install the fan on the wall remove the self-tapping screws 6 and remove the cover 2 (fig. 4), drill the holes for dowels in compliance with mounting seats on the fan casing (fig. 5,6,7) and install the fan with screws (fig. 8).

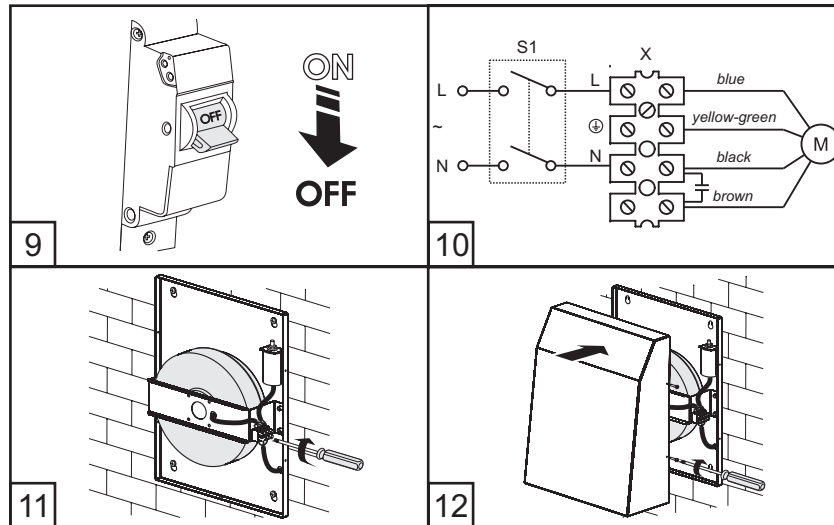
The power cable must be routed through the screwed cable gland.





**CONNECTIO  
TO POWER  
MAINS**

Connect the fan to single-phase power mains through the automatic circuit breaker integrated into the fixed power mains. Cut power supply off prior to wireworks. The contact gap on all poles must be at least 3 mm. Connect the power cable to the terminal block 8 following the wiring diagram on the bracket 3 (fig. 10, 11). Put the cover 2 and tighten the self-tapping screws 6 (fig. 12).

**DELIVERY  
SET**

The delivery set includes:

- fan - 1 item;
- dowel and screw - 4 items;
- user's manual - 1 item;
- packing box - 1 item.



**MAINTENANCE**

Disconnect the fan from power mains prior to all maintenance operations.  
Maintenance of the fans means periodic cleaning of the fan surfaces from dirt and dust when the fan is switched off.

Use a soft cloth or compressed air to remove dust (fig. 13).

The impeller blades require thorough cleaning every 6 months.

The filter prevents the fan soiling and reduces the cleaning periodicity.

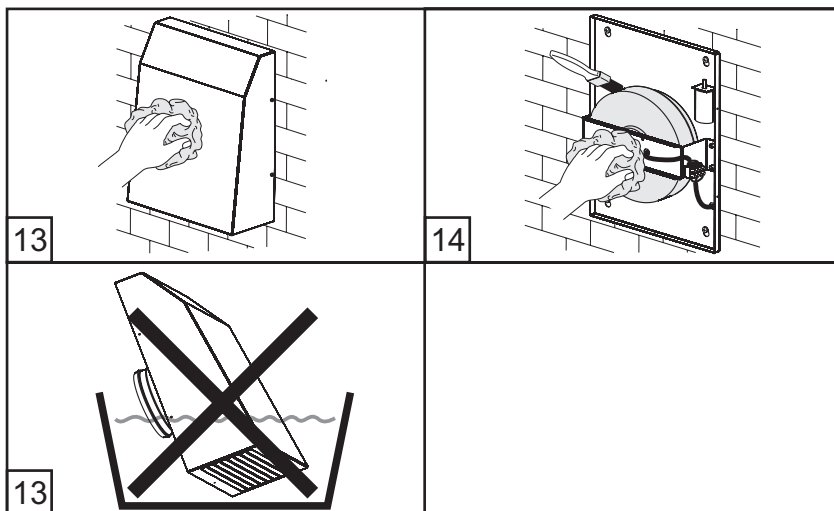
To clean the impeller blades follow the further procedure:

Clean the impeller blades with a cloth wetted in water and mild detergent solution.

Avoid liquid dripping on the motor! (fig. 14, 15).

After cleaning of the impeller reinstall the cover and tighten the screws.

Any servicing operations by a professional only!



**STORAGE  
RULES**

Store the fan in manufacturer's packaging in a ventilated room at temperatures between +5°C and +40°C and relative humidity not more than 80% at +20°C. The fan is not rated for operation in a medium containing acid or alkali vapours or other aggressive admixtures.

**MANUFACTURER'S  
WARRANTY**

We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. This certificate is issued following test carried out on samples of the product referred to above.

While purchasing the product the customer accepts the following warranty terms: Manufacturer hereby guarantees normal operation of the fan for 24 months from the date of resale, subject to the compliance with transport, storage, mounting and operation rules.

In case of no confirmation of sales date the warranty period is calculated from the production date.

All the units and components belonging to the faulty unit and replaced within the warranty period shall be covered by the previous warranty period and general warranty conditions. Thus the warranty period is neither extended nor renewed for the replaced components or the fan.

In case of any failures due to faulty manufacturing during warranty period, the Customer has the right to have the goods replaced at the manufacturing facility.

Replacements are offered at Seller.

The accessories operated together with the unit, both included and not included into the delivery list as well as other equipment operating jointly with the unit shall not be covered by the warranty.

No warranty for compatibility of the fans with other producers' goods.

Only manufacturing defects are covered by the warranty terms.

All the defects and faults resulting from mechanical effect during operation process or natural wear-and-tear shall not be covered by the warranty conditions.  
The malfunctions caused by violence of operation, servicing and maintenance guidelines either by Customer or third parties or caused by unauthorized design modifications shall not be covered by warranty.

**NO LIABILITY FOR THE RELATED DAMAGES:**

The manufacturer is not responsible for any mechanical or physical damages resulting from the manual requirements violence, the unit misuse or gross mechanical effect.  
The indirect damages such as re-installation or re-connection of the unit, direct or indirect losses etc. related to the unit replacement shall not be indemnified.  
Mounting/dismantling, connection/disconnection and setup of the unit shall not be covered by the warranty.  
The contractor in charge for quality of mounting, electric mounting and adjustment works shall be responsible for the warranty thereof. In any case the indemnity amount shall not exceed the actually paid value for the defective unit price.

**ACCEPTANCE  
CERTIFICATE**

Centrifugal fan "VENTS VCN \_\_\_\_\_"

The fan is recognized as serviceable.

Stamp of the acceptance inspector

Date of production  
(name of the vendor, stamp of the shop)

Date of sale

**WARRANTY  
CARD**

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