

CENTRIFUGAL FAN IN SCROLL CASING

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the VCU/VCUN unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

The information in this user's manual is correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

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SAFETY REQUIREMENTS

- Please read the user's manual carefully prior to installing and operating the unit.
- All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
- The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.
- Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.
- After a careful reading of the manual, keep it for the entire service life of the unit.
- While transferring the unit control, the user's manual must be turned over to the receiving operator.

UNIT INSTALLATION AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- Unpack the unit with care.



- The unit must be grounded!



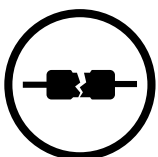
- While installing the unit, follow the safety regulations specific to the use of electric tools.



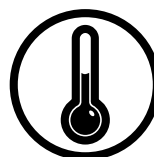
- Do not change the power cable length at your own discretion.
- Do not bend the power cable.
- Avoid damaging the power cable.
- Do not put any foreign objects on the power cable.



- Do not lay the power cable of the unit in close proximity to heating equipment.



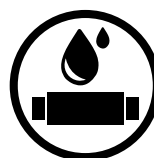
- Do not use damaged equipment or cables when connecting the unit to power mains.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.

- Do not allow children to operate the unit.
- The unit is allowed to be used by children aged from 8 years old and above and persons with reduced physical, sensory, or mental capabilities or no experience and knowledge provided that they have been given supervision or instruction regarding safe use of the unit and understand the risks involved.



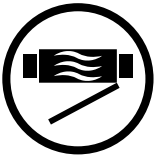
- Disconnect the unit from power mains prior to any technical maintenance.



- Do not store any explosive or highly flammable substances in close proximity to the unit.



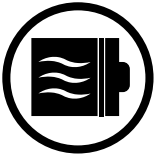
- When the unit generates unusual sounds, odour, or emits smoke, disconnect it from power supply and contact the Seller.



- Do not open the unit during operation.



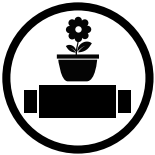
- Do not direct the air flow produced by the unit towards open flame or ignition sources.



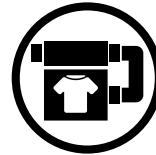
- Do not block the air duct when the unit is switched on.



- In case of continuous operation of the unit, periodically check the security of mounting.



- Do not sit on the unit and avoid placing foreign objects on it.



- Use the unit only for its intended purpose.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.**

PURPOSE

Centrifugal fans in scroll casing are designed for supply and extract ventilation of residential, public and industrial premises. The fan is constructed for floor mounting



THE UNIT SHOULD NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL, OR SENSORY CAPACITIES, OR THOSE WITHOUT THE APPROPRIATE TRAINING.

THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.

THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.

The unit is rated for continuous operation.

Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

DELIVERY SET

Name	Quantity
Fan	1 pc.
User's manual	1 pc.
Mounting bracket (for the VCU models)	1 pc.
Packing box	1 pc.

DESIGNATION KEY

VCUN 140×74-0-4 -R -45

VCUN	Unit name	VCUN: centrifugal fan with an external rotor motor
140×74	Impeller dimensions [mm]	
0	Motor power [kW]	
4	Number of poles	2; 4; 6; 8
-R	Modification	R: right-sided L: left-sided
-45	Casing pitch angle	0; 45; 90; 135; 180; 225; 270; 315

VCU 2 E 140×60

VCU	Unit name	VCU: centrifugal impeller with a built-in impeller
2	Number of poles	2; 4; 6;
E	Power mains characteristics	E: single-phase power supply
140×60	Impeller dimensions [mm]	

TECHNICAL DATA

The unit is designed for indoor application at ambient temperature from -30°C up to +45°C at max. RF 80 %.

The unit design is constantly being improved, so some models can slightly differ from those ones described in this manual.

Ingress protection rating against access to hazardous parts and water ingress:

- IPX4 for VCU models
- IP54 for VCUN models.



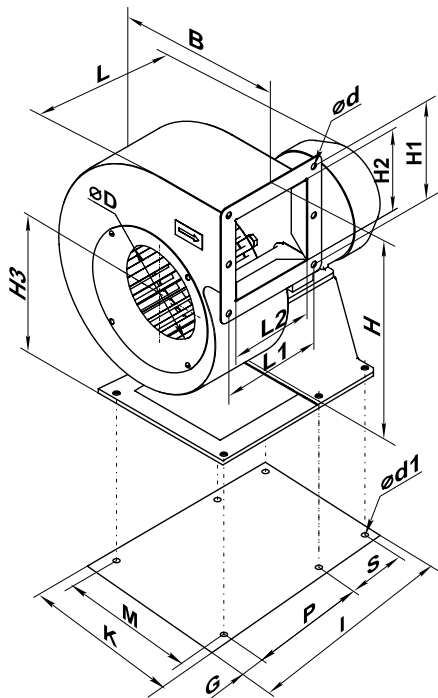
IT IS PROHIBITED TO PERFORM TRIAL RUN AND OPERATION OF THE FAN WHICH IS NOT CONNECTED TO THE VENTILATION SYSTEM, IF THE AIR FLOW AND THE CURRENT CONSUMPTION EXCEED THE MAXIMUM VALUES FOR THE APPLICABLE FAN SIZE (FOR DETAILS SEE THE TECHNICAL DATA ON THE STICKER BELOW) AND IN CASE OF NO MOTOR OVERHEATING PROTECTION.

















STICKER HERE

Main technical data of the centrifugal fan in the scroll casing

OVERALL DIMENSIONS AND VARIANTS OF THE VCUN FAN CASING POSITIONS

POSSIBLE VARIANTS OF THE VCUN FAN CASING POSITIONS (View on the supply side)



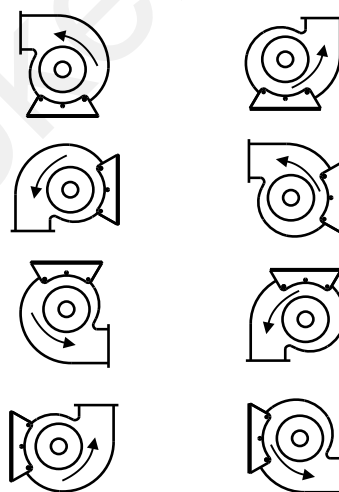
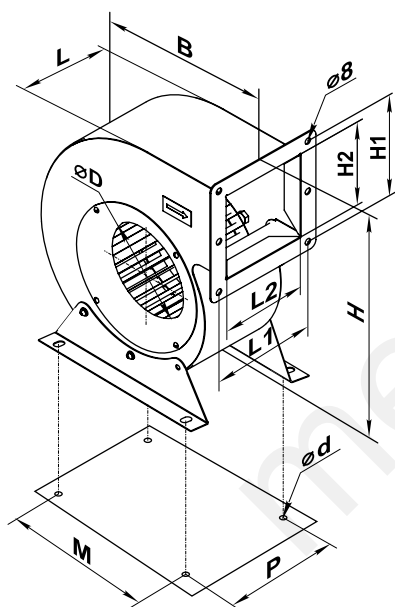
Impeller rotation rightwards		Impeller rotation leftwards	
 R 0°	 R 180°	 L 0°	 L 180°
 R 45°	 R 225°	 L 45°	 L 225°
 R 90°	 R 270°	 L 90°	 L 270°
 R 135°	 R 315°	 L 135°	 L 315°

Model	Dimensions [mm]																	Mass [kg]
	Ø D	Ø d	Ø d1	B	H	H1	H2	H3	L	L1	L2	P	M	I	G	K	S	
VCUN 140x74-0,25-4	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9,3
VCUN 140x74-0,37-2	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9,3
VCUN 160x74-0,55-4	160	8	10	277	373	134	106	173	356	134	104	141	220	260	17	252	90	12,7
VCUN 160x74-0,75-2	160	8	10	277	373	134	106	173	356	134	104	141	220	260	17	252	90	13,0
VCUN 180x74-0,55-4	180	10	10	311	414	143	120	193	365	143	114	146	270	270	22	314	90	13,5
VCUN 180x74-1,1-2	180	10	10	311	414	143	120	193	365	143	114	146	270	270	22	314	90	14,5
VCUN 200x93-0,55-4	200	10	10	345	436	160	134	193	380	160	129	158	270	284	24	315	90	15,2
VCUN 200x93-1,1-2	200	10	10	345	436	160	134	193	380	160	129	158	270	284	24	315	90	16,2
VCUN 225x103-1,1-4	225	10	12	388	507	178	151	232	432	172	141	174	275	316	27	330	100	21,2
VCUN 225x103-2,2-2	225	10	12	388	507	178	151	232	432	172	141	174	275	316	27	330	100	24,2
VCUN 240x114-2,2-4	240	10	12	414	568	186	161	282	461	186	156	195	275	362	27	330	125	30,5
VCUN 240x114-3,0-2	240	10	12	414	568	186	161	282	461	186	156	195	275	362	27	330	125	31,4
VCUN 250x127-1,5-6	250	10	12	431	594	202	168	292	473	202	166	206	300	373	27	355	125	33,0
VCUN 250x127-2,2-4	250	10	12	431	594	202	168	292	473	202	166	206	300	373	27	355	125	32,2
VCUN 250x127-5,5-2	250	10	12	431	614	202	168	312	517	202	166	213	300	397	27	355	140	40,0
VCUN 280x127-1,5-6	280	10	12	483	626	225	189	292	503	231	196	243	300	410	27	355	125	35,1
VCUN 280x127-2,2-4	280	10	12	483	626	225	189	292	503	231	196	243	300	410	27	355	125	34,2
VCUN 280x127-5,5-2	280	10	12	483	646	225	189	312	545	231	196	243	300	427	27	355	140	42,4

VCUN 315x143-2,2-6	315	10	15	543	731	250	213	353	568	255	216	268	350	452	27	405	140	46,8
VCUN 315x143-4,0-4	315	10	15	543	731	250	213	353	568	255	216	268	350	452	27	405	140	49,8
VCUN 355x143-2,2-6	355	10	15	611	817	275	241	403	566	255	214	253	350	442	32	405	140	49,0
VCUN 355x143-4,0-4	355	10	15	611	817	275	241	403	566	255	214	253	350	442	32	405	140	51,0
VCUN 400x183-1,5-8	400	10	15	689	870	310	272	403	619	310	268	313	400	497	27	455	140	57,1
VCUN 400x183-2,2-6	400	10	15	689	870	310	272	403	619	310	268	313	400	497	27	455	140	54,1
VCUN 400x183-5,5-4	400	10	15	689	882	310	272	414	662	330	289	341	400	525	27	455	140	69,5
VCUN 450x203-3,0-8	450	10	15	774	985	345	306	464	690	352	315	351	450	550	42	530	140	77,8
VCUN 450x203-4,0-6	450	10	15	774	985	345	306	464	690	352	315	351	450	550	42	530	140	76,5
VCUN 450x203-11,0-4	450	10	15	774	1005	345	306	484	722	352	315	371	450	608	42	530	178	105,0
VCUN 500x229-5,5-8	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	85,0
VCUN 500x229-7,5-6	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	86,0
VCUN 500x229-11,0-4	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	107,0

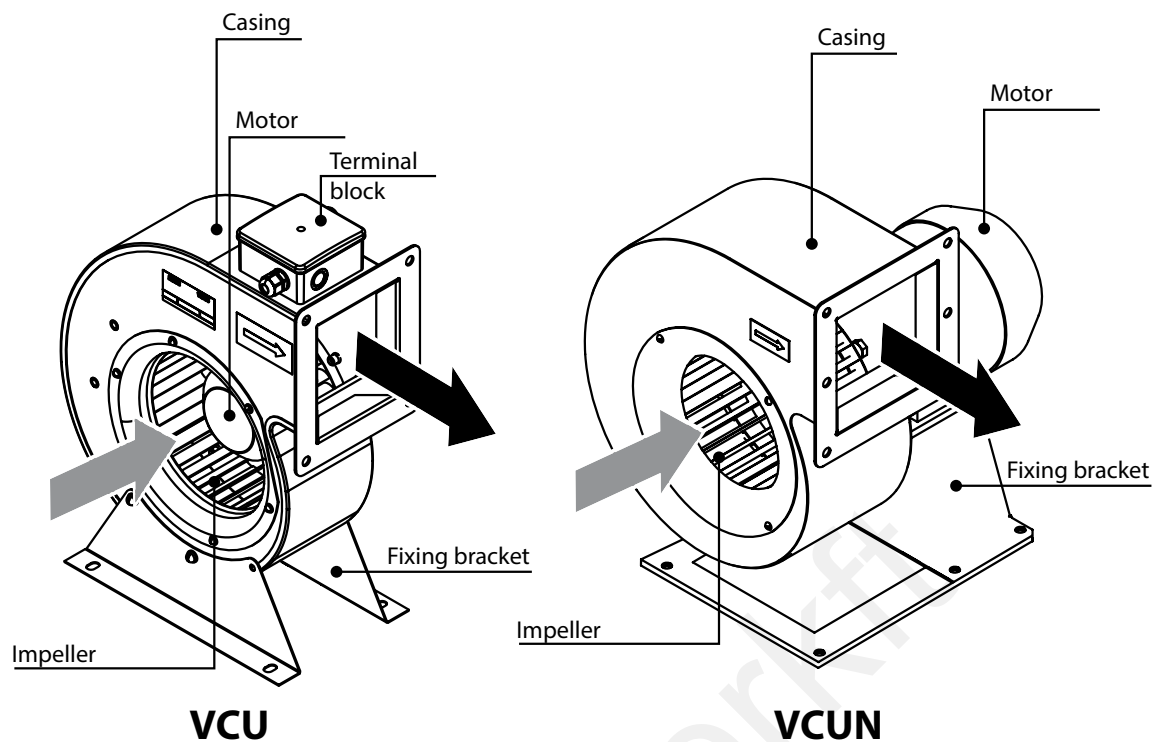
OVERALL DIMENSIONS AND VARIANTS OF THE VCU FAN CASING POSITIONS

POSSIBLE VARIANTS OF THE VCU FAN CASING POSITIONS (View on the supply side)



Model	Dimensions [mm]											Mass [kg]
	Ø D	Ø d	B	H	H1	H2	L	L1	L2	P	M	
VCU 2E 140x60	140	9	243	287	125	93	85	107	75	116	150	3,5
VCU 2E 160x62	160	9	277	324	136	106	89	112	82	122	200	4,6
VCU 2E 160x90	160	9	277	324	136	106	136	158	127	168	200	5,5
VCU 4E 180x92	180	9	311	360	150	120	145	166	137	181	230	7,1
VCU 4E 200x80	200	9	345	398	165	134	116	140	108	150	240	7,5
VCU 4E 200x102	200	9	345	398	165	134	152	175	143	185	240	8,0
VCU 4E 225x102	225	11	365	441	210	171	145	170	137	178	250	11,9
VCU 4E 250x102	250	11	410	485	230	191	165	190	157	198	270	16,3
VCU 4E 250x140	250	11	410	485	230	191	205	230	197	238	270	16,3

DESIGN AND OPERATING PRINCIPLE



The **VCUN** fan is enclosed in a metal casing. The electric motor and the air intake ring are fixed to the casing through the flange. The impeller is fastened to the drive shaft.

The fixing bracket for the fan mounting is attached to the motor bottom.

The VCUN fans are available in the right- and left-hand modifications.

In the first case the impeller has clockwise rotation and in the second case the impeller has counter-clockwise rotation, view on the supply side.

The **VCU** fan is enclosed in a metal casing. The impeller and the electric motor are bolted to the flange.

The terminal box for connection to power mains is located on the top of the casing. The capacitor is enclosed in the terminal box.

The fan fixation is performed with fixing brackets.

INSTALLATION AND SET-UP

After the fan unpacking, prior to the mounting:

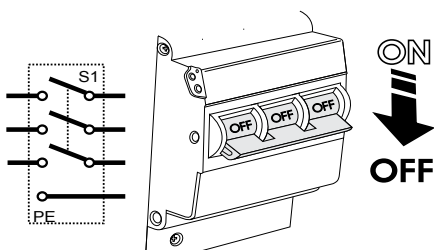
- Read carefully the user's manual and the mounting, start-up, operating and servicing guidelines.
- Make sure that the fan impeller rotates freely.
- Make sure there is no condensate on the motor.
- Check the electrical resistance of insulation between the motor windings and between each winding and the motor casing.

Follow the safety regulations during the make-ready procedures and fan operation.

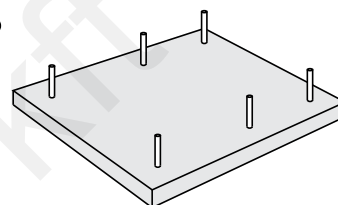
MOUNTING STEPS FOR THE FAN VCUN

- Make sure that the motor is disconnected from power supply (Fig. 1).
- Bore holes and fasten the fixing bracket using the appropriate fasteners (i.e. expansion anchors). In case of need use the vibration dampers VVCr or VVCp (specially ordered accessories), (Fig. 3).
- Provide reliable grounding of the fan (Fig. 4).
- Connect the air ducts to the fan. On the air intake side install the flange FVC-VCU, FVC-VCUN (specially ordered accessories) (Fig.5) or the protecting grille RVC-VCU, RVC-VCUN (Abb. 6).

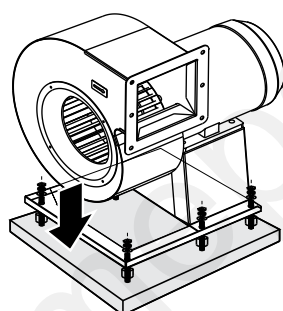
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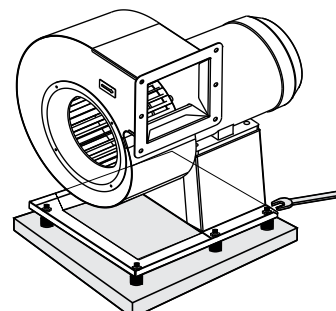
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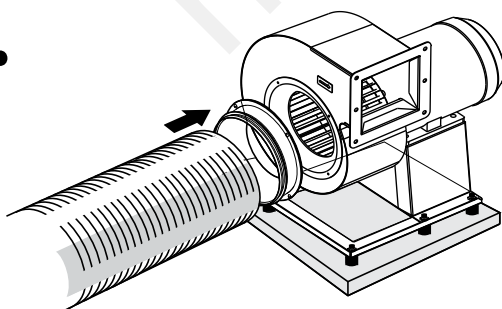
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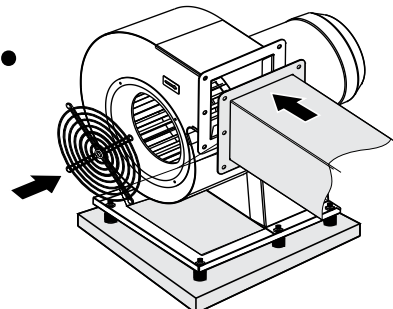
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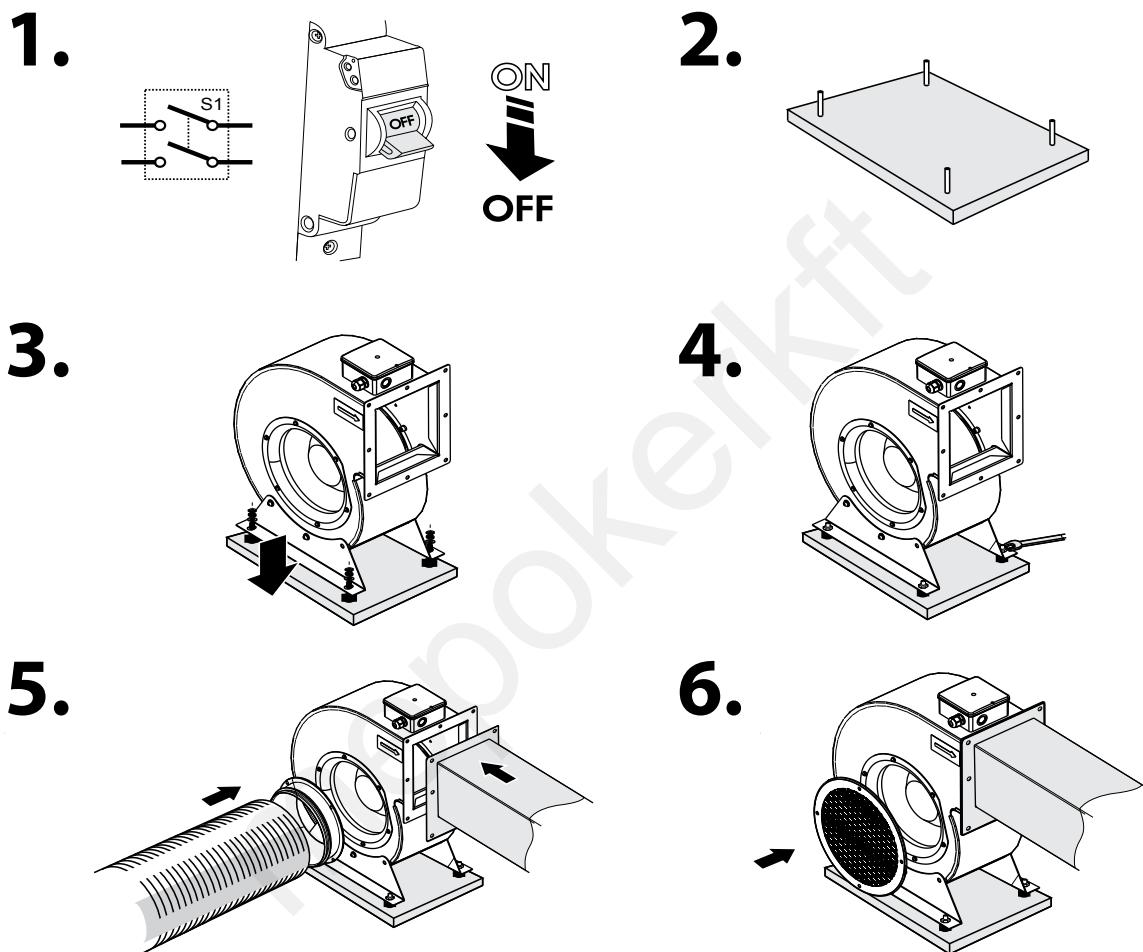
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6.



- Make sure that the motor is disconnected from power supply (Fig. 1).
- Mark holes on the mounting surface for mounting of the fixing bracket (Fig. 2).
- Bore holes and fasten the fixing bracket using the appropriate fasteners (i.e. expansion anchors). In case of need use the vibration dampers VVCr or VVCp (specially ordered accessories), (Fig. 3).
- Provide reliable grounding of the fan (Fig. 4).
- Connect the air ducts to the fan. On the air intake side install the flange FVC-VCU, FVC-VCUN (specially ordered accessories) (Fig.5) or the protecting grille RVC-VCU, RVC-VCUN (Abb. 6).



After installing the unit, you need to make sure that the fan impeller rotates freely.

CONNECTION TO POWER MAINS



**POWER OFF THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER SUPPLY BY A QUALIFIED ELECTRICIAN.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE
MANUFACTURER'S LABEL.**



**ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED
AND WILL VOID THE WARRANTY.**

The VCU fan is rated for connection to single-phase alternating current 230 V/ 50 (60) Hz power supply. The VCUN fan is rated for connection to three-phase alternating current 400 V/ 50 (60) Hz power supply.

The fan must be connected to power mains using durable, insulated and heat-resistant electric conductors (cables, wires).

Connect the unit to power mains through the external automatic circuit breaker with a magnetic trip integrated into the fixed wiring system.

The installation place of the circuit breaker must provide unhampered access to the unit for its emergency shutdown.

For selection of the rated trip current of the automatic circuit breaker refer to the fan technical data table.

The wire cross section is stated in the table.

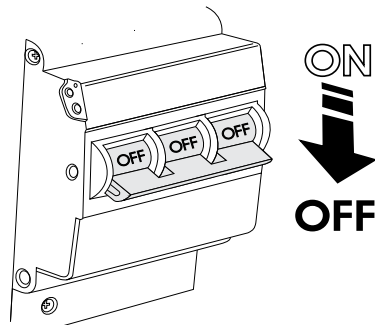
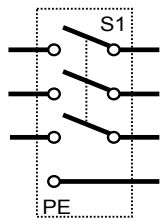
The actual conductor cross section selection must be based on the maximum permissible wire temperature depending in the wire type, insulation, length and installation method.

Fan model	Minimum wire cross section [mm ²]
All VCU models	1,5
VCUN 140 .. VCUN 180	1,5
VCUN 200 .. VCUN 400	2,5
VCUN 450 .. VCUN 500	4

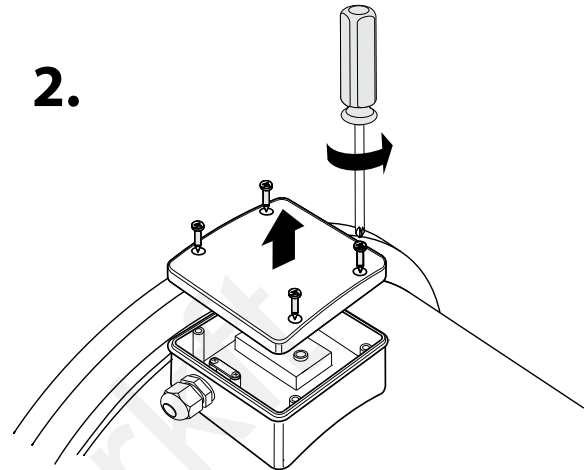
WIRING STEPS FOR THE VCUN FAN

- Make sure the power cable is disconnected from power supply (Fig. 1).
- Take off the lid of the terminal box located on the motor casing (Fig. 2).
- Route the power cable wires through the cable gland on the terminal box, then strip the wires for 7-8 mm (Fig. 3).
- Connect the wires to the terminal box in compliance with the wiring diagram and considering the terminal marking. The three-phase motors must be star-connected (Fig. 3 und 4). For doing that insert the wires into the metal part of the terminals against insulation stop and fix those with the screws.
- Cover the terminal box with the lid (Fig. 4).

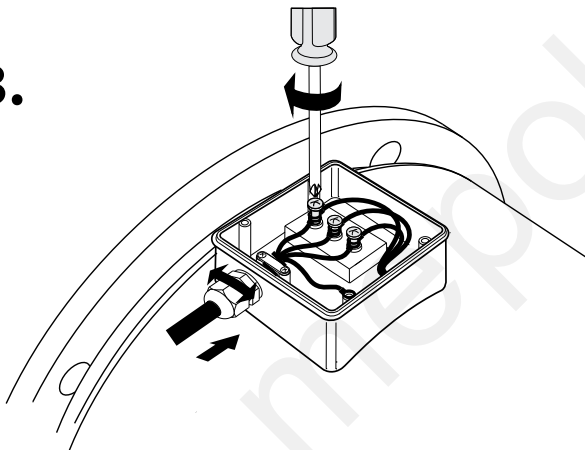
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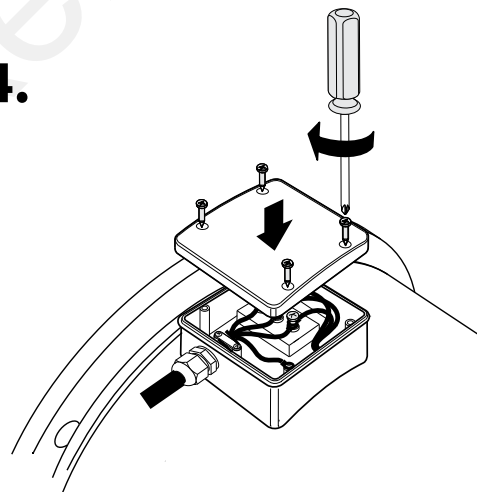
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3.



4.



The air direction must match the pointer direction of the fan casing.

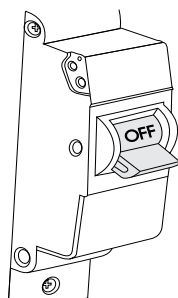
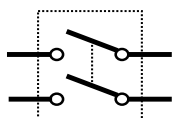
To check the impeller direction turn the fan on for a short run.

If the impeller rotation is wrong, change any two phase conductors on the motor terminals. For that change the respective wires on the terminal block in the terminal box.

WIRING STEPS FOR THE VCU FAN

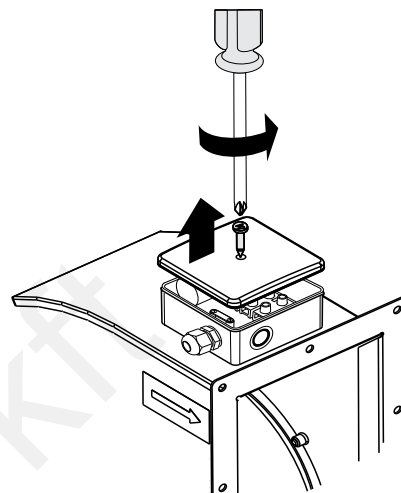
- Make sure the power cable is disconnected from power supply (Fig. 1).
- Take off the lid of the terminal box located on the motor casing (Fig. 2).
- Route the power cable wires through the cable gland on the terminal box, then strip the wires for 7-8 mm (Fig. 3).
- Connect the wires to the terminal box in compliance with the wiring diagram and considering the terminal marking (Fig. 3). For doing that insert the wires into the metal part of the terminals against insulation stop and fix those with the screws.
- Cover the terminal box with the lid (Fig. 4).

1.

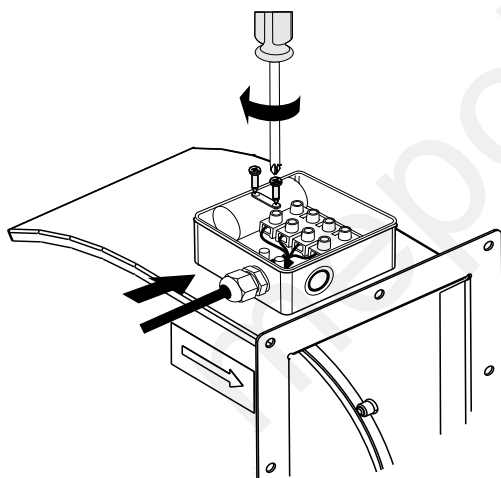


ON
↓
OFF

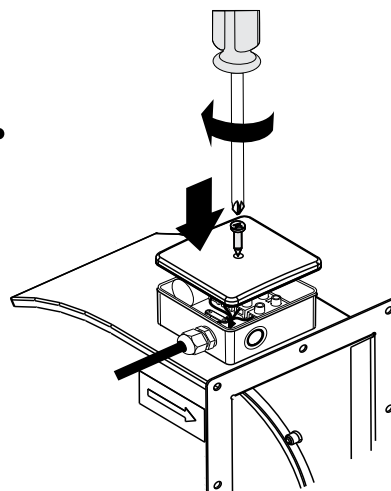
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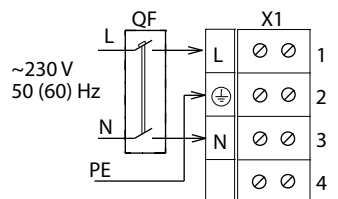


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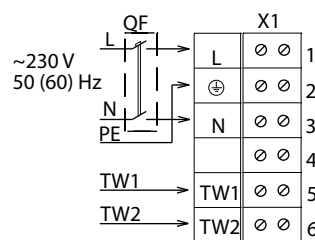
WIRING DIAGRAMS

1. VCU

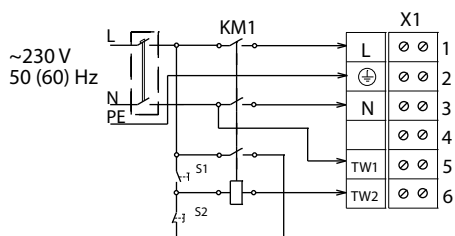


QF: automatic circuit breaker
(not included in the delivery set)
X1: terminal block

2. VCU with thermal switch

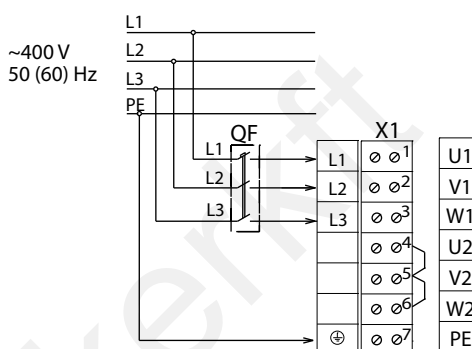


3. VCU with magnetic starter and a thermal switch



QF: automatic circuit breaker
KM1: magnetic starter
S1, S2: control buttons
(QF, KM1, S1, S2 are not included in the delivery set)
X1: terminal block

4. VCUN



QF: automatic circuit breaker (not included in the delivery set)
X1: terminal block

Wiring example for the VCU fan with external leads of the motor overheating protection and a magnetic starter is shown in Fig. 3. The terminals TW1, TW2 are the leads of the normally closed contact of the motor overheating protection. This contact must be serial connected to the power circuit of the magnetic starter coil that starts the motor. In case of the motor overheating the contact is opened and breaks power supply to the starter coil. This way the motor is stopped.

TECHNICAL MAINTENANCE

Disconnect the unit from power supply prior to any maintenance operations. Make sure the rotations parts have come to a full stop. The fan maintenance includes regular cleaning of the surfaces of dust and dirt.

Clean the impeller blades each 6 months.

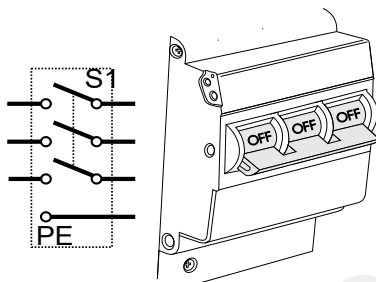
Impeller blades cleaning is as follows:

- Disconnect the fan from power supply.
- Provide access to the impeller blades.
- VCUN models: loosen the screws and remove the air intake ring.
- VCU models: loosen the screws and remove the motor-impeller block.
- Clean the impeller blades using a soft dry brush or compressed air.
- In case of high contaminations wet cleaning is recommended. Clean the impeller blades with a soft cloth wetted in a neutral detergent solution. Avoid liquid dripping on the motor!

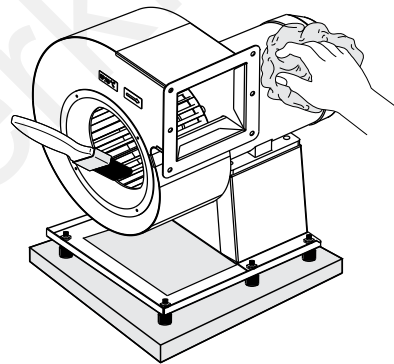
After cleaning perform all the operations in the reverse order.

VCUN

1.

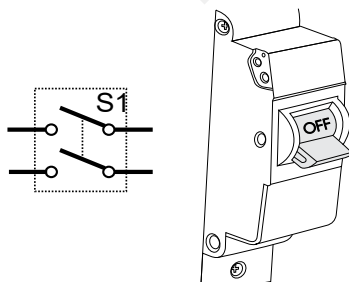


2.

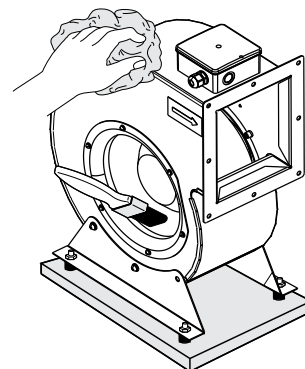


VCU

1.



2.



MAINTENANCE INSTRUCTIONS

Perform regular maintenance of the fan to ensure its reliable, safe and efficient operation.

General maintenance includes:

- Daily maintenance
- Maintenance after each 1000 operating hours
- Current repair and maintenance after each 10 000 operating hours
- Overhaul repair after 20 000 operating hours

All the maintenance operations must be carried out according to the schedule above, no matter of the fan operating condition.

Daily maintenance must be performed by a mechanician.

Current repair operations and overhaul repair operations must be performed by a plumber and an electrician responsible for the equipment repair and operation.

Steps for daily maintenance of the fan:

- Check the bolt tightening.
- Check reliability of the earth connection
- Check the fan for abnormal noise.

Steps for maintenance after each 1000 operating hours:

- Fulfil all the daily maintenance operations.
- Troubleshoot any faults of bolt and welded connections.
- Check the clearance between the impeller and the capacitor.

Steps for current repair:

- Fulfil all the above operations of the maintenance after each 1000 operating hours.
- Clean the casing and the impeller.

Steps for overhaul repair:

- Disconnect the air ducts from the fan.
- Disassemble the fan assembled units.
- Assemble the fan units using the new or repaired parts.
- Check the bearing grease and perform adjustment and test running.

TROUBLES AND TROUBLESHOOTING

TROUBLE	POSSIBLE REASONS	TROUBLESHOOTING
The fan does not get started.	No power supply.	Check the electric connections and troubleshoot a connection error, if applicable.
	Motor jam.	Turn the fan off. Troubleshoot clogging of the impeller. Restart the fan.
Automatic circuit breaker tripping during the unit turning on.	Overcurrent as a result of short circuit in the electric circuit leads to tripping of the circuit breaker.	Turn the fan off. Contact the seller of the unit..
High noise, vibrations.	Contaminated impeller.	Clean the impeller blades.
	Loose screw connection.	Check the screw connection and tighten the screws if required.
	Resonance with a mounting construction.	Install the matching vibration dampers VCr and WCp for the fan model.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 °C to +40 °C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.



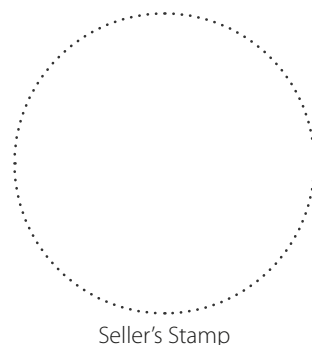
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

CERTIFICATE OF ACCEPTANCE

Unit Type	Centrifugal fan in scroll casing
Model	VCU _____ / VCUN _____
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

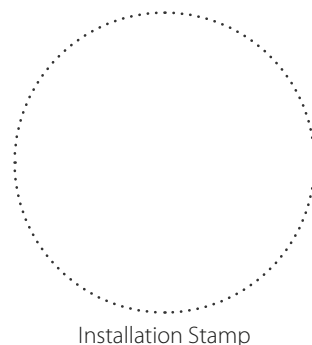
SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	



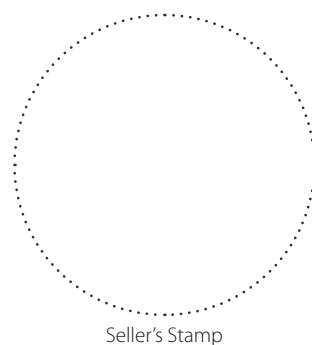
INSTALLATION CERTIFICATE

The VCU _____ / VCUN _____ unit is installed pursuant to the requirements stated in the present user's manual.	
Company name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
Signature:	



WARRANTY CARD

Unit Type	Centrifugal fan in scroll casing
Model	VCU _____ / VCUN _____
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	



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