



ALLEGRA
die trockene Lösung

Side Channel Ring Blower (Ring Compressor)

SKV V80 S / SKV V100 S

Operating instructions



Dear Customer!

Thank you for choosing a product from ALLEGRA.

Please read the complete instructions for use before putting the appliance into operation. The information can help you for a safely and smooth handling of your new device. Keep this manual in a safe place so that you can refer to it when needed. Please observe all safety instructions and information on use and maintenance in this manual. This manual should be attached to the device if the latter is made available to other persons for use.

YOUR ALLEGRA TEAM

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WARNING SYMBOL

This symbol introduces a warning, which can lead to non-compliance to serious injury or death and/or property damage. Follow the safety instructions in this manual! Failure to comply can have serious consequences for the health of people and damage to property and harm to the environment which might arise.

This manual is part of the device and must be always accessible.

Please read this manual thoroughly and completely before using the device. Only use the device in accordance with the instructions contained herein!

Do not operate the device if there are any unanswered questions regarding the use and operation of the device. In this case, please contact the ALLEGRA customer service.

About these instructions

Maybe there are some pictures, which are different from what you have seen in the real model in this manual. All are subject to real goods. New specifications are changed for improving quality without further notice.

General safety instructions



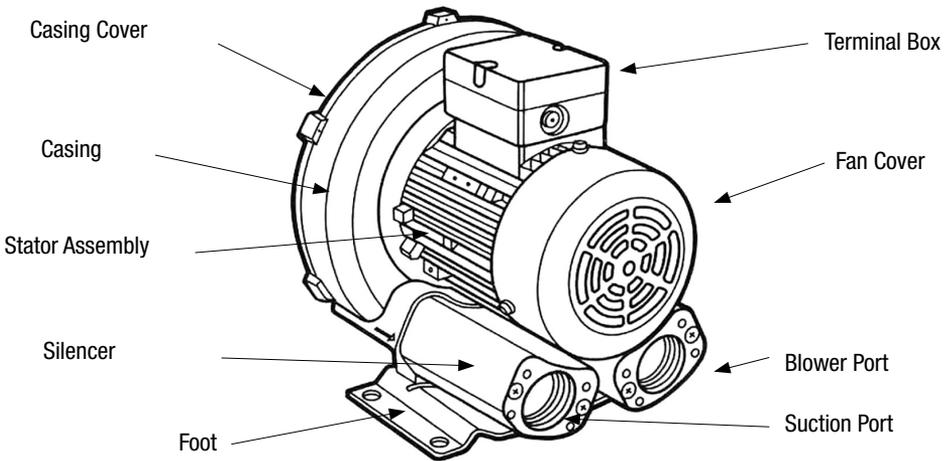
Please observe the following safety instructions! Any non-compliance with these instructions may have serious consequences for the health of persons and could result in property damage and damage to the environment. This manual is a part of the odour neutraliser and must be accessible at all times when using the device. Please read this manual thoroughly and completely before using the device. Only use the device in accordance with the instructions contained herein!

Do not operate the device if there are any unanswered questions regarding the use and operation of the device. In this case, please contact the ALLEGRA customer service.

Safety requirements

- The maximum permissible ambient and air temperature at the intake is +40°C.
- Max. permissible pressure in the device: 2 bar abs. At this pressure, the operation of the device may be considerably impaired.
- All the works of transportation, installation, maintenance and troubleshooting must be executed by a responsible, qualified personnel.
- This device must be set up according to this instruction manual.
- The grounding wire must be connected well accordingly.
- The lead wires as a conductor to the power supply should be properly sized and have strain relief to the wires at the connection terminals. If this is failed, electric shock and fire will be possible
- While rotating, human body must keep away from the rotating portion such as the Cooling Fan and do not reach into the device through the intake or outlet.
- Once the power electricity was interrupted, the power switch must be turned off immediately.
- If the device couldn't accelerate up to its rated speed in 15 seconds from the power switch turned on, please turn off the power immediately and check it carefully.
- The power supply must be turned off before moving, maintaining, or repairing this device. Please note that, due to rotating inertia, the device may continue running several minutes after power turned off.
- These devices are only used to handle or conveying dust-free air, non-combustible, non-corrosive and non-explosive gases, vapors.
- The intake must be properly sited and covered so that no dirt or solid particles can be sucked in.
- When the device is operated at impermissible high pressure condition, a suitable pressure-relief valve must be used to prevent overheating of motor.
- The End Cover is used to prevent contact and direct the cooling air flow, can not be removed; otherwise the motor will get overheating.
- A Pilot type of Thermal Protector will be available according to customer's request.
- This protector should be externally connected with a Magnetic Switch which is used to control the power input ON/OFF.
- This device is designed for continuous operation, in case of non-continuous running or high ambient temperature, checking suitability (maximum permissible temperature) with the representatives of manufacturer.

Description



Danger!

Children and people with restricted capabilities of operating appliances

- This appliance may not be used by children. Children must be not allowed to play with the appliance.
- There is a risk of suffocation! Keep packaging material and small parts away from children. Dispose the packaging material immediately.

This appliance may be used by people with reduced physical, sensory or mental capabilities, or who lack sufficient experience and/or knowledge, provided they are supervised or have been trained in the safe use of the appliance and understand the potential dangers.

Maintenance

WARNING: No maintaining work is allowed before the electric power off.

- To maintain a good cooling performance, it's necessary to clean the inside and outside of the Fan Cover to remove dirt and dust in a period of time; otherwise the motor might be burnt.
- The bearing, oil seal and silencers are subject to wear; these parts should be replaced with new ones as necessary.

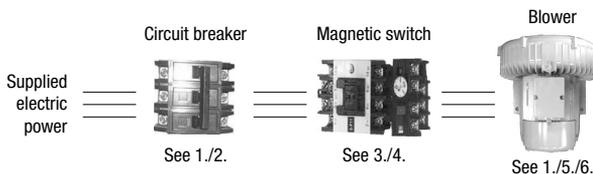


This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Electric Connection

WARNING:

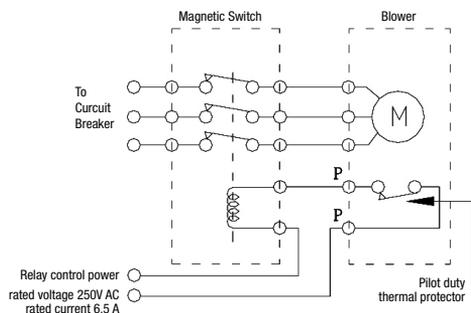
No connecting work is allowed before the electric power is disconnected.



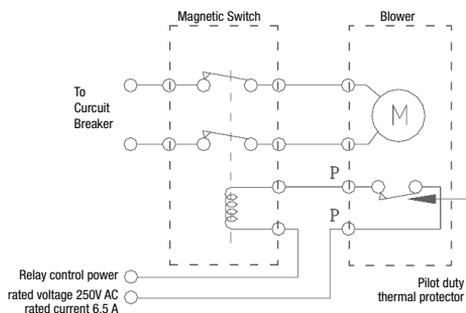
1. The supplied power voltage must be the same as the rating stated on the name-plate.
2. Select the correct circuit breaker to match the motor's rated current.
3. We recommended when using the magnetic switch, the setting value of electric current is the motor's rated current of 0.91 times.

4. Thermal protectors connection:

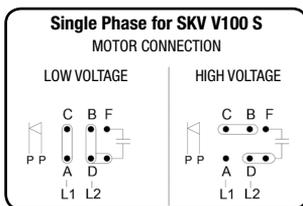
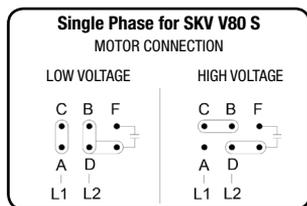
Recommended protector connection (Three Phase)



Recommended protector connection (Single Phase)



5. The protective earth conductor must be connected to the grounding terminal.
6. The lead wires must be connected according to the diagram attached on the terminal box.



Specifications

Modell	V80 S	V110 S
Air pressure max. (mBar)	+160	+190
Air suction max. (mBar)	-150	-170
Flow (m ³ /Std.)	145	144
Input (KW)	0,80	1,1
Noise level (dB)	67	
Voltage (V/Hz)	230/50	
Size	261 x 286 x 238 mm	

Modell	V80 S	V110 S
Net Weight (Kg)	16,00	18,20
Drying surface / pressure process	40 m ²	50 m ²
Drying surface / suction	35 m ²	40 m ²
Threaded connection inside	1 1/2"	
Article ID	76251400	76251399

Parts List

Fig. No.	Name of part	V22 S	
		1-stage	1-stage
1-1	Bolt	v	v
1-2	Casing cover	v	v
2-1	Bolt	v	v
2-2	Washer	v	v
2-3	Plate retaining	v	v
2-4	Impeller	v	v
2-5	Shim assembly	v	v
2-6	Collar	v	v
3-1	Screw	v	v
3-2	Bearing cover	v	v
3-3	Shaft seal	v	v
3-4	Casing	v	v
4-1	Stator assembly	v	v
4-2	Bolt	v	v
4-3	End housing	v	v
4-4	Fan	v	v
4-5	Fan cover	v	v
4-6	Screw	v	v
4-7	Nut	v	v
4-8	Spring washer	v	v
4-9	Screw	v	v
4-10	Nut	v	v
5-1	Bearing	v	v
5-2	Key	v	v
5-3	Motor rotor	v	v
5-4	Bearing	v	v
5-5	Wave washer	v	v
6-1	Capacitor cover	only 1 φ	only 1 φ
6-2	Screw	only 1 φ	only 1 φ
6-3	Screw	only 1 φ	only 1 φ
6-4	Clip	only 1 φ	only 1 φ
6-5	Sleeve	only 1 φ	only 1 φ
6-6	Capacitor	only 1 φ	only 1 φ
6-7	Bushing	only 1 φ	only 1 φ
7-1	Cover for terminal box	v	v
7-2	Gasket	v	v
7-3	Gasket	v	v
7-4	Under part of terminal box	v	v
7-5	Spring washer	v	v
7-6	Screw for earth	v	v
7-7	Bushing	v	v
7-8	Screw	v	v
7-9	Terminal board	v	v
7-10	Screw	v	v
7-11	Nut	v	v
7-12	Terminal plate	v	v
7-13	Terminal clip	v	v
7-14	Screw	v	v
8-1	Silencer assembly	v	v
8-2	Silencer retaining	v	v
8-3	End cover	v	v
8-4	Screw	v	v
8-5	Gasket	v	v
8-6	Threaded flange	v	v
8-7	Bolt	v	v
8-8	Hose flange	v	v

Order example:
V80S, No. 3-4, Q'ty: 2

ALLEGRA

Side Channel Ring Blower
(Ring Compressor)

Fig. No.	Name of part	V38 S		V80 S, V110 S		V150 S	
		1-stage	2-stage	1-stage	2-stage	1-stage	2-stage
1-1	Bolt	v	v	v	v	v	v
1-2	Casing cover	v	v	v	v	v	v
1-3	Screw	v	v	v	v	v	v
1-4	Washer	v	v	v	v	v	v
1-5	O-ring	v	v	v	v	v	v
2-1	Bolt	v	v	v	v	v	v
2-2	Spring washer	v	v	v	v	v	v
2-3	Plate retaining	v	v	v	v	v	v
2-4	Bearing	v	v	v	v	v	v
2-5	Bearing cover	v	v	v	v	v	v
2-6	Impeller	v	v	v	v	v	v
2-7	Collar	N/A	N/A	N/A	N/A	v	v
2-8	Centre casing	N/A	v	N/A	v	v	v
2-9	Sleeve	N/A	v	N/A	v	v	v
2-10	Cowl	N/A	v	N/A	v	N/A	v
3-1	Casing	v	v	v	v	v	v
3-2	Eyebolt	N/A	N/A	N/A	N/A	v	v
3-3	Felt ring	v	v	v	v	v	v
3-4	Shaft seal	v	v	v	v	v	v
3-5	Square nut	v	v	v	v	N/A	N/A
3-6	Sleeve	N/A	N/A	N/A	N/A	v	v
3-7	Foot	v	v	v	v	v	v
3-8	Square nut	v	v	v	v	v	v
3-9	Bolt	v	v	v	v	v	v
3-10	Spring washer	v	v	v	v	v	v
3-11	Bolt	v	v	v	v	v	v
3-12	Bracket	N/A	N/A	N/A	N/A	v	v
3-13	Bolt	N/A	N/A	N/A	N/A	v	v
4-1	Stator assembly	v	v	v	v	v	v
4-2	End housing	v	v	v	v	v	v
4-3	Bolt	v	v	v	v	v	v
4-4	Bolt	v	v	v	v	v	v
4-5	Fan	v	v	v	v	v	v
4-6	Fan cover	v	v	v	v	v	v
4-7	Screw	v	v	v	v	v	v
4-8	Nut	N/A	N/A	N/A	N/A	N/A	N/A
4-9	Nut	N/A	N/A	N/A	N/A	N/A	N/A
4-10	Flange	N/A	v	N/A	v	v	v
4-11	Bolt	N/A	v	N/A	v	v	v
5-1	Key	v	v	v	v	v	v
5-2	Motor rotor	v	v	v	v	v	v
5-3	Bearing	v	v	v	v	v	v
5-4	Wave washer	v	v	v	v	v	v
6-1	Cable gland	only 1 φ	only 1 φ	only 1 φ	only 1 φ	only 1 φ	N/A
6-2	Screw	only 1 φ	only 1 φ	only 1 φ	only 1 φ	only 1 φ	N/A
6-4	Clip	only 1 φ	only 1 φ	only 1 φ	only 1 φ	only 1 φ	N/A
6-6	Capacitor assembly	only 1 φ	only 1 φ	only 1 φ	only 1 φ	only 1 φ	N/A
7-1	Cover for terminal box	v	v	v	v	v	v
7-2	Screw	v	v	v	v	v	v
7-3	Gasket	v	v	v	v	v	v
7-4	Terminal board	v	v	v	v	v	v
7-5	Nut	v	v	v	v	v	v
7-6	Terminal plate	v	v	v	v	v	v
7-7	Screw for earth	v	v	v	v	v	v
7-8	Spring washer	v	v	v	v	v	v
7-9	Screw	v	v	v	v	v	v
7-10	Under part of terminal box	v	v	v	v	v	v
7-11	Gasket	v	v	v	v	v	v
7-12	Screw	v	v	v	v	v	v
7-13	Nut	v	v	v	v	v	v
7-14	Terminal clip	v	v	v	v	v	v
7-15	Screw	v	v	v	v	v	v
7-16	Plug	v	v	v	v	v	v
8-1	Gasket	v	v	v	v	v	v
8-2	Silencer retaining	v	v	v	v	v	v
8-3	Silencer assembly	v	v	v	v	v	v
8-4	Silencer casing	v	v	v	v	v	v
8-5	Bolt	v	v	v	v	v	v
8-6	Bolt	v	v	v	v	v	v
8-7	Threaded flange	N/A	N/A	N/A	N/A	v	v
8-8	Hose flange	v	v	v	v	v	v
8-9	Gasket	v	v	v	v	v	v
8-10	Gasket	N/A	v	N/A	v	N/A	v
8-11	Flange	N/A	v	N/A	v	N/A	v
8-12	S-pipe, intake side	N/A	v	N/A	N/A	N/A	N/A
8-13	S-pipe, discharge side	N/A	v	N/A	N/A	N/A	N/A
8-14	Bolt	N/A	v	N/A	N/A	N/A	N/A
8-15	Cover, discharge side	N/A	v	N/A	N/A	N/A	N/A
8-16	Bolt	N/A	v	N/A	N/A	N/A	N/A

Installation

- This device is used to handle non-combustible, non-corrosive and non-explosive gases and air. The ambient or gas temperature should be less than +40°C
- To ensure perfect cooling , the minimum clearances between the Front (Casing) Cover & Fan Cover and the walls should be:

	Casing Cover	Fan Cover
RB20 / RB30 / RB40 / RB50	20 mm	35 mm
RB60	30 mm	55 mm
RB80	40 mm	55 mm

- Dirt and solid particles must be filtered before entering intake of the device.
- These devices must not be operated with closed intake or outlet.
- The permissible pressure for continuous operation is shown in the nameplate “Max. Pressure” of the Ring Compressors.

- The Ring Compressors can be installed in any direction, but when mounted vertically, the motor side should be upward.
- To avoid vibration, the unit must be mounted on a rigid base.

Operation

- These devices must be rotated in the “Arrow“ direction marked on the casing.
- For three phases, changing direction may be done by exchanging any two of the lines of power input.
- These devices should be operated with the air flow and pressure within the permitted range listed in the nameplate of the Ring Compressors.
- To avoid operating over the permitted range, the pressure or vacuum relief is recommended.

Trouble-shooting	Cause	Remedy
Motor does not run and without humming noise	<ul style="list-style-type: none"> • No power. • Two power cords opened. • Power switch or starter defected. • Motor winding opened. • Protector or protecting circuit opened. 	<ul style="list-style-type: none"> • Supply power, check the power cord. • Change the power switch or starter. • Change the motor winding. • Change the protector or fix the protecting circuit.
Motor does not run with humming noise	<ul style="list-style-type: none"> • One power cord opened. • Power switch or starter defected. Motor winding opened. • Bearing defected. • Impeller jammed by foreign material. • Impeller jammed. • Capacitor (single phase) defected. 	<ul style="list-style-type: none"> • Check the power cord. • Change the power switch or starter. • Change a new motor winding. • Change bearing. • Clean the impeller. • Adjust the impeller. • Change a new capacitor.
Normal running, over heating, protector or protection circuit trips repeatedly	<ul style="list-style-type: none"> • Motor overloaded • Short-circuit in the winding. • Impeller jammed. 	<ul style="list-style-type: none"> • Reduce operating pressure, install the pressure or vacuum relief, clean filter/fan cover/silencer or pipes. • Change a new motor winding. • Clean or adjust the impeller.
Weak vacuum	<ul style="list-style-type: none"> • Compressor too small • Wrong power frequency • Wrong direction of rotation • Oil seal defected • Air leakage in the system 	<ul style="list-style-type: none"> • Change a larger compressor. • Adjust power frequency. • Change direction. • Change a new oil seal. • Check the system and make air-tight.
Abnormal noise	<ul style="list-style-type: none"> • Silencer dirty • Bearing lubrication insufficient 	<ul style="list-style-type: none"> • Clean silencer. • Old grease should be removed and be recharged with fresh grease, or be replaced a new bearing.

Warranty

If there is a fault on your device, we ask you to contact our Technical Hotline at first (+49 / 30 5 111 600) or the dealer to contact from whom you purchased the product. If we can not solve the problem in this way, please return the unit back to the appropriate dealer.

- Excluded from the warranty are external visual defects, beyond damage caused by improper installation or incorrect operation or mechanical damage. No guarantee if the serial number has been removed or damaged.
- The intervention of unauthorized third parties, the warranty expires.
- The warranty covers the repair or replacement of the defective part, but not your necessary expenses.

- We point out that we refuse New-appliance, if it is compared with the correction of faults associated with disproportionately high costs (represents the rule).
- The defective equipment or part must be returned with an error description in the original packaging, including accessories and the invoice (copy) and in case of warranty with warranty card to the ALLEGRA Trocknungstechnik Vertriebs GmbH. Shipments without freight prepaid will not be accepted.

Declaration of conformity

We declare that the product “Side Channel Ring Blower SKV V80 S and SKV V100 S“ to which this declaration relates, is compliant with the following directives and standards:

EN60335-1
EN60335-2-30
EN50366



The Management of
ALLEGRA Trocknungstechnik Vertriebs GmbH



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