UVENTS

UVS-KO-A

AXIAL PRESSURIZATION FAN

Installation, Operation & Maintenance Manual



READ FIRST Keep this manual with the fan. Mechanical installation and electrical work must be performed by qualified personnel.

Product overview

UVS-KO-A is a standard-motor, direct-driven axial pressurization fan for buildings, factories, hospitals, restaurants, car parks and industrial ventilation systems. Its DKP steel casing and adjustable-pitch aluminium airfoil impeller provide high airflow and balanced performance. Accessories include grille guards, mounting feet, counter-flanges, flexible connectors and vibration isolators.

ACTIVE RANGE	AIRFLOW	TEMPERATURE
400-1120/B	**Up to 100,000 m³/h**	**-20 °C to +50 °C**

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1 Safety

DANGER Isolate all electrical supplies, lock out against restart and verify absence of voltage before removing guards, opening the terminal box or servicing the fan.

- Connect protective earth. Electrical work must follow the motor nameplate, terminal diagram and applicable local rules.
- Do not operate with an accessible inlet or outlet. Fit approved guards or complete the duct connection before starting.
- Do not use for fire/smoke emergency duty, explosive atmospheres or highly corrosive service unless the exact supplied unit is separately approved.
- Do not alter blade pitch in the field unless an approved setting and balancing procedure is supplied by UVENTS.
- Use approved structural lifting points. Never lift by the impeller, cable, terminal box, grille or accessories.

2 Technical data

Model	V	A	kW	r/min	Max m³/h	Max Pa	dB(A)	kg
400	230/380	0.80	0.37	1,400	3,500	250	69	28
450	230/380	0.95	0.55	1,400	4,400	350	69	32
500	230/380	0.95	0.55	1,400	6,000	400	72	34
560	230/380	1.00	0.75	1,400	8,200	450	75	38
630	230/380	1.90	1.10	1,400	14,000	600	80	49
710	230/380	2.90	1.50	1,400	20,000	700	83	63
800/A	230/380	3.00	2.20	1,400	26,000	700	85	83
800/B	230/380	5.70	3.00	1,400	32,000	800	89	88
900/A	380	7.05	4.00	1,400	40,000	800	90	95
900/B	380	10.00	5.50	1,400	48,000	900	93	115
900/C	380	20.00	11.00	1,400	49,000	1,200	94	150
1000/A	380	11.00	7.50	1,400	56,000	900	94	104
1000/B	380	28.00	15.00	1,400	65,000	1,400	97	170
1000/C	380	35.00	18.50	1,400	73,000	1,400	99	198
1120/A	380	40.00	22.00	1,400	90,000	1,600	100	205
1120/B	380	58.00	30.00	1,400	100,000	1,800	102	252

Catalog values are maximum series data. The motor nameplate is the primary source for the motor actually installed; use it for electrical connection and protection settings.

Property	Series information
Construction	DKP steel casing; adjustable-pitch aluminium airfoil impeller
Drive	Standard motor, direct drive
Protection / insulation	IP55 / Class F
Frequency / efficiency	50 Hz / IE2 or IE3
Operating temperature	-20 °C to +50 °C

Warranty

Two-year warranty against manufacturing defects, subject to UVENTS warranty terms. Incorrect installation or wiring, operation outside declared limits, unauthorized modification, transport damage after delivery and inadequate maintenance may invalidate coverage.

3 Before installation

- Confirm the model and inspect the casing, flanges, support feet, impeller, motor, cable and terminal box for transport damage.
- With power isolated, check that the impeller rotates freely without contact and that the blade setting is secure.
- Verify the supply, installation environment and airflow duty against the fan and motor nameplates.
- Provide a rigid support, safe service access and lifting equipment suitable for the fan mass.

4 Installation

1. Orient the fan so airflow follows the casing arrow and the motor remains accessible.
2. Lift from approved structural points and keep personnel clear of suspended loads.
3. Fasten the support feet or casing flanges to a rigid wall, base frame or duct support capable of carrying fan mass and operating loads.
4. Support connected ductwork independently. Use matching counter-flanges, flexible connectors and vibration isolators when required.
5. Do not distort the cylindrical casing or obstruct motor cooling. Fit an approved grille guard wherever an opening remains accessible.
6. Recheck impeller clearance, blade security, fasteners, accessory connections and airflow direction.

5 Electrical connection

WARNING Only a qualified electrician may connect the fan. Follow the motor nameplate and the diagram inside the terminal box; these take priority over general diagrams in this manual.

- Provide protective earth, an isolator, short-circuit protection and overload protection set to nameplate current.
- Select star or delta only from the motor nameplate and terminal diagram; catalog voltage alone is insufficient.
- Briefly start and verify rotation. Isolate and interchange any two phases if rotation is incorrect.
- For VFD use, confirm motor suitability and configure all limits from approved motor data.

6 Commissioning and operation

- Confirm mounting, ducts, guards, clear airflow, free impeller, earth continuity, protection and terminal-box closure.
- Start briefly; verify rotation and airflow, then check voltage, current, vibration, noise and motor temperature.
- Stop for rubbing, severe vibration, smoke, overheating, abnormal current or electrical smell. Find the cause before restart.

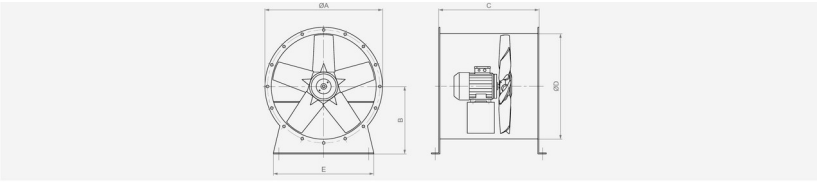
7 Maintenance

- Isolate and lock out power; allow the impeller to stop fully.
- Periodically inspect casing, blades, blade fasteners, guards, mounting, flexible connectors, terminals, cables, corrosion, noise and vibration.
- Clean deposits evenly. Do not bend blades, change pitch, remove balance weights, wet the motor or use aggressive solvents.
- Follow the motor manufacturer's bearing instructions. Replace damaged blades, guards or electrical components with approved parts.

8 Troubleshooting

Problem	Possible cause	Safe action
No start	Supply/protection/wiring/overload	Isolate; check supply, diagram and protection.
Low airflow	Wrong rotation; blockage; system loss	Correct rotation; clear system; check duty.
Noise/vibration	Loose support; deposits; blade damage	Stop and isolate; inspect, clean and secure.
Motor hot/trips	Overload; phase loss; voltage; blockage	Stop; check current, phases, supply and airflow.

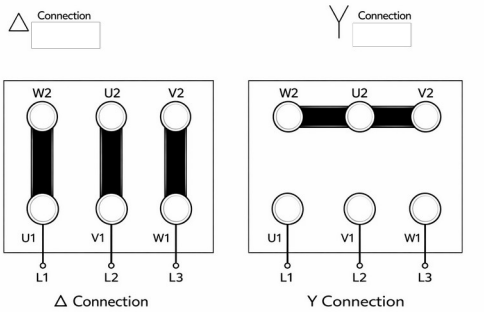
9 Dimensions and installation reference



Size	A	B	C	D	E
400	460	306	350	400	494
450	510	346	400	450	544
500	560	396	400	500	544
560	620	446	400	560	634
630	690	496	450	630	634
710	790	546	450	710	634
800	880	616	450	800	634
900	980	686	550	900	734
1000	1,080	746	850	1,000	834
1120	1,200	812	900	1,120	934

All dimensions are in mm. Dimensional sizes apply to the corresponding /A, /B and /C performance variants unless the supplied drawing states otherwise.

10 Three-phase terminal reference



This diagram is a general terminal arrangement only. Use the connection shown on the motor nameplate or inside the terminal box for the supplied motor.

FINAL CHECK Fan secure • guard fitted • impeller free • earth connected • protection set • terminal box closed • rotation verified • airflow path clear.

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