

UVENTS

UVS-KO-C

F400 AXIAL SMOKE EXHAUST ROOF 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-C F400 is a direct-driven axial roof fan for normal ventilation and emergency smoke extraction. Its DKP steel body, aluminium impeller, external protective casing, weather-resistant roof arrangement and F400 motor configuration support high-capacity outdoor smoke-control service.

ACTIVE RANGE
400-1120/B

FIRE CLASS
F400 • 400 °C / 2 h

NORMAL DUTY
-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.
- Prevent roof-edge falls. Use approved access, fall protection and weather-safe working methods.
- Do not operate without the protective casing and safety grille preventing access to the rotating impeller.
- The F400 rating is emergency duty at 400 °C for 2 hours according to EN 12101-3; it is not a continuous high-temperature limit.
- Do not modify the motor, body, impeller, wiring or approved smoke-control configuration. After fire exposure, isolate the fan and obtain a qualified assessment.

2 Technical data

Model	V	A	kW	r/min	Max m³/h	Max Pa	dB(A)	kg
400	230/380	0.50	0.37	1,400	3,500	250	62	28
450	230/380	0.75	0.55	1,400	4,400	350	69	32
500	230/380	0.90	0.55	1,400	6,000	400	72	34
560	230/380	1.40	0.75	1,400	8,200	450	75	38
630	230/380	2.00	1.10	1,400	14,000	600	80	49
710	230/380	2.50	1.50	1,400	20,000	700	83	63
800/A	230/380	4.00	2.20	1,400	26,000	700	89	80
800/B	230/380	5.70	3.00	1,400	32,000	800	90	85
900/A	380	7.80	4.00	1,400	40,000	800	94	90
900/B	380	10.00	5.50	1,400	48,000	900	94	108
900/C	380	21.00	11.00	1,400	49,000	1,200	97	142
1000/A	380	14.80	7.50	1,400	56,000	900	99	102
1000/B	380	29.00	15.00	1,400	65,000	1,400	100	162
1000/C	380	36.00	18.50	1,400	73,000	1,400	102	195
1120/A	380	43.00	22.00	1,400	90,000	1,600	104	202
1120/B	380	59.00	30.00	1,400	100,000	1,800	104	245

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 body; aluminium impeller; external protective casing
Drive / fire class	F400 motor, direct drive; 400 °C for 2 h; EN 12101-3
Protection / insulation	IP55 / Class F
Frequency / efficiency	50 Hz / IE2 or IE3
Normal 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 UVS-KO-C F400 model; inspect hood, frame, grille, impeller, F400 motor, cable and terminal box.
- With power isolated, check that the impeller rotates freely without contact.
- Verify supply, smoke-control duty, roof environment and airflow against the fan and motor nameplates.
- Provide a level roof curb, safe access, fall protection and lifting equipment suitable for the fan mass.

4 Installation

1. Prepare a level roof curb carrying fan mass, wind and operating loads.
2. Lift from the designated eye or approved structural points; keep clear of suspended loads.
3. Place over the roof opening with airflow following the arrow; keep motor and terminal box accessible.
4. Seal the mounting flange to the curb. Preserve drainage and prevent standing water.
5. Fasten without distortion. Support ductwork independently; use components accepted for the smoke-control path and fire duty.
6. Verify hood, grille and frame security; recheck clearance and weather sealing.

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 earth, short-circuit and overload protection set to nameplate current; coordinate isolation with the emergency-control design.
- Select star or delta only from the motor nameplate and terminal diagram.
- Connect fire command, monitoring and interlocks to the approved project control diagram.
- Briefly start and verify rotation; isolate and interchange two phases if incorrect.
- Use a VFD only when the motor and normal/fire-mode strategy are approved.

6 Commissioning and operation

- Confirm mounting, sealing, drainage, grille, free impeller, earth, protection and terminal-box closure.
- Start in normal mode; verify rotation and airflow, then check voltage, current, vibration, noise and temperature.
- Function-test emergency command, alarms, monitoring and interlocks without high-temperature exposure.
- Stop for rubbing, severe vibration, overheating, abnormal current, water ingress or electrical smell.

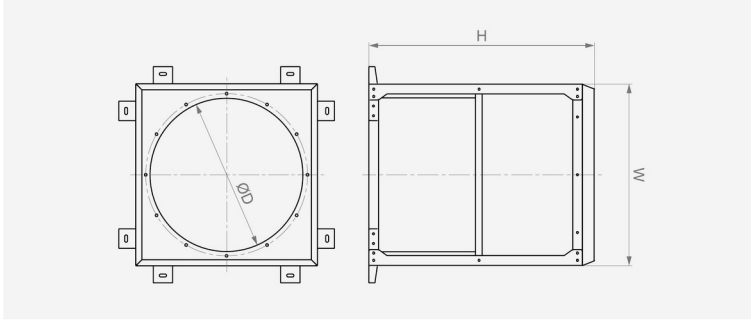
7 Maintenance

- Isolate and lock out power; allow the impeller to stop and use roof fall protection.
- Periodically inspect hood, frame, grille, impeller, mounting, seals, drainage, terminals, cables, corrosion, noise and vibration.
- Test fire-mode readiness, alarms and interlocks as required by the approved project plan and local rules.
- Clear leaves, ice and deposits without bending blades, removing balance weights or wetting the motor.
- After fire exposure, remove from service and obtain a qualified assessment.

8 Troubleshooting

Problem	Possible cause	Safe action
No start	Supply/protection/wiring/overload	Isolate; check supply, diagram and protection.
Fire mode fails	Command, interlock or control fault	Keep system safe; qualified controls check.
Low airflow	Wrong rotation; grille/duct blockage	Correct rotation; clear airflow path; check duty.
Water ingress	Failed seal; blocked drainage; damaged hood	Stop if electrical parts are wet; reseal or repair.

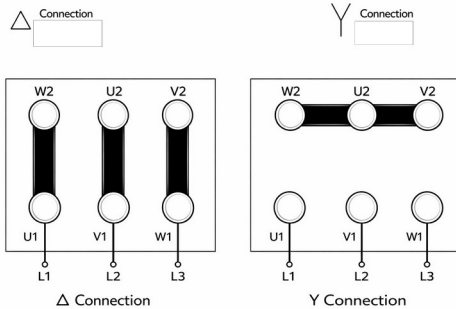
9 Dimensions and installation reference



Size	D	H	W
400	400	1,000	500
450	450	830	550
500	500	880	600
560	560	880	700
630	630	930	750
710	710	980	850
800	800	980	950
900	900	1,250	1,050
1000	1,000	1,400	1,050
1120	1,120	1,500	1,270

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 • rotation verified • drainage clear • fire command tested.

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