

UVENTS

UVS-KO-H

F400 AXIAL SMOKE EXHAUST CABINET 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-H F400 is a direct-driven axial cabinet fan for normal ventilation and emergency smoke extraction. Its protective galvanized steel cabinet, service access, adjustable-pitch aluminium airfoil impeller and F400 motor configuration provide high airflow and smoke-control capability. The supplied configuration and accessories must match the approved project documentation.

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.
- Keep cabinet panels, service doors, latches and protective grilles fitted and secured during operation.
- Never open the cabinet while energized. Isolate against unexpected restart and wait until the impeller has stopped.
- F400 is emergency duty at 400 °C for 2 hours according to EN 12101-3; it is not a continuous high-temperature operating limit.
- Do not alter the motor, cabinet, impeller, blade pitch, wiring or approved smoke-control configuration. After fire exposure, isolate 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	0.80	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	Galvanized steel cabinet; aluminium airfoil impeller
Drive / fire class	F400 motor, direct drive; 400 °C for 2 h; EN 12101-3
Protection / insulation	Use supplied F400 motor nameplate
Frequency / electrical data	Use supplied F400 motor nameplate
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-H F400 model and inspect cabinet panels, feet, hinges, latches, grilles, impeller, F400 motor, cable and terminal box.
- With power isolated, check that the impeller rotates freely without contact and that the service door closes securely.
- Verify supply, smoke-control duty, installation environment and airflow against the fan and motor nameplates and approved project data.
- Provide a rigid level support, clearance to open the service door fully and lifting equipment suitable for the fan mass.

4 Installation

1. Orient the cabinet so airflow follows the arrow and the motor and service door remain accessible.
2. Lift from approved cabinet structural points and keep personnel clear of suspended loads.
3. Fasten all support feet to a rigid, level base or frame designed for fan mass, vibration and applicable wind loads.
4. Support ductwork independently. Use connections, flexible elements and supports accepted for the smoke-control path and fire duty.
5. Maintain service clearance and motor ventilation. For outdoor installation, provide suitable weather sealing and drainage without blocking access.
6. Recheck door closure, latches, panels, grilles, impeller clearance, fire-control connections, fasteners 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 earth, short-circuit and overload protection set to F400 motor nameplate current; coordinate isolation with the emergency-control design.
- Select star or delta only from the motor nameplate and terminal diagram; catalog voltage alone is insufficient.
- Connect fire command, monitoring, interlocks and any bypass arrangement to the approved project control diagram.
- Briefly start and verify rotation. Isolate and interchange any two phases if rotation is incorrect.
- Use a VFD only when the F400 motor and normal/fire-mode strategy are approved; fire mode must not depend on an unapproved drive setting.

6 Commissioning and operation

- Confirm mounting, smoke-control path, panels, latches, grilles, free impeller, earth, protection and terminal-box closure.
- Start in normal mode; verify rotation and airflow, then check voltage, current, vibration, noise and motor temperature.
- Function-test emergency command, alarms, interlocks and approved bypass logic without high-temperature exposure.
- Stop for rubbing, severe vibration, overheating, abnormal current or electrical smell. Find the cause before restart.

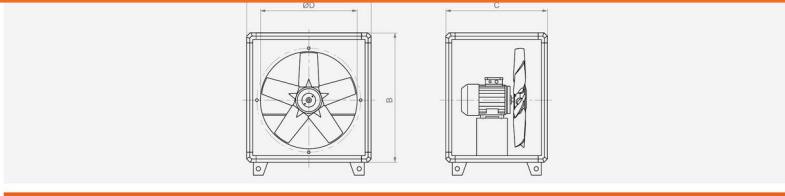
7 Maintenance

- Isolate and lock out power; allow the impeller to stop fully before opening the cabinet.
- Inspect panels, hinges, latches, seals, grilles, blades, mounts, terminals, cables, corrosion, noise and vibration periodically.
- Test fire-mode readiness, alarms, interlocks and bypass logic to the approved project plan and local rules.
- Clean evenly. Do not bend blades, change pitch, remove balance weights, wet the motor or use high-pressure cleaning.
- After fire exposure, remove from service and obtain a qualified assessment before return to operation.

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.
Fire mode fails	Command/interlock/control path fault	Keep system unavailable; qualified controls check.
Noise/hot motor	Loose parts; deposits; overload; phase loss	Stop and isolate; inspect supply and fan.

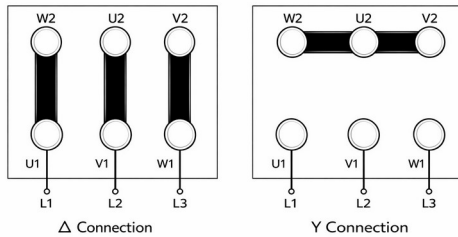
9 Dimensions and installation reference



Size	A	B	C	D
400	620	645	425	400
450	670	695	425	450
500	720	745	425	500
560	780	805	425	560
630	850	875	425	630
710	930	955	425	710
800	1,020	1,045	425	800
900	1,120	1,145	525	900
1000	1,220	1,245	525	1,000
1120	1,340	1,365	525	1,120

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

Cabinet secure • door latched • grilles fitted • impeller free • earth connected • protection set • rotation verified • fire command tested.

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