

UVENTS

UVS-UJET-R

RADIAL SMOKE EXHAUST JET 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-UJET-R-50 is a direct-driven, two-speed radial jet fan for day-to-day car-park ventilation and emergency smoke extraction. Its radial discharge arrangement provides controlled airflow where obstructions or complex layouts require directional air movement. The supplied fan is configured with either an F300 or F400 fire-rated motor option; verify the product and motor nameplates before installation.

ACTIVE MODEL
UJET-R-50

TWO SPEEDS
750 / 1,500 rpm

FIRE OPTIONS
F300 / F400

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1 Safety

DANGER

Isolate both speed circuits, lock out against restart and verify absence of voltage before removing a guard, opening the terminal box or servicing the fan.

- Connect protective earth. Electrical work must follow the motor nameplate and the terminal-box diagram.
- Keep every access cover and protective component fitted. Never reach into the fan, stand in the discharge jet or operate it with an accessible inlet or outlet.
- Support the fan only from its designed mounting brackets. Use lifting equipment suitable for the complete fan mass.
- F300 means 300 °C for 2 hours and F400 means 400 °C for 2 hours according to EN 12101-3. These are emergency smoke-exhaust duties, not continuous operating temperatures.
- Do not modify the motor, casing, impeller, radial discharge arrangement, mounting brackets or approved smoke-control wiring. After fire exposure, isolate the fan and obtain a qualified assessment.

2 Technical data

Model	Air speed m/s	Thrust N	Power kW	Speed rpm	Airflow m³/h	Sound dB(A)
50	10 / 20	13 / 50	0,37 / 0,80	750 / 1,500	2,850 / 5,760	38 / 54

Values are listed low speed / high speed. They are catalog performance data for the two-speed motor configuration. Verify the installed motor nameplate for voltage, current, connection and protection settings.

Property	Series information
Fire-rated option	F300: 300 °C / 2 h or F400: 400 °C / 2 h; EN 12101-3
Construction	Galvanized casing; aluminium impeller; direct drive
Protection / insulation	IP54–IP55 / H class; 380 V three-phase motor
Frequency / normal duty	50 Hz / -20 °C to +50 °C
Efficiency class	IE1 / IE2

3 Identification and intended use

This manual covers UVS-UJET-R-50 only. Use the fan solely in the orientation, duty and smoke-control system defined by the approved project. Record the serial number, F300/F400 class, motor voltage, both rated currents and both speed connections before commissioning. The motor nameplate is the primary electrical source.

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.

4 Before installation

- Confirm model 50, F300/F400 option and approved project duty; inspect casing, brackets, inlet, radial outlet, impeller, motor, cable and terminal box for damage.
- With both speed circuits isolated, check that the impeller rotates freely without contact and that no foreign object remains inside the fan.
- Verify mounting structure, fixing locations, airflow direction, access, electrical supply, controller and fire-mode command against approved project documents.
- Provide safe lifting equipment and an exclusion zone. Do not lift by the guards, cable, terminal box or motor leads.

5 Installation

1. Orient the fan so the airflow arrow and radial discharge jet match the approved smoke-control layout.
2. Lift from the designed mounting brackets and secure all mounting points to a rigid structure engineered for fan mass, thrust, vibration and emergency duty.
3. Keep the inlet and radial outlet unobstructed. Do not attach unsupported services or loads to the casing or discharge section.
4. Maintain safe clearance for motor cooling, access-cover removal, terminal-box access and inspection. Protect outdoor or exposed installations as specified by the project.
5. Recheck every fixing, protective component, bracket, impeller clearance, airflow direction and electrical enclosure before energizing.

6 Electrical connection

WARNING

This is a two-speed motor. Only a qualified electrician may connect it. Follow the exact motor nameplate and terminal-box diagram; never energize both speed circuits simultaneously.

- Provide a lockable isolator, protective earth, short-circuit protection and overload protection for each operating speed as required by the installed motor and control design.
- Use electrically and mechanically interlocked contactors so low-speed and high-speed commands cannot be applied together.
- Connect normal-ventilation and emergency smoke-exhaust controls to the approved fire strategy. The selected fire mode must correspond to the supplied F300 or F400 motor configuration.
- Briefly start at low speed and verify rotation, then test high speed through the approved control sequence. Isolate before changing any phase connection.
- Do not use a VFD unless the supplied fire-rated motor, control arrangement and project approval explicitly allow it.

7 Commissioning and operation

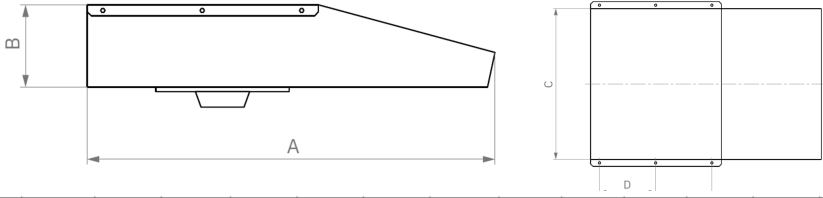
- Confirm secure mounting, guards, free impeller, earth, protection settings, interlocks and terminal-box closure.
- Run each speed separately. Verify rotation, airflow, voltage, current, vibration, noise and motor temperature against the supplied data.
- Test normal ventilation, high-speed command, emergency fire command, alarms and interlocks without exposing the fan to high temperature.
- Stop immediately for rubbing, severe vibration, overheating, abnormal current, damaged guards or electrical smell. Correct the cause before restart.

8 Maintenance and troubleshooting

- Inspection frequency must be adjusted to operating conditions and the approved smoke-control maintenance plan.
- Isolate both speed supplies. Inspect and clean guards, impeller, casing and motor; check brackets, fixings, terminals, cables, corrosion, vibration and noise.
- Do not bend blades, change blade setting, remove balance weights, wet the motor or use high-pressure cleaning.
- After fire exposure, keep the fan out of service until assessed and released by qualified personnel.

Problem	Possible cause	Safe action
No start at one speed	Control/interlock/protection/wiring fault	Isolate; check the relevant speed circuit and motor diagram.
Low thrust	Wrong rotation; obstruction; wrong speed	Stop; correct rotation, clear path and verify command.
Noise or vibration	Loose mounting; deposits; damage	Stop and isolate; inspect and correct before use.
Motor overheats/trips	Overload; phase loss; wrong connection	Stop; qualified electrical and mechanical inspection.

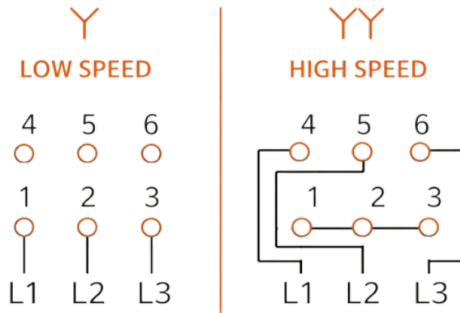
9 Dimensions and installation reference



Model	A	B	C	D	D1	D2	E	F	G	H	I	J	K
50	1,215	250	800	300	120	157	600	60	95	95	116	123	105

All dimensions are in mm. Use the current selector drawing and the approved project or supplied production drawing for final coordination.

10 Two-speed electrical reference



General reference only. The motor nameplate and the diagram inside the supplied terminal box take priority. Use interlocked contactors and never energize both speed circuits simultaneously.

FINAL CHECK

Mounting secure • guards fitted • impeller free • earth connected • both speed circuits protected and interlocked • rotation and thrust verified • fire command tested.

Compliance: retain the declaration and certification documents supplied for the exact model and F300/F400 option with the product or project records.

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