

UVENTS

UVS-GS

LOW-PRESSURE RADIAL 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-GS is a direct-driven industrial centrifugal fan for conveying clean or lightly dust-laden air in ventilation and extraction systems. Its backward-curved impeller and carbon-steel scroll casing provide high airflow across the active 320–800B range. The motor is coupled directly to the impeller; the optional metal bottom chassis is not part of the standard fan unless specified in the order.

ACTIVE RANGE
320–800B

AIRFLOW
3,500–50,000 m³/h

MAX PRESSURE
650–3,300 Pa

İren Fan Metal Sanayi İç ve Dış Tic. Ltd. Şti. • sales@uvents.com.tr • +90 212 482 0216



1 Safety

DANGER

Isolate the electrical supply, 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 and terminal-box diagram.
- Guard every accessible inlet, outlet, coupling and rotating component. Never operate the fan with a guard removed.
- Use appropriate lifting equipment. Keep personnel clear of suspended loads and beware of sharp sheet-metal edges.
- Do not use in explosive, corrosive or heavily contaminated atmospheres unless the supplied fan is specifically approved for that duty.
- Do not modify the casing, impeller, motor mounting, rotation arrangement or balancing. Stop immediately for rubbing, severe vibration or overheating.

2 Technical data

Model	V	A	kW	Max m³/h	Max Pa	dB(A)	kg
320	230/380	3.3/1.6	0.55	3,500	650	70	78
350A	230/380	3.3/1.6	0.55	3,800	650	70	78
350B	230/380	3.3/1.6	0.75	5,000	650	72	78
400A	230/380	5.4/1.92	0.75	6,000	650	72	91
400B	230/380	7.2/2.2	1.1	7,000	650	75	98
450A	230/380	7.2/2.2	1.1	8,000	650	75	98
450B	230/380	9.8/3.5	1.5	10,000	750	83	104
500A	230/380	14/4.9	2.2	10,500	1,100	85	145
500B	230/380	14/4.9	2.2	12,000	1,100	85	145
500C	230/380	20/6.7	3	13,000	1,200	90	158
550A	380	8.4	4	15,000	1,300	95	175
550B	380	8.4	4	16,000	1,400	95	175
630A	380	11.5	5.5	18,000	1,400	98	225
630B	380	16	7.5	20,000	1,800	100	240
630C	380	16	7.5	22,000	1,800	100	240
700A	380	21.3	11	26,000	1,900	102	255
700B	380	29.4	15	30,000	2,000	104	325
800A	380	34.5	18.5	40,000	2,200	106	375
800B	380	43	22	50,000	3,300	108	410

All models are listed at 1,450 rpm and 50 Hz. Values follow the detailed catalog model table and current selector data. The installed motor nameplate is the primary source for actual electrical connection and protection settings.

Property	Series information
Construction	Carbon-steel casing and backward-curved impeller; direct drive
Protection / insulation	IP55 / F class
Normal operating temperature	-20 °C to +50 °C
Motor efficiency	IE2 / IE3, according to supplied motor

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 exact model and inspect casing, inlet, outlet, impeller, motor, terminal box, support points and optional chassis for transport damage.
- With power isolated, verify that the impeller rotates freely without contact and that no foreign object remains inside the casing.
- Confirm airflow direction, discharge orientation, supply, duty point, foundation, duct loads and service access against approved project data.
- Provide lifting equipment suitable for the complete fan mass; lift only from structurally approved points.

4 Installation

1. Position the fan so airflow follows the casing arrow and the motor, terminal box and inspection areas remain accessible.
2. Install on a rigid, level support sized for fan mass, operating forces and vibration. Fit the optional chassis and vibration isolators only as specified.
3. Support inlet and outlet ductwork independently. Align connections without forcing or distorting the casing; use suitable flexible connectors where specified.
4. Fit protective guards to all accessible openings. Maintain an unobstructed inlet and avoid abrupt duct transitions that create unstable airflow.
5. Tighten all fixings and verify impeller clearance, duct alignment, guards, drainage where applicable and terminal-box closure.

5 Electrical connection

WARNING

Only a qualified electrician may connect the fan. Follow the installed motor nameplate and terminal-box diagram; they take priority over the general diagram in this manual.

- Provide a lockable isolator, protective earth, short-circuit protection and overload protection set to the motor nameplate current.
- Select star or delta only from the supplied motor voltage rating and terminal diagram. Catalog voltage alone is not sufficient.
- Briefly start the fan and verify rotation. Isolate and interchange any two phases if rotation is incorrect.
- Use a VFD only when the installed motor and project controls permit it. Enter motor nameplate values, observe the approved frequency range and verify motor cooling at reduced speed.

6 Commissioning and operation

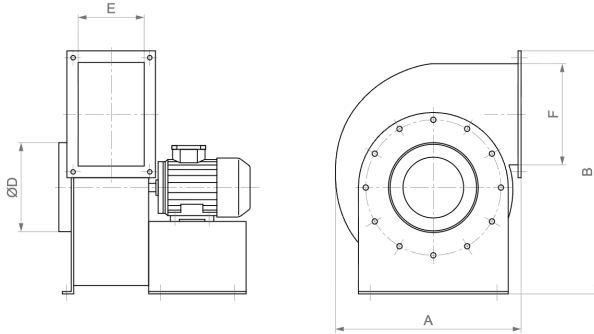
- Confirm secure mounting, aligned ducts, fitted guards, free impeller, protective earth, protection settings and closed terminal box.
- Start with the airflow path open. Verify rotation, voltage, current, airflow, pressure, vibration, noise and motor temperature.
- Operate only within the selected duty and declared limits. Prevent material accumulation and unstable operation caused by blocked or restricted airflow.
- Stop immediately for rubbing, severe vibration, loose parts, abnormal current, overheating or electrical smell. Correct the cause before restart.

7 Maintenance and troubleshooting

- Inspection frequency must be adjusted to operating conditions and dust loading.
- Isolate and lock out power. Inspect and clean the casing, impeller and motor; check fixings, guards, terminals, cables, corrosion, noise and vibration.
- Clean the impeller evenly. Do not bend blades, remove balance weights, wet the motor or use high-pressure cleaning.
- After impeller damage, heavy deposits or abnormal vibration, keep the fan stopped until inspected and, where necessary, rebalanced by qualified personnel.

Problem	Possible cause	Safe action
Fan does not start	Supply/protection/wiring/overload	Isolate; check supply, diagram and protection.
Low airflow/pressure	Wrong rotation; blockage; system resistance	Correct rotation; clear path; verify duty.
Noise/vibration	Deposits; loose support; impeller damage	Stop and isolate; inspect and correct.
Motor overheats/trips	Overload; phase loss; wrong connection	Stop; qualified electrical/mechanical check.

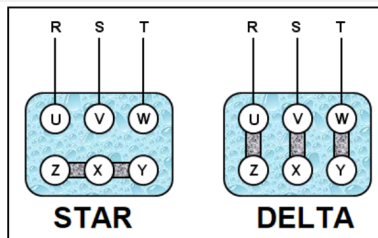
8 Dimensions and installation reference



Model	A	B	D	E	F
320	550	665	300	200	260
350A/B	600	720	320	250	280
400A/B	685	820	350	270	320
450A/B	700	840	400	270	370
500A/B/C	785	850	450	330	410
550A/B	850	950	500	350	450
630A/B	990	1,070	650	400	520
630C	990	1,070	650	400	570
700A/B	1,130	1,240	750	500	580
800A/B	1,215	1,425	900	550	560

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

9 Three-phase electrical reference



General reference only. Follow the diagram inside the supplied terminal box. Conductor colours, terminal markings, links, voltage and protection settings must not be inferred.

FINAL CHECK

Base secure • ducts aligned • openings guarded • impeller free • earth connected • protection set • rotation, current, airflow and vibration verified.

Compliance: retain the declaration supplied for the exact UVS-GS model with the product or project records.

Service: sales@uvents.com.tr • +90 212 482 0216 • www.uvents.com.tr