



GREENOVAC

G-AIR SERIES

Airflow: 1,000- 60,000 m³/h

air handling unit for comfort cooling...

Modular designs and flexible customizations make G-Air series AHU a suitable application for both commercial and industrial sectors. With preserving the environment our utmost priority, the design ultimately incorporates both efficiency and practicality.

the design...

Body

- Double skin polyurethane (PU) panels of thickness 25mm or 50mm at a density of no less than 40kg/m².
- Anodized aluminum structure with no protruding screws or fasteners.
- Hinged or lift-off inspection door with an option of inspection window.

Air Inlet

- Opposed blade design dampers to ensure good air tightness with actuators as options.



Filters

- A massive choice of filters ranging from G6 to H10 grade is available. Pressure gauge as options.



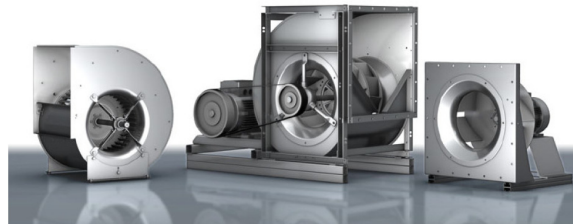
Heat Exchangers

- Standard cooling coil consisting aluminum fins mechanically expanded with copper tube to ensure efficient heat transfers. Hydrophilic fins and copper fins as options.
- Threaded steel pipe connections as standard.
- For high face velocity application, droplet eliminator is encouraged.



Drive Systems

- Dynamically balanced fan with choice of forward curved, backward curved or aerofoil blades for optimum efficiency.
- Standard class F, IP 55 motors at 400V/3Ph/50Hz. Options available including 2-speed motors and premium efficiency motors.
- Drive system to be belt driven with V-Belt design with direct drive as options.
- Both fan and motor will be mounted on a common base mounted on vibration isolators as standard.



Technical specification

G-Air AIR HANDLING UNITS

The units are designed and manufactured in accordance to ARI standard and Eurovent EN1886 specifications.

The AHU consist of modular block assemblies containing mixing boxes, filters, coils, fans, etc.

General description of the casing:

All panels are fastened to the aluminium structure to provide a robust and rigid structure. All panels are removable from the exterior of the unit.

The interior of the AHU is smooth, without bumps or protruding screws.

Double-wall panels with 25mm or 50 mm polyurethane (PU) insulation. The wall thickness of the panels are 0.5mm internal and external as a standard. The internal wall is galvanized metal (GI) and the external wall is GI with colour bonding.

PU panel are produced with a density of no less than 40kg/m³ as a standard. However a density of 60kg/m³ can be provided as an option.

Accesses to components are via wide doors on hinges and handle lock for convenience of servicing.

The wall crossings (cable grommets, pressure connectors, pipes....) are supplied by the manufacturer.

Weatherproof units

Powder coated metal roof can be provided upon request to ensure AHU placed in outdoor area will be protected from rain.

At the fresh air intakes, a louvered fresh air damper is recommended.

The Dampers

Damper materials are GI non-painted with non-motorized mechanical quadrants to modulate air intake as a standard. Actuators to modulate air intake are optional.

The filters

For the AHU design, a maximum of two cell sizes are used: 24'' x 24'' and 12'' x 24 '' to facilitate replacement management. Removal / replacement of the filters will be from the side of the AHU. Pressure gauge can be provided as a option.

Exchange coils

All coils are tested in accordance to the ARI standard.

Cooling / Heating coils

- Coil frames are constructed with GI metal. Fins are aluminium expanded mechanically by ½" copper tube. Other frames and fin material can be provided as standard. Protective coating on fins can also be requested.

Electrical Heater

Electrical heaters and fin-type with automatic cut-off as thermal protection.

Centrifugal fans

The size of the fans will be optimised according to their performance and can be of 3 types depending on their destination and the expected characteristics:

1. For air handling units destined for premises without special air filtration equipment and low available pressures, forward curved fans can be accepted.

2. For air handling units with equipments, complete filters and high available pressures, backward curved or aerofoil type fans are required this is particularly because of their air flow stability in relation to the variation of the filter arrangement pressure drop and their out put.

* Construction and installation. :

The whole motor-fan assembly will be mounted on an anti-vibration frame.

The separation from the casing will be achieved by canvas type sleeve between the fan and the wall on the ventilation flow and a set of vibration isolators(for compression work) under the frame to eliminate low frequency vibrations.

* For fans equipped with belt transmission, the motor seats will be of guided displacement type and self aligning.

* IP56 terminal box will be provided and mounted on the wall nearest to the motor.



AIR HANDLING UNIT

MODEL GAS / GAD

PERFORMANCES

Sr.Nr.	MODEL	NOMINAL CAPACITIES (kW)					
		2,0m/s		2,5m/s		3,0m/s	
		Inlet air temp 25oC @ 50% Water 7/12oC		Inlet air temp 25oC @ 50% Water 7/12oC		Inlet air temp 25oC @ 50% Water 7/12oC	
		m3/h	kW	m3/h	kW	m3/h	kW
1	GAD 50	4,000	28	5,000	35	6,000	42
2	GAD 75	6,000	40	7,500	50	9,000	60
3	GAD 100	8,000	56	10,000	70	12,000	84
4	GAD 150	12,000	80	15,000	100	18,000	120
5	GAD 200	16,000	120	20,000	150	24,000	180
6	GAD 250	20,000	140	25,000	175	30,000	210
7	GAD 300	24,000	168	30,000	210	36,000	252
8	GAD 350	28,000	200	35,000	250	42,000	300
9	GAD 400	32,000	224	40,000	280	48,000	336
10	GAD 450	36,000	256	45,000	320	54,000	384
11	GAD 500	40,000	280	50,000	350	60,000	420
12	GAD 600	48,000	320	60,000	400	72,000	480

**Performance may vary depend on the condition applied*