

Technical Data Sheet

AIR HANDLING UNIT

GENERAL DESCRIPTION

KINFOLK Air Handling Units (AHUs) are engineered with precision to deliver superior indoor air quality and reliable performance. Built with thermal break double skin panels and advanced 3-stage filtration as options, they ensure energy efficiency and hygienic operation.

The DX cooling coil with optimized face velocity offers excellent temperature and humidity control for critical environments. Equipped with direct drive plug fans or DIDW fans, our AHUs guarantee quiet, vibration-free, and maintenance-friendly operation. With Kinfolk, you get robust engineering, unmatched efficiency, and trusted performance in every AHU.

1. CAPACITIES

Parameter	Specification
Air Volume	600 CFM (1000 CMH) to 60000 CFM (100000 CMH)
Cooling Capacity	1 TR upto 150 TR (Single unit)
Static Pressure	25 mmWG (250 Pa) upto 250 mmWG (2500 Pa) Upto 400 mmWG (4000 Pa) for special applications

2. CONSTRUCTION

Parameter	Specification
Mounting Type	Floor mounted horizontal type / Ceiling suspended horizontal type / Floor mounted vertical type
Casing Type	Double Skin Panels, 25 / 50 mm thickness, PUF insulated
Panel Density	40 ± 2 kg/m ³ , CFC-free polyurethane foam
Profile	Extruded aluminium thermal break profile / Non- Thermal break profile of 2 mm thickness
Inner Sheet	0.6 mm / 0.8 mm galvanized steel /Aluminium / Stainless steel options
Outer Sheet	0.6 mm / 0.8 mm pre-coated GI / aluminium / stainless steel (RAL shade as per requirement)

Base Frame	Heavy-duty galvanized steel channel / MS with epoxy paint
Access doors	Hinged doors / Removable panel door
Accessories	View port, Cam locks, Limit Switch, LED light
Mounting Type	Floor mounted horizontal type / Ceiling suspended horizontal type / Floor mounted vertical type

3. FILTRATION

Parameter	Specification
Stage 1	Pre Filter – EU4 / G4, 90% down to 10 µm, 50 mm thickness
Stage 2 (option)	Fine Filter – F7, 95% down to 5 µm, 100/150 mm thickness
Stage 3 (option)	Fine Filter – F8 / F9, 95% down to 5 µm, 150 /300 mm thickness
Stage 4 (option)	HEPA Filter – H12 / H13, 99.97% down to 0.3 µm, 300 mm thickness
Filter Mounting	Extruded aluminium frames with gasket sealing / GI frame / SS frame
Filter Access	Flanged ends Bolted to frame / Side withdrawal arrangement

4. COOLING COIL

Parameter	Specification
Type	DX Coil – Copper tubes with aluminium fins
No. of Rows	4 rows / 6 rows / 8 Rows
Tube Material	Copper, 3/8" OD, 0.35 to 0.5 mm tube thickness, Cu-DHP (C12200) / 1/2" OD also available.
Fins	Aluminium 0.14 mm thick, 10–12 FPI, plain/corrugated
Face Velocity	500 FPM (2.5 m/s approx.) / velocity can be upto 800 FPM fr
Casing	SS 304 endplate / SSr0Galvanized steel / Aluminium end plates with drain connection

Performance	Optimized for sensible and latent load removal
Drain Pan	SS304, double sloped, externally insulated,
Mist Eliminator (Optional)	High-efficiency polypropylene fills / aluminium drift eliminator, 150 mm thick, designed for $\geq 98\%$ droplet separation at 4 m/s face velocity. Construction: SS 304, Corrosion-resistant, lightweight modular sections with low pressure drop (< 20 Pa) and easy washability.

5. DAMPERS

Parameter	Specification
Type	Extruded Aluminium Aerofoil Dampers
Construction	Opposed blade arrangement with nylon bushes / GI links
Operation	Manual lever / motorized actuator as required

6. FAN SECTION

Parameter	Specification
Fan Type	Plug Fan /DIDW/ SISW /EC
Impeller	Backward curved /forward curved dynamically balanced, aluminium/steel construction, FRP coating options
Motor	IE2 / IE3 efficiency class, TEFC, foot mounted Flame proof / Regular
Drive	Direct drive / Belt drive / EC motor
Speed Control	Manual / VFD compatible /3 speed options
Static Pressure	As per design, from 200 Pa upto 2000 Pa (customizable)
Efficiency	$> 65\%$ total As per the manufacturer's std for optimal eff.

7. ACOUSTIC & THERMAL PERFORMANCE

Parameter	Specification
Panel Insulation	25 / 50 mm $\pm$ 3mm ; PUF – NRC $\geq$ 0.70
Sound Attenuation	Optional sound attenuator for fan section
Thermal Transmittance (U-value)	$\leq$ 0.4 W/m ² K
Leakage Class	Class B or better as per EN 1886

8. ELECTRICAL (Optional)

Parameter	Specification
Cabling	Weatherproof junction box mounted on AHU body
Wiring	Internal wiring up to terminal box with ferruled connections
Protection	Earthling lugs and isolator switch provided

9. OPTIONAL ACCESSORIES

Parameter	Specification
Accessories (You can add up any items specified here)	- Fresh Air Mixing Box, - UV-C Sterilization lamps, - Heating Element – Electrical - Hot water coil. - Electrical Panel - DDC/BMS interface points

Enquiries for AHU can be sent to:

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