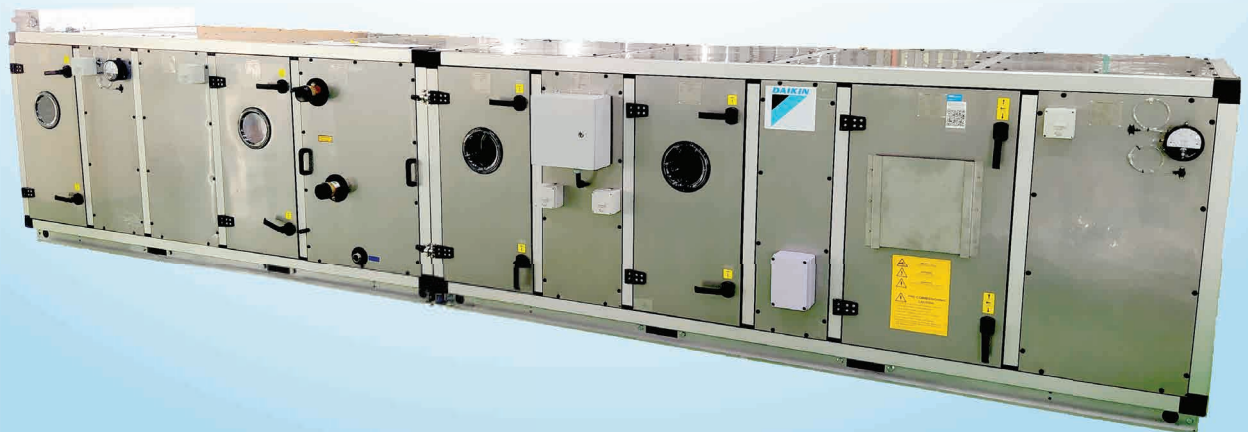




PLXDMT2201

# HYGIENIC GRADE DOUBLE SKIN MODULAR AIR HANDLING UNIT





Authorities, consultant & consumer have increase their demand and awareness toward a clean and hygiene facilities in health care sector, life-science factories, food and beverage, manufacturing, laboratories etc. Most of these designs are references to Europe design standard and this is raising more specialized requirement for Air Handling Units.

Factors that affecting air quality, comfort condition and energy efficiency includes:



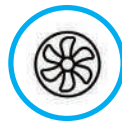
**Mechanical Performance**



**Air Cleanliness via Filtration**



**Thermal Transmission Through AHU Casing**



**Fan & Motor Efficiency**



**Air Leakage**



**Humidification & Dehumidification**



**Noise Transmission**



**Bacteria Protection**

Daikin has developed solutions that can be applied on its AHU series DMA6H(A) that match those requirement. The DMA6H(A) is an air handling unit manufactured from 60mm thick double skin panel with CFC free polyurethane foam insulation. DMA6H(A) air handling unit comprise an extremely rigid sealed frame construction, therefore gaps between panel junctions are minimal and consequently air leakage is greatly reduced. Structure of DMA6H(A) modular AHUs meet the requirement of AHRI 1350, EN1886:2003 (a European Standard), VDI 6022-1, VDI 3803-1 and DIN 1946-4 (Germany standards).

**AHRI Standard.**

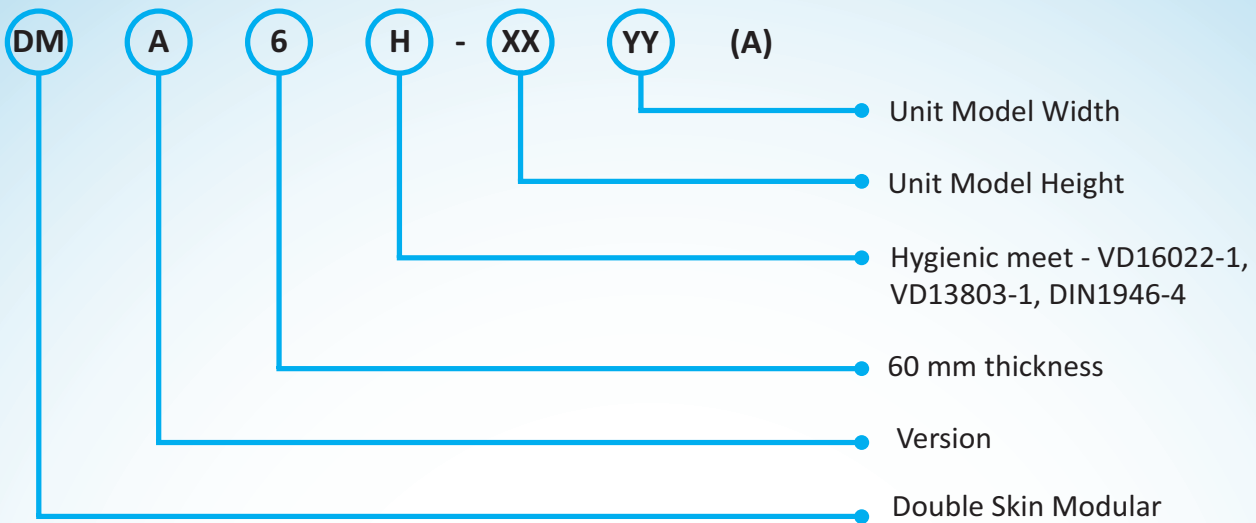
The AHRI 1350 Certification programme is renowned for its strict test methods and high requirements. As a result, our products enjoy high credibility and maintains integrity in HVACR industry.

Mechanical Characteristic	AHRI 1350
Casing Strength	CD1
Casing Air Leakage	CL1
Thermal Transmittance	CT1
Thermal Budging Factor	CB1

**German Standard.**

VDI 6022-1	Applicable for hygienic standard for ventilation and air conditioning system.
VDI 3803-1	Applicable for installation of central Hvac system in which the components are connected to central AHU by an air duct system.
DIN 1946-4	Applicable for ventilation and air conditioning systems in building and rooms use in the healthcare sector.

# NOMENCLATURE

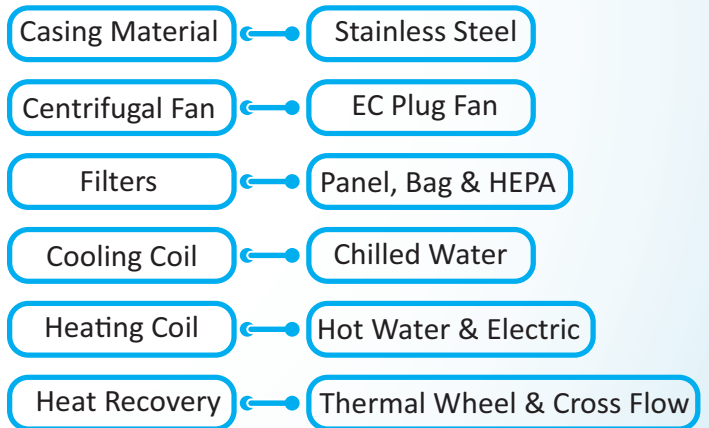


Example: DMA6H- 1315 (A)

AHU with double skin 60mm thickness, hygienic with cabinet height 1760mm, cabinet width 1960mm.

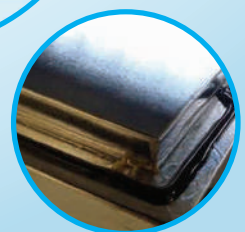
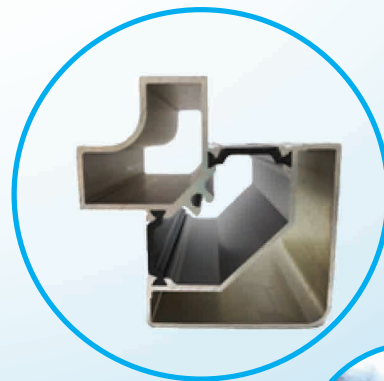
## FLEXIBILITY

DMA6H(A) air handling unit can be manufactured in various configuration, with various selection of components which can comply to hygienic requirement. To ensure optimum flexibility and fast solution for customer, user friendly selection software is available. AHUs selection are available in 100mm incremental in both height & width. Please contact your local Daikin Sales office for AHU selection & further information.



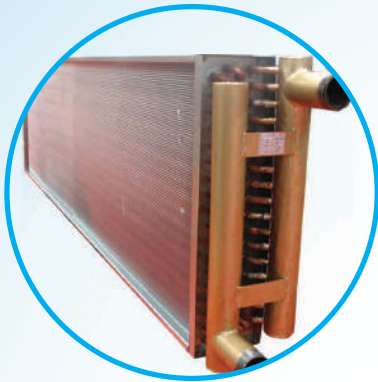
## THE FRAME

High strength extrusion aluminium alloy in twin box section profile design to provide stability & low weight construction. Thermal break in nylon material enables good thermal breaking on the frame. The smooth radiused (round edge) profile of the framework allow easy cleaning and prevent trapping of dust and growth of harmful bacteria. Panel design in step profile, double skin comprises inner skin stainless steel and external pre-painted metal with 40kg/m<sup>3</sup> density polyurethane foam insulation. These panel are fully removable and equipped with endless PU gasket. Access door are equipped with nylon dual handle and cam lock come with double glazed viewing port holes. Access door next to every component is must for east maintenance access.



# FANS

Fan motors offer with EC plug fan meeting hygienic requirement. Direct drive without belt abrasion is recommended by VDI6022-1. EC fan do not need flexible canvas or rubber isolator material which can cause growth of fungus and mould. Other advantages of using EC plug fan are high fan & motor efficiency, robust design, low noise emission, low vibration, and reliable operation.



# HEAT EXCHANGER

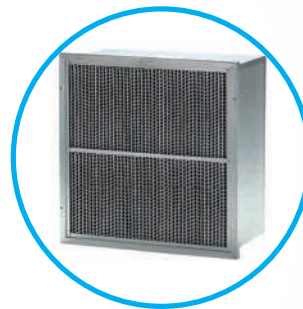
The cooling coil, heating coil electric heater are design to comply with hygienic standard.

- Easy coil removal by sliding
- Easy coil cleaning with limit on number of row & fin per inch selection
- Anti-corrosion casing material like stainless steel.

Cooling coil face velocity shall keep below 2.5 m/s to ensure no water carry over.

# FILTERS

VDI6022-1 & VDI3803-1 require the AHU to have minimum M5 grade filter at air intake stream and minimum of F7 grade filter at final stage of AHU. Individual filter stage must equip with dedicated pressure gauge.



# OTHER HYGIENIC MATERIALS

- Heat Recovery
- Sight Glass (View Port)
- Hygienic Sealant
- Foam/Gasket compliance to VDI6022
- Optional for Antimicrobial Paint
- Volume control damper compliance to VDI 6022



Certified in accordance with the AHRI Central Station Air-handling Unit Casing Certification Program, which is based on AHRI Standard 1350. Certified Units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org)



Daikin Refrigeration Malaysia Sdn. Bhd. participates in the ECP Programme for Air Handling Units. Check ongoing validity of certificate: [www.eurovent-certification.com](http://www.eurovent-certification.com) or [www.certiflash.com](http://www.certiflash.com)

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