



D-AHU Modular L

Air Handling Units



Premium Efficiency Heat Recovery Unit

About Daikin

Our promise is to ensure that customers can depend on Daikin for the ultimate in comfort, so that they are free to focus on their own working and home lives. We promise to dedicate ourselves to technological excellence, a design focus and the highest quality standards so that our customers can trust and rely on the comfort we deliver.

The compactness, air flow range coverage through 6 sizes and the achieved filtration efficiency make the Modular Light a precious ally for your ventilation system. The components used and the structure of the unit meet the ever more stringent requirements concerning energy efficiency, fire regulation and hygiene.

The future of ventilation

The new Modular Light represents one of the best solutions in terms of decentralised ventilation with unique selling features such as unit height, air flow range, number of sizes and Indoor Air Quality (IAQ) achievement.

IAQ matters

According to recent studies, people usually spend 90% of their time indoors and the amount of the air breathed each day is approximately 11000 litres. Hence, providing comfortable environments is our main goal. High IAQ evidently increases productivity levels, physical and psychological well-being and reduces health problems. Furthermore investing in a good indoor climate is an investment in your future and ultimately pays off.

Construction

- › External Pre – painted metal sheet
- › Internal Aluzinc
- › 50 mm double skin panel
- › Mineral wool insulation
- › Hinged and/or removable doors allowing full maintenance access from bottom side
- › All the units feature rectangular duct collars (optional accessory for rectangular - circular transition available)

ASTRA Web

Modular L selection program

- › Astra Web offers a quick and accurate selection of the best ventilation unit
- › Preset parameters ensure that you can always find the optimum and most energy efficient product for your application

Get access to all our selection tools at
<http://tools.daikinapplied.eu>



Highlights

- › New decentralised solution for fresh air treatment
- › Fully featured unit with "Plug and Play" concept
- › Wide airflow coverage
- › Best choice when compactness is needed (only 280 mm height for up to 550 m³/h of air flow)
- › Optimized SFP (Specific Fan Power) for an efficient unit operation
- › IE4 motor efficiency with EC centrifugal plug fan
- › High thermal heat recovery efficiency (up to 93%)
- › Excellent indoor air quality (IAQ). Up to F9 filtration level with possibility to have a pre-filter up to F7 for the best IAQ
- › Easy and quick installation and commissioning
- › Compliant with Hygiene Directive VDI 6022
- › Overcoming the ERP 2018 European Regulations
- › Eurovent certified

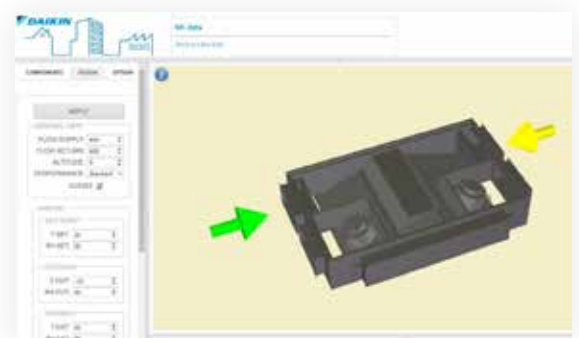
Modular Light Versions

- › Modular Light without internal heating coil
- › Modular Light with internal heating coil (water)

All the main units are available on right or left connection side (rule: looking in the supply air direction, standing below the ceiling suspended unit)

Accessories list

- › Filters (G4, M5, F7 and F9)
- › Rails (for limited false ceiling space)
- › Rectangular – circular duct transition
- › Pre and post – heater electric coil
- › Heating and/or cooling water coil
 1. Two or three ways valve
 2. Modulating valve actuator
- › Silencers
- › CO₂ sensor
- › Humidity (%RH) sensor
- › Temperature probe
- › BACnet protocol interface
- › Modbus protocol interface
- › Commissioning module



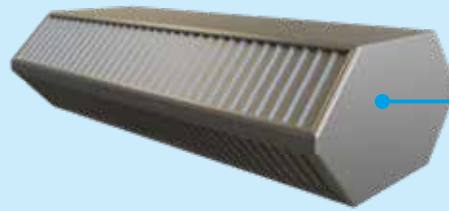
Astra selection sample

Flexibility to meet your needs



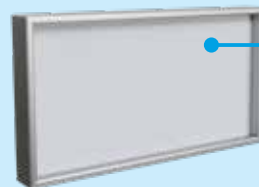
Heat exchanger

- › Premium quality counterflow plate heat exchanger
- › Up to 93% of the thermal energy recovered
- › VDI 6022 compliant
- › High grade aluminium that allows best corrosion protection
- › Completely joint sealing
- › No screws or rivets in any part



Filters

- › Easily replaceable compact filters which can be removed from bottom access, with large filter surface areas
- › Up to F7 + F9 filtration efficiency
- › No tools are needed to change the filters
- › Fresh air filters* (F7 efficiency as standard)
- › Return filters* (M5 efficiency as standard)



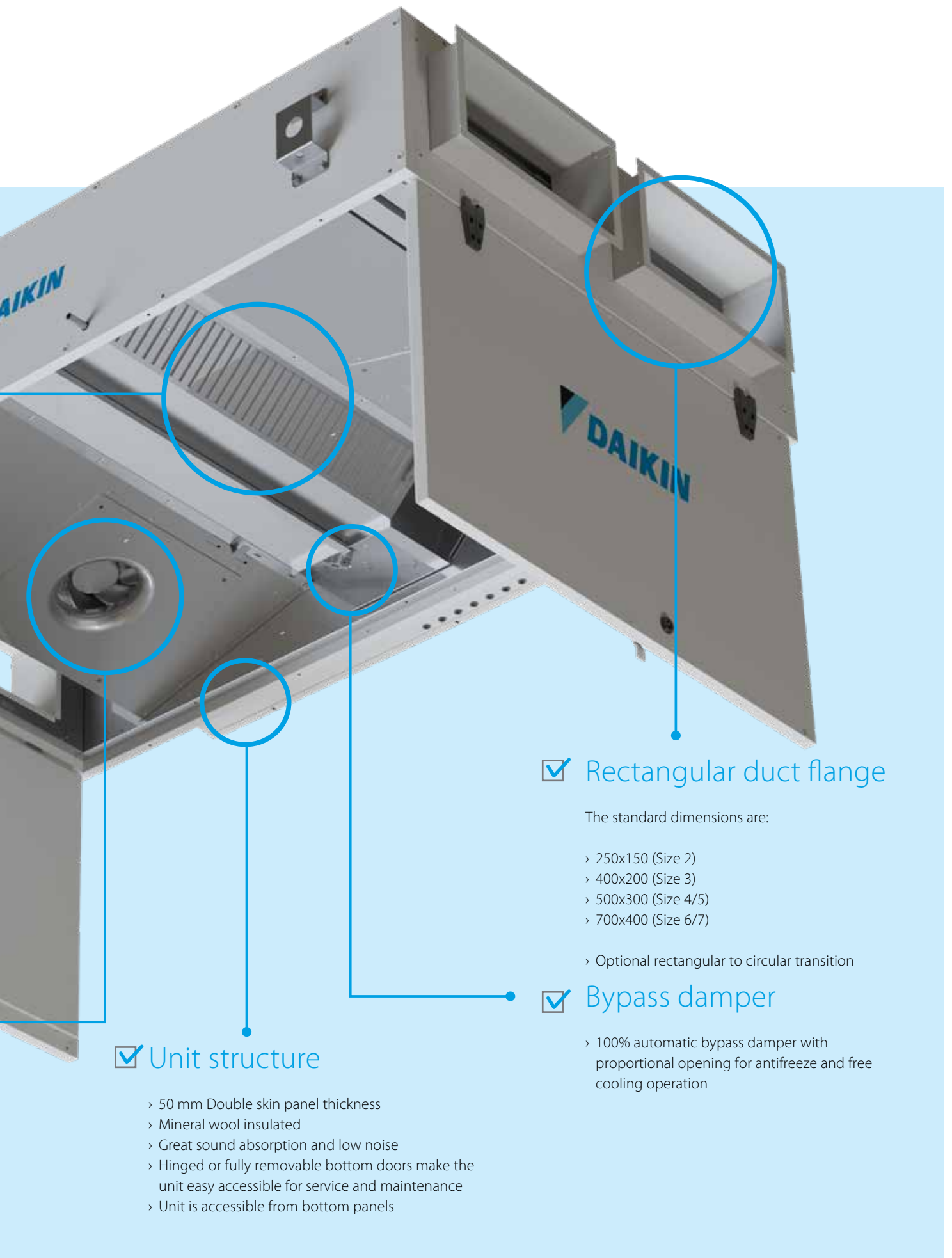
*Optional additional filter and pre-filter stage (G4, M5, F7 or F9)



Supply/Return fan

- › Fan/motor combination with very low noise level
- › Reduced energy consumption
- › Inverter driven with IE4 motor efficiency
- › Infinitely variable speed
- › Ultra-efficient blade profiling
- › Maintenance-free ball bearings
- › No screws or rivets in any part





Unit structure

- › 50 mm Double skin panel thickness
- › Mineral wool insulated
- › Great sound absorption and low noise
- › Hinged or fully removable bottom doors make the unit easy accessible for service and maintenance
- › Unit is accessible from bottom panels

Rectangular duct flange

The standard dimensions are:

- › 250x150 (Size 2)
- › 400x200 (Size 3)
- › 500x300 (Size 4/5)
- › 700x400 (Size 6/7)
- › Optional rectangular to circular transition

Bypass damper

- › 100% automatic bypass damper with proportional opening for antifreeze and free cooling operation



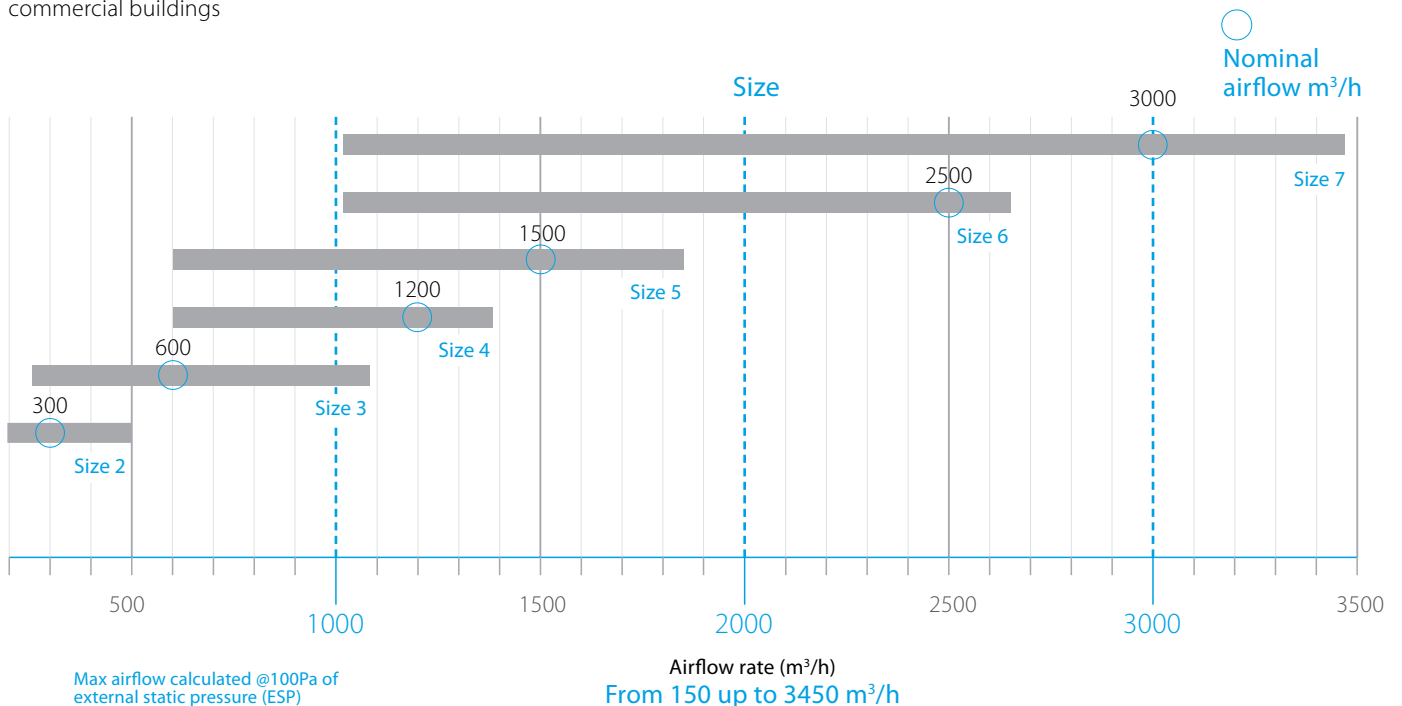
Modular Light

Control logic

- › Unit delivered as a standard with its room thermostat
- › Intelligent defrost logic to reduce energy consumption
- › Air quality analysis with the capability of monitoring and control the actual level of CO₂ optional sensor (accessory)
- › Full automatic bypass to manage free cooling
- › Filter alarm in accordance with the EU Reg 1253
- › Open communication protocols (BACnet and Modbus) that guarantee BMS, iTM and Daikin On Site compatibility

Air flow range

Modular Light is available in 6 sizes covering a wide range of applications such as hotels, offices, schools and light commercial buildings





Association and Certification

Since 2010 Daikin is certified Eurovent, actively working on the development of the certification schemes together with EU legislation.



Since 2015 Daikin is proud member of RLT association , participating to the RLT certification scheme.



Technical details

D-AHU Modular L			2	3	4	5	6	7
Airflow		m ³ /h	300	600	1200	1500	2500	3000
Heat exchanger thermal efficiency ¹ .		%	93	93	93	92	94	93
External static pressure	Nom.	Pa	100	100	100	100	100	100
Current	Nom.	A	0,52	1,17	1,91	2,48	4,39	5,39
Power input	Nom.	kW	0,12	0,27	0,44	0,57	1,01	1,24
SFPv ² .		kW/m ³ /s	1,24	1,49	1,25	1,31	1,42	1,46
ERP compliant			ErP 2018 Compliant					
Electrical supply	Phase	ph	1	1	1	1	1	1
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60
	Voltage	V	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac
Main unit dimensions	Width	mm	920	1100	1600	1600	2000	2000
	Height	mm	280	350	415	415	500	500
	Length	mm	1660	1800	2000	2000	2000	2000
Rectangular duct flange	Width	mm	250	400	500	500	700	700
	Height	mm	150	200	300	300	400	400
Unit Sound Power Level (Lwa)		dB	50	57	57	53	61	58
Unit Sound Pressure Level ³ .		dBA	33	39	39	35	43	40
Weight unit		kg	125	180	270	280	355	360

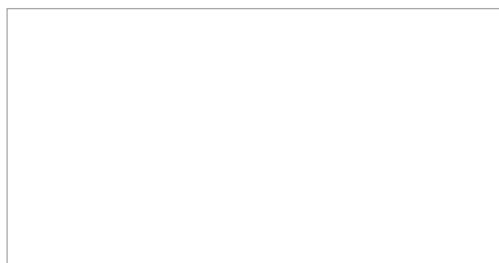
1. Winter design condition: Outdoor: -10°C,90% Indoor: 22°C,50%

2. SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.

3. EN 3744. Surrounding, Directivity (Q) = 2, @1,5m distance



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