



Product Catalogue 06 sec 07 Fan Coil for Passenger Cabins



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APAX-IQ THE SILENT FAN COIL PASSENGER CABINS



**EXTREMELY
SILENT**



**100%
FACTORY
TESTED**

The APAX-iQ is the ultimate in fancoil technology for achieving a better comfort on passenger cabin cruise-ship. APAX-iQ features very compact dimensions, efficient and low-noise operation, due to the energy-saving oriented design and the use of the latest state-of-the-art components for ventilation and cooling/heating capacity control. This fancoil can be customized to fulfil requirements for every ships, even for capacity, functionality and layout integration on specific ship project.

- Main components
- Structure based on self-supporting sandwich panels with double-wall, galvanized steel and polyurethane density 50kg/m2. The polyurethane is certified by a marine register. The structure can include suction/discharge air plenum and the fresh-air air intake duct.
- Water cooling coil with copper tubes mechanically expanded copper fins, with brass nipples on a frame in AISI 316L.
- EC centrifugal fan statically and dynamically balanced, double-inlet type, EC-Motor with IP44 which permits stepless speed control (conformity CE; EN60335-1).
- Condensate drain pan in AISI 316L with V-bottom externally insulated with closed cell insulation material (HF - Halogen Free).
- Electric heater steel AISI 304 with double insulation.
- Air filter class EU3 polyester resin frame and galvanized steel wire guard, removable from front, fireproof class F1 (DIN 53438).
- 2-Way pressure independent balancing and control valve (PIBCV) Danfoss AB-QM.
- Fresh-air volume flow limiter valve.
- IP44 Electric control box which includes- FCU controller and - electric heater safety thermostats with manual and automatic reset (compliance with IEC 60439-1).



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- IP44 Electric control box which includes- FCU controller and - electric heater safety thermostats with manual and automatic reset (compliance with IEC 60439-1).
- Automatic FCU controller including RS485 for BMS communication network.
- Room thermostat available on digital or knob type versions.

PERFORMANCES

The APAX-iQ product range is available on 3 models, PAX-A, PAX-B and PAX-C with:

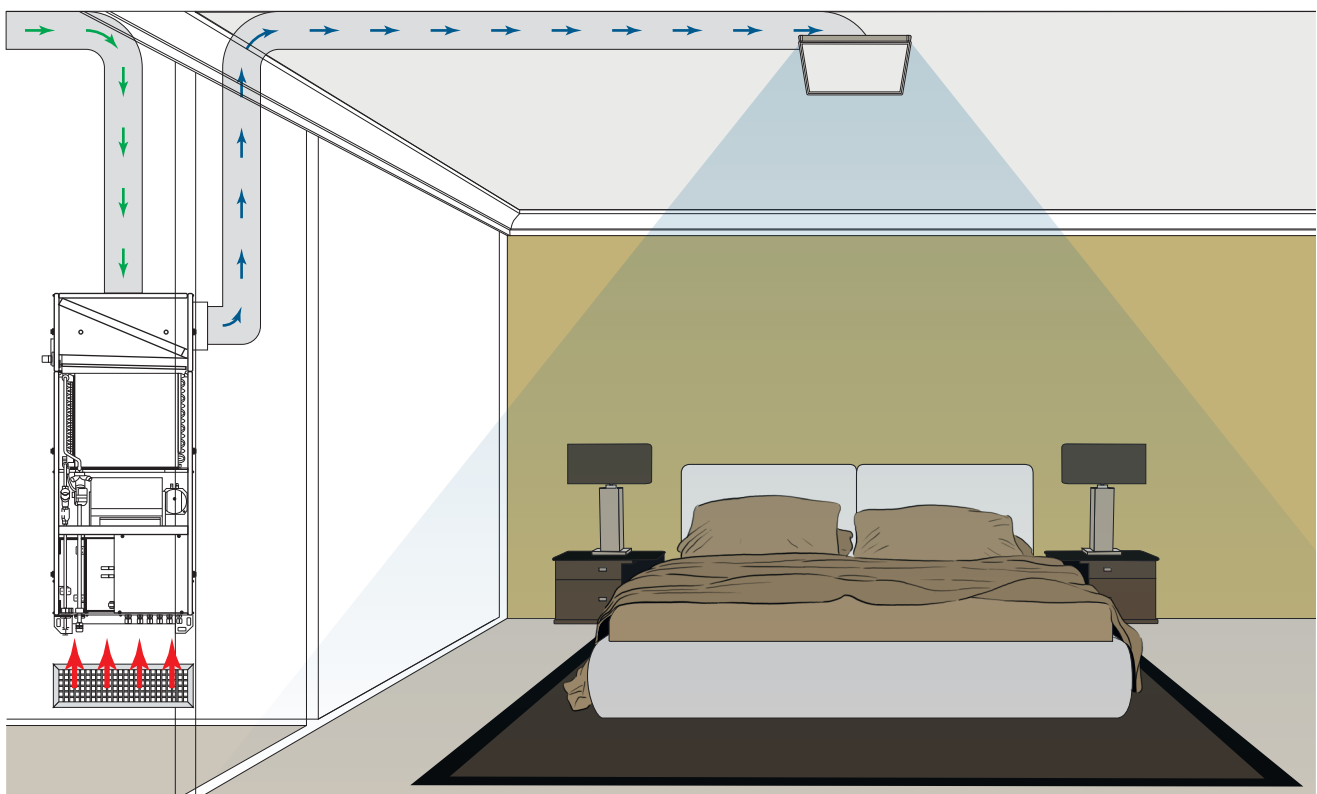
- Air Volume (External Static Pressure): 200 ÷ 600 m³/h (ESP 50 – 200 Pa)
- Total Cooling Capacity: 0,5 ÷ 1,9 kW (*)
- Heating Capacity: 0,5 ÷ 1,5 kW (*)
- Power supply: 220 V/1Ph/60/50Hz

(*) Water 6/14 °C, room air 24 °C - Cooling capacity are according with standard EN1397: 2016 "Heat exchangers – Hydronic room fancoil units – Test procedures for establishing the performance" and with document Eurovent Certification Program (RS 6/C/002A RATING STANDARD for CERTIFICATION of Ducted FAN COIL UNITS)

DIMENSIONS

All APAX-iQ models have same overall dimensions with 440 mm Width, 260 mm Depth and 1100 mm Height.

PRINSIPAL DRAWINGS



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1. PERFORMANCE

The nominal maximum performance of cabin fan coil units are the following for the 3 different size provided:

FCU Model	Air flow rate [m ³ /h]	Sensible cooling capacity [W]	Total cooling capacity [W]	Total heating capacity (*) [W]	Usefull static pressure [Pa]	Electrical loads for fans [W]
PAX A	252	800	830	950	145	60
PAX B	327	1100	1150	1200	145	60
PAX C	540	1600	1650	1500	160	160

- Cooling: Water temp. 6°-14°C / Air cabin temperature 23 °C, 50% H.R. (fan at the max speed)
- Electrical loads for fans at max speed and nominal usefull static pressure
- Electrical loads for electrical heater is equal to the total heating capacity
- Power supply: 230 V/1Ph/60Hz
- EC – EC-Fan (brushless fan motor)

(*) Could be changed

Sensible cooling capacity are declared according with standard EN1397:1998 "Heat exchangers – Hydronic room fan coil units – Test procedures for establishing the performance" and with document Eurovent Certification Program (RS 6/C/002A RATING STANDARD for CERTIFICATION of Ducted FAN COIL UNITS).

2. SOUND POWER LEVEL

SOUND POWER LEVEL, dB(A)	OUTLET	INLET +RADIATED	INLET	OUTLET +RADIATED	CASING
PAX A, PAX B	66.5	59.4	55.5	68.2	54.3
PAX C	71.8	63.2	58.3	73.3	58.3

3. FILTER

Filter class EU3 polyester resin frame and galvanized steel wire guard, removable from front, fireproof class F1 (DIN 53438)

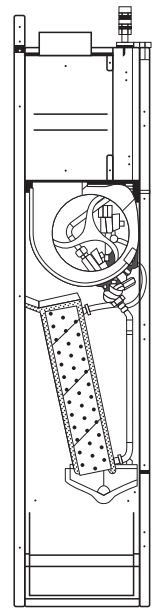
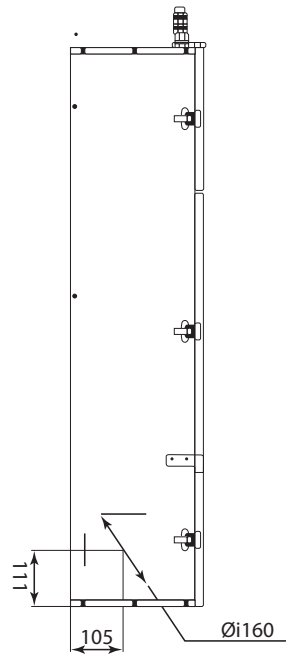
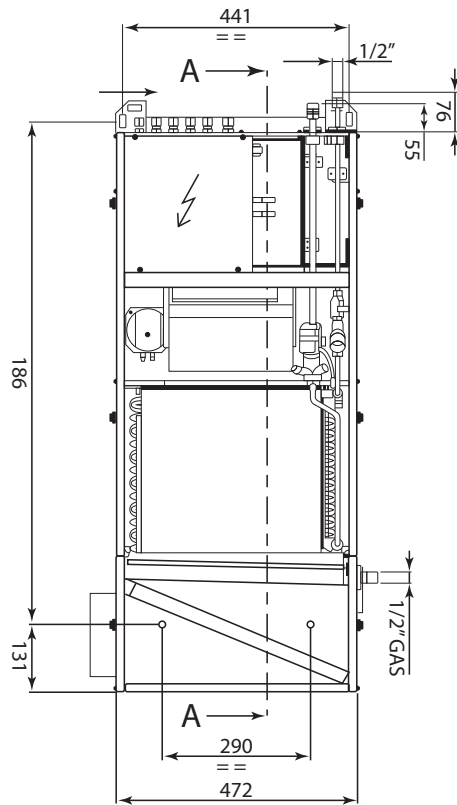
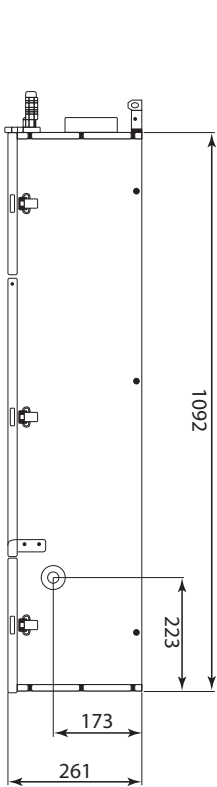
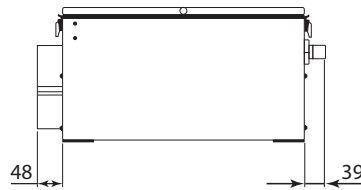
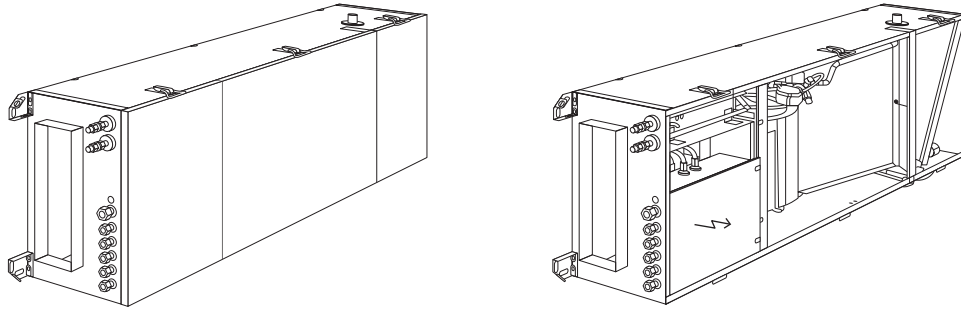
4. COMPLIANCE

Compliance with the essential safety requirements set out in Directive 2006/42/EC.

The machine is designed to conform to the following guidelines:

- 2006/95/EC (Low Voltage).
- 2004/108/EC (Electromagnetic Compatibility)

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SEZIONE A-A

