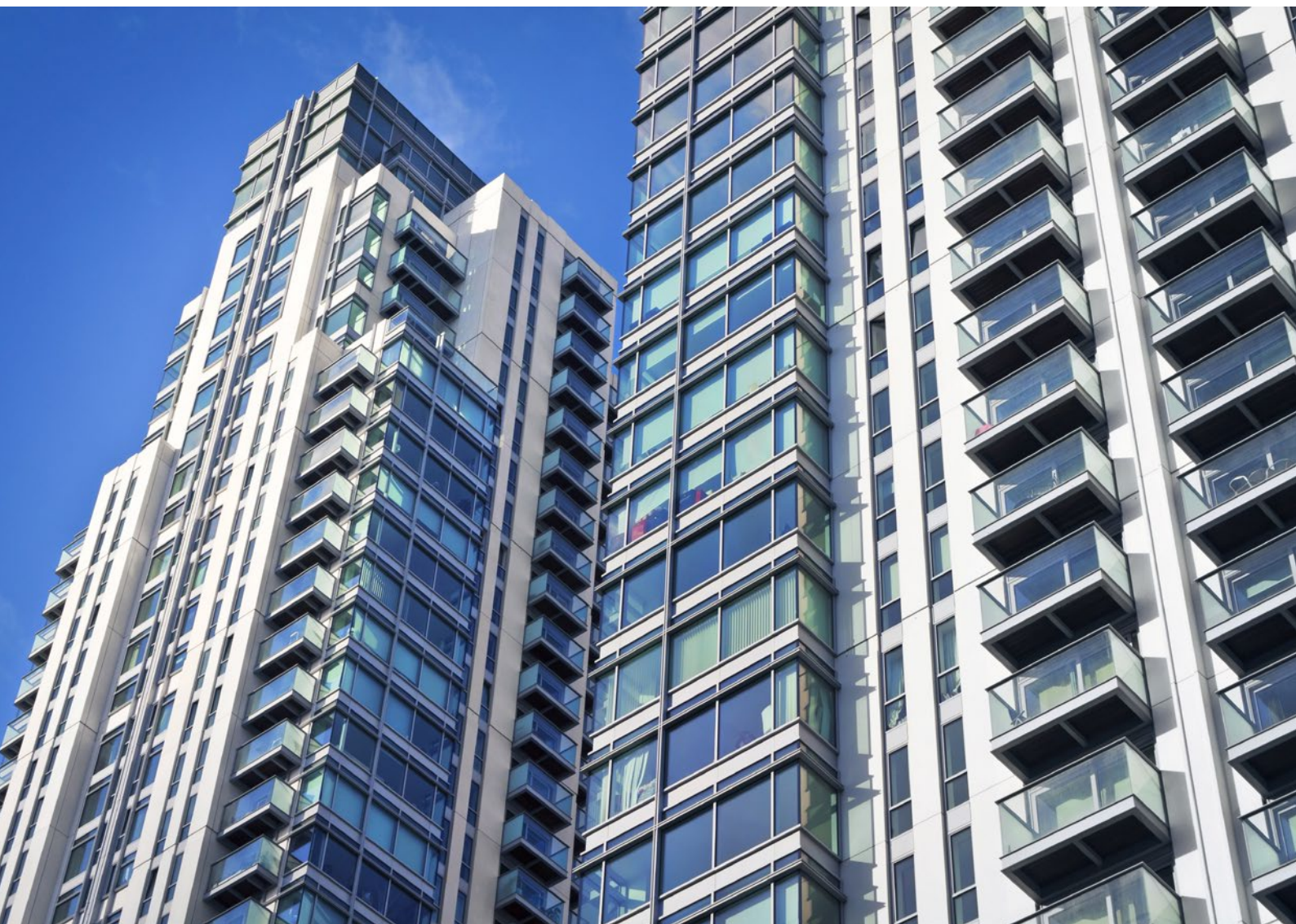




MWZ

Compact air handling unit
1500-9000 m³/h



MWZ



AIR TREATMENT ENHANCING QUALITY OF LIFE.

Compact air handling unit for indoor and outdoor installation.

MWZ is the new Compact Air Handling Unit for professional and commercial applications by Mitsubishi Electric Hydronic & IT Cooling Systems SPA.

MWZ features high configuration flexibility and a wide range of accessories to offer the perfect solution for any installation requirement.



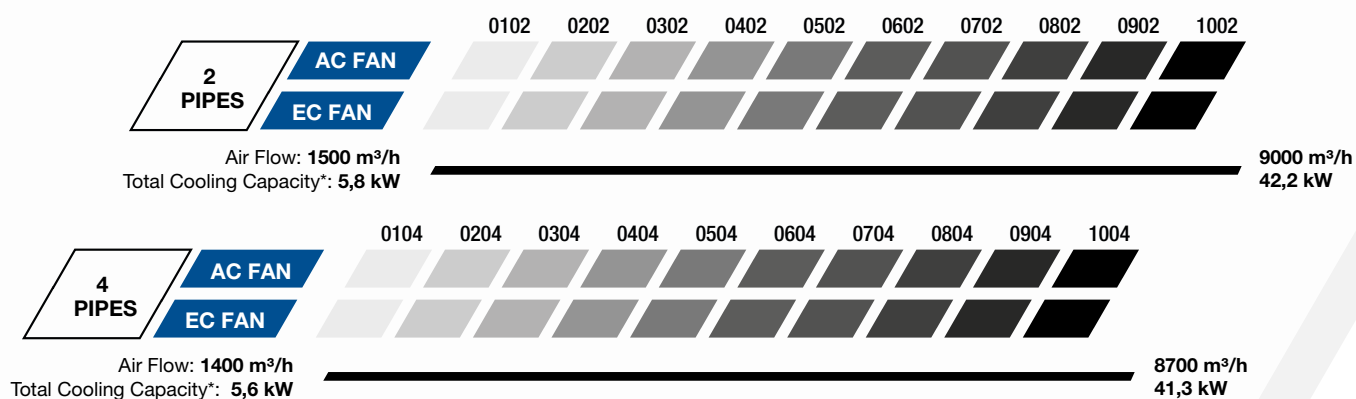
COMFORT APPLICATIONS

- ✓ Hotel
- ✓ Office building
- ✓ Health Facilities
- ✓ Small commercial applications
- ✓ Banks

THE RANGE

The range can be equipped with AC motor or with modulating EC brushless motor and is available in different versions: the perfect solution for any system request.

VERSIONS



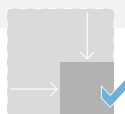
Indoor air temperature 27°C, RH 47%. Water (in/out) 7°C/12°C. Unit in air recirculation mode (Mix 0%)
Base unit in configuration: flat filter + fan + standard main coils

MWZ is the versatile and modular air handling unit. A solution for any installation needs.

HIGH CONFIGURABILITY

MWZ is designed to allow a complete customization of the unit. The full set of modules and accessories makes MWZ the perfect solution for any installation requirements.

HIGH EFFICIENCY IN A SMALL FOOTPRINT



The compact and rational design makes MWZ suitable for reduced spaces. Attention has been paid to the mechanical details in order to guarantee a minimum footprint maintaining maximum robustness and functionality, MWZ offer a quality-price ratio with no comparison.

PERFECT AIR QUALITY

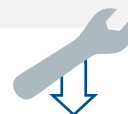


MWZ can provide complete air treatment and a high efficiency filtration. The unit can be equipped with 3 different filters:

- ✓ flat filter
- ✓ corrugated air filters
- ✓ filter rating pocket air filters

The perfect air quality is combined with the advantage of reduced acoustic emissions.

QUICK & EASY INSTALLATION



A vast array of already mounted options together with the smart unit design ensures a quick installation as well as easy maintenance operations.

The units can be equipped with several options to be easily adapted to the most different applications:

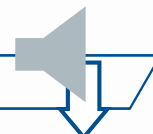
CONTINUOUS CAPACITY MODULATION

HIGH EFFICIENCY



The EC motor technology allows continuous, airflow and capacity modulation so that the unit can easily follow any variation in the thermal load. The extreme efficiency offers a reduction in energy use in comparison to a traditional AC fan. EC fan coil units are key in cutting the yearly energy consumption and related cost of buildings.

VERY SILENT OPERATION



Designed for the maximum acoustic comfort, the unit operates always at the lowest fan speed to keep the temperature set-point stable and ensure low noise emissions.

INSTALLATION

HORIZONTAL



PVBO

Low air intake horizontal installation.



FVBO

Front air intake horizontal installation.

VERTICAL



FVBV

Front air intake vertical installation vertical air supply.



FVBF

Front air intake vertical installation front air supply.

TECHNICAL OVERVIEW

STANDARD COMPONENTS

BASE UNIT

MWZ are the new Compact Air handling Units from Mitsubishi Electric hydronic and iT Cooling systems SpA, with high configuration flexibility and compact dimensions, for installation in commercial and services applications.

STRUCTURE

20 mm sandwich panel, with galvanised sheet metal on the inside and painted (RAL9002) galvanised sheet metal on the outside, with high-density fibreglass filling. Optional ceiling/wall fastening brackets for horizontal installation.

FAN ASSEMBLY

Centrifugal fan with double-sided intake (forward curved blades). 3-speed AC motor or high efficiency EC fan for continuous capacity modulation.

HEAT EXCHANGER

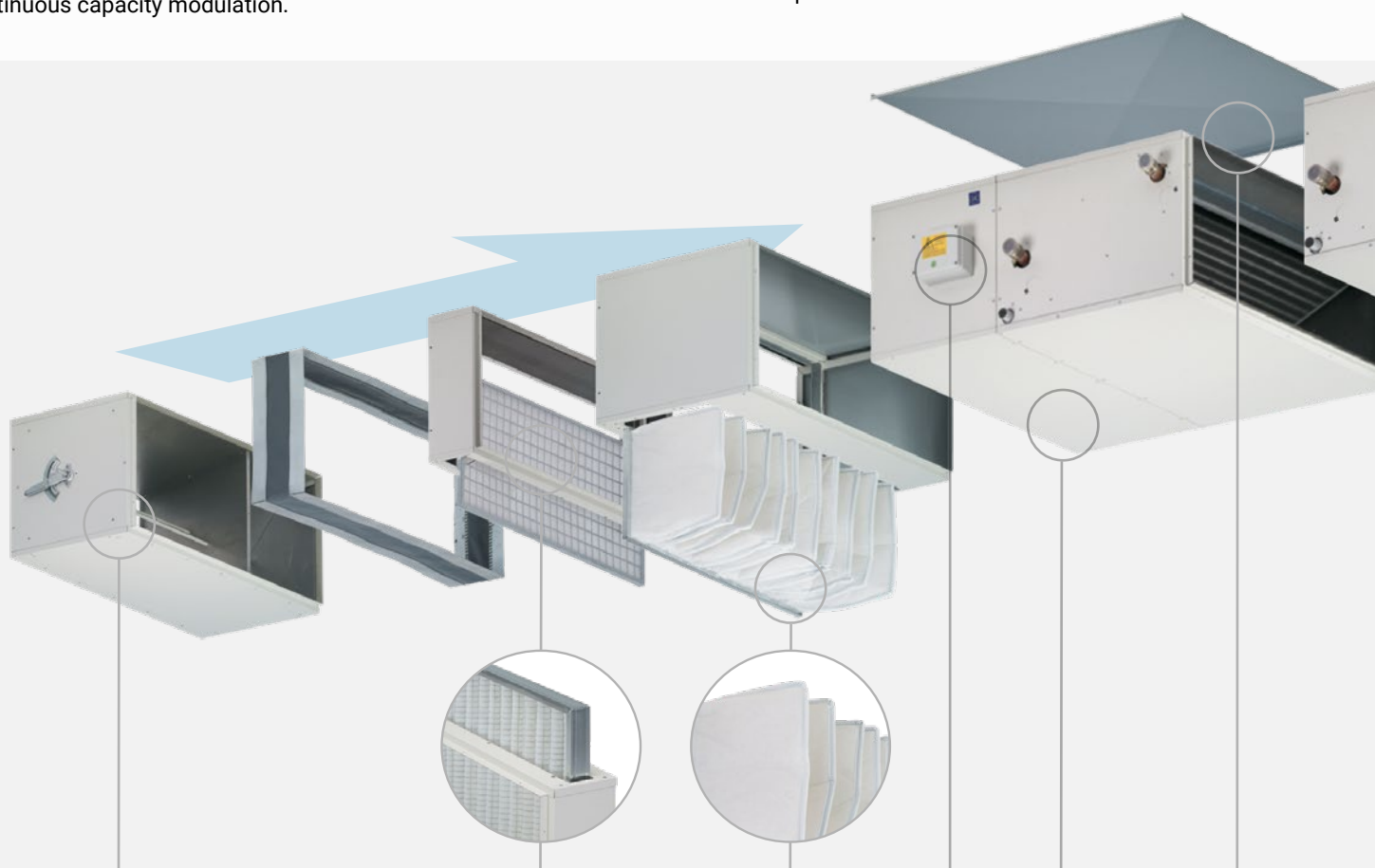
Copper pipes and aluminium fins heat exchanger coil (main coil 3-4 rows; secondary coil 2 row for 4-pipe units). Can be equipped with 2-way or 3-way valve, with ON-OFF or modulating actuator.

CONDENSATE DRAIN PAN

Condensate collection pan for vertical or horizontal installation with thermal insulation. Horizontal/vertical condensate drain pumps available as options. Auxiliary Galvanised metal condensate collection pan with thermal insulation.

AIR FILTERS

Unit is supplied without air filters. Several filtering options are available as options.



**Mixing Chamber
for internal/
external air.**

Corrugated Filter
High Efficiency Filters
with corrugated
structure for a better
air filtration.

Bag filters.

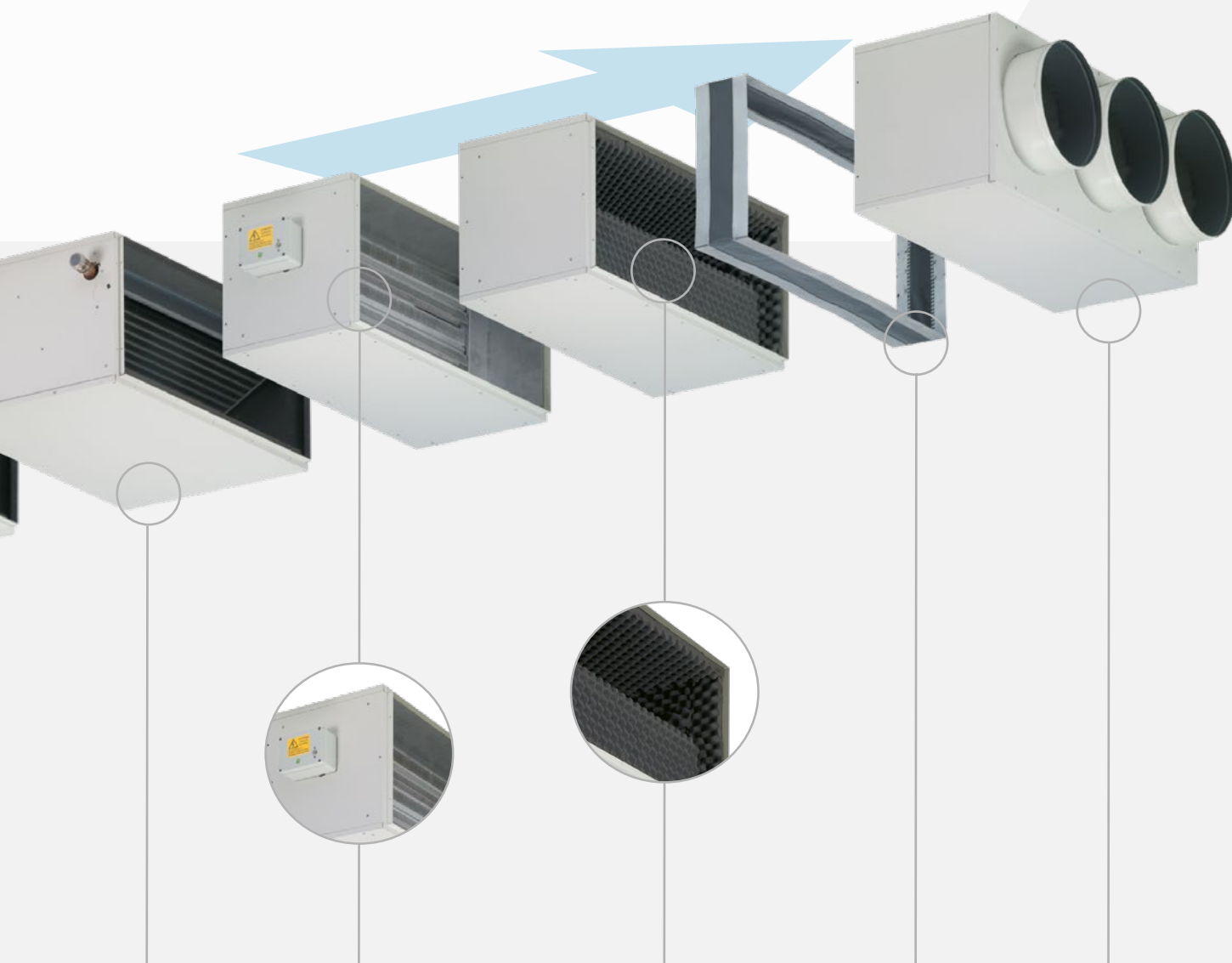
**Electrical
box.**

**Base
unit.**

Rain Cover
Rain cover for
units with external
installation.

OPTIONAL ACCESSORIES AND ADDITIONAL MODULES

The image shows an example of configuration of some accessories available to the base unit.



**Additional 2R
Coil section.**

**Electrical Heater
Section**

Electrical Heater of various capacities up to 18 kW, supplied with relè and safety thermostat.

Noise attenuator Section

Noise attenuator Section with double layer, with internal PE material of closed cell, which guaranties sound levels conform to the installation needs.

**Antivibration
junction.**

**Circular
Plenum
Section.**

CONTROLLERS

MWZ can be connected to the Climaveneta remote controls range



SmarT 1C
Advanced remote control



ATW
wall mounted thermostat



ATW-EC
wall mounted thermostat



EKW
wall mounted thermostat
(available in coupling with
HB or i-HB power board)



iKW Wall mounted
programmable thermostat
(available in coupling with
HB or i-HB power board)



**IR REMOTE
CONTROL**
(available in coupling with HB
or i-HB power board)

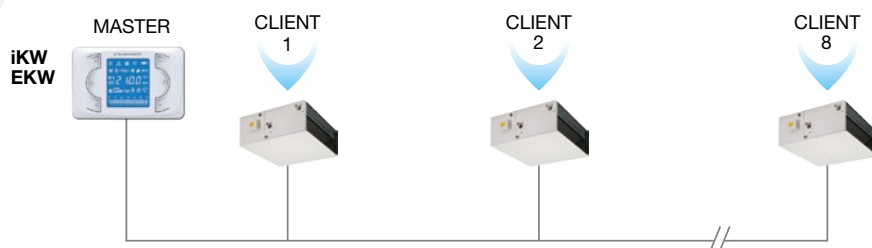
	ATW	ATW-EC	EKW + (i)HB	iKW + (i)HB	SmarT 1C	IR
PCB on board FCU	Not required	Not required	Necessary	Necessary	Not required	Necessary
Operating modes selection	✓	✓	✓	✓	✓	✓
Fan speed control _ AC motor (Max/Med/Min / AUTO)	✓	✗	✓ With i-HB card	✓ With i-HB card	✓	✗
Fan speed control _ EC motor (1-10Vdc / AUTO)	✗	✓	✓ With i-HB card	✓ With i-HB card	✓	✓
ON/OFF valve	✓	✓	✓	✓	✓	✓
0-10V modulating valve	✗	✗	Optional card	Optional card	Integrato	✗
Integration in BMS systems	Optional device (Modbus only)	✗	Optional card (Modbus only)	Optional card (Modbus only)	✓ Integrated (Modbus or BacNet)	Optional card (Modbus only)
Master-Client system	✗	✗	✓ Max 8 units	✓ Max 8 units	✗	✓ Max 20 units
Weekly program	✗	✗	✗	✓	✓	✗
Display	✗	✗	✗	LCD	TOUCHSCREEN	✓

The units with AC motor need SPB or SDI kits, according to unit size

	0102/4	0202/4	0302/4	0402/4	0502/4	0602/4	0702/4	0802/4	0902/4	1002/4
SPB	✓	✓	✓							
SDI				✓	✓	✓	✓	✓	✓	✓

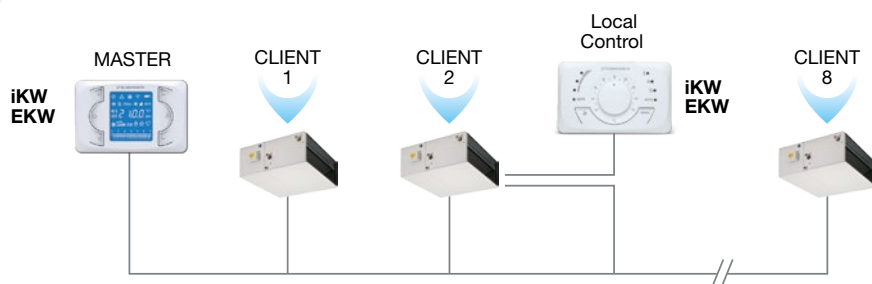
MULTIPLE CONNECTIONS

Integration in a Master / Slave network up to 8 units



All units are equipped with HB or i-HB power board.

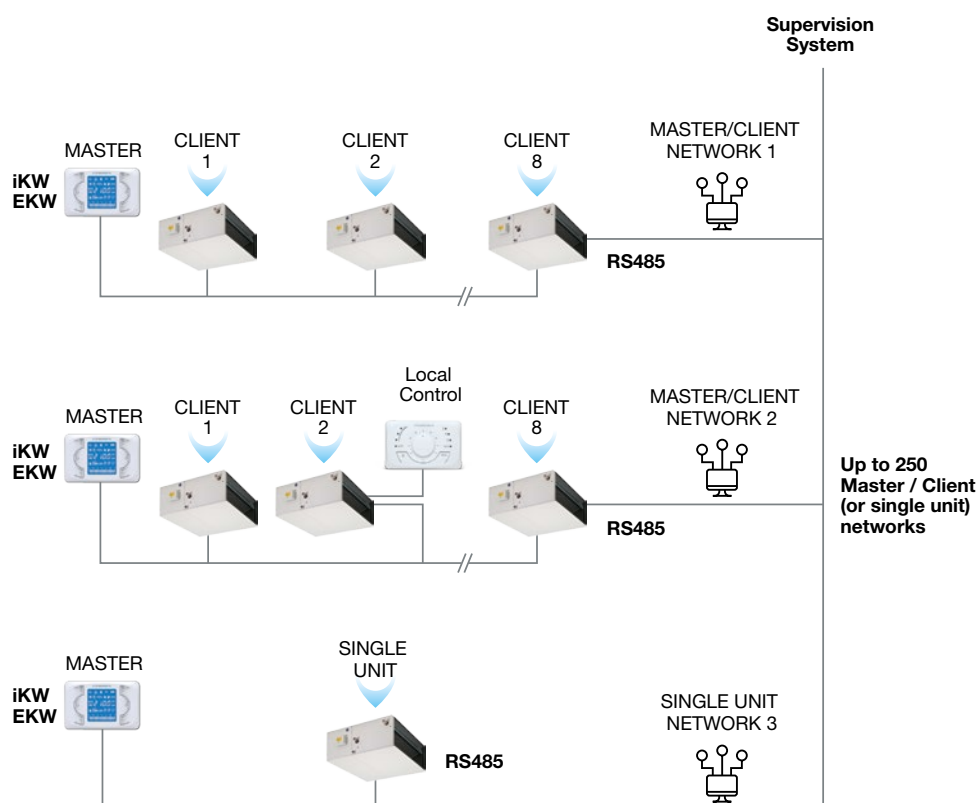
Integration in a Master / Slave network up to 8 units with local control



All units are equipped with HB or i-HB power board.

The local controller manages the connected unit by setting: set-point ($\pm 2^\circ\text{C}$ set-point compared to the master control), local On/Off, fan speed.

Integration in a supervision system Modbus RTU



All units are equipped with HB or i-HB power board.

The RS485 board is installed in one unit of the network.

“ EXPERIENCE IS BY FAR THE BEST PROOF”

Sir Francis Bacon

British Philosopher (1561 - 1626)

Falkensteiner Hotel Jesolo

Jesolo - Italy (2015)

Application:

Hotel and resorts

Plant type:

Hydronic System

Cooling capacity: 1400

Heating capacity: 1422

Installed machines:

9x WIZARD, 1x HWD 101,
2x ERACS2-Q/-/XL-CA 2722,
1x MANAGER 3000

Architect: Meyer/ Thun

Designer: Studio Saind

Installer: Atzwanger





PROJECT

The last property opened by Falkensteiner Group is the 5-star Hotel & Spa in Jesolo, belonging to the Premium Collection category. The architectural project of the building was designed by the internationally renowned architect Richard Meier from New York. The interior spaces have been designed by the architect Matteo Thun, who on the contrary preferred strong colors, inspired by Miami's Art Deco.

CHALLENGE

A modern and sophisticated location such as the new Falkensteiner Hotel & Spa in Jesolo could not overlook a very important aspect for guests: the indoor comfort.

SOLUTION

The air conditioning system of the new hotel is based on 2 multi-purpose units belonging to the INTEGRA range ERACS2-Q/-/XL-CA 2722, 9 Air Handling Units of the WIZARD series and one MANAGER 3000 control, all supplied by Climaveneta. The multi-purpose units have been selected because they are able to simultaneously produce hot and cold water. From a careful energy analysis on the building, it has come to light that by installing INTEGRA units it thus is possible to get a CO2 emissions cut of 40% with respect to traditional systems and 23% compared to a heat pump + boiler system. Thanks to the great savings already achieved in the first period, the payback for this kind of system is 2 years.

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The equipment described in this catalogue contain fluorinated HFC gasses with a GWP >1.
Installation of those equipment must be executed by professional installer based on EU reg. 303/2008 and 517/2014

BROCHURE / GUIDA

Abcdefg

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