

mitsubishi electric
HYDRONICS & IT COOLING SYSTEMS S.p.A.

COMFORT

HYDRONIC TERMINALS

a-CXW

i-CXW

**CASSETTE INDOOR UNIT
FROM 1,9 TO 10,9 kW**



a-CXW

i-CXW

HIGHLY DEVOTED TO YOUR COMFORT



Cassette indoor unit from 1,9 to 10,9 kW.

Today comfort has a new name: a-CXW and i-CXW. The new range of cassette units is developed to provide excellent performance in terms of efficiency, silent operation, and flexibility.

Thanks to the elegant design of the air diffuser and the wide range of controls for single or multiple connections, the a-CXW / i-CXW cassettes are suitable for all kinds of installations.

COMFORT APPLICATIONS

- ✓ Hotels
- ✓ Office buildings
- ✓ Health Facilities
- ✓ Small commercial applications
- ✓ Banks

PERFECT COMFORT

The new a-CXW / i-CXW cassette sets new standards for both indoor comfort and efficiency. The a-CXW range with 3-speed AC fan is available in 7 sizes, providing the best option in terms of price/performance. The i-CXW range with EC fan, available in 5 sizes, ensures the perfect modulation to meet the thermal loads in the environment thus always offering uncompromised energy and acoustic performance.



VERSIONS

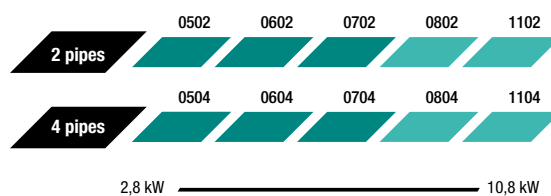
The units are available for installation in 2 or 4-pipe systems and in two sizes to meet any kind of installation requirement: the smaller one fits perfectly into false ceiling standard modules for easy installation and maintenance.

a-CXW with AC fans



Total cooling capacity at maximum speed: 12°/7° inlet/outlet water temperature; 27° (19°C) Air temperature [inlet dry bulb (inlet wet bulb)]

i-CXW with EC fans



Dimensions 575x575x275 mm 820x820x303 mm

The perfect synergy between comfort, design, and reliability.

DESIGN

The 4-way cassette a-CXW/i-CXW offers an elegant and clean design to meet the requirements of modern residential and commercial architecture. The curvy silhouette of the air diffuser perfectly fits in any environment, adding refined aesthetics to any interior.



CONTINUOUS CAPACITY MODULATION

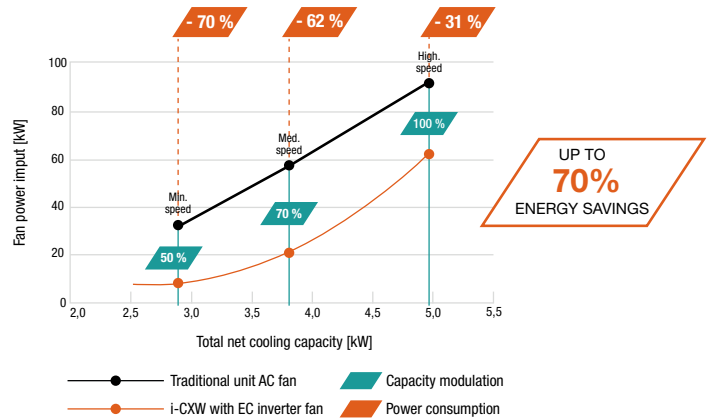


Extreme efficiency

The inverter technology allows continuous, stepless 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: up to 70% in comparison to a traditional AC fan.

Maximum acoustic comfort

Designed for the maximum acoustic comfort at all fan speeds. The unit operates always at the lowest fan speed to keep the temperature set-point ensuring low noise emissions.



COMPLETELY RELIABLE OPERATION



All components used in the a-CXW and i-CXW range are in line with the high quality standards of Mitsubishi Electric Hydronics and IT Cooling Systems.

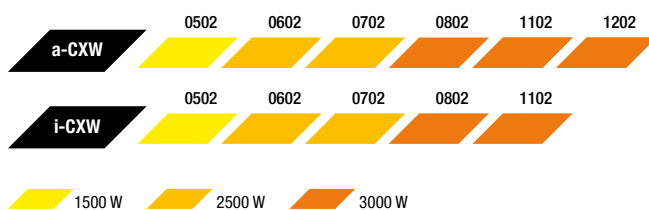
QUICK & EASY INSTALLATION



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

VERSION WITH INTEGRATED ELECTRIC HEATER

The cassette a-CXW and i-CXW, 2-pipe versions, are available with a factory mounted electric heater (option), which is perfectly integrated within the coil pipes.



The electric heater is automatically controlled in place of the hot water valve.

TECHNOLOGICAL CHOICES

AIR FILTER

Synthetic washable filter, easily removable for cleaning and maintenance.

STRUCTURE

Casing made of galvanized steel with internal thermal insulation in polyethylene foam (class M1) and external anti condensate lining.

CONTROL PANEL

External box with the control electronic card with an easily accessible terminal board.

The units can be supplied with integrated HB/i-HB power board.

FAN ASSEMBLY

Thanks to a fan assembly mounted on anti-vibrating supports, the a-CXW and i-CXW cassettes offer efficient and silent operation up to -5 db(A) sound pressure in comparison to a standard cassette.

a-CXW

AC electric motor with 3 fan speeds available.

i-CXW

EC electronic motor controlled by an integrated inverter (on board).

AIR INTAKE AND DISTRIBUTION

4-way grid made of ABS, in elegant white colour. (supplied loose)
Manually adjustable air distribution louvers on each side.

STYLISH GRILLE

Optional metal diffuser, Coanda effect.

Elegant design and RAL 9003 white colour, it perfectly fits into the false ceiling standard modules without overlapping parts.



**Climaveneta brand, quality in every detail.
Extreme efficiency and absolute reliability: the secret formula is
cutting-edge technologies and profound know-how.**

CONDENSATE COLLECTION TRAY AND PUMP

- ✓ Built-in centrifugal pump with 650 mm of maximum head and float switch, wired to the control panel
- ✓ Condensate collection tray in high density ABS
- ✓ Additional drain pan supplied standard with the units

VALVES (OPTION)

Factory mounted two or three way ON/OFF valves, with thermostatic actuator

COIL

Coil made of copper tubes with bonded aluminum fins for maximum heat transfer efficiency.
Integrated electric heater available for 2-pipe units (optional).

MANY ACCESORIES TO CUSTOMISE YOUR CASSETTE

a-CXW and i-CXW are available with a great number of accessories in order to perfectly answer all installation requirements.

Factory mounted options

- ✓ Integrated electric heater.
- ✓ Two or three way ON/OFF valves, with thermostatic actuator.
- ✓ HB/ i-HB power board for multiple connection in Master/Slave configurations.
- ✓ Kit RS485 - interface for Building Management System.

Loose options

- ✓ Wall mounted controls
- ✓ Two or three way ON/OFF valves, with thermostatic actuator.
- ✓ Speed selector kit for a-CXW for the connection in parallel of units to a single thermostat (ATW type) selector.
- ✓ Fresh air renewal connection
- ✓ Duct Connection Flange (Two air supply outlets are provided on the side for additional air distribution in adjacent rooms).

CONTROLLERS

A wide range of wall-mounted controls for managing the fan coil units. Each device can be easily integrated in any home automation system, centralized HVAC plant, or BMS.

COMPATIBILITY

	a-CXW	i-CXW
ATW	✓	
ATW-EC		✓
EKW	✓*	✓*
iKW	✓*	✓*
IR REMOTE CONTROL	✓*	✓*
SmarT 1C	✓	✓
SmarT D+SmarT PCB	✓	✓

* with HB/iHB power board



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)



SmarT 1C
Advanced remote control

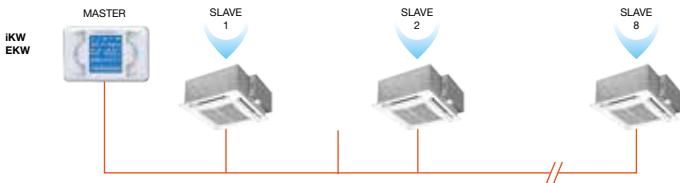


SmarT D+SmarT PCB
Advanced remote control

	ATW	ATW-EC	EKW + (i)HB	iKW + (i)HB	SmarT 1C	SmarT D + SmarT PCB	IR
PCB on board FCU	Not required	Not required	Necessary	Necessary	Not required	Necessary	Necessary
Operating modes selection	✓	✓	✓	✓	✓	✓	✓
Fan speed control _ AC motor (Max/Med/Min / AUTO)	✓	✗	With HB card	With 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	Integrated	Integrated	✗
Integration in BMS systems	Optional device (Modbus only)	✗	Optional card (Modbus only)	Optional card (Modbus only)	Integrated (Modbus or BacNet)	Integrated (Modbus or BacNet)	Optional card (Modbus only)
Master-Client system	✗	✗	Max 8 units	Max 8 units	✗	Up to 63 units	Max 20 units
Weekly program	✗	✗	✗	✓	✓	✓	✗
Display	✗	✗	✗	LCD	Touchscreen	Touchscreen	✓

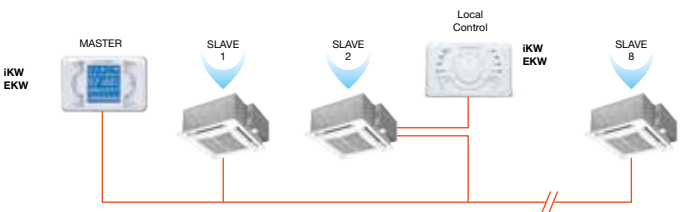
MULTIPLE CONNECTIONS

Integration in a Master / Slave network up to 8 units



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

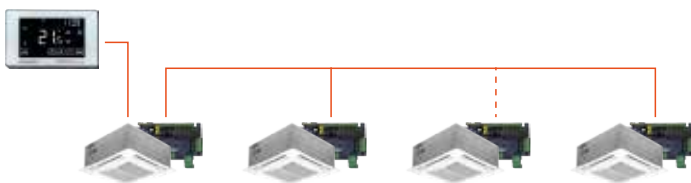
Integration in a Master / Slave network up to 8 units with local control



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

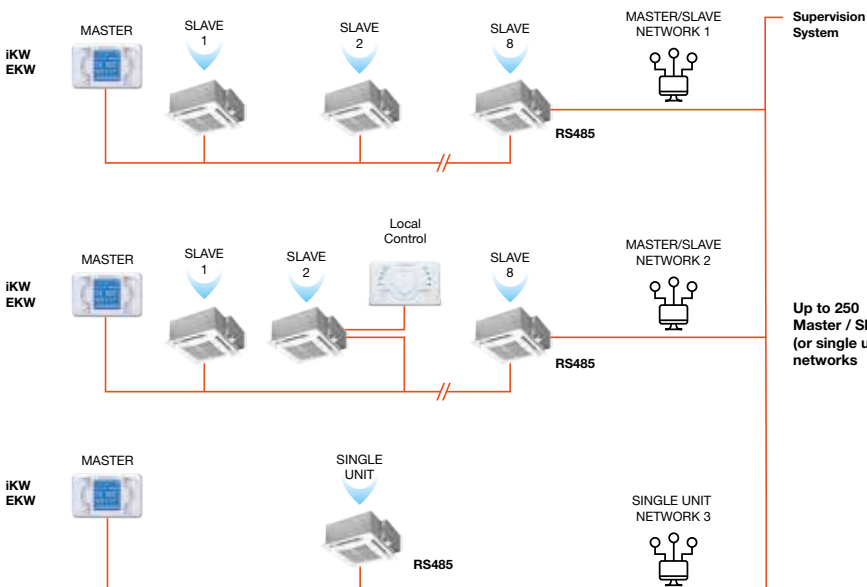
The local controller manages the connected unit by setting: set-point ($\pm 2^{\circ}\text{C}$ set-point compared to the master control), local ON/OFF, fan speed.

Integration up to 63 units in Master/Client system



Possibility to create a network of FCUs connected together. **MASTER UNIT** should be equipped with Smart PCB + Smart D, while **CLIENTS** need only Smart PCB. The **maximum number of units in a single network is 63 FCUs** ([1] MASTER + [2 to 63] CLIENTS).

Integration in a supervision system



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

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

Also with **Smart PCB** card the unit can always be integrated into BMS systems, thanks to the **embedded RS485** port.

The PCB includes two communication protocols: Modbus and BACnet

Up to 250 Master / Slave (or single unit) networks



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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