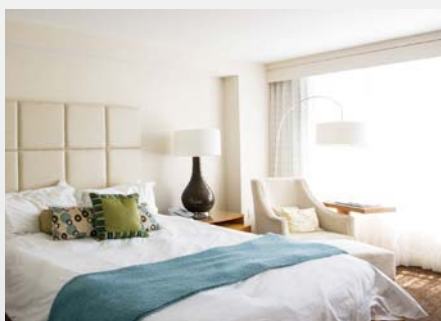


i-CHD / a-CHD

i-CHD New generation cassette with EC high efficiency motor. Centrifugal fan with continuous air flow regulation and speed modulation. Energy consumption reduced by more than 50%.

a-CHD New cassette with traditional 5 speed motor.



Perfect comfort



Reduced Consumption



Silent operation

i-CHD / a-CHD

A new way to live comfort

The new i-CHD/a-CHD range has been specifically developed to be adapted to every ambient thanks to its modern and minimal design, which is a result of the full experience and know-how of the Climaveneta brand.

Perfect Comfort

The new i-CHD cassette is synonym of real comfort and lowest operating costs. The brushless motor ensures the perfect adaptation to the thermal load in the ambient, and reduces the temperature fluctuations comparing to set point parameters.

Centrifugal fans operate through a continuous air flow modulation, with no speed steps or relay switching as traditional fan coil units.

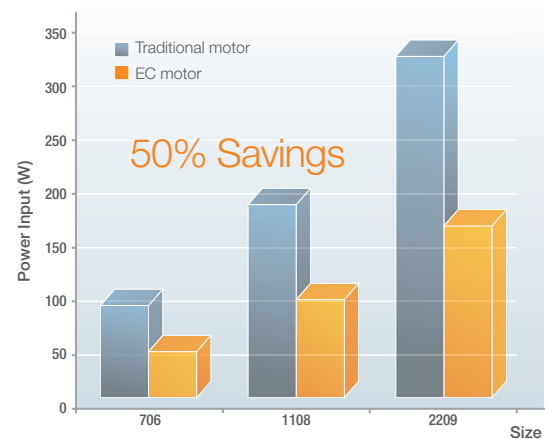


Reduced Energy Consumption

The i-CHD unit features an electrical absorption 50% lower than traditional cassette of the same size.

The advantages of this increased efficiency are enhanced over the whole operating year, making available the saved energy for other components of the system, or improving the building energy efficiency ratio.

Energy Consumption at medium speed



Complete Integration

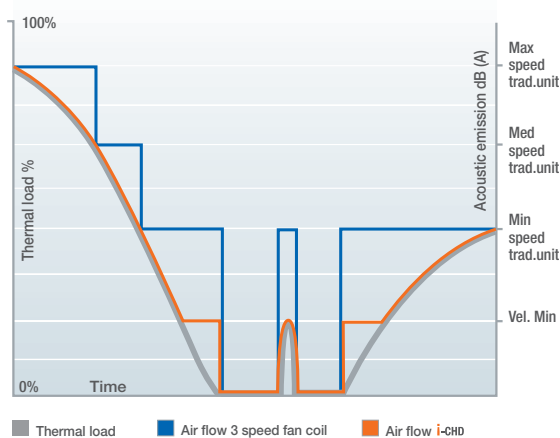
The i-CHD cassette offers a wide versatility and easy installation. User-friendly interface of the controller with the LCD screen allows the full management of all operating conditions.

Furthermore, it is possible to integrate i-CHD units in Master / Slave networks and Building management system (e.g. Idrorelax). i-CHD interfaces guarantee a quick and simple installation thanks to only two wires connection.



Comfort, efficiency and integration without compromise

Today comfort has a new name: i-CHD. The new generation cassette featured by high efficiency, low noise and integration capability.



Silent Operation

Thanks to the continuous fan speed modulation, the noise produced in order to keep the temperature set-point is extremely low.

The adaptation to new set values or different loads is carried out by the gradual variation of fan speed. The acoustic emissions mingle therefore with the background noise and are almost imperceptible to human ears.

Ease of installation and maintenance

From the moment of the installation, the management and the maintenance is made simple and intuitive. All the main parts can be easily accessed through the front grille:

- Easy removable air filters
- Manual air valve with outlet connected to the plastic condensate collecting tray
- Condensate drain pump with 500 mm working head, complete with float
- Set-up for fresh air intake
- Set-up for duct air distribution

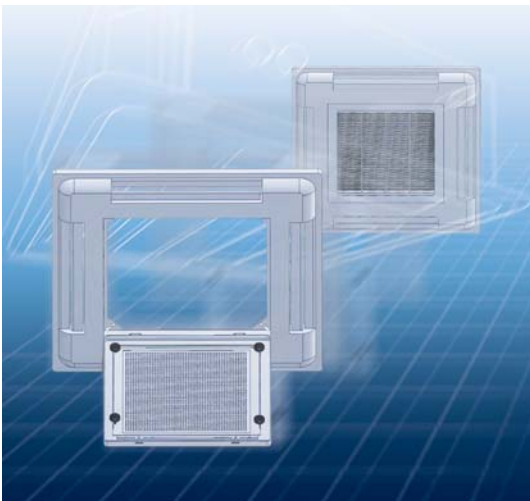
Design

i-CHD/a-CHD are advanced solutions for the requirements of modern residential and commercial architecture, even more sensible to design and aesthetics.

Featured with a simple and refined design that perfectly fits to any ambient, i-CHD/a-CHD only use high quality materials.

The units are now available in three sizes in order to meet any kind of installation requirement:

- 60x60cm
- 80x80cm
- 90x90cm



i-CHD / a-CHD



A new way to live comfort



Frame

Frame in galvanised steel insulated with self-extinguishing closed-cell polyethylene blanket of suitable thickness, to limit heat loss and noise to a minimum.

Front panel and grille are already assembled on the unit. Airflow grille in ABS. Manual and independent louvers adjustable for vertical airflow direction.



Control Box

Plug In Control Box complete of switchboard with power and control terminal block.

Electrical power and control switchboard, complete with electronic air flow regulator and terminal board for connection to network and available remote controls.



Coils

Coil with corrugated aluminum fins and copper pipes, tested with dried air at 14 bar.

A cutting-edge technology that contributes to a better energy efficiency of the product, improving the exchanging of thermal heat.



EC Motor

AC Motor with 5 speed for traditional units.

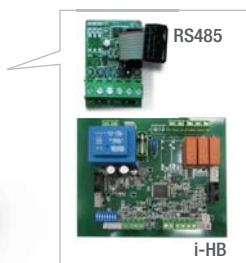
Low consumption EC electric motor that guarantees a precise and continuous control of speed rotation.

The unit results in a reduced power absorption of approximately 50% compared to the traditional ON/OFF motor.



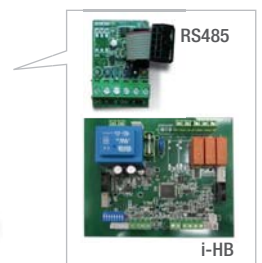
Controllers

i-CHD controllers



EKW wall mounted

Room thermostat, manual- and automatic regulation of fan, manual- and automatic mode, change-over, room- and minimum temperature probes, regulation of electric heater, valves (on/off or modulating), serial connection for mini-network and integration into BMS- or Idrorelax systems. The management and control of all functions is guaranteed by the Power Board Kit-HB. In combination with i-HB is supplied the kit RS485 as interface for centralized management systems.



iK universal

Advanced electronic control with LCD display, room thermostat, manual and automatic regulation of fan, manual- and automatic mode change-over, room and minimum temperature probes, regulation of electric heater, valves (on/off or modulating), serial connection for mini-network and integration into BMS or Idrorelax systems. The management and control of all functions is guaranteed by the Power Board Kit-HB. In combination with i-HB is supplied the kit RS485 as interface for centralized management systems.

Master / Slave Integration

The controllers can be set as:

- **GLOBAL** user interface: the controller acts as the Master and manages operation of all the units. All the fan coils connected to the network will operate in the same mode.
- **PRIVATE** user interface: if one cassette needs to operate in different conditions from the MASTER, the respective controller can work autonomously through a different configuration of the dip switch.



a-CHD / i-CHD controllers *



MTW wall mounted

Room thermostat, fan speed slider, mode slider, room- and minimum temperature probes and regulation of on/off valves.



ATW wall mounted

Room thermostat, manual- and automatic regulation of fan, manual- and automatic mode change-over, room- and minimum temperature probes and command of on/off valves. Malfunction digital contact. Configuration dip switch.

* for 3 speed i-CHD unit only

a-CHD

General technical data

| a-CHD U-2T | | a-CHD 606 | a-CHD 706 | a-CHD 1108 | a-CHD 2209 |
|--------------------------------------|---------|--------------|--------------|--------------|---------------|
| Version | | U-2T | U-2T | U-2T | U-2T |
| Air flow rate | | | | | |
| Vel. 5* | m³/h | 200 | 450 | 700 | 1380 |
| Vel. 3* | m³/h | 290 | 617 | 960 | 1970 |
| Vel. 1* | m³/h | 575 | 810 | 1300 | 2250 |
| Total cooling capacity (1) | | | | | |
| Vel. 5* | kW | 1,41 | 2,70 | 3,57 | 7,69 |
| Vel. 3* | kW | 2,06 | 3,76 | 5,60 | 10,2 |
| Vel. 1* | kW | 3,20 | 4,56 | 6,90 | 11,5 |
| Sensible cooling capacity (1) | | | | | |
| Vel. 5* | kW | 1,11 | 2,15 | 2,96 | 5,52 |
| Vel. 3* | kW | 1,62 | 2,85 | 4,37 | 7,37 |
| Vel. 1* | kW | 2,50 | 3,17 | 5,06 | 8,21 |
| Water flow (max) | m³/h | 0,55 | 0,78 | 1,19 | 2,01 |
| Pressure drop (max) | kPa | 10 | 36,80 | 31 | 49 |
| Total heating capacity (2) | | | | | |
| Vel. 5* | kW | 1,60 | 3,50 | 4,68 | 9,43 |
| Vel. 3* | kW | 2,40 | 4,96 | 6,70 | 12,60 |
| Vel. 1* | kW | 3,65 | 6,15 | 8,54 | 14,10 |
| Sound power level (4) | | | | | |
| Vel. 5* | dB(A) | 35 | 42 | 46 | 58 |
| Vel. 3* | dB(A) | 40 | 52 | 57 | 65 |
| Vel. 1* | dB(A) | 48 | 60 | 65 | 70 |
| Technical Characteristics | | | | | |
| Max adsorbed power | W | 60 | 85 | 147 | 310 |
| Max adsorbed current | A | 0,22 | 0,37 | 0,64 | 1,35 |
| Electrical power supply | V-Ph-Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Dimensions | | | | | |
| Height | mm | 575 | 575 | 730 | 830 |
| Width | mm | 575 | 575 | 730 | 830 |
| Depth | mm | 250 | 250 | 290 | 290 |
| Packaging (WxDxH) | mm | 750x750x325 | 750x750x325 | 910x910x375 | 1040x1040x375 |
| Net Weight | kg | 28 | 30 | 36 | 50 |

| a-CHD U-4T | | a-CHD 706 | a-CHD 1108 | a-CHD 2209 |
|--------------------------------------|---------|--------------|--------------|---------------|
| Version | | U-4T | U-4T | U-4T |
| Air flow rate | | | | |
| Vel. 5* | m³/h | 450 | 700 | 1090 |
| Vel. 3* | m³/h | 617 | 960 | 1970 |
| Vel. 1* | m³/h | 810 | 1300 | 2250 |
| Total cooling capacity (1) | | | | |
| Vel. 5* | kW | 2,42 | 3,18 | 5,36 |
| Vel. 3* | kW | 2,87 | 5,21 | 6,82 |
| Vel. 1* | kW | 3,45 | 5,70 | 7,92 |
| Sensible cooling capacity (1) | | | | |
| Vel. 5* | kW | 2,18 | 2,76 | 4,94 |
| Vel. 3* | kW | 2,55 | 4,20 | 5,97 |
| Vel. 1* | kW | 2,88 | 4,46 | 6,57 |
| Portata d'acqua (Max) | m³/h | 0,59 | 0,98 | 1,36 |
| Perdita di carico (Max) | kPa | 23 | 40 | 40 |
| Total heating capacity (3) | | | | |
| Vel. 5* | kW | 3,27 | 3,42 | 7,56 |
| Vel. 3* | kW | 3,68 | 4,63 | 8,63 |
| Vel. 1* | kW | 4,25 | 5,03 | 9,65 |
| Sound power level (4) | | | | |
| Vel. 5* | dB(A) | 42 | 47 | 47 |
| Vel. 3* | dB(A) | 52 | 57 | 65 |
| Vel. 1* | dB(A) | 60 | 65 | 70 |
| Technical Characteristics | | | | |
| Max adsorbed power | W | 85 | 147 | 305 |
| Max adsorbed current | A | 0,38 | 0,65 | 1,35 |
| Electrical power supply | V-Ph-Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Dimensions | | | | |
| Height | mm | 575 | 730 | 830 |
| Width | mm | 575 | 730 | 830 |
| Depth | mm | 250 | 290 | 290 |
| Packaging (WxDxH) | mm | 750x750x325 | 910x910x375 | 1040x1040x375 |
| Net Weight | kg | 28 | 36 | 50 |

(1) Operation in cooling mode: room temperature 27°C d.b./19°C w.b., chilled water at inlet 7°C and at outlet 12°C

(2) Operation in heating mode: room temperature 20°C d.b., hot water at inlet 50°C, with identical flow rate that in the cooling mode

(3) Operation in heating mode: room temperature 20°C d.b., hot water at inlet 70°C and at outlet 60°C

(4) Sound power on the basis of measurements made in compliance with Eurovent 8/2

* Speeds factory-wired

i-CHD

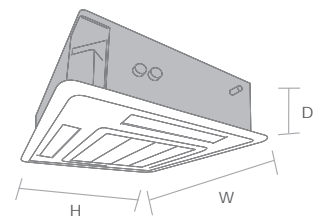
General technical data

| i-CHD U-2T | | i-CHD 706 | i-CHD 1108 | i-CHD 2209 |
|---------------------------------------|-------------------|--------------|--------------|---------------|
| Version | | U-2T | U-2T | U-2T |
| Air flow rate | | | | |
| Vel. 3 (min) | m ³ /h | 200 | 360 | 820 |
| Vel. 1 (max) | m ³ /h | 810 | 1300 | 2100 |
| Total cooling capacity (1) | | | | |
| Vel. 1 (max) | kW | 4,56 | 6,90 | 10,6 |
| Sensible cooling capacity (1) | | | | |
| Vel. 1 (max) | kW | 3,17 | 5,06 | 8,11 |
| Water flow (max) | m ³ /h | 0,78 | 1,18 | 1,82 |
| Pressure drop (max) | kPa | 37 | 34 | 36 |
| Total heating capacity (3) (2) | | | | |
| Vel. 1 (max) | kW | 6,15 | 8,3 | 12,6 |
| Water flow (max) | m ³ /h | 0,95 | 1,44 | 2,28 |
| Pressure drop (max) | kPa | 33 | 26 | 34 |
| Sound power level (3) | | | | |
| Vel. 3 (min) | dB(A) | 35 | 39 | 42 |
| Vel. 1 (max) | dB(A) | 60 | 67 | 66 |
| Technical Characteristics | | | | |
| Water content | l | 1,56 | 1,78 | 2,41 |
| Water inlet fittings | inch | 3/4 | 3/4 | 3/4 |
| Water outlet fittings | inch | 3/4 | 3/4 | 3/4 |
| Max adsorbed power | W | 40 | 88 | 200 |
| Max adsorbed current | A | 0,35 | 0,77 | 1,74 |
| Electrical power supply | V-Ph-Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 |
| Dimensions | | | | |
| Height | mm | 575 | 730 | 830 |
| Width | mm | 575 | 730 | 830 |
| Depth | mm | 250 | 290 | 290 |
| Packaging (WxDxH) | mm | 750x750x325 | 910x910x375 | 1040x1040x375 |
| Net Weight | kg | 30 | 36 | 50 |
| Gross Weight | kg | 33 | 40 | 55 |

(1) Operation in cooling mode: room temperature 27°C d.b./19°C w.b., chilled water at inlet 7°C and at outlet 12°C

(2) Operation in heating mode: room temperature 20°C d.b., hot water at inlet 50°C, with identical flow rate that in the cooling mode

(3) Sound power on the basis of measurements made in compliance with Eurovent 8/2



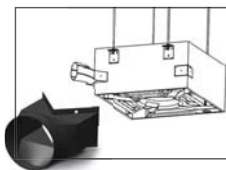
Accessories



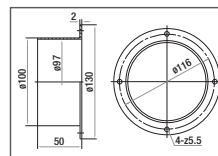
Wall controllers



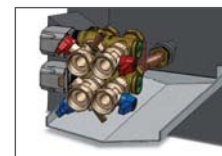
2 way and 3 way valves for main and additional Coil



Brush Duct connection kit



Fresh air Renewal kit



Kit valves 4For2



Expansion Kit RS482 Kit power board i-HB (for i-CHD units only)



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.



MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A.

Head Office: Via Sarson 57/c - 36061 Bassano del Grappa (VI) - Italy

Tel (+39) 0424 509 500 - Fax (+39) 0424 509 509

www.climaveneta.com

www.melcohit.com