

# ○ CSVN ○ HCVN ○ range



ISO 9001:2000 - Cert. n. 1368/1

**ventilclima**®  
Apparecchi per la Climatizzazione

○  
WATER CASSETTES

# CSVN range

60x60



# HCVN range

90x90



# 8

## AVAILABLE SIZES

*Water cassettes.*

*Available in 8 different sizes and 2 versions  
(all with infrared control as standard feature)*

*A wide range of optionals is available:*

- Thermo-control with ON/OFF 3 way or 2 way valves
- Master/slave system
- Wall mounted remote control
- Fresh air intake through knock-out
- Foreseen for air to adjacent rooms through knock-out

### MAIN STRUCTURE

Made in heavy-gauge galvanised steel, the structure comes complete with external brackets on the corners for easy fixing to the ceiling. Thermal-acoustic insulation: *lining* (polystyrene), *external cladding* (closed cells).

Set-up for distribution of air to adjacent rooms through knock-out, either circular Ø 150 mm or rectangular 350x100 mm (CSVN) and rectangular 120x80 mm (HCVN), located on two sides of the unit.

Set-up for fresh air intake through, circular Ø 65 mm (CSVN) and rectangular 120x80 mm (HCVN) knock-out hole located on a squared off corner of the unit.

**WALL MOUNTED  
REMOTE CONTROL** (optional)



## TECHNICAL DATA

| MODEL   |                                  |                       | 21 N  | 22 N  | 23 N  | 24 N   |
|---|----------------------------------|-----------------------|-------|-------|-------|--------|
| <b>2 pipe system (standard coil)</b>  |                                  |                       |       |       |       |        |
| <b>COOLING</b><br>Inlet water temperature: 7 °C<br>Outlet water temperature: 12°C<br>Inlet air temperature:<br>27°C d.b. -19°C w.b.b. | <b>Total cooling capacity</b>    | W max                 | 1.980 | 2.890 | 3.260 | 4.490  |
|   |                                  | W med                 | 1.445 | 2.168 | 2.217 | 3.008  |
|   |                                  | W min                 | 1.089 | 1.676 | 1.597 | 2.514  |
|   | <b>Sensible cooling capacity</b> | W max                 | 1.505 | 2.009 | 2.347 | 3.310  |
|   |                                  | W med                 | 1.129 | 1.507 | 1.643 | 2.218  |
|   |                                  | W min                 | 858   | 1.165 | 1.197 | 1.854  |
| <b>Water flow</b>   | l/h max                          | 341                   | 497   | 561   | 772   |        |
| <b>Water pressure loss</b>  | kPa max                          | 5,0                   | 8,4   | 16,5  | 23,5  |        |
| <b>HEATING</b><br>Air temperature: 20°C<br>Inlet water temperature: 50°C  | <b>Heating capacity</b>          | W max                 | 2.720 | 3.630 | 4.940 | 6.150  |
|   |                                  | W med                 | 2.040 | 2.759 | 3.458 | 4.182  |
|   |                                  | W min                 | 1.550 | 2.142 | 2.519 | 3.506  |
|   | <b>Water flow</b>                | l/h max               | 341   | 497   | 561   | 772    |
| <b>Water pressure loss</b>  | kPa max                          | 4,9                   | 8,2   | 15,9  | 23,0  |        |
| <b>HEATING</b><br>Air temperature: 20°C<br>Inlet water temperature: 70/80°C   | <b>Heating capacity</b>          | W max                 | 4.540 | 6.390 | 8.240 | 10.250 |
|   |                                  | W med                 | 3.405 | 4.856 | 5.768 | 6.970  |
|   |                                  | W min                 | 2.588 | 3.770 | 4.202 | 5.843  |
|   | <b>Water flow</b>                | l/h max               | 399   | 562   | 725   | 901    |
| <b>Water pressure loss</b>  | kPa max                          | 7,4                   | 12,1  | 27,1  | 34,8  |        |
| <b>FURTHER DATA</b>   | <b>Air flow</b>                  | m <sup>3</sup> /h max | 543   | 611   | 680   | 815    |
|   |                                  | m <sup>3</sup> /h med | 348   | 397   | 442   | 530    |
|   |                                  | m <sup>3</sup> /h min | 255   | 281   | 299   | 350    |
|   | <b>Sound power level</b>         | dB(A) max             | 51    | 53    | 57    | 62     |
|   |                                  | dB(A) med             | 45    | 46    | 51    | 49     |
|   |                                  | dB(A) min             | 41    | 40    | 46    | 45     |
|   | <b>Sound pressure level</b>      | dB(A) max             | 42,4  | 44,4  | 48,4  | 53,4   |
|   |                                  | dB(A) med             | 36,4  | 37,4  | 42,4  | 40,4   |
|   |                                  | dB(A) min             | 32,4  | 31,4  | 37,4  | 36,4   |
|   | <b>Power input</b>               | W max                 | 60    | 70    | 70    | 80     |
|   | <b>Absorbet current</b>          | A max                 | 0,24  | 0,3   | 0,36  | 0,37   |
|   | <b>Water content</b>             | L -                   | 0,5   | 1     | 1     | 1      |

## 4 pipe system (standard coil + auxiliary coil)

| MODELLO   |                                  |                       | 41 N  | 42 N  | 43 N  | 44 N  |
|---|----------------------------------|-----------------------|-------|-------|-------|-------|
| <b>COOLING</b><br>Inlet water temperature: 7 °C<br>Outlet water temperature: 12°C<br>Inlet air temperature:<br>27°C d.b. -19°C w.b. | <b>Total cooling capacity</b>    | W max                 | 1.450 | 2.080 | 2.860 | 3.290 |
|   |                                  | W med                 | 1.044 | 1.539 | 1.916 | 2.171 |
|   |                                  | W min                 | 783   | 1.186 | 1.373 | 1.810 |
|   | <b>Sensible cooling capacity</b> | W max                 | 1.200 | 1.880 | 2.170 | 2.930 |
|   |                                  | W med                 | 888   | 1.391 | 1.497 | 1.934 |
|   |                                  | W min                 | 672   | 1.072 | 1.085 | 1.612 |
| <b>Water flow</b>   | l/h max                          | 249                   | 358   | 492   | 566   |       |
| <b>Water pressure loss</b>  | kPa max                          | 9,1                   | 13,3  | 24,3  | 28,2  |       |
| <b>HEATING</b><br>Air temperature: 20°C<br>Inlet water temperature: 70/80°C   | <b>Heating capacity</b>          | W max                 | 2.200 | 2.650 | 3.730 | 4.010 |
|   |                                  | W med                 | 1.628 | 1.988 | 2.574 | 2.687 |
|   |                                  | W min                 | 1.232 | 1.537 | 1.865 | 2.206 |
|   | <b>Water flow</b>                | l/h max               | 193   | 233   | 328   | 353   |
| <b>Water pressure loss</b>  | kPa max                          | 10,3                  | 10,2  | 25,1  | 23,1  |       |
| <b>FURTHER DATA</b>   | <b>Air flow</b>                  | m <sup>3</sup> /h max | 543   | 611   | 680   | 815   |
|   |                                  | m <sup>3</sup> /h med | 342   | 385   | 435   | 513   |
|   |                                  | m <sup>3</sup> /h min | 250   | 269   | 286   | 342   |
|   | <b>Sound power level</b>         | dB(A) max             | 51    | 51    | 57    | 62    |
|   |                                  | dB(A) med             | 43    | 42    | 47    | 52    |
|   |                                  | dB(A) min             | 38    | 35    | 42    | 43    |
|   | <b>Sound pressure level</b>      | dB(A) max             | 42,4  | 42,4  | 48,4  | 53,4  |
|   |                                  | dB(A) med             | 34,4  | 33,4  | 38,4  | 43,4  |
|   |                                  | dB(A) min             | 29,4  | 26,4  | 33,4  | 34,4  |
|   | <b>Power input</b>               | W max                 | 60    | 70    | 70    | 90    |
| <b>Absorbet current</b>   | A max                            | 0,24                  | 0,29  | 0,32  | 0,41  |       |
| <b>Water content (cooling)</b>  | L -                              | 0,4                   | 0,8   | 0,8   | 0,8   |       |
| <b>Water content (heating)</b>  | L -                              | 0,1                   | 0,2   | 0,2   | 0,2   |       |

- Standard unit with free outlet (external static pressure= 0 Pa); **Sound power level:** ISO 23741.; **Sound pressure level:** The sound pressure level is 8,6 dB(A) lower than the sound power level.

## TECHNICAL DATA

| MODEL   |                                  |                   |      | No Eurovent Certified |        |        |        |
|---|----------------------------------|-------------------|------|-----------------------|--------|--------|--------|
|   |                                  |                   |      | 31N                   |        | 32N    |        |
| <b>2 pipe system (standard coil)</b>  |                                  |                   |      |                       |        |        |        |
| <b>COOLING</b><br>Inlet water temperature: 7 °C<br>Outlet water temperature: 12 °C<br>Inlet air temperature: 27 °C d.b. -19 °C w.b.b. | <b>Total cooling capacity</b>    | W                 | max  | 5.730                 | 6.760  | 8.080  | 10.500 |
|   |                                  | W                 | med  | 4.985                 | 5.949  | 7.030  | 9.030  |
|   |                                  | W                 | min  | 4.584                 | 5.340  | 6.302  | 8.400  |
|   | <b>Sensible cooling capacity</b> | W                 | max  | 4.182                 | 4.934  | 5.980  | 7.590  |
|   |                                  | W                 | med  | 3.722                 | 4.342  | 5.322  | 6.527  |
|   |                                  | W                 | min  | 3.429                 | 3.898  | 4.784  | 6.072  |
|   | <b>Water flow</b>                | l/h               | max  | 986                   | 1163   | 1390   | 1806   |
| <b>Water pressure loss</b>  | kPa                              | max               | 35,1 | 34,3                  | 37,3   | 53,9   |        |
| <b>HEATING</b><br>Air temperature: 20 °C<br>Inlet water temperature: 50 °C  | <b>Heating capacity</b>          | W                 | max  | 5.994                 | 7.122  | 9.310  | 12.000 |
|   |                                  | W                 | med  | 5.335                 | 6.339  | 8.286  | 10.440 |
|   |                                  | W                 | min  | 4.915                 | 5.698  | 7.448  | 9.720  |
|   | <b>Water flow</b>                | l/h               | max  | 986                   | 1163   | 1390   | 1806   |
| <b>Water pressure loss</b>  | kPa                              | max               | 29,7 | 29,1                  | 31,6   | 45,7   |        |
| <b>HEATING</b><br>Air temperature: 20 °C<br>Inlet water temperature: 70/60 °C   | <b>Heating capacity</b>          | W                 | max  | 10.790                | 12.820 | 15.310 | 19.890 |
|   |                                  | W                 | med  | 9.603                 | 11.410 | 13.626 | 17.304 |
|   |                                  | W                 | min  | 8.848                 | 10.256 | 12.248 | 16.111 |
|   | <b>Water flow</b>                | l/h               | max  | 949                   | 1127   | 1346   | 1749   |
| <b>Water pressure loss</b>  | kPa                              | max               | 28,8 | 28,1                  | 30,6   | 44,2   |        |
| <b>FURTHER DATA</b>   | <b>Air flow</b>                  | m <sup>3</sup> /h | max  | 832                   | 1.087  | 1.087  | 1.274  |
|   |                                  | m <sup>3</sup> /h | med  | 699                   | 913    | 935    | 1.070  |
|   |                                  | m <sup>3</sup> /h | min  | 624                   | 772    | 794    | 930    |
|   | <b>Sound power level</b>         | dB(A)             | max  | 54                    | 58     | 58     | 62     |
|   |                                  | dB(A)             | med  | 50                    | 55     | 54     | 58     |
|   |                                  | dB(A)             | min  | 47                    | 51     | 50     | 55     |
|   | <b>Sound pressure level</b>      | dB(A)             | max  | 45,4                  | 49,4   | 49,4   | 53,4   |
|   |                                  | dB(A)             | med  | 41,4                  | 46,4   | 45,4   | 49,4   |
|   |                                  | dB(A)             | min  | 38,4                  | 42,4   | 41,4   | 46,4   |
|   | <b>Power input</b>               | W                 | max  | 58                    | 126    | 126    | 124    |
|   | <b>Absorbet current</b>          | A                 | max  | 0,41                  | 0,57   | 0,57   | 0,66   |
| <b>Water content</b>  | L                                | -                 | 2,45 | 3,25                  | 3,25   | 3,25   |        |

## 4 pipe system (standard coil + auxiliary coil)

| MODEL   |                                  |                   |      | No Eurovent Certified |       |        |        |
|---|----------------------------------|-------------------|------|-----------------------|-------|--------|--------|
|   |                                  |                   |      | 51N                   |       | 52N    |        |
| <b>COOLING</b><br>Inlet water temperature: 7 °C<br>Outlet water temperature: 12 °C<br>Inlet air temperature: 27 °C d.b. -19 °C w.b. | <b>Total cooling capacity</b>    | W                 | max  | 4.790                 | 5.910 | 7.040  | 9.300  |
|   |                                  | W                 | med  | 4.119                 | 5.142 | 6.054  | 7.905  |
|   |                                  | W                 | min  | 3.784                 | 4.610 | 5.421  | 7.347  |
|   | <b>Sensible cooling capacity</b> | W                 | max  | 3.496                 | 4.314 | 5.210  | 6.696  |
|   |                                  | W                 | med  | 3.076                 | 3.753 | 4.585  | 5.692  |
|   |                                  | W                 | min  | 2.832                 | 3.365 | 4.116  | 5.290  |
|   | <b>Water flow</b>                | l/h               | max  | 824                   | 1.017 | 1.211  | 1.600  |
| <b>Water pressure loss</b>  | kPa                              | max               | 26,7 | 41,9                  | 41,9  | 49,5   |        |
| <b>HEATING</b><br>Air temperature: 20 °C<br>Inlet water temperature: 70/60 °C   | <b>Heating capacity</b>          | W                 | max  | 6.880                 | 8.480 | 10.110 | 12.340 |
|   |                                  | W                 | med  | 6.054                 | 7.462 | 8.897  | 10.612 |
|   |                                  | W                 | min  | 5.573                 | 6.699 | 7.987  | 9.872  |
|   | <b>Water flow</b>                | l/h               | max  | 592                   | 729   | 869    | 1.061  |
| <b>Water pressure loss</b>  | kPa                              | max               | 28,8 | 28,1                  | 30,6  | 44,2   |        |
| <b>FURTHER DATA</b>   | <b>Air flow</b>                  | m <sup>3</sup> /h | max  | 832                   | 1.087 | 1.087  | 1.274  |
|   |                                  | m <sup>3</sup> /h | med  | 691                   | 902   | 924    | 1.057  |
|   |                                  | m <sup>3</sup> /h | min  | 616                   | 761   | 783    | 917    |
|   | <b>Sound power level</b>         | dB(A)             | max  | 54                    | 58    | 58     | 62     |
|   |                                  | dB(A)             | med  | 50                    | 55    | 54     | 58     |
|   |                                  | dB(A)             | min  | 47                    | 51    | 50     | 55     |
|   | <b>Sound pressure level</b>      | dB(A)             | max  | 45,4                  | 49,4  | 49,4   | 53,4   |
|   |                                  | dB(A)             | med  | 41,4                  | 46,4  | 45,4   | 49,4   |
|   |                                  | dB(A)             | min  | 38,4                  | 42,4  | 41,4   | 46,4   |
|   | <b>Power input</b>               | W                 | max  | 58                    | 126   | 126    | 124    |
|   | <b>Absorbet current</b>          | A                 | max  | 0,41                  | 0,57  | 0,57   | 0,66   |
| <b>Water content (cooling)</b>  | L                                | -                 | 1,65 | 2,2                   | 2,2   | 2,2    |        |
| <b>Water content (heating)</b>  | L                                | -                 | 0,8  | 1,05                  | 1,05  | 1,05   |        |

- Standard unit with free outlet (external static pressure= 0 Pa); **Sound power level:** ISO 23741.; **Sound pressure level:** The sound pressure level is 8,6 dB(A) lower than the sound power level.

# CSVN HCVN range

## HEAT EXCHANGER

Coil in copper piping expanded into hydrophile aluminium fins in continuous block. The headers have easily accessible female gas fittings and air vent/drainage valve located on the squared off corner of the appliance.

## AIR FILTER

The filter comprises a plastic frame holding the filtering membrane. Inserted in the inner part of the front panel, it may be easily removed and cleaned using a vacuum cleaner and by washing with water.

## DÉCOR PANEL

The décor panel has an innovative design so that the unit may be used in both dwellings and business premises. The white (RAL 9010) panel is made in lightweight but strong plastic. Fixing to the unit structure is quick and easy. The 4 adjustable louvers ensure the best air distribution throughout the room. Central intake grille with filter to guarantee clean air. The grille may be removed to access internal parts without having to remove from the ceiling.

## ELIMINATION OF CONDENSATION

Condensate collecting system comprising:

- Main plastic tray for collecting condensation coming from the heat exchanger;
- Auxiliary plastic (CSVN) or stainless steel (HCVN) tray for collecting condensation of the valves and connecting pipes.

Condensate pump, as integral part of the unit and connected to the external fitting.

## MOTOR FAN GROUP

Single-inlet centrifugal fan with statically and dynamically balanced plastic impeller. The 3-speed electric motor, made to international standards, has an overload cutout and the run capacitor always connected. The motor, directly coupled to the fan and cushioned with flexible mountings, is particularly efficient and low noise.

## OPTIONALS

Wall mounted remote control  
ON/OFF 2 or 3 way valves  
Shut off valves  
Balancing valves

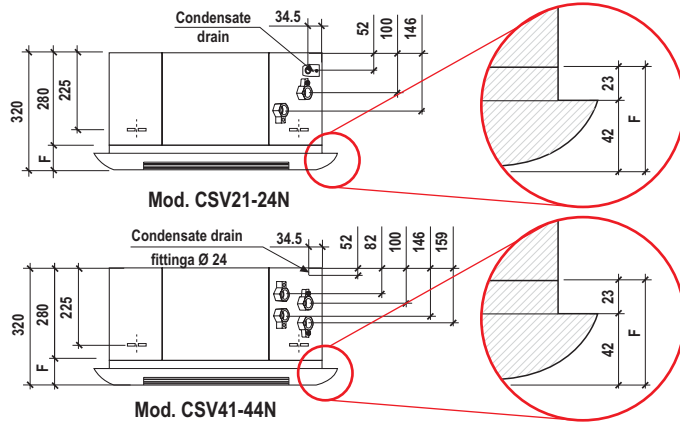
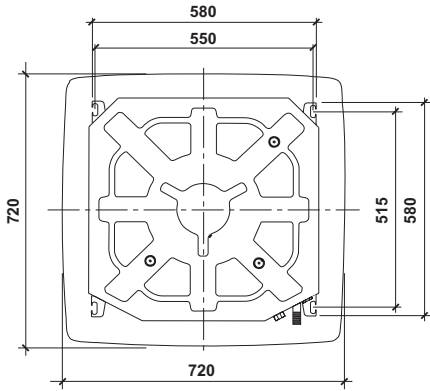
## INFRARED REMOTE CONTROL

The water cassette is complete of infrared remote control with liquid crystal display to visualize all the functions.

- 1 Minutes timer setting
- 2 Hour timer setting
- 3 ON/OFF switch
- 4 Time reading
- 5 Timer setting for the unit start up
- 6 Setting confirmation
- 7 Mode setting (cooling, dehumidification, heating, automatic)
- 8 Automatic air supply grills activation/deactivation
- 9 Change of automatic supply grills direction
- 10 Timer setting for the unit shut down
- 11 Sleep mode activation
- 12 Fan speed selection (3 positions + automatic)
- 13 Setting of temperature between 18°C and 30°C.



## GENERAL DIMENSIONS OF WATER CASSETTES: CSVN (panel 720x720)

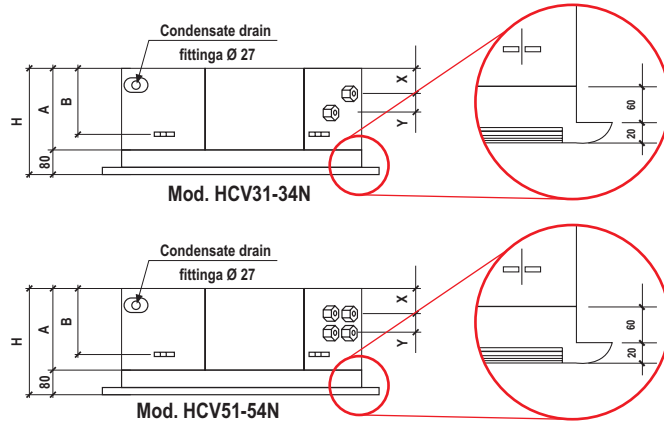
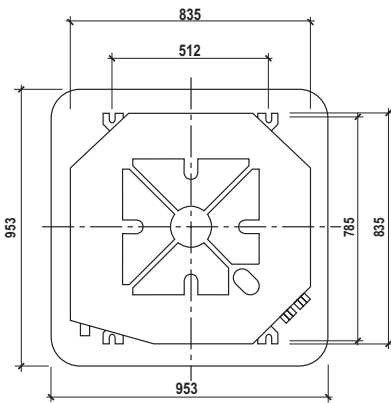


DF CSVN-HCVN 0606-0 VEN GB

| MODEL                    |         |      | CSV21N | CSV22N | CSV23N | CSV24N | CSV41N | CSV42N | CSV43N | CSV44N |
|--------------------------|---------|------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans                     | N.ro    |      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Standard coil            | Row     | N.ro | 1      | 2      | 2      | 2      | 1      | 2      | 2      | 2      |
|                          | Fitting | Ø    | 3/4" F | 3/4" F | 3/4" F | 3/4" F | 3/4" F | 3/4" F | 3/4" F | 3/4" F |
| Auxiliary coil           | Fitting | Ø    | *      | *      | *      | *      | 1/2" F | 1/2" F | 1/2" F | 1/2" F |
| Condensate drain fitting | Ø mm    |      | 24     | 24     | 24     | 24     | 24     | 24     | 24     | 24     |
| Net weight               | kg      |      | 23,5   | 24,5   | 24,5   | 24,5   | 23,5   | 24,5   | 24,5   | 24,5   |

# HCVN range

## GENERAL DIMENSIONS OF WATER CASSETTES: HCVN (panel 950x950)



| MODEL                    |            |      | HCV31N | HCV32N | HCV33N | HCV34N | HCV51N | HCV52N | HCV53N | HCV54N |
|--------------------------|------------|------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans                     | N.ro       |      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Standard coil            | Row        | N.ro | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      |
|                          | Fitting    | Ø    | 3/4" F | 1" F   | 1" F   | 1" F   | 3/4" F | 1" F   | 1" F   | 1" F   |
| Auxiliary coil           | Fitting    | Ø    | -      | -      | -      | -      | 1/2" F | 3/4" F | 3/4" F | 3/4" F |
| Condensate drain fitting | Ø mm       |      | 27     | 27     | 27     | 27     | 27     | 27     | 27     | 27     |
| Unit dimensions          | Height (H) | mm   | 320    | 385    | 385    | 385    | 320    | 385    | 385    | 385    |
|                          | (A)        | mm   | 240    | 305    | 305    | 305    | 240    | 305    | 305    | 305    |
|                          | (B)        | mm   | 180    | 325    | 325    | 325    | 180    | 325    | 325    | 325    |
|                          | (X)        | mm   | 58     | 88     | 88     | 88     | 95     | 88     | 88     | 88     |
|                          | (Y)        | mm   | 59     | 72     | 72     | 72     | 59     | 72     | 72     | 72     |
| Net weight               | kg         |      | 37     | 43     | 43     | 45     | 37     | 43     | 43     | 45     |

Ventilclima S.p.A. reserves the right to modify the technical and dimensional data at any time and without any notice.