

# Serie CH20-G/H

Water cassette. Fan coils for installation in suspended ceilings, with wall-mounted controls or infrared remote control.



## Identity

Under ceiling installation  
Wall-mounted controls or infrared remote control

## Versions

2 and 4 pipe versions

## Certifications



Plus



## Description

The water Cassette are fan coil systems suitable for installation in a false ceiling in the center of the room. Their attractive is suitable for the most sophisticated environments where requirements for space and silence are the greatest constraint.

## Plus

### ALL IN 1 CONTROL

Wall mounted standard control with advanced functions Master/ Slave included to create little networks until 32 units each one.

### BMS COMPATIBLE

Possibility to control until 2048 units with DLBMS1 data logger and Modbus protocol or DLBMS2 with Aertesi protocol, even in combination with all the Aertesi terminal units.

NCUGH optional control functions designed to simplify management through external controls. The controls are easily interchanged during installation or in storage.



Wall-mounted control WPC-GH

### QUALITY POINTS

Ready for quick installation of valves 2 and 3 way (optional)  
Possibility to mount the valves directly in the factory  
Easy access to terminal block for electrical connections  
Integration of outside air drawn through two connections (up to 15% on a single connection).  
Ready for fitting in the field or in storage of electrical resistances of integration with Plug & Play connections

### 4TIN2T

Hearing aid fitting accessory for the 2-pipe 4-pipe systems with no loss of performance.

### EASY SERVICE

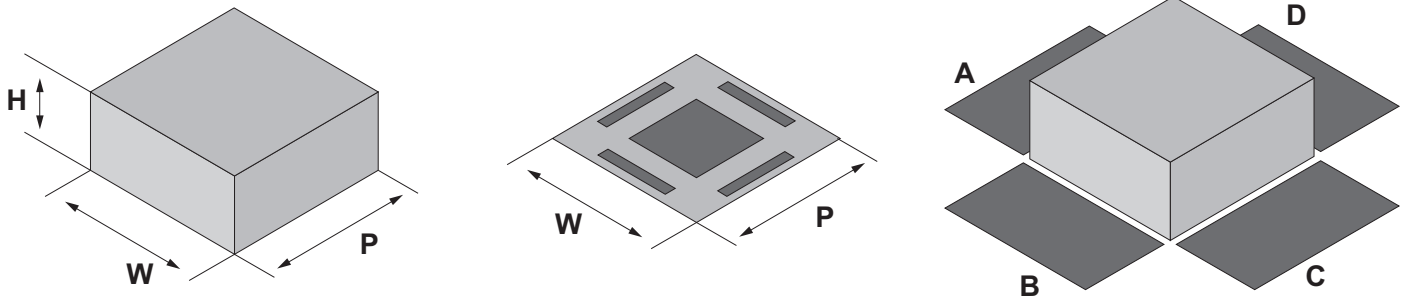
Ease of removal of the grid air  
Electrical panel removed without removing the ceiling  
Arrangement of components optimized for access from below

# Technical data

Size		20G	30G	40G	50G	60H	70H	100H	120H	40GB1	60HB1	80HB1
Technical data												
Versions		2 Tubi								4 Tubi		
Fans number	n°	1										
Cooling performances												
(1) Nominal capacity/h	kW	2.37	3.2	4.08	4.56	5.6	6.9	10	11.7	3.6	5.75	7.92
(1) Nominal capacity/m	kW	1.7	2.06	3.1	3.76	5.1	5.6	7.83	10	3.02	5.21	6.82
(1) Nominal capacity/l	kW	1.41		2.7		3.57		6.56		2.42	3.18	5.34
Sensible nominal capacity/h	kW	1.89	2.5	3	3.17	4.37	5.06	7.94	8.86	2.94	4.46	6.96
Sensible nominal capacity/m	kW	1.35	1.62	2.45	2.85	3.85	4.37	6.45	7.94	2.6	4.2	6.28
Sensible nominal capacity/l	kW	1.11		2.15		2.96		5.58		2.22	2.76	5.2
Water flow	l/h	419	601	753	810	1047	1226	1767	2073	636	1007	1400
Pressure drop	kPa	6.5	12.8	30	36.8	27.7	36.9	38	49	14.7	40.3	26.8
Water volume	l	1.25		1.56		1.78		2.41		1.07	1.37	1.67
Heating performances												
(2) Nominal capacity/h	kW	4.92	6.58	7.8	8.9	11.4	12.72	18.65	20.87	4.43	5.03	9.65
(2) Nominal capacity/m	kW	3.98	4.3	6.92	7.4	10.13	11.4	16.6	18.65	3.84	4.63	8.87
(2) Nominal capacity/l	kW	3.25		6.58		7.52		15.2		3.41	3.42	7.56
(3) Nominal capacity/h	kW	2.8	3.65	5.29	6.15	6.72	8.28	11.48	13.7	-		
(3) Nominal capacity/m	kW	2	2.4	4.1	4.9	6.2	6.72	9.39	11.48	-		
(3) Nominal capacity/l	kW	1.6		3.5		4.28		7.87		-		
Water flow	l/h	-								380	431	827
Pressure drop	kPa	-								3.5	7.5	13.3
Water volume	l	-								0.49	0.41	0.74
Fan motor performance												
Power	Watt	38	50	56	85	89	146	267	310	85	146	310
Running current	Amp	0.17	0.26	0.24	0.37	0.36	0.64	1.16	1.35	0.37	0.64	1.35
Starting current	Amp	0.51	0.78	0.72	1.11	1.08	1.9	3.48	4.04	1.11	1.9	4.04
General												
Nominal air flow/h	m3/h	380	575	722	810	960	1300	1950	2290	810	1300	2290
Nominal air flow/m	m3/h	240	290	522	617	820	960	1380	1950	617	960	1950
Nominal air flow/l	m3/h	200		450		700		1090		450	700	1090
Sound pressure at 1 m/h	dB(A)	34	37	44	46	42	47	50	52	46	50	54
Sound pressure at 1 m/m	dB(A)	30	32	35		40		42	46	40	42	50
Sound pressure at 1 m/l	dB(A)	27		30		36		39		30	36	39
Sound power/h	dB(A)	42	48	57	60	55	65	70	60	65	70	
Sound power/m	dB(A)	37	40	46	52	50	57	58	65	52	57	65
Sound power/l	dB(A)	35		42		46.8		47		42	46.8	47
Electric heater (accessories)	kW	-	1	-	2	-	3	-	4	-		
Power supply	V/Ph/Hz	230/1/50										
D.i. drain pain connection	mm (in)	19.05 (3/4)										
Connecting system		FEMMINA										
Water inlet connection	mm (in)	19.05 (3/4)										
Water outlet connection	mm (in)	19.05 (3/4)										
Flange for external air suction	n°	2										

- (1) Cooling: 27°C db /47% Inlet air temperature, 7°C Inlet water temperature, 12°C Outlet water temperature with nominal water flow
- (2) Heating: 20°C Inlet air temperature, 70°C Inlet water temperature, 60°C Outlet water temperature, same of cooling water flow
- (3) Heating: 20°C Inlet air temperature, 50°C Inlet water temperature, same of cooling water flow

## Dimensions and service spaces



Size		20G	30G	40G	50G	60H	70H	100H	120H	40GB1	60HB1	80HB1	
<b>Dimensions</b>													
Width/W	mm	580			730		830		580	730	830		
Depth/P	mm	580			730		830		580	730	830		
High/H	mm	255			260		290						
Gross weight panel + packaging	Kg	28		30		36		50		30		36	50
<b>Frontal panel</b>													
Lenght	mm	680			830		980		680	830	980		
Depth	mm	680			830		980		680	830	980		
High	mm	28											
<b>Service areas</b>													
A	mm						500						
B	mm						500						
C	mm						500						
D	mm						500						

## Unit price list

Size		20G	30G	40G	50G	60H	70H	100H	120H	40GB1	60HB1	80HB1
<b>CH20-G/H</b>	€	898	925	960	1.002	1.261	1.311	1.438	1.495	1.124	1.373	1.499

Note: auxiliary condensate pan is always included in the price of basic unit

# Accessories price list

	Model		20G	30G	40G	50G	60H	70H	100H	120H	40GB1	60HB1	80HB1		
(1)	<b>WPC-GH</b>	Wall mounted thermostat	€	81											
(1)	<b>SCT-GH</b>	Infrared remote control	€	22											
	<b>DLBMS 1</b>	BMS data logger with MODBUS protocol	€	411											
	<b>DLBMS 2</b>	BMS data logger with AERTESI protocol	€	411											
	<b>STFBMS</b>	BMS software with AERTESI protocol	€	2.081											
	<b>ECH</b>	Electric heater	€	-	121	-	130	-	155	-	184	-	-	-	
	<b>FAAM</b>	Filter with bacteria-proof treatment	€	38			54			71			38	54	71
(1)	<b>V23C</b>	3 way, 2 pipe set valve, mounted	€	145											
(1)	<b>V23CK</b>	3 way, 2 pipe set valve, not mounted	€	104											
(1)	<b>V43C</b>	3 way, 4 pipe set valve, mounted	€	-	-	-	-	-	-	-	-	-	237		
(1)	<b>V43CK</b>	3 way, 4 pipe set valve, not mounted	€	-	-	-	-	-	-	-	-	-	196		
(1)	<b>V22C</b>	2 way, 2 pipe set valve, mounted	€	145											
(1)	<b>V22CK</b>	2 way, 2 pipe set valve, not mounted	€	93											
(1)	<b>V42C</b>	2 way, 4-pipe set valves, mounted	€	-	-	-	-	-	-	-	-	-	237		
(1)	<b>V42CK</b>	2 way, 4-pipe set valves, not mounted	€	-	-	-	-	-	-	-	-	-	196		
(2)	<b>PSCC</b>	Auxiliary draining pump	€	160											
(5)	<b>FLAE G/H</b>	Flange for external air suction	€	26											
	<b>FLMA G/H</b>	Flange for outlet duct	€	16											
	<b>NCUGH</b>	Extra cost for unit without control	€	105											
(3)	<b>V4TIN2T</b>	4 pipe module for main coil	€	277								-	-	-	
(4)															

- (1) Attention: Aertesi suggest strongly to use always regulation valves.
- (2) The Cassettes have one drain pump with head max. of 0,5 mt. Std. Standard
- (3) Module for main coil composed by tow 3 way on/off valves and wall controller TOP1 (special version).
- (4) IMPORTANT! In order to have a correct working of the system it is obligatory to use stop valves for all 4 pipes (not supplied by Aertesi). NCUGH accessory is compulsory.
- (5) Price for a flange. Maximum 2 per unit flanges

## Useful notes for the choice

Model	Description	
<b>FLAE G/H</b>	Flange for external air suction	Circular spigot Ø 105 mm (2 for each unit) which makes the connection of the external air duct easier.
<b>FLMA G/H</b>	Flange for outlet duct	Circular spigot Ø 100 mm which makes the connection of an additional air outlet easier.
<b>DLBMS 1</b>	BMS data logger with MODBUS protocol	Data Logger for network BMS communication connection with Modbus protocol. Max 32 units for each data logger, max 64 data logger. Max 2048 units for net.
<b>DLBMS 2</b>	BMS data logger with AERTESI protocol	Data Logger for network BMS communication connection with Aertesi protocol (exclusive management by means "SFTBMS" software). Max 32 units for each data logger, max 64 data logger. Max 2048 units for net.
<b>ECH</b>	Electric heater	Electric heater for space heating in WINTER mode
<b>FAAM</b>	Filter with bacteria-proof treatment	3M High Flow Filter (HAF) antimicrobial and odor
<b>NCUGH</b>	Extra cost for unit without control	Extra cost for unit supplied without any control. Control device supplied by customer. It is possible to order other Aertesi controls
<b>PSCC</b>	Auxiliary draining pump	Auxiliary drain pump used for a head from 0,5 to max of 5 mt.
<b>SCT-GH</b>	Infrared remote control	Infrared remote control with thermostat, speed selector and functions control.
<b>STFBMS</b>	BMS software with AERTESI protocol	BMS management software with Aertesi communication protocol. Compatible only with DLBMS 2
<b>WPC-GH</b>	Wall mounted thermostat	Wall-mounted control with thermostat, speed selector and functions control (with cable L=5 mt).

# Series CH2O-G/H-EC

Water cassette. Fan coils for installation in suspended ceilings, with wall-mounted controls or infrared remote control with EC motor.



## Identity

Under ceiling installation  
DC electronic motor with permanent magnets  
Wall-mounted controls or infrared remote control

## Versions

2 pipe versions

## Certifications



## Plus



## Description

The water Cassette are fan coil systems suitable for installation in a false ceiling in the center of the room. Their attractive is suitable for the most sophisticated environments where requirements for space and silence are the greatest constraint.

## Plus

### ENERGY SAVING

From 35% to 50% compared to traditional motor depending on the type and mode of use

### QUALITY POINTS

NCUEC optional control functions designed to simplify management through external controls. The controls are easily interchanged during installation.

Ready for quick installation of valves 2 and 3 way (optional)

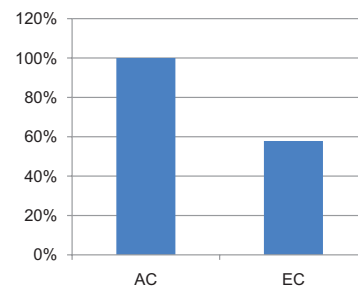
Possibility to mount the valves directly in the factory

Easy access to terminal block for electrical connections

Integration of outside air drawn through two connections (up to 15% on a single connection).

Ready for fitting in the field or in storage of electrical resistances of integration with Plug & Play connections

## Medium input power %



### EASY SERVICE

Ease of removal of the grid air

Electrical panel removed without removing the ceiling

Arrangement of components optimized for access from below

### ALL IN 1 CONTROL

Wall mounted standard control with advanced functions  
Master/Slave included to create little networks until 32 units each one.

### BMS COMPATIBLE

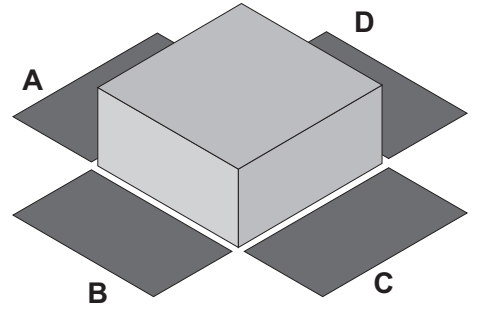
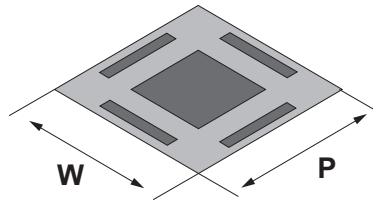
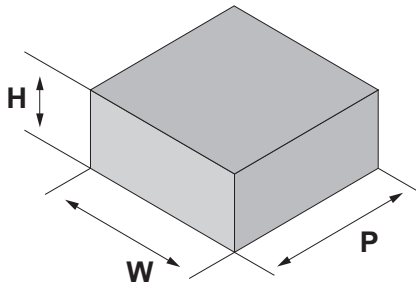
Possibility to control until 160 units with DLBMS-EC data logger and Modbus protocol, even in combination with all the Aertesi terminal units.

# Technical data

Size		30GEC	50GEC	70HEC	110HEC
<b>Technical data</b>					
Versions		2Tubi			
Fans number	n°	1			
<b>Cooling performances</b>					
(1) Nominal capacity/h	kW	3.2	4.56	6.93	10.6
(1) Nominal capacity/m	kW	2.06	3.65	5	8.6
(1) Nominal capacity/l	kW	1.41	1.7	3.13	5.87
Sensible nominal capacity/h	kW	2.48	3.17	5.03	8.11
Sensible nominal capacity/m	kW	1.62	2.8	3.97	7.1
Sensible nominal capacity/l	kW	1.11	1.35	2.52	4.84
Water flow	l/h	601	836	1226	1865
Pressure drop	kPa	12.8	36	31	36
Water volume	l	1.25	1.56	1.78	2.41
<b>Heating performances</b>					
(2) Nominal capacity/h	kW	6.58	8.9	12.72	18.95
(2) Nominal capacity/m	kW	4.3	6.92	10.13	16.6
(2) Nominal capacity/l	kW	3.25	3.98	6.58	11.4
(3) Nominal capacity/h	kW	3.91	5.6	8.3	12.7
(3) Nominal capacity/m	kW	2.58	4.5	6	10.3
(3) Nominal capacity/l	kW	1.8	2.1	3.91	7
<b>Fan motor performance</b>					
Power	Watt	30	40	72	200
Running current	Amp	0.26	0.35	0.63	1.57
Starting current	Amp	59.8	80	144	362
<b>General</b>					
Nominal air flow/h	m3/h	575	810	1300	2100
Nominal air flow/m	m3/h	290	520	820	1380
Nominal air flow/l	m3/h	200		360	820
Sound pressure at 1 m/h	dB(A)	37	46	50	54
Sound pressure at 1 m/m	dB(A)	32	35	40	45
Sound pressure at 1 m/l	dB(A)	24		28	30
Sound power/h	dB(A)	48	60	65	66
Sound power/m	dB(A)	39	45	53	58
Sound power/l	dB(A)	35		39	42
Electric heater (accessories)	kW	1	2	3	4
Power supply	V/Ph/Hz	230/1/50	230/1/51	230/1/52	230/1/53
D.i. drain pain connection	mm (in)	19.05 (3/4)			
Connecting system		FEMMINA			
Water inlet connection	mm (in)	19.05 (3/4)			
Water outlet connection	mm (in)	19.05 (3/4)			
Flange for external air suction	n°	2			

- (1) Cooling: 27°C db /47% Inlet air temperature, 7°C Inlet water temperature, 12°C Outlet water temperature with nominal water flow
- (2) Heating: 20°C Inlet air temperature, 70°C Inlet water temperature, 60°C Outlet water temperature, same of cooling water flow
- (3) Heating: 20°C Inlet air temperature, 50°C Inlet water temperature, same of cooling water flow

## Dimensions and service spaces



Size		30GEC	50GEC	70HEC	110HEC
<b>Dimensions</b>					
Width/W	mm	580		730	830
Depth/P	mm	580		730	830
High/H	mm	255	290	260	290
Gross weight panel + packaging	Kg	28	30	36	50
<b>Frontal panel</b>					
Lenght	mm	680		830	980
Depth	mm	680		830	980
High	mm	28			
<b>Service areas</b>					
A	mm	500			
B	mm	500			
C	mm	500			
D	mm	500			

Size		30GEC	50GEC	70HEC	110HEC
<b>CH20-G/H-EC</b>	€	1.248	1.558	1.815	2.071

Note: auxiliary condensate pan is always included in the price of basic unit

## Accessories price list

Model		30GEC	50GEC	70HEC	110HEC		
(1)	<b>WPC-GH</b>	Wall mounted thermostat	€	81			
(1)	<b>SCT-GH</b>	Infrared remote control	€	22			
	<b>DLBMS-EC</b>	BMS data logger with MODBUS protocol	€	411			
	<b>ECH</b>	Electric heater	€	121	130	155	184
	<b>FAAM</b>	Filter with bacteria-proof treatment	€	38		54	71
(1)	<b>V23C</b>	3 way, 2 pipe set valve, mounted	€	145			
(1)	<b>V23CK</b>	3 way, 2 pipe set valve, not mounted	€	104			
(1)	<b>V22C</b>	2 way, 2 pipe set valve, mounted	€	145			
(1)	<b>V22CK</b>	2 way, 2 pipe set valve, not mounted	€	93			
(2)	<b>PSCC</b>	Auxiliary draining pump	€	160			
(3)	<b>FLAE G/H</b>	Flange for external air suction	€	26			
	<b>FLMA G/H</b>	Flange for outlet duct	€	16			
	<b>NCUEC</b>	Extra cost for unit without control	€	165			

(1) Attention: Aertesi suggest strongly to use always regulation valves.

(2) The Cassettes have one drain pump with head max. of 0,5 mt. Std. Standard

(3) Price for a flange. Maximum 2 per unit flanges

## Useful notes for the choice

Model	Description	
<b>DLBMS-EC</b>	BMS data logger with MODBUS protocol	Data Logger for network BMS communication connection with Modbus protocol.
<b>ECH</b>	Electric heater	Electric heater for space heating in WINTER mode
<b>FAAM</b>	Filter with bacteria-proof treatment	3M High Flow Filter (HAF) antimicrobial and odor
<b>FLAE G/H</b>	Flange for external air suction	Circular spigot Ø 105 mm (2 for each unit) which makes the connection of the external air duct easier.
<b>FLMA G/H</b>	Flange for outlet duct	Circular spigot Ø 100 mm which makes the connection of an additional air outlet easier.
<b>NCUEC</b>	Extra cost for unit without control	Extra cost for unit supplied without any control. Control device supplied by customer with 0-10V signal for the fan and on-off for the valve)
<b>PSCC</b>	Auxiliary draining pump	Auxiliary drain pump used for a head from 0,5 to max of 5 mt.
<b>SCT-GH</b>	Infrared remote control	Infrared remote control with thermostat, speed selector and functions control.
<b>WPC-GH</b>	Wall mounted thermostat	Wall-mounted control with thermostat, speed selector and functions control (with cable L=5 mt).