

HCN

Modular terminal units slim/reduced

6kW÷20kW



VERSIONS



S-OIP Single panel, horizontal naked terminal, rear air intake



D-OIP Double panel, horizontal naked terminal, rear air intake



S-OII Single panel, horizontal naked terminal, bottom air intake



D-OII Double panel, horizontal naked terminal, bottom air intake

General Characteristics

- ▶ It has a self-supporting structure made of galvanized sheet with thermal and acoustic insulation (version S) or sandwich double panels 20mm thick with outer painted sheet with white RAL 9002 (version D); with ceiling/wall mounting holes, of contained dimensions and optimized encumbrance.
- ▶ Drain pan made with dual slope.
- ▶ Heat exchange coils with high efficiency made of copper tubes and aluminium fins, standard connections are located on the right side, 1 coil for a 2-pipe system; 2 coils for a 4-pipe system.
- ▶ Centrifugal fans with double air inlet aluminium blades of large diameter with 3-speed, mounted on elastic supports and dampers.
- ▶ The unit is provided with a of "Mammoth" type terminal board IP20 installed outside the unit.
- ▶ The basic units are supplied without air filter in order to allow the customer to choose between the available filtering sections as accessories; even the remote control is an accessory.

HCN		60	75	86	103	130	
Cooling cap. (1) (*)	W	6.010	7.480	8.590	10.300	12.900	W
Sensible capacity (1) (*)	W	4.570	5.560	6.160	8.100	9.950	W
Heating cap. (2) (*)	W	6.550	7.900	8.300	11.700	14.400	W
Heating cap. (3) (*)	W	13.100	15.800	16.600	23.400	28.800	W
Air flow (4)	m³/h	1.100	1.200	1.150	2.100	2.300	m³/h
Sound pressure (7)							
Min-Med-Max	dB(A)	37-44-49	38-45-50	38-45-50	45-50-52	46-51-53	dB(A)

HCN		136	150	170	200
Cooling cap. (1) (*)	W	13.600	15.000	17.200	20.200
Sensible capacity (1) (*)	W	10.800	11.100	13.300	14.900
Heating cap. (2) (*)	W	15.650	15.200	19.400	20.400
Heating cap. (3) (*)	W	31.300	30.400	38.800	40.800
Air flow (3)	m³/h	2.800	2.200	3.100	2.950
Sound pressure (6)					
Min-Med-Max	dB(A)	41-48-51	46-51-53	42-49-52	42-49-52

Heating coil

HCN		60	75	-	103	130	
Heating cap. (2)	W	6.610	6.970	-	11.600	12.200	W
Air flow (4)	m³/h	1.050	1.140	-	2.000	2.170	m³/h

HCN		-	136	170	-	
Heating cap. (2)	W	-	15.500	16.400	-	W
Air flow (3)	m³/h	-	2.670	2.930	-	m³/h

Note: Capacities and air flow rates referred in terms of prevalence 0 Pa. For different static pressure, refer air flow variation diagrams.

(1) Entering air temperature: 27°C d.b./19°C w.b.

In/Out water temperature: 7°C/12°C

(2) Entering air temperature: 20°C d.b.

In/Out water temperature: 70°C / 60°C

(3) Entering air temperature: 20°C d.b.

In/Out water temperature: 40°C / 45°C

(4) Nominal data measured with casing ref. AMCA210-74 standards and plenum + diaphragm ref. CNR-UNI10023 standards.

(7) Free field sound pressure, 3 m distance. Data calculated based on sound power measured in riverberation room ref.

ISO 3741 - ISO 3742 standards.

(1)(2)(3)(4)(5)(6) Nominal technical data, refer air flow (4) to the max speed and unit with free air flow

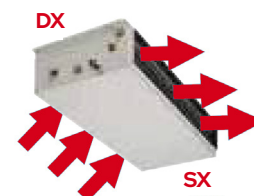
DN: Nominal diameter; F=Female gas water coil connections

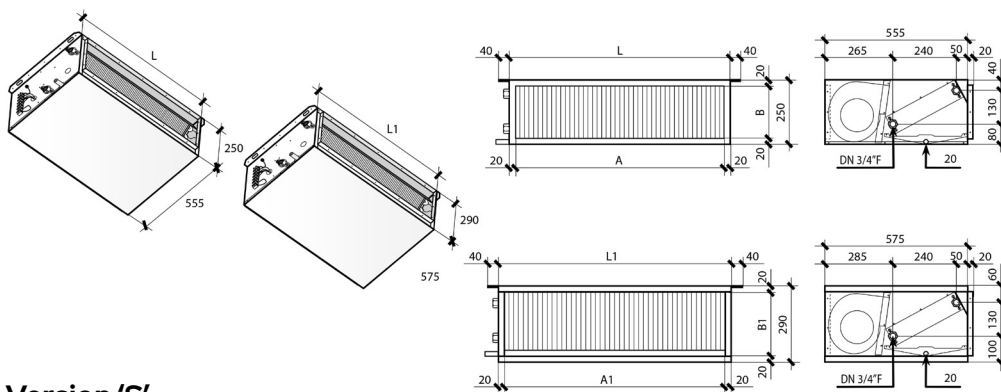
Nomenclature

When ordering, always specify complete model like the example.

HCN	S	OIP	130	DX
Series	Main casing	Version	Size	Connections
HCN	S; D	OIP-OII	60.....200	DX; SX

HCN-S-OIP 130-DX



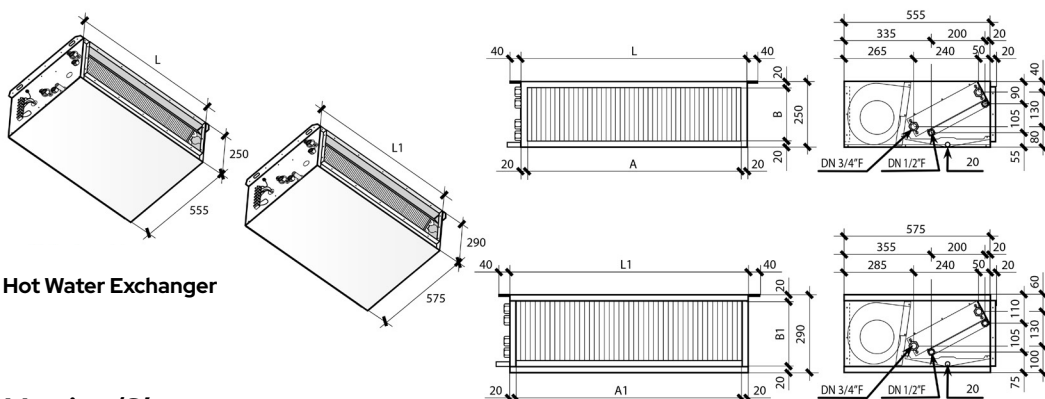


Version 'S'

HCN		60	75	86	103	130	150	136	170	200
L	mm	800	800	800	1.200	1.200	1.200	1.600	1.600	1.600
A	mm	760	760	760	1.160	1.160	1.160	1.560	1.560	1.560
B	mm	210	210	210	210	210	210	210	210	210
Weight	kq	34	35	37	48	50	53	63	65	68

Version 'D'

HCN		60	75	86	103	130	150	136	170	200
L1	mm	840	840	840	1.240	1.240	1.240	1.640	1.640	1.640
A1	mm	800	800	800	1.200	1.200	1.200	1.600	1.600	1.600
B1	mm	250	250	250	250	250	250	250	250	250
Weight	kg	48	49	51	66	68	71	85	87	90

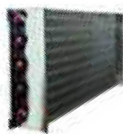


Version 'S'

HCN		60	75	103	130	136	170
L	mm	800	800	1.200	1.200	1.600	1.600
A	mm	760	760	1.160	1.160	1.560	1.560
B	mm	210	210	210	210	210	210
Weight	kg	36	37	51	53	67	69

Version 'D'

HCN		60	75	103	130	136	170
L1	mm	840	840	1.240	1.240	1.640	1.640
A1	mm	800	800	1.200	1.200	1.600	1.600
B1	mm	250	250	250	250	250	250
Weight	kg	50	51	69	71	89	91

**BC**

Auxiliary heating coil, 2 rows

**MOR-TMB⁽¹⁾**

Mammoth type terminal board + water low temperature thermostat. Tset 32°C.

**CRA⁽²⁾**

230V wall thermostat. 3 speeds fan selector + Off/On selector + 2 pipes plant management with or without 230V on-off valves

**CRR⁽²⁾**

230V wall mounted thermostat. 3 speeds fan selector + Off/On selector + remote seasonal changeover + 2 pipes plant management with or without 230V on-off valves

**CRB⁽²⁾**

230V/24V wall digital thermostat. 3 ways and auto selector + 2 or 4 pipes plant management with or without on-off valves, PWM, 3 points, electrical heaters

**CBP⁽²⁾**

Digital wall thermostat 230V/24V. On-off or brushless fan, 2 or 4 pipes plant management with or without on-off valve or 0..10V with 230V or 24V alimantation.

**TEL**

Remote control management system. Motherboard + Air sensor + Water sensor - I.R. reciever + I.R. Remote control (control 2-4 pipe units, with/without valves). **Fan 7A-230Vac. Valves: 2A-230Vac.**

**SDI.4X3A**

Card with 4 by 3A output (suitable to control up to max No. 4 3-Speed 3A motors ; ex. No. 4 small fan-coils)
Contatti-Contacts: 4x 3(0,3)A 230Vac

**SDI.4X3A**

Card with 2 by 10A output (suitable to control up to max No. 2 3-Speed motors of 10A ; ex. No. 1 large unit with 2 motors) **Contatti-Contacts: 2x 10A-230Vac**

**RE**

Electrical heater integrated inside the units + "TS" safety thermostat (without power relay) 230V/50Hz/1Ph

**MB**

Brushless motor with continuous variation 0-100% of the air flow (signal 0..10 Vdc)

- ▶ 50% yearly energy consumption
- ▶ 50% CO2 emissions
- ▶ 50% noise level

An essential accessory for the operation of a unit with Brushless motor is the controller with modulating control signal 0..10 Vdc, accessory CBP.

(1) All HCN units are supplied with standard Mammoth type terminal board, without thermostat.

(2) Each control panel can control only one unit (see accessory "SDI").

**QR1**

Power electric board for heaters 230Vac (BOX+magnetothermic+relè)

Model	Power	HCN compatibility	QR1 compatibility
RE0.7-24	0,7 kW / 3,1 A	Tutte le taglie - All sizes	QR1-0,7
RE1.0-24	1,0 kW / 4,4 A	Tutte le taglie - All sizes	QR1-1,4
RE1.5-24	1,5 kW / 6,6 A	Tutte le taglie - All sizes	QR1-2,3
RE2.0-24	2,0 kW / 8,7 A	Tutte le taglie - All sizes	QR1-2,3
RE3.0-24	3,0 kW / 13,1 A	HCN 103-130-150-136-170-200	QR1-3,7

SFA-S**SFA-D**

Flat air filter (not ductable), EU3 filtering level. (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)

SFC-S**SFC-D**

Ductable air filter section + flat air filter, EU3 filtering level (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)

SFD-S**SFD-D**

Ductable air filter section + HIGH EFFICIENCY ondulated air filter H=100mm, EU5 filtering level (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)

Air press. drop (clean/dirty filter)

HCN	60	75	86	103	130	150	136	170	200
SFA (Pa)	15/35	17/42	16/38	23/55	27/66	25/60	22/54	28/66	25/60
SFA (Pa)	15/35	17/42	16/38	23/55	27/66	25/60	22/54	28/66	25/60
SFA (Pa)	20/37	22/44	22/41	32/59	38/70	35/64	31/58	39/71	35/64

3V-2,5**3V-4****3V-6**

3-way valve with actuator 230V for 2 pipes units

3VM-2,5**3VM-4****3VM-6**

3-way valve with actuator 24Vac for 2 pipes units, Modulating signal 0-10V

2V-2,5**2V-4****2V-6**

2-way valve with actuator 230V for 2 pipes units

2VM-2,5**2VM-4****2VM-6**

2-way valve with actuator 24Vac for 2 pipes units, Modulating signal 0-10V

3VCM-2,5**3VCM-4****3VCM-6**

3-way valve for heating coil (4-pipe unit) with actuator 24Vac, Modulating signal 0-10V

3VC-2,5**3VC-4****3VC-6**

3-way valve for heating coil (4-pipe unit) with actuator 230V

**BMS-U1-V**

Main card with integrated communication

**SND-A2**

Air temperature sensor (compulsory per each BMS main card)

SND-W2SUMMER/WINTER
Water temperature sensor**SND-W3**Minimum water
temperature sensor**CD6**

Wall mounted external digital control

**2VC-2,5**
2VC-4
2VC-62-way valve for heating coil (4-pipe unit)
with actuator 230V**2VCM-2,5**
2VCM-4
2VCM-62-way valve for heating coil (4-pipe unit)
with actuator 24Vac, Modulating signal 0-10V

Note: Every single kit includes one valve and one actuator. In case of 4-pipe system must be provided n° 2 valves. For example, with ducted 4-pipe, in the case of 3-way valves, power supply 230 V: 3V + 3VC

3/2 way valve characteristics - RECOMMENDED MATCHINGS

HCN	60	75	86	103	130	150	136	170	200
Valve characteristics	Kvs 2,5				Kvs 4			Kvs 6	
User side connection					DN 3/4" M				
Nominal pressure					PN 16 bar				

**SBC-O**

Auxiliary drain pan made of galvanized steel- thermal insulation

**PMP**

Condensate pump provided with 8A (250V)

**SSM-S**
SSM-D

External/Internal mixing section "external air 0-33% - internal air 100-67% or vice versa (coupled louvers with manual controls - can be motorized) (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)

Air pressure drop

HCN	60	75	86	103	130	150	136	170	200
SSM (Pa)	13	15	14	20	24	22	20	24	22
SSM (Pa)	15	17	16	23	27	25	22	28	25



S2S-S
S2S-D

Closed section + 2 Regulation/adjustment louvers (1 louver below + 1 louver on the rear side) - Louvers without controls - can be either manual or motorized control (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)



MS

Motor "230Vac on-off" suitable for air damper



SSL-S
SSL-D

Labyrinth noise level attenuator section, suitable for both air intake/supply outlets (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)



SCM-S
SCM-D

Steel section with spigots "Ø" with variable diameter made of plastic material, external insulation (S=single skin panel made of galvanized steel, D=double skin panel pre-painted)

N° and Ø spigots

HCN	60	75	86	103	130	150	136	170	200
SCM n° x Ø	3xØ200/180/160			5xØ200/180/160			6xØ200/180/160		