

**Residential &
Light Commercial Line**

HYDRONIC SYSTEM

MEX PROZONE VS



Versions RH - ZH

4 sizes

Summer Air Conditioning: 5,1 ÷ 12,2 kW

(Outdoor air temperature=35°C; Outlet water temperature= 12°C/7°C)

Winter Space Heating: 6,0 ÷ 14,5 kW

(Outdoor air temperature=7°C; Outlet water temperature = 40°C/45°C)



DC INVERTER COMPRESSORS

single phase hermetic rotary compressors (mod. 15, 17, 110 RH), three phase scroll compressor (mod. 113 ZH)



ELECTRONIC EXPANSION VALVE



EVAPORATOR

Stainless steel AISI 316 brazed plate type



REDUCED NOISE

thanks to fans with special wing profile and electronic speed modulation.



DC DRIVER

- To control compressors' capacity, fans and circulator rpm
- FULL CAPACITY TO THE MAXIMUM LOADS AND HIGH PERFORMANCE TO PARTIAL LOADS (ESEER up to 4,42)



HYDRAULIC KIT

with variable flow rate circulator, water flow switch, air release valve, safety valve (3 bar), water gauge, plant charge and discharge shut off valve, expansion vessel.



DSP allows to adapt the setpoint always ensuring an optimal water temperature supplied to terminals, providing only the required cooling/heating capacity according to the outdoor temperature



THERMOLOGIC allows the view of the working parameters each terminal unit and those of each individual area.

It is possible to manage up to no. 70 hydronic terminal unit divided into 9 thermic zones.

CHRONOTHERMOSTAT FUNCTION
SANITARY WATER FEATURE

APPLICATIONS AND CONNECTION



RADIANT FLOOR



TERMINALS



SOLAR PANELS

	OPERATING CONDITIONS			MODELS			
	TAE	TWC	TWE	15 RH	17 RH	110 RH	113 ZH
RADIANT FLOOR							
SUMMER AIR CONDITIONING MODE							
COOLING CAPACITY	35/26	23/18	KW	6,7 (3,5 ~ 8,0)	8,8 (4,3 ~ 10,1)	12,1 (6,2 ~ 13,0)	16,0 (9,0 ~ 17,5)
POWER INPUT	35/26	23/18	KW	1,75	2,28	3,12	4,28
EER	35/26	23/18		3,82	3,86	3,86	3,83
WINTER SPACE HEATING MODE							
HEATING CAPACITY	7/6,2	30/35	KW	6,8 (3,8 ~ 8,8)	8,6 (4,5 ~ 9,8)	12,0 (6,9 ~ 13,5)	16,2 (8,5 ~ 17,1)
POWER INPUT	7/6,2	30/35	KW	1,66	2,10	2,96	3,93
COP	7/6,2	30/35		4,10	4,08	4,06	4,13
TERMINALS							
SUMMER AIR CONDITIONING MODE							
COOLING CAPACITY	35/26	12/7	KW	5,1 (2,4 ~ 6,0)	6,4 (3,0 ~ 7,6)	9,5 (4,5 ~ 10,5)	12,2 (6,9 ~ 14,7)
POWER INPUT	35/26	12/7	KW	1,60	1,97	3,26	3,88
EER	35/26	12/7		3,19	3,24	2,91	3,15
ESEER		12/7		4,42	4,37	3,96	4,10
WINTER SPACE HEATING MODE							
HEATING CAPACITY	7/6,2	40/45	KW	6,0 (3,2 ~ 7,0)	7,9 (3,9 ~ 9,1)	11,3 (6,0 ~ 12,1)	14,5 (7,5 ~ 16,9)
POWER INPUT	7/6,2	40/45	KW	1,82	2,30	3,74	4,50
COP	7/6,2	40/45		3,30	3,25	3,03	3,22
COMPRESSORS							
COMPRESSORS TYPE				Rotary	Rotary	Twin Rotary	Scroll
NUMBER OF COMPRESSORS				1	1	1	1
NUMBER OF REFRIGERANT CIRCUITS				1	1	1	1
VENTILATORS							
NUMBER OF FANS				1	1	2	2
AIR FLOW RATE			m ³ /s	0,67	0,83	1,39	1,39
FANS TOTAL POWER INPUT			KW	0,12	0,15	0,40	0,40
EVAPORATORS							
AIR CONDITIONING WATER FLOW RATE	35/26	23/18	l/min	14,60	18,35	27,50	40,70
AVAILABLE PRESSURE	35/26	23/18	kPa	60	50	45	70
			inch	3/4"M	3/4"M	1"M	1"M
WATER STORAGE CAPACITY (optional)							
AIR CONDITIONING MINIMUM WATER STORAGE CAPACITY							
WATER CONNECTIONS			l	10	10	16	20
ELECTRICAL DATA							
FLA MAX			A	10,8	13,5	20,7	14,5
POWER SUPPLY			V/Ph/Hz	230/1/50	230/1/50	230/1/50	400/3/50
ACOUSTIC DATA							
SOUND PRESSURE LEVEL			dB (A)	21 ~ 38	23 ~ 40	24 ~ 41	23 ~ 40
OUTDOOR TEMPERATURE			°C	-15/45	-15/45	-15/45	-15/45
DIMENSIONS AND WEIGHTS							
LENGHT			mm	1100	1200	1245	1245
WIDTH			mm	324	313	354	354
HEIGHT			mm	700	862	1245	1245
OPERATION WEIGHT			kg	85	95	119	130

HCS - Home control system

The *Home Control System* thanks to the interface *Remote Supervising Control* allows the setting and the monitoring of the “terminal units + heat pump” system in an easy and intuitive way for the user.

It is possible to manage up to 6 in cascade units and 70 terminals divided into no.9 thermal zones. The centralized system acquires the single temperatures of each unit and “thermal adjusts” according the outlet average temperature.

In this way the cascade chillers do not need further work probes to be placed in the total discharge pipe of the plant.

It is possible to cascade connecting also heat pumps having different powers (e.g. no.1 MEX VS 115 ZH with no.1 MEX VS 15 RH); the RSC control will be able to “self-learning” the installed capacity and to show on the display “in real time” the % of supplied output in comparison with the one installed. From the main menu of the panel it is also possible to know the number of the working terminal units compared to those installed.

Up to 6 units
and 70 terminals
with one single control

REMOTE SUPERVISIONING CONTROL

Centralized control for HCS



VISUAL CONTROL

Automatic control wall panel with serial port for connection to bus system HCS



BUS ADAPTER

Bus adapter for water satellite units

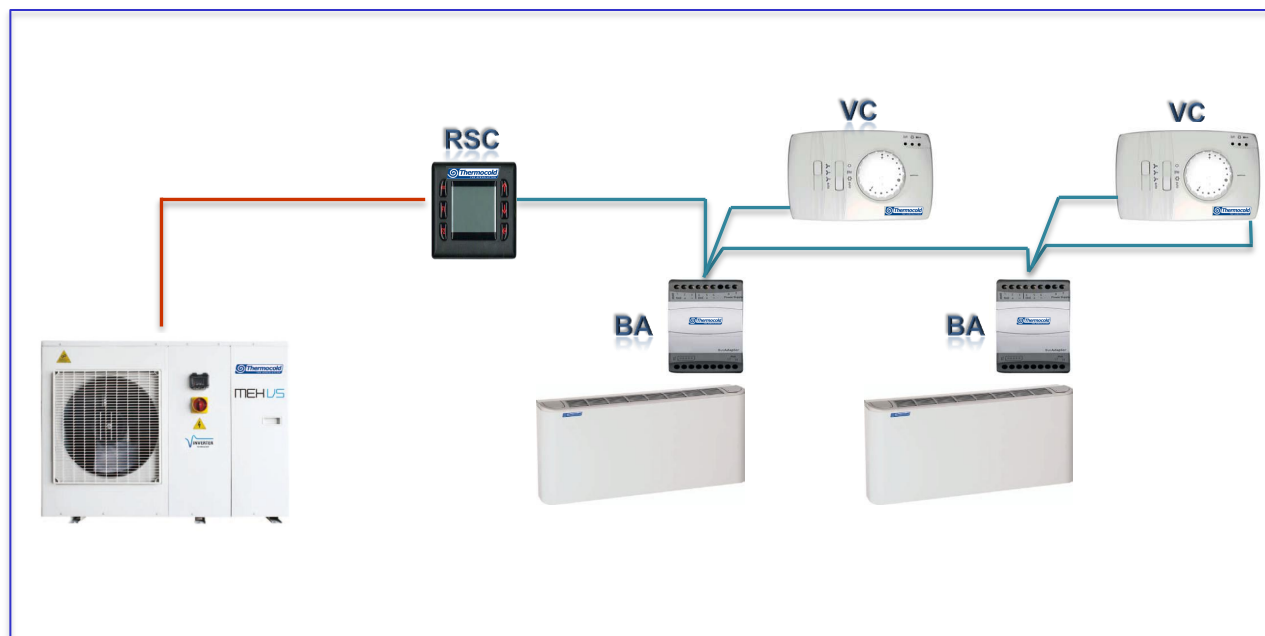


HCS - Home control system

To install a HNS BOX system there are two options:

1. purchase of VC and BA modules separately and installation on the machine at customer's expense.

In this case, it is possible to install the VC control on the wall in order to make accessible the temperature control knob that allows a variation of the same temperature according to a pre-fixed set by the RCS control. For example, if the room temperature set by RCS 20°C, it is possible, by turning the knob of the VC device, to change the set within a certain range of temperature +/-5 ° C, +/-6 ° C (setting by the parameter) and so on. In this case, the whole installation process is provided by the installer. Normally, the VC will be installed on the wall, while the BA interface is to be fixed on the machine.



HCS - Home control system

2. HCSpack purchase; inside the box there are already housed and pre-wired the two VC and BA devices, providing the customer with a terminal board where the terminal units can be connected.

In this way, it is not possible to adjust locally the temperature via the VC device as it is inserted inside the box. Temperatures and control parameters of hydronic terminals are all managed via the RCS control panel. Typically, the HCSpack will be placed close to the terminal, wall mounted or fixed to the side of the terminal in case of fan coils with or without cover or above the false ceiling in the case of hydronic cassette or ducted types inserted in the false ceiling.

The control panel RCS allows the view of the working parameters of each terminal unit, and those of each individual area.

