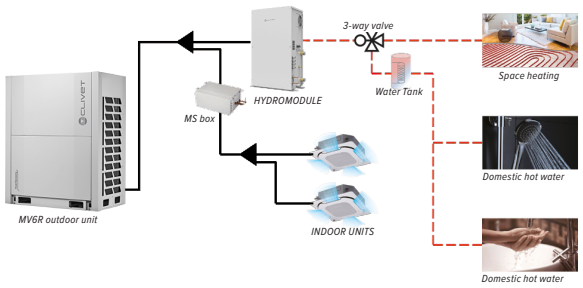
HIGH TEMPERATURE HYDRO MODULE

HWM-2-XMi 140

INDOOR UNIT

INTEGRATED HOT WATER PRODUCTION UP TO 80 °C

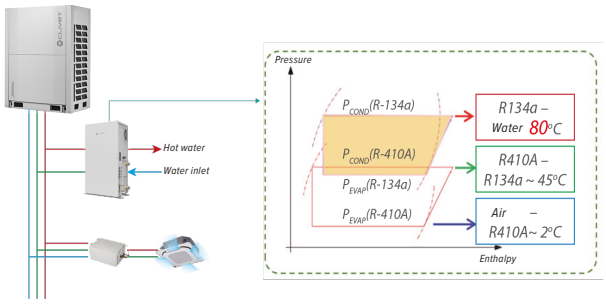
Specifically developed in combination with MV6R heat recovery series, High Temperature Hydro Module unit can produce hot water up to 80 °C to meet all possible demands: from space heating through underfloor heating, fan coils or radiators, to domestic hot water production.
Heat recovery series connection ensures all year round operation and to optimize system efficiency especially during summer season, allowing the simultaneous operation of the hydronic module producing domestic hot water and of indoor units cooling the rooms.



R134a CASCADE CIRCUIIT

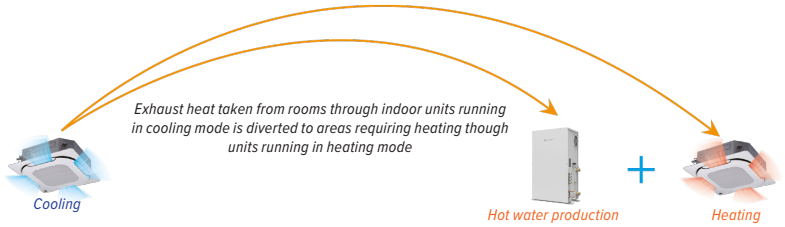
In order to raise water temperature supplied up to 80 °C, an independent R134a refrigerant circuit included in the unit is used:

- Within the main R410A refrigerant circuit common to the whole VRF system, the heat is taken from the ambient and diverted to the hydronic module through a plate heat exchanger;
- Inside the hydronic module, the heat transferred from the main circuit to the R134a cascade cycle is furtherly raised and released to the hydraulic circuit through another plate heat exchanger.



"FREE" HOT WATER PRODUCTION

Thanks to the heat recovery technology of the MV6R series, during the summer season it is possible to use the exhaust heat taken from the rooms through the indoor units operating in cooling mode and divert it to the hydro module for hot water production. Thus, it is sufficient to use the compressor included in the hydronic module to raise the thermal level and produce hot water with minimum power input.



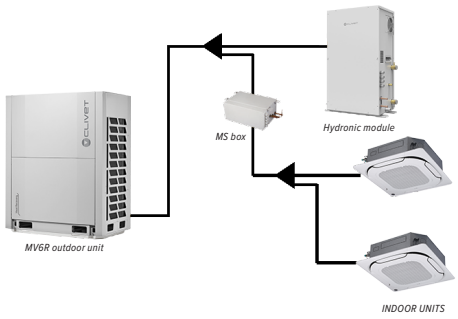
COMPACT AND LIGHT

The unit has been developed with a compact design to offer the minimum dimensions. The low weight furtherly simplifies transportation and installation.

EXTENDED CONNECTIVITY UP TO 200%

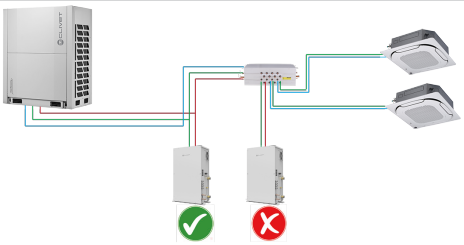
In a mixed system composed of hydronic modules and indoor units it is possible to connect up to 200% of outdoor unit capacity, in order to fully benefit from the simultaneousness of cooling and heating loads.

	MV6R system	Capacity index
Hydronic module + VRF indoor units	Total capacity index	50%~200%
	Total VRF indoor units capacity index	50%~130%
	Total hydronic modules capacity index	0%~100%



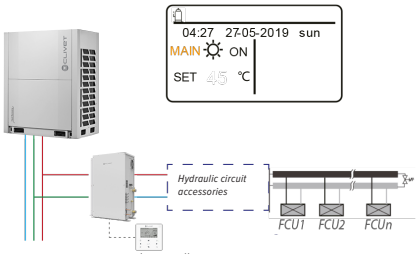
OPTIMIZED CONNECTION

Hydronic module is connected to the refrigerant circuit on the main pipe before the MS box, avoiding occupying ports and allowing the connection of more indoor units.

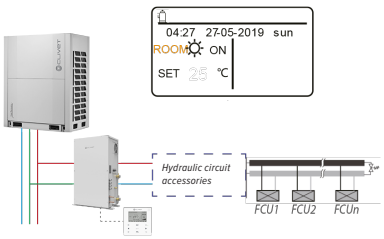


SUITABLE FOR MULTIPLE APPLICATIONS

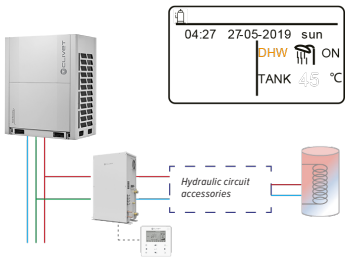
- **Scenario 1:** space heating application with supply water temperature control.



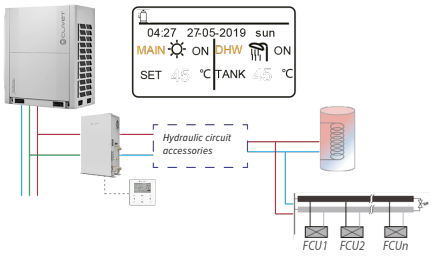
- **Scenario 2:** space heating application with room temperature control.



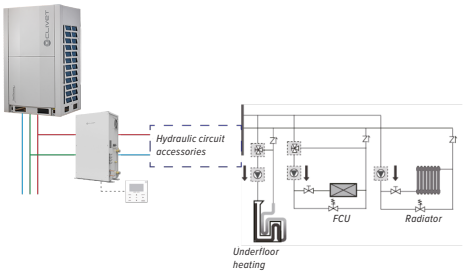
- **Scenario 3:** domestic hot water application with water tank temperature control.



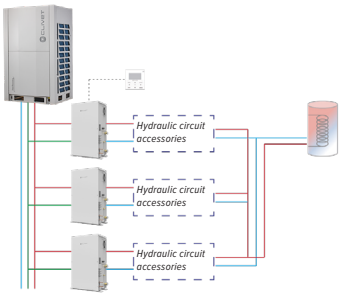
- **Scenario 4:** domestic hot water application and simultaneous space heating.



- **Scenario 5:** space heating application with multiple set point temperature for up to 3 zones management.



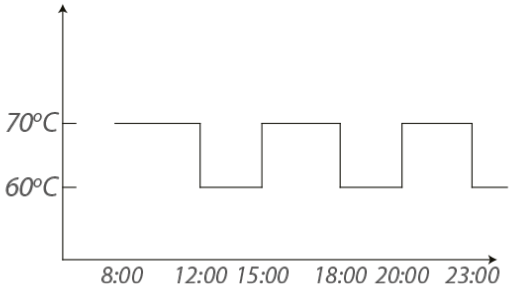
- **Scenario 6:** modular units configuration with group management and water tank temperature control.



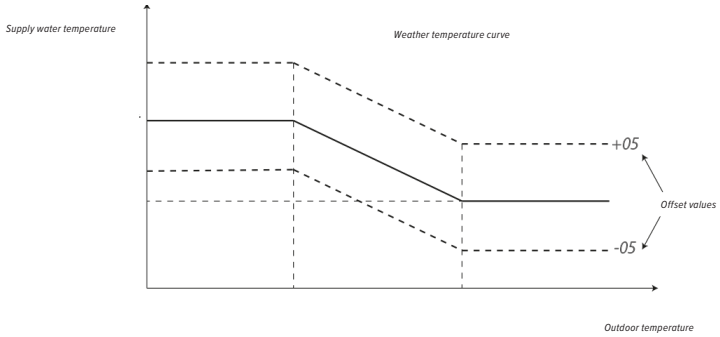
MULTIPLE ADVANCED FUNCTIONS

- **Weekly timer and variable temperature set point:** several settings (set point, operating mode) are available to be scheduled to automate operations according to user's specific needs.

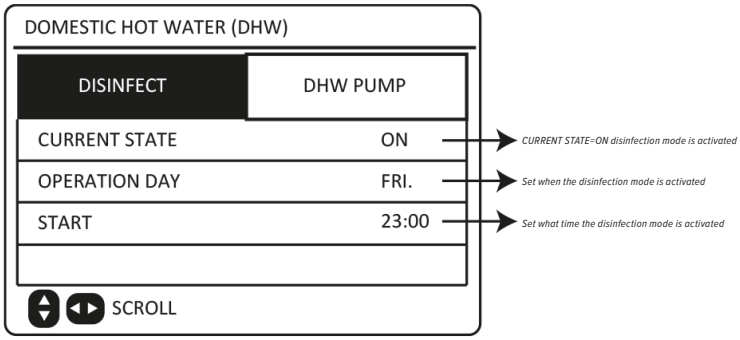
NO.	TIME	TEMP.
1	8:00	70 °C
2	12:00	60 °C
3	15:00	70 °C
4	18:00	60 °C
5	20:00	70 °C
6	23:00	60 °C



- **Weather temperature curve:** in space heating mode, supply water temperature is adjusted as function of the outdoor temperature, either when control is based on room temperature or on supply water temperature. Weather temperature curve can be modified according to user's preferences.

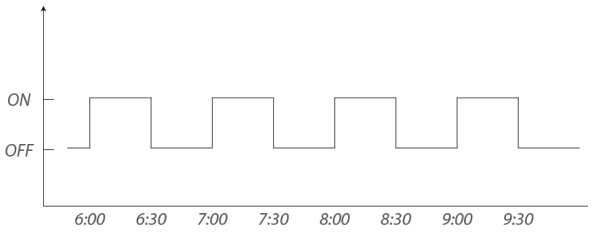


- **Disinfection mode:** in order to prevent the formation of legionella bacteria, a specific disinfection function has been designed, which can be scheduled to be performed regularly in specific days and hours.



- **DHW recirculating pump function:** in order to ensure the immediate supply of domestic hot water at any time, recirculating pump can be regularly activated in time periods settable by the wired controller.

NO.	TIME
1	*6:00*
2	*7:00*
3	*8:00*
4	*9:00*



- **Silent mode:** whereas silence is a crucial requirement, noise levels of the unit can be limited in specific time periods or continuously.
- **Holiday mode:** holiday mode prevents frost formation inside the water circuit, keeping also possible schedules if needed.
- **Settings Lock** (on/off operating mode, set point temperature, maximum power input) by wired controller.
- **Parameters monitor and alarms on** wired controller.

technical data

HWM-2-XMi 140

HIGH TEMPERATURE HYDRO MODULE

Size		HWM-2-XMi	140
Heating (1)	Capacity	kW	14
	Power input	kW	1,59
	Water temperature	°C	25 ~ 80
	Operating ambient temperature range heating mode	°C	-20 ~ 30
	Operating ambient temperature range DHW mode	°C	-20 ~ 43
	Installation room temperature	°C	0 ~ 40
Total capacity index (2)	HTHM / ODU	-	0 ~ 100%
	IDU / ODU	-	50 ~ 130%
	(HTHM + IDU) / ODU	-	50 ~ 200%
Compressor	Type	-	Rotary DC Inverter
	Quantity	-	1
Refrigerant	Type	-	R-134a
	Factory charge	kg	1,2
	CO_2 equivalence	ton	1,72
Refrigerant pipe connections	Liquid	mm	Ø 9,53
	Gas	mm	Ø 12,7
Water pipe connections	Inlet	mm	Ø 25,4
	Outlet	mm	Ø 25,4
Dimensions (Width x Height x Depth)		mm	450x795x300
Weight		kg	63
Water flow rate nominal (Min. ~ Max.)		m^3/h	2,4 (1,2 ~ 2,9)
Water circuit pressure		Mpa	0,1 ~ 0,3
Sound pressure level (3)		dB(A)	43
Sound power level 3)		dB(A)	54
Power supply		v/Ph/Hz	220-240/1~/50

(1) Ambient temperature 7°C DB/6°C WB; water inlet/outlet temperature 40°C/45°C, water flow-rate 2.4 m^3/h

(2) ODU = Outdoor units; IDU = Indoor units; HTHM = High temperature Hydro Module

(3) Sound levels are measured in a semi-anechoic chamber, 1 m in front of the unit and 1 m off the floor.

accessories

(HTHM)WDC-120G/WK Wired controller (already supplied with standard version)

REF DG24L503GB-00