



 **VENTUS**  
*PRO*

| ROOF TOP PVS RO





## GENERAL DESCRIPTION

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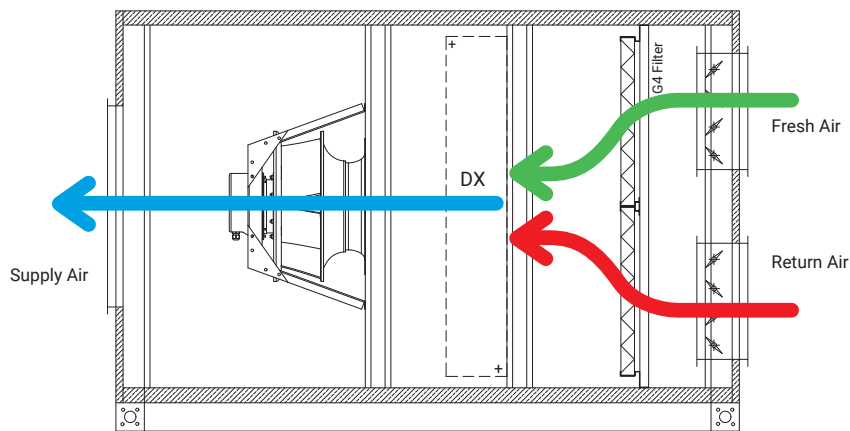
PVS RO is able to carry out the cooling function in the temperature range of 15°C / 50°C and the heating function in the range of -20°C / 25°C with the direct expansion heat pump system. In winter, defrost scenario is managed with a simultaneous defrosting algorithm to ensure that the device will continue to operate even during defrost during severe winter conditions.

## TECHNICAL SPECIFICATION

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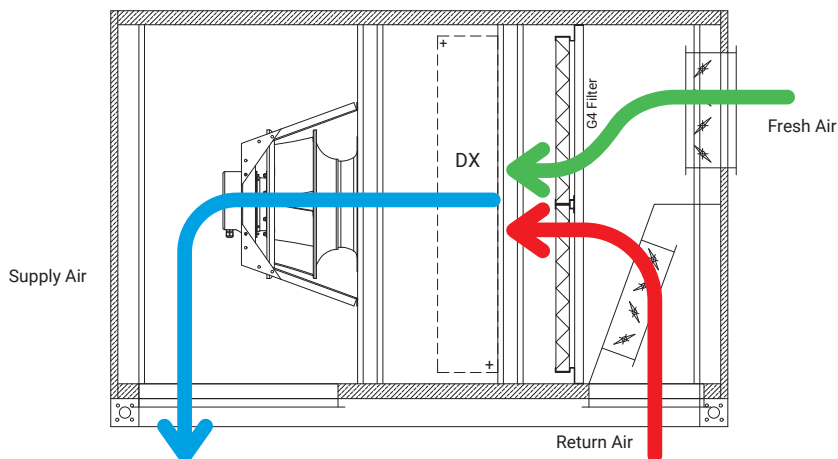
- » Double skin 25mm pannels are filled with rockwool for heat and acoustic insulation.
- » The inner and outer walls are made of corrosionresistant galvanized steel.
- » Stainless steel and insulated condensation pan.
- » Electrostatic powder pain coating
- » G4(EU4) quality panel filter is used as standard, optional M5(EU5)-F7(EU7)-F9(EU9) filter can be preferred.
- » Electronically Commutated (EC) fan is used on the supply air side. These fans have high energy efficiency and low noise level.
- » Coils are aluminium finned, copper pipe coil which is well performance/energy consumption optimised and able to operate in wide temperature range. The coil designed for air velocity below 2,5m/s in order to ensure high energy efficiency and proper drain of condensated water.
- » High efficiency scroll compressors use environmentally conscious R410A refrigerant, which does not damage the ozone layer. Condensation and evaporation temperatures have been determined to allow the device to operate in a wide range of climatic conditions and to keep energy efficiency at the highest level.





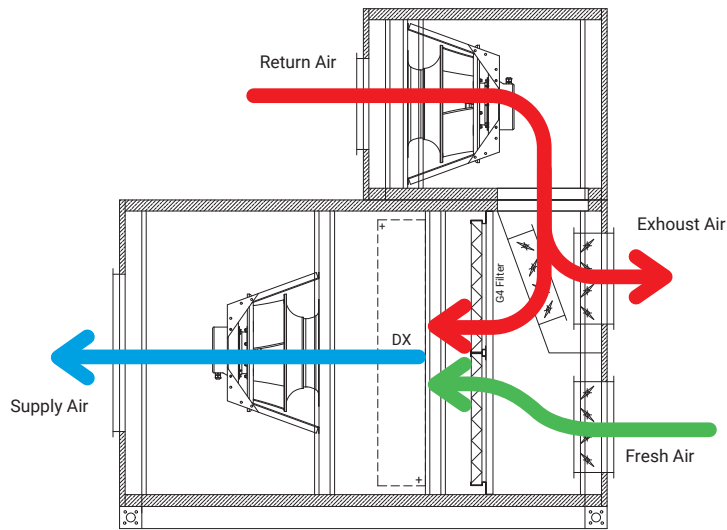
### TYPE 1 – SINGLE FAN, AIR DIRECTION ON SIDES

Fresh Air and Return Air passing through proportional air dampers mix at the desired rate. Mixed air pass. Filter and DX coil and supplied into the room by Supply fan.



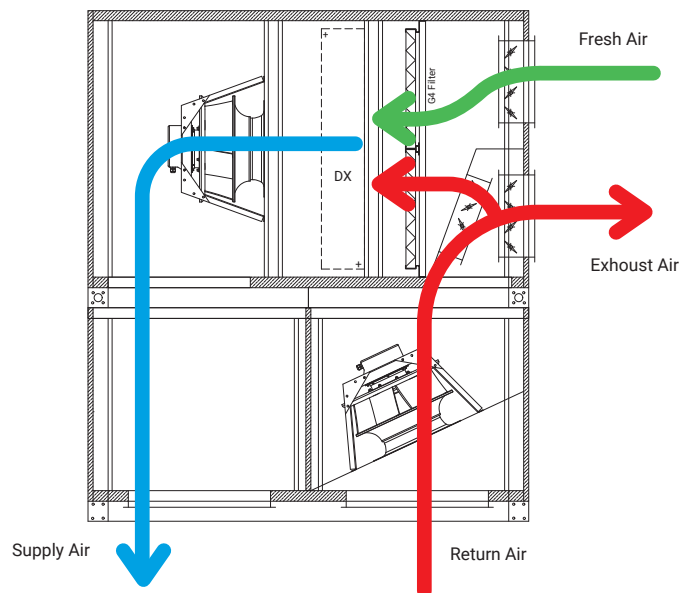
### TYPE 2 – SINGLE FAN, AIR DIRECTION ON DOWNSIDE

Fresh Air and Return Air passing through proportional air dampers mix at the desired rate. Mixed air pass. Filter and DX coil and supplied into the room by Supply fan.



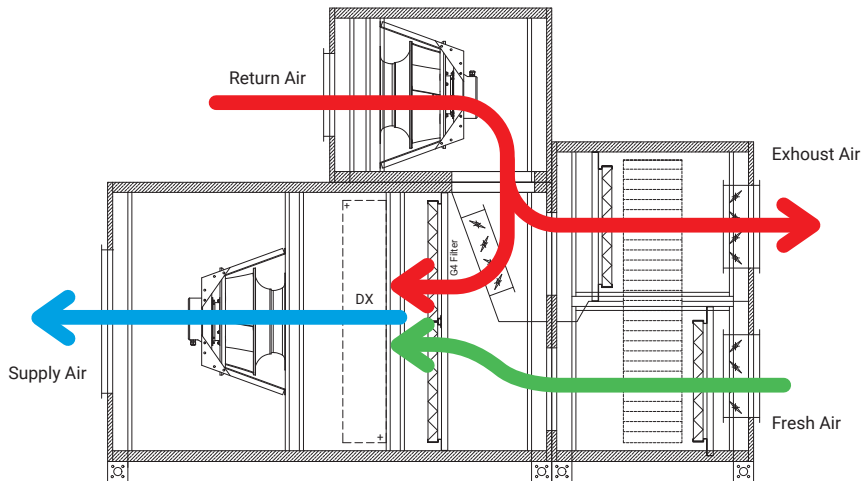
### TYPE-3 – DOUBLE FANS, AIR DIRECTION ON SIDES

There are two fan groups as ventilator and aspirator. The room air which extracted by the aspirator is mixed with the fresh air at the desired rate through the economizer. The fresh air and mixed air pass through the filters and conditioned supplied to the room via ventilator.



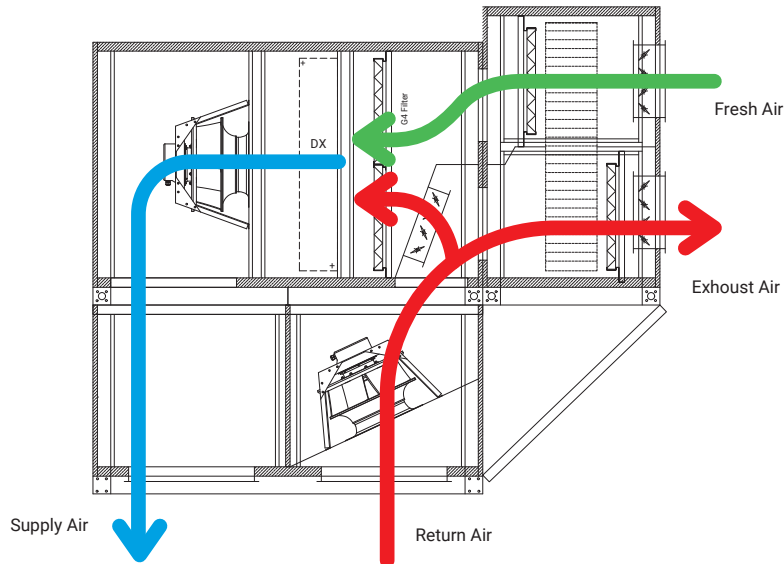
### TYPE-4 – DOUBLE FANS, AIR DIRECTION ON DOWNSIDE

There are two fan groups as ventilator and aspirator. The room air which extracted by the aspirator is mixed with the fresh air at the desired rate through the economizer. The fresh air and mixed air pass through the filters and conditioned supplied to the room via ventilator.



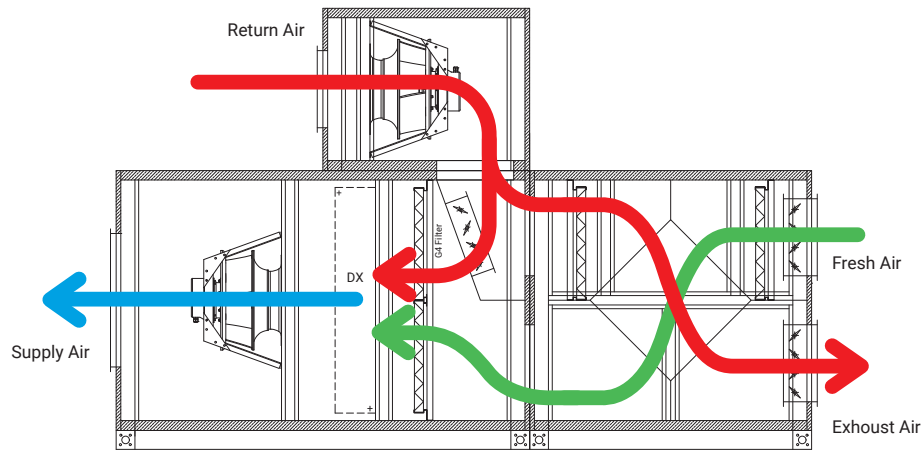
### TYPE-5 – ROTARY HEAT RECOVERY, AIR DIRECTION ON SIDES

Air circulation provided with ventilator and aspirator fans and the waste energy of the exhaust air is recovered and transferred to the supply air thanks to the high efficiency rotary heat recovery. The heat recovery rotor can be preferred with the feature of latent heat-humidity transfer.



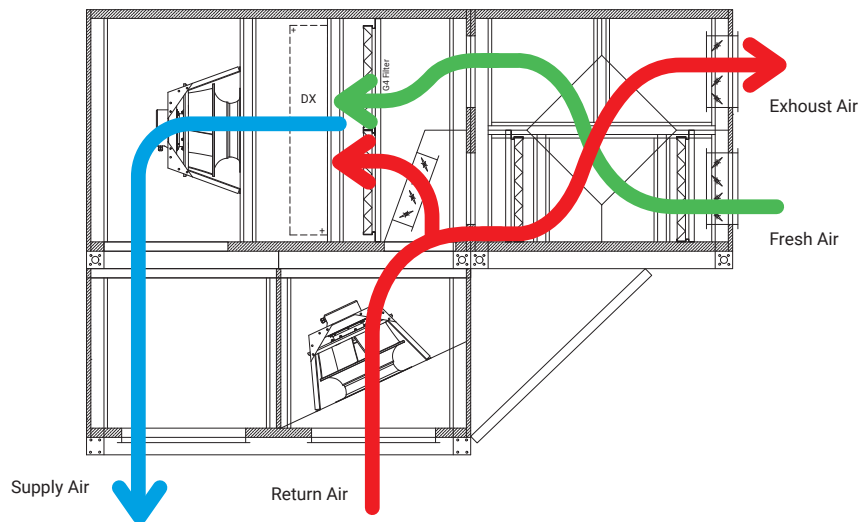
### TYPE-6 – ROTARY HEAT RECOVERY, AIR DIRECTION ON DOWNSIDE

Air circulation provided with ventilator and aspirator fans and the waste energy of the exhaust air is recovered and transferred to the supply air thanks to the high efficiency rotary heat recovery. The heat recovery rotor can be preferred with the feature of latent heat-humidity transfer.



### TYPE-7 – PLATE HEAT RECOVERY, AIR DIRECTION ON SIDES

Air circulation provided with ventilator and aspirator fans and the waste energy of the exhaust air is recovered and transferred to the supply air thanks to the high efficiency plate heat recovery heat exchanger.



### TYPE-8 – PLATE HEAT RECOVERY, AIR DIRECTION ON DOWNSIDE

Air circulation provided with ventilator and aspirator fans and the waste energy of the exhaust air is recovered and transferred to the supply air thanks to the high efficiency plate heat recovery heat exchanger.



PVS RO		12	22	32	38	46	55	64	70	80	94	121	151	198
<b>COOLING</b>														
Nominal Cooling Capacity	kW	10,75	21,20	31,60	37,90	46,00	54,20	63,20	69,60	79,20	93,20	120,80	150,60	197,40
*EER	-	2,91	2,96	3,02	2,96	3,01	3,02	3,08	3,12	2,98	3,14	3,11	3,09	3,18
<b>HEATING</b>														
Nominal Heating Capacity	kW	10,29	20,47	30,45	36,48	44,50	52,28	60,90	67,22	76,96	90,32	115,70	146,40	189,50
*COP	-	3,12	3,12	3,18	3,14	3,16	3,16	3,27	3,28	3,14	3,31	3,28	3,29	3,32
<b>COMPRESSOR</b>														
Compressor Type	--	SCROLL												
Number of Circuits	-	1	1	1	1	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
Refrigerant	-	R410A												
<b>FAN</b>														
Nominal Air Flow	m <sup>3</sup> /h	2750	4500	5800	6300	8500	9500	10500	12500	15700	19000	23000	25700	32000
Nominal External Static Pressure	Pa	450	450	450	450	450	450	450	450	450	450	450	450	450
Fan Type	-	EC / PLUG												
Casing	-	DOUBLE SKIN 25MM ROCK WOOL												

\*According to EN 14511 standards



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