

# AIR+PLUS

Air Conditioning Technologies



**AIR+PLUS**  
Air Conditioning Technologies

HRV-DX Plus Dx Type  
of Ceiling Type Heat  
Recovery Units

71



**AIR+PLUS**

Air Conditioning Technologies



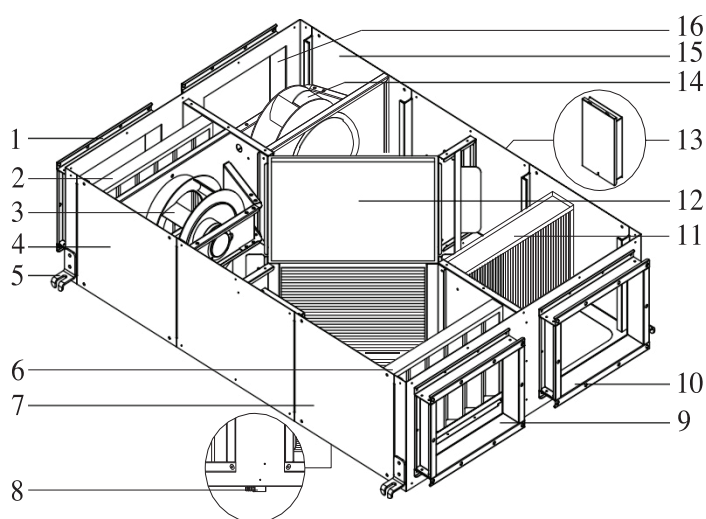
Plug & Play

# HRV-DX Plus DX Ceiling Type Heat Recovery Equipment

HRU devices are designed to meet the exhaust and fresh air needs in indoor spaces and thanks to its special plate heat exchanger and with the help of the built-in fans, it provides energy saving by recovering the heat energy without mixing the exhaust air with fresh air. The heat recovery devices with DX coil are designed to meet 100% fresh air requirement.

## ► Product Material

The carrier casing is double walled made of 1,00 mm thick galvanized sheet, and interior of the device has a 30 mm thick sound insulation. It has self-powered, imported, silent, mono-phase (230 V) and plug-in fans suitable for speed control. 40-50% efficiency heat exchangers are used in our heat recovery devices. DX coil and the electronics control unit are inside the device. The drain pan and pipe are located underneath the heat exchanger and DX coil. The lower section is coated with heat insulation to prevent perspiration.



1. Fresh Air Inlet Duct
2. Polyurethane Filter
3. Fresh Air Plug Fan
4. Fresh Air Plug Fan Access Cover
5. Mounting Feet
6. Polyurethane Filter
7. Filter Access Cover
8. Condensation Pan Drain
9. Inside Suction Duct
10. Inside Blowing Duct
11. DX Coil
12. Plate Heat Exchanger
13. Automatic Controller Cabinet
14. Exhaust Plug Fan
15. Exhaust Plug Fan Access Cover
16. Exhaust Duct

## ► Usage Features

Ceiling type heat recovery devices are designed to provide high indoor air quality as well as energy saving. Aluminum plate heat exchangers with high performance and thermal conductivity ensure efficient heat transfer between warm and cold air streams. Cooling and heating the indoor air is ensured with DX coil and heat pump, respectively. In places, which are required to be exhausted at high density such as workplaces, banks, offices, hotels, houses, cinemas, fair-exhibition areas, hospitals, multi-purpose halls, restaurants, etc., besides the energy saving advantages, they also target to meet the need for fresh air. They are produced in standardized 6 models with an air flow range between 750 m<sup>3</sup>/h to 4000 m<sup>3</sup>/h. The models are designed to be placed between the suspended ceiling, installed and maintained easily.

## ► Function

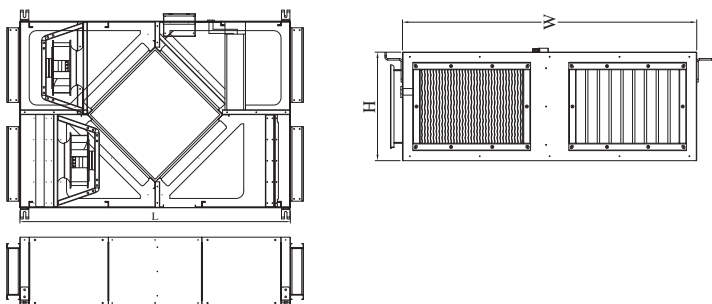
- Supplies the required fresh air to indoors and improves the air quality.
- Discharges indoor air with low quality.
- Utilizes the energy of exhaust air to condition fresh air.
- Filters fresh air supplied to the indoor.
- Indoor cooling and heating is provided by DX coil - VRF outdoor unit.



## ► Automatic Controller and Room Panel

- Turkish and English display.
- Room panel with stylish LCD display
- 230V AC supply.
- Possibility to see the ambient temperature instantly, and adjust the set value.
- Possibility to control both aspirator and ventilator fans at 3 individual stages.
- Possibility to have on-off control of DX coil expansion valve.
- Possibility to start and stop the device from the building central automation.
- Feature of resuming from the last operating position of the device in a power outage when the power returns.
- Optionally, feature of connectivity to the differential pressure switch for filter impurity.
- Optionally, feature of connectivity to the temperature sensor.

Model		HRV-DXPlus-750	HRV-DXPlus-1000	HRV-DXPlus-1500	HRV-DXPlus-2000	HRV-DXPlus-3000	HRV-DXPlus-4000
<b>Air Flowrate</b>	m <sup>3</sup> /h	750	1000	1500	2000	3000	4000
<b>External Static Pressure Loss</b>	Pa	210	165	220	185	185	240
<b>Voltage</b>	V	230					
<b>Power</b>	w	210 x 2	225 x 2	515 x 2	500 x 2	680 x 2	1550 x 2
<b>Current</b>	A	0,93 x 2	1,00 x 2	2,25 x 2	2,20 x 2	3,00 x 2	6,80 x 2
<b>IGK Cooling Capacity</b>	kW	1,05	1,37	1,93	2,63	3,28	4,31
<b>DX Cooling Capacity</b>	kW	5,6	9	11,2	14	22,4	28
<b>Total Cooling Capacity</b>	kW	6,65	10,37	13,13	16,63	25,68	32,31
<b>IGK Heating Capacity</b>	kW	2,28	2,97	4,18	5,7	7,11	9,33
<b>DX Heating Capacity</b>	kW	6,2	10	12,4	15,5	24,8	31
<b>Total Heating Capacity</b>	kW	8,48	12,97	16,58	21,2	31,91	40,33
<b>Noise Level</b>	dB(A)	46	48	52	50	52	52
<b>Length (L)</b>	mm	1050	1350	1400	1600	1600	1750
<b>Width (W)</b>	mm	900	1150	1300	1360	1500	1600
<b>Height (H)</b>	mm	420	420	420	600	680	780
<b>Channel Link</b>	mm	300 x 250	400 x 250	450 x 250	500 x 400	550 x 450	600 x 500
<b>Weight</b>	kg	90	115	130	185	230	290



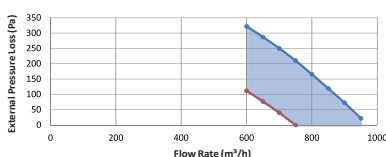
- Heating and cooling can be performed by a single VRF outdoor unit; heating, cooling and operating costs are decreased.
- Provides optimum control with the compressors having variable capacity (inverter technology) and the fans used in VRF outdoor unit and thus consumes power just as required thanks to the local control.
- Ability to give quick response to the partial loads.
- Makes sure that large areas we have to reserve for the water cooling group and the boiler are saved.
- It can be taken into regime in a very short time.
- Unlike the traditional systems, there is no freezing risks of water coil in this system.
- Maintenance costs are much lower than the traditional systems.
- The static charge added by the water amount circulating inside the steel piping, pump, and tubing in the system with the conventional chiller and the hot water boiler is a minute amount in this system.
- Longer lasting compared to the conventional devices.

## ► Advantages of DX Ceiling Type Heat Recovery Equipment

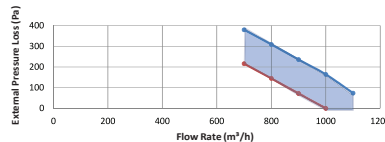
- Possibility to hung between suspended ceiling.
- Energy losses in the refrigerant pipes are much less.
- It is an advantageous system with COP values in terms of operation and investment costs, it offers new, easy and fast solutions to small and medium sized facilities through a single investment.

## External Static Pressure and Flow Rate Diagrams of HRV-DX Plus Ceiling Type Heat Recovery Devices

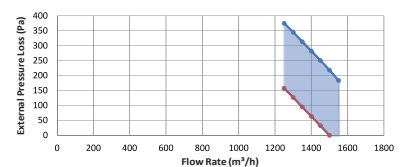
HRV-DX Plus-750



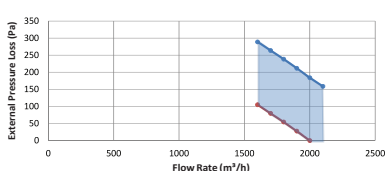
HRV-DX Plus-1000



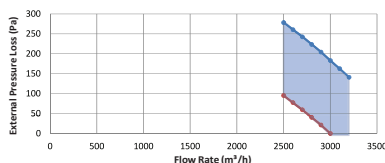
HRV-DX Plus-1500



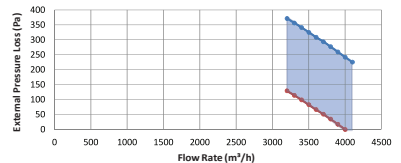
HRV-DX Plus-2000



HRV-DX Plus-3000



HRV-DX Plus-4000



Rev.08.19



# AIR+PLUS

Air Conditioning Technologies

## Airplus İklimlendirme Teknolojileri San. Tic. Ltd. Şti

Sırapınar Mah.Beykoz Cad.Çanakçı Dere Mevki  
No:99-3 Çekmeköy - İstanbul

Tel : +90 (216) 420 65 58  
Faks : +90 (216) 420 65 59

[www.airplus.com.tr](http://www.airplus.com.tr)