



The HRD2 heat recovery units are developed for installation in commercial and service sector such as offices, bars, restaurants, meeting rooms, shops, schools, gyms, and in general in all facilities where the energy cost reduction is of high importance. In modern air-conditioning and air treatment systems, is necessary to create forced ventilation which involves air conditioned expelling, with high energy consumption and high costs. HRD2 heat recovery units, using a high efficiency aluminum static heat recovery, can solve this problem by saving more than 70% of the energy that would otherwise be lost with the expelled stale air. These units may be integrated with traditional systems such as fan coils, water coolers or radiators, and can operate both in summer and in winter. The range HRD2 is recommended for suspended ceiling installation and can be ducted to allow the fresh air intake and distribution.

Control

Wall mounted Control for Heat Recovery units HRD2 CR

Versions

OL	Horizontal installation, left air supply	VL	Vertical Installation, left air supply
OR	Horizontal Installation, right air supply	VR	Vertical installation, right air supply

Features

High efficiency counterflow heat recovery with aluminium heat exchanger plates, supplementary sealing and built-in motorized by pass device. Aluminium drain pan, fitted with 1/2" condensation outlet (on side for horizontal units and bottom for vertical units). High Efficiency >75% on dry conditions. All sizes are Eurovent Certified

Plug Fan Direct driven EC motor with Brushless technology. Plastic fiber glass reinforced impeller for size 05 to size 10, and aluminium impeller for bigger sizes.

Self -supporting steel structure, made of 25 mm double pannels with galvanized steel pannel internally and RAL9002 painted pannel externally. Inspection doors and panels. For horizontal installations longitudinal steel brackets are supplied for ceiling installation, while for vertical installation (floor installation), galvanized steel feet are supplied as standard.

Motorized Bypass Dumper for Free Cooling and Free Heating taking advantage of favorable external temperature conditions.

Mineral Wool Thermal and acoustic insulation

Compact filters M5 efficiency class on return air, F7 efficiency class on fresh air, easy removable from bottom and side panels. Efficiency according to EN 779:2012

Built-in electric box with electronic controller for a complete control of all typical functions of the units

Accessories

- Internal electrical pre and post heater
- External section with changeover watercoil
- Motorized adjusting Dumpers
- 3 Way valve with modulating actuator
- Roof cover for horizontal units
- Air filter pressure switch
- Ducted CO2 sensor
- Air pressure sensor
- Anti-vibration junction
- Round connections

HRD2 OL/OR		050	090	140	210	300	410
ELECTRICAL DATA							
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3+N/50	400/3+N/50
Fan Power Input	W	327	339	904	930	1841	1910
Max absorbed power	W	340	340	920	930	2000	2000
Overall current input Nominal	A						
Absorbed current	A	2,80	2,90	6,00	6,00	3,40	3,50
Fan speed control	V						
PERFORMANCE							
Air flow rate	m³/h	426	776	1230	1843	2720	3685
Air flow rate	m³/s						
ESP External Static Pressure	(1) Pa	218	153	265	172	194	200
Sound Pressure on inlet side Lp (IR)	(2) dB(A)	53	52	53	60	62	60
Sound Pressure on outlet side Lp (OD)	(2) dB(A)	61	60	61	68	70	68
Efficiency of Heat recovery	(3) %	86,2	86,9	83,7	85,3	84,8	85,0
Total capacity (heating mode)	(3) kW	3,68	6,77	10,3	15,8	23,2	31,4
Heat recovery outlet temperature	(3) °C	16,3	16,5	15,6	16,0	15,9	16,0
CONFORMITY TO (EU 1253/2014)							
Efficiency of Heat recovery	(4) %	81,4	80,1	77,9	77,4	76,8	76,8
Efficiency bonus	W/m³/s	252	213	147	132	114	114
Filter correction factor							
SFP internal limit	W/m³/s	1337	1283	1201	1162	1113	1078
Total internal air pressure drop	(4) Pa	601	679	570	583	633	636
Overall fan static efficiency	(5) %	45,0	53,1	47,5	50,7	59,0	59,2
SFP internal	W/m³/s	1336	1279	1200	1150	1073	1074
SIZE AND WEIGHT							
A	(6) mm	1350	1470	1850	1850	2150	2150
B	(6) mm	680	820	1030	1460	1460	1840
H	(6) mm	330	370	455	455	590	590
Operating weight	(6) kg	85	105	175	235	290	360

Notes

- Fresh air/supply air circuit.
- Sound pressure level in free field on a reflective surface, 1 m from fan front and 1 m from the ground. Non-binding value obtained from sound power level.
- Size valued in the following hypothesis at wet conditions: outside air temp. -7°C 80% RH; room air temperature 20°C; 55% RH
- Size valued in the following hypothesis at dry conditions: outside air temperature 5°C; room air temperature 25°C
- Including motor&speed controller efficiency
- Unit in standard configuration/execution, without optional accessories.

HRD2 VL/VR		050	090	140	210	300	410
ELECTRICAL DATA							
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3+N/50	400/3+N/50
Fan Power Input	W	327	339	904	930	1841	1910
Max absorbed power	W	340	340	920	930	2000	2000
Overall current input Nominal	A						
Absorbed current	A	2,80	2,90	6,00	6,00	3,40	3,50
Fan speed control	V						
PERFORMANCE							
Air flow rate	m³/h	426	776	1230	1843	2720	3685
Air flow rate	m³/s						
ESP External Static Pressure	(1) Pa	218	153	265	172	194	200
Sound Pressure on inlet side Lp (IR)	(2) dB(A)	53	52	53	60	62	60
Sound Pressure on outlet side Lp (OD)	(2) dB(A)	61	60	61	68	70	68
Efficiency of Heat recovery	(3) %	86,2	86,9	83,7	85,3	84,8	85,0
Total capacity (heating mode)	(3) kW	3,68	6,77	10,3	15,8	23,2	31,4
Heat recovery outlet temperature	(3) °C	16,3	16,5	15,6	16,0	15,9	16,0
CONFORMITY TO (EU 1253/2014)							
Efficiency of Heat recovery	(4) %	81,4	80,1	77,9	77,4	76,8	76,8
Efficiency bonus	W/m³/s	252	213	147	132	114	114
Filter correction factor							
SFP internal limit	W/m³/s	1337	1283	1201	1162	1113	1078
Total internal air pressure drop	(4) Pa	601	679	570	583	633	636
Overall fan static efficiency	(5) %	45,0	53,1	47,5	50,7	59,0	59,2
SFP internal	W/m³/s	1336	1279	1200	1150	1073	1074
SIZE AND WEIGHT							
A	(6) mm	1350	1470	1850	1850	2150	2150
B	(6) mm	330	370	455	455	590	590
H	(6) mm	680	820	1030	1460	1460	1840
Operating weight	(6) kg	85	105	175	235	290	360

Notes

- Fresh air/supply air circuit.
- Sound pressure level in free field on a reflective surface, 1 m from fan front and 1 m from the ground. Non-binding value obtained from sound power level.
- Size valued in the following hypothesis at wet conditions: outside air temp. -7°C 80% RH; room air temperature 20°C; 55% RH
- Size valued in the following hypothesis at dry conditions: outside air temperature 5°C; room air temperature 25°C
- Including motor&speed controller efficiency
- Unit in standard configuration/execution, without optional accessories.

Dimensional drawing

