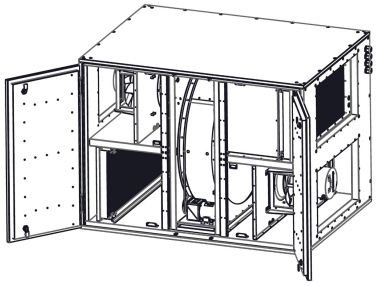
# HR Rotor-5000Bi

Artikel 1668



| | | Supply | Extract |
|---|---|---|---|
| Air flow | [$m^3$/h] | 5000 | 5000 |
| External pressure | [Pa] | 250 | 250 |
| Inlet temperature, summer | [°C] | 28 | 21 |
| Relative humidity, summer | [%] | 50 | 60 |
| Inlet temperature, winter | [°C] | -10 | 21 |
| Relative humidity, winter | [%] | 95 | 50 |

| | | |
|---|---|---|
| Unit SFP | [W/($m^3$/s)] | 1573.96 |

# Heat exchanger, summer

| Supply | | | Extract | | |
|---|---|---|---|---|---|
| Temperature after heat exchanger | [°C] | 22.53 | Temperature after heat exchanger | [°C] | 26.47 |
| Relative humidity after heat exchanger | [%] | 69.23 | Relative humidity after heat exchanger | [%] | 43.17 |
| Exchange efficiency dry | [%] | 78.12 | Exchange efficiency dry | [%] | 78.1 |
| Exchange efficiency wet | [%] | 0 | Exchange efficiency wet | [%] | 0 |
| Heat recovery wet | [kW] | -9.28 | | | |

# Heat exchanger, winter

| Supply | | | Extract | | |
|---|---|---|---|---|---|
| Temperature after heat exchanger | [°C] | 14.2 | Temperature after heat exchanger | [°C] | -3.05 |
| Relative humidity after heat exchanger | [%] | 32.82 | Relative humidity after heat exchanger | [%] | 100 |
| Exchange efficiency dry | [%] | 78.07 | Exchange efficiency dry | [%] | 77.6 |
| Exchange efficiency wet | [%] | 28 | Exchange efficiency wet | [%] | 77 |
| Heat recovery wet | [kW] | 47.63 | | | |

# Fans, winter

EC fan, backward curved impeller
Rated power = 1320W(1,8Hp)
Phase/voltage [50/60Hz/VAC] ~3, 380/480
Sound pressure level at 3 meters to environment 44 db(A)
Insulation class B
Motor protection class IP 54

| Supply fan, winter | | | Extract fan, winter | | |
|---|---|---|---|---|---|
| RPM | [1/min] | 1211.24 | RPM | [1/min] | 1226.97 |
| Electric power consumption | [W] | 1074.08 | Electric power consumption | [W] | 1111.97 |
| Current, A | [A] | 1.71 | Current, A | [A] | 1.77 |
| Total fan pressure, Pa | [Pa] | 475.12 | Total fan pressure, Pa | [Pa] | 492.12 |
| Static fan pressure, Pa | [Pa] | 451.04 | Static fan pressure, Pa | [Pa] | 468.04 |
| Static fan efficiency η es | [%] | 58.32 | Static fan efficiency η es | [%] | 58.46 |
| Airflow at operating point | [$m^3$/h] | 5000 | Airflow at operating point | [$m^3$/h] | 5000 |
| Power rated | [W] | 1320 | Power rated | [W] | 1320 |
| Current rated | [A] | 2.1 | Current rated | [A] | 2.1 |
| Control voltage | [V] | 8.95 | Control voltage | [V] | 9.06 |
| Sound pressure level to environment @3m | [dB(A)] | 30.12 | Sound pressure level to environment @3m | [dB(A)] | 30.39 |

**Fans sound power, winter Lw, (dB)**

| Sound power level | Octave frequency bands [Hz] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Gen. | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| **Lwa (to inlet)** | **68** | 41 | 51 | 58 | 62 | 63 | 62 | 59 | 53 |
| **Lwa (to outlet)** | **75** | 43 | 53 | 60 | 68 | 72 | 66 | 62 | 55 |
| **Lwa (to environment)** | **51** | 36 | 44 | 48 | 40 | 39 | 33 | 29 | 23 |

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| **Lwa (to environment)** | **51** | 36 | 45 | 48 | 40 | 40 | 34 | 29 | 24 |

| SFP, winter | | |
|---|---|---|
| Unit external SFP, real at operation point | [W/($m^3$/s)] | 1573.96 |

## Filter

Filter 603*253*48 - ePM1 70% ISO16890 / F7 EN 779:2012, panel type, PP+PET / MERV 13 (ASHRAE 52.2) Frames 9.9x23.7x1.8inch,

## Dampers

Multi-blade damper for air flow control
The housing made of galvanized steel. The aluminium blades driven by plastic gearwheels. Lever with removable metal handle and fixing clamp. Standard connection flange for rectangular air ducts or other ventilation system components. Flanges should be connected with galvanized bolts and clamps.

# Casing

Double skin frameless casing with 40 mm (1.5inch) mineral wool 90 kg/m3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T3, TB4.
Insulation class B

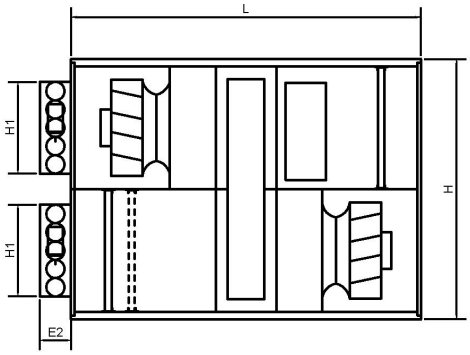
| Units | L | W | H | S | H1 | E2 | S1 | S2 |
|---|---|---|---|---|---|---|---|---|
| mm | 1910 | 1390 | 1420 | 1000 | 500 | 170 | 505 | 360 |
| inch | 75 | 55 | 56 | 39 | 20 | 7 | 20 | 14 |

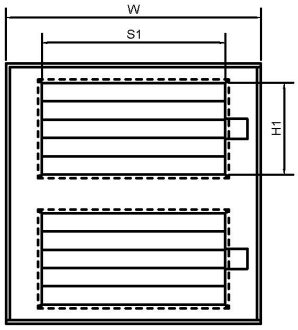
Unit Weight (without water cooler , DX coil, water heater), [Kg] - 573, [lb] - 1263

DX coil/water cooler weight, [Kg] - 79, [lb] - 174

Water heater weigh , [Kg] - 65, [lb] - 143

Electric heater weigh , [Kg] - 55, [lb] - 121

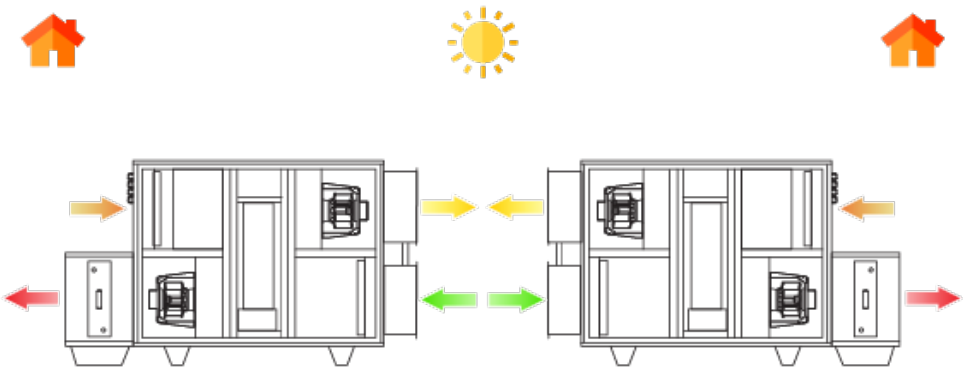


| ERP | | |
|---|---|---|
| Trade mark | | Air-Transfer |
| Model | | HR Rotor-5000Bi |
| Declared typology | | NRVU BVU |
| Type of drive installed | | Integrated MSD |
| Type of heat recovery system | | Rotary |
| Thermal efficiency of heat recovery | [%] | 78.07 |
| Supply flow rate | [$m^3/s$ ] | 1.39 |
| Effective electric power input | [W] | 2186.05 |
| SFPint | [$W/(m^3/s)$] | 717.71 |
| Face velocity at design flow rate | [m/s] | 1.61 |
| External pressure | [Pa] | 250 |
| Internal pressure drop of ventilation components | [Pa] | 201.04 |
| Static efficiency of fans | [%] | 58.32 |
| Maximum leakage rates | [%] | 2.7 |
| Maximum leakage rates | [%] | 2.7 |
| Filtration class | | B |
| Visual filter warning | | Visual filter warning |
| Sound power level | [db] | 50.66 |
| Internet address | | www.air-transfer.nl |

Erp 2018 compliant according to Commission Regulation EU No 1253/2014, 7 July 2014

**Left service side** **Right service side**



Supply air Fresh air Extract air Exhaust air