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| Project Data |
| Customer Company |  | Offer Number |  |
| Project Name |  | Offer Date |  |
| Unit Project Code |  |  |  |

**Product Specifications**

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| RTER090 |
|  | FOUR RTER-Rotor Type Heat Recovery Unit is used in restaurants, stores, historical buildings, offices where fresh air is needed. Designed to take charge of the air of fresh air. It works with indoor air conditioning devices. The exhaust air absorbed from the interior environment is transferred to the externalenvironment after the heat transfer with the fresh air thanks to the hygroscopic energy recovery rotor. With the automatic control system, it works 7 days 24 hours without any intervention in the most appropriate way.High efficiency rotor type heat exchanger Thermal efficiency up to 90%Moisture transfer efficiency up to 65% Optional CO2 or pressure sensorHigh efficiency EC Plug fans50 mm thick double-walled panel constructionRTER Modal:Top and side switcable duct connection RTER-A Modal: Side duct connection |

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| Product Model | RTER090 |
| Product Type | Commercial Type Heat Recovery |
| Heat Recovery Type | Aluminum Rotary |
| Unit Casing | Double wall - Inside: 0.8 mm galvanized sheet |
| Unit isolation | 50 mm 70 kg/m3-Rockwool |
| Casing Air Leakage | 0 |
| Unit Frame | - |
| Service Direction | Both Sides |
| Voltage / Frequency / Phase (V / Hz / Ph) | 380/50/3 |
| Operating conditions | -20 ~ 46 ° C Temperature, 90% Max.RH Outdoor Air |
| Standard Air Density (kg/m³) | 1.2 |

**Dimensions**



|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **L** | **W** | **H** | **A** | **B** | **L1** | **L2** | **L3** | **L4** | **W(kg)** |
| 3128 | 1350 | 1716 | 600 | 530 | 740 | 780 | 685 | 890 | 976 |

**Performance Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supply Air Flow | m³/h | 7500 | Heat Recovery Efficiency | % | 77.11 |
| External Static Pressure | Pa | 250 | Heat Recovery Capacity | kW | 38.98 |
| Return Air Flow | m³/h | 7500 | Additional Heating Capacity | kW | 0 |
| External Static Pressure | Pa | 250 | Additional Cooling Capacity | kW |  |
| Unit Total Power / Current | kW/A | 4.64/7.44 | Air Outlet Temperature | °C | 20.42 |
| Supply Side Internal Pressure Loss | Pa | 0 | Exhaust Side Internal Pressure Loss | Pa | 0 |
| SFPint,total | W/m³/s | 1350.94 | Energy Efficiency Class | - |  |

**Heat Recovery Data**

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| --- | --- |
| Heat Recovery Type | Aluminum Rotary - Enthalpy Rotor |
| Fin Pitch (mm) | 1.6 |

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| --- | --- | --- | --- |
| **Winter** |  | **Outside Air** | **Return Air** |
| Air Inlet Flow | m³/h | 7500 | 7500 |
| Air Inlet Temperature (DB / WB) | °C | 5 / 3 | 25 / 14.04 |
| Air Inlet Relative Humidity | % | 72 | 28 |
| Air Outlet Temperature (DB / WB) | °C | 20.42 / 10.84 | 9.60 / 7.06 |
| Air Outlet Relative Humidity | % | 28.11 | 70.36 |
| Heat Recovery Pressure Drop | Pa | 225.47 | 254.17 |
| Heat Recovery Efficiency (Dry / Wet) | % | 77.11 / 17.87 | - |
| Heat Recovery Capacity (Sensible / Latent) | kW | 38.98 / 1.80 | -38.96 / -1.80 |
| Heat Recovery Capacity (Total) | kW | 40.77 | -40.76 |
| Condensation | kg/h | 0.00 | 0.00 |

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| **Summer** |  | **Outside Air** | **Return Air** |
| Air Inlet Flow | m³/h | 7500 | 7500 |
| Air Inlet Temperature (DB / WB) | °C | 33 / 22.38 | 22 / 13.89 |
| Air Inlet Relative Humidity | % | 40 | 40 |
| Air Outlet Temperature (DB / WB) | °C | 24.57 / 19.08 | 30.47 / 17.85 |
| Air Outlet Relative Humidity | % | 59.94 | 28.01 |
| Heat Recovery Pressure Drop | Pa | 265.72 | 249.88 |
| Heat Recovery Efficiency (Dry / Wet) | % | 76.6502 / 17.12 | - |
| Heat Recovery Capacity (Sensible / Latent) | kW | 21.57 / 6.39 | 21.59 / 6.39 |
| Heat Recovery Capacity (Total) | kW | 27.95 | 27.98 |
| Condensation | kg/h | 0.00 | 0.00 |

**Filter Data**

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| --- | --- | --- | --- | --- | --- |
|  |  | **SA Filter 1** | **SA Filter 2** | **EA Filter** | **EA Filtre 2** |
| Filter Class | - |  | F7 | M5 |  |
| Filter Class (ISO 16890) | - |  | ISO ePM1 50% | ISO ePM10 50% |  |
| Filter Initial Pressure Drop | Pa |  | 176.54 | 156.54 |  |
| Filter Final Pressure Drop | Pa |  | 200 | 170 |  |
| Filter Average Pressure Drop | Pa |  | 188.27 | 163.27 |  |
| Filter Surface Air Velocity | m/s |  | 5.4111 | 5.4111 | 5.4111 |

**Fan Data**

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| --- | --- | --- | --- |
|  |  | **Outside Air** | **Return Air** |
| Air Flow | m³/h | 7500 | 7500 |
| Fan Speed | d/d | 1918.4 | 1907.44 |
| Nominal Fan Speed | d/d | 2040 | 2040 |
| Fan Power | Watt | 2251.41 | 2294.51 |
| Operating Point Current | A | 3.68 | 3.76 |
| Voltage / Frequency / Phase | V/Hz/Ph | 380 / 50 / 3 | 380 / 50 / 3 |

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| **Fan LWA** |  |  | **LWA (In+Out)** | **LWA** | **63Hz** | **125Hz** | **250Hz** | **500Hz** | **1kHz** | **2kHz** | **4kHz** | **8kHz** |
| Supply Fan | Inlet | dBA | 88,22 | 80,96 | 68,60 | 70,10 | 79,80 | 78,10 | 74,40 | 72,00 | 72,30 | 71,50 |
| Outlet | dBA | 87,29 | 71,50 | 71,70 | 79,70 | 83,90 | 83,60 | 79,10 | 76,30 | 73,20 |
| Return Fan | Inlet | dBA | 88,13 | 80,96 | 68,60 | 70,10 | 79,80 | 78,10 | 74,40 | 72,00 | 72,30 | 71,50 |
| Outlet | dBA | 87,29 | 71,50 | 71,70 | 79,70 | 83,90 | 83,60 | 79,10 | 76,30 | 73,20 |

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| **Fan LPA** | **@ 1 m** | **LPA (In+Out)** | **LPA** | **63Hz** | **125Hz** | **250Hz** | **500Hz** | **1kHz** | **2kHz** | **4kHz** | **8kHz** |
| Supply Fan | Inlet | dBA | 80.24 | 72.98 | 60.62 | 62.12 | 71.82 | 70.12 | 66.42 | 64.02 | 64.32 | 63.52 |
| Outlet | dBA | 79.31 | 63.52 | 63.72 | 71.72 | 75.92 | 75.62 | 71.12 | 68.32 | 65.22 |
| Return Fan | Inlet | dBA | 80.24 | 72.98 | 60.62 | 62.12 | 71.82 | 70.12 | 66.42 | 64.02 | 64.32 | 63.52 |
| Outlet | dBA | 79.31 | 63.52 | 63.72 | 71.72 | 75.92 | 75.62 | 71.12 | 68.32 | 65.22 |