

Certificate

Certified Passive House Component

For cool, temperate climates, valid until 31 December 2013

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY



Category: **Heat recovery unit**
Manufacturer: **Swegon AB**
53523 Kvänum, Sweden
Product name: **GOLD RX Series**

This certificate was awarded based on the following criteria:

| | |
|------------------------------|---|
| Thermal comfort | $\Theta_{\text{supply air}} \geq 16.5 \text{ °C}$ at $\theta_{\text{outdoor air}} = -10 \text{ °C}$ |
| Effective heat recovery rate | $\eta_{\text{HR,eff}} \geq 75\%$ |
| Electric power consumption | $P_{\text{el}} \leq 0.45 \text{ Wh/m}^3$ |
| Performance number | ≥ 10 |
| Airtightness | Interior ¹⁾²⁾ and exterior air leakage rates less than 3% of nominal air flow rate |
| Balancing and adjustability | Air flow balancing possible: yes Automated air flow balancing: yes |
| Sound insulation | It is assumed that large ventilation units are installed in a separate building services room. Sound levels documented in the appendix of this certificate |
| Indoor air quality | Outdoor air filter F7 Extract air filter F5 |
| Frostprotection | No frost protection strategy is required until falling under -15°C . |

- 1) Carry-over from extract air to supply air side
- 2) Due to heat exchanger condition the risk of carry-over from extract air to supply air side exists. In order to avoid carry over into the supply air side, pressure conditions in the device must be set as given by the manufacturer.

Further information can be found in the appendix of this certificate.

www.passivehouse.com

Certified for air flow rates of (total series)

540 – 9000 m³/h

Requirements non residential buildings
(Therewith device also applicable for residential buildings)

$\eta_{\text{HR,eff}} \geq 84\%$

Electric power consumption
0.45 Wh/m³ ³⁾



CERTIFIED COMPONENT

Passive House Institute

Heat recovery rate and specific power consumption depending on the individual unit size

| unit size | ID | Air flow range | | Max external pressure | electric power consumption | $\eta_{HR,eff}$ |
|-----------|----------|-------------------|-------------------|-----------------------|----------------------------|-----------------|
| | | Min | Max | | | |
| | | m ³ /h | m ³ /h | Pa | Wh/m ³ | % |
| 04 | 0558vI03 | 540 | 1000 | 222 | 0,45 | 85 |
| 05 | 0559vI03 | 540 | 1000 | 222 | 0,45 | 85 |
| 07 | 0560vI03 | 540 | 1820 | 265 | 0,45 | 86 |
| 08 | 0561vI03 | 1080 | 1780 | 259 | 0,45 | 84 |
| 11 | 0562vI03 | 1080 | 2465 | 281 | 0,45 | 85 |
| 12 | 0563vI03 | 1800 | 2600 | 281 | 0,45 | 84 |
| 14 | 0564vI03 | 1800 | 4285 | 316 | 0,45 | 84 |
| 20 | 0565vI03 | 2520 | 4000 | 308 | 0,44 | 84 |
| 25 | 0566vI03 | 2520 | 5500 | 328 | 0,45 | 84 |
| 30 | 0567vI03 | 3600 | 4000 | 308 | 0,44 | 84 |
| 35 | 0568vI03 | 3600 | 7500 | 347 | 0,45 | 85 |
| 50 | 0569vI03 | 5400 | 9000 | 359 | 0,45 | 85 |

- 1) At the lower limit of the air flow range the nominal value of 0.45 Wh/m³ might be exceeded.

The efficiency values electric power consumption and heat recovery rate have been determined under standard external pressure differences as shown in the table. The project specific calculation with the manufacturer's software based on real project data (especially respecting the external pressure difference) could differ from the values given in the table.