Fresh air for the commercial sector
Heat recovery ventilation and air handling applications
# Table of contents

- **Introduction** 4
- The widest ventilation range on the market 8
- **Decentralized ventilation solutions** 10
  - Modular T 10
  - Modular L 11
  - VAM-FC9/VAM-J8 12
  - EKVDX-A 14
  - VKM-GBM 16
- **Centralized ventilation solutions** 22
  - Professional 28
  - Modular P 30
  - Modular R 31
- **DX Air Handling Unit solutions** 32
- **Tools and platforms** 43
- Technical drawings 51
Indoor Air Quality (IAQ) is a measure of the air quality indoors, as breathed in by the building’s occupants.

New residential buildings, schools, offices or light commercial buildings often neglect indoor air quality.

Because of pollutants, such as pollen, bacteria and others, the indoor air quality can be 2 to 5 times worse than outdoors.

Since 90% of our lives is spent indoors, it is crucial to invest in good air quality.

### Components for ensuring good Indoor Air Quality

- **Ventilation**
  - Ensures the provision of fresh and clean outdoor air and removes contaminated air
  - Delivers energy savings by transferring heat and moisture between airflows, thus helping to condition the supply air to the required indoor temperature and humidity levels

- **Humidification**
  - Ensures the desired moisture level in the conditioned space

- **Energy Recovery**
  - Delivers the required conditioned air to optimise the energy efficiency of indoor HVAC equipment

- **Filtration & Purification**
  - Ensures clean and healthy air by filtering out pollen, dust, odours and other contaminants that are harmful to our health

- **Energy Processing**

### Ventilation

Ventilation systems ensure optimal climate conditions by providing a fresh, healthy and comfortable environment for buildings of all sizes and applications. When a room is enclosed, air cannot easily enter or leave, allowing airborne pollutants to remain and accumulate within the space. This concentration could have an impact on the health of the room’s occupants. Ventilation is essential for diluting and removing these pollutants.

A well-maintained ventilation system and adequate air-exchange rate have been demonstrated to be an effective solution to protect people from contaminants, including viruses.
Products overview

<table>
<thead>
<tr>
<th>Brand</th>
<th>Model</th>
<th>Flow Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAM-FC9 / VAM-J</td>
<td>500 m³/h up to 2,000 m³/h</td>
<td></td>
</tr>
<tr>
<td>MODULAR T</td>
<td>200 m³/h up to 4,200 m³/h</td>
<td></td>
</tr>
<tr>
<td>MODULAR L</td>
<td>150 m³/h up to 3,400 m³/h</td>
<td></td>
</tr>
<tr>
<td>VAM + DX COIL</td>
<td>500 m³/h up to 2,000 m³/h</td>
<td></td>
</tr>
<tr>
<td>VKM-GBM</td>
<td>500 m³/h up to 1,000 m³/h</td>
<td></td>
</tr>
<tr>
<td>D-AHU PROFESSIONAL</td>
<td>750 m³/h up to 144,000 m³/h</td>
<td></td>
</tr>
<tr>
<td>D-AHU MODULAR P</td>
<td>500 m³/h up to 25,000 m³/h</td>
<td></td>
</tr>
<tr>
<td>D-AHU MODULAR R</td>
<td>500 m³/h up to 25,000 m³/h</td>
<td></td>
</tr>
</tbody>
</table>

- **Superior IAQ level:** up to three stage filtration on supply side
- **DX coil integration:** for unique Daikin fresh air package
- **Plug&Play control solution:** for quick and easy start-up

- **High efficiency counterflow heat exchanger**
- **VDI 6022 Certified**
- **Compact design:** for false ceiling installation

- **EC fan motors**
- **Filter clogging alarm:** based on pressure

- **DX coil for post-treatment of fresh air**
- **Split up concept:** increases application flexibility
- **Integrates both in R-32 and R-410A VRV systems**

- **Fully customizable**
- **Daikin Digital Plug & Play Control:** as option
- **With DX or water coil option**
5 reasons why Daikin’s ventilation range is unique in the market

1. Market leading controls & connectivity
   - Interlock of ventilation and air conditioning system
     - Control ERV/HRV and air conditioning from the same controller
     - Aligns the operation mode between the systems to save energy
   - Easy integration in the total solution
     - Online control and monitoring via the Daikin Cloud Service
     - Full portfolio integration in the intelligent Touch Manager, Daikin’s cost-effective mini BMS
   - User-friendly controller with premium design
     - Intuitive touch button control

2. Unique installation benefits
   - Integrates seamlessly in the Daikin total solution, ensuring a single point of contact
   - Total fresh air solution with Daikin supplying the VAM/Modular L Smart, Modular T and the electrical heater
   - Daikin AHU and condensing unit connect Plug & Play thanks to same pipe diameters, factory mounted controls, expansion valves, etc.
3 High energy efficiency

› Energy recovery of up to 92%, reducing running costs
› Free nighttime cooling using fresh outside air
› Inverter driven centrifugal fans
› ErP compliant

4 Best comfort

› Wide range of units to control fresh air and humidity
› Wide range of optional filters to suit the application available up to ePM, 80% (F9)
› Special paper heat exchanger recovers heat and moisture from extract air to warm up and humidify fresh air to comfortable levels (VAM, VKM)

5 Top reliability

› Most extensive testing before new units leave the factory
› Widest support network and after sales service
› All spare parts available in Europe

Did you know?

CO2 levels and ventilation rates all have significant, independent impacts on cognitive function:

- **61%** in green building conditions
- **101%** in enhanced green building conditions
Daikin offers a variety of solutions from small energy recovery ventilation to large-scale air handling units for the provision of fresh air ventilation to homes, or commercial premises.

**Ventilation solutions**

Daikin offers state-of-the-art ventilation solutions that can easily be integrated into any project:
- **Unique portfolio** within DX manufacturers
- **High-quality solutions complying with the highest Daikin quality standards**
- **Seamless integration** of all products to provide the best indoor climate
- All Daikin products connected to a single controller for complete control of the HVAC system.

**Energy Recovery Ventilation**

Our energy recovery units **recover sensible energy** (Modular L / Modular T) or **total (sensible + latent) energy** (VAM/EKVDX/VKM-GBM), substantially reducing the load on the air conditioning system up to 40%.

**Ventilation with DX connection - Control over fresh air temperature**

Daikin offers a range of inverter condensing units to be used in combination with Daikin AHUs for ultimate control over the fresh air. There are 4 control possibilities when combining AHU and Daikin outdoor units hence offering all the required flexibility for any installation. Indoor units can be combined to the same outdoor unit to reduce the installation costs. For false-ceiling installations where space is a constraint, the VKM can fit perfectly to deliver fresh air at a comfortable temperature and it has an optional humidification element.
Modular T

Top connected heat recovery unit

Highlights

› 5 Predefined sizes
› Plug & Play control solution
› Compact unit from 550 mm width (for unit up to 1,100 m³/h)
› Wide air flow coverage from 200 to 4,200 m³/h
› Right and left configuration
› Pro (open control platform) and Smart (Daikin control platform) version
› Excellent indoor air quality (IAQ). Up to three filtration stages: more than 90% PM1 in outdoor air are deleted achieving the best IAQ
› DX and water coil available as option
› Recirculation mixing damper (option)
› › BIM file available at www.daikin.eu/BIM

Air flow range

<table>
<thead>
<tr>
<th>Size</th>
<th>ATB03<em>A</em></th>
<th>ATB04<em>A</em></th>
<th>ATB05<em>A</em></th>
<th>ATB06<em>A</em></th>
<th>ATB07<em>A</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow m³/h</td>
<td>800</td>
<td>1,650</td>
<td>2,300</td>
<td>2,700</td>
<td>3,900</td>
</tr>
<tr>
<td>Heat exchanger thermal efficiency %</td>
<td>89.3</td>
<td>88.3</td>
<td>85.1</td>
<td>85.5</td>
<td>90.8</td>
</tr>
<tr>
<td>External static pressure Pa</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current A</td>
<td>1.70</td>
<td>3.39</td>
<td>4.61</td>
<td>5.17</td>
<td>7.87</td>
</tr>
<tr>
<td>Power input kW</td>
<td>0.39</td>
<td>0.78</td>
<td>1.06</td>
<td>1.19</td>
<td>1.81</td>
</tr>
<tr>
<td>SFPv kW/m³/s</td>
<td>1.47</td>
<td>1.5</td>
<td>1.49</td>
<td>1.41</td>
<td>1.5</td>
</tr>
<tr>
<td>Electrical supply Phase ph</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Hz</td>
<td>50/60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage V</td>
<td>220/240 Vac</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main unit dimensions Width mm</td>
<td>550</td>
<td>790</td>
<td>790</td>
<td>790</td>
<td>890</td>
</tr>
<tr>
<td>Height mm²</td>
<td>1,600</td>
<td>1,900</td>
<td>1,850</td>
<td>2,050</td>
<td></td>
</tr>
<tr>
<td>Length mm</td>
<td>1,580</td>
<td>1,650</td>
<td>2,170</td>
<td>2,620</td>
<td>2,950</td>
</tr>
<tr>
<td>Circular duct flange Diameter mm</td>
<td>255</td>
<td>315</td>
<td>355</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>Unit sound power level dBA</td>
<td>57</td>
<td>52</td>
<td>55</td>
<td>58</td>
<td>51</td>
</tr>
<tr>
<td>Unit sound pressure level dB</td>
<td>50</td>
<td>45</td>
<td>48</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Weight Unit Kg</td>
<td>200</td>
<td>250</td>
<td>400</td>
<td>500</td>
<td>620</td>
</tr>
</tbody>
</table>

1. All size available in Smart or Pro version and right or left handing | 2. Outdoor condition: -5°C, 90% Indoor condition: 20°C, 50% | 3. Including feet and duct connections | 4. Size 06 is provided in two sections | 5. Size 06 and 07 are provided in three sections | 6. Simple source reference value at 1 meter, directivity factor Q=4 (quarter sphere) and non-reverberant field. Allowances on declared values +/- 3dB
Modular L

False ceiling heat recovery unit

Highlights

› 6 Predefined sizes
› Plug & Play control solution
› Compact unit from 280 mm height (for air flow up to 550 m³/h)
› Wide air flow coverage from 150 to 3,400 m³/h
› Right and left configuration
› Pro (open control platform) and Smart (Daikin control platform) version
› Excellent indoor air quality (IAQ). Up to ePM1 80% (F9) filtration level with possibility to have a prefilter up to ePM1 50% (F7) for the best IAQ
› VDI 6022 Certified
› BIM file available at www.daikin.eu/BIM

Air flow range

From 150 up to 3,450 m³/h with ESP 100 Pa

Nominal air flow m³/h

Technical details

More details and final information can be found by scanning or clicking the QR codes.

<table>
<thead>
<tr>
<th>Modular L</th>
<th>ALB02*B</th>
<th>ALB03*B</th>
<th>ALB04*B</th>
<th>ALB05*B</th>
<th>ALB06*B</th>
<th>ALB07*B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow m³/h</td>
<td>300</td>
<td>600</td>
<td>1,200</td>
<td>1,600</td>
<td>2,500</td>
<td>3,000</td>
</tr>
<tr>
<td>Heat exchanger thermal efficiency</td>
<td>%</td>
<td>90</td>
<td>91</td>
<td>90</td>
<td>91</td>
<td>90</td>
</tr>
<tr>
<td>External static pressure</td>
<td>Nom.</td>
<td>Pa</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>Nom.</td>
<td>A</td>
<td>0.61</td>
<td>1.39</td>
<td>2.26</td>
<td>2.87</td>
</tr>
<tr>
<td>Power input</td>
<td>Nom.</td>
<td>kW</td>
<td>0.14</td>
<td>0.32</td>
<td>0.52</td>
<td>0.66</td>
</tr>
<tr>
<td>SFPv²</td>
<td>kW/m³/s</td>
<td>1.27</td>
<td>1.55</td>
<td>1.32</td>
<td>1.38</td>
<td>1.49</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>Phase</td>
<td>ph</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Hz</td>
<td>50/60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>V</td>
<td>220/240 Vac</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main unit dimensions</td>
<td>Width</td>
<td>mm</td>
<td>920</td>
<td>1,000</td>
<td>1,600</td>
<td>2,000</td>
</tr>
<tr>
<td>Height</td>
<td>mm</td>
<td>280</td>
<td>350</td>
<td>415</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>mm</td>
<td>1,660</td>
<td>1,800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rectangular duct flange</td>
<td>Width</td>
<td>mm</td>
<td>250</td>
<td>400</td>
<td>500</td>
<td>700</td>
</tr>
<tr>
<td>Height</td>
<td>mm</td>
<td>150</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Weight unit</td>
<td>kg</td>
<td>125</td>
<td>180</td>
<td>270</td>
<td>280</td>
<td>355</td>
</tr>
</tbody>
</table>

¹. Winter design condition: Outdoor: -10°C, 90% Indoor: 22°C, 50% |
². SFPv is a parameter that quantifies the fan efficiency (the lower it is the better it will be). This reduces if airflow decreases.
³. Electrical current is based on 230V |
⁴. All data in the table refer to Modular L Pro. For Modular L Smart can be different. Please refer to Databook or Astra selection software for more details.
Energy recovery ventilation

Ventilation with heat recovery as standard

› Thinnest High Efficiency Enthalpy Heat Exchanger in the market (J-series)
› Energy saving ventilation using indoor heating, cooling and moisture recovery
› Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
› Prevent energy losses from over-ventilation while improving indoor air quality with optional CO₂ sensor (J-series)
› Possibility to change ESP via wired remote control allows optimisation of the supply air volume (J-series)
› Can be used as stand alone or integrated in the Sky Air or VRV system
› Wide range of units: air flow rate from 150 up to 2,000 m³/h
› Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
› No drain piping needed
› Can operate in over- and under pressure
› Total solution for fresh air with Daikin supply of both VAM / VKM and electrical heaters
› VAM-J8 series are connectable to EKVDX DX coil for air processing
› Possibility of CO₂ concentration when combining VAM-J8 with optional BRYMA CO₂ sensor and Madoka remote controller (with or without EKVDX)

More details and final information can be found by scanning or clicking the QR codes.

### Ventilation with Heat Recovery as Standard

<table>
<thead>
<tr>
<th>VAM</th>
<th>VAM-J8</th>
</tr>
</thead>
<tbody>
<tr>
<td>150FC9</td>
<td>250FC9</td>
</tr>
<tr>
<td>Power input - 50Hz</td>
<td>150 FC9</td>
</tr>
<tr>
<td>Heat exchange Nom. mode</td>
<td>Ultra high/High/Low</td>
</tr>
<tr>
<td>Bypass mode</td>
<td>Ultra high/High/Low</td>
</tr>
<tr>
<td>Temperature exchange efficiency - 50Hz</td>
<td>Ultra high/High/Low</td>
</tr>
<tr>
<td>Enthalpy exchange efficiency - 50Hz</td>
<td>Cooling</td>
</tr>
<tr>
<td>Heating</td>
<td>Ultra high/High/Low</td>
</tr>
<tr>
<td>Operation range</td>
<td>Around unit °CDB - 0°C~40°CDB, 80% RH or less</td>
</tr>
<tr>
<td>Connection duct diameter mm</td>
<td>100</td>
</tr>
<tr>
<td>Power supply</td>
<td>Phase/Frequency/Voltage Hz/V</td>
</tr>
<tr>
<td>Current</td>
<td>Maximum fuse amps (MFA) A</td>
</tr>
<tr>
<td>Specific energy consumption (SEC)</td>
<td>Cold climate</td>
</tr>
<tr>
<td>Average climate</td>
<td>kWh/m³</td>
</tr>
<tr>
<td>Warm climate</td>
<td>kWh/m³</td>
</tr>
<tr>
<td>SEC class</td>
<td>D</td>
</tr>
<tr>
<td>Maximum flow rate m³/h at 100 Pa ESP</td>
<td>130</td>
</tr>
<tr>
<td>Sound power level (LwA)</td>
<td>dB</td>
</tr>
<tr>
<td>Annual electricity consumption</td>
<td>kWh/a</td>
</tr>
<tr>
<td>Annual heating</td>
<td>Cold climate</td>
</tr>
<tr>
<td>Average climate</td>
<td>kWh/a</td>
</tr>
<tr>
<td>Warm climate</td>
<td>kWh/a</td>
</tr>
</tbody>
</table>

(1) Measured according to JIS B 8628 | (2) Measured at reference flow rate according to EN13141-7 | (3) At reference flow rate in accordance with commission regulation (EU) No 1254/2014
Electrical heater for VAM

› Total solution for fresh air with Daikin supply of both VAM and electrical heaters
› Increased comfort in low outdoor temperature thanks to the heated outdoor air
› Integrated electrical heater concept (no additional accessories required)
› Standard dual flow and temperature sensor
› Flexible setting with adjustable setpoint
› Increased safety with 2 cut-outs: manual & automatic

More details and final information can be found by scanning or clicking the QR codes.

<table>
<thead>
<tr>
<th>GSIEKA</th>
<th>10009</th>
<th>15018</th>
<th>20024</th>
<th>25030</th>
<th>35530</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>kW</td>
<td>0.9</td>
<td>1.8</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Duct diameter</td>
<td>mm</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
</tr>
<tr>
<td>Connectable VAM</td>
<td></td>
<td>VAM150FC9</td>
<td>VAM250FC9</td>
<td>VAM350,500J8</td>
<td>VAM650J8, VAM800J8, VAM1000J8</td>
</tr>
<tr>
<td>Connectable VAM</td>
<td></td>
<td>VAM1500J8, VAM2000J8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Height mm</td>
<td>171</td>
<td>221</td>
<td>271</td>
<td>321</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Depth mm</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width mm</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>Minimum air velocity / airflow</td>
<td>m/s</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum air velocity / airflow</td>
<td>m³/h</td>
<td>45</td>
<td>100</td>
<td>170</td>
<td>265</td>
</tr>
<tr>
<td>Power supply</td>
<td>1~230 VAC/50Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal current</td>
<td>A</td>
<td>4.1</td>
<td>8.2</td>
<td>10.9</td>
<td>13.1</td>
</tr>
<tr>
<td>Heating power</td>
<td>kW</td>
<td>0.9</td>
<td>1.8</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Connection duct diameter</td>
<td>mm</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
</tr>
<tr>
<td>Operation range</td>
<td>Min. °C</td>
<td>-40°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation range</td>
<td>Max. °C</td>
<td>40°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature sensor range</td>
<td>10 kΩ at +25°C / TJ-K10K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature sensor range</td>
<td>-30°C to 105°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td>-10°C to 50°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td>90%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td>0°C to +50°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td>50°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature set point range</td>
<td>100°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 1</td>
<td>flashing every 5 seconds</td>
<td>heater is starting up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 1</td>
<td>flashing every second</td>
<td>air flow detected, heating allowed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 1</td>
<td>OFF</td>
<td>no power supply or no flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 1</td>
<td>ON</td>
<td>problem with duct temperature sensor, set point potentiometer or PTC airflow sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 2</td>
<td>OFF</td>
<td>heater is not operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED indicators</td>
<td>LED 2</td>
<td>ON</td>
<td>heater is operating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient temperature adjacent to controller</td>
<td>0°C to +50°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto high temperature cut-out</td>
<td>50°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual reset high temperature cut-out</td>
<td>100°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EKVDX-A

DX coil for post treatment of fresh air

- Creates a high quality indoor environment by pre conditioning of incoming fresh air
- Maximum installation flexibility thanks to separate DX coil
  - Different installation possibilities to suit the application

- Fresh air flows from 500 up to 2,000 m³/h
- High ESP up to 150 Pa
- Can be integrated in both R-32/R-410A VRV systems
- Replaces VKM-GB range, delivering increased capacity range and reduced sound levels
EKVDX-A

**DX coil for air processing**

Post heating or cooling of fresh air to lower the load on the air conditioning system

- Creates a high quality indoor environment by pre conditioning of incoming fresh air
- Maximum installation flexibility thanks to separate DX coil
- Wide range of units covering fresh air flows of 500 up to 2,000 m³/h
- High ESP up to 150 Pa
- Can be integrated in both R-32/R-410A VRV systems

More details and final information can be found by scanning or clicking the QR codes.

---

## Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>EKVDX32A</th>
<th>EKVDX50A</th>
<th>EKVDX80A</th>
<th>EKVDX100A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power input - 50Hz</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling Nom. kW</td>
<td>0.035</td>
<td>0.035</td>
<td>0.035</td>
<td>0.035</td>
</tr>
<tr>
<td>Heating Nom. kW</td>
<td>0.035</td>
<td>0.035</td>
<td>0.035</td>
<td>0.035</td>
</tr>
<tr>
<td><strong>Casing Material</strong></td>
<td>Galvanised steel plate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Insulation material</strong></td>
<td>Opcell and anti-sweat material</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Height mm</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Width mm</td>
<td>550</td>
<td>700</td>
<td>1,000</td>
<td>1,400</td>
</tr>
<tr>
<td>Depth mm</td>
<td></td>
<td>809</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight Unit kg</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Around unit kg</td>
<td>19</td>
<td>23.4</td>
<td>30.1</td>
<td>37.7</td>
</tr>
<tr>
<td><strong>Operation range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Around unit °CDB</td>
<td>10°C~40°CDB, 80% RH or less</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On coil Cooling Max. °CDB</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Heating Min. °CDB</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td><strong>Piping connections</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid OD mm</td>
<td>6.35</td>
<td>6.35</td>
<td>6.35</td>
<td>6.35</td>
</tr>
<tr>
<td>Gas OD mm</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Drain Pipe</strong></td>
<td>VP20 (I.D. 20/O.D. 26), drain height 625 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Refrigerant Type</strong></td>
<td>R410A/R32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GWP</strong></td>
<td>2,087.5/675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heat exchange system</strong></td>
<td>Direct expansion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>Phase single phase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frequency Hz</strong></td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
</tr>
</tbody>
</table>

### Fan Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>EKVDX32A</th>
<th>EKVDX50A</th>
<th>EKVDX80A</th>
<th>EKVDX100A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air flow rate - 50Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat exchange mode Ultra high m³/h</td>
<td>500</td>
<td>650</td>
<td>800</td>
<td>1,000</td>
</tr>
<tr>
<td>High m³/h</td>
<td>425</td>
<td>550</td>
<td>680</td>
<td>850</td>
</tr>
<tr>
<td>Bypass mode Ultra high m³/h</td>
<td>500</td>
<td>650</td>
<td>800</td>
<td>1,000</td>
</tr>
<tr>
<td>High m³/h</td>
<td>425</td>
<td>550</td>
<td>680</td>
<td>850</td>
</tr>
<tr>
<td><strong>External static pressure - 50Hz</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Pa</td>
<td>81.9</td>
<td>73.0</td>
<td>133.7</td>
<td>106.0</td>
</tr>
<tr>
<td>High Pa</td>
<td>39.0</td>
<td>33.9</td>
<td>19.4</td>
<td>21.4</td>
</tr>
<tr>
<td><strong>Sound pressure level - 50Hz</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling Ultra high dB(A)</td>
<td>32</td>
<td>34</td>
<td>35.5</td>
<td>40.5</td>
</tr>
<tr>
<td>High dB(A)</td>
<td>30.5</td>
<td>32</td>
<td>34</td>
<td>38.5</td>
</tr>
<tr>
<td>Heating Ultra high dB(A)</td>
<td>32.5</td>
<td>34.5</td>
<td>36</td>
<td>40.5</td>
</tr>
<tr>
<td>High dB(A)</td>
<td>31.5</td>
<td>32</td>
<td>34</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>Current Maximum fuse amps (MFA)</strong></td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

The heat reclaim ventilation unit and the EKVDX indoor unit MUST share the same electrical safety devices and power supply.
Energy recovery ventilation, humidification and air processing

Post heating or cooling of fresh air for lower load on the air conditioning system

- Energy saving ventilation using indoor heating, cooling and moisture recovery
- Creates a high quality indoor environment by pre conditioning of incoming fresh air
- Humidification of the fresh air results in comfortable indoor humidity level, even during heating
- Free cooling possible when outdoor temperature is below indoor temperature (e.g. during nighttime)
- Low energy consumption thanks to DC fan motor
- Prevent energy losses from over-ventilation while improving indoor air quality with optional CO₂ sensor
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- Can operate in over- and under pressure

More details and final information can be found by scanning or clicking the QR codes.

### Ventilation VKM-GBM

| Power input - 50Hz Heat exchange mode Nom. | VKM-GBM | 50GBM | 80GBM | 100GBM |
| kW | kW | kW | kW |
| Ultra high/High/Low | 0.270/0.230/0.170 | 0.330/0.280/0.192 | 0.410/0.365/0.230 |
| Bypass mode Nom. | 0.270/0.230/0.170 | 0.330/0.280/0.192 | 0.410/0.365/0.230 |

### Fresh air conditioning load

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cooling kW</th>
<th>Heating kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra high/High/Low</td>
<td>4.71/1.91/1.5</td>
<td>7.46/2.96/5.6</td>
</tr>
<tr>
<td>Ultra high/High/Low</td>
<td>4.78/2.38/1.5</td>
<td>8.79/3.79/5.6</td>
</tr>
</tbody>
</table>

### Temperature exchange efficiency - 50Hz

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cooling %</th>
<th>Heating %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra high/High/Low</td>
<td>76/76/77.5</td>
<td>78/78/79</td>
</tr>
<tr>
<td>Ultra high/High/Low</td>
<td>76/76/77.5</td>
<td>78/78/79</td>
</tr>
</tbody>
</table>

### Enthalpy exchange efficiency - 50Hz

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cooling %</th>
<th>Heating %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra high/High/Low</td>
<td>64/64/67</td>
<td>66/66/68</td>
</tr>
<tr>
<td>Ultra high/High/Low</td>
<td>64/64/67</td>
<td>66/66/68</td>
</tr>
</tbody>
</table>

### Operation mode

- Heat exchange mode / Bypass mode / Fresh-up mode

### Heat exchange system

- Air to air cross flow total heat (sensible + latent heat) exchange
- Specially processed non-flammable paper

### Humidifier System

- Natural evaporating type

### Dimensions

<table>
<thead>
<tr>
<th>Unit</th>
<th>Height x Width x Depth mm</th>
<th>387 x 764 x 832</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Unit kg</td>
<td>100</td>
</tr>
<tr>
<td>Casing</td>
<td>Material</td>
<td>Galvanised steel plate</td>
</tr>
<tr>
<td>Fan-Air flow rate - 50Hz</td>
<td>Heat exchange mode Ultra high/High/Low m³/h</td>
<td>500/500/440</td>
</tr>
<tr>
<td>Bypass mode Ultra high/High/Low m³/h</td>
<td>500/500/440</td>
<td></td>
</tr>
</tbody>
</table>

### Fan-External static pressure - 50Hz

<table>
<thead>
<tr>
<th>Ultra high/High/Low</th>
<th>200/150/120</th>
</tr>
</thead>
<tbody>
<tr>
<td>205/155/105</td>
<td>110/70/60</td>
</tr>
</tbody>
</table>

### Air filter Type

- Multidirectional fibrous fleece

### Sound pressure level - 50Hz

<table>
<thead>
<tr>
<th>Heat exchange mode Ultra high/High/Low dBa</th>
<th>38/36/34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypass mode Ultra high/High/Low dBa</td>
<td>39/36/34.5</td>
</tr>
</tbody>
</table>

### Operation range

| Around unit °CDB | 0°C~40°CDB, 80% RH or less |
| Supply air °CDB | -15°C~40°CDB, 80% RH or less |
| Return air °CDB | 0°C~40°CDB, 80% RH or less |

### Refrigerant Type

- Electronic expansion valve
- R-410A |

### GWP

- 2,087.5

### Connection duct diameter

<table>
<thead>
<tr>
<th>mm</th>
<th>200</th>
<th>250</th>
</tr>
</thead>
</table>

### Piping connections

| Liquid | OD mm | 6.35 |
| Gas | OD mm | 12.7 |

### Water supply

| mm | 6.4 |

### Drain

| PT3/4 external thread |

### Power supply

| Phase/Frequency/Voltage Hz/V | 1~/50/220-240 |

### Current

| Maximum fuse amps (MFA) A | 15 |
# Options - Ventilation

## Energy recovery ventilation - VAM

<table>
<thead>
<tr>
<th>VAM 150FC9</th>
<th>VAM 250FC9</th>
<th>VAM 350J8</th>
<th>VAM 500J8</th>
<th>VAM 650J8</th>
<th>VAM 800J8</th>
<th>VAM 1000J8</th>
<th>VAM 1500J8</th>
<th>VAM 2000J8</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRC301B61</td>
<td>VAM wired remote control</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Madoka</td>
<td>BRCH52W (White) / BRCH52S (Silver) / BRCH52K (Black)</td>
<td>User-friendly wired remote controller with premium design</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>BRC1E53A/B/C</td>
<td>Wired remote control with full-text interface and back-light</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>BRC1D52</td>
<td>Standard wired remote control with weekly timer</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

### Individual control systems

**Energy recovery ventilation VKM Air handling unit applications**

- BRC301B61
- BRC1E53A/B/C
- BRC1D52

### Centralised control systems

**Individual control systems**

- BRC301B61
- BRC1E53A/B/C
- BRC1D52

**Centralised control systems**

- DCC601A51
- DC5601C51
- DCS302C51
- DCS301B51

### Centralised control systems

**Centralised control systems**

- DCM601A51
- EKMBOXB
- DMS502A51
- DMS504B51

### Building Management System & Standard protocol interface

**Centralised control systems**

- DCC601A51
- DC5601C51
- DCS302C51
- DCS301B51

**Building Management System & Standard protocol interface**

- DCM601A51
- EKMBOXB
- DMS502A51
- DMS504B51

### Building Management System & Standard protocol interface

- Coarse 55% (G4)
- ePM10 75% (M5)
- ePM10 70% (M6)
- ePM1 50% (F7)
- ePM1 60% (F7)
- ePM1 70% (F8)
- ePM1 80% (F9)

### Filters

**Filters**

- Replacement air filter
- High efficiency filter
- Rectangular to round duct transition

### Mechanical accessories

**Mechanical accessories**

- Rail
- Separate plenum

### CO₂ sensor

**CO₂ sensor**

- BRYMA65
- BRYMA100
- BRYMA200

### Electrical heater for pre treatment of fresh air

**Electrical heater for pre treatment of fresh air**

- GSIEKA10009
- GSIEKA20024
- GSIEKA25030
- GSIEKA25030
- GSIEKA25030
- GSIEKA25030

### DX coil for post treatment of fresh air

**DX coil for post treatment of fresh air**

- EKVDX32A
- EKVDX50A
- EKVDX50A
- EKVDX50A

### Silencer (900mm depth)

**Silencer (900mm depth)**

- Installation box for adaptor PCB

### Electrical accessories

**Electrical accessories**

- Wiring adapter for external monitoring/ control (controls 1 entire system)
- Adapter PCB for humidifier
- Adapter PCB for third party heater
- External wired temperature sensor
- Adapter PCB Mounting plate
- Installation box for adaptor PCB

### Notes

1. Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, … (Intelligent Touch Manager, EKMBDXA are allowed)
2. Installation box needed
3. Adapter PCB mounting plate needed, applicable model can be found in the table above
4. Third party heater and third party humidifier cannot be combined
5. Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit)
6. Available only with optional plenum
## Energy recovery ventilation VKM

<table>
<thead>
<tr>
<th>Energy recovery ventilation VKM</th>
<th>Air handling unit applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>VKM 50GBM</td>
<td>VKM 80GBM</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

### Filters

- Coarse 55% (G4)
- ePM10 75% (M5)
- ePM10 70% (M6)
- ePM1 50% (F7)
- ePM1 60% (F7)
- ePM1 70% (F8)
- ePM1 80% (F9)
- High efficiency filter

### Mechanical accessories

- Rail
- Rectangular to round duct transition
- Separate plenum

### Electrical accessories

- Wiring adapter for external monitoring/control
- Adapter PCB for humidifier
- Adapter PCB for third party heater
- External wired temperature sensor
- Installation box for adaptor PCB

### Mechanical accessories

- KAF242H80M
- KAF242H100M
- KAF242H100M
- KAF249H80M
- KAF249H100M
- KAF249H100M

### Electrical accessories

- BRP4A50A (4)
- BRP4A50A (4)
- BRP4A50A (4)

### Notes

1. Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, …; intelligent Touch Manager, EKMBDXA are allowed.
2. Installation box needed.
3. Adapter PCB mounting plate needed, applicable model can be found in the table above.
4. 3rd party heater and 3rd party humidifier cannot be combined.
5. Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit).
6. Available only with optional plenum.
<table>
<thead>
<tr>
<th>Accessories</th>
<th>Modular L Pro</th>
<th>Modular T Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iso Coarse 55% (G4) Filter</td>
<td>ALF02G4A</td>
<td>ALF03G4A</td>
</tr>
<tr>
<td></td>
<td>ALF05G4A</td>
<td>ALF07G4A</td>
</tr>
<tr>
<td>ePM10 75% (M5) Filter</td>
<td>ALF02M5A</td>
<td>ALF03M5A</td>
</tr>
<tr>
<td></td>
<td>ALF05M5A</td>
<td>ALF07M5A</td>
</tr>
<tr>
<td>ePM1 50% (F7) Filter</td>
<td>ALF02F7A</td>
<td>ALF03F7A</td>
</tr>
<tr>
<td></td>
<td>ALF05F7A</td>
<td>ALF07F7A</td>
</tr>
<tr>
<td>ePM1 80% (F9) Filter</td>
<td>ALF02F9A</td>
<td>ALF03F9A</td>
</tr>
<tr>
<td></td>
<td>ALF05F9A</td>
<td>ALF07F9A</td>
</tr>
<tr>
<td>Sound attenuator</td>
<td>ALS0290A</td>
<td>ALS0390A</td>
</tr>
<tr>
<td></td>
<td>ALS0590A</td>
<td>ALS0790A</td>
</tr>
<tr>
<td>Rails for door</td>
<td>ALA02RCA</td>
<td>ALA03RCA</td>
</tr>
<tr>
<td></td>
<td>ALA05RCA</td>
<td>ALA07RCA</td>
</tr>
<tr>
<td>Mixing damper</td>
<td>ATA03MDA</td>
<td>ATA04MDA</td>
</tr>
<tr>
<td></td>
<td>ATA06MDA</td>
<td>ATA07MDA</td>
</tr>
<tr>
<td>External damper</td>
<td>ATA03EDA</td>
<td>ATA04EDA</td>
</tr>
<tr>
<td></td>
<td>ATA06EDA</td>
<td>ATA07EDA</td>
</tr>
<tr>
<td>Electric pre heater</td>
<td>ALD02HEFA</td>
<td>ALD03HEFA</td>
</tr>
<tr>
<td></td>
<td>ALD05HEFA</td>
<td>ALD07HEFA</td>
</tr>
<tr>
<td>Electric post heater</td>
<td>ALD02HESA</td>
<td>ALD03HESA</td>
</tr>
<tr>
<td></td>
<td>ALD05HESA</td>
<td>ALD07HESA</td>
</tr>
<tr>
<td>DX coil</td>
<td>ALD02CWSA</td>
<td>ALD03CWSA</td>
</tr>
<tr>
<td></td>
<td>ALD05CWSA</td>
<td>ALD07CWSA</td>
</tr>
<tr>
<td>WATER coil</td>
<td>ALD02HWUA</td>
<td>ALD03HWUA</td>
</tr>
<tr>
<td></td>
<td>ALD05HWUA</td>
<td>ALD07HWUA</td>
</tr>
<tr>
<td>Water pre heating coil</td>
<td>ALD02HWUA</td>
<td>ALD03HWUA</td>
</tr>
<tr>
<td></td>
<td>ALD05HWUA</td>
<td>ALD07HWUA</td>
</tr>
<tr>
<td>Water post heating coil</td>
<td>ALD02HWUA</td>
<td>ALD03HWUA</td>
</tr>
<tr>
<td></td>
<td>ALD05HWUA</td>
<td>ALD07HWUA</td>
</tr>
<tr>
<td>Water valve 2 way cooling</td>
<td>ALV02CW2A</td>
<td>ALV03CW2A</td>
</tr>
<tr>
<td></td>
<td>ALV05CW2A</td>
<td>ALV07CW2A</td>
</tr>
<tr>
<td>Water valve 2 way heating</td>
<td>ALV02HW2A</td>
<td>ALV03HW2A</td>
</tr>
<tr>
<td></td>
<td>ALV05HW2A</td>
<td>ALV07HW2A</td>
</tr>
<tr>
<td>Water valve 3 way cooling</td>
<td>ALV02CW3A</td>
<td>ALV03CW3A</td>
</tr>
<tr>
<td></td>
<td>ALV05CW3A</td>
<td>ALV07CW3A</td>
</tr>
<tr>
<td>Water valve 3 way heating</td>
<td>ALV02HW3A</td>
<td>ALV03HW3A</td>
</tr>
<tr>
<td></td>
<td>ALV05HW3A</td>
<td>ALV07HW3A</td>
</tr>
<tr>
<td>Valve modulating actuator</td>
<td>ALE00AMVA</td>
<td>ATE00AMVA</td>
</tr>
<tr>
<td>Damper modulating actuator</td>
<td>ALE00AMDA</td>
<td>ATE00AMDA</td>
</tr>
<tr>
<td>Digital PCB</td>
<td>ATE00DPUA</td>
<td>ATE00DPUA</td>
</tr>
<tr>
<td>Frost switch</td>
<td>ATE00WFUA</td>
<td>ATE00WFUA</td>
</tr>
<tr>
<td>CO2 sensor</td>
<td>ALP00COA</td>
<td>ALP00COA</td>
</tr>
<tr>
<td>Humidity sensor</td>
<td>ALP00HUA</td>
<td>ALP00HUA</td>
</tr>
<tr>
<td>Temperature probe</td>
<td>ALP00TEA</td>
<td>ALP00TEA</td>
</tr>
<tr>
<td>Room Interface</td>
<td>ALC00822A (POL 822)</td>
<td>ALC00895A (POL 895)</td>
</tr>
<tr>
<td>Commissioning module</td>
<td>ALC00895A (POL 895)</td>
<td>ALC00902A (POL 902)</td>
</tr>
<tr>
<td>Modbus RTU module</td>
<td>ALC00902A (POL 902)</td>
<td>ALC00908A (POL 908)</td>
</tr>
<tr>
<td>Bacnet IP module</td>
<td>ALC00908A (POL 908)</td>
<td>ALC00922A (POL 822)</td>
</tr>
<tr>
<td>LonWorks Interface</td>
<td>ALC00908A (POL 908)</td>
<td>ALC00822A (POL 822)</td>
</tr>
<tr>
<td>Intelligent Touch Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligent Tablet Controller</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligent Touch Controller</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central remote control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unified ON/OFF control</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

(1) For modular T pro only, both electric heater can be used as pre and post heater

(2) For modular T pro only, sixth digit on main unit material name has to be aligned with last digit of the coil material name

<table>
<thead>
<tr>
<th>ATB03RA --&gt; ATD00*UDSA</th>
<th>ATB04RA --&gt; ATD00*UDSA</th>
<th>ATB05RA --&gt; ATD00*UDSA</th>
<th>ATB06RA --&gt; ATD00*UDSA</th>
<th>ATB07RA --&gt; ATD00*UDSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATB03RA --&gt; ATD00*UWSA</td>
<td>ATB04RA --&gt; ATD00*UWSA</td>
<td>ATB05RA --&gt; ATD00*UWSA</td>
<td>ATB06RA --&gt; ATD00*UWSA</td>
<td>ATB07RA --&gt; ATD00*UWSA</td>
</tr>
<tr>
<td>ATB03RA --&gt; ATD00*HWSA</td>
<td>ATB04RA --&gt; ATD00*HWSA</td>
<td>ATB05RA --&gt; ATD00*HWSA</td>
<td>ATB06RA --&gt; ATD00*HWSA</td>
<td>ATB07RA --&gt; ATD00*HWSA</td>
</tr>
</tbody>
</table>

(3) Please refer to the selection software for more details on accessories and their incompatibilities.
<table>
<thead>
<tr>
<th>Modular L Smart</th>
<th>Modular T Smart</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALB02LBS ALB02RBS</td>
<td>ATB03RAS ATB03LAS</td>
</tr>
<tr>
<td>ALB03LBS ALB03RBS</td>
<td>ATB04RAS ATB04LAS</td>
</tr>
<tr>
<td>ALB04LBS ALB04RBS</td>
<td>ATB05RAS ATB05LAS</td>
</tr>
<tr>
<td>ALB05LBS ALB05RBS</td>
<td>ATB06RAS ATB06LAS</td>
</tr>
<tr>
<td>ALB06LBS ALB06RBS</td>
<td>ATB07RAS ATB07LAS</td>
</tr>
<tr>
<td>ALB07LBS ALB07RBS</td>
<td></td>
</tr>
</tbody>
</table>

| ALF02G4A ALF03G4A ALF05G4A ALF07G4A | ATF03G4A ATF04G4A ATF05G4A ATF06G4A |
| ALF02M5A ALF03M5A ALF05M5A ALF07M5A | ATF03M5A ATF04M5A ATF05M5A ATF06M5A |
| ALF02F7A ALF03F7A ALF05F7A ALF07F7A | ATF03F7A ATF04F7A ATF05F7A ATF06F7A |
| ALF02F9A ALF03F9A ALF05F9A ALF07F9A | ATF03F9A ATF04F9A ATF05F9A ATF06F9A |
| ALS0290A ALS0390A ALS0590A ALS0790A | ATS0360A ATS0460A ATS0560A ATS0660A |
| ALA02RLA ALA03RLA ALA05RLA ALA07RLA |                     |
| ALA02RCA ALA03RCA ALA05RCA ALA07RCA |                     |
| ALD02HEFA ALD03HEFA ALD05HEFA ALD07HEFA | ATD03HEFBU ATD04HEFBU ATD05HEFBU ATD07HEFBU |
| ALD02HEFB ALD03HEFB ALD05HEFB ALD07HEFB |                      |
| BRYMA200 |                      |
| BRC301B60 / BRC1H52W / BRC1H52S / BRC1E53A / BRC1E53B / BRC1E53C / BRC1D52 |                      |

ATB0* R A --> ATD00*UDSA R
ATB0* L A --> ATD00*UDSA L
ATB0* R A --> ATD00*UWSA R
ATB0* L A --> ATD00*UWSA L
ATB0* R A --> ATD00*HWSA R
ATB0* L A --> ATD00*HWSA L

(3) Please refer to the selection software for more details on accessories and their incompatibilities.

---

Notes:

(1) For modular T pro only, both electric heater can be used as pre and post heater.

(2) For modular T pro only, sixth digit on main unit material name has to be aligned with last digit of the coil material name.
Why choose Daikin air handling units?

- Maximum energy efficiency and indoor air quality
- Wide range of functions and options
- High quality components
- Innovative technology: Unique features and state of the art technology for short payback
- Operation efficiency and energy savings
- Outstanding reliability and performance
- Various applications are possible including air conditioning applications, industry-type process cooling, and large-scale district heat source systems
- Plug and play concept for easy installation and commissioning
- Unique Daikin fresh air package available for connection of AHU to VRV or ERQ

The unique quality of Daikin AHU is accomplished by:

Panels
- The outer panel is Pre-painted with Corrosion Class RC5
- The inner panel is made of Aluzinc with Corrosion Class RC4

Gasket
- Liquid gasket technology drastically reduces unit air leakage

Frame
- All anodized aluminium which has the highest corrosion resistance compared to natural aluminium
- Unique Daikin thermal break (35 mm or 27 mm thermal break). Polyamide bars design to enhance thermal break unit performances
- Distinctive Section to section thermal break profile to ensure thermal break design on the whole unit
- Rounded profile for increased ease of cleaning

IAQ
- Flush internal surface and rounded corner flush surface to avoid the retention of dirt and to be easily cleanable
- Wide filtration possibility to reduce pollution

Plug & Play Controls
- Pre-commissioned and Factory-tested control for quicker on site commissioning
- Sole manufacturer to provide a complete AHU DX solution from a single manufacturer available for connection of AHU to VRV or ERQ (everything factory-mounted)

Certifications

- Eurovent certified performances
- Exceeding 2018 ErP – ECODESIGN requirements
- Certified according to the Hygiene Directive VDI 6022 (Modular L and Professional ranges)
- Certified according to the Hygiene Directive DIN 1946 (Professional range)
- RLT certified performances
Marketing tools

› Watch the time-lapse video of a Daikin AHU construction on www.youtube.com/daikineurope

› Watch the Modular L promotional video on www.youtube.com/daikineurope

› Download our brochure on air handling units from my.daikin.eu

› Get the access to the selection tool http://tools.daikinapplied.eu to select your air handling units in a few clicks.

› Download the Modular L “Daikin Air Design” App on the App stores for iOS and Android

› Consult the “Argue Card” document to support in promoting the Modular L range (available on request – refer to your Daikin AHU specialist)

BIM models

› Get the Modular L and T BIM models on bim.daikin.eu

› Get the BIM tool plugin for Revit for Professional and Modular R/P series

Benefits for the installer

Plug and play design
› Pre-programmed and factory-tested controls for an easier and fast commissioning
› Low voltage fast connectors between AHU sections
› Flush mounted or external electrical control panel

Daikin Fresh air package
› Plug & Play connection of Professional or Modular AHU to Daikin VRV and ERQ
› Factory-mounted package contains expansion valves, electronic interface and sensors

Benefits for the consultant

Quick selection tool
› In-house developed web software with improved user interface and preset parameters ensure that you can always find the optimum and most energy efficient product for your application
› Extremely flexible design
› Infinite variable sizes (increments of 1 cm)

BIM models
› Regardless if your AHU is standard or fully customized, BIM models are available and can be downloaded with just a few clicks

Benefits for the end user

Customized or standard
› Amazing tailor-made capability to meet the specific customer needs with the Professional range or fast availability thanks to the “make to stock” standard Modular L and T range

Efficient control logic
› Open communication protocols (BACnet and Modbus) that guarantee BMS, and iTM compatibility
› Energy efficient controls with reduced energy and operating costs
› Highest efficiency ensure savings on energy consumption costs
SMART CONTROLS

DAMPER AND EC FAN

HEAT RECOVERY
WHEEL AND FILTER

COMFORTABLE
INDOOR CLIMATE

D-AHU MODULAR R
INSTALLATION
**D-AHU MODULAR R**
Pre configured unit with side connection and rotary heat exchanger (sensible or sorption)

**D-AHU MODULAR P**
Pre configured unit with side connection and aluminium counter flow plate heat exchanger

**D-AHU PROFESSIONAL**
Fully customize solution to meet all projects demand

---

**Eurovent certification**

---

### Table: Eurovent Classification according to EN1886

<table>
<thead>
<tr>
<th>Result</th>
<th>Energy TermiC® S2F2</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>Casing strength class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max. relative deflection mm x m²</td>
<td>4.00</td>
<td>10.00</td>
<td>Exceeding10</td>
</tr>
<tr>
<td>L1</td>
<td>Casing air leakage class at -400 Pa</td>
<td>L1</td>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td></td>
<td>Max. leakage rate (fₘₐₓ)</td>
<td>0.15</td>
<td>0.44</td>
<td>1.32</td>
</tr>
<tr>
<td>L1</td>
<td>Casing air leakage class at +700 Pa</td>
<td>L1</td>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td></td>
<td>Max. leakage rate (fₘₐₓ)</td>
<td>0.22</td>
<td>0.63</td>
<td>1.90</td>
</tr>
<tr>
<td>ePM, 80% (F9)</td>
<td>Filter bypass leakage class</td>
<td>ePM, 80% (F9)</td>
<td>ePM, 70% (F8)</td>
<td>ePM, 50% (F7)</td>
</tr>
<tr>
<td></td>
<td>Max. filter bypass leakage rate k in % of the volume flow rate</td>
<td>0.50</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td>T2</td>
<td>Thermal transmittance (U) W x m² x K⁻¹</td>
<td>T1</td>
<td>T2</td>
<td>T3</td>
</tr>
<tr>
<td></td>
<td>U &lt;= 0.5</td>
<td>0.5 &lt; U &lt;= 1</td>
<td>1 &lt; U &lt;= 1.4</td>
<td>1.4 &lt; U &lt;= 2</td>
</tr>
<tr>
<td>TB2</td>
<td>Thermal bridging factor (kb)</td>
<td>TB1</td>
<td>TB2</td>
<td>TB3</td>
</tr>
<tr>
<td></td>
<td>0.75 &lt; K_b &lt;= 1</td>
<td>0.6 &lt; K_b &lt;= 0.75</td>
<td>0.45 &lt; K_b &lt;= 0.6</td>
<td>0.3 &lt; K_b &lt;= 0.45</td>
</tr>
</tbody>
</table>
Typical configurations for Daikin air handling units provide a versatile range of functions. Our system offers numerous options for customisation through an extensive range of variations and added functionality.

**Supply side**

- Damper section including ventilation grilles, factory-mounted actuators
- Premium efficiency filters with factory-mounted differential pressure manometer
- Heat recovery system (cross flow and counter flow plate heat exchanger or rotary heat exchanger)
- Mixing box with damper and factory-mounted actuators
- Heating/cooling coil section with stainless steel condensate tray and drip protection
- Supply air fan, EC technology (with hinged door, opening drive monitoring, mounted and cabled lighting and ON/OFF switch)

---

**Fans**

- EC plug fan
- Forward curved fan
- Backward curved fan
- Backward airfoil blades fan
- Plug fan

**Exchangers**

- Water coils
- Steam coils
- Direct expansion coil
- Superheated water coils
- Electric coils

**Humidifiers**

- Evaporative humidifier without pump (loss water)
- Evaporative humidifier with re-circulating pump
- Steam humidifier with direct steam production
- Steam humidifier with local distributor
- Atomized water spray humidifier
Plug and Play control solution

- Air flow control
- Air temperature control
- Chilled water and DX cooling system control
- Free cooling
- CO₂ automatic control
- Air temperature control (supply, return, ambient)
- Variable Air Volume (VAV) and Constant Air Volume (CAV) systems

Unique section to section thermal break profile

- Thermal bridge free for the entire AHU
- Smooth interior surface with improved IAQ (Indoor Air Quality)

Return side

- Premium efficiency filters with factory-mounted differential pressure manometer
- Exhaust air fan, EC technology (with hinged door, opening drive monitoring, mounted and cabled lighting and ON/OFF switch)
- Mixing box with damper and factory-mounted actuators
- Heat recovery system (cross flow and counter flow plate heat exchanger or rotary heat exchanger)
- Damper section including ventilation grilles, factory-mounted actuators

Heat recovery systems

- Heat wheel, sensible or sorption
- Cross flow and Counter flow plate heat exchangers
- Run-around coils

Other section

- Attenuator section
- Mixing box section with actuators or manual controlled dampers
- Empty section

Filters

- Synthetic pleated filter
- Flat filter aluminium mesh
- Rigid bag filter
- Soft bag filter
- High efficiency filter
- Carbon absorption filter
- Carbon deodorizing filter

Accessories

- Control features
- Frost protection
- Manometers
- Drive guard
- Roof
- …

Filter types:

- Synthetic pleated filter
- Flat filter aluminium mesh
- Rigid bag filter
- Soft bag filter
- High efficiency filter
- Carbon absorption filter
- Carbon deodorizing filter

Air handling units
Professional

Flexible solution for custom applications

Highlights

› Air flow from 750 m³/h to 144,000 m³/h, for all customer needs
› Indoor and outdoor versions
› Custom designed to facilitate the transport and the assembly on site
› Smooth interior surface with improved IAQ (Indoor Air Quality)
› DX cooling system integration (VRV IV and ERQ coupling capability)
› Daikin Digital Control compatible
› Different heat recovery systems: heat wheel (sensible, enthalpy or sorption), cross flow and counter flow plate heat exchangers, run-around coils
› Wide range of fans selectable: EC, AC plug, belt driven (forward curved, backward curved and backward airfoil blades)
› Heating/cooling coil section with stainless steel condensate tray and drip protection
› Different humidifiers available depending on customer needs
› Premium efficiency filters with factory mounted differential pressure manometer
› Profile in anodized aluminum with or without thermal break
› Base frame in Galvanized steel, Aluminium, Stainless Steel 430 or 316
› Panel insulation in polyurethane foam or mineral wool
› Different material options selectable for internal, external panel skin: Pre-coated, Aluzinc, Aluminum, Stainless Steel 304 or 316
› Wide range of accessories
› Possibility to import BIM objects in Autodesk® Revit, thanks to a dedicated free plug-in available for download
Daikin Digital Control

Highlights

› Plug and play control system
› Free cooling/free heating management
› VRV direct expansion systems management
› Chilled water system control
› Eco and reduced night modes
› Up to 310 I/O (inputs/outputs)
› All components internally wired
› Fast connection between sections
› Programming schedule
› Indoor Air Quality (IAQ) controlled by CO₂ Probe
› Regulation logic: Temperature Supply, Return, Ambient
› Preloaded control parameters simplify the field commissioning
› Unit delivered tested and programmed in the factory ensuring high quality level
› Time and cost savings thanks to easy assembly on site
› Minimum maintenance required
› No involvement of external company or need of a third-party warranty thanks to integration of low and high voltage
› User friendly control interface
› Supervision and Control management local, remote options (Modbus, Bacnet)
› Maximum flexibility in selecting the product and control feature directly from selection software

Daikin On Site

The Daikin On Site platform offers different features and functions to monitor and control the unit. The monitoring system makes available dashboards, remote access, scheduling, online graphics, diagnostics, software upgrade.
Air Flow Range

10 predefined sizes
Airflow from 700 m³/h to 21,000 m³/h (ErP 2018)
Counterflow plate heat recovery
Compact design (only 720 mm depth)
Indoor and outdoor versions
Thermal bridge free for the entire AHU
Smooth interior surface with improved IAQ (Indoor Air Quality)
Indoor air quality compliant with VDI 6022 hygiene guideline
Chilled water system control
DX cooling system integration (VRV IV and ERQ coupling capability)
Advanced control features
Monitoring and control through Daikin iTM
Nominal air flow programmed at factory
Air flow or pressure control (Variable Air Volume - Constant Air Volume)
Free cooling capability
Economy and Night mode operation
Possibility to import BIM objects in Autodesk® Revit, thanks to a dedicated free plug-in available for download

Technical details

More details and final information can be found by scanning or clicking the QR codes.

<table>
<thead>
<tr>
<th>Modular P</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow m³/h</td>
<td>1,100</td>
<td>1,600</td>
<td>2,400</td>
<td>3,300</td>
<td>3,700</td>
<td>4,750</td>
<td>5,500</td>
<td>8,000</td>
<td>10,400</td>
<td>12,500</td>
</tr>
<tr>
<td>Heat exchanger thermal efficiency</td>
<td>%</td>
<td>88.1</td>
<td>87</td>
<td>87.2</td>
<td>87.1</td>
<td>92.1</td>
<td>91.8</td>
<td>92.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External static pressure Nom.</td>
<td>Pa</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current A</td>
<td>1.78</td>
<td>2.48</td>
<td>2.08</td>
<td>2.73</td>
<td>3.45</td>
<td>4.58</td>
<td>5.25</td>
<td>7.53</td>
<td>9.55</td>
<td>11.55</td>
</tr>
<tr>
<td>Power input Nom. kW</td>
<td>0.41</td>
<td>0.57</td>
<td>0.83</td>
<td>1.09</td>
<td>1.38</td>
<td>1.83</td>
<td>2.10</td>
<td>3.01</td>
<td>3.82</td>
<td>4.62</td>
</tr>
<tr>
<td>SFPv kW/m³/s</td>
<td>1.183</td>
<td>1.092</td>
<td>1.090</td>
<td>1.13</td>
<td>1.118</td>
<td>1.210</td>
<td>1.207</td>
<td>1.216</td>
<td>1.148</td>
<td>1.166</td>
</tr>
<tr>
<td>Electrical supply</td>
<td>Phase</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Hz</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage V</td>
<td>230</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions unit</td>
<td>Width mm</td>
<td>720</td>
<td>820</td>
<td>990</td>
<td>1,200</td>
<td>1,400</td>
<td>1,600</td>
<td>1,940</td>
<td>2,300</td>
<td></td>
</tr>
<tr>
<td>Height mm</td>
<td>1,320</td>
<td>1,540</td>
<td>1,740</td>
<td>1,920</td>
<td>2,180</td>
<td>2,460</td>
<td>2,570</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length mm</td>
<td>2,030</td>
<td>2,200</td>
<td>2,610</td>
<td>2,660</td>
<td>2,800</td>
<td>3,210</td>
<td>3,340</td>
<td>3,840</td>
<td>4,060</td>
<td>4,190</td>
</tr>
<tr>
<td>Weight unit kg</td>
<td>343</td>
<td>358</td>
<td>512</td>
<td>604</td>
<td>785</td>
<td>852</td>
<td>964</td>
<td>1,449</td>
<td>1,700</td>
<td>2,071</td>
</tr>
</tbody>
</table>

1. Winter design condition: Outdoor: -10°C, 90% Indoor: 22°C, 50% | 2. Measured with dirty filters | 3. SFPv is a parameter that quantifies the fan efficiency (the lower it is, the better it will be).

This reduces if airflow decreases.
Modular R
Side connected rotary heat recovery air handling unit

**Highlights**

› 10 predefined sizes
› Airflow from 700 m³/h to 18,000 m³/h (ErP 2018)
› Rotary heat recovery (Sensible or Sorption)
› Compact design (only 720 mm depth)
› Indoor and outdoor versions
› Thermal bridge free for the entire AHU
› Smooth interior surface with improved IAQ (Indoor Air Quality)
› Indoor air quality compliant with VDI 6022 hygiene guideline
› Chilled water system control
› DX cooling system integration (VRV IV and ERQ coupling capability)
› Advanced control features
› Monitoring and control through Daikin iTM
› Nominal air flow programmed at factory
› Air flow or pressure control (Variable Air Volume - Constant Air Volume)
› Free cooling capability
› Economy and Night mode operation
› Possibility to import BIM objects in Autodesk® Revit, thanks to a 
dedicated free plug-in available for [download](#)

**Air flow range**

<table>
<thead>
<tr>
<th>Size</th>
<th>Nominal airflow m³/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1,200</td>
</tr>
<tr>
<td>09</td>
<td>1,700</td>
</tr>
<tr>
<td>08</td>
<td>2,700</td>
</tr>
<tr>
<td>07</td>
<td>4,100</td>
</tr>
<tr>
<td>06</td>
<td>5,500</td>
</tr>
<tr>
<td>05</td>
<td>6,100</td>
</tr>
<tr>
<td>04</td>
<td>7,000</td>
</tr>
<tr>
<td>03</td>
<td>9,100</td>
</tr>
<tr>
<td>02</td>
<td>11,500</td>
</tr>
<tr>
<td>01</td>
<td>15,000</td>
</tr>
</tbody>
</table>

1. Measured with dirty filters  | 2. SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.

**Technical details**

More details and final information can be found by scanning or clicking the QR codes.

<table>
<thead>
<tr>
<th>Modular R</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow m³/h</td>
<td>1,200</td>
<td>1,700</td>
<td>2,700</td>
<td>4,100</td>
<td>5,500</td>
<td>6,100</td>
<td>7,000</td>
<td>9,100</td>
<td>11,500</td>
<td>15,000</td>
</tr>
<tr>
<td>Temp. efficiency winter</td>
<td>76.9</td>
<td>76.7</td>
<td>77</td>
<td>77.2</td>
<td>78.5</td>
<td>77</td>
<td>78.4</td>
<td>78.7</td>
<td>77.9</td>
<td>78.2</td>
</tr>
<tr>
<td>External static pressure Nom. Pa</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Nom. A</td>
<td>2.6</td>
<td>3.65</td>
<td>2.24</td>
<td>3.27</td>
<td>4.23</td>
<td>5.14</td>
<td>5.79</td>
<td>6.92</td>
<td>9.39</td>
<td>12.56</td>
</tr>
<tr>
<td>Power input Nom. kW</td>
<td>0.6</td>
<td>0.84</td>
<td>1.36</td>
<td>1.98</td>
<td>2.56</td>
<td>3.11</td>
<td>3.51</td>
<td>4.19</td>
<td>5.69</td>
<td>7.61</td>
</tr>
<tr>
<td>SFPv kW/m³/s</td>
<td>1.553</td>
<td>1.507</td>
<td>1.451</td>
<td>1.521</td>
<td>1.387</td>
<td>1.525</td>
<td>1.432</td>
<td>1.487</td>
<td>1.551</td>
<td></td>
</tr>
<tr>
<td>Electrical supply Phase ph</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Hz</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage V</td>
<td>230</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions Width mm</td>
<td>1,700</td>
<td>1,800</td>
<td>1,920</td>
<td>2,080</td>
<td>2,280</td>
<td>2,400</td>
<td>2,450</td>
<td>2,280</td>
<td>2,400</td>
<td></td>
</tr>
<tr>
<td>Height mm</td>
<td>1,320</td>
<td>1,540</td>
<td>1,740</td>
<td>1,920</td>
<td>2,180</td>
<td>2,460</td>
<td>2,570</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length mm</td>
<td>720</td>
<td>820</td>
<td>990</td>
<td>1,200</td>
<td>1,400</td>
<td>1,600</td>
<td>1,940</td>
<td>2,300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight kg</td>
<td>325</td>
<td>350</td>
<td>475</td>
<td>575</td>
<td>750</td>
<td>790</td>
<td>950</td>
<td>1,330</td>
<td>1,410</td>
<td>1,750</td>
</tr>
</tbody>
</table>

1. Measured with dirty filters  | 2. SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.
Simplifying business

The unique total solution approach by Daikin helps businesses to propose better cross-pillar solutions, to increase their success ratio by providing unmatchable product combinations to the end-user and to simplify the life of installers by supplying high-quality products coming from the same manufacturer. Contrary to other manufacturers, Daikin does not use OEM products in its AHU with DX offer. Many competitors are either offering OEM DX outdoor units or OEM AHU which create additional problems when warranties or faults arise. Having a single interface for your business makes Daikin the right choice.

One-stop shop

Daikin is the only global manufacturer in the market capable of offering a true Plug & Play solution where Daikin AHUs manufactured by Daikin Applied Europe and certified by Eurovent, offer off-the-shelf compatibility with Daikin’s unique VRV outdoor unit range for the best performance in the market. This unique integration of cross-pillar products under the same umbrella, gives the customer both peace-of-mind and added value when promoting a total solution approach.

Complete range of possibilities

Thanks to the most complete offer in the market, Daikin has the solution for all types of commercial applications requiring fresh air. Daikin provides ventilation solutions based on AHU from 2,500 m³/h up to 140,000 m³/h either with natural heat recovery or more advanced ventilation solutions where a VRV outdoor unit can be connected to the Daikin AHU for ultimate climate control. The harmonized control, between the VRV outdoor unit and the AHU, offer outstanding reliable operation of the system when connected to an iTM.

Advantages

› Unique manufacturer offering a complete range
› Plug & Play solution
› Direct iTM compatibility

You will find your match

Why choose Daikin air handling units with a DX connection?
Why use VRV and ERQ condensing units for connection to air handling units?

**High Efficiency**

Daikin heat pumps are renowned for their high energy efficiency. Integrating the AHU with a high efficiency heat pump system lower the carbon footprint of the building.

**Fast response to changing loads resulting in high comfort levels**

Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.

**Easy Design and Installation**

The system is easy to design and install since no additional water systems such as boilers, tanks and gas connections etc. are required. This also reduces both the total system investment and running cost.

**Daikin Fresh air package**

- Plug & Play connection between VRV/ERQ and the entire D-AHU modular range.
- Factory fitted and welded DX coil control and expansion valve kits.
In order to maximise installation flexibility, 4 types of control systems are offered

**W control:** Off the shelf control of air temperature (discharge temperature, suction temperature, room temperature) via any DDC controller, easy to setup

**X control:** Precise control of air temperature (discharge temperature, suction temperature, room temperature) requiring a preprogrammed DDC controller (for special applications)

**Z control:** Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed)

**Y control:** Control of refrigerant (Te/Tc) temperature via Daikin control (no DDC controller needed)

---

**1. W control (T_d/T_s/T_room control):**

Air temperature control via DDC controller
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a proportional 0-10V signal which is transferred to the Daikin control box (EKEQFCBA). This voltage modulates the capacity requirements of the outdoor unit.

**2. X control (T_d/T_s/T_room control):**

Precise air temperature control via DDC controller
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V) which is transferred to the Daikin control box (EKEQFCBA). This reference voltage will be used as the main input value for the compressor frequency control.

**3. Y control (T_e/T_c control):**

By fixed evaporating/condensing temperature
A fixed target evaporating or condensing temperature can be set by the customer. In this case, room temperature is only indirectly controlled. A Daikin wired remote control (BRC1* - optional) have to be connected for initial set-up but not required for operation.

**4. Z control T_s / T_room control):**

Control your AHU just like a VRV indoor unit (100% recirculation air application)
Allows the possibility to control the AHU just like a VRV indoor unit. Meaning temperature control will be focused on return air temperature from the room into the AHU. Requires BRC1* for operation. The only control that allows the combination of other indoor units to the AHU at the same time.

---

<table>
<thead>
<tr>
<th>Option kit</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility W</td>
<td>Off-the-shelf DDC controller that requires no pre-configuration</td>
</tr>
<tr>
<td>Possibility X</td>
<td>Pre-configured DDC controller required</td>
</tr>
<tr>
<td>Possibility Y</td>
<td>Using fixed evaporating temperature, no set point can be set using remote control</td>
</tr>
<tr>
<td>Possibility Z</td>
<td>Using Daikin infrared remote control BRC1*</td>
</tr>
<tr>
<td></td>
<td>Temperature control using air suction temperature or room temperature (via remote sensor)</td>
</tr>
</tbody>
</table>

* EKEQMCB (for ‘multi’ application)
VRV IV+ in mix application with VRV indoor units and Modular R AHU
Connectivity of air handling units to VRV/ERQ

**VRV** - for larger capacities (from 8 to 54HP)

An advanced solution for both pair and multi application

- Inverter controlled units
- Heat pump
- Heat recovery only for mix application with indoor units without hydrobox. For 100% recirculation AHUs only used as a VRV indoor unit.
- R-410A
- Control of room temperature via Daikin control

**Pair application**

One ERQ or VRV IV heat pump (system) connected to one AHU through one refrigerant circuit
- with W, X, Y and Z control
- not allowed for VRV H/R

One VRV IV heat pump (system) connected to the interlaced coil of one AHU through several refrigerant circuits
- with W, X and Y control
- not allowed for VRV H/R and VRV-i

**Multi application**

One VRV IV heat pump connected to several AHUs
- with Z control and field supplied controls on AHU side.
- not allowed for VRV H/R
- no interlaced coil possible

**Mix application**

VRV indoor units and AHU(s) mixed in the same VRV IV heat pump or heat recovery system
- with Z control and field supplied controls on AHU side
- no interlaced coil possible
- hydrobox not possible

For more information on the limitations applying on all the above application types, please refer to the relevant databooks of EKEXV and EKEQ with guidelines and other information on the selection process.
ERQ - for smaller capacities (from 100 to 250 class)

A basic fresh air solution for pair application

- Inverter controlled units
- Heat pump
- R-410A
- Wide range of expansion valve kits available
- Perfect for the Daikin Modular air handling unit

The "Daikin Fresh Air Package" provides a complete Plug & Play Solution including AHU, ERQ or VRV Condensing Unit and all unit control (ERQ, ERX, DDC controller) factory mounted and configured. The easiest solution with only one point of contact.

More details and final information can be found by scanning or clicking the QR codes.

---

**Ventilation ERQ AV1**

<table>
<thead>
<tr>
<th>Capacity range</th>
<th>ERQ</th>
<th>100AV1</th>
<th>125AV1</th>
<th>140AV1</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Cooling capacity</td>
<td>Nom. kW</td>
<td>11.2</td>
<td>14.0</td>
<td>15.5</td>
</tr>
<tr>
<td>Heating capacity</td>
<td>Nom. kW</td>
<td>12.5</td>
<td>16.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Power input</td>
<td>Cooling Nom. kW</td>
<td>2.81</td>
<td>3.51</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td>Heating Nom. kW</td>
<td>2.74</td>
<td>3.86</td>
<td>4.57</td>
</tr>
<tr>
<td>EER</td>
<td>3.99</td>
<td>3.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COP</td>
<td>4.56</td>
<td>4.15</td>
<td>3.94</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Unit HeightxWidthxDepth mm</td>
<td>1,345x900x320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Unit kg</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casing Material</td>
<td>Painted galvanized steel plate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan-Air flow rate</td>
<td>Cooling Nom. m³/min</td>
<td>106</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating Nom. m³/min</td>
<td>102</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>Sound power level</td>
<td>Cooling Nom. dBA</td>
<td>66</td>
<td>67</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Heating Nom. dBA</td>
<td>50</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>Operation range</td>
<td>Cooling Min./Max. °CDB</td>
<td>-5/46</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating Min./Max. °CWB</td>
<td>-20/15.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant</td>
<td>Type</td>
<td>R-410A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charge kg</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TCO₂eq</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWP</td>
<td>2.0875</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piping connections</td>
<td>Liquid OD mm</td>
<td>9.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas OD mm</td>
<td>15.9</td>
<td>19.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain OD mm</td>
<td>26x3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>Phase/Frequency/Voltage Hz/V</td>
<td>1N~/50/220-240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>Maximum fuse amps (MFA) A</td>
<td>32.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Ventilation ERQ AW1**

<table>
<thead>
<tr>
<th>Capacity range</th>
<th>ERQ</th>
<th>125AW1</th>
<th>200AW1</th>
<th>250AW1</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>5</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Cooling capacity</td>
<td>Nom. kW</td>
<td>14.0</td>
<td>22.4</td>
<td>28.0</td>
</tr>
<tr>
<td>Heating capacity</td>
<td>Nom. kW</td>
<td>16.0</td>
<td>25.0</td>
<td>31.5</td>
</tr>
<tr>
<td>Power input</td>
<td>Cooling Nom. kW</td>
<td>3.52</td>
<td>5.22</td>
<td>7.42</td>
</tr>
<tr>
<td></td>
<td>Heating Nom. kW</td>
<td>4.00</td>
<td>5.56</td>
<td>7.70</td>
</tr>
<tr>
<td>EER</td>
<td>3.98</td>
<td>4.29</td>
<td>3.77</td>
<td></td>
</tr>
<tr>
<td>COP</td>
<td>4.00</td>
<td>4.50</td>
<td>4.09</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Unit HeightxWidthxDepth mm</td>
<td>1,680x635x765</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Unit kg</td>
<td>159</td>
<td>187</td>
<td>240</td>
</tr>
<tr>
<td>Casing Material</td>
<td>Painted galvanized steel plate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan-Air flow rate</td>
<td>Cooling Nom. m³/min</td>
<td>95</td>
<td>171</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td>Heating Nom. m³/min</td>
<td>95</td>
<td>171</td>
<td>185</td>
</tr>
<tr>
<td>Sound power level</td>
<td>Nom. dBA</td>
<td>72</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drain OD mm</td>
<td>54</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>Operation range</td>
<td>Cooling Min./Max. °CDB</td>
<td>-5/43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heating Min./Max. °CWB</td>
<td>-20/15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On-coil temperature Heating/Min., Cooling/Max. °CDB</td>
<td>10/35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerant</td>
<td>Type</td>
<td>R-410A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charge kg</td>
<td>6.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TCO₂eq</td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWP</td>
<td>12.9</td>
<td>16.1</td>
<td>17.5</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Electronic expansion valve</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piping connections</td>
<td>Liquid OD mm</td>
<td>9.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas OD mm</td>
<td>15.9</td>
<td>19.1</td>
<td>22.2</td>
</tr>
<tr>
<td>Power supply</td>
<td>Phase/Frequency/Voltage Hz/V</td>
<td>3N~/50/400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>Maximum fuse amps (MFA) A</td>
<td>16</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>
Integration of ERQ and VRV in third party air handling units

a wide range of expansion valve kits and control boxes

**Integration with third party air handling units**

**EKEXV - Expansion valve kit for air handling applications**

**EKEQ - Control box for air handling applications**

For more information refer to the EKEXV or EKEQ databooks

---

**Combination table**

<table>
<thead>
<tr>
<th>Expansion valve kit</th>
<th>Mixed connection with VRV indoor units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z control (ERQ control)</td>
<td>Z control</td>
</tr>
<tr>
<td>1-phase</td>
<td>-</td>
</tr>
<tr>
<td>3-phase</td>
<td>-</td>
</tr>
</tbody>
</table>

- P (pair application) - One or more outdoor units connected to an (interlaced) coil of one AHU. To determine exact configuration please refer to the engineering data book.
- n1 (only mix application) - Combination of (multiple) AHU(s) and VRV DX indoor(s) is mandatory. To determine the exact configuration please refer to the engineering data book.
- n2 (multi or multi application) - Combination of (multiple) AHU(s) with (mix application) VRV DX indoor(s). To determine the exact configuration please refer to the engineering data book.

**Capacity table**

**Cooling**

<table>
<thead>
<tr>
<th>EKEXV Class</th>
<th>Allowed heat exchanger capacity (kW)</th>
<th>Allowed heat exchanger volume (dm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>Standard</td>
<td>Maximum</td>
</tr>
<tr>
<td>50</td>
<td>5.0</td>
<td>5.6</td>
</tr>
<tr>
<td>63</td>
<td>6.3</td>
<td>7.1</td>
</tr>
<tr>
<td>80</td>
<td>7.9</td>
<td>9.0</td>
</tr>
<tr>
<td>100</td>
<td>10.0</td>
<td>11.2</td>
</tr>
<tr>
<td>125</td>
<td>12.4</td>
<td>14.0</td>
</tr>
<tr>
<td>140</td>
<td>15.5</td>
<td>16.0</td>
</tr>
<tr>
<td>200</td>
<td>17.7</td>
<td>22.4</td>
</tr>
<tr>
<td>250</td>
<td>24.7</td>
<td>28.0</td>
</tr>
<tr>
<td>400</td>
<td>35.4</td>
<td>45.0</td>
</tr>
<tr>
<td>500</td>
<td>49.6</td>
<td>56.0</td>
</tr>
</tbody>
</table>

Saturated evaporating temperature: 6°C
Air temperature: 27°C DB / 19°C WB

**Heating**

<table>
<thead>
<tr>
<th>EKEXV Class</th>
<th>Allowed heat exchanger capacity (kW)</th>
<th>Allowed heat exchanger volume (dm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>Standard</td>
<td>Maximum</td>
</tr>
<tr>
<td>50</td>
<td>5.6</td>
<td>6.3</td>
</tr>
<tr>
<td>63</td>
<td>7.1</td>
<td>8.0</td>
</tr>
<tr>
<td>80</td>
<td>8.9</td>
<td>10.0</td>
</tr>
<tr>
<td>100</td>
<td>11.2</td>
<td>12.5</td>
</tr>
<tr>
<td>125</td>
<td>13.9</td>
<td>16.0</td>
</tr>
<tr>
<td>140</td>
<td>17.4</td>
<td>18.0</td>
</tr>
<tr>
<td>200</td>
<td>19.9</td>
<td>25.0</td>
</tr>
<tr>
<td>250</td>
<td>27.8</td>
<td>31.5</td>
</tr>
<tr>
<td>400</td>
<td>39.8</td>
<td>50.0</td>
</tr>
<tr>
<td>500</td>
<td>55.1</td>
<td>63.0</td>
</tr>
</tbody>
</table>

Saturated condensing temperature: 46°C
Air temperature: 20°C DB

---

**EKEQ - Control box for air handling applications**

For more information refer to the EKEQ databooks

---

**EKEXV - Expansion valve kit for air handling applications**

**VK** - Expansion valve kit for air handling applications

**Future products**

**EKEXV** - Expansion valve kit for air handling applications

**Dimensions Unit** mm 401x215x78
**Weight Unit kg** 2.9
**Sound pressure levelNom. dBA** 45
**Heating Min. °CDB** 10 (1)
**Cooling Max. °CDB** 35 (2)
**Refrigerant Type / GWP** R-410A / 2,087.5
**Piping connections Liquid OD mm** 6.35 9.52 12.7 15.9

(1) The temperature of the air entering the coil in heating mode can be reduced to -5°CDB. Contact your local dealer for more information. (2) 45% Relative humidity.

---

**EKEQ - Control box for air handling applications**

**Application** Pair
**Outdoor unit** ERQ / VRV
**Dimensions Unit** 132x400x200
**Weight Unit kg** 3.9
**Power supply Phase/Frequency/Voltage Hz/V** 1~/50/230

The combination of EKEXVCBA and ERQ is in pair application. The EKEQCFBA can be connected to some type of VRV/IV outdoor units with a maximum of 3 control boxes. The combination with DX indoor units, hydroboxes, RA outdoor units, ... is not allowed. Refer to the combination table drawing of the outdoor unit for details.
New generation of expansion valve kits and control boxes

Integrating third party Air Handling Units in the VRV 5 total solution (EKEXVA* / EKEA*)

› Unified EXV range connectable to both VRV 5 R-32 and VRV IV / ERQ R-410A units
› 3 new EXV capacities: 300, 350 and 450, allowing maximum flexibility
› Unified control box, offering all existing W,X,Y,Z controls + new advanced Z control
› Complete peace of mind as Daikin provides all required tools to ensure compliance to the IEC product standard
› Extension of operation range of EKEA: Outside installation possible down to -25°C
› Lower connection ratio limit for pair application

Available from Autumn 2023
### Options - Ventilation

<table>
<thead>
<tr>
<th>Individual control systems</th>
<th>EKEQFCBA (1)</th>
<th>EKEQDCB (1)</th>
<th>EKEQMCBA (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madoka</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>BRC1H52W (White) / BRC1H52S (Silver) / BRC1H52K (Black) User-friendly wired remote controller with premium design</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>BRCIES3A/B/C Wired remote control with full-text interface and back-light</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>BRC1DS2 Standard wired remote control with weekly timer</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Centralised control systems</th>
<th>EKEQFCBA (1)</th>
<th>EKEQDCB (1)</th>
<th>EKEQMCBA (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCC601A51 intelligent Tablet Controller</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>DCS601C51 intelligent Touch Controller</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building Management System &amp; Standard protocol</th>
<th>EKEQFCBA (1)</th>
<th>EKEQDCB (1)</th>
<th>EKEQMCBA (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCM601A51 intelligent Touch Manager</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>EKMBDXB Modbus interface</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical accessories</th>
<th>EKEQFCBA (1)</th>
<th>EKEQDCB (1)</th>
<th>EKEQMCBA (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>External wired temperature sensor</td>
<td>KRC01-1</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

**Notes**

1. Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, ... (intelligent Touch Manager, EKMBDXA are allowed)
2. Installation box needed
3. Adapter PCB mounting plate needed, applicable model can be found in the table above
4. 3rd party heater and 3rd party humidifier cannot be combined
5. Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit)
6. Available only with optional plenum
Air handling unit applications

Individual control systems

- **Madoka**
  - BRC1H52W (White)
  - BRC1H52S (Silver)
  - BRC1H52K (Black)

- User-friendly wired remote controller with premium design

- **BRC1E53A/B/C**
  - Wired remote control with full-text interface and back-light

- **BRC1D52**
  - Standard wired remote control with weekly timer

Centralised control systems

- **DCC601A51**
  - Intelligent Tablet Controller

- **DCS601C51**
  - Intelligent Touch Controller

Building Management System & Standard protocol interface

- **DCM601A51**
  - Intelligent Touch Manager

- **EKMBDXB**
  - Modbus interface

Electrical accessories

- External wired temperature sensor KRCS01-1

Notes

1. Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, …; (intelligent Touch Manager, EKMBDXA are allowed)
2. Installation box needed
3. Adapter PCB mounting plate needed, applicable model can be found in the table above
4. 3rd party heater and 3rd party humidifier cannot be combined
5. Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit)
6. Available only with optional plenum
We’re here to help you!
Online and offline

Business portal via mobile or desktop

Full BIM object library available

Online and offline VRV selection software
Tools and platforms

- Literature overview 44
- Supporting tools, software and app 46
Literature overview for professional network

Solutions catalogues:

**Reference books:**
- **VRV IV S-series** Main benefits, application examples and specs of VRV IV S-series product range
- **VRV IV i-series** Main benefits, application examples and specs of VRV IV i-series product range
- **VRVS S-Series** Main benefits and specs of VRV S
- **Replacement Technology** Clear installer benefits of VRV replacement technology
- **Infrastructure cooling** Clear installer benefits why to choose Daikin for infrastructure cooling
- **F-gas regulation** Details on the F-gas regulation and how Daikin is prepared for the future HVAC-R market
- **LwP by Daikin** Detailed info on LwP by Daikin where reclaimed refrigerant is reused

**Focus topics:**
- **Mini Sky Air Alpha-series** Main benefits and specs of RZAG-A series
- **Low height Sky Air Alpha-series** Main benefits and specs of the low height RZAG-N*
- **Low height large Sky Air Advance-series** RZAD Sky Air Advance-series

**Product flyers:**
- **Madoka** Detailed info on BRC11* remote control
- **RTD modbus interface** Detailed info on RTD controls and applications

**Product catalogues:**
- **Sky Air Catalogue** Detailed technical information & benefits of Sky Air
- **VRV Catalogue** Detailed technical information & benefits of the VRV total solution
- **Ventilation Catalogue** Detailed info on Ventilation products
Solutions catalogues:

Commercial Solutions
Daikin offers solutions for commercial applications.

Green Building Solutions
Clear building owner/investor benefits why to choose Daikin for a green building, with emphasis on BREEAM.

Maximise your BREEAM score
BREEAM categories Overview of how to score BREEAM points with Daikin.

Hotel Solutions
Clear building owner/investor benefits why to choose Daikin for a hotel.

Reference books:

Success Case study
Vandervalk hotel case In depth info on the VRV total solution at a Vandervalk hotel.

Product profiles:

Intelligent Touch Manager
Detailed benefits of Intelligent Touch Manager.

Intelligent Tablet Controller
Detailed benefits of Intelligent Tablet Controller.

Daikin Cloud Service
Details on the Daikin Cloud connection.

Focus topics:

Replacement technology
Clear building owner/investor benefits of replacement technology.

Technical documentation:
Download all technical documentation such as engineering databooks, selection software, installation and operation manuals and service manuals directly from our business portal: my.daikin.eu.
Supporting tools, software and apps

Web based Xpress selection software

Making selection easy, anytime, anywhere

- Web & cloud based, access to your projects from anywhere, anyplace…
- Platform (Windows, Mac, …) and hardware (laptop, desktop, tablet) independent
- Re-engineered GUI for maximum easy of use
- No need to do local installation
- No tool updates required (always latest version available)
- Possibility to copy / share projects

Main functions

- Easy selection, anytime, anywhere
- Easy editing of piping
- Intuitive interface
- Clear wiring overview, easy to make control groups
- Clear overview of control groups and central controls

www.daikineurope.com/support-and-manuals/software-downloads
Quickly select your air handling unit by following the wizard:

1. Select the series: D-AHU Professional, D-AHU Modular R, D-AHU Modular P, Modular L and Modular T
2. Insert the air flow supply and return
3. Insert the summer/winter air supply setpoint
4. Insert the summer/winter outdoor and extract temperature

You will get immediately your 3D result and it’s ready to customize!

Now, you will be able to modify your unit (adding or changing components) in order to have a product that meets all your needs.

When finished a technical report, price list, fan curve chart can be generated. These final reports can be downloaded in different formats.
Plugins and third-party software tools

Building Information Modelling (BIM) support

› BIM improves efficiency of design and build phase
› Daikin is among the first to supply a full library of BIM objects for its VRV products

Energy simulation and design aid tools

Seasonal simulator

› The Seasonal Simulator is an innovative software tool that calculates and compares potential seasonal efficiency ratings.
› This user-friendly tool compares various Daikin systems, annual power consumption, CO₂ emissions, and much more, to present an accurate ROI calculation in a matter of minutes.

Psychrometrics diagram

› The Psychrometrics Diagram Viewer demonstrates the changing properties of moist air.
› With this tool, users can choose two points with specific conditions, plot them on the diagram and select actions to change the conditions, i.e. heat, cool and mix air.
Software service tools

Error code app

Quickly know the meaning of fault codes, for each product family and the potential cause

D-Checker

D-checker is a software application used to record and monitor operation data of Daikin applied, split, Multi-split, Sky-air units, Daikin Altherma LT, ground source heat pump, Hybrid, ZEAS, Conveni-pack & R410A Booster unit

Bluetooth adaptor NEW

Monitoring of Split, Sky Air and VRV data via any bluetooth device
› No need to access the outdoor unit
• Connects with D-Checker software (for laptops)
• Connects with monitoring app (for tablets or smartphones)

VRV Service-Checker

› Connected via F1/F2 bus to check multiple systems at the same time
› Connection of external pressure sensors possible

Online support

Business portal

› Experience our new extranet that thinks with you at my.daikin.eu
› Find information in seconds via a powerful search
› Customise the options so you see only info relevant for you
› Access via mobile device or desktop

my.daikin.eu

Diagnosis of the Bluetooth system possible:

Computer with Bluetooth

Online support

Business portal

› Experience our new extranet that thinks with you at my.daikin.eu
› Find information in seconds via a powerful search
› Customise the options so you see only info relevant for you
› Access via mobile device or desktop

my.daikin.eu

Diagnosis of the Bluetooth system possible:

Computer with Bluetooth

Internet

Find our solution for different applications:

› Get more commercial details on our flagship products via our dedicated minisites
› See our references

www.daikineurope.com/references
Technical drawings

Modular T  52
Modular L  57
VAM-FC9/J8  62
EKVDX-A  70
VKM-GBM  75
The diagram shows the available external pressure for the duct system given an airflow.

**SFPv = Specific Fan Power (W/m³/s)**

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.
The diagram shows the available external pressure for the duct system given an airflow.

**SFPv = Specific Fan Power (W/m³/s)**

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.
The diagram shows the available external pressure for the duct system given an airflow.

\[ \text{SFPv} = \text{Specific Fan Power (W/m}^3/\text{s)} \]

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.
Detailed technical drawings

ALB02RB(S)/ALB02LB(S)

ALB03RB(S)/ALB03LB(S)
The diagram shows the available external pressure for the duct system given an airflow.

\[ \text{SFPv} = \text{Specific Fan Power} \ (W/m}^3/s) \]

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

- Nominal working point
The diagram shows the available external pressure for the duct system given an airflow.

**SFPv = Specific Fan Power (W/m³/s)**

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

- **Nominal working point**

---

**Nominal working point**
The diagram shows the available external pressure for the duct system given an airflow.

**SFPv = Specific Fan Power (W/m³/s)**

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

- **Nominal working point**

---

**ALB06RB(S)/ALB06LB(S)**

---

**ALB07RB(S)/ALB07LB(S)**
### VAM150FC9

**NOTES**
1. Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

### VAM250FC9

**NOTES**
1. Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.
NOTES

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D112815C

VAM350-500J8

NOTES

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D113502A

VAM650J8
NOTES
1. To perform maintenance on the air filter, it is required to provide a service access panel.

VAM1500-2000J8

NOTES
1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.
NOTES
1. The fan speeds are valid for 230V, 50-Hz power supply.
Detailed technical drawings

VAM350J8

NOTES
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
2. Measured according to JIS B 8628 - 2003

LEGEND
- L1 = Low speed lower limit
- L8 = Low speed factory setting
- L15 = Low speed upper limit
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

VAM500J8

NOTES
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
2. Measured according to JIS B 8628 - 2003

LEGEND
- L1 = Low speed lower limit
- L8 = Low speed factory setting
- L15 = Low speed upper limit
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit
VAM650J8

1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).

SA = Supply air
RA = Room air
OA = Outdoor air
EA = Exhaust air

(EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).

NOTES
1. Measured according to JIS B 8628 - 2003
2. Measured according to JIS B 8628 - 2003

VAM800J8

1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).

SA = Supply air
RA = Room air
OA = Outdoor air
EA = Exhaust air

(EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).

NOTES
1. Measured according to JIS B 8628 - 2003
2. Measured according to JIS B 8628 - 2003

LEGEND
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit
VAM1000J8

NOTES
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to JIS B 8628 - 2003

LEGEND
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

VAM1500J8

NOTES
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).
   EA = Exhaust air
   OA = Outdoor air
   RA = Room air
   SA = Supply air
2. Measured according to JIS B 8628 - 2003

LEGEND
L1 = Low speed lower limit
L8 = Low speed factory setting
L15 = Low speed upper limit
H1 = High speed lower limit
H8 = High speed factory setting
H15 = High speed upper limit
UH1 = Ultra-high speed lower limit
UH8 = Ultra-high speed factory setting
UH15 = Ultra-high speed upper limit

Ultra-high speed

High speed

Low speed
**NOTES**

1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA).

**LEGEND**

- L1 = Low speed lower limit
- L8 = Low speed factory setting
- L15 = Low speed upper limit
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

---

**CLICK HERE TO VIEW ALL VAM-J8 TECHNICAL DRAWINGS ON MY.DAIKIN.EU**
NOTES
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KA</td>
<td>Liquid pipe connection port</td>
<td>Ø6.35 flared connection</td>
</tr>
<tr>
<td>KB</td>
<td>Gas pipe connection port</td>
<td>Ø12.70 flared connection</td>
</tr>
<tr>
<td>KC</td>
<td>Accessories pipe</td>
<td>Ø9.52 flared connection</td>
</tr>
<tr>
<td>KD</td>
<td>Drain pipe connection</td>
<td>Ø20 (OD Ø26, ID Ø20)</td>
</tr>
<tr>
<td>KE</td>
<td>Wiring connection</td>
<td></td>
</tr>
<tr>
<td>KF</td>
<td>Power supply connection</td>
<td></td>
</tr>
<tr>
<td>KG</td>
<td>Drain outlet VP20 (OD Ø26, ID Ø20)</td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>Air inlet flange</td>
<td></td>
</tr>
<tr>
<td>KJ</td>
<td>Air suction side</td>
<td></td>
</tr>
<tr>
<td>KK</td>
<td>Air discharge side</td>
<td></td>
</tr>
<tr>
<td>KL</td>
<td>Nameplate</td>
<td></td>
</tr>
</tbody>
</table>

**EKVDX32A**

**EKVDX50A**

NOTES
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.
EKVDX80A

NOTES
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KA</td>
<td>Liquid pipe connection port</td>
<td>Ø9.52 flared connection</td>
</tr>
<tr>
<td>KB</td>
<td>Gas pipe connection port</td>
<td>Ø15.90 flared connection</td>
</tr>
<tr>
<td>KC</td>
<td>Drain pipe connection VP20 (OD Ø26, ID Ø20)</td>
<td></td>
</tr>
<tr>
<td>KD</td>
<td>Wiring connection</td>
<td>/</td>
</tr>
<tr>
<td>KE</td>
<td>Power supply connection</td>
<td>/</td>
</tr>
<tr>
<td>KG</td>
<td>Drain outlet VP20 (OD Ø26, ID Ø20)</td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>Air inlet flange</td>
<td>/</td>
</tr>
<tr>
<td>KJ</td>
<td>Air suction side</td>
<td>/</td>
</tr>
<tr>
<td>KK</td>
<td>Air discharge side</td>
<td>/</td>
</tr>
<tr>
<td>KM</td>
<td>Nameplate</td>
<td>/</td>
</tr>
</tbody>
</table>

EKVDX100A

NOTES
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KA</td>
<td>Liquid pipe connection port</td>
<td>Ø9.52 flared connection</td>
</tr>
<tr>
<td>KB</td>
<td>Gas pipe connection port</td>
<td>Ø15.90 flared connection</td>
</tr>
<tr>
<td>KC</td>
<td>Drain pipe connection VP20 (OD Ø26, ID Ø20)</td>
<td></td>
</tr>
<tr>
<td>KD</td>
<td>Wiring connection</td>
<td>/</td>
</tr>
<tr>
<td>KE</td>
<td>Power supply connection</td>
<td>/</td>
</tr>
<tr>
<td>KG</td>
<td>Drain outlet VP20 (OD Ø26, ID Ø20)</td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>Air inlet flange</td>
<td>/</td>
</tr>
<tr>
<td>KJ</td>
<td>Air suction side</td>
<td>/</td>
</tr>
<tr>
<td>KK</td>
<td>Air discharge side</td>
<td>/</td>
</tr>
<tr>
<td>KM</td>
<td>Nameplate</td>
<td>/</td>
</tr>
</tbody>
</table>
NOTES
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & DA), and 2/3 of the ESP on the indoor side (RA & SA).
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the VAM airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
3. Unit operation with R32 refrigerant is possible in the shaded area of the graphs, but the R32 safety alarm will be triggered if the system airflow drops within this area during operation. No selection in this area is allowed.
**EKVDX50A**

**Legend**
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

**Notes**
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & DA), and 2/3 of the ESP on the indoor side (RA & SA).
2. Measured according to JIS B 8628 - 2003

---

**EKVDX80A**

**Legend**
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

**Notes**
1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & DA), and 2/3 of the ESP on the indoor side (RA & SA).
2. Measured according to JIS B 8628 - 2003
NOTES

1. The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & DA), and 2/3 of the ESP on the indoor side (RA & SA).
2. The designed airflow of the system at H and UH tap should be kept as shown in the graphs. If the VAM airflow is out of this range, the compressor of the outdoor unit may stop for self-protection purposes.
NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, and fans can easily be inspected and serviced.)

2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)

3. Do not turn the unit upside down.

4. Use city water or clean water.

   Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.

5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.

6. Make sure the supply water is between 5°C and 40°C in temperature.

7. Make sure the supply water is between 5°C and 40°C in temperature.

8. Insulate the water supply piping to prevent condensation from forming.

9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.

10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.

11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0°C.

12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).

13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.

14. Do not place something which shouldn’t get wet at the bottom of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

15. Feed clean water. If the supply water is hard water, use a water softener because of short life.

   Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 year (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)
NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)

2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)

3. Do not turn the unit upside down.

4. Use city water or clean water.

5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply that can be reached from the inspection.

6. Make sure the supply water is between 5°C and 40°C in temperature.

7. Make sure the supply water is between 5°C and 40°C in temperature.

8. Insulate the water supply piping to prevent condensation from forming.

9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.

10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.

11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0°C.

12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).

13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.

14. Do not place something which shouldn’t get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

15. Feed clean water. If the supply water is hard water, use a water softener because of short life.

Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)
NOTES

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans and humidifier elements can easily be inspected and serviced.)

2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water. Also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)

3. Do not turn the unit upside down.

4. Use city water or clean water.

   Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.

5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.

6. Make sure the supply water is between 5°C and 40°C in temperature.

7. Insulate the water supply piping to prevent condensation from forming.

8. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.

9. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.

10. Install in a location where the air around the unit or taken into the humidifier will not drop below 0°C.

11. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).

12. In areas where freezing may occur, always take steps to prevent the pipes from freezing.

13. Do not place something which shouldn’t get wet at the bottom of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

14. Feed clean water. If the supply water is hard water, use a water softener because of short life.

   Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 year (1,500 hours), under the supply water conditions of hardness: 400 mg/L.)
Detailed technical drawings

**VKM50GBM**

![Graph](chart1.png)

**[READING OF PERFORMANCE CHARACTERISTICS]**

1. **Example:** 19(29)-07
   - **First code:** (Supply \(\uparrow\) Exhaust \(\downarrow\))
   - **Second code no.:** 07

2. **Rated point:**

3. The characteristic of each tap becomes a setup of the characteristic of the same code number.

---

**VKM80GBM**

![Graph](chart2.png)

**[READING OF PERFORMANCE CHARACTERISTICS]**

1. **Example:** 19(29)-07
   - **First code:** (Supply \(\uparrow\) Exhaust \(\downarrow\))
   - **Second code no.:** 07

2. **Rated point:**

3. The characteristic of each tap becomes a setup of the characteristic of the same code number.
[READING OF PERFORMANCE CHARACTERISTICS]
1. For example: 19(29)-07
   Mode no.: 19(29)
   First code: (Supply) 2, (Exhaust) 3
   Second code no.: 07
2. Rated point:
3. The characteristic of each tap becomes a setup of the characteristic of the same code number.

CLICK HERE TO VIEW ALL VKM-GBM TECHNICAL DRAWINGS ON MY.DAIKIN.EU
The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V. Daikin Europe N.V. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Europe N.V.

Printed on non-chlorinated paper.


Check ongoing validity of certificate: www.eurovent-certification.com


Check ongoing validity of certificate: www.eurovent-certification.com

ECPEN23-203 05/23