

# VUT 160 VB EC A21



Air handling units in heat- and sound-insulated casing equipped with a counter-flow polystyrene heat exchanger

- Maximum airflow: 200
- Sound pressure level LpA at 3 m: 24
- Heat exchanger type: Counter flow
- Extract filter: G4
- Supply filter: F7 (G4 optional)
- Sound insulation
- Motor type: EC
- Bypass: Auto
- Reheater: Optional
- Preheater: Optional
- BMS protocol: ModBus
- Control: Smartphone
- Casing material: Coated steel
- Humidity sensor: Optional
- CO2 sensor: Optional
- VOC sensor: Optional
- PM2.5 sensor: Optional

|                                   | Unit of measurement | VUT 160 VB EC A21 |
|-----------------------------------|---------------------|-------------------|
| Connected air duct size           | mm                  | 125               |
| Speed                             | -                   | 1                 |
| Minimum supply voltage            | V                   | 230               |
| Maximum supply voltage            | V                   | 230               |
| Power supply frequency            | Hz                  | 50/60             |
| Rated power                       | W                   | 57                |
| Unit current                      | A                   | 0.5               |
| Maximum airflow                   | m <sup>3</sup> /h   | 200               |
| Sound pressure level LpA at 3 m   | dB(A)               | 24                |
| Heat recovery efficiency, max     | %                   | 93                |
| Heat exchanger type               | -                   | Counter flow      |
| Heat exchanger material           | -                   | Polystyrene       |
| Weight                            | kg                  | 36                |
| Extract filter                    | -                   | G4                |
| Supply filter                     | -                   | F7 (G4 optional)  |
| Transported air temperature (max) | °C                  | 40                |
| Transported air temperature (min) | °C                  | -25               |
| Ambient air temperature min       | °C                  | 1                 |
| Ambient air temperature max       | °C                  | 40                |
| Ambient air humidity max          | %                   | 60                |
| Ingress protection rating         | -                   | IP20              |

|  |                         |                      |
|--|-------------------------|----------------------|
| Ingress protection rating of the drive             | -                       | IP44                 |
| ErP compliance                                     | -                       | 2016, 2018           |
| Cold - Specific energy consumption (SEC)           | kWh/(m <sup>2</sup> /a) | 81.5                 |
| SEC Class Cold                                     | -                       | A+                   |
| Average - Specific energy consumption (SEC)        | kWh/(m <sup>2</sup> /a) | 42.8                 |
| SEC Class Average                                  | -                       | A+                   |
| Warm - Specific energy consumption (SEC)           | kWh/(m <sup>2</sup> /a) | 18                   |
| SEC Class Warm                                     | -                       | E                    |
| Unit category                                      | -                       | RVU                  |
| Type of ventilation unit                           | -                       | Bidirectional        |
| Type of drive installed                            | -                       | Variable speed       |
| Type of heat recovery system                       | -                       | Recuperative         |
| Thermal efficiency of heat recovery                | %                       | 86                   |
| Maximum flow rate                                  | m <sup>3</sup> /h       | 175                  |
| Electric power input                               | W                       | 57                   |
| Reference flow rate                                | m <sup>3</sup> /s       | 0.036                |
| Reference pressure difference                      | Pa                      | 50                   |
| Specific power input (SPI)                         | W/(m <sup>3</sup> /h)   | 0.215                |
| Control typology                                   | -                       | Local demand control |
| Maximum internal leakage rates                     | %                       | 2.7                  |
| Maximum external leakage rates                     | %                       | 2.7                  |
| Cold - The annual electricity consumption (AEC)    | kWh/a                   | 696                  |
| Average - The annual electricity consumption (AEC) | kWh/a                   | 159                  |
| Warm - Jährlicher Stromverbrauch (JSV)             | kWh/a                   | 114                  |
| Cold - The annual heating saved (AHS)              | kWh/a                   | 9019                 |
| The annual heating saved (AHS) Average             | kWh/a                   | 4610                 |
| The annual heating saved (AHS) Warm                | kWh/a                   | 2085                 |
| Declared typology                                  | -                       | RVU BVU              |
| Sound power level                                  | dB(A)                   | 45                   |

## Dimensions

| ØD  | B   | H   | L   |
|-----|-----|-----|-----|
| 125 | 330 | 580 | 600 |








## Accessories

### Control Panels for AHU



| Name                     | Photo   | Description   |
|--------------------------|---|---|
| <a href="#">A25</a>      |   | The control panel with a sensor display   |
| <a href="#">A22</a>      |  | The A22/A22 WiFi control panels are used for control of industrial and domestic air handling units with an A21 automation system. |
| <a href="#">A22 WiFi</a> |  | The A22/A22 WiFi control panels are used for control of industrial and domestic air handling units with an A21 automation system. |

### Sensors



| Name                  | Photo   | Description                    |
|-----------------------|---|--------------------------------|
| <a href="#">HV2</a>   |  | Humidity sensor                |
| <a href="#">CO2-1</a> |  | CO2 sensors                    |
| <a href="#">CO2-2</a> |  | CO2 sensors                    |
| <a href="#">HR-S</a>  |  | Electro-mechanical humidistats |

|                           |   |                 |
|---------------------------|---|-----------------|
| <a href="#">DPWC11200</a> |  | Humidity sensor |
|---------------------------|---|-----------------|


### VOC sensors

| Name                      | Photo   | Description |
|---------------------------|---|-------------|
| <a href="#">DPWQ30600</a> |  | VOC sensors |
| <a href="#">DPWQ40200</a> |  | CO2 sensor  |

### Electrical heaters


| Name                                  | Photo   | Description   |
|---------------------------------------|---|---|
| <a href="#">NKP 125-0,6-1 A21 V.2</a> |    | Heater for heat exchanger freeze protection                   |
| <a href="#">NKP 125-0,8-1 A21 V.2</a> |   | Heater for heat exchanger freeze protection                   |
| <a href="#">NKP 125-1,2-1 A21 V.2</a> |  | Heater for heat exchanger freeze protection                   |
| <a href="#">NKD 125-0,6-1 A21 V.2</a> |  | Duct heater for supply air post-heating with external control |
| <a href="#">NKD 125-0,8-1 A21 V.2</a> |  | Duct heater for supply air post-heating with external control |
| <a href="#">NKD 125-1,2-1 A21 V.2</a> |  | Duct heater for supply air post-heating with external control |

### Condensation drainage


| Name                  | Photo   | Description   |
|-----------------------|---|---|
| <a href="#">SH-32</a> |  | The hydraulic U-trap for condensate drainage from heat exchangers and coolers in ventilation and air conditioning systems |

### For round ducts




| Name | Photo | Description |
|------|-------|-------------|
|------|-------|-------------|

|                         |   |  |
|-------------------------|---|--|
| <a href="#">KRV 125</a> |  | Air damper for air flow cut-off in round air ducts |
|-------------------------|---|--|


### Electric actuators

| Name                         | Photo   | Description   |
|------------------------------|---|---|
| <a href="#">Belimo LF230</a> |  | The Belimo LF series actuators are designed for controlling air dampers with cross section up to 0.8 m <sup>2</sup> performing protection functions |

### Other accessories

| Name             | Photo  | Description     |
|------------------|--|-----------------|
| SF 285x195x10 G4 |   | Panel filter G4 |
| SF 285x195x10 F7 |   | F7 panel filter |
| VL C6 366/285    |  | Summer block    |

### Cooker Hoods

| Name                 | Photo   | Description  |
|----------------------|---|--|
| <a href="#">KH-1</a> |  | The kitchen exhaust hood is designed to clean air from combustion products, fumes, odors that form during cooking in the kitchen |