Komfovent DOMEKT

DOMEKT air handling units (AHU) are designed for the ventilation of residential premises. DOMEKT is a standardized series of the air handling units with a heat recovery for the air flow between 50 m$^3$/h and 1 000 m$^3$/h.

Features and benefits of DOMEKT units:
- Energy efficient solution;
- PLUG & PLAY concept – units are fully prepared for installation;
- DOMEKT air handling units are especially silent;
- Energy saving high performance EC fans in DOMEKT units;
- Integrated automatic control;
- Wide choice of automatic control functions already included as a standard – no options are needed;
- Integrated web server for clever control;
- Control via Smartphone available;
- Units color – RAL 9010.

A compact air handling units’ design helps to integrate them in a limited dedicated space for installation.

All DOMEKT units are based on the PLUG & PLAY principle: each unit has the integrated control system and is delivered with a complete automatic control installed and prewired inside the unit. A modern control panel is included in each supplied DOMEKT unit.

Due to the availability of clever design and functions the units offer a great opportunity to keep running costs low. They are safe, reliable and durable in operation. The filtered air is supplied clean and fresh to the premises, which is extremely advisable for allergic people.

New casing technology EPP (expanded polypropylene) advantages:
- No thermal bridges, no condensation;
- Better aerodynamics;
- Faster assembly;
- Reduced weight;
- Improved thermal insulation;
- The mechanical resistance;
- Special improved EPP;
- Hydrophobic;
- Good sound insulation.
Domekt R

Air handling units with a rotary heat exchanger.

Advantages of Domekt R units

Heat energy saving
In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Efficient heat
Under the normal operational conditions, the rotary heat exchanger does not freeze: even at outdoor temperatures below -20 °C, no additional warming up required of the outdoor air which results in efficient heat energy saving even at hard frosts. The application of the rotary heat exchanger allows reducing the energy consumption for warming up the supply air by approximately 4 times.

Air humidity balance
Under the normal operating conditions the condensate does not form in the process of heat exchange in the rotary heat exchanger, because most of the humidity is returned to the premises. The excess moisture is removed outside. The air in the premises is less drained and the air humidity balance is maintained. As the condensate does not form, the drainage is not necessary – this simplifies the mounting of the unit.

Low noise level
Domekt R air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Preheater
As an additional protection for very low outdoor temperatures such as -30 °C and lower, it is recommended to use duct mounted preheater.

Rotary heat exchanger

Advantages of rotary heat exchanger
- High efficiency coefficient.
- Not freezing.
- 4 times lower energy consumption for warming up the air.
- Humidity is transferred to supply air – a lower power humidifier may be needed.
- No drainage is necessary – easy unit installation.
- Very compact in size.
- Cooled air may be recovered that results in the reduced energy consumption for air cooling.

The efficiency on the demand: two levels of rotor efficiency are available. Optimum efficiency is achieved with L type rotor, higher values may be reached with optional XL type rotor.

Air handling units are equipped with two types of rotary heat exchangers:
- Heat exchanger is made from aluminum foil (AL). It recovers heat (during the heating season) or cold (in summer, if the air is conditioned). It recovers moisture.
- Heat exchanger is made from hygroscopic aluminum foil (AZ). It recovers heat (during the heating season) or cold (in summer, if the air is conditioned). Heat exchangers of this type regenerate moisture more efficiently.

Energy efficient EC motor
Rotary heat exchangers are equipped with EC motors, which ensure the smooth rotor operation and control.
### Domekt R range

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Heat exchanger</th>
<th>Supply/ exhaust air filter class</th>
<th>Heater</th>
<th>Cooler</th>
<th>Inspection side</th>
<th>Control system / panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type</td>
<td>Wave height</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Domekt R 200 V</td>
<td>AL</td>
<td>L</td>
<td>HE</td>
<td>CW</td>
<td>R1</td>
<td>C4</td>
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<tr>
<td>Domekt R 250 F</td>
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<td>o</td>
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<td>Δ</td>
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<td>o</td>
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<td>Δ</td>
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<td>Δ</td>
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<td>Δ</td>
<td>Δ</td>
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<tr>
<td>Domekt R 700 H</td>
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<td>Δ</td>
<td>Δ</td>
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<tr>
<td>Domekt R 700 F</td>
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<td>o</td>
<td>Δ</td>
<td>Δ</td>
<td>o</td>
<td>o</td>
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<td>Domekt R 900 U</td>
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<td>o</td>
<td>Δ</td>
<td>Δ</td>
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<td>o</td>
<td>Δ</td>
<td>Δ</td>
<td>o</td>
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</tr>
<tr>
<td>Domekt R 900 H/V</td>
<td>o</td>
<td>o</td>
<td>Δ</td>
<td>Δ</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

- **standard equipment**
- **possible choice**
- **ordered separately**
- **available only**

#### Duct connection

- **H** – horizontal.
- **V** – vertical.
- **U** – universal, 14 installation options.
- **F** – false ceiling.

#### Heat exchanger

- **AZ** – enthalpic, sorption rotary heat exchanger coated with special 4Å coating. Wave height of this heat exchanger is L.
- **AL** – aluminum, condensing rotor. As a standard, units are equipped with L wave height of the rotors. In exceptional cases, when increased thermal efficiency is required, the units can be equipped with XL wave.

#### Heater

- **HE** – electric heater.
- **HW** – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place.
- **HCW** – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

#### Cooler

- **CW** – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
- **CDX** – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

#### Inspection side

See p. 132.

#### Control system

**C6 Control features:**

- Temperature maintenance modes:
  - Supply air / Extract air / Room / Balance;
  - Air flow indication: m³/h; l/s;

- Constant air volume control (CAV);
- Variable air volume control (VAV);
- Directly controlled volume (DCV);
- External water coil control;
- External DX unit control;
- Weekly operation schedule;
- Holidays planning;
- Air quality control;
- Operation on demand;
- Cool recovery;
- Temperature saving function;
- Free cooling;
- Ventilation control by external contacts;
- Control via internet browser;
- Control with smartphones;
- Filter clogging indication;
- Water mixing system warming-up;
- Rotor warm-up and cleaning function;
- Heat exchanger frost protection;
- Heat exchanger failure indication;
- Water heater frost protection;
- Electric heater overheat protection;
- Low air flow indication;
- Emergency shut down in case of fire;
- Emergency shut down when temperature reaches critical limits;
- Intelligent self-diagnostic;
- Indication of the heat exchanger thermal efficiency (%);
- Indication of heat exchanger energy recovery (kW);
- Energy consumption counters for heater and whole unit (kWh);
- Indication of the whole unit power consumption (kW);
- Specific power (SPI) indication;
- Unit operation parameters history storage and analysis;
- Possibility to choose desired control panel.

* these functions require additional accessories.

More information about C5 on p. 10.
Domekt R 200 V

Maximal air flow, m³/h: 258
Panel thickness, mm: 25
Unit weight, kg: 42
Supply voltage, V: 1 – 230
Maximal operating current, A: HE 4,7
Thermal efficiency of heat recovery, %: 82
Reference flow rate, m³/s: 0,05
Reference pressure difference, Pa: 50
SPL, W/(m³/h): 0,35
Filters dimensions B×H×L, mm: 285×130×46-M5
Electric power input of the fan drive at reference flow rate, W: 27
Electric power input of the fan drive at maximum flow rate, W: 66
Electric air heater capacity, kW / ∆t, °C: 0,8 / 12,3
Control panel: C4.1
Maintenance space, mm: 300

Acoustic data
A-weighted sound power level L_10, dB(A) at reference flow rate
Supply inlet: 53
Supply outlet: 66
Exhaust inlet: 53
Exhaust outlet: 66
Casing: 43

A-weighted sound pressure level L_P, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings: 33

Temperature efficiency

| Winter | | | | | |
|-------|---|---|---|---|
| Outside temperature, °C | -23 | -15 | -10 | -5 | 0 |
| After heat exchanger*, °C | 11,6 | 13,5 | 14,6 | 15,8 | 16,9 |
* indoor +22°C, 20 % RH

Shown as left (L1)

Accessories
Closing damper: AGUJ-M-125+LF230/LM230
Water heater: DH-125
PPU: PPU-HW-3R-15-0,4-W1
2-way valve (water heater): VVP47.10-0,4

Water cooler: DHCW-125
2-way valve (water cooler): VVP47.10-1,6
Kitchen hood: KH
Decorative panel: DP
Air distribution box: OSD-200 VE-125
Outdoor grill: LD-125

A outdoor intake
B supply air
C extract indoor
D exhaust air
E additional extraction connection (by-pass – extraction without heat recovery)
F kitchen hood connection (by-pass – extraction without heat recovery)

UAB AMALVA reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units. If data of performance do not correspond to data in the selection software, please refer to data shown in software.
**Domekt R 250 F**

Maximal air flow, m³/h 240
Panel thickness, mm 50
Unit weight, kg 40
Supply voltage, V 230
Maximal operating current, A HE 6
Thermal efficiency of heat recovery, % 82
Reference flow rate, m³/s 0,047
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,53
Filters dimensions B×H×L, mm 278×258×46-M5
Electric power input of the fan drive at reference flow rate, W 43
Electric power input of the fan drive at maximum flow rate, W 90
Electric air heater capacity, kW / ∆t, °C 1/16.5
Control panel C6.1 / C6.2
Maintenance space, mm 300

**Acoustic data**

A-weighted sound power level Lₘₚ, dB(A) at reference flow rate
Supply inlet 62
Supply outlet 71
Exhaust inlet 62
Exhaust outlet 71
Casing 50

A-weighted sound pressure level Lₚₚ, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 39

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside temp, °C</td>
<td>-23</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>12.0</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

**Performance**

Unit with standard equipment

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>0</th>
<th>0.01</th>
<th>0.02</th>
<th>0.03</th>
<th>0.04</th>
<th>0.05</th>
<th>0.06</th>
<th>0.07</th>
<th>0.08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static pressure (Pa)</td>
<td>300</td>
<td>250</td>
<td>225</td>
<td>200</td>
<td>175</td>
<td>150</td>
<td>125</td>
<td>100</td>
<td>75</td>
</tr>
</tbody>
</table>

**Accessories**

- Closing damper AGU-J-160+LF230/LM230
- Water heater DH-160
- PPU PPU-HW-3R-15-0.4-W1
  - 2-way valve (water heater) VVP47,10-0.4
  - Air heater-cooler DHCW-160
  - 2-way valve (water cooler) VVP47,10-1.6

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Domekt R 300 V

Maximal air flow, m³/h 324
Panel thickness, mm 30
Unit weight, kg 25
Supply voltage, V 1~230
Maximal operating current, A HE 3,2
Thermal efficiency of heat recovery, % 84
Reference flow rate, m³/s 0,063
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,33
Filters dimensions BxHxL, mm 290x205x46-M5
Electric power input of the fan drive at reference flow rate, W 34
Electric power input of the fan drive at maximum flow rate, W 76
Electric air heater capacity, kW / Δt, °C 0,5/ 6,1
Control panel C6.1 / C6.2
Maintenance space, mm 400

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 54
Supply outlet 62
Exhaust inlet 54
Exhaust outlet 62
Casing 43

A-weighted sound pressure level LPA, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 32

Performance
Unit with standard equipment

Air flow rate (m³/h)

Temperature efficiency
Winter
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 13,3 14,9 15,8 16,8 17,8 22,6 23,5 24,5
* indoor +22°C, 20 % RH

Summer

Accessories
Closing damper AGU-M-160+LF230/LM230
Silencer A/D AGS-160-50-600-M
B/C AGS-160-50-900-M
Water heater DH-160
Electric heater EH-160-0,5
PPU PPU-HW-3R-15-0,4-W1
2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DHCW-160
2-way valve (water cooler) VVP47.10-1,6
Domekt R 400 V

Maximal air flow, m³/h 287
Panel thickness, mm 25
Unit weight, kg 64
Supply voltage, V 1 – 230
Maximal operating current, A HE 5,5
Thermal efficiency of heat recovery, % 87
Reference flow rate, m³/s 0,056
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,27
Filters dimensions BxHxL, mm 450x210x46-M5
Electric power input of the fan drive at reference flow rate, W 23
Electric power input of the fan drive at maximum flow rate, W 71
Electric air heater capacity, kW / ∆t, °C 1 / 13,8
Control panel C6.1 / C6.2
Maintenance space, mm 450

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 52
Supply outlet 65
Exhaust inlet 52
Exhaust outlet 65
Casing 39

A-weighted sound pressure level LPA, dB(A) at reference flow rate
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 29

Temperature efficiency
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 15,2 16,4 17,2 17,9 18,7
* indoor +22°C, 20 % RH

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGU-M-160+LF230/LM230
Silencer A/D AGS-160-50-600-M
B/C AGS-160-50-900-M
Water heater DH-160
PPU PPU-HW-3R-15-0,4-W1

The photo is intended for informational purposes only, exact details may vary.
Domekt R 400 H

Maximal air flow, m³/h 422
Panel thickness, mm 50
Unit weight, kg 60
Supply voltage, V 1 – 230
Maximal operating current, A HE 6,6
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0,082
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,38
Filters dimensions B×H×L, mm 410×200×46-MS
Electric power input of the fan drive at reference flow rate, W 55
Electric power input of the fan drive at maximum flow rate, W 126
Electric air heater capacity, kW / Δt, °C 1/9,5
Control panel C6.1 / C6.2
Maintenance space, mm 650

Acoustic data
A-weighted sound power level L₁wA dB(A) at reference flow rate
Supply inlet 60
Supply outlet 69
Exhaust inlet 60
Exhaust outlet 69
Casing 48

A-weighted sound pressure level L₂PA dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 37

Performance
Unit with standard equipment
Air flow rate (m³/s)

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<thead>
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<th>Air flow rate (m³/s)</th>
<th>Static pressure (Pa)</th>
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<td>0.02</td>
<td>400</td>
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<tr>
<td>0.04</td>
<td>300</td>
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<tr>
<td>0.06</td>
<td>200</td>
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<tr>
<td>0.08</td>
<td>100</td>
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<tr>
<td>0.1</td>
<td>50</td>
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<tr>
<td>0.12</td>
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Temperature efficiency
Outside temperature, °C

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<th>Summer</th>
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</thead>
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<tr>
<td>-23</td>
<td>13,6</td>
<td>22,6</td>
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<td>-15</td>
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<tr>
<td>30</td>
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<td></td>
</tr>
<tr>
<td>35</td>
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</tr>
</tbody>
</table>

After heat exchanger*, °C

* indoor +22°C, 20 % RH

Accessories
Closing damper AGU-M-160+LF230/LM230
Silencer A/D AGS-160-50-600-M
B/C AGS-160-50-900-M
Water heater DH-160
PPU PPU-HW-3R-15-0,4-W1

2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DCW-0,4-3 / DHCW-160
2-way valve (water cooler) VVP47.10-1,6
DX cooler DCF-0,4-3

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**Domekt R 400 F**

Maximal air flow, m³/h: 472
Panel thickness, mm: 50
Unit weight, kg: 67
Supply voltage, V: 1 – 230
Maximal operating current, A: HE 7,2
Thermal efficiency of heat recovery, %: 82
Reference flow rate, m³/s: 0,092
Reference pressure difference, Pa: 50
SPL, W/(m³/h): 0,44
Filters dimensions B×H×L, mm: 278×258×46-M5
Electric power input of the fan drive at reference flow rate, W: 72
Maximal operating current, A: 165
Electric air heater capacity, kW / Δt, °C: 1 / 8,4
Control panel: C6.1 / C6.2
Maintenance space, mm: 300

## Acoustic data

**A-weighted sound power level Lw,A, dB(A) at reference flow rate**
- Supply inlet: 63
- Supply outlet: 72
- Exhaust inlet: 63
- Exhaust outlet: 72
- Casing: 52

**A-weighted sound pressure level LPA, dB(A) for surrounding**

10 m² normally isolated room, distance from casing – 3 m.

## Surroundings

41

## Performance

<table>
<thead>
<tr>
<th>Unit with standard equipment</th>
<th>Air flow rate (m³/h)</th>
</tr>
</thead>
<tbody>
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<td>0</td>
<td>0.02</td>
</tr>
<tr>
<td>0</td>
<td>350</td>
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</table>

**Air flow rate (m³/s)**

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<tr>
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<th>Winter</th>
<th>Summer</th>
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<td>-15</td>
<td>-10</td>
</tr>
<tr>
<td>11,8</td>
<td>13,6</td>
<td>14,8</td>
</tr>
<tr>
<td>* indoor +22°C, 20 % RH</td>
<td></td>
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### Temperture efficiency

<table>
<thead>
<tr>
<th>Temperature efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside temperature, °C</td>
</tr>
<tr>
<td>-23</td>
</tr>
<tr>
<td>11,8</td>
</tr>
<tr>
<td>* indoor +22°C, 20 % RH</td>
</tr>
</tbody>
</table>

## Accessories

- **Closing damper**: AGU-M-200+LF230/LM230
- **Silencer**: A/D AGS-200-50-600-M / B/C AGS-200-50-900-M
- **Water heater**: DH-200
- **PPU**: PPU-HW-3R-15-0,63-W1

### 2-way valve (water heater)

- **VVP47.10-0,63**
- **DCW-0,4-3 / DHCW-200**

### 2-way valve (water cooler)

- **VVP47.10-2,5**
- **DCF-0,4-3**

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*The photo is intended for informational purposes only, exact details may vary.*
Domekt R 450 V

Maximal air flow, m³/h 472
Panel thickness, mm 50
Unit weight, kg 71
Supply voltage, V 1–230
Maximal operating current, A HE 7.1
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0.092
Reference pressure difference, Pa 50
SPL, W/(m²/h) 0.44
Filters dimensions BxHxL, mm 470x240x46-M5
Electric power input of the fan drive at reference flow rate, W 72
Electric power input of the fan drive at maximum flow rate, W 170
Electric air heater capacity, kW / ∆t, °C 1/8.4
Control panel C6.1 / C6.2
Maintenance space, mm 500

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 58
Supply outlet 72
Exhaust inlet 58
Exhaust outlet 72
Casing 39

Temperature efficiency

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>-23</th>
<th>-15</th>
<th>-10</th>
<th>-5</th>
<th>0</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>After heat exchanger*, °C</td>
<td>14.3</td>
<td>15.7</td>
<td>16.5</td>
<td>17.4</td>
<td>18.2</td>
<td>22.5</td>
<td>23.4</td>
<td>24.2</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Surroundings

Performance

<table>
<thead>
<tr>
<th>Air flow rate (m³/s)</th>
<th>0.02</th>
<th>0.04</th>
<th>0.06</th>
<th>0.08</th>
<th>0.1</th>
<th>0.12</th>
<th>0.14</th>
<th>0.16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static pressure (Pa)</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>2-way valve (water heater)</th>
<th>VVP47.10-0.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air heater-cooler</td>
<td>DCW-0.5-3 / DHCW-160</td>
</tr>
<tr>
<td>2-way valve (water cooler)</td>
<td>VVP47.10-1.6</td>
</tr>
<tr>
<td>DX cooler</td>
<td>DCF-0.5-3</td>
</tr>
</tbody>
</table>

Maximal air flow, m³/h
Panel thickness, mm
Unit weight, kg
Supply voltage, V
Maximal operating current, A
Thermal efficiency of heat recovery, %
Reference flow rate, m³/s
Reference pressure difference, Pa
SPL, W/(m²/h)
Filters dimensions BxHxL, mm
Electric power input of the fan drive at reference flow rate, W
Electric power input of the fan drive at maximum flow rate, W
Electric air heater capacity, kW / ∆t, °C
Control panel
Maintenance space, mm

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet
Supply outlet
Exhaust inlet
Exhaust outlet
Casing

Temperature efficiency

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>-23</th>
<th>-15</th>
<th>-10</th>
<th>-5</th>
<th>0</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>After heat exchanger*, °C</td>
<td>14.3</td>
<td>15.7</td>
<td>16.5</td>
<td>17.4</td>
<td>18.2</td>
<td>22.5</td>
<td>23.4</td>
<td>24.2</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Surroundings

Performance

<table>
<thead>
<tr>
<th>Air flow rate (m³/s)</th>
<th>0.02</th>
<th>0.04</th>
<th>0.06</th>
<th>0.08</th>
<th>0.1</th>
<th>0.12</th>
<th>0.14</th>
<th>0.16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static pressure (Pa)</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>2-way valve (water heater)</th>
<th>VVP47.10-0.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air heater-cooler</td>
<td>DCW-0.5-3 / DHCW-160</td>
</tr>
<tr>
<td>2-way valve (water cooler)</td>
<td>VVP47.10-1.6</td>
</tr>
<tr>
<td>DX cooler</td>
<td>DCF-0.5-3</td>
</tr>
</tbody>
</table>
**Domekt R 500 V**

Maximal air flow, m³/h 630
Panel thickness, mm 50
Unit weight, kg 140
Supply voltage, V 1– 230
Maximal operating current, A HE 7,2
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0,12
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,27
Filters dimensions B×H×L, mm 540×260×46-M5
Electric power input of the fan drive at reference flow rate, W 57
Electric power input of the fan drive at maximum flow rate, W 125
Electric air heater capacity, kW / ∆t, °C 1 / 6,3
Control panel C6.1 / C6.2
Maintenance space, mm 1050

**Acoustic data**

A-weighted sound power level $L_{wA}$, dB(A) at reference flow rate
Supply inlet 54
Supply outlet 62
Exhaust inlet 54
Exhaust outlet 62
Casing 42

A-weighted sound pressure level $L_{PA}$, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 31

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-23</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>-15</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>-10</td>
<td>35</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>13,9</td>
<td>22,5</td>
</tr>
<tr>
<td></td>
<td>15,4</td>
<td>23,4</td>
</tr>
<tr>
<td></td>
<td>16,9</td>
<td>24,2</td>
</tr>
<tr>
<td></td>
<td>18,0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14,7</td>
<td></td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

**Accessories**

Closing damper AGU-M-250+LF230/LM230
Water heater DH-250 PPU PPU-HW-3R-15-0,63-W1
2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,5-3 / DHCW-250
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,5-3

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**Domekt R 500 H**

Maximal air flow, m³/h 630  
Panel thickness, mm 50  
Unit weight, kg 90  
Supply voltage, V 1 – 230  
Maximal operating current, A HE 7,2  
Thermal efficiency of heat recovery, % 85  
Reference flow rate, m³/s 0,122  
Reference pressure difference, Pa 50  
SPL W/(m³/h) 0,31  
Filters dimensions BxHxL, mm 540x260x46-M5  
Electric power input of the fan drive at reference flow rate, W 69  
Electric power input of the fan drive at maximum flow rate, W 155  
Electric air heater capacity, kW / ∆t, °C 1 / 6,3  
Control panel C6.1 / C6.2  
Maintenance space, mm 950

**Acoustic data**

A-weighted sound power level LwA, dB(A) at reference flow rate  
Supply inlet 58  
Supply outlet 67  
Exhaust inlet 58  
Exhaust outlet 67  
Casing 46  

A-weighted sound pressure level LPA, dB(A) 10 m² normally isolated room, distance from casing – 3 m.  
Surroundings 35

**Performance**

Unit with standard equipment  
Air flow rate (m³/s)  
Static pressure (Pa)  
Air flow rate (m³/h)  
Temperature efficiency  
Outside temperature, °C  
Winter  
Summer  
After heat exchanger*, °C indoor +22°C, 20 % RH  
25 30 35

**Accessories**

Closing damper AGU-M-200+LF230/LM230  
Water heater DH-200  
PPU PPU-HW-3R-15-0,63-W1  
2-way valve (water heater) VVP47.10-0,63  
Air heater-cooler DCW-0,5-3 / DHCW-200  
2-way valve (water cooler) VVP47.10-2,5  
DX cooler DCF-0,5-3

* indoor +22°C, 20 % RH
**Domekt R 600 U**

Maximal air flow, m³/h 630
Panel thickness, mm 50
Unit weight, kg 110
Supply voltage, V 1~230
Maximal operating current, A HE 7.6
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0.122
Reference pressure difference, Pa 50
SPL, W/(m²/h) 0.28
Filters dimensions B×H×L, mm 545×300×46-M5
Electric power input of the fan drive at reference flow rate, W 57
Electric power input of the fan drive at maximum flow rate, W 145
Electric air heater capacity, kW / Δt, °C 1/6,3
Control panel C5.1
Maintenance space, mm 600

**Acoustic data**
A-weighted sound power level $L_{wA}$, dB(A) at reference flow rate
Supply inlet 52
Supply outlet 65
Exhaust inlet 56
Exhaust outlet 60
Casing 44
A-weighted sound pressure level $L_{PA}$, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

**Performance**

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>0</th>
<th>0.02</th>
<th>0.04</th>
<th>0.06</th>
<th>0.08</th>
<th>0.1</th>
<th>0.12</th>
<th>0.14</th>
<th>0.16</th>
<th>0.18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static pressure (Pa)</td>
<td>0</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td>700</td>
<td>800</td>
<td>900</td>
</tr>
</tbody>
</table>

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>14,3</td>
<td>22,5</td>
</tr>
<tr>
<td>-15</td>
<td>15,6</td>
<td>23,4</td>
</tr>
<tr>
<td>-10</td>
<td>16,5</td>
<td>24,2</td>
</tr>
<tr>
<td>-5</td>
<td>17,4</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>18,2</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*indoor +22°C, 20 % RH

**Changeover water heating/cooling exchanger (HCW)**

<table>
<thead>
<tr>
<th>Water temperature in/out, °C</th>
<th>90/70</th>
<th>80/60</th>
<th>70/50</th>
<th>60/40</th>
<th>7/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity, kW</td>
<td>1,6</td>
<td>1,6</td>
<td>1,6</td>
<td>1,6</td>
<td>2,3</td>
</tr>
<tr>
<td>Flow rate, dm³/h</td>
<td>72</td>
<td>72</td>
<td>71</td>
<td>71</td>
<td>391</td>
</tr>
<tr>
<td>Pressure drop, kPa</td>
<td>1,2</td>
<td>1,2</td>
<td>1,3</td>
<td>1,3</td>
<td>33</td>
</tr>
<tr>
<td>Temperature in/out, °C</td>
<td>14,3/22</td>
<td>23,4/18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximal capacity, kW</td>
<td>6,2</td>
<td>5</td>
<td>3,8</td>
<td>2,7</td>
<td>2,3</td>
</tr>
<tr>
<td>Connection, *</td>
<td>1/5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Accessories**

- Closing damper AGUJ-M-200+LF24/LM24
- PPU PPU-HW-3R-15-0,4-W1
- Air heater-cooler DCW-0,7-5; DHCW-200
- 2-way valve VVP47.15-2,5+SSP61
- DX cooler DCF-0,7-5
- Cooling unit MOU-18HFN6+KA8243

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**Domekt R 600 H**

Maximal air flow, m³/h 584
Panel thickness, mm 50
Unit weight, kg 90
Supply voltage, V 1~230
Maximal operating current, A HE 7,1
Thermal efficiency of heat recovery, % 84
Reference flow rate, m³/s 0,114
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,38
Filters dimensions BxHxL, mm 475x235x46-M5
Electric power input of the fan drive at reference flow rate, W 77
Electric power input of the fan drive at maximum flow rate, W 179
Electric air heater capacity, kW / ∆t, °C 1/6,8
Control panel C6.1 / C6.2
Maintenance space, mm 500

**Acoustic data**
A-weighted sound power level LwA, dB(A) at reference flow rate
- Supply inlet 58
- Supply outlet 67
- Exhaust inlet 58
- Exhaust outlet 67
- Casing 47

A-weighted sound pressure level LPA, dB(A) in a 10 m² normally isolated room, distance from casing – 3 m.

**Surroundings**

**Performance**

Unit with standard equipment

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>0</th>
<th>0.02</th>
<th>0.04</th>
<th>0.06</th>
<th>0.08</th>
<th>0.1</th>
<th>0.12</th>
<th>0.14</th>
<th>0.16</th>
<th>0.18</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPI 0,6</td>
<td>0</td>
<td>50</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPI 0,5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPI 0,4</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPI 0,3</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPI 0,2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>13,3</td>
<td>22,6</td>
</tr>
<tr>
<td>-15</td>
<td>14,9</td>
<td>23,5</td>
</tr>
<tr>
<td>-10</td>
<td>15,8</td>
<td>24,5</td>
</tr>
<tr>
<td>-5</td>
<td>16,8</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>17,8</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

**Shown as right (R1)**

**Accessories**

- Closing damper AGU-M-200+LF230/LM230
- Water heater DH-200
- PPU PPU-HW-3R-15-0,63-W1

2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,7-5 / DHCW-200
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,7-5
Cooling unit MOU-18HF6-KA8243

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The photo is intended for informational purposes only, exact details may vary.
Domekt R 700 V

Maximal air flow, m³/h 773
Panel thickness, mm 50
Unit weight, kg 140
Supply voltage, V 1~230
Maximal operating current, A HE 11,6
Thermal efficiency of heat recovery, % 84
Reference flow rate, m³/s 0,15
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,31
Filters dimensions BxHxL, mm 540x260x46-M5
Electric power input of the fan drive at reference flow rate, W 83
Electric power input of the fan drive at maximum flow rate, W 180
Electric air heater capacity, kW / ∆t, °C 2 / 10,3
Control panel C6.1 / C6.2
Maintenance space, mm 1050

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 55
Supply outlet 64
Exhaust inlet 55
Exhaust outlet 64
Casing 44

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGU-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0,63-W1
2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,7-5 / DHCW-250
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,7-5
Cooling unit MOU-18HFN6-KA8243
Domekt R 700 H

Maximal air flow, m³/h 719
Panel thickness, mm 50
Unit weight, kg 90
Supply voltage, V 1 – 230
Maximal operating current, A HE 11,6
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0,14
Reference pressure difference, Pa 50
SPL W/(m²/h) 0,34
Filters dimensions BxHxL, mm 540x260x46-M5
Electric power input of the fan drive at reference flow rate, W 85
Electric power input of the fan drive at maximum flow rate, W 180
Electric air heater capacity, kW / ∆t, °C 2 / 11
Control panel C6.1 / C6.2
Maintenance space, mm 950

Acoustic data
A-weighted sound power level $L_{wA}$, dB(A)
at reference flow rate
Supply inlet 59
Supply outlet 68
Exhaust inlet 59
Exhaust outlet 68
Casing 48

A-weighted sound pressure level $L_{PA}$, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 36

Performance
Unit with standard equipment
Air flow rate (m³/h)

Temperature efficiency
Winter
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 13,7 15,2 16,1 17,0 17,9 22,6 23,5 24,4
* indoor +22°C, 20 % RH

Shown as right (R1)

Accessories
Closing damper AGU-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0,63-W1
2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,7-5 / DHCW-250
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,7-5
Cooling unit MOU-18HFN6-KA8243
Domekt R 700 F

Maximal air flow, m³/h 750
Panel thickness, mm 50
Unit weight, kg 80
Supply voltage, V 1 – 230
Maximal operating current, A HE 11.6
Thermal efficiency of heat recovery, % 82
Reference flow rate, m³/s 0.146
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0.27
Filters dimensions B×H×L, mm 370×360×46-M5
Electric power input of the fan drive at reference flow rate, W 70
Electric power input of the fan drive at maximum flow rate, W 166
Electric air heater capacity, kW / Δt, °C 2 / 10.6
Control panel C6.1 / C6.2
Maintenance space, mm 400

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 53
Supply outlet 65
Exhaust inlet 53
Exhaust outlet 66
Casing 46

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 35

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGUJ-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0.63-W1
2-way valve (water heater) VVP47.10-0.63
Air heater-cooler DCW-0.7-5 / DHCW-250
2-way valve (water cooler) VVP47.10-2.5
DX cooler DCF-0.7-5
Cooling unit MOU-18HF6-KA8243

Temperature efficiency
Outside temperature, °C Winter Summer
-23 12.6 22.6
-15 14.0 23.7
-10 16.0 24.8
-5 17.4 25
0 13.4 30
25 35

After heat exchanger*, °C
* indoor +22°C, 20 % RH

Shown as left (L1)

Shown as right (R1)

Accessories are intended for informational purposes only, exact details may vary.

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 53
Supply outlet 65
Exhaust inlet 53
Exhaust outlet 66
Casing 46

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 35

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGUJ-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0.63-W1
2-way valve (water heater) VVP47.10-0.63
Air heater-cooler DCW-0.7-5 / DHCW-250
2-way valve (water cooler) VVP47.10-2.5
DX cooler DCF-0.7-5
Cooling unit MOU-18HF6-KA8243

Temperature efficiency
Outside temperature, °C Winter Summer
-23 12.6 22.6
-15 14.0 23.7
-10 16.0 24.8
-5 17.4 25
0 13.4 30

After heat exchanger*, °C
* indoor +22°C, 20 % RH

Shown as left (L1)

Shown as right (R1)

Accessories are intended for informational purposes only, exact details may vary.

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 53
Supply outlet 65
Exhaust inlet 53
Exhaust outlet 66
Casing 46

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 35

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGUJ-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0.63-W1
2-way valve (water heater) VVP47.10-0.63
Air heater-cooler DCW-0.7-5 / DHCW-250
2-way valve (water cooler) VVP47.10-2.5
DX cooler DCF-0.7-5
Cooling unit MOU-18HF6-KA8243

Temperature efficiency
Outside temperature, °C Winter Summer
-23 12.6 22.6
-15 14.0 23.7
-10 16.0 24.8
-5 17.4 25
0 13.4 30

After heat exchanger*, °C
* indoor +22°C, 20 % RH

Shown as left (L1)

Shown as right (R1)

Accessories are intended for informational purposes only, exact details may vary.
Domekt R 900 U / H / V

Maximal air flow, m³/h 993
Panel thickness, mm 50
Unit weight, kg 195
Supply voltage, V 3—400
Maximal operating current, A HE 7,6
Thermal efficiency of heat recovery, % 88
Reference flow rate, m³/s 0,193
Reference pressure difference, Pa 50
SPL, W/(m²/h) 0,26
Filters dimensions BxHxL, mm 800x400x46-M5
Electric power input of the fan drive at reference flow rate, W 85
Electric power input of the fan drive at maximum flow rate, W 182
Electric air heater capacity, kW / Δt, °C 3 / 12,0
Control panel C5.1
Maintenance space, mm 800

Acoustic data
A-weighted sound power level LwA, dB(A)
at reference flow rate
Supply inlet 53
Supply output 66
Exhaust inlet 57
Exhaust outlet 62
Casing 44

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

Temperature efficiency
Outside temperature, °C

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>25</td>
</tr>
<tr>
<td>-15</td>
<td>30</td>
</tr>
<tr>
<td>-10</td>
<td>35</td>
</tr>
<tr>
<td>-5</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

After heat exchanger*, °C

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,6</td>
<td>22,4</td>
</tr>
<tr>
<td>15,9</td>
<td>23,3</td>
</tr>
<tr>
<td>16,7</td>
<td>23,9</td>
</tr>
<tr>
<td>17,5</td>
<td></td>
</tr>
<tr>
<td>18,4</td>
<td></td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Changeover water heating/cooling exchanger (HCW)

<table>
<thead>
<tr>
<th>Water temperature in/out, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>90/70</td>
<td>80/60</td>
<td>70/50</td>
</tr>
<tr>
<td>70/50</td>
<td>60/40</td>
<td>7/12</td>
</tr>
</tbody>
</table>

Capacity, kW
Flow rate, dm³/h
Pressure drop, kPa
Temperature in/out, °C
Maximal capacity, kW
Connection, "

Performance
Unit with standard equipment

<table>
<thead>
<tr>
<th>Air flow rate (m³/s)</th>
<th>Static pressure (Pa)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>500</td>
</tr>
<tr>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>Static pressure (Pa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td></td>
</tr>
</tbody>
</table>

Accessories

Closing damper AGU-M-315+LF24/LM24
Silencer A/D AGS-315-100-900-M
B/C AGS-315-100-1200-M
PPU PPU-HW-3R-15-0,63-W1
Air heater-cooler DCW-0,9-6
2-way valve VVP47.15-2,5+SSP61
DX cooler DCF-0,9-6
Cooling unit MOU-18HFN6-KAB243

UAB AMALVA reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units. If data of performance do not correspond to data in the selection software, please refer to data shown in software.
Domekt P

Air handling units with a plate heat exchanger.

Advantages of Domekt P units

**Heat energy saving**
In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

**Totally separated airflows**
The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

**Long term efficient operation**
The absence of movable parts ensures effective heat exchange and long run.

**Low noise level**
Domekt P air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Standard sizes of Domekt P units

<table>
<thead>
<tr>
<th>Air flow, m³/h</th>
<th>Air flow, m³/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td>0.03</td>
</tr>
<tr>
<td>700</td>
<td>0.06</td>
</tr>
<tr>
<td>450</td>
<td>0.08</td>
</tr>
<tr>
<td>400</td>
<td>0.11</td>
</tr>
<tr>
<td>300</td>
<td>0.14</td>
</tr>
<tr>
<td>100</td>
<td>0.17</td>
</tr>
<tr>
<td>200</td>
<td>0.19</td>
</tr>
<tr>
<td>300</td>
<td>0.22</td>
</tr>
<tr>
<td>400</td>
<td>0.25</td>
</tr>
<tr>
<td>500</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Standard plate heat exchanger

**Design:**
- A packet of thin aluminum plates with spacing left between them.
- Exhaust warm air flows through every second channel between the plates warming up fresh air flowing through the remaining channels.
- To prevent the plates from bending under the impact of differential pressure of the air flows, strengthening gaskets are inserted between the plates.
- Rough surface of the aluminum plates generates the turbulent air stream thus intensifying heat exchange.

**Anti-frosting protection**
Decreasing of the outdoor air temperature below -10 °C (it is an approximate value depending on the relative humidity of the air flows and temperature) the exhaust air enhances the danger of the heat exchanger freezing. For the conditions when outdoor temperatures may be lower than -4 °C, duct mounted preheater is recommended. Defrosting of the heat exchanger is controlled automatically in response to sensor signals. Temperature sensors are supplied with the unit.

**Note:** The water trap must be installed for condensate drain!

Heat exchanger is EUROVENT certified
### Domekt P range

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Supply/ exhaust air filter class</th>
<th>Fan motor technology</th>
<th>Heater</th>
<th>Cooler</th>
<th>Inspection side</th>
<th>Bypass</th>
<th>Control system</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M5</td>
<td>F7</td>
<td>EC</td>
<td>HE</td>
<td>HW</td>
<td>HCW</td>
<td>CW</td>
</tr>
<tr>
<td>Domekt PP 300 V</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 400 V</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 400 H</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt PP 450 V</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 700 V</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 700 H</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 900 V</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
<tr>
<td>Domekt P 900 H</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>△</td>
<td>△</td>
<td>O</td>
</tr>
</tbody>
</table>

- ● standard equipment
- ○ possible choice
- △ ordered separately

#### Duct connection
- H – horizontal.
- V – vertical.

#### Heater
- HE – electric heater.
- HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. There is heater control possibility in automatic control system.
- HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

#### Cooler
- CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
- CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

#### Inspection side
- See p. 132.

#### Bypass
- Inner bypass is controlled by smart control system.
- External bypass (summer cassette) is inserted instead of plate heat exchanger in summertime.

#### Control system

**C3 Control features:**
- Unit mode selection: On / Off / Auto;
- Setting intensity level (1, 2, 3);
- Adjusting of intensity levels every 1%;
- Exhaust air flow correction;
- Constant air flow control and indication (CVA);
- Weekly schedule programming;
- Setting temperature from the panel 15–30 °C;
- Temperature control selection: Supply / Room / Auto;
- Temperature setpoint sliding +/- 9 °C for time period;
- Season setting: Summer / Winter / Auto;
- Correction of ventilation intensity in winter time;
- Remote control via external contact;
- Remote unit failure indication;
- Choosing of panel language;
- Errors indication and registration log (error log with 50 events);
- Setting menu blocking with PIN;
- Air quality control;
- Summer night cooling;
- VAV control;
- OVR function;
- Unit PC control*.

**C4 Control features:**
- Unit mode selection: On / Off / Auto;
- Setting intensity level (1, 2, 3);
- Weekly schedule programming;
- Setting temperature from the panel 15–30 °C;
- Temperature setpoint sliding +/- 9 °C for time period;
- Summer / winter selection;
- Adjusting of intensity levels every 1% from the panel;
- OVR functions activation via external contact;
- OVR functions activation in the panel for adjusted time period (1…90 min.);
- Choosing of panel language (1 of 15);
- Errors indication and registration log (error log with 50 events);
- Settings menu blocking with PIN;
- Application software for smartphones based on *Android**.

* required PING2 module.
Domekt PP 300 V

Maximal air flow, m³/h 300
Panel thickness, mm 25
Unit weight, kg 42
Supply voltage, V 220
Maximal operating current, A 1~230
Thermal efficiency of heat recovery, % 76
Reference flow rate, m³/s 0,058
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,23
Filters dimensions BxHxL, mm 300x200x46-M5
Electric power input of the fan drive at reference flow rate, W 23
Electric power input of the fan drive at maximum flow rate, W 67
Electric air heater capacity, kW / Δt, °C 1/13,2
Control panel C4.1
Maintenance space, mm 300

Acoustic data
A-weighted sound power level $L_{wA}$, dB(A)
at reference flow rate
Supply inlet 45
Supply outlet 65
Exhaust inlet 45
Exhaust outlet 65
Casing 34

A-weighted sound pressure level $L_{PA}$, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 24

Temperature efficiency

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-23  -15</td>
<td>-10 -5</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>11,9 12 12,7</td>
<td>14,2 15,6</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Accessories

Closing damper AGU-M-125+LF230/LM230
Silencer A/D AGS-125-50-600-M
B/C AGS-125-50-900-M
Water heater DH-125

2-way valve (water heater) VVP47,10-0,4
Air heater-cooler DHCW-125
2-way valve (water cooler) VVP47,10-1,6

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Domekt P 400 V

Maximal air flow, m³/h 480
Panel thickness, mm 45
Unit weight, kg 62
Supply voltage, V 1–230
Maximal operating current, A HE 10,8
Thermal efficiency of heat recovery, % 56
Reference flow rate, m³/s 0,093
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,21
Filters dimensions B×H×L, mm 300×195×46-M5
Electric power input of the fan drive at reference flow rate, W 33
Electric power input of the fan drive at maximum flow rate, W 93
Electric air heater capacity, kW/∆t, °C 2/16,5
Control panel C3.1
Maintenance space, mm 900

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 50
Supply outlet 63
Exhaust inlet 50
Exhaust outlet 64
Casing 43

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 34

Performance
Unit with standard equipment
Air flow rate (m³/s) 0 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16
Static pressure (Pa) 0 500 300 200 100 80 60 40 30
Air flow rate (m³/h) 0 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16

Accessories
Closing damper AGU-M-160+LF24/LM24
Silencer A/D AGS-160-50-600-M
B/C AGS-160-50-900-M
Water heater DH-160
PPU PPU-HW-3R-15-0,4-W1

2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DCW-0,4-3 / DHCW-160
2-way valve (water cooler) VVP47.10-1,6
DX cooler DCF-0,4-3

Temperature efficiency
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger, °C 2,4 5,4 7,5 9,7 12 23,4 25,6 27,9
* indoor +22°C, 20 % RH

UAB AMALVA reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units. If data of performance do not correspond to data in the selection software, please refer to data shown in software.
Domekt P 400 H

Maximal air flow, m³/h 480
Panel thickness, mm 45
Unit weight, kg 55
Supply voltage, V 1–230
Maximal operating current, A HE 10,8
Thermal efficiency of heat recovery, % 56
Reference flow rate, m³/s 0,093
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,21
Filters dimensions B×H×L, mm 300×195×46-M5
Electric power input of the fan drive at reference flow rate, W 33
Electric power input of the fan drive at maximum flow rate, W 93
Electric air heater capacity, kW / Δt, °C 2 / 16,5
Control panel C3.1
Maintenance space, mm 1000

Acoustic data
A-weighted sound power level L_wA, dB(A) at reference flow rate
Supply inlet 50
Supply outlet 61
Exhaust inlet 50
Exhaust outlet 61
Casing 42

A-weighted sound pressure level L_paA, dB(A) in a 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 32

Temperature efficiency
Outside temperature, °C
Winter
Summer
-23 25
-15 30
-10 35
-5
0
2,4 12
5,4 23,4
7,5 25,6
9,7 27,9
12

Data shown as right (R1)

Accessories
Closing damper AGU-M-200+LF24/LM24
Silencer A/D AGS-200-50-600-M
B/C AGS-200-50-900-M
Water heater DH-200
PPU PPU-HW-3R-15-0,4-W1

2-way valve (water heater) VVP47,10-0,4
Air heater-cooler DCW-0,4-3 / DHCW-200
2-way valve (water cooler) VVP47,10-1,6
DX cooler DCF-0,4-3
# Domekt PP 450 V

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximal air flow, m³/h</td>
<td>449</td>
</tr>
<tr>
<td>Panel thickness, mm</td>
<td>25</td>
</tr>
<tr>
<td>Unit weight, kg</td>
<td>42</td>
</tr>
<tr>
<td>Supply voltage, V</td>
<td>1–230</td>
</tr>
<tr>
<td>Maximal operating current, A</td>
<td>HE 6,7</td>
</tr>
<tr>
<td>Thermal efficiency of heat recovery, %</td>
<td>71</td>
</tr>
<tr>
<td>Reference flow rate, m³/s</td>
<td>0,087</td>
</tr>
<tr>
<td>Reference pressure difference, Pa</td>
<td>50</td>
</tr>
<tr>
<td>SPL, W/(m³/h)</td>
<td>0,38</td>
</tr>
<tr>
<td>Filters dimensions BxHxL, mm</td>
<td>300x200x46-M5</td>
</tr>
<tr>
<td>Electric power input of the fan drive at reference flow rate, W</td>
<td>60</td>
</tr>
<tr>
<td>Electric power input of the fan drive at maximum flow rate, W</td>
<td>167</td>
</tr>
<tr>
<td>Electric air heater capacity, kW / ∆t, °C</td>
<td>1/8,8</td>
</tr>
<tr>
<td>Control panel</td>
<td>C4.1</td>
</tr>
<tr>
<td>Maintenance space, mm</td>
<td>300</td>
</tr>
</tbody>
</table>

## Acoustic data

**A-weighted sound power level L_wA, dB(A) at reference flow rate**

<table>
<thead>
<tr>
<th>Location</th>
<th>L_wA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply inlet</td>
<td>51</td>
</tr>
<tr>
<td>Supply outlet</td>
<td>74</td>
</tr>
<tr>
<td>Exhaust inlet</td>
<td>51</td>
</tr>
<tr>
<td>Exhaust outlet</td>
<td>74</td>
</tr>
<tr>
<td>Casing</td>
<td>40</td>
</tr>
</tbody>
</table>

- **A-weighted sound pressure level L_Pa, dB(A)**
  - 10 m² normally isolated room, distance from casing – 3 m.

### Surroundings

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Season</th>
<th>Outside temperature, °C</th>
<th>After heat exchanger*, °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter</td>
<td>-23 -15 -10 -5 0</td>
<td>8,1 9,5 11,1 12,8 14,5</td>
</tr>
<tr>
<td>Summer</td>
<td>25 30 35</td>
<td>23 24,7 26,3</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

### Performance

**Unit with standard equipment**

**Air flow rate (m³/s)**

- Static pressure (Pa)
  - SPI 1
  - SPI 0.6
  - SPI 0.3

**Air flow rate (m³/h)**

- 0
- 200
- 400
- 600
- 800
- 1000

## Accessories

- **Closing damper**: AGU-M-125+LF230/LM230
- **Silencer**:
  - A/D: AGS-125-50-600-M
  - B/C: AGS-125-50-900-M
- **Water heater**: DH-125
- **PPU**: PPU-HW-3R-15-0,4-W1

**2-way valve (water heater)**: VVP47.10-0,4

**Air heater-cooler**: DCW-0,4-3 / DHCW-125

**2-way valve (water cooler)**: VVP47.10-1,6

**DX cooler**: DCF-0,4-3
**Domekt P 700 V**

Maximal air flow, m³/h: 797
Panel thickness, mm: 45
Unit weight, kg: 85
Supply voltage, V: 1–230
Maximal operating current, A: HE 14,1
Thermal efficiency of heat recovery, %: 55
Reference flow rate, m³/s: 0,155
Reference pressure difference, Pa: 50
SPL, W/(m³/h): 0,25
Filters dimensions BxHxL, mm: 400x235x46-M5
Electric power input of the fan drive at reference flow rate, W: 69
Electric power input of the fan drive at maximum flow rate, W: 181
Electric air heater capacity, kW / Δt, °C: 2,5 / 12,5
Control panel: C3.1
Maintenance space, mm: 400

**Acoustic data**

A-weighted sound power level LwA, dB(A) at reference flow rate:
- Supply inlet: 52
- Supply outlet: 65
- Exhaust inlet: 52
- Exhaust outlet: 65
- Casing: 46

A-weighted sound pressure level LPA, dB(A) in 10 m² normally isolated room, distance from casing – 3 m:
Surroundings: 35

**Performance**

Unit with standard equipment Air flow rate (m³/h)

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>0</th>
<th>0.03</th>
<th>0.06</th>
<th>0.09</th>
<th>0.12</th>
<th>0.15</th>
<th>0.18</th>
<th>0.21</th>
<th>0.24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static pressure (Pa)</td>
<td>0</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td>700</td>
<td>800</td>
</tr>
</tbody>
</table>

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside temperature, °C</td>
<td>-23</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>1,9</td>
</tr>
<tr>
<td>Inside +22°C, 20 % RH</td>
<td>5,1</td>
</tr>
<tr>
<td>7,2</td>
<td>28</td>
</tr>
<tr>
<td>9,5</td>
<td></td>
</tr>
<tr>
<td>11,8</td>
<td></td>
</tr>
</tbody>
</table>

**Accessories**

- Closing damper: AGU-M-200+LF24/LM24
- Silencer: A/D AGS-200-50-600-M
- B/C AGS-200-50-900-M
- Water heater: DH-200
- PPU: PPU-HW-3R-15-0,4-W1
- 2-way valve (water heater): VVP47,10-0,4
- Air heater-cooler: DCW-0,7-5 / DHCW-200
- 2-way valve (water cooler): VVP47,10-2,5
- DX cooler: DCF-0,7-5
- Cooling unit: MOU-18HFN6-KA8243
Domekt P 700 H

Maximal air flow, m³/h | 816
Panel thickness, mm | 45
Unit weight, kg | 75
Supply voltage, V | 1–230
Maximal operating current, A | HE 14,1
Thermal efficiency of heat recovery, % | 55
Reference flow rate, m³/s | 0,159
Reference pressure difference, Pa | 50
SPL, W/(m³/h) | 0,26
Filters dimensions BxHxL, mm | 400x235x46-MS
Electric power input of the fan drive at reference flow rate, W | 75
Electric power input of the fan drive at maximum flow rate, W | 181
Electric air heater capacity, kW / ∆t, °C | 2,5 / 12,2
Control panel | C3.1
Maintenance space, mm | 400

Acoustic data
A-weighted sound power level L_wA, dB(A) at reference flow rate

Supply inlet | 52
Supply outlet | 66
Exhaust inlet | 52
Exhaust outlet | 66
Casing | 46

A-weighted sound power level L_wA, dB(A) at 10 m² normally isolated room, distance from casing – 3 m.
Surroundings | 35

Performance
Unit with standard equipment

Air flow rate (m³/s)

Performance
Unit with standard equipment

Air flow rate (m³/h)

Temperature efficiency

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>-15</td>
<td>-10</td>
</tr>
<tr>
<td>1,9</td>
<td>5,0</td>
<td>7,1</td>
</tr>
</tbody>
</table>
* indoor +22°C, 20 % RH

Accessories

2-way valve (water heater) | VVP47,10-0,63
Air heater-cooler | DCW-0,7-5 / DHCW-250
2-way valve (water cooler) | VVP47,10-2,5
DX cooler | DCF-0,7-5
Cooling unit | MOU-18HF6-KA8243

UAB AMALVA reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units. If data of performance do not correspond to data in the selection software, please refer to data shown in software.
Domekt P 900 V

Maximal air flow, m³/h 788
Panel thickness, mm 45
Unit weight, kg 90
Supply voltage, V HE 3–400
Maximal operating current, A HE 9,8
Thermal efficiency of heat recovery, % 55
Reference flow rate, m³/s 0,153
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,26
Filters dimensions B×H×L, mm 400×235×46-M5
Electric power input of the fan drive at reference flow rate, W 71
Electric power input of the fan drive at maximum flow rate, W 181
Electric air heater capacity, kW / Δt, °C 4,5 / 22,7
Control panel C3.1
Maintenance space, mm 400

Acoustic data
A-weighted sound power level Lwa, dB(A) at reference flow rate
Supply inlet 51
Supply outlet 64
Exhaust inlet 51
Exhaust outlet 65
Casing 45
A-weighted sound pressure level Lpa, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 34

Temperature efficiency
Outside temperature, °C
Winter
-23 -15 -10 -5 0 25 30 35
Summer
23,4 25,7 28
After heat exchanger*, °C
1,7 4,9 7,1 9,4 11,7
* indoor +22°C, 20 % RH

Performance
Air flow rate (m³/h)

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>0</th>
<th>0,06</th>
<th>0,12</th>
<th>0,18</th>
<th>0,24</th>
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<tr>
<td>Static pressure (Pa)</td>
<td>450</td>
<td>400</td>
<td>350</td>
<td>300</td>
<td>250</td>
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<tr>
<td>Air flow rate (m³/h)</td>
<td>0</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>800</td>
</tr>
</tbody>
</table>

Accessories
Closing damper AGU-M-200+LF24/LM24
Water heater DH-200
PPU PPU-HW-3R-15-0,63-W1
2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,9-6 / DHCW-200
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,9-6
Cooling unit MOU-18HFN6-KA0243

* indoor +22°C, 20 % RH
Domekt P 900 H

Maximal air flow, m³/h 821
Panel thickness, mm 45
Unit weight, kg 78
Supply voltage, V HE 3–400
Maximal operating current, A HE 9,8
Thermal efficiency of heat recovery, % 55
Reference flow rate, m³/s 0,16
Reference pressure difference, Pa 50
SPL W/(m³/h) 0,27
Filters dimensions B×H×L, mm 400×235×46-M5
Electric power input of the fan drive at reference flow rate, W 79
Electric power input of the fan drive at maximum flow rate, W 181
Electric air heater capacity, kW / ∆t, °C 4,5 / 21,8
Control panel C3.1
Maintenance space, mm 400

Acoustic data
A-weighted sound power level LwA, dB(A)
at reference flow rate
Supply inlet 52
Supply outlet 65
Exhaust inlet 52
Exhaust outlet 65
Casing 45

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 34

Temperature efficiency
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 1,6 4,0 7,0 9,3 11,6
* indoor +22°C, 20 % RH

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGU-M-250+LF24/LM24
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0,63-W1

2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,9-6 / DHCW-250
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,9-6
Cooling unit MOU-1BHF6-KA8243

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The photo is intended for informational purposes only, exact details may vary.

Acoustic data
A-weighted sound power level LwA, dB(A)
at reference flow rate
Supply inlet 52
Supply outlet 65
Exhaust inlet 52
Exhaust outlet 65
Casing 45

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 34

Temperature efficiency
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 1,6 4,0 7,0 9,3 11,6
* indoor +22°C, 20 % RH

Performance
Unit with standard equipment
Air flow rate (m³/h)

Accessories
Closing damper AGU-M-250+LF24/LM24
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0,63-W1

2-way valve (water heater) VVP47.10-0,63
Air heater-cooler DCW-0,9-6 / DHCW-250
2-way valve (water cooler) VVP47.10-2,5
DX cooler DCF-0,9-6
Cooling unit MOU-1BHF6-KA8243

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Domekt CF

Air handling units with a counterflow plate heat exchanger.

Advantages of Domekt CF units

Heat energy saving
In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

 Totally separated airflows
The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

 Long term efficient operation
The absence of movable parts ensures effective heat exchange and long run.

Low noise level
Domekt CF air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Counterflow polystyrene plate heat exchanger

The exchanger is constructed completely from polystyrene. Only solvent-free elastic adhesives are used.

• The patented design makes this exchanger’s outstanding performance.
• The triangular ducts in the recuperator are arranged so that each one is surrounded by parallel ducts in which the air is in counter flow.
• Each fresh-air duct is surrounded by three ducts filled with warmer exhaust air. Likewise, each duct with exhaust air is surrounded by three fresh-air ducts. This maximizes the surface area over which energy can efficiently be transferred, recaptured and reused.

Anti-frosting Protection
If the temperature of the exhaust air drops below 4°C, freezing may occur at the exhaust air corner of the heat exchanger. To avoid freezing the temperature sensor is installed in this zone to give a signal to the automatic control. If for some period of time temperature will not rise up, by-pass damper is opened to redirect outdoor air through by-pass channel and only warm exhaust air flows through exchanger to defrost risky zone. For the conditions when outdoor temperatures may be lower than -4°C, duct mounted preheater is recommended.

Heat exchanger is EUROVENT certified
Domekt CF range

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Supply/exhaust air filter class</th>
<th>Heater</th>
<th>Cooler</th>
<th>Inspection side</th>
<th>By-pass</th>
<th>Control system / panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M5 F7</td>
<td>HE</td>
<td>HW</td>
<td>HCW</td>
<td>R1 R2</td>
<td>L1 L2 Inner</td>
</tr>
<tr>
<td>Domekt CF 250 V</td>
<td>● o</td>
<td>△</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 250 F</td>
<td>● o</td>
<td>△</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 400 V</td>
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<td>△</td>
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<td>△</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 500 F</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 700 V</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 700 H</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>o</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 900 U</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 900 H/V</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>● o</td>
</tr>
<tr>
<td>Domekt CF 900 F</td>
<td>● o</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>o</td>
</tr>
</tbody>
</table>

- standard equipment
- possible choice
- ordered separately

Duct connection

- H – horizontal.
- V – vertical.
- U – universal, 14 installation options.
- F – false ceiling.

Heater

- HE – electric heater.
- HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. There is heater control possibility in automatic control system.
- HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

Cooler

- CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
- CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

Inspection side

See p. 132.

Bypass

Inner bypass is controlled by smart control system.

Control system

C6 Control features:

- Temperature maintenance modes:
  - Supply air / Extract air / Room / Balance;
  - Air flow indication: m³/h; l/s;
  - Constant air volume control (CAV);
  - Variable air volume control (VAV)*;
  - Directly controlled volume (DCV);
  - External water coil control;
  - External DX unit control;
  - Weekly operation schedule;
  - Holidays planning;
  - Air quality control*;
  - Operation on demand*;
  - Cool recovery;
  - Temperature saving function;
  - Free cooling;
  - Ventilation control by external contacts;
  - Control via internet browser;
  - Control with smartphones;
  - Filter clogging indication;
  - Water mixing system warming-up;
  - Rotor warm-up and cleaning function;
  - Heat exchanger frost protection;
  - Heat exchanger failure indication;
  - Water heater frost protection;
  - Electric heater overheat protection;
  - Low air flow indication;
  - Emergency shut down in case of fire;
  - Emergency shut down when temperature reaches critical limits;
  - Intelligent self-diagnostic;
  - Indication of the heat exchanger thermal efficiency (%);
  - Indication of heat exchanger energy recovery (kW);
  - Energy consumption counters for heater and whole unit (kWh);
  - Indication of the whole unit power consumption (kW);
  - Specific power (SPI) indication;
  - Unit operation parameters history storage and analysis;
  - Possibility to choose desired control panel.

* these functions require additional accessories.

More information about C5 on p. 10.
Domekt CF 250 V

Maximal air flow, m³/h 211
Panel thickness, mm 30
Unit weight, kg 41
Supply voltage, V 1~230
Maximal operating current, A 49
Thermal efficiency of heat recovery, % 89
Reference flow rate, m³/s 0,041
Reference pressure difference, Pa 50
SPL, W/m²/h 0,44
Filters dimensions B×H×L, mm 145×350×46-M5
Electric power input of the fan drive at reference flow rate, W 33
Electric power input of the fan drive at maximum flow rate, W 90
Electric air heater capacity, kW / ∆t, ºC –
Control panel C4.1
Maintenance space, mm 600

Acoustic data

A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 48
Supply outlet 70
Exhaust inlet 53
Exhaust outlet 70
Casing 49

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 38

Temperature efficiency

Winter
Summer
Outside temperature, ºC -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 16,6 17,3 17,7 18,1 18,8
22,4 23,2 23,9
* indoor +22ºC, 20 % RH

Accessories

Closing damper AGUJ-M-125+LF230/LM230
Silencer A/D AGS-125-50-600-M
B/C AGS-125-50-900-M
Water heater DH-125

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Domekt CF 250 F

Maximal air flow, m³/h: 299
Panel thickness, mm: 30
Unit weight, kg: 43
Supply voltage, V: 1–230
Maximal operating current, A: 1,7
Thermal efficiency of heat recovery, %: 86
Reference flow rate, m³/s: 0,058
SPL, W/(m³/h): 0,31
Filters dimensions BxHxL, mm: 265x250x46-M5
Electric power input of the fan drive at reference flow rate: W 32
Electric power input of the fan drive at maximum flow rate: W 90
Electric air heater capacity, kW / ∆t, °C: –
Control panel: C4.1
Maintenance space, mm: 300

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate:
Supply inlet: 53
Supply outlet: 64
Exhaust inlet: 53
Exhaust outlet: 64
Casing: 45

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings: 34

Performance
Unit with standard equipment
Air flow rate (m³/s)

Accessories
Closing damper: AGU-M-160+LF230/LM230
Water heater: DH-160

Temperature efficiency
Winter
Outside temperature, °C: -23, -15, -10, -5, 0
After heat exchanger*, °C: 14,8, 15,7, 16,2, 16,8, 17,8

Summer
Outside temperature, °C: 25, 30, 35
After heat exchanger*, °C: 22,6, 23,5, 24,5

Accessories
PPU: PPU-HW-3R-15-0,4-W1
2-way valve (water heater): VVP47.10-0,4
Air heater-cooler: DHCW-160
2-way valve (water cooler): VVP47.10-1,6

* indoor +22°C, 20 % RH
**Domekt CF 250 F**

Maximal air flow, m³/h: 299
Panel thickness, mm: 30
Unit weight, kg: 43
Supply voltage, V: 1–230
Maximal operating current, A: 1,7
Thermal efficiency of heat recovery, %: 86
Reference flow rate, m³/s: 0,06
Reference pressure difference, Pa: 50
SPL, W/(m³/h): 0,32
Filters dimensions B×H×L, mm: 265×250×46-M5
Electric power input of the fan drive at reference flow rate, W: 32
Electric power input of the fan drive at maximum flow rate, W: 90
Electric air heater capacity, kW / Δt, °C: 0,5 / 6,4
Electric preheater capacity, kW / Δt, °C: 1 / 12,8
Control panel C6.1 / 6.2
Maintenance space, mm: 300

**Acoustic data**

A-weighted sound power level $L_{wA}$, dB(A) at reference flow rate
Supply inlet: 53
Supply outlet: 64
Exhaust inlet: 56
Exhaust outlet: 64
Casing: 45

A-weighted sound pressure level $L_{pA}$, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings: 34

**Temperature efficiency**

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>16,5</td>
<td>22,5</td>
</tr>
<tr>
<td>-15</td>
<td>17</td>
<td>23,4</td>
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<tr>
<td>-10</td>
<td>17,3</td>
<td>24,3</td>
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<tr>
<td>-5</td>
<td>17,8</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>18,5</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

**Performance**

Unit with standard equipment

Air flow rate (m³/s)

<table>
<thead>
<tr>
<th>Air flow rate (m³/s)</th>
<th>0.01</th>
<th>0.02</th>
<th>0.03</th>
<th>0.04</th>
<th>0.05</th>
<th>0.06</th>
<th>0.07</th>
<th>0.08</th>
<th>0.09</th>
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<tbody>
<tr>
<td>Ref. pressure (Pa)</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>0</td>
</tr>
</tbody>
</table>

**Accessories**

Closing damper: AGU-M-160+LF230/LM230
Water heater: DH-160

<table>
<thead>
<tr>
<th>PPU</th>
<th>PPU-HW-3R-15-0,4-W1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-way valve (water heater)</td>
<td>VVP47,10-0,4</td>
</tr>
<tr>
<td>Air heater-cooler</td>
<td>DHCW-160</td>
</tr>
<tr>
<td>2-way valve (water cooler)</td>
<td>VVP47,10-1,6</td>
</tr>
</tbody>
</table>
Domekt CF 400 V

Maximal air flow, m³/h 430
Panel thickness, mm 45
Unit weight, kg 55
Supply voltage, V 1–230
Maximal operating current, A HE 6,3
Thermal efficiency of heat recovery, % 80
Reference flow rate, m³/s 0,084
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,27
Filters dimensions B×H×L, mm 235×350×46-M5
Electric power input of the fan drive at reference flow rate, W 41
Electric power input of the fan drive at maximum flow rate, W 103
Electric air heater capacity, kW / ∆t, °C 1 / 9,8
Control panel C4.1
Maintenance space, mm 600

Acoustic data
A-weighted sound power level LwA, dB(A)
at reference flow rate
Supply inlet 61
Supply outlet 56
Exhaust inlet 61
Exhaust outlet 56
Casing 43

A-weighted sound pressure level LPA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

Performance
Unit with standard equipment
Air flow rate (m³/s)

Temperature efficiency
Outside temperature, °C 25 30 35
After heat exchanger*, °C 22.6 23.8 24.8

Accessories
Closing damper AGU-M-160+LF230/LM230
Silencer A/D AGS-160-50-600-M
Silencer B/C AGS-160-50-900-M
Water heater DH-160
PPU PPU-HW-3R-15-0,4-W1

2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DCW-0,4-3 / DHCW-160
2-way valve (water cooler) VVP47.10-1,6
DX cooler DCF-0,4-3

* indoor +22°C, 20 % RH

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Domekt CF 400 V

Maximal air flow, m³/h 430
Panel thickness, mm 45
Unit weight, kg 55
Supply voltage, V 1–230
Maximal operating current, A HE 6,3
Thermal efficiency of heat recovery, % 80
Reference flow rate, m³/s 0,08
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,28
Filters dimensions B×H×L, mm 235×350×46-M5
Electric power input of the fan drive at reference flow rate, W 41
Electric power input of the fan drive at maximum flow rate, W 103
Electric air heater capacity, kW / ∆t, °C 0,5 / 4,6
Electric preheater capacity, kW / ∆t, °C 1,5 / 13,8
Control panel C6.1 / 6.2
Maintenance space, mm 600

A-weighted sound pressure level LpA, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings

Performance
Unit with standard equipment

Air flow rate (m³/h)

Accessories

Closing damper AGUJ-M-160+LF230/LM230
Silencer A/D AGS-160-50-600-M
B/C AGS-160-50-900-M
Water heater DH-160
PPU PPU-HW-3R-15-0,4-W1

Temperature efficiency

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside temperature, °C</td>
<td>-23</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>14,9</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Accessories

2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DCW-0,4-3 / DHCW-160
2-way valve (water cooler) VVP47.10-1,6
DX cooler DCF-0,4-3
Domekt CF 500 F

Maximal air flow, m³/h 568
Panel thickness, mm 25
Unit weight, kg 70
Supply voltage, V 1–230
Maximal operating current, A HE 7,3
Thermal efficiency of heat recovery, % 88
Reference flow rate, m³/s 0,111
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,39
Filters dimensions B×H×L, mm 410x200x46-M5
Electric power input of the fan drive at reference flow rate, W 82
Electric power input of the fan drive at maximum flow rate, W 177
Electric air heater capacity, kW / ∆t, °C 1/7,4
Control panel C4.1
Maintenance space, mm 400

Acoustic data
A-weighted sound power level LwA, dB(A) at reference flow rate
Supply inlet 57
Supply outlet 71
Exhaust inlet 57
Exhaust outlet 71
Casing 54

A-weighted sound pressure level LPA, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 43

Performance
Unit with standard equipment
Temperature efficiency
Winter
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 15,9 16,7 17,1 17,6 18,4
Summer
0 25 30 35
* indoor +22°C, 20 % RH

Shown as left (L2)

Accessories
Closing damper AGU-M-200+LF230/LM230
Silencer A/D AGS-200-50-600-M
C/B AGS-200-50-900-M
Water heater DH-200
PPU PPU-HW-3R-15-0,4-W1

2-way valve (water heater) VVP47.10-0,4
Air heater-cooler DCW-0,5-3 / DHCW-200
2-way valve (water cooler) VVP47.10-1,6
DX cooler DCF-0,5-3

UAB AMALVA reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units. If data of performance do not correspond to data in the selection software, please refer to data shown in software.
### Domekt CF 500 F

Maximal air flow, m³/h: 568
Panel thickness, mm: 25
Unit weight, kg: 70
Supply voltage, V: 1–230
Maximal operating current, A: HE 7,3
Thermal efficiency of heat recovery, %: 88
Reference flow rate, m³/s: 0,11
Reference pressure difference, Pa: 50
SPL, W/(m²/h): 0,41
Filters dimensions B×H×L, mm: 410×200×46-M5
Electric power input of the fan drive at reference flow rate, W: 81
Electric air heater capacity, kW / Δt, °C: 0,5 / 3,5
Electric preheater capacity, kW / Δt, °C: 1,5 / 10,5
Control panel: C6.1 / 6.2
Maintenance space, mm: 400

### Acoustic data

A-weighted sound power level LwA, dB(A) at reference flow rate:
- Supply inlet: 57
- Supply outlet: 71
- Exhaust inlet: 57
- Exhaust outlet: 71
- Casing: 54

A-weighted sound pressure level LPA, dB(A) in a 10 m² normally isolated room, distance from casing = 3 m.
Surroundings: 43

### Temperature efficiency

<table>
<thead>
<tr>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside temp, °C</td>
<td>25</td>
</tr>
<tr>
<td>After heat exchanger*, °C</td>
<td>17,1</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

### Performance

<table>
<thead>
<tr>
<th>Unit with standard equipment</th>
<th>Air flow rate (m³/h)</th>
</tr>
</thead>
</table>

### Accessories

- Closing damper: AGU-M-200+LF230/LM230
- Water heater: DH-200
- PPU: PPU-HW-3R-15-0,4-W1
- 2-way valve (water heater): VVP47.10-0,4
- Air heater-cooler: DCW-0,5-3 / DHCW-200
- 2-way valve (water cooler): VVP47.10-1,6
- DX cooler: DCF-0,5-3
Domekt CF 700 V

Maximal air flow, m³/h: 665
Panel thickness, mm: 45
Unit weight, kg: 95
Supply voltage, V: 1~230
Maximal operating current, A: HE 12
Thermal efficiency of heat recovery, %: 87
Reference flow rate, m³/s: 0.13
Reference pressure difference, Pa: 50
SPL, W/(m³/h): 0.31
Filters dimensions BxHxL, mm: 390x300x46-MS
Electric power input of the fan drive at reference flow rate, W: 72
Electric power input of the fan drive at maximum flow rate, W: 177
Electric air heater capacity, kW / ∆t, °C: 0.5 / 3
Electric preheater capacity, kW / ∆t, °C: 1.5 / 8.9
Control panel: C6.1 / 6.2
Maintenance space, mm: 1000

Acoustic data

A-weighted sound power level LwA, dB(A) at reference flow rate:
- Supply inlet: 47
- Supply outlet: 67
- Exhaust inlet: 52
- Exhaust outlet: 67
- Casing: 47

A-weighted sound pressure level LPA, dB(A) in a 10 m² normally isolated room, distance from casing – 3 m.

Surroundings: 36

Performance

Unit with standard equipment:

<table>
<thead>
<tr>
<th>Air flow rate (m³/s)</th>
<th>Static pressure (Pa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.03</td>
<td>3</td>
</tr>
<tr>
<td>0.06</td>
<td>6</td>
</tr>
<tr>
<td>0.09</td>
<td>9</td>
</tr>
<tr>
<td>0.12</td>
<td>12</td>
</tr>
<tr>
<td>0.15</td>
<td>15</td>
</tr>
<tr>
<td>0.18</td>
<td>18</td>
</tr>
<tr>
<td>0.21</td>
<td>21</td>
</tr>
</tbody>
</table>

Air flow rate (m³/h)

Temperature efficiency

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>15.6</td>
<td>22.5</td>
</tr>
<tr>
<td>-15</td>
<td>16.4</td>
<td>23.4</td>
</tr>
<tr>
<td>-10</td>
<td>16.8</td>
<td>24.5</td>
</tr>
<tr>
<td>-5</td>
<td>17.3</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>18.2</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>22.5</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>23.4</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>24.5</td>
<td></td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Shown as left (L1)

Accessories

Closing damper: AGU-M-200+LF230/LM230
Water heater: DH-200
PPU: PPU-HW-3R-15-0,4-W1

2-way valve (water heater): VVP47.10-0,4
Air heater-cooler: DCW-0,7-5 / DHCW-200
2-way valve (water cooler): VVP47.10-2,5
DX cooler: DCF-0,7-5
Cooling unit: MOU-18HFN6-KA8243
Domekt CF 700 H

Maximal air flow, m³/h 766
Panel thickness, mm 45
Unit weight, kg 95
Supply voltage, V 1–230
Maximal operating current, A HE 12
Thermal efficiency of heat recovery, % 85
Reference flow rate, m³/s 0,15
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,3
Filters dimensions B×H×L, mm 390×300×46-M5
Electric power input of the fan drive at reference flow rate, W 78
Electric power input of the fan drive at maximum flow rate, W 180
Electric air heater capacity, kW / Δt, °C 0,5 / 2,6
Electric preheater capacity, kW / Δt, °C 1,5 / 7,7
Control panel C6.1 / 6.2
Maintenance space, mm 500

Acoustic data
A-weighted sound power level $L_{wA}$, dB(A) at reference flow rate
Supply inlet 47
Supply outlet 67
Exhaust inlet 52
Exhaust outlet 67
Casing 47

A-weighted sound pressure level $L_{PA}$, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 36

Temperature efficiency
<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>-23</td>
<td>14,8</td>
<td>22,5</td>
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<tr>
<td>-15</td>
<td>15,7</td>
<td>23,5</td>
</tr>
<tr>
<td>-10</td>
<td>16,1</td>
<td>24,6</td>
</tr>
<tr>
<td>-5</td>
<td>16,8</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>17,8</td>
<td></td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

Shown as right (R1)
Shown as left (L1)

Accessories
Closing damper AGU-M-250+LF230/LM230
Silencer A/D AGS-250-50-600-M
B/C AGS-250-50-900-M
Water heater DH-250
PPU PPU-HW-3R-15-0,63-W1
2-way valve (water heater) VVP47.10-0,63
2-way valve (water cooler) VVP47.10-2,5
Air heater-cooler DCW-0,7-5 / DHCW-250
DX cooler DCF-0,7-5
Cooling unit MOU-18HFN6-KA8243
Domekt CF 900 U/H/V

Maximal air flow, m³/h 1000
Panel thickness, mm 50
Unit weight, kg 267
Supply voltage, V HE 3~400 / HW 1~230
Maximal operating current, A HE 9.8 / HW 3.3
Thermal efficiency of heat recovery, % 82
Reference flow rate, m³/s 0.194
Reference pressure difference, Pa 50
SPL, W/(m²/h) 0.17
Filters dimensions BxHxL, mm 800x400x46-M5
Electric power input of the fan drive at reference flow rate, W 57
Electric power input of the fan drive at maximum flow rate, W 162
Electric air heater capacity, kW / ∆t, °C 4.5/19.1
Control panel C5.1
Maintenance space, mm 800

Acoustic data
A-weighted sound power level Lwa, dB(A) at reference flow rate
Supply inlet 49
Supply outlet 50
Exhaust inlet 49
Exhaust outlet 50
Casing 43
A-weighted sound pressure level Lpa, dB(A)
10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

Performance
Unit with standard equipment
Air flow rate (m³/h)

Temperature efficiency
Winter Summer
Outside temperature, °C -23 -15 -10 -5 0 25 30 35
After heat exchanger*, °C 14.1 15 15.9 16.8 17.8 22.6 23.6 24.6
* indoor +22°C, 20 % RH

Changeover water heating/cooling exchanger (HCW)
Water temperature in/out, °C 90/70 80/60 70/50 60/40 7/12
Capacity, kW 2.7 2.7 2.7 2.7 3.8
Flow rate, dm³/h 117 117 116 116 644
Pressure drop, kPa 1 1 1 1 6.8
Temperature in/out, °C 14.1/22 11.4/23.6 16.5/23.6/18
Maximal capacity, kW 21.5 16.5 11.4 6.5 6.4
Connection, °C 1/2

Accessories
Closing damper AGU-M-315+LF24/LM24
Silencer A/D AGS-315-100-900-M
PPU PPU-HW-3R-15-1,0-W2
Air heater-cooler DCW-0.7-5
2-way valve VVP47.15-2.5+SSP61
DX cooler DCF-0.7-5
Cooling unit MOU-18HF6-KAB243

Available versions:
1) Electric air heater (HE);
2) Changeover water heating/cooling exchanger (HCW);
3) Changeover water heating/cooling exchanger (HCW) and electric air heater (HE).

Shown as right (R1)

Shown as left (L1)
**Domekt CF 900 F**

- Maximal air flow, m³/h: 1000
- Panel thickness, mm: 50
- Unit weight, kg: 161
- Supply voltage, V: HE 3~400 / HW 1~230
- Maximal operating current, A: HE 9.8 / HW 3.3
- Thermal efficiency of heat recovery, %: 82
- Reference flow rate, m³/s: 0.194
- Reference pressure difference, Pa: 50
- SPL, W/(m³/h): 0.17
- Filters dimensions B×H×L, mm: 550×420×46-M5
- Electric power input of the fan drive at reference flow rate, W: 56
- Electric power input of the fan drive at maximum flow rate, W: 167
- Electric air heater capacity, kW / ∆t, °C: 3 / 12,8
- Control panel: C5.1
- Maintenance space, mm: 400

**Acoustic data**

**A-weighted sound power level L_wA, dB(A) at reference flow rate**

- Supply inlet: 54
- Supply outlet: 68
- Exhaust inlet: 54
- Exhaust outlet: 68
- Casing: 47

**Temperature efficiency**

**Winter**

<table>
<thead>
<tr>
<th>Outside temperature, °C</th>
<th>-23</th>
<th>-15</th>
<th>-10</th>
<th>-5</th>
<th>0</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>After heat exchanger* °C</td>
<td>14</td>
<td>15</td>
<td>15.9</td>
<td>16.8</td>
<td>17.8</td>
<td>22.6</td>
<td>23.6</td>
<td>24.6</td>
</tr>
</tbody>
</table>

* indoor +22°C, 20 % RH

**Performance**

- Air flow rate (m³/s): 0.05, 0.1, 0.15, 0.2, 0.25, 0.3
- Static pressure (Pa): 527, 500, 475, 450, 425, 400, 375, 350, 325, 300, 275

**Accessories**

- Closing damper: AGU-M-315+LF24/LM24
- Water heater: DH-315
- PPU: PPU-HW-3R-15-1,0-W2
- Air heater-cooler: DCW-0.9-6; DHCW-315
- 2-way valve (water cooler): VVP47.15-2,5+SSP61
- DX cooler: DCF-0,9-6
- Cooling unit: MOU-18HFN6-KA8243

---

Static pressure (Pa)

Air flow rate (m³/s)

---

**Shown as left (L1)**

- A: outdoor intake
- B: supply air
- C: extract indoor
- D: exhaust air

**Shown as right (R1)**

- A: outdoor intake
- B: supply air
- C: extract indoor
- D: exhaust air

---

The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_wA, dB(A) at reference flow rate

Supply inlet: 54
Supply outlet: 68
Exhaust inlet: 54
Exhaust outlet: 68
Casing: 47

A-weighted sound pressure level L_pA, dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings: 36
Domekt S
False ceiling supply air handling units.

Advantages of Domekt S units

- Height is only 297 mm / 350 mm – easy to choose the place for installation.
- Units are complemented with fastening profiles and vibration absorbing holders.
- Safe and handy design of removable cover ensures easy fixing of cover at different opening levels for performing maintenance and service inspection.
- Air handling units have integrated control system.
- Control panel may be installed in any user-convenient place.
- Control panel display enables to set the operation parameters of the unit and monitor them.
- There is a possibility to complement and control the duct mounted cooling section.

Domekt S range

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Supply/exhaust air filter class</th>
<th>Heater</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M5</td>
<td>F7</td>
</tr>
<tr>
<td>Domekt S 650 F</td>
<td>●</td>
<td>Ø</td>
</tr>
<tr>
<td>Domekt S 800 F</td>
<td>●</td>
<td>Ø</td>
</tr>
<tr>
<td>Domekt S 1000 F</td>
<td>●</td>
<td>Ø</td>
</tr>
</tbody>
</table>

- Standard sizes of Domekt S units

- Duct connection
  F – false ceiling.

- Heater
  HE – electric heater.
  HW – water air heater.
  HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

- Cooler
  CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
  CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

- Inspection side
  See p. 132.

- Control system
  More information about C5 on p. 10.
Domekt S 650 F

Maximal air flow, m³/h 642
Panel thickness, mm 50
Unit weight, kg 35
Reference flow rate, m³/s 0,125
Reference pressure difference, Pa 50
SPL, W/(m³/h) 0,15
Filters dimensions B×H×L, mm 235×371×46-M5
Electric power input of the fan drive at reference flow rate, W 63
Electric power input of the fan drive at maximum flow rate, W 172
Control panel C5.1
Maintenance space, mm 300

Acoustic data
A-weighted sound power level Lₐ,W, dB(A) at reference flow rate
Supply inlet 63
Supply outlet 69
Casing 41
A-weighted sound pressure level Lₚ,A, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 30

Performance
Unit with standard equipment
Air flow rate (m³/h) 0 0,03 0,06 0,09 0,12 0,15 0,18
Static pressure (Pa) 0 100 200 300 400 500

Accessories
Closing damper AGU-J-M-160+LF24/LM24
Silencer
A AGS-160-50-600-M
B AGS-160-50-900-M
PPU –
Air heater-cooler DCW-0,7-5
2-way valve VVP47,15-2,5+SSP61
DX cooler DCF-0,7-5
Cooling unit MOU-18HFN6+KA8243
Domekt S 800 F

Maximal air flow, m³/h 826
Panel thickness, mm 50
Unit weight, kg 37
Reference flow rate, m³/s 0,161
Reference pressure difference, Pa 50
SPL, W/m²/h 0,14
Filters dimensions BxHxL, mm 287x371x46-M5
Electric power input of the fan drive at reference flow rate, W 75
Electric power input of the fan drive at maximum flow rate, W 181
Control panel C5.1
Maintenance space, mm 400

Acoustic data
A-weighted sound power level Lₘₐₓ, dB(A) at reference flow rate
Supply inlet 60
Supply outlet 66
Casing 44
A-weighted sound pressure level Lₚₐₗ, dB(A) 10 m² normally isolated room, distance from casing – 3 m.
Surroundings 33

Performance
Unit with standard equipment
Air flow rate (m³/h)

<table>
<thead>
<tr>
<th>Air flow rate (m³/h)</th>
<th>SPI 0.1</th>
<th>SPI 0.2</th>
<th>SPI 0.3</th>
<th>SPI 0.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>100</td>
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<td>0</td>
</tr>
<tr>
<td>200</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>300</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>400</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>500</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Technical data
Supply air handling unit
Supply voltage, V
Air heater capacity, kW
Maximal operating current, A
ΔT, °C
Domekt S 800 F-HE/3 1~230 3,0 14,9 10
Domekt S 800 F-HE/6 3~400 6,0 10,6 20
Domekt S 800 F-HE/9 3~400 9,0 14,9 30
Domekt S 800 F-HW 1~230 – 1,9 –

Hot water air heater
Water temperature in/out, °C 90/70 80/60 70/50 60/40
Capacity, kW 11,3 11,1 9,5 5,9
Flow rate, dm³/h 499 488 414 257
Pressure drop, kPa 4,2 4,1 3,1 1,4
Temperature in/out, °C -23/20 -23/19,2 -23/13 -10/12,4
Maximal capacity, kW 12,6 11,1 9,5 5,9
Connection, “½”

Accessories
Closing damper AGUJ-M-200+LF24/LM24
Silencer A AGS-200-50-600-M
     B AGS-200-50-900-M
PPU PPU-HW-3R-15-2,5-W2
Air heater-cooler DCW-0,9-6
2-way valve VVP47.15-2,5+SSP61
DX cooler DCF-0,9-6
Cooling unit MOU-18HF6-KAB243
**Domekt S 1000 F**

Maximal air flow, m³/h: 1000
Panel thickness, mm: 50
Unit weight, kg: 46
Reference flow rate, m³/s: 0.194
Reference pressure difference, Pa: 50
SPL, W/(m²/h): 0.12
Filters dimensions B×H×L, mm: 558×287×46-M5
Electric power input of the fan drive at reference flow rate, W: 82
Electric power input of the fan drive at maximum flow rate, W: 182
Control panel: C5.1
Maintenance space, mm: 400

**Acoustic data**

A-weighted sound power level LwA, dB(A) at reference flow rate:
- Supply inlet: 60
- Supply outlet: 66
- Casing: 43

A-weighted sound pressure level LPA, dB(A) in 10 m² normally isolated room, distance from casing – 3 m:
- Surroundings: 32

**Performance**

Unit with standard equipment:

<table>
<thead>
<tr>
<th>SPI</th>
<th>Air flow rate (m³/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>0</td>
</tr>
<tr>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>0.15</td>
<td>0.1</td>
</tr>
<tr>
<td>0.2</td>
<td>0.15</td>
</tr>
<tr>
<td>0.25</td>
<td>0.2</td>
</tr>
<tr>
<td>0.3</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Static pressure (Pa): 0, 200, 400, 600, 800, 1000, 1200

**Technical data**

Supply air handling unit:
- Supply voltage, V: 3–400
- Air heater capacity, kW: 9.0
- Maximal operating current, A: 15.4
- ΔT, °C: 25

Domekt S 1000 F-HE/9

Domekt S 1000 F-HE/15

Domekt S 1000 F-HW

**Hot water air heater**

- Water temperature in/out, °C: 90/70, 80/60, 70/50, 60/40
- Capacity, kW: 14.4, 14.4, 12.3, 7.5
- Flow rate, m³/h: 636, 633, 537, 325
- Pressure drop, kPa: 1.5, 1.5, 1.1, 1
- Temperature in/out, °C: -23/20, -23/20, -23/13.6, -10/12.2
- Maximal capacity, kW: 16.4, 14.5, 12.3, 7.5
- Connection, "": ½

**Accessories**

- Closing damper: AGUJ-M-250+LF24/LM24
- Silencer:
  - A: AGS-250-50-600-M
  - B: AGS-250-50-900-M
- PPU: PPU-HW-3R-20-4,0-W2
- Air heater-cooler: DCW-0.9-6
- 2-way valve: VVP47.15-2.5+SSP61
- DX cooler: DCF-0.9-6
- Cooling unit: MOU-18HFN6-KA8243

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