

LARGE DUCTED FAN COIL UNITS



Air treatment 42DW



Options/accessories

- Factory-installed two- or four-way valves
- High-efficiency filter

Standard controls

Electronic thermostat

- 2 versions, A + B, with potentiometer
- Automatic or manual three-speed selection
- Automatic or manual change-over
- Electric heat control
- Comfort/economy/frost protection modes



HDB controller

- Digital display or infra-red terminal
- Unit grouping capability
- Adjustable settings and parameters
- Timer and daily scheduling



NTC communicating controller

- Network communication
- Aquasmart Evolution compatible
- IAQ and DCV management
- Motorised blinds & lighting control



Features

- Available in four sizes with two-pipe, two-pipe plus electric heater or four-pipe coils, with an air flow range from 220 to 726 l/s, a cooling capacity range from 4.4 to 11.7 kW and a heating capacity range from 6.5 to 19.8 kW.
- Compact ducted chilled-water fan coil units, designed for installation above false ceilings.
- Reliable and efficient heating and cooling for light commercial and residential applications.
- Minimised size, using a V-shaped coil, and reduced height of 285 mm.
- Air return from the rear or below for increased installation flexibility.
- Air outlet modularity (sleeve or spigots), outlets on the front or at the sides.
- High-capacity unit with low sound levels.
- Four-speed motor, offering a choice of two medium comfort speeds.
- High-pressure centrifugal fans.
- Compatible with the 35BD air diffuser range.
- Safe factory-installed electric heater for single or two-stage hot water heating.
- Low hydraulic pressure drop with a valve mounted, compatible with all chiller pump kits.
- Quick installation with factory-installed options (controls, valves).
- Improved market competitiveness.



35BD linear diffuser (supply and return air)

Physical data

| Unit size | 42DWC 07 | | | | 42DWC 09 | | | | 42DWC 12 | | | | |
|---------------------------------------|-------------------|----------|------|------------|----------|----------|------|------------|----------|----------|-------|------------|-------|
| Fan speed | Low | Medium | High | Super high | Low | Medium | High | Super high | Low | Medium | High | Super high | |
| Fan | | | | | | | | | | | | | |
| Air flow | l/s | 220 | 251 | 261 | 273 | 253 | 303 | 348 | 372 | 475 | 562 | 625 | 668 |
| | m ³ /h | 793 | 903 | 941 | 983 | 910 | 1090 | 1251 | 1338 | 1710 | 2024 | 2250 | 2403 |
| Static pressure | Pa | 39 | 50 | 54 | 59 | 35 | 50 | 66 | 75 | 36 | 50 | 62 | 70 |
| Cooling mode | | | | | | | | | | | | | |
| Total cooling capacity | kW | 4.39 | 5.51 | 5.7 | 5.88 | 5.89 | 6.82 | 7.68 | 8.05 | 9.27 | 10.33 | 11.04 | 11.6 |
| Sensible cooling capacity | kW | 3.88 | 4.32 | 4.49 | 4.66 | 4.54 | 5.32 | 6.03 | 6.37 | 7.5 | 8.52 | 9.17 | 9.68 |
| Water flow rate | l/s | 0.24 | 0.26 | 0.27 | 0.28 | 0.28 | 0.33 | 0.37 | 0.38 | 0.55 | 0.49 | 0.53 | 0.54 |
| | l/h | 849 | 947 | 980 | 1010 | 1012 | 1173 | 1320 | 1385 | 1992 | 1776 | 1897 | 1950 |
| Water pressure drop | kPa | 16 | 21 | 23 | 25 | 16 | 22 | 27 | 30 | 38 | 45 | 54 | 60 |
| Heating mode, 2 pipes | | | | | | | | | | | | | |
| Heating capacity | kW | 6.53 | 7.29 | 7.64 | 7.78 | 7.95 | 9.31 | 10.46 | 11.02 | 13 | 14.78 | 16.12 | 16.58 |
| Water pressure drop | kPa | 16 | 21 | 23 | 25 | 16 | 22 | 27 | 30 | 38 | 45 | 54 | 60 |
| Heating mode, 4 pipes | | | | | | | | | | | | | |
| Heating capacity | kW | - | - | - | - | - | - | - | - | - | - | - | - |
| Water flow rate | l/h | - | - | - | - | - | - | - | - | - | - | - | - |
| | l/h | - | - | - | - | - | - | - | - | - | - | - | - |
| Water pressure drop | kPa | - | - | - | - | - | - | - | - | - | - | - | - |
| Electric heater capacity | W | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| Sound levels | | | | | | | | | | | | | |
| Sound power level | dBA | 55 | 57 | 58 | 59 | 56 | 60 | 64 | 65 | 62 | 66 | 68 | 70 |
| Sound pressure level* | dBA | 38 | 40 | 41 | 42 | 39 | 43 | 47 | 48 | 45 | 49 | 51 | 53 |
| NR value | | 35 | 37 | 38 | 39 | 35 | 40 | 44 | 45 | 41 | 45 | 48 | 50 |
| Power supply | V-ph-Hz | 230-1-50 | | | | 230-1-50 | | | | 230-1-50 | | | |
| Power input | W | 85 | 95 | 100 | 105 | 125 | 165 | 180 | 195 | 265 | 310 | 335 | 360 |
| Current draw | A | 0.37 | 0.41 | 0.43 | 0.46 | 0.54 | 0.72 | 0.78 | 0.85 | 1.15 | 1.35 | 1.46 | 1.57 |
| Dimensions | | | | | | | | | | | | | |
| Coil outlet/inlet diameter | inch | 3/4 | | | | 3/4 | | | | 3/4 | | | |
| Length | mm | 925 | | | | 925 | | | | 1325 | | | |
| Height | mm | 285 | | | | 285 | | | | 285 | | | |
| Depth | mm | 750 | | | | 750 | | | | 750 | | | |
| Weight (without/with electric heater) | kg | 35/39 | | | | 37/41 | | | | 48/53 | | | |

| Unit size | 42DWC 16 | | | | 42DWD 09 | | | | 42DWD 16 | | | | |
|---------------------------------------|-------------------|----------|-------|------------|----------|----------|------|------------|----------|----------|-------|------------|-------|
| Fan speed | Low | Medium | High | Super high | Low | Medium | High | Super high | Low | Medium | High | Super high | |
| Fan | | | | | | | | | | | | | |
| Air flow | l/s | 598 | 655 | 691 | 726 | 253 | 303 | 348 | 372 | 598 | 655 | 691 | 726 |
| | m ³ /h | 2154 | 2359 | 2489 | 2614 | 910 | 1090 | 1251 | 1338 | 2154 | 2359 | 2489 | 2614 |
| Static pressure | Pa | 42 | 50 | 56 | 61 | 35 | 50 | 66 | 75 | 42 | 50 | 56 | 61 |
| Cooling mode | | | | | | | | | | | | | |
| Total cooling capacity | kW | 11.98 | 12.72 | 13.43 | 13.71 | 5.55 | 6.89 | 7.04 | 7.32 | 10.65 | 11.22 | 11.43 | 11.66 |
| Sensible cooling capacity | kW | 9.35 | 10.02 | 10.64 | 10.53 | 4.25 | 4.95 | 5.5 | 5.82 | 8.7 | 8.26 | 9.51 | 9.68 |
| Water flow rate | l/s | 0.59 | 0.64 | 0.64 | 0.67 | 0.27 | 0.30 | 0.34 | 0.35 | 0.51 | 0.54 | 0.55 | 0.56 |
| | l/h | 2135 | 2305 | 2309 | 2425 | 955 | 1097 | 1210 | 1259 | 1831 | 1929 | 1966 | 2004 |
| Water pressure drop | kPa | 48.3 | 56.1 | 54.3 | 58.4 | 21 | 25 | 30 | 33 | 43 | 48 | 50 | 52 |
| Heating mode, 2 pipes | | | | | | | | | | | | | |
| Heating capacity | kW | 17.35 | 18.71 | 18.91 | 19.76 | - | - | - | - | - | - | - | - |
| Water pressure drop | kPa | 48.3 | 56.1 | 54.3 | 58.4 | - | - | - | - | - | - | - | - |
| Heating mode, 4 pipes | | | | | | | | | | | | | |
| Heating capacity | kW | - | - | - | - | 6.87 | 7.7 | 8.33 | 8.83 | 14.53 | 15.39 | 15.87 | 15.93 |
| Water flow rate | l/h | - | - | - | - | 0.17 | 0.19 | 0.20 | 0.22 | 0.36 | 0.38 | 0.39 | 0.39 |
| | l/h | - | - | - | - | 604 | 677 | 732 | 777 | 1278 | 1353 | 1395 | 1400 |
| Water pressure drop | kPa | - | - | - | - | 11 | 12 | 15 | 18 | 54 | 60 | 63 | 65 |
| Electric heater capacity | W | 3000 | 3000 | 3000 | 3000 | - | - | - | - | - | - | - | - |
| Sound levels | | | | | | | | | | | | | |
| Sound power level | dBA | 68 | 70 | 72 | 73 | 56 | 60 | 64 | 65 | 68 | 70 | 72 | 73 |
| Sound pressure level* | dBA | 51 | 53 | 55 | 56 | 39 | 43 | 47 | 48 | 51 | 53 | 55 | 56 |
| NR value | | 48 | 49 | 51 | 52 | 35 | 40 | 44 | 45 | 48 | 49 | 51 | 52 |
| Power supply | V-ph-Hz | 230-1-50 | | | | 230-1-50 | | | | 230-1-50 | | | |
| Power input | W | 370 | 410 | 430 | 450 | 135 | 175 | 197.5 | 220 | 400 | 460 | 485 | 510 |
| Current draw | A | 1.61 | 1.78 | 1.87 | 1.96 | 0.59 | 0.76 | 0.86 | 0.96 | 1.74 | 2.00 | 2.11 | 2.22 |
| Dimensions | | | | | | | | | | | | | |
| Coil outlet/inlet diameter | inch | 3/4 | | | | 3/4 | | | | 3/4 | | | |
| Length | mm | 1325 | | | | 925 | | | | 1325 | | | |
| Height | mm | 285 | | | | 285 | | | | 285 | | | |
| Depth | mm | 750 | | | | 750 | | | | 750 | | | |
| Weight (without/with electric heater) | kg | 53/58 | | | | 37 | | | | 53 | | | |

Based on Eurovent rating standards:

Cooling: Entering/leaving air temperature = 27°C db/19°C wb - entering/leaving water temperature = 7°C/12°C.

Heating (2 pipes): Entering air temperature = 20°C - entering water temperature = 50°C, same water flow rate as in cooling.

Heating (4 pipes): Entering air temperature = 20°C - entering/leaving water temperature = 70°C/60°C.

* Based on a hypothetical sound attenuation for the room and the system of -17 dB(A).