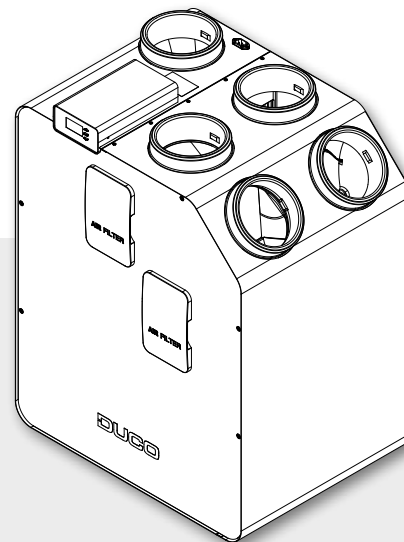


# TECHNICAL DATA SHEET



## DucoBox Energy Premium 325 (UK)



The DucoBox Energy Premium is a **mechanical ventilation unit with heat recovery**. The unit supplies fresh air mechanically to and extracts stale air mechanically from the home with the help of integrated fans. During this process, the heat is recovered from the exhaust air and transferred to the outdoor air.

The optional, integrated **2-zone system** with demand control ensures extremely **quiet, intelligent and energy-efficient operation**. Control components can be paired with the DucoBox Energy Premium (= master unit). The DucoBox Energy Premium features a frost protection system (with or without heater), a bypass function and constant flow. **Semi-automatic calibration** ensures the device can be installed quickly.

### Versions

| Type                                | Supply and exhaust capacity at 150 Pa in m³/h | 2-zone control | Frost protection   | Article number  |  |
|-------------------------------------|---|----------------|--------------------|---|--|
|                                     |   |                |                    |  LEFT |  RIGHT |
| DucoBox Energy Premium 325-1ZS (UK) | 325   | no             | imbalance          | 0000-4456   | 0000-4460  |
| DucoBox Energy Premium 325-1ZH (UK) |   |                | imbalance + heater | 0000-4457   | 0000-4461  |
| DucoBox Energy Premium 325-2ZS (UK) |   | yes            | imbalance          | 0000-4458   | 0000-4462  |
| DucoBox Energy Premium 325-2ZH (UK) |   |                | imbalance + heater | 0000-4459   | 0000-4463  |

### Physical characteristics

|                                    |   |
|------------------------------------|---|
| <b>Width x Height x Depth (mm)</b> | 740 x 957 x 585   |
| <b>Casing</b>                      | Coated sheet steel  |
| <b>Colours</b>                     | White + green   |
| <b>Connections</b>                 | Inner diameter: Ø 160 mm<br>Outer diameter: Ø 190 mm                          |
| <b>Condensate drain</b>            | Ø 32 mm [1 ¼"]  |
| <b>Heat exchanger</b>              | PET / Polystyrene   |
| <b>Material of inside section</b>  | EPP / PP / ABS  |
| <b>Weight</b>                      | 47 kg   |
| <b>Power cable length</b>          | 2 m (to be connected to the top of the unit)                                  |
| <b>Mounting</b>                    | Wall mounting (standard)<br>Floor mounting as an option using a support frame |

### Electrical characteristics

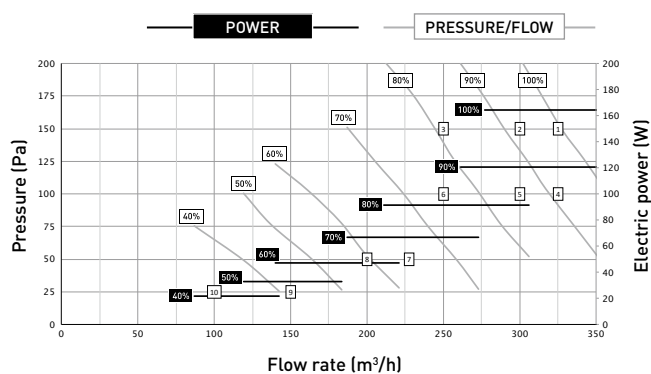
|                                     |  |
|-------------------------------------|--|
| <b>Maximum power at 50 Pa</b>       | 105,8 W  |
| <b>Maximum heater power</b>         | 1000 W   |
| <b>Power supply</b>                 | 230 V, 50 Hz<br>via 3-core power cable with earthed plug |
| <b>Type of motor</b>                | DC   |
| <b>IP class</b>                     | IP40   |
| <b>Energy conversion efficiency</b> | 89,0 % (EN 13141-7)                                      |

### Optional accessories

| Product                                  | Article number |
|--|----------------|
| Mounting chair standing (Energy Premium) | 0000-4421      |
| Mounting chair hanging (Energy Premium)  | 0000-4422      |
| Siphon flat (Energy)                     | 0000-4376      |
| Duco Connectivity Board                  | 0000-4810      |
| Humidity Box sensor (Energy Premium)     | 0000-4374      |

## Miscellaneous characteristics

|                                 |   |
|---------------------------------|---|
| <b>Energy class</b>             | Control factor 0.65: <b>A+</b><br>Other: <b>A</b>   |
| <b>Filters</b>                  | Filter supply air (175 x 500 x 25 mm)<br>Standard: ISO 16890 Coarse 65% (≈ G4)<br>Optional: ISO 16890 ePM1 55% (≈ F7)<br><br>Filter exhaust air (175 x 500 x 25 mm)<br>Standard: ISO 16890 Coarse 65% (≈ G4)  |
| <b>Summer by-pass</b>           | Fully (100% modulating)   |
| <b>Frost protection</b>         | Imbalance<br>Via proportional heater as an option   |
| <b>Fans</b>                     | EC fan with backward curved blades  |
| <b>Automatic calibration</b>    | Yes (constant pressure)   |
| <b>Constant flow regulation</b> | Yes   |
| <b>Operation</b>                | Integrated display<br>Use via remote controls and CO <sub>2</sub> or Humidity Sensors   |
| <b>Sensors</b>                  | <b>Integrated:</b><br>pressure, temperature, humidity (via optional Box sensor), onboard switch sensor<br><b>External:</b><br>CO <sub>2</sub> Room sensor (via optional room sensor), Humidity (via optional room sensor), external switch sensor (voltage-free input) (optional) |
| <b>Communication</b>            | <b>Standard:</b><br>Duco RF, Duco Wired, Switch Sensor<br><b>Expandable with Duco Connectivity Board:</b><br>Connection possible via REST API (locally or via the cloud) or Modbus TCP  |



## Systems with rigid ductwork only SAP 2005 results

| Exhaust terminal configuration   | Specific power of fan (W/l/s) | Heat exchange efficiency (%) |
|----------------------------------|-------------------------------|------------------------------|
| Kitchen + 1 additional wet room  | 0,62                          | 91                           |
| Kitchen + 2 additional wet rooms | 0,54                          | 91                           |
| Kitchen + 3 additional wet rooms | 0,53                          | 91                           |
| Kitchen + 4 additional wet rooms | 0,56                          | 90                           |
| Kitchen + 5 additional wet rooms | 0,61                          | 90                           |
| Kitchen + 6 additional wet rooms | 0,66                          | 89                           |
| Kitchen + 7 additional wet rooms | 0,79                          | 88                           |

## Systems with rigid ductwork only SAP 2012 results

| Exhaust terminal configuration   | Specific power of fan (W/l/s) | Heat exchange efficiency (%) |
|----------------------------------|-------------------------------|------------------------------|
| Kitchen + 1 additional wet room  | 0,59                          | 91                           |
| Kitchen + 2 additional wet rooms | 0,59                          | 91                           |
| Kitchen + 3 additional wet rooms | 0,63                          | 91                           |
| Kitchen + 4 additional wet rooms | 0,77                          | 90                           |
| Kitchen + 5 additional wet rooms | 0,89                          | 90                           |
| Kitchen + 6 additional wet rooms | 1,07                          | 90                           |
| Kitchen + 7 additional wet rooms | 1,30                          | 90                           |

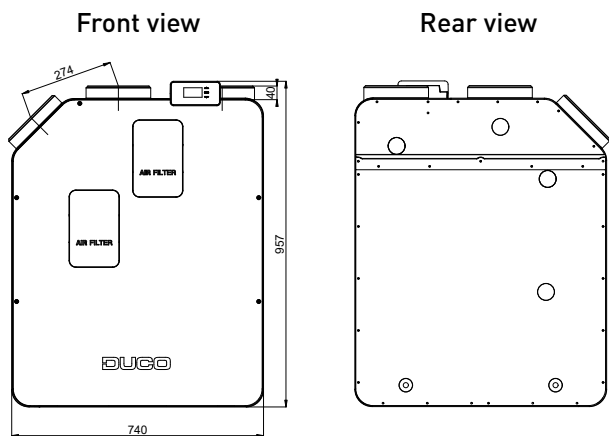
## Sound data

Standards: ISO 5135:2020

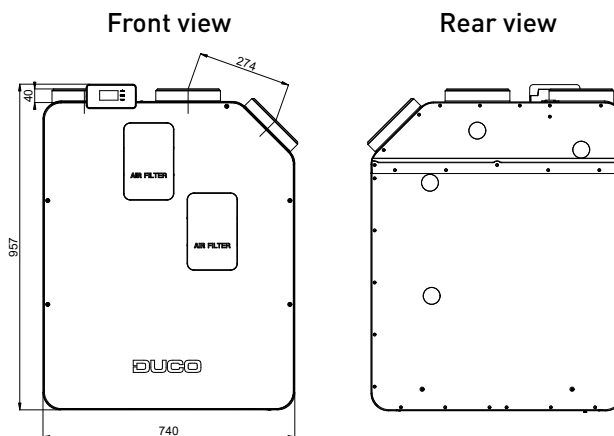
| Fan Speed | Test mode | Pa  | Watts | Induct Sound Power Levels, dB re. 1pW |      |      |      |      |      |      |      |      |          | LwA | SPL @ 3m |
|-----------|-----------|-----|-------|---------------------------------------|------|------|------|------|------|------|------|------|----------|-----|----------|
|           |           |     |       | Octave bands, Hz                      |      |      |      |      |      |      |      | LwA  | SPL @ 3m |     |          |
|           |           |     |       | 63                                    | 125  | 250  | 500  | 1k   | 2k   | 4k   | 8k   |      |          |     |          |
| 100%      | Supply    | 300 | 108   | 74.7                                  | 57.5 | 60.7 | 50.8 | 43.0 | 39.4 | 29.7 | 25.6 | 55.3 | 37,8     |     |          |
|           | Extract   | 300 | 107   | 69.1                                  | 61.9 | 63.5 | 55.6 | 44.9 | 39.2 | 29.2 | 24.2 | 57.9 | 40,4     |     |          |
|           | Breakout  | 300 | 105   | 53.9                                  | 50.9 | 54.7 | 50.2 | 43.5 | 40.3 | 32.7 | 25.5 | 51.5 | 34       |     |          |
| 80%       | Supply    | 200 | 62    | 69.0                                  | 53.8 | 59.8 | 44.4 | 38.4 | 33.9 | 24.3 | 24.2 | 52.5 | 35       |     |          |
|           | Extract   | 200 | 61    | 62.3                                  | 57.3 | 56.1 | 48.9 | 40.3 | 34.5 | 24.5 | 24.0 | 51.0 | 33,5     |     |          |
|           | Breakout  | 200 | 60    | 49.0                                  | 48.0 | 51.2 | 45.0 | 39.5 | 35.8 | 28.0 | 24.0 | 46.9 | 23,4     |     |          |
| 60%       | Supply    | 100 | 32    | 61.7                                  | 48.9 | 50.2 | 37.6 | 31.5 | 26.5 | 20.2 | 23.7 | 43.6 | 26,1     |     |          |
|           | Extract   | 100 | 31    | 58.8                                  | 54.7 | 49.7 | 44.9 | 34.1 | 27.3 | 20.3 | 23.8 | 45.9 | 28,4     |     |          |
|           | Breakout  | 100 | 32    | 42.0                                  | 43.3 | 43.2 | 38.6 | 33.9 | 28.9 | 22.2 | 23.4 | 40.1 | 22,6     |     |          |
| 40%       | Supply    | 40  | 15.5  | 53.2                                  | 43.8 | 38.2 | 29.4 | 24.6 | 18.8 | 18.7 | 23.1 | 34.9 | 17,4     |     |          |
|           | Extract   | 40  | 15    | 54.6                                  | 46.9 | 40.7 | 34.4 | 26.4 | 19.2 | 18.4 | 23.1 | 37.5 | 20       |     |          |
|           | Breakout  | 40  | 16    | 36.0                                  | 36.2 | 32.4 | 30.4 | 27.8 | 20.8 | 19.2 | 23.2 | 32.7 | 15,2     |     |          |
| 20%       | Supply    | 10  | 7.5   | 49.7                                  | 37.8 | 28.8 | 22.1 | 18.9 | 16.5 | 18.4 | 22.8 | 29.5 | 12       |     |          |
|           | Extract   | 10  | 7.5   | 51.9                                  | 41.1 | 31.1 | 24.4 | 20.6 | 16.0 | 17.9 | 22.7 | 31.2 | 13,7     |     |          |
|           | Breakout  | 10  | 7.5   | 33.2                                  | 29.0 | 24.8 | 21.8 | 21.9 | 16.7 | 18.8 | 23.1 | 27.6 | 10,1     |     |          |

# Dimensions of DucoBox Energy Premium

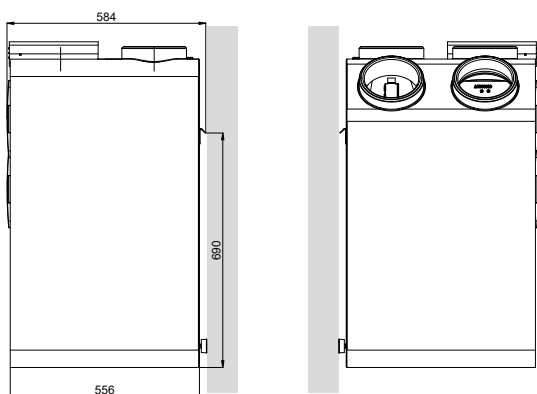
## LEFT model



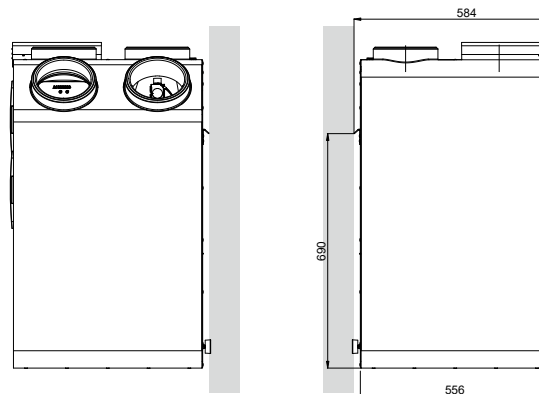
## RIGHT model



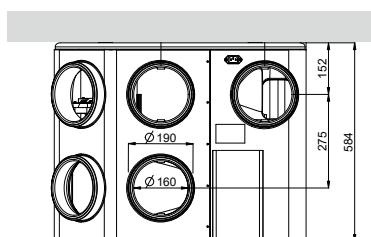
## Side view



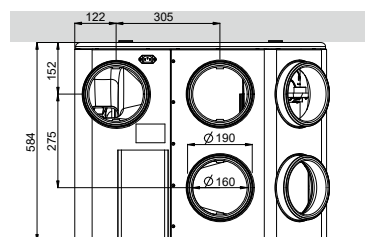
## Side view



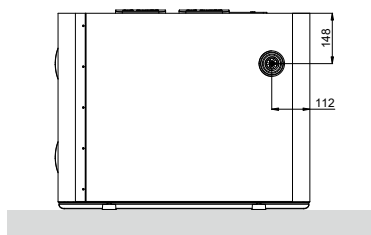
## Top view



## Top view



## Bottom view



## Bottom view

