

| Sound power level and Spectrum |                                                                                                                        |        |        |         |         |         |         |           |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|--------|--------|---------|---------|---------|---------|-----------|
| FW01 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 26.7                                                                                                                   | 41.0   | 43.5   | 40.3    | 35.5    | 23.5    | 17.5    | 47        |
| med                            | 22.4                                                                                                                   | 37.1   | 38.9   | 33.3    | 27.3    | 18.8    | 18.4    | 42        |
| min                            | 17.5                                                                                                                   | 33.7   | 32.9   | 26.0    | 20.2    | 19.2    | 19.2    | 37        |
| FW15 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 28.7                                                                                                                   | 43.0   | 45.5   | 42.3    | 37.5    | 25.5    | 19.5    | 49        |
| med                            | 24.4                                                                                                                   | 39.1   | 40.9   | 35.3    | 29.3    | 20.8    | 20.4    | 44        |
| min                            | 18.5                                                                                                                   | 34.7   | 33.9   | 27.0    | 21.2    | 20.2    | 20.2    | 38        |
| FW02 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 29.3                                                                                                                   | 43.2   | 46.2   | 44.1    | 39.7    | 30.3    | 17.7    | 50        |
| med                            | 23.2                                                                                                                   | 38.1   | 41.0   | 36.5    | 30.6    | 20.0    | 15.8    | 44        |
| min                            | 19.8                                                                                                                   | 34.9   | 37.2   | 30.8    | 24.4    | 17.3    | 17.1    | 40        |
| FW25 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 28.8                                                                                                                   | 42.0   | 44.6   | 41.5    | 35.1    | 24.5    | 19.1    | 48        |
| med                            | 24.9                                                                                                                   | 37.9   | 39.8   | 34.9    | 27.7    | 20.3    | 18.6    | 43        |
| min                            | 18.0                                                                                                                   | 31.2   | 31.1   | 24.3    | 19.6    | 18.3    | 18.0    | 35        |
| FW03 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 28.8                                                                                                                   | 42.0   | 44.6   | 41.5    | 35.1    | 24.5    | 19.1    | 48        |
| med                            | 23.9                                                                                                                   | 36.9   | 38.8   | 33.9    | 26.7    | 19.3    | 17.6    | 42        |
| min                            | 17.0                                                                                                                   | 30.2   | 30.1   | 23.3    | 18.6    | 17.3    | 17.0    | 34        |
| FW35 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 31.7                                                                                                                   | 45.4   | 47.7   | 45.4    | 41.7    | 32.0    | 19.2    | 52        |
| med                            | 23.6                                                                                                                   | 37.6   | 39.8   | 34.2    | 28.7    | 21.6    | 16.5    | 43        |
| min                            | 17.8                                                                                                                   | 31.8   | 31.5   | 24.4    | 17.2    | 16.5    | 15.4    | 35        |
| FW04 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 33.1                                                                                                                   | 46.8   | 49.0   | 46.8    | 43.1    | 33.4    | 20.5    | 53        |
| med                            | 23.6                                                                                                                   | 37.6   | 39.8   | 34.2    | 28.7    | 21.6    | 16.5    | 43        |
| min                            | 17.8                                                                                                                   | 31.8   | 31.5   | 24.4    | 17.2    | 16.5    | 15.4    | 35        |
| FW06 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 36.1                                                                                                                   | 49.3   | 51.4   | 50.6    | 47.4    | 39.1    | 24.7    | 56        |
| med                            | 28.9                                                                                                                   | 43.0   | 45.2   | 42.3    | 38.1    | 28.1    | 17.9    | 49        |
| min                            | 23.7                                                                                                                   | 37.4   | 39.8   | 34.4    | 28.6    | 21.9    | 16.8    | 43        |
| FW08 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 40.4                                                                                                                   | 54.6   | 56.1   | 54.9    | 53.1    | 46.8    | 35.6    | 61        |
| med                            | 33.7                                                                                                                   | 48.0   | 49.5   | 47.8    | 45.2    | 36.3    | 24.0    | 54        |
| min                            | 28.1                                                                                                                   | 42.1   | 42.4   | 40.7    | 35.9    | 26.1    | 21.5    | 47        |
| FW10 T                         |                                                                                                                        |        |        |         |         |         |         |           |
| Sound Power Levels dB(A)       | 125 Hz                                                                                                                 | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Global Lw |
| max                            | 45.8                                                                                                                   | 59.2   | 61.4   | 61.6    | 59.7    | 54.9    | 47.6    | 67        |
| med                            | 39.2                                                                                                                   | 52.2   | 55.5   | 54.2    | 52.1    | 45.8    | 35.3    | 60        |
| min                            | 28.7                                                                                                                   | 43.2   | 44.7   | 42.6    | 39.2    | 29.5    | 21.6    | 49        |
| Conditions of measurements     | ISO3741 : in case of (M) models the sound power is calculated WITHOUT any additional inlet or outlet grill or plenum ! |        |        |         |         |         |         |           |

To calculate the sound pressure you must define some conditions and use this formula

$$L_p = L_w - 10 \times \text{Log}_{10} \left( \frac{4\pi \times d^2}{Q} \right)$$

Where :

Q = direction factor : is Q=4 if the FCU is installed near 2 walls (vertical or floor-ceiling), Q=2 if the FCU is installed near 1 wall (at floor or ceiling but faraway the 2° wall)

d = distance (mt) from the sound source and the measure point

Lp = sound pressure (dB A)

Lw = sound power (dB A)