Sound power level and Spectrum

FW01 TN/TV								
Sound Power Levels dB(A)	**125 HZ**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Global Lw**
Max.	24.8	39.1	41.7	38.4	33.7	21.6	15.6	**45**
Med.	19.4	34.1	35.9	30.3	24.3	15.8	15.4	**39**
Min.	13.6	29.7	29.0	22.0	16.2	15.2	15.2	**33**
FW02 TN/TV								
Sound Power Levels dB(A)	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Global Lw**
Max.	28.8	42.7	45.8	43.6	39.3	29.9	17.2	**50**
Med.	22.9	37.8	40.7	36.2	30.3	19.6	15.4	**44**
Min.	18.0	33.1	35.4	29.1	22.7	15.5	15.3	**38**
FW03 TN/TV								
Sound Power Levels dB(A)	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Global Lw**
Max.	27.8	40.9	43.5	40.4	34.0	23.4	18.0	**47**
Med.	23.0	36.0	37.9	33.0	25.7	18.4	16.6	**41**
Min.	15.6	28.8	28.8	22.0	17.2	16.0	15.6	**33**
FW04 TN/TV								
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**
FW06 TN/TV								
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 TN/TV								
Sound Power Levels dB(A)	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Global Lw**
Max.	40.0	54.2	55.8	54.7	52.8	46.4	35.2	**61**
Med.	33.6	47.9	49.2	47.7	45.0	36.3	23.9	**54**
Min.	27.7	41.7	42.1	40.3	35.5	25.8	21.1	**47**
FW10 TN/TV								
Sound Power Levels dB(A)	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**8000 Hz**	**Global Lw**
Max.	44.5	58.0	60.1	60.4	58.4	53.6	46.3	**66**
Med.	38.5	51.7	54.8	53.5	51.5	45.3	34.7	**59**
Min.	28.8	43.2	44.8	42.6	39.1	29.6	21.9	**49**
Conditions of measurements	**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

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

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 2nd wall)
d = distance (mt) from the sound source and the measure point
LP = Sound pressure (dBA)
Lw = Sound power (dBA)