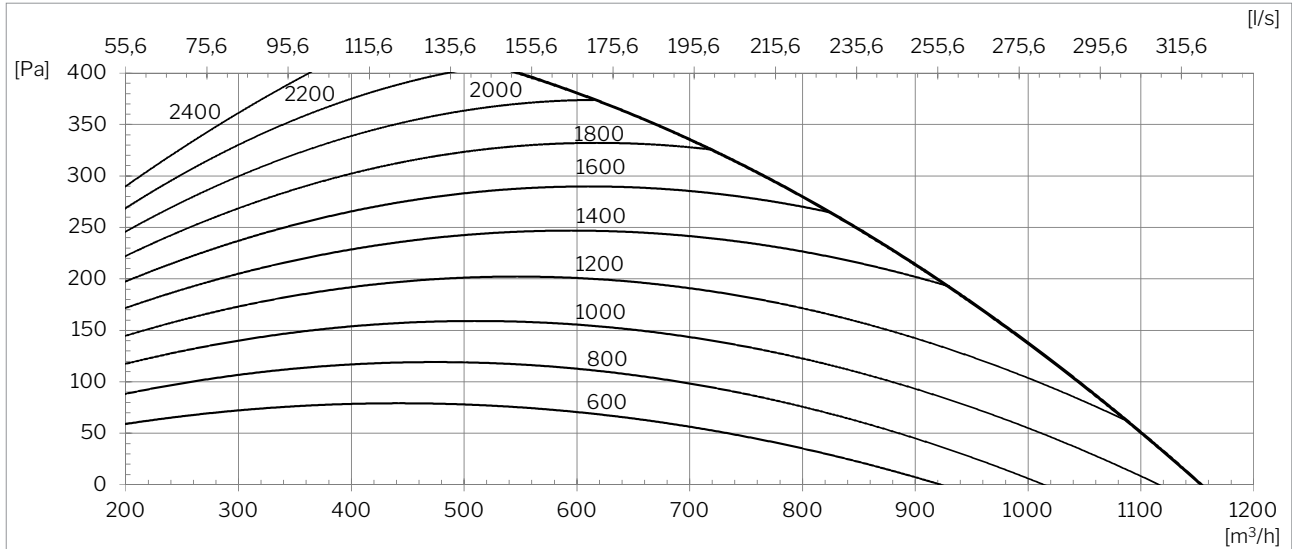


Data Sheet DV 1000

To adjust a new airflow to the air handling unit, download the software “Airmaster Service Tool” at www.airling.eu. The flow can reduce via parameter “Maximum Flow %” (parameter ID 102) under “Settings” – “Operation”. Use the diagrams on this datasheet to find the operating point.

$$\text{New parameter (ID 102)} = \frac{100\%}{\text{Current max. airflow [m}^3\text{/h]}} * \text{Requested max. airflow [m}^3\text{/h]}$$

SFP [Ws/m³]:



Power consumption [W]:

$$P = \frac{\text{SFP} * q_v}{3600}$$

SFP = Specific fan power consumption [Ws/m³]
q_v = Airflow [m³/h]

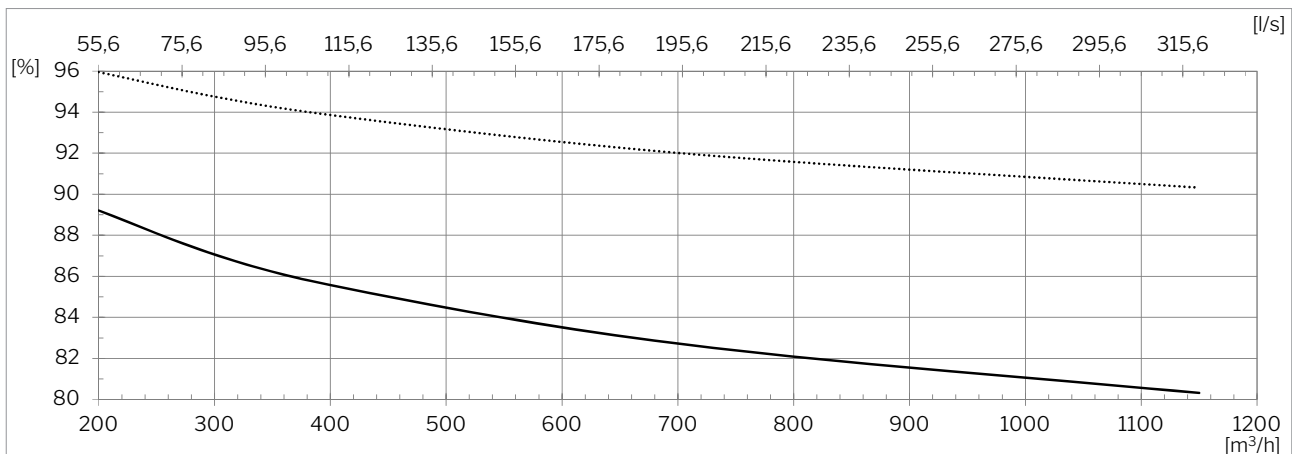
Surcharge for ePM₁ 55% supply air filter:

$$\Delta p = 0,0222 * q_v \text{ [Pa]}$$

$$p = p_s + \Delta p \text{ [Pa]}$$

Δp = Additional pressure drop for ePM₁ 55% supply air filter [Pa]
q_v = Airflow [m³/h]
p = Total pressure drop [Pa]
p_s = Pressure drop for ePM₁₀ 75% filters [Pa]

Temperature efficiency:

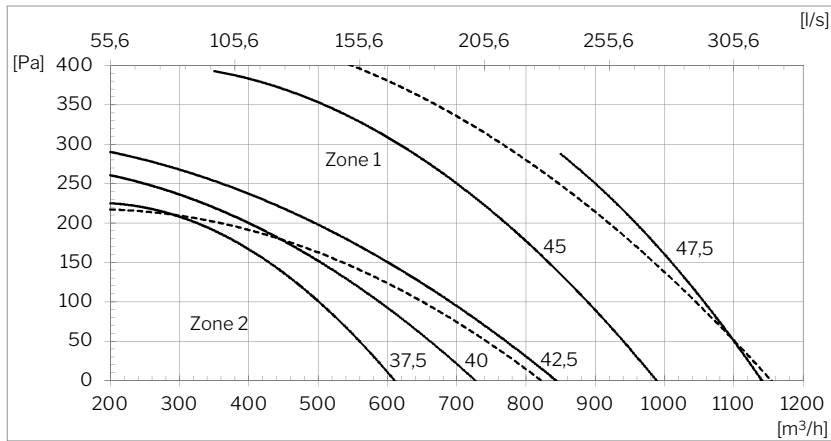


— Acc. to EN 308 (without condensation)
Conditions: Extraction: 25 °C; 28 % rel. humidity
Intake: 5 °C; 50 % rel. humidity

..... With condensation
Conditions: Extraction: 25 °C; 55 % rel. humidity
Intake: -10 °C; 50 % rel. humidity

Sound effect level L_{WA} [dB(A)]:

Case: (Acc. to EN ISO 3744)



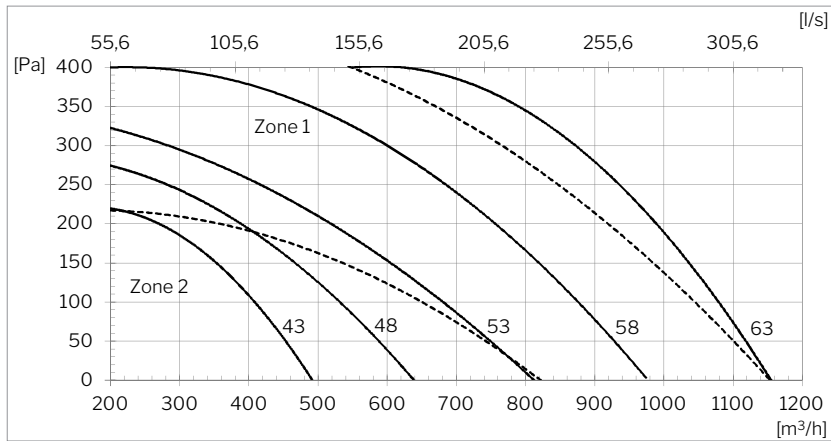
---- Zone — Sound effect

Frequency	K_w zone 1	K_w zone 2
63 Hz	13	13
125 Hz	8	11
250 Hz	6	6
500 Hz	-7	-9
1 kHz	-12	-16
2 kHz	-14	-16
4 kHz	-20	-18
8 kHz	-20	-17

$$L_w = L_{WA} + K_w$$

The sound pressure level L_{PA} needs to be calculated

Pressure side: (Acc. to EN ISO 5136)



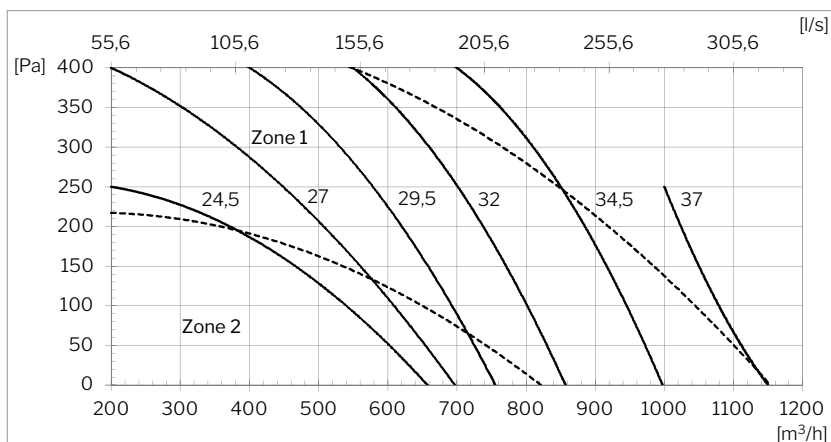
---- Zone — Sound effect

Frequency	K_w zone 1	K_w zone 2
63 Hz	-4	-5
125 Hz	-9	-4
250 Hz	-5	-7
500 Hz	-12	-13
1 kHz	-15	-16
2 kHz	-13	-15
4 kHz	-20	-22
8 kHz	-20	-29

$$L_w = L_{WA} + K_w$$

The sound pressure level L_{PA} needs to be calculated

Suction side: (Acc. to EN ISO 5136)



---- Zone — Sound effect

Frequency	K_w zone 1	K_w zone 2
63 Hz	-2	-2
125 Hz	-9	-7
250 Hz	-8	-9
500 Hz	-18	-19
1 kHz	-21	-22
2 kHz	-25	-28
4 kHz	-36	-38
8 kHz	-42	-49

$$L_w = L_{WA} + K_w$$

The sound pressure level L_{PA} needs to be calculated