

Versio

PS1



PS1 with grille box type V

Description

PS1 is a square perforated diffuser. PS1 can be used for both supply and exhaust air. PS1 is suitable for the horizontal supply of cooled air. PS1 can also be used for low impulse and is therefore useful for the supply of replacement air in environments with high rates of air exchange.

- Suitable for both supply and exhaust air
- The possibility of 1-2-3-way dispersal
- Can be used for low impulse

Order code

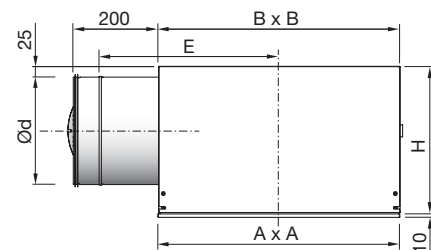
Product	PS	a	b	c	d	eee	f
Type	PS						
Design							
1 - 2 - 3 - 4							
Box type							
V - H - R							
Functional use							
S = Supply air							
E = Exhaust							
L = Low-impulse							
							Box type R, only exhaust
Damper							
0 = No damper							(Box : H, V)
1 = Damper							(Box : H, R)
2 = Damper / Meas.outlets							(Box : H)
Connection dim.							
Ø200-315							(Box : V)
Ø160-315							(Box : H)
200x100 - 500x100							(Box : R)
Ceiling system							
1 - 14							Go to chapter Ceiling tile adaption

Example: PS-1-V-S-0-200-1



PS1 with plenum box type H

Dimensions



PS1-H		A	B	H	E	Weight
Ød	Pattern	mm	mm	mm	mm	kg
160	400	*-	380	250	350	5,9
200	500	*-	460	290	390	8.50
250	600	*-	560	340	420	12.3
315	600	*-	560	405	420	13.1

* Face plate dimension A x A depends on ceiling system. See "Ceiling adjustment" for detailed dimensions. For further details on plenum box - see "Plenum boxes".

Maintenance

The face plate can be removed to enable cleaning of internal parts or to gain access to the duct or box. The visible parts of the diffuser can be wiped with a damp cloth.

Materials and finish

Grille box/plenum box:

Material: Galvanised steel

Face plate:

Material: Galvanised steel

Standard finish: Powder-coated

Standard colour: RAL 9010, gloss 30

The diffuser is available in other colours. Please contact Lindab's sales department for further information.

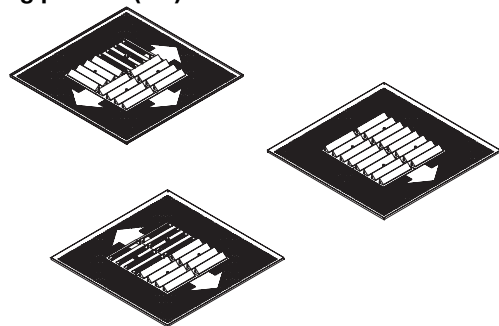
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Accessories

Blending profiles (set)

MDR



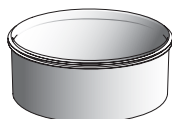
Order code

Product MDR aaa
 Type
 Pattern

Example: MDR-200

Extension piece

MBZ



Order code

Product MBZ aaa
 Type
 Size

Example: MBZ-200

Mounting bracket

PBB



Suspension

MHS



Order code

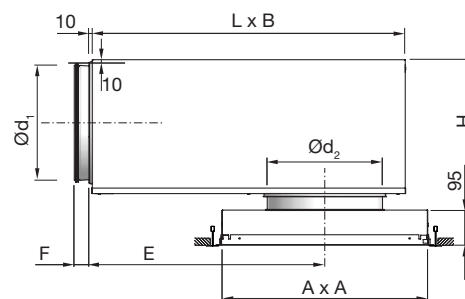
Product aaa
 Type

Example: MHS

Plenum box MBB



PS1-V + MBB



PS1-V + MBB							
duct	PS1-V		B	E	F	H*	L
Ød ₁ mm	Ød ₂ mm	Pattern	mm	mm	mm	mm	mm
125	200	400	310	262	50	280 - 320	376
160	200	400	380	323	50	314 - 354	459
160	250	500	380	323	50	314 - 354	459
200	200	400	460	396	70	355 - 395	565
200	250	500	460	396	70	355 - 395	565
200	315	600	460	396	70	355 - 395	565
250	250	500	540	486	70	405 - 445	698
250	315	600	540	486	70	405 - 445	698
315	315	600	540	646	70	470 - 510	858

* Using accessory MBZ the H dimension will increase:

Ød₂ = 200 mm => H +40 mmØd₂ = 250 - 315 mm => H +60 mm

Order code

Product MBB aaa bbb c
 Type
 MBB
 Duct connection Ød₁
 Ø125-315
 Diffuser dimension Ød₂
 Ø200-315
 Functional use
 S = Supply air
 E = Exhaust

Example: PS-1-V-S-0-200-1+MBB-200-200-S

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Technical data

Capacity

Air flow q_v [l/s] and [m³/h], total pressure Δp_t [Pa], throw $l_{0,2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the diagrams.

Frequency-related sound effect level

The sound effect level in the frequency band is defined as $L_{WA}+K_{ok}$. K_{ok} values are specified in charts beneath the diagrams on the following pages.

Quick selection, supply air

PS1-V + MBB

PS1-V + MBB		$\Delta p_t \geq 50$ Pa		$\Delta p_t \geq 50$ Pa	
duct	PS1-V	30 dB(A)		35 dB(A)	
$\varnothing d_1$	$\varnothing d_2$	l/s	m ³ /h	l/s	m ³ /h
125	200	58	209	70	252
160	200	63	227	77	277
160	250	71	256	90	324
200	200	82	295	97	349
200	250	88	317	108	389
200	315	108	389	139	500
250	250	106	382	124	446
250	315	124	446	150	540
315	315	152	547	183	659

Supply air

PS1 + H

PS1 + H		$\Delta p_t \geq 50$ Pa		$\Delta p_t \geq 50$ Pa	
Size $\varnothing d$	Minimum	30 dB(A)		35 dB(A)	
mm	l/s m ³ /h	l/s	m ³ /h	l/s	m ³ /h
160	30 108	51	184	57	205
200	49 176	69	248	83	299
250	49 176	93	335	114	410
315	82 295	140	504	164	590

Sound attenuation

Sound attenuation of the diffusers ΔL from duct to room, including end reflection - see table below.

PS1-V + MBB

PS1-V + MBB		Centre frequency Hz							
duct	PS1-V	63	125	250	500	1K	2K	4K	8K
$\varnothing d_1$	$\varnothing d_2$								
125	200	14	11	4	15	15	15	16	17
160	200	14	14	7	22	18	17	19	20
160	250	14	14	4	17	15	15	16	19
200	200	13	10	7	16	19	17	19	18
200	250	11	9	6	15	17	15	18	16
200	315	13	8	3	12	16	14	16	15
250	250	14	8	8	16	18	17	17	18
250	315	14	7	5	14	16	15	16	17
315	315	8	9	9	15	17	16	17	21

PS1 + H

PS1 + H		Centre frequency Hz							
Size $\varnothing d$		63	125	250	500	1K	2K	4K	8K
mm									
160		18	15	5	13	11	11	9	10
200		16	10	6	15	11	11	12	14
250		14	9	7	13	8	9	12	14
315		12	8	8	14	10	9	11	14

Mounting -and balancing instruction

For further information go to www.lindab.com and installation -and balancing instruction.

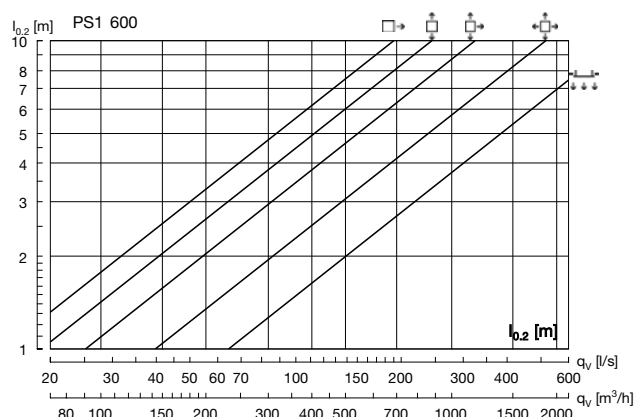
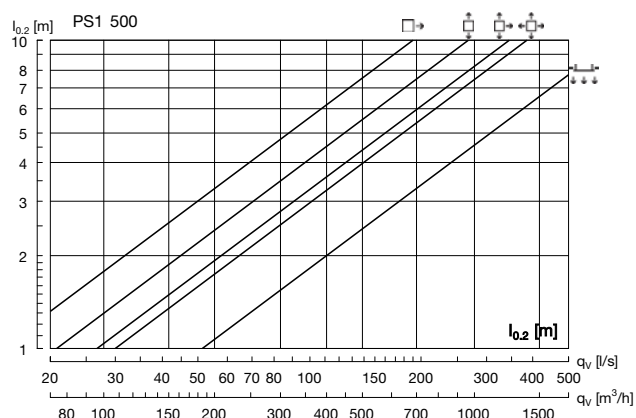
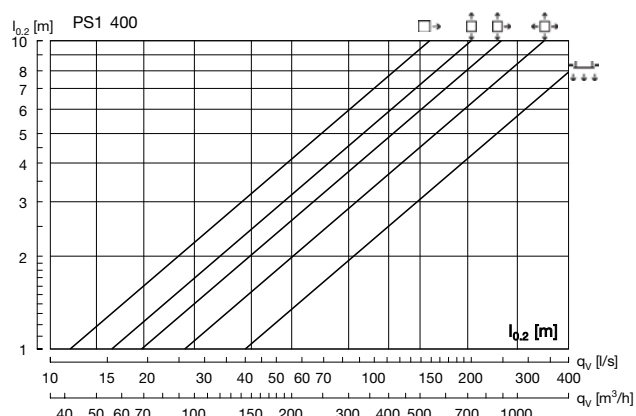
Versio

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Technical data

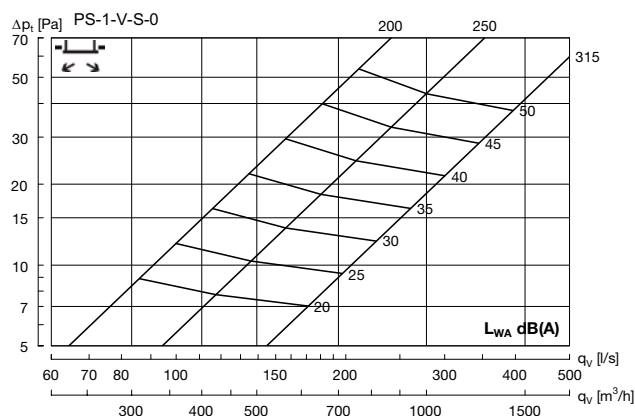
Throw $l_{0.2}$

Throw $l_{0.2}$ [m] is specified at a terminal velocity of 0.2 m/s.

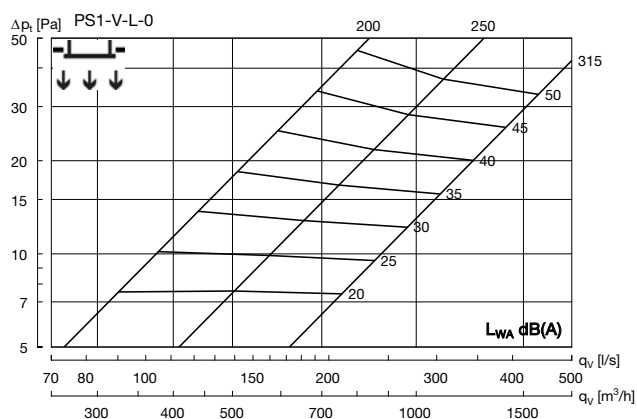


PS1-V without MBB

Supply air



Low-impulse



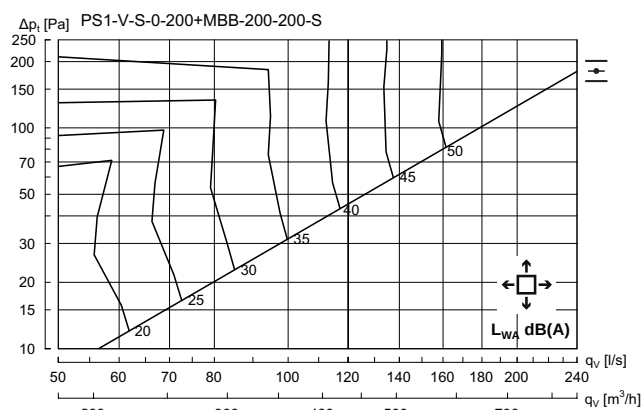
Concerning low impulse, go to planning guide in chapter 12 "Low impulse"

Versio

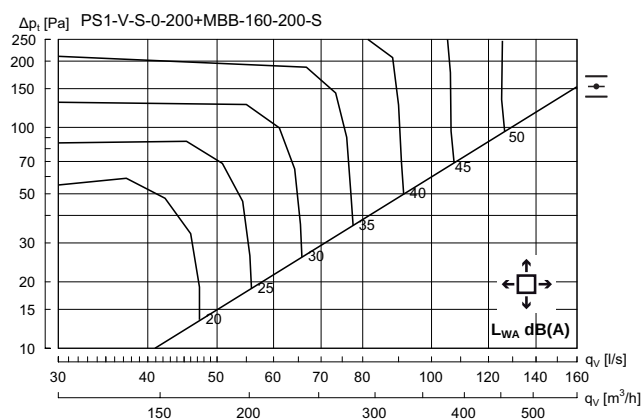
PS1

Technical data

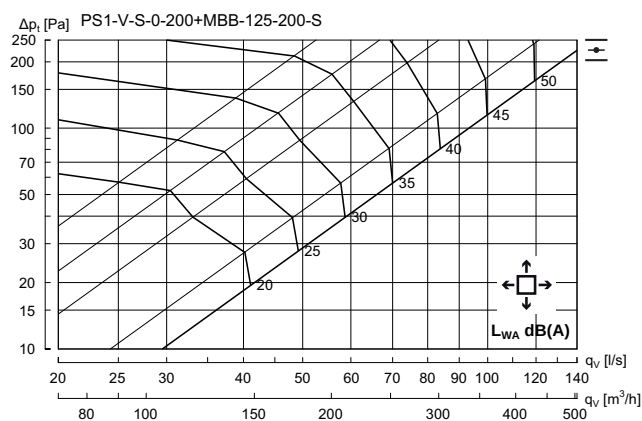
PS1-V 200 + MBB - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	0	-6	0	-4	-17	-25	-32

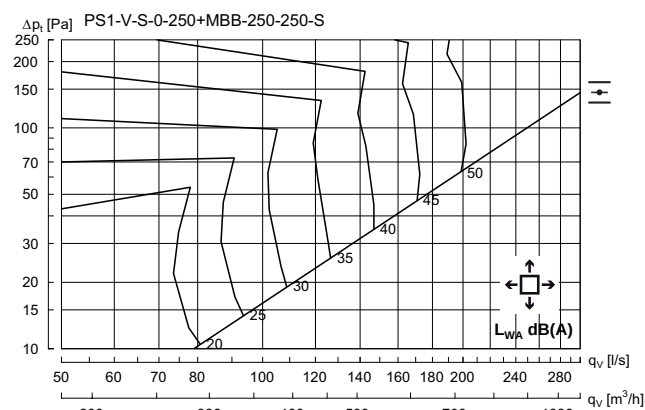


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	3	-3	-1	-4	-14	-21	-27

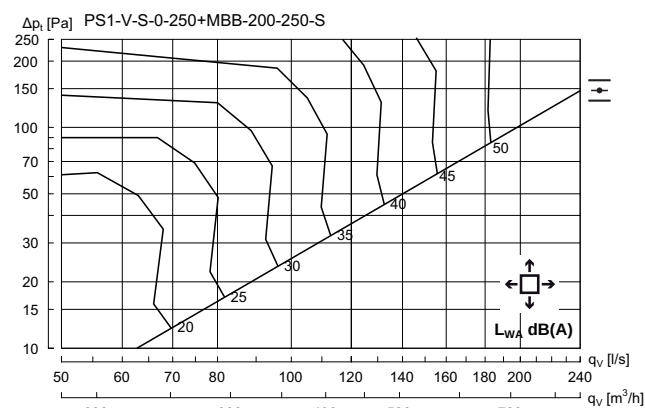


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	5	1	-2	-6	-10	-15	-22

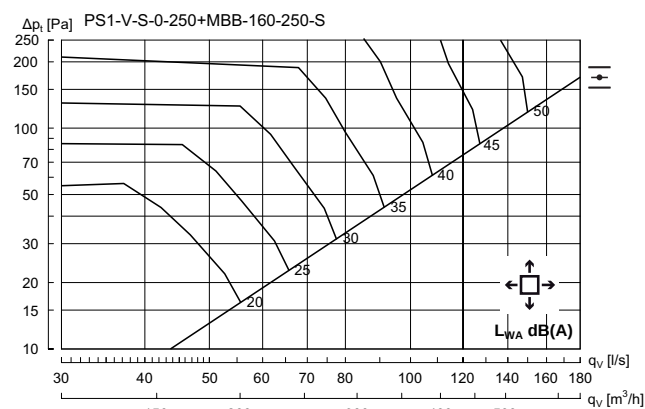
PS1-V 250 + MBB - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	-1	-6	0	-4	-18	-25	-33



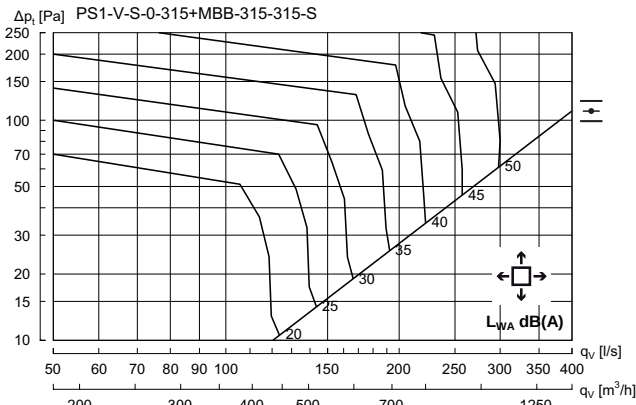
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	4	-4	-1	-4	-15	-22	-28



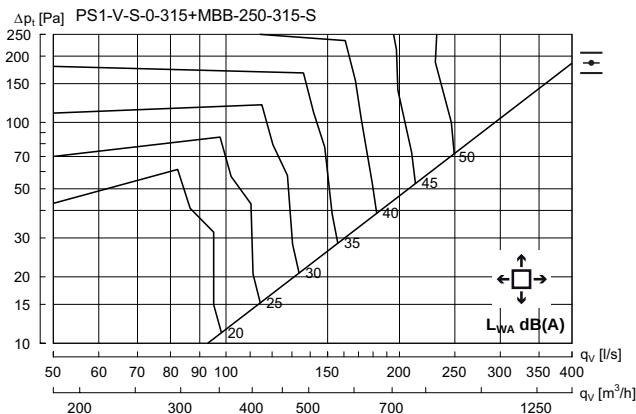
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	3	-1	-3	-4	-12	-19	-24

Technical data

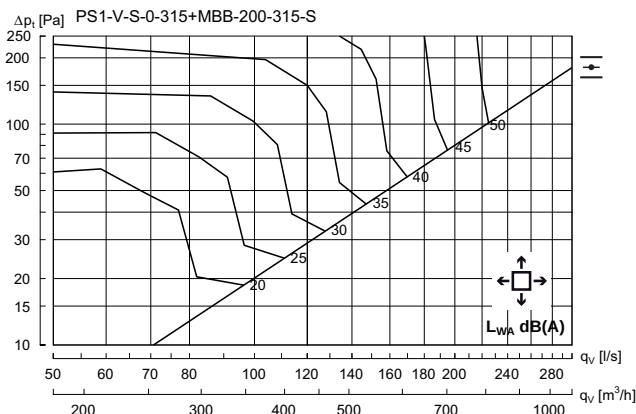
PS1-V 315 + MBB - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	12	0	-3	-1	-4	-16	-22	-28



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	9	4	-3	-1	-4	-15	-22	-28



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	10	5	-1	-2	-4	-12	-19	-25

Low-impulse correction,
sound power level (L_{WA})
and pressure loss (Δp_t)

On the previous pages you can find diagrams for all sizes PS1-V+MBB supply air. When low-impulse values are wanted, use the correction factors in the table below.

PS1-V + MBB

PS1-V + MBB		Low-impulse	
duct	PS1-V	Correction factor	
$\varnothing d_1$	$\varnothing d_2$	L_{WA}	Δp_t
125	200	-1	x 1
160	200	-2	x 0,9
160	250	0	x 1
200	200	-3	x 0,9
200	250	0	x 1
200	315	0	x 1
250	250	0	x 1
250	315	0	x 1
315	315	0	x 1

Concerning low impulse, go to planning guide in chapter 12 "Low impulse"

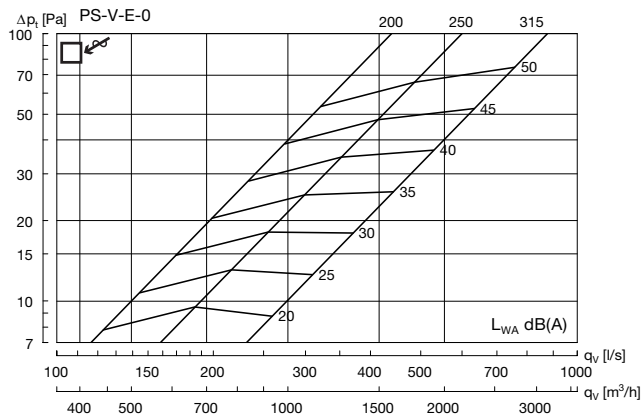
Versio

PS1

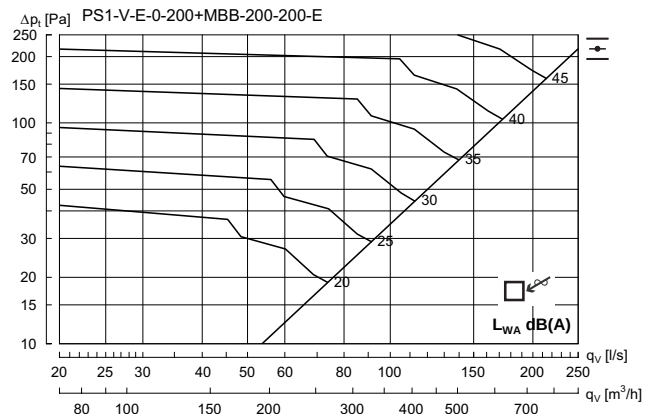
Technical data

PS1-V without MBB

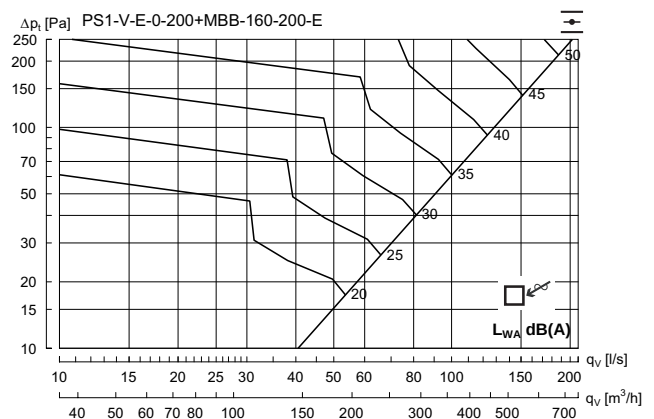
Exhaust air



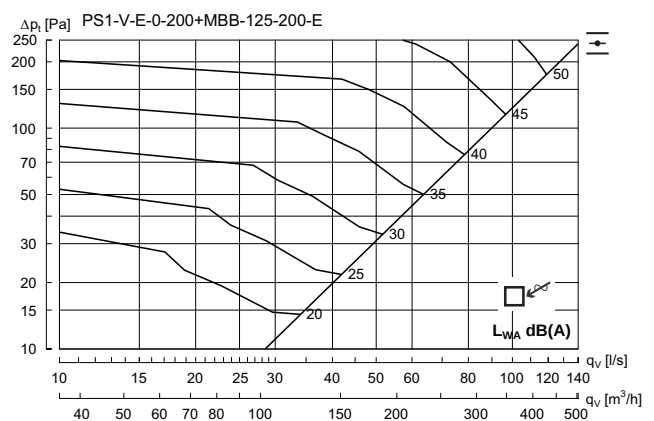
PS1-V 200 + MBB - Exhaust air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	5	1	-3	-6	-10	-14	-23



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	16	6	0	-3	-7	-9	-15	-21



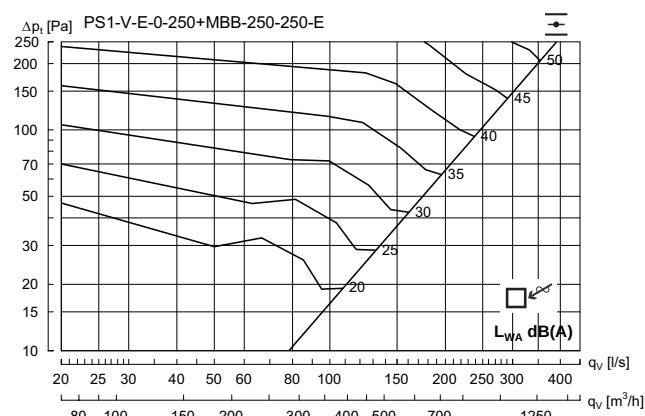
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	2	-2	-6	-10	-15	-22

Versio

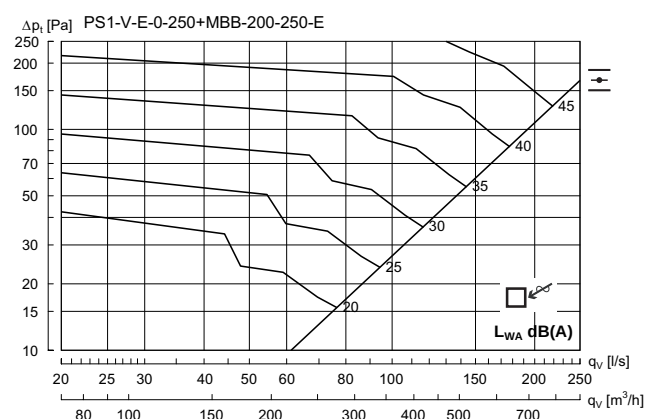
PS1

Technical data

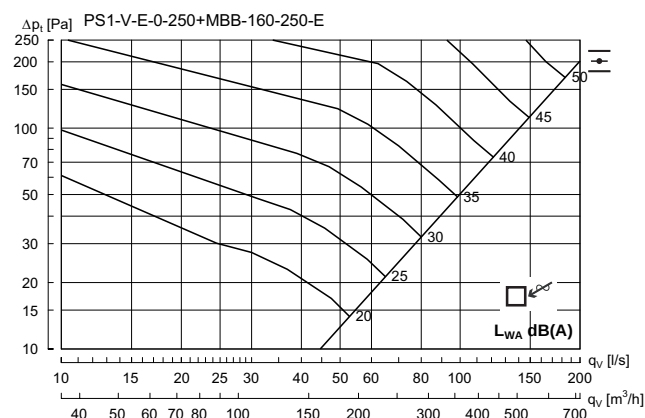
PS1-V 250 + MBB - Exhaust air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	6	2	-3	-6	-10	-15	-23

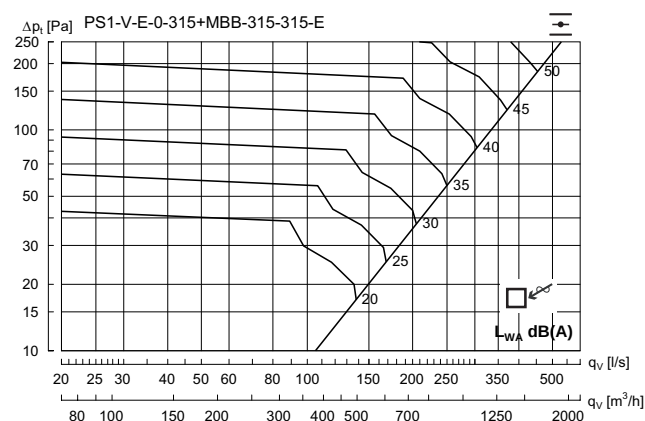


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	14	5	1	-3	-5	-10	-15	-22

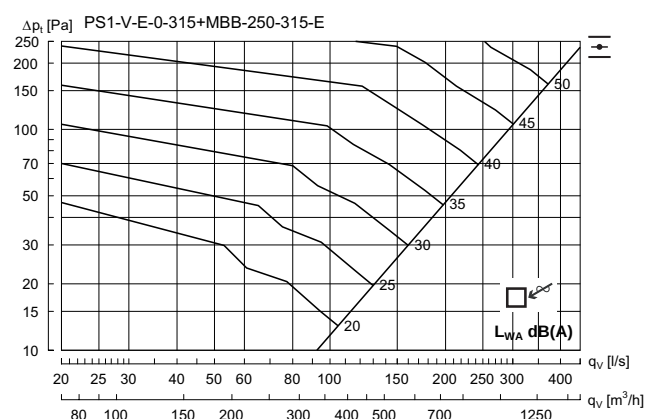


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	6	0	-3	-6	-9	-14	-21

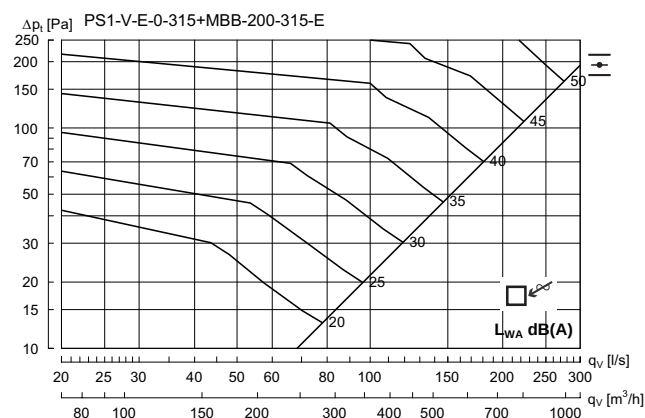
PS1-V 315 + MBB - Exhaust air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	5	3	-3	-7	-10	-15	-26



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	5	2	-3	-6	-11	-16	-23



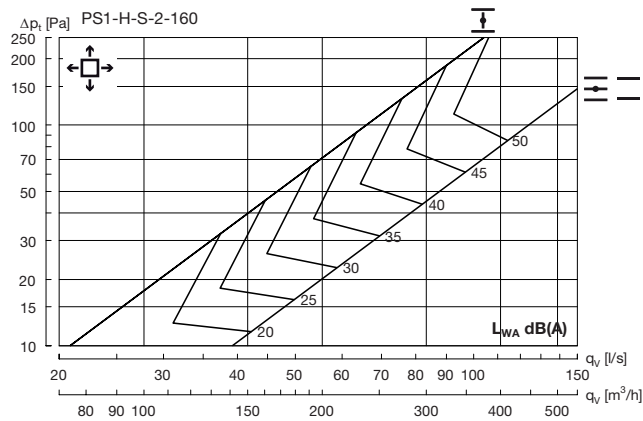
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	5	1	-3	-6	-10	-14	-22

Versio

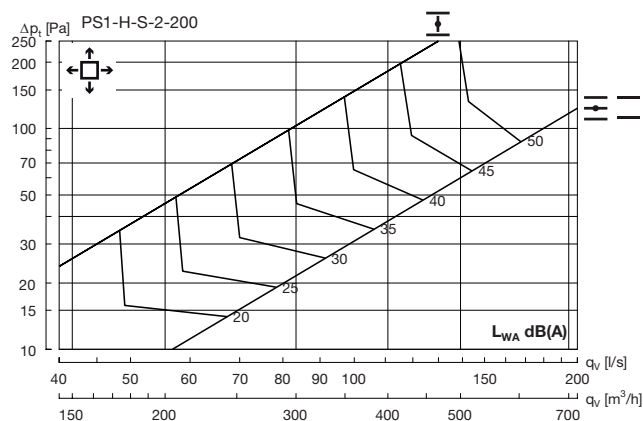
PS1

Technical data

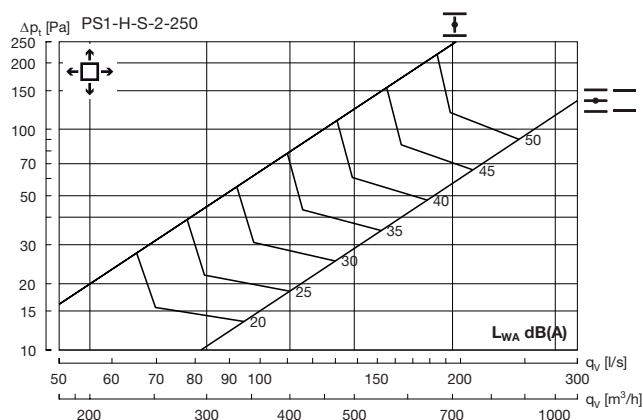
PS1+H - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	4	3	-3	-6	-11	-15	-14

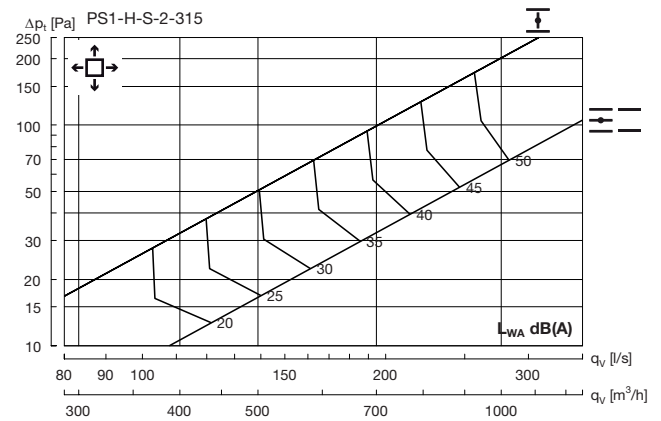


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	5	5	1	-1	-7	-12	-12	-18



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	5	2	-1	-7	-14	-18	-19

PS1+H - Supply air



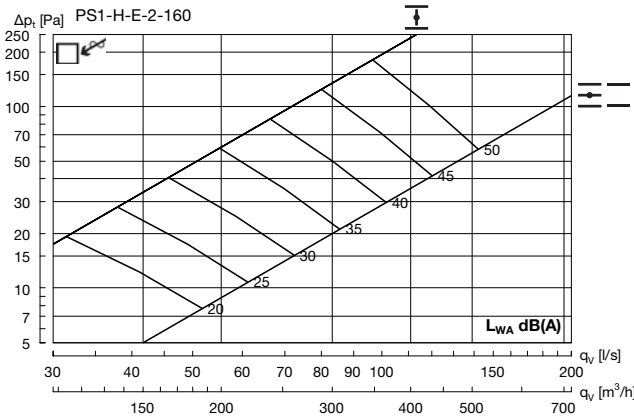
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	4	0	-1	-6	-13	-17	-27

Versio

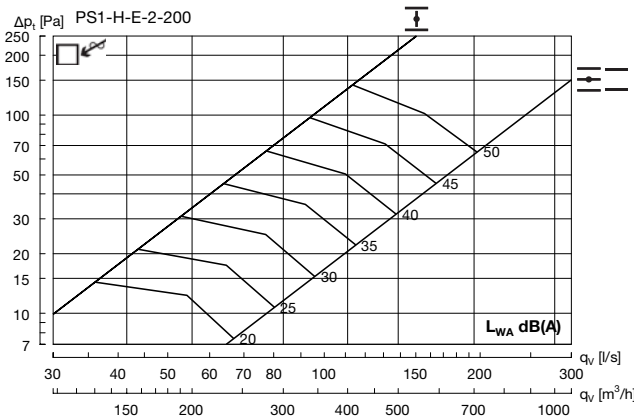
PS1

Technical data

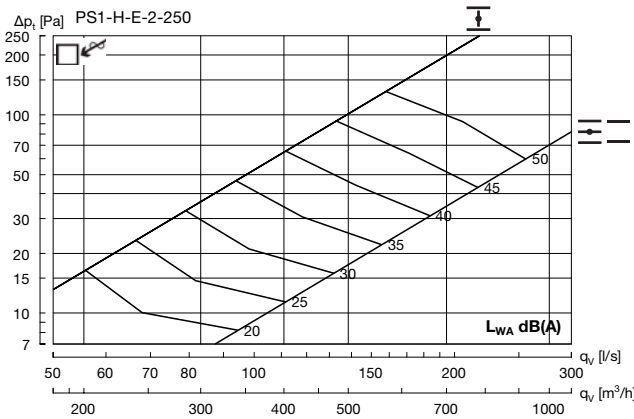
PS1+H - Exhaust air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	6	-3	-11	-12	-19	-25

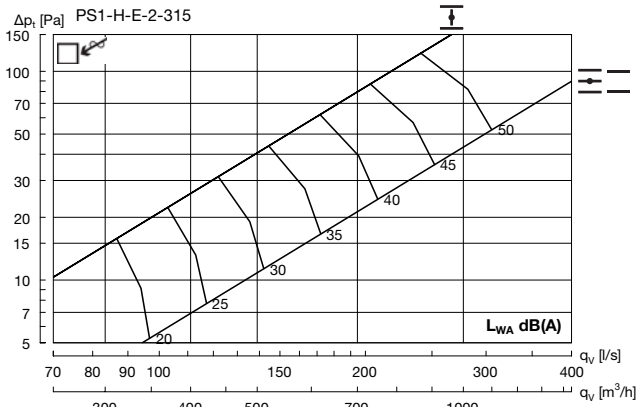


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	5	-2	-9	-13	-21	-29



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	5	2	-2	-6	-12	-22	-32

PS1+H - Exhaust air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	3	1	1	-8	-16	-26	-37