

Versio

PS1



PS1 with grille box type V

Description

PS1 is a square perforated diffuser. PS1 can be used for both supply and extract 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 extract air
- The possibility of 1-2-3-way dispersal
- Can be used for low impulse
- Plenum box with several damper options

Order code

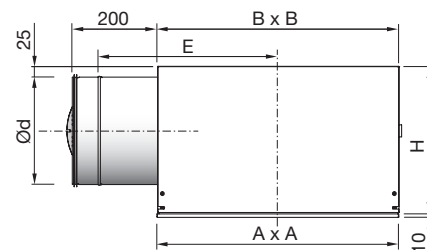
Product	PS	a	b	c	d	eee	f
Type	PS						
Design	1 - 2 - 3 - 4						
Box type	V - H - R						
Functional use	S = Supply air E = Extract L = Low-impulse			Box type R			
Damper	0 = No damper 1 = Damper 2 = Damper / Meas.outlets	(Box		: H, V) : H, R) : H)			
Connection dim.	Ø200-315 Ø160-315 200x100 - 500x100	(Box		: V) : H) : 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	Ød	Pattern	A mm	B mm	H mm	E mm	m 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 colours: RAL 9003 and RAL 9010, gloss 30

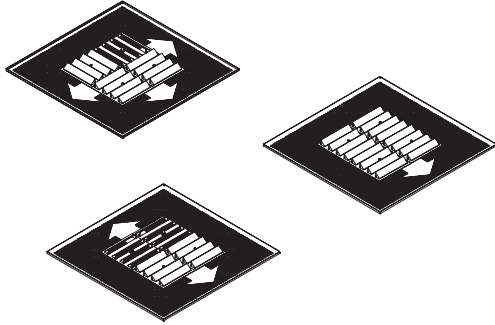
The diffuser is available in other colours. Please contact Lindab's sales department for further information.

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Accessories

Blending profiles (set)



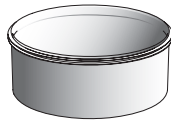
MDR

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



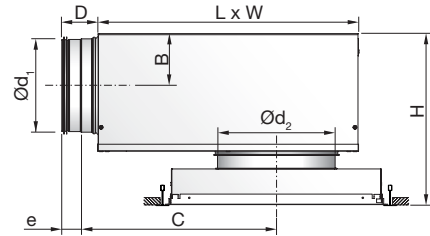
MHS

Order code

Product
 Type aaa

Example: MHS

PS1-V + MB plenum box



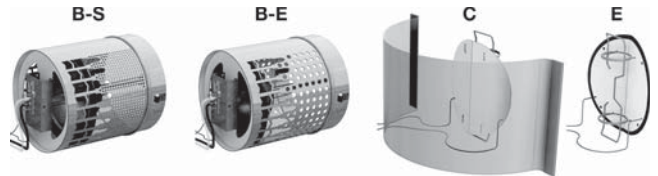
Ød ₁ mm	Ød ₂ mm	Pattern	B	C	D	e	H*	L	W
125	200	400	75	291	78	40	280 - 320	376	310
160	200	400	92	352	78	40	314 - 354	459	380
160	250	500	92	352	78	40	314 - 354	459	380
200	200	400	112	425	78	40	355 - 395	565	460
200	250	500	112	425	78	40	355 - 395	565	460
200	315	600	112	425	78	40	355 - 395	565	460
250	250	500	137	514	118	60	405 - 445	698	540
250	315	600	137	514	118	60	405 - 445	698	540
315	315	600	170	675	118	60	470 - 510	858	540

* Using accessory MBZ the H dimension will increase:

Ød₂ = 200 mm => H +40 mm

Ød₂ = 250 - 315 mm => H +60 mm

Damper options



Order code

Product MB a bbb ccc d
 Type
 Damper
 B = Linear cone damper
 C = Blade damper supply
 E = Blade damper extract
 Duct connection Ød₁
 Ø125-315
 Diffuser dimension Ød₂
 Ø200-315
 Function (Only for B damper)
 S = Supply air E = Extract

Example 1: PS-1-V-S-0-200-1+MBB-160-200-S

Example 2: PS-1-V-S-0-200-1+MBC-160-200

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Technical data

Following PS1-V+plenum box data are valid for MBB-S/-E.
For MBC and MBE data, go to www.lindQST.com.

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 power level

The sound power 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-S

PS1-V + MBB-S		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
duct $\varnothing d_1$	PS1-V $\varnothing d_2$	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 Size $\varnothing d$ mm	Minimum		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
	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-S/-E

PS1-V + MBB-S/-E		Centre frequency Hz							
duct $\varnothing d_1$	PS1-V $\varnothing d_2$	63	125	250	500	1K	2K	4K	8K
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 Size $\varnothing d$ mm	Centre frequency Hz							
	63	125	250	500	1K	2K	4K	8K
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.lindQST.com and installation -and balancing instruction.

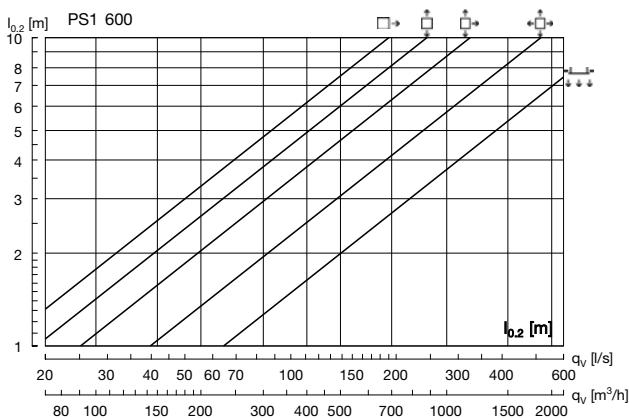
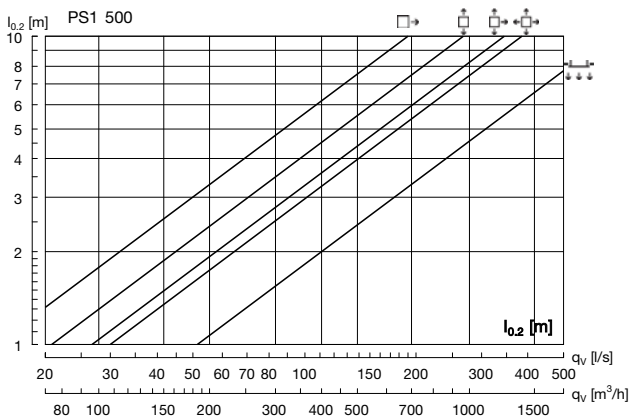
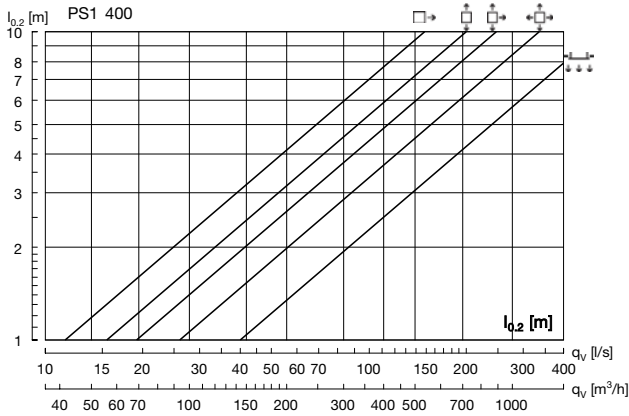
Versio

PS1

Technical data

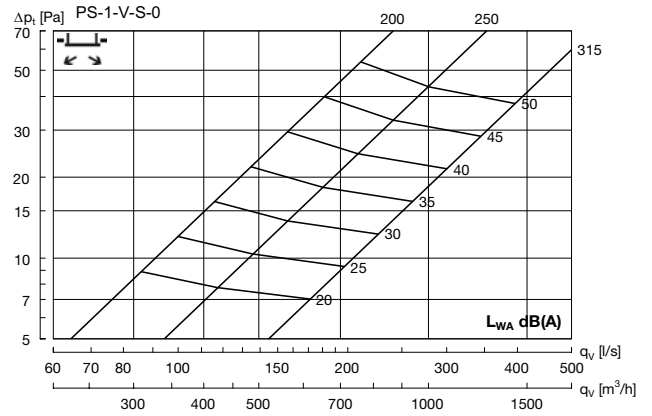
Throw $l_{0.2}$

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

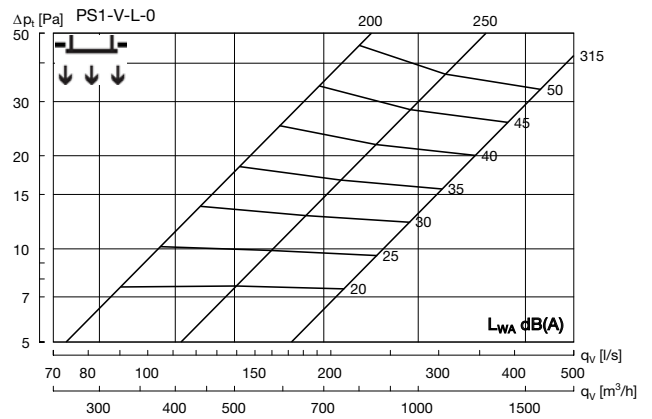


PS1-V without plenum box

Supply air



Low-impulse



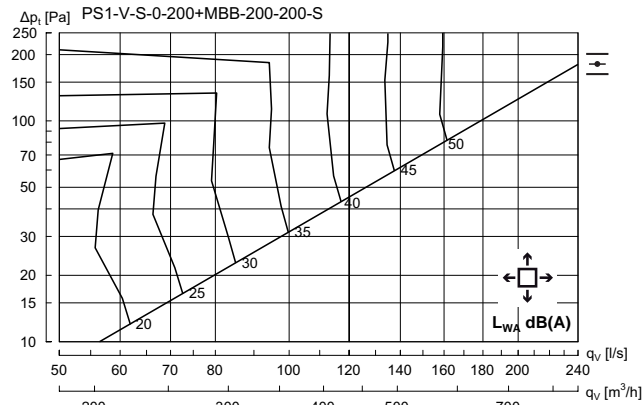
Regarding PS1 as low impulse, see theory section under "low impulse luminaires".
Available at www.lindqst.com

Versio

PS1

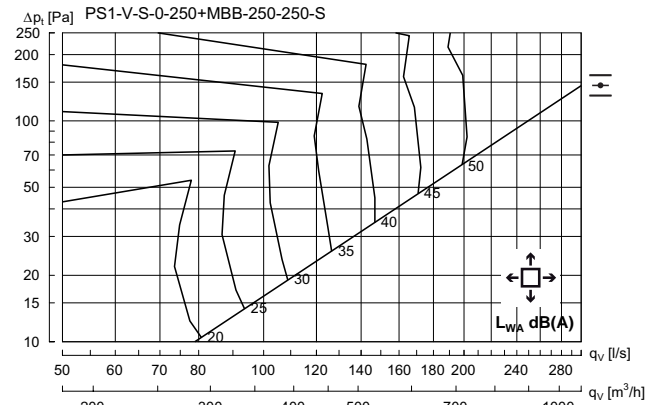
Technical data

PS1-V 200 + MBB-S - Supply air

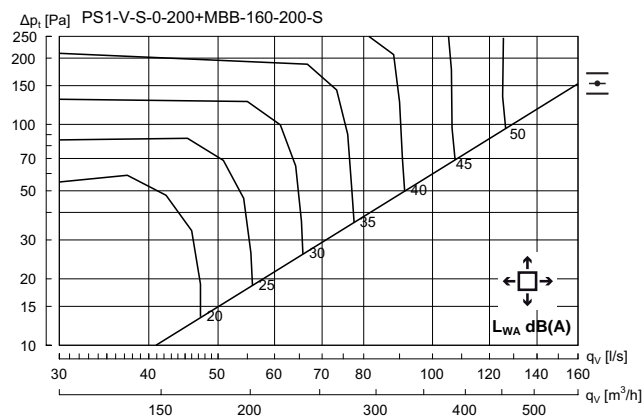


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	0	-6	0	-4	-17	-25	-32

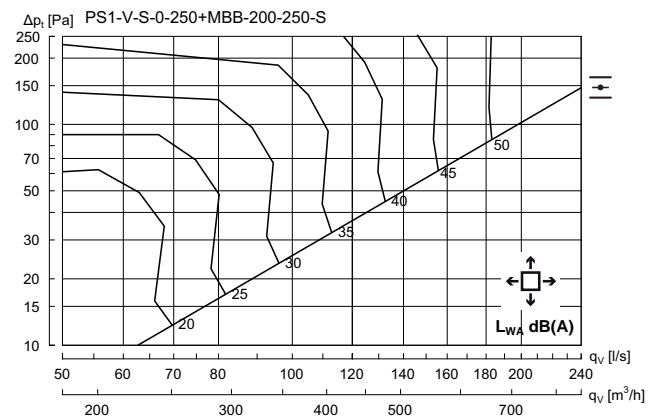
PS1-V 250 + MBB-S - Supply air



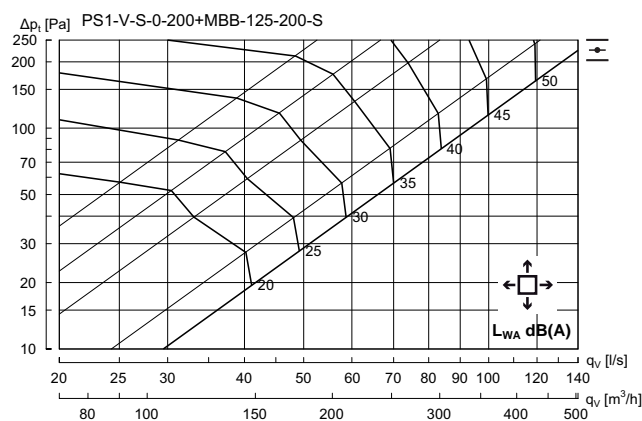
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	-1	-6	0	-4	-18	-25	-33



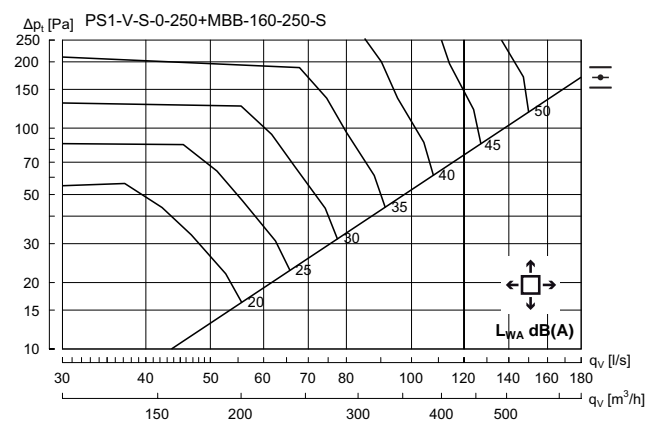
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	3	-3	-1	-4	-14	-21	-27



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}	9	5	1	-2	-6	-10	-15	-22



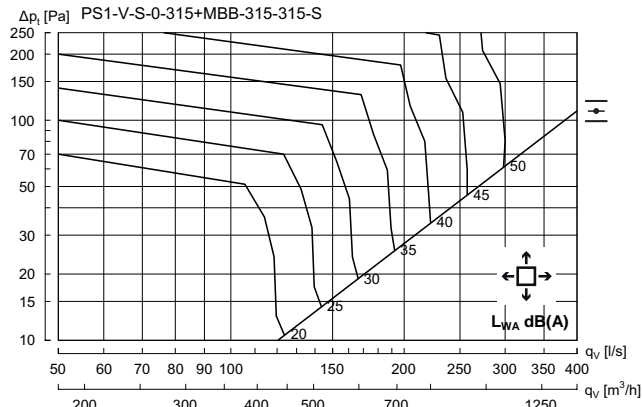
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	15	3	-1	-3	-4	-12	-19	-24

Versio

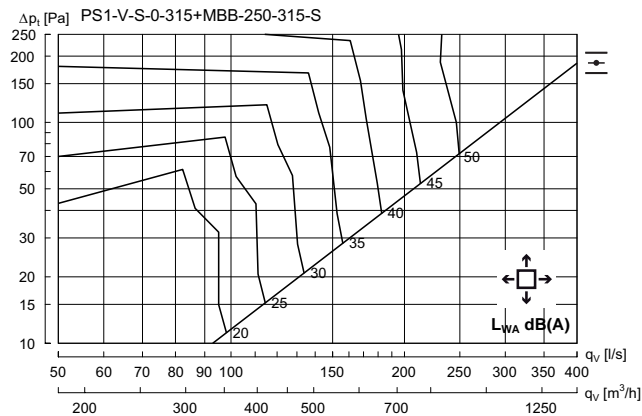
PS1

Technical data

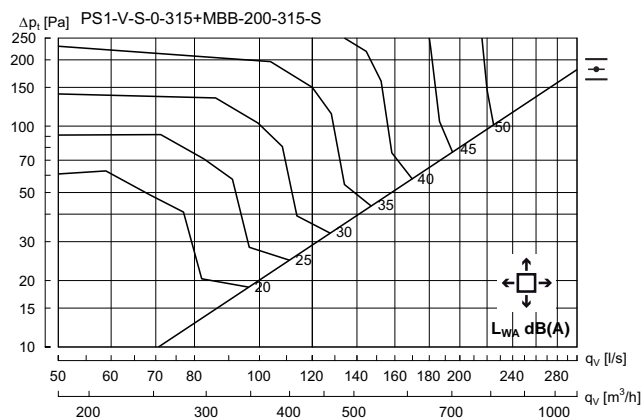
PS1-V 315 + MBB-S - Supply air



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



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



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	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-S supply air. When low-impulse values are wanted, use the correction factors in the table below.

PS1-V + MBB-S

PS1-V + MBB-S		Low-impulse Correction factor	
duct $\varnothing d_1$	PS1-V $\varnothing d_2$	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

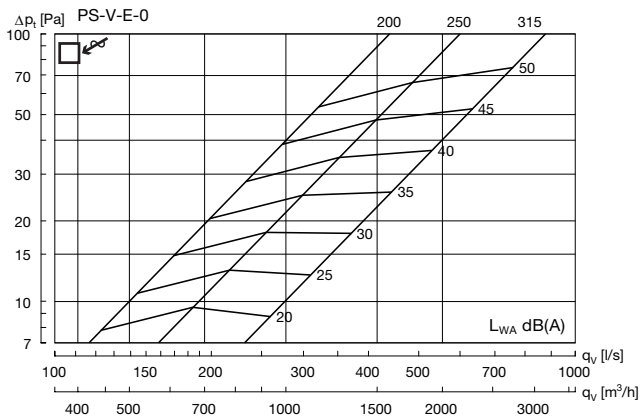
Regarding PS1 as low impulse, see theory section under "low impulse luminaires". Available at www.lindqst.com

Versio

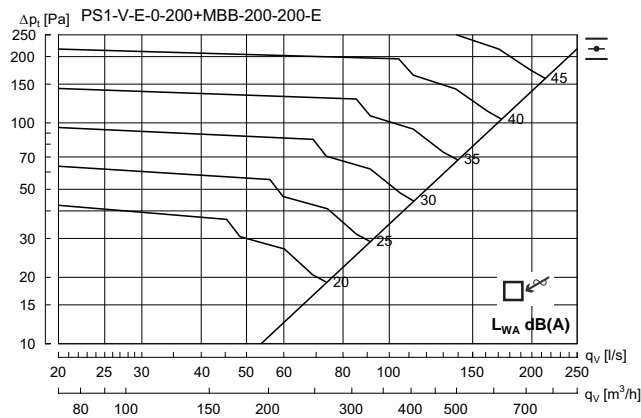
PS1

Technical data

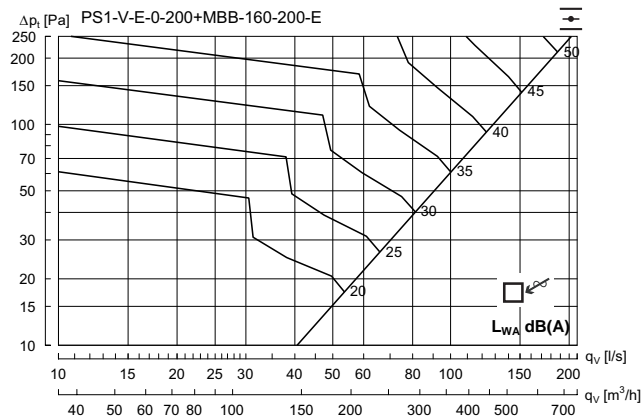
PS1-V without plenum box



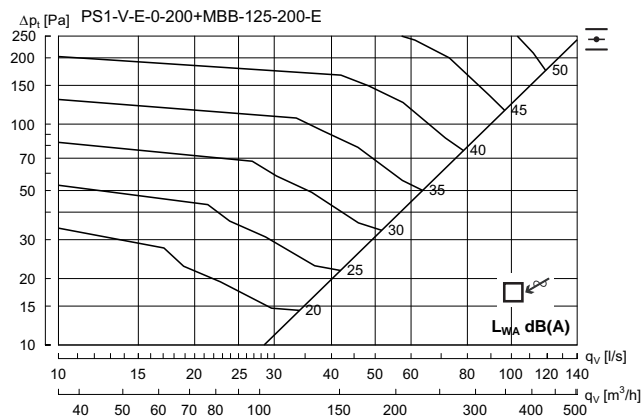
PS1-V 200 + MBB-E - Extract air



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



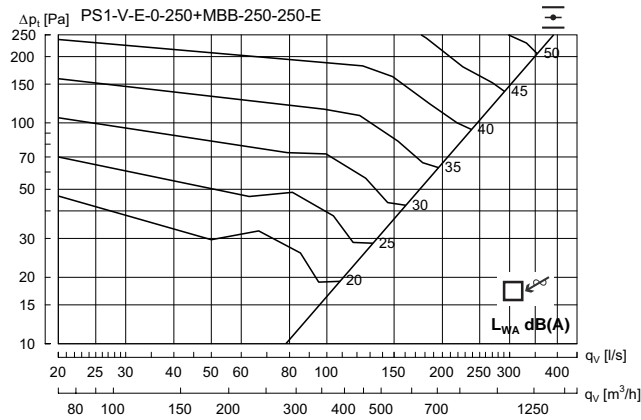
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	2	-2	-6	-10	-15	-22

Versio

PS1

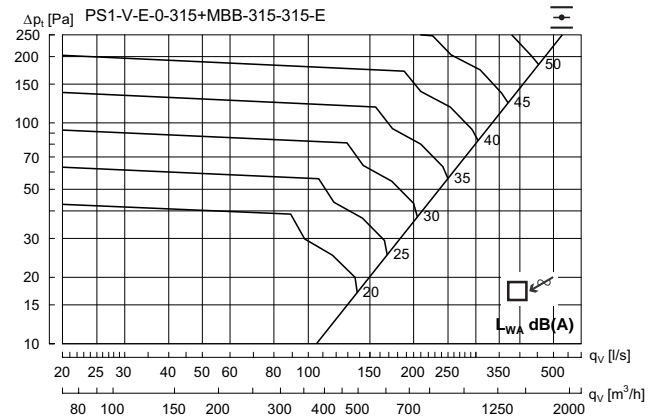
Technical data

PS1-V 250 + MBB-E - Extract air

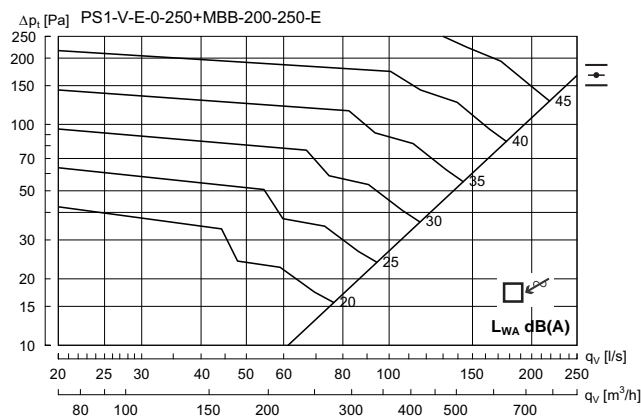


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	6	2	-3	-6	-10	-15	-23

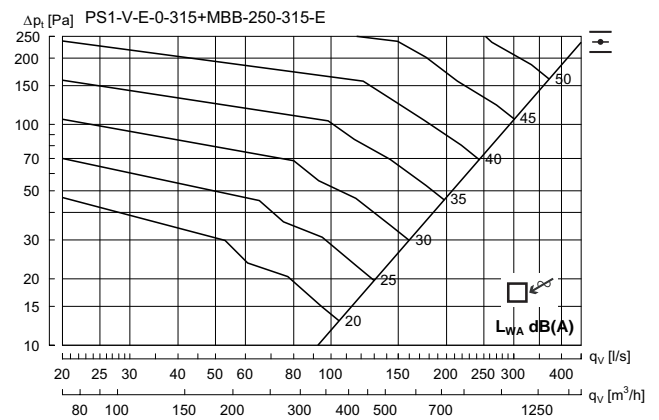
PS1-V 315 + MBB-E - Extract air



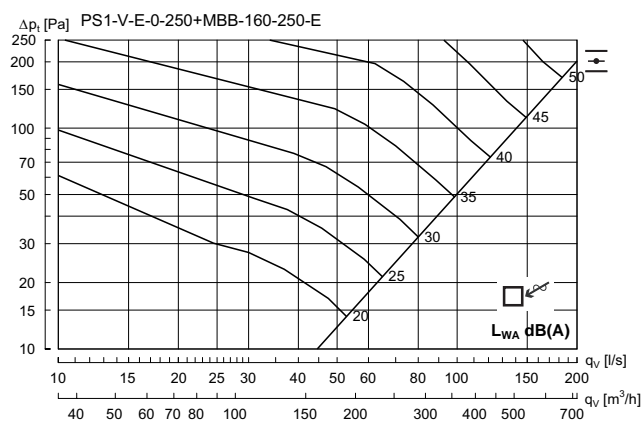
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	5	3	-3	-7	-10	-15	-26



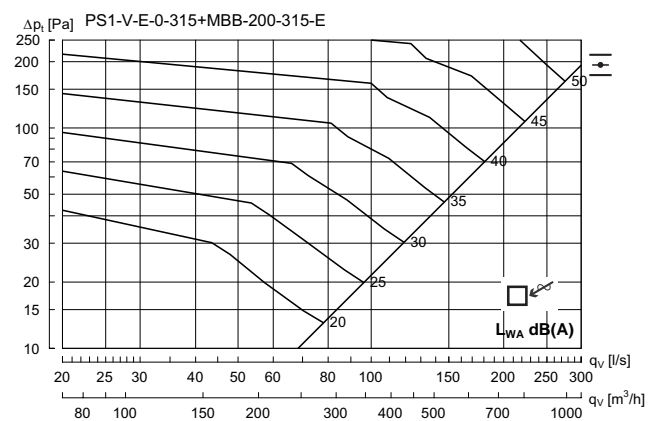
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	14	5	1	-3	-5	-10	-15	-22



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}	15	6	0	-3	-6	-9	-14	-21



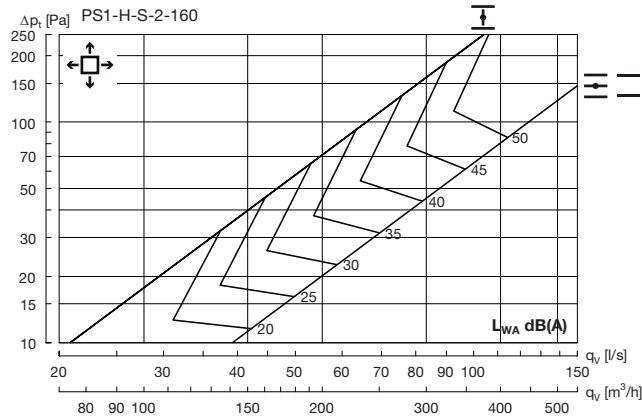
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	5	1	-3	-6	-10	-14	-22

Versio

PS1

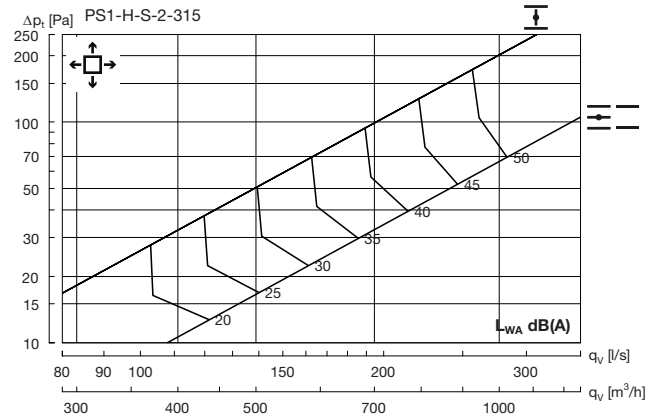
Technical data

PS1+H - Supply air

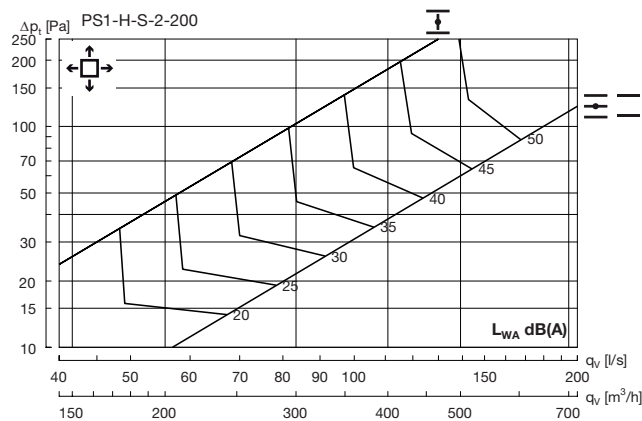


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	4	3	-3	-6	-11	-15	-14

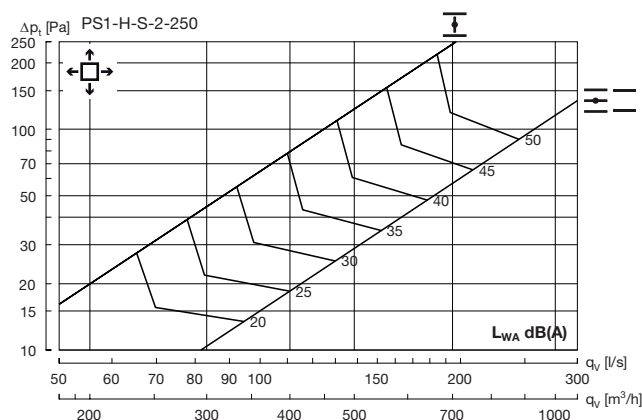
PS1+H - Supply air



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



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



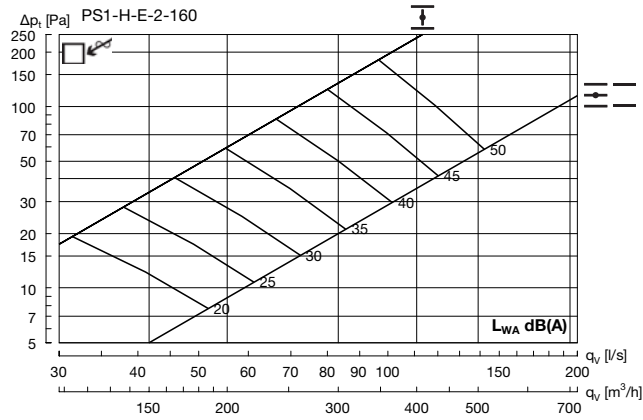
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	5	2	-1	-7	-14	-18	-19

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PS1

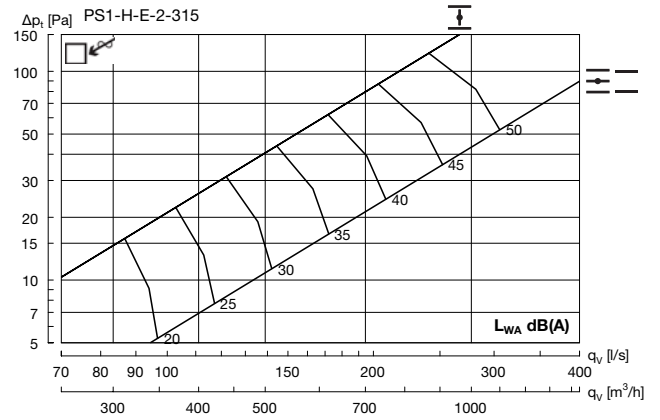
Technical data

PS1+H - Extract air

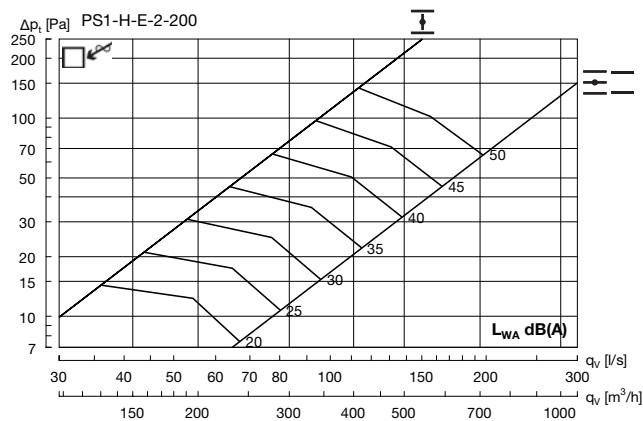


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	6	-3	-11	-12	-19	-25

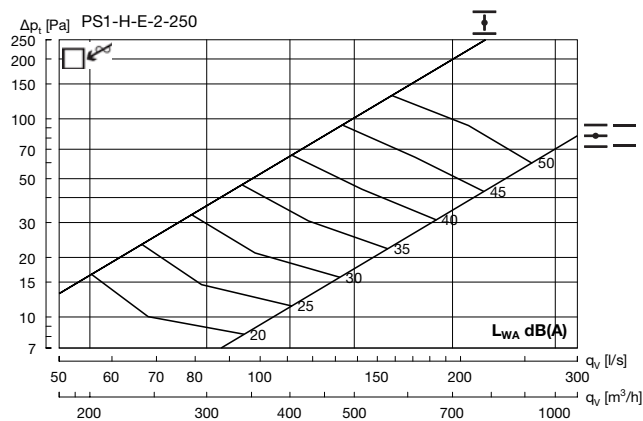
PS1+H - Extract air



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



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