

Lindab **RS14**

Versio - Ceiling diffusers



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RS14



RS14 with grille box type V

Description

RS14 is a square swirl diffuser with fixed bars. RS14 can be used for both supply and extract air. The swirl pattern ensures high induction and a large dynamic range. It is therefore ideal for the horizontal supply of very cold air.

- Large dynamic range
- High induction
- Suitable for cooling at very low temperatures
- Can be used for both supply and extract air
- Plenum box with several damper options

Order code

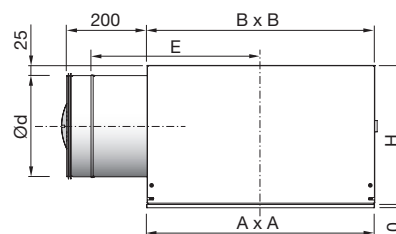
Product	RS	14	b	c	d	eee	f
Type	RS						
Design	14						
Box type	V - H - R						
Functional use	S = Supply air E = Extract						
Damper	0 = No damper (Box : H, V) 1 = Damper (Box : H, R) 2 = Damper / Meas.outlets (Box : H)						
Connection dim.	Ø160-315 (Box : V) Ø125-315 (Box : H) 200x100 - 500x100 (Box : R)						
Ceiling system	1 - 14	Go to chapter Ceiling tile adaption					

Example: RS-14-V-S-0-200-1



RS14 with plenum box type H

Dimensions



RS14-H		A	B	H	E	m
Ød	Pattern	mm	mm	mm	mm	kg
125	400	*-	380	215	350	5.9
160	400	*-	380	250	350	5.9
200	500	*-	460	290	390	8.5
250	600	*-	560	340	420	12.3
315	600	*-	560	405	420	13.1

* Face plate dimension 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.

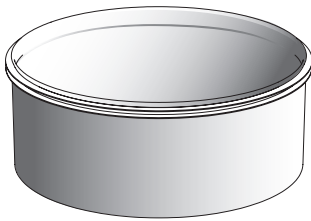
The diffuser is available in other colours. Please contact Lindab's sales department for further information.

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Accessories

MBZ - Extension piece



Order code

Product MBZ aaa
 Type
 Size

Example: MBZ-200

PBB - Mounting bracket



MHS - Suspension

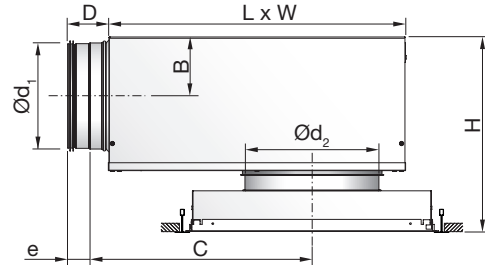


Order code

Product aaa
 Type

Example: MHS

RS14-V + MB plenum box

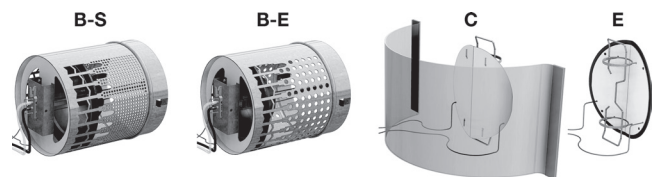


Ød ₁ mm	Ød ₂	Pattern	B	C	D	e	H*	L	W
100	160	400	62	245	78	40	255 - 295	310	260
125	160	400	75	291	78	40	280 - 320	376	310
125	200	400	75	291	78	40	280 - 320	376	310
160	160	400	92	352	78	40	314 - 354	459	380
160	200	400	92	352	78	40	314 - 354	459	380
160	250	500	92	352	78	40	314 - 354	459	380
200	200	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 = 160 - 200 mm => H +40 mmØd₂ = 250 - 315 mm => H +60 mm

Damper options



Order code

Product MB a bbb ccc d
 Type MB
 Damper
 B = Linear cone damper
 C = Blade damper supply
 E = Blade damper extract
 Duct connection Ød₁
 Ø100-315
 Diffuser dimension Ød₂
 Ø160-315
 Function (Only for B damper)
 S = Supply air E = Extract

Example 1: RS-14-V-S-0-200-1+MBB-160-200-S

Example 2: RS-14-S-0-200-1+MBC-160-200

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Technical data

Following RS14-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

RS14-V + MBB-S

RS14-V + MBB-S		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
duct $\varnothing d_1$	RS14-V $\varnothing d_2$	l/s	m ³ /h	l/s	m ³ /h
100	160	33	119	41	148
125	160	44	158	52	187
125	200	49	176	59	212
160	160	38	137	46	166
160	200	51	184	62	223
160	250	67	241	85	306
200	200	65	234	77	277
200	250	77	277	95	342
200	315	100	360	124	446
250	250	89	320	104	374
250	315	110	396	132	475
315	315	129	464	151	544

Supply air

RS14 + H

RS14 + H		$\Delta p_t \geq 50$ Pa 30 dB(A)		$\Delta p_t \geq 50$ Pa 35 dB(A)	
Size $\varnothing d$ mm	Minimum l/s m ³ /h	l/s	m ³ /h	l/s	m ³ /h
125	26 93	28	101	34	122
160	33 118	53	191	63	227
200	57 204	65	234	80	288
250	71 254	89	320	107	385
315	95 342	-	-	148	533

Sound attenuation

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

RS14-V + MBB-S/-E

RS14-V + MBB-S/-E		Centre frequency Hz							
duct $\varnothing d_1$	RS14-V $\varnothing d_2$	63	125	250	500	1K	2K	4K	8K
100	160	20	16	5	19	20	19	18	21
125	160	16	13	9	20	18	18	19	20
125	200	14	12	6	17	16	16	18	19
160	160	17	16	10	24	20	20	21	21
160	200	15	15	7	22	21	19	20	21
160	250	15	14	5	20	16	16	17	19
200	200	14	11	7	18	21	17	20	18
200	250	13	9	5	17	18	16	18	17
200	315	13	8	3	15	17	15	17	16
250	250	15	8	7	18	18	18	18	19
250	315	15	7	6	16	16	17	17	18
315	315	8	11	8	16	18	17	17	22

RS14 + H

RS14 + H		Centre frequency Hz							
Size $\varnothing d$ mm		63	125	250	500	1K	2K	4K	8K
125		18	13	8	18	14	11	12	14
160		17	13	3	14	13	7	7	8
200		15	10	3	13	9	6	8	10
250		12	9	6	11	8	7	10	12
315		12	7	7	13	8	7	10	12

RS14 + R

RS14 + R		Mean frequency Hz							
Size-2 mm		63	125	250	500	1K	2K	4K	8K
200x100		19	14	9	6	5	3	3	4
300x100		16	11	5	5	6	5	3	4
400x100		13	8	2	3	4	5	4	5
500x100		12	7	2	4	2	5	5	5

Installation -and balancing instruction

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

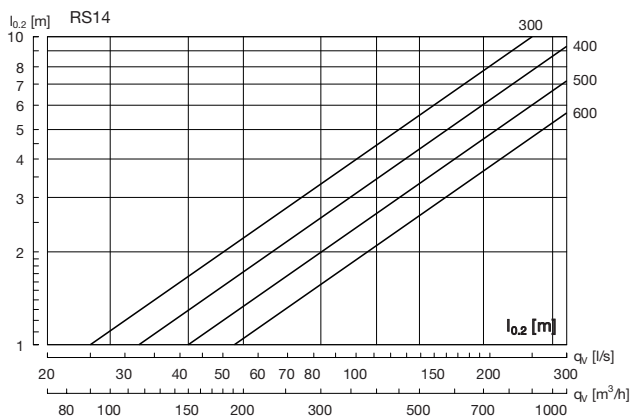
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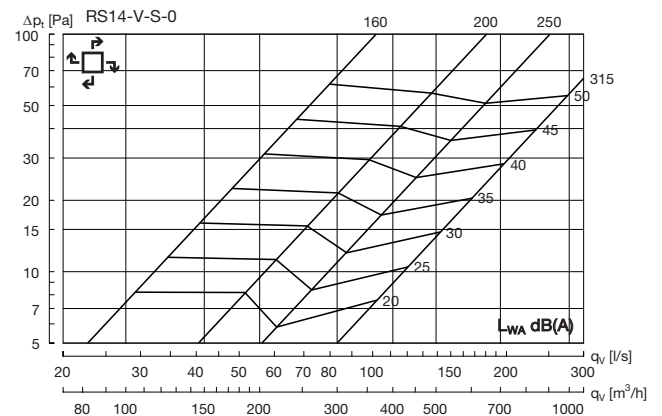
Technical data

Throw $l_{0.2}$

Throw $l_{0.2}$ [m] is specified at a terminal velocity of 0.2 m/s.
The designation by the lines specifies the pattern on the face plate.



RS14-V without plenum box–Supply air

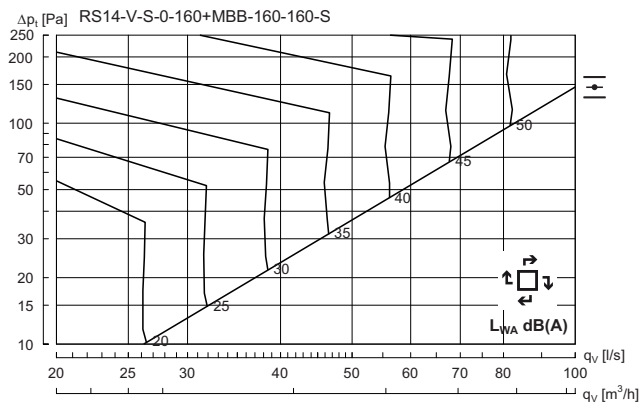


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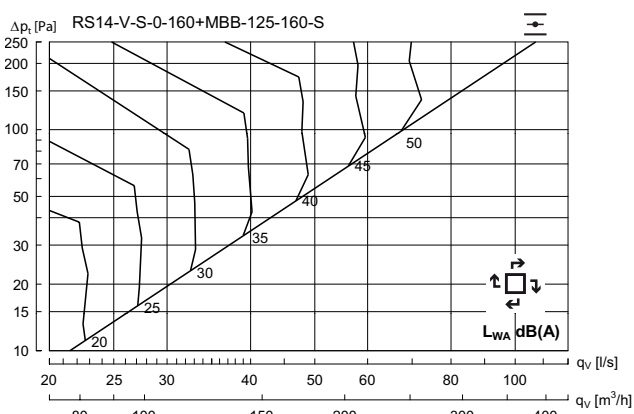
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Technical data

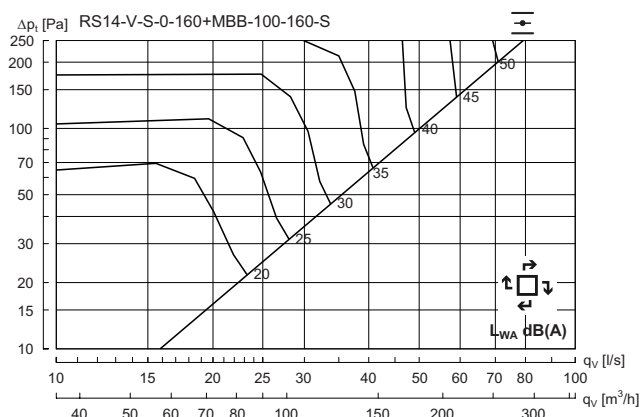
RS14-V 160 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	2	-1	1	-7	-17	-26	-36

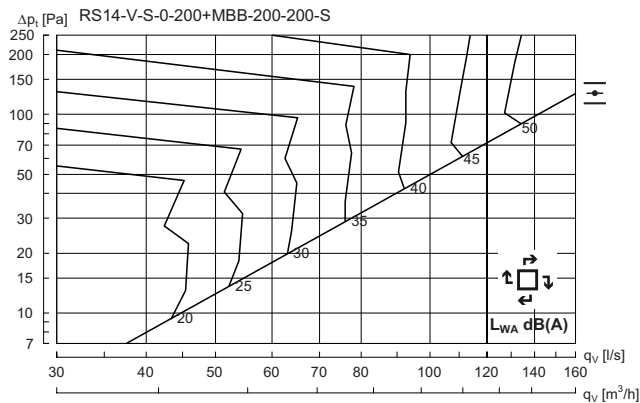


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	-1	1	-7	-17	-24	-29

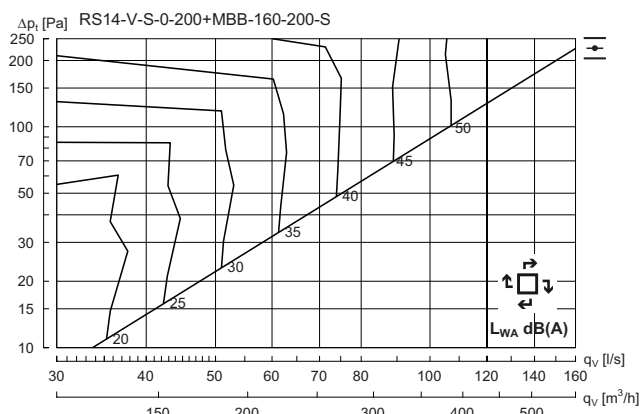


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	2	-1	-7	-13	-18	-22

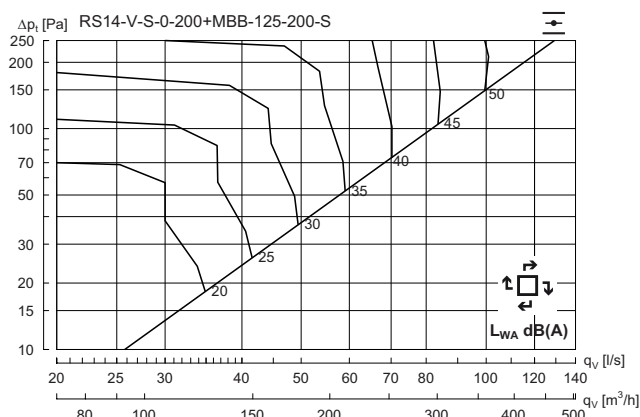
RS14-V 200 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	0	-5	0	-4	-15	-26	-36



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	2	-1	0	-6	-15	-24	-33



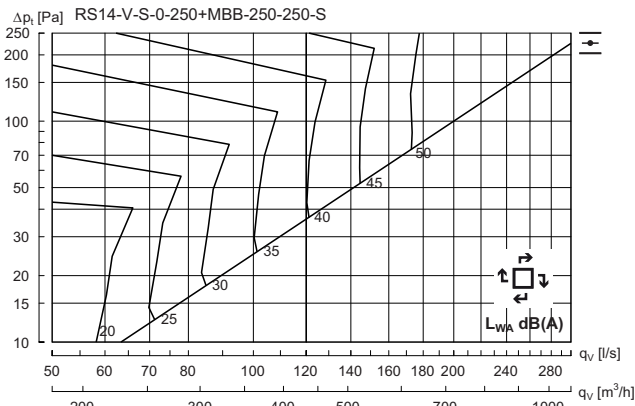
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	5	1	-1	-7	-13	-17	-22

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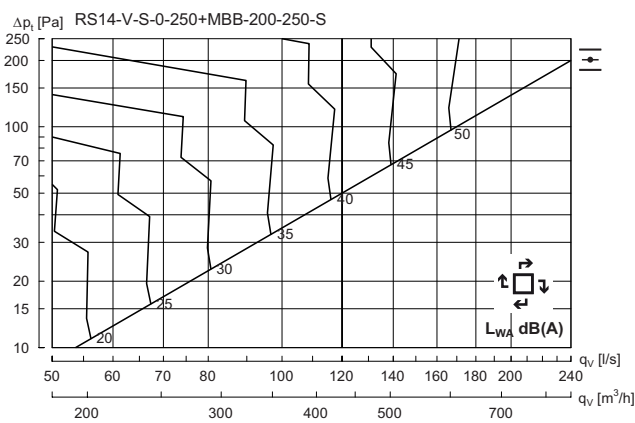
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Technical data

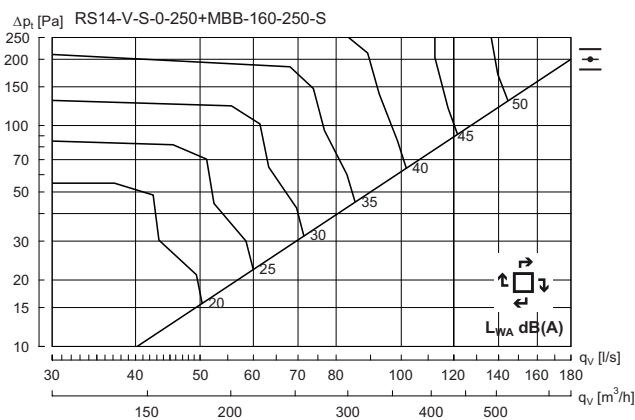
RS14-V 250 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	-1	-6	1	-5	-18	-29	-40

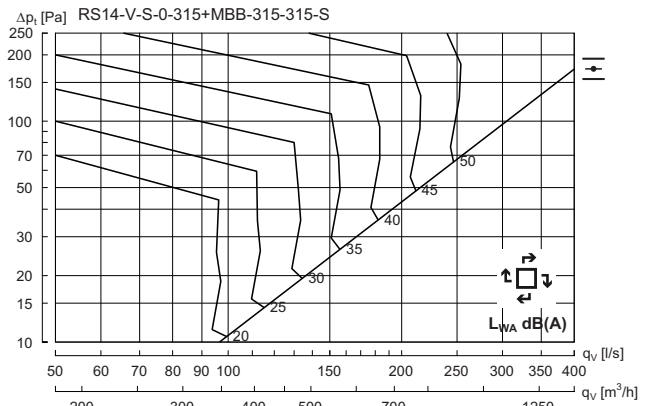


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	2	-3	0	-5	-17	-26	-29

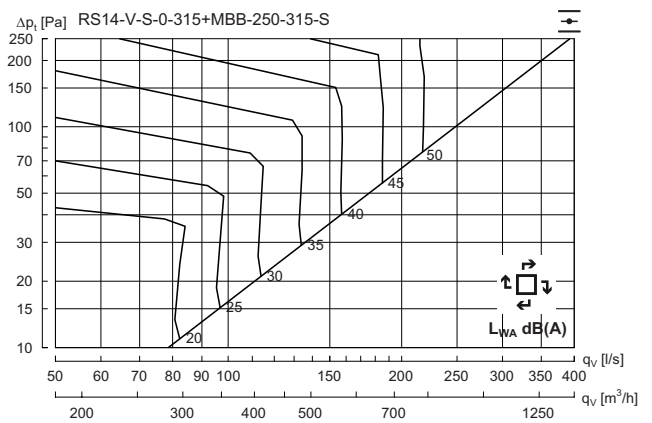


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	5	-1	-1	-5	-14	-20	-26

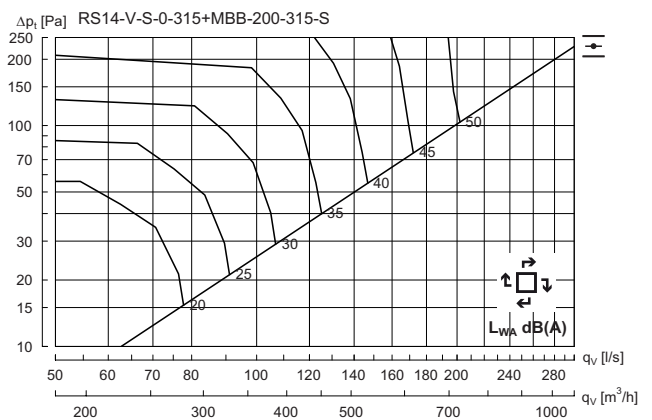
RS14-V 315 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	-1	-3	0	-5	-17	-25	-28



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	2	-3	0	-5	-15	-22	-30



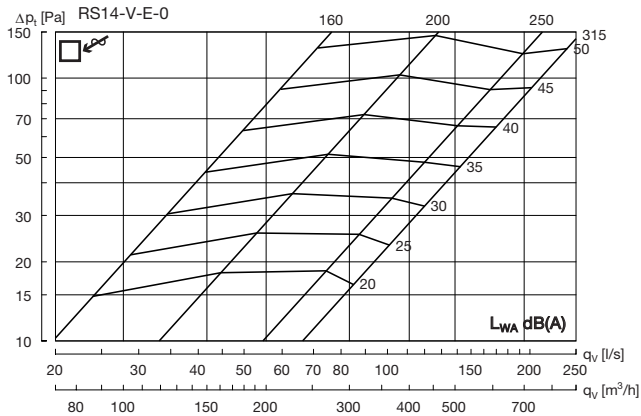
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	4	-1	-1	-6	-14	-19	-25

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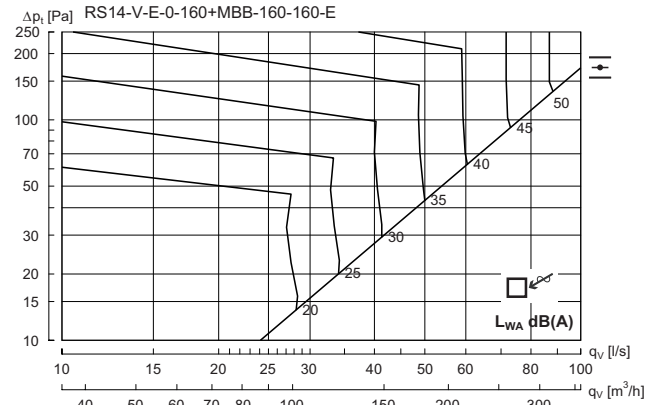
RS14

Technical data

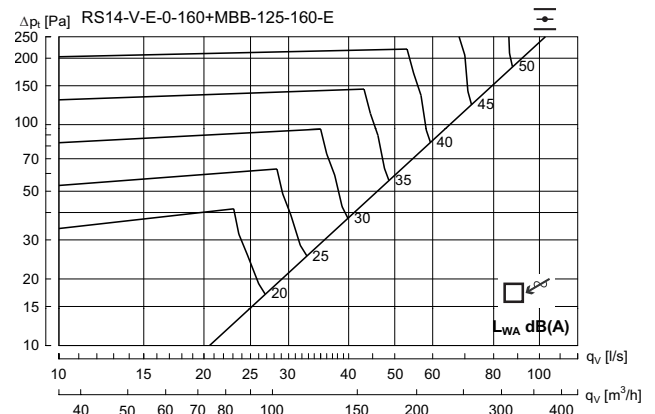
RS14-V without plenum box-Extract air



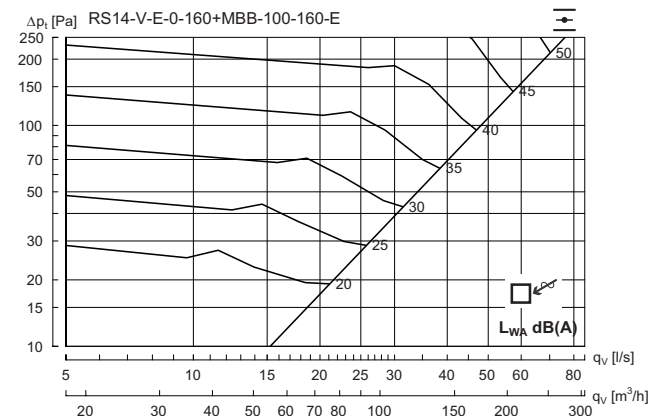
RS14-V 160 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	12	2	-1	-1	-5	-13	-22	-31



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	11	4	-1	-1	-5	-13	-19	-27



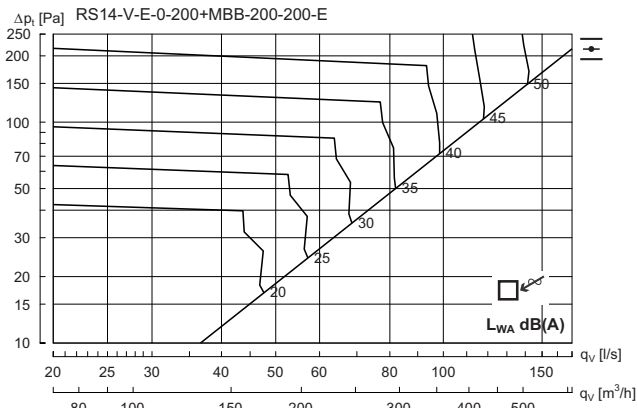
Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	11	4	4	-2	-9	-13	-17	-23

Versio - Ceiling diffusers

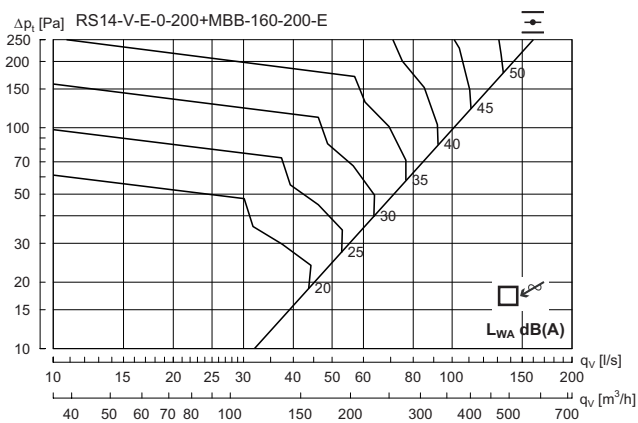
RS14

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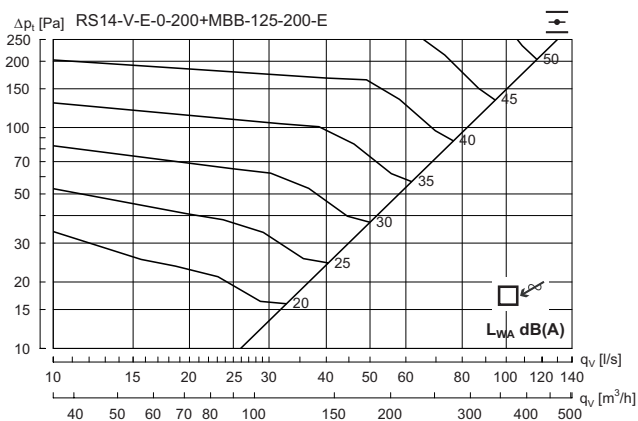
RS14-V 200 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	13	4	-1	-1	-5	-12	-20	-28

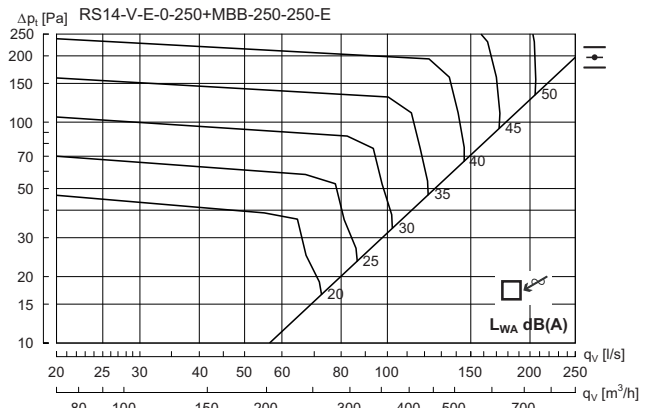


Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	16	6	0	-2	-6	-12	-18	-25

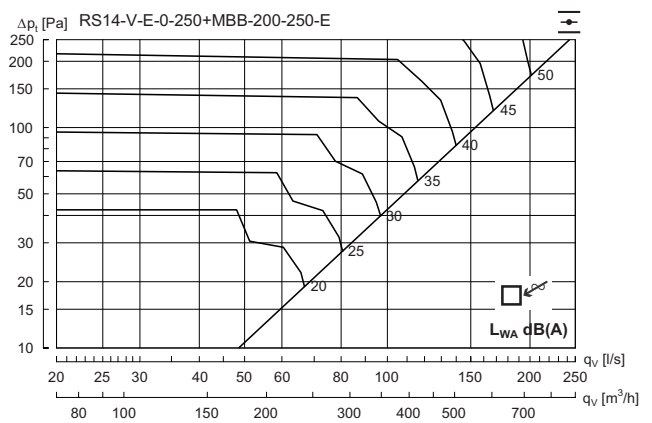


Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	11	4	2	-1	-7	-12	-16	-23

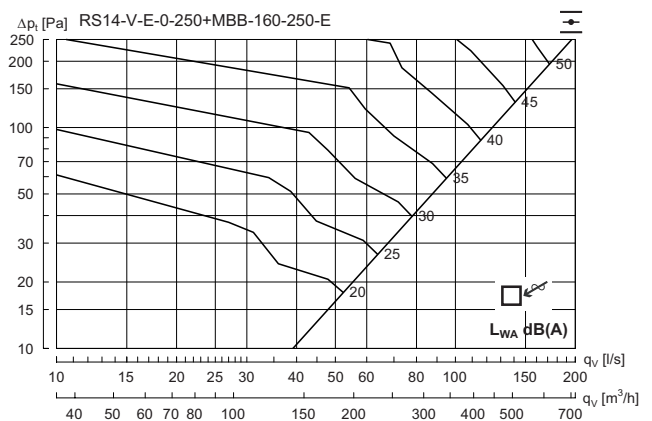
RS14-V 250 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	8	5	0	-1	-5	-11	-20	-28



Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	14	5	1	-2	-5	-11	-19	-26



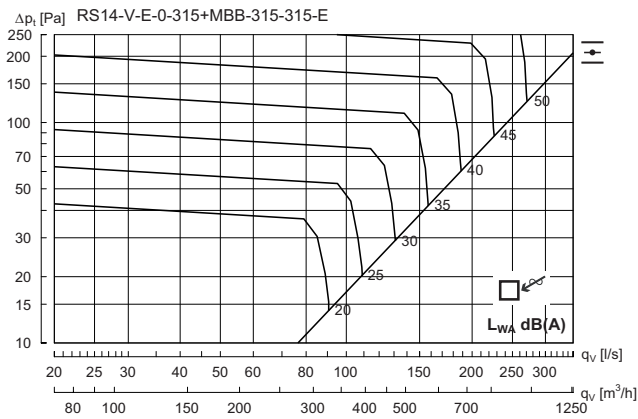
Hz	63	125	250	500	1K	2K	4K	8K
K _{sk}	15	7	1	-2	-7	-11	-17	-22

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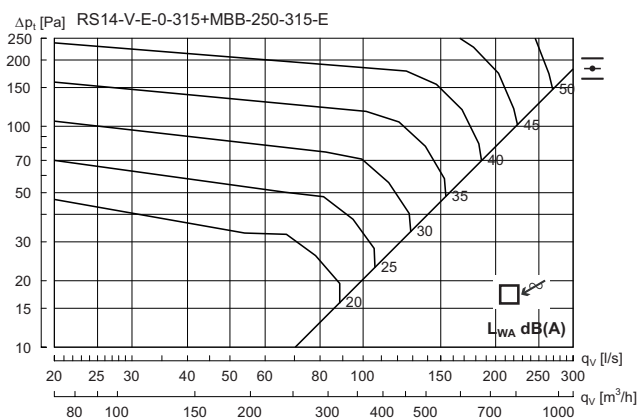
RS14

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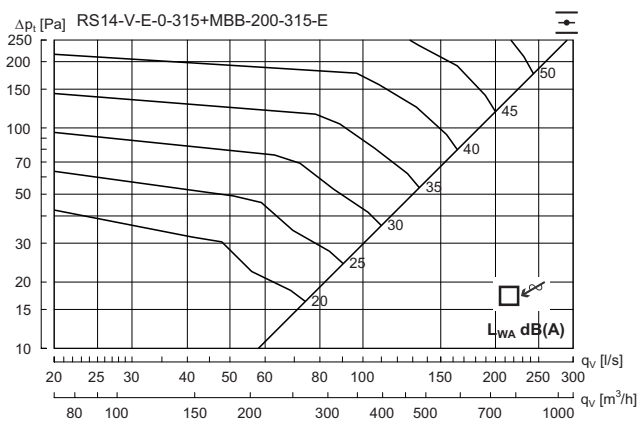
RS14-V 315 + MBB-E - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	11	4	1	-2	-5	-13	-22	-32



Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	10	6	2	-2	-5	-12	-19	-27



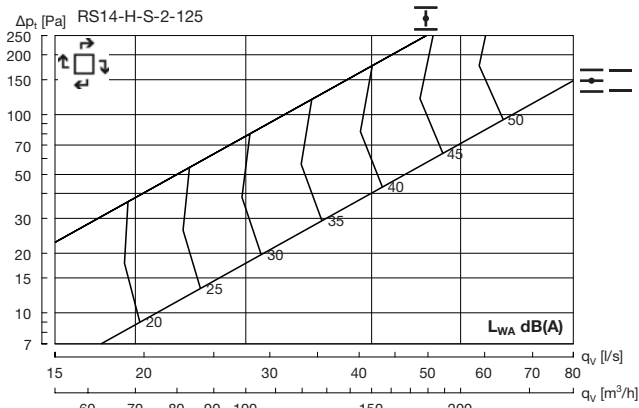
Hz	63	125	250	500	1K	2K	4K	8K
K_{ek}	14	5	2	-2	-6	-11	-16	-24

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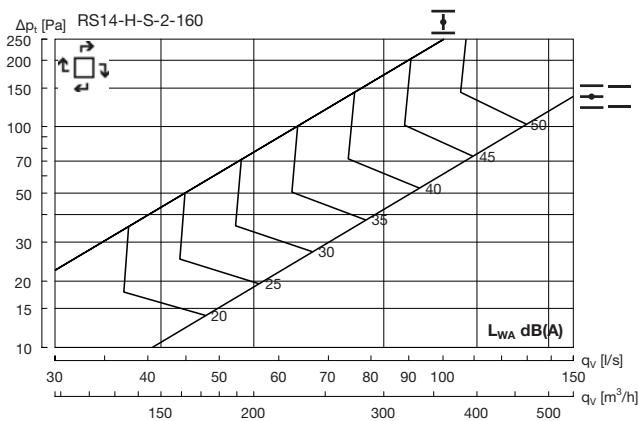
RS14

Technical data

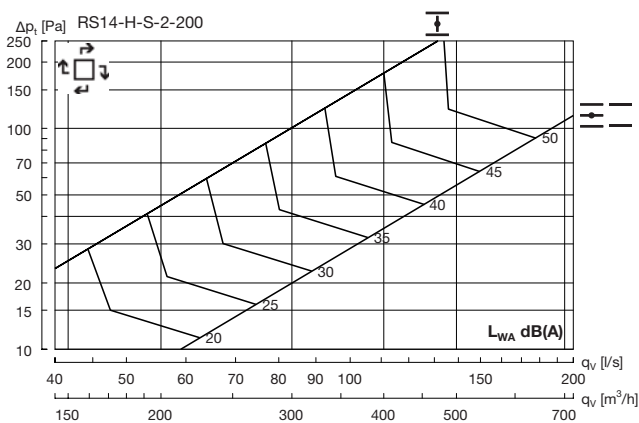
RS14 + H - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ak}	14	8	5	-3	-10	-17	-23	-28

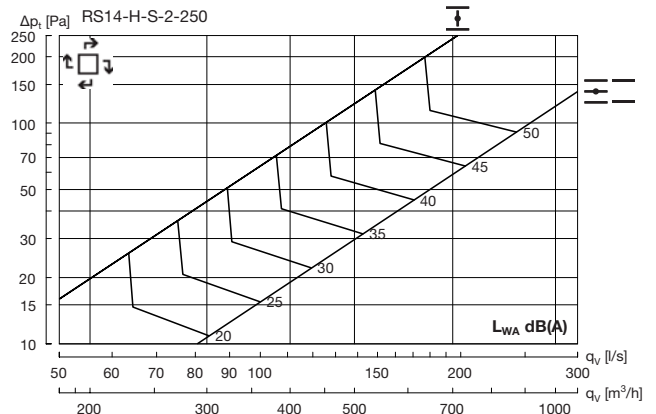


Hz	63	125	250	500	1K	2K	4K	8K
K_{ak}	2	5	5	-3	-7	-14	-20	-26

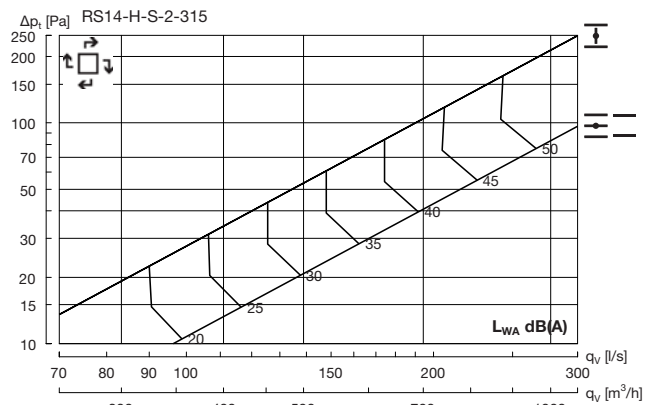


Hz	63	125	250	500	1K	2K	4K	8K
K_{ak}	10	7	2	-2	-6	-14	-21	-29

RS14 + H - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ak}	5	7	3	-1	-7	-16	-23	-31



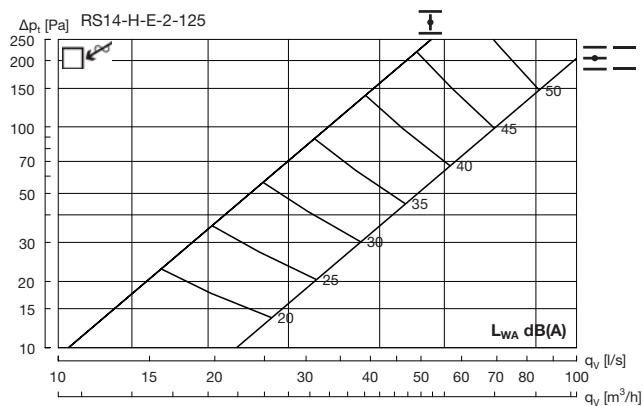
Hz	63	125	250	500	1K	2K	4K	8K
K_{ak}	7	7	2	-1	-7	-16	-25	-35

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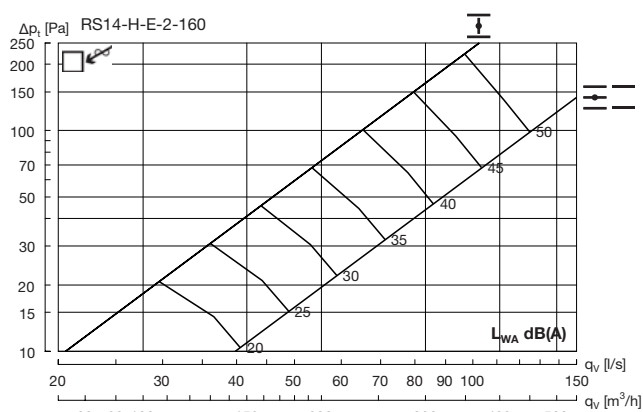
RS14

Technical data

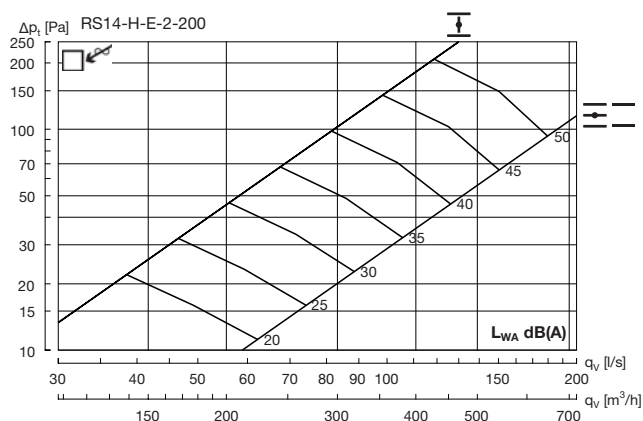
RS14 + H - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	3	7	3	-1	-8	-14	-19	-26

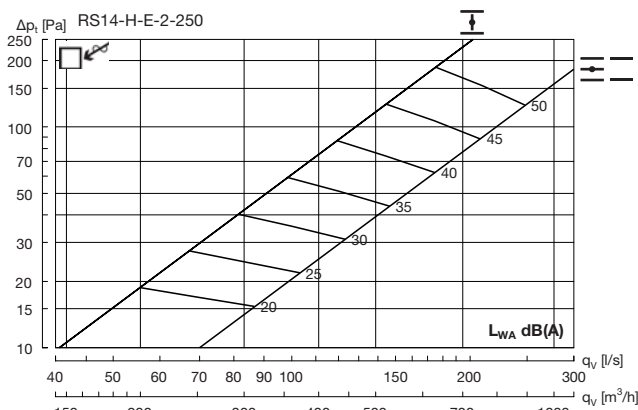


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	2	6	5	-3	-8	-14	-22	-31

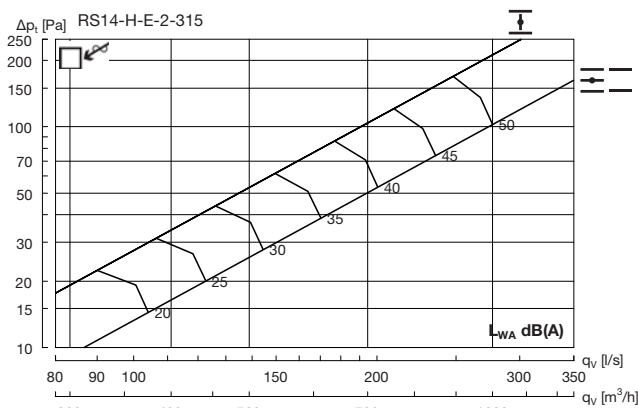


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	7	7	4	-3	-7	-13	-20	-25

RS14 + H - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	5	7	3	-2	-7	-13	-21	-31



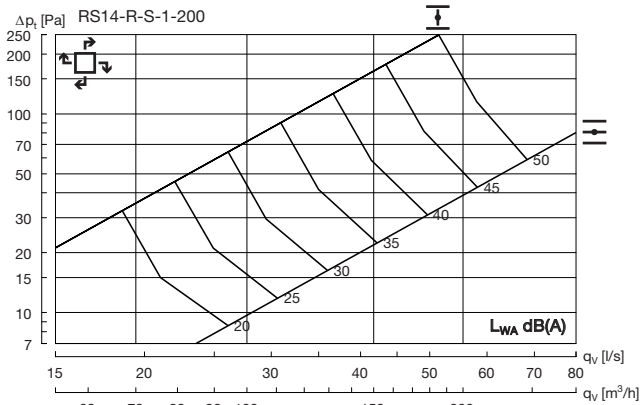
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	7	7	2	-2	-6	-14	-24	-35

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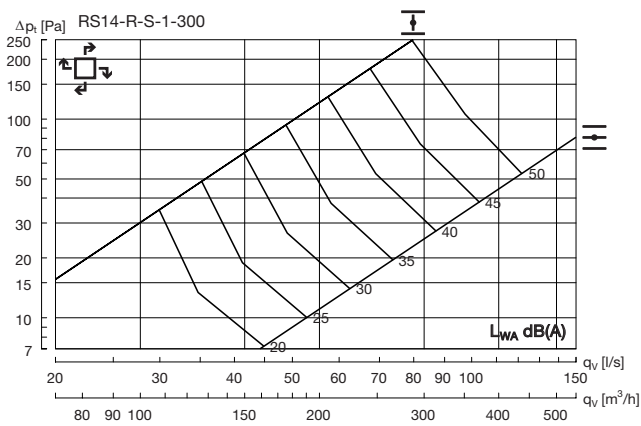
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Technical data

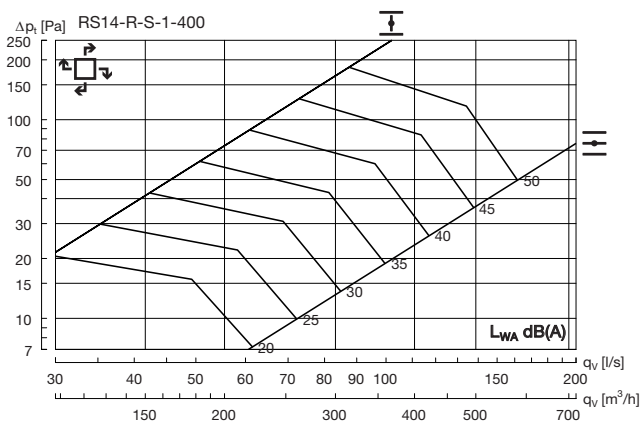
RS14 + R - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	6	-1	3	-1	-7	-12	-25	-33

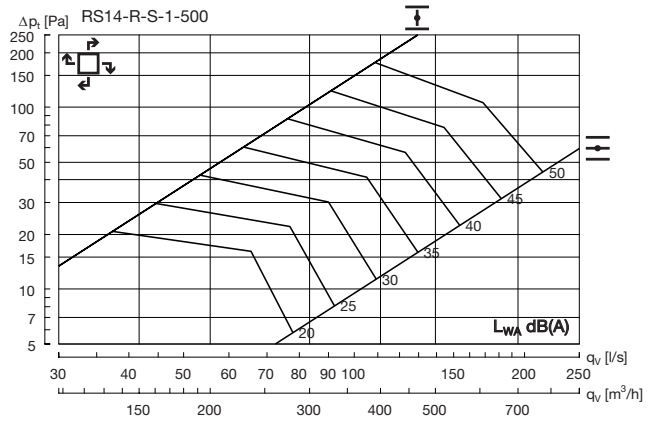


Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	7	-1	4	-1	-8	-14	-22	-31



Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	-2	-1	3	-1	-6	-11	-20	-32

RS14 + R - Supply air



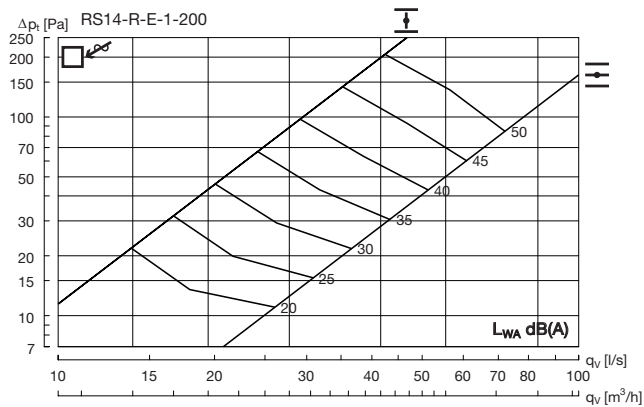
Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	3	-1	3	-1	-7	-11	-19	-31

Versio - Ceiling diffusers

RS14

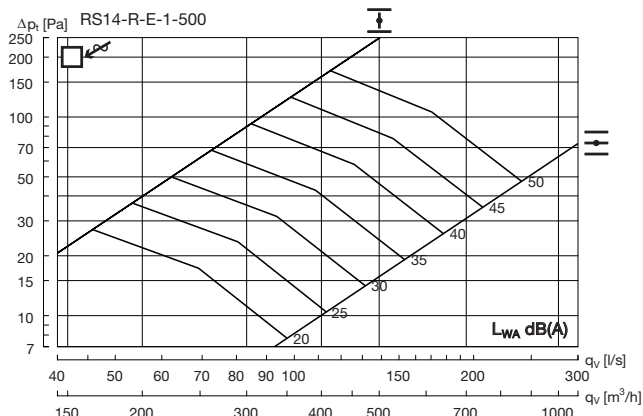
Technical data

RS14 + R - Extract air

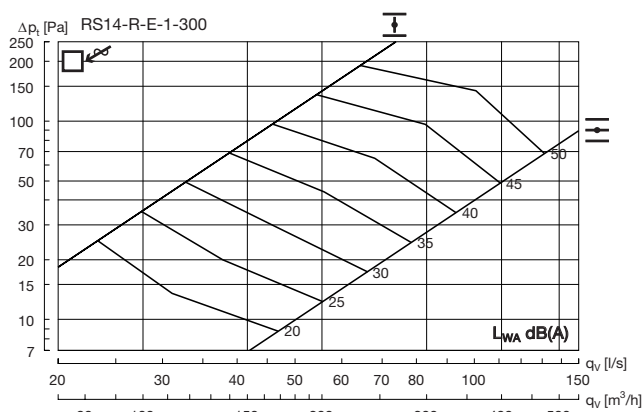


Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	7	-1	4	-2	-8	-10	-18	-25

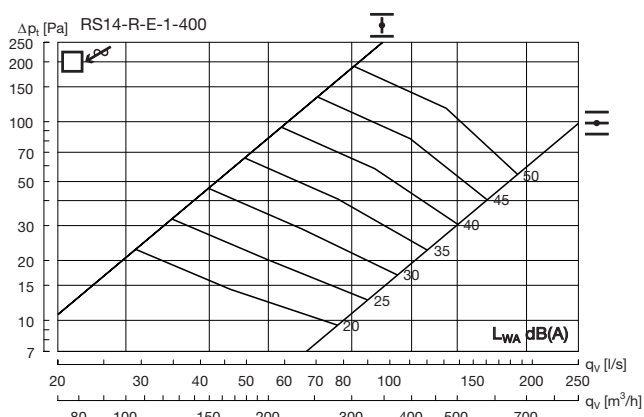
RS14 + R - Extract air



Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	1	1	1	-2	-6	-9	-16	-25



Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	6	1	4	-2	-7	-10	-17	-25



Hz	63	125	250	500	1K	2K	4K	8K
K_{sk}	2	0	2	-2	-5	-10	-16	-24



Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction