Lindab **PC7**

Integra - Perforated diffuser

Integra - Perforated diffuser PC7

Description

PC7 is a circular diffuser with perforated face plate and integrated swirl insert. The diffuser is suitable for the horizontal supply of very cold air. The integrated swirl insert ensures optimum distribution and high induction.
Installing a PC7 diffuser in a plenum box type MB can help to achieve a stable flow of air to the diffuser as well as realise the potential for individual adjustment.
Damper type B is an unique linear cone damper which allows to use the full operational area (0-100%) and allows to balance with a high pressure drop over the box with low sound generation. Furthermore the construction of the damper gives an accurate and reliable measurement.
Damper type C is with a rotating blade damper for supply air. Typically used in applications that don't require a high balancing pressure in the plenum box.

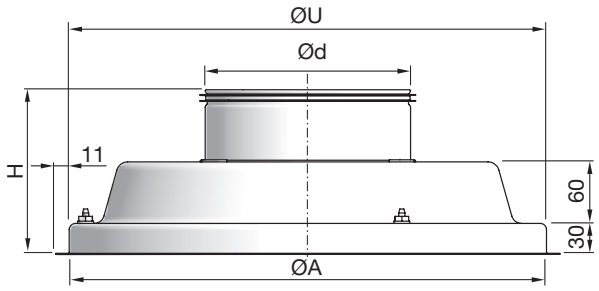
- High induction
- Discrete design
- Suitable for cooling at very low temperatures
- Plenum box with several damper options

Order code

Product	**PC7**	**S**	**aaa**
Type			
PC7			
Functional use			
S = Supply air			
Connection dim.			
Ød 160-315			

Example: PC7-S-200

Dimensions



PC7 Ød	ØA	H	ØU*	m
mm	mm	mm	mm	kg
160	460	140	470	5.30
200	460	140	470	5.40
250	540	140	550	7.40
315	540	140	550	8.10

* ØU = ceiling grid opening.

Ød 315, No mounting holes for MB !

PC7-S

Maintenance

The face plate and swirl insert 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

Material: Galvanised steel
Standard finish: Powder-coated
Standard colours: RAL 9003 or RAL 9010, gloss 30

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

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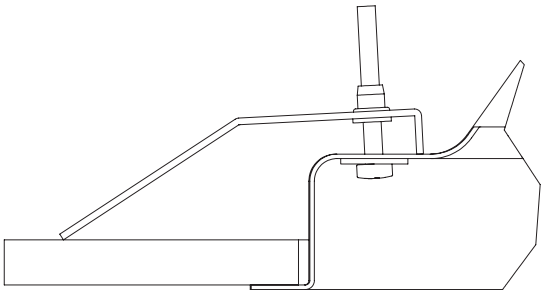
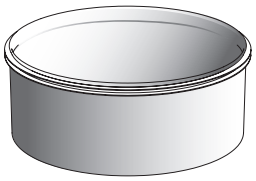
Accessories

DCZ - Mounting brackets



MBZ - Extension piece

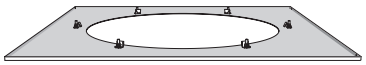


Order code - accessories

Product	aaa	bbb
Type		
Size		

Example: DCZ-200

LM - Module plate

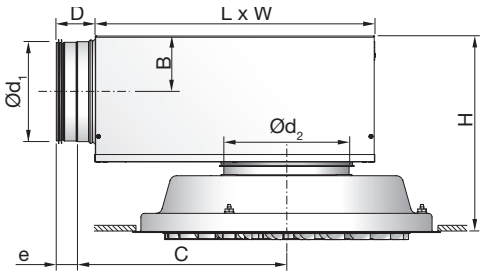


Order code - module plate

Product	LM	a	PC7	ccc
Type				
Ceiling system				
Diffuser				
Size				

Example: LM-1-PC7-200
Ceiling system - see introductory summary.

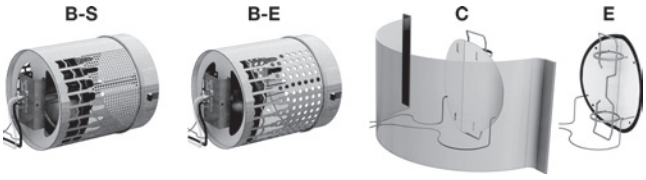
PC7 + MB plenum box



Ød1	Ød2	B	C	D	e	H*	L	W
mm					mm			
100	160	62	245	78	40	256 - 296	310	260
125	160	75	291	78	40	281 - 321	376	310
125	200	75	291	78	40	281 - 321	376	310
160	160	92	352	78	40	315 - 355	459	380
160	200	92	352	78	40	315 - 355	459	380
160	250	92	352	78	40	315 - 355	459	380
200	200	112	425	78	40	356 - 396	565	460
200	250	112	425	78	40	356 - 396	565	460
200	315	112	425	78	40	356 - 396	565	460
250	250	137	514	118	60	406 - 446	698	540
250	315	137	514	118	60	406 - 446	698	540
315	315	170	675	118	60	471 - 511	858	540

* Using accessory MBZ the H dimension will increase:
$Ød_2$ = 100 - 200 mm => H +40 mm
$Ød_2$ = 250 - 315 mm => H +60 mm

Damper options



Order code

Product	MB	a	bbb	ccc	S
Type					
MB					
Damper					
B = Linear cone damper					
C = Blade damper supply					
Duct connection $Ød_1$					
Ø100-315					
Diffuser dimension $Ød_2$					
Ø160-315					
Function (Only for B damper)					
S = Supply air					

Example 1: PC7-S-200+MBB-160-200-S
Example 2: PC7-200+MBC-125-200

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Technical data
Following PC7+plenum box data are valid for MBB-S.
For MBC data go to www.lindQST.com.

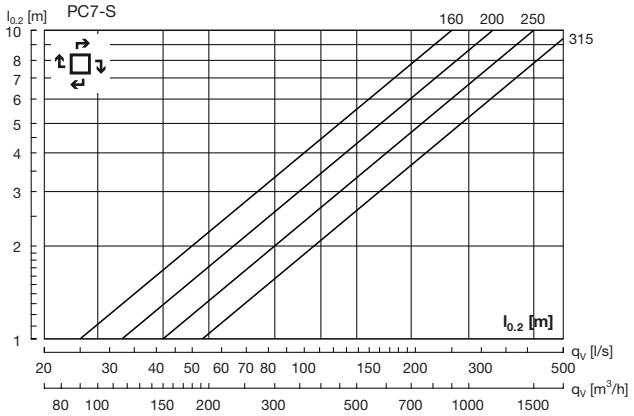
Capacity
Air flow q_v [l/s] and [m³/h], total pressure Δp_t [Pa], throw $l_{0.2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the diagrams.

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

PC7 + MBB-S		$\Delta p_t \geq 50$ Pa		$\Delta p_t \geq 50$ Pa	
duct	PC7	30 dB(A)		35 dB(A)	
Ød$_1$	Ød$_2$	l/s	m³/h	l/s	m³/h
100	160	36	130	43	155
125	160	44	158	55	198
125	200	50	180	60	216
160	160	47	169	55	198
160	200	55	198	66	238
160	250	71	256	88	317
200	200	60	216	72	259
200	250	84	302	99	356
200	315	93	335	113	407
250	250	88	317	103	371
250	315	96	346	114	410
315	315	107	385	127	457

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



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

PC7 + MBB-S		Centre frequency Hz							
duct	PC7								
Ød$_1$	Ød$_2$	63	125	250	500	1K	2K	4K	8K
100	160	17	15	5	12	18	17	17	19
125	160	15	14	7	18	16	17	18	20
125	200	12	11	4	14	14	16	16	18
160	160	17	15	10	21	18	19	20	20
160	200	18	15	8	21	17	17	19	20
160	250	17	14	4	16	14	16	18	19
200	200	14	10	8	16	19	16	20	18
200	250	12	10	6	14	17	15	18	17
200	315	12	8	4	10	16	14	17	16
250	250	13	9	8	15	17	17	18	18
250	315	13	7	6	14	16	16	17	17
315	315	9	9	9	14	17	16	17	22

Balancing
Balancing data is contained in a separate brochure.

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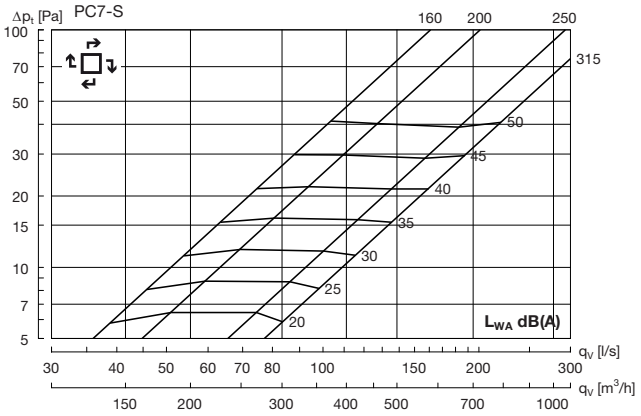
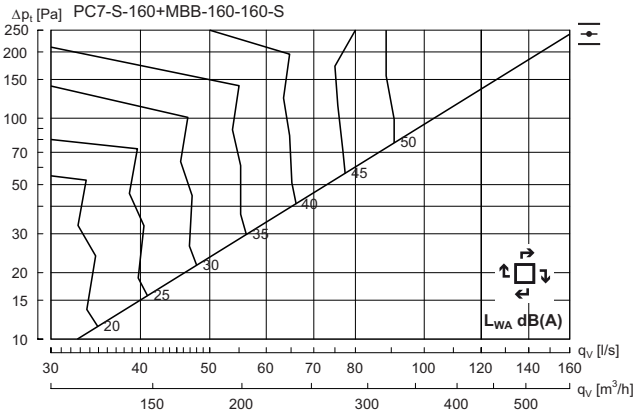
Technical data

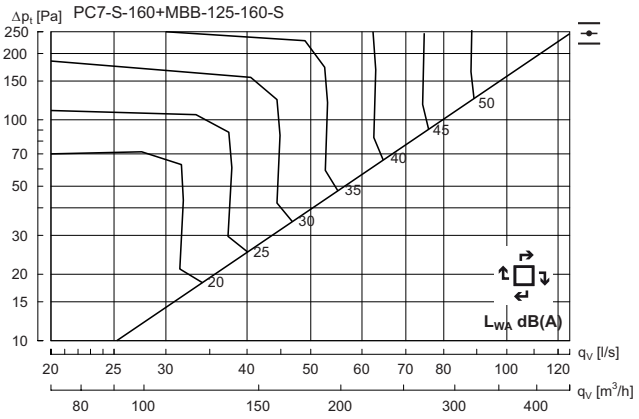
PC7 without box - Supply air



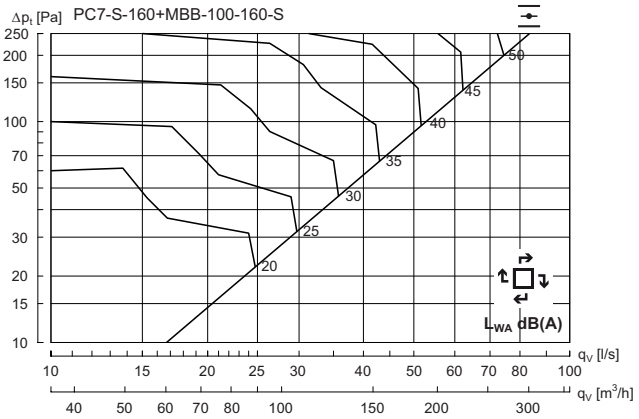
PC7 160 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	1	-4	-1	-3	-18	-26	-32



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	10	4	-1	-1	-5	-14	-19	-25



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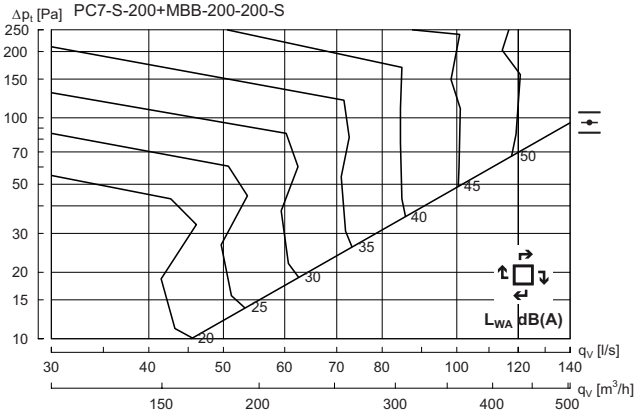
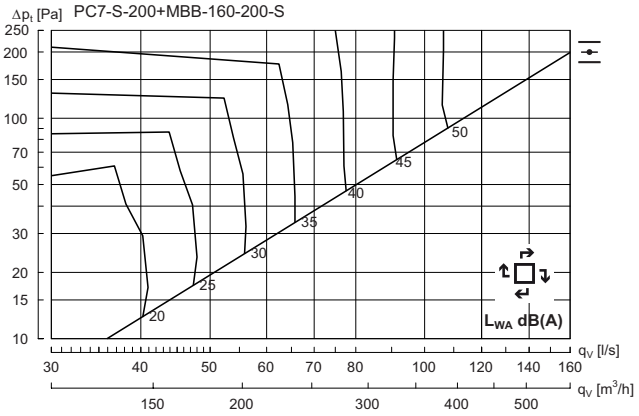
Technical data

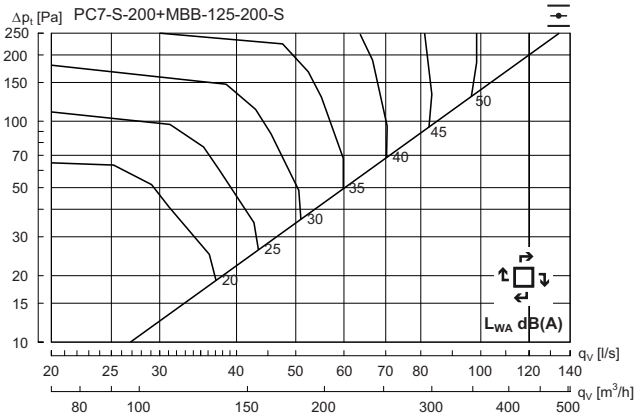
PC7 - 200 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	-1	-4	0	-4	-19	-26	-31

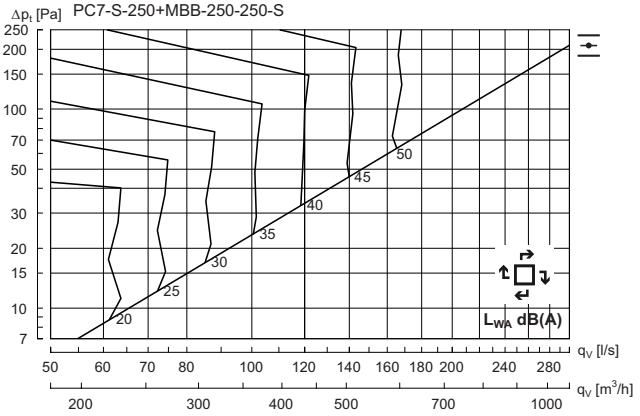


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	2	-2	-1	-4	-16	-24	-29

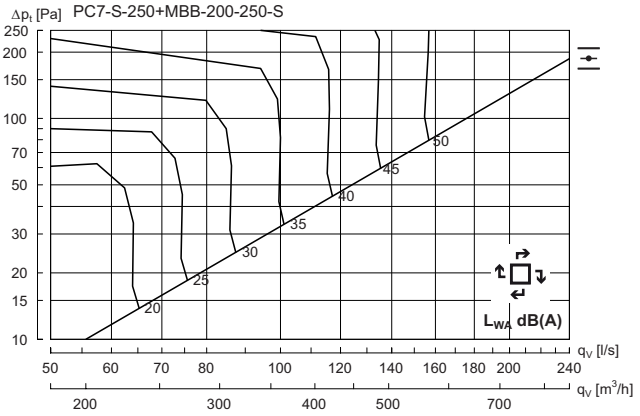


Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	6	5	1	-1	-5	-13	-19	-24

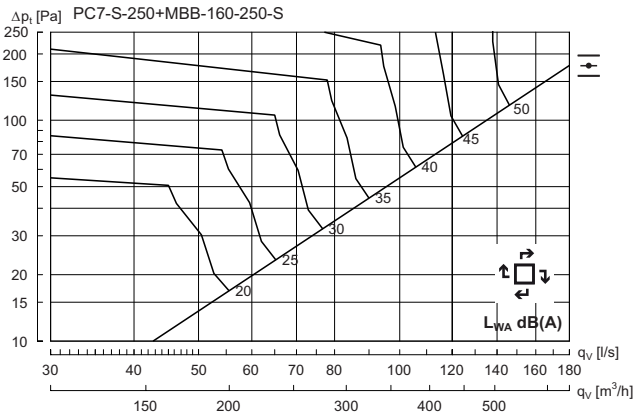
PC7 - 250 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	-1	-5	0	-4	-18	-28	-36



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	13	2	-3	-1	-4	-16	-24	-29



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	4	1	-2	-4	-13	-20	-26

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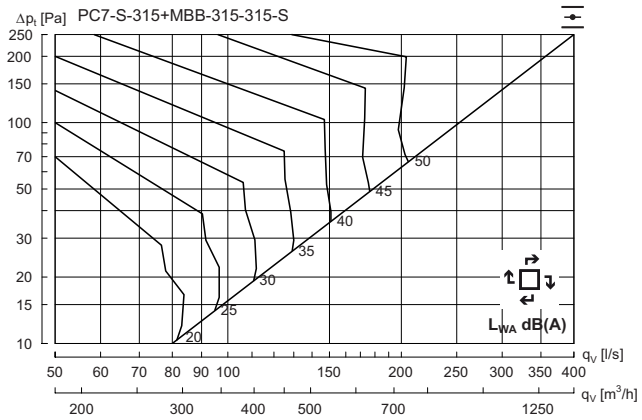
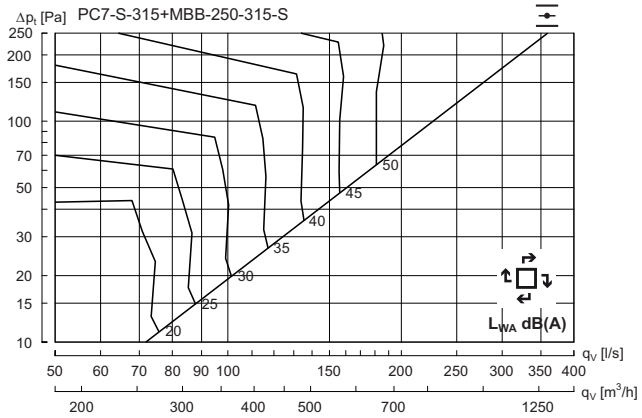
Technical data

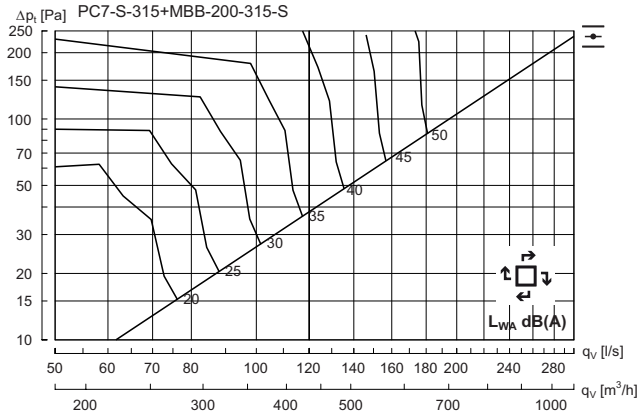
PC7 - 315 + MBB-S - Supply air



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	1	-2	0	-5	-18	-23	-32



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	9	0	-2	0	-4	-16	-25	-34



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	12	4	-1	-1	-4	-14	-21	-27

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate