

CRV/CRVB

Variable geometry diffuser



Diffusion

Components
for perfect air
distribution in HVAC
systems



Product

CRV/CRVB

Application

Ceiling mounted, supply

Construction

Aluminium bell and steel blades
Epoxy powder paint white RAL9010

Both models are available on 595X595 panel
(CRVQ/CRVBQ)

SPECIFICATION

Variable geometry diffuser with manually adjustable blades and individually (CRV) or simultaneously (CRVB with ABS gears) from 0° (opening Total) or at 90° (total closure).

MOUNTING

Fixing secured by screws positioned on the diffuser neck

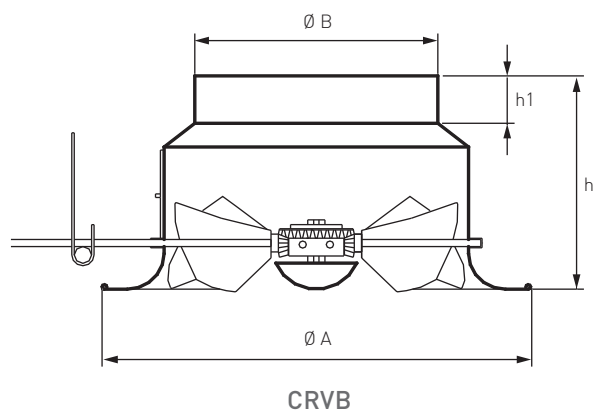
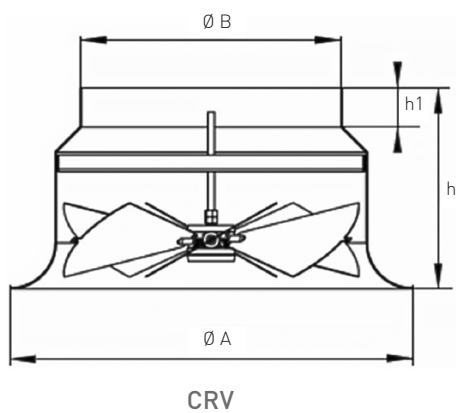
ACCESSORIES

PCOS/I: Galvanised steel plenum
Manual control
Actuator (CRVM) on request
EQ: equalizer on request

DIMENSIONS

CRV/CRVB

Model mm	A mm	B mm	H mm	H1 mm
200	350	198	180	40
250	400	248	205	40
315	500	313	230	40
400	615	398	270	60
500	798	498	320	60
630	935	628	390	80

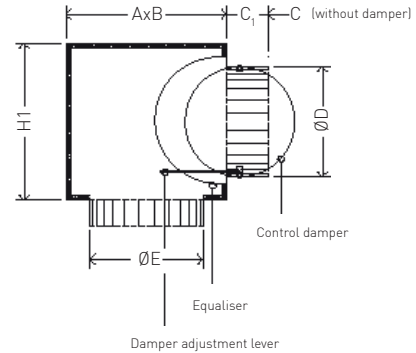


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PLENUM

Model mm	AxB mm	H1 mm	C mm	C1 mm	D mm	E mm
200	300 x 300	300	60	90	196	202
250	350 x 350	350	60	90	246	252
315	400 x 400	400	60	90	311	317
400	500 x 500	500	90	90	396	402
500	600 x 600	600	100	100	496	503
630	730 x 730	730	100	100	600	633



SELECTION TABLES

Terminal velocity $V_t=0.37$ m/s, isothermal air, blades at 0° . For $\Delta T +10^\circ\text{C}$ (heating) $L_{vert.}=L_{vert.max.} \times 0.25$ noise expressed as L_w at 1 m from the diffuser without room acoustic attenuation

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN200

Max vertical throw without equalizer [m]	3,40	5,10	6,80	8,50	10,20	11,90	13,60	15,30	17,00
Max vertical throw with equalizer [m]	2,40	3,60	4,80	6,00	7,20	8,40	9,60	10,80	12,00
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	222	332	443	554	665	776	886	997	1108
Pressure drop without equalizer [Pa]	10	19	31	44	59	75	92	111	130
Pressure drop with equalizer [Pa]	18	37	63	94	131	173	220	272	329
Noise level (without equalizer) [dB(A)]	28	31	34	37	40	43	46	49	52
Noise level (with equalizer) [dB(A)]	29	33	36	39	42	45	48	51	55

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN200

Max vertical throw without equalizer [m]	3,40	5,10	6,80	8,50	10,20	11,90	13,60	15,30	17,00
Max vertical throw with equalizer [m]	2,40	3,60	4,80	6,00	7,20	8,40	9,60	10,80	12,00
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	222	332	443	554	665	776	886	997	1108
Pressure drop without equalizer [Pa]	16	33	55	81	111	145	183	224	269
Pressure drop with equalizer [Pa]	24	51	87	131	183	243	311	386	469
Noise level (without equalizer) [dB(A)]	29	32	35	38	42	45	48	51	56
Noise level (with equalizer) [dB(A)]	30	33	37	41	45	48	51	54	59

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN250



Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	348	521	695	869	1043	1217	1390	1564	1738
Pressure drop without equalizer [Pa]	12	23	37	53	71	91	112	135	160
Pressure drop with equalizer [Pa]	20	41	69	103	143	189	240	297	359
Noise level (without equalizer) [dB(A)]	36	39	42	45	48	51	54	57	60
Noise level (with equalizer) [dB(A)]	37	41	44	47	50	53	56	59	63

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN250

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	521	695	869	1043	1217	1390	1564	1738	1738
Pressure drop without equalizer [Pa]	20	42	70	104	143	187	237	292	351
Pressure drop with equalizer [Pa]	28	60	102	153	215	285	365	453	551
Noise level (without equalizer) [dB(A)]	37	40	43	46	50	53	56	59	63
Noise level (with equalizer) [dB(A)]	38	41	45	49	53	56	59	62	66

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN315

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m ³ /h]	554	831	1107	1384	1661	1938	2215	2492	2769
Pressure drop without equalizer [Pa]	13	27	43	62	84	108	135	163	193
Pressure drop with equalizer [Pa]	21	45	75	112	156	206	262	325	393
Noise level (without equalizer) [dB(A)]	35	38	41	44	47	50	53	56	59
Noise level (with equalizer) [dB(A)]	37	40	44	47	51	54	58	61	64

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN315

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	554	831	1107	1384	1661	1938	2215	2492	2769
Pressure drop without equalizer [Pa]	25	53	88	131	182	239	303	374	451
Pressure drop with equalizer [Pa]	33	71	120	181	254	337	431	535	650
Noise level (without equalizer) [dB(A)]	36	39	42	46	49	53	56	60	63
Noise level (with equalizer) [dB(A)]	38	42	45	49	53	57	61	65	68

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN400

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	895	1343	1791	2238	2686	3134	3581	4029	4476
Pressure drop without equalizer [Pa]	16	31	50	73	99	128	160	195	231
Pressure drop with equalizer [Pa]	24	49	82	123	171	226	288	356	431
Noise level (without equalizer) [dB(A)]	33	37	41	46	51	56	61	66	71
Noise level (with equalizer) [dB(A)]	35	41	47	52	57	62	67	72	78

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN400

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	895	1343	1791	2238	2686	3134	3581	4029	4476
Pressure drop without equalizer [Pa]	32	66	111	165	229	302	384	474	573
Pressure drop with equalizer [Pa]	40	84	143	215	301	400	512	636	772
Noise level (without equalizer) [dB(A)]	34	38	43	48	53	58	63	68	73
Noise level (with equalizer) [dB(A)]	36	42	48	54	60	65	70	76	81



TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN500

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	1402	2103	2803	3504	4205	4906	5607	6308	7009
Pressure drop without equalizer [Pa]	18	35	58	84	115	149	186	227	270
Pressure drop with equalizer [Pa]	26	53	90	134	187	247	314	338	470
Noise level (without equalizer) [dB(A)]	32	36	40	45	50	55	60	65	70
Noise level (with equalizer) [dB(A)]	34	40	46	51	56	61	66	71	77

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN500

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	1402	2103	2803	3504	4205	4906	5607	6308	7009
Pressure drop without equalizer [Pa]	39	81	136	203	282	372	473	585	707
Pressure drop with equalizer [Pa]	47	99	167	253	354	470	601	747	907
Noise level (without equalizer) [dB(A)]	33	37	42	47	52	57	62	67	72
Noise level (with equalizer) [dB(A)]	35	41	47	53	59	64	69	75	80

TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 45° - HEATING DN600

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	2229	3344	4458	5573	6687	7802	8916	10031	11145
Pressure drop without equalizer [Pa]	20	40	66	97	132	172	216	263	314
Pressure drop with equalizer [Pa]	28	58	98	147	204	270	343	425	514
Noise level (without equalizer) [dB(A)]	38	42	46	51	56	61	66	71	76
Noise level (with equalizer) [dB(A)]	40	44	48	53	58	63	68	73	78

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TECHNICAL DATA FOR DIFFUSER WITH BLADES AT 67.5° - COOLING DN600

Max vertical throw without equalizer [m]	3,60	5,40	7,20	9,00	10,80	12,60	14,40	16,20	17,90
Max vertical throw with equalizer [m]	2,50	3,80	5,10	6,30	7,60	8,90	10,10	11,40	12,70
Outlet Velocity [m/s]	2	3	4	5	6	7	8	9	10
Flow rate [m³/h]	2229	3344	4458	5573	6687	7802	8916	10031	11145
Pressure drop without equalizer [Pa]	47	98	166	249	346	457	582	720	871
Pressure drop with equalizer [Pa]	55	116	198	298	418	555	710	882	1071
Noise level (without equalizer) [dB(A)]	39	43	48	53	58	63	68	73	78
Noise level (with equalizer) [dB(A)]	41	47	53	59	65	70	75	81	86

For the motorised version (CRV M), Belimo (or similar brand) actuator is recommended in the following models.

FOR MODELS UP TO Ø 315

BELIMO LM 24 A - ON/OFF

BELIMO LM 24 ASR - MODULATING

FOR MODELS Ø 400 AND Ø 500

BELIMO NM 24 A - ON/OFF

BELIMO NM 24 ASR - MODULATING

FOR MODELS Ø 630

BELIMO SM 24 A - ON/OFF

BELIMO SM 24 ASR - MODULATING