

CBA-V

EUROVENT CERTIFIED PERFORMANCE

- > Exposed Active Chilled Beam
- > Removable faceplate
- > Ceiling Mounted

APPLICATION

The CBA-I chilled beam is a high capacity device designed for ventilation, cooling and heating of areas with ceiling heights up to 3 metres.

The beam has been designed for integration with suspended ceilings. Operating test pressure 15/10 bar.

DESIGN

Construction:

Galvanised sheet steel. Copper pipe heat exchanger and Aluminium fins.

Finish:

Epoxy paint white RAL 9010.

Options:

- Nozzle types (A, B or C)
- Extravent

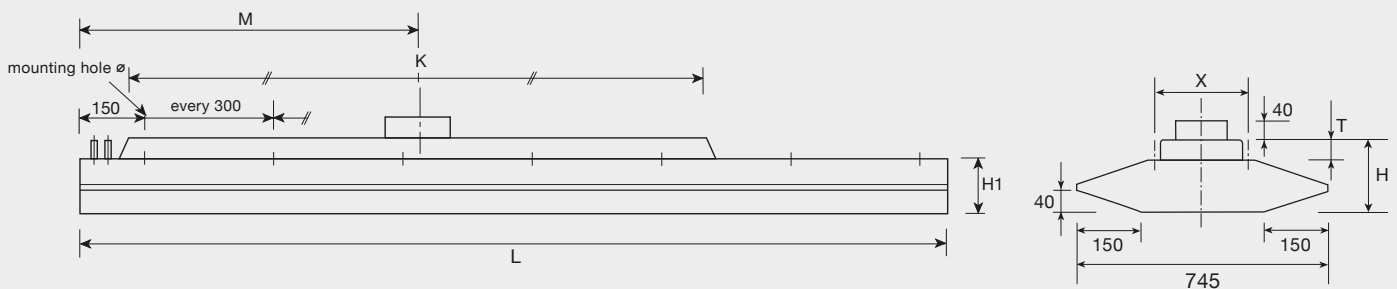
AVAILABLE TYPES

CBA-V: 300, 450

SPECIFICATIONS

Length	1200, 1500, 1800, 2400, 3000
Ventilation	up to 280 m ³ /h
Cooling	up to 675 W/m
Heating	Water: 1675 W/m Electric: 500 or 1000 W
Water flow	up to 300 l/h

CBA-V – top connection



DIMENSIONAL DATA (mm)

Model	L (from/to)	B	B ₁	X	B ₂	H	H ₁	D	M	N	P	K	T
1200	1140/2995	295/395	200	219	230	145	105	123	580	225	235	980	40
1500	1140/2995	295/395	200	219	230	145	105	123	730	225	235	1280	40
1800	1670/2995	295/395	200	219	230	145	105	123	845	255	235	1510	40
2400	2295/2995	295/395	200	219	230	145	105	158	1170	300	270	2110	40
3000	2895/2995	295/395	200	219	230	165	105	158	1470	300	270	2710	60

300 & 400 WEIGHT (kg)

Type	1200	1500	1800	2400	3000
CBA-V	12	14	16	22	28
Extravent	12	14	17	23	29

450 & 600 WEIGHT (kg)

Type	1200	1500	1800	2400	3000
CBA-V	16	21	24	33	41
Extravent	17	22	25	34	44

Extravent exceptions: H = 165. T = 60. P value for 1800 Model = 270.

		AIR						WATER												Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C											L ₉ W ₉	L ₁₀ W ₁₀		
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t	
		l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
NOZZLE A1	8.3	30	94	-	81	91	101	50	1.0	149	2.6	174	3.0	198	3.4	223	3.9	248	4.3	273	4.7	314	339	
								70	1.9	163	2.0	190	2.3	217	2.6	244	3.0	271	3.3	298	3.6	335	362	
								100	3.6	175	1.5	204	1.8	234	2.0	263	2.2	292	2.5	321	2.8	354	383	
								140	6.8	185	1.1	216	1.3	246	1.5	277	1.7	308	1.9	339	2.1	368	399	
B2	13.9	50	82	15	134	151	168	50	1.0	164	2.8	192	3.3	219	3.8	247	4.2	274	4.7	301	5.2	398	425	
								70	1.9	182	2.2	213	2.6	243	3.0	274	3.3	304	3.7	334	4.1	425	455	
								100	3.6	199	1.7	232	2.0	265	2.2	298	2.5	331	2.8	364	3.1	449	482	
								140	6.8	211	1.3	246	1.5	282	1.8	317	2.0	352	2.2	387	2.4	468	503	
C2	27.8	100	82	28	269	302	336	50	1.0	195	3.4	228	3.9	260	4.5	292	5.0	325	5.6	358	6.2	594	627	
								70	1.9	221	2.7	258	3.2	295	3.6	332	4.0	369	4.5	406	5.0	634	671	
								100	3.6	247	2.1	288	2.4	330	2.8	371	3.2	412	3.5	453	3.8	673	714	
								140	6.8	267	1.6	312	1.9	356	2.2	400	2.4	445	2.7	490	3.0	702	747	

		Primary			Heating capacity air t _{room} - t _{pri} °C			Heating capacity water t _{room} - t _{water in} °C														
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	
		l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
NOZZLE A1	8.3	30	94	-	101	152	202	50	0.7	468	8.1	585	10.1	702	12.1	936	16.1	1170	20.2	1404	24.2	
								60	1.0	489	7.0	612	8.8	734	10.5	979	14.0	1223	17.5	1468	21.0	
								80	1.6	518	5.6	648	7.0	777	8.4	1036	11.2	1295	14.0	1554	16.8	
								100	2.4	537	4.6	672	5.8	806	6.9	1075	9.2	1343	11.5	1612	13.8	
B2	13.9	50	82	15	168	252	336	50	0.7	531	9.1	663	11.4	796	13.7	1061	18.3	1327	22.8	1592	27.4	
								60	1.0	559	8.0	699	10.0	839	12.0	1119	16.0	1398	20.0	1678	24.0	
								80	1.6	599	6.5	749	8.1	899	9.7	1199	12.9	1498	16.2	1798	19.4	
								100	2.4	627	5.4	783	6.7	940	8.1	1253	10.8	1567	13.5	1880	16.2	
C2	27.8	100	82	28	336	504	672	50	0.7	649	11.2	812	14.0	974	16.8	1299	22.4	1623	28.0	1948	33.6	
								60	1.0	695	9.9	868	12.4	1042	14.9	1389	19.9	1737	24.8	2084	29.8	
								80	1.6	760	8.2	950	10.2	1140	12.3	1520	16.4	1900	20.5	2280	24.6	
								100	2.4	805	6.9	1007	8.7	1208	10.4	1611	13.9	2013	17.3	2416	20.8	

		AIR						WATER												Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C											L ₉ W ₉	L ₁₀ W ₁₀		
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t	
		l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
NOZZLE A1	13.9	50	107	17	134	151	168	50	0.3	179	3.1	209	3.6	238	4.1	268	4.6	298	5.1	328	5.6	419	449	
								100	0.9	239	2.0	279	2.4	319	2.7	359	3.1	399	3.4	439	3.7	510	550	
								180	2.8	281	1.3	328	1.5	375	1.8	422	2.0	469	2.2	516	2.4	573	620	
								350	9.8	316	0.8	368	0.9	421	1.0	473	1.2	526	1.3	579	1.4	624	677	
B2	25.0	90	109	25	242	272	302	50	0.3	198	3.4	231	4.0	264	4.6	297	5.1	330	5.7	363	6.3	569	602	
								100	0.9	276	2.4	322	2.8	368	3.2	414	3.6	460	4.0	506	4.4	686	732	
								180	2.8	335	1.6	391	1.9	446	2.2	502	2.4	558	2.7	614	3.0	774	830	
								350	9.8	385	1.0	449	1.1	513	1.3	577	1.4	641	1.6	705	1.8	849	913	
C2	50.0	180	108	38	483	544	604	50	0.3	221	3.8	258	4.4	295	5.0	332	5.7	369	6.3	406	6.9	876	913	
								100	0.9	325	2.8	379	3.3	434	3.8	488	4.2	542	4.7	596	5.2	1032	1086	
								180	2.8	410	2.0	479	2.3	547	2.6	616	3.0	684	3.3	752	3.6	1160	1228	
								350	9.8	488	1.2	570	1.4	651	1.6	733	1.8	814	2.0	895	2.2	1277	1358	

		Primary			Heating capacity air t _{room} - t _{pri} °C			Heating capacity water t _{room} - t _{water in} °C														
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	
		l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
NOZZLE A1	13.9	50	107	17	168	252	336	50	1.0	658	11.3	822	14.2	987	17.0	1316	22.7	1645	28.3	1974	34.0	
								70	1.8	737	9.1	921	11.3	1105	13.6	1473	18.1	1842	22.7	2210	27.2	
								100	3.4	809	6.9	1012	8.7	1214	10.4	1619	13.9	2023	17.3	2428	20.8	
								150	7.1	876	5.0	1095	6.2	1314	7.5	1752	10.0	2190	12.5	2628	15.0	
B2	25.0	90	109	25	302	453	604	50	1.0	761	13.1	951	16.3	1141	19.6	1521	26.1	1902	32.7	2282	39.2	
								70	1.8	871	10.7	1088	13.3	1306	16.0	1741	21.3	2177	26.7	2612	32.0	
								100	3.4	976	8.4	1220	10.5	1464	12.6	1952	16.8	2440	21.0	2928	25.2	
								150	7.1	1078	6.2	1348	7.8	1617	9.3	2156	12.4	2695	15.5	3234	18.6	
C2	50.0	180	108	38	604	906	1208	50	1.0	882	15.2	1102	19.0	1323	22.8	1764	30.4	2205	38.0	2646	45.6	
								70	1.8	1042	12.8	1302	16.0	1563	19.2	2084	25.6	2605	32.0	3126	38.4	
								100	3.4	1207	10.4	1508	13.0	1810	15.6	2413	20.8	3017	26.0	3620	31.2	
								150	7.1	1375	7.9	1719	9.8	2063	11.8	2751	15.7	3438	19.7	4126	23.6	

NOZZLE A1	AIR						WATER												Quick selection				
	Primary			Cooling capacity air t _{room} -t _{pri} °C			Cooling capacity water t _{room} -t _{water in} °C																
	V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _t	Q _t	
	l/s	m³/h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
B2	19.4	70	108	17	188	212	235	50	0.3	212	3.7	248	4.3	283	4.9	319	5.5	354	6.1	389	6.7	531	566
								90	1.0	288	2.8	336	3.2	384	3.7	432	4.1	480	4.6	528	5.1	644	692
								170	3.2	365	1.9	426	2.2	486	2.5	547	2.8	608	3.1	669	3.4	759	820
								320	10.4	424	1.1	495	1.3	566	1.5	636	1.7	707	1.9	778	2.1	848	919
C2	31.9	115	91	22	309	347	386	50	0.3	225	3.9	262	4.6	300	5.2	338	5.9	375	6.5	412	7.2	685	722
								90	1.0	312	3.0	364	3.5	416	4.0	468	4.5	520	5.0	572	5.5	815	867
								170	3.2	404	2.0	471	2.4	538	2.7	606	3.1	673	3.4	740	3.7	953	1020
								320	10.4	479	1.3	559	1.5	638	1.7	718	1.9	798	2.1	878	2.3	1065	1145
C2	58.3	210	76	34	564	634	705	50	0.3	241	4.1	281	4.8	321	5.5	361	6.2	401	6.9	441	7.6	995	1035
								90	1.0	346	3.3	403	3.9	461	4.4	518	5	576	5.5	634	6.1	1152	1210
								170	3.2	466	2.3	543	2.7	621	3.1	698	3.5	776	3.9	854	4.3	1332	1410
								320	10.4	570	1.6	665	1.8	760	2.1	855	2.3	950	2.6	1045	2.9	1489	1584

NOZZLE A1	Primary						Heating capacity water t _{room} -t _{water in} °C															
	Heating capacity air t _{room} -t _{pri} °C			Heating capacity water t _{room} -t _{water in} °C																		
	V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	20	25	30	40	50	60	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w
	l/s	m³/h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C	W ₆₀	°C	
B2	19.4	70	108	17	235	352	470	50	1.3	805	13.9	1006	17.3	1207	20.8	1609	27.7	2012	34.7	2414	41.6	
								70	2.5	925	11.4	1157	14.3	1388	17.1	1851	22.8	2313	28.5	2776	34.2	
								90	3.9	1010	9.7	1262	12.1	1515	14.5	2020	19.3	2525	24.2	3030	29.0	
								130	7.5	1120	7.4	1400	9.2	1680	11.1	2240	14.8	2800	18.5	3360	22.2	
C2	31.9	115	91	22	386	579	772	50	1.3	876	15.1	1095	18.8	1314	22.6	1752	30.1	2190	37.7	2628	45.2	
								70	2.5	1022	12.5	1278	15.7	1533	18.8	2044	25.1	2555	31.3	3066	37.6	
								90	3.9	1127	10.8	1408	13.5	1690	16.2	2253	21.6	2817	27.0	3380	32.4	
								130	7.5	1265	8.4	1582	10.5	1898	12.6	2531	16.8	3163	21.0	3796	25.2	
C2	58.3	210	76	34	705	1058	1410	50	1.3	963	16.5	1203	20.7	1444	24.8	1925	33.1	2407	41.3	2888	49.6	
								70	2.5	1152	14.1	1440	17.7	1728	21.2	2304	28.3	2880	35.3	3456	42.4	
								90	3.9	1294	12.4	1618	15.5	1941	18.6	2588	24.8	3235	31.0	3882	37.2	
								130	7.5	1491	9.9	1864	12.3	2237	14.8	2983	19.7	3728	24.7	4474	29.6	

NOZZLE A1	AIR						WATER												Quick selection				
	Primary			Cooling capacity air t _{room} -t _{pri} °C			Cooling capacity water t _{room} -t _{water in} °C																
	V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	V _w	ΔP _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _{wwk}	Δt _w	Q _t	Q _t	
	l/s	m³/h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
B2	25	90	108	18	242	272	302	50	0.4	236	4.1	275	4.8	314	5.4	354	6.1	393	6.8	432	7.5	626	665
								90	1.1	333	3.2	388	3.7	444	4.2	500	4.8	555	5.3	610	5.8	772	827
								170	3.8	440	2.2	514	2.6	587	3.0	661	3.3	734	3.7	807	4.1	933	1006
								300	11	523	1.5	610	1.8	697	2.0	784	2.2	871	2.5	958	2.8	1056	1143
C2	44.4	160	106	25	430	483	537	50	0.4	253	4.3	295	5.0	337	5.8	379	6.5	421	7.2	463	7.9	862	904
								90	1.1	369	3.5	430	4.1	492	4.7	554	5.3	615	5.9	676	6.5	1037	1098
								170	3.8	507	2.6	592	3.0	676	3.4	760	3.9	845	4.3	930	4.7	1243	1328
								300	11	620	1.8	723	2.1	826	2.4	930	2.7	1033	3.0	1136	3.3	1413	1516
C2	77.8	280	81	37	752	846	940	50	0.4	263	4.6	307	5.3	351	6.1	395	6.8	439	7.6	483	8.4	1241	1285
								90	1.1	396	3.8	462	4.4	528	5.0	594	5.7	660	6.3	726	6.9	1440	1506
								170	3.8	563	2.8	657	3.3	750	3.8	844	4.2	938	4.7	1032	5.2	1690	1784
								300	11	708	2.0	826	2.4	944	2.7	1062	3.1	1180	3.4	1298	3.7	1908	2026

NOZZLE A1	Primary						Heating capacity water t _{room} -t _{water in} °C															
	Heating capacity air t _{room} -t _{pri} °C			Heating capacity water t _{room} -t _{water in} °C																		
	V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	20	25	30	40	50	60	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w
	l/s	m³/h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C	W ₆₀	°C	
B2	25.0	90	108	18	302	453	604	50	1.7	912	15.7	1140	19.6	1368	23.5	1824	31.3	2280	39.2	2736	47.0	
								70	3.1	1073	13.2	1342	16.5	1610	19.8	2147	26.4	2683	33.0	3220	39.6	
								80	4.0	1136	12.2	1420	15.2	1704	18.3	2272	24.4	2840	30.5	3408	36.6	
								110	7.0	1279	10.0	1599	12.5	1919	15.0	2559	20.0	3198	25.0	3838	30.0	
C2	44.4	160	106	25	537	806	1074	50	1.7	1009	17.3	1261	21.7	1513	26.0	2017	34.7	2522	43.3	3026	52.0	
								70	3.1	1215	14.9	1518	18.7	1822	22.4	2429	29.9	3037	37.3	3644	44.8	
								80	4.0	1297	13.9	1622	17.4	1946	20.9	2595	27.9	3243	34.8	3892	41.8	
								110	7.0	1491	11.7	1864	14.6	2237	17.5	2983	23.3	3728	29.2	4474	35.0	
C2	77.8	280	81	37	940	1410	1880	50	1.7	1069	18.4	1337	23.0	1604	27.6	2139	36.8	2673	46.0	3208	55.2	
								70	3.1	1315	16.1	1644	20.2	1973	24.2	2631	32.3	3288	40.3	3946	48.4	
								80	4.0	1417	15.3	1772	19.1	2126	22.9	2835	30.5	3543	38.2	4252	45.8	
								110	7.0	1663	13.0	2079	16.2	2495	19.5	3327	26.0	4158	32.5	4990	39.0	